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US Air Tool Company (also known as USATCO) has been a family owned and operated business since 1951. We are now a US manufacturer and worldwide distributor of high quality tools for the aviation industry with offices in New York & California. In addition, from the beginning of the homebuilder era in the 1970's, USATCO has been providing tools and equipment to craftsmen around the world who build and fly their own aircraft. These "sheet-metal artists" are now flying thousands of planes built and maintained with USATCO tools.

USATCO offers the highest quality products at competitive prices, with the knowledge and experience necessary for expert advice in product selection. Our courteous staff will be pleased to assist you. And of course, all the products we offer are fully guaranteed. If you don't see what you are looking for, please don't hesitate to contact us. We work hard to provide our customers with straightforward & reliable business. Try us & see!

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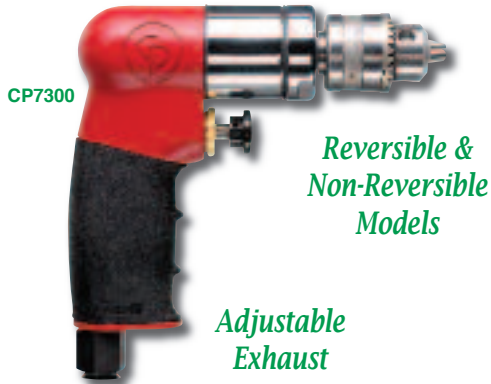
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<b>Air Drills &amp; Accessories</b>	<b>2-28</b>	<b>Assembly Tools</b>	<b>136-143</b>
Pistol Grip Drills & Attachments .....	2-9	Impact, Torque & Ratchet Wrenches .....	136-138
Straight Shank Bits & Reamers .....	9-17	Screwdrivers .....	138-140
Angle Drills .....	18-20	Bits .....	140-143
Angle Drill Chucks & Collets .....	20-21	<b>Clamp &amp; Fastening Tools</b>	<b>144-155</b>
Threaded Shank Bits & Cutters .....	21-23	Hand Clamps .....	144-146
Drilling Accessories .....	23-28	Toggle & Locking Clamps .....	147-148
Nutplate Drilling & Jigs .....	27-28	Sheet Metal Fasteners & Installation Tools .....	149-155
<b>Rivet Guns &amp; Accessories</b>	<b>29-45</b>	<b>Hand Tools</b>	<b>156-165</b>
Rivet Guns & Attachments .....	29-30	Snips & Shears .....	156-159
Rivet Sets .....	31-36	Notchers, Nibblers & Seamers .....	159-160
Punch, Chisel & Removal Sets .....	37-39	Pliers .....	161-162
Riveting Accessories .....	39-41	Wrenches & Hex Keys .....	162-164
Bucking Bars .....	41-45	Hammers & Mallets .....	164-165
<b>Rivet Squeezers &amp; Accessories</b>	<b>46-57</b>	<b>Sanders &amp; Grinders</b>	<b>166-173</b>
Rivet Squeezers .....	46-49	Orbital Action Sanders .....	166-167
Squeezer Accessories .....	49-51	Disc Sanders .....	168-169
Yokes .....	51-52	Belt Sanders .....	169-170
Hand Rivet Squeezers .....	53-54	Grinders .....	170-173
Squeezer Sets .....	54-57	<b>Files &amp; Abrasives</b>	<b>174-185</b>
<b>Stationary Riveters &amp; Dimplers</b>	<b>58-61</b>	Rotary Files & Burrs .....	174-175
<b>USATCO Custom Kits</b>	<b>61-68</b>	Hand Files .....	175-177
<b>Sheet Metal Forming Equipment</b>	<b>69-75</b>	Disc, Wheel & Cartridge Abrasives .....	177-182
Bending Brakes, Rolls & Shears .....	69-72	Other Abrasives .....	182-185
Shrinker / Stretchers .....	72-73	<b>Saws &amp; Accessories</b>	<b>186-188</b>
Wheeling Machines & Other Equipment .....	74-75	<b>Cable, Wire &amp; Tubing Tools</b>	<b>189-197</b>
<b>Punch &amp; Cutting Tools</b>	<b>76-88</b>	Safety Wire Twisters & Accessories .....	189-190
Countersink Cages & Cutters .....	76-80	Cable Cutters & Swaging Tools .....	190-193
Aircraft Counterbores .....	80-81	Tubing Tools .....	193-197
Back Countersinks & Spotfacers .....	82-83	<b>Testing &amp; Measuring</b>	<b>198-205</b>
Hole Saws, Cutters & Hole Punches .....	83-86	Aircraft Cable Tensiometers .....	198-199
Hand Punches .....	86-88	Protractors & Gauges .....	200-202
<b>Composite Cutting Tools</b>	<b>89-91</b>	Rulers, Calipers & Micrometers .....	202-204
<b>Deburring Tools</b>	<b>92-95</b>	Material Testers & Tire Tools .....	204-205
<b>Material Removal Tools</b>	<b>96-101</b>	<b>Lighting &amp; Inspection</b>	<b>206-210</b>
Rivet Shavers .....	96-97	<b>Air Hose &amp; Accessories</b>	<b>211-214</b>
Nibblers, Shears & Cutters .....	97-99	<b>Application Tools &amp; Accessories</b>	<b>215-226</b>
Routers & Accessories .....	99-101	Sealant Guns & Accessories .....	215-216
<b>Blind Riveting Tools</b>	<b>102-125</b>	Cartridges & Nozzles .....	216-218
Cherry Riveters & Kits .....	102-113	Sealant Spreaders & Removal Tools .....	219-220
Cherry Pulling Heads & Accessories .....	114-118	Sealant Scrapers & Mixers .....	220-222
Huck Riveters & Accessories .....	119-122	Grease Guns, Pumps & Accessories .....	223-226
Pop Riveters .....	123-124	<b>Shop Tools</b>	<b>227-237</b>
Rivetnut, Insert Drivers & Other Tools .....	124-125	Tap & Dies, Bolt & Screw Extractors .....	227-229
<b>Hi-Shear Installation &amp; Removal</b>	<b>126-135</b>	Vacuums .....	230-231
Hand Tools, Sockets & Accessories .....	126-131	Safety Equipment .....	234-235
Installation & Removal Tool Kits .....	131-134	Other Assorted Tools Shown Throughout Section	
Visu/Composi-Lok, Jo-Bolt, Pneumatic Tools ....	132-135	<b>Index</b>	<b>238-240</b>

## AIR DRILLS & ACCESSORIES

### Chicago Pneumatic® Mini Air Drills



- An incredibly compact & lightweight general purpose tool.
- Planetary gearing with brass bushings for low wear & long life.
- Incl. Jacobs keyed chuck, double bearing spindle for low run out.

#### 1/4" Capacity - 0.25 hp (0.19 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
CP7300	2800	5" (127 mm)	1.4 lbs (0.6 kgs)

#### 1/4" Capacity - 0.25 hp (0.19 kW) - Reversible

Part Number	Free RPM	Overall Length	Weight
CP7300R	2700	6-1/4" (157 mm)	1.4 lbs (0.6 kgs)

### Sioux® Mini Air Drills

*Ergonomic Housing*



Standard models include a 1/4" keyed chuck - new model 1410-520 includes a 3/8" keyless chuck.

Note: 4300 & 6000 RPM models also available, please inquire.

#### 1/4" Capacity - 0.33 hp (0.25 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
1410	2600	6-1/4" (159 mm)	1.3 lbs (0.6 kgs)
DR1412	3600	6-1/4" (159 mm)	1.3 lbs (0.6 kgs)

#### 1/4" Capacity - 0.2 hp (0.15 kW) - Reversible

Part Number	Free RPM	Overall Length	Weight
1410R	2000	6-1/4" (159 mm)	1.3 lbs (0.6 kgs)
1412R	2600	6-1/4" (159 mm)	1.3 lbs (0.6 kgs)

#### 3/8" Capacity - 0.33 hp (0.25 kW) - Keyless Non-Reversible

Part Number	Free RPM	Overall Length	Weight
1410-520	2600	6-1/4" (159 mm)	1.3 lbs (0.6 kgs)

### Sioux® Mini Lever Grip Air Drills



Includes 1/4" keyed chuck.

#### 1/4" Capacity - 0.33 hp (0.25 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
1420	2600	8" (203 mm)	1.2 lbs (0.5 kgs)
DR1422	3600	8" (203 mm)	1.2 lbs (0.5 kgs)

### Sioux® Heavy-Duty 'Z-Handle' Drills



Works quietly & effectively in limited access areas.

#### 1/4" Capacity - 0.5 hp (0.37 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
2S1310	2200	7-3/4" (197 mm)	2.6 lbs (1.2 kgs)
2S1410	3200	7-3/4" (197 mm)	2.6 lbs (1.2 kgs)

### Sioux® Aviation Air Drills



#### Precision Signature Series Drills

- Lightweight aluminum housing with ergonomic handle & soft textured grip.
- Three planet gear system for increased life & load capacity.
- With teasing throttle & keyed chuck.

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

#### 1/4" Capacity - 0.6 hp (0.45 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
SDR6P26N2	2600	5-3/4" (146 mm)	2.1 lbs (0.95 kgs)

#### 3/8" Capacity - 0.6 hp (0.45 kW) - Non-Reversible

Part Number	Free RPM	Overall Length	Weight
SDR6P26N3	2600	6-1/4" (159 mm)	2.3 lbs (1.0 kgs)

**Dotco® Ergonomic Air Drills**



14CFS93-38

- Dramatically redesigned ergonomics promote operator comfort.
- Perfect for tight quarters and cramped spaces.
- Includes keyed chuck.
- Other models & options available, please inquire.

1/4" Capacity - 0.4 hp (0.30 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
14CFS90-38	29,000	5-3/4" (146 mm)	1.5 lbs (0.7 kgs)
14CFS91-38	5200	5-3/4" (146 mm)	1.5 lbs (0.7 kgs)
14CFS92-38	3800	5-3/4" (146 mm)	1.5 lbs (0.7 kgs)
14CFS93-38	3200	5-3/4" (146 mm)	1.5 lbs (0.7 kgs)
14CFS94-38	2400	5-3/4" (146 mm)	1.6 lbs (0.7 kgs)
14CFS95-38	1000	6-7/8" (175 mm)	1.8 lbs (0.8 kgs)
14CFS96-38	700	6-7/8" (175 mm)	1.8 lbs (0.8 kgs)
14CFS97-38	600	6-7/8" (175 mm)	1.8 lbs (0.8 kgs)

1/4" Capacity - 0.6 hp (0.45 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
14CSL90-38	20,000	6-3/8" (160 mm)	2.1 lbs (1.0 kgs)
14CSL98-38	6000	6-3/8" (160 mm)	2.1 lbs (1.0 kgs)
14CSL91-38	5200	6-3/8" (160 mm)	2.1 lbs (1.0 kgs)
14CSL92-38	3200	6-3/8" (160 mm)	2.1 lbs (1.0 kgs)

1/4" Capacity - 0.9 hp (0.67 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
14CNL90-38	20,000	6-7/8" (173 mm)	2.2 lbs (1.0 kgs)
14CNL98-38	6000	6-7/8" (173 mm)	2.2 lbs (1.0 kgs)
14CNL91-51	5200	7-1/4" (183 mm)	2.4 lbs (1.1 kgs)
14CNL92-51	3200	7-1/4" (183 mm)	2.4 lbs (1.1 kgs)

3/8" Capacity - 0.6 hp (0.45 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
14CSL95-51	1300	8-1/8" (205 mm)	2.9 lbs (1.3 kgs)
14CSL97-51	500	8-1/8" (205 mm)	2.9 lbs (1.3 kgs)

3/8" Capacity - 0.9 hp (0.67 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
14CNL95-51	1300	8-5/8" (218 mm)	2.8 lbs (1.3 kgs)

1/2" Capacity - 0.9 hp (0.67 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
14CNL97-53	500	9-1/8" (231 mm)	3.5 lbs (1.6 kgs)

**Desoutter® Composite Grip Air Drills**



DR350-P20000-C8

- Composite pistol grip construction for enhanced operator comfort.
- Powered with a 0.5 HP oil-free "dryline" modular motor.
- Teasing throttle & integral exhaust.

\* Side handle included on these models.

5/16" Capacity - 0.5 hp (0.35 kW) - Non-Reversible			
Part Number	RPM	Overall Length	Weight
DR350-P20000-C8	20,000	4-3/4" (120 mm)	1.1 lbs (0.49 kgs)
DR350-P4500-C8	4500	5-3/8" (136 mm)	1.1 lbs (0.49 kgs)
DR350-P3000-C8	3000	5-3/8" (136 mm)	1.1 lbs (0.49 kgs)

3/8" Capacity - 0.5 hp (0.35 kW) - Non-Reversible			
Part Number	RPM	Overall Length	Weight
DR350-P1000-C10*	1000	6" (154 mm)	1.3 lbs (0.57 kgs)
DR350-P550-C10*	550	6" (154 mm)	1.3 lbs (0.57 kgs)

**Chicago Pneumatic® Air Drills**



**NEW**

CP1014P05

CP1014P24

- Designed for industrial production with high power and durability in an ergonomic and compact body.
- Comfortable new design.
- Teasing throttle & Jacobs keyed chuck.

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

1/4" Capacity - 0.5 hp (0.375 kW) - Non-Reversible			
Part Number	RPM	Overall Length	Weight
CP1014P24	2400	6-3/4" (160 mm)	1.2 lbs (0.5 kgs)
CP1014P33	3300	6-3/4" (160 mm)	1.2 lbs (0.5 kgs)
CP1014P45	4500	6-3/4" (160 mm)	1.2 lbs (0.5 kgs)

3/8" Capacity - 0.5 hp (0.375 kW) - Non-Reversible			
Part Number	RPM	Overall Length	Weight
CP1014P05	500	7-3/4" (195 mm)	1.4 lbs (0.6 kgs)

# AIR DRILLS & ACCESSORIES

## Sioux® High Power Aviation Air Drills



*Precision Signature Series Drills*

- Lightweight aluminum housing with ergonomic handle & soft textured grip.
- Three planet gear system for increased life & load capacity.
- With teasing throttle & keyed chuck.

SDR10P25R3

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread except where noted.

1/4" Capacity - 1.0 hp (0.75 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
SDR10P60N2	6000	6-1/2" (165 mm)	2.3 lbs (1.0 kgs)
SDR10P40N2	4000	6-1/2" (165 mm)	2.3 lbs (1.0 kgs)

1/4" Capacity - 1.0 hp (0.75 kW) - Reversible			
Part Number	Free RPM	Overall Length	Weight
SDR10P25R2	2500	7-1/8" (181 mm)	2.4 lbs (1.1 kgs)

3/8" Capacity - 1.0 hp (0.75 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
SDR10P60N3	6000	7" (180 mm)	2.5 lbs (1.1 kgs)
SDR10P40N3	4000	7" (180 mm)	2.5 lbs (1.1 kgs)
SDR10P7N3*	700	8" (205 mm)	2.9 lbs (1.3 kgs)
SDR10P4N3*	400	8" (205 mm)	2.9 lbs (1.3 kgs)

3/8" Capacity - 1.0 hp (0.75 kW) - Reversible			
Part Number	Free RPM	Overall Length	Weight
SDR10P25R3	2500	7-5/8" (193 mm)	2.6 lbs (1.15 kgs)

1/2" Capacity - 1.0 hp (0.75 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
SDR10P7N4*	700	8-1/2" (215 mm)	3.3 lbs (1.5 kgs)
SDR10P4N4*	400	8-1/2" (215 mm)	3.3 lbs (1.5 kgs)

\* 1/2"-20 spindle thread.



For Boelube® Drilling Lubricant See Page 232

## Cleco® Variable Speed Air Drills



*Includes Keyed Chuck*

135DPV-7B-43

*Versatile Governed Speed Control*

- Calibrated dial on rear of tool simplifies drill speed selection.
- Choice of three governed speed models to match material.

3/8" Capacity - 0.7 hp (0.52 kW) - Non-Reversible				
Part Number	Free RPM	RPM (governed)	Overall Length	Weight
135DPV-7B-43	600	150 - 550	9-5/8" (244 mm)	3.625 lbs (1.6 kgs)
135DPV-14B-51	1250	400 - 1,200	9-1/4" (235 mm)	3.375 lbs (1.5 kgs)
135DPV-28B-51	2600	700 - 2,400	8-1/2" (216 mm)	3.125 lbs (1.4 kgs)

1/2" Capacity - 0.7 hp (0.52 kW) - Non-Reversible				
Part Number	Free RPM	RPM (governed)	Overall Length	Weight
135DPV-7B-50	600	150 - 550	9-5/8" (244 mm)	3.625 lbs (1.6 kgs)
135DPV-14B-50	1250	400 - 1,200	9-1/4" (235 mm)	3.375 lbs (1.5 kgs)

### Support Handle

- Support handle included with all 1/2" capacity drills.

Part Number	Description
861006	Support Handle

## Jet® R6 Series Air Drill



*New Reversible Model*

- Lightweight aluminum construction.
- Side mounted forward-reverse switch.
- Includes keyed chuck.

Note: Air Inlet 1/4" NPT. 3/8"-24 spindle thread.

3/8" Capacity - 0.5 hp (0.37 kW) - Reversible			
Part Number	Free RPM	Overall Length	Weight
JAT-600	2000	7-3/16" (183 mm)	2.5 lbs (1.1 kgs)

**USATCO Offset 'Pancake' Air Drills**

- Steel alloy cylinder & rotor.
- 1/4"-28 female thread.
- Full 360° rotating offset head great for limited access areas.



*Feather Trigger  
For Precise  
Control*

*Smooth,  
Quiet  
Operation*

Note: Air inlet 1/4" NPT. Uses threaded shank drills available on pages 22-23.

1/4" Capacity - 0.3 hp (0.22 kW) - Non-Reversible					
Part Number	Free RPM	Shaft Offset (A)	Offset Length (B)	Overall Length	Weight
13-1527	3000	2.49"	3.34"	7" (178 mm)	2.0 lbs (0.91 kgs)
13-1529	3000	3.83"	4.88"	7" (178 mm)	2.1 lbs (0.95 kgs)
13-1531	3000	5.18"	6.23"	7" (178 mm)	2.3 lbs (1.04 kgs)

**USATCO Economy Mini Air Drill**

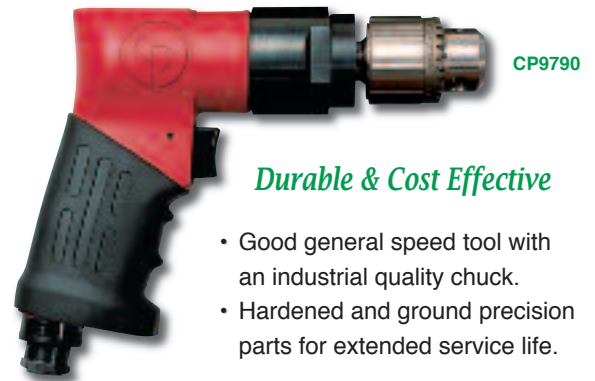


*Economically Priced*

- Compact & lightweight.
- Teasing throttle.
- Includes keyed chuck.

1/4" Capacity - 0.3 hp (0.22 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
13-1127-25	3000	6-1/4" (159 mm)	1.5 lbs (0.7 kgs)

**Chicago Pneumatic® Economy Air Drills**



*Durable & Cost Effective*

- Good general speed tool with an industrial quality chuck.
- Hardened and ground precision parts for extended service life.

3/8" Capacity - 0.5 hp (0.37 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
CP785	2400	7" (178 mm)	2.25 lbs (1.0 kgs)

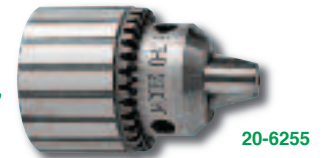
3/8" Capacity - 0.37 hp (0.27 kW) - Reversible			
Part Number	Free RPM	Overall Length	Weight
CP9790	2000	6-1/2" (165 mm)	3.0 lbs (1.4 kgs)

1/2" Capacity - 0.5 hp (0.37 kW) - Non-Reversible			
Part Number	Free RPM	Overall Length	Weight
CP785H*	500	7-3/4" (197 mm)	3.0 lbs (1.4 kgs)

\* CP785H (1/2" capacity) includes required support handle.

**Jacobs® Plain Bearing Chucks & Chuck Keys**

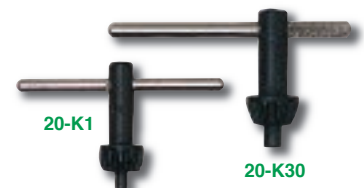
*O.E.M. Standard For  
Accuracy & Durability*



Part Number	Ref. Number	Capacity	Mount Thread	Key Number	Style
20-6200	0	5/32"	0 JT	K0	Smooth
20-6208	1B	1/4"	3/8-24	K1	Smooth
20-6255	7BA	1/4"	3/8-24	K7	Fluted
20-14700	41BA	3/8"	3/8-24	K30	Fluted
20-6283	33BA-3/8	1/2"	3/8-24	K32	Fluted
20-6138	33BA-1/2	1/2"	1/2-20	K32	Fluted

**Chuck Keys**

- Soft steel handles limit potential for fracturing under excessive load.



'T' Handle Keys		
Part No.	Model	Pilot Size
20-K0	K0	1/8"
20-K1	K1	5/32"

Thumb Handle Keys		
Part No.	Model	Pilot Size
20-K7	K7	7/32"
20-K30	K30	15/64"
20-K32	K32	1/4"

## AIR DRILLS & ACCESSORIES

### Jacobs® Hand-Tite Keyless Drilling Chucks

#### Ergonomic Design

- Keyless operation.
- Superior gripping force.

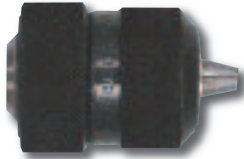


Part Number	Capacity Range	Mount Thread
20-30360	3/64" to 3/8"	3/8"-24
20-31038	1/16" to 1/2"	1/2"-20
20-31037	1/16" to 1/2"	3/8"-24

### Heavy-Duty Keyless Chucks

#### All Steel Construction

Works with reversible and non-reversible drills.



Part Number	Capacity Range	Mount Thread
20-520	0 - 3/8"	3/8"-24
20-522	1/16" - 1/2"	3/8"-24

### Keyless Impact Chucks

#### Square Drive, Keyless Design

Transform your impact wrench into an efficient drilling tool with superior holding power.



Note: For use with standard impact tools, see pages 136-137.

Part Number	Capacity	Sq. Drive Mount	O.A.L. (open)
20-90424	3/32" to 3/8"	3/8"	2-3/32" (53 mm)
20-90430	1/8" to 1/2"	1/2"	2-5/8" (67 mm)

### Micro Drill Chuck

- Used with very small dia. drills in a drill press or handheld tool.
- Grips firmly and accurately in sizes as small as a human hair.
- Can be held in any 1/8" or 3/16" collet or larger adj. drill chuck.



Part Number	Accepts Drill Sizes
67-149-5	#60 to #80 Wire Gauge

### Threaded Shank Drill Adapters

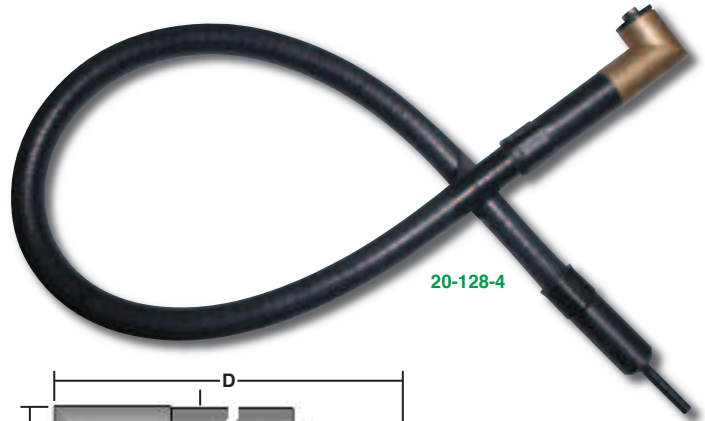
#### Great For Cordless Drills

Allows a chucked drill to accept threaded shank bits.

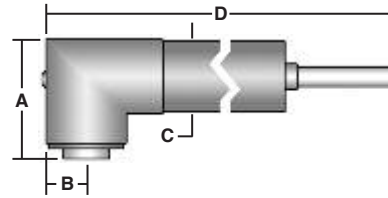


Part Number	Shank	Thread
70456	1/4" Hex	1/4"-28
70449	1/4" Hex	10-32

### USATCO Snake Drill Attachments



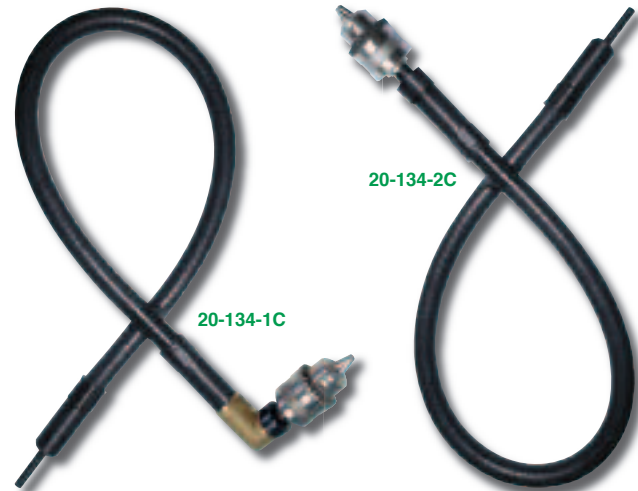
20-128-4



Excellent Drilling Solutions For Hard To Reach Areas

90° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-128-4	1-9/32" (33 mm)	0.384" (10 mm)	3/4" (19 mm)	30" (76 cm)

90° Mini Angle Head, 5/16" Capacity, 10-32 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-132-20	15/16" (24 mm)	0.275" (7 mm)	11/16" (18 mm)	22" (56 cm)



20-134-2C

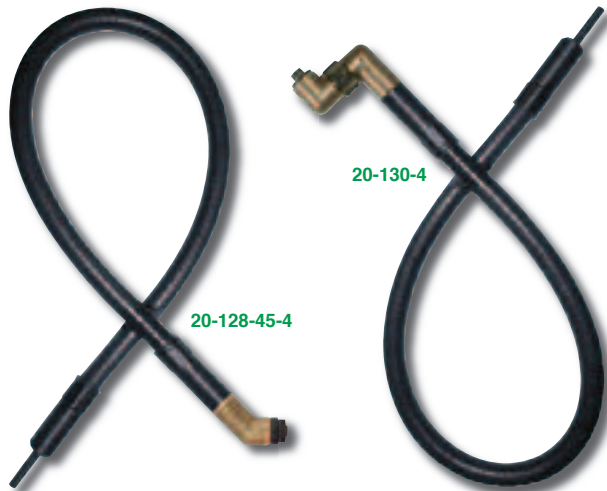
20-134-1C

90° Angle Head With Jacobs Chuck, 1/4" Capacity				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-134-1C	2-7/8" (73 mm)	0.565" (14 mm)	3/4" (19 mm)	30" (76 cm)

Straight Head With Jacobs Chuck, 1/4" Capacity				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-134-2C	—	0.565" (14 mm)	5/8" (16 mm)	30" (76 cm)



**USATCO Snake Drill Attachments (cont'd)**

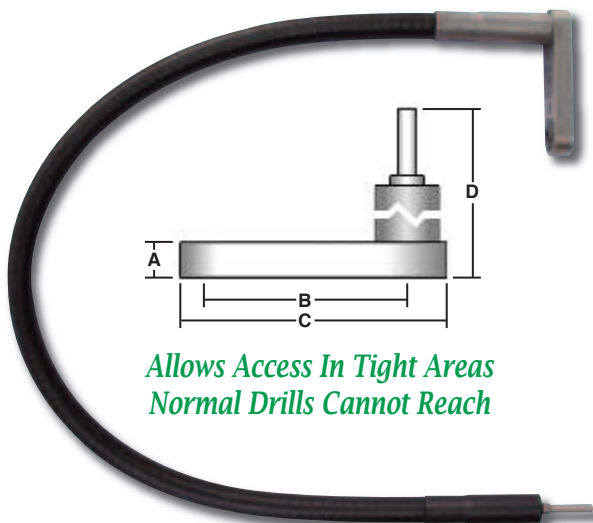


45° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-128-45-4	1-3/16" (30 mm)	0.400" (10 mm)	3/4" (19 mm)	30" (76 cm)

360° Adjustable Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-130-4	1-1/4" (32 mm)	0.384" (10 mm)	3/4" (19 mm)	30" (76 cm)

Straight Head, 5/16" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-131-4	11/16" (18 mm)	5/8" (16 mm)	11/16" (18 mm)	22" (56 cm)

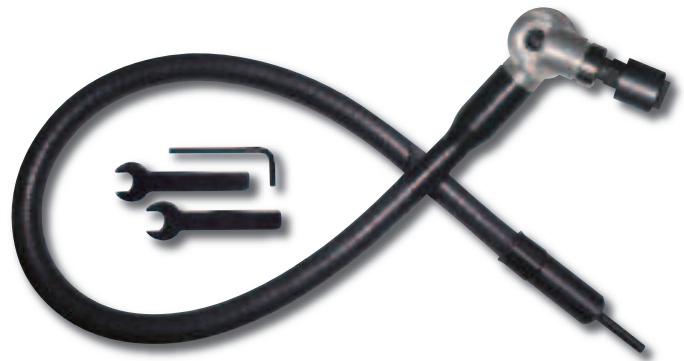
**USATCO Offset 'Pancake' Snake Drill Att.**



*Allows Access In Tight Areas  
Normal Drills Cannot Reach*

Flat Offset Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	(A) Offset Thickness	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-T-635	7/16" (11 mm)	2-5/16" (59 mm)	3-3/16" (81 mm)	30" (76 cm)

**360° Snake Drill Attachment**



- Angle head rotates a full 360° & can be locked in any position.
- 20-M3 chuck (accepts straight shank drills).
- Includes wrenches & allen key.

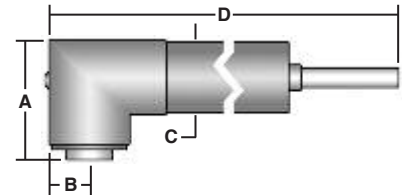
**Note:** Chart references snake attachment illustration on previous page.

360° Adjustable Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-128-360	3" (76 mm)	0.385" (10 mm)	0.608" (15 mm)	30" (76 cm)

**USATCO Angle Drill Attachments**

*Quickly Connect  
To Any Drill Chuck*

Convenient & inexpensive  
close quarter drilling tools.



90° Angle Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-127-4	1-9/32" (33 mm)	1-1/4" (32 mm)	3/4" (19 mm)	7-1/8" (181 mm)



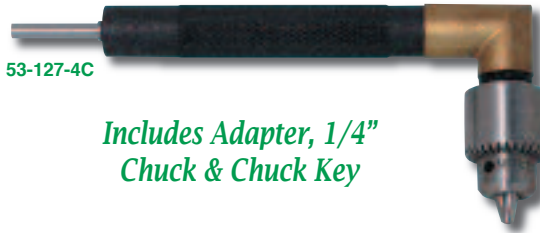
90° Mini Angle Head, 1/4" Capacity, 10-32 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-133-20	1-3/16" (30 mm)	0.212" (5 mm)	1/2" (13 mm)	6" (155 mm)



45° Angle Head, 5/32" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-127-45-4	1-3/16" (30 mm)	0.400" (10 mm)	3/4" (19 mm)	7-1/2" (191 mm)

# AIR DRILLS & ACCESSORIES

## USATCO Angle Drill Attachments (cont'd)



53-127-4C

*Includes Adapter, 1/4" Chuck & Chuck Key*

90° Angle Head With Keyed Chuck, 5/32" Capacity				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
53-127-4C	2-7/16" (62 mm)	0.425" (11 mm)	3/4" (19 mm)	7-1/8" (181 mm)



20-129-4

*Locks In Any Position*

Note: Shaft offset: 1-7/16" (37 mm).

360° Rotating Offset Head, 1/4" Capacity, 1/4"-28 Thread				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-129-4	1-1/4" (32 mm)	0.384" (10 mm)	3/4" (19 mm)	7-5/8" (194 mm)

## USATCO Angle Drill Attachment Kit



### Kit Includes:

Angle Drill Attachment (20-127-4), Threaded Shank Drill Bits (1 each #40, #30, #21 & #10), Gear Lubricator, Gear Lube, Wrench, Repair Parts List & Plastic Kit Box (not shown)

Part Number	Description
53-127K	Complete 9 PC Kit

## Socket Drive Angle Drill Attachment



*Versatile*

Fits any 1/4" square drive ratchet or wrench.

Note: Chart references angle attachment illustration on previous page.

90° Angle Head, 1/4" Square Drive				
Part Number	Head Height (A)	Side To Center (B)	Diameter (C)	Overall Length (D)
20-350	1.60" (41 mm)	1-3/8" (35 mm)	3/4" (19 mm)	7" (178 mm)

## Drill Attachment Conversion Assembly

- Convert any angle or snake drill attachment to convenient keyed chuck mode.
- Includes 1/4"-28 thd. adapter, 5/32" cap. chuck & chuck key.



Part Number	Diameter	Side To Center	Overall Length
2553-77	0.85" (21.6 mm)	0.45" (11.4 mm)	1.65" (42 mm)

## Thin Offset Angle Drill Attachments



20-820 Straight

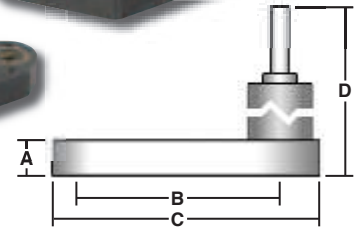
*For Limited Access Areas*

- Hardened and ground bearings & support shafts provide longer tool life.
- 1/4"-28 thread standard.



20-845 Offset

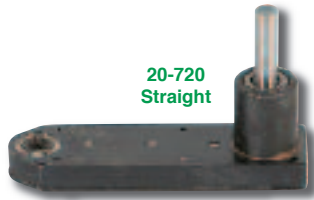
20-855 Offset



Straight - 1/4" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-820	2-7/16" (62 mm)	3-3/16" (81 mm)	11/16" (18 mm)
20-825	2-7/16" (62 mm)	3-3/16" (81 mm)	5-3/16" (132 mm)
20-830	3-3/4" (95 mm)	4-1/2" (114 mm)	11/16" (18 mm)
20-835	3-3/4" (95 mm)	4-1/2" (114 mm)	5-3/16" (132 mm)

30° Offset - 0.290" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-845	Right	4" (102 mm)	4-5/16" (110 mm)
20-855	Left	4" (102 mm)	4-5/16" (110 mm)

**Thin Offset Angle Drill Attachments (cont'd)**



20-720  
Straight

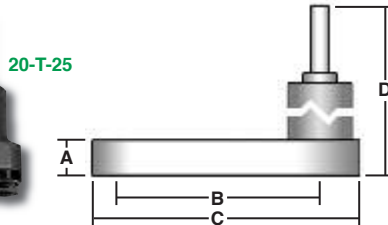
Straight - 3/8" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-720	2-7/16" (62 mm)	3-3/16" (81 mm)	1-1/8" (29 mm)
20-725	2-7/16" (62 mm)	3-3/16" (81 mm)	4-9/16" (116 mm)
20-730	3-3/4" (95 mm)	4-1/2" (114 mm)	1-1/8" (29 mm)
20-735	3-3/4" (95 mm)	4-1/2" (114 mm)	4-9/16" (116 mm)

30° Offset - 3/8" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-745	3-1/8" R (79 mm)	4" (102 mm)	4-9/16" (116 mm)
20-755	3-1/8" L (79 mm)	4" (102 mm)	4-9/16" (116 mm)

**Flat Offset Angle Drill Attachments**



*Perfect For Work  
In Tight Areas*



20-T-25

Note: 1/4"-28 thread standard. Also available with 10-32 thread, please inquire.

1/8" Capacity - 1/4" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-T-21	3/4" (19 mm)	1-1/2" (38 mm)	5-5/8" (143 mm)

1/4" Capacity - 7/16" Offset Thickness (A)			
Part No.	Shaft Offset (B)	Offset Length (C)	Overall Length (D)
20-T-23	1-5/32" (29 mm)	2-3/16" (56 mm)	6-1/2" (165 mm)
20-T-25	2-5/16" (59 mm)	3-3/16" (81 mm)	2" (51 mm)
20-T-235	2-5/16" (59 mm)	3-3/16" (81 mm)	6-5/8" (168 mm)

**IRWIN Unibit® Step Drill Sets**

*Versatile &  
Economical*



02-10502

*Preferred By  
Mechanics*



02-10225

- Money saving sets provide a wide range of hole sizes.
- 4 PC set includes hard plastic carrying case.

Part Number	Description	Hole Sizes - 1/8" Material (max.)	Hole Sizes - 3/8" Material (max.)
02-10502	3 PC Set	1/8" to 3/4"	3/16" to 1/2"
02-10225	4 PC Set	1/8" to 1-3/8"	3/16" to 1/2"

**IRWIN Unibit® Self-Starting Step Drills**

- Single flute cutting edge for greater control through steps.
- Hex shank prevents slipping in drill chuck.
- Many other styles & sizes available, please inquire.

02-10101T



Fractional Step Drills					
Part No. H.S.S.	Part No. TiN Coated	# Of Holes	Hole Size Range	Shank Size	Max. Material Thickness
02-10101	02-10101T	13	1/8" to 1/2"	1/4"	1/8"
02-10102	02-10102T	6	3/16" to 1/2"	1/4"	3/8"
02-10103	02-10103T	9	1/4" to 3/4"	3/8"	1/8"
02-10104	02-10104T	12	3/16" to 7/8"	3/8"	1/8"
02-10105	—	10	1/4" to 1-3/8"	1/2"	1/8"

Metric Step Drills					
Part No. H.S.S.	Part No. TiN Coated	# Of Holes	Hole Size Range	Shank Size	Max. Material Thickness
02-11101	02-11101T	9	4 to 12 mm	6.35 mm	5 mm
02-11102	02-11102T	5	4 to 12 mm	6.35 mm	11 mm
02-11103	02-11103T	7	6 to 18 mm	9.53 mm	5 mm
02-11104	02-11104T	10	4 to 22 mm	9.53 mm	5 mm
02-11105	02-11105T	13	5 to 35 mm	12.70 mm	3.5 mm

# AIR DRILLS & ACCESSORIES

## Aircraft Quality Jobber's Length Drills

Made to NAS907 Specifications



Wire Gauge: Sold 12 per pack (all sizes).

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix). Example: For a #30 H.S.S. (118° split point) drill, the number would be 02-R18A-30

Wire Gauge Part Number (Prefix)				02-R18A	02-R18B	02-R18C	02-R18D	02-D2S	02-D2E
Wire Gauge Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	H.S.S. (135° SP)	Cobalt (135° SP)	TiN Coated (118° SP)	Carbide Tipped	Carbide (118° SP)
1	.2280"	2-5/8"	3-7/8"	.	.	.	.	.	.
2	.2210"	2-5/8"	3-7/8"	.	.	.	.	.	.
3	.2130"	2-1/2"	3-3/4"	.	.	.	.	.	.
4	.2090"	2-1/2"	3-3/4"	.	.	.	.	.	.
5	.2055"	2-1/2"	3-3/4"	.	.	.	.	.	.
6	.2040"	2-1/2"	3-3/4"	.	.	.	.	.	.
7	.2010"	2-7/16"	3-5/8"	.	.	.	.	.	.
8	.1990"	2-7/16"	3-5/8"	.	.	.	.	.	.
9	.1960"	2-7/16"	3-5/8"	.	.	.	.	.	.
10	.1935"	2-7/16"	3-5/8"	.	.	.	.	.	.
11	.1910"	2-5/16"	3-1/2"	.	.	.	.	.	.
12	.1890"	2-5/16"	3-1/2"	.	.	.	.	.	.
13	.1850"	2-5/16"	3-1/2"	.	.	.	.	.	.
14	.1820"	2-3/16"	3-3/8"	.	.	.	.	.	.
15	.1800"	2-3/16"	3-3/8"	.	.	.	.	.	.
16	.1770"	2-3/16"	3-3/8"	.	.	.	.	.	.
17	.1730"	2-3/16"	3-3/8"	.	.	.	.	.	.
18	.1695"	2-1/8"	3-1/4"	.	.	.	.	.	.
19	.1660"	2-1/8"	3-1/4"	.	.	.	.	.	.
20	.1610"	2-1/8"	3-1/4"	.	.	.	.	.	.
21	.1590"	2-1/8"	3-1/4"	.	.	.	.	.	.
22	.1570"	2"	3-1/8"	.	.	.	.	.	.
23	.1540"	2"	3-1/8"	.	.	.	.	.	.
24	.1520"	2"	3-1/8"	.	.	.	.	.	.
25	.1495"	1-7/8"	3"	.	.	.	.	.	.
26	.1470"	1-7/8"	3"	.	.	.	.	.	.
27	.1440"	1-7/8"	3"	.	.	.	.	.	.
28	.1405"	1-3/4"	2-7/8"	.	.	.	.	.	.
29	.1360"	1-3/4"	2-7/8"	.	.	.	.	.	.
30	.1285"	1-5/8"	2-3/4"	.	.	.	.	.	.
31	.1200"	1-5/8"	2-3/4"	.	.	.	.	.	.
32	.1160"	1-5/8"	2-3/4"	.	.	.	.	N/A	.
33	.1130"	1-1/2"	2-5/8"	.	.	.	.	N/A	.
34	.1110"	1-1/2"	2-5/8"	.	.	.	.	N/A	.
35	.1100"	1-1/2"	2-5/8"	.	.	.	.	N/A	.
36	.1065"	1-7/16"	2-1/2"	.	.	.	.	N/A	.
37	.1040"	1-7/16"	2-1/2"	.	.	.	.	N/A	.
38	.1015"	1-7/16"	2-1/2"	.	.	.	.	N/A	.
39	.0995"	1-3/8"	2-3/8"	.	.	.	.	N/A	.
40	.0980"	1-3/8"	2-3/8"	.	.	.	.	N/A	.
41	.0969"	1-3/8"	2-3/8"	.	.	.	.	N/A	.
42	.0935"	1-1/4"	2-1/4"	.	.	.	.	N/A	.
43	.0890"	1-1/4"	2-1/4"	.	.	.	.	N/A	.
44	.0860"	1-1/8"	2-1/8"	.	.	.	.	N/A	.
45	.0820"	1-1/8"	2-1/8"	.	.	.	.	N/A	.
46	.0810"	1-1/8"	2-1/8"	.	.	.	.	N/A	.
47	.0785"	1"	2"	.	.	.	.	N/A	.
48	.0760"	1"	2"	.	.	.	.	N/A	.
49	.0730"	1"	2"	.	.	.	.	N/A	.
50	.0700"	1"	2"	.	.	.	.	N/A	.
51	.0670"	1"	2"	.	.	.	.	N/A	.
52	.0635"	7/8"	1-7/8"	.	.	.	.	N/A	.
53	.0595"	7/8"	1-7/8"	N/A	N/A	.	.	N/A	.
54	.0550"	7/8"	1-7/8"	N/A	N/A	.	.	N/A	.
55	.0520"	7/8"	1-7/8"	N/A	N/A	.	.	N/A	.
56	.0465"	3/4"	1-3/4"	N/A	N/A	.	.	N/A	.
57	.0430"	3/4"	1-3/4"	N/A	N/A	.	.	N/A	.
58	.0420"	11/16"	1-5/8"	N/A	N/A	.	.	N/A	N/A
59	.0410"	11/16"	1-5/8"	N/A	N/A	.	.	N/A	N/A
60	.0400"	11/16"	1-5/8"	N/A	N/A	.	.	N/A	N/A

**Aircraft Quality Jobber's Length Drills (cont'd)**

*Made to NAS907 Specifications*



**Fractional:** Sold 12 per pack (1/16"-19/64"),  
6 per pack (5/16"-1/2").

**Note:** To order, select desired drill type (prefix) & add the desired drill size (suffix). **Example:** For a 1/4" H.S.S. (118° split point) drill, the number would be **02-R10A-1/4**

Fractional Part Number (Prefix)				02-R10A	02-R10B	02-R10C	02-R10D	02-D2S	02-D2E
Fractional Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	H.S.S. (135° SP)	Cobalt (135° SP)	TiN Coated (118° SP)	Carbide Tipped	Carbide (118° SP)
1/16	.0625"	7/8"	1-7/8"	•	•	•	•	N/A	•
5/64	.0781"	1"	2"	•	•	•	•	N/A	•
3/32	.0938"	1-1/4"	2-1/4"	•	•	•	•	N/A	•
7/64	.1094"	1-1/2"	2-5/8"	•	•	•	•	N/A	•
1/8	.1250"	1-5/8"	2-3/4"	•	•	•	•	•	•
9/64	.1406"	1-3/4"	2-7/8"	•	•	•	•	•	•
5/32	.1562"	2"	3-1/8"	•	•	•	•	•	•
11/64	.1719"	2-1/8"	3-1/4"	•	•	•	•	•	•
3/16	.1875"	2-5/16"	3-1/2"	•	•	•	•	•	•
13/64	.2031"	2-7/16"	3-5/8"	•	•	•	•	•	•
7/32	.2188"	2-1/2"	3-3/4"	•	•	•	•	•	•
15/64	.2344"	2-5/8"	3-7/8"	•	•	•	•	•	•
1/4	.2500"	2-3/4"	4"	•	•	•	•	•	•
17/64	.2656"	2-7/8"	4-1/8"	•	•	•	•	•	•
9/32	.2812"	2-15/16"	4-1/4"	•	•	•	•	•	•
19/64	.2969"	3-1/16"	4-3/8"	•	•	•	•	•	•
5/16	.3125"	3-3/16"	4-1/2"	•	•	•	•	•	•
21/64	.3281"	3-5/16"	4-5/8"	•	•	•	•	•	•
11/32	.3438"	3-7/16"	4-3/4"	•	•	•	•	•	•
23/64	.3594"	3-1/2"	4-7/8"	•	•	•	•	•	•
3/8	.3750"	3-5/8"	5"	•	•	•	•	•	•
25/64	.3906"	3-3/4"	5-1/8"	•	•	•	•	•	•
13/32	.4062"	3-7/8"	5-1/4"	•	•	•	•	•	•
27/64	.4219"	3-15/16"	5-3/8"	•	•	•	•	•	•
7/16	.4375"	4-1/16"	5-1/2"	•	•	•	•	•	•
29/64	.4531"	4-3/16"	5-5/8"	•	•	•	•	•	•
15/32	.4688"	4-5/16"	5-3/4"	•	•	•	•	•	•
31/64	.4844"	4-3/8"	5-7/8"	•	•	•	•	•	•
1/2	.5000"	4-1/2"	6"	•	•	•	•	•	•

**Letter:** Sold 12 per pack (A-N) & 6 per pack (O-Z).

Letter Part Number (Prefix)				02-R15A	02-R15B	02-R15C	02-D2S	02-D2E
Letter Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	H.S.S. (135° SP)	Cobalt (135° SP)	Carbide Tipped	Carbide (118° SP)
A	.2340"	2-5/8"	3-7/8"	•	•	•	•	•
B	.2380"	2-3/4"	4"	•	•	•	•	•
C	.2420"	2-3/4"	4"	•	•	•	•	•
D	.2460"	2-3/4"	4"	•	•	•	•	•
E	.2500"	2-3/4"	4"	•	•	•	•	•
F	.2570"	2-7/8"	4-1/8"	•	•	•	•	•
G	.2610"	2-7/8"	4-1/8"	•	•	•	•	•
H	.2660"	2-7/8"	4-1/8"	•	•	•	•	•
I	.2720"	2-7/8"	4-1/8"	•	•	•	•	•
J	.2770"	2-7/8"	4-1/8"	•	•	•	•	•
K	.2810"	2-15/16"	4-1/4"	•	•	•	•	•
L	.2900"	2-15/16"	4-1/4"	•	•	•	•	•
M	.2950"	3-1/16"	4-3/8"	•	•	•	•	•
N	.3020"	3-1/16"	4-3/8"	•	•	•	•	•
O	.3160"	3-3/16"	4-1/2"	•	•	•	•	•
P	.3230"	3-5/16"	4-5/8"	•	•	•	•	•
Q	.3320"	3-7/16"	4-3/4"	•	•	•	•	•
R	.3390"	3-7/16"	4-3/4"	•	•	•	•	•
S	.3480"	3-1/2"	4-7/8"	•	•	•	•	•
T	.3580"	3-1/2"	4-7/8"	•	•	•	•	•
U	.3680"	3-5/8"	5"	•	•	•	•	•
V	.3770"	3-5/8"	5"	•	•	•	•	•
W	.3860"	3-3/4"	5-1/8"	•	•	•	•	•
X	.3970"	3-3/4"	5-1/8"	•	•	•	•	•
Y	.4040"	3-7/8"	5-1/4"	•	•	•	•	•
Z	.4130"	3-7/8"	5-1/4"	•	•	•	•	•

# AIR DRILLS & ACCESSORIES

## Aircraft Quality Jobber's Length Drills (cont'd)

Made to NAS907 Specifications



Metric: Sold 12 per pack (0.35-7.50mm).

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix). Example: For a 2.0mm H.S.S. (118° split point) drill, the number would be 02-2A-2.00

Metric Part Number (Prefix)				02-2A	02-2AC
Metric Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	Cobalt (135°)
.35	.0138"	3 mm	19 mm	•	N/A
.40	.0158"	5 mm	20 mm	•	N/A
.45	.0177"	5 mm	20 mm	•	N/A
.50	.0197"	5 mm	22 mm	•	N/A
.55	.0217"	6 mm	24 mm	•	N/A
.60	.0236"	8 mm	24 mm	•	N/A
.65	.0256"	10 mm	26 mm	•	N/A
.70	.0276"	10 mm	28 mm	•	N/A
.75	.0295"	13 mm	28 mm	•	N/A
.80	.0315"	13 mm	30 mm	•	N/A
.85	.0335"	16 mm	30 mm	•	N/A
.90	.0354"	16 mm	32 mm	•	N/A
.95	.0374"	16 mm	32 mm	•	N/A
1.00	.0394"	17 mm	34 mm	•	•
1.05	.0413"	17 mm	34 mm	•	•
1.10	.0433"	19 mm	36 mm	•	•
1.15	.0453"	19 mm	36 mm	•	•
1.20	.0472"	22 mm	38 mm	•	•
1.25	.0492"	22 mm	38 mm	•	•
1.30	.0512"	22 mm	38 mm	•	•
1.35	.0531"	22 mm	40 mm	•	•
1.40	.0551"	22 mm	40 mm	•	•
1.45	.0571"	22 mm	40 mm	•	•
1.50	.0591"	22 mm	40 mm	•	•
1.55	.0610"	22 mm	43 mm	•	•
1.60	.0630"	22 mm	43 mm	•	•
1.65	.0650"	25 mm	43 mm	•	•
1.70	.0669"	25 mm	43 mm	•	•
1.75	.0689"	25 mm	46 mm	•	•
1.80	.0709"	25 mm	46 mm	•	•
1.85	.0728"	25 mm	46 mm	•	•
1.90	.0748"	25 mm	46 mm	•	•
1.95	.0768"	25 mm	49 mm	•	•
2.00	.0787"	25 mm	49 mm	•	•
2.05	.0807"	29 mm	49 mm	•	•
2.10	.0827"	29 mm	49 mm	•	•
2.15	.0846"	29 mm	53 mm	•	•
2.20	.0866"	32 mm	53 mm	•	•
2.25	.0886"	32 mm	53 mm	•	•
2.30	.0906"	32 mm	53 mm	•	•
2.35	.0925"	32 mm	53 mm	•	•
2.40	.0945"	35 mm	57 mm	•	•
2.45	.0965"	35 mm	57 mm	•	•
2.50	.0984"	35 mm	57 mm	•	•
2.60	.1024"	37 mm	57 mm	•	•
2.70	.1063"	37 mm	61 mm	•	•
2.75	.1083"	37 mm	61 mm	•	•
2.80	.1102"	38 mm	61 mm	•	•
2.90	.1142"	41 mm	61 mm	•	•
3.00	.1181"	41 mm	61 mm	•	•
3.10	.1220"	41 mm	65 mm	•	•
3.20	.1260"	41 mm	65 mm	•	•
3.25	.1280"	41 mm	65 mm	•	•
3.30	.1299"	44 mm	65 mm	•	•
3.40	.1339"	44 mm	70 mm	•	•
3.50	.1378"	44 mm	70 mm	•	•
3.60	.1417"	48 mm	70 mm	•	•
3.70	.1457"	48 mm	70 mm	•	•
3.75	.1476"	48 mm	75 mm	•	•
3.80	.1496"	48 mm	75 mm	•	•

Metric Part Number (Prefix)				02-2A	02-2AC
Metric Size (Suffix)	Decimal Equivalent	Flute Length	Overall Length	H.S.S. (118° SP)	Cobalt (135°)
3.90	.1535"	51 mm	75 mm	•	•
4.00	.1575"	54 mm	75 mm	•	•
4.10	.1614"	54 mm	75 mm	•	•
4.20	.1654"	54 mm	75 mm	•	•
4.25	.1673"	54 mm	80 mm	•	•
4.30	.1693"	54 mm	80 mm	•	•
4.40	.1739"	56 mm	80 mm	•	•
4.50	.1772"	56 mm	80 mm	•	•
4.60	.1811"	56 mm	80 mm	•	•
4.70	.1850"	59 mm	80 mm	•	•
4.75	.1870"	59 mm	86 mm	•	•
4.80	.1890"	59 mm	86 mm	•	•
4.90	.1929"	62 mm	86 mm	•	•
5.00	.1968"	62 mm	86 mm	•	•
5.10	.2008"	62 mm	86 mm	•	•
5.20	.2047"	64 mm	86 mm	•	•
5.25	.2067"	64 mm	86 mm	•	•
5.30	.2087"	64 mm	86 mm	•	•
5.40	.2126"	64 mm	93 mm	•	•
5.50	.2165"	64 mm	93 mm	•	•
5.60	.2205"	67 mm	93 mm	•	•
5.70	.2244"	67 mm	93 mm	•	•
5.75	.2264"	67 mm	93 mm	•	•
5.80	.2283"	67 mm	93 mm	•	•
5.90	.2323"	67 mm	93 mm	•	•
6.00	.2362"	70 mm	93 mm	•	•
6.10	.2402"	70 mm	101 mm	•	•
6.20	.2441"	70 mm	101 mm	•	•
6.25	.2461"	70 mm	101 mm	•	•
6.30	.2480"	70 mm	101 mm	•	•
6.40	.2520"	73 mm	101 mm	•	•
6.50	.2559"	73 mm	101 mm	•	•
6.60	.2598"	73 mm	101 mm	•	•
6.70	.2638"	73 mm	101 mm	•	•
6.75	.2657"	73 mm	109 mm	•	•
6.80	.2677"	73 mm	109 mm	•	•
6.90	.2717"	73 mm	109 mm	•	•
7.00	.2756"	73 mm	109 mm	•	•
7.10	.2795"	75 mm	109 mm	•	•
7.20	.2835"	75 mm	109 mm	•	•
7.25	.2854"	75 mm	109 mm	•	•
7.30	.2874"	75 mm	109 mm	•	•
7.40	.2913"	78 mm	109 mm	•	•
7.50	.2953"	78 mm	109 mm	•	•



For A Wide Selection Of Deburring Tools See Pages 92-95

**Aircraft Quality Extension Length Drills**

*Made to NAS907 Specs*



**Wire Gauge:** Sold 12 per pack (6": #1-60, 12": #11-60) & 6 per pack (12": #1-10).

**Note:** To order, select desired drill type (prefix) & add the desired drill size (suffix). **Example:** For a #20, 6" cobalt (135° split point) drill, the number would be **02-501-6-20C**

Wire Gauge Part Number (Prefix)			02-501-6	02-501-12	02-501-6_C	02-501-12_C	02-2610	02-2611
Wire Gauge Size (Suffix)	Decimal Equivalent	Flute Length	6" H.S.S. (135° SP)	12" H.S.S. (135° SP)	6" Cobalt (135° SP)	12" Cobalt (135° SP)	6" Carbide Tip (135° SP)	12" Carbide Tip (135° SP)
1	.2280"	2-5/8"	.	.	.	.	.	.
2	.2210"	2-5/8"	.	.	.	.	.	.
3	.2130"	2-1/2"	.	.	.	.	.	.
4	.2090"	2-1/2"	.	.	.	.	.	.
5	.2055"	2-1/2"	.	.	.	.	.	.
6	.2040"	2-1/2"	.	.	.	.	.	.
7	.2010"	2-7/16"	.	.	.	.	.	.
8	.1990"	2-7/16"	.	.	.	.	.	.
9	.1960"	2-7/16"	.	.	.	.	.	.
10	.1935"	2-7/16"	.	.	.	.	.	.
11	.1910"	2-5/16"	.	.	.	.	.	.
12	.1890"	2-5/16"	.	.	.	.	.	.
13	.1850"	2-5/16"	.	.	.	.	.	.
14	.1820"	2-3/16"	.	.	.	.	.	.
15	.1800"	2-3/16"	.	.	.	.	.	.
16	.1770"	2-3/16"	.	.	.	.	.	.
17	.1730"	2-3/16"	.	.	.	.	.	.
18	.1695"	2-1/8"	.	.	.	.	.	.
19	.1660"	2-1/8"	.	.	.	.	.	.
20	.1610"	2-1/8"	.	.	.	.	.	.
21	.1590"	2-1/8"	.	.	.	.	.	.
22	.1570"	2"	.	.	.	.	.	.
23	.1540"	2"	.	.	.	.	.	.
24	.1520"	2"	.	.	.	.	.	.
25	.1495"	1-7/8"	.	.	.	.	.	.
26	.1470"	1-7/8"	.	.	.	.	.	.
27	.1440"	1-7/8"	.	.	.	.	.	.
28	.1405"	1-3/4"	.	.	.	.	.	.
29	.1360"	1-3/4"	.	.	.	.	.	.
30	.1285"	1-5/8"	.	.	.	.	.	.
31	.1200"	1-5/8"	.	.	.	.	.	.
32	.1160"	1-5/8"	.	.	.	.	.	.
33	.1130"	1-1/2"	.	.	.	.	N/A	N/A
34	.1110"	1-1/2"	.	.	.	.	N/A	N/A
35	.1100"	1-1/2"	.	.	.	.	N/A	N/A
36	.1065"	1-7/16"	.	.	.	.	N/A	N/A
37	.1040"	1-7/16"	.	.	.	.	N/A	N/A
38	.1015"	1-7/16"	.	.	.	.	N/A	N/A
39	.0995"	1-3/8"	.	.	.	.	N/A	N/A
40	.0980"	1-3/8"	.	.	.	.	N/A	N/A
41	.0969"	1-3/8"	.	.	.	.	N/A	N/A
42	.0935"	1-1/4"	.	.	.	.	N/A	N/A
43	.0890"	1-1/4"	.	.	.	.	N/A	N/A
44	.0860"	1-1/8"	.	.	.	.	N/A	N/A
45	.0820"	1-1/8"	.	.	.	.	N/A	N/A
46	.0810"	1-1/8"	.	.	.	.	N/A	N/A
47	.0785"	1"	.	.	.	.	N/A	N/A
48	.0760"	1"	.	.	.	.	N/A	N/A
49	.0730"	1"	.	.	.	.	N/A	N/A
50	.0700"	1"	.	.	.	.	N/A	N/A
51	.0670"	1"	.	.	.	.	N/A	N/A
52	.0635"	7/8"	.	.	.	.	N/A	N/A
53	.0595"	7/8"	.	.	.	.	N/A	N/A
54	.0550"	7/8"	.	.	.	.	N/A	N/A
55	.0520"	7/8"	.	.	.	.	N/A	N/A
56	.0465"	3/4"	.	.	.	.	N/A	N/A
57	.0430"	3/4"	.	.	.	.	N/A	N/A
58	.0420"	11/16"	.	.	.	.	N/A	N/A
59	.0410"	11/16"	.	.	.	.	N/A	N/A
60	.0400"	11/16"	.	.	.	.	N/A	N/A

# AIR DRILLS & ACCESSORIES

## Aircraft Quality Extension Length Drills

Made to NAS907 Specs



Letter: Sold 12 per pack (6": A-F), 6 per pack (6": G-Z, 12": A-R) & 3 per pack (12": S-Z).

Note: To order, select desired drill type (prefix) & add the desired drill size (suffix). Example: For a 1/4", 6" H.S.S. (135° split point) drill, the number would be 02-500-6-1/4

Letter Part Number (Prefix)			02-502-6	02-502-12	02-2610	02-2611
Letter Size (Suffix)	Decimal Equivalent	Flute Length	6" H.S.S. (135° SP)	12" H.S.S. (135° SP)	6" Carbide Tip (135° SP)	12" Carbide Tip (135° SP)
A	.2340"	2-5/8"	•	•	•	•
B	.2380"	2-3/4"	•	•	•	•
C	.2420"	2-3/4"	•	•	•	•
D	.2460"	2-3/4"	•	•	•	•
E	.2500"	2-3/4"	•	•	•	•
F	.2570"	2-7/8"	•	•	•	•
G	.2610"	2-7/8"	•	•	•	•
H	.2660"	2-7/8"	•	•	•	•
I	.2720"	2-7/8"	•	•	•	•
J	.2770"	2-7/8"	•	•	•	•
K	.2810"	2-15/16"	•	•	•	•
L	.2900"	2-15/16"	•	•	•	•
M	.2950"	3-1/16"	•	•	•	•
N	.3020"	3-1/16"	•	•	•	•
O	.3160"	3-1/16"	•	•	•	•
P	.3230"	3-5/16"	•	•	•	•
Q	.3320"	3-7/16"	•	•	•	•
R	.3390"	3-7/16"	•	•	•	•
S	.3480"	3-1/2"	•	•	•	•
T	.3580"	3-1/2"	•	•	•	•
U	.3680"	3-5/8"	•	•	•	•
V	.3770"	3-5/8"	•	•	•	•
W	.3860"	3-3/4"	•	•	•	•
X	.3970"	3-3/4"	•	•	•	•
Y	.4040"	3-7/8"	•	•	•	•
Z	.4130"	3-7/8"	•	•	•	•

Fractional: Sold 12 per pack (6": 1/16"-1/4", 12": 1/16"-11/64"), 6 per pack (6": 17/64"-1/2", 12": 3/16"-11/32") & 3 per pack (12": 23/64"-1/2").

Fractional Part Number (Prefix)			02-500-6	02-500-12	02-500-6_C	02-500-12_C	02-2610	02-2611
Fractional Size (Suffix)	Decimal Equivalent	Flute Length	6" H.S.S. (135° SP)	12" H.S.S. (135° SP)	6" Cobalt (135° SP)	12" Cobalt (135° SP)	6" Carbide Tip (135° SP)	12" Carbide Tip (135° SP)
1/16	.0625"	7/8"	•	•	•	•	N/A	N/A
5/64	.0781"	1"	•	•	•	•	N/A	N/A
3/32	.0938"	1-1/4"	•	•	•	•	N/A	N/A
7/64	.1094"	1-1/2"	•	•	•	•	N/A	N/A
1/8	.1250"	1-5/8"	•	•	•	•	•	•
9/64	.1406"	1-3/4"	•	•	•	•	•	•
5/32	.1562"	2"	•	•	•	•	•	•
11/64	.1719"	2-1/8"	•	•	•	•	•	•
3/16	.1875"	2-5/16"	•	•	•	•	•	•
13/64	.2031"	2-7/16"	•	•	•	•	•	•
7/32	.2188"	2-1/2"	•	•	•	•	•	•
15/64	.2344"	2-5/8"	•	•	•	•	•	•
1/4	.2500"	2-3/4"	•	•	•	•	•	•
17/64	.2656"	2-7/8"	•	•	N/A	N/A	•	•
9/32	.2812"	2-15/16"	•	•	N/A	N/A	•	•
19/64	.2969"	3-1/16"	•	•	N/A	N/A	•	•
5/16	.3125"	3-3/16"	•	•	N/A	N/A	•	•
21/64	.3281"	3-5/16"	•	•	N/A	N/A	•	•
11/32	.3438"	3-7/16"	•	•	N/A	N/A	•	•
23/64	.3594"	3-1/2"	•	•	N/A	N/A	•	•
3/8	.3750"	3-5/8"	•	•	N/A	N/A	•	•
25/64	.3906"	3-3/4"	•	•	N/A	N/A	•	•
13/32	.4062"	3-7/8"	•	•	N/A	N/A	•	•
27/64	.4219"	3-15/16"	•	•	N/A	N/A	•	•
7/16	.4375"	4-1/16"	•	•	N/A	N/A	•	•
29/64	.4531"	4-3/16"	•	•	N/A	N/A	•	•
15/32	.4688"	4-5/16"	•	•	N/A	N/A	•	•
31/64	.4844"	4-3/8"	•	•	N/A	N/A	•	•
1/2	.5000"	4-1/2"	•	•	N/A	N/A	•	•



**Aircraft Quality Stubby Length Drills**

*Made to NAS907 Specifications*



**Wire Gauge:** Sold 12 per pack (#1-60).  
**Fractional:** Sold 12 per pack (1/16"-19/64") & 6 per pack (5/16"-1/2").

**Note:** To order, select desired drill type (prefix) & add the desired drill size (suffix). **Example:** For a #40 TiN coated (135° split point) drill, the number would be **02-R41C-40T**

Wire Gauge Part Number (Prefix)				02-R41C	02-R41C_C	02-R41C_T
Size (Suffix)	Decimal Equiv.	Flute Length	Overall Length	H.S.S. (135° SP)	Cobalt (135° SP)	TiN Coated (135° SP)
1	.2280"	1-5/16"	2-7/16"	•	•	•
2	.2210"	1-5/16"	2-7/16"	•	•	•
3	.2130"	1-1/4"	2-3/8"	•	•	•
4	.2090"	1-1/4"	2-3/8"	•	•	•
5	.2055"	1-1/4"	2-3/8"	•	•	•
6	.2040"	1-1/4"	2-3/8"	•	•	•
7	.2010"	1-3/16"	2-1/4"	•	•	•
8	.1990"	1-3/16"	2-1/4"	•	•	•
9	.1960"	1-3/16"	2-1/4"	•	•	•
10	.1935"	1-3/16"	2-1/4"	•	•	•
11	.1910"	1-3/16"	2-1/4"	•	•	•
12	.1890"	1-3/16"	2-1/4"	•	•	•
13	.1850"	1-1/8"	2-3/16"	•	•	•
14	.1820"	1-1/8"	2-3/16"	•	•	•
15	.1800"	1-1/8"	2-3/16"	•	•	•
16	.1770"	1-1/8"	2-3/16"	•	•	•
17	.1730"	1-1/8"	2-3/16"	•	•	•
18	.1695"	1-1/16"	2-1/8"	•	•	•
19	.1660"	1-1/16"	2-1/8"	•	•	•
20	.1610"	1-1/16"	2-1/8"	•	•	•
21	.1590"	1-1/16"	2-1/8"	•	•	•
22	.1570"	1-1/16"	2-1/8"	•	•	•
23	.1540"	1"	2-1/16"	•	•	•
24	.1520"	1"	2-1/16"	•	•	•
25	.1495"	1"	2-1/16"	•	•	•
26	.1470"	1"	2-1/16"	•	•	•
27	.1440"	1"	2-1/16"	•	•	•
28	.1405"	15/16"	1-15/16"	•	•	•
29	.1360"	15/16"	1-15/16"	•	•	•
30	.1285"	15/16"	1-15/16"	•	•	•
31	.1200"	7/8"	1-7/8"	•	•	•
32	.1160"	7/8"	1-7/8"	•	•	•
33	.1130"	7/8"	1-7/8"	•	•	•
34	.1110"	7/8"	1-7/8"	•	•	•
35	.1100"	7/8"	1-7/8"	•	•	•
36	.1065"	13/16"	1-13/16"	•	•	•
37	.1040"	13/16"	1-13/16"	•	•	•
38	.1015"	13/16"	1-13/16"	•	•	•
39	.0995"	13/16"	1-13/16"	•	•	•
40	.0980"	13/16"	1-13/16"	•	•	•
41	.0969"	13/16"	1-13/16"	•	•	•
42	.0935"	3/4"	1-3/4"	•	•	•
43	.0890"	3/4"	1-3/4"	•	•	•
44	.0860"	3/4"	1-3/4"	•	•	•
45	.0820"	3/4"	1-3/4"	•	•	•
46	.0810"	3/4"	1-3/4"	•	•	•
47	.0785"	11/16"	1-11/16"	•	•	•
48	.0760"	11/16"	1-11/16"	•	•	•
49	.0730"	11/16"	1-11/16"	•	•	•
50	.0700"	11/16"	1-11/16"	•	•	•
51	.0670"	11/16"	1-11/16"	•	•	•
52	.0635"	11/16"	1-11/16"	•	•	•
53	.0595"	5/8"	1-5/8"	•	•	•
54	.0550"	5/8"	1-5/8"	•	•	•
55	.0520"	5/8"	1-5/8"	•	•	•
56	.0465"	1/2"	1-3/8"	•	•	•
57	.0430"	1/2"	1-3/8"	•	•	•
58	.0420"	1/2"	1-3/8"	•	•	•
59	.0410"	1/2"	1-3/8"	•	•	•
60	.0400"	1/2"	1-3/8"	•	•	•

Fractional Part Number (Prefix)				02-R40C	02-R40C_C	02-R40C_T
Size (Suffix)	Decimal Equiv.	Flute Length	Overall Length	H.S.S. (135° SP)	Cobalt (135° SP)	TiN Coated (135° SP)
1/16	.0625"	5/8"	1-5/8"	•	•	•
5/64	.0781"	11/16"	1-11/16"	•	•	•
3/32	.0938"	3/4"	1-3/4"	•	•	•
7/64	.1094"	13/16"	1-13/16"	•	•	•
1/8	.1250"	7/8"	1-7/8"	•	•	•
9/64	.1406"	15/16"	2-15/16"	•	•	•
5/32	.1562"	1"	2-1/16"	•	•	•
11/64	.1719"	1-1/16"	2-1/8"	•	•	•
3/16	.1875"	1-1/8"	2-3/16"	•	•	•
13/64	.2031"	1-3/16"	2-1/4"	•	•	•
7/32	.2188"	1-1/4"	2-3/8"	•	•	•
15/64	.2344"	1-5/16"	2-7/16"	•	•	•
1/4	.2500"	1-3/8"	2-1/2"	•	•	•
17/64	.2656"	1-7/16"	2-5/8"	•	•	•
9/32	.2812"	1-1/2"	2-11/16"	•	•	•
19/64	.2969"	1-9/16"	2-3/4"	•	•	•
5/16	.3125"	1-5/8"	2-13/16"	•	•	•
21/64	.3281"	1-11/16"	2-15/16"	•	•	•
11/32	.3438"	1-11/16"	3"	•	•	•
23/64	.3594"	1-3/4"	3-1/16"	•	•	•
3/8	.3750"	1-13/16"	3-1/8"	•	•	•
25/64	.3906"	1-7/8"	3-1/4"	•	•	•
13/32	.4062"	1-15/16"	3-5/16"	•	•	•
27/64	.4219"	2"	3-3/8"	•	•	•
7/16	.4375"	2-1/16"	3-7/16"	•	•	•
29/64	.4531"	2-1/8"	3-9/16"	•	•	•
15/32	.4688"	2-1/8"	3-5/8"	•	•	•
31/64	.4844"	2-3/16"	3-11/16"	•	•	•
1/2	.5000"	2-1/4"	3-3/4"	•	•	•

**Boelube Lubricator Bottle**

*Very Handy*



*Fits Easily In Pocket Or Toolbox*

Insert any drill, tap or reamer (non-rotating) into the 1/4" opening at the top of the bottle for quick & easy lubrication.

Part Number	Type
70104-HHL	Red Liquid



*For Specialty Composite Drill Bits See Page 89*

# AIR DRILLS & ACCESSORIES

## Jobber's Length Drill & Chucking Reamer Sets



02-C1-H



02-127S14

### Jobber's Length Drill Sets

- High performance, made in the USA.

*Sturdy Metal Case Included*

#### Drill Sets - Heavy Duty, 118° Non-Split Point

Part No.	Construction	Included Sizes	Bits
02-C13-H	High Speed Steel	1/16" to 1/4" (x 64ths)	13
02-C21-H	High Speed Steel	1/16" to 3/8" (x 64ths)	21
02-C15-H	High Speed Steel	1/16" to 1/2" (x 32nds)	15
02-C29-H	High Speed Steel	1/16" to 1/2" (x 64ths)	29
02-C1-H	High Speed Steel	#1 to #60	60
02-CAZ-H	High Speed Steel	A to Z	26
02-C115-H	High Speed Steel	1/16"-1/2", A-Z, #1-#60	115
02-C112-H*	High Speed Steel	1 to 6 mm (x 0.5 mm)	11
02-C252-H*	High Speed Steel	1 to 13 mm (x 0.5 mm)	25

#### Drill Sets - Heavy Duty, 118° Split Point

Part No.	Construction	Included Sizes	Bits
02-CB115-H	Cobalt	1/16"-1/2", A-Z, #1-#60	115
02-CT15-H*	H.S.S. TiN Coated	1/16" to 1/2" (x 32nds)	15

#### Drill Sets - Heavy Duty, 135° Split Point

Part No.	Construction	Included Sizes	Bits
02-CB13-H	Cobalt	1/16" to 1/4" (x 64ths)	13
02-CB21-H	Cobalt	1/16" to 3/8" (x 64ths)	21
02-CB15-H	Cobalt	1/16" to 1/2" (x 32nds)	15
02-CB29-H	Cobalt	1/16" to 1/2" (x 64ths)	29
02-CT29-H	H.S.S. TiN Coated	1/16" to 1/2" (x 64ths)	29
02-CB60-H	Cobalt	#1 to #60	60
02-CT60-H	H.S.S. TiN Coated	#1 to #60	60
02-CB26-H	Cobalt	A to Z	26

\* Production grade.

### Chucking Reamer Sets

- Reamers are straight shank, straight flute, right hand cut.

#### Chucking Reamer Sets

Part No. H.S.S.	Part No. Cobalt	Included Sizes	Bits
02-127S02	02-CB127S02	1/16" to 1/2" (x 64ths)	29
02-127S11	02-CB127S11	#1 to #60	60
02-127S14	02-CB127S14	A to Z	26

## Left Hand Spiral Drills



- Premium hi-molybdenum tool steel construction is gold surface treated for maximum lubricity.
- Precision ground for superb accuracy and performance.
- Ideal for removing broken studs and fasteners without extractor.

#### Left Hand Spiral Drill Packs\* - 135° Split Point

Part Number	Diameter	Flute Length	Overall Length
02-89290	3/32"	1-1/4"	2-1/4" (57 mm)
02-92440	1/8"	1-5/8"	2-3/4" (70 mm)
02-23170	5/32"	2"	3-1/8" (79 mm)
02-92450	3/16"	2-5/16"	3-1/2" (89 mm)
02-92444	7/32"	2-1/2"	3-3/4" (95 mm)
02-92460	1/4"	2-3/4"	4" (102 mm)
02-92453	9/32"	2-15/16"	4-1/4" (108 mm)
02-92470	5/16"	3-3/16"	4-1/2" (114 mm)
02-92480	3/8"	3-5/8"	5" (127 mm)

\* Drills are six per pack except for 02-92470 & 02-92480 (three per pack).

## Chipfree Acrylic Drills



Chipfree point is precision ground at 60° for gradual entry that avoids cracking. 0° rake eliminates grabbing and breakout.

#### Acrylic Drill Packs\* - 60° Point

Part Number	Diameter	Flute Length	Overall Length
02-32260	3/32"	1-5/16"	2-1/4" (57 mm)
02-31500	1/8"	1-3/8"	2-1/2" (64 mm)
02-31510	5/32"	2-3/16"	2-7/8" (73 mm)
02-31520	3/16"	2"	3-3/16" (81 mm)
02-32220	7/32"	2-9/16"	3-3/4" (95 mm)
02-31530	1/4"	2-5/16"	3-9/16" (91 mm)

\* Drills are twelve per pack. other sizes available, please inquire.

## H.S.S. Adjustable Hand Reamers



- Easily adjustable by loosening one nut and tightening the other to ream any odd sized holes - perfect for field repairs.
- Made of long lasting high speed steel with a right hand cut.

Part No.	Range Of Adjustment	Blade L.	Overall Length
02-8A	1/4" - 9/32" (6.3 - 7.1 mm)	1-11/32"	3-1/4" (82.6 mm)
02-7A	9/32" - 5/16" (7.1 - 7.9 mm)	1-11/32"	3-1/2" (88.9 mm)
02-6A	5/16" - 11/32" (7.9 - 8.7 mm)	1-1/2"	4-1/8" (104.8 mm)
02-5A	11/32" - 3/8" (8.7 - 9.5 mm)	1-1/2"	4-3/8" (111.1 mm)
02-4A	3/8" - 13/32" (9.5 - 10.3 mm)	1-1/2"	4-3/4" (120.7 mm)
02-3A	13/32" - 7/16" (10.3 - 11.1 mm)	1-1/2"	5" (127 mm)
02-2A	7/16" - 15/32" (11.1 - 11.9 mm)	1-5/8"	5-1/4" (133.4 mm)

Note: 02-8A to 02-4A are 4-flute, 02-3A & 02-2A are 6-flute.

#### 5PC Adjustable Hand Reamer Set (includes fitted case)

Part No.	Included Reamers	Range Of Adjustment
RS-AHR-4	02-8A, 02-7A, 02-6A & 02-5A	1/4" - 3/8" (6.3 - 9.5 mm)

## Chucking Reamers

### High Quality Construction

- Sizing chart used for reference only, available sizes may vary, please inquire.
- Many other styles & sizes available, please inquire.



High Speed Steel			
Type	Straight Flute	Left Spiral Flute	Right Spiral Flute
Shank	Straight	Straight	Straight
Part No. (Prefix)	700	720	740

Cobalt	
Type	Straight Flute
Shank	Straight
Part No. (Prefix)	700C

Carbide Tipped				
Type	Straight Flute	Straight Flute	Expansion Flute	Expansion Flute
Shank	Straight	Taper	Straight	Taper
Part No. (Prefix)	400	402	465	467

Solid Carbide	
Type	Straight Flute
Shank	Straight
Part No. (Prefix)	1564

Size (Suffix)	Decimal Equiv.
41	.0960"
40	.0980"
2.5mm	.0984"
39	.0995"
38	.1015"
37	.1040"
36	.1065"
7/64	.1094"
35	.1100"
34	.1110"
33	.1130"
32	.1160"
3mm	.1181"
31	.1200"
1230	.1230"
1240	.1240"
1247	.1247"
1/8	.1250"
1260	.1260"
30	.1285"
29	.1360"
3.5mm	.1378"
28	.1405"
9/64	.1406"
27	.1440"
26	.1470"
25	.1495"
24	.1520"
23	.1540"
5/32	.1562"
22	.1570"
4mm	.1575"

Size (Suffix)	Decimal Equiv.
21	.1590"
20	.1610"
19	.1660"
18	.1695"
11/64	.1719"
17	.1730"
16	.1770"
4.5mm	.1772"
15	.1800"
14	.1820"
13	.1850"
1855	.1855"
1865	.1865"
1870	.1870"
3/16	.1875"
1885	.1885"
12	.1890"
11	.1910"
10	.1935"
9	.1960"
5mm	.1968"
8	.1990"
7	.2010"
13/64	.2031"
6	.2040"
5	.2055"
4	.2090"
3	.2130"
5.5mm	.2165"
7/32	.2187"
2	.2210"
1	.2280"

Size (Suffix)	Decimal Equiv.
A	.2340"
15/64	.2344"
6mm	.2362"
B	.2380"
C	.2420"
D	.2460"
2480	.2480"
2490	.2490"
2495	.2495"
1/4	.2500"
2510	.2510"
6.5mm	.2559"
F	.2570"
G	.2610"
17/64	.2656"
H	.2660"
I	.2720"
7mm	.2756"
J	.2770"
K	.2810"
9/32	.2812"
L	.2900"
M	.2950"
7.5mm	.2953"
19/64	.2969"
N	.3020"
3105	.3105"
3115	.3115"
3120	.3120"
5/16	.3125"
3135	.3135"
8mm	.3150"

Size (Suffix)	Decimal Equiv.
O	.3160"
P	.3230"
21/64	.3281"
Q	.3320"
8.5mm	.3346"
R	.3390"
11/32	.3437"
S	.3480"
9mm	.3543"
T	.3580"
23/64	.3594"
U	.3680"
3730	.3730"
3740	.3740"
9.5mm	.3740"
3745	.3745"
3/8	.3750"
3760	.3760"
V	.3770"
W	.3860"
25/64	.3906"
10mm	.3937"
X	.3970"
Y	.4040"
13/32	.4062"
Z	.4130"
10.5mm	.4134"
27/64	.4219"
11mm	.4331"
4355	.4355"
4365	.4365"
4370	.4370"

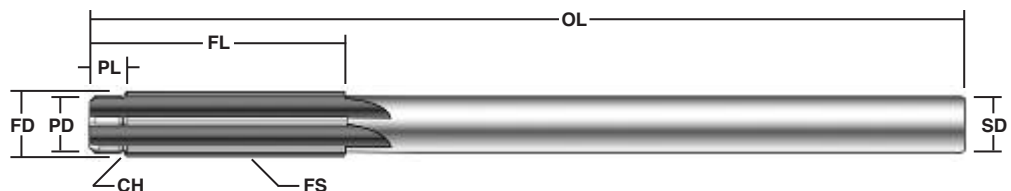
Size (Suffix)	Decimal Equiv.
7/16	.4375"
4385	.4385"
11.5mm	.4528"
29/64	.4531"
15/32	.4687"
12mm	.4724"
31/64	.4844"
12.5mm	.4921"
4980	.4980"
4990	.4990"
4995	.4995"
1/2	.5000"
5010	.5010"
13mm	.5118"
17/32	.5312"
13.5mm	.5315"
14mm	.5512"
9/16	.5625"
14.5mm	.5709"
15mm	.5906"
19/32	.5937"
15.5mm	.6102"
5/8	.6250"
16mm	.6299"
16.5mm	.6496"
21/32	.6562"
17mm	.6693"
11/16	.6875"
17.5mm	.6890"
18mm	.7087"
23/32	.7187"
18.5mm	.7283"

Size (Suffix)	Decimal Equiv.
19mm	.7480"
3/4	.7500"
19.5mm	.7677"
25/32	.7812"
20mm	.7874"
20.5mm	.8071"
13/16	.8125"
21mm	.8268"
27/32	.8437"
21.5mm	.8465"
22mm	.8661"
7/8	.8750"
22.5mm	.8858"
23mm	.9055"
29/32	.9062"
23.5mm	.9252"
15/16	.9375"
24mm	.9449"
24.5mm	.9646"
31/32	.9687"
25mm	.9843"
1	1.0000"
1-1/16	1.0625"
1-1/8	1.1250"
1-3/16	1.1875"
1-1/4	1.2500"
1-5/16	1.3125"
1-3/8	1.3750"
1-7/16	1.4375"
1-1/2	1.5000"

Key	
OL	Overall Length
FL	Flute Length
FD	Flute Diameter
FS	Flute Spiral
PL	Pilot Length
PD	Pilot Diameter
CH	Chamfer
SD	Shank Diameter

#### Basic Ordering Instructions:

Select desired reamer type from the charts at the top of the page (prefix) & add the desired reamer size from the sizing charts above (suffix). **Example:** To order a 1/4" straight flute, straight shank H.S.S. reamer, use part number **700-1/4**. Reamers ordered this way will be pilotless with geometry conforming to NAS 897 specifications. Overall length & shank diameter will vary, please inquire.



#### Custom Ordering Instructions:

Use the illustration above as a starting point - specifying only the options absolutely necessary will allow the most economical prices & the quickest turnaround. Cutting or non-cutting pilots, shanks with flats & many other options also available, please inquire.

## USATCO Angle Drills

*Affordable Close-Quarter Drilling Tools*



13-1227A-1



13-1227A-2



13-1227A-3

- Steel alloy cylinder & rotor for long tool life.
- Precision machined for smooth & quiet operation.
- Milled motor housing - rear exhaust.

90° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-1	3000	8-1/4" (210 mm)	1.25 lbs (0.6 kgs)

45° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-2	3000	9" (229 mm)	1.25 lbs (0.6 kgs)

360° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-3	3000	8-3/4" (222 mm)	1.25 lbs (0.6 kgs)

Note: All models air inlet 1/4" NPT.



13-1227A-1EXT

13-1227A-2EXT

*Made In The USA*

### Extension Angle Drills

- Features an extra-long drill head perfect for inaccessible areas.

90° Extension - 1/4" Cap., 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-1EXT	3000	13-3/8" (340 mm)	2.0 lbs (0.9 kgs)

45° Extension - 1/4" Cap., 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-1227A-2EXT	3000	14-7/8" (378 mm)	2.0 lbs (0.9 kgs)

Note: Extension drills also available with 9/32"-40 thread, please inquire.

## Desoutter® Compact Angle Drills



DR300-T3000-S5-90



DR300-T3000-S5-30



DR300-T3000-S5-360

*High Precision, Durable  
Drills For Long Life*

- Durable five blade motor with long life bearings.
- Lightweight and ergonomic composite grip.
- Fixed air inlet prevents foreign object damage.

Note: Compact lever start & 9/32"-40 thread avail., please inquire.

90° Angle - 3/16" Capacity, Collet Spindle - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-T5-90	3000	10-3/4" (273 mm)	1.4 lbs (0.6 kgs)

90° Angle - 3/16" Capacity, 1/4"-28 Thread - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-S5-90	3000	10-3/4" (273 mm)	1.4 lbs (0.6 kgs)

30° Angle - 3/16" Capacity, Collet Spindle - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-T5-30	3000	11-1/4" (286 mm)	1.4 lbs (0.6 kgs)

30° Angle - 3/16" Capacity, 1/4"-28 Thread - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-S5-30	3000	11-1/8" (283 mm)	1.4 lbs (0.6 kgs)

360° Angle - 3/16" Capacity, Collet Spindle - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-T5-360	3000	11-1/8" (283 mm)	1.5 lbs (0.7 kgs)

360° Angle - 3/16" Capacity, 1/4"-28 Thread - 0.4 hp (0.3 kW)			
Part Number	Free RPM	Overall Length	Weight
DR300-T3000-S5-360	3000	11-1/4" (286 mm)	1.5 lbs (0.7 kgs)

## Dotco® Angle Drills

### Comfortable Textured Grip



15LF283-62

- Vibration & noise reducing ergonomic design.
- Thermal insulated handle.

Composite Housing, 1/4" Cap., 1/4"-28 Thread - 0.4 hp (0.30 kW)			
Part Number* Rear Exhaust	Free RPM	Overall Length	Weight
15LF281-62	5300	10.7" (272 mm)	1.6 lbs (0.73 kgs)
15LF282-62	4000	10.7" (272 mm)	1.6 lbs (0.73 kgs)
15LF283-62	3300	10.7" (272 mm)	1.6 lbs (0.73 kgs)
15LF284-62	2400	11.1" (282 mm)	1.8 lbs (0.82 kgs)
15LF285-62	1000	11.8" (300 mm)	1.9 lbs (0.86 kgs)
15LF286-62	750	11.8" (300 mm)	1.9 lbs (0.86 kgs)
15LF287-62	600	11.8" (300 mm)	1.9 lbs (0.86 kgs)

'600' Mini Angle Head	
Suffix	Spindle Thd.
-61	10-32
-62 (standard)	1/4"-28
-63	9/32"-40
-64	5/16"-24

360° Mini Angle Head	
Suffix	Spindle Thd.
-91	10-32
-92	1/4"-28
-93	9/32"-40
-94	5/16"-24

45° Mini Angle Head	
Suffix	Spindle Thd.
-41	10-32
-42	1/4"-28
-43	9/32"-40
-44	5/16"-24

'700' Compact Angle Head	
Suffix	Spindle Thd.
-71	10-32
-72	1/4"-28
-73	9/32"-40
-74	5/16"-24

\* Standard equipment is the 600 Series Mini Angle Head with 1/4"-28 internal thread (-62). To order other head types/sizes please select from the charts above the correct suffix required. **Example:** For a 360° Mini Angle Head with a 10-32 internal thread at 5300 RPM, the part number would be **15LF281-91** instead of 15LF281-62 (standard).

## Sioux® 360° Angle Drill



*Lockable Angle Head  
Provides Full 360° Rotation*

- Lever start, rear exhaust.
- Accepts straight shank bits up to 1/4".

1/4" Capacity - 0.75 hp (0.56 kW)			
Part Number	Free RPM	Overall Length	Weight
SDR10S40N360	4000	12-1/2" (318 mm)	2.7 lbs (1.3 kgs)

## Dotco® Heavy-Duty Angle Drills

### Comfortable Textured Grip



15LN288-52

- Great tool for tough jobs not suitable for lighter models.
- Extra powerful motor & sturdy angle head.
- Vibration & noise reducing ergonomic design.
- Thermal insulated handle.

Composite Housing, 1/4" Cap., 1/4"-28 Thread - 0.4 hp (0.30 kW)			
Part Number* Rear Exhaust	Free RPM	Overall Length	Weight
15LN288-52	3900	11.5" (292 mm)	2.6 lbs (1.18 kgs)
15LN281-52	3500	11.5" (292 mm)	2.6 lbs (1.18 kgs)
15LN283-52	1300	11.5" (292 mm)	2.6 lbs (1.18 kgs)
15LN284-52	1070	12.8" (325 mm)	3.0 lbs (1.36 kgs)
15LN285-52	870	12.8" (325 mm)	3.0 lbs (1.36 kgs)
15LN286-52	540	12.8" (325 mm)	3.0 lbs (1.36 kgs)

'500' Heavy-Duty Angle Head	
Suffix	Spindle Thd.
-51	10-32
-52 (standard)	1/4"-28
-53	9/32"-40
-54	5/16"-24

'500' Heavy-Duty Angle Head	
Suffix	Spindle Thd.
-55	3/8"-24
-59	3-Jaw Chuck
-59NC	3/8"-24 Male

\* Standard equipment is the 500 Series Heavy-Duty Angle Head with 1/4"-28 internal thread (-52). To order other head types/sizes please select from the charts above the correct suffix required. **Example:** For a Heavy-Duty Angle Head with a 10-32 internal thread at 3900 RPM, the part number would be **15LN288-51** instead of 15LN288-52 (standard).

## Sioux® Heavy-Duty Angle Drills



3A1240



*Strongest Gears In Its Class*

- Rugged construction & dependable service.
- Includes keyed chuck.
- Non-reversible (reversible available, please inquire).

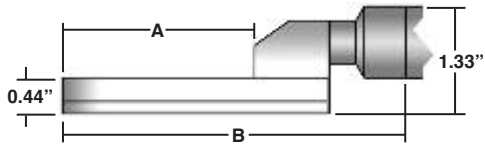
1/4" Cap. Chuck, 3/8"-24 Thread - 1.0 hp (0.75 kW) - Rear Exhaust			
Part Number	Free RPM	Overall Length	Weight
SDR10A22N2	2200	10.2" (260 mm)	2.9 lbs (1.3 kgs)

1/2" Cap. Chuck, 1/2"-20 Thread - 1.0 hp (0.75 kW) - Side Exhaust			
Part Number	Free RPM	Overall Length	Weight
3A1240	600	15-1/8" (384 mm)	6.5 lbs (2.9 kgs)

## AIR DRILLS & ACCESSORIES

### USATCO Offset 'Pancake' Angle Air Drills

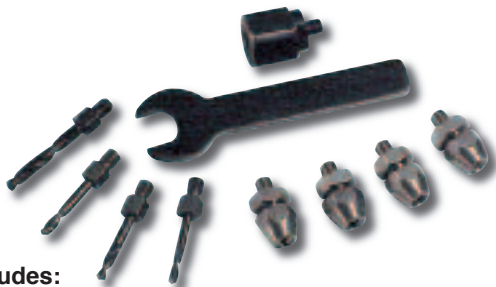
*Smooth, Quiet Operation*



Steel alloy cylinder & rotor, precision milled motor housing.

90° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)					
Part Number	Free RPM	Clearance (A)	Offset Length (B)	Overall Length	Weight
13-1627	3000	2.44"	4.81"	11" (279 mm)	2.0 lbs (0.91 kgs)
13-1629	3000	3.79"	6.16"	12.35" (314 mm)	2.1 lbs (0.95 kgs)
13-1631	3000	5.13"	7.50"	13.69" (348 mm)	2.3 lbs (1.04 kgs)

### Angle Drill Upgrade Kit



**Kit Includes:**

Four Adapter Drills (#10, #21, #30 & #40), Four Collet Chucks (#10, #21, #30 & #40), Cone Jaw Chuck & Wrench

Part Number	Description
53-99757	Complete 10 PC Kit

### Cone-Jaw Chuck With Wrench

- Light-duty tool fits most angle drills with female thread.
- Use standard drills with any threaded spindle tool.



Part Number	Capacity	Thread
53-M3	1/16" to 1/4"	1/4"-28

### Economy Angle Drills

*Affordable Close Quarter Drilling Tools*



90° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-9750	2800	10-1/2" (267 mm)	1.6 lbs (0.7 kgs)

45° Angle - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-9751	2800	11" (279 mm)	1.6 lbs (0.7 kgs)

### Extended Reach Economy Angle Drill

*Extra Length For Tight Areas*



90° Extended - 1/4" Capacity, 1/4"-28 Thread - 0.3 hp (0.22 kW)			
Part Number	Free RPM	Overall Length	Weight
13-9752	2800	13-1/4" (337 mm)	1.8 lbs (0.8 kgs)

### USATCO Collet Chucks

*1/4"-28 Thread*



Integral units hold one size only, sub adapter not required.

Part Number	Size	Part Number	Size
20-4010	#10	20-4013	3/32"
20-4011	#11	20-4014	1/8"
20-4020	#20	20-4015	5/32"
20-4021	#21	20-4016	3/16"
20-4027	#27	20-4017	7/32"
20-4030	#30	20-4018	1/4"
20-4040	#40	20-41516	5/16"
20-4257	F	20-41318	3/8"

4 PC Collet Chuck Kit	
Part Number	Sizes Included
53-92964	#10, #21, #30 & #40

## Collets

- For use on all 9/32"-40 internal thread drills.
- Suitable for Desoutter & Atlas Copco drills.



Wire Gauge Sizes		
Part No.	Size	Decimal
AD040	60	.0400"
AD041	59	.0410"
AD042	58	.0420"
AD043	57	.0430"
AD0465	56	.0465"
AD052	55	.0520"
AD055	54	.0550"
AD0595	53	.0595"
AD0635	52	.0635"
AD067	51	.0670"
AD070	50	.0700"
AD073	49	.0730"
AD076	48	.0760"
AD0785	47	.0785"
AD081	46	.0810"
AD082	45	.0820"
AD086	44	.0860"
AD089	43	.0890"
AD0935	42	.0935"
AD096	41	.0960"
AD098	40	.0980"
AD0995	39	.0995"
AD1015	38	.1015"
AD1040	37	.1040"
AD1065	36	.1065"
AD110	35	.1100"

Wire Gauge Sizes		
Part No.	Size	Decimal
AD111	34	.1110"
AD113	33	.1130"
AD116	32	.1160"
AD120	31	.1200"
AD1285	30	.1285"
AD136	29	.1360"
AD1405	28	.1405"
AD144	27	.1440"
AD147	26	.1470"
AD1495	25	.1495"
AD152	24	.1520"
AD154	23	.1540"
AD157	22	.1570"
AD159	21	.1590"
AD161	20	.1610"
AD166	19	.1660"
AD1695	18	.1695"
AD1730	17	.1730"
AD177	16	.1770"
AD180	15	.1800"
AD182	14	.1820"
AD185	13	.1850"
AD189	12	.1890"
AD191	11	.1910"
AD1935	10	.1935"
AD1960	9	.1960"

Metric Sizes		
Part No.	Size	Decimal
AD0315	0.8	.0315"
AD0354	0.9	.0354"
AD0394	1.0	.0394"
AD0433	1.1	.0433"
AD0472	1.2	.0472"
AD0512	1.3	.0512"
AD0551	1.4	.0551"
AD0591	1.5	.0591"
AD0630	1.6	.0630"
AD0669	1.7	.0669"
AD0709	1.8	.0709"
AD0748	1.9	.0748"
AD0787	2.0	.0787"
AD0827	2.1	.0827"
AD0866	2.2	.0866"
AD0906	2.3	.0906"
AD0945	2.4	.0945"
AD0984	2.5	.0984"
AD1024	2.6	.1024"
AD1063	2.7	.1063"
AD1102	2.8	.1102"
AD1142	2.9	.1142"
AD1181	3.0	.1181"
AD1220	3.1	.1220"
AD1260	3.2	.1260"
AD1299	3.3	.1299"
AD1339	3.4	.1339"
AD1378	3.5	.1378"
AD1417	3.6	.1417"

Metric Sizes		
Part No.	Size	Decimal
AD1457	3.7	.1457"
AD1496	3.8	.1496"
AD1535	3.9	.1535"
AD1575	4.0	.1575"
AD1614	4.1	.1614"
AD1654	4.2	.1654"
AD1693	4.3	.1693"
AD1732	4.4	.1732"
AD1772	4.5	.1772"
AD1811	4.6	.1811"
AD1850	4.7	.1850"
AD1890	4.8	.1890"
AD1929	4.9	.1929"
AD1969	5.0	.1969"

Fractional Sizes		
Part No.	Size	Decimal
AD0312	1/32"	.0312"
AD0469	3/64"	.0469"
AD0625	1/16"	.0625"
AD0781	5/64"	.0781"
AD0937	3/32"	.0937"
AD1094	7/64"	.1094"
AD125	1/8"	.1250"
AD1406	9/64"	.1406"
AD1562	5/32"	.1562"
AD1719	11/64"	.1719"
AD1875	3/16"	.1875"

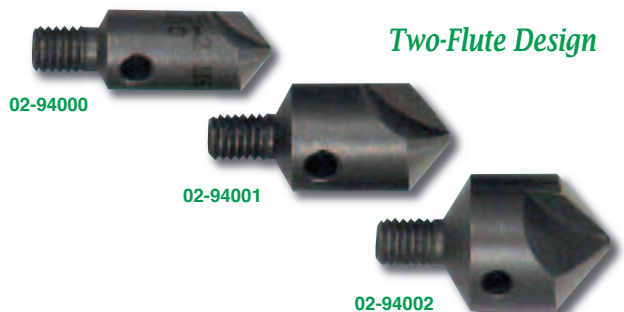
## H.S.S. Threaded Shank Reamers



- 1/4"-28 shank thread.
- No pilot.

Part Number	Diameter	Decimal Equiv.	Overall Length
02-96503	#10	.1935"	5/8" (16 mm)
02-96502	#13	.1850"	5/8" (16 mm)
02-96501	#21	.1590"	5/8" (16 mm)
02-96499	#30	.1285"	5/8" (16 mm)
02-96505	1/4"	.2500"	5/8" (16 mm)
02-96567	#10	.1935"	1" (25.4 mm)
02-96566	#13	.1850"	1" (25.4 mm)
02-96565	#21	.1590"	1" (25.4 mm)
02-96564	#30	.1285"	1" (25.4 mm)
02-96568	1/4"	.2500"	1" (25.4 mm)

## Threaded Shank 'Rosebud' C'sink Cutters



*Two-Flute Design*

For angle drills, drill attachments & similar threaded shank tools.

1/4"-28 Shank Thread, 100° Cutting Angle	
Part Number	Diameter
02-94000	3/8"
02-94001	1/2"
02-94002	5/8"

## Threaded Shank Adapter Drills

### High Speed Steel Adapter Drills

Drills are manufactured to NAS 965 Type 'B' construction with 135° split points. Great for drilling general to medium duty, low tensile strength materials in confined areas.

### Cobalt Adapter Drills

Drills are manufactured to NAS 965 Type 'D' construction with 135° heavy duty split points and surface treated. Made from M42 8% cobalt high speed steel. Great for drilling hard, tough high tensile strength materials in confined areas. When drilling low tensile strength materials these drills will have a significantly greater tool life than standard H.S.S., resulting in a much lower cost per drill.



*10-32 Thread Drills On Next Page*

**Note:** Carbide drills, PCD drills, & custom drill sizes also available, please inquire.

Adapter Drills, 1/4"-28 Shank Thread							
Drill Size	Decimal Equivalent	H.S.S. Stubby 3/4" OAL	H.S.S. Short 1-1/4" OAL	H.S.S. Long 2-1/8" OAL	Cobalt Stubby 3/4" OAL	Cobalt Short 1-1/4" OAL	Cobalt Long 2-1/8" OAL
2.3 mm	.0906"	02-2924-2.3	02-2964-2.3	02-2974-2.3	02-2924-2.3C	02-2964-2.3C	02-2974-2.3C
3/32"	.0938"	02-2921-3/32	02-2961-3/32	02-2971-3/32	02-2921-3/32C	02-2961-3/32C	02-2971-3/32C
40	.0980"	02-2922-40	02-2962-40	02-2972-40	02-2922-40C	02-2962-40C	02-2972-40C
3.17 mm	.1248"	02-2924-3.17	02-2964-3.17	02-2974-3.17	02-2924-3.17C	02-2964-3.17C	02-2974-3.17C
1/8"	.1250"	02-2921-1/8	02-2961-1/8	02-2971-1/8	02-2921-1/8C	02-2961-1/8C	02-2971-1/8C
30	.1285"	02-2922-30	02-2962-30	02-2972-30	02-2922-30C	02-2962-30C	02-2972-30C
27	.1440"	02-2922-27	02-2962-27	02-2972-27	02-2922-27C	02-2962-27C	02-2972-27C
3.96 mm	.1559"	02-2924-3.96	02-2964-3.96	02-2974-3.96	02-2924-3.96C	02-2964-3.96C	02-2974-3.96C
5/32"	.1562"	02-2921-5/32	02-2961-5/32	02-2971-5/32	02-2921-5/32C	02-2961-5/32C	02-2971-5/32C
21	.1590"	02-2922-21	02-2962-21	02-2972-21	02-2922-21C	02-2962-21C	02-2972-21C
20	.1610"	02-2922-20	02-2962-20	02-2972-20	02-2922-20C	02-2962-20C	02-2972-20C
16	.1770"	02-2922-16	02-2962-16	02-2972-16	02-2922-16C	02-2962-16C	02-2972-16C
4.76 mm	.1874"	02-2924-4.76	02-2964-4.76	02-2974-4.76	02-2924-4.76C	02-2964-4.76C	02-2974-4.76C
3/16"	.1875"	02-2921-3/16	02-2961-3/16	02-2971-3/16	02-2921-3/16C	02-2961-3/16C	02-2971-3/16C
11	.1910"	02-2922-11	02-2962-11	02-2972-11	02-2922-11C	02-2962-11C	02-2972-11C
10	.1935"	02-2922-10	02-2962-10	02-2972-10	02-2922-10C	02-2962-10C	02-2972-10C
3	.2130"	02-2922-3	02-2962-3	02-2972-3	02-2922-3C	02-2962-3C	02-2972-3C
7/32"	.2188"	02-2921-7/32	02-2961-7/32	02-2971-7/32	02-2921-7/32C	02-2961-7/32C	02-2971-7/32C
D	.2460"	02-2923-D	02-2963-D	02-2973-D	02-2923-DC	02-2963-DC	02-2973-DC
1/4"	.2500"	02-2921-1/4	02-2961-1/4	02-2971-1/4	02-2921-1/4C	02-2961-1/4C	02-2971-1/4C
6.35 mm	.2500"	02-2924-6.35	02-2964-6.35	02-2974-6.35	02-2924-6.35C	02-2964-6.35C	02-2974-6.35C
F	.2570"	02-2923-F	02-2963-F	02-2973-F	02-2923-FC	02-2963-FC	02-2973-FC
G	.2610"	02-2923-G	02-2963-G	02-2973-G	02-2923-GC	02-2963-GC	02-2973-GC
17/64"	.2656"	02-2921-17/64	02-2961-17/64	02-2971-17/64	02-2921-17/64C	02-2961-17/64C	02-2971-17/64C
J	.2770"	02-2923-J	02-2963-J	02-2973-J	02-2923-JC	02-2963-JC	02-2973-JC
9/32"	.2812"	02-2921-9/32	02-2961-9/32	02-2971-9/32	02-2921-9/32C	02-2961-9/32C	02-2971-9/32C
5/16"	.3125"	02-2921-5/16	02-2961-5/16	02-2971-5/16	02-2921-5/16C	02-2961-5/16C	02-2971-5/16C
8 mm	.3150"	02-2924-8	02-2964-8	02-2974-8	02-2924-8C	02-2964-8C	02-2974-8C
3/8"	.3750"	02-2921-3/8	02-2961-3/8	02-2971-3/8	02-2921-3/8C	02-2961-3/8C	02-2971-3/8C



**Threaded Shank Adapter Drills (cont'd)**

Adapter Drills, 10-32 Shank Thread							
Drill Size	Decimal Equivalent	H.S.S. Stubby 3/4" OAL	H.S.S. Short 1-1/4" OAL	H.S.S. Long 2-1/8" OAL	Cobalt Stubby 3/4" OAL	Cobalt Short 1-1/4" OAL	Cobalt Long 2-1/8" OAL
3/32"	.0938"	02-2621-3/32	02-2941-3/32	02-2951-3/32	02-2621-3/32C	02-2941-3/32C	02-2951-3/32C
40	.0980"	02-2622-40	02-2942-40	02-2952-40	02-2622-40C	02-2942-40C	02-2952-40C
1/8"	.1250"	02-2621-1/8	02-2941-1/8	02-2951-1/8	02-2621-1/8C	02-2941-1/8C	02-2951-1/8C
30	.1285"	02-2622-30	02-2942-30	02-2952-30	02-2622-30C	02-2942-30C	02-2952-30C
27	.1440"	02-2622-27	02-2942-27	02-2952-27	02-2622-27C	02-2942-27C	02-2952-27C
5/32"	.1562"	02-2621-5/32	02-2941-5/32	02-2951-5/32	02-2621-5/32C	02-2941-5/32C	02-2951-5/32C
21	.1590"	02-2622-21	02-2942-21	02-2952-21	02-2622-21C	02-2942-21C	02-2952-21C
20	.1610"	02-2622-20	02-2942-20	02-2952-20	02-2622-20C	02-2942-20C	02-2952-20C
16	.1770"	02-2622-16	02-2942-16	02-2952-16	02-2622-16C	02-2942-16C	02-2952-16C
3/16"	.1875"	02-2621-3/16	02-2941-3/16	02-2951-3/16	02-2621-3/16C	02-2941-3/16C	02-2951-3/16C
11	.1910"	02-2622-11	02-2942-11	02-2952-11	02-2622-11C	02-2942-11C	02-2952-11C
10	.1935"	02-2622-10	02-2942-10	02-2952-10	02-2622-10C	02-2942-10C	02-2952-10C
3	.2130"	02-2622-3	02-2942-3	02-2952-3	02-2622-3C	02-2942-3C	02-2952-3C
7/32"	.2188"	02-2621-7/32	02-2941-7/32	02-2951-7/32	02-2621-7/32C	02-2941-7/32C	02-2951-7/32C
1/4"	.2500"	02-2621-1/4	02-2941-1/4	02-2951-1/4	02-2621-1/4C	02-2941-1/4C	02-2951-1/4C
17/64"	.2656"	02-2621-17/64	02-2941-17/64	—	—	—	—
9/32"	.2812"	02-2621-9/32	02-2941-9/32	—	—	—	—
5/16"	.3125"	02-2621-5/16	02-2941-5/16	02-2951-5/16	02-2621-5/16C	—	—
3/8"	.3750"	—	—	02-2951-3/8	02-2621-3/8C	—	—

**Threaded Shank Adapter Drill Sets**

*1/4"-28  
Threaded  
Shank*

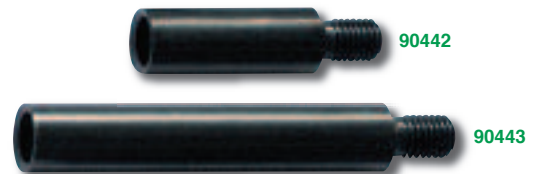


Stubby 4 PC Sets	
Part Number	Included Sizes (1 each)
53-2921	3/32", 1/8", 5/32" & 3/16"
53-2922	#10, #21, #30 & #40

Short 4 PC Sets	
Part Number	Included Sizes (1 each)
53-2961	3/32", 1/8", 5/32" & 3/16"
53-2962	#10, #21, #30 & #40

Long 4 PC Sets	
Part Number	Included Sizes (1 each)
53-2971	3/32", 1/8", 5/32" & 3/16"
53-2972	#10, #21, #30 & #40

**Threaded Shank Countersink Extensions**



- Versatile - for use with countersinks, drill bits etc.
- 1/4"-28 threaded shank & 1/4"-28 female thread.

Part Number	Body Length	Body Dia.	Shank Length
90442	1" (25.4 mm)	3/8"	5/16"
90443	2" (50.8 mm)		
90444	4" (101.6 mm)		

**Threaded Shank Adapters**



Part Number	Converts
20-90409	1/4"-28 Male Thread To 9/32"-40 Female Thread
20-90411	9/32"-40 Male Thread To 1/4"-28 Female Thread
20-90413	1/4"-28 Male Thread To 10-32 Female Thread

# AIR DRILLS & ACCESSORIES

## USATCO Rivet Removal Tools

*Solid Aluminum Construction*



53-410

*Essential For Repair Work*

Adjustable drill-out assembly limits penetration to rivet, not beyond.

Standard Rivet Removal Tool	
Part Number	Description
53-400	Tool, Guides & 4 Bits (#10, #21, #30 & #40)

### Blind Rivet Removal Tool

- Serrated end cup prevents slippage while drilling rivets.
- For POP, Adel, Cherry blind rivets etc.
- Not for use with steel stemmed blind rivets.

Blind Rivet Removal Tool	
Part Number	Description
53-410	Tool, Guides & 4 Bits (3/32", 1/8", 5/32" & 3/16")

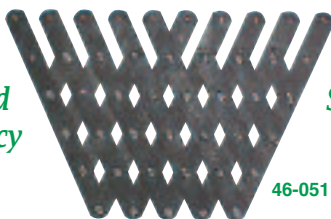
Replacement Bits	
Part Number	Description
02-2972-10	#10
02-2972-21	#21
02-2972-30	#30
02-2972-40	#40

Replacement Bits	
Part Number	Description
02-2971-3/32	3/32"
02-2971-1/8	1/8"
02-2971-5/32	5/32"
02-2971-3/16	3/16"

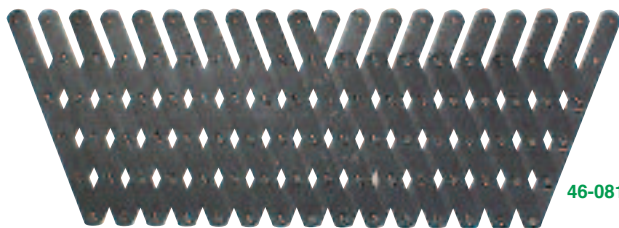
## Rivet Fan Spacing Tools

*Unequalled For Accuracy*

*Save Lots Of Time*



46-051



46-081

- Used for layout & marking of equally spaced rivet holes.
- Hole spacing from 1/2" (13 mm) closed to 2" (51 mm) open.

Part Number	Type	Fingers	Open Length
46-081	Standard	20	38" (97 cm)
46-051	Mini	10	18" (46 cm)

## Strap Duplicators

Tapered back end is convenient for prying apart sheets.



Punch Type

Punch Type (marks sheet from hidden pilot hole)		
Part Number 6-1/4" Reach ('L')	Part Number 13-1/4" Reach ('L')	Drill Size & Pilot Diameter
46-230-1	46-230-21	#40
46-230-2	46-230-22	#30
46-230-3	46-230-23	#21
46-230-4	46-230-24	#19
46-230-5	46-230-25	#10
46-230-6	46-230-26	#5
46-230-7	46-230-27	1/4"
46-230-8	46-230-28	F



Bushing Type

Bushing Type (with jig, drill duplicate holes from overlapping sheet)		
Part Number 6-1/4" Reach ('L')	Part Number 13-1/4" Reach ('L')	Drill Size & Pilot Diameter
46-231-1	46-231-21	#40
46-231-2	46-231-22	#30
46-231-3	46-231-23	#21
46-231-4	46-231-24	#19
46-231-5	46-231-25	#10
46-231-6	46-231-26	#5
46-231-7	46-231-27	1/4"
46-231-8	46-231-28	F



Bushing Inverted Pilot Type

Bushing Inverted Pilot Type (bushing type with inverted pilot)		
Part Number 6-1/4" Reach ('L')	Part Number 13-1/4" Reach ('L')	Drill Size & Pilot Diameter
46-232-1	46-232-21	#40
46-232-2	46-232-22	#30
46-232-3	46-232-23	#21
46-232-4	46-232-24	#19
46-232-5	46-232-25	#10
46-232-6	46-232-26	#5
46-232-7	46-232-27	1/4"
46-232-8	46-232-28	F

## Strap Duplicator Sets



Part Number	Type	Includes (1 each):
53-70369	Bushing, 6-1/4" Reach	46-231-1, 2, 3 & 5
53-70370	Bushing, 13-1/4" Reach	46-231-21, 22, 23 & 25
53-70371	Inverted, 6-1/4" Reach	46-232-1, 2, 3 & 5
53-70372	Inverted, 13-1/4" Reach	46-232-21, 22, 23 & 25

## Chip Chasers



Easily remove chips between sheets after drilling rivet holes.

Part Number	Blade Length
04-100	2-3/4"
04-200	5-7/8"

## Drill Stand Kit

*Fitted Case Helps Prevent F.O.D.*



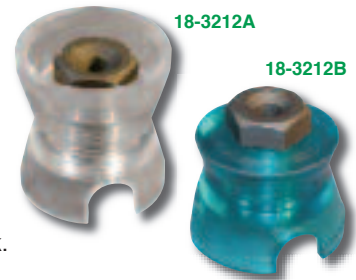
### Kit Includes:

Three Housings, Nine Bushings (#40, #30, #21, #10, 5/32", 3/16", 7/32", 1/4" & F) & Fitted Plastic Case

Part Number	Description
53-590DBK	Complete 13 PC Kit

## Drill Stands & Threaded Bushings

*Interchangeable & Hardened Bushings*



- Keeps your drills & taps perpendicular to work surface.
- No-mar transparent plastic allows a clear view of the work.

Drill Stands (order bushings below)			
Part Number	Type	Thread	Height*
18-3212A	Standard	1/2"-13	1-5/8"
18-3212B	Low-Profile	1/2"-13	1-1/8"
18-3215A	Large Diameter	3/4"-16	1-3/4"

1/2"-13 Thread Bushings		3/4"-16 Thread Bushings	
Part Number	Drill Size	Part Number	Drill Size
18-1213-40	#40	18-1215-9/32	9/32"
18-1213-3/32	3/32"	18-1215-5/16	5/16"
18-1213-30	#30	18-1215-11/32	11/32"
18-1213-1/8	1/8"	18-1215-3/8	3/8"
18-1213-21	#21	18-1215-7/16	7/16"
18-1213-5/32	5/32"	18-1215-1/2	1/2"
18-1213-10	#10		
18-1213-3/16	3/16"		
18-1213-7/32	7/32"		
18-1213-1/4	1/4"		

\* Height of low-profile stand less bushing.

## Drill Stand & Slip Bushings

*Clear & Durable Lexan Stand*



- New and improved design.
- Steel liner with bushing lock holds industry standard 1/2" OD slip bushings.
- Bushings are 3/4" long.

18-1049

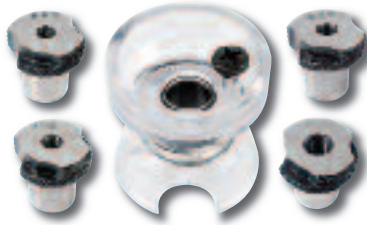
Drill Stand (order bushings below)	
Part Number	Height
18-5210	1-3/4"

1/2" OD Slip Bushings		1/2" OD Slip Bushings	
Part Number	Drill Size	Part Number	Drill Size
18-1040	#40	18-1045	5/32"
18-1041	3/32"	18-1046	#10
18-1042	#30	18-1047	3/16"
18-1043	1/8"	18-1048	7/32"
18-1044	#21	18-1049	1/4"

## AIR DRILLS & ACCESSORIES

### Drill Stand & Slip Bushing Sets

Clear &  
Durable  
Lexan  
Stand



Made In  
The USA



**5 PC Number Set Includes:** 53-16070

Drill Stand & Four Slip Bushings (#10, #21, #30 & #40)

**5 PC Fractional Set Includes:**

Drill Stand & Four Slip Bushings (3/32", 1/8", 5/32" & 3/16")

**10 PC Set Includes:**

Drill Stand & Five Slip Bushings (#10, #21, #30, #40, 3/32", 1/8", 5/32", 3/16" & 1/4")

Part Number	Description
53-16070	5 PC Number Set
53-16071	5 PC Fractional Set
53-16075	10 PC Piece Set

### Drill Stand & Slip Bushing Kit



**18 PC Kit Includes:**

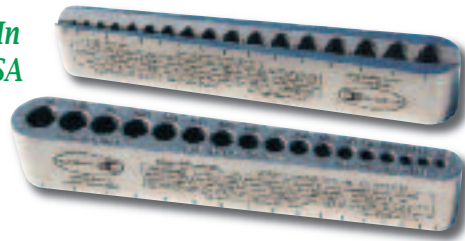
*Custom Fitted Case*

Drill Stand, 16 Slip Bushings (#8, #10, #13, #16, #20, #21, #27, #30, #40, 3/32", 1/8", 5/32", 3/16", 1/4", 5/16" & "D") & Case

Part Number	Description
53-16045	18 PC Set

### Big Gator Drill Guide

Made In  
The USA

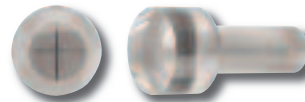


- Durable heat-treated, alloyed steel construction.
- 17 holes with marked centerlines for proper hole alignment.
- "V" groove on bottom for easy drilling on corners and rounds.

Part Number	Type	Range (increments)	Dimensions
18-70416	Fractional	1/8" to 3/8" (1/64")	5-1/2" L 7/8" W 7/8" H
18-70423	Metric	3 to 9.5mm (0.5mm)*	

\* Metric guide also includes 3.3, 4.2 and 6.8mm holes.

### "Bombsite" Precision Optical Hole Locator



- Made of virtually unbreakable optical grade clear acrylic.
- Permanently etched crosshairs provide an extremely accurate and magnified reference point accurate to  $\pm 0.001"$  of dead center.
- Works with all standard 1/2" diameter slip bushing tools.

Part Number	Diameter
70349	1/2" (12.7mm)

### Drill Bar



- This adjustable, slip-type drill bar provides accurate placement and alignment of drilled holes. Includes lock screw and liner.
- Use it with the spotter (above) to center the drill bar within  $\pm 0.001"$ . Once centered replace the spotter with a slip bushing and drill.

Part Number	Dimensions
70346	6"L x 1-1/2"W x 3/4"H

### Threaded Channel Drill Stands

- Keep drills a perfect 90° to the work surface.
- Use with 1/2"-13 threaded bushings offered on previous page.
- Three hole type allows more efficient work with multiple bushings ready to go.
- Bottom feet allow for quick chip ejection.



Part Number	Type
18-13186	One Hole
18-13187	Three Hole

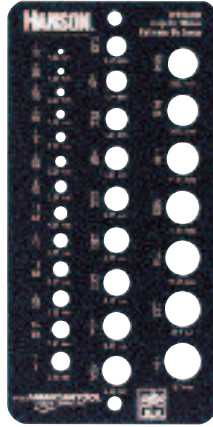
18-13186

**Drill Gauges**

*Conforms To Gov't Spec GG-G86b*

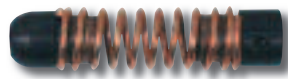
- Made of heavy gauge steel, machined & ground to close tolerances.
- Text of hole sizes & decimal equivalents permanently etched into face for long life.

Part No.	Drill Types & Sizes
18-12	Letter (A to Z)
18-13	Number (61 to 80) & (3" to 1-1/8")
18-14	Fractional (1/16" to 1/2" x 64ths)
18-14E	Same As Above, Easy Read Type
18-15	Number (1 to 60)
18-15E	Same As Above, Easy Read Type
18-35	Metric (to 13 mm x .05 mm)



18-14E

**Drill Stops**



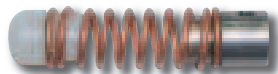
18-DS-20

- Prevents work damage from uncontrolled drill breakthru.
- Positive stop, spring cushioned contact.

Part No.	Drill Size	O.A.L.
18-DS-21	#21	1-1/2" (38 mm)
18-DS-20	#20	
18-DS-17	#17	
18-DS-16	#16	
18-DS-12	#12	
18-DS-11	#11	
18-DS-10	#10	
18-DS-6	#6	
18-DS-1	#1	2-1/8" (54 mm)
18-DS-1/4	1/4"	
18-DS-5/16	5/16"	
18-DS-7/32	7/32"	
18-DS-9/32	9/32"	
18-DS-3/8	3/8"	
18-DS-7/16	7/16"	

Part No.	Drill Size	O.A.L.
18-DS-50	#50	1-5/16" (33 mm)
18-DS-41	#41	
18-DS-40	#40	
18-DS-30	#30	
18-DS-28	#28	
18-DS-27	#27	

Drill Stop 4 PC Set	
Part Number	Included Sizes (1 each)
53-1234	#10, #21, #30, #40



18-DS-20NM

**No-Mar Drill Stops**

- Unique rounded plastic face eliminates surface marring.
- Color coded, locks on drill with two set screws.

Part Number	Color	Size	Part Number	Color	Size
18-DS-40NM	Zinc	#40	18-DS-20NM	Zinc	#20
18-DS-30NM	Copper	#30	18-DS-10NM	Brass	#10
18-DS-21NM	Black	#21	18-DS-1/4NM	Copper	1/4"

**Hi-Shear Ultralite® Nutplate Air Drill**



*Fully Adjustable Feed Rate*

*Lightweight Design*

*Many Tooling Options Available, For Ordering & Pricing Info Please Inquire*

- Only one hand required to locate, drill & countersink both holes.
- Easily convert rivet spacings with interchangeable foot attachments.
- Available in single wing, double wing & mickey mouse models.
- Accommodates all nutplate spindle spacings from 0.219" to 1.125".
- Available in both 600 & 7000 RPM models (please specify).

Specifications	
Drill Stroke Length	1/2"
Available Spindle Speeds	600 and 7000 RPM
Collet Stroke Length	1/4"
Horsepower	0.54
Feed Rate Change	0.001" - 0.012" Per Revolution
Weight	4.75 lbs (2.2 kgs)

**H.S.S. Nut Plate Drill Bits**



- 100° countersink, 8-32 thread.
- Cobalt nut plate drill bits also available, please inquire.

'L' Dim. = 0.295"		
Part Number	Countersink Dia.	Drill Diameter
40-100-25-8	.187"	.0980"
S40-100-25-8	.250"	.0980"
30-100-25-8	.250"	.1285"

'L' Dim. = 0.420"		
Part Number	Countersink Dia.	Drill Diameter
40-100-35-8	.187"	.0980"
S40-100-35-8	.250"	.0980"
30-100-35-8	.250"	.1285"

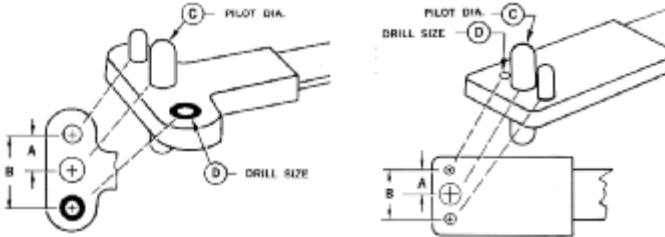
'L' Dim. = 0.560"		
Part Number	Countersink Dia.	Drill Diameter
40-100-50-8	.187"	.0980"
S40-100-50-8	.250"	.0980"
30-100-50-8	.250"	.1285"

## Nut Plate Drill Jigs



04-518-ND

- Designed for accurate drilling of rivet holes for nut plates.
- Flexible handle provides hand clearance when jig is in use.

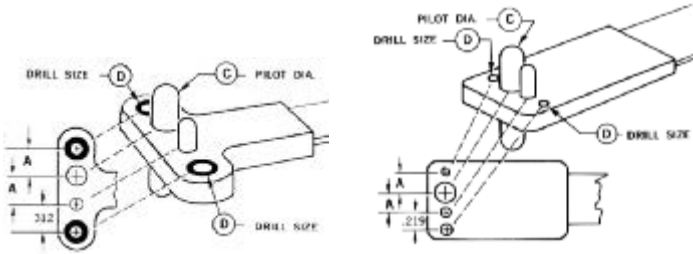


Two Lug Type Style 1

Two Lug Type Style 2

Two Lug Type Style 1					
Part No.	Bolt Ref.	'A' Dim.	'B' Dim.	Pilot Dia.	Drill Size
04-518-A	#6	.344"	.688"	.139"	#40
04-518-B	#8	.344"	.688"	.164"	#40
04-518-C	#10	.344"	.688"	.191"	#40
04-518-D	1/4"	.500"	1.000"	.248"	#40
04-518-E	5/16"	.500"	1.000"	.312"	#30
04-518-F	3/8"	.500"	1.000"	.372"	#30
04-518-M	—	.375"	.750"	.4375"	#40
04-518-N	—	.500"	1.000"	.6875"	#30
04-518-P	—	.6875"	1.375"	.811"	#30

Two Lug Type Style 2					
Part No.	Bolt Ref.	'A' Dim.	'B' Dim.	Pilot Dia.	Drill Size
04-518-NA	#4	.203"	.406"	.112"	#40
04-518-NB	#6	.218"	.436"	.139"	#40
04-518-NC	#8	.234"	.468"	.164"	#40
04-518-ND	#10	.250"	.500"	.191"	#40
04-518-NE	1/4"	.281"	.562"	.248"	#40
04-518-NF	5/16"	.3125"	.625"	.312"	#30



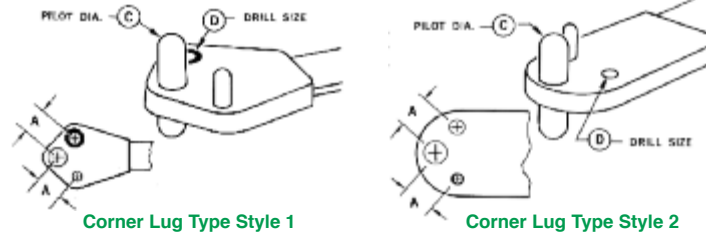
One Lug Type Style 1

One Lug Type Style 2

One Lug Type Style 1				
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size
04-518-G	#6	.344"	.139"	#40
04-518-H	#8	.344"	.164"	#40
04-518-J	#10	.344"	.191"	#40
04-518-K	1/4"	.344"	.248"	#40
04-518-L	#10 Sp.	.344"	.213"	#40

One Lug Type Style 2				
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size
04-518-PA	#4	.203"	.112"	#40
04-518-PB	#6	.218"	.139"	#40
04-518-PC	#8	.234"	.164"	#40
04-518-PD	#10	.250"	.191"	#40
04-518-PE	1/4"	.281"	.248"	#40

## Nut Plate Drill Jigs (cont'd)

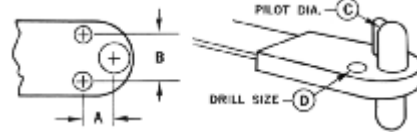


Corner Lug Type Style 1

Corner Lug Type Style 2

Corner Type Style 1				
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size
04-518-R	#6	.344"	.139"	#40
04-518-S	#8	.344"	.164"	#40
04-518-T	#10	.344"	.191"	#40
04-518-U	1/4"	.500"	.248"	#40
04-518-V	5/16"	.500"	.312"	#30

Corner Type Style 2				
Part No.	Bolt Ref.	'A' Dim.	Pilot Dia.	Drill Size
04-518-SA	#4	.203"	.112"	#40
04-518-SB	#6	.218"	.139"	#40
04-518-SC	#8	.234"	.164"	#40
04-518-SD	#10	.250"	.191"	#40
04-518-SE	1/4"	.281"	.248"	#40

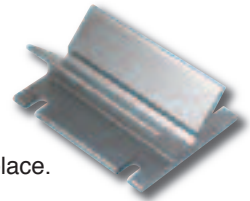


Mini Anchornut Type					
Part No.	Bolt Ref.	'A' Dim.	'B' Dim.	Pilot Dia.	Drill Size
04-518-TA	#10	.250"	.219"	.191"	#40
04-518-TB	1/4"	.281"	.219"	.248"	#40
04-518-TC	5/16"	.312"	.250"	.312"	#30

## Tube Drilling Jig

*No Clamping Necessary*

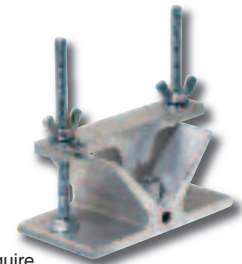
- For drilling tubes & other round stock.
- Bolts to drill press table.
- Grooved & angled sides hold work in place.



Part Number	Description
70189	Tube Drilling Jig

## Drill Rite™ Precision Drill Guide

- Allows hand drills to perform like a professional drill press.
- High quality aircraft grade aluminum construction.
- 3/16" & 1/4" drill bushings included with tool.

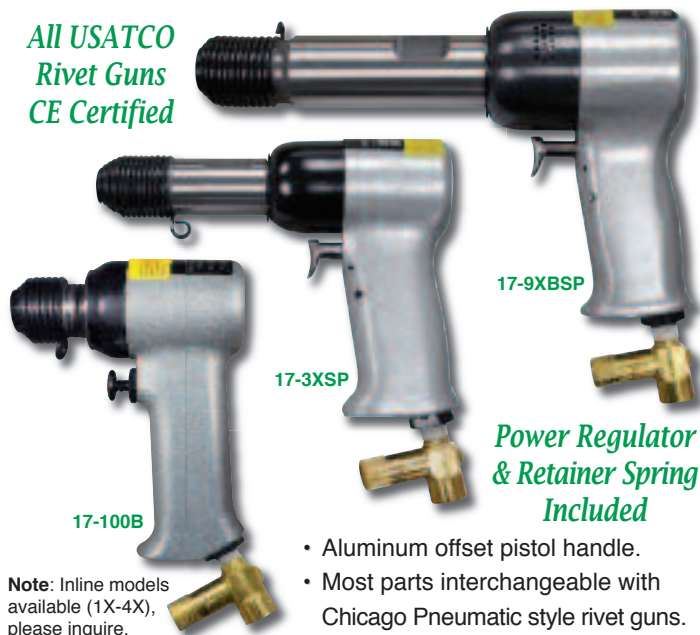


Note: Other hardened drill bushings avail., please inquire.

Part Number	Capacity (pipe or round stock)
70400	1/2" to 2-1/2" Diameter

**USATCO Rivet Guns**

All USATCO Rivet Guns CE Certified



17-9XBSP

17-3XSP

17-100B

*Power Regulator & Retainer Spring Included*

- Aluminum offset pistol handle.
- Most parts interchangeable with Chicago Pneumatic style rivet guns.

Note: Inline models available (1X-4X), please inquire.

Standard .401 Shank				
Part No.	BPM	Capacity	O.A.L.	Weight
17-1XSP*	3600	1/8" Aluminum	5-11/16" (145 mm)	2.00 lbs (0.9 kgs)
17-2XSP	2580	5/32" Alum. 3/32" Steel	6-11/24" (165 mm)	2.25 lbs (1.0 kgs)
17-3XSP	2160	3/16" Alum. 5/32" Steel	7-5/16" (186 mm)	2.25 lbs (1.0 kgs)
17-4XSP	1740	1/4" Alum. 3/16" Steel	8-5/16" (211 mm)	2.75 lbs (1.2 kgs)

\* Uses series 'B' type rivet sets available on page 34.

Standard .498 Shank				
Part No.	BPM	Capacity	O.A.L.	Weight
17-5XBSP	1560	9/32" Alum. 3/16" Steel	8-5/16" (211 mm)	4.75 lbs (1.2 kgs)
17-7XBSP	900	3/8" Alum. 5/16" Steel	11-5/16" (287 mm)	6 lbs (2.7 kgs)
17-9XBSP	1140	5/16" Alum. 1/4" Steel	9-5/16" (237 mm)	5.125 lbs (2.3 kgs)

**Jiffy Type**

- Includes exclusive USATCO 09-RB-5 retainer spring.
- Uses series 'B' type rivet sets available on page 34.

Jiffy Type .401 Shank				
Part No.	BPM	Capacity	O.A.L.	Weight
17-100B	2850	5/32" Alum. 1/8" Steel	3-3/4" (95 mm)	2.25 lbs (1.0 kgs)
17-200B	2700	3/16" Alum. 5/32" Steel	4-1/4" (108 mm)	2.625 lbs (1.2 kgs)

**AVC® Type 4" Stroke**

- Smooth running, powerful & easy to hold.
- Perfect balance & valve timing, hard hitting 9/16" dia. pistons.

AVC® Type .401 Shank				
Part No.	BPM	Capacity	O.A.L.	Weight
17-13SP	1725	5/16" Alum. 1/4" Steel	8-3/4" (222 mm)	3.5 lbs (1.6 kgs)

**Chicago Pneumatic® Rivet Guns**



CP4444RUTAB

CP4450-3

- Genuine CP original design.
- Aluminum offset pistol handle.
- Includes retainer spring & built-in power regulator.

Note: Rivet set shown not included.

Standard .401 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4444RURAB	2580	1/8" Alum. 3/32" Steel	6.7" (170 mm)	2.25 lbs (1.0 kgs)
CP4444RUSAB	2160	3/16" Alum. 5/32" Steel	7.3" (186 mm)	2.25 lbs (1.0 kgs)
CP4444RUTAB	1740	1/4" Alum. 3/16" Steel	8.3" (211 mm)	2.75 lbs (1.2 kgs)

Standard .498 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4447RUSAB	1560	1/4" Alum. 3/16" Steel	8.9" (227 mm)	4.75 lbs (1.2 kgs)
CP4447RUTAB	1140	5/16" Alum. 1/4" Steel	9.9" (252 mm)	5.125 lbs (2.3 kgs)
CP4447RUVAB	900	3/8" Alum. 5/16" Steel	11.9" (303 mm)	6 lbs (2.7 kgs)

**Ergonomic Recoilless Type**

- Ergonomic design significantly reduces Carpal Tunnel Syndrome & enhances operator comfort.
- Progressive teasing throttle for better control.
- Includes retainer spring & built-in regulator.

Ergonomic Recoilless Pistol Grip .401 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4450-2	2580	1/8" Alum. 3/32" Steel	8.4" (213 mm)	2.7 lbs (1.2 kgs)
CP4450-3	2160	3/16" Alum. 5/32" Steel	8.9" (226 mm)	2.8 lbs (1.3 kgs)
CP4450-4	1740	1/4" Alum. 3/16" Steel	9.9" (251 mm)	3.2 lbs (1.5 kgs)

Ergonomic Recoilless Pistol Grip .498 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4475-3	2000	1/4" Alum. 3/16" Steel	10.8" (275 mm)	3.9 lbs (1.8 kgs)
CP4475-4	1700	5/16" Alum. 1/4" Steel	11.8" (300 mm)	5.3 lbs (2.4 kgs)
CP4475-6	1250	3/8" Alum. 5/16" Steel	13.8" (351 mm)	6.2 lbs (2.8 kgs)

## RIVET GUNS & ACCESSORIES

### Chicago Pneumatic® Rivet Guns (cont'd)



Note: Rivet set shown not included.

Ergonomic Recoilless Inline .401 Shank				
Part Number	BPM	Capacity	O.A.L.	Weight
CP4450-S-2	2580	1/8" Alum. 3/32" Steel	8.7" (220 mm)	2.8 lbs (1.3 kgs)
CP4450-S-3	2160	3/16" Alum. 5/32" Steel	9.2" (223 mm)	3.0 lbs (1.4 kgs)
CP4450-S-4	1740	1/4" Alum. 3/16" Steel	10.2" (258 mm)	3.2 lbs (1.5 kgs)

### Rivet Gun Power Regulators



Regulates air intake for accurate adjustment of hammer blow.

Part Number	Type
09-138	Brass
09-140	Solid Brass Construction
J109B	Brass

### 90° Angle Attachment

Great for limited access areas inaccessible by standard tools.

*Compact & Lightweight*



Part No.	Cap.	For Use With	Weight
07-595C-1	3/16"	Cleco E3 & E4; CP 3X & 4X Types	1 lb (0.5 kgs)
07-595C-2	3/16"	Jiffy 200 & 300; IR; AVC 111 & 121	

Note: Rivet sets shown are sold separately, please order from charts below.

Universal AN470 - 3/8" O.A.L.	
Part Number	Cupping Size
07-5952-4703	3/32"
07-5952-4704	1/8"
07-5952-4705	5/32"
07-5952-4706	3/16"

Flush - 1/4" Body Length	
Part Number	Diameter
07-5951-40	5/8" (16 mm)

**Angle Attachment Kit, Includes:**

90° Angle Attachment, Three AN470 Cupped Sets (3/32", 1/8" & 5/32") & One 5/8" Diameter Mushroom Flush Set

Part No.	Attachment	For Use With
53-595C-1	07-595C-1	Cleco E3 & E4; CP 3X & 4X Types
53-595C-2	07-595C-2	Jiffy 200 & 300; IR; AVC 111 & 121

### Rivet Gun Retainer Springs

Retainer Spring Set	
Part Number	Includes
53-RBH-2	09-RB-2 & 09-RH-2

**Caution:** Retainer springs are not guaranteed to keep rivet set from leaving barrel of gun if the tool is not operated snugly against the rivet in work piece.



Part Number	Type	Diameter	For Use With These Rivet Gun Models:
09-RB-1	Beehive	1"	USATCO 17-3AA, 17-1XSP
09-RB-2	Beehive	1-3/32"	USATCO 2X, 3X & 4X; CP4444RURAB, RUSAB & RUTAB; Cleco E2, E3 & E4
09-RB-3	Beehive	1-5/32"	IR; AVC 10, 11, 12, 13, 24 & 26; Jiffy; Sioux; Cleco G4 & G8
09-RB-4	Beehive	1-3/16"	USATCO 5X, 7X & 9X; CP4477RUSAB, RUVAB & RUTAB
09-RB-5	Beehive	1-5/32"	USATCO 17-100B & 17-200B (compact design models)
09-RH-2	Handi	1-3/32"	USATCO 2X, 3X & 4X; CP4444RURAB, RUSAB & RUTAB; Cleco E2, E3 & E4
09-RH-3	Handi	1-5/32"	IR; AVC 10, 11, 12, 13, 24 & 26; Jiffy; Sioux; Cleco G4 & G8
09-RH-4	Handi	1-3/16"	USATCO 5X, 7X & 9X; CP4477RUSAB, RUVAB & RUTAB
09-896	Mech-Aid	1-3/32" (.401)	USATCO 2X, 3X & 4X; CP4444RURAB, RUSAB & RUTAB; Cleco E2, E3 & E4
09-897	Mech-Aid	1-3/16" (.498)	USATCO 5X, 7X & 9X; CP4477RUSAB, RUVAB & RUTAB
09-896-1	Mech-Aid	1-5/32"	USATCO 17-100B & 17-200B (compact design models)



## Rivet Style Reference Chart

AN435 Button	AN430 Round	AN455 Brazier	AN456 Mod. Brazier	AN470 Universal	AN442 Flat	BACR 15FT Briles Boeing	AN426 Countersunk	AN450 Semi-Tubular

## Rivet Sets



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-15	—	—	—	2-1/2" (64 mm)
07-10	07-20	07-30	07-40	3-1/2" (89 mm)
07-11	07-21	07-31	07-41	5-1/2" (140 mm)
07-12	07-22	07-32	07-42	7-1/2" (191 mm)
07-13	07-23	07-33	07-43	10-1/2" (267 mm)
07-14	07-24	07-34	07-44	13-1/2" (343 mm)

**Note:** Select the size rivet set required (chart above), then add the desired cupping (rivet cupping chart below). **Example:** For a .401 shank, 2-1/2" O.A.L. straight rivet set with an 1/8" AN470 cupping, use part number 07-15-4704.

### Rivet Cupping Chart

Cupping Size	Round AN430	Button AN435	Flat AN442	Brazier AN455	Mod. Br. AN456	Univ. AN470
1/16"	4302	4352	4422	4552	4562	4702
3/32"	4303	4353	4423	4553	4563	4703
1/8"	4304	4354	4424	4554	4564	4704
5/32"	4305	4355	4425	4555	4565	4705
3/16"	4306	4356	4426	4556	4566	4706
7/32"	—	—	—	—	—	4707
1/4"	4308	4358	4428	—	4568	4708
9/32"	—	—	—	—	—	4709

## AN450 Tubular Rivet Sets



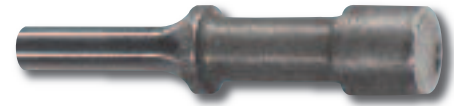
.401 Shank		Overall Length
Straight	Offset	
07-10	07-20	3-1/2" (89 mm)
07-11	07-21	5-1/2" (140 mm)
07-12	07-22	7-1/2" (191 mm)

**Note:** Select the rivet set required (chart above), then add the desired cupping (chart below). **Example:** For a 3-1/2" straight rivet set with an 1/8" cupping, use part number 07-10-4504.

### Flaring AN450 Cupping Sizes

1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"
4502	4503	4504	4505	4506	4508	45010

## Bell Type Rivet Sets



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-50	07-60	07-70	07-80	3-1/2" (89 mm)
07-51	07-61	07-71	07-81	5-1/2" (140 mm)
07-52	07-62	07-72	07-82	7-1/2" (191 mm)
07-53	07-63	07-73	07-83	10-1/2" (267 mm)
07-54	07-64	07-74	07-84	13-1/2" (343 mm)

**Note:** Select the size rivet set required (chart above), then add the desired cupping (rivet cupping chart below). **Example:** For a .401 shank, 3-1/2" O.A.L. straight rivet set with an 3/8" AN470 cupping, use part number 07-50-47012.

### Rivet Cupping Chart

Cupping Size	Round AN430	Button AN435	Flat AN442	Brazier AN455	Mod. Br. AN456	Univ. AN470
1/4"	—	—	—	4558	—	—
5/16"	43010	43510	44210	45510	45610	47010
3/8"	43012	43512	44212	45512	45612	47012

## Boeing® BACR15FT Modified Univ. Rivet Sets



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-15	—	—	—	2-1/2" (64 mm)
07-10	07-20	07-30	07-40	3-1/2" (89 mm)
07-11	07-21	07-31	07-41	5-1/2" (140 mm)
07-12	07-22	07-32	07-42	7-1/2" (191 mm)
07-13	07-23	07-33	07-43	10-1/2" (267 mm)
07-14	07-24	07-34	07-44	13-1/2" (343 mm)

**Note:** Select the size rivet set required (chart above), then add the desired cupping (rivet cupping chart below). **Example:** For a .401 shank, 3-1/2" O.A.L. straight rivet set with a 1/8" cupping, use part number 07-10-4704BAC.

### Modified Universal AN470 Cupping Sizes

3/32"	1/8"	5/32"	3/16"
4703BAC	4704BAC	4705BAC	4706BAC
7/32"	1/4"	9/32"	
4707BAC	4708BAC	4709BAC	

## RIVET GUNS & ACCESSORIES

### Boeing® BACR15FT Modified Univ. Rivet Sets

ST1112MB-C401-5



ST1112MB-R401-5-3



.401 Shank - Mod. Universal AN470, 3-1/2" Overall Length		
Straight	Offset	Rivet Size
ST1112MB-C401-4	ST1112MB-R401-4-3	1/8"
ST1112MB-C401-5	ST1112MB-R401-5-3	5/32"
ST1112MB-C401-6	ST1112MB-R401-6-3	3/16"
ST1112MB-C401-7	ST1112MB-R401-7-3	7/32"
ST1112MB-C401-8	ST1112MB-R401-8-3	1/4"

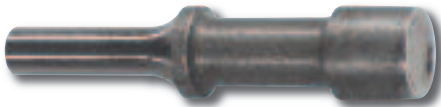
### Boeing® BACR15FT Mod. Univ. Cutaway Sets



- Manufactured from H13 chromemoly tool steel.
- Magnetic particle inspected after heat treatment.

.401 Shank - Modified Universal AN470				
Part Number	Rivet Size	Body Dia.	Body Length	Overall Length
ST1112B-C401-4-53	1/8"	.281"	1-3/4"	3.31" (84 mm)
ST1112B-C401-5-53	5/32"	.312"	1-3/4"	3.31" (84 mm)
ST1112B-C401-6-53	3/16"	.344"	1-3/4"	3.31" (84 mm)
ST1112B-C401-6-37	3/16"	.656"	3/4"	2.31" (59 mm)
ST1112B-C401-8-53	1/4"	.406"	1-3/4"	3.31" (84 mm)
ST1112B-C401-8-37	1/4"	.656"	3/4"	2.31" (59 mm)

### Boeing® BACR15FT Mod. Univ. Bell Type Sets



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-50	07-60	07-70	07-80	3-1/2" (89 mm)
07-51	07-61	07-71	07-81	5-1/2" (140 mm)
07-52	07-62	07-72	07-82	7-1/2" (191 mm)
07-53	07-63	07-73	07-83	10-1/2" (267 mm)
07-54	07-64	07-74	07-84	13-1/2" (343 mm)

Note: Select the rivet set required (chart above), then add the desired cupping (chart below).  
Example: For a .401 shank, 5-1/2" straight set with a 3/8" cupping, use part no. 07-51-47012BAC.

Modified Universal AN470 Cupping Sizes		
5/16"	11/32"	3/8"
47010BAC	47011BAC	47012BAC

### AN470 Gooseneck Rivet Sets

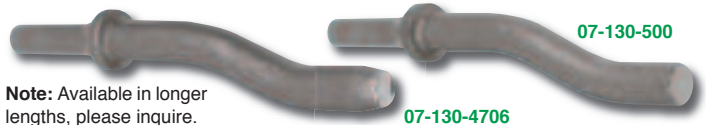


Note: We will make specials on this series, price on request.

07-135-4704

.401 Shank			
Part Number	Rivet Size	Rivet Style	Overall Length
07-135-500H	—	Flat	7-1/4" (184 mm)
07-135-4703	3/32"	AN470	
07-135-4704	1/8"	AN470	
07-135-4705	5/32"	AN470	
07-135-4706	3/16"	AN470	
07-135-4708	1/4"	AN470	

### AN470 Double Offset Rivet Sets



Note: Available in longer lengths, please inquire.

07-130-500

07-130-4706

.401 Shank		.498 Shank		Overall Length
Part Number	Part Number	Part Number	Part Number	
07-130	07-132	07-130	07-132	5-1/2" (140 mm)
07-131	07-133	07-131	07-133	7-1/2" (191 mm)

Note: Select the rivet set required (chart above), then add the desired cupping (chart below).  
Example: For a .401 shank, 5-1/2" set with an 1/8" cupping, use part number 07-130-4704.

Universal AN470 Cupping Sizes					
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
4702	4703	4704	4705	4706	4708

.401 Shank		
Part Number	Type	Overall Length
07-130-500	Flush	5-1/2" (140 mm)

### Straight & Offset Flush Rivet Sets

07-10-500



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
07-10-500	07-20-500	07-30-500	07-40-500	3-1/2" (89 mm)
07-11-500	07-21-500	07-31-500	07-41-500	5-1/2" (140 mm)
07-12-500	07-22-500	07-32-500	07-42-500	7-1/2" (191 mm)

### 'Shortie' Flush Mushroom Rivet Sets

07-110



.401 Shank	.498 Shank	Face Diameter	Overall Length
07-110	07-120	3/4" (19 mm)	1-3/4" to 2" (45 to 51 mm)
07-111	07-121	1" (25 mm)	
07-112	07-122	1-1/4" (32 mm)	
07-113	07-123	1-1/2" (38 mm)	

Flush Mushroom Sets



.401 Shank	.498 Shank	Face Diameter	Overall Length
07-85	—	3/4" (19 mm)	2-1/16" (52 mm)
07-89	—	3/4" (19 mm)	3" (76 mm)
07-90	07-100	1" (25 mm)	2-1/2" (64 mm)
07-91	07-101	1" (25 mm)	3" (76 mm)
07-92	07-102	1" (25 mm)	5-1/2" (140 mm)
07-93	07-103	1" (25 mm)	7-1/2" (191 mm)
07-94	07-104	1-1/4" (32 mm)	3" (76 mm)
07-95	07-105	1-1/4" (32 mm)	5-1/2" (140 mm)
07-96	07-106	1-1/2" (38 mm)	3-1/8" (79 mm)
07-97	07-107	1-3/4" (45 mm)	3-1/4" (83 mm)
07-98	07-108	1-1/8" (29 mm)	2-1/4" (57 mm)
07-99	07-109	1-1/4" (32 mm)	2-1/4" (57 mm)
—	07-999	2" (51 mm)	3" (76 mm)

Flush Mushroom Sets With Rubber Guard

.401 Shank	.498 Shank	Face Diameter	Overall Length
07-170	07-173	3/4" (19 mm)	2-1/4" to 2-5/8" (57 to 67 mm)
07-171	07-174	1" (25 mm)	
07-172	07-175	1-1/4" (32 mm)	

Offset Flush Mushroom Sets



.401 Shank	.498 Shank	Face Diameter	Overall Length
07-140	07-160	1" (25 mm)	3-1/2" (89 mm)
07-141	07-161	1" (25 mm)	5-1/2" (140 mm)
07-142	07-162	1" (25 mm)	7-1/2" (191 mm)
07-143	07-163	1-1/4" (32 mm)	3-1/2" (89 mm)
07-144	07-164	1-1/4" (32 mm)	5-1/2" (140 mm)
07-145	07-165	1-1/4" (32 mm)	7-1/2" (191 mm)

Swivel Flush Sets



.401 Shank	.498 Shank	Face Diameter	Overall Length
07-180	07-182	3/4" (19 mm)	3" (76 mm)
07-181	07-183	1-3/16" (30 mm)	3" (76 mm)

Swivel Flush Sets With Rubber Guard



.401 Shank	.498 Shank	Face Type
07-88	07-888	1-1/4" (32 mm)

Flush Sets With Polyurethane Guard



*Ideal For Skin Work*

- Manufactured from H-13 chromemoly tool steel.
- Magnetic particle tested after heat treat & shot-peened for stress relief prior to polish.

.401 Shank		
Part Number	Face Diameter	Overall Length
ST1111B-V401K-1	3/4" (19 mm)	2-1/2" (64 mm)
ST1111B-V401K-2	1" (25 mm)	2-1/2" (64 mm)
ST1111B-V401K-3	1-1/4" (32 mm)	2.33" (59 mm)

No-Mar Flush Sets



1" Face Diameter			
.401 Shank	.498 Shank	Face Type	Overall Length
07-915A-1	07-915A-2	Aluminum	3-1/2" (89 mm)
07-915B-1	07-915B-2	Brass	3-1/2" (89 mm)
07-915P-1	07-915P-2	Phenolic	3-1/2" (89 mm)

USATCO No-Mar Flush Rivet Sets



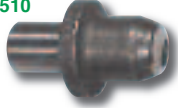
- USATCO design gets in closer, easier to use.
- Holds sheet firmly in down position while riveting.

.401 Shank	Overall Length
Part Number	
07-1000	3-1/2" (89 mm)
07-2000	5-1/2" (140 mm)

# RIVET GUNS & ACCESSORIES

## Cupped Sets For Jiffy Type (Series 'B') Rivet Guns

07-510



07-520



Note: Jiffy type (series 'B') rivet guns offered on page 29.

Straight Cupped .401 Shank		
Part Number	Diameter	Overall Length
07-510	1/2" (13 mm)	1-3/16" (30 mm)

Offset Cupped .401 Shank		
Part Number	Diameter	Overall Length
07-520	1/2" (13 mm)	1-5/8" (41 mm)
07-521		1-3/4" (45 mm)
07-522		1-7/8" (48 mm)
07-523		2" (51 mm)

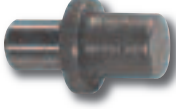
Note: Select the rivet set required (chart above), then add the desired cupping (chart below).  
 Example: For an offset 2" set with an AN470 1/8" cupping, use part number 07-523-4704.

Round AN430 Cupping Size					
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
4302	4303	4304	4305	4306	4308

Universal AN470 Cupping Size					
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
4702	4703	4704	4705	4706	4708

## Flush Sets For Jiffy Type (Series 'B') Rivet Guns

07-500



07-560



07-530



Note: Jiffy type (series 'B') rivet guns offered on page 29.

Straight Flush .401 Shank		
Part Number	Diameter	Overall Length
07-500	3/8" (10 mm)	1-3/16" (30 mm)
07-501	1/2" (13 mm)	
07-502	5/8" (16 mm)	

Mushroom Flush .401 Shank		
Part Number	Diameter	Overall Length
07-559	3/4" (19 mm)	1-1/4" (32 mm)
07-560	1" (25 mm)	1-5/8" (41 mm)

Mushroom Flush w/Rubber Guard .401 Shank		
Part Number	Diameter	Overall Length
07-530	3/4" (19 mm)	1-1/8" to 1-3/8" (29 to 35 mm)
07-531	1" (25 mm)	
07-532	1-1/4" (32 mm)	

## USATCO Rivet Gun Set Packs

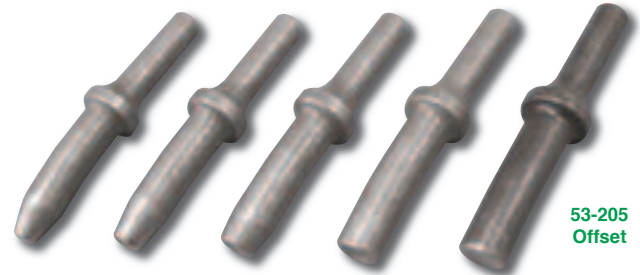


53-106  
Straight

Convenient & Economical

Note: Selection continues on next page.

Straight .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-106	6 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal), Flush & Mushroom Flush with Guard	3-1/2" (89 mm)
53-156	6 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal), Flush & Mushroom Flush with Guard	2-1/2" (64 mm)
53-104BAC	4 PC BACR15FT Straight	3/32", 1/8", 5/32", 3/16" AN470 (Modified Universal)	3-1/2" (89 mm)
53-115	5 PC Straight	1/8", 5/32", 3/16" AN470 (Universal), Flush & Mushroom Flush	5-1/2" (140 mm)
53-105	5 PC Straight	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush	3-1/2" (89 mm)

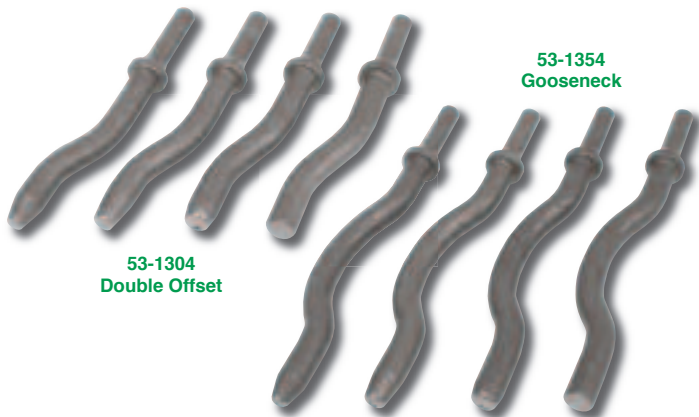


53-205  
Offset

Offset .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-214	4 PC Offset	3/32", 1/8", 5/32" AN470 (Universal) & Flush	5-1/2" (140 mm)
53-204	4 PC Offset	3/32", 1/8", 5/32" AN470 (Universal) & Mushroom Flush	3-1/2" (89 mm)
53-205	5 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Flush	3-1/2" (89 mm)
53-2050	5 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush	3-1/2" (89 mm)
53-215	5 PC Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Flush	5-1/2" (140 mm)
53-204BAC	4 PC BACR15FT Offset	3/32", 1/8", 5/32", 3/16" AN470 (Modified Universal)	3-1/2" (89 mm)

USATCO Rivet Gun Set Packs (cont'd)

Straight & Offset .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-10208	8 PC Straight & Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal)	3-1/2" (89 mm)
53-11218	8 PC Straight & Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal)	5-1/2" (140 mm)



Gooseneck .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-1354	4 PC Gooseneck	3/32", 1/8", 5/32" AN470 (Universal) & Flush	7-1/4" (184 mm)
53-1355	5 PC Gooseneck	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Flush	7-1/4" (184 mm)

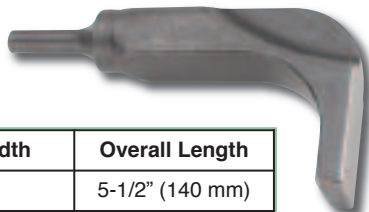
Double Offset .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-1304	4 PC Double Offset	3/32", 1/8", 5/32" AN470 (Universal) & Flush	5-1/2" (140 mm)
53-1314	4 PC Double Offset	3/32", 1/8", 5/32", 3/16" AN470 (Universal)	7-1/2" (190 mm)

Jiffy .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-5104	4 PC Jiffy	3/32", 1/8", 5/32", 3/16" AN470 (Universal)	Assorted
53-5105	5 PC Jiffy	3/32", 1/8", 5/32", 3/16" AN470 (Universal) & Mushroom Flush with Guard	Assorted

Mushroom Flush .401 Shank			
Part No.	Pack Type	Includes (1 each)	O.A.L.
53-905	5 PC Mushroom Flush	2-1/2" x 1", 3" x 1", 5-1/2" x 1", 2-1/4" x 1-1/8" & 3/4" D with Rubber Guard	Assorted

Limited Access Flush 'J' Rivet Set

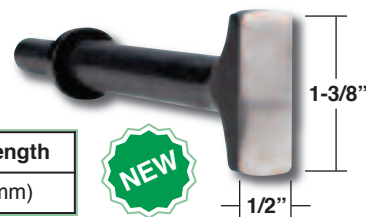
Compact profile is excellent for hard to reach areas.



.401 Shank	Face Width	Overall Length
07-10172	1"	5-1/2" (140 mm)

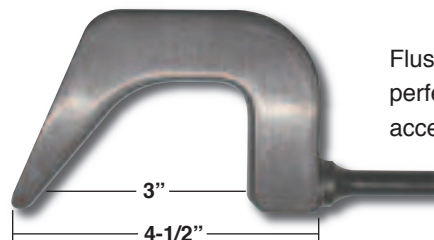
Limited Access Flush 'T' Rivet Set

Long shank and "T" head design is ideal for reaching into tight areas.



.401 Shank	Overall Length
07-10710	7" (178 mm)

Limited Access Offset Flush Rivet Set



Flush 60° angle is perfect for limited access areas.

.401 Shank	Overall Length
07-10076	6-1/4" (159 mm)

Limited Access Offset Rivet Sets



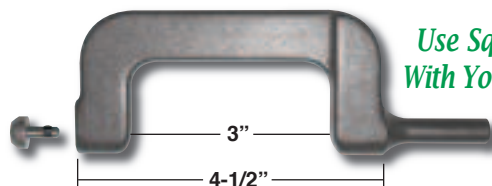
Use Squeezer Sets With Your Rivet Gun

Accepts standard squeezer sets, dimple punch & die sets.

.401 Shank	Type	Overall Length
07-PA	.250" Set Hole	5-1/2"
07-PA-1	.187" Set Hole	(140 mm)

Note: Squeezer set not included (to order squeezer sets see pages 54-57).

Limited Access Rivet Set



Use Squeezer Sets With Your Rivet Gun

Accepts standard squeezer sets, dimple punch & die sets.

.401 Shank	Set Hole	Overall Length
07-10198	.187"	6-1/8" (156 mm)

Note: Squeezer set not included (to order squeezer sets see pages 54-57).



For Rivet Squeezer Sets See Page 54-57

# RIVET GUNS & ACCESSORIES

## Drive Sets For Huck® Stump Collars

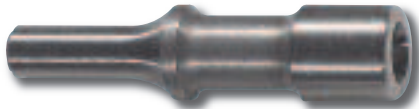


.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
H 07-10	H 07-20	H 07-30	H 07-40	3-1/2" (89 mm)
H 07-11	H 07-21	H 07-31	H 07-41	5-1/2" (140 mm)
H 07-12	H 07-22	H 07-32	H 07-42	7-1/2" (191 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank, 3-1/2" set for a 1/8" collar, use part number **H 07-10-4**.

Huck Stump Collar Sizes		
1/8"	5/32"	3/16"
4	5	6

## Bell Type Drive Sets For Huck® Stump Collars

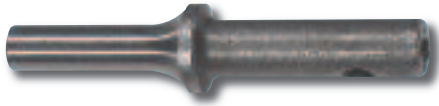


.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
H 07-50	H 07-60	H 07-70	H 07-80	3-1/2" (89 mm)
H 07-51	H 07-61	H 07-71	H 07-81	5-1/2" (140 mm)
H 07-52	H 07-62	H 07-72	H 07-82	7-1/2" (191 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank, 3-1/2" set for a 3/8" collar, use part number **H 07-50-12**.

Huck Stump Collar Sizes		
1/4"	5/16"	3/8"
8	10	12

## Drive Sets For Hi-Shear® Collars



.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
HS 07-10	HS 07-20	HS 07-30	HS 07-40	3-1/2" (89 mm)
HS 07-11	HS 07-21	HS 07-31	HS 07-41	5-1/2" (140 mm)
HS 07-12	HS 07-22	HS 07-32	HS 07-42	7-1/2" (191 mm)
HS 07-15	—	HS 07-35	—	2-3/4" (70 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank, 3-1/2" set for a 1/8" collar, use part number **HS 07-10-4**.

Hi-Shear Collar Sizes			
1/8"	5/32"	3/16"	1/4"
4	5	6	8

## Bell Type Drive Sets For Hi-Shear® Collars



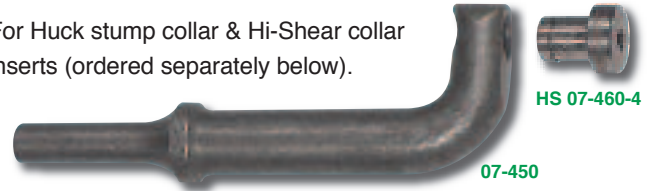
.401 Shank		.498 Shank		Overall Length
Straight	Offset	Straight	Offset	
HS 07-50	HS 07-60	HS 07-70	HS 07-80	3-1/2" (89 mm)
HS 07-51	HS 07-61	HS 07-71	HS 07-81	5-1/2" (140 mm)
HS 07-52	HS 07-62	HS 07-72	HS 07-82	7-1/2" (191 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank, 3-1/2" set for a 3/8" collar, use part number **HS 07-50-12**.

Hi-Shear Collar Sizes	
5/16"	3/8"
10	12

## Gooseneck Insert Adapters & Collar Inserts

For Huck stump collar & Hi-Shear collar inserts (ordered separately below).



HS 07-460-4

07-450

Insert Adapters			
.401 Shank	.498 Shank	Insert Size	Overall Length
07-450	07-455	.406"	4-1/2" (114 mm)
07-451	07-456	.531"	

Collar Inserts			
Hi-Shear Type	Huck Type	Insert Size	For Collar Sizes
HS 07-460	H 07-465	.406"	1/8", 5/32" & 3/16"
HS 07-461	H 07-466	.531"	1/4", 5/16" & 3/8"

**Collar Insert Ordering Note:** Select the size & type insert required (chart above), then add the desired collar size (chart below). **Example:** For a .406" Hi-Shear insert for a 3/8" collar, use part number **HS 07-460-12**.

Collar Sizes					
1/8"	5/32"	3/16"	1/4"	5/16"	3/8"
4	5	6	8	10	12

## Notched Sets For Hi-Shear® Collars



.401 Shank	.498 Shank	Overall Length
HS 07-150	HS 07-155	4-1/2" (114 mm)

**Note:** Select the drive set required (chart above), then add the desired size (chart below).  
**Example:** For a .401 shank set for a 3/8" collar, use part number **HS 07-150-8**.

Hi-Shear Collar Sizes					
1/8"	5/32"	3/16"	1/4"	5/16"	3/8"
4	5	6	8	10	12

## Huck/Hi-Shear® Collar Removers



- Saves valuable time, no damage or marring to metal skin.
- Available straight or with a 10° offset near the chisel edge.

Rivet Gun Type, 5-1/2" Overall Length						
Straight .401 Shank	10° Offset .401 Shank	Straight .498 Shank	10° Offset .498 Shank	Collar Size	Opening (+.001 -.000)	Tool Diameter
HSC 07-401-4	HSC 07-401B-4	HSC 07-498-4	HSC 07-498B-4	1/8"	.125"	1/2"
HSC 07-401-5	HSC 07-401B-5	HSC 07-498-5	HSC 07-498B-5	5/32"	.156"	1/2"
HSC 07-401-6	HSC 07-401B-6	HSC 07-498-6	HSC 07-498B-6	3/16"	.187"	5/8"
HSC 07-401-7	HSC 07-401B-7	HSC 07-498-7	HSC 07-498B-7	7/32"	.218"	5/8"
HSC 07-401-8	HSC 07-401B-8	HSC 07-498-8	HSC 07-498B-8	1/4"	.250"	5/8"
HSC 07-401-9	HSC 07-401B-9	HSC 07-498-9	HSC 07-498B-9	9/32"	.281"	3/4"
HSC 07-401-10	HSC 07-401B-10	HSC 07-498-10	HSC 07-498B-10	5/16"	.312"	3/4"
HSC 07-401-12	HSC 07-401B-12	HSC 07-498-12	HSC 07-498B-12	3/8"	.375"	13/16"

Hand Type							
Straight	10° Offset	Collar Size	Stock Hex	Opening (+/- .010)	Nose Width	Nose Height	Overall Length
HSC 07-4	HSC 07-4B	1/8"	1/2"	.136"	9/16"	.083"	5-1/2" (140 mm)
HSC 07-5	HSC 07-5B	5/32"	1/2"	.167"	9/16"	.104"	5-1/2" (140 mm)
HSC 07-6	HSC 07-6B	3/16"	5/8"	.199"	11/16"	.125"	6-1/2" (165 mm)
HSC 07-8	HSC 07-8B	1/4"	3/4"	.259"	13/16"	.165"	7" (178 mm)
HSC 07-10	HSC 07-10B	5/16"	3/4"	.321"	7/8"	.206"	7" (178 mm)
HSC 07-12	HSC 07-12B	3/8"	3/4"	.384"	7/8"	.248"	7" (178 mm)

## Rivet Punch-Out Tools



Holder .401 Shank		Rubber Guard	
Part Number	Capacity	Part Number	Capacity
07-JPK-1	1/4"	07-PG-1	1/4"
07-JPK-2	3/8"	07-PG-2	3/8"

Punches For 07-JPK-1 Holder, 1-1/2" Overall Length			
Hi-Shear	Rivet	Sheet Metal	Rivet Size
—	07-PR-1-3	07-PS-1-3	3/32"
07-PH-1-4	07-PR-1-4	07-PS-1-4	1/8"
07-PH-1-5	07-PR-1-5	07-PS-1-5	5/32"
07-PH-1-6	07-PR-1-6	07-PS-1-6	3/16"

Punches For 07-JPK-2 Holder, 2" Overall Length			
Hi-Shear	Rivet	Sheet Metal	Rivet Size
07-PH-2-8	07-PR-2-8	07-PS-2-8	1/4"
07-PH-2-10	07-PR-2-10	07-PS-2-10	5/16"
07-PH-2-12	07-PR-2-12	07-PS-2-12	3/8"

## 6 PC Rivet Punch-Out Kit



Note: All parts offered individually on left.

.401 Shank	
Part Number	Kit Includes
53-90131	Holder, Rubber Guard & 4 Rivet Punches (3/32", 1/8", 5/32" & 3/16")

## Hi-Shear One Piece Knockout Punches



\* Includes 3/32", 1/8", 5/32" & 3/16"

.401 Shank		.401 Shank	
Part Number	Rivet Size	Part Number	Rivet Size
07-140A-3	3/32"	07-140A-8	1/4"
07-140A-4	1/8"	07-140A-10	5/16"
07-140A-5	5/32"	07-140A-12	3/8"
07-140A-6	3/16"	53-140A	Set of 4 *

# RIVET GUNS & ACCESSORIES

## One Piece Knockout Punches



.401 Shank		.401 Shank	
Part Number	Rivet Size	Part Number	Rivet Size
07-141A-3	3/32"	07-141A-8	1/4"
07-141A-4	1/8"	07-141A-10	5/16"
07-141A-5	5/32"	07-141A-12	3/8"
07-141A-6	3/16"	53-141A	Set of 4 *

\* Includes 3/32", 1/8", 5/32" & 3/16"

## USATCO 'Extreme Edge' Plastic Scrapers

*Chemical Resistant Long Edge Life*



94103

- Non-metallic construction perfect for aerospace work.
- Great for removing sealants, adhesives, stickers etc.
- Resharpenable, non-marring scrapers are strong & lightweight.
- For use with handi type retainer spring - .401 shank.

Part Number	Uses
94103	Angled tip for sharp edges & corners.



94104

Part Number	Uses
94104	For narrow channels, slots & detail scraping.



94105

Part Number	Uses
94105	Great for removing hard surface coating material.



94106

Part Number	Uses
94106	Corner scraping without changing hold angle.



94107

Part Number	Uses
94107	Great for internally radiused surfaces.

## USATCO 'Extreme Edge' Plastic Scrapers (cont'd)



94108

Part Number	Uses
94108	Concentrated scraping into corners & edges.



94109

Part Number	Uses
94109	Perfect for removing gaskets on alum. or steel.



94110

Part Number	Uses
94110	Delicate scraping that requires less wedge angle.



94111

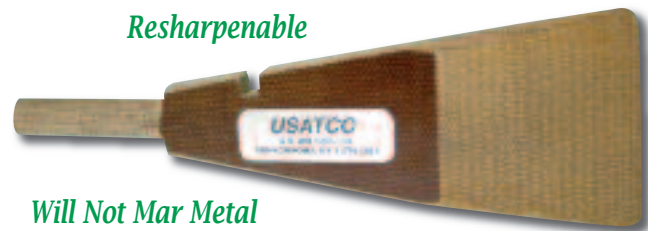
Part Number	Uses
94111	Delicate scraping over larger surface areas.

*Other Styles Available, Please Inquire*

*Handheld USATCO 'Extreme Edge' Plastic Scrapers Also Available, See Pages 220-221*

## Phenolic Scraper

*Resharpenable*



*Will Not Mar Metal*

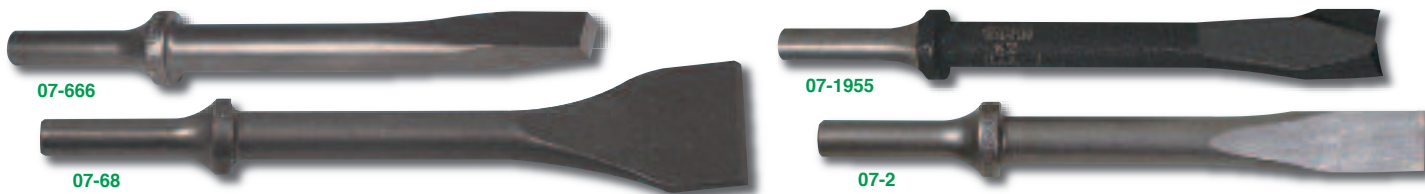
- Safely remove sealants, adhesives & stickers without marring.
- Chemically resistant, non-sparking & non-conductive.
- Can also be used as a handheld scraper.

.401 Shank	
Part Number	Dimensions
95051	3/8" Thick x 2" Wide x 6-1/2" Long*

\* Overall length is 6-1/2", 4-1/2" less shank.



## Chisel & Cutter Tools



Part Number	Description	Shank	Uses
07-666	Rivet Buster	.401	For shearing all types of rivets (5/8" blade width).
07-2	Chisel	.401	For splitting nuts, shearing etc. (3/4" blade width).
07-2B	Chisel	.498	For breaking spot welds, splitting nuts, shearing etc. (3/4" blade width).
07-2204	Extension Chisel	.401	Same as 07-2 only 11" long (3/4" blade width).
07-68	Scraper	.401	For removing sealant & deadener without heat (1-5/16" blade width).
07-1955	Ripper	.401	For clean, short radius cuts. Very tough.
07-1957	Cutter	.401	For straight & radius cuts. More precise.
07-1959	Sheet Metal Trimmer	.401	For edging sheet metal without stretch or distortion. Little touch-up grinding needed.
07-1960	Spot Weld Breaker	.401	For cutting spot welds, works well on molding & rivets.
07-1961	Radius Cutter	.401	For cutting a tight radius fast & smooth.

## USATCO Break Loose Tools



Designed to utilize the vibratory effect of rivet guns, which when combined with turning movement (using the included wrench on hex body) will loosen almost any frozen rusted screw, bolt or nut.

Break Loose Tool - 3/8" Square Drive		
Part Number	Description	Overall Length
53-540	Long Tool	7" (178 mm)
53-541	Short Tool	4-1/8" (105 mm)

Note: Tools include wrench only, USATCO 17-3XSP rivet gun shown not included.

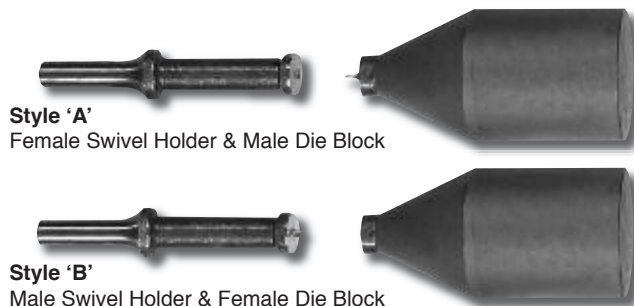


### Adapter Kits:

Square Drive Adapter & 4 Bits (one each for #2 & #3 Phillips, one for Frearson style, one each for #8 & #10 slotted screws)

Adapter Kits	
Part Number	Description
53-AK	5 PC 3/8" Square Drive Adapter Kit
53-540AK	Long Tool (53-540) & Adapter Kit (53-AK)
53-541AK	Short Tool (53-541) & Adapter Kit (53-AK)

## Swivel Dimpling Combo With Punch & Die Block



.401 Shank, Style 'A' Punch & Die Block Combo	
Part Number	Rivet Dia.
53-3003	3/32"
53-3004	1/8"
53-3005	5/32"
53-3006	3/16"

.401 Shank, Style 'B' Punch & Die Block Combo	
Part Number	Rivet Dia.
53-3013	3/32"
53-3014	1/8"
53-3015	5/32"
53-3016	3/16"

.401 Shank Female Swivel Holder	
Part Number	Rivet Dia.
07-300-4263	3/32"
07-300-4264	1/8"
07-300-4265	5/32"
07-300-4266	3/16"

.401 Shank Male Swivel Holder	
Part Number	Rivet Dia.
07-301-4263	3/32"
07-301-4264	1/8"
07-301-4265	5/32"
07-301-4266	3/16"

Die Blocks*	
Part Number	Shank
08-1000-1	.187"
08-1000-2	.250"

\* Punch or die not included with die blocks. Punches & dies can be ordered separately on page 57.

## RIVET GUNS & ACCESSORIES

### Squeezer Set Adapter



- Allows use of squeezer sets with your rivet gun.
- Accepts standard squeezer sets, dimple punch & die sets.

#### .401 Shank

Part Number	Set Hole Size	Overall Length
07-5187	.187"	5" (127 mm)

### Shank Adapter Sleeve



- Convert any .401 shank rivet set to .498 shank.
- Excellent where tooling space is limited - quick & easy.

Note: Rivet set not included.

Part Number	For Use With
07-99705	.401 Shank Sets

### Retainer Spring Shank Adapters

*Includes Retainer Spring*



#### .401 Male Shank x .498 Female Shank

Part Number	For Use With	Overall Length*
07-401B	.498 Shank Sets	3-3/4" (95 mm)

#### .498 Male Shank x .401 Female Shank

Part Number	For Use With	Overall Length*
07-498A	.401 Shank Sets	3-3/4" (95 mm)

\* Length without spring.

### Extension Shank Adapters



- Quickly convert any standard rivet set to an extra long style.
- Other lengths available, please inquire.

#### .401 Male Shank x .401 Female Shank

Part Number	For Use With	Overall Length
07-401-EX	.401 Shank Sets	8" (203 mm)

#### .498 Male Shank x .401 Female Shank

Part Number	For Use With	Overall Length
07-498-EX	.401 Shank Sets	8" (203 mm)

### Shank Adapter



#### .498 Male Shank x .401 Female Shank

Part Number	For Use With	Overall Length
07-70407	.401 Shank Sets	4-1/2" (114 mm)

### Snap Soc Rivet Set Caps



- Color coded caps protect rivets & skin from damage.
- Sold individually, sets not included.
- Fits all standard 1/2" body sets & lasts for approx. 50-75 rivets.

Part Number	Rivet Size	Color
10003	3/32"	White
10004	1/8"	Red
10005	5/32"	Green
10006	3/16"	Yellow
10008	1/4"	Blue

### Rivet Length Gauge

- Checks proper length of rivets before setting.
- For both universal head & flush rivets.



Part Number	For Rivets
92068	-3, -4, -5 & -6

### Shop Head Rivet Gauge Set

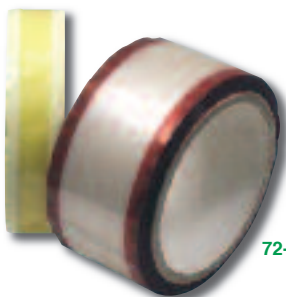
- Measures minimum height & dia. of shop heads after setting.
- For both univ. head & flush rivets.



Part Number	For Rivets
92054	-3, -4, -5 & -6

**Riveter's Tape**

72-183-0



*Reduce  
Manpower  
On Large  
Riveting Jobs*

*Saves Time  
& Money*

72-183-2

- Adhesive-free center window ensures easy visibility of rivets.
- Static-free, self wound rolls are perforated for easy use.

Part Number	Width	Thickness	Roll Length
72-183-0	3/4" (19.1 mm)	4 mil	108' (32.9 m)
72-183-1	1" (25.4 mm)		
72-183-2	2" (50.8 mm)		
72-183-4	4" (101.6 mm)		

**Note:** For use with aluminum rivets only. Other sizes available, please inquire.

**Rivet Cutters**

*Cushioned  
Grip Handles*

04-17



04-501

- Adjustable steps in 1/16" increments.
- Adjustable guide maintains cutting length.

Part Number	Type	Capacity*
04-17	Standard	3/32" to 1/4"
04-501	Heavy-Duty	3/32" to 1/4"

\* 04-17 capacity of 1/4" for emergency use only.

**Extension Handle Rivet Cutters**



- 13" tubular extension handles provide additional leverage.
- Adjustable guide maintains cutting length.

Part Number	Capacity
04-501S	3/32" to 1/4"

**USATCO Heavy-Duty Rivet Chopper**



- Steps vary in 1/16" increments.
- Bench or vise mounted.

Part Number	Capacity (1/8" to 1/2" L)	Capacity (1/4" to 1/2" L)
04-31	1/16" to 5/32"	3/16"

**Skin Wedge**



- Easily separate two pieces of metal.
- All steel construction is heat-treated to allow slight flexibility.

Part Number	Description	Dimensions
14085	Single Tool	7" Long x 1" Wide x 1/4" Thickness
16085	3PC Set	

**USATCO Bucking Bar Sets**



53-5BK

**Three Piece Kit:**

08-669, 08-111 & 08-670

*Convenient & Economical*

Part Number	Weight
53-3BK	6.5 lbs (2.9 kgs)

**Five Piece Kit:**

08-669, 08-111, 08-670, 08-720 & 08-760B-2

Part Number	Weight
53-5BK	8.25 lbs (3.7 kgs)

**Ten Piece Kit:**

53-5BK (above), 08-730, 08-656, 08-649, 08-604A & 08-638

Part Number	Weight
53-10BK	15.75 lbs (7.1 kgs)

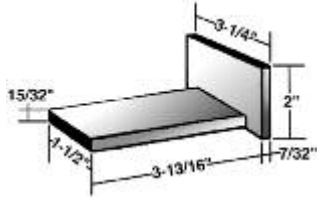
**Fifteen Piece Kit:**

53-10BK (above), 08-702, 08-736, 08-112, 08-646 & 08-633

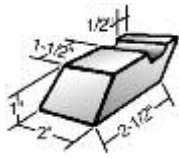
Part Number	Weight
53-15BK	25.25 lbs (11.4 kgs)

**Note:** Please see following pages for dimensional data on individual bucking bars.

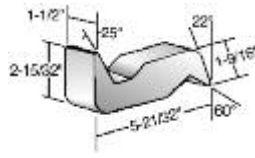
**USATCO Precision Cast Bucking Bars**



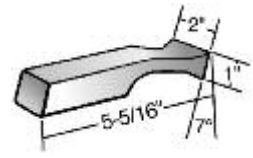
Part No.	Weight
08-1023	1.25 lbs (0.6 kgs)



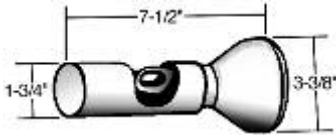
Part No.	Weight
08-1090	1.4 lbs (0.6 kgs)



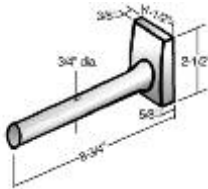
Part No.	Weight
08-111	3.0 lbs (1.4 kgs)



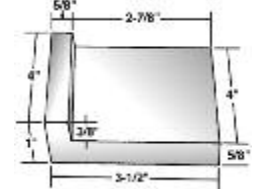
Part No.	Weight
08-112	1.5 lbs (0.7 kgs)



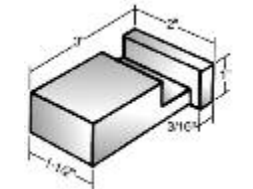
Part No.	Weight
08-603	6.5 lbs (2.9 kgs)



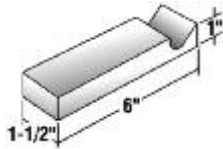
Part No.	Weight
08-604A	2.0 lbs (0.9 kgs)



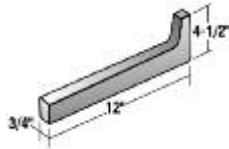
Part No.	Weight
08-607	2.5 lbs (1.1 kgs)



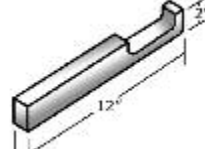
Part No.	Weight
08-619	1.3 lbs (0.6 kgs)



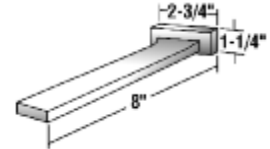
Part No.	Weight
08-622	2.5 lbs (1.1 kgs)



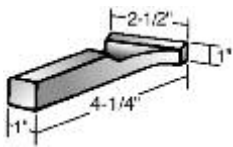
Part No.	Weight
08-625	6.5 lbs (2.9 kgs)



Part No.	Weight
08-626	6.0 lbs (2.7 kgs)



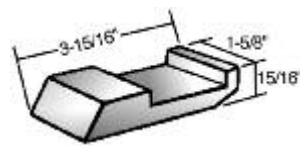
Part No.	Weight
08-630	1.5 lbs (0.7 kgs)



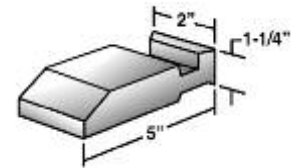
Part No.	Weight
08-633	1.25 lbs (0.6 kgs)



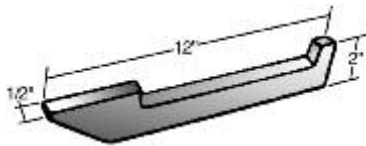
Part No.	Weight
08-634	1.2 lbs (0.6 kgs)



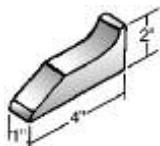
Part No.	Weight
08-638	1.25 lbs (0.6 kgs)



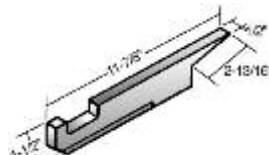
Part No.	Weight
08-640	3.0 lbs (1.4 kgs)



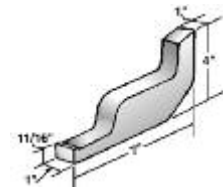
Part No.	Weight
08-646	2.25 lbs (1.0 kgs)



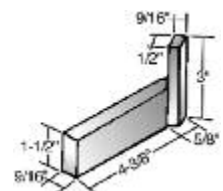
Part No.	Weight
08-647	1.5 lbs (0.7 kgs)



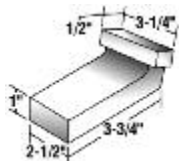
Part No.	Weight
08-649	2.0 lbs (0.9 kgs)



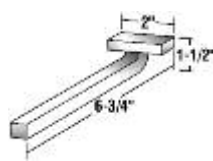
Part No.	Weight
08-653	3.0 lbs (1.4 kgs)



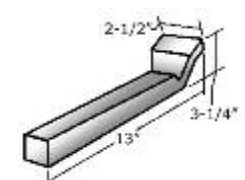
Part No.	Weight
08-656	1.0 lbs (0.45 kgs)



Part No.	Weight
08-658	3.75 lbs (1.7 kgs)

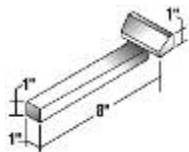


Part No.	Weight
08-662	0.75 lbs (0.3 kgs)

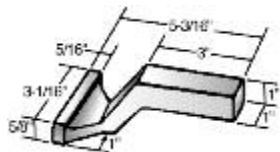


Part No.	Weight
08-666	9.25 lbs (4.2 kgs)

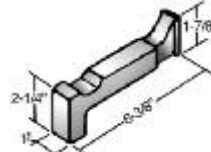
USATCO Precision Cast Bucking Bars (cont'd)



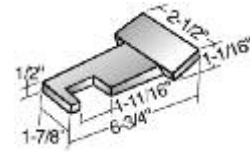
Part No.	Weight
08-668	3.0 lbs (1.4 kgs)



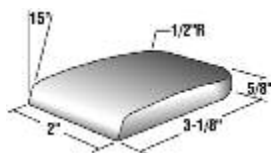
Part No.	Weight
08-669	1.5 lbs (0.7 kgs)



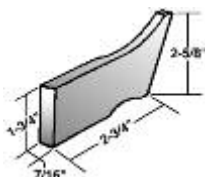
Part No.	Weight
08-670	2.0 lbs (0.9 kgs)



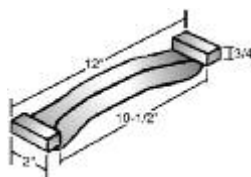
Part No.	Weight
08-671	2.25 lbs (1.0 kgs)



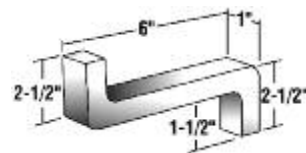
Part No.	Weight
08-6721A	1.0 lbs (0.45 kgs)



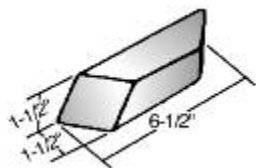
Part No.	Weight
08-676	0.75 lbs (0.34 kgs)



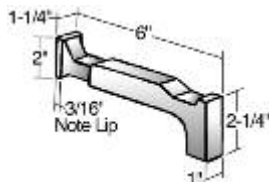
Part No.	Weight
08-686	4.25 lbs (1.9 kgs)



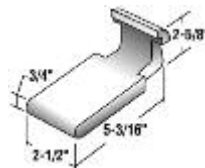
Part No.	Weight
08-690	2.5 lbs (1.1 kgs)



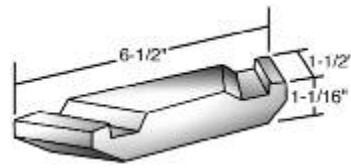
Part No.	Weight
08-692	3.0 lbs (1.4 kgs)



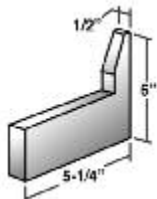
Part No.	Weight
08-694	2.0 lbs (0.9 kgs)



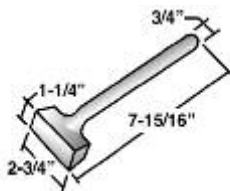
Part No.	Weight
08-701	2.75 lbs (1.2 kgs)



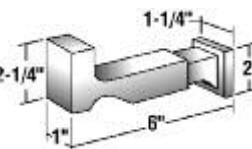
Part No.	Weight
08-702	2.0 lbs (0.9 kgs)



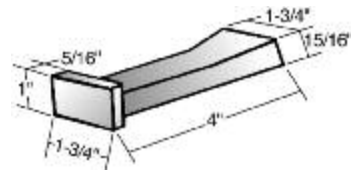
Part No.	Weight
08-716	2.0 lbs (0.9 kgs)



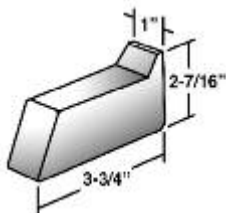
Part No.	Weight
08-718	1.5 lbs (0.68 kgs)



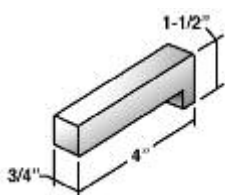
Part No.	Weight
08-719	2.0 lbs (0.9 kgs)



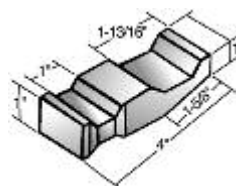
Part No.	Weight
08-720	0.75 lbs (0.34 kgs)



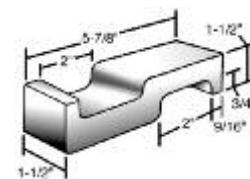
Part No.	Weight
08-721	1.75 lbs (0.79 kgs)



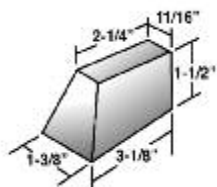
Part No.	Weight
08-727	1.0 lbs (0.45 kgs)



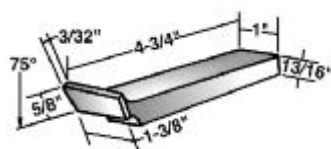
Part No.	Weight
08-730	1.25 lbs (0.6 kgs)



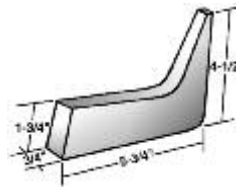
Part No.	Weight
08-736	2.3 lbs (1.0 kgs)



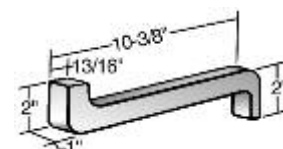
Part No.	Weight
08-750G-1	1.3 lbs (0.59 kgs)



Part No.	Weight
08-750K-1	1.125 lbs (0.5 kgs)



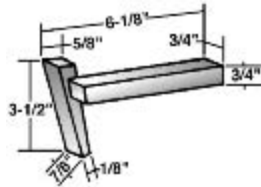
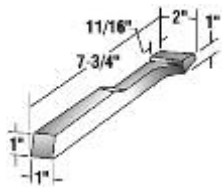
Part No.	Weight
08-750N-1	2.25 lbs (1.0 kgs)



Part No.	Weight
08-751	3.25 lbs (1.5 kgs)

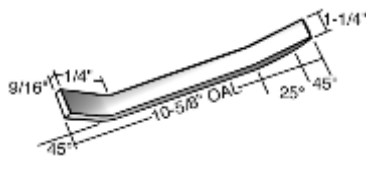
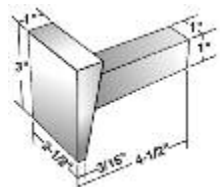
# RIVET GUNS & ACCESSORIES

## USATCO Precision Cast Bucking Bars (cont'd)



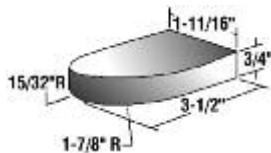
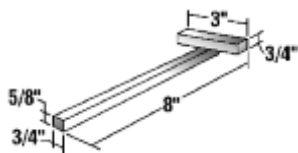
Part No.	Weight
08-751U-1	1.25 lbs (0.6 kgs)

Part No.	Weight
08-7522-1	1.25 lbs (0.6 kgs)



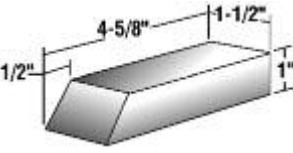
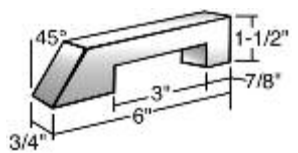
Part No.	Weight
08-7523	2.4 lbs (1.1 kgs)

Part No.	Weight
08-7524	2.4 lbs (1.1 kgs)



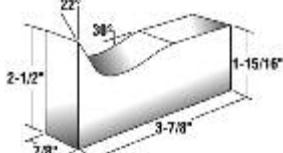
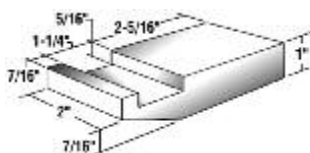
Part No.	Weight
08-753	1.75 lbs (0.8 kgs)

Part No.	Weight
08-753T-4	1.25 lbs (0.6 kgs)



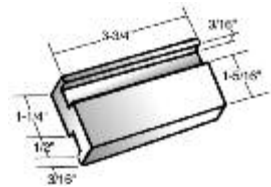
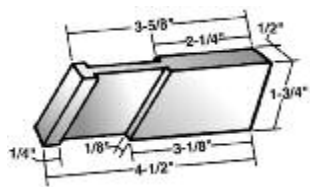
Part No.	Weight
08-760B-2	1.0 lbs (0.45 kgs)

Part No.	Weight
08-760B-10	2.0 lbs (0.9 kgs)



Part No.	Weight
08-78-24C	2.0 lbs (0.9 kgs)

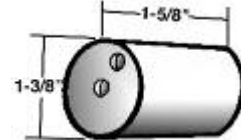
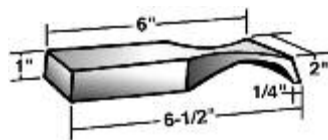
Part No.	Weight
08-83	1.5 lbs (0.7 kgs)



Part No.	Weight
08-860	0.9 lbs (0.4 kgs)

Part No.	Weight
08-861	0.9 lbs (0.4 kgs)

## USATCO Precision Cast Bucking Bars (cont'd)

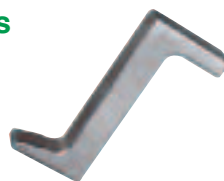


Part No.	Weight
08-862	2.7 lbs (1.2 kgs)

Part No.	Weight
08-864	0.6 lbs (0.3 kgs)

### USATCO Bucking Bar Specials

Many other styles and shapes are available! Usatco offers you the ability to custom design your own bucking bar style. Please inquire with your design for special bucking bars and we will quote with your design or one that is similar in form and function.



## Trauma Reducing Bucking Bar Kit

*Cushioned Grip*



- Significantly reduces vibration associated with hammering rivets.
- Spring tension adjustment for different rivet sizes & materials.
- Quick-change handle design allows changing of bars in seconds.

#### Includes:

Cushioned Bucking Bar Handle, Five Bucking Bars In Assorted Styles, Adjustment Key & Fitted Carrying Case

Part Number	Description
1001K	Complete 8 PC Kit

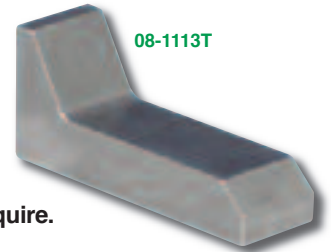
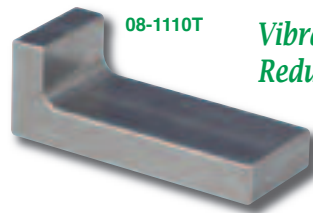
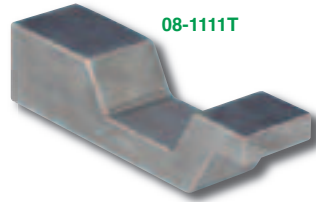


*For Riveting Impact Protection See Page 234*

Tungsten Bucking Bars

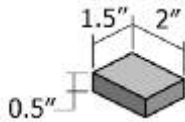
Made In The USA

Vibration Reducing

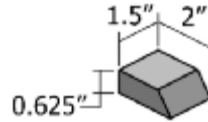


- High density tungsten bucking bars help reduce vibration.
- Deburred edges & polished working surfaces for trouble-free use.
- **USATCO can fabricate custom designs from your drawings, please inquire.**

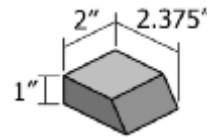
Note: Dimensions and weights are approximate and may vary slightly.



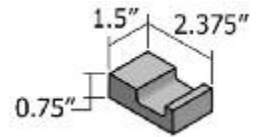
Part No.	Weight
08-1100T	1.16 lbs (0.53 kgs)



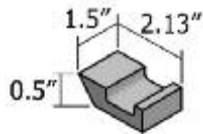
Part No.	Weight
08-1101T	1.07 lbs (0.49 kgs)



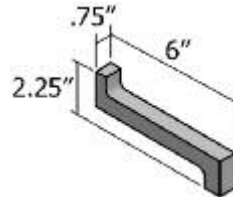
Part No.	Weight
08-1102T	2.87 lbs (1.30 kgs)



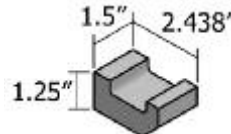
Part No.	Weight
08-1103T	1.31 lbs (0.59 kgs)



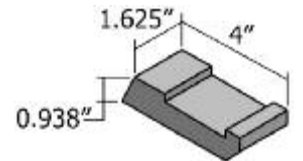
Part No.	Weight
08-1104T	1.20 lbs (0.54 kgs)



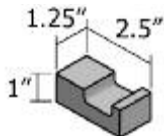
Part No.	Weight
08-1105T	2.62 lbs (1.19 kgs)



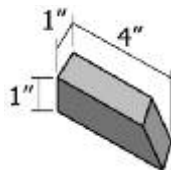
Part No.	Weight
08-1106T	2.19 lbs (0.99 kgs)



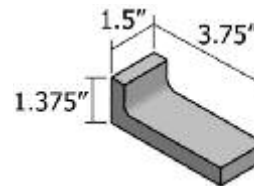
Part No.	Weight
08-1107T	2.93 lbs (1.33 kgs)



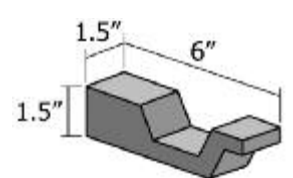
Part No.	Weight
08-1108T	1.70 lbs (0.77 kgs)



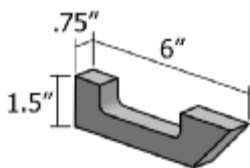
Part No.	Weight
08-1109T	1.92 lbs (0.87 kgs)



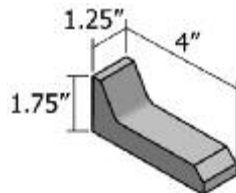
Part No.	Weight
08-1110T	2.52 lbs (1.14 kgs)



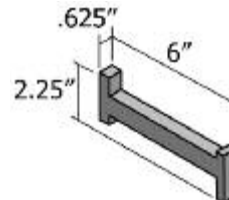
Part No.	Weight
08-1111T	5.90 lbs (2.68 kgs)



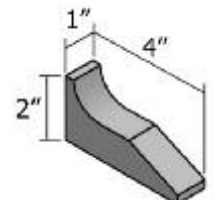
Part No.	Weight
08-1112T	2.73 lbs (1.24 kgs)



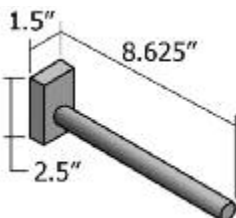
Part No.	Weight
08-1113T	2.81 lbs (1.28 kgs)



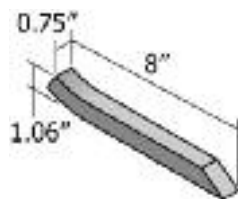
Part No.	Weight
08-1114T	2.34 lbs (1.06 kgs)



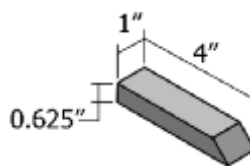
Part No.	Weight
08-1115T	2.63 lbs (1.19 kgs)



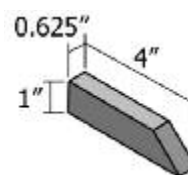
Part No.	Weight
08-1116T	3.87 lbs (1.76 kgs)



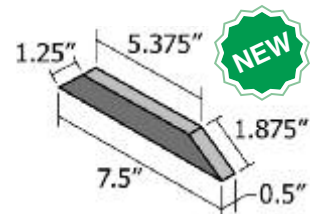
Part No.	Weight
08-1117T	2.58 lbs (1.17 kgs)



Part No.	Weight
08-1119T	1.53 lbs (0.69 kgs)



Part No.	Weight
08-1160T	1.44 lbs (0.65 kgs)



Part No.	Weight
08-1161T	1.79 lbs (0.81 kgs)

# RIVET SQUEEZERS & ACCESSORIES

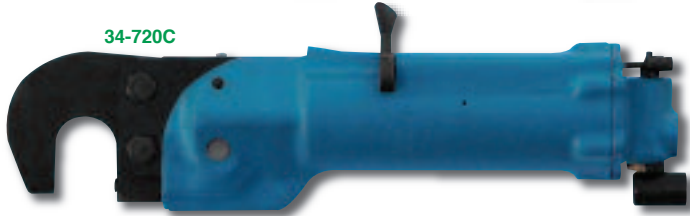
## USATCO C-Yoke Riveters

*Quiet, Easy Operation*      *CE Approved & Certified*

34-214C



34-720C



- Clamping force exceeds federal specifications.
- New, larger capacity high-force models available below.

Note: 11/16" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214C	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	10-5/16" (26 cm)	4.5 lbs (2.1 kgs)
34-214*	N/A	3000 lbs	1/8" Alum. 3/32" Steel	9" (23 cm)	4.0 lbs (1.8 kgs)

High Force Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214CC	1-1/2"	3800 lbs	5/32" Alum. 1/8" Steel	10-5/16" (26 cm)	4.5 lbs (2.1 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-720C	1-1/2"	6000 lbs	3/16" Alum. 5/32" Steel	14" (36 cm)	5.5 lbs (2.5 kgs)
34-720*	N/A	6000 lbs	3/16" Alum. 5/32" Steel	12" (31 cm)	5.0 lbs (2.3 kgs)

High Force Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-720CC	1-1/2"	7600 lbs	3/16" Alum. 5/32" Steel	14" (36 cm)	5.5 lbs (2.5 kgs)

\* Riveter less yoke. See pages 51-52 for optional USATCO c-yokes.

## USATCO 360° Swivel C-Yoke Riveter

*Locks In Any Position*      *CE Approved & Certified*



Note: 11/16" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214SC	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	12" (31 cm)	4.5 lbs (2.1 kgs)

## Chicago Pneumatic® C-Yoke Riveter



Note: 11/16" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0214CELEL	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	10-5/16" (26.2 cm)	4.5 lbs (2.0 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0214FALEL	1-1/2"	6000 lbs	3/16" Alum. 5/32" Steel	14" (35.6 cm)	5.5 lbs (2.5 kgs)

## Chicago Pneumatic® C-Yoke Riveters

*Includes Safety Throttle Guard*



CP0351CUDEL

Note: 25/32" closed yoke height.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0351CUDEL	2-1/8"	6000 lbs	3/16" Alum. 5/32" Steel	17-1/2" (45 cm)	12.5 lbs (5.7 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0351FUDEL	2-1/8"	12,000 lbs	1/4" Alum. 7/32" Steel	21-3/4" (55 cm)	15.25 lbs (6.9 kgs)

## Chicago Pneumatic® 360° Swivel C-Yoke Riveter

*High Force In A Compact Package*



- 360° swivel yoke locks in any position.
- Up to 13,500 pounds of force throughout the stroke.

Note: 25/32" closed yoke height.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0341CUDEL	2-1/8"	13,500 lbs	9/32" Alum. 1/4" Steel	17-1/2" (45 cm)	12.5 lbs (5.7 kgs)



## High Power C-Yoke Riveter

Accepts Standard 3/16" Tooling

34-820C



Made In  
The USA

- Throttle control for precise rivet installation.
- Even more power than our tandem series.
- Powerful and well balanced - full squeeze force at only 90 PSI.

Note: 11/16" closed yoke height. Includes swivel air inlet.

Tri-Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-820C	1-1/2"	9000 lbs	1/4" Alum. 3/16" Steel	18-3/4" (47.6 cm)	8.5 lbs (3.9 kgs)

## Ultralite® C-Yoke Riveters

Lightweight Ergo Design



- 50% weight reduction over similar models.
- High-strength forged jaws, precision bearings & shafts.

Note: Stroke at maximum force is 1/8".

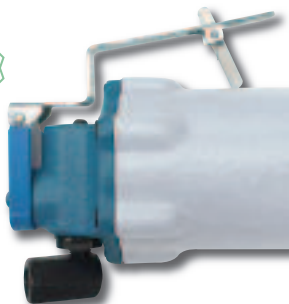
Tri-Cylinder					
Part No.	Reach	Force	Capacity	O.A.L.	Weight
16357	Varies (see below)	11,000 lbs	5/16" Alum. 1/4" Steel	21" (53 cm)	10.1 lbs (4.6 kgs)

Note: To order combine riveter part number (above) & desired yoke number (below).  
Example: For 2" reach, 1-1/2" gap (3/16" set hole), part number would be 16357-7481.

C-Yokes - 3/16" Set Hole				C-Yokes - 1/4" Set Hole			
Suffix	Reach	Gap	Thick.	Suffix	Reach	Gap	Thick.
7479	1-1/2"	1-1/4"	3/4"	3052	1-1/2"	1-1/4"	3/4"
7481	2"	1-1/2"	7/8"	6477	2"	1-1/2"	7/8"
7482	3"	1-1/2"	1-1/8"	6478	3"	1-1/2"	1-1/8"
7483	1-1/2"	2"	1"	6479	1-1/2"	2"	1"
7484	2-1/2"	1-3/8"	1"	6480	2-1/2"	1-3/8"	1"
7485	2-1/2"	1-3/4"	1-1/8"	6481	2-1/2"	1-3/4"	1-1/8"

## USATCO Safety Lever Backhead

- Easily attaches to any 214 type riveter.
- Ergonomic design is less fatiguing to hold.
- More control for user to safely engage the riveter.



Part Number	For Use With
38-795-LA	214 Type Riveters

## USATCO Alligator Yoke Riveters

CE Approved & Certified



34-214A-2-1/4



34-725A-1-1/2

Quiet, Easy Operation

- Clamping force exceeds federal specifications.
- New, larger capacity high-force models available below.

Note: 7/8" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214A-1-1/2	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	9-3/16" (23 cm)	3.75 lbs (1.7 kgs)
34-214A-2-1/4	2-1/4"	2200 lbs	1/8" Alum. 3/32" Steel	10" (25 cm)	4.25 lbs (1.9 kgs)
34-214A-3	3"	1800 lbs	3/32" Alum. 1/16" Steel	10-3/4" (27 cm)	4.50 lbs (2.1 kgs)

High Force Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-214AA-1-1/2	1-1/2"	3900 lbs	5/32" Alum. 1/8" Steel	9-3/16" (23 cm)	3.75 lbs (1.7 kgs)
34-214AA-2-1/4	2-1/4"	3000 lbs	1/8" Alum. 3/32" Steel	10" (25 cm)	4.25 lbs (1.9 kgs)
34-214AA-3	3"	2400 lbs	3/32" Alum. 1/16" Steel	10-3/4" (27 cm)	4.50 lbs (2.1 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-725A-1-1/2	1-1/2"	6000 lbs	3/16" Alum. 5/32" Steel	11-3/16" (28 cm)	4.75 lbs (2.2 kgs)
34-725A-2-1/4	2-1/4"	4300 lbs	5/32" Alum. 1/8" Steel	12-3/4" (32 cm)	5.25 lbs (2.4 kgs)
34-725A-3	3"	3400 lbs	1/8" Alum. 3/32" Steel	13-1/2" (34 cm)	5.50 lbs (2.5 kgs)

High Force Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-725AA-1-1/2	1-1/2"	7200 lbs	3/16" Alum. 5/32" Steel	11-3/16" (28 cm)	4.75 lbs (2.2 kgs)
34-725AA-2-1/4	2-1/4"	5300 lbs	3/16" Alum. 1/8" Steel	12-3/4" (32 cm)	5.25 lbs (2.4 kgs)
34-725AA-3	3"	4000 lbs	5/32" Alum. 1/8" Steel	13-1/2" (34 cm)	5.50 lbs (2.5 kgs)

## RIVET SQUEEZERS & ACCESSORIES

### Chicago Pneumatic® Alligator Yoke Riveters



CP0214ANBEL

Note: 7/8" closed yoke height. Includes swivel air inlet.

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0214ANBEL	1-1/2"	3000 lbs	1/8" Alum. 3/32" Steel	9-3/16" (23 cm)	3.75 lbs (1.7 kgs)
CP0214ANFEL	2-1/4"	2200 lbs	1/8" Alum. 3/32" Steel	10" (25 cm)	4.25 lbs (1.9 kgs)
CP0214ANGEL	3"	1800 lbs	3/32" Alum. 1/16" Steel	10-3/4" (27 cm)	4.50 lbs (2.0 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0214ENBEL	1-1/2"	6000 lbs	3/16" Alum. 5/32" Steel	11-3/16" (28 cm)	4.75 lbs (2.2 kgs)
CP0214ENFEL	2-1/4"	4300 lbs	5/32" Alum. 1/8" Steel	12-3/4" (32 cm)	5.25 lbs (2.4 kgs)
CP0214ENGEL	3"	3400 lbs	1/8" Alum. 3/32" Steel	13-1/2" (34 cm)	5.50 lbs (2.5 kgs)

### CP® Heavy-Duty Alligator Yoke Riveters

*Includes Safety Throttle Guard*



CP0351ESREL

Closed Yoke Heights: -SGEL & -SKEL, 7/8"; -SREL, 1-1/2"; -SVEL, 3/4".

Single Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0351ASGEL	2-7/8"	5200 lbs	5/32" Alum. 1/8" Steel	19-1/2" (50 cm)	15.75 lbs (7.1 kgs)
CP0351ASKEL	5"	3400 lbs	1/8" Alum. 3/32" Steel	21-5/8" (55 cm)	19.75 lbs (9.0 kgs)
CP0351ASREL	7"	3000 lbs	1/8" Alum. 3/32" Steel	23-5/8" (60 cm)	24.25 lbs (11.0 kgs)
CP0351ASVEL	9-1/8"	3000 lbs	1/8" Alum. 3/32" Steel	25-3/4" (65 cm)	26.25 lbs (11.9 kgs)

Tandem Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
CP0351ESGEL	2-7/8"	10,400 lbs	1/4" Alum. 3/16" Steel	23-3/4" (60 cm)	18.5 lbs (8.4 kgs)
CP0351ESKEL	5"	6800 lbs	3/16" Alum. 5/32" Steel	25-7/8" (66 cm)	22.5 lbs (10.2 kgs)
CP0351ESREL	7"	6000 lbs	3/16" Alum. 5/32" Steel	27-7/8" (71 cm)	27.0 lbs (12.3 kgs)
CP0351ESVEL	9-1/8"	6000 lbs	3/16" Alum. 5/32" Steel	30" (76 cm)	29.0 lbs (13.2 kgs)

### Ultralite® Alligator Yoke Riveters

*Ergonomic Design*



- 50% weight reduction over similar models.
- High-strength forged jaws, precision bearings & shafts.

Tri-Cylinder					
Part No.	Reach	Force	Capacity	O.A.L.	Weight
17283	3"	10,000 lbs	1/4" Alum. 3/16" Steel	20-1/4" (50 cm)	9 lbs (4.1 kgs)
	5"	6800 lbs	3/16" Alum. 5/32" Steel	22-1/2" (55 cm)	11 lbs (4.9 kgs)

Note: To order combine riveter part number (above) & desired yoke number (below).  
Example: For 5" reach (1/4" set hole) riveter, part number would be 17283-17147.

Alligator Yokes - 3/16" Set Hole		
Suffix	Reach	Travel
17148	3"	7/8"
17146	5"	1-1/4"

Alligator Yokes - 1/4" Set Hole		
Suffix	Reach	Travel
17149	3"	7/8"
17147	5"	1-1/4"

### High Power Alligator Yoke Riveters



34-825A-1-1/2

*Made In The USA*

34-825A-2-1/4

*Powerful & Well Balanced*

34-825A-3

*More Power Than Our Tandem Series*

- Accepts standard 3/16" tooling.
- Full squeeze force at only 90 PSI.
- Throttle control for precise rivet installation.

Note: 7/8" closed yoke height. Includes swivel air inlet.

Tri-Cylinder					
Part Number	Reach	Force	Capacity	O.A.L.	Weight
34-825A-1-1/2	1-1/2"	9000 lbs	1/4" Alum. 3/16" Steel	16" (40.6 cm)	7 lbs (3.2 kgs)
34-825A-2-1/4	2-1/4"	7000 lbs	3/16" Alum. 5/32" Steel	16-3/4" (42.5 cm)	7.5 lbs (3.4 kgs)
34-825A-3	3"	5200 lbs	3/16" Alum. 5/32" Steel	17-1/2" (44.4 cm)	8 lbs (3.6 kgs)

**USATCO Deep Reach Alligator Yoke Riveter**

*CE Approved  
& Certified*



*Extra Long  
12" Reach*

34-351TA-12

Tandem Cylinder							
Part Number	Reach	Force	Capacity Aluminum	Capacity Steel	Closed Yoke Height	Overall Length	Weight
34-351TA-12	12"	3000 lbs	1/8"	3/32"	1"	32-7/8" (84 cm)	39 lbs (17.7 kgs)

**Ultralite® Compact Alligator Yoke Riveter**

*The Smallest Squeezer In  
The Aviation Industry*



*Uses Standard  
3/16" Sets*

*Perfect For Limited Access Areas*

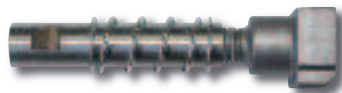
- Ultra compact yet powerful - delivers 2200 pounds of force.
- Epoxy coated aluminum housing for a lightweight, durable tool.
- Smooth control safety throttle lever & 90° elbow swivel air inlet.

Single Cylinder						
Part Number	Reach	Gap	Force	Capacity	O.A.L.	Weight
34-702	1"	1-7/64"	2200 lbs	1/8" Alum. 3/32" Steel	7-3/8" (18.6 cm)	2.2 lbs (1.0 kgs)

Note: Stroke at maximum force is 1/32".

**Adjustable Set Holder**

*Fast & Easy  
Adjustments*



- Replaces the rigid 2-9/16" set holder standard to most CP214 style single cylinder pneumatic squeezers.
- Eliminates the need to shim the dies and sets with washers.
- Heat treated 4130 steel investment casing with rolled threads.

Note: Not for use with tandem cylinder squeezers.

Part Number	Description
97798	Adjustable Set Holder

**Power Booster Assembly**



- Increase the power of your existing 351 type riveters.
- Unit can easily be installed by an experienced tool technician.

Part Number	For Use With
38-351B	CP0351 Type Riveters

Riveter Reach	Dural Capacity		Steel Capacity	
	Before	After	Before	After
2-7/8"	3/16"	5/16"	5/32"	1/4"
5"	5/32"	1/4"	1/8"	3/16"
7"	1/8"	3/16"	3/32"	5/32"
9-1/8"	1/8"	3/16"	3/32"	5/32"

**Throttle Guard Kit**

*Easy To  
Install*



- Convert your older riveter to modern safety standards.
- Includes replacement pin and gasket (not shown).

Part Number	For Use With
90793	CP0351 Type Riveters

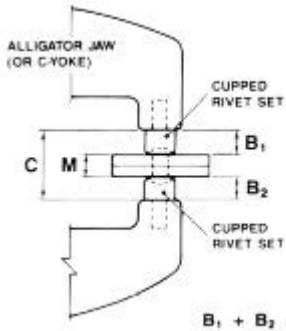
**USATCO Rebuilt Portable Rivet Squeezers**

USATCO has been reconditioning all types of aerospace tools since 1951. All riveters that go through our experienced, professional shop look and operate like new.

We maintain a large inventory of riveters too varied to list here. Contact us to see what we have available - you can save up to 50% off current new prices!

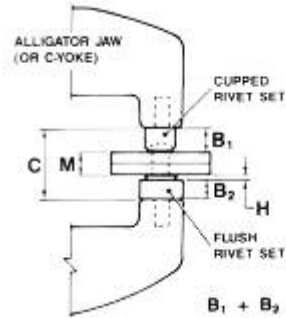
## Selecting Rivet Sets For Your Compression Riveters

To develop maximum power, the riveter must drive the rivet near the end of the riveter's stroke. Therefore, the combined length of the two rivet sets must be correct. **Determine the correct length as follows:**



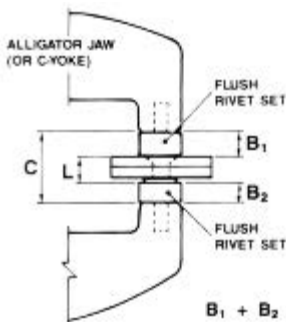
### When two cupped rivet sets are used:

The length of the body dimensions of the two rivet sets (B<sub>1</sub>, B<sub>2</sub>) should equal the closed height dimension of the yoke (C) minus the total thickness of material being riveted (M).



### When one cupped & one flush set are used:

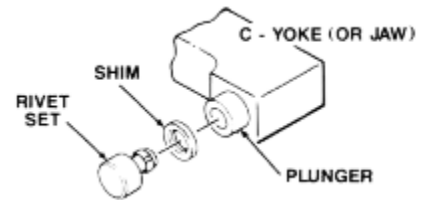
The length of the body dimensions of the two rivet sets (B<sub>1</sub>, B<sub>2</sub>) should equal the closed height dimension of the yoke (C) minus the total thickness of material being riveted (M) and the height of the finished rivet head driven by the flush set (H).



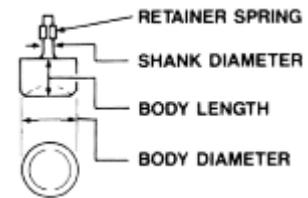
### When two flush sets are used:

The length of the body dimensions of the two rivet sets (B<sub>1</sub>, B<sub>2</sub>) should equal the closed height dimension of the yoke (C) minus the overall length of the rivet after it is driven (L).

The closed height dimension of the yoke referred to is the opening available when the jaws or plunger are in extreme closed or forward position with both rivet sets removed.



If necessary, select rivet sets a little short and shim to proper length with hardened shims (1/64", 1/32", 1/16" or 1/8" thick).



**Head or die configuration:** Cupped or flush; available in button, round, brazier, universal or flat head configurations.

*A Wide Selection Of Squeezer Sets Are Offered On Pages 54-57*

## Foot Control Attachments



*Convert Your Riveter To Hands-Free Foot Control*



### NEW 214 Type Foot Control

- Includes foot throttle backhead & 7.5' hose (riveter sold separately).

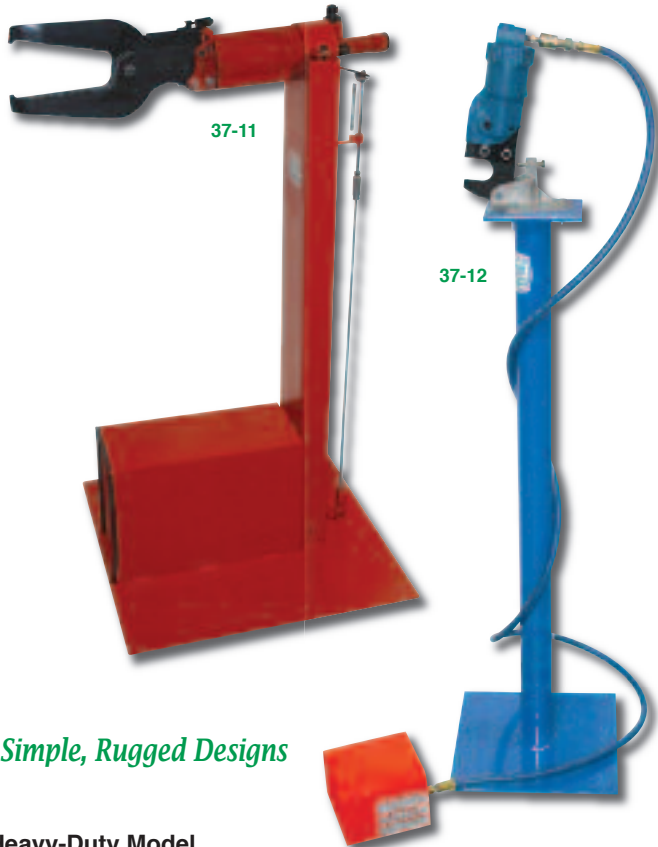
Part Number	For Use With
15-214FC	214 Type Riveters

### 351 Type Foot Control

- Includes foot control with 6' cable (riveter sold separately).

Part Number	For Use With
15-2C	CP0351 Type Riveters

**USATCO Rivet Squeezer Floor Stands**



*Simple, Rugged Designs*

**Heavy-Duty Model**

- Fits alligator yoke CP0351A & APT riveter series.
- Manufactured by USATCO for major aircraft companies.

Part No.	Includes	Height
37-11	Stand & Foot Control	45" (114 cm)

**Lightweight Models**

- Fits most c-yoke 214 riveter series.
- USATCO original design.
- Adaptations to suit customer requirements, please inquire.

Part No.	Includes	Height
37-12	Stand, Foot Control & Conversion Head	40" (102 cm)
37-13	Bench Mount, Foot Control & Conv. Head	

**Note:** When ordering please specify make & model number of riveter to be mounted. Riveters shown not included.

**2 PC Quick-Change Yoke Pin Set**



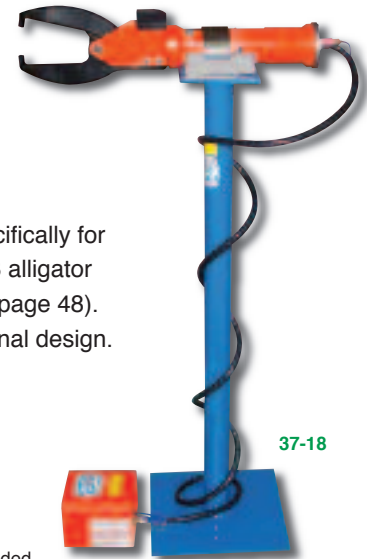
*Change Yokes Fast*

Pull rings allow user to swap out yokes quickly & easily.

**Note:** For use with 214 type pneumatic squeezers.

Part Number	Pin Diameter	Pin Length
96396	1/4" (6.4 mm)	3/4" (19 mm)

**USATCO Squeezer Stand For Ultralite® Riveters**



- Designed specifically for Ultralite 17283 alligator yoke riveters (page 48).
- USATCO original design.

**Note:** Riveter shown not included.

Part No.	Includes	Height
37-18	Stand & Hands Free Foot Control	40" (102 cm)
37-20	Hands Free Foot Control Only (portable)	—

**USATCO Longeron C-Yoke**

*Excellent Maneuverability*

- Specifically designed to reach over longerons, angles, hinges and other obstructions.
- Precision crafted & heat treated.
- Takes standard .187" shank rivet sets.



1-5/16" Mount Spacing			
Part Number	Reach	Gap	Inside Gap
64-7755	2-3/8"	1-1/4"	2-3/8"

**USATCO C-Yokes For Semi-Tubular Rivets**



- Designed especially for semi-tubular rivets to 5/16".
- Takes standard .187" shank rivet sets.

**Note:** Yokes require set holder.

Set Holder	
Part No.	For Use With
38-539	64-C28 to 64-C39

Yoke: 1-5/16" Mount Spacing		
Part No.	Reach	Gap
64-C28	1-1/8"	1-3/4"
64-C29	1-1/8"	2"
64-C30	1-1/8"	2-1/4"
64-C31	1-1/8"	2-1/2"
64-C32	1-1/8"	2-3/4"
64-C33	1-1/8"	3"
64-C34	1-1/8"	3-1/2"
64-C35	1-1/8"	4"
64-C36	1-1/8"	4-7/16"
64-C37	1-1/8"	3-1/4"
64-C38	1-1/8"	3-3/4"
64-C39	1-1/8"	4-1/4"

# RIVET SQUEEZERS & ACCESSORIES

## USATCO C-Yokes

- Yokes furnished with .187" set holes (.250" available, please inquire).
- Set holders may be required, see charts below.



*USATCO Can Fabricate Your Custom Yoke Designs, Please Inquire*

1-5/16" Mount Spacing		
Part No.	Reach	Gap
64-C1	1-7/16"	1-1/4"
64-C4	3-1/2"	1-3/4"
64-C5	4-1/8"	2-1/2"
64-C8	4-1/2"	3-1/2"
64-C9	10"	3-1/2"
64-C12-S	13-1/2"	4"
64-C16	2"	2"
64-C200	2"	1-1/4"
64-C300	3"	1-1/4"
64-959	2-1/2"	1-3/8"
64-961HD	3-1/2"	1-1/2"

Note: 64-C8, 64-C9, 64-C12-S & 64-C16 yokes include adj. threaded adapter.

1-5/8" Mount Spacing		
Part No.	Reach	Gap
64-C3	4-7/16"	1-5/8"
64-C6	20-1/2"	2-1/4"
64-C10	2-1/8"	1-1/8"

2-1/16" Mount Spacing		
Part No.	Reach	Gap
64-C11	2-1/8"	1-1/8"

1-5/16" Mount Spacing Yokes: Will fit all 214 type riveters, USATCO 34-214C & 34-720C. Requires set holder, see below.

1-5/8" Mount Spacing Yokes: Will fit CP0351C & CP0351CUNEL (for CP#1 yoke frames).

2-1/16" Mount Spacing Yokes: Will fit CP0351CUNEL (for CP#2 yoke frames).

Set Holders	
Part Number	For Use With
38-539	64-C1, 64-C200 & 64-959
38-539-2	64-C16
38-539-2A	64-C4 & 64-C300

Set Holders	
Part Number	For Use With
38-539-3	64-C8 & 64-961HD
38-539-4	64-C5
38-539-6	64-C9

## USATCO 360° Swivel C-Yokes



*Locks In Any Position*

- Adjustable tool holder eliminates the need for shimming.
- Takes standard .187" shank rivet sets.

1-5/16" Mount Spacing			
Part Number	Reach	Gap	For Use With
64-C360-1	1-1/2"	1-1/4"	USATCO 214C Series, CP0214CENEL
64-C360-3	3"	1-1/4"	

## USATCO Alligator Jaw Assemblies

*Made In The USA*

- Precision crafted & heat-treated, all hardware included.
- The same yokes as installed on our 34-214A & 34-725A riveters (yokes will also fit CP & other similar tools).



Part No.	Reach	Gap
64-A5-1	1-1/2"	0.89"
64-A5-2	2-1/4"	0.89"
64-A5-3	3"	0.89"

## Stainless Steel Hand Rivet Squeezers

*Adjustable Ram*



10-THS10

- Stainless steel construction designed for lasting performance.
- Takes standard .187" shank rivet sets.
- Heat-treated on all wear & deflecting components.

*Rugged & Portable*

### Stainless Steel Squeezer Kit:

- Includes tool, 3 univ. AN470 (3/32", 1/8" & 5/32") & 2 flush sets.

1/16" to 5/32" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-THS10	53-THS10	1"	1-1/4"
10-THS20	53-THS20	2"	1-1/4"
10-THS22	53-THS22	2"	2"
10-THS30	53-THS30	3"	1-1/4"
10-THS40	53-THS40	4"	1-1/4"
10-THS50	53-THS50	5"	1-1/4"
10-THS60	53-THS60	6"	1-1/4"

Replacement Yokes		
Part No.	Reach	Gap
THY10	1"	1-1/4"
THY101	1"	1" Flush
THY15	1-1/2"	1-1/4"
THY20	2"	1-1/4"
THY22	2"	2"
THY25	2-7/8"	1-1/4"

Replacement Yokes		
Part No.	Reach	Gap
THY30	3"	1-1/4"
THY35	3-1/2"	1-1/4"
THY40	4"	1-1/4"
THY50	5"	1-1/4"
THY60	6"	1-1/4"

Note: Narrow nose available, please inq.

## 3 PC Quick-Change Yoke Pin Sets

*Change Yokes Fast*



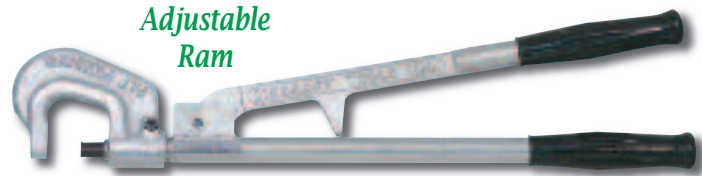
Pull rings allow user to swap out yokes quickly & easily.

For Texas & Tatco (THS) Style Hand Squeezers (above)	
Part Number	Description
96394	3 PC Yoke Pin Set

For USATCO (420) Style Hand Squeezers (next page)	
Part Number	Description
96398	3 PC Yoke Pin Set

## 360° Swivel Hand Rivet Squeezers

*Adjustable Ram*



10-502AH-D

- Full 360° yoke can be locked in any position.
- Takes standard .187" shank rivet sets.
- Tool has a 3/8" stroke & 5/8" ram adjustment (no washers needed).

### Swivel Squeezer Kit:

- Includes tool, 3 univ. AN470 (3/32", 1/8" & 5/32") & 2 flush sets.

5/32" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-502AH-D	53-502AH-D	1-1/2"	1-1/4"
10-502AH-E	53-502AH-E	3"	1-1/4"

## DA Series 360° Swivel Hand Rivet Squeezers

*3500 Pounds Of Squeezing Pressure*



10-DA-5

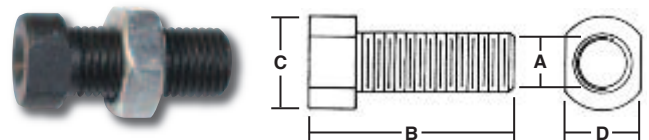
*Adjustable Ram*

- Full 360° yoke can be locked in any position.
- Uses squeezer sets or 3/8"-24 adapter dollie (below).

### DA Series Squeezer Kit:

- Includes hand rivet squeezer, three universal AN470 sets (3/32", 1/8" & 5/32"), two flush sets & two adapter dollies.

5/32" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-DA-2	53-DA-2	2-1/2"	1-5/8"
10-DA-5	53-DA-5	6"	1-5/8"



### Adapter Dollie:

- Enables use of any of our .187" shank riveting or dimpling sets.
- 3/8"-24 thread size, includes lock nut.

Part No.	'A' Dim	'B' Dim	'C' Dim	'D' Dim
27-5-4	.187"	1"	1/2"	7/16"

## RIVET SQUEEZERS & ACCESSORIES

### USATCO Hand Rivet Squeezers

*Adjustable Set  
Holder*



53-420-1A

- Takes standard .187" shank rivet sets.
- Includes 3 universal AN470 (3/32", 1/8" & 5/32") & 2 flush sets.

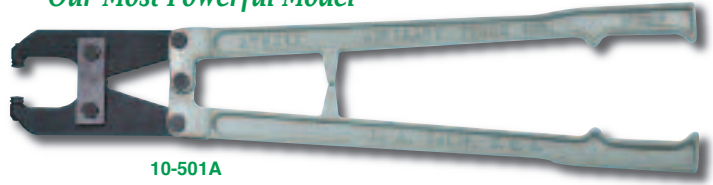
Tool With Single Yoke - 1/16" to 5/32" Capacity (aluminum)		
Part Number	Reach	Gap
53-420-1A	1"	1-1/4"
53-420-2A	2"	1-1/4"
53-420-3A	3"	1-1/4"

Note: Dimpling capacity is 1/16" to 3/16" in material up to 0.040".

Tool With Extra Yokes	
Part Number	Yokes Included
53-420-12A	1" & 2"
53-420-13A	1" & 3"
53-420-23A	2" & 3"
53-420-123A	1", 2" & 3"

### Power Hand Rivet Squeezer

*Our Most Powerful Model*



10-501A

- Deep throat with ample leverage & heat-treated tool steel jaws.
- Takes standard .187" shank rivet sets.

#### Power Hand Squeezer Kit:

- Includes power hand rivet squeezer, four universal AN470 sets (3/32", 1/8", 5/32" & 3/16") & two flush sets.

3/16" Capacity (aluminum)			
Tool Only	Squeezer Kit	Reach	Gap
10-501A	53-501A	2-1/2"	1-1/8"



*For Rivet Gauges & Rivet Cutters See Pages 40-41*

### Cupped Squeezer Sets

*Made In  
The USA*



- High alloy steel construction.
- Precision ground shanks.
- Faces polished to high luster.
- Heat-treated for long wear & tool life.

.187" Shank, 3/8" Dia.		.187" Shank, 1/2" Dia.		.250" Shank, 5/8" Dia.		.312" Shank, 5/8" Dia.		.375" Shank, 5/8" Dia.	
Part No.	Body L	Part No.	Body L	Part No.	Body L	Part No.	Body L	Part No.	Body L
—	1/8"	26-010	1/8"	—	1/8"	—	1/8"	—	1/8"
26-100	1/4"	26-200	1/4"	26-220	1/4"	26-240	1/4"	26-260	1/4"
26-101	3/8"	26-201	3/8"	26-221	3/8"	26-241	3/8"	26-261	3/8"
26-102	1/2"	26-202	1/2"	26-222	1/2"	26-242	1/2"	26-262	1/2"
26-103	5/8"	26-203	5/8"	26-223	5/8"	26-243	5/8"	26-263	5/8"
26-104	3/4"	26-204	3/4"	26-224	3/4"	26-244	3/4"	26-264	3/4"

Note: Select a set (charts above) & add the desired cupping (chart below). Example: For a .187" shank, 1/2" dia., 1/4" body length set with a 1/8" AN470 cupping, use part no. 26-200-470A.

Cupping Size	Round AN430	Button AN435	Flat AN442	Brazier AN455	Mod. Brazier AN456	Universal AN470
1/16"	4302	4352	4422	4552	4562	4702
3/32"	4303	4353	4423	4553	4563	4703
1/8"	4304	4354	4424	4554	4564	4704
5/32"	4305	4355	4425	4555	4565	4705
3/16"	4306	4356	4426	4556	4566	4706
7/32"	4307	4357	4427	4557	4567	4707
1/4"	4308	4358	4428	4558	4568	4708
5/16"	43010	43510	44210	45510	45610	47010
3/8"	43012	43512	44212	45512	45612	47012



## Squeezer Sets For AN450 Tubular Rivets



.187" Shank	.250" Shank	.312" Shank	.375" Shank	Body Length
26-200	26-220	26-240	26-260	1/4"
26-201	26-221	26-241	26-261	3/8"
26-202	26-222	26-242	26-262	1/2"
26-203	26-223	26-243	26-263	5/8"
26-204	26-224	26-244	26-264	3/4"

**Note:** Select a set (chart above), add rivet size & type (chart below). **Example:** For a .187" shank, 1/4" body length set with a 1/8" rivet size (flaring), use part no. 26-200-4502.

Semi-Tubular AN450 Cupping Sizes							
Size	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"	5/16"
Flaring	4502	4503	4504	4505	4506	4508	45010
Anvil	2	3	4	5	6	8	10

## Cupped Sq. Sets For BOEING® BACR15FT Type



.187" Shank	.250" Shank	Body Length
26-200	26-220	1/4"
26-201	26-221	3/8"
26-202	26-222	1/2"
26-203	26-223	5/8"
26-204	26-224	3/4"

**Note:** Select the size set required (charts above), then add the desired cupping (chart below). **Example:** For a .187" shank, 1/4" body length set with a 1/8" BACR15FT cupping, use part number 26-200-4704BAC.

Modified Universal AN470 Cupping Sizes			
3/32"	1/8"	5/32"	3/16"
4703BAC	4704BAC	4705BAC	4706BAC
7/32"	1/4"	9/32"	
4707BAC	4708BAC	4709BAC	

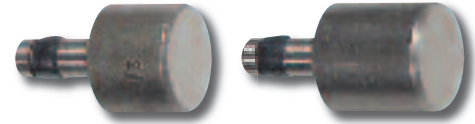
## Soft Blank Sets

- Not heat-treated, easily machinable.
- Retainer spring provided.



.187" Shank		.187" Shank	
Part Number	Body Length	Part Number	Body Length
26-211B	1/4"	26-215B	3/4"
26-212B	3/8"	26-216B	7/8"
26-213B	1/2"	26-217B	1"
26-214B	5/8"		

## Flush Squeezer Sets



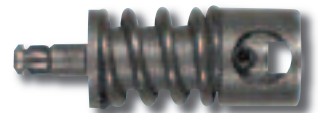
.187" Shank, 3/8" Dia.		.187" Shank, 1/2" Dia.	
Part Number	Body Length	Part Number	Body Length
26-110	1/8"	26-210	1/8"
26-110A	3/16"	26-210A	3/16"
26-111	1/4"	26-211	1/4"
26-112	3/8"	26-212	3/8"
26-113	1/2"	26-213	1/2"
26-114	5/8"	26-214	5/8"
26-115	3/4"	26-215	3/4"
26-116	7/8"	26-216	7/8"
26-117	1"	26-217	1"

.250" Shank, 5/8" Dia.		.312" Shank, 5/8" Dia.	
Part Number	Body Length	Part Number	Body Length
26-230	1/8"	26-250	1/8"
26-230A	3/16"	26-250A	3/16"
26-231	1/4"	26-251	1/4"
26-232	3/8"	26-252	3/8"
26-233	1/2"	26-253	1/2"
26-234	5/8"	26-254	5/8"
26-235	3/4"	26-255	3/4"
26-236	7/8"	26-256	7/8"
26-237	1"	26-257	1"

.375" Shank, 3/4" Dia.		.375" Shank, 3/4" Dia.	
Part Number	Body Length	Part Number	Body Length
26-270	1/8"	26-274	5/8"
26-270A	3/16"	26-275	3/4"
26-271	1/4"	26-276	7/8"
26-272	3/8"	26-277	1"
26-273	1/2"		

## Sleeved & Spring Loaded Flush Squeezer Sets

Spring tension holds workpiece steady during rivet installation.



.187" Shank			.250" Shank		
Part No.	I.D.	O.D.	Part No.	I.D.	O.D.
26-1043	3/8"	9/16"	26-1044	3/8"	9/16"
26-1045	19/64"	1/2"	26-1046	19/64"	1/2"

## Shank Adapters

Part Number	Body Length	Shank	Accepts
26-1	1/2"	.250"	.187"
26-2	3/8"	.312"	.187"



Includes retainer spring.

# RIVET SQUEEZERS & ACCESSORIES

## Spacer Shims

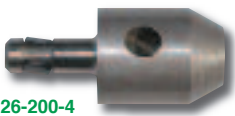
Used for proper adjustment of squeezer set height to accommodate different material thickness.



**Hard Steel**

.187" Shank		.250" Shank		.312" Shank	
Part No.	Thickness	Part No.	Thickness	Part No.	Thickness
27-0	1/64"	27-3	1/32"	27-6	1/32"
27-1	1/32"	27-4	1/16"	27-7	1/16"
27-2	1/16"	27-5	1/8"	27-8	1/8"

## Huck & Hi-Shear Squeezer Sets



HS 26-200-4



H 26-205-8

Hi-Shear .187" Shank	
Part Number	Rivet Size
HS 26-200-4	1/8"
HS 26-200-5	5/32"
HS 26-200-6	3/16"
HS 26-200-8	1/4"

Huck Lockbolt .187" Shank	
Part Number	Rivet Size
H 26-205-4	1/8"
H 26-205-5	5/32"
H 26-205-6	3/16"
H 26-205-8	1/4"
H 26-205-10	5/16"

Hi-Shear .250" Shank	
Part Number	Rivet Size
HS 26-220-4	1/8"
HS 26-220-5	5/32"
HS 26-220-6	3/16"
HS 26-220-8	1/4"
HS 26-220-10	5/16"
HS 26-220-12	3/8"

Huck Lockbolt .250" Shank	
Part Number	Rivet Size
—	1/8"
H 26-225-5	5/32"
H 26-225-6	3/16"
H 26-225-8	1/4"
H 26-225-10	5/16"
H 26-225-12	3/8"

## Adapto® Hand Flaring Kit



53-100-1

**Ideal For Prototype & Small Runs**

**Now Includes Riveting Block**

- Easy to use, specially designed for semi-tubular rivets.
- Complete kit includes tool with flaring & oval sets for 1/16" to 3/32", 1/8" to 5/32" & 3/16" rivets, riveting block & plastic case.

Part Number	Description
53-100-1	Complete 13 PC Kit
08-100	Flaring Tool Only

## Rivet Squeezer Set Kits



53-26

### Set Assortment Kit Includes:

4 Universal AN470 Sets (1/8" body length: 3/32", 1/8", 5/32" & 3/16"), 6 Universal AN470 Sets (1/4" body length: 1/16", 3/32", 1/8", 5/32", 3/16" & 1/4"), 4 Round AN430 Sets (1/16", 3/32", 1/8" & 5/32"), 1 Flat AN442 Set (1/4" body length: 3/32"), 4 Flush Sets with 3/8" Diameter (1 each: 1/8", 1/4", 3/8" & 1/2" body length), 4 Flush Sets with 1/2" Diameter (1 each: 1/8", 1/4", 3/8" & 1/2" body length), Soft Blank Set (1/4" body length), Shim Post Holder, 6 Spacer Shims (2 each: 1/64", 1/32" & 1/16"), Metal Kit Box

Part Number	Description
53-26	31 PC Set Assortment Kit



53-26F



53-3456

### Flush Set Kit Includes:

8 Flush Sets with 3/8" Diameter (2 each: 1/8", 1/4", 3/8" & 1/2" body length), 12 Flush Sets with 1/2" Diameter (1 each: 1/8", 3/16", 1/4", 3/8", 1/2" & 5/8" body length), 3 Soft Blank Sets (1 each: 1/4", 3/8" & 1/2" body length), Shim Post Holder, 7 Spacer Shims (3 each: 1/64", 2 each: 1/32" & 1/16"), Metal Kit Box

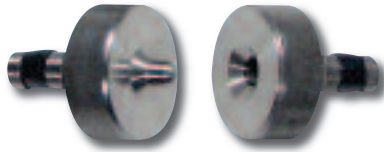
Part Number	Description
53-26F	31 PC Flush Set Kit

### Dimple Die Kit Includes:

4 Dimple Punches (1/4" body length: 3/32", 1/8", 5/32" & 3/16"), 4 Dimple Dies (1/4" body length: 3/32", 1/8", 5/32" & 3/16"), Plastic Kit Box

Part Number	Description
53-3456	9 PC Dimple Die Kit

## AN426 100° Dimple Punch & Dies



.187" Shank Punch & Die		
Part No. Punch	Part No. Die	Body Length
26-P211	26-D211	1/4"
26-P212	26-D212	3/8"
26-P213	26-D213	1/2"

.250" Shank Punch & Die		
Part No. Punch	Part No. Die	Body Length
26-P231	26-D231	1/4"
26-P232	26-D232	3/8"
26-P233	26-D233	1/2"

.312" Shank Punch & Die		
Part No. Punch	Part No. Die	Body Length
26-P251	26-D251	1/4"
26-P252	26-D252	3/8"
26-P253	26-D253	1/2"

.187" Shank Punch & Die Combos	
Part Number	Body Length
53-211	1/4"
53-212	3/8"
53-213	1/2"

.187" Shank Combo Set (3/32", 1/8", 5/32" & 3/16")	
Part Number	Body Length
53-3456	1/4"

**Note:** Select a size punch, die or combo (charts above) & add the rivet size (chart below).  
**Example:** For .187" shank, 1/4" body punch with a 1/8" rivet size, use part no. 26-P211-4264.

Countersunk AN426 Cupping Sizes					
1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
4262	4263	4264	4265	4266	4268

## Dimple Punch & Dies For 100° Screws

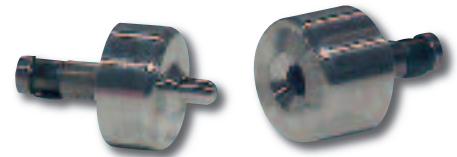


.187" Shank	
Part Number	Screw Size
53-5094	#6
53-5095	#8
53-5096	#10

.187" Shank	
Part Number	Screw Size
53-5098	1/4"
53-50910	5/16"

## 'Spring Back' Dimple Die Sets

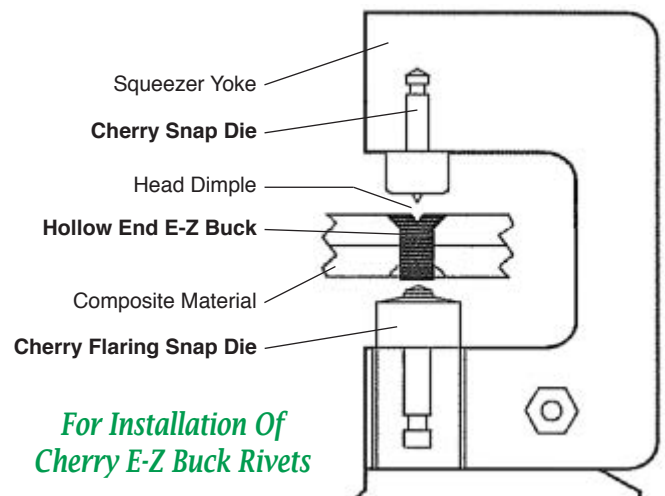
Form Perfect  
100° Dimples



.187" Shank	
Part Number	Rivet Size
4263PDSB	3/32"
4264PDSB	1/8"
4265PDSB	5/32"

.187" Shank	
Part Number	Rivet Size
5094PDSB	#6
5095PDSB	#8
5096PDSB	#10

## Cherry® Hollow End E-Z Buck Dies



For Installation Of  
Cherry E-Z Buck Rivets

These dies should be used with automatic riveting machines or by a squeezer of sufficient size to provide the upset loads listed below. The snap dies are designed to center the squeezer on the rivet and prevent damage to the structure.

Acceptable Upset Loads	
Rivet Diameter	Upset Load +/- 200 lbs
1/8" (-4)	2500 lbs (1134 kgs)
5/32" (-5)	2700 lbs (1225 kgs)
3/16" (-6)	3000 lbs (1361 kgs)
7/32" (-7)	3750 lbs (1701 kgs)

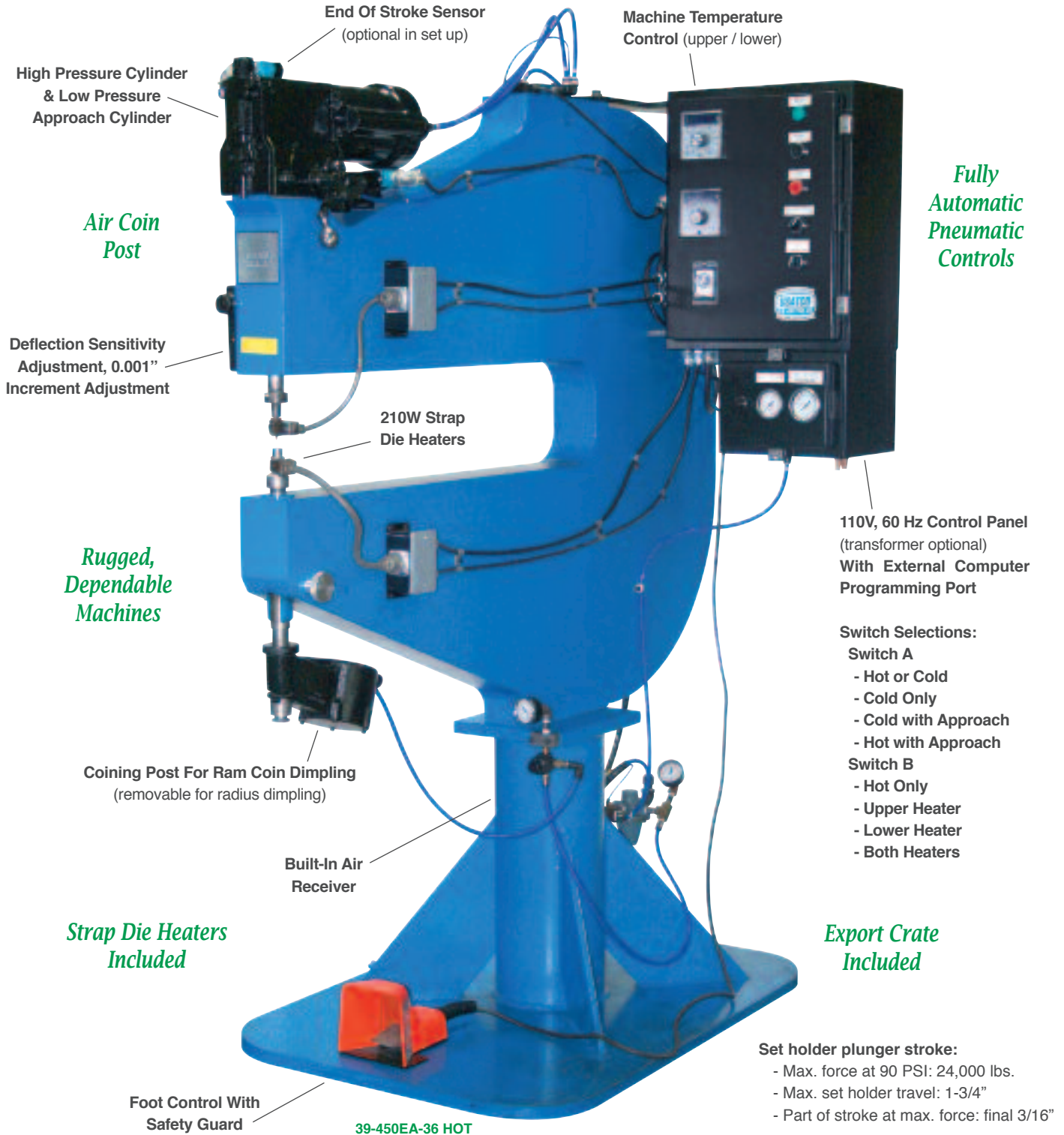
Cherry Flaring Snap Dies		
3/16" Mount Dia.	1/4" Mount Dia.	Rivet Diameter
839C1-4	839C10-4	1/8" (-4)
839C1-5	839C10-5	5/32" (-5)
839C1-6	839C10-6	3/16" (-6)
839C1-7	839C10-7	7/32" (-7)

Cherry Snap Dies		
3/16" Mount Dia.	1/4" Mount Dia.	Rivet Diameter
839B3	839B13	All Sizes

# STATIONARY RIVETERS & DIMPLERS

## Hot Ram Coin Dimplers

F.O.B. RONKONKOMA, NY



*Fully Automatic Pneumatic Controls*

*Rugged, Dependable Machines*

110V, 60 Hz Control Panel (transformer optional) With External Computer Programming Port

- Switch Selections:
- Switch A
- Hot or Cold
  - Cold Only
  - Cold with Approach
  - Hot with Approach
- Switch B
- Hot Only
  - Upper Heater
  - Lower Heater
  - Both Heaters

*Strap Die Heaters Included*

*Export Crate Included*

- Set holder plunger stroke:
- Max. force at 90 PSI: 24,000 lbs.
  - Max. set holder travel: 1-3/4"
  - Part of stroke at max. force: final 3/16"

- New automatic electronic controls, controller uses preset ranges.
- Foot control with guard, parts list & instruction manual included.

Note: Subject to availability. Tooling not included. Also available in 220V, 50 Hz (please inquire).

Part Number	Reach	Gap	Heat Controller Temp. Range	Dwell Timer Range	Voltage (input)	Approximate Shipping Weight
39-450EA-24 HOT	24" (61 cm)	8" (20.3 cm)	0 to 800°	0 to 30 Seconds	110V, 60 Hz	2200 lbs (998 kgs)
39-450EA-36 HOT	36" (91 cm)					3200 lbs (1452 kgs)

## Cold Riveter-Dimplers

F.O.B. RONKONKOMA, NY



*Adjustable Spindle*

*20,000 LBS  
Maximum Force*

39-450EA-36 COLD

*Foot Control  
Included*

An excellent riveting platform, includes foot control with guard.

**Note:** Subject to availability. Tooling not included.

3/8" Mild Steel & Aluminum Capacity	
Part Number	Reach
39-450EA-24 COLD	24" (61 cm)
39-450EA-36 COLD	36" (91 cm)

## End Plate & Control Upgrade

*Eliminate Air  
Leaks & Erratic  
Operation*



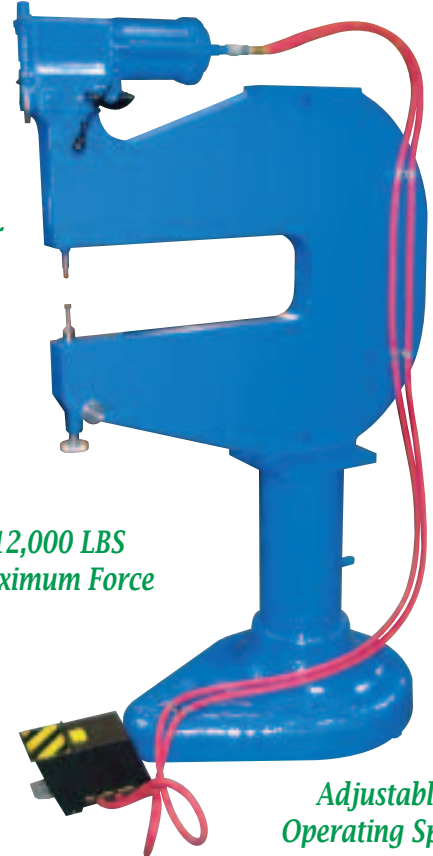
*Better Control  
In Forward  
& Reverse*

USATCO exclusive developed especially for older CP450 machines.

Part Number	For Use With
27-98611	Type D Models
27-98711	Type EA Models

## Rebuilt Heavy-Duty Riveters

F.O.B. RONKONKOMA, NY



39-450-24

*Bench Or  
Pedestal  
Models*

*12,000 LBS  
Maximum Force*

*Adjustable  
Operating Speed*

- Rolling cam & wedge assembly multiplies piston compressive force.
- Short stroke adjustment for varied starting positions & fast operation.
- Includes foot control with guard, uses 0.312" shank sets.

**Note:** Subject to availability. Tooling not included.

Bench Models - 7/32" Mild Steel & 1/4" Aluminum Capacity	
Part Number	Reach
39-450-12	12" (30.5 cm)
39-450-18	18" (45.7 cm)

Pedestal Models - 7/32" Mild Steel & 1/4" Aluminum Capacity	
Part Number	Reach
39-450-24	24" (61 cm)
39-450-36	36" (91 cm)

## Strap Die Heaters

- Designed for continuous operation at 750°F or less.
- Includes thermocouple, flexible cable & quick disconnect plugs.



38-1920B15

**Note:** For 39-450EA models (see previous page), ZT1807, ZT1812, ZT2418, ZT2427.

210 Watts, 110V AC Input - Cannon Connector	
Part Number	Style
38-1920B15	Offset
38-1921B15	Straight

# STATIONARY RIVETERS & DIMPLERS

## Heavy-Duty Bench/Pedestal Mount Riveters

F.O.B. RONKONKOMA, NY



8000CSA-12-1/2

*One Year  
Factory  
Warranty*

37-15 Pedestal

- Heavy-duty riveter designed to tackle the largest riveting jobs.
- Included foot control allows for easy hands-free operation.
- Can be bench or pedestal mounted (not included).

### 1/4" Steel & 5/16" Aluminum Capacity

Part Number	Reach	Gap	Shipping Weight
8000CSA-9-1/2	9-1/2"	3-1/2"	178 lbs (81 kgs)
8000CSA-12-1/2	12-1/2"	3-1/2"	221 lbs (100 kgs)
8000CSA-24	24"	4-1/2"	681 lbs (309 kgs)

Note: 37-15 pedestal shown not included, see next page for more info.

## Dimpler Pressure Pad Dollies



Spring loaded sleeve presses sheets together before rivet is driven.

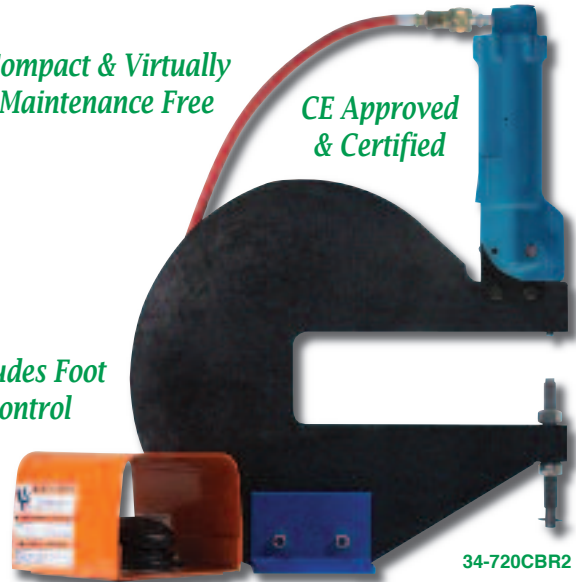
Part Number	Face Diameter	Shank Diameter
07-78691	3/8"	5/8"
07-78692	1/2"	

## USATCO Bench/Pedestal Mount Riveters

*Compact & Virtually  
Maintenance Free*

*CE Approved  
& Certified*

*Includes Foot  
Control*



34-720CBR2

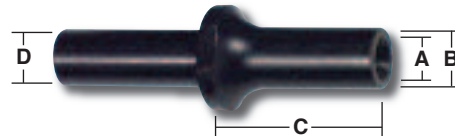
- 9/16" maximum stroke, uses 0.187" shank sets.
- USATCO can fabricate other yoke styles, please inquire.

### 3/16" Aluminum Capacity

Part Number	Gap	Reach
34-720CBR1	3-1/2"	4-1/2" (11.4 cm)
34-720CBR2	3-1/2"	10" (25.4 cm)
34-720CBR3	4"	12" (30.5 cm)
34-720CBR12-S	4"	13-1/2" (34.3 cm)

Note: Tooling not included. See next page for optional 37-15 pedestal (not shown).

## Rivet Set Adapters

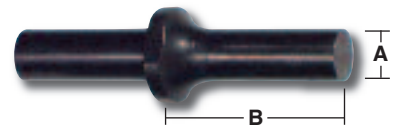


For adapting squeezer type rivet sets to hot & cold riveter-dimplers.

Part Number	Internal Dia. ('A')	Outer Dia. ('B')	Nose Length ('C')	Shank Dia. ('D')
07-81392	3/16"	7/16"	1-7/8"	5/8"
07-81393	1/4"	9/16"	1-7/8"	5/8"
07-82189	5/16"	21/32"	1-7/8"	5/8"
07-82190	3/8"	3/4"	1-7/8"	5/8"

## Flush Sets

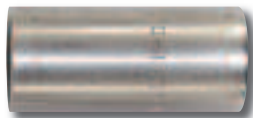
Used on all hot & cold riveter-dimplers.



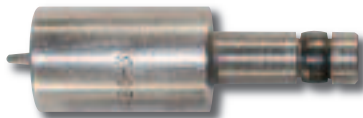
Part Number	'A' Diameter	'B' Nose Length
07-81391	23/64"	2-1/4"
07-81390	31/64"	2-1/4"
07-82389	39/64"	2-1/4"

# STATIONARY RIVETERS & DIMPLERS, USATCO CUSTOM KITS

## Hot Dimpler Punch & Dies



26-1853-1/8



26-1855-1/8

For AN426 100° rivets in pilot drill & dimple type operations.

3/8" Shank		
Punch	Die	Size
26-1855-3/32	26-1853-3/32	3/32"
26-1855-1/8	26-1853-1/8	1/8"
26-1855-5/32	26-1853-5/32	5/32"
26-1855-3/16	26-1853-3/16	3/16"
26-1855-1/4*	26-1853-1/4	1/4"

\* Standard long flanged.

## Pedestal Unit



*Sturdy  
Angle Iron  
Construction*

*Fits All CP  
Type Pedestal  
Riveters*

Part Number	Overall Height	Weight
37-15	27-1/2" (70 cm)	54 lbs (24.5 kgs)

## USATCO Homebuilder's Basic Tool Kit



*Great Starter Set For Building Or  
Repairing Your Own Aircraft*

Part Number	Description
53-455	Complete 492 PC Kit

Tools Included		
Part Number	Pcs.	Description
07-10-4703	1	Rivet Set 3-1/2" O.A.L.
07-10-4704	1	
07-10-4705	1	
07-10-500	1	Flush Rivet Set
07-1000	1	No-Mar Rivet Set
07-12-500	1	Flush Rivet Set
07-170	1	Mushroom Rivet Set
08-692	1	Bucking Bar
08-669	1	
08-638	1	
08-670	1	
09-140	1	Power Regulator
09-RB-2	1	Beehive Retainer Spring
09-RH-2	1	Handi Retainer Spring
17-3XSP	1	Rivet Gun
18-DS-21	1	Drill Stop
18-DS-30	1	
18-DS-40	1	
53-70453	3pc	Aviation Snip Set
62-54406	1	Plastic Tool Box
75-282-0	1	Aviation Maint. Handbook
JAT-600	1	3/8" Reversible Air Drill

Tools Included		
Part Number	Pcs.	Description
02-305-3	1	Pilot Countersink
02-305-4	1	
02-305-5	1	
02-306-21	1	
02-306-30	1	
02-306-40	1	Countersink Cage
02-441	1	
02-R10B-3/32	2	Jobber's Length Drill
02-R10B-1/8	2	

Tools Included		
Part Number	Pcs.	Description
02-R10B-5/32	2	Jobber's Length Drill
04-1120	1	Fluting Plier
04-17	1	Rivet Cutter
04-44	1	Hand Seamer
04-62	1	Cleco Plier
04-K380	1	Auto Deburr Tool
04-M-3/32	150	'M' Type Sheet Metal Fastener
04-M-1/8	150	
04-M-3/16	150	

**USATCO Professional Rivet Gun Kits**

*Our #1 Selling Kit*

- Virtually all the tools you need for riveting, in handy kit form.
- For pro sheet metal mechanics, serious home builders and students.

*Sturdy Molded Plastic Case*



Complete Kit		
Part Number	Rivet Gun Included	Shank
53-RGK	17-3XSP	.401
53-RGK1	17-4XSP	.401
53-RGK2	17-2XSP	.401
53-SGK*	17-7XBSP	.498
53-TGK*	17-5XBSP	.498

\* Kits 53-SGK & 53-TGK come packed in sturdy plastic toolbox.



Tools Included (.401 Shank Kits)	
Part Number	Description
07-10-4703	3/32" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-10-4704	1/8" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-10-4705	5/32" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-10-4706	3/16" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-11-4703	3/32" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-11-4704	1/8" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-11-4705	5/32" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-11-4706	3/16" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-140	Offset Flush Mushroom Set, 3-1/2" Overall Length
07-170	Flush Mushroom Rivet Set with Guard, 2-1/4" Overall Length
07-20-4703	3/32" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-20-4704	1/8" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-20-4705	5/32" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-92	Flush Mushroom Rivet Set, 5-1/2" Overall Length
08-111	Bucking Bar (see page 42)
08-112	Bucking Bar (see page 42)
08-669	Bucking Bar (see page 43)
08-670	Bucking Bar (see page 43)
09-140	Power Regulator
09-RB-2	Beehive Retainer Spring
09-RH-2	Handi Retainer Spring
17-_____	Rivet Gun (2X, 3X or 4X, see chart above)
62-14	Molded Plastic Carrying case

Tools Included (.498 Shank Kits)	
Part Number	Description
07-30-4703	3/32" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-30-4704	1/8" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-30-4705	5/32" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-30-4706	3/16" Universal AN470 Rivet Set, 3-1/2" Overall Length
07-31-4703	3/32" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-31-4704	1/8" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-31-4705	5/32" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-31-4706	3/16" Universal AN470 Rivet Set, 5-1/2" Overall Length
07-160	Offset Flush Mushroom Set, 3-1/2" Overall Length
07-173	Flush Mushroom Rivet Set with Guard, 2-1/4" Overall Length
07-40-4703	3/32" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-40-4704	1/8" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-40-4705	5/32" Universal AN470 Offset Rivet Set, 3-1/2" Overall Length
07-102	Flush Mushroom Rivet Set, 5-1/2" Overall Length
08-111	Bucking Bar (see page 42)
08-112	Bucking Bar (see page 42)
08-669	Bucking Bar (see page 43)
08-670	Bucking Bar (see page 43)
09-140	Power Regulator
09-RB-4	Beehive Retainer Spring
09-RH-4	Handi Retainer Spring
17-_____	Rivet Gun (5X or 7X, see chart above)
62-54404	Plastic Tool Box



**USATCO Professional Aero Sheet Metal & Riveting Tool Kit**

*Priced To Save You Money*

- Comprehensive 367 piece kit.
- Includes 3-drawer rolling cabinet (below).



Part Number	Description
53-425	Complete 367 PC Kit

Tools Included		
Part Number	Pcs.	Description
20-128-4	1	Snake Drill Attachment
02-306-21	1	Pilot Countersink
02-306-30	1	
02-306-40	1	
02-501-6-10	2	
02-501-6-21	2	6" Aircraft Extension Drills
02-501-6-30	2	
02-501-6-40	2	
02-501-12-10	2	12" Aircraft Extension Drills
02-501-12-21	2	
02-501-12-30	2	
02-501-12-40	2	
02-A800-4	1	Rivet Shaver Cutter
02-C1-H	60pc	Drill Set
04-17	1	Rivet Cutter
04-134SR	1	Safety Wire Twister
04-20SL	1	Offset Hand Snip (left)
04-20SR	1	Offset Hand Snip (right)
04-22022	6pc	Multi-Burr & Blades
04-4P3	1	Camloc Plier
04-62	1	Cleco Plier
04-EL-1/2-1	6	Side Grip Sheet Metal Fastener
04-EL-3/4-1	6	
04-M-3/32	50	'M' Type Sheet Metal Fastener
04-M-1/8	50	
04-M-5/32	20	
04-M-3/16	20	
04-MHD-3/32	6	'MHD' Type Sheet Metal Fastener
04-MHD-1/8	12	
04-MHD-5/32	12	
04-MHD-3/16	6	

Tools Included		
Part Number	Pcs.	Description
04-44	1	Hand Seamer
07-10-4703	1	Rivet Set 3-1/2" O.A.L.
07-10-4704	1	
07-10-4705	1	
07-10-4706	1	
07-10-500	1	Flush Rivet Set (3-1/2")
07-11-4704	1	Rivet Set 5-1/2" O.A.L.
07-11-4705	1	
07-11-4706	1	
07-11-500	1	Flush Rivet Set (5-1/2")
07-170	1	Mushroom Set w/Guard
07-20-4703	1	Offset Rivet Set 3-1/2" O.A.L.
07-20-4704	1	
07-20-4705	1	
07-20-4706	1	
07-20-500	1	Offset Flush Set (3-1/2")
07-92	1	Mushroom Set (5-1/2")
08-111	1	Bucking Bar
08-604A	1	
08-669	1	
08-670	1	
09-140	1	Power Regulator
09-RB-2	1	Beehive Retainer Spring
09-RH-2	1	Handi Retainer Spring
15-1580	1	Junior Air Vac
17-3XSP	1	Rivet Gun
18-DS-10	1	Drill Stop
18-DS-21	1	
18-DS-30	1	
18-DS-40	1	
20-127-4	1	Angle Drill Attachment

Tools Included		
Part Number	Pcs.	Description
32-290	1	Flat File
32-311	1	Half Round File
32-397	1	Round File
32-261	1	Aluminum Flat File
43-025	1	Aircraft Safety Wire
43-032	1	
43-041	1	
44-06721	1	Wire Rivet Hole Brush
44-06741	1	
44-06761	1	
44-06781	1	
46-231-1	1	Strap Duplicator
46-231-2	1	
46-231-3	1	
46-231-5	1	
53-211-4263	2pc	Rivet Squeezer Punch & Die Set
53-211-4264	2pc	
53-211-4265	2pc	
53-211-4266	2pc	
53-2962	4pc	Thd. Shank Drill Set
53-420-2A	6pc	2" Hand Riv. Squeezer Kit
53-441	5pc	Countersink Kit
53-90131	6pc	Rivet Punch Out Kit
53-FHPS	4pc	File Handle Set
62-54407	1	Metal Kit Box
62-70433	1	Metal Rolling Cabinet
75-282-0	1	Aviation Maint. Handbook
90397	2pc	Utility Cut-Off Tool
JAT-600	1	3/8" Reversible Air Drill
SRS10P21-8	1	Rivet Shaver

**USATCO Student's Sheet Metal Tool Kit**

Part Number	Description
53-426	Complete 69 PC Kit

Tools Included		
Part Number	Pcs.	Description
02-306-21	1	Pilot Countersink
02-306-30	1	
02-306-40	1	
02-441	1	Countersink Cage
02-R18C-10	2	Cobalt Jobber's Drill Bits
02-R18C-21	2	
02-R18C-30	2	
02-R18C-40	2	
04-17	1	Rivet Cutter
04-62	1	Cleco Plier
04-M-3/32	10	'M' Type Sheet Metal Fastener
04-M-1/8	10	
04-M-5/32	10	
04-M-3/16	5	
07-10-4703	1	Rivet Set
07-10-4704	1	3-1/2" O.A.L.

Tools Included		
Part Number	Pcs.	Description
07-10-4705	1	Rivet Set
07-10-4706	1	3-1/2" O.A.L.
07-10-500	1	Flush Rivet Set
07-170	1	Mushroom Rivet Set
08-670	1	Bucking Bar
08-751	1	
09-140	1	Power Regulator
09-RB-2	1	Beehive Ret. Spring
09-RH-2	1	Handi Ret. Spring
17-3XSP	1	Rivet Gun
20-127-4	1	Ang. Drill Attachment
53-2962	4pc	Thd. Shank Drill Set
62-54406	1	Plastic Kit Box
75-282-0	1	Av. Maint. Handbook
JAT-600	1	3/8" Rev. Air Drill

*Perfect For First Time Projects*



**USATCO RV Tool Kit**

- 548 piece kit includes the primary tooling for starting first time projects.
- Kit box with non-marring plastic shell with all steel full-extension drawers.
- Lockable lid (lock not included) with sturdy metal latches & piano hinge.

Part Number	Description
53-RV	Complete 548 PC Kit

Tools Included		
Part Number	Pcs.	Description
02-306-30	1	Pilot Countersink
02-306-40	1	
02-441	1	Countersink Cage
02-R18C-10	2	Cobalt Jobber's Drill Bits
02-R18C-21	2	
02-R18C-30	2	
02-R18C-40	2	
04-1120	1	Fluting Plier
04-17	1	Rivet Cutter
04-22022	6pc	Multi-Burr & Blades
04-62	1	Cleco Plier
04-44	1	Hand Seamer
04-M-1/8	175	'M' Type Sheet Metal Fastener
04-M-3/32	325	
07-10-4703	1	Rivet Set
07-10-4704	1	
07-10-4705	1	
07-10-4706	1	
07-1000	1	No-Mar Rivet Set

Tools Included		
Part Number	Pcs.	Description
07-140	1	Offset Mushroom Set
07-170	1	Mushroom Rivet Set
07-20-4703	1	Offset Rivet Set
07-20-4704	1	
07-20-4705	1	
07-20-4706	1	3-1/2" O.A.L.
08-112	1	Bucking Bar
08-638	1	
08-647	1	
08-670	1	
09-140	1	Power Regulator
09-RB-2	1	Beehive Ret. Spring
09-RH-2	1	Handi Ret. Spring
53-420-2A	6pc	2" Hand Rivet Squeezer Kit
17-3XSP	1	Rivet Gun
62-54405	1	Metal Drawer Kit Box
JAT-600	1	3/8" Rev. Air Drill



**USATCO Rivet Squeezer Tool Kit**

Squeezer set kit includes assorted cupped & flush sets, soft blanks, spacer shims & organized metal kit box.

Part Number	Description
53-71021	Complete 38 PC Kit

Tools Included		
Part No.	Pcs.	Description
34-214C	1	C-Yoke Rivet Squeezer
96396	2pc	Quick Change Yoke Pin Set
53-26	31pc	Rivet Squeezer Set Kit
38-539-2A	1	Set Holder
62-54404	1	Plastic Tool Box
64-C200	1	2" Reach C-Yoke
64-C300	1	3" Reach C-Yoke



*A Practical & Economical 38 Piece Kit*

**USATCO Air Hydraulic Blind Rivet Installation Tool Kit**

*4000 Pounds Of Pulling Force*

- Lightweight & compact size allows for use in limited access areas.
- Installs all CherryMAX and Huck-Clinch thru 1/4".

**Includes:**

Riveter, 3 Pulling Heads (CherryMAX extended straight, offset & right angle), 7 Nosepieces (1/8" & 1/4", 5/32"-3/16" CherryMAX, 3/32" Nut Plate, 3/16" & 1/4" Monobolt, 1/4" Split Rivet), Adapter Sleeve, Adapter Puller Assembly, Jaws (3 piece), Swivel Air Line Connector & Metal Carrying Case.

Part Number	Case Dimensions	Weight
PT-100-MIL-5	9-1/4" x 6-1/2" x 2-1/2"	8.0 lbs (3.6 kgs)



**USATCO Combination Blind Rivet, Blind Bolt & Blind Nut Installation Tool Kit**

*Ideal For Field Maintenance, Modification & Industrial Sheet Metal Applications*

- This kit provides hand mechanical, hand hydraulic, air hydraulic & cordless blind riveters all in one convenient carrying case.
- Installs all CherryMAX thru 1/4" and most blind bolts thru 3/16".
- This versatile 78 PC kit has been approved for use in the U.S. Army's Standard Automotive Tool Set ("SATS") and is currently being used by all U.S. Military service branches.

Installs single action aerospace blind rivets thru 3/16" O.S. diameter and industrial blind rivets thru 1/4" diameter. Pull-up studs and driving anvils for UNC, UNF, and metric threads are also included to permit installation of blind rivet nuts and inserts from 6-32 thru 3/8"-16 and 5 thru 10 mm. The kit also includes special right angle, offset and extended straight pulling heads for all CherryMax, Huck Clinch, and Allmax blind rivets (M7885/NAS9300) in sizes thru 3/16" oversize, as well as an adapter for use with the MS20600 series self-plugging and NAS1400A rivet side ejection straight, offset, and right angle pulling heads (not included in this kit) for sizes 3/32" thru 3/16" diameter. The kit also includes the pull-up studs and driving anvils used in conjunction with the hand hydraulic combination riveter/nutsetter, which allows installation of blind nuts (NAS1329/30, MS27130/31) and AVK, TSN and Nutsert style inserts.

Part Number	Case Dimensions	Weight
D-9000-MIL-2	19-1/4" x 14-3/4" x 4-5/8"	28.5 lbs (12.9 kgs)



**USATCO Homebuilder's Tool Kit**



- Comprehensive 655 piece kit, priced to save you money.
- Includes stainless steel hand rivet squeezer.

Part Number	Description
53-665SK	Complete 655 PC Kit

Tools Included		
Part Number	Pcs.	Description
02-306-10	1	Pilot Countersink
02-306-21	1	
02-306-30	1	
02-306-40	1	
02-441	1	Countersink Cage
02-501-6-10	2	6" Aircraft Extension Drill
02-501-6-21	2	
02-501-6-30	2	
02-501-6-40	2	
02-R18C-10	3	Cobalt Jobber's Length Drill
02-R18C-21	3	
02-R18C-30	12	
02-R18C-40	12	
04-17	1	Rivet Cutter
04-22022	6	Multi-Burr & Blades
04-62	1	Cleco Plier
04-EL-1/2-1	5	Side Grip Sheet Metal Fastener
04-EL-1/2-1/2	5	
04-M-1/8	170	'M' Type Sheet Metal Fastener
04-M-3/16	30	
04-M-3/32	330	
04-M-5/32	30	
04-W-1	10	No-Mar Cam Fastener

Tools Included		
Part Number	Pcs.	Description
07-10-4703	1	Rivet Set, 3-1/2" O.A.L.
07-10-4704	1	
07-10-4705	1	
07-10-4706	1	
07-170	1	
08-112	1	Bucking Bar
08-638	1	
08-692	1	
08-694	1	
09-140	1	Power Regulator
09-RB-2	1	Beehive Retainer Spring
09-RH-2	1	Handi Retainer Spring
10-THS20	1	Stainless Steel Hand Squeezer
17-3XSP	1	Rivet Gun
26-110	1	Flush Squeezer Set
26-112	1	
26-210	2	
26-200-4703	1	Squeezer Set
26-200-4704	1	
26-200-4705	1	
62-12	1	Plastic Squeezer Set Kit Box
62-54405	1	Metal Drawer Plastic Kit Box
CP7300	1	CP Mini Air Drill

**USATCO Glastar® Sheet Metal Tool Kit**



- Comprehensive 573 piece kit, priced to save you money.
- Includes Stoddard-Hamilton® recommended Glastar sheet metal tools\*.

Part Number	Description
<b>53-GLASTAR</b>	Complete 573 PC Kit

\* These are just the sheet metal tools for the wing & tail components, you will also need other tools for the fiberglass construction part of the kit.

Tools Included		
Part Number	Pcs.	Description
02-2962-21	1	Threaded Shank Drills
02-2962-30	1	
02-2962-40	1	
02-306-10	1	Pilot Countersink
02-306-21	1	
02-306-30	1	
02-306-40	1	
02-306-30-120	1	Pilot Countersink 120°
02-441	1	Countersink Cage
02-501-6-21	3	6" Aircraft Extension Drill
02-501-6-30	3	
02-501-6-40	3	
02-C1-H	60pc	Drill Set (number sizes)
02-R10B-1/16	3	Jobber's Length Drill
02-R10B-1/4	3	
02-R10B-11/64	3	
04-200	1	Chip Chaser
04-20SL	1	Offset Snip (left)
04-20SR	1	Offset Snip (right)
04-22022	6pc	Multi-Burr & Blades
04-3090-1/2	2	Spring Tension Clamp
04-62	1	Cleco Plier
04-EL-1/2-1/2	10	Side Grip Sheet Metal Fastener
04-EL-3/4-1/2	10	
04-K380	1	Deburring Tool

Tools Included		
Part Number	Pcs.	Description
04-M-1/8	150	'M' Type Sheet Metal Fastener
04-M-3/16	25	
04-M-3/32	250	
07-10-4703	1	Rivet Set, 3-1/2" O.A.L.
07-10-4704	1	
07-10-4706	1	
07-170	1	Mushroom Rivet Set
08-638	1	Bucking Bar
08-647	1	
08-721	1	
08-760B-2	1	
09-140	1	Power Regulator
09-RB-2	1	Beehive Retainer Spring
09-RH-2	1	Handi Retainer Spring
10-37001	1	360° POP Riveter
1245	1	12" Flex Ruler
17-3XSP	1	Rivet Gun
20-127-4S	1	90° Angle Drill Attachment
53-211-4263	2pc	Rivet Squeezer Punch & Die Set
53-211-4264	2pc	
53-420-2A	6pc	2" Hand Rivet Squeezer Kit
61-860	1	Center Punch & Scribe
62-54405	1	Plastic Tool Box
JAT-600	1	3/8" Reversible Air Drill

# USATCO CUSTOM KITS

## USATCO Deluxe Student's Tool Kit

*A Great Starter Kit,  
Compact & Portable*

- High quality tools will provide years of service.
- Features our heavy-duty mechanics canvas tool bag.



Part Number	Description
53-DSK	Complete 77 PC Kit

Tools Included		
Part Number	Pcs.	Description
02-R10A-3/32	3	Jobber's Length Drill
02-R10A-1/8	3	
02-R10A-5/32	3	
02-R10A-3/16	3	
02-R10A-1/4	3	Integral Pilot Cutter
02-306-21	1	
02-306-30	1	
02-306-40	1	
04-M-1/8	10	'M' Type Fastener
04-M-3/16	10	
04-M-3/32	10	

Tools Included		
Part Number	Pcs.	Description
04-M-5/32	10	'M' Type Fastener
02-441	1	Countersink Cage
04-501	1	Rivet Cutter
04-62	1	Cleco Plier
08-670	1	Bucking Bar
09-140	1	Power Regulator
09-RB-2	1	Beehive Retainer Spring
09-RH-2	1	Handi Retainer Spring
17-3XSP	1	Rivet Gun
07-10-4703	1	Rivet Set, 3-1/2"
07-10-4704	1	

Tools Included		
Part Number	Pcs.	Description
07-10-4705	1	Rivet Set, 3-1/2"
07-10-4706	1	
07-170	1	Mushroom Set w/ Guard
18-DS-10	1	Drill Stop
18-DS-21	1	
18-DS-30	1	
18-DS-40	1	
62-279	1	Canvas Tool Bag
JAT-600	1	3/8" Reversible Air Drill

## USATCO Pro Composite Tool Kit

Equipped with the tools necessary for major composite repair.

Part Number	Description
53-70458	Complete 236 PC Kit

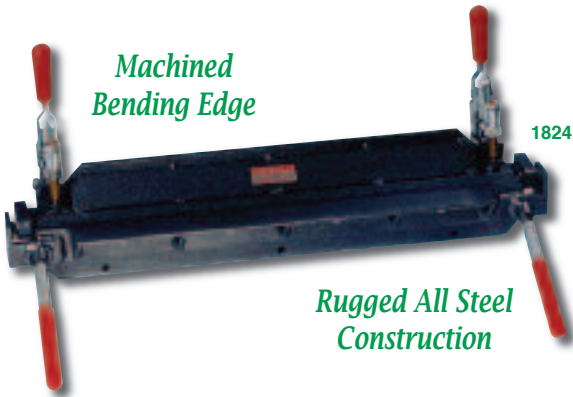
Tools Included		
Part Number	Pcs.	Description
02-1541-1/4	1	Solid Carbide Router Bits With Assorted Profiles
02-1547-1/4	1	
02-1547A-1/4	1	
02-1547B-1/4	1	
02-305-4C	1	Carbide Tip Countersink Cutter
02-305-5C	1	
02-305-6C	1	
02-305-8C	1	
02-551	1	Countersink Cage
04-330	1	Kevlar Hand Shears
10-099	1	6" Utility Knife
120625	3	Cut-Off Disc
12L2500-01RT	1	Router
12LF281-36	1	Right Angle Grinder
1450CA	3pc	Mandrel Set
14-2577	1	Router Base
15-A1080	1	Air Vac
40547	1	Honeycomb Cutter
407105	1	Respirator
49-MHS1	1	Diamond Hole Saw

Tools Included		
Part Number	Pcs.	Description
49-MHS1-1/2	1	Diamond Hole Saw
49-MHS2	1	
49-NA-01	1	Hole Saw Arbor
49-R3F	1	Diamond Router Bit
55417	10	Coarse Prep Disc
55418	10	Medium Prep Disc
55419	10	Fine Prep Disc
65001	153pc	Sanding Disc Kit
705-PCD130	1	Diamond Countersink
755-3	1	5/32" Pilot
755-5	1	3/16" Pilot
755-7	1	7/32" Pilot
755-8	1	1/4" Pilot
90272	1	3-Way Manifold
90460	1	Safety Goggles
MP4400-25HL	1	Vac. Orbital Sander
SDK-15	15pc	Sanding Drum Kit
SDR6P26N3	1	3/8" Capacity Drill
62-54406	1	Plastic Tool Box



Note: Tooling not shown in product image, please refer to charts for complete breakdown.

**Heavy-Duty Bending Brakes**



- Unit will also bend 12 gauge in narrower widths.
- Maximum 2000 lbs hold down force.
- Maximum 40" width stock with 2-1/2" throat depth.

18 Gauge Capacity Bending Brake			
Part Number	Maximum Bend Length*	Minimum Reverse Bend	Shipping Weight
1824	24"	5/8"	50 lbs (23 kgs)
1840	40"	5/8"	90 lbs (41 kgs)

\* With unlimited throat.

Floor Stands	
Part Number	Shipping Weight
1824S	40 lbs (18 kgs)
1840S	50 lbs (23 kgs)

**Light Duty Bench Brake**

F.O.B. FACTORY



- For light forming jobs - ideal for small, precise box & pan work.
- 135° maximum bending angle & 3" maximum box depth.

16 Gauge Capacity Bending Brake			
Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
PX24	24"	1/4"	270 lbs (122 kgs)

Floor Stand	
Part Number	Shipping Weight
37-PX24	160 lbs (73 kgs)

**Economy Bending Brakes**



- Ideal for production runs etc. - one year limited warranty.
- Mounting holes in base for stationary or portable applications.

Part Number	Capacity (aluminum)	Maximum Bend Length	Shipping Weight
18B	16 ga	18"	3.5 lbs (1.6 kgs)
30B	16 ga	30"	11 lbs (5 kgs)

**Tennsmith® Bench Brakes**

F.O.B. FACTORY



**Welded Steel Plate Construction**

- Heavy truss rods & braces provide strength & rigidity.
- Roller type thrust bearing to prevent upper leaf creep.
- Dual position apron angle with removable apron insert.

12 Gauge Capacity Bench Brake			
Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
HBU48-12*	48-1/4"	1/4"	1,330 lbs (603 kgs)

16 Gauge Capacity Bench Brakes***			
Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
HBU48-16*	48-1/4"	1/4"	495 lbs (225 kgs)
HBS48-16	48-1/4"	1/4"	460 lbs (209 kgs)

22 Gauge Capacity Bench Brakes***			
Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
U48-22**	48-1/4"	5/16"	280 lbs (127 kgs)
S48-22	48-1/4"	5/16"	220 lbs (100 kgs)

\* With 4" max. box depth. \*\* With 3" max. box depth.  
 \*\*\* Optional floor stands available, please inquire.

# SHEET METAL FORMING EQUIPMENT

## Tennsmith® Heavy-Duty Bench Brakes

F.O.B. FACTORY

*Made In The USA*



HB97-16

### Welded Steel Plate Construction

- Heavy truss rods & braces provide strength & rigidity.
- Roller type thrust bearing to prevent upper leaf creep.
- Dual position apron angle with removable apron insert.
- Heavy counterweights & apron stop rod.

#### 16 Gauge Mild Steel Capacity Bench Brakes

Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
HB97-16	97"	1/4"	1675 lbs (760 kgs)
HB121-16	121"	1/4"	2875 lbs (1304 kgs)

#### 18 Gauge Mild Steel Capacity Bench Brakes

Part Number	Maximum Bend Length	Minimum Reverse Bend	Shipping Weight
HB97-18	97"	1/4"	1385 lbs (628 kgs)
HB121-18	121"	1/4"	2300 lbs (1043 kgs)

## Jet® Slip Rolls

F.O.B. FACTORY

*Quality Import*



SR2024

- Suitable for many industrial, educational & vocational shop uses.
- Precision tuned carbon steel rolls are ground & polished.
- Dual position apron angle with removable apron insert.
- Large roll adjusting screws & front mounted handle.

Note: Optional floor stands available, please inquire.

Note: Includes 3/16", 1/4" & 5/16" wire grooves (except SR1650: 1/4", 5/16" & 3/8").

#### 20 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR2024	24"	1"	216 lbs (98 kgs)

#### 22 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR2236	36"	1"	256 lbs (116 kgs)

#### 16 Gauge Mild Steel Capacity - 3" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR1650	50"	2"	573 lbs (260 kgs)

## Tennsmith® Slip Rolls

F.O.B. FACTORY



SR24

*An Affordable Heavy-Duty Production Tool*

*Made In The USA*

- Three full length rear starting grooves are standard.
- Front mounted handle to lift upper roll for material removal.
- Oilite bearings eliminate the need for lubrication.

Note: Shown with optional stand (stands available, please inquire).

Note: Includes 3/16", 1/4" & 5/16" wire grooves (except SR48: 3/8", 1/2" & 5/8").

#### 20 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR24	24"	1"	190 lbs (86 kgs)

#### 22 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR36	36"	1"	250 lbs (113 kgs)

#### 24 Gauge Mild Steel Capacity - 2" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR42	42"	1"	270 lbs (122 kgs)

#### 16 Gauge Mild Steel Capacity - 3" Roll Diameter

Part Number	Maximum Form Length	Minimum Form Radius	Shipping Weight
SR48	48"	1-1/2"	1100 lbs (500 kgs)



**Tennsmith® Squaring Shears**

F.O.B. FACTORY



*Made In The USA*

52

*High-Carbon High-Chromium Blades*

- Comes standard with tool steel blades & front arm extensions.
- Units also shear plastic, lead, zinc aluminum, brass & copper.

**Foot Powered**

- Includes protractor & graduated slide gauges, front squaring arm.

16 Gauge Mild Steel Capacity (20 gauge stainless)			
Part Number	Maximum Cut Length	Gauge Ranges (back / front)	Shipping Weight
36	37"	30" / 37"	700 lbs (318 kgs)
52	52-1/4"	30" / 37"	950 lbs (431 kgs)



*Neoprene Padded Hold-Down Feet*

52H-1 PH

**Air Powered**

- Includes bevel gauges, graduated slide gauges, foot control, stroke counter, pressure regulator & oiler/condenser cups.

16 Gauge Mild Steel Capacity (20 gauge stainless) - 40 SPM			
Part Number	Maximum Cut Length	Gauge Ranges (back / front)	Shipping Weight
36A	37"	30" / 37"	800 lbs (363 kgs)
52A	52-1/4"	30" / 37"	1085 lbs (492 kgs)

Note: 75 PSI maximum operating pressure.

**Hydraulic Powered**

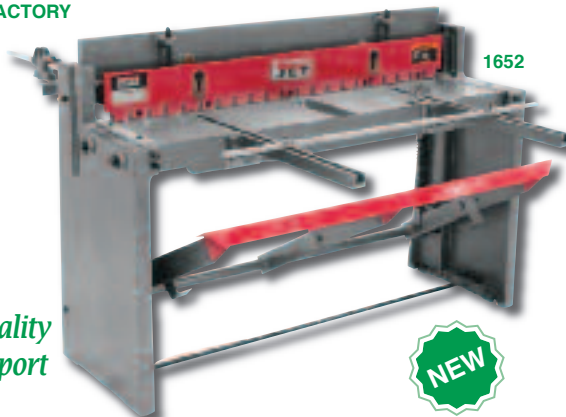
- Includes bevel gauges, graduated slide gauges, foot control, stroke counter, sight gauge, thermometer & 10g oil reservoir.

16 Gauge Mild Steel Capacity (20 gauge stainless) - 45 SPM				
Part Number	Power Supply	Max. Cut Length	Gauge Ranges	Shipping Weight
52H-1 PH	1 Phase, 220V, 60Hz	52-1/4"	30" Back 37" Front	1300 lbs (590 kgs)
52H-3 PH	3 Phase, 220V*, 60Hz			

Note: 1450 PSI maximum operating pressure. \* 400V available, please inquire.

**Jet® Foot Shear**

F.O.B. FACTORY



1652

*Quality Import*



- Shear comes standard with hardened stainless steel blades.
- High quality cast-iron grade frame to eliminate deflection across the blade-span and blade frame work.
- Four-way upper and two-way lower blades for longer life.
- Micro adjustment rear depth gauges for precise measurements.

16 Gauge Mild Steel Capacity			
Part Number	Maximum Cut Length	Gauge Ranges (back / front)	Shipping Weight
1652	52"	28" / 22"	1220 lbs (554 kgs)

**Jet® Shear, Brake & Roll Combo**

F.O.B. FACTORY

*Quality Import*

*Right Or Left Hand Operation*



SBR30

- Brake includes removable fingers for complex bending operations.
- Includes applicable dies, dual edge shear blade & back gauge.
- Shown with optional stand (please inquire).

**Note:**

SBR30: Upper die 4-3/4" height, 1", 2", 3", 4", 6" & 10" widths.  
SBR40: Upper die 4-3/4" height, 1", 2", 2", 4", 6", 7", 8" & 12" widths.

20 Gauge Mild Steel Capacity @ 30" Wide			
Part Number	Slip Roll Size	Minimum Form Radius	Shipping Weight
SBR30	30" x 1-1/2"	3/4"	332 lbs (151 kgs)

20 Gauge Mild Steel Capacity @ 40" Wide			
Part Number	Slip Roll Size	Minimum Form Radius	Shipping Weight
SBR40	40" x 1-5/8"	1"	561 lbs (255 kgs)

# SHEET METAL FORMING EQUIPMENT

## Beverly® Throatless Shears

- Ideal all-purpose metal cutting tools.
- Shoulder design permits turning work to any shape or position.
- Units allow any cut in heavy gauges, yet handle lighter metals without distortion.
- Alloy steel rack & pinion for great power with little effort.
- Removable handle for easy portability.
- Two-point lower blade adjustment.
- Slitting shear also available, please inq.

B-2



Part No.	Cap. (mild, stain.)	Blade Length	Height Less Handle	Weight
B-1	14 ga., 18 ga.	4-1/2"	14" (36 cm)	18 lbs (8.1 kgs)
B-2	10 ga., 14 ga.	4-3/8"	14" (36 cm)	35 lbs (15.8 kgs)
B-3*	3/16", 10 ga.	5-5/8"	15" (38 cm)	58 lbs (26.3 kgs)

\* B-3 equipped with high carbon, high chrome blades.

Replacement Blades		
For B-1	For B-2	For B-3
B-1-1	B-2-1	B-3-1

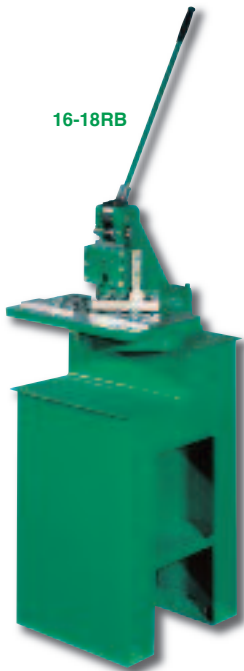
## Tennsmith® Notchers

F.O.B. FACTORY

*Made In The USA*

- Front gauges & large surface ground work table standard.
- Straight shearing; notches over 90° are accomplished in two operations.
- Especially useful where box, chassis & panel blanks are to be made.
- Reversible upper blades.

16-18RB



Replacement Blades	
Part Number	Description
16-18B1	Regular Set of 4
16-18B2	Tab Set of 4

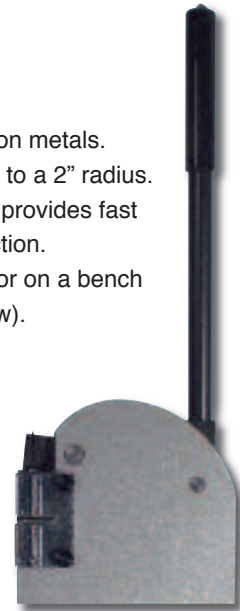
Floor Stand	
Part Number	Shipping Weight
37-16-18	170 lbs (77 kgs)

Notchers			
Part Number	Mild Steel Cap. (notch / pierce)	Blades Included	Shipping Weight
16-18RB	16 / 18 Gauge	Regular	170 lbs (77 kgs)
16-18TB	16 / 18 Gauge	Tab	170 lbs (77 kgs)

## USATCO Bench Model Shrinker & Stretcher

- Work and form common metals.
- Shrink & stretch down to a 2" radius.
- High 45 to 1 leverage provides fast & powerful working action.
- Unit mounts in a vice or on a bench or stand (offered below).

*Made In The USA*



04-135

16 Gauge Mild Steel Capacity Shrinker & Stretcher		
Part Number	Description	Weight
04-135	Metal Shrinker	11 lbs (4.9 kgs)
04-136	Metal Stretcher	11 lbs (4.9 kgs)
53-137	Both Units	22 lbs (9.9 kgs)

Accessories	
Part Number	Description
04-12	Conversion Assembly (stretcher to shrinker)
04-18	Conversion Assembly (shrinker to stretcher)
38-9300	Replacement Shrinker Jaws (4 Piece Set)
38-9301	Replacement Stretcher Jaws (4 Piece Set)

## USATCO Dual Head Shrinker & Stretcher Stand

*Made In The USA*

- Dual head configuration allows two users at the same time.
- Wheeled base for easy movement.
- For use with USATCO Bench Model Shrinker & Stretcher shown above.



36" Dual Head Floor Stand	
Part Number	Weight
37-70127	26 lbs (11.7 kgs)

Note: Shrinker & Stretcher units not included.

**Extended Reach Bench Model Shrinker/Stretchers**

*High Quality  
Machined Finish*



*Reversible  
Jaw Faces*

*Ductile Cast  
Iron Body*

- Large frame opening allows complex forms to be worked.
- Works on all metals effectively.
- Ductile cast iron body & high quality machined finish.
- Handles both angles in the 2" wide range or flat sheets.
- Unit comes complete with one shrinking jaw assembly.
- 5/8" maximum metal insertion gap.
- Lighter design for low cost shipping & handling.

14 Gauge Aluminum Capacity (16 Gauge Steel)			
Part Number	Inside Reach	Inside Height	Weight
04-138	8-1/8"	6"	44 lbs (20 kgs)

Replacement Jaw Assemblies	
Part Number	Description
38-138-1	Shrinker Jaw Assembly
38-138-2	Stretcher Jaw Assembly

**Air Operated Floor Model Shrinker & Stretcher**

F.O.B. FACTORY

*Convenient Remote  
Control Position*

- Handwheel screw and indicator adjustment for accurate control.
- Adjustable air blow-off safety valve with air gauge.
- Small footprint: Only 1-1/2' by 1-1/2' at floor.
- Conforms to military spec MIL-S-45860B.



6A-1

*Made In The USA*

Part Number	Model	Capacity*	Reach	Floor To Jaw	Shipping Weight
6A-1	Shrinker	1/4" Thick	6"	42" (107 cm)	575 lbs (261 kgs)
6A-2	Stretcher	1-1/2" Wide			

\* Aluminum 2024, 1/4" x 1-1/2"; Aluminum 5052, 1/4" x 2"; Titanium, 5/32" x 1".

Part Number	Model	Capacity**	Reach	Floor To Jaw	Shipping Weight
12A-1	Shrinker	3/32" Thick	12"	42" (107 cm)	650 lbs (295 kgs)
12A-2	Stretcher	1" Wide			

\*\* Aluminum 2024, 5/32" x 1"; Aluminum 5052, 3/16" x 1"; Titanium, 3/32" x 3/4".

Accessories	
Part Number	Description
T3A1	Conversion Assembly (stretcher to shrinker)
T3B1	Conversion Assembly (shrinker to stretcher)
HD1A3	Replacement Shrinker Jaws (4 piece set)
HD1B3	Replacement Stretcher Jaws (4 piece set)

**Foot Operated Floor Model Shrinker & Stretcher**

F.O.B. FACTORY



6F-1

*Made In The USA*

- Form unusual shapes without dies.
- Small footprint: Only 2' x 2' at floor.
- Restippling service available for worn jaws, please inquire.
- Special jaw configurations also available, please inquire.

*Low Cost &  
High Quality*

Part Number	Model	Capacity*	Reach	Floor To Jaw	Shipping Weight
6F-1	Shrinker	5/64"	6"	43-1/2" (110 cm)	400 lbs (181 kgs)
6F-2	Stretcher				

\* Based on a tensile strength of 70,000 PSI.

Accessories	
Part Number	Description
6F-A-7	Conversion Assembly (stretcher to shrinker)
6F-B-7	Conversion Assembly (shrinker to stretcher)
38-1447-10	Conversion Assembly (ERCO to Marchant)**
6F-A-3	Replacement Shrinker Jaws (4 piece set)
6F-B-3	Replacement Stretcher Jaws (4 piece set)

\*\* Convert your obsolete ERCO model 1447 to accept Marchant 6F tooling.

# SHEET METAL FORMING EQUIPMENT

## Bench Model English Wheeling Machines

F.O.B. FACTORY

*Upper Adjuster  
For Easy Use*

*Stiff Steel  
Frame With  
Modular  
Lower Arm*



45-23EWB

*Rotating  
Yokes For  
Flexible  
Wheeling*

- Innovative upper adjuster for easier use & better precision.
- Upper wheel is heat treated to 52 Rockwell C (lower anvils are also available heat treated, please inquire).
- Modular lower tool arm allows the owner to build special tool arms to meet specific or unusual shaping requirements.
- Versatile lower yoke adjusts side to side, fore & aft.
- Included anvils provide various profiles from flat to very tight.

### 16" Bench Model - Stub Axle

- Stub axle to work very small pieces without pinching fingers.
- Stable tripod legs allow unit to bolt securely to a workbench.

#### Includes:

Wheeling Machine, 5-1/2" x 2" Upper Wheel & Six 2" x 2" Anvils In Various Profiles

Part Number	Capacity Stainless	Weight
45-16EWB	16 Gauge	105 lbs (47.6 kgs)

### 23" Bench Model

- Includes tripod mount bolt on legs.
- Free standing conversion kit also available, please inquire.

#### Includes:

Wheeling Machine, 8" x 2" Upper Wheel & Six 3" x 2" Anvils In Various Profiles

Part Number	Capacity Stainless	Weight
45-23EWB	16 Gauge	250 lbs (113 kgs)

Note: Replacement & other style anvils available for all models, please inquire.



*For Metal Seamers & Crimpers See Pages 159-160*

## Floor Model English Wheeling Machines

F.O.B. FACTORY

*Upper Adjuster  
For Easy Use*

45-35EWF

*Stiff Steel  
Frame With  
Modular  
Lower Arm*



*Rotating  
Yokes For  
Flexible  
Wheeling*

- Innovative upper adjuster for easier use & better precision.
- Includes tripod mount bolt on legs - 1/4" steel construction.
- Upper wheel is heat treated to 52 Rockwell C (lower anvils are also available heat treated, please inquire).
- Modular lower tool arm allows the owner to build special tool arms to meet specific or unusual shaping requirements.
- Versatile lower yoke adjusts side to side, fore & aft.
- Included anvils provide various profiles from flat to very tight.

### 26" Floor Model

- A superb smaller machine, very stable and solid.

#### Includes:

Wheeling Machine, 8" x 2" Upper Wheel & Six 3" x 2" Anvils In Various Profiles

Part Number	Capacity Stainless	Weight
45-26EWF	14 Gauge	350 lbs (159 kgs)

### 35" Floor Model

- Includes new quick release & dovetail adjuster which provides very smooth action with no movement.
- Axle is quickly removed for changing wheel configurations.

#### Includes:

Wheeling Machine, 9" x 4" Upper Wheel & Six 3" x 3" Anvils In Various Profiles

Part Number	Capacity Stainless	Weight
45-35EWF	14 Gauge	850 lbs (386 kgs)

Note: Replacement & other style anvils available for all models, please inquire.

**Jet® 45" English Wheeling Machine**

F.O.B. FACTORY



*Quick Release Lever*

*Both Wheels Swivel 90 Degrees To Accommodate Larger Work Pieces*

*Includes 4 Rolling Wheels & 10 Anvils In Various Profiles*

*Heavy-Duty Frame*

*Retractable Base Wheels For Easy Movement*



English wheel gets its name from the two steel wheels between which metal is formed. The wheels - one above and one below - are rolled against one another with a piece of sheet metal between, under a pre-adjusted pressure setting. The wheels roll as the sheet metal is moved back and forth. Shaping results as the lower wheel is forced under pressure into the metal, stretching and forming it.

- Quick and easy, tooling-free wheel change.
- Convenient wheel storage brackets attached to unit.

Part Number	Capacity	Throat	Head Opening	O.A. Height	Shipping Weight
45-373-45	1/8" Alum. 16 ga. Mild	45" (114 cm)	6" (15 cm)	63" (160 cm)	575 lbs (261 kgs)



*For Hammers & Mallets See Pages 165*

**Jet® Planishing Hammer**

F.O.B. FACTORY

*Large 24" Throat*

*Includes 2 Die Set Brackets*

*Quick Change Upper Dies*

*Comfortable Foot Control Operation*



- Smooths beads and forms steel sheet metal up to 16 gauge, alum. & copper up to 1/8" thick.
- Supplied with two pair of upper & anvil die sets.
- Three position airflow regulates speed of pneumatic hammer\*.

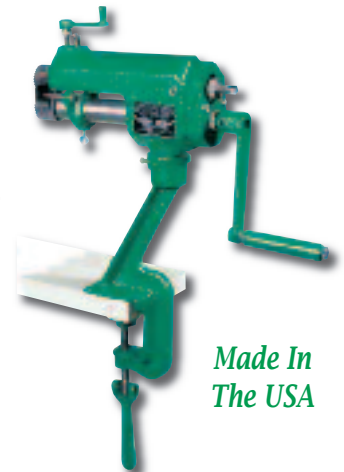
Part No.	Throat	Head Opening	Shipping Weight
PH-24	24"	2-1/2"	250 lbs (113 kgs)

\* 1800-2000, 3200-3500 & 4400-4600 BPM ranges. Required air pressure 90-120 PSI.

**Tennsmith® Hand Rotary Machine**

*Smooth, Fast & Precise Operation*

- Includes six rolls: beading, turning, closing, jogging, flanging & crimping.
- Adjustable roll pressure.
- Table mount with clamp.
- Unit can be used in both forward & reverse.



*Made In The USA*

22 Gauge Mild Steel Capacity			
Part Number	Throat	Height	Ship Weight
R22	7" (178 mm)	16" (41 cm)	67 lbs (30 kgs)

# PUNCH & CUTTING TOOLS

## Micro-Stop Countersink Cage



Hardened & ground spindles, bronze bearings & precision depth control.

1/4"-28 Countersink Thread					
Tool w/Plastic Footpiece	Tool w/Steel Footpiece	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-441	02-441S	5/8"	5/16"	0.001"	3000

### Countersink Cage Kits:

- Includes tool, footpiece & H.S.S. countersink cutters listed below.

Countersink Cage Kits		
Kit w/Plastic Footpiece	Kit w/Steel Footpiece	Included Cutters (1/2" body diameter)
53-441K	53-441SK	3/32", 1/8", 5/32" & 3/16"
53-441K1	53-441SK1	#10, 21, 30 & 40
53-441K2	53-441SK2	3/32", 1/8", 5/32", 3/16", #10, 21, 30 & 40

### Optional Footpieces (for use with standard skirt only):

- Available separately or installed on tool.

Optional Footpieces		
Footpiece Only	Footpiece w/Tool	Type
94278	02-441-1X	Phenolic
94279	02-441-2X	Nylon
94280	02-441-3X	Nylon Flanged
94281	02-441-4X	Chrome
94282	02-441-5X	Plastic

### Optional Skirts:

- Available separately or installed on tool.

Skirt Type			
	2 Leg	Bell	Flange
Skirt Only	95390	95393	95395
Skirt w/Tool	02-441A	02-441B	02-441C

Skirt Type			
	Insert Collar	Close	Cutaway
Skirt Only	95391	95392	95394
Skirt w/Tool	02-441D	02-441E	02-441F

Skirt Type		
	Std. w/Steel Footpiece	Std. w/Nylon Footpiece
Skirt Only	95396	95397
Skirt w/Tool	02-441S	02-441N

## Micro-Stop Countersink Cutter Kit

*New Fitted Case Helps Prevent F.O.D.*



### Includes:

*Versatile & Portable*

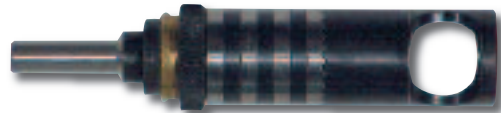
Countersink Cage, Two Replacement Skirts (insert collar & flange type), Four Footpieces (phenolic, nylon, nylon flanged & chrome), Nine 1/2" Diameter H.S.S. Cutters (3/32", 1/8", 5/32", 3/16", 1/4", #40, #30, #21 & #10) & Plastic Case

Note: Elliptical countersink cutter kit also available, please inquire.

Part Number	Description
53-590	Complete 17 PC Kit

## Mini Micro-Stop Countersink Cage

*Perfect For Use In Seat Tracks*



Hardened & ground spindles, bronze bearings & precision depth control.

1/4"-28 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-241	7/16"	1/4"	0.001"	3000

### Countersink Cage Kits:

- Includes tool & H.S.S. countersink cutters listed below.

Countersink Cage Kits	
Part Number	Included Cutters (1/2" body diameter)
53-241K	3/32", 1/8", 5/32" & 3/16"
53-241K1	#10, 21, 30 & 40
53-241K2	3/32", 1/8", 5/32", 3/16", #10, 21, 30 & 40



*For Diamond Plated Countersinks See Page 89*

**Full Flange Skirt Micro-Stop Countersink Cage**

*Compact*

*Heavy-Duty*



- Dual bearings for continuous high-speed use.
- Positive stop to connect shaft eliminates work damage.

1/4"-28 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-551	5/8"	5/16"	0.001"	10,000

Optional Footpiece	
Part Number	Type
38-2911	Nylon

Note: Other optional skirts & footpieces available, please inquire.

**Jumbo Micro-Stop Countersink Cages**

02-1533



- Hardened & ground spindles, bronze bearings & precision depth control.
- Dual bearings for upper & lower spindle support.

Note: Jumbo cutters with required 3/8"-24 thread shown on next page.

3/8"-24 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-1530	1"	1/2"	0.001"	3000
02-1533	1-1/4"	1/2"	0.001"	3000

**Self Aligning Countersink Cages**



- Stay perpendicular to work surface & concentric with the hole.
- Drill position offset by the ball system within a 20° envelope.
- Chucking flats to accommodate drill chuck.
- Safety locking knurled adjustment ring.
- Flanged skirt type (other styles available, please inquire).

1/4"-28 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-2351B-A	7/8"	0.340"	0.001"	5000

M6 x 1 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-2351A-A	7/8"	0.340"	0.001"	5000

**Threaded Shank Micro-Stop Countersink Cage**

- 1/4"-28 shaft thread.
- Positive adjustment lock.
- Only 1.38" - 1.77" overall length.



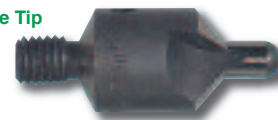
1/4"-28 Countersink Thread				
Part No.	Capacity	Shaft Travel	Depth Adj.	Max. RPM
02-141	1/2"	3/32"	0.001"	3000

**Integral Pilot Countersink Cutters**



H.S.S.

Note: H.S.S. cutters are 3-flute standard. Carbide tip cutters are 2-flute standard. Other flutes available, please inquire.



Carbide Tip

Integral Pilot 1/4"-28 Thread, 100° H.S.S.			
7/16" Diameter	1/2" Diameter	5/8" Diameter	Pilot Diameter
02-304-3/32	02-305-3	—	3/32"
02-304-1/8	02-305-4	—	1/8"
02-304-5/32	02-305-5	02-307-5	5/32"
02-304-3/16	02-305-6	02-307-6	3/16"
02-304-7/32	02-305-7	02-307-7	7/32"
02-304-1/4	02-305-8	02-307-8	1/4"
02-304-40	02-306-40	02-307-40	#40
02-304-30	02-306-30	02-307-30	#30
02-304-21	02-306-21	02-307-21	#21
02-304-10	02-306-10	02-307-10	#10
02-304-F	02-306-F	02-307-F	F

Integral Pilot 1/4"-28 Thread, 100° Carbide Tip			
7/16" Diameter	1/2" Diameter	5/8" Diameter	Pilot Diameter
02-304-3/32C	02-305-3C	—	3/32"
02-304-1/8C	02-305-4C	—	1/8"
02-304-5/32C	02-305-5C	02-307-5C	5/32"
02-304-3/16C	02-305-6C	02-307-6C	3/16"
02-304-7/32C	02-305-7C	02-307-7C	7/32"
02-304-1/4C	02-305-8C	02-307-8C	1/4"
02-304-40C	02-306-40C	02-307-40C	#40
02-304-30C	02-306-30C	02-307-30C	#30
02-304-21C	02-306-21C	02-307-21C	#21
02-304-10C	02-306-10C	02-307-10C	#10
02-304-FC	02-306-FC	02-307-FC	F

# PUNCH & CUTTING TOOLS

## Cobalt Integral Pilot Countersink Cutters

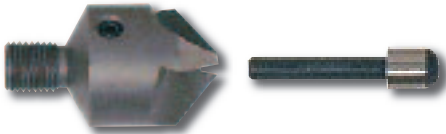
- Solid M42 cobalt construction for use on harder materials.
- Three flute, 100° countersink angle standard.



Integral Pilot 1/4"-28 Thread, 100° Cobalt		
Part Number	Pilot Diameter	Body Diameter
02-8056-40	#40	1/2"
02-8056-30	#30	1/2"
02-8056-21	#21	1/2"
02-8056-10	#10	1/2"
02-8056-1/4	1/4"	1/2"
02-80565	Complete 5PC Set	

## Replaceable Pilot C'Sink Cutters & Pilots

Precision Ground

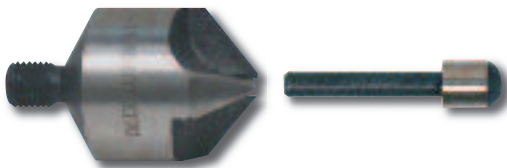


Replaceable Pilot Cutters, 1/4"-28 Thread - .086" Pilot Hole			
H.S.S.	Carbide Tipped	Body Diameter	Cutter Angle
02-167-3-82	02-167-3-82C	1/2"	82°
02-167-3-100	02-167-3-100C	1/2"	100°
02-167-3-120	02-167-3-120C	1/2"	120°
02-167-4-100	—	5/8"	100°

.086" Replaceable Pilots	
Part Number	Pilot Diameter
02-A181-3	3/32"
02-A181-4	1/8"
02-A181-5	5/32"

.086" Replaceable Pilots	
Part Number	Pilot Diameter
02-A181-6	3/16"
02-A181-7	7/32"
02-A181-8	1/4"

## Jumbo Replaceable Pilot C'Sink Cutters & Pilots



Replaceable Pilot Cutters 3/8"-24 Thread - .170" Pilot Hole	
H.S.S.	Body Diameter
02-434-1	3/4"
02-434-2	7/8"
02-434-3	1"
02-434-4	1-1/8"
02-434-5	1-1/4"

.170" Replaceable Pilots	
Part Number	Pilot Diameter
02-A184-6	3/16"
02-A184-8	1/4"
02-A184-10	5/16"
02-A184-12	3/8"
02-A184-14	7/16"
02-A184-16	1/2"
02-A184-20	5/8"

Note: 100° cutting angle standard, 82° avail. Jumbo cutters also available in carbide and integral pilot style, please inquire.

## Undercut Body Countersink Cutters



- Undercut body diameter provides faster chip ejection.
- Designed for close tolerance work & to eliminate sheet damage.
- Two flute, high speed steel construction with a 100° cutting angle.

3/8" Body Diameter, 100° Cutting Angle		
Part Number	Shank Size	Pilot Diameter
02-100-210-0960	.210"	.0960"
02-100-256-0980	.256"	.0980"
02-100-256-1222	.256"	.1222"
02-100-256-1265	.256"	.1256"
02-100-317-1570	.317"	.1570"
02-100-386-1915	.386"	.1915"

## Extended Footpiece Micro-Stop C'Sink Cage



Hardened & ground spindles, bronze bearings & precision depth control.

1/4"-28 Countersink Thread					
Part Number	Capacity	Footpiece Extension	Shaft Travel	Depth Adj.	Max. RPM
02-284	3/8"	2-3/4"	5/16"	0.001"	3000
02-284-4	3/8"	4"	5/16"	0.001"	3000
02-284-D	5/8"	2-3/4"	5/16"	0.001"	3000

## Extended Footpiece Micro-Stop C'Sink Cutters

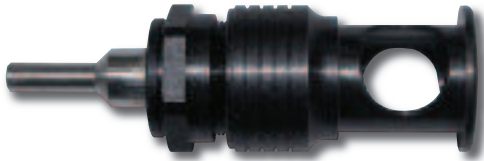


Note: 100° cutting angle standard.

Integral Pilot 1/4"-28 Thread - 3/8" Body Diameter		
H.S.S.	Carbide Tipped	Pilot Diameter
02-303-3/32	02-303-3/32C	3/32"
02-303-1/8	02-303-1/8C	1/8"
02-303-5/32	02-303-5/32C	5/32"
02-303-3/16	02-303-3/16C	3/16"
02-303-7/32	02-303-7/32C	7/32"
02-303-1/4	02-303-1/4C	1/4"
02-303-40	02-303-40C	#40
02-303-30	02-303-30C	#30
02-303-21	02-303-21C	#21
02-303-10	02-303-10C	#10



**BRFZ Micro-Stop Countersink Cages**



For use with Boeing® BRFZ rivet cutters shown below.

Standard Skirt Models, 1/4"-28 Countersink Thread				
Part Number	Cap.	Shaft Travel	Depth Adj.	Max. RPM
02-441SBACR15FT	5/8"	5/16"	0.001"	3000
02-441SBACR15FT-1	5/8"	5/16"	0.0005"	3000

Flanged Skirt Models, 1/4"-28 Countersink Thread				
Part Number	Cap.	Shaft Travel	Depth Adj.	Max. RPM
02-441FBACR15FT	5/8"	5/16"	0.001"	3000
02-441FBACR15FT-1	5/8"	5/16"	0.0005"	3000

**Countersink Cutters For BRFZ Rivets**



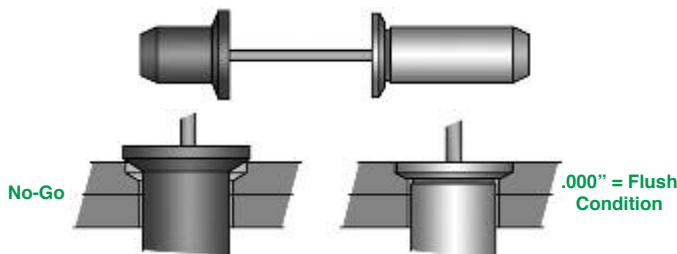
- Designed for Boeing® BRFZ rivets, MS14218.
- Creates both counterbore & countersink in one operation.
- Manufactured from M42 H.S.S., heat-treated to 63-66 Rc.

Integral Pilot 1/4"-28 Thread 3/8" Body Diameter, H.S.S.		
Part No.	Rivet Size	Diameter
02-438-3	-3	3/32"
02-438-4	-4	1/8"
02-438-5	-5	5/32"
02-438-6	-6	3/16"
02-438-7	-7	7/32"

Integral Pilot 1/4"-28 Thread 1/2" Body Diameter, H.S.S.		
Part No.	Rivet Size	Diameter
02-438-8	-8	1/4"
02-438-9	-9	9/32"
02-438-10	-10	5/16"

Note: 1/4"-28 thread.  
120° cutting angle standard.

**BRFZ Dual Gauges**



Go / no-go gauge determines proper Boeing® BRFZ rivet installation.

Part No.	Nom. Dia.	No Go	Part No.	Nom. Dia.	No Go
06-439-3	3/32"	.1265"	06-439-7	7/32"	.3170"
06-439-4	1/8"	.1655"	06-439-8	1/4"	.3640"
06-439-5	5/32"	.2140"	06-439-9	9/32"	.4110"
06-439-6	3/16"	.2625"	06-439-10	5/16"	.4600"

**Carbide Tip Replaceable Pilot Stop Counterbores**

- For use with all popular micro-stop countersink cages.
- Perfect for highly abrasive, difficult to machine & exotic materials.



Part Number	Cutter Dia.	Shank Thread	Pilot Hole
02-730-1	3/8"	1/4"-28	3/32"
02-730-2	7/16"	1/4"-28	1/8"
02-730-3	1/2"	1/4"-28	1/8"
02-730-4	9/16"	1/4"-28	1/8"
02-730-5	5/8"	1/4"-28	1/8"
02-730-6A	11/16"	3/8"-24	3/16"
02-730-6B	11/16"	7/16"-20	3/16"
02-730-7A	3/4"	3/8"-24	3/16"
02-730-7B	3/4"	7/16"-20	3/16"
02-730-8A	13/16"	3/8"-24	3/16"
02-730-8B	13/16"	7/16"-20	3/16"
02-730-9A	7/8"	3/8"-24	3/16"
02-730-9B	7/8"	7/16"-20	3/16"
02-730-10A	15/16"	3/8"-24	3/16"
02-730-10B	15/16"	7/16"-20	3/16"
02-730-11A	1"	3/8"-24	3/16"
02-730-11B	1"	7/16"-20	3/16"
02-730-12A	1-1/8"	3/8"-24	3/16"
02-730-12B	1-1/8"	7/16"-20	3/16"
02-730-13A	1-1/4"	3/8"-24	3/16"
02-730-13B	1-1/4"	7/16"-20	3/16"

Note: 1/64" corner radius. Replaceable pilots available on page 81.

**Countersink Extensions**



- Versatile - for use with countersinks, drill bits etc.
- 1/4"-28 female thread, 3/8" body diameter.

1/4"-28 Threaded Shank		
Part Number	Body Length	Shank Length
90442	1"	5/16"
90443	2"	5/16"
90444	4"	5/16"

1/4" Straight Shank		
Part Number	Body Length	Shank Length
90425	2"	7/8"
90426	4"	7/8"
90427	6"	7/8"

**Straight Shank Zero Flute C'Sink Cutters**

*Fast Stock Removal*

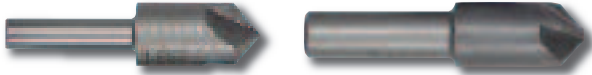


Single cutting edge for chatter free finish in all materials.

1/4" Straight Shank, 100° Cutting Angle		
Part Number	Capacity	Overall Length
100130	3/32" - 1/4"	1-1/2" (38.1 mm)
100131	1/8" - 27/64"	1-11/16" (42.8 mm)
100132	3/16" - 35/64"	1-7/8" (47.6 mm)

## PUNCH & CUTTING TOOLS

### Straight Shank Aircraft Countersink Cutters



- Radial relief ground angle to assure free cutting clearance & prevent chatter.
- Available in 82°, 100° & 120° cutting angles.\*

\* Select the cutter required, then add the desired cutting angle (82, 100 or 120).  
**Example:** For a H.S.S. 1/4" dia. one flute cutter with a 100° angle, use no. **02-112-1-100**.

One Flute			
H.S.S.	Carbide	Diameter	Shank
02-112-1	02-112-1C	1/4"	1/4"
02-112-2	02-112-2C	5/16"	1/4"
02-112-3	02-112-3C	3/8"	1/4"
02-112-5	02-112-5C	1/2"	1/4"
02-112-6	02-112-6C	5/8"	3/8"

Four Flute			
H.S.S.	Carbide	Diameter	Shank
02-312-1	02-312-1C	1/4"	3/16"
02-312-2	02-312-2C	5/16"	1/4"
02-312-3	02-312-3C	3/8"	1/4"
02-312-5	02-312-5C	1/2"	3/8"
02-312-6	02-312-6C	5/8"	3/8"

Six Flute Chatterless			
H.S.S.	Carbide	Diameter	Shank
02-612-1	02-612-1C	1/4"	3/16"
02-612-2	02-612-2C	5/16"	1/4"
02-612-3	02-612-3C	3/8"	1/4"
02-612-5	02-612-5C	1/2"	3/8"
02-612-6	02-612-6C	5/8"	3/8"

### Str. Shank Integral Pilot Extension Countersinks

*M42 High Speed Steel Construction*



100° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-100-0938	3/16"	3/32"
02-1875-100-1250	3/16"	1/8"
02-1875-100-1562	3/16"	5/32"
02-1900-100-1562	.1900"	3/32"
02-2500-100-0938	1/4"	3/32"
02-2500-100-1250	1/4"	1/8"
02-2520-100-1250	.2520"	1/8"
02-2830-100-1395	.2830"	.1395"
02-3125-100-1250	5/16"	1/8"
02-3125-100-1562	5/16"	5/32"
02-3400-100-1562	.3400"	5/32"
02-3750-100-0938	3/8"	3/32"
02-3750-100-1250	3/8"	1/8"
02-3750-100-1562	3/8"	5/32"
02-3750-100-1875	3/8"	3/16"
02-4050-100-1875	.4050"	3/16"
02-4375-100-2188	7/16"	7/32"
02-4375-100-2500	7/16"	1/4"
02-5000-100-0938	1/2"	3/32"
02-5000-100-1250	1/2"	1/8"
02-5000-100-1562	1/2"	5/32"
02-5000-100-1875	1/2"	3/16"
02-5000-100-2188	1/2"	7/32"
02-5000-100-2500	1/2"	1/4"
02-5300-100-2500	.5300"	1/4"

120° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-120-0938	3/16"	3/32"
02-2500-120-1250	1/4"	1/8"
02-3125-120-1562	5/16"	5/32"
02-3750-120-0938	3/8"	3/32"
02-3750-120-1250	3/8"	1/8"
02-3750-120-1562	3/8"	5/32"
02-3750-120-1875	3/8"	3/16"
02-5000-120-2500	1/2"	1/4"

90° Cutting Angle		
Part Number	Body Dia.	Pilot Dia.
02-1875-90-0938	3/16"	3/32"
02-2500-90-1250	1/4"	1/8"
02-3125-90-1562	5/16"	5/32"
02-3750-90-1875	3/8"	3/16"
02-5000-90-2500	1/2"	1/4"

**Note:** All countersinks are furnished with a 1-3/4" length x 3/16" diameter shank, a 3/8" pilot length & are 2-1/2" overall length.

### Interchangeable Pilot Aircraft Counterbore Kits

#### 16 Piece Short Series Kit:

Five Counterbores (1/4", 5/16", 3/8", 7/16" & 1/2"), Eight Pilots (3/32" Shank: 1/8", 5/32", 3/16" & 1/4" - 1/8" Shank: 3/16", 7/32", 1/4" & 5/16"), Wrenches & Polyethylene Case

High Speed Steel	Carbide Tipped	Description
53-29	53-29CT	Complete 16 PC Kit

#### 40 Piece Short Series Kit:

Thirteen Counterbores (1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16" & 1"), Twenty Pilots (3/32" Shank: 1/8", 5/32", 3/16" & 1/4" - 1/8" Shank: 3/16", 7/32", 1/4", 9/32" & 5/16" - 3/16" Shank: 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32" & 1/2"), Wrenches & Polyethylene Case

High Speed Steel	Carbide Tipped	Description
53-39	53-39CT	Complete 40 PC Kit



53-29

**Interchangeable Pilot Aircraft Counterbores**



*Short Flute Type*

- Used with chucked drills to cut flat area around hole for bolt or nut installation.
- The OD is precision ground with back taper to ensure concentricity.
- Carbide tip recommended for hardened or composite materials.

**Note:** Supplied without corner radii. Corner radii available on special request (please inquire).

1/4" Shank H.S.S.		
Part Number	Cutter Dia.	Pilot Hole
02-275-1	1/4"	3/32"
02-275-2	9/32"	3/32"
02-275-3	5/16"	3/32"
02-275-4	11/32"	3/32"
02-275-5	3/8"	3/32"
02-275-6	13/32"	1/8"
02-275-7	7/16"	1/8"
02-275-8	15/32"	1/8"
02-275-9	1/2"	1/8"
02-275-10	17/32"	1/8"
02-275-11	9/16"	1/8"
02-275-12	19/32"	1/8"
02-275-13	5/8"	1/8"
02-275-14	21/32"	3/16"
02-275-15	11/16"	3/16"
02-275-16	23/32"	3/16"
02-275-17	3/4"	3/16"
02-275-18	25/32"	3/16"
02-275-19	13/16"	3/16"
02-275-20	27/32"	3/16"
02-275-21	7/8"	3/16"
02-275-22	29/32"	3/16"
02-275-23	15/16"	3/16"
02-275-24	31/32"	3/16"
02-275-25	1"	3/16"

1/4" Shank Carbide Tipped		
Part Number	Cutter Dia.	Pilot Hole
02-275-1C	1/4"	3/32"
02-275-2C	9/32"	3/32"
02-275-3C	5/16"	3/32"
02-275-4C	11/32"	3/32"
02-275-5C	3/8"	3/32"
02-275-6C	13/32"	1/8"
02-275-7C	7/16"	1/8"
02-275-8C	15/32"	1/8"
02-275-9C	1/2"	1/8"
02-275-10C	17/32"	1/8"
02-275-11C	9/16"	1/8"
02-275-12C	19/32"	1/8"
02-275-13C	5/8"	1/8"
02-275-14C	21/32"	3/16"
02-275-15C	11/16"	3/16"
02-275-16C	23/32"	3/16"
02-275-17C	3/4"	3/16"
02-275-18C	25/32"	3/16"
02-275-19C	13/16"	3/16"
02-275-20C	27/32"	3/16"
02-275-21C	7/8"	3/16"
02-275-22C	29/32"	3/16"
02-275-23C	15/16"	3/16"
02-275-24C	31/32"	3/16"
02-275-25C	1"	3/16"

1/2" Shank H.S.S.		
Part Number	Cutter Dia.	Pilot Hole
02-275-26	1-1/16"	3/16"
02-275-27	1-1/8"	3/16"
02-275-28	1-3/16"	3/16"
02-275-29	1-1/4"	3/16"
02-275-30	1-5/16"	3/16"
02-275-31	1-3/8"	3/16"
02-275-31B	1-7/16"	3/16"
02-275-32	1-1/2"	3/16"

1/2" Shank Carbide Tipped		
Part Number	Cutter Dia.	Pilot Hole
02-275-26C	1-1/16"	3/16"
02-275-27C	1-1/8"	3/16"
02-275-28C	1-3/16"	3/16"
02-275-29C	1-1/4"	1/4"
02-275-30C	1-5/16"	1/4"
02-275-31C	1-3/8"	1/4"
02-275-31BC	1-7/16"	1/4"
02-275-32C	1-1/2"	1/4"

**Aircraft Counterbore Pilots**



- Made from precision ground, finest quality tool steel.
- Fits most standard aircraft counterbores.

3/32" Shank	
Part No.	Head Dia.
02-276-1	3/32"
02-276-2	1/8"
02-276-3	5/32"
02-276-4	#20
02-276-5	3/16"
02-276-6	#10
02-276-7	7/32"
02-276-8	1/4"
02-276-9	F

3/16" Shank	
Part No.	Head Dia.
02-276-5C	3/16"
02-276-6C	#10
02-276-7C	7/32"
02-276-8C	1/4"
02-276-9C	F
02-276-10C	9/32"
02-276-11C	5/16"
02-276-12C	11/32"
02-276-13C	3/8"
02-276-14C	13/32"
02-276-15C	7/16"
02-276-16C	15/32"
02-276-17C	1/2"
02-276-18C	17/32"
02-276-19C	9/16"
02-276-20C	19/32"
02-276-21C	5/8"

1/8" Shank	
Part No.	Head Dia.
02-276-2A	1/8"
02-276-3A	5/32"
02-276-4A	#20
02-276-5A	3/16"
02-276-6A	#10
02-276-7A	7/32"
02-276-8A	1/4"
02-276-9A	F
02-276-10A	9/32"
02-276-11A	5/16"

1/4" Shank	
Part No.	Head Dia.
02-276-8D	1/4"
02-276-9D	F
02-276-10D	9/32"
02-276-11D	5/16"
02-276-12D	11/32"
02-276-13D	3/8"
02-276-14D	13/32"
02-276-15D	7/16"
02-276-16D	15/32"
02-276-17D	1/2"
02-276-18D	17/32"
02-276-19D	9/16"
02-276-20D	19/32"
02-276-21D	5/8"
02-276-22D	21/32"
02-276-23D	11/16"
02-276-24D	23/32"
02-276-25D	3/4"

5/32" Shank	
Part No.	Head Dia.
02-276-3B	5/32"
02-276-4B	#20
02-276-5B	3/16"
02-276-6B	#10
02-276-7B	7/32"
02-276-8B	1/4"
02-276-9B	F
02-276-10B	9/32"
02-276-11B	5/16"
02-276-12B	11/32"
02-276-13B	3/8"
02-276-14B	13/32"
02-276-15B	7/16"
02-276-16B	15/32"
02-276-17B	1/2"

**Note:** Also used with threaded shank stop counterbores on page 79.

**Counterbore Extension**

*Great For Limited Access Areas*

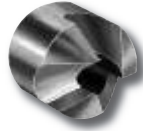


Part No.	Shank	Shank Cap.	O.A.L.
02-275-EX	1/4"	1/4"	4" (102 mm)

# PUNCH & CUTTING TOOLS

## 4-Flute Back Countersink Cutters

- Precision ground with 100° cutting angle.
- For restricted areas where conventional countersinks cannot be utilized.



\* These models carbide tipped, not solid carbide.

H.S.S.	Solid Carbide	Cutter Dia.	Pilot Hole
02-290-1	02-290-1C	1/4"	3/32"
02-290-1B	02-290-1BC	1/4"	1/8"
02-A208-2J	02-A208-2JC	5/16"	3/32"
02-290-2	02-290-2C	5/16"	1/8"
02-290-2B	02-290-2BC	5/16"	5/32"
02-A208-3J	02-A208-3JC	3/8"	1/8"
02-290-3	02-290-3C	3/8"	5/32"
02-290-3B	02-290-3BC	3/8"	3/16"
02-A208-4J	02-A208-4JC	7/16"	1/8"
02-290-4	02-290-4C	7/16"	5/32"
02-290-4B	02-290-4BC	7/16"	3/16"
02-A208-5J	02-A208-5JC	1/2"	5/32"
02-290-5	02-290-5C	1/2"	3/16"
02-290-5B	02-290-5BC	1/2"	1/4"
02-A208-6J	02-A208-6JC	9/16"	5/32"
02-290-6	02-290-6C	9/16"	3/16"
02-290-6B	02-290-6BC	9/16"	1/4"
02-A208-7J	02-A208-7JC	5/8"	3/16"
02-290-7	02-290-7C	5/8"	1/4"
02-290-7B	02-290-7BC	5/8"	5/16"
02-290-8	02-290-8C	11/16"	1/4"
02-290-8B	02-290-8BC	11/16"	5/16"
02-290-9	02-290-9C	3/4"	1/4"
02-290-9B	02-290-9BC	3/4"	3/8"
02-290-10	02-290-10C	7/8"	5/16"
02-290-10B	02-290-10BC	7/8"	3/8"
02-290-11	02-290-11C	1"	5/16"
02-290-11B	02-290-11BC	1"	1/2"
02-290-12	02-290-12X*	1-1/4"	3/8"
02-290-12B	02-290-12BX*	1-1/4"	1/2"

## 4-Flute Back Spotfacers

- Precision ground.
- For restricted areas where conventional spotfacers cannot be utilized.



Note: Corner radii: 1/32" H.S.S., 1/64" Carbide.

\* These models carbide tipped, not solid carbide.

H.S.S.	Solid Carbide	Cutter Dia.	Pilot Hole
02-280-1	02-280-1C	1/4"	3/32"
02-280-1B	02-280-1BC	1/4"	1/8"
02-280-2	02-280-2C	5/16"	1/8"
02-280-2B	02-280-2BC	5/16"	5/32"
02-280-3	02-280-3C	3/8"	5/32"
02-280-3B	02-280-3BC	3/8"	3/16"
02-280-4	02-280-4C	7/16"	5/32"
02-280-4B	02-280-4BC	7/16"	3/16"
02-280-5	02-280-5C	1/2"	3/16"
02-280-5B	02-280-5BC	1/2"	1/4"
02-208-6J	02-208-6JC	9/16"	5/32"
02-280-6	02-280-6C	9/16"	3/16"
02-280-6B	02-280-6BC	9/16"	1/4"
02-280-7	02-280-7C	5/8"	1/4"
02-280-7B	02-280-7BC	5/8"	5/16"
02-280-8	02-280-8C	11/16"	1/4"
02-280-8B	02-280-8BC	11/16"	5/16"
02-280-9	02-280-9C	3/4"	5/16"
02-280-9B	02-280-9BC	3/4"	3/8"
02-280-10	02-280-10C	7/8"	5/16"
02-280-10B	02-280-10BC	7/8"	3/8"
02-280-11	02-280-11C	1"	5/16"
02-280-11B	02-280-11BC	1"	1/2"
02-280-12	02-280-12X*	1-1/8"	1/2"
02-280-12B	02-280-12BX*	1-1/4"	3/8"
02-280-13	02-280-13X*	1-3/8"	5/8"
02-280-13B	02-280-13BX*	1-1/2"	5/8"
02-280-14	02-280-14X*	1-3/4"	3/4"
02-280-14B	02-280-14BX*	1-7/8"	3/4"
02-280-15	02-280-15X*	2"	3/4"

## Back Countersink & Back Spotfacer Kits

- Precision ground with correct 100° cutting angle, for use in restricted areas.
- Carbide kits for use with steel, inconel & composite materials.

53-590S

### Includes:

*Convenient & Economical*

Six Pilots (3/32", 1/8", 5/32", 3/16", 1/4" & 5/16"), Seven 100° Cutters (1/4", 5/16", 3/8", 7/16", 1/2", 9/16" & 5/8") & Heavy-Duty Polyethylene Case

14 PC Back Countersink Kits	
High Speed Steel	Solid Carbide
53-590TA	53-590TAC

14 PC Back Spotfacer Kits	
High Speed Steel	Solid Carbide
53-590S	53-590SC



**Back Countersink & Back Spotfacer Pilots**



- Interchangeable among countersink & counterbore cutters.
- Standard 6" overall length.
- Units with double drive bayonet lock 8" overall length.

Standard Pilots		Standard Pilots	
Part Number	Pilot Dia.	Part Number	Pilot Dia.
02-285-1	3/32"	02-285-6	5/16"
02-285-2	1/8"	02-285-7	3/8"
02-285-3	5/32"	02-285-8	1/2"
02-285-4	3/16"	02-285-9*	5/8"
02-285-5	1/4"	02-285-10*	3/4"

Step Pilots		
Part Number	Pilot Dia.	Step Dia.
02-2855-1	3/32"	1/8"
02-2855-2	1/8"	5/32"
02-2855-3	5/32"	3/16"
02-2855-4	3/16"	1/4"
02-2855-5	1/4"	5/16"
02-2855-6	5/32"	3/16"
02-2855-7	3/16"	1/4"
02-2855-8	1/4"	5/16"
02-2855-9	5/16"	3/8"
02-2855-10	3/8"	1/2"
02-2855-11	1/2"	9/16"
02-2855-12	1/4"	5/16"
02-2855-13	5/16"	3/8"
02-2855-14	3/8"	1/2"
02-2855-17	1/2"	9/16"
02-2855-20*	5/8"	3/4"
02-2855-21*	5/8"	7/8"
02-2855-22*	3/4"	7/8"
02-2855-23*	3/4"	1"
02-2855-24*	3/4"	1-1/4"

\* Furnished with double drive bayonet lock.



*For Composite Cutting Hole Saws See Page 91*

**Fine & Coarse Tooth Hole Saws**

**Fine Tooth**

- For use with aluminum, sheet steel & plastics.

**Coarse Tooth**

- For use with thicker materials.
- Deep teeth for proper chip flow.



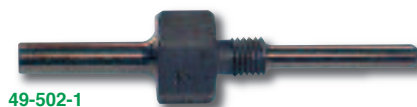
Part Number (prefix)	Description
49-500	Fine Tooth
49-501	Coarse Tooth

**Note:** Select the type saw (chart above), then add the diameter number (chart below).  
**Example:** For fine tooth with a 3/8" diameter, the part number would be **49-500-1**.

Suffix	Diameter*	Suffix	Diameter*
1	3/8" (9.5 mm)	24	1-3/16" (30 mm)
2	13/32" (10.3 mm)	25	1-1/4" (32 mm)
3	7/16" (11 mm)	26	1-5/16" (33 mm)
4	15/32" (11.8 mm)	27	1-3/8" (35 mm)
5	1/2" (12.8 mm)	28	1-7/16" (36 mm)
6	17/32" (13.5 mm)	29	1-1/2" (38 mm)
7	9/16" (14.2 mm)	30	1-9/16" (40 mm)
8	19/32" (15 mm)	31	1-5/8" (41 mm)
9	5/8" (15.8 mm)	32	1-11/16" (43 mm)
10	21/32" (16.6 mm)	33	1-3/4" (44 mm)
11	11/16" (17.4 mm)	34	1-13/16" (46 mm)
12	23/32" (18.2 mm)	35	1-7/8" (47.5 mm)
13	3/4" (19 mm)	36	1-15/16" (49 mm)
14	25/32" (19.8 mm)	37	2" (51 mm)
15	13/16" (20.6 mm)	38	2-1/8" (54 mm)
16	27/32" (21.4 mm)	39	2-1/4" (57 mm)
17	7/8" (22.2 mm)	40	2-3/8" (60 mm)
18	29/32" (23 mm)	41	2-1/2" (64 mm)
19	15/16" (23.7 mm)	42	2-5/8" (67 mm)
20	31/32" (24.5 mm)	43	2-3/4" (70 mm)
21	1" (25 mm)	44	2-7/8" (73 mm)
22	1-1/16" (27 mm)	45	3" (76 mm)
23	1-1/8" (29 mm)		

\* 3/8" to 1-1/4" diameter is 5/16"-24 thread, 1-5/16" to 3" diameter is 1/2"-20 thread.

**Hole Saw Arbors**



49-502-1

*Precision Ground  
To Ensure  
Concentricity*

1/4" Shank, 5/16"-24 Thread		1/2" Shank, 1/2"-20 Thread	
Part Number	Pilot Diameter	Part Number	Pilot Diameter
49-502-1	3/16"	49-502-3	1/4"
49-502-2	1/4"	49-502-4	3/8"

# PUNCH & CUTTING TOOLS

## Blair® Hole Cutter Kits

Produces clean, burr-free holes with no damage or deforming of the surrounding material. Excellent for steel, sheet metal and plastics.



02-11075

*Patented Tooth  
Geometry Prevents  
Chip Clogging*

*Precision  
Ground  
M2 H.S.S.*



02-13218

### Heavy-Duty\* Hole Cutter Kit:

Arbor With Spring Loaded Retractable Pilot, Extra Pilot, Seven Cutters (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4"), Allen Wrench, Stop Washers & Carrying Case

Part Number	Material Capacity
02-11075	1/4"

Replacement Cutters (sold individually)							
1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"
11100	11104	11108	11112	11116	11120	11124	11132

### Blaircutter Hole Cutter Kit:

Arbor With Spring Loaded Retractable Pilot, Three Extra Pilots, Seven Cutters (1/4", 5/16", 3/8", 7/16", 1/2", 9/16" & 5/8") & Carrying Case

Part Number	Material Capacity
02-13218	3/16"

Replacement Cutters (sold individually)						
1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"
13200	13202	13204	13206	13208	13210	13212

\* Can be mounted on air feed drill units.



02-11091

### Rotabroach Large Diameter Hole Cutter Kit:

Arbor, Hex Washer, Center Punch, Extra Pilot, Six Cutters (7/8", 1", 1-1/8", 1-1/4", 1-3/8" & 1-1/2") & Carrying Case

Part Number	Material Capacity
02-11091	1/2"

Replacement Cutters (sold individually)					
7/8"	1"	1-1/8"	1-1/4"	1-3/8"	1-1/2"
11340	11348	11356	11364	11366	11368



02-14006

### Automotive & Fabricator's Hole Cutter Kit:

Arbor, Hex Washer, Center Punch, Extra Pilot, Six Cutters (7/8", 1-1/8", 1-3/8", 1-3/4", 2" & 2-1/2") & Carrying Case

Part Number	Material Capacity
02-14006	1/8"

Replacement Cutters (sold individually)									
7/8"	1"	1-1/8"	1-1/4"	1-3/8"	1-1/2"	1-3/4"	2"	2-1/2"	
14628	14632	14636	14640	14644	14648	14656	14662	14674	

**BAHCO® Hole Saw Sets**



**NEW**

862013

**Seven Piece Set Includes:**

Five Hole Saws (7/8", 1", 1-1/8", 1-1/4" & 1-1/2"), Arbor & Adaptor (fits 9/16" to 13/16" and 1-1/4" to 6" hole saws) & Fitted Plastic Case

**Thirteen Piece Set Includes:**

Nine Hole Saws (3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4" & 2-1/2"), Two Arbors & Adaptor (fits 9/16" to 1-3/16" and 1-1/4" to 6" hole saws), Pilot Drill & Fitted Plastic Case

Part Number 7PC Set	Part Number 13PC Set
862007	862013

**Hole Cutter**

*20 Gauge Sheet Metal Capacity*



61-13551

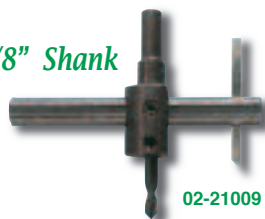
*Lightweight Aluminum Frame*

- Use with any standard 1/4" drill (tool includes drill bit & allen key).
- Patented shoe feature permits smooth finishing of holes.

Part Number	Hole Cutting Range	Replacement Bit
61-13551	2" to 12" (5.1 to 30.5 cm)	02-13548
61-14551	2" to 20" (5.1 to 50.8 cm)	

**Circle Cutters**

*3/8" Shank*



02-21009

- Replaceable 3/16" H.S.S. blade & 1/4" pilot drill.
- Includes allen key (not shown).

Circle Cutters	
Part Number	Cutter Range
02-21003	7/8" to 4"
02-21009	1" to 6"

Replacement Parts	
Part Number	Description
02-27012	Pilot Drill
02-27009	Cutting Blade

**Allpax® Gasket Cutter Kits**

*Hardened Steel Cutting Heads*



AX1301

**NEW**

- Quickly punch precision bolt holes in flange gaskets.
- Patented locking system allows rapid change of cutting heads.
- Unique design punches single dia. holes (bolt holes) as well as dual diameter rings (washers) in one operation.

Part Number	Description	Hole Sizes	Weight
AX1301	16 PC Imperial Kit	1/8" to 3/16"	2.5 lbs (1.1 kgs)
AX1351	16 PC Metric Kit	2 mm to 50 mm	1.1 lbs (0.5 kgs)

**Aircraft Punch & Flare Dies**

*Simple, Fast & Accurate*

61-250

- Designed to punch the required hole size and follow with a 35-degree straight angle (leg length of 1/8").
- Hand or arbor press operation in alum. or mild steel 0.020" to 0.040".
- Just drill a pilot hole for the draw bolt, then apply the tool and tighten for a smooth, flared hole.



**NEW**

Part No.	Diameter
61-100	1" (25 mm)
61-125	1-1/4" (32 mm)
61-150	1-1/2" (38 mm)
61-175	1-3/4" (44 mm)
61-200	2" (51 mm)
61-225	2-1/4" (57 mm)
61-250	2-1/2" (64 mm)
61-275	2-3/4" (70 mm)

Part No.	Diameter
61-300	3" (76 mm)
61-325	3-1/4" (83 mm)
61-350	3-1/2" (89 mm)
61-375	3-3/4" (95 mm)
61-400	4" (102 mm)
61-500	5" (127 mm)
61-600	6" (152 mm)

Note: Special shapes/sizes available on request, please inq.

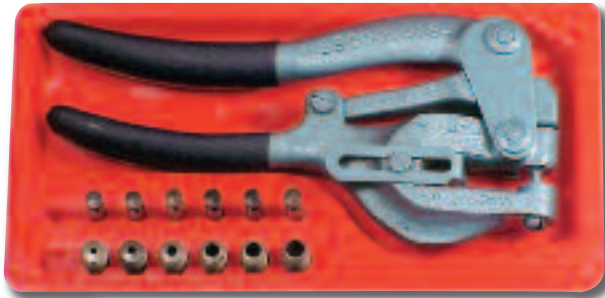


53-81551

Aircraft Punch & Flare Kits		
Part Number	Description	Hole Range
53-81551	5 Piece Kit	1" to 2" Diameter
53-81661	9 Piece Kit	1" to 3" Diameter
53-81991	13 Piece Kit	1" to 4" Diameter

# PUNCH & CUTTING TOOLS

## Hand Metal Punch Kits



04-5

### Standard Metal Punch Kit:

Hand Metal Punch, Six Punch & Die Sets (3/32", 1/8", 5/32", 3/16", 7/32" & 1/4") & Fitted Plastic Case

Part Number	Description
04-5	Complete Kit
04-5S	Complete Kit (economy model)
04-5K	Bench Mounting Base

Replacement Punch & Die Sets	
Part Number	Size
38-098	#40
38-129	#30
38-159	#21
38-194	#10
38-5094	3/32"

Replacement Punch & Die Sets	
Part Number	Size
38-5125	1/8"
38-5156	5/32"
38-5188	3/16"
38-5250	1/4"
38-2812	9/32"



04-2222

### Deep Throat Metal Punch Kit:

Hand Metal Punch, Seven Punch & Die Sets (5/32", 7/32", 9/32", 11/32", 13/32", 15/32" & 17/32") & Fitted Plastic Case

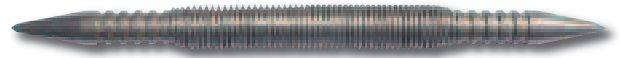
Part Number	Description
04-2222	Complete Kit
04-2222K	Bench Mounting Base

Replacement Punch & Die Sets	
Part Number	Size
38-6094	3/32"
38-6125	1/8"
38-6156	5/32"

Replacement Punch & Die Sets	
Part Number	Size
38-6188	3/16"
38-6250	1/4"

## NOXON® Combo Prick Punch & Center Punch

### Precision Spot Marking



- Designed with the professional metalworker in mind.
- Prick punch creates slight indentations for precision marking.
- Center punch creates deep indentations for pilot holes.

Part Number	Weight	Overall Length
70234	1.7 oz (48.2 g)	5-1/4" (133 mm)

## Pocket Automatic Center Punch



- Slim design for better visibility.
- Can be adjusted for light or heavy strokes.

Part Number	Description
61-860	Tool with Centering Point

## Automatic Center Punches

70231



70440

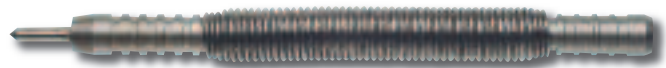


- Spring-loaded operation is adjustable for light or heavy strokes.
- Ground & hardened replaceable point.

Part Number	Body Type	Overall Length
70231	Steel	5" (127 mm)
70440	Aluminum	5" (127 mm)

## NOXON® Chisel & Punch Rivet Removal Set

### 3500 PSI Driving Force



- Hammerless spring design is great for use in tight areas.
- Use the 5/16" cold chisel to shear protruding steel or aluminum rivets without damaging surface material.
- Use the H.S.S. center punch to easily remove mandrel.
- Center punch designed to mark most hardened materials.

Part Number	Description
ACRR02	5/16" Cold Chisel & H.S.S. Center Punch



**SPI® Fine Optical Center Punch**

*High Accuracy Center Punching Made Simple*

- 9X magnification spotting lens with center dot and circle.
- Solid, precision guide base with scratch protection.
- Ground center punch made of hardened tool steel.
- Includes fitted case.



Part Number	Accuracy
14517	0.002"

**Hand Punch Sets**



61-14085



61-14087



61-14086

- Hardened & tempered tool steel with ground points of 45-52 Rc.
- Knurled punch body for better grip.
- Includes fitted case with clear size markings.

5 PC Center Punch Set, 4" Overall Length	
Part No.	Point Sizes Included
61-14085	1/16", 5/64", 3/32", 9/64" & 5/32"

8 PC Drive Pin Set, 4" Overall Length	
Part No.	Point Sizes Included
61-14086	1/16", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4" & 5/16"

5 PC Extra Long Drive Pin Set, 8" Overall Length	
Part No.	Point Sizes Included
61-14087	1/8", 3/16", 1/4", 5/16" & 3/8"

**Round Shank Center Punches**

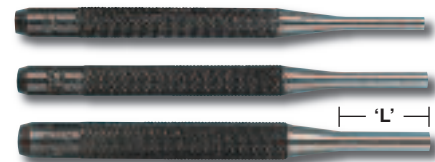


- Points are ground to size for maximum strength & penetration.
- Knurled hand grip stamped with size for quick identification.

Part Number	Punch Diameter	Overall Length
61-74AA	1/16"	3-1/16" (78 mm)
61-74A	5/64"	3-19/32" (91 mm)
61-74B	3/32"	3-7/8" (98 mm)
61-74C	9/64"	4" (102 mm)
61-74D	5/32"	4" (102 mm)

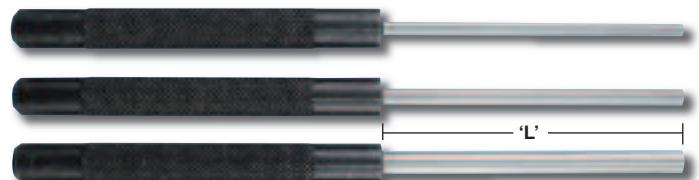
**Drive Pin Hand Punches**

*Knurled Hand Grips*



- Durable tool steel uniformly heat treated & centerless ground.
- Ends are ground square for accurate pin driving.

Standard, 4" (102 mm) Overall Length		
Part Number	Punch Diameter	Punch Length 'L'
61-75A	1/16"	3/4" (19 mm)
61-75B	3/32"	
61-75C	1/8"	
61-75D	5/32"	
61-75E	3/16"	1" (25 mm)
61-75F	7/32"	
61-75G	1/4"	
61-75H	5/16"	



**Extra Long Drive Pin Punches**

- For use on work not accessible with shorter punches.
- Conforms to government spec GGG-P-831E.

Extra Long, 8" (203 mm) Overall Length		
Part Number	Punch Diameter	Punch Length 'L'
61-76A	1/8"	3-1/2" (89 mm)
61-76B	3/16"	
61-76C	1/4"	
61-76D	5/16"	
61-76E	3/8"	

## PUNCH & CUTTING TOOLS

### Blind Hole Spotter Set Kits

- A fast and easy way to locate opposite centers.
- Six of each size packed in individual plastic tubes.
- Includes sturdy steel storage case.

61-18108



Part Number	Description	Sizes Included
61-18108	108 PC Set	1/8" to 21/32" (x 32nds)
61-1111	66 PC Set	11/16" to 1" (x 32nds)

### Duplicating Punches

#### Tight Tolerance Hole Duplication



AT507-10

- Accurately center punch hole location from one sheet to another.
- Manufactured from heat-treated, oil hardened drill rod.

Part Number	Punch Size	Overall Length
AT507-1	3/32"	3-1/2" (89 mm)
AT507-2	#40	3-1/2" (89 mm)
AT507-3	1/8"	3-1/2" (89 mm)
AT507-4	#30	3-1/2" (89 mm)
AT507-10	1/4"	3-1/2" (89 mm)
AT507-11	5/16"	3-1/2" (89 mm)



AT507KT

#### Duplicating Punch Kit:

Fourteen Punches (3/32", #40, 1/8", #30, 5/32", #19, 3/16", #10, 7/32", 1/4", 5/16", 3/8", 7/16" & 1/2") & Fitted Plastic Case

Part Number	Description
AT507KT	Complete 15 PC Kit

### Transfer Punch Sets

#### Includes Indexed Stand

- Heat-treated & tempered tool steel construction.
- Transfer punches available individually, please inquire.
- Punches are 4-7/8" O.A.L.



61-50728

Part No.	Type	Point Sizes Included
61-50728	28 PC Fractional	3/32" to 1/2" (x 64ths) & 17/32"
61-50733	33 PC Fractional	1/2" to 1" (x 64ths)
61-50725	25 PC Metric	1.0 to 13.0 mm (x .5 mm)
61-50726	26 PC Letter	A to Z
61-50760	60 PC Wire Gauge	#1 to #60

### Cold Chisels

#### Heavy-Duty Industrial Grade

70746



- For cutting, shaping and removing metal softer than the cutting edge of the chisel.
- Works great with the punch & chisel holder shown below.

Part Number	Stock Size	Blade Width	Overall Length
70746	7/16"	1/2"	6" (15.2 cm)
70747	7/8"	1"	8" (20.3 cm)

### Comfort Grip Punch & Chisel Holder

#### Handle Resistant To Solvents, Gas & Oil



- Keeps your hands safely away from striking tool.
- Adjustable screw allows use with most punches and chisels.

Part Number	Capacity
28449	0 to 1-1/2" (0 to 38 mm)

## Solid Carbide Brad Point Drills



- Specifically designed for drilling graphite and aramid fiber (KEVLAR®) reinforced composite materials.
- Specially modified tip keeps fibers in tension while cutting in shear eliminating delamination for a more precise hole.
- Other sizes available, please inquire.



Solid Carbide				
Part Number	Size	Decimal	Flute	O.A.L.
02-AWD-3/32	3/32"	0.0938"	1/2"	1-3/4" (45 mm)
02-AWD-40	#40	0.0980"	1/2"	1-13/16" (46 mm)
02-AWD-1/8	1/8"	0.1250"	5/8"	1-7/8" (48 mm)
02-AWD-5/32	5/32"	0.1562"	3/4"	2-1/16" (52 mm)
02-AWD-21	#21	0.1590"	7/8"	2-1/8" (54 mm)
02-AWD-3/16	3/16"	0.1875"	15/16"	2-3/16" (56 mm)
02-AWD-10	#10	0.1935"	1"	2-1/4" (57 mm)
02-AWD-7/32	7/32"	0.2188"	1-1/16"	2-3/8" (60 mm)
02-AWD-1/4	1/4"	0.2500"	1-1/4"	2-1/2" (64 mm)
02-AWD-5/16	5/16"	0.3125"	1-1/2"	2-13/16" (71 mm)
02-AWD-3/8	3/8"	0.3750"	1-5/8"	3-1/8" (79 mm)

## Solid Carbide Tapered Reamer Drills



- Four flute, tapered tip design is excellent for drilling fiberglass and carbon graphite materials.
- Other lengths available, please inquire.



Solid Carbide - 6" O.A.L.			Solid Carbide - 6" O.A.L.		
Part Number	Size	Decimal	Part Number	Size	Decimal
02-GDRS-40	#40	0.0980"	02-GDRS-3/16	3/16"	0.1875"
02-GDRS-1/8	1/8"	0.1250"	02-GDRS-10	#10	0.1935"
02-GDRS-30	#30	0.1285"	02-GDRS-8	#8	0.1990"
02-GDRS-5/32	5/32"	0.1562"	02-GDRS-1/4	1/4"	0.2500"
02-GDRS-21	#21	0.1590"	02-GDRS-5/16	5/16"	0.3125"
02-GDRS-20	#20	0.1610"			

## Solid Carbide Dagger Drills



- Drill holes in graphite materials (including graphite-aluminum) up to 1/4" thick without delamination.
- Other lengths available, please inquire.



Solid Carbide - 6" O.A.L.			Solid Carbide - 6" O.A.L.		
Part Number	Size	Decimal	Part Number	Size	Decimal
02-GDDS-098	#40	0.0980"	02-GDDS-187	3/16"	0.1875"
02-GDDS-128	#30	0.1285"	02-GDDS-193	#10	0.1935"
02-GDDS-159	#21	0.1590"	02-GDDS-250	1/4"	0.2500"

## General Purpose Diamond Plated Twist Drills



Perfect for drilling graphite epoxy, carbon, boron and fiberglass.

40/60 Grit - Jobber's Length		40/60 Grit - Jobber's Length	
Part Number	Head Dia.	Part Number	Head Dia.
49-TD1	1/8" (3.2 mm)	49-TD6	5/8" (16 mm)
49-TD2	1/4" (6.35 mm)	49-TD7	3/4" (19 mm)
49-TD3	3/8" (10 mm)	49-TD8	7/8" (22 mm)
49-TD4	7/16" (11 mm)	49-TD9	1" (25 mm)
49-TD5	1/2" (13 mm)		

Note: Other sizes available, please inquire.

## Diamond Plated Integral Pilot Countersinks



1/4"-28 Thread - 100° Cutter Angle		
Part Number	Outside Diameter	Overall Length
02-38C	3/8" (10 mm)	1" (25 mm)
02-50C	1/2" (13 mm)	1" (25 mm)
02-62C	5/8" (16 mm)	1" (25 mm)

1/4"-28 Thread - 130° Cutter Angle		
Part Number	Outside Diameter	Overall Length
02-38D	3/8" (10 mm)	1" (25 mm)
02-50D	1/2" (13 mm)	1" (25 mm)
02-62D	5/8" (16 mm)	1" (25 mm)

Note: Select a base part number for the required cutter (charts above), add a pilot diameter, grit (chart below), and number of slots (0, 2 or 3).

Example: For a 100°, 1/2" diameter cutter with a 5/32" pilot, 40/60 grit and two slots the part number would be 02-50C-5/32-B-2.

Available Grits				
A	B	C	D	E
30/40	40/60	60/80	120/140	220/270

## Kevlar Fabric Hand Shears & Scissors



Note: For cordless electric kevlar scissors see page 237.

Part Number	Type	Cut Length	Overall Length
04-605	Trim Snip	3/4"	5" (127 mm)
04-468	Knife Edge	2-3/4"	8-1/4" (210 mm)
04-330	Serrated	4-1/2"	10" (254 mm)

# COMPOSITE CUTTING TOOLS

## Diamond Plated Jigsaw Blades



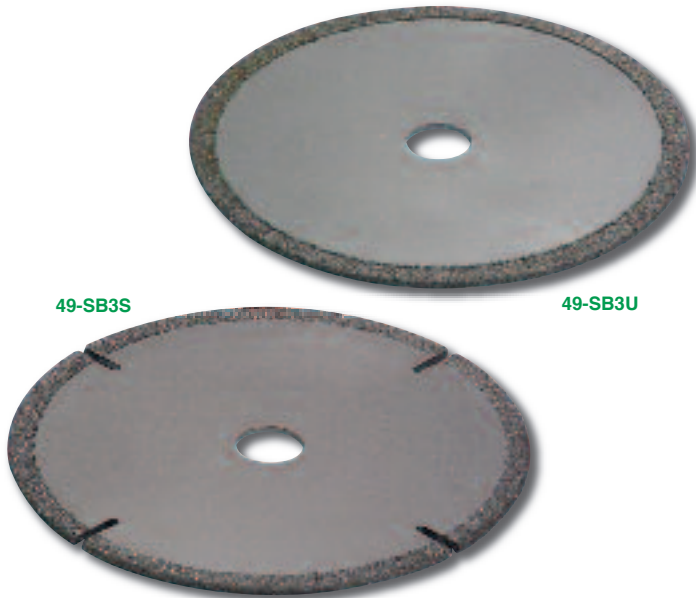
Part Number	Fits Jig Saws	Overall Length
49-300	Black & Decker & Competitive	3" (76 mm)
49-301	Rockwell Bayonet	3" (76 mm)
49-302	Bosch Style	3" (76 mm)
49-303	Rockwell Tiger & Competitive	4" (102 mm)
49-304	Black & Decker & Competitive	4" (102 mm)
49-305	Bosch Style	4" (102 mm)

## Mounted Diamond Plated Saw Blades



**Note:** Please specify shank diameter & blade thickness when ordering. Larger size blades are also available, please inquire.

## Arbor Mount Diamond Plated Saw Blades



**Note:** Please specify arbor diameter & blade thickness when ordering. Larger size blades are also available, please inquire.

Arbor Mounted 40/60 Grit - 1/8" Return			
Part Number Slotted	Part Number Unslotted	Outside Diameter	Plated Thickness (Kerf)
49-SB1S	49-SB1U	1" (25 mm)	.060" to .080"
49-SB1-1/2S	49-SB1-1/2U	1-1/2" (38 mm)	
49-SB2S	49-SB2U	2" (51 mm)	
49-SB2-1/2S	49-SB2-1/2U	2-1/2" (64 mm)	
49-SB3S	49-SB3U	3" (76 mm)	
49-SB3-1/2S	49-SB3-1/2U	3-1/2" (89 mm)	.090" to .110"
49-SB4S	49-SB4U	4" (102 mm)	
49-SB5S	49-SB5U	5" (127 mm)	
49-SB6S	49-SB6U	6" (152 mm)	
49-SB7S	49-SB7U	7" (178 mm)	
49-SB8S	49-SB8U	8" (203 mm)	.130" to .150"
49-SB10S	49-SB10U	10" (25.4 cm)	

### Mounted 40/60 Grit - 1/8" Return

Part Number Slotted	Part Number Unslotted	Outside Diameter	Plated Thickness (Kerf)
49-MS3/4S	49-MS3/4U	3/4" (19 mm)	.080" to .100"
49-MS1S	49-MS1U	1" (25 mm)	
49-MS1-1/4S	49-MS1-1/4U	1-1/4" (32 mm)	
49-MS1-1/2S	49-MS1-1/2U	1-1/2" (38 mm)	
49-MS2S	49-MS2U	2" (51 mm)	
49-MS2-1/2S	49-MS2-1/2U	2-1/2" (64 mm)	.102" to .130"
49-MS3S	49-MS3U	3" (76 mm)	
49-MS3-1/2S	49-SMS-1/2U	3-1/2" (89 mm)	
49-MS4S	49-MS4U	4" (102 mm)	.130" to .150"
49-MS4-1/2S	49-MS4-1/2U	4-1/2" (114 mm)	
49-MS5S	49-MS5U	5" (127 mm)	.130" to .150"
49-MS6S	49-MS6U	6" (152 mm)	



For USATCO's Pro Composite Tool Kit See Page 68

## Diamond Plated Integral Shank Hole Saws



2" drilling depth (inside depth). Furnished with windows & slots.

**Note:** Larger sizes are available, please inquire.

40/60 Grit - 1/8" Return		40/60 Grit - 1/8" Return	
Part Number	Head Dia.	Part Number	Head Dia.
49-HS5	1/2" (13 mm)	49-HS12	2" (51 mm)
49-HS6	3/4" (19 mm)	49-HS13	2-1/4" (57 mm)
49-HS7	7/8" (22 mm)	49-HS14	2-1/2" (64 mm)
49-HS8	1" (25 mm)	49-HS15	2-3/4" (70 mm)
49-HS9	1-1/4" (32 mm)	49-HS16	3" (76 mm)
49-HS10	1-1/2" (38 mm)	49-HS17	4" (102 mm)
49-HS11	1-3/4" (44 mm)	49-HS18	5" (127 mm)

## Arbor Mount Diamond Plated Hole Saws

### MHS Series

- MHS series, "Black & Decker" type.
- Furnished with windows & slots.
- 1-1/2" drilling depth (inside depth).
- For use with arbors shown below.



**Note:** Larger sizes are available, please inquire.

40/60 Grit - 1/8" Return		40/60 Grit - 1/8" Return	
Part Number	Head Dia.	Part Number	Head Dia.
49-MHS1/2	1/2" (13 mm)	49-MHS1-3/4	1-3/4" (44 mm)
49-MHS9/16	9/16" (14 mm)	49-MHS1-7/8	1-7/8" (48 mm)
49-MHS5/8	5/8" (16 mm)	49-MHS2	2" (51 mm)
49-MHS3/4	3/4" (19 mm)	49-MHS2-1/4	2-1/4" (57 mm)
49-MHS7/8	7/8" (22 mm)	49-MHS2-1/2	2-1/2" (64 mm)
49-MHS1	1" (25 mm)	49-MHS3	3" (76 mm)
49-MHS1-1/16	1-1/16" (27 mm)	49-MHS3-1/4	3-1/4" (83 mm)
49-MHS1-1/8	1-1/8" (29 mm)	49-MHS3-1/2	3-1/2" (89 mm)
49-MHS1-3/16	1-3/16" (30 mm)	49-MHS4	4" (102 mm)
49-MHS1-1/4	1-1/4" (32 mm)	49-MHS4-1/4	4-1/4" (108 mm)
49-MHS1-3/8	1-3/8" (35 mm)	49-MHS4-1/2	4-1/2" (114 mm)
49-MHS1-1/2	1-1/2" (38 mm)	49-MHS5	5" (127 mm)

## Diamond Plated Routers



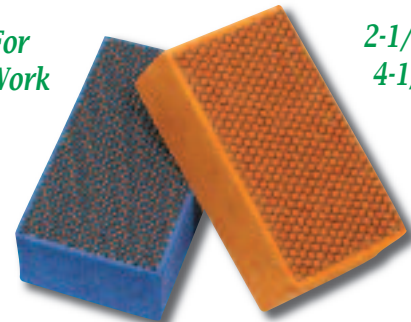
**Note:** Please specify shank diameter when ordering. On 3/4" & larger outside diameter routers, minimum shank diameter is 1/2". Larger sizes are available, please inquire.

40/60 Grit - 1/8" Outside Diameter				
Unfluted, Square End	Unfluted, Radius End	Fluted, Square End	Fluted, Radius End	Head Length
49-R1US	49-R1UR	—	—	1/4" (6.35 mm)
49-R2US	49-R2UR	—	—	1/2" (13 mm)

40/60 Grit - 1/4" Outside Diameter				
Unfluted, Square End	Unfluted, Radius End	Fluted, Square End	Fluted, Radius End	Head Length
49-R3US	49-R3UR	49-R3FS	49-R3FR	1/4" (6.35 mm)
49-R4US	49-R4UR	49-R4FS	49-R4FR	1/2" (13 mm)
49-R5US	49-R5UR	49-R5FS	49-R5FR	3/4" (19 mm)
49-R6US	49-R6UR	49-R6FS	49-R6FR	1" (25 mm)
49-R7US	49-R7UR	49-R7FS	49-R7FR	1-1/2" (38 mm)

## Flexible Diamond Hand Sanding Pads

Excellent For Composite Work

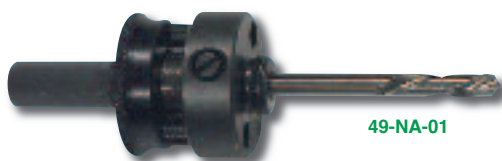


2-1/2" Wide x 4-1/4" Long

These diamond hand sanding pads work best when used wet.

Plated (for grinding)		Resin (for finishing)	
Part Number	Grit	Part Number	Grit
92350	70	92450	220
92351	120	92451	600
92352	220	92452	1800
92353	400	92453	3500
92354	600		

## MHS Series Hole Saw Arbors



- Setscrew body for pilot drill adjustment.
- Quick release for change of hole saws with arbor in chuck.

**Note:** Also available with pilots, please inquire.

For 9/16" To 1-3/16" Diameter Hole Saws			
Part Number	Screw Thread	Shank Size	Chuck Size
49-NA-01	1/2"-20	11/32" Hex	3/8"

For 1-1/4" To 6" Diameter Hole Saws			
Part Number	Screw Thread	Shank Size	Chuck Size
49-NA-05	5/8"-18	7/16" Hex	1/2"

## DEBURRING TOOLS

### Shaviv® Universal Deburring Kit



**NEW**

Versatile set includes tool for both sheet-edge cleaning and general deburring across a wide range of materials.

#### Kit Includes:

Ergonomic Tool Handle, 'Burr-Bi' Double Edge Deburr Tool with Hand Guard & Two Sets Of Wheel Blades, Four Telescoping Blade Holders, Ten Blades in Assorted Profiles, Hex Key & Fitted Case

Part Number	Description
04-22181	Complete 21 PC Kit

### Shaviv® Burr-Bi Double Edge Deburr Tool



**NEW**

04-22060

#### Built-In Hand Guard

- Deburrs both sides of the workpiece quick and efficiently.
- Heavy-duty, round R10 H.S.S. blades are double-sided. (side 'A' side for spiral chips, 'B' side for powdery chips)

Part Number	Material Capacity
04-22060	Up to 5/8"

#### Replacement Blades

Part Number	Description
04-22065	Replacement Blade Set

### Shaviv® Deburr Tool



Ergo Handle

04-22022

- Ideal for when need to get up close to the workpiece.
- Safety lock to prevent losing blades while working.
- Includes one of all five blades shown below.

**NEW**

Part Number	Description
04-22022	Multi-Burr With 5 Blades

#### Heavy-Duty H.S.S. Replacement Blades (3.2 mm)

Part Number	Description
04-E-100	General purpose, for metals with spiral chips.
04-E-111	Thin pointed nose for small holes (down to 1/16").
04-E-120	Thin rounded nose for small holes. Left & right cut.
04-E-200	For powdery chips and plastic. Left & right cut.
04-E-300	For spiral chips and plastic. Dual inside & outside cut.

Note: Cobalt, TiN coated and carbide blades also available, please inquire.

### Shaviv® Aeroburr Deburring Sets



**NEW**

Long Lasting TiN Coated H.S.S. Blades

90110

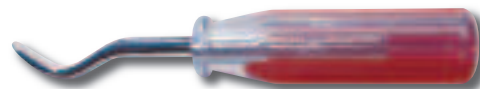
- Perfect for deburring curves and small holes down to 1/16".
- Customized specifically for the aerospace industry.
- TiN blades offer five times the life of non-coated blades.
- For use on steel, aluminum, copper, stainless and plastics.
- Includes five blades (see below) and blade holder.

Part Number	Description
90110	7PC Standard Duty Set
90111	7PC Heavy-Duty Set

#### TiN Coated H.S.S. Replacement Blades

Part Number	Description
04-B-11P	Thin pointed, standard-duty 2.6 mm thick blade.
04-E-111P	Thin pointed, heavy-duty 3.2 mm thick blade.

### Burnishing Tool



- Designed to remove blemishes & scratches in sheet metal.
- Heat-treated blade is hard chrome plated & mirror polished.

Part Number	Overall Length
04-515	6-5/8" (168 mm)

## Shaviv® Telescoping Deburr Tools



*Includes 0.78" Capacity Cutter*

04-K680

- Powerful tools excellent for both countersinking and chamfering.
- Telescoping action for chamfering in deep holes and tight spaces.

### Telescoping Ratchet Deburr Tool

- Ratchet mechanism makes countersinking trouble free.
- Great where normal rotational deburring is impossible.



Part Number	Type	Telescope Action
04-K380	Standard	1/4" to 3-1/4"
04-K680	Ratchet	

### Replacement Cutters

Part Number	Capacity
04-F-12	0.47"
04-F-20	0.78"
04-F-30	1.18"

## Shaviv® Telescoping Ratchet OD Deburr Tool



*Includes 1.02" Capacity Cutter*

90073

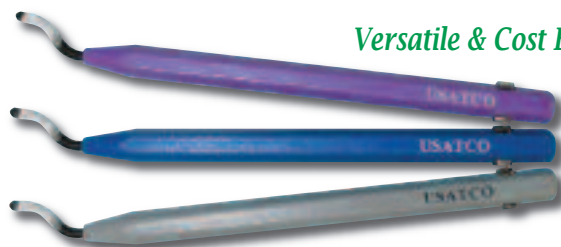
- Quick rotational chamfering of pipes, tubes etc. up to 1" OD.
- For use on steel, aluminum, copper, stainless and plastics.

Part Number	Description
90073	Tool w/1.02" Capacity Cutter

### Replacement Cutter

Part Number	Capacity
29147	1.02"

## Slim-Grip Disposable Burrs



*Versatile & Cost Effective*

- For removing burrs from steel & aluminum.
- Heavy-duty E-100 blade is non-replaceable.

Part Number	Overall Length
E01000	5-1/2" (140 mm)

## 'Speed Driver' Hole Deburring Tool



53-94000

- Provides rapid deburring of drilled holes with high torque.
- Shown with cutter, not included (available below).

Part Number	Description
04-94003	Speed Driver Only
53-94000	Speed Driver & 3/8" Dia. 100° Cutter



### 100° Cutters

Part Number	Diameter
02-94000	3/8"
02-94001	1/2"
02-94002	5/8"

## SPI® Fine Deburring Set

*Ideal For Delicate Parts*

- Six double end tools with revolving, hardened steel deburring discs.
- Comfortable knurled handle.
- Includes plastic pouch.



82-365-8

### Complete 7 PC Kit

Part Number	Wheel Size Range
82-365-8	0.060" to 0.208" dia.

### Individual Tools

Part Number	Wheel Diameters
07-709-9	0.060" & 0.070"
07-710-7	0.082" & 0.092"
07-711-5	0.106" & 0.116"
07-712-3	0.134" & 0.150"
07-713-1	0.160" & 0.185"
07-714-9	0.198" & 0.208"

# DEBURRING TOOLS

## Burr-Off® Tools



- The original 'clothespin' tool, with its integral cutting edges, deburrs thousands of holes and may be reground for even longer life.
- Suited to high production, automated deburring operations.
- Open slot design allows chips to clear easily.



*Deburr Both Sides  
In One Pass*

5 PC Burr-Off Set	
Part Number	Includes
53-CP	CP-6, CP-8, CP-10, CP-12 & CP-16

Part No.	Hole Sizes	Shank
CP-6	.093" to .109"	.092"
CP-7	.109" to .125"	.139"
CP-8	.125" to .140"	.124"
CP-9	.140" to .156"	.139"
CP-10	.156" to .172"	.155"

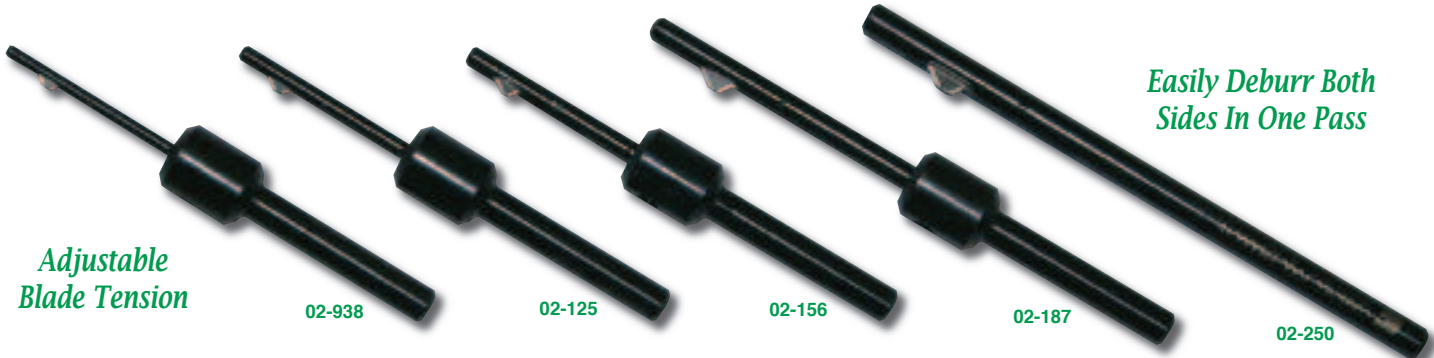
Part No.	Hole Sizes	Shank
CP-11	.172" to .187"	.171"
CP-12	.187" to .203"	.186"
CP-13	.203" to .219"	.202"
CP-14	.219" to .234"	.218"
CP-15	.234" to .250"	.233"

Part No.	Hole Sizes	Shank
CP-16	.250" to .266"	.249"
CP-17	.266" to .281"	.265"
CP-18	.281" to .297"	.280"
CP-19	.297" to .313"	.296"
CP-20	.313" to .328"	.312"

Part No.	Hole Sizes	Shank
CP-21	.328" to .343"	.327"
CP-22	.093" to .109"	.092"
CP-23	.359" to .375"	.358"

**Note:** 4" overall length. Larger sizes and other options available, please inquire.

## Burraway Deburring Tools



*Easily Deburr Both  
Sides In One Pass*

*Adjustable  
Blade Tension*

- Furnished with double acting blade for burr removal on both the front & back sides of hole.
- The inexpensive, replaceable cutting blades can be adjusted to control the amount of edge break.
- Spring tensioned blade retracts automatically as it passes through the workpiece.
- Crowned & polished top surface of the blade will not mar interior of the hole.

**Note:** Many other sizes available. Carbide tipped & TiN coated replacement blades also available, please inquire.

Fractional Sizes			
Complete Tool	Extra Blade	Hole Size	Decimal Equiv.
02-938	02-938-1	3/32"	.0938"
02-109	02-109-1	7/64"	.1094"
02-125	02-125-1	1/8"	.1250"
02-156	02-156-1	5/32"	.1562"
02-187	02-187-1	3/16"	.1875"
02-218	02-218-1	7/32"	.2188"
02-250	02-250-1	1/4"	.2500"
02-281	02-281-1	9/32"	.2812"
02-312	02-312-1	5/16"	.3125"
02-343	02-343-1	11/32"	.3438"
02-375	02-375-1	3/8"	.3750"
02-406	02-406-1	13/32"	.4062"

Metric Sizes			
Complete Tool	Extra Blade	Hole Size	Decimal Equiv.
02-MA-2.0	02-MA-2.0-1	2.0 mm	.0787"
02-MA-2.5	02-MA-2.5-1	2.5 mm	.0984"
02-MA-3.0	02-MA-3.0-1	3.0 mm	.1181"
02-MA-3.5	02-MA-3.5-1	3.5 mm	.1378"
02-MA-4.0	02-MA-4.0-1	4.0 mm	.1575"
02-MA-4.5	02-MA-4.5-1	4.5 mm	.1772"
02-MA-5.0	02-MA-5.0-1	5.0 mm	.1969"
02-MB-5.5	02-MB-5.5-1	5.5 mm	.2165"
02-MB-6.0	02-MB-6.0-1	6.0 mm	.2362"
02-MB-6.5	02-MB-6.5-1	6.5 mm	.2559"
02-MB-7.0	02-MB-7.0-1	7.0 mm	.2756"
02-MB-7.5	02-MB-7.5-1	7.5 mm	.2953"



**Burraway Deburring Tool Kit**



**Includes:**

Five Burraway Tools with Blade (1/8", 5/32", 3/16", 7/32" & 1/4"), Five Replacement Blades & Fitted Plastic Case

**Note:** Individual Burraway tools & replacement blades available on previous page.

Part Number	Description
70398	Complete 11 PC Kit

**Ground-Wire Hole Burnishing Kits**

ATSK3767-10



*Each Kit For One Hole Size*

Specifically designed to clean ground-wire attachment holes.

**Includes:**

4 Extensions, 4 Burnishing Pads, Burnishing Heads: 2 Screw-in Type (pos. & neg.), 1 Collet Type (pos.) & Fitted Plastic Case

Part Number	Size
ATSK3767-10	#10
ATSK3767-20	#20

Part Number	Size
ATSK3767-30	#30
ATSK3767-40	#40

**Piloted (Bonding) Wire Rivet Hole Brushes**

- Designed to remove surface material and coatings for grounded contact points.
- Cleans paint, dirt, rust etc. from around rivet holes.



**5 PC Brush Set** (1/2" body diameter)

- Includes 5 brushes & plastic carrying case (not shown).

Brush Wire Diameter Applications	
0.005"	Fine to light surface preparation.
0.008"	Light to medium surface removal and preparation.
0.010"	Medium surface removal and preparation.
0.014"	Aggressive surface removal and preparation.

Part Number	Wire Dia.	Pilot Sizes Included
53-70303	0.005"	3/32", 1/8", 5/32", 3/16" & 1/4"

**Note:** Maximum safe free speed is 20,000 RPM. Larger diameter, reverse & threaded shank type brushes are also available, please inquire.

0.005" Brush Wire Diameter			
1/4" Body Dia.	3/8" Body Dia.	1/2" Body Dia.	Pilot Diameter
—	44-6232-3/32	44-6233-3/32	3/32"
44-6231-1/8	44-6232-1/8	44-6233-1/8	1/8"
44-6231-5/32	44-6232-5/32	44-6233-5/32	5/32"
44-6231-3/16	44-6232-3/16	44-6233-3/16	3/16"
—	44-6232-1/4	44-6233-1/4	1/4"

0.010" Brush Wire Diameter			
1/4" Body Dia.	3/8" Body Dia.	1/2" Body Dia.	Pilot Diameter
—	44-6272-3/32	44-6273-3/32	3/32"
44-6271-1/8	44-6272-1/8	44-6273-1/8	1/8"
44-6271-5/32	44-6272-5/32	44-6273-5/32	5/32"
44-6271-3/16	44-6272-3/16	44-6273-3/16	3/16"
—	44-6272-1/4	44-6273-1/4	1/4"

0.008" Brush Wire Diameter			
1/4" Body Dia.	3/8" Body Dia.	1/2" Body Dia.	Pilot Diameter
—	44-6262-3/32	44-6263-3/32	3/32"
44-6261-1/8	44-6262-1/8	44-6263-1/8	1/8"
44-6261-5/32	44-6262-5/32	44-6263-5/32	5/32"
44-6261-3/16	44-6262-3/16	44-6263-3/16	3/16"
—	44-6262-1/4	44-6263-1/4	1/4"

0.014" Brush Wire Diameter			
1/4" Body Dia.	3/8" Body Dia.	1/2" Body Dia.	Pilot Diameter
—	44-6292-3/32	44-6293-3/32	3/32"
44-6291-1/8	44-6292-1/8	44-6293-1/8	1/8"
44-6291-5/32	44-6292-5/32	44-6293-5/32	5/32"
44-6291-3/16	44-6292-3/16	44-6293-3/16	3/16"
—	44-6292-1/4	44-6293-1/4	1/4"

## MATERIAL REMOVAL TOOLS

### USATCO Rivet Shaver Kit



**Includes:**

1900RS Rivet Shaver, Seven Cutters (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4"), Seven Skirts (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4"), Removable Cutter Box & Foam Fitted Case

Part Number	Description
53-1900RS	Complete 17 PC Kit

### ATI® Pro Rivet Shaver Kit

*Other Configurations Available, Please Inquire*



**Includes:**

SRS10P21-8 Rivet Shaver, Seven Cutters (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4"), Seven Skirts (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" & 3/4") & Sturdy Fitted Toolbox

Part Number	Description
53-1900RSK	Complete 16 PC Kit

### Dotco® Rivet Shavers



- Ergonomic design, rear exhaust.
- Easily adjustable positive lock.
- Spring loaded nosepiece & stabilizer.

\* Model 14CFS60-98 does not include stabilizer.

Small Handle Pistol Grip 0.4 hp (0.30 kW) - 29,000 RPM			
Part Number	Cutter Adj.	Overall Length	Weight
14CFS60-95	0.0005"	8-1/4" (210 mm)	2.3 lbs (1.0 kgs)

Small Handle Pistol Grip 0.4 hp (0.30 kW) - 29,000 RPM			
Part Number	Cutter Adj.	Overall Length	Weight
14CFS60-98*	0.00025"	8-1/4" (210 mm)	2.3 lbs (1.0 kgs)

Large Handle Pistol Grip 0.9 hp (0.67 kW) - 20,000 RPM			
Part Number	Cutter Adj.	Overall Length	Weight
14CNL60-95	0.0005"	8-7/8" (226 mm)	4.5 lbs (2.0 kgs)

### Sioux® Rivet Shavers



- Spring loaded removable stabilizer.
- Ergonomic handle for comfortable use.

**Note:** Available with other skirt sizes, please inquire.

Pistol Grip 1.0 hp (0.75 kW) - 21,000 RPM			
Part Number	Capacity	O.A.	Weight
SRS10P21-8	1/2"	8" (205 mm)	2.7 lbs (1.2 kgs)

Lever Grip 1.0 hp (0.75 kW) - 21,000 RPM			
Part Number	Capacity	Overall Length	Weight
SRS10S21-8	1/2"	10" (255 mm)	2.5 lbs (1.1 kgs)

**Dotco® Quad Weld & Rivet Shaver**

53-10-1224X



*Four Tools  
In One*

- Versatile front exhaust unit can be used for weld shaving, POP & blind rivet bolt trimming, disc sanding or right angle grinding.
- Height of cut can be controlled to a tolerance of 0.001" or less.
- Accepts 1/4" shank sanding & grinding tools.

Part Number	Free RPM
53-10-1224X	12,000
53-10-1230X	20,000

**End Cut Replacement Cutters - 1/4" Shank, 1-7/8" O.A.L.**

Part No.	Type	Style	Used For	Dia.
14-1732	Carbide	Inverted Cone	Steel Rivets	3/4"
14-1330	H.S.S.	Inverted Cone	Aluminum Welds	3/4"
14-1332	Carbide	Cylindrical	Shaving Welds	1/2"

**Limited Access Rivet Shaver**



*Made In The USA*

- 4" extension is perfect for limited access applications.
- Shaves clean & precise regardless of rivet height.

*9/16" Skirt & Stabilizer Included*

**Pistol Grip 0.75 hp (0.56 kW) - 18,000 RPM**

Part Number	Capacity	Overall Length	Weight
US7387RSE	1/2"	10-3/4" (273 mm)	3.5 lbs (1.6 kgs)

**Rivet Shaver Skirts**

*Highly Polished  
Working Surfaces  
Prevent Marring*



Dotco Type	Sioux Type	Body Diameter
14-4391	2925-5	5/16"
14-4392	2925-6	3/8"
14-4393	2925-7	7/16"
14-4394	2925-8	1/2"
14-4395	2925-9	9/16"
14-4396	2925-10	5/8"
14-4397	2925-11	3/4"
14-4410	—	1"
14-4412	—	1-1/4"

**Rivet Shaver Carbide Cutters**

02-A800-4  
Coarse Cut



02-A900-4  
Fine Cut



**Coarse Cut**

- Solid carbide blade.

**Fine Cut**

- Fourteen flute center cutting design.
- Self-centering solid carbide head eliminates chatter and increases operator control.

**Coarse Cut, 1/4"-28 Thread**

Part Number	Body Dia.
02-A800-1	5/16"
02-A800-2	3/8"
02-A800-3	7/16"
02-A800-4	1/2"
02-A800-5	9/16"
02-A800-6	5/8"
02-A800-7	3/4"
02-A800-8	7/8"
02-A800-9	1"
02-A800-10	1-1/4"

**Fine Cut, 1/4"-28 Thread**

Part Number	Body Dia.
02-A900-2	3/8"
02-A900-4	1/2"

*Precision Ground  
For Chatter-Free  
Cuts & Longer Life*

**Economy Pneumatic Nibbler**



*Clean, Distortion Free Cuts*

- Easily cuts circles & contoured shapes.
- Teasing throttle & hardened planetary gears.
- Cutting head 360° adjustable in 90° increments.

**Lever Grip - 0.5 hp (0.37 kW) - 2600 SPM, 6 FPM**

Part Number	Cap. (steel)	Overall Length	Weight
JSM-213	18 Gauge	7" (178 mm)	2.2 lbs (1.0 kgs)

**Replacement Punch & Dies**

Part Number	Description
21340	Punch
21341	Die

## MATERIAL REMOVAL TOOLS

### Sioux® Pneumatic Nibbler



**NEW**

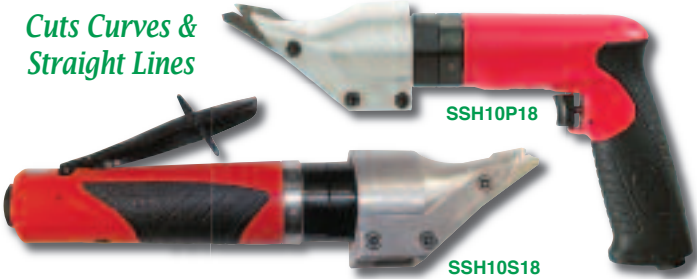
- 18 gauge cold rolled steel capacity.
- Safety lever lock.
- Rear exhaust.

#### Lever Grip - 1.0 hp (0.75 kW)

Part No.	Steel Cap.	Overall Length	Weight
SNH10S18	18 Gauge	8-1/2" (215 mm)	2.65 lbs (1.2 kgs)

### Sioux® Pneumatic Shears

*Cuts Curves & Straight Lines*



SSH10P18

SSH10S18

Excellent for sheet metal work - also plastic & similar mat. to 3/32".

#### Pistol Grip 1.0 hp (0.75 kW)

Part No.	Cap. Steel	SPM	O.A.L.	Weight
SSH10P18	18 Gauge	2,600	10" (255 mm)	2.9 lbs (1.3 kgs)

#### Lever Grip 1.0 hp (0.75 kW)

Part No.	Cap. Steel	SPM	O.A.L.	Weight
SSH10S18	18 Gauge	2,600	11" (280 mm)	2.75 lbs (1.25 kgs)

### Dewalt® Cordless Power Shear Kit



*360° Swivel Head*

- Powerful & convenient cordless operation.
- Head swivels 360° for great control & access to tight quarters.
- Cuts 7/32" strip that curls away for consistent & accurate cuts.

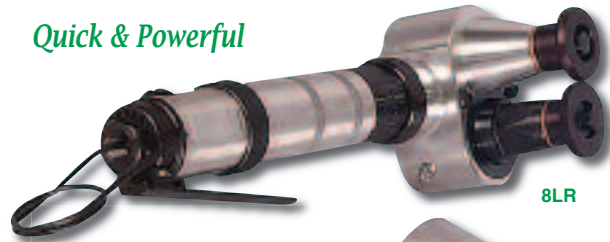
#### Includes:

Cordless Shears, 1-Hour Charger, Two 14.4V Battery Packs, Blade Wrench & Heavy-Duty Kit Box

Part No.	Steel Cap.	Min. Radius	SPM	Tool Weight
70356	18 Gauge	5-1/2"	0 to 2300	5.8 lbs (2.6 kgs)

### EC® Reversible Trim Shears

*Quick & Powerful*



8LR

- Reversible motor allows for versatile shearing & makes it easy to back out of jams.



9PR

- Designed to cut steel, stainless steel, titanium, inconel & similar metals.

#### Lever Grip Trim Shears

Part Number	Mild Steel Capacity	Throat Capacity	Approx. Feed Rate	Weight
7LR	13 Gauge	1-1/4"	8 ft-min.	4.5 lbs (2.0 kgs)
8LR	14 Gauge	2-1/4"	8 ft-min.	5.5 lbs (2.5 kgs)

#### Pistol Grip Trim Shears

Part Number	Mild Steel Capacity	Throat Capacity	Approx. Feed Rate	Weight
7PR	13 Gauge	1-1/4"	8 ft-min.	5 lbs (2.3 kgs)
8PR	14 Gauge	2-1/4"	8 ft-min.	5.5 lbs (2.5 kgs)
9PR	10 Gauge	2-1/2"	3.5 ft-min.	12.5 lbs (5.7 kgs)
10PR	.080" Inconel	2"	3.5 ft-min.	19 lbs (8.6 kgs)

#### Replacement Feed Cutters

Part Number	For Tool
02-9097	7LR to 8PR
02-9280	9PR
02-9915	10PR

#### Replacement Roll Cutters

Part Number	For Tool
02-9098	7LR & 7PR
02-9101	8LR & 8PR
02-9279	9PR
02-9914	10PR



*For Hand Snips, Shears & Nibblers See Pages 156-160*

**Kett® Heavy-Duty Pneumatic Scissor**

*Powerful & Easily Maneuverable*



*Variable Speed*

- Specially designed for fast, accurate cutting of mild steel (to 24 gauge), wire mesh (to 18 gauge), soft plastic or rubber (to 1/4"), rigid PVC & other plastics (to 1/8").
- Unique swiping action leaves a clean edge without fouling.

Part No.	Cap. Mild Steel	RPM	Overall Length	Weight
P-2041	24 Gauge	0-2500	11-3/4" (299 mm)	5.0 lbs (2.3 kgs)

Note: Replacement blades available, please inquire.

**Utility Cut-Off Tool**

*New Aluminum Housing Design*



*Cuts Metal To 3/4" Thick*

- 360° rotating spark guard & safety lock throttle.
- Built-in speed regulator & ball bearing construction.

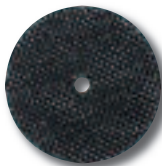


0.5 hp (0.37 kW), 3/8" Arbor			
Part Number	Free RPM	O.A.L.	Weight
90397	22,000	7-5/16" (186 mm)	1.98 lbs (0.9 kgs)

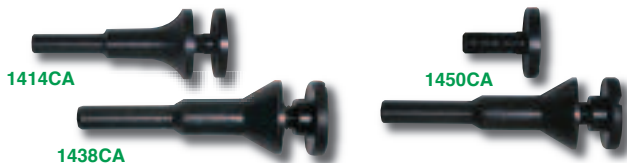
**Replacement Cutting Discs**

- Small Type 1, double reinforced resinoid cut-off discs.
- Super thin (.035"), provides a clean, fine-finished burr free cut.

122059



1/4" Arbor Disc	3/8" Arbor Disc	Diameter	Max. RPM
122057	122058	2"	30,000
122059	122060	3"	25,000
122061	122062	4"	19,000



1414CA

1438CA

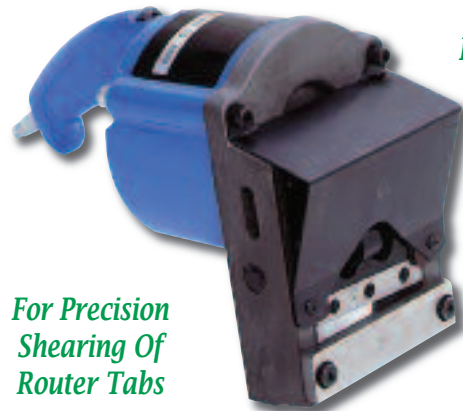
1450CA

**1/4" Shank Cutting Disc Mandrels**

- 1450CA includes the 1/4" shank mandrel and both 1/4" & 3/8" arbor endpieces (for use with 1/4" & 3/8" arbor discs).

Mandrel & 1/4" Arbor	Mandrel & 3/8" Arbor	Mandrel & Both Arbors
1414CA	1438CA	1450CA

**Tab Shear**



*Regrindable Tool Steel Blades*

*For Precision Shearing Of Router Tabs*

- Full length bosses with bolts & self-locking nuts.
- Hard anodized aluminum frame with carbide wear faces.

Note: Replacement blades available, please inquire.

Part Number	Capacity (steel - alum.)	Max. Throat Opening	Shearing Force	Weight
650	1/16" - 3/32"	1/8" x 3" (area)	4,200 lbs (1,905 kgs)	7.0 lbs (3.2 kgs)

**Dotco® Straight Routers**

12L1001-36RT



Note: Router guide shown not included, please see page 101 to order.

Front Exhaust 0.3 hp (.22 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L1001-36RT	34,000	1/4"	6-3/4"	1.4 lbs (0.6 kgs)
12L1000-36RT	30,000	1/4"	(172 mm)	

Front Exhaust 0.6 hp (.45 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L2000-01RT	25,000	1/4"	7-1/2"	1.9 lbs (0.9 kgs)
			(191 mm)	

Rear Exhaust 0.6 hp (.45 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L2080-01RT	25,000	1/4"	7-1/2"	1.9 lbs (0.9 kgs)
			(191 mm)	

Front Exhaust 0.9 hp (.67 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L2500-01RT	23,000	1/4"	7-1/8"	2.6 lbs (1.2 kgs)
			(181 mm)	

Rear Exhaust 0.9 hp (.67 kW)				
Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L2580-01RT	23,000	1/4"	7-1/8"	2.6 lbs (1.2 kgs)
12L2580-0124RT	23,000	3/8"	(181 mm)	

## MATERIAL REMOVAL TOOLS

### Dotco® High Power Straight Router

12L4018-01



Front Exhaust 1.7 hp (1.27 kW)

Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
12L4018-01	18,000	1/4"	11-3/8" (289 mm)	4.2 lbs (1.9 kgs)

### Dotco® High Power Routers w/Base Mount



10T4318-62

Rear Exhaust 1.7 hp (1.27 kW) With Base Mount

Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
10T4318-62	18,000	1/2"	7-1/8" (181 mm)	7.4 lbs (3.4 kgs)
10T4316-62	16,000			
10T4309-62	9000			

Rear Exhaust 1.7 hp (1.27 kW) Power Unit Only

Part Number	Free RPM	Shank Cap.	O.A.L.	Weight
11T4318-62	18,000	1/2"	7-1/8" (181 mm)	5.5 lbs (2.5 kgs)

### Dotco® Two Handed Router Base

*Easy Depth Adjustment*



- For use with either front or rear exhaust models on previous page.
- Can also be used with 10-43 template guides, please inquire.

Part Number	For Series
14-1577	12-10
14-2577	12-20 & 12-25

### Dotco® Router Assemblies



14-2180

- All assembly components available separately, please inquire.
- For use with Dotco straight routers shown on previous page.

For 12-10 Series Type Routers

Part Number	Thread Size	Cutter Shank Dia.
14-2187	1/4"-20	1/4"

For 12-20 & 12-25 Series Type Routers

Part Number	Thread Size	Cutter Shank Dia.
14-2180	1/4"-20	1/4"
14-2429	5/8"-18	3/8"

### H.S.S. Taper Router Bits



For clearance cutting or routing & trimming of aircraft assemblies.

Part Number	Size	Point Dia.	Shank Dia.
02-0228	1	.081"	.098"
02-0221	2	.110"	.128"
02-0213	3	.165"	.1875"
02-0209	4	.224"	.250"



53-1492

### Taper Router Kit:

Four Routers (one each above) & Plastic Case (not shown)

Part Number	Description
53-1492	Complete 5 PC Kit

### H.S.S. Aircraft Router Bit



For routing and trimming aluminum, non-abrasive plastics and similar materials

2 Downcut Flutes with Drill Point, Left Hand Helix, Right Hand Cut

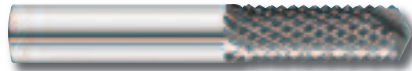
Part Number	Shank Diameter	Overall Length
02-17251	1/4"	2-3/8" (60 mm)

**Solid Carbide Router Bits**



For edge routing when the end is not in contact with the work piece.

Diamond Pattern, Right Hand Cut, No End Cut		
Part Number	Shank Diameter	Overall Length
02-1547-3/16	3/16"	2" (51 mm)
02-1547-1/4	1/4"	2-1/2" (64 mm)
02-1547-3/8	3/8"	2-1/2" (64 mm)
02-1547-1/2	1/2"	3" (76 mm)



- Drill point plunges through the work piece before routing begins.
- Designed to produce an even edge & leave burr-free surfaces.

Diamond Pattern, 135° Drill Point End		
Part Number	Shank Diameter	Overall Length
02-1547A-3/16	3/16"	2" (51 mm)
02-1547A-1/4	1/4"	2-1/2" (64 mm)
02-1547A-3/8	3/8"	2-1/2" (64 mm)
02-1547A-1/2	1/2"	3" (76 mm)



For bottom cuts requiring a smooth surface & square corners.

Diamond Pattern, End Mill End Cut		
Part Number	Shank Diameter	Overall Length
02-1547B-3/16	3/16"	2" (51 mm)
02-1547B-1/4	1/4"	2-1/2" (64 mm)
02-1547B-3/8	3/8"	2-1/2" (64 mm)
02-1547B-1/2	1/2"	3" (76 mm)

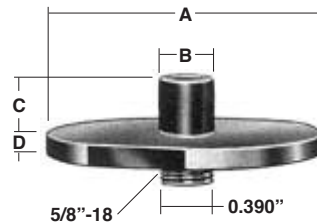


Diamond Pattern, Burr Style End Cut		
Part Number	Shank Diameter	Overall Length
02-1547C-3/16	3/16"	2" (51 mm)
02-1547C-1/4	1/4"	2-1/2" (64 mm)
02-1547C-3/8	3/8"	2-1/2" (64 mm)
02-1547C-1/2	1/2"	3" (76 mm)

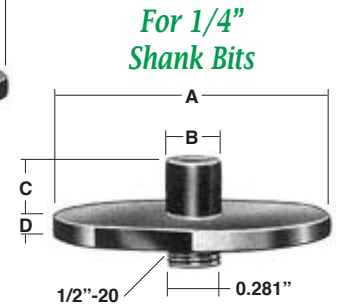


2 Flute Pattern, Left Hand Spiral, Right Hand Cut, No End Cut		
Part Number	Shank Diameter	Overall Length
02-1541-3/16	3/16"	2" (51 mm)
02-1541-1/4	1/4"	2-1/2" (64 mm)
02-1541-3/8	3/8"	2-1/2" (64 mm)
02-1541-1/2	1/2"	3" (76 mm)

**Dotco® Router Guides**



*For 3/8" Shank Bits*



*For 1/4" Shank Bits*

For 1/4" Shank Bits				
Part No.	'A'	'B'	'C'	'D'
14-2703	3/4"	3/8"	1/2"	1/8"
14-2400	1"	3/8"	1/8"	1/8"
14-2401	1"	3/8"	1/4"	1/8"
14-2402	1"	3/8"	3/8"	1/8"
14-2406	1"	7/16"	1/8"	1/8"
14-2407	1"	7/16"	1/4"	1/8"
14-2408	1"	7/16"	1/2"	1/8"
14-2411	1"	1/2"	1/4"	1/8"
14-2412	1"	1/2"	1/2"	1/8"
14-2413	1"	1/2"	5/8"	1/8"
14-2414	1"	1/2"	3/4"	1/8"
14-2417	1"	9/16"	1/8"	1/8"
14-2420	1"	5/8"	1/8"	1/8"
14-2421	1"	5/8"	5/8"	1/8"
14-2500	1-1/2"	3/8"	1/8"	1/8"
14-2501	1-1/2"	3/8"	1/4"	1/8"
14-2502	1-1/2"	3/8"	3/8"	1/8"
14-2505	1-1/2"	7/16"	1/8"	1/8"
14-2506	1-1/2"	7/16"	1/4"	1/8"
14-2507	1-1/2"	7/16"	3/8"	1/8"
14-2510	1-1/2"	1/2"	1/4"	1/8"
14-2511	1-1/2"	1/2"	3/8"	1/8"
14-2512	1-1/2"	1/2"	1/2"	1/8"
14-2600	1-1/2"	1/2"	1/2"	3/16"

For 3/8" Shank Bits				
Part No.	'A'	'B'	'C'	'D'
14-2531	1-1/2"	1/2"	3/8"	1/8"
14-2538	1-1/2"	1/2"	1/2"	1/8"
14-2539	1-1/2"	1/2"	5/8"	1/8"
14-2540	1-1/2"	9/16"	3/8"	1/8"
14-2541	1-1/2"	9/16"	1/2"	1/8"
14-2542	1-1/2"	9/16"	1/2"	1/8"
14-2893	1-1/2"	5/8"	3/8"	1/8"
14-2925	1-1/2"	5/8"	1/2"	1/8"
14-2544	1-1/2"	5/8"	5/8"	1/8"
14-2240	2-1/2"	1/2"	3/8"	1/8"
14-2632	2-1/2"	1/2"	1/2"	1/8"
14-2633	2-1/2"	1/2"	5/8"	1/8"
14-2634	2-1/2"	9/16"	3/8"	1/8"
14-2630	2-1/2"	9/16"	1/2"	1/8"
14-2635	2-1/2"	9/16"	5/8"	1/8"
14-2243	2-1/2"	5/8"	3/8"	1/8"
14-2636	2-1/2"	5/8"	1/2"	1/8"
14-2631	2-1/2"	5/8"	5/8"	1/8"

**G747 Lightweight CherryMAX® Power Riveter**



*Uses Existing  
CherryMAX  
Tooling*

*Lightweight &  
High Power*

**G747**

The G747 is a pneumatic-hydraulic tool designed specifically for installation of CherryMAX and nut plate rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool utilizes straight, offset and right angle pulling heads, all of which can install -4, -5 and -6 diameter CherryMAX bulb type rivets in all head styles, materials and grip lengths.

- 10° angled head allows user to work using a natural hand position.
- A comfortable grip for one handed operation in any position.
- Same weight as the G702A, with the power of much larger tools.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 71 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .09 SCFM / cycle (2.55 L / cycle)

G747 Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G747	.437"	2100 lbs (953 kgs)	3.5 lbs (1.6 kgs)

G747 Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G747KS	All Required Seals, 'O' Rings, Gaskets & Hardware

**G747 Pulling Heads**

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available on page 114.
- For full specifications on pulling heads below please see pages 115-116.
- Extensions are available for extending the pulling heads to reach limited access areas, see page 117.

G747 Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H701B-456	Straight	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4 *
			SST	1/8", 5/32", 3/16" **	All
H747-3NPR	Straight	—	Nut Plate	3/32"	-4 *
H753A-456	Right Angle	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4
			SST	1/8", 5/32", 3/16" **	All
H781A-456 H782 †	Offset	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4 *
			SST	1/8", 5/32", 3/16" **	All
H9015-3C	Straight	704A9	MS / Nut Plate ††	3/32"	-4 *
H9015-4C	Straight	704A9	MS / Nut Plate ††	1/8"	-4 *
H9015-5C	Straight	704A9	MS / Nut Plate ††	5/32"	-4 *
H9015-6C	Straight	704A9	MS / Nut Plate ††	3/16"	-4 *
H955-3	Straight	—	CherryLOCK 'A' ***	3/32"	-4 *
H955-4	Straight	—	CherryLOCK 'A' ***	1/8"	-4 *
H955-5	Straight	—	CherryLOCK 'A' ***	5/32"	-4 *
H955-6	Straight	—	CherryLOCK 'A' ***	3/16"	-4 *
H746-4MBC	Straight	—	Std. MBC	1/8"	-4 *
H746-5MBC	Straight	—	Std. MBC	5/32"	-4 *
H746-6MBC	Straight	—	Std. MBC	3/16"	-4 *

\* May be double stroked for longer grips. \*\* Nominal and oversize.  
 \*\*\* When installing CherryLOCK 'A' rivets, the proper diameter pulling head must be used.  
 † Will not install 3/16" diameter aluminum (stainless steel & monel only). †† Serrated stems only.  
 † See page 114 for more information on H782 pulling head and interchangeable nosepieces.

**G747 Power Riveter Kit**



G747 Power Riveter Kit	
Part Number	Installs
G747CMR	NAS 9301 to 9312 (1/8" to 3/16"), MS90353/4, MS21140/1, TAF 'S' Type (1/8" & 5/32") & MS20604/5 (3/32")

**Pulling Heads Included:** H701B-456 (Straight), H781A-456 (Offset), H753A-456 (Right Angle) & H747-3NPR (3/32" Nut Plate) **Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals



**G746A CherryMAX® Power Riveter**



G746A

The G746A is a pneumatic-hydraulic tool designed specifically for installation of CherryMAX Bulb, CherryMAX 'AB' wiredraw and CherryLOCK 'A' wiredraw rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool utilizes straight, offset and right angle pulling heads.

- A comfortable grip for one handed operation in any position.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 72 dB (A)

**Vibration** less than 2.5 m/s2

**Air Consumption** .25 SCFM / cycle (7.08 L / cycle)

G746A Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G746A	.875"	1850 lbs (839 kgs)	4.25 lbs (1.9 kgs)

G746A Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G746KS	All Required Seals, 'O' Rings, Gaskets & Hardware

**G746A Pulling Heads**

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available on page 114.
- For full specifications on pulling heads below please see pages 115-116.
- Extensions are available for extending the pulling heads to reach limited access areas, see page 117.

G746A Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H701B-456	Straight	-	CherryMAX	1/8", 5/32", 3/16" ** †††	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" ***	-9 *
			MBC L/C	1/8", 5/32", 3/16"	-9 *
			SST	1/8", 5/32", 3/16" **	All
H753A-456	Right Angle	-	CherryMAX	1/8", 5/32", 3/16" ** †††	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" ***	-4
			SST	1/8", 5/32", 3/16" **	All
H781A-456 H782 <sup>1</sup>	Offset	-	CherryMAX	1/8", 5/32", 3/16" ** †††	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" ***	-4 *
			SST	1/8", 5/32", 3/16" **	All
H9015-3C	Straight	704A9	MS ††	3/32"	All
H9015-4C	Straight	704A9	MS ††	1/8"	All
H9015-5C	Straight	704A9	MS ††	5/32"	All
H9015-6C	Straight	704A9	MS ††	3/16"	All
H955-3	Straight	-	CherryLOCK 'A'	3/32"	-9 *
H955-4	Straight	-	CherryLOCK 'A'	1/8"	-9 *
H955-5	Straight	-	CherryLOCK 'A'	5/32"	-9 *
H955-6	Straight	-	CherryLOCK 'A'	3/16"	-9 *
H746-4MBC	Straight	-	Std. MBC	1/8"	All
H746-5MBC	Straight	-	Std. MBC	5/32"	All
H746-6MBC	Straight	-	Std. MBC	3/16"	All

\* May be double stroked for longer grips. \*\* Nominal and oversize. \*\*\* When installing CherryLOCK 'A' rivets, the proper diameter pulling head must be used. †† Serrated stems only. ††† Will not install 3/16" diameter Inconel 600 rivets. <sup>1</sup> See page 114 for more information on H782 pulling head and interchangeable nosepieces.

**G746A Power Riveter Kits**



G746ACMRW

G746A CherryMAX Kit	
Part Number	Installs
G746ACMRB	-4, -5, -6 CherryMAX*

**Pulling Heads Included:** H701B-456, H781A-456 & H735A-456 **Accessories Incl.:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals \* Except 3/16" inconel and oversize.

G746A CherryLock Kit	
Part Number	Installs
G746ACMRW	SST & -3, -4, -5, -6 CherryLock "A"

**Pulling Heads Included:** H955-3, H955-4, H955-5 & H955-6 **Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals

**G704B CherryMAX® Power Riveter**



G704B

The G704B is a pneumatic-hydraulic tool designed specifically for installation of CherryMAX and nut plate rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool utilizes straight, offset and right angle pulling heads, all of which can install -4, -5 and -6 diameter CherryMAX bulb type rivets in all head styles, materials and grip lengths.

- A comfortable grip for one handed operation in any position.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 71 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .16 SCFM / cycle (4.53 L / cycle)

G704B Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G704B	.510"	3100 lbs (1406 kgs)	4.25 lbs (1.9 kgs)

G704B Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G704KS	All Required Seals, 'O' Rings, Gaskets & Hardware

**G704B Pulling Heads**

- Pulling heads not included with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also available on page 114.
- For full specifications on pulling heads below please see pages 115-116.
- Extensions are available for extending the pulling heads to reach limited access areas, see page 117.

G704B Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H701B-456	Straight	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4 *
			MBC L/C	1/8", 5/32", 3/16"	-4 *
			SST	1/8", 5/32", 3/16" **	All
H753A-456	Right Angle	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4
			SST	1/8", 5/32", 3/16" **	All
H781A-456 H782 †	Offset	—	CherryMAX	1/8", 5/32", 3/16" **	All
			CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4 *
			SST	1/8", 5/32", 3/16" **	All
H9015-3C	Straight	704A9	MS ††	3/32"	-4 *
H9015-4C	Straight	704A9	MS ††	1/8"	-4 *
H9015-5C	Straight	704A9	MS ††	5/32"	-4 *
H9015-6C	Straight	704A9	MS ††	3/16"	-4 *
H955-3	Straight	—	CherryLOCK 'A'	3/32" †	-4 *
H955-4	Straight	—	CherryLOCK 'A'	1/8" †	-4 *
H955-5	Straight	—	CherryLOCK 'A'	5/32" †	-4 *
H955-6	Straight	—	CherryLOCK 'A'	3/16" †	-4 *
H746A-4MBC	Straight	—	Std. MBC	1/8"	-4 *
H746A-5MBC	Straight	—	Std. MBC	5/32"	-4 *
H746A-6MBC	Straight	—	Std. MBC	3/16"	-4 *

\* May be double stroked for longer grips. \*\* Nominal and oversize.  
 † Will not install 3/16" diameter aluminum (stainless steel & monel only). †† Serrated stems only.  
 † See page 114 for more information on H782 pulling head and interchangeable nosepieces.

**G704B Power Riveter Kit**



G704B CherryMAX Kit	
Part Number	Installs
G704BCMR	-4, -5, -6 CherryMAX

**Pulling Heads Included:** H701B-456, H781A-456 & H735A-456  
**Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals

**G704B-SR & G704B-40SH CherryMAX® Split Power Riveters**



The CherryMAX G704B-SR & G704B-40SH split power riveters were designed specifically for the installation of CherryMAX rivets in applications with extremely limited access.

The tool transmits power from the power unit through a flexible hose to a small, lightweight head. By utilizing the proper pulling head, design problems and operator fatigue can be greatly reduced.

**The SR model is equipped with a three foot hose and the 40SH model is equipped with an eight foot hose.**

**G704B-SR & G704B-40SH Pulling Heads**

- Pulling heads not incl. with riveter, please order from chart below.
- Interchangeable nosepiece pulling heads also avail. on page 114.
- For full specs on pulling heads below please see pages 115-116.
- Extensions are available for extending the pulling heads to reach limited access areas, see page 117.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** does not exceed 85 dB (A)

**Air Consumption** 4 CFM @ 20 cycles per minute

G704B-SR & G704B-40SH Split Power Riveters				
Part Number	Hose Length	Stroke	Pulling Force	Weight
G704B-SR	3' (91.5 cm)	.518"	3136 lbs (1423 kgs)	4.5 lbs (2.0 kgs) (power unit only)
G704B-40SH	10' (305 cm)			

G704B-__ Routine Maintenance Kits (see page 118 for more info)		
Part Number	For Tool	Includes
G704KS	G704B-SR	All Req'd Seals, 'O' Rings, Gaskets & Hardware
G704B-40SR/40SHKS	G704B-40SH	

G704B-SR & G704B-40SH Pulling Heads				
Part Number	Head Style	Rivet Type	Rivet Diameters	Max. Grip
H701B-456	Straight	CherryMAX	1/8", 5/32", 3/16" **	All
		CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4 *
		MBC L/C	1/8", 5/32", 3/16" †	-4 *
		SST	1/8", 5/32", 3/16" **	All
H753A-456	Right Angle	CherryMAX	1/8", 5/32", 3/16" **	All
		CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4
		SST	1/8", 5/32", 3/16" **	All
H781A-456	Offset	CherryMAX	1/8", 5/32", 3/16" **	All
		CherryMAX 'AB'	1/8", 5/32", 3/16" †	-4 *
		SST	1/8", 5/32", 3/16" **	All

G704B-SR & G704B-40SH Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H9015-3C	Straight	704A9	MS ††	3/32"	-4 *
H9015-4C	Straight	704A9	MS ††	1/8"	-4 *
H9015-5C	Straight	704A9	MS ††	5/32"	-4 *
H9015-6C	Straight	704A9	MS ††	3/16"	-4 *
H955-3	Straight	—	CherryLOCK 'A'	3/32" †	-4 *
H955-4	Straight	—	CherryLOCK 'A'	1/8" †	-4 *
H955-5	Straight	—	CherryLOCK 'A'	5/32" †	-4 *
H955-6	Straight	—	CherryLOCK 'A'	3/16" †	-4 *
H746A-4MBC	Straight	—	Std. MBC	1/8"	-4 *
H746A-5MBC	Straight	—	Std. MBC	5/32"	-4 *
H746A-6MBC	Straight	—	Std. MBC	3/16"	-4 *

\* May be double stroked for longer grips. \*\* Nominal and oversize. † Will not install 3/16" diameter aluminum (stainless steel & monel only). †† Serrated stems only.

**G784 Hydro-Shift CherryLOCK® Power Riveter**



The G784 is a pneumatic-hydraulic tool designed specifically for installation of CherryLOCK rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool will install nearly all diameters of CherryLOCK rivets up to a half-inch grip, 'A' group only.

With proper adapters & pulling heads this tool can be used to install other types of rivets, see charts below and page 118.

- A comfortable grip for one handed operation in any position.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** 69.7 dB (A)

**Vibration** less than 2.5 m/s2

**Air Consumption** .27 SCFM / cycle (7.65 L / cycle)

G784 Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G784	7/8"	2,600 lbs (1,179 kgs)	8 lbs (3.6 kgs)

G784 Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G784KS	All Required Seals, 'O' Rings, Gaskets & Hardware

**G784 Pulling Heads**

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see page 115.

G784 Pulling Heads For Standard CherryLOCK Rivets (NAS1398 & 1399)							
Rivet Part Number	Rivet Dia.	CR2163	CR2162	CR2563	CR2562	CR2643	CR2642
		CR2263	CR2164 †			CR2653	CR2652
		Aluminum Univ. Head	Aluminum Ctsk. Head	Monel Univ. Head	Monel Ctsk. Head	St. Steel Univ. Head	St. Steel Ctsk. Head
H681-3C	-3	—	—	—	—	All	All
H681-4C	-4	All	All	All	All	All	All
H681-5C	-5	-8	-9	-8	-9	-8	-9
H681-6C	-6	-8	-9	-8	-9	-8	-9
H681-8C	-8	-8	-9	-8	-9	—	—

G784 Pulling Heads For Bulbed CherryLOCK Rivets (NAS1738 & 1739)							
Rivet Part Number	Rivet Dia.	CR2235 *	CR2238	CR2539	CR2538	CR2839	CR2838
		CR2239				CR2248	CR2845 *
		Aluminum Univ. Head	Aluminum Ctsk. Head	Monel Univ. Head	Monel Ctsk. Head	Inconel Univ. Head	Inconel Ctsk. Head
H681-4C	-4	All	All	All	All	All	All
H681-5C	-5	All	All	All	All	All	All
H681-6C	-6	All	All	All	All	All	All

Other G784 Pulling Heads***					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H680B200A	Straight	—	CherryMAX	1/8", 5/32", 3/16"	All
H680B208	Straight	—	CherryMAX	1/4"	All
H753A-456	Right Angle	680B205	CherryMAX	1/8", 5/32", 3/16"	All
H781A-456	Offset	680B205	CherryMAX	1/8", 5/32", 3/16"	All

† Use part no. H681-(-)S \* Use part no. H681B166-(-) \*\* Use part no. H681-(-)F  
 \*\*\* The G784 riveter will also accept pulling heads to install CherryLOCK 'A' rivets (680B46 adapter required) and MS rivets (680B46 or 680B57 adapter required), please see page 118.

**G784 Power Riveter Kits**



G784 CherryLock Kit	
Part Number	Installs
G784CLRA	1/8" to 3/16", NAS 1398/9 '-' Type & CherryLock

**Pulling Heads Included:** H681-4C, H681-5C & H681-6C  
**Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, 680A159 Stroke Setting Gauge, P1395 Molded Plastic Case & All Necessary Manuals

G784 Basic Kit	
Part Number	Installs
G784CLRB	No Pulling Heads Included

**Accessories Included:** 700A77 Bleeder Bottle, 269C3 Grip Selector Gauge, P1395 Molded Plastic Case & All Necessary Manuals

**G702A Lightweight Nut Plate Power Riveter**



G702A

The G702A is a pneumatic-hydraulic tool designed specifically for installation of nut plate rivets. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

The H702-3NPR pulling head fits directly on the tool to install -3, -4, 2.5 mm & 3mm nut plate rivets.

- 10° angled head allows user to work using a natural hand position.
- A comfortable grip for one handed operation in any position.

**Specifications**

- Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.
- Cycle Time** approximately one second
- Noise Level** 71 dB (A)
- Vibration** less than 2.5 m/s<sup>2</sup>
- Air Consumption** .09 SCFM / cycle (2.55 L / cycle)

G702A Power Riveter			
Part Number	Stroke	Pulling Force	Weight
G702A	3/4"	1,100 lbs (499 kgs)	3.5 lbs (1.6 kgs)

G702A Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G702AKS	All Required Seals, 'O' Rings, Gaskets & Hardware

**G702A Pulling Head & Inserts**

- Pulling heads not incl. with riveter, please order from chart below.
- For full specs on pulling head below please see page 116.

G702A Pulling Head & Inserts					
Part Number	Head Style	Rivet Insert	Rivet Type	Rivet Diameters	Max. Grip
H702-3NPR	Straight	728A9-3 *	Nut Plate	3/32", 2.5 mm	-12 **
		728A9-104 *	Nut Plate	1/8", 3.0 mm	-12 **
		728A9-3	SPR	3/32"	All

\* Included with pulling head. \*\* On the first stroke.

**G902 Lightweight Nut Plate Power Riveters**



G902-15

G902

*Durable All Metal Housing*

*Limited Access Extensions Available, Please Inquire*

The G902 (feed through) & G902-15 (side eject) are all-pneumatic tools designed specifically for installation of nut plate rivets.

This tool utilizes straight pulling heads which can install 3/32" and 1/8" pull-through type nut plate rivets and 3/32" CherryLOCK 'A' rivets.

**Specifications**

- Air Pressure** 90 PSI (6.2 bar) min./120 PSI (8.2 bar) max.
- Cycle Time** approximately one second
- Noise Level** 60 dB (A)
- Vibration** less than 2.5 m/s<sup>2</sup>
- Air Consumption** .05 SCFM / cycle (1.42 L / cycle)

G902 & G902-15 Power Riveters				
Part Number	Type	Stroke	Pulling Force*	Weight
G902	Feed-Through	3/4"	550 lbs (250 kgs)	2 lbs (0.9 kgs)
G902-15	Side Eject			

\* Force rated at 90 PSI. Pulling force at 120 PSI is 730 lbs (331 kgs).

**G902 & G902-15 Pulling Heads**

- Pulling heads not incl. with riveter, please order from chart below.
- For full specs on pulling heads below please see pages 115-116.

G902 Pulling Heads			
Part Number	Rivet Type	Rivet Diameters	Max. Grip
H902-3NPR	Nut Plate	3/32", 2.5 & 3 mm	-8 *
	SPR	3/32"	-8 *
H9055-3	CherryLOCK 'A'	3/32"	-8 *
H902-4NPR	Nut Plate	1/8"	-8 *
H701B-456			

G902-15 Pulling Heads			
Part Number	Rivet Type	Rivet Diameters	Max. Grip
H9015-3C	Nut Plate	3/32", 2.5 & 3 mm	-9 *
	SPR	3/32"	-9 *
H9055-3	CherryLOCK 'A'	3/32"	-9 *
H9015-4C	Nut Plate	1/8"	-9 *

\* On the first stroke.

**G83A Lightweight Lockbolt Installation Tool**



*Very Powerful & Lightweight*

*Compatible With  
Huck 352 & 230  
Pulling Heads*

**G83A**

The G83A pneumatic-hydraulic tool is a heavy-duty production tool designed for high speed, reliable installation of the most popular sizes of aircraft Lockbolts. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

By bending the rubber pin deflector sideways, 1-1/2" additional clearance can be obtained. This tool can also be used to install blind bolts and blind rivets.

- A comfortable grip for one handed operation in any position.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 78.4 dB (A)

**Vibration** less than 2.5 m/s2

**Air Consumption** .16 SCFM / cycle (4.53 L / cycle)

G83A Power Riveter			
Part Number	Stroke	Pulling Force*	Weight
G83A	7/16"	3,750 lbs (1,701 kgs)	4.95 lbs (2.3 kgs)

G83A Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G83AKS	All Required Seals, 'O' Rings, Gaskets & Hardware

\* 800 lbs on return stroke.

**G83A Pulling Heads**

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see pages 115-117.

G83A Straight Lockbolt Pulling Heads*				
Basic Pulling Short Pintail	Swivel Nose	Self Releasing Swivel Nose	Self Releasing Swivel Nose, Chisel Shape	Lockbolt Diameter
H513-04-20	—	—	—	1/8"
H513-04-35	—	—	—	
H513-04-60	—	—	—	
—	H513S-05-20	H513SR-05-20	H513SRC-05-20	5/32"
H513-05-35	H513S-05-35	H513SR-05-35	H513SRC-05-35	
H513-05-60	—	—	—	
H513-06-20	H513S-06-20	H513SR-06-20	H513SRC-06-20	3/16"
—	H513S-06-35	H513SR-06-35	H513SRC-06-35	
H513-06-60	—	—	—	

\* For .08 diameter, installs aluminum and titanium lockbolts only.

**Note:** The last component of the part number indicates attached length of the pulling head. For example part number H513-04-20 indicates the pulling head extends 2.0" beyond the gun line. The straight Lockbolt chart on page 117 shows all installed lengths and additional sizes.

G83A Offset Lockbolt Pulling Heads		
Basic Pulling	Basic Pulling Short Pintail	Lockbolt Dia.
H563-5B	H563SP-5B	5/32"
H563-6B	H563SP-6B	3/16"

G83A Maxibolt Pulling Heads (S Type)		
Part Number	Head Style	Maxibolt Diameters
H83B-5MB	Straight	5/32"
H83B-6MB	Straight	3/16"
H84B-568	Straight	5/32", 3/16"

**Note:** For 'U' type blind bolts use 652-066 for -.5 and 652-067 insert for -.06.

G83A CherryMAX Pulling Heads **				
Part Number	Head Style	Required Adapter	Rivet Diameters	
H701B-456	Straight	744-300	1/8", 5/32", 3/16"	
H781A-456	Offset			
H753A-456	Right Angle			
H84A-8	Straight	—	1/4"	

\*\* CherryMAX adapter and pulling heads allow user to install CherryMAX, CherryMAX 'AB' & SST rivets.

G83A & G84 Adapters	
Part Number	To Adapt To Tool Mounting System
744-100	G85D & G87D
744-200	G744
744-300	G704B, G747 & G746A

**G83A Installation Tool Kits**



G83A Deluxe Installation Kit	
Part Number	Installs
G83AKT	5/32" & 3/16" MS Blind Bolt & LockBOLT, 1/8", 5/32" & 3/16" CherryMAX

**Pulling Heads Included:** H701B-456, H781A-456, H735A-456, H83B-5MB, H83B-6MB, H513S-05-20 & H513S-06-20

**Accessories Included:** 700A77 Bleeder Bottle, 269C5 Grip Selector Gauge, 269B12 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1393 Molded Plastic Case & All Necessary Manuals

G83A Installation Kit	
Part Number	Installs
G83BKT	5/32" & 3/16" MS Blind Bolt & NAS Style LockBOLT

**Pulling Heads Included:** H83B-5MB, H83B-6MB, H513S-05-20 & H513S-06-20

**Accessories Included:** 700A77 Bleeder Bottle, 269C5 Grip Selector Gauge, 269B12 Grip Selector Gauge, P1393 Molded Plastic Case & All Necessary Manuals

**G84 Lightweight Lockbolt Installation Tool**



*Compatible With  
Huck 352 & 230  
Pulling Heads*

The G84 pneumatic-hydraulic tool is a heavy-duty production tool designed for high speed, reliable installation of the most popular sizes of aircraft Lockbolts. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

This tool incorporates a bayonet attachment for quick change of pulling heads. This tool can also be used to install blind bolts and blind rivets.

- A comfortable grip for one handed operation in any position.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Cycle Time** approximately one second

**Noise Level** 80 dB (A)

**Vibration** less than 2.5 m/s2

**Air Consumption** .29 SCFM / cycle (8.21L / cycle)

G84 Power Riveter			
Part Number	Stroke	Pulling Force*	Weight
G84	9/16"	5,750 lbs (2,608 kgs)	7.7 lbs (3.5 kgs)

G84 Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G84KS	All Required Seals, 'O' Rings, Gaskets & Hardware

\* 1200 lbs on return stroke.

**G84 Pulling Heads**

- Pulling heads not included with riveter, please order from chart below.
- For full specifications on pulling heads below please see pages 115-117.

G84 Pulling Heads					
Part Number	Head Style	Required Adapter	Rivet Type	Rivet Diameters	Max. Grip
H513 *	Straight	—	Lockbolt	1/8", 5/32", 3/16", 1/4"	All
**			Aluminum Lockbolt		
H563	Offset	—	Lockbolt	1/8", 5/32", 3/16"	All
H562 *	Offset	—	Lockbolt	3/16", 1/4"	All
H83B-5MB	Straight	—	Maxibolt	5/32"	All
H83B-6MB	Straight	—	Maxibolt	3/16"	All
H84C-8MB ***	Straight	—	Maxibolt	1/4"	All
H84B-568	Straight	—	Maxibolt Plus	5/32", 3/16", 1/4"	All
H701B-456	Straight	744-300	CherryMAX	1/8", 5/32", 3/16" †	All
			CherryMAX 'AB'		
H84A-8	Straight	—	CherryMAX	1/4"	All
H84-8CLA	Straight	—	CherryLOCK 'A'	1/4"	All
			CherryMAX 'AB'		

\* Use adapter 744-100 to accept pulling head design used on G85D, G87D and 353 style tools.

\*\* Use of special pulling head required, please inquire.

\*\*\* Use 652-106 'U' type nosepiece for 'U' type -8 diameter.

† Will not pull 3/16" alum. CherryMAX 'AB' rivets; pulls 3/16 in monel and stainless steel only.

G83A & G84 Adapters ††	
Part Number	To Adapt To Tool Mounting System
744-100	G85D & G87D
744-200	G744
744-300	G704B, G747 & G746A

†† Requires removal of bayonet mount.

**G84 Installation Tool Kits**



G84 Lockbolt Kit	
Part Number	Installs
G84LBK	5/32", 3/16" & 1/4" NAS Style LockBOLT

**Pulling Heads Included:** H513S-05-20", H513S-06-20" & H513-08-35"  
**Accessories Included:** 700A77 Bleeder Bottle, 269C5 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1395 Molded Plastic Case & All Necessary Manuals

\* Small heads for use on G84, G83A & Huck 352.

G84 Maxibolt Kit	
Part Number	Installs
G84MBK	5/32", 3/16" & 1/4" MS Blind Bolt

**Pulling Heads Included:** H83B-5MB, H83B-6MB & H84C-8MB  
**Accessories Included:** 700A77 Bleeder Bottle, 269B12 Grip Selector Gauge, 670A20 Stem Catcher Bag, P1395 Molded Plastic Case & All Necessary Manuals

**G84-LS Split Power Installation Tool**

*Comfortable & Lightweight One Hand Operation*

*10' Hose & Compact Head Unit Perfect For Limited Access Areas*



*Versatile Head Unit Offers Both Inline & Pistol Grip Use*

G84-LS

The G84-LS pneumatic-hydraulic installation tool is a heavy-duty production tool designed for high-speed, reliable installation of the most popular sizes of blind rivets, lockbolts and blind bolts. The base unit transmits its power through 10 feet of hose to a lightweight head cylinder. This facilitates fastener installation in many limited access areas and also reduces operator fatigue.

The trigger is incorporated in the head cylinder, providing comfortable, one-handed operation. Furthermore, the head cylinder can be configured for straight (inline) or pistol grip operation. The recoil absorbing design reduces shock transmitted to the user.

In combination with Cherry pulling heads and adapters, this tool installs all Lockbolt, blind bolts and blind rivets to 1/4" diameter, as well as Cherry rivetless nut plate in all sizes.

Inline Use



Pistol Grip Use



**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** 66.5 dB (A)

**Vibration** 4.0 m/s<sup>2</sup>

**Air Consumption** .34 SCFM / cycle (9.63L / cycle)

G84-LS Split Power Installation Tool			
Part Number	Stroke	Pulling Force	Weight
G84-LS	0.53"	5700 lbs (2608 kgs)	11.8 lbs (5.4 kgs)

G84-LS Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G84-LSKS	All Required Seals, 'O' Rings, Gaskets & Hardware

**G84-LS Pulling Heads**

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see page 116.

G84-LS Pulling Heads			
Part Number	Head Style	Req. Adapter	Installs
H83B-5MB	Straight	744-700	MS90353S05xxW
			MS90354S05xxW
H83B-5MBU	Straight	744-700	MS90353U05xx
			MS90354U05xx
H828-5MB	Right Angle	744-500	MS21140S05xxW
			MS21140U05xx *
			MS21141S05xxW
			MS21141U05xx *
H83B-6MB	Straight	744-700	MS90353S06xxW
			MS90354S06xxW
H83B-6MBU	Straight	744-700	MS90353U06xx
			MS90354U06xx
H828-6MB	Right Angle	744-500	MS21140S06xxW
			MS21140U06xx **
			MS21141S06xxW
			MS21141U06xx **

G84-LS Pulling Heads			
Part Number	Head Style	Req. Adapter	Installs
H84C-8MB	Straight	744-700	MS90353U08xxW
			MS90354U08xxW
H84C-8MBU	Straight	744-700	MS90353U08xx
			MS90354U08xx
H828-8MB	Right Angle	744-500	MS21140U08xxW
			MS21140U08xx ***
			MS21141U08xxW
			MS21141U08xx ***

G84-LS Adapters	
Part Number	To Adapt To Tool Mounting System
744-500	G744
744-600	G704B, G747 & G746A
744-700	G83A & G84 Bayonet

\* Requires optional 828-035 nosepiece to install, please inquire.

\*\* Requires optional 828-036 nosepiece to install, please inquire.

\*\*\* Requires optional 837-016 nosepiece to install, please inquire.



**G87D Lockbolt Installation Tool**

*Extremely  
Powerful*



G87D

The G87D pneumatic-hydraulic tool is a heavy-duty production tool designed for high speed, reliable installation of the most popular sizes of aircraft Lockbolts. Its durable, all metal housing makes this tool ideal for use in rugged shop environments.

By bending the rubber pin deflector sideways, 1-1/2" additional clearance can be obtained. This tool can also be used to install blind bolts and blind rivets.

- A comfortable grip for one handed operation in any position.

**Specifications**

**Air Pressure** 90 PSI (6.2 bar) min./110 PSI (7.6 bar) max.

**Noise Level** 74.2 dB (A)

**Vibration** less than 2.5 m/s<sup>2</sup>

**Air Consumption** .60 SCFM / cycle (17 L / cycle)

G87D Power Riveter			
Part Number	Stroke	Pulling Force*	Weight
G87D	9/16"	9,500 lbs (4,309 kgs)	10.75 lbs (4.9 kgs)

G87D Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G85D/G87D-KS	All Required Seals, 'O' Rings, Gaskets & Hardware

\* 800 lbs on return stroke.

**G87D Pulling Heads**

- Pulling heads not included with riveter, please order from charts below.
- For full specifications on pulling heads below please see pages 115-117.

G87D Straight Lockbolt Pulling Heads					
Basic Pulling Short Pintail	Swivel Nose	Self Releasing Swivel Nose	Self Releasing Swivel Nose, Chisel Shape	Installed Length	Lockbolt Diameter
H513-04-20 *	—	—	—	2" (51 mm)	1/8"
H513-04-35 *	—	—	—	3-1/2" (89 mm)	
H513-04-60 *	—	—	—	6" (152 mm)	
—	H513S-05-20 *	H513SR-05-20 *	H513SRC-05-20 *	2" (51 mm)	5/32"
H513-05-35 *	H513S-05-35	H513SR-05-35	H513SRC-05-35 *	3-1/2" (89 mm)	
H513-05-60 *	—	—	—	6" (152 mm)	
H513-06-20 *	H513S-06-20 *	H513SR-06-20 *	H513SRC-06-20 *	2" (51 mm)	3/16"
—	H513S-06-24	H513SR-06-24	—	2-3/8" (60 mm)	
—	H513S-06-35 *	H513SR-06-35 *	H513SRC-06-35 *	3-1/2" (89 mm)	
—	H513S-06-48	H513SR-06-48	—	4-13/16" (122 mm)	
H513-06-60 *	—	—	—	6" (152 mm)	1/4"
—	H513S-08-24	H513SR-08-24	—	2-3/8" (60 mm)	
H513-08-35 *	H513S-08-35 *	—	—	3-1/2" (89 mm)	
—	H513S-08-48	H513SR-08-48	H513SRC-08-48	4-13/16" (122 mm)	5/16"
—	H513S-10-27	H513SR-10-27	—	2-11/16" (68 mm)	
—	H513S-10-42	H513SR-10-42	—	4-3/16" (106 mm)	
—	H513S-12-27	H513SR-12-27	—	2-11/16" (68 mm)	
—	H513S-12-42	H513SR-12-42	—	4-3/16" (106 mm)	3/8"

\* Fits directly on Cherry G83A & Huck 352, requires the 552 adapter when used on Cherry G87D, G85D or Huck 353.

G87D Offset Lockbolt Pulling Heads		
Basic Pulling	Basic Pulling Short Pintail	Lockbolt Diameter
H563-4B *	H563SP-4B *	1/8"
H563-5B *	H563SP-5B	5/32"
H563-6B *	H563SP-6B *	3/16"
H563-8B	—	1/4"

\* Fits directly on Cherry G83A & Huck 352, requires the 552 adapter when used on Cherry G87D, G85D or Huck 353.

G87D CherryMAX Pulling Heads**			
Part Number	Head Style	Required Adapter	Rivet Diameter
H84A-8	Straight	552	1/4"
H827-8	Offset	560-070	1/4"
H828-8	Right Angle	560-070	1/4"

\*\* CherryMAX adapter and pulling heads allow user to install CherryMAX, CherryMAX 'AB' & SST rivets.

G87D Maxibolt Pulling Heads			
Part Number	Head Style	Required Adapter	Maxibolt Diameter
H652-8MB	Straight	—	1/4"
H83B-5MB	Straight	552	5/32"
H83B-6MB	Straight	552	3/16"
H744-5MB	Straight	560-070	5/32"
H744-6MB	Straight	560-070	3/16"
H856-6MB	Offset	560-070	3/16"
H828-5MB	Right Angle	560-070	5/32"
H828-6MB	Right Angle	560-070	3/16"

**G800 CherryMAX® Hydraulic Hand Riveter**

*Adjustable, Compact & Powerful*



G800

*High Strength  
Steel & Aluminum  
Construction*

*Made In  
The USA*

*Tool Includes H800 Pulling  
Head & 782-456 Nosepiece*

The G800 is an ergonomic, lightweight hand powered riveter capable of installing a wide variety of blind fasteners. The all metal design makes this compact and robust tool ideal for use in rugged shop environments or field repair.

- Exceptional power with low hand effort for increased productivity.
- Mounting system (same as G704B) compatible with popular pulling heads including H782, H781A-456 & H753A-456.
- Leak-proof design with advanced seals & built-in redundancies.
- Ergo design with internal shock absorber & cushioned handle.
- Adjustable lever easily accommodates different hand sizes.

G800 Hand Riveter			
Part Number	Stroke	Pulling Force (adj.)	Weight
G800	3/4"	Up To 6000 lbs	1.7 lbs (0.8 kgs)

G800 Routine Maintenance Kit (see page 118 for more info)	
Part Number	Includes
G800KS	All Required Seals, 'O' Rings, Gaskets & Hardware

**G800 Pulling Heads**

- H800 pulling head & 782-456 nosepiece included with tool.
- For full specifications on pulling heads below please see pages 114-115.

G800 Pulling Heads					
Part No.	Jaw	Follower	Nosepiece	Rivet Type	Rivet Dia.
H800 (straight)	701B18 *	753A14A *	782-456 *	CherryMAX, CherryMAX 'AB'	-4, -5, -6 **
				Blindbolt 'S' Type	-04, -05
				MBC	-4, -5, -6
				NAS1900 'U' Type	-4, -5
			886-003	CherryLOCK 'A'	-3
			886-004	CherryLOCK 'A'	-4
H753A-456 (rt. angle) †	701B18	753A14A	886-005	CherryLOCK 'A'	-5
			886-006	CherryLOCK 'A'	-6
			782-5BB	Blindbolt 'U' Type	-05
			782-4MBC	Standard MBC	-4
H782 (offset) ††	782-010	866-002	782-5MBC	Standard MBC	-5
			782-6MBC	Standard MBC	-6
			782-6AL	CherryMAX 'AB' Alum.	-6
				NAS1900	-4, -5, -6
				SPR	3/32"
			701B18	753A14A	782-3
782-4NAS	NAS1900 (no shift washer)	-4			
782-5NAS	NAS1900 (no shift washer)	-5			
782-6NAS	NAS1900 (no shift washer)	-6			

G800 Heavy-Duty Pulling Head				
Part No.	Jaw	Nosepiece	Rivet Type	Rivet Dia.
HD800-8 (straight)	652-043 *	652-024 *	CherryMAX, 'AB', 'A'	-8
		652-065	Maxibolt Plus	-5, -6, -8
	865C25	652-035	Maxibolt 'S' Type	-8
		652-065	Maxibolt 'U' Type	-8
		652-038	Maxibolt 'S' Type	-6
		652-067	Maxibolt 'U' Type	-6

\* Standard components included with pulling head. \*\* Except -6 all aluminum.  
 † H753A-456 also installs NAS1400 single action & 1722 rivets up to -04 grip (with optional components, please inquire). †† H782 pulling head does not require or include jaw followers.

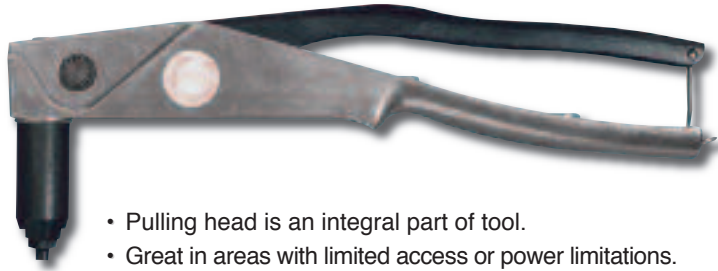
**G800 Installation Tool Kit**



G800 Installation Kit	
Part Number	Installs
G800CMR	-4, -5 & -6 CherryMAX / CherryMAX AB*, Blind Bolt 'S' Type -04 & -05, MBC Lock Creator -4, -5 & -6, NAS1900 'U' -4 & -5

**Pulling Heads Included:** H800, H782 & H753A-456 **Nosepieces Included:** 782-456, 886-003 & 782-5BB **Accessories Included:** 269C5 Grip Selector Gauge, Molded Plastic Case & All Necessary Manuals  
 \* Except -6 all aluminum.

**G27 CherryMAX® Hand Riveter**



- Pulling head is an integral part of tool.
- Great in areas with limited access or power limitations.

The G27 is an efficient, compact and lightweight tool for installing CherryMAX rivets. Includes the 728A9-4 insert shown in the chart shown on right.

Part Number	Overall Length	Weight
G27	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

G27 CherryMAX Insert			
Part Number	CherryMAX	SST	MBC L / C
728A9-4	CR3212-4	CR6222-4	4901-04
	CR3213-4	CR6223-4	4904-04
	CR3222-4	CR6224-4	4705-04
	CR3223-4	CR6252-4	4907-04
	CR3523-4	CR6253-4	4911-04
	CR3522-4		4917-04
	CR3214-4		4967-04
	CR3224-4		
	CR3524-4		
	CR3242-4		
	CR3243-4		
	CR3252-4		
	CR3253-4		
	CR3852-4		
	CR3853-4		

**Cherry® G29 Nut-Plate Hand Riveter**



- Pulling head is an integral part of tool.
- Convenient handle storage of nosepieces.
- Great in areas with limited access or power limitations.

The G29 is an efficient, compact and lightweight tool for installing nut plate and SPR rivets. Includes both the 728A9-3 and 728A9-104 inserts shown in the chart on right.

Part Number	Overall Length	Weight
G29	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

G29 Inserts			
Part Number	Rivet Type	Rivet	Rivet Dia.
728A9-3	SPC	CR1122	-3
		CCR244	-3
	Nut Plate	CCR264	-3
		CCR274	-3
		CCMR244	-25
Metric Nut Plate	CCMR264	-25	
	CCMR274	-25	
	728A9-104	Nut Plate	CCR244
CCR264			-4
CCR274			-4
Metric Nut Plate		CCMR244	-30, -35
		CCMR264	-30, -35
		CCMR274	-30, -35

**G30 CherryLOCK® Hand Riveter**



- Pulling head is an integral part of tool.
- Great in areas with limited access or power limitations.

The G30 is an efficient, compact and lightweight tool for installing CherryLOCK 'A' rivets. Includes the 728-33 insert shown in the chart on right.

Part Number	Overall Length	Weight
G30	9-1/4" (23.5 cm)	0.8 lbs (0.4 kgs)

G30 CherryLOCK Insert			
Part Number	Rivet Type	Rivet	Rivet Dia.
728-33	CherryLOCK 'A'	CR2672	3/32"
		CR2673	3/32"
		NAS1399C3A()	3/32"
		NAS1398C3A()	3/32"

**USATCO Can Help With Your Cherry Tooling Selection**

USATCO has been a key distributor of genuine Cherry Aerospace tooling for over 30 years. USATCO is the largest tooling distributor of genuine Cherry tooling in the world with close to \$1 million in stocked inventory in our two warehouses. Our trained sales staff can offer advice on tooling needed to properly install all Cherry

manufactured fasteners as well as assist in the choosing of other MS or NAS fastener tooling. When it's time to repair or overhaul your tools, USATCO is one of a few select distributors that offer free estimates on all Cherry tooling repairs.

# BLIND RIVETERS & ACCESSORIES

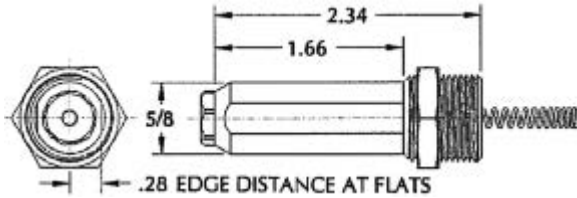
## Cherry® H747-456 Straight Universal Pulling Head



### Simple & Versatile

- A new, more versatile pulling head for aerospace applications.
- Simple interchangeable threaded nosepieces (offered below).

The H747-456 as purchased will install CherryMAX rivets, CherryMAX AB, MBC L/C & MaxiBolt -04 & -05 products. Additional nosepieces offered below.



Note: Uses CherryMAX mounting system (G704B, G746A, G747).

Part Number	Stroke	Force	Weight
H747-456	w/G704B: 1/2" w/G746A: 7/8" w/G747: 7/16"	w/G704B: 3100 lbs w/G746A: 1850 lbs w/G747: 2200 lbs	0.15 lbs (0.07 kgs)

### Available Nosepieces

Part Number	Installs
782-456 (included with pulling head)	CherryMAX & CherryMAX AB -4, -5 & -6*
	Blindbolt 'S' Type -04 & -05
	MBC Lock Creator -4, -5 & -6
	NAS1900 'U' Type -4 & -5
782-4NAS	NAS1900 -4 (no shift washer)
782-5NAS	NAS1900 -5 (no shift washer)
782-6NAS***	NAS1900 -6 (no shift washer)
782-4MBC	Standard MBC -4
782-5MBC	Standard MBC -5
782-6MBC***	Standard MBC -6
782-3**	3/32" SPR & -3 pull thru Nut Plate Rivets
782-5BB	Blindbolt 'U' Type -05
782-6AL***	CherryMAX AB -6 Alum., NAS1900 -4, -5 & -6
886-003**	CherryLOCK 'A' Code -3
886-004	CherryLOCK 'A' Code -4
886-005	CherryLOCK 'A' Code -5
886-006***	CherryLOCK 'A' Code -6

\* Except -6 diameter all aluminum (use 782-6AL).

\*\* Nosepiece requires 955-011 jaw follower, see below.

\*\*\* Nosepiece requires 782-010 jaw & 886-002 jaw follower, see below.

### Replacement Parts

Jaw	Jaw Follower	Notes
701B18	753A14A	701B18 & 753A14A Included with Tool
	955-011	Req'd for 886-003 & 782-3 Nosepieces
782-010	886-002	Req'd for 886-006, 782-6MBC, 782-6AL & 782-6NAS Nosepieces

## Cherry® H782 Offset Universal Pulling Head

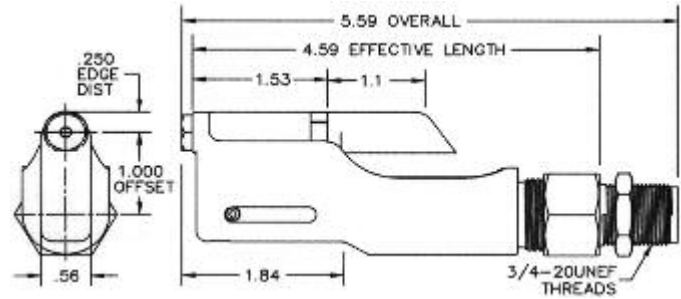
### Strong Yet Compact & Lightweight



### Two-Jaw Offset Design Eliminates Stem Slippage

- A new, more versatile pulling head for aerospace applications.
- Simple interchangeable threaded nosepieces (offered below).

The H782 is capable of installing CherryMAX rivets, CherryLOCK 'A' code rivets, MaxiBolt 'S' type blind bolts, MBC rivets, SPR rivets, NAS1398 A & AB code products, MS90353/4, MS21140/1 'U' 05, NAS1719, 1720 & 1721 and pull-through type nut plate rivets.



Note: Uses CherryMAX mounting system (G704B, G746A, G747).

Part Number	Stroke	Force	Weight
H782	w/G704B: 1/2" w/G746A: 7/8" w/G747: 7/16" w/G800: 0.78"	w/G704B: 3100 lbs w/G746A: 1850 lbs w/G747: 2200 lbs w/G800: 4200 lbs	0.84 lbs (0.36 kgs)

### Available Nosepieces

Part Number	Installs
782-456 (included with pulling head)	CherryMAX & CherryMAX AB -4, -5 & -6*
	Blindbolt 'S' Type -04 & -05
	MBC Lock Creator -4, -5 & -6
	NAS1900 'U' Type -4 & -5
782-4NAS	NAS1900 -4
782-5NAS	NAS1900 -5
782-4MBC	Standard MBC -4
782-5MBC	Standard MBC -5
782-6MBC**	Standard MBC -6
782-3	3/32" SPR & -3 pull thru Nut Plate Rivets
782-5BB	Blindbolt 'U' Type -05
782-6AL**	CherryMAX AB -6 Aluminum
886-003	CherryLOCK 'A' Code -3
886-004	CherryLOCK 'A' Code -4
886-005	CherryLOCK 'A' Code -5
886-006**	CherryLOCK 'A' Code -6

\* Except -6 diameter all aluminum (use 782-6AL).

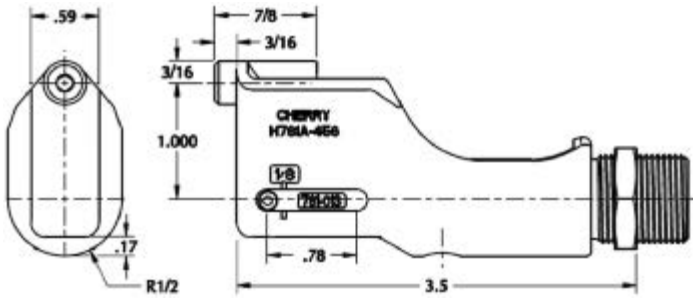
\*\* These nosepieces require 782-010 jaws, see replacement parts chart on left.

**Cherry® Compact Single Jaw Offset Pulling Head**



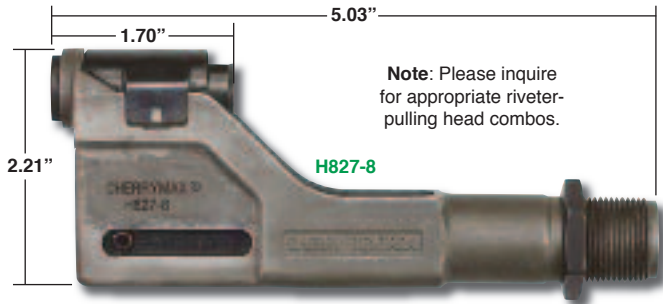
- Works directly with G746A, G747, G704B & G800 (no adapters).
- Continuously adjustable jaw grip to compensate for wear.

The H781A-456 will install CherryMAX Bulb & 'AB' (-4, -5 & -6), Maxibolt 'S' Type (-04 & -05), Cherry 1900 'U' type (-04 & -05) and MBC Lock Creator (-4, -5 & -6).



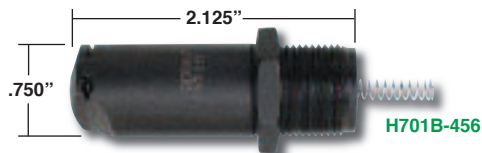
Part Number	Stroke	Weight
H781A-456	3/4"	0.5 lbs (0.23 kgs)

**CherryMAX® Offset Pulling Head**



Part No.	Installs
H827-8	1/4" Nominal & Oversize CherryMAX Rivets (G744 Only)

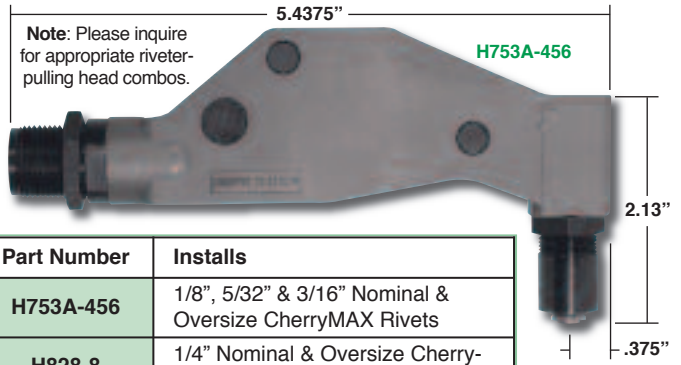
**CherryMAX® Straight Pulling Heads**



Note: Please inquire for appropriate riveter-pulling head combos.

Part Number	Installs
H701B-456	1/8", 5/32" & 3/16" Nominal & Oversize CherryMAX Rivets
H846A-456	1/8", 5/32" & 3/16" Nominal & Oversize CherryMAX Rivets (G744 Only)
H744A-8	1/4" Nominal & Oversize CherryMAX Rivets (G744 Only)

**CherryMAX® Right Angle Pulling Heads**



Part Number	Installs
H753A-456	1/8", 5/32" & 3/16" Nominal & Oversize CherryMAX Rivets
H828-8	1/4" Nominal & Oversize CherryMAX Rivets (G744 Only)

**CherryLOCK® H681 Straight Pulling Heads**



- Fits directly on all Cherry hydroshift riveters, 2-9/16" installed.
- Separate pulling head is required for each style & diameter rivet.

Univ. Countersunk (MS 20426)	
Part Number	Rivet Dia.
H681-3C	3/32"
H681-4C	1/8"
H681-5C	5/32"
H681-6C	3/16"
H681-8C	1/4"

Countersunk (NAS 1097)	
Part Number	Rivet Dia.
H681-4S	1/8"
H681-5S	5/32"
H681-6S	3/16"
H681-8S	1/4"

Countersunk (156°)	
Part Number	Rivet Dia.
H681-4F	1/8"
H681-5F	5/32"
H681-6F	3/16"

Uni-Sink	
Part Number	Rivet Dia.
H681B166-4	1/8"
H681B166-5	5/32"
H681B166-6	3/16"

**CherryLOCK® 'A' H955 Straight Pulling Heads**

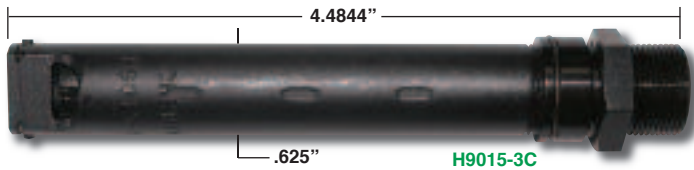


Note: Please inquire for appropriate riveter-pulling head combos.

H955 Part Number	H9055 Part Number	Rivet Diameter
H955-3	H9055-3	3/32"
H955-4	H9055-4	1/8"
H955-5	H9055-5	5/32"
H955-6	H9055-6	3/16"

# BLIND RIVETERS & ACCESSORIES

## Cherry® MS Straight Pulling Heads

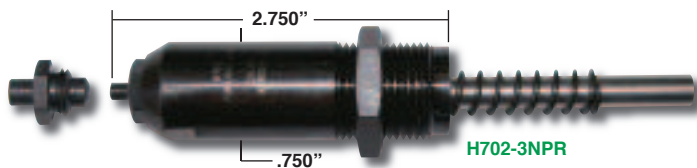


Note: Please inquire for appropriate riveter-pulling head combos.

Part Number	Rivet Diameter
H9015-3C	3/32"
H9015-4C	1/8"
H9015-5C	5/32"
H9015-6C	3/16"

Part Number	Rivet Diameter
H9040-3C	3/32"
H9040-4C	1/8"
H9040-5C	5/32"
H9040-6C	3/16"

## Cherry® Nut Plate Pulling Heads

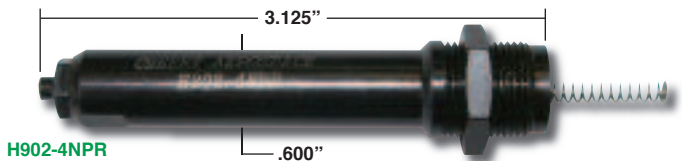


For G702A Riveter	
Part Number	Installs
H702-3NPR *	3/32" & 1/8", 2.5 mm & 3 mm Nut Plate

\* Includes nosepieces: 728A9-3 (3/32") & 728A9-104 (1/8").  
SPR nosepiece also available, 728A9-3 (3/32"), please inquire.

For G747 Riveter	
Part Number	Installs
H747-3NPR *	3/32" & 1/8", 2.5 mm & 3 mm Nut Plate

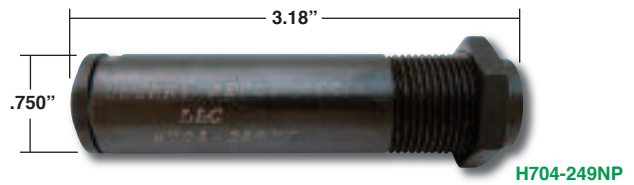
\* Includes nosepieces: 728A9-3 (3/32") & 728A9-104 (1/8").



For G902 Riveters (-8 maximum grip)	
Part Number	Installs
H902-3NPR	3/32", 2.5 mm & 3 mm Nut Plate, 3/32" SPR
H902-4NPR	1/8" Nut Plate

For G902-15 Riveters (-9 maximum grip)	
Part Number	Installs
H9015-3C	3/32", 2.5 mm & 3 mm Nut Plate & SPR
H9015-4C	1/8" Nut Plate
H9055-3	3/32" CherryLock 'A'

## Cherry® TFS Rivetless Nutplate Pulling Heads



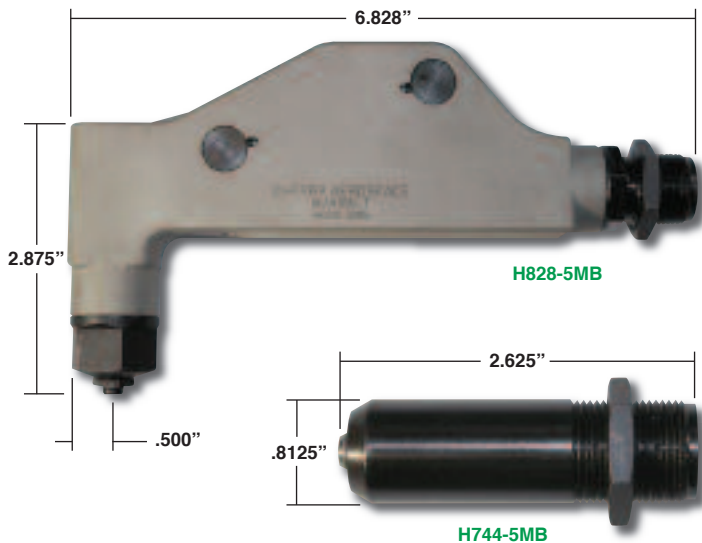
- Rivetless nutplates require a single drilled hole only.
- Improves the fatigue life of structure compared to rivet nut plates.
- Meets or exceeds NASM25027 specs (0.062" & longer grips).

Part Number	Type	Available Diameters	For Riveters
H704-_NP	NP	.233 to .358	G704B, G800 & G750A*
H704-_NPC	NPC Composite Applications	.249 to .368	

\* Use with G750A requires 750A-088 adapter (not included, please inquire).

Ordering Instructions: Add the desired diameter to the part number of the pulling head required. Example: For a NP type pulling head with a .249" hole diameter the part number would be H704-249NP.

## Maxibolt® Pulling Heads



Note: Please inquire for appropriate riveter-pulling head combos.

Straight Heads	
Part Number	MaxiBolt Dia.
H652-8MB	1/4"
H744-5MB	5/32"
H744-6MB	3/16"
H83B-5MB	5/32"
H83B-6MB	3/16"
H84B-568	5/32" & 3/16"

Right Angle Heads	
Part Number	MaxiBolt Dia.
H828-5MB	5/32"
H828-6MB	3/16"
H828-8MB	1/4"

Offset Head	
Part Number	MaxiBolt Dia.
H856-6MB	3/16"

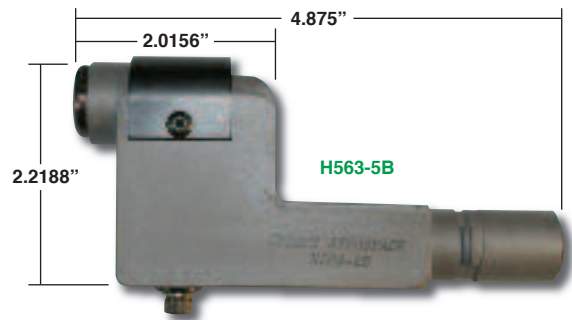
**Cherry® LockBOLT Pulling Heads**



Straight Pulling Heads					
Basic Pulling Short Pintail	Swivel Nose	Self Releasing Swivel Nose	Self Releasing Swivel Nose, Chisel Shape	Installed Length	Lockbolt Diameter
H513-04-20 *	—	—	—	2" (51 mm)	1/8"
H513-04-35 *	—	—	—	3-1/2" (89 mm)	
H513-04-60 *	—	—	—	6" (152 mm)	
—	H513S-05-20 *	H513SR-05-20 *	H513SRC-05-20 *	2" (51 mm)	5/32"
H513-05-35 *	H513S-05-35	H513SR-05-35	H513SRC-05-35 *	3-1/2" (89 mm)	
H513-05-60 *	—	—	—	6" (152 mm)	
H513-06-20 *	H513S-06-20 *	H513SR-06-20 *	H513SRC-06-20 *	2" (51 mm)	3/16"
—	H513S-06-24	H513SR-06-24	—	2-3/8" (60 mm)	
—	H513S-06-35 *	H513SR-06-35 *	H513SRC-06-35 *	3-1/2" (89 mm)	
—	H513S-06-48	H513SR-06-48	—	4-13/16" (122 mm)	
H513-06-60 *	—	—	—	6" (152 mm)	
—	H513S-08-24	H513SR-08-24	—	2-3/8" (60 mm)	1/4"
H513-08-35 *	H513S-08-35 *	—	—	3-1/2" (89 mm)	
—	H513S-08-48	H513SR-08-48	H513SRC-08-48	4-13/16" (122 mm)	
—	H513S-10-27	H513SR-10-27	—	2-11/16" (68 mm)	5/16"
—	H513S-10-42	H513SR-10-42	—	4-3/16" (106 mm)	
—	H513S-12-27	H513SR-12-27	—	2-11/16" (68 mm)	3/8"
—	H513S-12-42	H513SR-12-42	—	4-3/16" (106 mm)	

\* Fits directly on Cherry G83 & Huck 244, requires a 552 adapter (see next page) when used on Cherry G87D, G85D or Huck 245.

Offset Pulling Heads		
Basic Pulling	Basic Pulling Short Pintail	Lockbolt Diameter
H563-4B *	H563SP-4B *	1/8"
H563-5B *	H563SP-5B	5/32"
H563-6B *	H563SP-6B *	3/16"
H563-8B	—	1/4"



**Pulling Head Extensions**



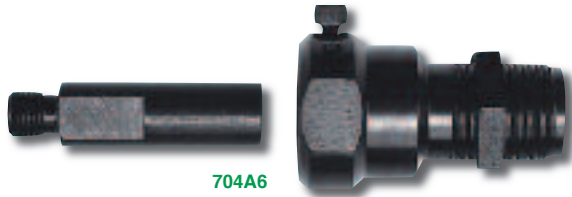
• Great for limited access areas. • Any combination may be used to reach desired length.

For G701A, G704B, G749A, G746 & G747 Riveters			
Part Number	Length	Part Number	Length
704A12-2	2" (51 mm)	704A12-6	6" (152 mm)
704A12-4	4" (102 mm)	704A12-12	12" (305 mm)

For G744 Riveters			
Part Number	Length	Part Number	Length
744B35-2	2" (51 mm)	744B35-6	6" (152 mm)
744B35-4	4" (102 mm)	744B35-12	12" (305 mm)

# BLIND RIVETERS & ACCESSORIES

## Adapters For Pulling Heads



704A6

### For G689, G700 & G784 Riveters

Part Number	Allows
680B46	H9015 & H9055
680B57	H9040 Type

### For G704B, G746A & G747 Riveters

Part Number	Allows
704A6	H9040 Type
704A9	H9015 & 9055 Screw On Type

### For G744 Riveter

Part Number	Allows
744A20	H753A-456 & H781A-456
744B25	Huck 244 (352) Style Blind Bolt Pulling Head

### For G686B-S, G689, G700 & G784 Riveters

Part Number	Allows
680B205	H753A-456 & H781A-456

### For G740A & G86A Riveters

Part Number	Allows
740A26	H753A-456 & H781A-456

### For G84 Riveters

Part Number	Allows
744-100	G87D & Huck 245 (353) Pulling Head
744-200	H744A-8, H827-8, H828-5MB & H828-6MB
744-300	H701B-456, H753A-456 & H781A-456

### For G84-LS Riveter

Part Number	To Adapt To Tool Mounting System
744-500	G744
744-600	G704B, G747 & G746A
744-700	G83 & G84 Bayonet

### For G87D Riveter

Part Number	Allows
552	H84A-8, H83B-5MB, H83B-6MB
560-070	H827-8, H828-8, H744-5MB, H744-6MB, H856-6MB, H828-5MB, & H828-6MB

## Cherry® Gauges



269C3

Part Number	Description
269C3	Rivet Grip & Diameter Gauge
269C5	Material Thickness & Grip Gauge
269B12	Maxibolt Gauge

## Cherry® 209 Type Hand Nipper



*For Flush Trimming  
Cherry Rivets*

*Comfortable Cushioned Grip*

Part Number	Description
04-57	Rivet Trimmer

## Cherry® Riveter Service Kits



G704KS

*A Must  
For Any  
In-House  
Repair  
Facility*

All the seals, 'O'-rings, gaskets and hardware required for routine maintenance of your Cherry blind riveters.

Part No.	For Tool	Part Number	For Tool
G702AKS	G702A	G800KS	G800
G704KS	G704B, G704B-SR	G83KS	G83
G746KS	G746A	G83AKS	G83A
G747KS	G747	G84KS	G84
G784KS	G784	G84-LSKS	G84-LS

Part Number	For Tool
G704B-40SR/40SHKS	G704B-40SH
G85D/G87D-KS	G87D



**Huck® 200 Power Riveter**



200

Installs a wide range of Huck fasteners as well as competitive products with the appropriate nose assembly (below).

Part Number	Stroke	Pulling Force	Weight
200	1.190"	2950 lbs (1338 kgs)	10.5 lbs (4.8 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-1013	-4	NAS1919B/21B NAS1919M/21M NAS1919C/21C MLSP/MLS100 7MLS100-M
78972 *		
99-458	-5	
78973 *		
99-459	-6	
78980 *		
99-600	-5	MS21140 (B100-EU), MS21141 (BP-EU) MS90353 (B100-T), MS90354 (BP-T) OBP-EU & OB100EU OBP-T & OB100-T
99-589	-6	7B100-EU & 7B120-EU 4B100-T06/EU06

\* Requires 104406 adapter.

**Huck® 2012 Power Riveter**



2012

- Installs a wide range of Huck fasteners as well as competitive products with the appropriate nose assembly (below).
- A lightweight tool for fast, uniform installations.

Part Number	Stroke	Pulling Force	Weight
2012	0.650"	2670 lbs (1211 kgs)	4.4 lbs (2.0 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2725	-4	NAS1919/21"S", OSMLSP OSMLS100, SMLSP-BT SMLS100-BT, OSR
99-2731	-5	
99-2737	-6	
99-2701	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU, OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV
99-2707	-6	SB100T05 & 06, SB100EU-05 & 06 S7B100-EU/S4B100-T06

**Huck® 2013 'CherryMAX' Power Riveter**



*A Durable,  
Production  
Rated Riveter*

*Uses Your Existing  
CherryMAX Tooling*

2013

- Uses your existing CherryMAX noses without an adapter.
- Longer stroke than G704B or G747 - less double stroking.
- Less o-ring & seals than comparable Cherry tools for less maintenance and downtime.

Part Number	Stroke	Pulling Force	Weight
2013	0.650"	2670 lbs (1211 kgs)	4.5 lbs (2.0 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies				
Part Number Straight	Part Number Offset	Part Number Rt. Angle	Fastener Dia.	Installs Fasteners
H701B-456	99-1333	99-1334	-4 thru -6	M7885 NAS9301/9312 BACR15FR/FP "Allmax" "CherryMAX" "HuckMax" "Huck-Clinch"
99-3442	H781A-456	H753A-456		
99-3443	—	—		

# BLIND RIVETERS & ACCESSORIES

## Huck® 202 Power Riveter



202

- Installs a wide range of Huck fasteners as well as competitive products with the appropriate nose assembly (below).
- Installs at a high production rate with minimum fatigue.
- Can be used to install 3/16" & 1/4" blind rivets & blind bolts.

Part Number	Stroke	Pulling Force	Weight
202	0.750"	3900 lbs (1769 kgs)	5.5 lbs (2.5 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2725	-4	NAS1919/21"S" OSMLSP OSMLS100 SMLSP-BT SMLS100-BT OSR
99-2731	-5	
99-2737	-6	
99-2743	-8	
99-2701	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV SB100T05 & 06 SB100EU-05 & 06 S7B100-EU/S4B100-T06
99-2707	-6	

## Huck® 2025 Power Riveter



2025

Part Number	Stroke	Pulling Force	Weight
2025	0.675"	5290 lbs (2400 kgs)	5.75 lbs (2.6 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2725	-4	NAS1919/21"S" OSMLSP OSMLS100 SMLSP-BT SMLS100-BT OSR
99-2731	-5	
99-2737	-6	
99-2743	-8	
99-2701	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV SB100T05 & 06 SB100EU-05 & 06 S7B100-EU/S4B100-T06
99-2707	-6	
99-2713	-8	Huckrimp NAS4450/52 NAS4458S/66S 03KSP-DT/OKS200-DT
99-833	-5*	
99-834	-6*	ASP Fasteners** ASPFF/2ASP509F/P 2ASPFF/FP 2ASPFF/PP
99-2642	13/64 (06)	
99-2645	17/64 (08)	
99-2648	21/64 (10)	

\* Aluminum only.

\*\* ASP drivers: 13/64 = 106524, 17/64 = 106525, 21/64 = 107735.

## USATCO Can Help With Your Huck Tooling Selection

USATCO has been providing advice on proper tooling application, sales and service for genuine Huck manufactured aerospace tooling for 40 years. Send USATCO your rivet number and our experienced sales staff can offer you the correct tooling needed to properly install all Huck manufactured fasteners.

USATCO offers fast service, competitive pricing and after sales service. We stock many of the most popular tools, pulling heads and parts for your Huck tooling. In addition, USATCO offers free repair estimates on all Huck manufactured tooling.

**Huck® 2440SX Power Riveter**



2440SX

A lightweight and powerful tool designed to install at high volumes lockbolt & blind fasteners through 1/4".

Part Number	Stroke	Pulling Force	Weight
244X	0.5620"	4606 lbs (2089 kgs)	5.7 lbs (2.6 kgs)
2440SX	0.6245"		

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2725	-4	NAS1919/21"S" OSMLS100, OSMLS100 SMLS100-BT, SMLS100-BT OSR
99-2731	-5	
99-2737	-6	
99-2743	-8	
99-2701	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU, OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV
99-2707	-6	
99-2713	-8	
99-2651	-4	<b>NAS Shear Lockbolts:</b> NAS1436-1442/1446-1452 NAS7024-7032/7034-7042 NAS7004-7012/7014-7022 NAS2406V-2412V/2506V-2512V <b>NAS Tension Lockbolts:</b> NAS1456-1462/1465-1472 NAS1475-1482/1516-1522 NAS1525-1532/1535-1542 NAS2005V-2012V/2105V-2112V NAS2115V-2122V NAS2125-2132/6935-6942 NAS6946-6952/6955-6962 NAS6965-6972
99-2549S/T	-5	
99-2555	-6	GP Lockbolts GPL3S/6S/7T/8T
99-2561	-8	
99-2573	4mm	
99-2579	5mm	MGP Lockbolts MGPL28T
99-2585	6mm	

**Huck® 2440SX Power Riveter (cont'd)**

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2654	-4	LGP Lockbolts
99-2501	-5	
99-2507	-6	
99-2513	-8	
99-2525	4mm	MLGP Lockbolts
99-2531	5mm	
99-2537	6mm	
99-833	-5*	Huckrimp NAS4450/52, NAS4458S/66S 03KSP-DT/OKS200-DT
99-834	-6*	
99-2642	13/64 (06)	ASP Fasteners** ASPFF/2ASP509F/P 2ASPFF/FP 2ASPFF/PP
99-2645	17/64 (08)	
99-2648	21/64 (10)	

\* Aluminum only. \*\* ASP drivers: 13/64 = 106524, 17/64 = 106525, 21/64 = 107735.

**Huck® 245 & 255 Power Riveters**

*Factory Tested  
For 2000 Cycles*



245

255

- High-speed production tool with optimum stroke for one-cycle installation of a wide range of fasteners.
- Chrome plated piston rods extend the life of the seals, and relief valves in both air & hydraulics offer double protection.

Note: Nose assemblies ordered separately from chart on next page.

Part Number	Stroke	Pulling Force	Weight
245	0.625"	7500 lbs (3402 kgs)	9.3 lbs (4.2 kgs)

Part Number	Stroke	Pulling Force	Weight
255	0.625"	7750 lbs (3515 kgs)	8.8 lbs (4.0 kgs)

*Applicable Nose Assemblies Shown On Next Page*

# BLIND RIVETERS & ACCESSORIES

## Huck® 245 & 255 Power Riveters (cont'd)

Nose Assemblies			
Part No. Straight	Part No. Offset***	Fastener Diameter	Installs Fasteners
99-2725*	99-3715	-4	NAS1919/21"S" OSMLS OSMLS100 SMLS-BT SMLS100-BT OSR
99-2731*	99-3716	-5	
99-2737*	99-3717	-6	
99-1311	99-3718	-8	
99-335	—	-10	
99-2704	99-3712	-5	MS90353/54"S" or "U" MS21140/41"S" or "U" OBP-EU/OBP-T/OB100-EU OB100-T OSBP-EU/OSB100-T UBP-MV/UBP100-MV SB100T05 & 06 SB100EU-05 & 06 S7B100-EU/S4B100-T06
99-2710	99-3713	-6	
99-2716	99-3714	-8	
99-2719	—	-10	
99-2551	99-3703	-5	<b>NAS Shear Lockbolts:</b> NAS1436-1442/1446-1452 NAS7024-7032/7034-7042 NAS7004-7012/7014-7022 NAS2406V-2412V/2506V-2512V
99-2558	99-3704	-6	
99-2564	99-3705	-8	<b>NAS Tension Lockbolts:</b> NAS1456-1462/1465-1472 NAS1475-1482/1516-1522 NAS1525-1532/1535-1542 NAS2005V-2012V/2105V-2112V NAS2115V-2122V NAS2125-2132/6935-6942 NAS6946-6952/6955-6962 NAS6965-6972
99-2567	99-3720	-10	
99-2552	99-3703	-5	GP Lockbolts GPL3S/6S/7T/8T
99-2559	99-3704	-6	
99-2565	99-3705	-8	
99-2568	99-3720	-10	
99-2576	99-3706	4mm	MGP Lockbolts MGPL28T
99-2582	99-3707	5mm	
99-2588	99-3708	6mm	
99-2591	—	8mm	
99-2595	—	10mm	
99-2504	99-3700	-5	LGP Lockbolts
99-2510	99-3701	-6	
99-2517	99-3702	-8	
99-2519	99-3719	-10	MLGP Lockbolts
99-2528	99-3709	4mm	
99-2534	99-3710	5mm	
99-2540	99-3711	6mm	
99-2543	99-3721	8mm	
99-2642*	99-3728	13/64 (06)	ASP Fasteners*** ASPFF/2ASP509F/P 2ASPFF/FP 2ASPPF/PP
99-2645*	99-3729	17/64 (08)	
99-2648*	99-3730	21/64 (10)	

\* Use adapter 102463, please inquire.

\*\* Use adapter 119400-1 & stroke limiter 118362, please inquire.

\*\*\* ASP drivers: 13/64 = 106524, 17/64 = 106525, 21/64 = 107735.

## Huck® 246 Power Riveter



Factory Tested For 2000 Cycles

246

- High-speed production tool with optimum stroke for one-cycle installation of a wide range of fasteners.
- Can be used with a wide range of HUCKBOLT® fasteners and huck blind fasteners including 5/16" & 3/8" diameter GP® and LGP® fasteners.
- Chrome plated piston rods extend the life of the seals, and relief valves in both air & hydraulics offer double protection.

Part Number	Stroke	Pulling Force	Weight
246	0.875"	9986 lbs (4530 kgs)	12.3 lbs (5.6 kgs)

Note: Nose assemblies ordered separately from chart below.

Nose Assemblies		
Part Number Straight	Fastener Diameter	Installs Fasteners
99-2719	-10	MS21141U( ) (UBR-EU) MS21140U( ) (UB100-EU) MS90354U( ) (UBR-T) MS90353U( ) (UB100-T) MS90353S(SB100-T) MS21140S(SB100-EU) MS90354S(SBP-T) MS21141S(UBP-EU) OSBP-EU( ) OSB100-EU( ) OSBP-T( ) OSB100-T( ) OBP-EU( ) OB100-EU( ) OBP-T( ) OB100-T( ) UBP-MV( ) UB100-MV( ) SB100-T05 & 06 SB100-EU05 & 06 S7B100-EU S4B100-T06 4B100-T08
99-2722	-12	

Note: Other nose assemblies available, please inquire.

**POP® ProSet Riveters**



*Two Finger,  
Low Force  
Activation  
Trigger*

*Lightweight &  
Strong Polymer  
Construction*

**PS1600 Installs:**  
POP Rivets In All  
Materials\* To 1/8"

**PS2500 Installs:**  
POP Rivets In All  
Materials\*\* To 3/16"

**PS3400 Installs:**  
POP Rivets In All  
Materials\*\* To 1/4"

- Ergonomic & lightweight tools with a high force-to-weight ratio.
- Spring return for a reliable fast setting cycle.
- Tool-free quick disconnects on nose housing & jaw case.

\* Will also install 5/32" all steel open end rivets.  
\*\* Will also install stainless steel & structural high strength rivets.

Part Number	Stroke	Pulling Force	Weight
PS1600	0.71"	1090 lbs (494 kgs)	2.14 lbs (0.97 kgs)
PS2500	0.71"	2110 lbs (957 kgs)	2.65 lbs (1.2 kgs)
PS3400	1.02"	4160 lbs (1887 kgs)	4.19 lbs (1.9 kgs)

**Mandrel Collection System (MCS) Vacuum Models**

- Securely holds rivet in nosepiece for one-handed operation.
- Spent mandrels retained in collection bottle for quick disposal.
- Tool-free quick disconnect on MCS collection bottle.
- Isolation switch prevents air flow when MCS is disconnected.

MCS Vacuum Models			
Part Number	Stroke	Pulling Force	Weight
PS1600MCS	0.71"	1090 lbs (494 kgs)	2.29 lbs (1.04 kgs)
PS2500MCS	0.71"	2110 lbs (957 kgs)	2.89 lbs (1.3 kgs)
PS3400MCS	1.02"	4160 lbs (1887 kgs)	4.41 lbs (2.0 kgs)

**POP® 510A Riveter**

*Strong &  
Compact*

Suitable for setting all rivets up to a break load of 1000 pounds.



**PRG510A Installs:**  
POP Rivets In All  
Materials To 3/16"

PRG510A-PLUS

Part Number	Stroke	Weight
PRG510A-PLUS	5/8"	4 lbs (1.8 kgs)

**Note:** Units include nosepieces, air line assembly & instruction manual. Riveters also available with Mandrel Collection System (MCS), please inquire.

**POP® 540 Riveter**

*Strong, Robust  
& Reliable*

A heavy-duty tool for efficient mass production capability.



**PRG540 Installs:**  
POP Rivets In All  
Materials To 1/4"

PRG540

Part Number	Stroke	Weight
PRG540	11/16"	4.85 lbs (2.2 kgs)

**Note:** Units include nosepieces, air line assembly & instruction manual. Riveters also available with Mandrel Collection System (MCS), please inquire.

**POP® Hand Riveter**



*One Handed  
Operation*

*Comfortable  
Contoured Grips*

- Robust aluminum casting & vanadium steel handle design.
- For all popular rivets to 3/16" - includes nosepiece wrench.

Part No.	Nosepieces Included	Overall Length	Weight
PS15	3/32", 1/8", 5/32" & 3/16"	9.65" (245 mm)	1.3 lbs (0.6 kgs)

*Now Available In  
Handy Kit Form*



**Hand Riveter Kit Includes:**

PS15 POP Hand Riveter, Four Nosepieces (3/32", 1/8", 5/32" & 3/16"), Nosepiece Wrench, 200 PC Rivet Assortment (various popular materials and sizes), 60 Backup Plates (washers) & Fitted Plastic Carrying Case

Part Number	Description
PS15-KIT	267 PC Kit



PS15-KIT

# BLIND RIVETERS & ACCESSORIES

## Cordless Blind Riveter Tool Kit

*A Powerful & Portable Riveting Tool*



PT-4000-MIL-1

- Fast & efficient, with 3000 lbs of pulling force and a .787" stroke, this tool rivals air powered performance in a highly portable package.
- Installs almost all straight pull blind rivets including CherryMAX style (M7885) through 3/16" dia. and most 1/4" dia. all aluminum blind bolts.
- Includes battery charger & 2 quick charge battery packs (1 hour recharge).

Installs (but not limited to) virtually all CherryMax (M7885), Avdel, or Cherry Monobolts, Cherry Interlock, Huck MagnaLok, and POP type rivets. The tool will also install 5/32" and 3/16" Blind Bolts (MS90353/54-S/U) with the included nosepieces.

Part Number	Case Dimensions	Weight
PT-4000-MIL-1	14" x 11-1/2" x 4-1/2"	15 lbs (6.8 kg)

## Klik-Turn 360° Swivel Hand Riveter



360° Head Rotation

*Sets Up To 3/16" Steel Rivets*

- Patented, positive-ratchet locking swivel head rotates 360° and will hold in place in any of the over forty positions.
- High-strength steel body & cast aluminum head.

Part Number	Nosepieces Included
10-37001	3/32", 1/8", 5/32" & 3/16"

## Wrench Type Upsetters



*Quick & Economical*

For installing aluminum or steel engineered threaded fasteners.

For Standard Rivnuts*		
Part Number	Size	Thread
C845-440	#4	4-40
C845-632	#6	6-32
C845-832	#8	8-32
C845-1024	#10	10-24
C845-1032	#10	10-32
C845-2520	1/4"	1/4"-20
C845-2528	1/4"	1/4"-28
C845-M3	M3	M3 x 0.5
C845-M4	M4	M3 x 0.7
C845-M5	M5	M3 x 0.8
C845-M6	M6	M3 x 1.0

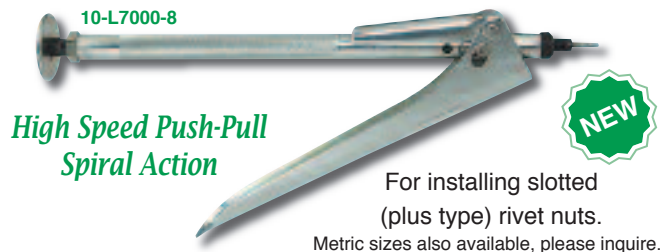
For Large Size Rivnuts*		
Part Number	Size	Thread
C722-3118	5/16"	5/16"-18
C722-3124	5/16"	5/16"-24
C722-3716	3/8"	3/8"-16
C722-3724	3/8"	3/8"-24
C722-5013	1/2"	1/2"-13
C722-5020	1/2"	1/2"-20
C722-M7	M7	M7 x 1.00
C722-M8	M8	M8 x 1.25
C722-M10	M10	M10 x 1.50

\* Includes allen wrench.

For Slotted Rivnuts		
Part Number	Size	Thread
C1000-440	#4	4-40
C1000-632	#6	6-32
C1000-832	#8	8-32
C1000-1024	#10	10-24
C1000-1032	#10	10-32

For Slotted Rivnuts		
Part Number	Size	Thread
C1000-2520	1/4"	1/4"-20
C1000-2528	1/4"	1/4"-28
C1000-M4	M4	M3 x 0.7
C1000-M5	M5	M3 x 0.8
C1000-M6	M6	M3 x 1.0

## USATCO Plus Type Drivers



*High Speed Push-Pull Spiral Action*

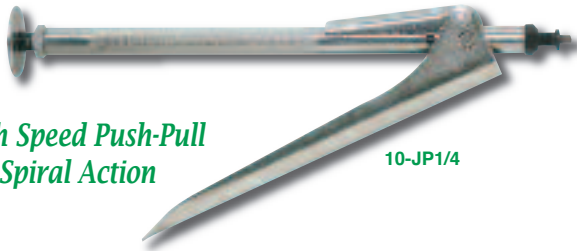
**NEW**

For installing slotted (plus type) rivet nuts.

Metric sizes also available, please inquire.

Part Number	Conversion Kit Part Number	Replacement Stud Part No.	Thread Size
10-L7000-4	10-JP4-C	38-U-16-4	4-40
10-L7000-6	10-JP6-C	38-U-16-6	6-32
10-L7000-8	10-JP8-C	38-U-16-8	8-32
10-L7000-10	10-JP10-C	38-U-16-10	10-32
10-L7000-1/4*	10-JP1/4-C	38-U-16-1/4	1/4"-28

**USATCO RIVETNUT Drivers**



*High Speed Push-Pull  
Spiral Action*

10-JP1/4

Part Number	Conversion Kit Part Number	Replacement Stud Part No.	Thread Size
10-JP4	10-JP4-C	38-U-16-4	4-40
10-JP6	10-JP6-C	38-U-16-6	6-32
10-JP8	10-JP8-C	38-U-16-8	8-32
10-JP10	10-JP10-C	38-U-16-10	10-32
10-JP1/4*	10-JP1/4-C	38-U-16-1/4	1/4"-28
10-JP2520	10-JP2520-C	38-U-16-2520	1/4"-20

\* Aluminum only.

Metric sizes also available, please inquire.



**Includes:**

RIVETNUT Driver, 6-32, 8-32 & 10-32 Large Flange Aluminum RIVETNUTS (25 each), Two Nosepieces With Conversion Kits & Molded Plastic Case

Part Number	Description
53-JP6810	Complete 81 PC Kit

**Notcher/Key Seating Tools**



10-L3600-4

*3/32" Alum. & 1/32"  
Steel Capacity*

**Note:** Extra blades should be ordered with tool.

Part Number	For Use With	Size
10-L3600-4	Flat Head Rivnuts	#4
10-L3600-6	100° Countersunk & Flat Head Rivnuts	#6
10-L3600-8	100° Countersunk & Flat Head Rivnuts	#8
10-L3600-10	100° Countersunk & Flat Head Rivnuts	#10
10-L3600-1/4	Flat Head Rivnuts	1/4"

Replacement Cutter Blades	For Use With
10-K14	#6, 8, 10 & 1/4"
10-K18	#4

**Aluminum Klik Thread-Sert Kit**



**Includes:**

Thread-Sert Tool, Seven Mandrels, Four Nosepieces, 5/16"-18 & 3/8"-16 Thread-Serts (6 each), 6-32, 8-32, 10-32, 10-24 & 1/4"-20 Thread-Serts (10 each) & Plastic Case

Part Number	Description
39313	Complete 75 PC Kit

**Pneumatic Threaded Insert Driver Kits**



140-SP

- Automatically threads, installs the fastener & spins out the mandrel.
- Totally adjustable stroke length to suit any grip range.
- Includes swivel air inlet for increased mobility.
- No complicated tear down required to change stroke or thread.

**140-SP Includes:**

Pneumatic Insert Driver, 6-32 to 1/4"-20 Mandrels & Nosepieces, Extra Driver Base, Accessories & Molded Plastic Case

Part Number	Capacity*	Weight
140-SP	4 to 6 mm 6-32 to 1/4"-20	4.9 lbs (2.2 kgs)

**160-SP Includes:**

Pneumatic Insert Driver, 6-32 to 3/8"-16 Mandrels & Nosepieces, Extra Driver Base, Accessories & Molded Plastic Case

Part Number	Capacity*	Weight
160-SP	3.5 to 10 mm 4-40 to 1/2"-20	6 lbs (2.7 kgs)

\* In aluminum or steel. Full line of mandrels & nosepieces available, please inquire.

# HI-SHEAR INSTALLATION & REMOVAL

## Reversible Ratchet Wrench Assemblies

For Hi-Lok®  
& Hi-Light®  
Fasteners



Includes  
Wrench, Socket  
& Hex Key

Assembly interchangeable  
with Hi-Shear® assemblies.

1/4" Drive (ATHR250)		
Part Number	Socket Hex	Hex Key Size
ATHA1	3/16"	1/16"
ATHA2	7/32"	1/16"
ATHA3	1/4"	1/16"
ATHA4	9/32"	1/16"
ATHA5	5/16"	1/16"
ATHA6	11/32"	1/16"
ATHA7	7/32"	5/64"
ATHA8	1/4"	5/64"
ATHA9	9/32"	5/64"
ATHA10	5/16"	5/64"
ATHA11	11/32"	5/64"
ATHA12A	3/8"	5/64"
ATHA13	5/16"	3/32"
ATHA14	11/32"	3/32"
ATHA15A	3/8"	3/32"

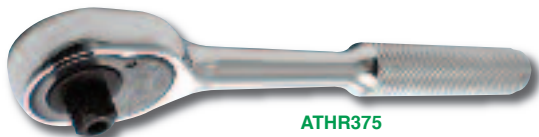
3/8" Drive (ATHR375)		
Part Number	Socket Hex	Hex Key Size
ATHA16	7/16"	3/32"
ATHA21	1/2"	3/32"
ATHA17	3/8"	1/8"
ATHA18	7/16"	1/8"
ATHA22	1/2"	1/8"
ATHA19	7/16"	5/32"
ATHA20	1/2"	5/32"
ATHA23	3/8"	5/64"
ATHA24	1/2"	3/32"
ATHA25	1/2"	1/8"

1/2" Drive (ATHR500)		
Part Number	Socket Hex	Hex Key Size
ATHA26	9/16"	1/8"
ATHA27	9/16"	5/32"
ATHA28	9/16"	3/16"
ATHA29	5/8"	5/32"
ATHA30	11/16"	5/32"
ATHA31	11/16"	7/32"
ATHA32	3/4"	3/16"
ATHA33	7/8"	7/32"

3/4" Drive (ATHR750)		
Part Number	Socket Hex	Hex Key Size
ATHA34	15/16"	1/4"
ATHA35	1"	1/4"
ATHA36	1-1/8"	5/16"

Note: Assembly models ATHA23 to ATHA36 for large size collars (3 components).

## Reversible Ratchet Wrenches



ATHR375

72 tooth spindle engages ratchet in only 5° of handle movement.

Part Number	Square Drive	Head Width	Side To Center	Head Height	Overall Length
ATHR250	1/4"	15/64"	1/4"	3/8"	5" (12.7 cm)
ATHR375	3/8"	1-1/4"	3/8"	1/2"	7" (17.8 cm)
ATHR500	1/2"	1-3/4"	1/2"	0.687"	10" (25.4 cm)
ATHR750	3/4"	2-5/8"	3/4"	1-1/8"	20" (50.8 cm)

## Mini Reversible Ratchet Wrench



Compact & low profile for better maneuverability in tight areas.

Part Number	Square Drive	Head Width	Side To Center	Head Height	Overall Length
ATHR250M	1/4"	0.92"	0.46"	0.40"	4.60" (11.7 cm)

## Tilting Head Reversible Ratchet Wrench



90 Degree Head Tilt

Tilting head is perfect for maneuvering in limited access areas.

Part Number	Square Drive	Head Width	Side To Center	Head Height	Overall Length
ATHR-TILT	1/4"	0.90"	0.45"	0.40"	6-1/4" (15.9 cm)

## Double Box Ratchet Wrenches



ATBRO-3134

- Perfect for installing Hi-Lok® fasteners in tight areas.
- Shoulder ring prevents collar from slipping through the socket.
- Optional ejector pin quickly discards removed collar.

Note: All tools are 3/8" thick except ATBR-2125E (5/16" thick).

Standard Models				
Straight	25° Offset	Hex #1	Hex #2	Overall Length
ATBR-2125	ATBRO-2125	7/32"	1/4"	4-3/32" (104 mm)
ATBR-2528	ATBRO-2528	1/4"	9/32"	4-3/32" (104 mm)
ATBR-3134	ATBRO-3134	5/16"	11/32"	4-3/32" (104 mm)
ATBR-3137	ATBRO-3137	5/16"	3/8"	5-7/32" (133 mm)
ATBR-4350	ATBRO-4350	7/16"	1/2"	5-7/32" (133 mm)

Ejector Models				
Straight	25° Offset	Hex #1	Hex #2	Overall Length
ATBR-2125E	ATBRO-2125E	7/32"	1/4"	4-3/32" (104 mm)
ATBR-2528E	ATBRO-2528E	1/4"	9/32"	4-3/32" (104 mm)
ATBR-3134E	ATBRO-3134E	5/16"	11/32"	4-3/32" (104 mm)
ATBR-3137E	ATBRO-3137E	5/16"	3/8"	5-7/32" (133 mm)
ATBR-4350E	ATBRO-4350E	7/16"	1/2"	5-7/32" (133 mm)



## 'Tight Squeeze' Installation Tool Assemblies

Single-Handed Operation



TSQ25-312-078 Assembly

TSQ25 Tool Only

- Newly designed, full function Hi-Lok® and Hi-Lite® installation tool.
- Unique profile for operation in tight spots and around corners.
- Toothless ratcheting system for quick tool engagement.
- Interchangeable hex keys and sockets fit an entire range of pin/collar combinations.

Part Number	Socket Size	Hex Key Size
TSQ25-218-062	7/32"	1/16"
TSQ25-250-062	1/4"	1/16"
TSQ25-281-062	9/32"	1/16"
TSQ25-312-062	5/16"	1/16"
TSQ25-281-078	9/32"	5/64"
TSQ25-312-078	5/16"	5/64"
TSQ25-343-078	11/32"	5/64"
TSQ25-437-078	7/16"	5/64"
TSQ25-312-094	5/16"	3/32"
TSQ25-343-094	11/32"	3/32"
TSQ25-437-094	7/16"	3/32"
TSQ25*	—	—

\* Tool only - applicable sockets shown on right and 'Tight Squeeze' hex keys below.



TSQ078

Replacement 'Tight Squeeze' Hex Keys	
Part Number	Key Size
TSQ062	1/16"
TSQ078	5/64"
TSQ094	3/32"

## Roller Ratchet Installation Tools

Single Head Type



RR40S-SP

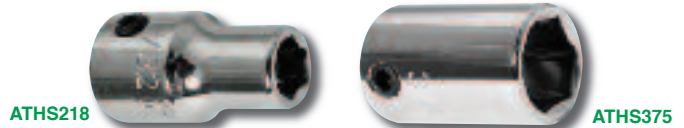
Quick Ratchet Engagement

- Ideal for installing Hi-Lok® & other fasteners in confined areas.
- Uses standard drive sockets & Hi-Shear® style set screw sockets.
- Allen wrench through hole for Hi-Lock® & Hi-Lite® pins.

1/4" Square Drive			
Part Number	Max. Torque	Head Height	Overall Length
RR40S-SP	150 in-lbs	0.91"	3-1/2" (89 mm)
RR40SP	150 in-lbs	0.91"	6" (152 mm)
RR80	200 in-lbs	1.37"	6" (152 mm)
RR130	250 in-lbs	0.92"	7" (178 mm)

3/8" Square Drive			
Part Number	Max. Torque	Head Height	Overall Length
RR250	400 in-lbs	1.21"	8" (203 mm)
RR400	600 in-lbs	1.21"	9" (229 mm)

## Hi-Lok® & Hi-Lite® Installation Sockets



ATHS218

ATHS375

- For the installation of Hi-Lok® & Hi-Lite® fasteners.
- Anti-FOD set screw provides positive square drive engagement.

1/4" Drive Socket		3/8" Drive Socket		1/2" Drive Socket	
Part No.	Hex	Part No.	Hex	Part No.	Hex
ATHS187	3/16"	ATHS375	3/8"	ATHS562	9/16"
ATHS218	7/32"	ATHS437	7/16"	ATHS625	5/8"
ATHS250	1/4"	ATHS500	1/2"	ATHS687	11/16"
ATHS281	9/32"			ATHS750	3/4"
ATHS312	5/16"	3/4" Drive Socket		ATHS875	7/8"
ATHS343	11/32"	Part No.	Hex		
ATHS375A	3/8"	ATHS937	15/16"		
		ATHS1000	1"		
		ATHS1125	1-1/8"		

## Handi-Hex® Drivers



57406

- General use & production assembly using socket screw products.
- Includes adjustable, replaceable allen bit & bit change key.
- Replacement blades available, please inquire.

Part Number	Key Size	Part Number	Key Size
57400	.028"	57410	3/32"
57402	.035"	57412	7/64"
57404	.050"	57414	1/8"
57406	1/16"	57416	9/64"
57408	5/64"		

# HI-SHEAR INSTALLATION & REMOVAL

## 'Savi-Socket' Collar Removal Sockets



High Strength,  
Heat-Treated  
Tool Steel

Corrosion  
Resistant Coating

SAVI-56

- New conical/tapered shape with helical teeth to quickly remove Hi-Lok®, Hi-Lite®, Eddie Bolt® and Huck® threaded collars.
- Socket is firmly drawn onto the collar, removing it with minimal wear and effort - all without jamming the collar into the socket.
- For use on aluminum, steel, titanium and all coated collars.
- Anti-FOD set screw for positive retention. Made in the USA.

1/4" Square Drive			
Part Number	Nominal Collar Size	Collar 'Dash' Number	Top Of Collar Diameter*
SAVI-21	5/32" EB	5 EB	0.21" (5.5 mm)
SAVI-24	5/32", 3/16" EB	5, 6 EB	0.24" (6.2 mm)
SAVI-25	5/32"	5	0.25" (6.5 mm)
SAVI-26	5/32", 3/16"	5, 6	0.26" (6.7 mm)
SAVI-27	5/32", 3/16"	5, 6	0.27" (7.0 mm)
SAVI-28	3/16"	6	0.28" (7.2 mm)
SAVI-29	3/16"	6	0.29" (7.5 mm)
SAVI-32	1/4", 1/4" EB	8, 8 EB	0.32" (8.2 mm)
SAVI-33	1/4"	8	0.33" (8.5 mm)
SAVI-34	1/4"	8	0.34" (8.7 mm)
SAVI-35	1/4"	8	0.35" (9.0 mm)
SAVI-36	1/4"	8	0.36" (9.2 mm)
SAVI-37	1/4"	8	0.37" (9.5 mm)
SAVI-39	5/16" EB	10 EB	0.39" (10.0 mm)

3/8" Square Drive			
Part Number	Nominal Collar Size	Collar 'Dash' Number	Top Of Collar Diameter*
SAVI-43	5/16"	10	0.43" (11.0 mm)
SAVI-45	5/16"	10	0.45" (11.5 mm)
SAVI-47	5/16"	10	0.47" (12.0 mm)
SAVI-50	5/16"	10	0.50" (12.7 mm)
SAVI-51	3/8"	12	0.51" (13.0 mm)
SAVI-55	3/8"	12	0.55" (14.0 mm)
SAVI-56	3/8"	12	0.56" (14.3 mm)
SAVI-59	7/16"	14	0.59" (15.0 mm)
SAVI-63	7/16"	14	0.63" (16.0 mm)

1/2" Square Drive			
Part Number	Nominal Collar Size	Collar 'Dash' Number	Top Of Collar Diameter*
SAVI-67	1/2"	16	0.67" (17.0 mm)
SAVI-69	1/2"	16	0.69" (17.5 mm)

\* Collar opening diameter where socket just fits over the top of the collar.

## 'Savi-Socket' Collar Removal Socket Sets



SAVI-568-RED

Convenient Sets  
Contain The Most  
Popular Sizes

4PC Eddie Bolt® Set - 1/4" Square Drive		
Part Number	Included Sockets*	Dash Size
SAVI-56810-EB	SAVI-21, 24, 32 & 39	-5, -6, -8 & -10

12PC Hi-Lok® & Hi-Lite® Set - 1/4" Square Drive		
Part Number	Included Sockets*	Dash Size
SAVI-568-HL	SAVI-24 to 29 & SAVI-32 to 37	-5, -6 & -8

6PC Hi-Lok® Set - 1/4" Square Drive		
Part Number	Included Sockets*	Dash Size
SAVI-568-RED	SAVI-25, 26, 28, 29, 36 & 37	-5, -6 & -8

6PC Hi-Lok® & Hi-Lite® Large Size Set - 3/8" Square Drive		
Part Number	Included Sockets*	Dash Size
SAVI-1012	SAVI-43, 45, 50, 51, 55 & 56	-10 & -12

\* Reference chart on left for individual collar specifications.

## Hi-Lok® Collar Removal Sockets



- Patented design efficiently removes Hi-Lok® & Eddie-Bolt® collars.
- Tough 17-4 tool steel, heat treated for high wear resistance.
- Best suited for use on aluminum collars.

1/4" Square Drive		
Part Number	Pin Dash	Collar Size
3581-5/32	-5	5/32"
3581-3/16	-6	3/16"
3581-1/4	-8	1/4"
3581-5/16	-10	5/16"
3581-3/8	-12	3/8"
3581-7/16	-14	7/16"

Part Number	Description
53-3581	Set of 4 (-5, -6, -8 & -10)

## Hi-Lok® & Eddie-Bolt® Collar Removal Sockets

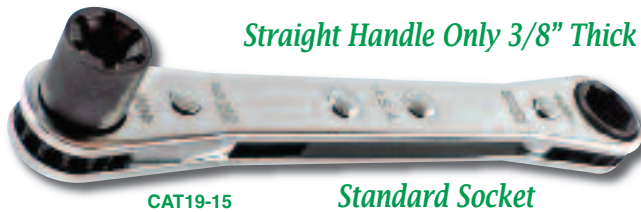


- Driven with hand or pneumatic tools with a 3/8" square drive.
- Sockets 'bite' into the collar allowing it to be unscrewed.

Part Number	Nominal Pin Diameter	Part Number	Nominal Pin Diameter
02-HLC1-5	5/32"	02-HLC1-10	5/16"
02-HLC1-6	3/16"	02-HLC1-12	3/8"
02-HLC1-8	1/4"	02-HLC1-14	7/16"

Note: -8 requires initial plier loosening prior to removal, (pliers available on next page).

## Hi-Shear® Six-Wing Collar Removal Assemblies

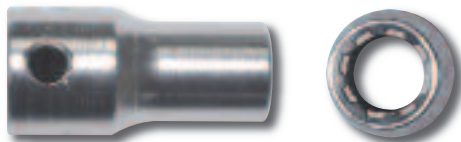


- Tapered splines developed specifically for six-wing collars.
- Removes collar while preventing collar re-use or re-installation.
- Assemblies include box ratchet handle and drive socket.

Standard Socket, 4-1/4" Overall Length					
Complete Assembly	Socket Only	Pin Dash	Pin Size	Socket Length	Socket Dia.
CAT19-15	CAT18-15	-5	5/32"	1/2"	.35"
CAT19-18	CAT18-18	-6	3/16"	1/2"	.35"
CAT19-25	CAT18-25	-8	1/4"	1/2"	.47"

## K-Fast® 8-Spline Installation & Removal Sockets

Tamper Proof



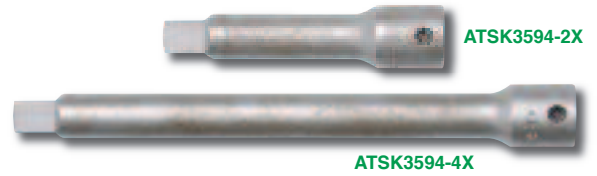
- Uses standard square drive ratchet wrenches.
- For Kaynar KFN fasteners (Airbus aircraft, A10 Thunderbolt etc.).

1/4" Square Drive	
Part Number	Size
ATSK3686-2T	#8
ATSK3686-3T	#10
ATSK3686-4T	1/4"

3/8" Square Drive	
Part Number	Size
ATSK3686-5F	5/16"
ATSK3686-6F	3/8"

1/2" Square Drive	
Part Number	Size
ATSK3686-7S	7/16"
ATSK3686-8S	1/2"
ATSK3686-9S	9/16"
ATSK3686-10S	5/8"

## Hi-Lok® Fastener Ratchet Extensions



- Continuous through-hole for hex key insertion.
- Set screw secures extension to ratchet.

Part Number	Drive	Overall Length
ATSK3594-2X	1/4"	2" (51 mm)
ATSK3595-3X	3/8"	3" (76 mm)

Part Number	Drive	Overall Length
ATSK3594-4X	1/4"	4" (102 mm)
ATSK3595-6X	3/8"	6" (152 mm)

## Frangible Collar Hand Removal Tools



- Slips down over Hi-Lok® or similar collar and gently unscrews.
- Clean removal in limited access areas with no cutting or prying.

Part Number	Pin Dash Number	Nominal Pin Dia.	Head Width	Overall Length
REM100-56	-5	5/32"	.42"	5.6" (142 mm)
	-6	3/16"	.42"	
REM100-8	-8	1/4"	.55"	5.8" (147 mm)
REM100-10	-10	5/16"	.67"	6.9" (175 mm)
REM100-12	-12	3/8"	.75"	7.9" (200 mm)
REM100-14	-14	7/16"	.95"	9.9" (251 mm)

## Thd. Shank Huck® & Hi-Shear® Collar Removers

Four-Flute H.S.S.

- Cleanly cuts off the swaged collar of Huck® & Hi-Shear® type fasteners.
- Internal stop prevents contact with the work surface.



Note: 1/4"-28 thread. For use with microstop countersink cages.

Part Number	Fastener Size	Overall Dia.
02-86-0	3/32" HS47	.365"
02-86-1	1/8" HS47	.365"
02-86-2	5/32" HS47	.365"
02-86-3	3/16" HS47	.438"
02-86-4	1/4" HS47	.500"
02-86-5	5/16" HS47	.562"
02-86-6	3/8" HS47	.625"

Part Number	Fastener Size	Overall Dia.
02-87-1	3/16" L6	.323"
02-87-2	1/4" L8	.413"
02-87-3	1/4" OS8	.372"
02-87-4	5/16" L10	.528"
02-87-5	5/16" OS10	.465"
02-87-6	3/8" L12	.622"
02-87-7	3/8" OS12	.465"

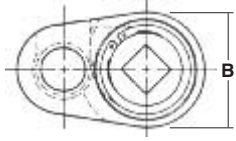
## HI-SHEAR INSTALLATION & REMOVAL

### Hi-Lok® & Hi-Tique® Collar Removal Assemblies

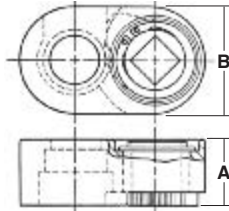


HLH128-8

*Great For Limited Access Areas*



-6 & -8 Configuration

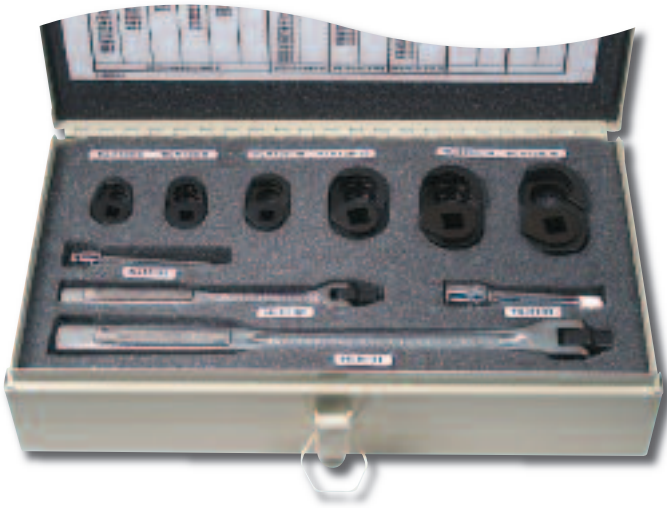


-10 To -16 Configuration

1/4" Square Drive				
Part Number	Size	'A' Height	'B' Width	Overall Length
HLH128-6	3/16"	0.400"	0.800"	1.2" (30.4 mm)
HLH128-8	1/4"	0.400"	0.800"	1.3" (33.0 mm)
HLH128-10	5/16"	0.500"	0.800"	1.4" (35.5 mm)

3/8" Square Drive				
Part Number	Size	'A' Height	'B' Width	Overall Length
HLH128-12	3/8"	0.562"	1.070"	1.7" (43.1 mm)
HLH128-14	7/16"	0.687"	1.150"	1.9" (48.2 mm)
HLH128-16	1/2"	0.687"	1.200"	2.1" (53.3 mm)

### Hi-Lok® & Hi-Tique® Collar Removal Tool Kit



Provides close quarter tools to remove Hi-Lok® & Hi-Tique® collars.

#### Kit Includes:

Six Collar Removal Tools (3/16", 1/4", 5/16", 3/8", 7/16" & 1/2"), Two 1/4" Drive Flex Handles (-6, -8, -10 & -12, -14, -16), Two 1/4" Drive Extensions (-6, -8, -10 & -12, -14, -16), Parts List & Steel Fitted Carrying Case

Part Number	Description
HLK10	Complete 12 PC Kit

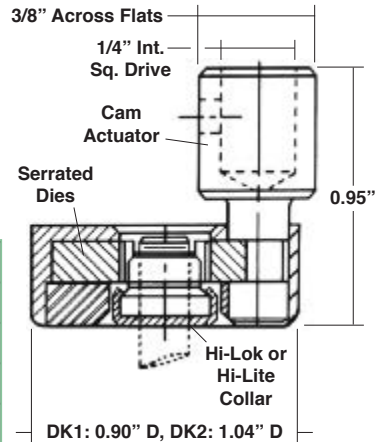
### DK Series Hi-Lok® & Hi-Lite® Collar Rem. Tools



*Great For Limited Access Areas*

Remove Hi-Lok® & Hi-Lite® collars with or without captive washers.

Part No.	Collar Dia. Range
DK1-1	.239" to .262"
DK1-3	.269" to .290"
DK2-4	.332" to .350"
DK2-5	.370"



Note: Use with 1/4" male square drive or 3/8" open end wrench (not included).

### Hi-Lok® Collar Removal Pliers

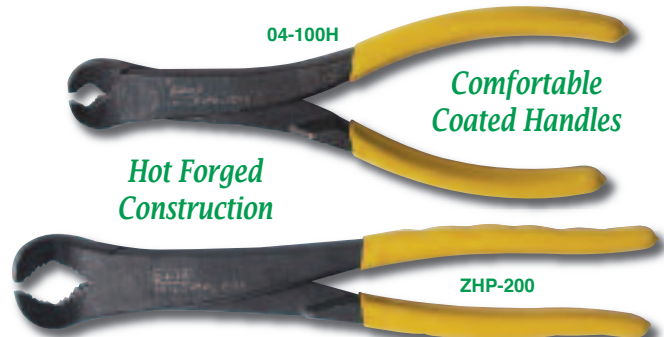


*Hardened & Tapered Head*

Diamond cut jaws for a patterned grip on fasteners from any angle.

Part Number	Capacity	Overall Length
04-3579	Up to 5/16"	7-3/8" (187 mm)

### Hi-Lok® Collar Removal Pliers



04-100H

*Comfortable Coated Handles*

*Hot Forged Construction*

ZHP-200

- Quick & inexpensive alternative for removing frangible hex collars such as Hi-Lok®, Hi-Lite®, Hi-Tique®, Veri-Lite® and C-Lok®.
- Hardened steel jaws designed to maximize gripping surface.



ZHP-200B

#### NEW Ergonomic Offset Pliers

- Ergonomic design with a 42° offset for better leverage.

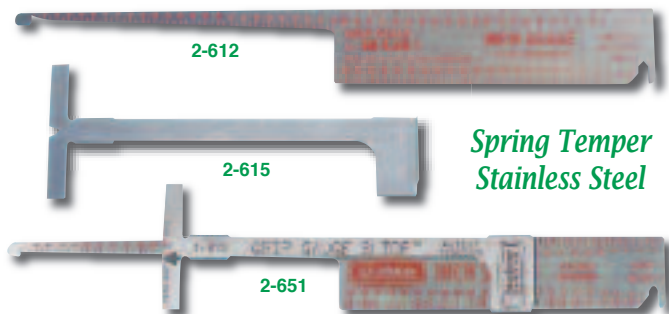
Part Number	Style	Capacity	Overall Length
04-100H	Standard	5/32", 3/16", 1/4" & 5/16"	7-3/8" (187 mm)
ZHP-100B	Offset		6-1/2" (165 mm)
ZHP-200	Standard	5/16", 5/8" & 3/4"	9" (229 mm)
ZHP-200B	Offset		8-1/4" (210 mm)

## Pin Protrusion Gauges



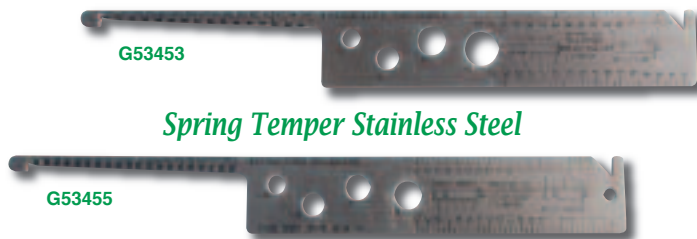
Part Number	Type	Included Sizes
2-1522	Hi-Lok® Standard	-5, -6, -8, -10 & -12
2-1522HST	Hi-Lite® Standard	
2-1522-B	Hi-Lok® Aerospace 'B'	
2-1522HST-B	Hi-Lite® Aerospace 'B'	
2-1522HLM	Hi-Lok® / Hi-Tigue® Metric	4, 5, 6, 8, 10 & 12 mm
2-1522HSTM	Hi-Lite® Metric	
2-1522-B-2	Hi-Lok® Large Diameter	-14, -16, -18, -20 & -24
2-1522HST-2	Hi-Lite® Large Diameter	

## Grip Gauges



Part No.	Description
2-612	1/16" Increments To 3", 1 mm Increments To 75 mm
2-615	Grip Gauge Slide (for 2-612 above)
2-651	Grip Gauge Assembly (includes 2-612 & 2-615 above)

## Grip Gauges



Part Number	Description
G53453	For Visu-Lok® Jo-Bolt® Fasteners
G53455	For Composi-Lok® Fasteners

## Rivet Stem Shaver



- Unique tool shaves corebolt breakoffs on Composi-Lok® & Visu-Lok® fasteners with a swift, 30,000 RPM 'slicing' action.
- Precision setup with new depth adjustment gauge.
- Long lasting abrasive cutting discs for smooth, uninterrupted cuts.

Rivet Stem Shaver	Replacement Cutting Disc	Free RPM	Depth Adj.	Weight
MAPS-01	MAPSD-01	30,000	0.001"	1.25 lbs (0.6 kgs)

## Reversible Ratchet Wrench Installation Kit



- Install Hi-Lite®, Hi-Lok® & Hi-Tigue® pin and collar combinations.
- Includes all of the tools listed below with a steel carrying case.

Part Number	Description
HLK14	Complete 32 PC Kit

Reversible Ratchet Wrench Assemblies		
Part Number	Socket Hex	Wrench Tip Hex
ATHA5	5/16"	1/16"
ATHA10	5/16"	5/64"
ATHA11	11/32"	5/64"
ATHA14	11/32"	3/32"
ATHA16	7/16"	3/32"
ATHA18	7/16"	1/8"
ATHA20	1/2"	5/32"
ATHA28	9/16"	3/16"
ATHA31	11/16"	7/32"

Double Box Ratchet Wrench Assemblies		Gauges	
Part Number	Socket Hex	Part No.	Type
ATBR-3134	5/16" & 11/32"	2-1522	Protrusion
ATBR-4350	7/16" & 1/2"	2-612	Grip

# HI-SHEAR INSTALLATION & REMOVAL

## Hi-Lok® Installation & Removal Kits



**Deluxe Ratchet & Socket Kit:**

**ATI3600K**

1/4" & 3/8" Drive Reversible Ratchets, Ten Sockets (3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16" & 1/2"), 1/16" Hex Key, Four T-Hex Keys (5/64", 3/32", 1/8" & 5/32"), Two Extensions (2" & 3") & Fitted Plastic Case

Part Number	Description
ATI3600K	Complete 20 PC Kit



**Ratchet & Socket Kit:**

**ATI3594K**

1/4" Drive Reversible Ratchet, Seven Sockets (3/16", 7/32", 1/4", 9/32", 5/16", 11/32" & 3/8"), Two Extensions (2" & 4"), 1/16" Hex Key, Two T-Hex Keys (5/64" & 3/32") & Fitted Plastic Case

Part Number	Description
ATI3594K	Complete 14 PC Kit

## Hi-Lok® Installation & Removal Kits (cont'd)



**Roller Clutch Ratchet Kit:**

**ATISK3539A8**

1/4" Drive Installation Wrench, Four Hex Installation Wrenches (7/32", 1/4", 5/16" & 11/32"), Diamond Cut Removal Pliers & Fitted Plastic Case

Part Number	Description
ATISK3539A5	Complete 7 PC Kit

**Deluxe Roller Clutch Ratchet Kit:**

Two 1/4" Drive Wrenches (1 installation, 1 removal), Six Hex Installation Wrenches (7/32", 1/4", 5/16", 11/32", 3/8" & 7/16"), Diamond Cut Removal Pliers & Fitted Plastic Case

Part Number	Description
ATISK3539A8	Complete 6 PC Kit

*Other Tool Kits Available, Please Inquire*

## 'Liberator' Ratchet Set



*Includes Fitted Plastic Case*

- 90° & 360° ratchet heads are great for confined spaces.
- Various length handles accept 1/4"-28 bits & countersinks.
- Threaded 1/4" drive socket adapter for multi-function ratchet use.

Part Number	Description
70978	Complete 12 PC Kit

## Hi-Lok® Pneumatic Installation & Removal Kit



Kit includes:

HLKT2000

Pneumatic 1/4" Square Drive Ratchet (with through hole), Nine Hi-Lok® Sockets (5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8" & 7/16"), Four Hi-Lok® Collar Removal Sockets (5/32", 3/16", 1/4" & 5/16") Three Hex Keys (1/16", 5/64" & 3/32") & Fitted Plastic Case

Part Number	Description
HLKT2000	Complete 18 PC Kit

## USATCO Tool Repair

USATCO has been repairing tools for over 60 years. Send your inoperable tool to our state of the art facility (NY or CA) for a free estimate!

## Jo-Bolt® & Visu-Lok® Installation Hand Tools



Standard Series

### Standard Ratchet Hand Tools (includes driver assembly)

Part No. Flush	Part No. Protruding	Part No. Millable	Part No. Reduced Flush	Driver Assembly
HWF165	HWP165	HWA165	HWT165	-5 (5/32")
HWF200	HWP200	HWA200	HWT200	-6 (3/16")
HWF260	HWP260	HWA260	HWT260	-8 (1/4")
HWF312	HWP312	—	HWT312	-10 (5/16")
HWF375	HWP375	—	HWT375	-12 (3/8")



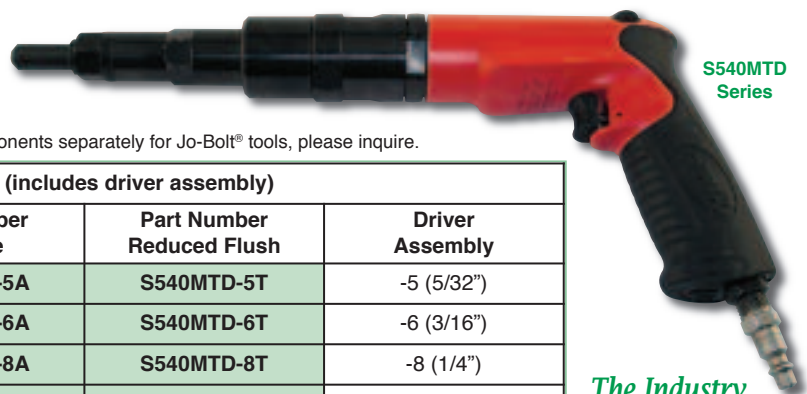
Close Quarter Series

### Close Quarter Ratchet Hand Tools (includes driver assembly)

Part No. Flush	Part No. Protruding	Part No. Millable	Part No. Reduced Flush	Driver Assembly
HWF5	HWP5	HWA5	HWT5	-5 (5/32")
HWF6	HWP6	HWA6	HWT6	-6 (3/16")
HWF8	HWP8	HWA8	HWT8	-8 (1/4")
HWF10	HWP10	—	HWT10	-10 (5/16")
HWF12	HWP12	—	HWT12	-12 (3/8")

## Pneumatic Installation Tools For Jo-Bolt®, Visu-Lok® & Composi-Lok® Fasteners

Specifically designed for the installation of 5/32" to 3/8" Jo-Bolt®, Visu-Lok®, Visu-Lok II®, Composi-Lok® & Composi-Lok II® blind bolts.



S540MTD Series

The Industry Standard

Note: For more detailed information and/or assistance in ordering any components separately for Jo-Bolt® tools, please inquire.

### Pistol Grip Master Torque Drivers (includes driver assembly)

Part Number Flush	Part Number Protruding	Part Number Millable	Part Number Reduced Flush	Driver Assembly
S540MTD-5	S540MTD-5P	S540MTD-5A	S540MTD-5T	-5 (5/32")
S540MTD-6	S540MTD-6P	S540MTD-6A	S540MTD-6T	-6 (3/16")
S540MTD-8	S540MTD-8P	S540MTD-8A	S540MTD-8T	-8 (1/4")
S540MTD-10	S540MTD-10P	S540MTD-10A	S540MTD-10T	-10 (5/16")
S540MTD-12	S540MTD-12P	S540MTD-12A	S540MTD-12T	-12 (3/8")

### Lever Grip Torque Responsive Adapters (includes driver ass'y)

Part No. Flush	Part No. Protruding	Part No. Millable	Part No. Reduced Flush	Driver Assembly
7440M-5	7440M-5P	7440M-5A	7440M-5T	-5 (5/32")
7440M-6	7440M-6P	7440M-6A	7440M-6T	-6 (3/16")
7440M-8	7440M-8P	7440M-8A	7440M-8T	-8 (1/4")

### Lever Grip Close Quarter Tools (includes driver assembly)

Part No. Flush	Part No. Protruding	Part No. Millable	Part No. Reduced Flush	Driver Assembly
7440C-5	7440C-5P	7440C-5A	7440C-5T	-5 (5/32")
7440C-6	7440C-6P	7440C-6A	7440C-6T	-6 (3/16")
7440C-8	7440C-8P	7440C-8A	7440C-8T	-8 (1/4")

## Visu-Lok® Tool Kits



### Visu-Lok® Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, Fastener Drivers (-5, -6, -8, -10 & -12), Flush Nose (-5, -6, -8, -10 & -12), Protruding Nose (-5, -6, -8, -10 & -12), Millable Nose (-5, -6 & -8), Reduced Flush Nose (-5, -6, -8, -10 & -12), Visu-Lok® Grip Gauge & Tool Box

Part Number	Description
4000KIT	Complete 26 PC Kit

### Visu-Lok® Right Angle Torque Responsive Kit:

7440M Complete Driver Assembly, Fastener Drivers (-5, -6 & -8), Flush Nose (-5, -6 & -8), Protruding Nose (-5, -6 & -8), Millable Nose (-5, -6 & -8), Reduced Flush Nose (-5, -6 & -8), Visu-Lok® Grip Gauge & Tool Box

Part Number	Description
4070KIT	Complete 18 PC Kit

### Visu-Lok® Pistol Grip Master Torque Driver Kit:

S540MTD Pneumatic Motor, PT Nose (flush & protruding), Flush Nose (-5, -6, -8 & -10), Protruding Nose (-5, -6 & -8), Millable Nose (-5, -6, -8 & -10), Visu-Lok® Grip Gauge & Tool Box

Part Number	Description
4090KIT	Complete 16 PC Kit

### Visu-Lok® Flush & Protruding Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, HW100 & HW400 Close Quarter Tools, Fastener Drivers (-5, -6, -8 & -10), Flush Nose (-5, -6, -8 & -10), Protruding Nose (-5, -6, -8 & -10), Close Quarter Flush Nose (-5, -6, -8 & -10), Close Quarter Protruding Nose (-5, -6, -8 & -10), Close Quarter Millable Nose (-5, -6, -8 & -10) & Visu-Lok® Grip Gauge

Part Number	Description
VLHK-101	Complete 28 PC Kit

### Visu-Lok® Flush & Protruding Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, Fastener Drivers (-5, -6 & -8), Flush Nose (-5, -6 & -8), Protruding Nose (-5, -6 & -8) & Visu-Lok® Grip Gauge

Part Number	Description
VLHK-102	Complete 11 PC Kit

## Composi-Lok® Tool Kits

*Convenient & Versatile*

4060KIT



### Composi-Lok® Right Angle Master Torque Driver Ass'y Kit:

7440M-BF Complete Driver Assembly, MTD502-BF Master Torque Driver, Fastener Drivers (-5, -6 & -8), Flush Nose (-5, -6 & -8), Protruding Nose (-5, -6 & -8), Reduced Flush Nose (-5, -6 & -8), Composi-Lok® Grip Gauge & Tool Box

Part Number	Description
4060KIT	Complete 16 PC Kit

### Composi-Lok® Pistol Grip Master Torque Driver Kit:

S540MTD-BF Pneumatic Motor, Fastener Drivers (-5, -6, -8, -10 & -12), Flush Nose (-5, -6, -8, -10 & -12), Protruding Nose (-5, -6, -8, -10 & -12), Reduced Flush Nose (-5, -6, -8, -10 & -12), Two Composi-Lok® Grip Gauges & Tool Box

Part Number	Description
4080KIT	Complete 24 PC Kit

### Composi-Lok® Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, HW100 & HW400 Close Quarter Tools, Fastener Drivers (-5, -6, -8 & -10), Protruding Wrench Adapters (-7 & -8), Flush Nose (-5, -6, -7, -8, -9 & -10), Protruding Nose (-5, -6, -7, -8, -9 & -10), Close Quarter Fastener Drivers (-5, -6, -7, -8, -9 & -10), Close Quarter Flush Nose (-5, -6, -7, -8, -9 & -10), Close Quarter Protruding Nose (-5, -6, -7, -8, -9 & -10) & Two Composi-Lok® Grip Gauges

Part Number	Description
CLHK-101	Complete 41 PC Kit

### Composi-Lok® Ratchet Hand Tool Kit:

HW300 Ratchet Hand Tool, HW100 & HW400 Close Quarter Tools, Wrench Adapters (-5, -6, -7, -8 & -10), Three Universal Nose Tips (for -5 to -12), Three Nose Tip Connectors (for -5 to -12), Close Quarter Wrench Adapters (-5, -6, -7, -8 & -10), Three Close Quarter Nose Tip Connectors (for -5 to -12) & Two Composi-Lok® Grip Gauges

Part Number	Description
CLIIHK-101	Complete 24 PC Kit



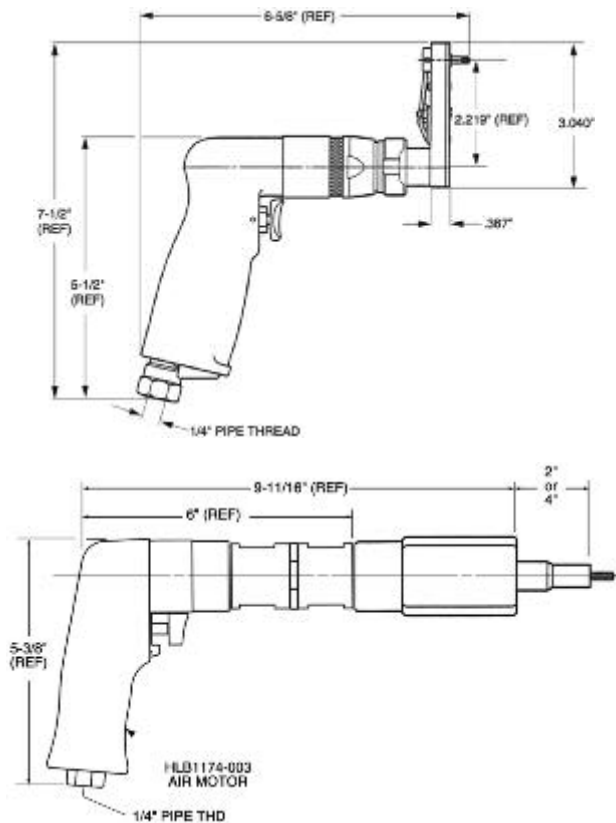
## Hi-Shear® Pistol Grip Pneumatic Inst. Tooling



*Straight Driver Assembly  
With Extended Socket And  
Super Key (T-Series)*



*Offset Mini Driver Assembly  
With Thin Flush Socket And  
Super Key (T-Series)*



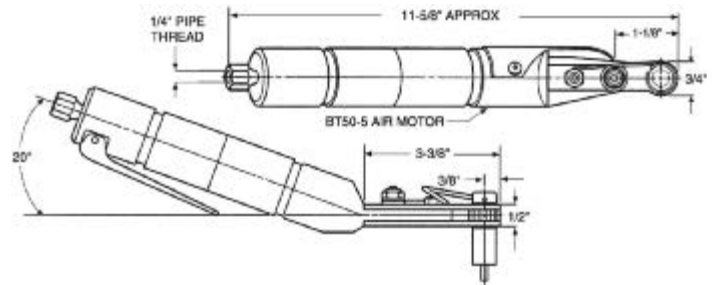
Specifications		
Tool	HLA1201	HLA1501
Operating Pressure	90 PSIA	90 PSIA
Max. Torque Rating	60 in-lbs @ 90 PSIA	300 in-lbs @ 90 PSIA
Socket Speed	500 RPM	250 RPM
Horsepower	0.20 HP (0.15 kW)	0.70 HP (0.52 kW)
Air Consumption	20 SCFM	22 SCFM
Weight	2.0 lbs (0.9 kgs)	3.8 lbs (1.7 kgs)

For additional ordering information and assistance, or to order specific assembly components where applicable, please inquire.

## Hi-Shear® Lever Grip Pneumatic Inst. Tooling



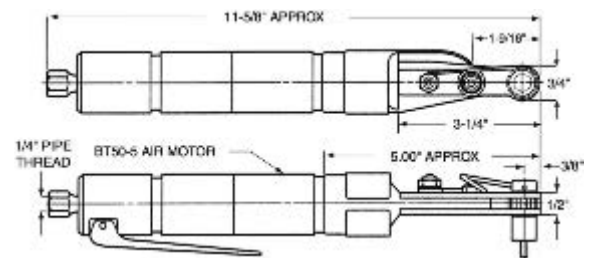
*20° Offset Ratchet Wrench Driver Assembly With  
Multi-Length Socket And Super Key (T-Series)*



HLA2016 Available Socket Lengths						
1/2"	1"	1-1/2"	2"	3/4"	1-3/4"	4"



*Straight Ratchet Wrench Driver Assembly With  
Multi-Length Socket And Super Key (T-Series)*



HLA2002 Available Socket Lengths						
1/2"	1"	1-1/2"	2"	3/4"	1-3/4"	4"

Specifications		
Tool	HLA2016	HLA2002
Operating Pressure	90 PSIA	90 PSIA
Max. Torque Rating	110 in-lbs @ 90 PSIA	110 in-lbs @ 90 PSIA
Socket Speed	250 RPM	250 RPM
Horsepower	0.50 (0.35 kW)	0.50 HP (0.35 kW)
Air Consumption	22 SCFM	22 SCFM
Weight	2.0 lbs (0.9 kgs)	2.0 lbs (0.9 kgs)

For additional ordering information and assistance, or to order specific assembly components where applicable, please inquire.

### USATCO Hi-Shear® Tooling

USATCO offers a full selection of Hi-Shear® pneumatic tools and accessories that are too numerous to list here. If you don't see what you are looking for please contact us for assistance.

## ASSEMBLY TOOLS

### Master Power® Impact Wrench



Built-in power regulator with four settings for varying torque output.

**Note:** Air Inlet 1/4" NPT - use 1/4" (6.4 mm) air hose. Rated @ 90 psi.

1/2" Capacity, 3/8" Square Drive				
Part No.	Torque Range	RPM	BPM	Weight
MP2276	70 to 90 ft-lbs	7500	1100	3.1 lbs (1.4 kgs)

### Jet® Impact Wrenches



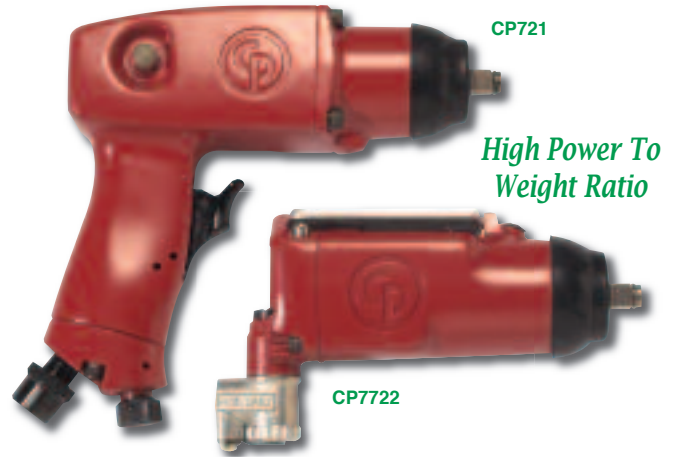
- Lightweight aluminum construction reduces weight.
- One hand forward/reverse button for easy adjustments.
- The inline JAT-100 features a single hammer clutch mechanism, pistol grip JAT-102 a powerful pin clutch hammer mechanism.

**Note:** Air inlet 1/4" NPT (use 3/8" I.D. air hose).

3/8" Capacity Inline, 3/8" Square Drive				
Part No.	Torque Range	RPM	O.A.L.	Weight
JAT-100	5 to 50 ft-lbs (75 ft-lbs max.)	12,000	5-7/8" (149 mm)	2.0 lbs (0.91 kgs)

1/2" Capacity Pistol Grip, 1/2" Square Drive				
Part No.	Working Torque	RPM	O.A.L.	Weight
JAT-102	50 to 200 ft-lbs (250 ft-lbs max.)	8000	7-1/4" (184 mm)	5.0 lbs (2.27 kgs)

### Chicago Pneumatic® Impact Wrenches



- Rocking dog clutch and friction ring retainer type.
- CP designed clutch & heat-treated internal parts for longer tool life.
- Inline model includes swivel air inlet.

**Note:** All Models: 1/4" NPFT air inlet thread; 3/8" minimum hose size; Noise levels are @ 1.0m per Pneup Standard 8N-1; Vibration levels are per ISO 8662-1.

Pistol Grip, 3/8" Square Drive					
Part No.	Torque Range	RPM	BPM	O.A.L.	Weight
CP721	5 to 50 ft-lbs (75 ft-lbs max.)	11,000	1620	5-3/4" (146 mm)	2.6 lbs (1.2 kgs)

Inline, 3/8" Square Drive					
Part No.	Torque Range	RPM	BPM	O.A.L.	Weight
CP7722	5 to 65 ft-lbs (90 ft-lbs max.)	9500	1400	6-5/16" (160 mm)	2.1 lbs (1.0 kgs)

### Master Power® Inline Impact Wrench



- Butterfly throttle & swivel air inlet.
- Built-in power regulator with 4 settings for varying torque output.

**Note:** Air Inlet 1/4" NPT - use 1/4" (6.4 mm) air hose. Rated @ 90 psi.

3/8" Capacity, 3/8" Square Drive				
Part No.	Torque Range	RPM	BPM	Weight
MP2271	40 to 50 ft-lbs	10,500	900	2.2 lbs (1.0 kgs)



*For Hearing & Eye Protection See Pages 234-235*

Master Power® Impact Nutrunner



Ideal For Soft Joint Work

Power Of An Impact, Speed Of A Screwdriver

NEW

Detachable Belt Clip & Suspension Bail Included

- The lightest and most compact tool in its class.
- Forward/reverse lever can be positioned for right or left hand use.
- Smooth & efficient impact mechanism creates no torque action.
- Built-in power regulator with 4 settings for precise control.

Note: Air Inlet 1/4" NPT - use 1/4" (6.4 mm) air hose. Rated @ 90 psi.

1/2" Capacity, 3/8" Square Drive					
Part No.	Torque Range	BPM	RPM	O.A.L.	Weight
MP2265B	10 to 90 ft-lbs (150 ft-lbs max.)	2000	10,000	6" (152 mm)	2.2 lbs (1.0 kgs)

Chicago Pneumatic® Ratchet Wrenches



CP825

- For light duty assembly & repair work.
- Teasing throttle.

Note: Noise level @ 1.0m per Pneupod Std. 8N-1; Vibration levels are per ISO 8662-1.

1/4" Square Drive				
Part No.	Torque Range	RPM	O.A.L.	Weight
CP825	5-15 ft-lbs (15 ft-lbs max.)	200	6-1/2" (165 mm)	1.9 lbs (0.8 kgs)

3/8" Square Drive				
Part No.	Torque Range	RPM	O.A.L.	Weight
CP828	10-50 ft-lbs (50 ft-lbs max.)	150	10" (254 mm)	2.4 lbs (1.1 kgs)

1/2" Square Drive				
Part No.	Torque Range	RPM	O.A.L.	Weight
CP828H	10-50 ft-lbs (50 ft-lbs max.)	150	10" (254 mm)	2.4 lbs (1.1 kgs)

Jet® Ratchet Wrenches

Ball Bearing Construction



JAT-310

Hardened Steel Gears



JAT-312

NEW

Durable, Quality Tools



JAT-313

- Ergo grip and variable speed throttle for better speed control.
- Hardened steel gears for long tool life.
- Steel ball retainers for rapid socket changing.

5/16" Capacity, 1/4" Square Drive				
Part No.	Max. Torque	RPM	O.A.L.	Weight
JAT-310	20 ft-lbs	250	8-1/8" (206 mm)	1.5 lbs (0.68 kgs)

3/8" Capacity, 3/8" Square Drive				
Part No.	Max. Torque	RPM	O.A.L.	Weight
JAT-312	80 ft-lbs	280	10-1/4" (260 mm)	2.7 lbs (1.2 kgs)

3/8" Capacity, 1/2" Square Drive				
Part No.	Max. Torque	RPM	O.A.L.	Weight
JAT-313	80 ft-lbs	280	10-1/4" (260 mm)	2.7 lbs (1.2 kgs)

Keyless Impact Chucks



Square Drive, Keyless Design

Superior Holding Power

20-90430

Transform your impact wrench into an efficient drilling tool.

Part Number	Capacity Range	Square Drive Mount	Overall Length (open)
20-90424	3/32" to 3/8"	3/8"	2-3/32" (53 mm)
20-90430	1/8" to 1/2"	1/2"	2-5/8" (67 mm)

# ASSEMBLY TOOLS

## Micro-Adjustable Click Type Torque Wrenches

*Fast, Accurate & Easy To Set*



501MRMH

- Single scale, calibrated single direction.
- Positive lock with spring-loaded pull down lock ring.
- Meets or exceeds ASME B107.14M-1994, ISO 6789 standards.

### Dual Readout - Inch Pound & Nm

Part Number	Square Drive	Torque Range	Increments	Weight	Overall Length
501MRMH	1/4"	10-50 in-lbs	1	0.85 lbs (0.4 kgs)	10" (25.4 cm)
2002MRMH	3/8"	30-200 in-lbs	1	0.85 lbs (0.4 kgs)	10-1/8" (25.6 cm)

### Single Readout - Inch Pound

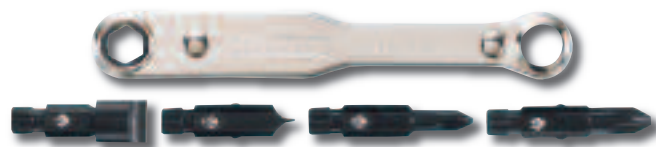
Part Number	Square Drive	Torque Range	Increments	Weight	Overall Length
7502MRMH	3/8"	100-175 in-lbs	5	2.5 lbs (1.1 kgs)	15-1/2" (39.4 cm)
10002MRMH	3/8"	150-1000 in-lbs	5	2.5 lbs (1.1 kgs)	15-3/4" (40.0 cm)

### Single Readout - Foot Pound

Part Number	Square Drive	Torque Range	Increments	Weight	Overall Length
752MFRMH	3/8"	5-75 ft-lbs	0.5	2.5 lbs (1.1 kgs)	15-1/2" (39.4 cm)
1503MFRMH	1/2"	20-150 ft-lbs	1	3.2 lbs (1.4 kgs)	19" (48.3 cm)
2503MFRMH	1/2"	30-250 ft-lbs	1	3.2 lbs (1.4 kgs)	24-3/8" (61.9 cm)
6004MFRMH	3/4"	100-600 ft-lbs	5	9.0 lbs (4.1 kgs)	42" (106.6 cm)
10005MFRMH*	1"	200-1000 ft-lbs	5	25.1 lbs (11.4 kgs)	70" (177.8 cm)

\* Includes one extension handle & is packed in a metal box.

## Ratchet Offset Screwdriver Set



- Nickel plated steel ratchet drive handle reverses instantly.
- Tool is hardened & tempered steel with black oxide bits.

*Conforms To Government Spec GGG-S-1408*

### Screwdriver Set:

Reversible Ratchet Screwdriver Handle, Two Cross Point Bits (#1 & 2) & Two Straight Bits (1/4" & 3/8")

Part Number	Description
70441	Complete 5 PC Set

## Gearwrench® 6PC Combo Screwdriver Set



**NEW**

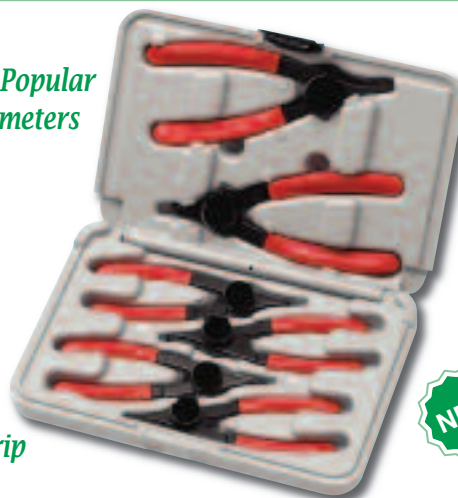
*Oil And Solvent Resistant*

- Tri-lobe, dual material handles for comfort and performance.
- Black oxide non-slip tips and laser etched size on shanks.

Part Number	Included Screwdrivers
80050	3 Slotted (1/8" x 3", 1/4" x 4, 5/16" x 6") 3 Phillips (3/8" x 8", #1 x 3, #2 x 4")

## Gearwrench® 6PC Convertible Snap Ring Plier Set

*Includes Popular Tip Diameters*



*Cam-Lock Style*

**NEW**

*Cushion Grip Handles*

- Fits internal and external rings from 1/4" to 2" in diameter.
- Patented quick change design for easy, one-step conversion.

Part Number	Included Tips
3859D	0.038", 0.047 & 0.070" (3 in both 18° and 90° tips)

**Williams® T-Handle Ratcheting Screwdrivers**

Includes #2  
Phillips Bit

Comfort Grip  
T-Handle



WRST4

- Heavy-duty 3 way (on-off-locked) ratcheting mechanism.
- Ergonomically designed hi-impact plastic t-handle.
- Stainless steel shank accepts all standard 1/4" hex bits.

Part Number	Blade Length	Overall Length
WRST1	2" (51 mm)	3-7/8" (98 mm)
WRST4	3-7/8" (98 mm)	5-13/16" (148 mm)
WRST8	7-7/8" (200 mm)	9-13/16" (249 mm)

**Williams® Magnetic Ratcheting Screwdriver**



- Heavy-duty 3 way (on-off-locked) ratcheting mechanism.
- Stainless steel shank with powerful holding magnet.
- Ergonomically designed hi-impact plastic handle.
- Accepts all standard 1/4" hex bits, easy bit storage in handle.

Part Number	Included Bits	Overall Length
WRS-1	2 Slotted, T-15 Torx, #1 & #2 Phillips	9" (229 mm)

**Gearwrench® 6PC Mini Torx Screwdriver Set**

NEW



- Tri-lobe, dual material handles for comfort and performance.
- Black oxide non-slip tips and color coded caps.

Part Number	Included Tips
80056	T-5 to T10 x 60mm

**Ratchet Screwdriver Kit**

A Wide Variety  
Of The Most  
Used Adapters



Crush  
Resistant  
Case

Includes:

Ratchet Wrench, Extension, Screwdriver Handle, Twelve Allen Hex Adapters (.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4" & 5/16"), Two Slotted Head Adapters (1/4" & 3/8"), Two Phillips Head Adapters (#1 & #2), Square Drive Adapter & Molded Plastic Case

Part Number	Description
12-733	Complete 20 PC Set

**Jet® Adjustable Clutch Screwdrivers**

Quick Action Reversing Valve

JSM-8372



Industrial Grade Construction

- Ergonomic handle design & muffled handle rear exhaust.
- Quick change chuck & variable speed trigger for positive control.
- Ball & needle bearing construction for more efficient performance.

Rotating  
Air Inlet

Pistol Grip - 0.5 hp (0.37 kW) - 1/4" Capacity - 1800 RPM			
Part Number	Max. Torque	Weight	Overall Length
JSM-8272	45 in-lbs	2.8 lbs (1.2 kgs)	7-3/4" (216 mm)

Pistol Grip - 0.5 hp (0.37 kW) - 1/4" Capacity - 800 RPM			
Part Number	Max. Torque	Weight	Overall Length
JSM-8372	45 in-lbs	3 lbs (1.2 kgs)	8-3/8" (216 mm)

## ASSEMBLY TOOLS

### Desoutter® Adjustable Clutch Screwdrivers



*Powerful & Efficient  
Dryline™ Motor*

*Comfortable  
Composite Grip*

SCP021-T2300-S4Q

- Designed to handle high-volume assembly line tasks.
- Ergonomically designed housing is low vibration & lightweight.
- Many other styles available, please inquire.

Pistol Grip Shut-Off Type - 1/4" Capacity - 1100 RPM			
Part Number	Torque Range	Weight	Overall Length
SCP043-T1100-S4Q	3.5 to 38 in-lbs	1.8 lbs (0.8 kgs)	9" (229 mm)

Pistol Grip Shut-Off Type - 1/4" Capacity - 2300 RPM			
Part Number	Torque Range	Weight	Overall Length
SCP021-T2300-S4Q	3.5 to 18.6 in-lbs	1.9 lbs (0.86 kgs)	9" (229 mm)

### Sioux® Adjustable Clutch Screwdrivers

SSD6P25AC



*Low Sound & Vibration Levels*

- Lightweight aluminum housing with ergonomic handle & soft textured grip.
- Three idler gear system for increased tool life & load capacity.
- With teasing throttle & adjustable clutch.

Pistol Grip - 0.6 hp (0.45 kW) - 1/4" Capacity - 2500 RPM			
Part Number	Max. Torque	Weight	Overall Length
SSD6P25AC	40 in-lbs	2.6 lbs (1.2 kgs)	8-1/2" (216 mm)

Pistol Grip - 0.6 hp (0.45 kW) - 1/4" Capacity - 1200 RPM			
Part Number	Max. Torque	Weight	Overall Length
SSD6P12AC	100 in-lbs	3.0 lbs (1.4 kgs)	10-1/4" (260 mm)

Pistol Grip - 1.0 hp (0.75 kW) - 1/4" Capacity - 700 RPM			
Part Number	Max. Torque	Weight	Overall Length
SSD10P7AC	140 in-lbs	3.2 lbs (1.5 kgs)	10-1/4" (260 mm)

### Sioux® Adjustable Clutch Screwdrivers (cont'd)

SSD10P12AC



Lever Grip - 1.0 hp (0.75 kW) - 1/4" Capacity - 1200 RPM			
Part Number	Max. Torque	Weight	Overall Length
SSD10S12AC	120 in-lbs	2.8 lbs (1.3 kgs)	12-1/4" (311 mm)

### Apex® ACR Anti-Camout Phillips Insert Bits

*Prevents Work  
Damage*



*Allows Higher  
Torque*

Special wing-face ribs grip screw recesses to prevent stripping.

1/4" Hex Insert ACR, 1" Overall Length		
Part Number	Type	Point Size
440-1-ACR1-RX	Removal	1
440-1-ACR1-DX	Driving	1
440-1-ACR1X	Driving & Removal	1
440-2-ACR2-RX	Removal	2
440-2-ACR2-DX	Driving	2
440-2-ACR2X	Driving & Removal	2
446-2-ACR2-DX	Driving (limited clearance)	2
440-3-ACR3-RX	Removal	3
440-3-ACR3-DX	Driving	3
440-3-ACR3X	Driving & Removal	3

1/4" Hex Insert ACR, 2" Overall Length		
Part Number	Type	Point Size
440-22-ACR2-RX	Removal	2
440-22-ACR2X	Driving & Removal	2

5/16" Hex Insert ACR, 1-1/4" Overall Length		
Part Number	Type	Point Size
480-2-ACR2-RX	Removal	2
480-2-ACR2X	Driving & Removal	2
480-3-ACR3X	Driving & Removal	3
480-4-ACR4-RX	Removal	4
480-4-ACR4X	Driving & Removal	4



*For Screw & Bolt Removal Tools See Pages 228-229*

Apex® Phillips Insert Bits



Note: Many other sizes available, please inquire.

1/4" Hex Drive, 1" O.A.L.		5/16" Hex Drive, 1-1/4" O.A.L.	
Part Number	Point Size	Part Number	Point Size
440-1X	1	480-2X	2
440-2X	2	480-3X	3
440-3X	3	480-4X	4

Apex® Limited Clearance Phillips Insert Bits



Great For Shallow Screw Recesses

1/4" Hex Insert, 1" Overall Length			
Part No.	Point Size	Turned Length (A)	Turned OD (B)
446-0X	0	7/16" (11.1 mm)	.108" (4.1 mm)
446-1X	1	7/16" (11.1 mm)	.108" (4.1 mm)
446-2X	2	7/16" (11.1 mm)	.108" (4.1 mm)

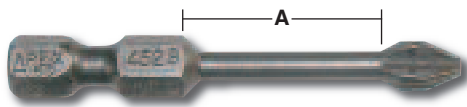
Apex® Phillips Power Drive Bits



Note: Many other sizes available, please inquire.

1/4" Hex Power Drive			1/4" Hex Power Drive		
Part Number	Point Size	Overall Length	Part Number	Point Size	Overall Length
491X	1	1-15/16"	493-AX	3	2-3/4"
492X	2	1-15/16"	491-BX	1	3-1/2"
493X	3	1-15/16"	492-BX	2	3-1/2"
491-AX	1	2-3/4"	493-BX	3	3-1/2"
492-AX	2	2-3/4"			

Apex® ACR Harpoon Phillips Power Drive Bits



With ACR anti-camout wing-face ribs for better grip.

1/4" Hex Power Drive ACR				
Part Number	Point Size	Body Diameter	Turned Length (A)	Overall Length
SD-4528-2-ACR2	2	9/64" (3.5 mm)	1-1/8" (28 mm)	1-15/16" (49 mm)
SD-4528-1-ACR2	2	9/64" (3.5 mm)	1-7/8" (48 mm)	2-3/4" (70 mm)
SD-5100	2	9/64" (3.5 mm)	3" (76 mm)	6" (152 mm)

Apex® Slotted Insert Bits



Note: Many other sizes available, please inquire.

1/4" Hex Insert, 1" Overall Length			
Part Number	Screw Size	Blade Thickness	Blade Width
445-1X	4F-5R	.034"	3/16"
445-2X	6F-8R	.040"	7/32"
445-3X	8F-10R	.042"	1/4"
445-4X	10F-12R	.046"	9/32"

1/4" Hex Insert, 1-1/2" Overall Length			
Part Number	Screw Size	Blade Thickness	Blade Width
445-5X	12F-14R	.050"	5/16"
445-6X	14F-16R	.055"	23/64"

5/16" Hex Insert, 1-1/2" Overall Length			
Part Number	Screw Size	Blade Thickness	Blade Width
485-1X	4F-5R	.034"	3/16"
485-2X	6F-8R	.040"	7/32"
485-3X	8F-10R	.042"	1/4"
485-4X	10F-12R	.046"	.296"

Apex® Hi-Torque Bits



1/4" Hex Insert, 1-1/4" Overall Length				
Part Number	Screw Size	Body Diameter	Blade Thickness	Blade Width
HTN-B-1	1	9/32"	.049"	.274"
HTN-B-2	2	5/16"	.059"	.295"
HTN-B-3	3	3/8"	.059"	.377"
HTN-B-4	4	1/2"	.073"	.502"

1/4" Square Drive Insert, 1" Overall Length				
Part Number	Screw Size	Body Diameter	Blade Thickness	Blade Width
HTS-0	0	1/2"	.029"	.167"
HTS-1	1	1/2"	.049"	.274"
HTS-2	2	1/2"	.059"	.295"
HTS-3	3	1/2"	.059"	.377"
HTS-4	4	1/2"	.073"	.502"

3/8" Square Drive Insert					
Part Number	Screw Size	Body Diameter	Blade Thickness	Blade Width	Overall Length
HTS-3A	1	3/4"	.059"	.377"	1"
HTS-4A	2	3/4"	.073"	.502"	1"
HTS-5	3	3/4"	.079"	.629"	1-1/4"
HTS-6	4	3/4"	.095"	.745"	1-1/4"

## ASSEMBLY TOOLS

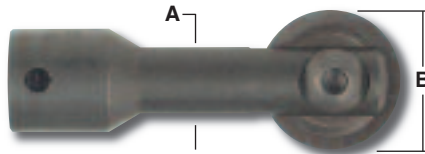
### Apex® Hi-Torque Bits (cont'd)



1/2" Square Drive Insert					
Part Number	Screw Size	Body Diameter	Blade Thickness	Blade Width	Overall Length
HTS-7	7	1"	.112"	.884"	1-5/8"
HTS-8	8	1"	.142"	.995"	1-5/8"
HTS-9	9	1-1/4"	.162"	1.136"	1-5/8"
HTS-10	10	1-1/4"	.182"	1.250"	1-5/8"
HTS-12*	12	1-1/4"	.216"	1.500"	2-3/8"

\* HTS-12 is 3/8" square drive (special order).

### 2 PC Replaceable Blade Hi-Torque Drivers



*Made In The USA*

- Hardened & shock resistant tool steel replaceable blades.
- Blades can also be turned several times for longer life.
- Meets gov't specs MIL-B-9946E, MIL-B-9946/2 & ANSI B107.4.

1/4" Square Drive Socket, 1/2" Shank Dia. (A)				
Complete Assembly	Blade Only	Bolt Nom. Diameter	Blade Dia. (B)	Overall Length
HT3202M	HTB2M	#8	0.500"	1.25" (32 mm)
HT3203M	HTB3M	#10	0.552"	1.36" (35 mm)

3/8" Square Drive Socket, 3/4" Shank Dia. (A)				
Complete Assembly	Blade Only	Bolt Nom. Diameter	Blade Dia. (B)	Overall Length
HT3204M	HTB4M	1/4"	0.864"	2.67" (68 mm)
HT3205M	HTB5M	5/16"	0.990"	2.73" (69 mm)
HT3206M	HTB6M	3/8"	1.240"	2.73" (69 mm)

1/2" Square Drive Socket, 1" Shank Dia. (A)				
Complete Assembly	Blade Only	Bolt Nom. Diameter	Blade Dia. (B)	Overall Length
HT3406M	HTB6M	3/8"	1.240"	3.17" (81 mm)
HT3407M	HTB7M	7/16"	1.375"	3.23" (82 mm)
HT3408M	HTB8M	1/2"	1.500"	3.30" (84 mm)
HT3409M	HTB9M	9/16"	1.750"	3.42" (87 mm)
HT3410M	HTB10M	5/8"	2.000"	3.55" (90 mm)

1/4" Hex Drive, 1/2" Shank Dia. (A)				
Complete Assembly	Blade Only	Bolt Nom. Diameter	Blade Dia. (B)	Overall Length
HT4403M	HTB3M	#10	0.552"	3.50" (89 mm)
HT4404M	HTB4M	1/4"	0.864"	3.50" (89 mm)

### APEX® Torx Bits



Note: Other sizes & styles available, please inquire.

1/4" Hex Insert, 1" Overall Length		
Part Number	Driver Size	Point Diameter
440-TX-05X	T-5	.055"
440-TX-06X	T-6	.065"
440-TX-07X	T-7	.077"
440-TX-08X	T-8	.090"
440-TX-09X	T-9	.097"
440-TX-10X	T-10	.107"
440-TX-15X	T-15	.128"
440-TX-20X	T-20	.151"
440-TX-25X	T-25	.173"
440-TX-27X	T-27	.195"
440-TX-30X	T-30	.216"
440-TX-40X	T-40	.260"
440-TX-45X	T-45	.306"
440-TX-50X	T-50	.346"



5/16" Hex Insert, 1-1/4" Overall Length		
Part Number	Driver Size	Point Diameter
480-TX-25X	T-25	.173"
480-TX-27X	T-27	.195"
480-TX-30X	T-30	.216"
480-TX-40X	T-40	.260"
480-TX-45X	T-45	.306"
480-TX-50X	T-50	.346"
480-TX-55X	T-55	.440"

### APEX® Socket Head Bits



Note: Other sizes avail., please inquire.

1/4" Hex Insert, 1" O.A.L.	
Part Number	Hex Size
185-0X	5/64"
185-1X	3/32"
185-9X	7/64"
185-2X	1/8"
185-10X	9/64"

1/4" Hex Insert, 1-5/16" O.A.L.	
Part Number	Hex Size
185-3X	5/32"
185-4X	3/16"
185-5X	7/32"
185-6X	1/4"

1/4" Hex Insert, 1-1/4" O.A.L.	
Part Number	Hex Size
185-7X	5/16"
185-8X	3/8"



Apex® Torq-Set Bits



1/4" Hex Insert, 1" Overall Length	
Part Number	Point Size
212-0	0
212-1	1
212-2	2
212-3	3
212-4	4
212-5	5
212-6	6
212-8	8
212-10	10
212-1/4	1/4"

5/16" Hex Insert, 1-1/4" Overall Length	
Part Number	Point Size
212-8A	8
212-10A	10
212-1/4A	1/4"
212-5/16A	5/16"
212-3/8A	3/8"

5/16" Hex Insert ACR*, 1-1/4" Overall Length	
Part Number	Point Size
212-1/4A-ACR	1/4"
212-5/16A-ACR	5/16"

1/4" Hex Insert ACR*, 1-1/4" Overall Length	
Part Number	Point Size
212-6-ACR	6
212-8-ACR	8
212-10-ACR	10
212-1/4-ACR	1/4"

5/16" Hex Power Drive, 1-1/4" Overall Length	
Part Number	Point Size
170-8A	8
170-10A	10
170-1/4A	1/4"
170-5/16A	5/16"
170-3/8A	3/8"

1/4" Hex Power Drive, 1-1/4" Overall Length	
Part Number	Point Size
170-0	0
170-1	1
170-2	2
170-3	3
170-4	4
170-5	5
170-6	6
170-6-ACR*	6
170-8	8
170-8-ACR*	8
170-10	10
170-10-ACR*	10
170-1/4B	1/4"
170-5/16B	5/16"
170-3/8B	3/8"

7/16" Hex Power Drive, 1-1/4" Overall Length	
Part Number	Point Size
170-1/4	1/4"
170-5/16	5/16"
170-3/8	3/8"
170-3/8C	3/8"
170-7/16	7/16"
170-7/16C	7/16"

7/16" Hex Power Drive ACR*, 1-1/4" Overall Length	
Part Number	Point Size
170-1/4-ACR	1/4"
170-5/16-ACR	5/16"

5/8" Hex Power Drive, 1-1/4" Overall Length	
Part Number	Point Size
170-1/2	1/2"
170-9/16	9/16"
170-5/8	5/8"

\* ACR anti-camout ribs for removal only.

Apex® Tri-Wing Bits



1/4" Hex Insert, 1" Overall Length			
Part Number	Point Size	Screw Size Tension Head	Screw Size Shear Head
TWD-0	0	0-80	—
TWD-1	1	2-56	4-40
TWD-2	2	4-40	6-32
TWD-3	3	6-32	8-32
TWD-4	4	8-32	10-32
TWD-5	5	10-32	1/4"-28
TWD-6	6	1/4"	5/16"
TWD-7	7	5/16"	3/8"

1/4" Hex Insert ACR*, 1-1/4" Overall Length			
Part Number	Point Size	Screw Size Tension Head	Screw Size Shear Head
TWD-4-ACR	4	8-32	10-32
TWD-5-ACR	5	10-32	1/4"-28

\* ACR anti-camout ribs for removal only.

1/4" Hex Power Drive, 1-1/4" Overall Length			
Part Number	Point Size	Screw Size Tension Head	Screw Size Shear Head
TW-0	0	0-80	—
TW-1	1	2-56	4-40
TW-2	2	4-40	6-32
TW-3	3	6-32	8-32
TW-4	4	8-32	10-32
TW-5	5	10-32	1/4"-28
TWB-6	6	1/4"-28	5/16"-24
TWB-7	7	5/16"-24	3/8"-24
TWB-8	8	3/8"-24	7/16"-20

Apex® Bit Extensions



1/4" Male Hex Drive with 1/4" Male Square		
Part Number	Lock Type	Overall Length
EX-250	Pin	1-3/8"
EX-250-B	Ball	1-3/8"
EX-250-2	Pin	2"

1/4" Male Hex Drive with 3/8" Male Square		
Part Number	Lock Type	Overall Length
EX-370	Pin	1-5/8"
EX-370-B	Ball	1-5/8"
EX-370-2	Pin	2"

# CLAMP & FASTENING TOOLS

## Wilton® Light Industrial C-Clamps



*Black-Ox Spindle  
With Tilt Head*

*Ductile Iron  
Frames*

Deep reach models ideal for many aerospace applications.

Standard			
Part Number	Holding Cap.	Jaw Reach	Jaw Gap
04-532	620 lbs	1-1/2" (60 mm)	0 - 1-1/2" (38 mm)
04-542	1430 lbs	2" (51 mm)	0 - 3" (76 mm)
04-543	1400 lbs	3-1/4" (83 mm)	0 - 6" (152 mm)
04-531	1700 lbs	4" (102 mm)	0 - 8" (203 mm)

Deep Reach			
Part Number	Holding Cap.	Jaw Reach	Jaw Gap
04-533	350 lbs	3" (76 mm)	0 - 1" (25 mm)
04-544	450 lbs	3-1/2" (89 mm)	0 - 2" (51 mm)
04-536	600 lbs	4" (102 mm)	0 - 2-1/2" (64 mm)
04-537	700 lbs	4-1/2" (114 mm)	0 - 3" (76 mm)
04-545	1600 lbs	4-3/4" (121 mm)	0 - 2-1/2" (64 mm)
04-546	1600 lbs	6-1/4" (159 mm)	0 - 2-1/2" (64 mm)

## Wilton® Junior C-Clamps

*Small & Tough*

Features a heat treated forged steel frame, zinc plated steel spindle and a tilt head.



Part Number	Holding Cap.	Jaw Reach	Jaw Gap
21301	500 lbs	1" (51 mm)	0 - 1" (25 mm)
21302	500 lbs	1-1/2" (60 mm)	0 - 1" (25 mm)
21303	800 lbs	1-1/4" (70 mm)	0 - 1-1/4" (32 mm)
21304	850 lbs	1-1/2" (92 mm)	0 - 1-1/2" (38 mm)
21305	875 lbs	1-1/4" (114 mm)	0 - 2" (51 mm)
21306	1100 lbs	1-3/8" (137 mm)	0 - 3" (76 mm)
21307	850 lbs	2-1/2" (146 mm)	0 - 2-1/2" (64 mm)

## Wilton® Hi-Vis Safety C-Clamps



- Drop forged frame and ACME rolled spindle for maximum strength.
- V-grooved anvil for secure holding of rounds, squares and flats.

Part Number	Holding Cap.	Jaw Reach	Jaw Gap
14300	3500 lbs	2-1/4" (57 mm)	0 - 2-1/8" (54 mm)
14301	3500 lbs	2-1/2" (64 mm)	0 - 3" (76 mm)
14302	6200 lbs	3-1/4" (83 mm)	0 - 4-1/4" (108 mm)
14303	6600 lbs	4-1/8" (105 mm)	0 - 6-1/16" (154 mm)
14305	6900 lbs	5" (127 mm)	0 - 8-1/4" (210 mm)
14306	8000 lbs	6" (152 mm)	2 - 10-1/8" (257 mm)
14307	9300 lbs	6-5/16" (176 mm)	2 - 12-1/4" (311 mm)

## Wilton® Economy C-Clamps



Part Number	Holding Cap.	Jaw Reach	Jaw Gap
20301	3500 lbs	2" (51 mm)	0 - 2" (51 mm)
20302	3500 lbs	2-3/8" (60 mm)	0 - 3" (76 mm)
20303	6200 lbs	2-3/4" (70 mm)	0 - 4" (102 mm)
20304	6600 lbs	3-5/8" (92 mm)	0 - 6" (152 mm)
20305	6900 lbs	4-1/2" (114 mm)	0 - 8" (203 mm)
20306	8000 lbs	5-3/8" (137 mm)	0 - 10" (254 mm)
20307	9500 lbs	5-3/4" (146 mm)	0 - 12" (305 mm)

## Nylon Tip C-Clamps

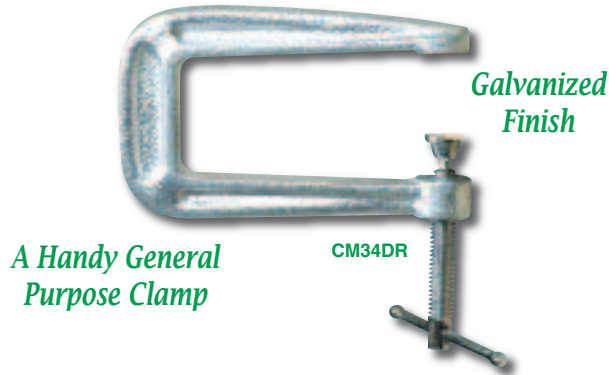
*Perfect For Aerospace Work*

- High strength to weight ratio.
- Nylon tip cap & nylon inserts are securely fastened to the foot of the clamp.
- 550 lbs holding capacity.



Part No.	Jaw Reach	Jaw Gap	Weight
H566N	1-3/16" (30 mm)	1-1/4" (32 mm)	0.25 lbs (0.11 kgs)
H568N	2-5/16" (59 mm)	2-1/2" (64 mm)	0.95 lbs (0.43 kgs)

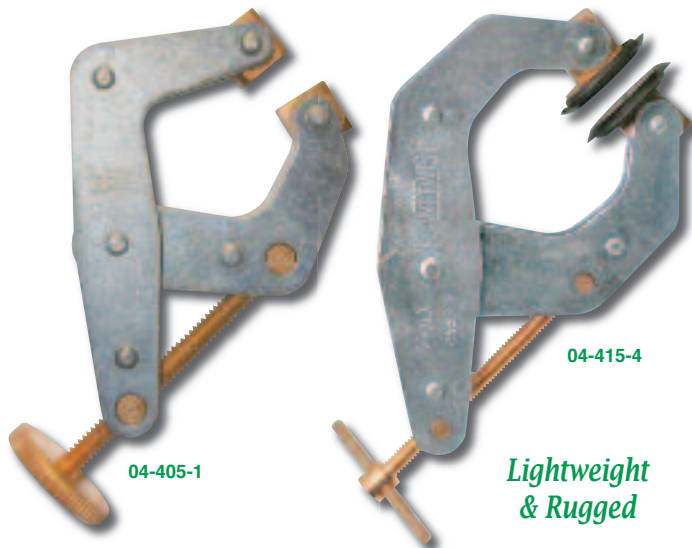
**Bessey® Deep Reach Malleable Cast C-Clamp**



*A Handy General Purpose Clamp*

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Weight
CM34DR	900 lbs	4-1/2" (102 mm)	2-3/4" (70 mm)	1.5 lbs (0.68 kgs)

**Fast Action Universal Clamps**



- Plates made from durable high tensile steel.
- Meets federal specification GGG-406 Type V.

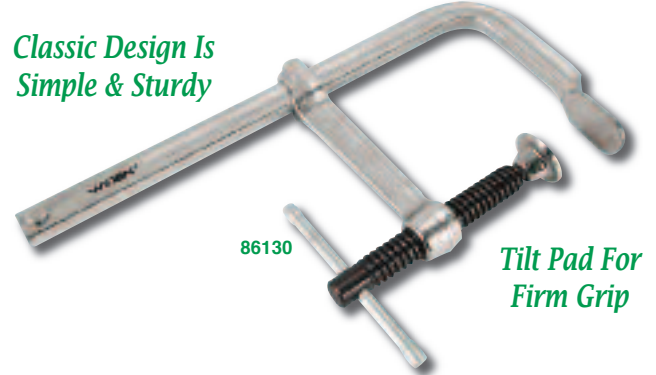
'T' Handle	
Part Number	Jaw Capacity
04-401	1" (25 mm)
04-405	2" (51 mm)
04-410	3" (76 mm)
04-420	6" (152 mm)
04-430	9" (229 mm)
04-440	12" (305 mm)

Round Handle	
Part Number	Jaw Capacity
04-396	3/4" (19 mm)
04-401-1	1" (25 mm)
04-405-1	2" (51 mm)

'T' Handle No Mar Rubber Pads	
Part Number	Jaw Capacity
04-401-4	1" (25 mm)
04-405-4	2" (51 mm)
04-410-4	3" (76 mm)
04-415-4	4-1/2" (114 mm)

'T' Handle Deep Throat	
Part Number	Jaw Capacity
04-415	4-1/2" (114 mm)
04-421	6" (152 mm)
04-435	10" (254 mm)

**Wilton® Light Duty Steel F-Clamps**



- Black oxide spindle resists wear and tear while impeding rust.
- Drop forged arm provides minimal flex under heavy work loads.

Part Number	Holding Cap.	Jaw Reach	Jaw Gap
86130	1200 lbs	4-3/4" (121 mm)	0 - 8" (20.3 cm)
86140	1200 lbs	4-3/4" (121 mm)	0 - 12" (30.5 cm)
86150	1200 lbs	4-3/4" (121 mm)	0 - 18" (45.7 cm)
86160	1200 lbs	4-3/4" (121 mm)	0 - 24" (60.9 cm)

**Bessey® VarioClippix® Sliding Arm Spring Clamps**



- Versatile sliding arm design with optimum handling.
- Rapid-action adj. jaw does the work of 4 different clamps.
- Lightweight, strong & corrosion resistant polyamide construction.

Single Sliding Arm			
Part Number	Jaw Reach	Jaw Gap	Weight
XV3-50	1-1/2" (38 mm)	2-1/8" (54 mm)	3 oz (85 g)
XV5-100	2" (51 mm)	4" (102 mm)	6.4 oz (181 g)

Double Sliding Arm			
Part Number	Jaw Reach	Jaw Gap	Weight
XV5-170	2" (51 mm)	6-1/2" (165 mm)	7.2 oz (204 g)

## CLAMP & FASTENING TOOLS

### Bessey® Clippix® Needle Nose Spring Clamps



- Long tapered nose ideal for delicate & hard to reach areas.
- Lightweight, strong & corrosion resistant polyamide construction.

Part Number	Jaw Reach	Jaw Gap	Weight
XCL2	2" (51 mm)	2" (51 mm)	6.4 oz (181 g)
XCL5	4" (102 mm)	3" (76 mm)	11.2 oz (181 g)

### Nickel Plated Spring Clamps

*Corrosion Resistant*



Ergonomic shape with protective handles & tips.

Part Number	Jaw Reach	Jaw Gap	Overall Length
04-634	1-1/4" (32 mm)	1" (25 mm)	4" (102 mm)
04-636	2" (51 mm)	2" (51 mm)	6" (152 mm)
04-639	3" (76 mm)	3" (76 mm)	9" (229 mm)
04-640	4" (102 mm)	4" (102 mm)	12" (305 mm)

### IRWIN® Spring Clamps



- Non-marring soft, pliable pads.
- Jaws configured to hold odd shapes.

Part Number	Jaw Reach	Jaw Gap
04-58100	1" (25 mm)	1" (25 mm)
04-58200	2" (51 mm)	2" (51 mm)
04-58300	3" (76 mm)	3" (76 mm)

### Bessey® Deep Reach Ratchet Spring Clamps



- Ratchet action locks onto workpiece with firm grip.
- Square jaw allows for easy clamping on odd shapes.
- Heavy-duty resin construction & non-slip handles.

Square Jaw Ratchet Spring Clamps			
Part Number	Jaw Reach	Jaw Gap	Weight
XCRU3	2" (51 mm)	2" (51 mm)	8 oz (227 g)
XCRU5	4" (102 mm)	4" (102 mm)	12 oz (340 g)



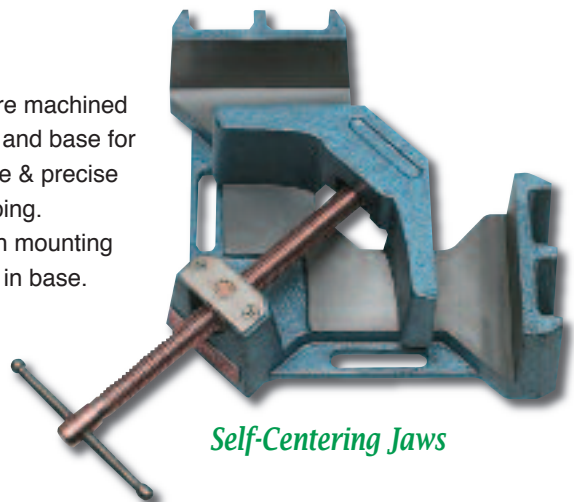
### Round Jaw Ratchet Spring Clamps

- Convenient set includes four round jaw clamps.

4 PC Round Jaw Ratchet Spring Clamp Set		
Part Number	Jaw Reach	Jaw Gap
XCR-4PC	2-1/2" (64 mm)	2" (51 mm)

### Aluminum 90° Angle Clamp

- Square machined sides and base for secure & precise clamping.
- Bench mounting holes in base.



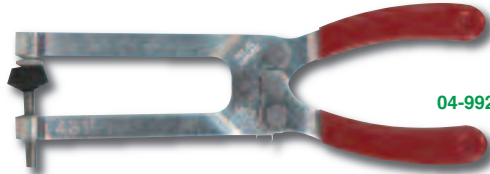
Part Number	Throat Depth	Miter Cap.	Weight
AC-324	4"	2-3/4"	2.6 lbs (1.2 kgs)

**Toggle Clamps**

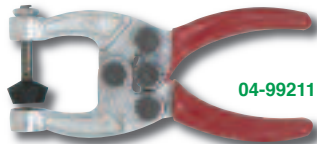


*Great Where  
Space Is Limited*

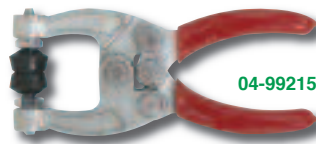
- Extra strong, quality construction.
- Low cost - have a myriad of uses in assembly operations.
- Many more styles available, please inquire.



04-99210



04-99211



04-99215

**1/4"-20 Spindle Thread**

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99210	100 lbs	2-5/16"	1-1/16" (27 mm)	6-7/8" (175 mm)
04-99211	200 lbs	1-1/4"	1-1/16" (27 mm)	4-5/16" (110 mm)
04-99215	200 lbs	1-1/4"	1-1/16" (27 mm)	4-5/16" (110 mm)



04-99311

**5/16"-18 Spindle Thread**

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99311	350 lbs	1-7/8"	1-1/16" (27 mm)	5-11/16" (144 mm)

04-99423

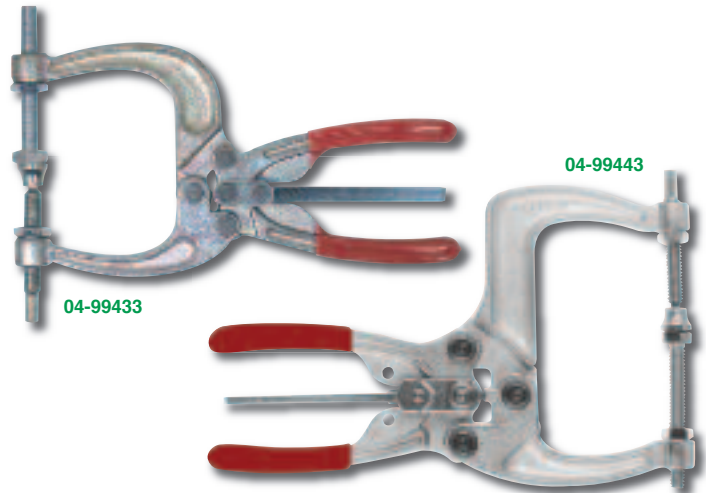


Note: Includes swivel spindle.

**Quick-Release, 3/8"-16 Spindle Thread**

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99423	700 lbs	2-1/2"	1-5/8" (41 mm)	9-1/2" (241 mm)

**Toggle Clamps (cont'd)**



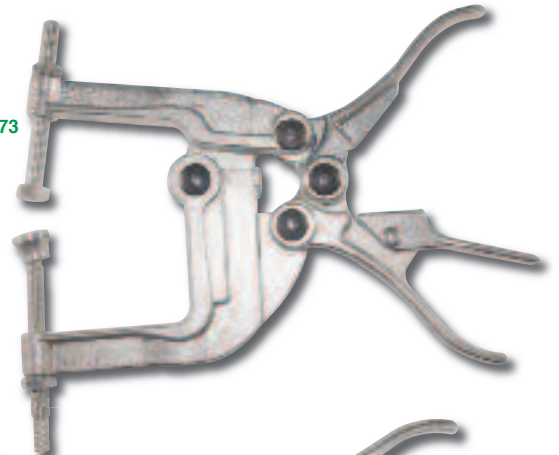
04-99433

04-99443

**Quick-Release, 3/8"-16 Spindle Thread**

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99433	700 lbs	2-1/2"	3" (76 mm)	9-1/2" (241 mm)
04-99443	1200 lbs	2-1/2"	4-1/4" (108 mm)	9-1/2" (241 mm)

04-99473



04-99513



**Quick-Release, 5/16"-24 Spindle Thread**

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99473	700 lbs	2-3/8"	3" (76 mm)	8-1/16" (205 mm)

**Offset, 5/16"-24 Spindle Thread**

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99513	Varies	4"	1-1/16" (27 mm)	11-3/32" (282 mm)

*Toggle Clamps Continued On Next Page*

# CLAMP & FASTENING TOOLS

## Toggle Clamps (cont'd)

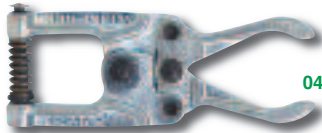


04-99523, 04-99543 & 04-99553



04-99483, 04-99493 & 04-99503

3/8"-24 Spindle Thread				
Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99483	600 lbs	4"	1-3/4" (44 mm)	10-7/16" (265 mm)
04-99493	400 lbs	6"	1-3/4" (44 mm)	12-7/16" (316 mm)
04-99503	300 lbs	8"	1-3/4" (44 mm)	14-7/16" (367 mm)
04-99523	1200 lbs	2-1/4"	3-17/32" (90 mm)	8-3/8" (213 mm)
04-99543	1600 lbs	2-1/4"	4-17/32" (115 mm)	9-3/4" (248 mm)
04-99553	1600 lbs	2-1/4"	6-17/32" (166 mm)	9-3/4" (248 mm)



04-99563 & 04-99573

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Overall Length
04-99563	10-45 lbs	1-3/16"	15/16" (24 mm)	4-3/4" (121 mm)
04-99573	65-125 lbs	2-1/4"	1-3/4" (44 mm)	8-3/8" (213 mm)

## Spring Tension Clamps

- Assures uniform pressure.
- Apply in a fraction of the time required for ordinary screw clamps.
- Zamac alloy yoke & steel spring provides 70 lbs of force.



04-3090-0

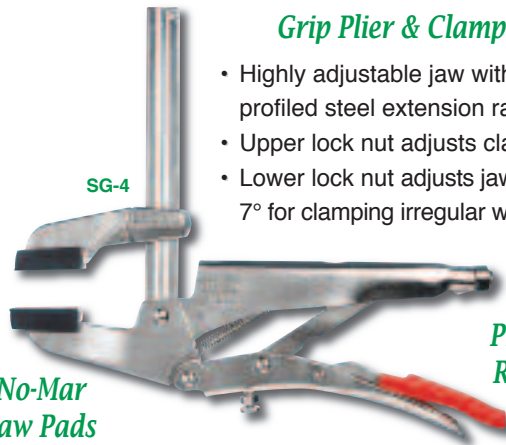
**Note:** Requires sheet metal fastener pliers for installation (see next page).

Part Number	Jaw Reach	Jaw Gap
04-3090-0	1-3/4"	0" to 7/16"
04-3090-1/4	3"	1/4" to 15/32"
04-3090-1/2	3-1/2"	9/16" to 1"

## Bessey® SuperGrips® Locking Clamp Pliers

### Grip Plier & Clamp In One

- Highly adjustable jaw with cold drawn, profiled steel extension rail.
- Upper lock nut adjusts clamping force.
- Lower lock nut adjusts jaw angle up to 7° for clamping irregular workpieces.



SG-4

No-Mar  
Jaw Pads

Plastic Coated  
Release Lever

Part Number	Holding Capacity	Jaw Reach	Jaw Gap	Weight
SG-4	440 lbs	2-1/2" (64 mm)	4" (102 mm)	2.5 lbs (1.1 kgs)
SG-8	440 lbs	2-1/2" (64 mm)	8" (203 mm)	2.7 lbs (1.2 kgs)

Part Number	Description
SG-PADS	Replacement Protective Jaw Pads (pair)

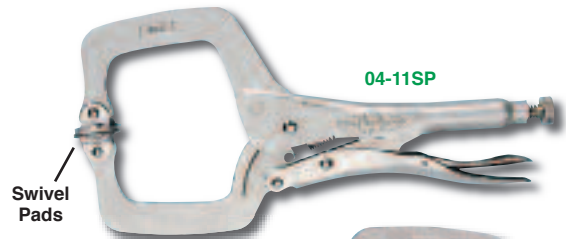
## IRWIN® Locking C-Clamps

### Steel Swivel Pad Tips

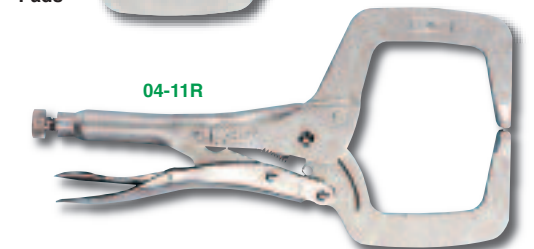
Part No.	Throat Depth	Jaw Adjustment	Weight	Overall Length
04-4SP	1-1/4"	0 to 1-5/8"	0.3 lbs (0.13 kgs)	4" (102 mm)
04-6SP	1-1/2"	0 to 2-1/8"	0.6 lbs (0.27 kgs)	6" (152 mm)
04-11SP	2-5/8"	0 to 4"	1.8 lbs (0.8 kgs)	11" (279 mm)
04-18SP	9-1/2"	0 to 8"	2.8 lbs (1.3 kgs)	18" (457 mm)
04-24SP	15-1/2"	0 to 10"	3.6 lbs (1.6 kgs)	24" (609 mm)

### Regular Tips

Part No.	Throat Depth	Jaw Adjustment	Weight	Overall Length
04-6R*	1-1/2"	0 to 2-1/8"	0.5 lbs (0.22 kgs)	6" (152 mm)
04-11R*	2-5/8"	0 to 4"	1.7 lbs (0.7 kgs)	11" (279 mm)
04-18R	9-1/2"	0 to 8"	2.7 lbs (1.2 kgs)	18" (457 mm)



04-11SP



04-11R

\* Also available with fast release cushioned grips, please inquire.

Quick-Clamp Lever Locks



Snaps open or shut with the flick of a thumb.

*Firm Gripping  
No-Mar Jaws*

Part Number	Throat Depth	Jaw Capacity	Overall Length
04-W-1	1"	0 to 5/32"	3-1/4" (83 mm)
04-W-2	1-3/8"	0 to 5/32"	3-3/4" (93 mm)
04-10-2A	1/8" to 3/8"	1-3/8"	3-3/4" (93 mm)
04-10-2B	3/16" to 1/2"	1-3/8"	3-3/4" (93 mm)
04-10-2C	1/2" to 3/4"	1"	3-5/8" (92 mm)
04-10-2D	3/4" to 1"	7/8"	3-1/2" (89 mm)
04-10-3	0 to 3/16"	2"	4-3/4" (121 mm)

Sheet Metal Fastener Installation Tools

*For All M  
Type & Side  
Grip Fasteners*



*Quiet  
Pneumatic  
Operation*



- Eliminates constant repetitive motion related to cleco pliers.
- Ergo handle & 360° swivel mount for comfortable operation.
- Includes 8' polyurethane hose, 1/4" NPT (not shown).

Part Number	Style	Weight
70699	Lever Grip	0.75 lbs (0.34 kgs)
70701	Pistol Grip	1.25 lbs (0.57 kgs)

Sheet Metal Fastener Pliers



*Installs MM, M, ML, MHD  
& Side Grip Fasteners*

Also compatible with all spring loaded type fasteners.

Part Number	Type
04-62	Standard
04-63	With Plastigrip Handles
04-64	With Black-Ox Coating

Monogram® Sheet Metal Fasteners (CLECOS)



'MM' Type Mini		
Part Number	Material Capacity	Drill Size
04-MM-3/32	0 to 1/4"	#40
04-MM-1/8	0 to 1/4"	#30
04-MM-5/32	0 to 1/4"	#20
04-MM-3/16	0 to 1/4"	#10

'ML' Type		
Part Number	Material Capacity	Drill Size
04-ML-3/32	1/4 to 1/2"	#40
04-ML-1/8	1/4 to 1/2"	#30
04-ML-5/32	1/4 to 1/2"	#20
04-ML-3/16	1/4 to 1/2"	#10

'M' Type Standard		
Part Number	Material Capacity	Drill Size
04-M-1/16	0 to 1/4"	1/16"
04-M-3/32	0 to 1/4"	#40
04-M-1/8	0 to 1/4"	#30
04-M-5/32	0 to 1/4"	#20
04-M-3/16	0 to 1/4"	#10
04-M-7/32	0 to 7/32"	#2
04-M-1/4	0 to 5/16"	1/4"

'MHD' Type		
Part Number	Material Capacity	Drill Size
04-MHD-3/32	0 to 1/2"	#40
04-MHD-1/8	0 to 1/2"	#30
04-MHD-5/32	0 to 1/2"	#20
04-MHD-3/16	0 to 1/2"	#10
04-MHD-7/32	0 to 7/32"	#2
04-MHD-1/4	0 to 1/2"	1/4"

'Side Grip' Type		
Part Number	Material Capacity	Reach
04-EL-1/2-1/2	0 to 1/2"	1/2"
04-EL-3/4-1/2	0 to 3/4"	1/2"
04-EL-1/2-1	0 to 1/2"	1"
04-EL-3/4-1	0 to 3/4"	1"

# CLAMP & FASTENING TOOLS

## Cylindrical Body Fastener Installation Tools



W500-30-931

### Compact & Lightweight

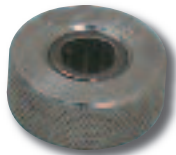
- No 'fastener to tool' orientation problems.
- Drives all dia. & grip accommodations.
- Patented roller bearing drive system allows faster installation & removal.
- Adj. clamping loads from 100 to 600 lbs.

Part Number	RPM	Torque
W500-30-931	3,000	25 in-lbs
W500-30-931-GB*	3,000	25 in-lbs
W880-20-931-IR	2,000	32 in-lbs
W880-10-931-IR	1,000	64 in-lbs

\* W500-30-931-GB includes guide bushing for easier fastener installation.

## Manual Cylindrical Body Fastener Tool

Hand Actuated, For Both Installation & Removal



Part Number	Weight
04-CBHT-01	0.5 oz (14.2 g)

## Cylindrical Body Temporary Fasteners



- Lightweight & efficient with a unique cylindrical design.
- Lasting reusability with a maximum 100 lbs clamping pressure.

### Spring Loaded Models

- For use in wet sealant & liquid shim applications.
- Eliminate the need for re-torquing after installation.

3/32" Hole Diameter - #40 Drill Size - Zinc			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-3/32	0 to 1/2"	04-CSX-3/32	0 to 1/2"
04-CBXL-3/32	0 to 1"	04-CSXL-3/32	1/2 to 1"
04-CBXEL-3/32	1/2 to 1-1/2"	04-CSXEL-3/32	1/2 to 1-1/2"

1/8" Hole Diameter - #30 Drill Size - Copper			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-1/8	0 to 1/2"	04-CSX-1/8	0 to 1/2"
04-CBXL-1/8	0 to 1"	04-CSXL-1/8	1/2 to 1"
04-CBXEL-1/8	1/2 to 1-1/2"	04-CSXEL-1/8	1 to 1-1/2"
04-CBXK-1/8	1-1/2 to 2-1/2"	04-CSXK-1/8	2 to 2-1/2"

## Cylindrical Body Temporary Fasteners (cont'd)

5/32" Hole Diameter - #20 Drill Size - Black			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-5/32	0 to 1/2"	04-CSX-5/32	0 to 1/2"
04-CBXL-5/32	0 to 1"	04-CSXL-5/32	1/2 to 1"
04-CBXEL-5/32	1/2 to 1-1/2"	04-CSXEL-5/32	1 to 1-1/2"
04-CBXK-5/32	1-1/2 to 2-1/2"	04-CSXK-5/32	2 to 2-1/2"

3/16" Hole Diameter - #10 Drill Size - Brass			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-3/16	0 to 1/2"	04-CSX-3/16	0 to 1/2"
04-CBXL-3/16	0 to 1"	04-CSXL-3/16	1/2 to 1"
04-CBXEL-3/16	1/2 to 1-1/2"	04-CSXEL-3/16	1 to 1-1/2"
04-CBXK-3/16	1-1/2 to 2-1/2"	04-CSXK-3/16	2 to 2-1/2"

7/32" Hole Diameter - #2 Drill Size - Zinc			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-7/32	0 to 1/2"	04-CSX-7/32	0 to 1/2"
04-CBXL-7/32	0 to 1"	04-CSXL-7/32	1/2 to 1"
04-CBXEL-7/32	1/2 to 1-1/2"	04-CSXEL-7/32	1 to 1-1/2"
04-CBXK-7/32	1-1/2 to 2-1/2"	04-CSXK-7/32	2 to 2-1/2"

1/4" Hole Diameter - 'F' Drill Size - Copper			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-1/4	0 to 1/2"	04-CSX-1/4	0 to 1/2"
04-CBXL-1/4	0 to 1"	04-CSXL-1/4	1/2 to 1"
04-CBXEL-1/4	1/2 to 1-1/2"	04-CSXEL-1/4	1 to 1-1/2"
04-CBXK-1/4	1-1/2 to 2-1/2"	04-CSXK-1/4	2 to 2-1/2"

9/32" Hole Diameter - 'L' Drill Size - Brass			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-9/32	0 to 1/2"	04-CSX-9/32	0 to 1/2"
04-CBXL-9/32	0 to 1"	04-CSXL-9/32	1/2 to 1"
04-CBXEL-9/32	1/2 to 1-1/2"	04-CSXEL-9/32	1 to 1-1/2"
04-CBXK-9/32	1-1/2 to 2-1/2"	04-CSXK-9/32	2 to 2-1/2"

5/16" Hole Diameter - 'O' Drill Size - Black			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-5/16	0 to 1/2"	04-CSX-5/16	0 to 1/2"
04-CBXL-5/16	0 to 1"	04-CSXL-5/16	1/2 to 1"
04-CBXEL-5/16	1/2 to 1-1/2"	04-CSXEL-5/16	1 to 1-1/2"
04-CBXK-5/16	1-1/2 to 2-1/2"	04-CSXK-5/16	2 to 2-1/2"

3/8" Hole Diameter - 'V' Drill Size - Black with Brass Cap			
Standard	Grip Range	Spring Loaded	Grip Range
04-CBX-3/8	0 to 1/2"	04-CSX-3/8	0 to 1/2"
04-CBXL-3/8	0 to 1"	04-CSXL-3/8	1/2 to 1"
04-CBXEL-3/8	1/2 to 1-1/2"	04-CSXEL-3/8	1 to 1-1/2"
04-CBXK-3/8	1-1/2 to 2-1/2"	04-CSXK-3/8	2 to 2-1/2"



**Sioux® Hex Body Temporary Fastener Runners**



*Works With All Brands & Styles Of Hex Fasteners*

*New Ergonomic Pistol Grip*

**Pistol Grip Model**

- Includes new ergonomic comfort grip.

Pistol Grip				
Part Number	Free RPM	Torque	Overall Length	Weight
SSR6P25	2500	55 in-lbs	9-1/4" (235 mm)	2.7 lbs (1.2 kgs)

**'Z' Handle Model**

- Smaller profile 'Z' handle perfect for limited access areas.

'Z' Handle				
Part Number	Free RPM	Torque	Overall Length	Weight
2S2300SR	2200	55 in-lbs	5-3/4" (146 mm)	2.6 lbs (1.2 kgs)

**Hex Body Fastener Installation Tool**

*Compact & Lightweight*



W800-10-821-CHIR

*No 'Fastener To Tool' Orientation Problems*

- Drives all diameter and grip accommodations.
- Patented roller bearing drive system allows faster installation & removal.
- Adjustable clamping loads from 100 to 600 lbs.

Part Number	RPM	Torque
W880-20-821-CHIR	2,000	32 in-lbs
W880-10-821-CHIR	1,000	64 in-lbs

**Hex Body Temporary Fasteners**



- High clamping loads.
- Spin-free design allows nut to fully back off stud while on stud body.
- Metric hex body fasteners available on next page.

**Fractional Sizes** (continued on next page)

- Available in color coded hole diameters from 3/32" to 3/8".

3/32" Hole Diameter - #40 Drill Size - Zinc			
Standard	Grip Range	Body Installed	Overall Length
04-HNXS-3/32	0 to 5/16"	2-7/32"	2-3/8"
04-HNX-3/32	0 to 1/2"	2-11/16"	2-7/8"
04-HNXL-3/32	0 to 1"	3-11/16"	3-7/8"
04-HNXEL-3/32	1/2 to 1-1/2"	3-47/64"	4-3/8"

1/8" Hole Diameter - #30 Drill Size - Copper			
Standard	Grip Range	Body Installed	Overall Length
04-HNXS-1/8	0 to 5/16"	2-7/32"	2-3/8"
04-HNX-1/8	0 to 1/2"	2-11/16"	2-7/8"
04-HNXL-1/8	0 to 1"	3-11/16"	3-7/8"
04-HNXEL-1/8	1/2 to 1-1/2"	3-47/64"	4-3/8"
04-HNXK-1/8	1-1/2 to 2-1/2"	3-47/64"	5-3/8"

5/32" Hole Diameter - #20 Drill Size - Black			
Standard	Grip Range	Body Installed	Overall Length
04-HNXS-5/32	0 to 5/16"	2-7/32"	2-3/8"
04-HNX-5/32	0 to 1/2"	2-11/16"	2-7/8"
04-HNXL-5/32	0 to 1"	3-11/16"	3-7/8"
04-HNXEL-5/32	1/2 to 1-1/2"	3-47/64"	4-3/8"
04-HNXK-5/32	1-1/2 to 2-1/2"	3-47/64"	5-3/8"

3/16" Hole Diameter - #10 Drill Size - Brass			
Standard	Grip Range	Body Installed	Overall Length
04-HNXS-3/16	0 to 5/16"	2-7/32"	2-3/8"
04-HNX-3/16	0 to 1/2"	2-11/16"	2-7/8"
04-HNXL-3/16	0 to 1"	3-11/16"	3-7/8"
04-HNXEL-3/16	1/2 to 1-1/2"	3-47/64"	4-3/8"
04-HNXK-3/16	1-1/2 to 2-1/2"	3-47/64"	5-3/8"

7/32" Hole Diameter - #2 Drill Size - Zinc			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-7/32	0 to 1/2"	2-11/16"	2-7/8"
04-HNXL-7/32	0 to 1"	3-11/16"	3-7/8"
04-HNXEL-7/32	1/2 to 1-1/2"	3-47/64"	4-3/8"

# CLAMP & FASTENING TOOLS

## Hex Body Temporary Fasteners (cont'd)

1/4" Hole Diameter - 'F' Drill Size - Copper			
Standard	Grip Range	Body Installed	Overall Length
04-HNXS-1/4	0 to 5/16"	2-7/32"	2-3/8"
04-HNX-1/4	0 to 1/2"	2-11/16"	2-7/8"
04-HNXL-1/4	0 to 1"	3-11/16"	3-7/8"
04-HNXEL-1/4	1/2 to 1-1/2"	3-47/64"	4-3/8"
04-HNXK-1/4	1-1/2 to 2-1/2"	3-47/64"	5-3/8"

9/32" Hole Diameter - 'L' Drill Size - Brass			
Standard	Grip Range	Body Installed	Overall Length
04-HNXK-9/32	1-1/2 to 2-1/2"	3-47/64"	5-3/8"

5/16" Hole Diameter - 'O' Drill Size - Black			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-5/16	0 to 1/2"	2-11/16"	2-7/8"
04-HNXL-5/16	0 to 1"	3-11/16"	3-7/8"
04-HNXEL-5/16	1/2 to 1-1/2"	3-47/64"	4-3/8"
04-HNXK-5/16	1-1/2 to 2-1/2"	3-47/64"	5-3/8"

3/8" Hole Diameter - 'V' Drill Size - Black with Brass Cap			
Standard	Grip Range	Body Installed	Overall Length
04-HNXL-3/8	0 to 1"	3-11/16"	3-7/8"
04-HNXEL-3/8	1/2 to 1-1/2"	3-47/64"	4-3/8"
04-HNXK-3/8	1-1/2 to 2-1/2"	3-47/64"	5-3/8"

**Metric Sizes** (continued on next page)

- Available in color coded hole diameters from 2.5 mm to 8.0 mm.

2.5 mm Hole Diameter - Silver			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-2.5	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-2.5	0 to 25 mm	94.5 mm	99.3 mm

3.0 mm Hole Diameter - Copper			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-3.0	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-3.0	0 to 25 mm	94.5 mm	99.3 mm

3.5 mm Hole Diameter - Copper with Brass Nut			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-3.5	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-3.5	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-3.5	13 to 38 mm	95.6 mm	112.2 mm

4.0 mm Hole Diameter - Black			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-4.0	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-4.0	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-4.0	13 to 38 mm	95.6 mm	112.2 mm

## Hex Body Temporary Fasteners (cont'd)

4.5 mm Hole Diameter - Brass with Silver Nut			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-4.5	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-4.5	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-4.5	13 to 38 mm	95.6 mm	112.2 mm

5.0 mm Hole Diameter - Brass with Copper Nut			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-5.0	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-5.0	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-5.0	13 to 38 mm	95.6 mm	112.2 mm

5.5 mm Hole Diameter - Silver with Black Nut			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-5.5	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-5.5	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-5.5	13 to 38 mm	95.6 mm	112.2 mm

6.0 mm Hole Diameter - Copper			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-6.0	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-6.0	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-6.0	13 to 38 mm	95.6 mm	112.2 mm

6.5 mm Hole Diameter - Copper with Black Nut			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-6.5	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-6.5	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-6.5	13 to 38 mm	95.6 mm	112.2 mm

7.0 mm Hole Diameter - Silver with Copper Nut			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-7.0	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-7.0	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-7.0	13 to 38 mm	95.6 mm	112.2 mm

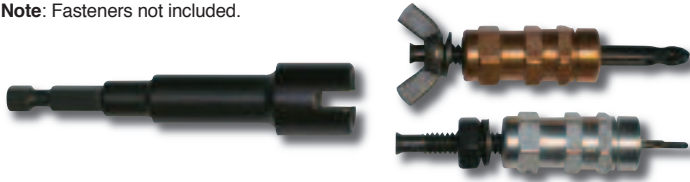
7.5 mm Hole Diameter - Black with Brass Nut			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-7.5	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-7.5	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-7.5	13 to 38 mm	95.6 mm	112.2 mm
04-HNXK-7.5	38 to 63 mm	95.6 mm	137.8 mm

**Hex Body Temporary Fasteners (cont'd)**

8.0 mm Hole Diameter - Black			
Standard	Grip Range	Body Installed	Overall Length
04-HNX-8.0	0 to 13 mm	68.8 mm	73.7 mm
04-HNXL-8.0	0 to 25 mm	94.5 mm	99.3 mm
04-HNXEL-8.0	13 to 38 mm	95.6 mm	112.2 mm
04-HNXK-8.0	38 to 63 mm	95.6 mm	137.8 mm

**Hex & Wing Nut Installation Tool**

Note: Fasteners not included.

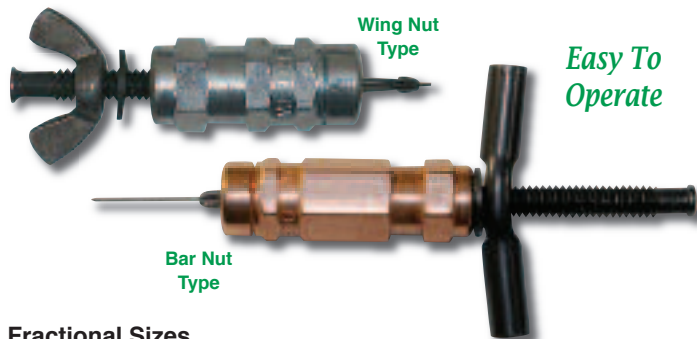


- Designed to install hex & wing nut fasteners fast & economically.
- Use with any 1/4" chuck or 1/4" female sq. drive power tool.

Part Number	Overall Length
70664	3-1/2" (89 mm)

**Wing & Bar Nut Manual Temporary Fasteners**

- User controlled clamping forces of 50 to 300 lbs.
- Metric wing nut fasteners available on next page.



**Fractional Sizes**

- Available in color coded hole diameters from 3/32" to 3/8".

3/32" Hole Diameter - #40 Drill Size - Zinc			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNXS-3/32	04-BNXS-3/32	0 to 5/16"	2-3/8"
04-WNX-3/32	04-BNX-3/32	0 to 1/2"	2-7/8"
04-WNXL-3/32	04-BNXL-3/32	0 to 1"	3-7/8"
04-WNXEL-3/32	04-BNXEL-3/32	1/2 to 1-1/2"	4-3/8"

1/8" Hole Diameter - #30 Drill Size - Copper			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNXS-1/8	04-BNXS-1/8	0 to 5/16"	2-3/8"
04-WNX-1/8	04-BNX-1/8	0 to 1/2"	2-7/8"
04-WNXL-1/8	04-BNXL-1/8	0 to 1"	3-7/8"
04-WNXEL-1/8	04-BNXEL-1/8	1/2 to 1-1/2"	4-3/8"
04-WNXK-1/8	04-BNXK-1/8	1-1/2 to 2-1/2"	5-3/8"

**Wing & Bar Nut Manual Temp. Fasteners (cont'd)**

5/32" Hole Diameter - #20 Drill Size - Black			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNXS-5/32	04-BNXS-5/32	0 to 5/16"	2-3/8"
04-WNX-5/32	04-BNX-5/32	0 to 1/2"	2-7/8"
04-WNXL-5/32	04-BNXL-5/32	0 to 1"	3-7/8"
04-WNXEL-5/32	04-BNXEL-5/32	1/2 to 1-1/2"	4-3/8"
04-WNXK-5/32	04-BNXK-5/32	1-1/2 to 2-1/2"	5-3/8"

3/16" Hole Diameter - #10 Drill Size - Brass			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNXS-3/16	04-BNXS-3/16	0 to 5/16"	2-3/8"
04-WNX-3/16	04-BNX-3/16	0 to 1/2"	2-7/8"
04-WNXL-3/16	04-BNXL-3/16	0 to 1"	3-7/8"
04-WNXEL-3/16	04-BNXEL-3/16	1/2 to 1-1/2"	4-3/8"
04-WNXK-3/16	04-BNXK-3/16	1-1/2 to 2-1/2"	5-3/8"

7/32" Hole Diameter - #2 Drill Size - Zinc			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNX-7/32	04-BNX-7/32	0 to 1/2"	2-7/8"
04-WNXL-7/32	04-BNXL-7/32	0 to 1"	3-7/8"
04-WNXEL-7/32	04-BNXEL-7/32	1/2 to 1-1/2"	4-3/8"

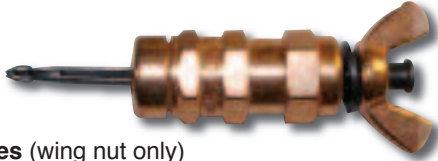
1/4" Hole Diameter - 'F' Drill Size - Copper			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNXS-1/4	04-BNXS-1/4	0 to 5/16"	2-3/8"
04-WNX-1/4	04-BNX-1/4	0 to 1/2"	2-7/8"
04-WNXL-1/4	04-BNXL-1/4	0 to 1"	3-7/8"
04-WNXEL-1/4	04-BNXEL-1/4	1/2 to 1-1/2"	4-3/8"
04-WNXK-1/4	04-BNXK-1/4	1-1/2 to 2-1/2"	5-3/8"

5/16" Hole Diameter - 'O' Drill Size - Black			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNX-5/16	04-BNX-5/16	0 to 1/2"	2-7/8"
04-WNXL-5/16	04-BNXL-5/16	0 to 1"	3-7/8"
04-WNXEL-5/16	04-BNXEL-5/16	1/2 to 1-1/2"	4-3/8"
04-WNXK-5/16	04-BNXK-5/16	1-1/2 to 2-1/2"	5-3/8"

3/8" Hole Diameter - 'V' Drill Size - Black with Brass Cap			
Wing Nut	Bar Nut	Grip Range	Overall Length
04-WNX-3/8	04-BNX-3/8	0 to 1/2"	2-7/8"
04-WNXL-3/8	04-BNXL-3/8	0 to 1"	3-7/8"
04-WNXEL-3/8	04-BNXEL-3/8	1/2 to 1-1/2"	4-3/8"
04-WNXK-3/8	04-BNXK-3/8	1-1/2 to 2-1/2"	5-3/8"

## CLAMP & FASTENING TOOLS

### Wing & Bar Nut Manual Temp. Fasteners (cont'd)



#### Metric Sizes (wing nut only)

- Available in color coded hole diameters from 2.5 mm to 8.0 mm.

2.5 mm Hole Diameter - Silver			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-2.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-2.5	0 to 25 mm	94.5 mm	99.3 mm

3.0 mm Hole Diameter - Copper			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-3.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-3.0	0 to 25 mm	94.5 mm	99.3 mm

3.5 mm Hole Diameter - Silver with Black Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-3.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-3.5	0 to 25 mm	94.5 mm	99.3 mm

4.0 mm Hole Diameter - Black			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-4.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-4.0	0 to 25 mm	94.5 mm	99.3 mm

4.5 mm Hole Diameter - Brass with Silver Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-4.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-4.5	0 to 25 mm	94.5 mm	99.3 mm

5.0 mm Hole Diameter - Brass with Copper Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-5.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-5.0	0 to 25 mm	94.5 mm	99.3 mm

5.5 mm Hole Diameter - Silver with Black Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-5.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-5.5	0 to 25 mm	94.5 mm	99.3 mm

6.0 mm Hole Diameter - Copper			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-6.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-6.0	0 to 25 mm	94.5 mm	99.3 mm

6.5 mm Hole Diameter - Copper with Black Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-6.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-6.5	0 to 25 mm	94.5 mm	99.3 mm

### Wing & Bar Nut Manual Temp. Fasteners (cont'd)

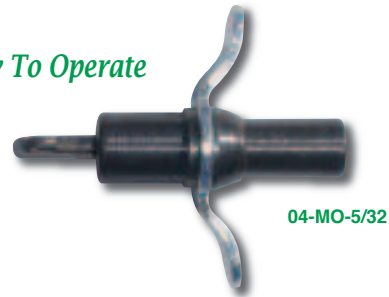
7.0 mm Hole Diameter - Copper with Silver Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-7.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-7.0	0 to 25 mm	94.5 mm	99.3 mm

7.5 mm Hole Diameter - Black with Black Rivet			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-7.5	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-7.5	0 to 25 mm	94.5 mm	99.3 mm

8.0 mm Hole Diameter - Black			
Wing Nut	Grip Range	Body Installed	Overall Length
04-WNX-8.0	0 to 13 mm	68.8 mm	73.7 mm
04-WNXL-8.0	0 to 25 mm	94.5 mm	99.3 mm

### 'MO' Type Manual Temporary Fasteners

*Easy To Operate*



04-MO-5/32

- User controlled clamping forces of 50 to 300 lbs.
- Metric 'MO' type fasteners available on next page.

#### Fractional Sizes (continued on next page)

- Available in color coded hole diameters from 3/32" to 3/16".

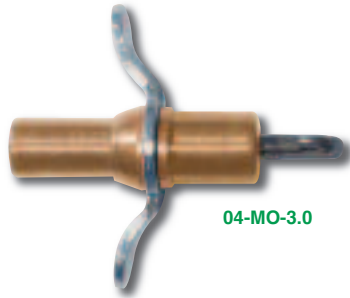
3/32" Hole Diameter - #40 Drill Size - Zinc	
'MO' Type	Grip Range
04-MO-3/32	0 to 1/4"
04-MOL-3/32	1/4" to 1/2"

1/8" Hole Diameter - #30 Drill Size - Copper	
'MO' Type	Grip Range
04-MO-1/8	0 to 1/4"
04-MOL-1/8	1/4" to 1/2"

5/32" Hole Diameter - #20 Drill Size - Black	
'MO' Type	Grip Range
04-MO-5/32	0 to 1/4"
04-MOL-5/32	1/4" to 1/2"

3/16" Hole Diameter - #10 Drill Size - Brass	
'MO' Type	Grip Range
04-MO-3/16	0 to 1/4"
04-MOL-3/16	1/4" to 1/2"

## 'MO' Type Manual Temporary Fasteners (cont'd)



04-MO-3.0

### Metric Sizes

- Available in color coded hole diameters from 2.0 mm to 4.5 mm.

2.0 mm Hole Diameter - Black with Brass Rivet	
'MO' Type	Grip Range
04-MO-2.0	0 to 6.5 mm

2.5 mm Hole Diameter - Silver	
'MO' Type	Grip Range
04-MO-2.5	0 to 6.5 mm

3.0 mm Hole Diameter - Copper	
'MO' Type	Grip Range
04-MO-3.0	0 to 6.5 mm

3.5 mm Hole Diameter - Copper with Brass Rivet	
'MO' Type	Grip Range
04-MO-3.5	0 to 6.5 mm

4.0 mm Hole Diameter - Black	
'MO' Type	Grip Range
04-MO-4.0	0 to 6.5 mm

4.5 mm Hole Diameter - Silver with Brass Rivet	
'MO' Type	Grip Range
04-MO-4.5	0 to 6.5 mm

## Protective Caps For Sheet Metal Fasteners

Available user-installed in soft vinyl or hard plastic, or pre-installed with the temporary fastener.

Soft Vinyl



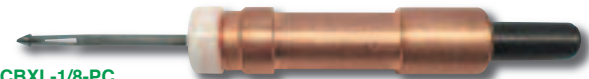
Easy To Install

Cap Only - Soft Vinyl		
Part Number	Hole Diameter	For Fasteners
NX-CAP-1	3/32" to 3/16"	BNX, CBX, CSX, HNX & WNX
NX-CAP-2	7/32" to 5/16"	
NX-CAP-3	3/8" Only	
M-CAP-1	3/32" to 3/16"	M, MM & ML
M-CAP-2	7/32" to 1/4"	
MHD-CAP-1	3/32" to 3/16"	MHD
MHD-CAP-2	7/32" to 1/4"	



Hard Plastic

Cap Only - Hard Plastic		
Part Number	Hole Diameter	For Fasteners
20125-22	3/32" to 1/8"	BNX, CBX, CSX, HNX & WNX
20125-24	5/32" to 5/16"	
20125-26	7/32" to 1/4"	
20125-27	5/16" Only	
20205	3/8" Only	

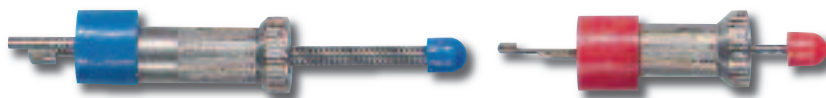


04-CBXL-1/8-PC

Cap & Fastener Assemblies (see instructions below)		
Part Number Suffix	Type	For Fasteners
-PC	Hard Plastic	CBX & CSX
-ALC	Aluminum	HNX & WNX

**Note:** To order hard plastic & aluminum assemblies, add the required suffix (chart below) to the end of the fastener part number. Vinyl assemblies also available, please inquire.  
**Example:** To order a 1/4" hex body temporary fastener with an aluminum protective cap, the part number would be: **04-HNX-1/4-ALC**.

## Skinpins No-Mar Manual Operated Temporary Fasteners



- Instantly spins up or down with the flick of a finger.
- Specially designed tip provides maximum gripping strength.
- No-mar plastic caps are color coded for easy identification.

**Note:** Other sizes and styles available, please inquire.

Standard - 0 to 1/4" Capacity		
Part Number	Drill Size	Color Code
04-SSL-3/32	#40	Red
04-SSL-1/8	#30	Yellow
04-SSL-5/32	#20	Blue

Long - 0 to 1/2" Capacity		
Part Number	Drill Size	Color Code
04-SEL-3/32	#40	Red
04-SEL-1/8	#30	Yellow
04-SEL-5/32	#20	Blue
04-SEL-3/16	#10	Black
04-SEL-1/4	1/4"	White

# HAND TOOLS

## Aviation Snips



04-DAR-10G



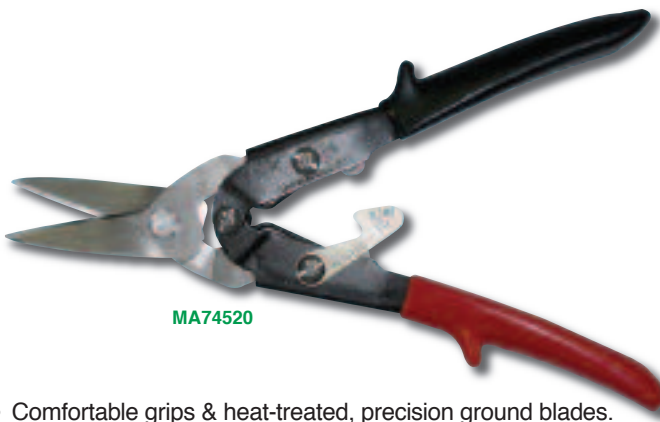
04-DAS-10G

- Easy cutting action on up to 18 gauge metal.
- Forged blades with serrated cutting edges to prevent slipping.
- Handles have smooth vinyl grips with thumb stops.

Part Number	Cut	Blade	Overall Length	Weight
04-DAS-10G	Straight	1-3/4"	10" (254 mm)	0.8 lbs (0.4 kgs)
04-DAR-10G	Right	1-3/8"		
04-DAL-10G	Left	1-3/8"		

Part Number	Description
53-70453	3 PC Set (left, right & straight)

## Klenk® Aviation Snips



MA74520

- Comfortable grips & heat-treated, precision ground blades.
- Serrated blades draw work into cutting edge for clean cuts.
- Built in off-blade wire cutter eliminates nicked snip blades.

Part Number	Cut	Cut Length	Overall Length
MA70500	Left	1-1/2" (38 mm)	10-1/2" (267 mm)
MA70510	Right		
MA70520	Straight		

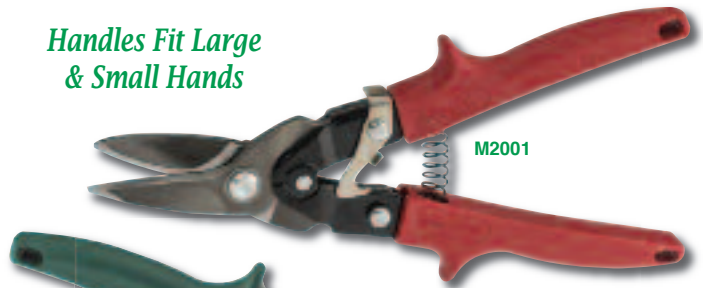
### Serrationless Aviation Snips

- No teeth marks in metal - great when a smooth edge is needed.
- Also works great with pre-coated metals & zinc metals.

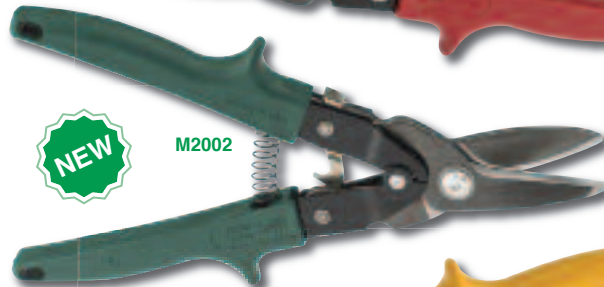
Part Number	Cut	Overall Length
MA74510	Straight & Slight Curves	10-1/2" (267 mm)
MA74520	Straight & Left	
MA74530	Straight & Right	

## Malco® Ergonomic Aviation Snips

*Handles Fit Large  
& Small Hands*



M2001



M2002



M2003

*Adjustable  
Pivot Bolt*



M2007

*Made In  
The USA*



M2006

### Hardened Alloy Steel Blades

- Superior, hardened blade edges for maximum cutting life.
- Wide-opening jaws with a serrated lower blade for fast controlled cuts in vinyl plastics, layered metals and seams.
- Riveted, head-to-handle compound linkage multiplies hand leverage.
- Precisely ground blades cut into tight spaces and flush to 90° walls.

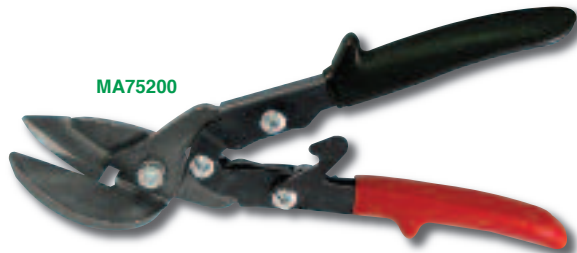
Standard			
Part Number	Cut	Cut Length	Overall Length
M2001	Left	1-3/8" (35 mm)	10-3/4" (273 mm)
M2002	Right	1-3/8" (35 mm)	10-3/4" (273 mm)
M2003	Straight*	1-11/16" (43 mm)	10-3/4" (273 mm)

\* M2003 also will cut left & right angles.

Offset			
Part Number	Cut	Cut Length	Overall Length
M2006	Left	1-1/4" (32 mm)	10-3/4" (273 mm)
M2007	Right	1-1/4" (32 mm)	10-3/4" (273 mm)

**Note:** Cuts straight, sharp angles in one direction & 5° circles in the other direction.

**Klenk® Offset Snips**

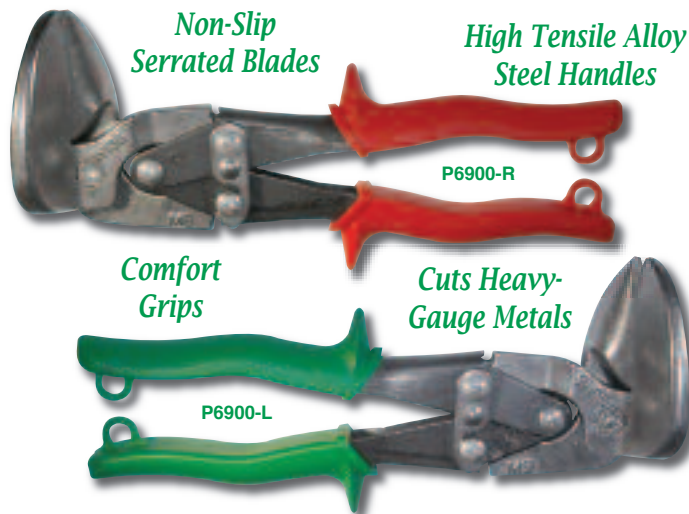


MA75200

- Shorter handles & less travel for easier work with a full cut.
- Handles straight cuts, tight curves, angles & circles easily.

Part Number	Cut	Cut Length	Overall Length
MA75200	Left	1-3/8" (35 mm)	10-1/2" (267 mm)
MA75210	Right		

**Compound Action Offset Snips**



*Non-Slip  
Serrated Blades*

*High Tensile Alloy  
Steel Handles*

*Comfort  
Grips*

*Cuts Heavy-  
Gauge Metals*

- Vertical offset blades keep hands clear of material.
- Spring action for fast & effortless material feed.

18 Gauge Low Carbon Steel Capacity			
Part No.	Cut	Cut Length	Overall Length
P6900-L	Left & Straight	1-7/8" (48 mm)	8-1/2" (216 mm)
P6900-R	Right & Straight		

**Bessey® Long Nose Offset Snips**

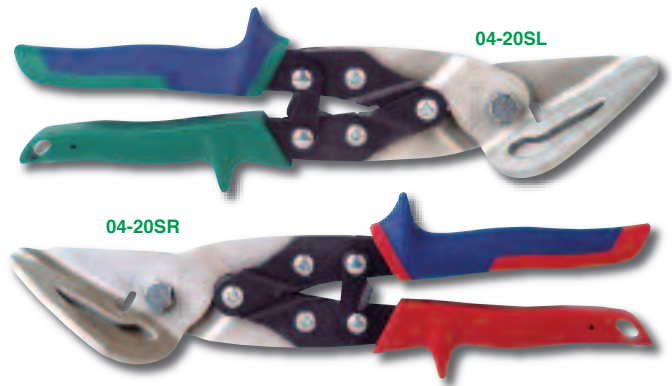


*Soft Inlay Handle    Powerful Compound Action*

- High grade steel continuous cut blades - HRC up to 62.
- Angled cutter heads keep hands free from work.
- Compound action for better cutting performance.
- For long continuous straight & large radius cuts.

Part Number	Capacity	Cut	Cut Length	Overall Length
D22AL-BE	1.2 mm	Left	2-1/2" (64 mm)	11" (279 mm)

**Offset Snips**



04-20SL

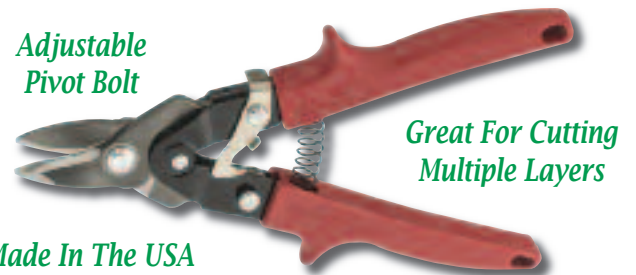
04-20SR

Part Number	Cut	Overall Length
04-20SL	Left	9-1/2" (241 mm)
04-20SR	Right	

Note: Cuts straight, sharp angles in one direction & 5" circles in the other direction.

Part Number	Description
53-20SLR	2 PC Set (left & right)

**Malco® Ergonomic Bulldog Snips**



*Adjustable  
Pivot Bolt*

*Great For Cutting  
Multiple Layers*

*Made In The USA*

- Hardened blades offer controlled notching and trimming out to the blade tip in heavy gauge metal or layered metal and seams.
- Riveted, head-to-handle compound linkage multiplies hand leverage.
- Precisely ground blades cut into tight spaces and flush to 90° walls.

Part No.	Cut Length	Overall Length	Weight
M2005	1-1/16" (27 mm)	10" (254 mm)	13 oz (0.37 kgs)

**Klenk® Bulldog Snips**



*18 Gauge  
Stainless  
Capacity*

- Hardened, serrated blades with a short bite for more power.
- Ideal for T-bar & extruded aluminum frame.

Part No.	Cut Length	Overall Length	Weight
MA74500	3/4" (19 mm)	9-1/8" (232 mm)	0.76 lbs (0.34 kgs)

# HAND TOOLS

## Bulldog Pattern Tinner Snips

*Heavy-Duty, High Leverage*



*Hot Forged Molybdenum Steel*

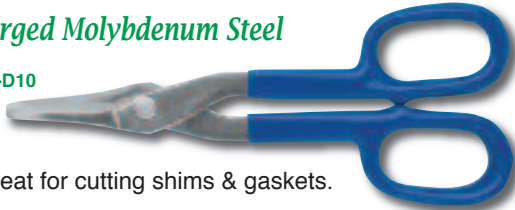
Note: For straight cuts & heavy gauge notching.

Part Number	Cut Length	Overall Length	Weight
04-M15	2-1/4"	16" (406 mm)	3.8 lbs (1.7 kgs)

## IRWIN® Duckbill Tinner Snips

*Hot Forged Molybdenum Steel*

04-D10



7" model great for cutting shims & gaskets.

Note: For cutting patterns & smooth, tight curves in either direction.

Part Number	Cut Length	Overall Length	Weight
04-D7	1-1/2"	7" (178 mm)	0.5 lbs (0.2 kgs)
04-D10	2-1/2"	10" (254 mm)	0.6 lbs (0.3 kgs)
04-D12	3"	12" (305 mm)	1.6 lbs (0.7 kgs)

## Bessy® SuperPower Snips

*Oversized Handle Loops*

D-SPC8



*Self-Opening Jaws*

D-SPS8

*Powerful Compound Action*

- Needs 50% less hand force than ordinary pattern snips.
- Compound action for better cutting performance.

Note: For straight & left curving cuts.

Straight, 1.2 mm Material Capacity		
Part Number	Cut Length	Overall Length
D-SPS8	1-3/4" (45 mm)	8-1/2" (216 mm)
D-SPS11	2-1/4" (57 mm)	11-1/2" (292 mm)

Offset, 1.2 mm Material Capacity		
Part Number	Cut Length	Overall Length
D-SPC8	1-3/4" (45 mm)	8-1/2" (216 mm)
D-SPC11	2-1/4" (57 mm)	11-1/2" (292 mm)

## IRWIN® Standard Tinner Snips

04-MD10



Flat inside edge guides straight line cutting.

Part Number	Cut Length	Overall Length	Weight
04-MD7	2"	7" (178 mm)	0.5 lbs (0.2 kgs)
04-MD10	2-3/4"	10" (254 mm)	0.6 lbs (0.3 kgs)
04-MD12	3-1/4"	12" (305 mm)	1.6 lbs (0.7 kgs)

Note: For straight cuts, wide curves & notching.

## Malco® Aluminum Handle Snips

*1/3 The Weight Of Steel Types*



M12A

MC14A

*Made In The USA*

- Versatile snips with sleek head design and a full 3" cut length.
- Easy blade replacement and comfortable, larger handle loops.

Pattern Snips			
Part Number	Cut Length	Overall Length	Weight
M12A	3"	12" (305 mm)	1 lbs (0.5 kgs)
M14A	3-1/4"	14" (356 mm)	1.4 lbs (0.6 kgs)

Note: Cuts straight & mild curve cuts. Will also cut multiple layered material.

Combination Snips			
Part Number	Cut Length	Overall Length	Weight
MC12A	3"	12" (305 mm)	1 lbs (0.5 kgs)
MC14A	3-1/4"	14" (356 mm)	1.4 lbs (0.6 kgs)

Note: Cuts straight & left or right circles down to 6" diameter.

Replacement Blades			
Part Number	For Tool	Part Number	For Tool
M12ARB	M12A	MC12ARB	MC12A
M14ARB	M14A	MC14ARB	MC14A



**Compact Snips**



- Compact size for both fast shearing & tight pattern cuts.
- Narrow, exposed nose operates in clearances down to 1/2".
- Cuts straight and left or right circles down to 6" diameter.

Part Number	Cut Length	Overall Length
M2010	2" (51 mm)	10" (254 mm)

**Light Metal Cutting Snips**

*Forged, High Quality Tool Steel*



04-57C

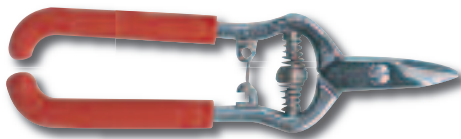
- Short & powerful precision ground blades.
- Superior hardened edges for cutting light metal.

Part Number	Blade Type	Cut Length	Overall Length
04-54	Straight	3/4" (19 mm)	7" (178 mm)
04-57C	Curved		

**Kevlar Fabric Hand Shears & Scissors**



04-468



04-605



04-330

Part Number	Type	Cut Length	Overall Length
04-605	Trim Snip	3/4"	5" (127 mm)
04-468	Knife Edge	2-3/4"	8-1/4" (210 mm)
04-330	Serrated	4-1/2"	10" (254 mm)

Note: For cordless electric kevlar scissors see page 237.

**Pinking Shears**



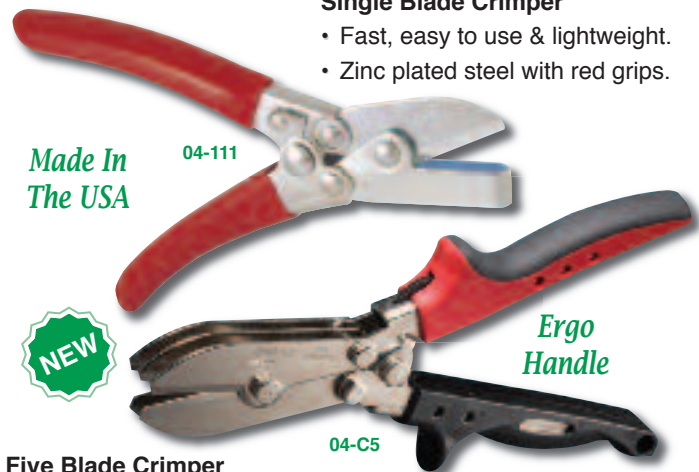
- Lightweight & durable ABS plastic handle.
- Deep cut teeth are specially hardened for long wear.
- High quality stainless steel blades with ravel-resistant edge.

Part Number	Overall Length
04-P91	8" (203 mm)

**Malco® Crimpers**

**Single Blade Crimper**

- Fast, easy to use & lightweight.
- Zinc plated steel with red grips.



*Made In The USA*

04-111



*Ergo Handle*

04-C5

**Five Blade Crimper**

- Ergo handles with a powerful 7:1 mechanical advantage.
- Handle closing stop maintains a consistent crimp.
- Hardened all-steel construction and a nickel chrome finish.

Part Number	Blade	Jaw Size	Overall Length	Weight
04-111	Single	1-1/4" D	8" (203 mm)	8 oz (0.25 kgs)
04-C5	Five	1-5/8" D	10" (254 mm)	17 oz (0.5 kgs)

**Malco® Notcher**



*Made In The USA*

*Ergo Handle*

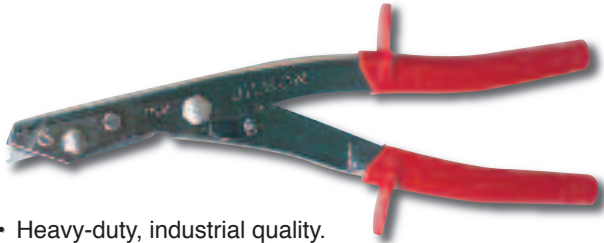


- Ergo handles with a powerful 7:1 mechanical advantage.
- Drop forged jaw makes clean, 30° v-shaped cuts in sheet metal.
- Hardened all-steel construction and a nickel chrome finish.

Part No.	Steel Cap.	Throat	Overall Length	Weight
04-N1	24 Gauge	13/16"	8-1/2" (216 mm)	16 oz (0.5 kgs)

## HAND TOOLS

### Quick-Snip Hand Nibbler



- Heavy-duty, industrial quality.
- No distorting, burring or curling at edges of cut.

Part Number	Capacity Steel	Capacity Aluminum
04-J1251	18 Gauge	15 Gauge

### Monodex Hand Nibbler



- Durable & lightweight plastic.
- No distorting, burring or curling at edges of cut.

Part Number	Cap. Brass & Copper	Capacity Aluminum
04-J1351	17 Gauge	15 Gauge

### Nibbling Hand Tool



*Cuts Clean Like  
A Punch & Die*

Unit cuts round, square and irregular holes to any shape & size over 7/16".

Part Number	Description	Capacity Steel
04-6	Nibbling Hand Tool	18 Gauge
04-6-1	Replacement Punch	—

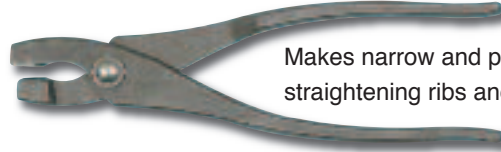
### No-Mar Fluting Pliers



Our plastic coated jaws are used to stiffen ribs in cowling without marring the surface. Has a 1" reach and produces a 3/8" flute.

Part Number	Overall Length
04-1120	8-1/4" (210 mm)

### Narrow Type Fluting Pliers



Makes narrow and precise flutes for straightening ribs and bulkheads.

Part Number	Overall Length
04-1220	10" (254 mm)

### Malco® Hand Seamers



*Made In  
The USA*

*Ergo  
Handles*

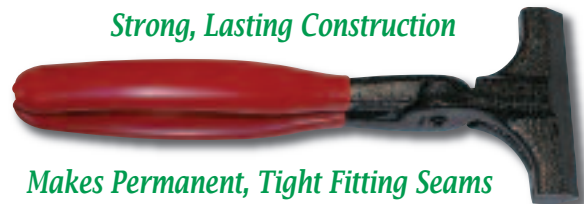
*Powerful  
Compound  
Leverage  
Design*

- Drop-forged jaws with graduated 1/4 inch depth markings.
- Easily bend flanges or completely flatten seams from 1/4 to 1-1/4 inch deep in 24 gauge galvanized or mild steel.
- Ergo handles with a powerful 7:1 mechanical advantage.

Part No.	Jaws	Overall Length	Weight
04-S2	3-1/4" W x 1-1/4" D	8-3/4" (222 mm)	24 oz (0.68 kgs)
04-S3	3-1/4" W x 1-1/4" D	8-1/2" (216 mm)	24 oz (0.68 kgs)
04-S6	6" W x 1-1/4" D	8-3/4" (222 mm)	30 oz (0.85 kgs)

### Hand Seamer

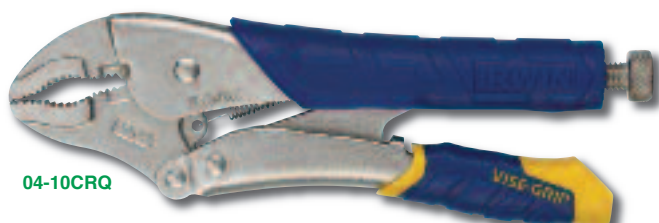
*Strong, Lasting Construction*



*Makes Permanent, Tight Fitting Seams*

Part Number	Jaws	Overall Length	Weight
04-44	3-1/2" W x 1" D	8" (203 mm)	1.1 lbs (0.5 kgs)

**IRWIN Vise-Grip® Locking Jaw Pliers**



04-10CRQ

- Classic design is constructed from high-grade heat treated alloy steel for maximum toughness and durability.
- Guarded release trigger and hardened teeth designed to grip workpiece from any angle.
- Hex key adjusting screw tightens to adjust pressure and draw materials together and provides a controlled release.

**Fast Release Cushioned Grip Models (shown above)**

- One-handed, triggerless release is two times easier to open than traditional locking pliers.
- Anti-pinch, non-slip grips provide comfort and control with less hand fatigue. See below for available models.



04-10R

**Straight Jaw Locking Pliers**

Standard Model	Fast Release Model	Jaw Thickness (Jaw Adj.)	Overall Length	Weight
04-7R	04-7RQ	1/2" (0 to 1-1/8")	7" (178 mm)	0.9 lbs (0.4 kgs)
04-10R	04-10RQ	5/8" (0 to 1-5/8")	10" (254 mm)	1.3 lbs (0.6 kgs)



04-10CR

**Curved Jaw Locking Pliers**

Standard Model	Fast Release Model	Jaw Thickness (Jaw Adj.)	Overall Length	Weight
04-7CR	04-7CRQ	5/16" (0 to 1-5/8")	7" (178 mm)	0.8 lbs (0.4 kgs)
04-10CR	04-10CRQ	7/16" (0 to 1-7/8")	10" (254 mm)	1.2 lbs (0.5 kgs)

**Curved Jaw Locking Pliers With Wire Cutter**

- Wire cutter will handle anything up to 1/4" bolt.

Standard Model	Fast Release Model	Jaw Thickness (Jaw Adj.)	Overall Length	Weight
04-4WR	—	7/32" (0 to 15/16")	4" (102 mm)	0.3 lbs (0.14 kgs)
04-5WR	04-5WRQ	1/4" (0 to 1-1/4")	5" (127 mm)	0.4 lbs (0.18 kgs)
04-7WR	04-7WRQ	5/16" (0 to 1-5/8")	7" (178 mm)	0.8 lbs (0.4 kgs)
04-10WR	04-10WRQ	7/16" (0 to 1-7/8")	10" (254 mm)	1.2 lbs (0.5 kgs)

**IRWIN Vise-Grip® Locking Jaw Pliers (cont'd)**



04-6LN

**Long Nose Locking Pliers With Wire Cutter**

- Tapered nose ideal for delicate work, tight spaces & small parts.

Standard Model	Fast Release Model	Jaw Thickness (Jaw Adj.)	Overall Length	Weight
04-4LN	—	1/8" (0 to 1-5/8")	4" (102 mm)	0.3 lbs (0.14 kgs)
04-6LN	04-6LNQ	5/32" (0 to 2-1/4")	6" (152 mm)	0.4 lbs (0.18 kgs)
04-9LN	04-9LNQ	3/16" (0 to 2-7/8")	9" (229 mm)	0.9 lbs (0.4 kgs)

**Bent Nose Locking Pliers With Wire Cutter**

- Nose bent at 35° angle, excellent for hard to reach areas.

Part No.	Jaw Thickness (Adj.)	O.A.L.	Weight
04-6BN	5/32" (0 to 2-1/4")	6" (152 mm)	0.4 lbs (0.18 kgs)
04-9BN	3/16" (0 to 2-7/8")	9" (229 mm)	0.9 lbs (0.4 kgs)

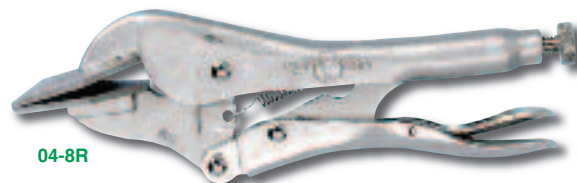


04-12LC

**Locking Large Jaw**

- Ideal for plumbers, mechanics & welders.
- Heavy-duty jaw locks around work of all shapes & will not slip.

Part Number	Maximum Opening
04-12LC	3-1/8" (79 mm)



04-8R

**Locking Sheet Metal Tool**

- Makes bending, forming & crimping jobs easier & faster.

Part No.	Jaw Size	Overall Length	Weight
04-8R	1-3/4" D x 3-1/8" W	8" (203 mm)	1.3 lbs (0.6 kgs)



04-9R

**Welding Clamp**

- Deep-throated U-shaped jaws hold work in proper alignment.

Part No.	Jaw Size	Overall Length	Weight
04-9R	2-3/4" D x 1-5/8" W	9" (229 mm)	1.4 lbs (0.6 kgs)

## HAND TOOLS

### A-N Electrical Connector Pliers



With replaceable nylon inserts for protection of A-N connectors.

Part Number	Description
04-529-10	A-N Electrical Connector Pliers
04-529-1	Replacement No-Mar Pads

### Line Clamp Pliers



- Holds the clamp bolt, compresses & retains the line clamp(s).
- Up to 3 clamps on 1 assembly held in position by retaining pawl.
- More than 3 clamps or clamps w/spacers can be handled manually.
- For use on #10 hex or #10 12 point screws (3/8" hex heads).

Part No.	For Use With
04-82	Clamps or studs anchored on flat surfaces.
04-83	Tubes/wires clamped w/point of screw on back of clamp.

### Camloc Pliers



- For Camloc fasteners.
- With black-ox coating.

Part Number	For Use With
04-4P3	2600, 2700 & 4002 Stud Series

### DZUS (Z-Lock) Driver



Part Number	For Use With
70344	#5 & #6 Stud Series

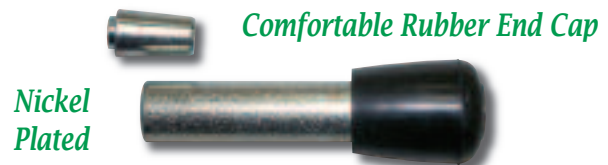
### C-Lock Drill Jig



- Provides proper hole spacing for fastener receptacles and ensures that the rivet & center holes are accurately drilled.
- Premium tool steel drill bushings & guide pins.

Part Number	For Use With
MS-T16	2600, 2700 & 4000 Series

### C-Lock Snap Ring Installation Tool



- Unit installs R4G and R4T snap ring stud retainers on the backside of all 4000 series C-Lock grommets.
- Cone-shaped insert spreads the snap ring while the tube handle pushes it onto the grommet.
- CNC machined from premium tool steel to close tolerances.

Part Number	For Use With
MS-T26	4000 Series

### C-Lock Panel Dimpling Tools

*Zinc Plated, Premium Tool Steel Construction*



- Dimples thin sheet metal panels to accept C-Lock Fasteners.
- Makes a perfect dimple with proper countersink angle.

Part Number	For Use With
MS-27DT	FJ4 (Z-Lock) & 2700 Series
MS-40DT	4000 Series

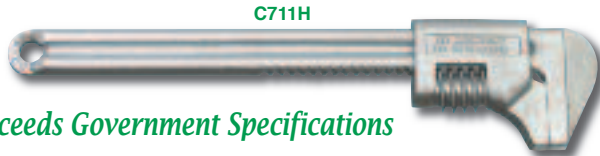
### Wa-Wrench® Washer Wrench Set

- Great for inserting washers in hard to reach areas.
- .042" thick stainless steel, two sizes on each wrench.



Part Number	Description
70393	Set of 4 wrenches with pouch.

**“Ford” Wrenches**



*Exceeds Government Specifications*

- Precision machined from Crescent® special analysis tool steel.
- Adjustable, smooth jaws for no-mar installation & removal of aircraft fittings manufactured by Crescent®. Chrome plated.

Part Number	Jaw Opening	Overall Length
C79H	2-3/4" (70 mm)	9" (229 mm)
C711H	3" (76 mm)	11" (279 mm)
C715	3-5/8" (92 mm)	15" (381 mm)
C718	4-3/8" (111 mm)	18" (457 mm)

**Cylinder Base Nut Wrenches**



*For Continental Engines*

*12 Point Hex Wrench End*

53-2882

- Designed with a 1/2" square drive and built to last.
- Extra thin hex heads for easy access over the cylinder bolts.
- Made from tough, heat-treated alloy steel forging.

Part Number	Hex *	Weight
04-2882	9/16"	0.88 lbs (0.4 kgs)
04-2882-2	1/2"	
04-2882-3	5/8"	
04-2882-4	3/4"	

Part Number	Description
53-2882	Complete 4 PC Set

\* Engine usage: 9/16" (C85, 0-200, 0-300, G0-300, E-185, E-225, 0 & IO-470, IO-360, IO-520), 1/2" (A-65, C-85, 0-200, 0-300, G0-300, E-185, E-225, IO-360), 5/8" (A-65, 0-470, IO-520), 3/4" (Lycoming 0-390D, D2 and all wide deck lycoming engines).



*For Torque & Pneumatic Wrenches See Pages 136-138*

**Bondhus® Hex Key Sets**



*Made In The USA*

- Chamfered tips for fast insertion & full tool engagement.
- Marked & color coded case keeps keys organized.
- High torque steel construction with corrosion resistant finish.



Note: Other sizes available, please inquire.

Part Number	Tip Style	Set	Size Range
74937	ProHold	13 PC Inch	0.050" to 3/8"
10937	Balldriver	13 PC Inch	0.050" to 3/8"
12137	Hex	13 PC Inch	0.050" to 3/8"
74999	ProHold	9 PC Metric	1.5 to 10 mm
10999	Balldriver	9 PC Metric	1.5 to 10 mm
12199	Hex	9 PC Metric	1.5 to 10 mm

**Bondhus® T-Handle Hex Key Sets**

*Graduated Lengths*

- Handle & blade are securely welded and will never loosen.
- Ergonomic handles shaped for comfort & control.
- Handle sizes are engineered to match torque capabilities.
- High torque steel construction with corrosion resistant finish.



*Made In The USA*



Note: Other sizes available, please inquire.

Part Number	Tip Style	Set	Size Range
13190	Balldriver	10 PC Inch	3/32" to 3/8"
13390	Hex	10 PC Inch	3/32" to 3/8"
13189	Balldriver	8 PC Metric	2 to 10 mm
13389	Hex	8 PC Metric	2 to 10 mm

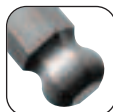
# HAND TOOLS

## Bondhus® Balldriver Hex Key Singles

Made In The USA



- Chamfered tips for fast insertion and full tool engagement.
- High torque steel construction with corrosion resistant finish.



Balldriver Tip

Note: Other sizes & styles available, please inquire.

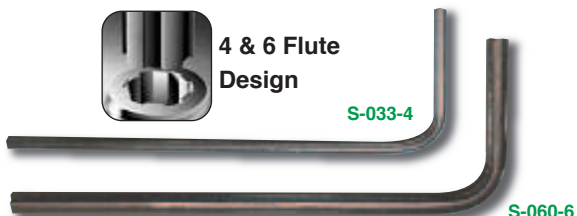
Part Number	Hex Size	Overall Length
15702	0.050"	2.8" (72 mm)
15703	1/16"	3.0" (76 mm)
15704	5/64"	3.2" (81 mm)
15705	3/32"	3.4" (86 mm)
15706	7/64"	3.6" (90 mm)
15707	1/8"	3.8" (95 mm)
15708	9/64"	4.0" (101 mm)
15709	5/32"	4.2" (107 mm)
15710	3/16"	4.5" (114 mm)
15711	7/32"	4.9" (124 mm)
15712	1/4"	5.3" (133 mm)
15713	5/16"	6.0" (152 mm)
15714	3/8"	6.8" (171 mm)

## Bristol® Spline Drive Keys



4 & 6 Flute Design

S-033-4



S-060-6

Spline drive tools offer superior torque transmission because nearly 100% of the force is applied at right angles to the load bearing spline surfaces of the socket.

Major Dia.	Flute Count	Part No. Short*	Part No. Long*
0.033"	4	S-033-4	—
0.048"	4	S-048-4	S-048-4L
0.048"	6	S-048-6	S-048-6L
0.060"	6	S-060-6	S-060-6L
0.069"	4	S-069-4	S-069-4L
0.072"	6	S-072-6	S-072-6L
0.076"	4	S-076-4	S-076-4L
0.096"	6	S-096-6	S-096-6L
0.111"	6	S-111-6	S-111-6L

\* Approximate overall lengths: short keys 1-1/4" to 2-1/2", long keys 3" to 4".

Part Number	Description
SS-508	10 PC Kit: All Nine Short Keys & Carrying Case

Note: Other sizes, styles & kits available, please inquire.

## Bondhus® GorillaGrip® Fold-Up Hex Key Sets

- Handle does not conduct heat or cold.
- High torque steel hex keys with corrosion resistant finish.
- 90° stop converts the tool into a non-stop, time saving speed wrench.

12589

Handle 40% Stronger Than Steel Handles



Made In The USA

Note: Other sizes & styles available, please inquire.

Part Number	Type	Size Range
12589	Inch Set	5/64" to 1/4"
12587	Metric Set	2 to 8 mm

## Handi-Hex® Drivers



- General use & production assembly using socket screw products.
- Includes adjustable, replaceable Allen bit & bit change key.

Part Number	Key Size
57400	.028"
57402	.035"
57404	.050"
57406	1/16"
57408	5/64"

Part Number	Key Size
57410	3/32"
57412	7/64"
57414	1/8"
57416	9/64"

## Gearwrench® Socket Sets

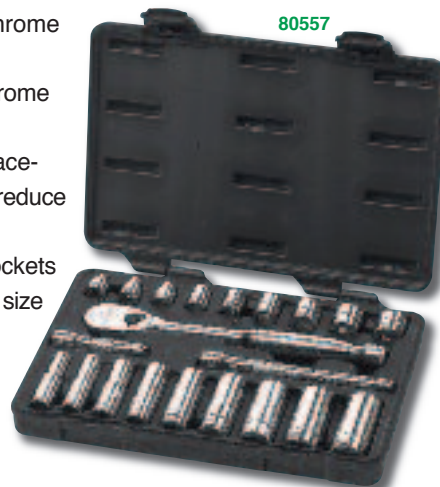
- 84 tooth full polish chrome thin profile ratchet.
- Knurled full polish chrome extensions\*.
- Sockets feature Surface-drive® technology to reduce fastener rounding.
- Full polish chrome sockets with large hard stamp size markings.



Includes Case

\* 80324 & 80326 include 2" & 6" - 80557 includes 3" & 6".

Part No.	Type	Drive	Size Range
80324	13PC SAE Set	1/4"	3/16" to 1/2"
80557	21PC SAE Deep & Standard Set	3/8"	3/8" to 3/4"
80326	14PC Metric Set	1/4"	4 to 13 mm



80557

**Brass Hammers**

*Non-Slip Cushion Grip*



**HSB-4**

- Ideal for application which require non-sparking conditions.
- The flat surface brass head absorbs impact blows, reduces rebound and helps eliminate marred work surfaces.
- Fiberglass handle with cushion grip for greater comfort & safety.

Part Number	Face Dia.	Overall Length	Weight
<b>HSB-1.5</b>	1"	12" (30.5 cm)	24 oz (680 g)
<b>HSB-2.5</b>	1-1/4"	12" (30.5 cm)	40 oz (1134 g)
<b>HSB-4</b>	1-5/8"	12" (30.5 cm)	64 oz (1814 g)

**Ball Pein Hammers**

*Hickory Handle*



**HBP-3-0**

- Ideal for driving punches, chisels & other metalwork.
- Hammer heads are drop-forged from specially selected steel, then carefully heat treated for dependable service.

**Note:** Other sizes available, please inquire.

Part Number	Face Dia.	Overall Length	Weight
<b>HBP-3-0</b>	7/8"	12-1/4" (31 cm)	8 oz (227 g)
<b>HBP-2-0</b>	7/8"	13-1/8" (33 cm)	12 oz (340 g)
<b>HBP-0</b>	1-7/8"	14-1/4" (36 cm)	16 oz (454 g)

**Deadblow Hammers**

*Non-Marring & Non-Sparking*



**70331**

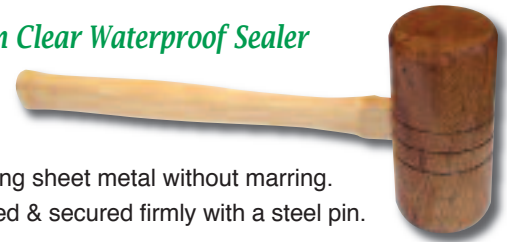
*Ergonomically Designed Handle*

- Deadblow feature minimizes hammer bounce back, reducing fatigue and improving productivity.
- Hard urethane construction resists head cuts & damage.
- Hammer will not absorb liquids - made in the USA.

Part Number	Face Dia.	Overall Length	Weight
<b>70330</b>	1-9/16"	12" (30.5 cm)	16 oz (454 g)
<b>70331</b>	1-3/4"	12-3/4" (32.4 cm)	24 oz (680 g)
<b>70332</b>	2"	13-1/2" (34.3 cm)	32 oz (907 g)

**Genuine Hickory Mallet**

*Coated In Clear Waterproof Sealer*



- Ideal for forming sheet metal without marring.
- Head cemented & secured firmly with a steel pin.

Part No.	Head Size	Overall Length	Weight
<b>WM502</b>	2-1/2" D x 5-1/2" L	13" (330 mm)	16 oz (454 g)

**Garland® Mallets**

*Hickory Handle*



**11004**

*Made In The USA*

**Rawhide Mallets**

- The best striking tool for metalwork, tool & die work.
- Prime-grade water buffalo hide head is tough & non-marring.

Part Number	Face Dia.	Head Length	Weight
<b>11002</b>	1-1/2"	3"	6 oz (170 g)
<b>11004</b>	2"	3-1/2"	11 oz (312 g)



**15005**

**Plastic Mallets**

- Head made from ultra-high-molecular-weight plastic that is nonporous, easy to clean & non marring on most surfaces.

Part Number	Face Dia.	Head Length	Weight
<b>15002</b>	1-1/2"	3-1/2"	6 oz (170 g)
<b>15005</b>	2-1/2"	4-7/8"	19 oz (539 g)



**15009**

**Bossing Mallets**

- Provides two different radii perfect for forming sheet metal.
- Head made from ultra-high-molecular-weight plastic that is nonporous, easy to clean & non marring on most surfaces.

Part Number	Face Dia.	Head Length	Weight
<b>15008</b>	2"	6-1/2"	16 oz (454 g)
<b>15009</b>	2-1/2"	6-3/4"	20 oz (567 g)
<b>15010</b>	3"	8"	24 oz (680 g)

**Note:** Many other sizes & styles available, please inquire.

# SANDERS & GRINDERS

## Master Power® Random Orbital Sanders

*Lightweight,  
Low Vibration*



*Low Air  
Consumption*

MP4403-05

- Low profile for more sanding control and greater comfort.
- High strength polymer material construction.
- Includes 3 interchangeable grips & 3/8" premium back-up pad.

Note: Air Inlet 1/4" NPT - 3/8" min. air hose. 5/16"-24 thread. Rated @ 90 psi.

Non-Vacuum 0.3 hp (0.22 kW) - 12,000 RPM				
3/16" Orbit	3/32" Orbit	Cap.	O.A.L.	Weight
MP4400-03	—	3-1/2"	5-1/8" (13.0 cm)	1.6 lbs (0.7 kgs)
MP4400-05	MP4403-05	6"	5-1/2" (13.9 cm)	1.6 lbs (0.7 kgs)
MP4400-06	MP4403-06	6"	5-1/2" (13.9 cm)	1.7 lbs (0.8 kgs)

Central Vacuum & Shroud 0.3 hp (0.22 kW) - 12,000 RPM			
3/16" Orbit	Capacity	O.A.L.	Weight
MP4400-35	5"	7" (17.9 cm)	1.7 lbs (0.8 kgs)
MP4400-36	6"	7" (17.9 cm)	1.8 lbs (0.83 kgs)

Central Vacuum & Skirt 0.3 hp (0.22 kW) - 12,000 RPM			
3/16" Orbit	Capacity	O.A.L.	Weight
MP4400-15	5"	7-3/4" (19.7 cm)	1.7 lbs (0.8 kgs)

Self-Generated Vacuum* 0.3 hp (0.22 kW) - 12,000 RPM			
3/16" Orbit	Capacity	O.A.L.	Weight
MP4400-25HL	5"	8-3/8" (21.2 cm)	1.7 lbs (0.8 kgs)
MP4400-26HL	6"	8-3/8" (21.2 cm)	1.8 lbs (0.83 kgs)

\* Self generating vacuum models also include floor bag, hose, skirt.

70421900



70422100

Replacement Interchangeable Grips	
Part Number	Size
70421900	2-1/2" (64 mm)
70422000	2-3/4" (70 mm)
70422100	3" (76 mm)

## Dynabrade® Orbital Action Sanders



59020

- Thumb control for regulation of tool speed.
- High strength composite rotor with long lasting blades.
- Includes premium low profile sanding pad.

Non-Vacuum 0.25hp (0.19 kW) - 12,000 RPM			
3/16" Orbit	Capacity	Overall Length	Weight
59020	5"	6-1/2" (165 mm)	1.4 lbs (0.5 kgs)
59025	6"	7" (178 mm)	1.5 lbs (0.6 kgs)



59024

Central Vacuum & 1" Vacuum Port 0.25hp (0.19 kW) - 12,000 RPM			
3/16" Orbit	Capacity	Overall Length	Weight
59024	5"	7-1/4" (184 mm)	1.5 lbs (0.6 kgs)
59029	6"	7-3/4" (197 mm)	1.5 lbs (0.6 kgs)



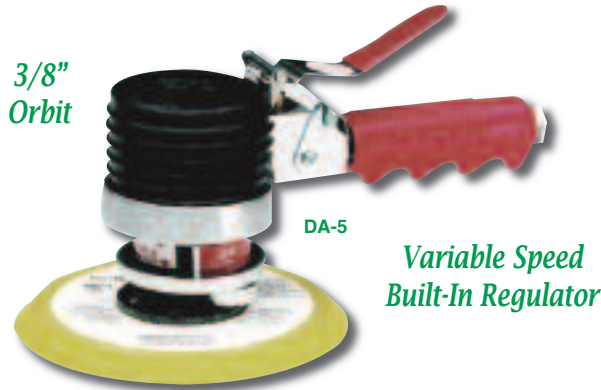
59023

Self-Generated Vacuum* 0.24hp (0.18 kW) - 12,000 RPM			
3/16" Orbit	Capacity	Overall Length	Weight
59023	5"	8-1/2" (216 mm)	1.5 lbs (0.6 kgs)
59028	6"	9" (229 mm)	1.5 lbs (0.6 kgs)

\* Self generating vacuum models use optional hose & floor bag, please inquire.



**National Detroit® Orbital Action Sanders**



- Unique drive geometry for aggressive interrupted contact of the work surface with less heat & loading for longer abrasive life.
- Dust extraction models will work with most central vac or portable shop vac systems.
- Great for sanding, shaping, forming & feather edging.

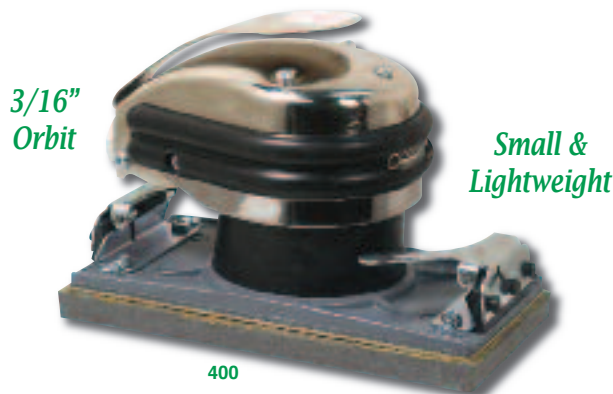
3/8" Orbit - 10,000 RPM			
Standard Models	Dust Extraction Models	Pad Capacity	Weight
DA-5	DA-5DE	5"	4.2 lbs (1.9 kgs)
DA-6	DA-6DE	6"	4.2 lbs (1.9 kgs)

**Motor Muffler Models**

- Extra muffling & polypropylene motor cover for quieter operation.
- Meets all current OSHA noise level requirements.

Motor Muffler, 3/8" Orbit - 10,000 RPM			
Standard Models	Dust Extraction Models	Pad Capacity	Weight
DAQ-5	DAQ-5DE	5"	4.1 lbs (1.8 kgs)
DAQ-6	DAQ-6DE	6"	4.1 lbs (1.8 kgs)

**Dynabrade® Orbital Action Sander**



- Comfortable palm control with a 3/16" stroke that is aggressive enough for knock-down, but controllable enough for finish work.
- Great for feather edging, finish sanding, blending & blocking.

3/16" Orbit - 4000 to 6000 RPM		
Part Number	Pad Capacity	Weight
400	3-3/8" x 6-3/4"	4.4 lbs (2.0 kgs)

**Dynabrade® Dynafine® Vacuum Detail Sander**



- Perfect for carbon fiber, fiberglass, painted aluminum etc.
- Accepts various pad shapes for countless applications.
- Efficiently diverts dust, captures debris & contaminants (including hexavalent chromium) for a safer workplace.
- Includes Dynaswivel, swivel cuff for added hose flexibility & tear-drop shaped, vinyl face vacuum sanding pad.
- 1-1/4" diameter vacuum port ready for connection to external or central vacuum system (not included).

1/32" Orbit, 7° Offset - Central Vacuum 0.12 hp (0.09 kW)			
Part Number	RPM	O.A.L.	Weight
58017	15,000	11-3/8" (29 cm)	1.8 lbs (0.8 kgs)

**Note:** Air Inlet 1/4" NPT (use 1/4" I.D. air hose). Please inquire for specially shaped tear-drop, triangle & round abrasives.

Vacuum Sanding Pads		
Vinyl Face	Hook Face	Shape
58045	58048	Tear-Drop
58046	58049	Triangular
58044	58047	Round

**Dynabrade® Straight Line Sander**



- Rugged all metal body with comfortable palm control.
- Great for wet sanding, polishing & finish blending on stainless.

5/16" Stroke - 3200 SPM		
Part Number	Pad Capacity	Weight
600	3-2/3" x 9"	5.4 lbs (2.5 kgs)

# SANDERS & GRINDERS

## Dotco® Right Angle Disc Sanders



- 1/2" carbide burr, 1" mtd. wheel capacity (disc capacity below).
- Collet models use 300 series collet (included with tool).
- Many other models available, please inquire.

### Composite Housing Models

- Dual-material composite w/cushioned areas for comfort & control.

Note: Air Inlet 1/4" NPT. Rated @ 90 psi.

Composite Housing, 0.4 hp (0.30 kW) - 1/4" Collet					
F. Exhaust	R. Exhaust	Cap.	RPM	O.A.L.	Weight
12LF200-36	12LF280-36	3"	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
12LF201-36	12LF281-36	2"	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

Composite Housing, 0.4 hp (0.30 kW) - 1/4"-28 Int. Thread				
Front Exhaust	Capacity	RPM	O.A.L.	Weight
12LF200-32	3"	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
12LF201-32	2"	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

### Aluminum Housing Models

- Rugged aluminum body for maximum durability.

Note: Air Inlet 1/4" NPT. Rated @ 90 psi.

Aluminum Housing, 0.4 hp (0.30 kW) - 1/4" Collet					
F. Exhaust	R. Exhaust	Cap.	RPM	O.A.L.	Weight
10LF200-36	10LF280-36	3"	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
10LF201-36	10LF281-36	2"	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

Aluminum Housing, 0.4 hp (0.30 kW) - 1/4"-28 Int. Thread				
Front Exhaust	Capacity	RPM	O.A.L.	Weight
10LF200-32	3"	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
10LF201-32	2"	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

## Dynabrade® Vacuum Shroud Disc Sanders



- Efficient & clean material removal on non-ferrous surfaces.
- Perfect for carbon fiber, fiberglass, painted aluminum etc.
- High quality clear urethane shroud with sanding disc viewport captures debris & contaminants (incl. hexavalent chromium).
- 6° shroud angle allows ideal surface contact & debris extraction.

### 3" Diameter, Right Angle - Self-Generated Vacuum

- 1" diameter vacuum port ready for connection to portable or external dust collection system (not included).

Self-Generated Vacuum 0.4 hp (0.30 kW) - 15,000 RPM				
Part No.	Capacity	Shroud*	O.A.L.	Weight
50210	3"	1" Height	9-11/16" (24.7 cm)	1.7 lbs (0.7 kgs)
50570	3"	1-1/2" Height	9-11/16" (24.7 cm)	1.7 lbs (0.7 kgs)

### 3" Diameter, Right Angle - Central Vacuum

- 1-1/4" diameter vacuum port ready for connection to external or central vacuum system (not included).

Central Vacuum 0.4 hp (0.30 kW) - 15,000 RPM				
Part No.	Capacity	Shroud*	O.A.L.	Weight
50211	3"	1" Height	9-11/16" (24.7 cm)	1.7 lbs (0.7 kgs)
50561	3"	1-1/2" Height	10" (25.4 cm)	1.7 lbs (0.7 kgs)



### Replacement Vacuum Shrouds

- Flexible shrouds can be trimmed for custom applications.

Part Number	Shroud Height*
50789	1" (25.4 mm)
50771	1-1/2" (38 mm)

\* 1" shroud models will accommodate 3" diameter locking-type abrasive discs, 1-1/2" shroud models will accommodate 3" diameter bristle-type discs. Air Inlet 1/4" NPT (use 1/4" I.D. air hose). 1/4"-20 male spindle thread. Rated @ 90 psi.

**Dynabrade® Vac. Shroud Disc Sanders (cont'd)**



51236

**2" Diameter, 7° Offset - Central Vacuum**

- 1-1/4" diameter vacuum port ready for connection to external or central vacuum system (not included).

7° Offset - Central Vacuum 0.4 hp (0.30 kW) - 25,000 RPM			
Part Number	Capacity	O.A.L.	Weight
51236	2"	10-1/4" (24.7 cm)	1.7 lbs (0.7 kgs)

Part Number	Description
52742	Replacement Vacuum Shroud

**Dynabrade® Dynafile**



*Quick Belt Change Design*

- Work metal, plastic, fiberglass & composites.
- Motor easily adjusts for the most comfortable throttle lever position.
- Over 30 interchangeable contact arms available, please inquire.

0.5 hp (.37 kW) - (1/8" to 1/2") x 24" Belt Capacity			
Part Number	RPM	Overall Length	Weight
14000	20,000	14-5/8" (371 mm)	3.3 lbs (1.5 kgs)

**Dynabrade® Dynafile II**

*7° Offset Ergo Handle*

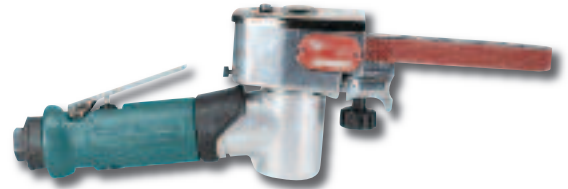


*Grinding Head Pivots 360°*

- Work metal, plastic, fiberglass & composites.
- Motor easily adjusts for the most comfortable throttle lever position.
- Over 30 interchangeable contact arms available, please inquire.

0.5 hp (.37 kW) - (1/4" to 3/4") x 18" Belt Capacity			
Part Number	RPM	Overall Length	Weight
40320	20,000	14-1/4" (362 mm)	2.8 lbs (1.3 kgs)

**Dynabrade® Mini-Dynafile II**



- Work metal, plastic, fiberglass & composites.
- Ergo handle with 7° offset design.
- Motor easily adjusts for the most comfortable throttle lever position.
- Over 30 interchangeable contact arms available, please inquire.

0.4 hp (.30 kW) - (1/8" to 1/2") x 12" Belt Capacity			
Part Number	RPM	Overall Length	Weight
15003	25,000	11-3/4" (298 mm)	1.7 lbs (0.8 kgs)

**Dynabrade® Versatility Kits**



14010

**Dynafile Versatility Kit:**

Dynafile, Five Contact Arms, Abrasive Belt Assortment, Hard & Soft Platen Pads & Sturdy Carrying Case

Dynafile Versatility Kit	
Part Number	Description
14010	Complete 22 PC Kit

**Dynafile II Versatility Kit:**

Dynafile II, Three Contact Arms, Abrasive Belt Ass't, Hard & Soft Platen Pads, Die Grinder Collet & Sturdy Carrying Case

Dynafile II Versatility Kit	
Part Number	Description
40321	Complete 20 PC Kit

**Mini Dynafile II Versatility Kit:**

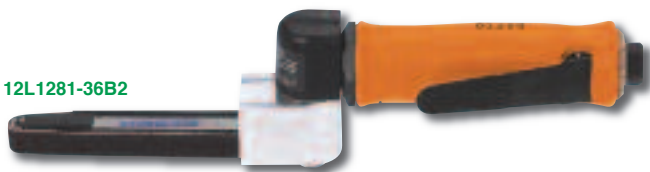
Mini Dynafile II, Three Contact Arms, Abrasive Belt Ass't, Hard & Soft Platen Pads, Die Grinder Collet & Sturdy Carrying Case

Mini Dynafile II Versatility Kit	
Part Number	Description
15006	Complete 21 PC Kit

# SANDERS & GRINDERS

## Dotco® Belt Sanders

12L1281-36B2



Many other models available, please inquire.

Note: Includes 2 sanding belts (80 & 120 grit), wrenches, grease gun & gear lube.

### 0.3 hp (.22 kW) - 1/4" x 12" Belt Capacity

Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
12L1201-36B1	12L1281-36B1	20,000	11.3" (287 mm)	1.4 lbs (0.6 kgs)
12L1200-36B1	—	12,000	11.3" (287 mm)	1.4 lbs (0.6 kgs)

### 0.3 hp (.22 kW) - 1/2" x 12" Belt Capacity

Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
12L1201-36B2	12L1281-36B2	20,000	11.3" (287 mm)	1.4 lbs (0.6 kgs)
12L1200-36B2	12L1280-36B2	12,000	11.3" (287 mm)	1.4 lbs (0.6 kgs)

### 0.3 hp (.22 kW) - 1/2" x 24" Belt Capacity

Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
12L1201-36B3	12L1281-36B3	20,000	16.4" (417 mm)	1.6 lbs (0.7 kgs)
—	12L1280-36B3	12,000	16.4" (417 mm)	1.6 lbs (0.7 kgs)

### 0.3 hp (.22 kW) - 1" x 12" Belt Capacity

Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
—	12L1280-36B4	12,000	11.3" (287 mm)	1.7 lbs (0.8 kgs)

## JET® R8 Series Belt Sanders



Safety Throttle Lock

JAT-750

Lightweight Aluminum Construction

- Ergonomic grip absorbs vibration and reduces hand fatigue.
- 360° head rotation for use in confined spaces and difficult angles.

Note: 1/4" air inlet thread.

### 0.5 hp (.375 kW) - 3/8" x 13" Belt Capacity

Part Number	RPM	O.A.L.	Weight
JAT-750	20,000	13" (330 mm)	1.9 lbs (0.9 kgs)

### 0.6 hp (.45 kW) - 3/4" x 20-1/2" Belt Capacity

Part Number	RPM	O.A.L.	Weight
JAT-751	18,000	15-3/4" (400 mm)	3.0 lbs (1.4 kgs)

## Dotco® Precision Pencil Grinders

12R0400-18



1/4" carbide burr & 1/4" diamond pin capacity - HG series collet.

Note: Includes collet, wrenches, 5' air hose (1/8" NPT) & 1' overhose.

### Composite Housing, 0.1 hp (0.074 kW) - 60,000 RPM

Rear Exhaust	Collet	Overall Length	Weight
12R0400-13	3 mm	5.8" (147 mm)	0.3 lbs (0.1 kgs)
12R0400-18	1/8"	5.8" (147 mm)	0.3 lbs (0.1 kgs)

## Dotco® Gearless Angle Head Precision Grinders

12R0380-18



- 1/4" carbide burr & 1/4" diamond pin cap. - HG collet.
- Gearless design reduces maintenance & downtime.

Note: Includes collet, wrenches, 5' air hose (1/8" NPT) & 1' overhose.

### Composite Housing, 0.1 hp (0.074 kW) - 80,000 RPM

Rear Exhaust	Collet	Overall Length	Weight
12R0380-13	3 mm	5.5" (140 mm)	0.3 lbs (0.1 kgs)
12R0380-18	1/8"	5.5" (140 mm)	0.3 lbs (0.1 kgs)

## Dotco® Precision Turbine Pencil Grinders

12R9180-08



- Rear exhaust motor with only one moving part, requires no oil\*.
- 1/8" carbide burr & 1/8" diamond pin capacity - HG series collet.

Note: Includes collet, wrenches, collet guard & 5' air hose (1/8" NPT).

\* Use only dry air @ 90 PSI max. Do not attach quick-disconnect directly to tool.

### Composite Housing, 0.1 hp (0.074 kW) - 65,000 RPM

Front Exhaust	Collet	Overall Length	Weight
12R9180-03	3 mm	5.8" (147 mm)	0.4 lbs (0.2 kgs)
12R9180-08	1/8"	5.8" (147 mm)	0.4 lbs (0.2 kgs)

### Models With 2' (0.6 m) Overhose Included

### Composite Housing, 0.1 hp (0.074 kW) - 65,000 RPM

Front Exhaust	Collet	Overall Length	Weight
12R9180-23	3 mm	5.8" (147 mm)	0.4 lbs (0.2 kgs)
12R9180-28	1/8"	5.8" (147 mm)	0.4 lbs (0.2 kgs)

### Models With 4' (1.2 m) Overhose Included

### Composite Housing, 0.1 hp (0.074 kW) - 65,000 RPM

Front Exhaust	Collet	Overall Length	Weight
12R9180-43	3 mm	5.8" (147 mm)	0.4 lbs (0.2 kgs)
12R9180-48	1/8"	5.8" (147 mm)	0.4 lbs (0.2 kgs)

**Master Power® High Speed Pencil Grinder**

*Double Bearings For Durability*



- Lightweight, ergonomically designed & vibration free.
- Ideal for precision deburring, blending & smoothing applications.
- Includes 5' air hose & 1' overhose.
- 1/4" carbide burr & 1/4" diamond pin capacity - HG series collet.

**Note:** Air Inlet 1/4" NPT - use 1/4" (6.4 mm) air hose. Rated @ 90 psi.

0.1 hp (0.07 kW) - 70,000 RPM - Rear Exhaust			
Part Number	Collet	Overall Length	Weight
MP4200	1/8"	5-3/8" (13.7 cm)	0.4 lbs (0.2 kgs)

**Dotco® Precision Turbine Grinders**

10R9000-08



- Front exhaust motor requires no oil\*.
- 3/16" carbide burr & 3/16" diamond pin capacity - HG series collet.

**Note:** Includes collet, wrenches, hose filter & 7' air hose (1/8" NPT).

\* Use only dry air @ 90 PSI max. Do not attach quick-disconnect directly to tool.

Aluminum Housing, 0.06 hp (0.04 kW) - 100,000 RPM			
Front Exhaust	Collet	Overall Length	Weight
10R9000-03	3 mm	5.4" (137 mm)	0.5 lbs (0.2 kgs)
10R9000-08	1/8"	5.4" (137 mm)	0.5 lbs (0.2 kgs)

**Dotco® Precision Turbine Grinder**



- Front exhaust motor with built-in speed regulator requires no oil\*.
- 1/4" carbide burr & 3/16" diamond pin capacity - HG series collet.

**Note:** Includes collet, wrenches, hose filter, speed regulator & 8' air hose (1/4" NPT).

\* Use only dry air @ 90 PSI max. Do not attach quick-disconnect directly to tool.

Aluminum Housing, 0.1 hp (0.07 kW) - 80,000 RPM			
Front Exhaust	Collet	Overall Length	Weight
10L9500-36	1/8"	5.8" (147 mm)	1.9 lbs (0.9 kgs)



*For Eye & Face Protection See Pages 234-235*

**Chicago Pneumatic® Pencil Grinder Kit**



**Kit Includes:**

Pencil Grinder, Silencer Hose, Two Collets (1/8" & 3 mm), Five Mounted Points, Five Carbide Burrs, Wrenches & Fitted Plastic Case

*Quiet & Lightweight*

Quiet and lightweight, this easy to handle pencil grinder is ideal for limited space applications. A versatile general maintenance kit.

Part Number	Free RPM	Noise Level
CP9104Q	60,000	71 dB(A)

**Dotco® Die Grinders**

12L1001-36



1/2" carbide burr & 1" mtd. wheel capacity - incl. 300 series collet.

**Note:** All models include collet & wrenches. 1/4" NPT (use 1/4" I.D. air hose).

Composite Housing, 0.3 hp (.22 kW) - 1/4" Collet				
Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
12L1001-36	12L1081-36	34,000	6" (152 mm)	0.8 lbs (0.4 kgs)
12L1000-36	12L1080-36	30,000	6" (152 mm)	0.8 lbs (0.4 kgs)
12L1003-36*	12L1082-36*	25,000	6" (152 mm)	0.8 lbs (0.4 kgs)

**High Power Models**

\* Oilless blades.

3/4" carbide burr & 1-1/2" mtd. wheel capacity\*\* - incl. 200 series collet.

\*\* 0.9 HP models (12L2500-01 & 12L2580-01) have a 1" carbide burr capacity.

Composite Housing, 0.6 hp (.45 kW) - 1/4" Collet				
Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
12L2000-01	12L2080-01	25,000	6.9" (175 mm)	1.4 lbs (0.6 kgs)

Composite Housing, 0.9 hp (.67 kW) - 1/4" Collet				
Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
12L2500-01	12L2580-01	23,000	7.3" (185 mm)	1.8 lbs (0.8 kgs)

# SANDERS & GRINDERS

## Dotco® Die Grinders



*Excellent For Titanium Blending & Buffing*

12LS1093-01

1/4" carbide burr & 1/2" mtd. wheel capacity\* - incl. 200 series collet.

Note: Includes collet & wrenches. 1/4" NPT (use 1/4" I.D. air hose).

0.3 hp (0.22 kW) - 1/4" Collet - Rear Exhaust			
Part Number	RPM	Overall Length	Weight
12LS1093-01	5000	7-1/4" (184 mm)	1.6 lbs (0.7 kgs)

0.6 hp (0.45 kW) - 1/4" Collet - Rear Exhaust			
Part Number	RPM	Overall Length	Weight
15LS089-01	9000	9-5/8" (245 mm)	2.15 lbs (0.98 kgs)

\* For 12LS1093-01 use only buffing wheels.

## Chicago Pneumatic® Die Grinder

*Streamlined Safety Lever*



CP3019-20

*Lightweight & Ergonomic*



- Industrial duty for long use and demanding applications.
- Compact body with comfortable, insulating composite cover.

Note: Use 3/8" (9.5 mm) I.D. air hose. Rated @ 90 psi.

0.5 hp (0.37 kW) - 1/4" Collet - Rear Exhaust			
Part Number	RPM	Overall Length	Weight
CP3019-40	40,000	6-5/8" (169 mm)	0.8 lbs (0.4 kgs)
CP3019-31	31,000	6-5/8" (169 mm)	0.8 lbs (0.4 kgs)
CP3019-25	25,000	6-5/8" (169 mm)	0.8 lbs (0.4 kgs)
CP3019-20	20,000	6-5/8" (169 mm)	0.8 lbs (0.4 kgs)
CP3019-18	18,000	6-5/8" (169 mm)	0.8 lbs (0.4 kgs)

## Chicago Pneumatic® Extension Die Grinder



*Streamlined Safety Lever*



CP3019-40ES

*Lightweight & Ergonomic*

- Industrial duty for long use and demanding applications.
- Compact body with comfortable, insulating composite cover.

Note: Use 3/8" (9.5 mm) I.D. air hose. Rated @ 90 psi.

0.5 hp (0.37 kW) - 1/4" Collet - Rear Exhaust			
Part Number	RPM	Overall Length	Weight
CP3019-40ES	40,000	9-7/8" (249 mm)	1.2 lbs (0.6 kgs)
CP3019-31ES	31,000	9-7/8" (249 mm)	1.2 lbs (0.6 kgs)
CP3019-25ES	25,000	9-7/8" (249 mm)	1.2 lbs (0.6 kgs)
CP3019-20ES	20,000	9-7/8" (249 mm)	1.2 lbs (0.6 kgs)

## Dotco® Extension Die Grinders



12L1100-36

1/2" carbide burr & 1" mounted wheel capacity - 300 series collet.

Note: Incl. collet & wrenches. 1/4" NPT (use 1/4" I.D. air hose). \* Oilless blades.

Composite Housing, 0.3 hp (.22 kW) - 1/4" Collet - 3" Extension			
Front Exhaust	RPM	Overall Length	Weight
12L1100-36	28,000	8.9" (226 mm)	1.1 lbs (0.5 kgs)
12L1111-36*	25,000	8.9" (226 mm)	1.1 lbs (0.5 kgs)

Composite Housing, 0.3 hp (.22 kW) - 1/4" Collet - 5" Extension			
Front Exhaust	RPM	Overall Length	Weight
12L1101-36	28,000	10.9" (277 mm)	1.3 lbs (0.6 kgs)
12L1112-36*	25,000	10.9" (277 mm)	1.3 lbs (0.6 kgs)

## Dotco® Right Angle Die Grinders



12LF200-36

*20% Higher Working Speed*

*33% More Power*

*Simplified Maintenance, No Shims Required*

1/2" burr & 1" mtd. wheel capacity - incl. 300 series collet.

### Composite Housing Models

- Dual-material composite w/cushioned areas for comfort & control.

Composite Housing, 0.4 hp (0.30 kW) - 1/4" Collet				
Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
12LF201-36	12LF281-36	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
12LF200-36	12LF280-36	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

### Aluminum Housing Models

- Rugged aluminum body for maximum durability.

Aluminum Housing, 0.4 hp (0.30 kW) - 1/4" Collet				
Front Exhaust	Rear Exhaust	RPM	O.A.L.	Weight
10LF201-36	10LF281-36	20,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)
10LF200-36	10LF280-36	12,000	6.6" (168 mm)	1.1 lbs (0.5 kgs)

Note: All tools: air inlet 1/4" NPT. Rated @ 90 psi.

**Chicago Pneumatic® Right Angle Die Grinders**



*Streamlined Safety Lever*

*Lightweight & Ergonomic*

- Industrial duty for long use and demanding applications.
- Compact body with comfortable, insulating composite cover.

Note: Use 3/8" (9.5 mm) I.D. air hose. Rated @ 90 psi.

0.5 hp (0.37 kW) - 1/4" Collet - Rear Exhaust			
Part Number	RPM	Overall Length	Weight
CP3019-20AC	20,000	8-1/2" (216 mm)	1.1 lbs (0.5 kgs)
CP3019-12AC	12,000	8-1/2" (216 mm)	1.1 lbs (0.5 kgs)

**Dotco® Precision Collets**



200 Series

300 Series

200 & 300 Series			
200 Series	300 Series	Size	Capacity
—	301	3/64"	1/64" to 3/64"
—	302	5/64"	3/64" to 5/64"
—	303	3/32"	1/16" to 3/32"
204	304	1/8"	3/32" to 1/8"
205	305	5/32"	1/8" to 5/32"
206	306	3/16"	5/32" to 3/16"
207	307	7/32"	3/16" to 7/32"
208	308	1/4"	7/32" to 1/4"
209	—	9/32"	1/4" to 9/32"
210	—	5/16"	9/32" to 5/16"
211	—	11/32"	5/16" to 11/32"
212	—	3/8"	11/32" to 3/8"
—	309	3 mm	2.2 to 3 mm
213	310	6 mm	5.2 to 6 mm
216	—	8 mm	5.2 to 8 mm



HG Series

HG Series		
Part Number	Size	Capacity
103	1/16"	1/16"
102	3/32"	3/32"
100	1/8"	1/8"
146	1 mm	1 mm
131	2.35 mm	2.35 mm
148	3 mm	3 mm

**JET® R12 Series Die Grinders**

*Variable-Speed Throttle With Safety Lock*



JAT-404

- Ergonomic grip absorbs vibration and reduces hand fatigue.
- Superior strength & durability across a wide range of applications.

All Tools: 1/4" air inlet thread (3/8" air hose recommended). Average Air Consumption: JAT-404 & JAT-407 = 3.5 CFM, JAT-405 & JAT 406 = 2.5 CFM.

Grinder 0.5 hp (0.37 kW) - 1/4" Collet - Rear Exhaust			
Part Number	RPM	Overall Length	Weight
JAT-404	20,000	7-3/8" (187 mm)	1.9 lbs (0.85 kgs)

JAT-405

*Rugged & Durable Ball Bearing Design*



JAT-406

90° Angle Grinder, 0.3 hp (0.22 kW) - 1/4" Collet - Rear Ex.			
Part Number	RPM	Overall Length	Weight
JAT-405	20,000	6-1/2" (165 mm)	1.4 lbs (0.64 kgs)

115° Angle Grinder, 0.3 hp (0.22 kW) - 1/4" Collet - Rear Ex.			
Part Number	RPM	Overall Length	Weight
JAT-406	20,000	7-15/16" (202 mm)	1.5 lbs (0.66 kgs)

*Full Size Yet Lightweight Aluminum Construction*



JAT-407

Extension Grinder, 0.5 hp (0.37 kW) - 1/4" Collet - Rear Ex.			
Part Number	RPM	Overall Length	Weight
JAT-407	20,000	13-11/16" (297 mm)	3.34 lbs (1.51 kgs)

# FILES & ABRASIVES

## Rotary File Sets

- Ground from the solid in various styles & diameters.
- All files are double cut.



All Sets  
Include Case

912-8PC

Part No.	Type	Shank	Sizes Included
912-8PC	8 PC H.S.S.	1/4"	5/16", 3/8", 5/8" & 3/4"
913	14 PC H.S.S.	1/8"	1/8", 1/4", 3/8" & 5/8"
914	9 PC Carbide	1/4"	1/4", 3/8" & 1/2"
915	12 PC Carbide	1/8"	3/32", 1/8" & 1/4"
916-8PC	8 PC Carbide	3/16"	2" O.A.L. Assortment
918	9 PC Carbide	3/32"	1-1/4" O.A.L. Assortment

## H.S.S. & Carbide Rotary Files

Double Cut, 1/4" Shank



Tree Pointed			Tree Radius		
Part No.	Dia.	Cut Length	Part No.	Dia.	Cut Length
104C	1/4"	5/8"	105C	1/4"	5/8"
106C	3/8"	3/4"	155HSS	3/8"	3/4"
204C	1/2"	3/4"	155C	3/8"	3/4"
254C	1/2"	1"	205C	1/2"	1"
304HSS	1/2"	1-1/8"	255HSS	1/2"	1-1/8"
354C	5/8"	1"	355C	5/8"	1"
404C	3/4"	1-1/2"	405C	3/4"	1-1/2"



Inverted Cone			Cylindrical Flat End		
Part No.	Dia.	Cut Length	Part No.	Dia.	Cut Length
107C	1/4"	5/16"	101C	3/16"	5/8"
157HSS	1/2"	1/2"	151C	1/4"	5/8"
157C	1/2"	1/2"	201C	3/8"	3/4"
307HSS	3/4"	5/8"	251C	1/2"	1"
307C	3/4"	5/8"	301C	5/8"	1"
			351C	3/4"	3/4"
			401C	3/4"	1"
			451C	1"	1"

Note: Part numbers ending with 'HSS' are high speed steel construction, part numbers ending with 'C' are solid carbide.

## H.S.S. & Carbide Rotary Files (cont'd)



Cylindrical Round End		
Part No.	Dia.	Cut Length
102HSS	1/8"	1/2"
152C	3/16"	5/8"
252C	1/4"	5/8"
302HSS	1/4"	1"
352C	3/8"	3/4"
402HSS	3/8"	1"
452HSS	1/2"	1"
452C	1/2"	1"
502HSS	5/8"	1"
502C	5/8"	1"
552C	3/4"	1"
602HSS	3/4"	1-1/4"

Ball Shape		
Part No.	Dia.	Cut Length
0510HSS	1/8"	1/8"
0510C	1/8"	1/8"
1010HSS	3/16"	3/16"
1010C	3/16"	1/4"
1510HSS	1/4"	1/4"
1510C	1/4"	1/4"
2010HSS	5/16"	5/16"
2010C	5/16"	5/16"
2510HSS	3/8"	3/8"
2510C	3/8"	3/8"
3010C	7/16"	3/8"
3510HSS	1/2"	7/16"
3510C	1/2"	1/2"
4010HSS	5/8"	9/16"
4010C	5/8"	9/16"
4510HSS	3/4"	11/16"
4510C	3/4"	11/16"
5010HSS	1"	1"
5010C	1"	15/16"



Tapered Shape		
Part No.	Dia.	Cut Length
1012HSS	1/4"	1-1/4"
1512HSS	3/8"	1-3/4"



60° Deburring		
Part No.	Dia.	Cut Length
056C	1/4"	3/16"
156C	3/8"	5/16"
206C	1/2"	7/16"
256C	5/8"	9/16"
306C	3/4"	11/16"
406C	1"	15/16"

90° Deburring		
Part No.	Dia.	Cut Length
058C	1/4"	1/8"
158C	3/8"	3/16"
208C	1/2"	1/4"
258C	5/8"	5/16"
308C	3/4"	3/8"
408C	1"	1/2"



Flame		
Part No.	Dia.	Cut Length
103C	5/16"	3/4"
153C	1/2"	1-1/4"
203C	5/8"	1-7/16"

























Concave Radius		
Part No.	Dia.	Cut Length
059C	1/4"	3/16"
159C	1/2"	3/8"

Other Styles Available, Please Inquire



**Carbide Miniature Burrs**

*Double Cut, 1/8" Shank, 1-1/2" Overall Length*

	
Part No. SA-43	Part No. SG-41
Size 1/8" x 9/16"	Size 1/8" x 1/4"
	
Part No. SA-42	Part No. SF-42
Size 3/32" x 7/16"	Size 1/8" x 1/2"
	
Part No. SA-41	Part No. SF-41
Size 1/16" x 1/4"	Size 1/8" x 1/4"
	
Part No. SB-41	Part No. SM-43
Size 1/8"	Size 1/8" x 5/8" (7° taper)
	
Part No. SC-42	Part No. SM-42
Size 1/8" x 9/16"	Size 1/8" x 7/16" (14° taper)
	
Part No. SC-41	Part No. SM-41
Size 3/32" x 7/16"	Size 1/8" x 11/32" (12° taper)
	
Part No. SD-42	Part No. SL-42
Size 1/8"	Size 1/8" x 1/2" (8° taper)
	
Part No. SD-41	Part No. SL-41
Size 3/32"	Size 1/8" x 3/8" (8° taper)
	
Part No. SE-41	Part No. SJ-42
Size 1/8" x 1/4"	Size 1/8" (60° taper)
	
Part No. SH-41	Part No. SK-42
Size 1/8" x 1/4"	Size 1/8" (90° taper)
	
Part No. SG-44	Part No. SN-42
Size 1/8" x 1/2"	Size 1/8" x 3/16" (10° taper)
	
Part No. SG-43	Part No. SN-41
Size 1/8" x 3/32"	Size 3/32" x 1/8" (10° taper)

**Aluminum 'Star Cut' Carbide Rotary Files**

- Designed for aluminum & non-ferrous material, 1/4" shank.
- Also great for heavy & medium stock removal of soft, sticky material.



Cylindrical Flat End		
Part No.	Dia.	Cut Length
201CFMC	3/8"	3/4"
251CFMC	1/2"	1"
301CFMC	5/8"	1"
401CFMC	3/4"	1"

Ball Shape		
Part No.	Dia.	Cut Length
2510CFMC	3/8"	3/4"
3510CFMC	1/2"	1"
4010CFMC	5/8"	1"
4510CFMC	3/4"	1"



Cylindrical Round End		
Part No.	Dia.	Cut Length
352CFMC	3/8"	3/4"
452CFMC	1/2"	1"
502CFMC	5/8"	1"
552CFMC	3/4"	1"

Tree Radius		
Part No.	Dia.	Cut Length
155CFMC	3/8"	3/4"
205CFMC	1/2"	1"
355CFMC	5/8"	1"
405CFMC	3/4"	1"

**Nib Files**

*Easy To Use, No Gouging*



*Perfect For Dirt & Runs*

- Remove imperfections on paint jobs without respraying.
- Works on both primer & top coats (dry paint surface only).
- High-quality, precision ground assures uniform results.

Part Number	Style
70307	Coarse
70308	Fine



*For Shop Vacuums & Accessories See Pages 230-231*

# FILES & ABRASIVES

## Hand Files



### Flat Files

Bastard	Second	Smooth	Size	Overall Length
32-289	32-296	32-303	5/8" x 5/32"	6" (152 mm)
32-290	32-297	32-304	25/32" x 7/32"	8" (203 mm)
32-291	32-298	32-305	31/32" x 1/4"	10" (254 mm)
32-292	32-299	32-306	1-5/32" x 9/32"	12" (305 mm)



### Round Files

Bastard	Second	Smooth	Size	Overall Length
32-396	32-403	32-409	7/32"	6" (152 mm)
32-397	32-404	32-410	5/16"	8" (203 mm)
32-398	32-405	32-411	3/8"	10" (254 mm)
32-399	32-406	32-412	1/2"	12" (305 mm)



### Half Round Files

Bastard	Second	Smooth	Size	Overall Length
32-310	32-318	32-325	19/32" x 5/32"	6" (152 mm)
32-311	32-319	32-326	3/4" x 7/32"	8" (203 mm)
32-312	32-320	32-327	15/16" x 9/32"	10" (254 mm)
32-313	32-321	32-328	1-1/8" x 11/32"	12" (305 mm)



### Mill Files

Bastard	Second	Smooth	Size	Overall Length
32-369	32-379	32-385	7/32"	6" (152 mm)
32-370	32-380	32-386	5/16"	8" (203 mm)
32-371	32-381	32-387	3/8"	10" (254 mm)
32-372	32-382	32-388	1/2"	12" (305 mm)

## Milled Curved Tooth Hand Files

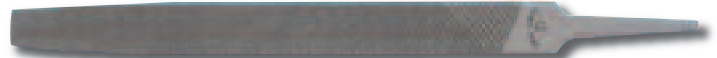


- Designed for smooth, fast work on annealed steels & hard plastics.
- Shear non-ferrous metal such as aluminum & copper with ease.

### Mill Curved Tooth Files

Bastard	Size	Overall Length
32-481	13/16" x 13/64"	8" (203 mm)
32-482	1" x 7/32"	10" (254 mm)
32-483	1-5/32" x 17/64"	12" (305 mm)

## Aluminum Hand Files



### Type 'A' Double Cut Aluminum Flat Files

Bastard	Size	Overall Length
32-260	5/8" x 5/32"	6" (152 mm)
32-261	25/32" x 7/32"	8" (203 mm)
32-262	31/32" x 1/4"	10" (254 mm)
32-263	1-5/32" x 9/32"	12" (305 mm)



### Type 'A' Double Cut Aluminum Half Round Files

Bastard	Size	Overall Length
32-265	19/32" x 5/32"	6" (152 mm)
32-266	3/4" x 7/32"	8" (203 mm)
32-267	15/16" x 9/32"	10" (254 mm)
32-268	1-1/8" x 11/32"	12" (305 mm)

## Plastic File Handles



- Comfortable shape with textured surface for non-slip grip.
- Metal threaded tang insert for a positive, properly aligned grip.

Part No.	Handle No.	Recommended File Size
37-782	2	4" Round
37-783	3	6" Round; 4" Flat, Half Round & Mill
37-784	4	8" Round; 6" Flat, Half Round & Mill
37-785	5	10" Round; 8" Flat, Half Round & Mill
37-786	6	12" (all types); 10" Flat, Half Round & Mill

### 4 Piece File Handle Set

Part Number	Set Includes
53-FHPS	37-782, 32-783, 32-784 & 32-785 (see above)

## File Brush



- Waxed hardwood block & handgrip with slot for included scorer.
- Polypropylene bristle brush & card wire brushing surface.

Part Number	Overall Length
44-01	9" (230 mm)

Swiss Pattern Needle File Set

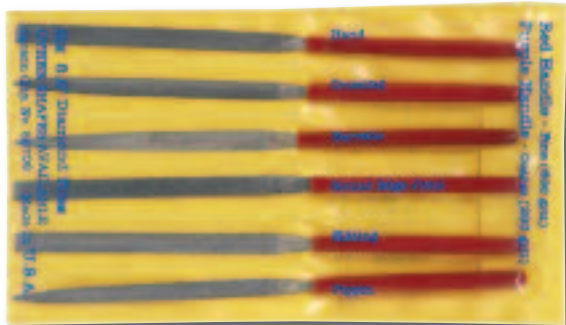


- Precision files of the finest tool steel.
- Meets exacting tool maker requirements.
- Includes snap button plastic case (not shown).
- Set of 12 files with various profiles.

Part Number	Overall Length
S475	5-1/2" (140 mm)

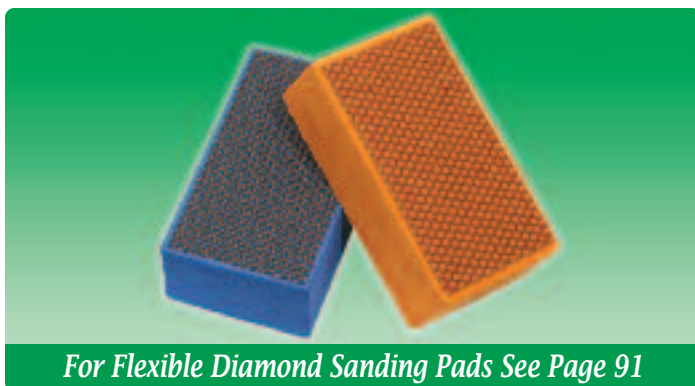
Diamond Needle File Sets

Comfortable Plastic Grips



- Set of 6 files with various profiles.
- Includes plastic case.

Part No.	Grit	Shank Dia.	Overall Length
607F	Fine (600 Grit)	0.118"	5-1/2" (140 mm)
607C	Coarse (200 Grit)	0.118"	5-1/2" (140 mm)



For Flexible Diamond Sanding Pads See Page 91

6" x 9" Hand Pads



10475

- For cleanup, light deburring, blending & satin finishing on all metals.
- Open structure prevents loading & can be used wet or dry.

Part Number	Type	Color
10473	General Purpose A/O	Maroon
10474	Heavy-Duty A/O	Tan
10475	Ultra-Fine S/C	Grey

Part Number	Description
43934	Hand Pad Holder

Merit® Shur-Stik Disc Holders

- Flex tested neoprene rubber pad.
- Hardened steel mandrel.

Part No.	Diameter	Max. RPM
74098	1"	15,000
74100	2"	12,000
74101	3"	10,000
74102	4"	6,000



Merit® Shur-Stik Discs

- Pressure sensitive adhesive backing for uses up to 15,000 RPM.
- Protective liner speeds disc changing.
- Excellent heat resistant properties.



Note: All diameters sold in packs of 100.

ALO Resin Bond Discs				
Grit	1"	2"	3"	4"
24	72143	71158	71173	71188
36	71129	71159	71174	71189
40	71130	71160	71175	71190
50	71131	71161	71176	71191
60	71132	71162	71177	71192
80	71133	71163	71178	71193
100	71134	71164	71179	71194
120	71135	71165	71180	71195

**Merit® PowerLock Discs**



- The most aggressive quick-change sanding discs available in the industry.
- Laminated construction is tough and durable - virtually eliminates the snagging and shredding that can occur with pressure-sensitive discs.
- Offered in a choice of three safe, easy to use fasteners:



**Type I: Snap-On**  
(equivalent to Norton TP fastener)



**Type II: Roll-On**  
(equivalent to Std. Abrasives Soc-Att® or Norton TS fastener)



**Type III: Turn-On**  
(equivalent to 3M Roloc or Norton TR fastener)

**Note:** Powerlock holders shown on next page.

**ALO Resin Bond PowerLock Cloth Discs**

These aluminum oxide discs are best used for general purpose deburring and blending on ferrous and nonferrous metals where greater edge durability is required.

**ALO Plus PowerLock Cloth Discs**

Featuring a grinding aid, these run cooler and more efficiently for grinding exotic alloys.

ALO Resin Bond Discs				
Dia.	Grit	Type I	Type II	Type III
3/4"	24	61001	65100	64312
	36	61002	65101	64319
	40	61003	65102	64321
	50	61004	65103	64322
	60	61005	65104	64813
	80	61006	65105	64323
	100	61007	65106	64814
	120	61008	65107	64324
	150	61009	65108	64815
	180	61010	65109	64325
1"	24	61011	65111	64326
	320	61012	65113	64327
	24	61014	65115	64328
	36	61015	65116	66031
	40	61016	65117	61251
	50	61017	65118	64924
	60	61018	65119	61105
	80	61019	65120	66185
	100	61020	65121	61364
	120	61021	65122	61106
1-1/2"	150	61022	65123	64330
	180	61023	65124	66252
	240	61025	65126	66874
	320	61026	65128	64097
	24	61027	65130	64969
	36	61028	65131	64048
	40	61029	65132	64804
	50	61030	65133	64092
	60	61031	65134	64902
	80	61032	65135	61400
100 per box	100	61033	65136	61288
	120	61034	65137	64905
	150	61035	65138	64810
	180	61036	65139	66251
	240	61037	65141	61602
	320	61038	65143	64331

ALO Resin Bond Discs				
Dia.	Grit	Type I	Type II	Type III
2"	24	61041	65145	64912
	36	61042	65146	64913
	40	61043	65147	66353
	50	61044	65148	64914
	60	61045	65149	61155
	80	61046	65150	64941
	100	61047	65151	64917
	120	61048	65152	61169
	150	61049	65153	64786
	180	61050	65154	64916
3"	240	61051	65156	64919
	320	61052	65158	66875
	24	61055	65160	61214
	36	61056	65161	64938
	40	61057	65162	64939
	50	61058	65163	64940
	60	61059	65164	66183
	80	61060	65165	66191
	100	61061	65166	66189
	120	61062	65167	66184
4"	150	61063	65168	64340
	180	61064	65169	66187
	240	61065	65171	66225
	320	61066	65173	63205
	36	61070	65176	66265
	40	61071	65177	64860
	50	61072	65178	64788
	60	61073	65179	64601
	80	61074	65180	66472
	100	61075	65181	64342
50 per box	120	61076	65182	66473
	180	61078	65184	64843

ALO Plus Discs				
Dia.	Grit	Type I	Type II	Type III
3/4"	36	64345	67462	64467
	40	64346	67463	64468
	50	64347	67464	64469
	60	64349	67465	64470
	80	64350	67466	64471
	120	64361	67468	64473
1"	36	64363	67477	64475
	40	64364	67478	64476
	50	64365	67479	64477
	60	64366	67480	64478
	80	64368	67481	64479
	120	64370	67483	64481
1-1/2"	36	64392	66881	64483
	40	64393	66882	64484
	50	64394	66883	64485
	60	64395	66884	64486
	80	64396	66885	64487
	120	64398	66887	64489
2"	36	64400	66896	64491
	40	64401	66897	64492
	50	64402	66898	64493
	60	64403	66899	64494
	80	64404	66900	64495
	120	64428	66902	64496
3"	36	64430	66911	64498
	40	64431	66912	64499
	50	64432	66913	64500
	60	64433	66914	64501
	80	64434	66915	64502
	120	64436	66917	64509
4"	36	64459	63959	64511
	40	64460	63960	64525
	50	64461	63961	64526
	60	64462	63962	64527
	80	64463	63963	64536
	120	64465	63965	64542

*PowerLock Discs In Other Styles & Grits Also Available, Please Inquire*

**Merit® PowerLock Disc Holders**

- Use hard pads for flat work & more aggressive removal.
- Use softer pads for contour work, feathering & edging, corners & fillets.



**PowerLock Type I:**  
Snap-on/snap-off fastener equivalent to Norton TP fastener.

**PowerLock Type II:**  
Roll-on/roll-off fastener equivalent to Std. Abrasives Soc-Att® or Norton TS fastener.

**PowerLock Type III:**  
Turn-on/turn-off fastener equivalent to 3M Roloc or Norton TR fastener.

Dia.	Max. RPM	Style	Type I	Type II	Type III
3/4"	40,000	Medium	64001	64206	64038
1"	40,000	Medium	64002	64651	64037
1-1/2"	30,000	Medium	64003	64146	61174
1-1/2"	30,000	Hard	63996	64662	64640
2"	30,000	Soft	63949	61625	64641
2"	30,000	Medium	64004	64198	64922
2"	30,000	Hard	63997	64624	64643
3"	20,000	Soft	63948	64626	64644
3"	20,000	Medium	64005	64113	64949
3"	20,000	Hard	63998	61626	64036
4"	15,000	Medium	64006	64135	64655

**Merit® PowerLock Buffing Discs**



- Non-woven nylon fiber impregnated with abrasive.
- Produces a uniform finish at higher buffing speeds without fly-offs.

Dia.	Grit	Type I	Type II	Type III
1-1/2" 100 per box	V-Fine	66333	66406	66417
	Fine	66332	66393	66369
	Medium	66292	66392	66368
	Coarse	66294	66391	61647
2" 50 per box	V-Fine	66282	66405	66305
	Fine	66281	66396	66304
	Medium	66280	66395	66303
	Coarse	61627	66394	61649
3" 25 per box	V-Fine	66286	66403	66310
	Fine	66285	66399	66309
	Medium	66284	66398	66308
	Coarse	66293	66397	61651
4" 25 per box	V-Fine	66297	66404	66316
	Fine	66296	66402	66315
	Medium	66295	66401	66314
	Coarse	61652	66400	61654

**Merit® PowerLock Surface Preparation Discs**



- Thick abrasive grain bonded to a reinforced non-woven nylon pad.
- More rigid & aggressive than buffing pads.
- Great for removing heavy rust & blending machine marks & flaws.

**Note:** Other sizes & styles available, please inquire.

Dia.	Grit	Type I	Type II	Type III
1-1/2" 100 per box	V-Fine	66336	66409	66367
	Medium	66335	66408	66380
	Coarse	66334	66407	66366
2" 50 per box	V-Fine	66273	66317	66318
	Medium	66272	66288	66290
	Coarse	66271	66287	66289
3" 25 per box	V-Fine	66277	66321	66323
	Medium	66276	66320	66291
	Coarse	66275	66319	66322
4" 25 per box	V-Fine	66300	66390	66329
	Medium	66299	66389	66328
	Coarse	66298	66388	66327

**Merit® PowerLock FlexEdge Discs**

- Manufactured with a flexible aluminum oxide abrasive cloth.
- Outer 3/8" is more flexible than the rest of the disc.
- Great for softer metals & contour grinding of structural pieces.
- Order discs one size larger than the PowerLock holder you use.



Dia.	Grit	Type I	Type II
1" 100 per box	50	64309	63706
	60	64296	60394
	80	61194	60395
	100	64215	60396
	120	64216	60397
1-1/2" 100 per box	50	64375	63713
	60	64315	67333
	80	64316	60399
	100	64317	63714
	120	64318	60401
180	64320	60402	

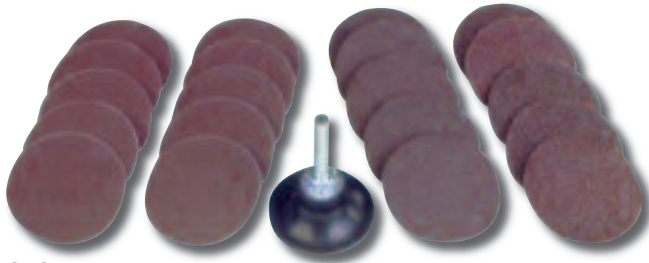
Dia.*	Grit	Type I	Type II
2" 100 per box	50	64333	63721
	60	64334	60403
	80	64335	60404
	100	64336	66959
	120	64337	67363
3" 50 per box	180	64339	60405
	50	64352	63728
	60	64353	60406
	80	64354	61282
	100	64355	66974
120	64356	63729	
	180	64358	60407

\* For 3" discs use the special PowerLock holders shown below (max. 30,000 RPM).

Type I	Type II	Description
63995	68539	2" Cam Lock Holder (required for 3" discs)

## FILES & ABRASIVES

### Shur-Kut® Quick Change Disc Kits



**Includes:**

Twenty Shur-Kut® Quick Change Discs (five each: 36, 60, 80 & 120 grit) & 1/4" Shank Medium Density Holder

Part Number	Diameter
01-74100	2"
01-74101	3"

### Shur-Kut® Cartridge Roll Assortment Kit



**Includes:**

Assortment of Straight & Tapered Rolls (1" & 1-1/2" long, resin bond) in 80 & 120 Grit & Two 1/4" Shank Mandrels

Part Number	Diameter
28802	1/4" to 1/2"

### Shur-Brite® Surface Conditioning Disc Kits

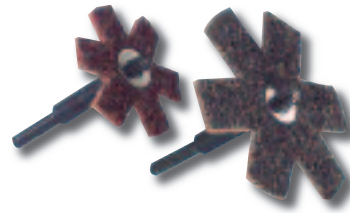


**Includes:**

Fifteen Shur-Kut® Surface conditioning Discs (five each: very fine, medium & coarse) & 1/4" Shank Medium Density Holder

Part Number	Diameter
34311	2"
34312	3"

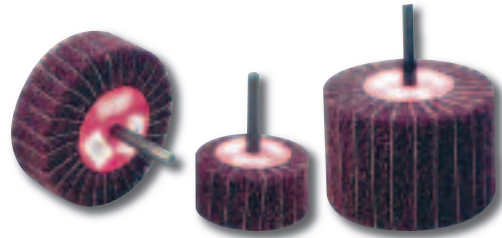
### Shur-Brite® Surface Conditioning Stars



- Die cut from reinforced surface conditioning material.
- Great for cleaning & polishing the I.D. of tubing & recessed areas.
- Will quickly provide a smooth finish on steel, aluminum or plastic.

Grade	1-1/2"	2"	3"
Very Fine	28834	28837	28840
Medium	28833	28836	28839
Coarse	28832	28835	28838

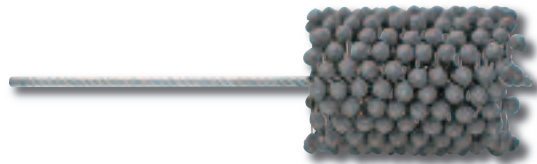
### Shur-Brite® Mounted Duplex Wheels



- Interleaf design cushions abrasive flaps for extra smooth operation.
- For polishing, deburring & removal of pits, burrs & scratches.

Grit	3" x 1" x 1/4"	3" x 2" x 1/4"
80	10467	10470
120	10468	10471
180	10469	10472

### Heavy-Duty Flex Hones



- A resilient, flexible honing tool with a soft cutting action.
- Independently suspended abrasive points are self-centering.
- Tool will self-compensate for wear & self align to the bore.
- Extremely efficient for providing crosshatch oil retention grooves.

Part Number	Diameter	For Bore Sizes	Overall Length
70594	3-3/4"	3-1/2" to 3-3/4"	13-1/2" (343 mm)
70595	4"	3-3/4" to 4"	13-1/2" (343 mm)
70596	4-1/4"	4" to 4-1/4"	13-1/2" (343 mm)
70597	4-1/2"	4-1/4" to 4-1/2"	13-1/2" (343 mm)
70598	5"	4-1/2" to 5"	17-1/2" (445 mm)
70599	5-1/2"	5" to 5-1/2"	17-1/2" (445 mm)
70600	6"	5-1/2" to 6"	17-1/2" (445 mm)

**Merit® Blaze High Performance Abrasives**



*Next-Generation  
Ceramic Grain*

- 50% to 300% longer life than any product currently available.
- Improved grain retention & resin bond system.
- X-weight cotton backing & advanced grinding aid.
- Cuts cooler and lasts longer on stainless steel, cobalt, inconel, titanium & other hard-to-grind materials.

**Note:** All Blaze abrasives sold in boxes of 100.

Cartridge Rolls, 1-1/2" Overall Length			
Grit	1/4" Dia.	3/8" Dia.	1/2" Dia.
60	94384	94392	94393
80	94394	94395	94396
120	94397	94398	94399
<b>Mandrel</b>	<b>81209</b>	<b>81209</b>	<b>81208</b>

Full Taper Spiral Rolls, 1-1/2" Overall Length		
Grit	3/8" Diameter	1/2" Diameter
60	94481	94484
80	94490	94492
120	94491	94495
<b>Mandrel</b>	<b>81209</b>	<b>81208</b>

8-Ply Cross Pads, 8-32 Quick Change Eyelet			
Grit	1-1/2" Sq. x 1/2"	2" Sq. x 3/4"	3" Sq. x 1"
60	94496	94502	94504
80	94508	94513	94549
120	94511	94516	94551
<b>Mandrel</b>	<b>83163</b>	<b>21680</b>	<b>21680</b>

Square Pads, 1/4"-20 Quick Change Eyelet			
Grit	2" Sq. x 1/2"	3" Sq. x 1/4"	3" Sq. x 1/2"
60	94520	94531	94528
80	94522	94555	94557
120	94554	94556	94558
<b>Mandrel</b>	<b>21680</b>	<b>21680</b>	<b>21680</b>

Overlap Slotted Discs, 8-32 Quick Change Eyelet			
Grit	1-1/2" Dia.	2" Dia.	3" Dia.
60	01-95051	95054	95057
80	95368	95055	95058
120	95367	95056	95059
<b>Mandrel</b>	<b>83163</b>	<b>21680</b>	<b>21680</b>

**Merit® Micro Mini Flap Wheels**



*1/8"  
Shank*

- Fast & light deburring of internal work spaces as small as 1".
- Many other sizes & styles available, please inquire.

**Note:** All diameters sold in packs of 10.

Dia. x Width	80 Grit	120 Grit	180 Grit	240 Grit	320 Grit
3/8" x 3/8"	37471	37472	37473	37474	37475
5/8" x 5/8"	37481	37482	37483	37484	37485
5/8" x 3/4"	37541	37542	37543	37544	37545
3/4" x 3/16"	37551	37552	37553	37554	37555
3/4" x 3/8"	37561	37562	37563	37564	37565
3/4" x 1/2"	37571	37572	37573	37574	37575
3/4" x 5/8"	37581	37582	37583	37584	37585
3/4" x 3/4"	37591	37592	37593	37594	37595
1-3/16" x 1/8"	37491	37492	37493	37494	37495
1-3/16" x 3/16"	37501	37502	37503	37504	37505
1-3/16" x 3/8"	37511	37512	37513	37514	37515

**Merit® Abrasive Test Kits**

- Determine what abrasives are best suited to your application needs.
- Versatile & economical - selection continues on next page.



**'D' Power Lock Disc Test Kit:**

150 Power Lock Discs (1" to 3" dia. in assorted grits - includes zirconia alumina & flex edge discs) & 3 Power Lock I Holders

Part Number	Description
65001	D Power Lock Disc Test Kit

**Merit® Abrasive Test Kits (cont'd)**



**'BP' Bore Polisher Test Kit:**

Ten Bore Polishers & Two Mini Grind-O-Flex Wheels (assorted sizes & grits) mounted on 1/4" Mandrels

Part Number	Description
54181	BP Bore Polisher Test Kit



**'MMC' Micro-Mini Test Kit:**

Five Micro-Mini Grind-O-Flex Wheels (3/8" to 1-3/16" dia.) mounted on 1/8" Hardened Steel Shanks

Part Number	Description
31493	MMC Micro-Mini Test Kit



**'CMM' Mandrel-Mounted Mini Grind-O-Flex Test Kit:**

Ten Mini Grind-O-Flex Wheels (1" to 3" dia. in various grits) mounted on 1/4" Mandrels

Part Number	Description
38004	CMM Mini Grind-O-Flex Test Kit



**'CQ' Mini Grind-O-Flex Test Kit:**

Ten Mini Grind-O-Flex Wheels (1" to 3" diameter, 1/4"-20 thread) & 1/4" Quick Change Adapter

Part Number	Description
38001	CQ Mini Grind-O-Flex Test Kit

**Merit® Blaze High Performance Abrasive Test Kit**



*Next-Generation Ceramic Grain*

- Handy kit includes mandrels and a variety of new Blaze cartridge rolls & spiral rolls in popular sizes & grits.
- 50% to 300% longer life than any product currently available.
- Cuts cooler and lasts longer on stainless steel, cobalt, inconel, titanium & other hard-to-grind materials.

Part Number	Description
66726	Blaze Abrasive Test Kit

**Rubberized Abrasive Kits**

*Perfect For Light Deburring, Smoothing, Cleaning & Polishing*

- Unique cushioned action cuts smoothly & softly without gouging or digging into the work surface and resists clogging.
- Ideal for metallic & non-metallic surfaces that must be worked without loss of dimensional tolerances or control.
- Abrasives can be shaped with conventional wheel dressers and will not harden or soften during use or in storage.
- Selection continues on next page.



88-174-8

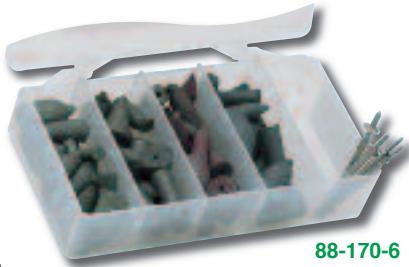
**Tool Room Assortment:**

100 Cylinder Points, 100 Bullet Points, 200 Tapered Wheels, 300 Straight Wheels (all in various grits), 48 Point Mandrels, 48 Wheel Mandrels & Carrying Case

Part Number	Description
88-174-8	Complete 797 PC Kit



Rubberized Abrasive Kits (cont'd)



88-170-6

**Polishing Kit:**

16 Cylinder Points, 32 Bullet Points, 16 Tapered Points (all in various grits), 4 Point Mandrels & Carrying Case

Part Number	Description
88-170-6	Complete 69 PC Kit



88-172-2

**Cone Kit:**

8 Tapered Cones, 4 Cylinder Cones, 4 Pointed Cones, 2 Bullet Cones (all in various grits), 2 Cone Mandrels & Carrying Case

Part Number	Description
88-172-2	Complete 21 PC Kit



88-180-5

**Finishing Kit A:**

4 Round Pencils, 4 Rectangular Sticks, 4 Tapered Cones, 4 Cylinder Cones, 4 Straight Wheels (all in various grits), 1 Cone Mandrel, 1 Wheel Mandrel & Carrying Case

Part Number	Description
88-180-5	Complete 23 PC Kit

**Finishing Kit B:**

12 Bullet Points, 12 Tapered Wheels, 36 Straight Wheels (all in various grits), 1 Point Mandrel, 3 Wheel Mandrels & Carrying Case

Part Number	Description
88-184-7	Complete 65 PC Kit

Rubberized Abrasive Kits (cont'd)

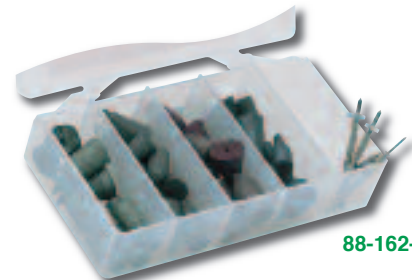


88-164-9

**Small Wheel Kit:**

112 Straight Wheels, 8 Straight Points (all in various grits), 7 Wheel Mandrels & Carrying Case

Part Number	Description
88-164-9	Complete 128 PC Kit



88-162-3

**Point Kit A:**

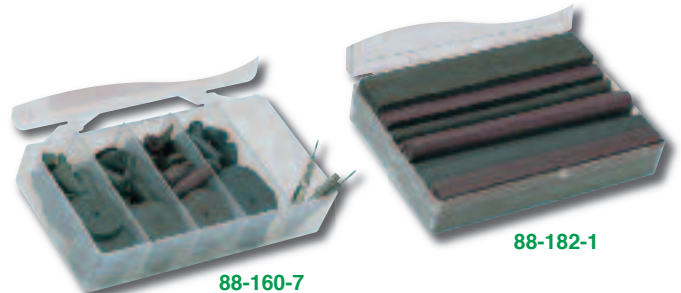
45 Bullet Points (various grits), 4 Point Mandrels & Carrying Case

Part Number	Description
88-162-3	Complete 50 PC Kit

**Point Kit B:**

100 Bullet Points (various grits), 2 Point Mandrels & Carrying Case

Part Number	Description
88-186-2	Complete 103 PC Kit



88-160-7

88-182-1

**Utility Kit:**

16 Cylinder Points, 24 Bullet Points, 8 Tapered Wheels, 24 Straight Wheels, 8 Straight Points (all in various grits), 4 Wheel Mandrels & Carrying Case

Part Number	Description
88-160-7	Complete 85 PC Kit

**Hand Finishing Kit:**

8 Round Pencils, 4 Rectangular Sticks, 4 Square Sticks (all in various grits) & Carrying Case

Part Number	Description
88-182-1	Complete 17 PC Kit

## FILES & ABRASIVES

### Sanding Drum & Sleeve Kits

*True Running, No Wobble*

SDK-15



- Precision ground, extruded live rubber for better life & performance.
- Aluminum oxide, resin bond sanding sleeves with cloth backing.
- Abrasive sleeves are easily secured in place by user controlled expansion of the solid rubber drum spindle.
- Will not break apart even under the most demanding tasks.

#### General Purpose Kit:

Five Drums (1/2" x 1/2", 3/4" x 1", 1" x 1", 1-1/2" x 1-1/2", 2" x 1-1/2") & Ten Sleeves (1 fine & 1 coarse for each drum size)

#### 2" Extra Long Kit:

Four Drums (1/2" x 2", 3/4" x 2", 1" x 2", 1-1/2" x 2") & Eight Sleeves (1 fine & 1 coarse for each drum size)

Part Number	Type	Shank Diameter
SDK-15	General Purpose Kit	1/8" & 1/4"
SDK-12	2" Extra Long Kit	1/4"

### Replacement Spiral Coated Sanding Sleeves



- Aluminum oxide, resin bond with cloth backing.
- Will not break apart even under the most demanding tasks.

#### General Purpose 6 PC Sleeve Packs - For Kit SDK-15

D x W	Coarse	Medium	Fine	9 PC Mix*
1/2" x 1/2"	808-6-C	808-6-M	808-6-F	808-9
3/4" x 1"	1216-6-C	1216-6-M	1216-6-F	1216-9
1" x 1"	1616-6-C	1616-6-M	1616-6-F	1616-9
1-1/2" x 1-1/2"	2424-6-C	2424-6-M	2424-6-F	2424-9
2" x 1-1/2"	3224-6-C	3224-6-M	3224-6-F	3224-9

#### 2" Extra Long 6 PC Sleeve Packs - For Kit SDK-12

D x W	Coarse	Medium	Fine	9 PC Mix*
1/2" x 2"	832-6-C	832-6-M	832-6-F	832-9
3/4" x 2"	1232-6-C	1232-6-M	1232-6-F	1232-9
1" x 2"	1632-6-C	1632-6-M	1632-6-F	1632-9
1-1/2" x 2"	2432-6-C	2432-6-M	2432-6-F	2432-9

\* Mix packs include three sleeves in each grade.

### Replacement Sanding Drums



#### Standard Lock Style

- Rubber expansion is controlled by turning hex nut
- Rubber spindle is seated directly on the mandrel (arbor).



Part Number	Drum Dia.	Drum Width
8008-02NL	1/2"	1/2"
8032-04NL	1/2"	2"
12016-04NL	3/4"	1"
12032-04NL	3/4"	2"
16016-04NL	1"	1"
16032-04NL	1"	2"
24024-04NL	1-1/2"	1-1/2"
24032-04NL	1-1/2"	2"
32024-04NL	2"	1-1/2"

NOTE: Other sizes and styles available, please inquire.

### Seat Track Cleaners



*Leaves A Superior Surface Finish*

*Non-Loading On Aluminum*

- Designed for cleaning all the interior surfaces of the seat track.
- Removes caked on sludge dirt while also removing minor burrs.
- Reinforced non-woven cotton fiber & abrasive grain bonded discs.

Part Number	Grit	Shank	Overall Length
350029	Coarse	1/4" x 1-1/2"	1-7/8" (48 mm)
350030	Medium	1/4" x 1-1/2"	1-7/8" (48 mm)

### Cotton Fiber Mounted Point Test Kits

*Non-Loading On Aluminum, Brass, Bronze & Other Non-Ferrous Metals*

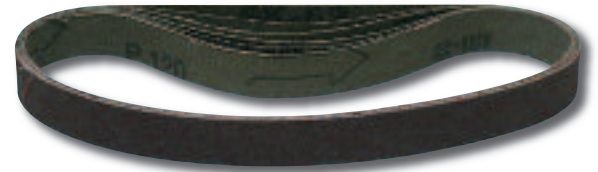


- Smooth chatter free grinding, deburr & polish in one easy step.
- Controlled metal removal without changing part geometry.
- Ideal for stainless steel, aluminum, mild steel & exotics.

Part Number	Description	Shank
70383	13 PC Mini Assortment	1/8"
70385	13 PC Standard Assortment	1/4"
70387	13 PC Large Assortment	1/4"

High Performance Abrasive Belts

- Premium quality - recommended for medium to heavy grinding & finishing.
- For use on regular & high tensile steel, cast iron, non-ferrous materials & alloys.



Grain	Bond	Backing	Structure
Aluminum Oxide	Resin Over Resin	'X' Weight Poly Cotton	Closed Coat

Note: Many other styles & sizes available, please inquire.

1/8" x 24"		1/4" x 12"		1/4" x 24"		1/2" x 12"		1/2" x 24"		3/4" x 18"	
Part No.	Grit	Part No.	Grit	Part No.	Grit	Part No.	Grit	Part No.	Grit	Part No.	Grit
—	36	—	36	—	36	10675	36	10683	36	10691	36
—	40	—	40	—	40	10676	40	10684	40	10692	40
—	50	—	50	—	50	10677	50	10685	50	10693	50
14273	60	23030	60	14315	60	10678	60	10686	60	10694	60
14274	80	14-1591	80	14316	80	10679	80	10687	80	10695	80
14275	100	—	100	34728	100	10680	100	10688	100	10696	100
14276	120	25540	120	14318	120	10681	120	10689	120	10697	120
33526	180	14-1596	180	14320	180	10682	180	10690	180	10698	180

1" x 12"		1" x 24"		1" x 30"		2" x 30"		4" x 60"		6" x 48"	
Part No.	Grit	Part No.	Grit	Part No.	Grit	Part No.	Grit	Part No.	Grit	Part No.	Grit
10708	36	14507	36	10726	36	34094	36	10969	36	11032	36
10709	40	14508	40	10727	40	—	40	10970	40	11033	40
10710	50	14509	50	10728	50	—	50	10971	50	11034	50
10711	60	14510	60	10729	60	20132	60	10972	60	11035	60
10712	80	14511	80	10730	80	18572	80	10973	80	11036	80
10713	100	14512	100	10731	100	—	100	10974	100	11037	100
10714	120	14513	120	10732	120	20134	120	10975	120	11038	120
10715	180	14514	180	10733	180	20136	180	10976	180	11039	180

Pencil End Wire Brushes

*Ideal For Aircraft Maintenance*



70193

- Small brushes designed for cleaning blind holes and small crevices.
- For use with chucked tools.



Note: For pilot bonding brushes see page 95.

1/4" Shank Diameter, .012" Wire Diameter			
Part Number	Wire Type	RPM	'T' Trim Length*
70193	Carbon Steel	4000 to 6000 (8000 max.)	3/8" (3/16" diameter)
70194	Stainless Steel (INOX)	3000 to 5000 (8000 max.)	3/8" (3/16" diameter)

\* The metal shank/tube can be cut back to expose desired filament length.

Non-Marring Pry Wedges

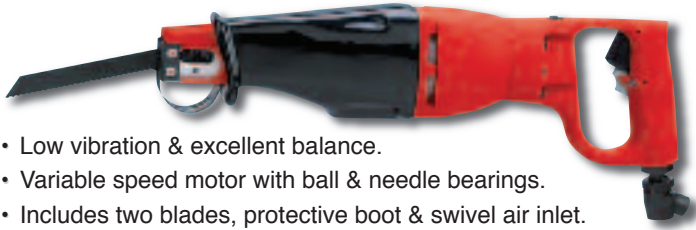


- Orange polyethylene wedges are perfect for gentle prying jobs.
- Black polycarbonate wedges are designed for tough prying work.
- Specially designed slim profile - great for tight spaces.

Part Number	Description	Color
70220	3PC Polyethylene Set (flexible)	Orange
70221	3PC Polycarbonate Set (hard)	Black

## SAWS & ACCESSORIES

### Reciprocating Saw



- Low vibration & excellent balance.
- Variable speed motor with ball & needle bearings.
- Includes two blades, protective boot & swivel air inlet.

#### 1.0 hp (0.7 kW) - 1800 Strokes Per Minute

Part Number	Stroke	Weight	Overall Length
1300	5/8"	7.8 lbs (3.5 kgs)	17-1/8" (435 mm)

#### 5-Pack Reciprocating Saw Blades

Part Number	Overall Length	Teeth -Inch	Recommended Use
49-1810	6" (152 mm)	14	Metals Over 1/8" Thick
49-1811	6" (152 mm)	18	Metals To 1/8" Thick
49-1812	4" (102 mm)	18	Metals Over 1/8" Thick
49-1813	4" (102 mm)	14	Metals To 1/8" Thick
49-1814	6" (152 mm)	24	Metals To 18 Gauge
49-1815	6" (152 mm)	10	Metals, Hard Rubber & Fiber > 1/4"
49-1816	6" (152 mm)	6	Roughing In On Wood Composition & Non-Ferrous Materials
49-1817	6" (152 mm)	10	
49-1818	6" (152 mm)	6	Roughing In, Pruning & Light To Medium Sections
49-1819	6" (152 mm)	6	

### Heavy-Duty Portable Hacksaw Kit



- Lightweight, easy to handle unit cuts smoothly & quietly.
- Twin pistons provide for continuous smooth power during forward and rearward stroke.
- Uses standard hacksaw, sectional band, or modified reciprocating saw blades (1/2" high by 0.025" to 0.035" thick).
- A true all weather and condition tool - It can be safely used under fresh or salt water, fire retardant foam, oil, mud, slurries and hazardous material.
- Kit includes 6 blades, lubrication & steel carrying case.

#### 6.5 CFM - 0 To 1200 Strokes Per Minute

Part Number	Stroke	Weight	Overall Length
715	1-3/4"	5.6 lbs (2.5 kgs)	16" (406 mm)

Note: Tool operates at 90-110 PSI. 3/8" ID air hose recommended.

#### Replacement Blades

Part Number	Description
94324	10 PC Blade Pack

### Air Body Saw



#### 16 Gauge Mild Steel Capacity

- Lightweight, slim design for cutting in confined areas.
- Positive blade retention with adjustable blade guide.
- Kick-off throttle & built in regulator for positive speed control.

#### 9 CFM - 10,000 Strokes Per Minute

Part Number	Stroke	Weight	Overall Length
JSG-0822	1/4"	1.37 lbs (0.62 kgs)	7-1/8" (181 mm)

#### Replacement Blades

Part Number	Description
JSB24S	10 PC Blade Pack

### USATCO Panel Saws

#### 16 Gauge Mild Steel Capacity



- Variable speed trigger for smooth, easy starting cuts.
- Highly maneuverable saw can cut through up to 5/8" thick material.
- Used standard 7/16" arbor hole blades.

#### 0.8 hp (0.6 kW) - 5/8" Cut Depth, 2200 RPM

Part Number	Blade Sizes	Weight	Overall Length
70121	2" & 2-1/2"	4 lbs (1.8 kgs)	14" (356 mm)
70122	1-3/4" & 2"	4 lbs (1.8 kgs)	14" (356 mm)

#### Vacuum Model

- Accepts standard noses from canister type or in-plant systems.

#### 0.8 hp (0.6 kW) - 5/8" Cut Depth, 2200 RPM - Vacuum Model

Part Number	Blade Sizes	Weight	Overall Length
70123	2" & 2-1/2"	4 lbs (1.8 kgs)	14" (356 mm)

#### High Speed Steel Saw Blades, 7/16" Arbor Hole

Part No.	Dia.	Teeth	Recommended Use
14-2147	2-1/2"	44	1/4" Alum., 1/2" Plywood & 1/2" Phenolic
14-2146	2-1/2"	80	16 Gauge Steel
14-2928	3-3/8"	80	1/8" Alum., 1/2" Plywood & 1/2" Phenolic
14-2929	3-3/8"	80	20g Steel, Paneling & Plywood
14-2930	3-3/8"	100	20 Gauge Steel, Paneling & Soft Metals

**Chicago Pneumatic® Reciprocating Saw**



*Heavy-Duty*

*Very Low Vibration*



- A premium tool with high power at 10,000 SPM.
- Perfect for cutting aluminum, plastic, fiberglass, wood, and sheet metal up to 16 gauge.
- Includes adjustable blade guide and 360° swivel air inlet.
- Kit includes fitted case and a pack of each type blade shown below.

5.5 CFM - 10,000 Strokes Per Minute				
Tool Only	Complete Kit	Stroke	Weight	O.A.L.
CP7901	CP7901K	3/8"	1.9 lbs (0.86 kgs)	9" (229 mm)

5-Pack Reciprocating Saw Blades	
Part Number	Teeth Per Inch
8940158775	18
8940158776	24
8940158777	32

**Docto® Adjustable Depth Control Saws**



12S1283-02

- Used standard 1/4" arbor hole blades.
- Includes applicable wrenches & oilless blades.

**Note:** See below & next page for applicable replacement blades.

0.3 hp (0.22 kW) - 7/16" Cut Depth, 2" Blade Capacity				
Front Exhaust	Rear Exhaust	RPM	Weight	O.A.L.
12S1207-02	12S1283-02	20,000	1.3 lbs (0.6 kgs)	7-1/8" (181 mm)
12S1206-02	12S1282-02	12,000		
—	12S1289-02	3600	1.6 lbs (0.7 kgs)	8-7/8" (225 mm)
—	12S1288-02	2400		

0.3 hp (0.22 kW) - 7/16" Cut Depth, 2" Blade Cap. - Vacuum Ready			
Part Number	RPM	Weight	Overall Length
12S1274-03	20,000	2.3 lbs (1.0 kgs)	7-1/8" (181 mm)
12S1273-03	12,000	2.3 lbs (1.0 kgs)	7-1/8" (181 mm)

**Docto® Oscillating Saws**



12L2240-90

- Specially designed for cutting cured & uncured graphite composites.
- Performs equally well on wood, fiberglass, plaster & plastic.
- Uses 3/8" arbor hole oscillating blades.
- Includes applicable wrenches & oilless blades.

*Perfect For Composite Work*

0.6 hp (0.45 kW) - 9/16" Cut Depth, 14,000 CPM - In-line			
Part Number	Blade Cap.	Weight	Overall Length
12L2065-90	2-1/2"	2.1 lbs (0.9 kgs)	8-7/8" (225 mm)

0.6 hp (0.45 kW) - 9/16" Cut Depth, 14,000 CPM - Right Angle			
Part Number	Blade Cap.	Weight	Overall Length
12L2240-90	2-1/2"	2.3 lbs (1.0 kgs)	10-7/8" (276 mm)

**Note:** See next page for applicable replacement blades.

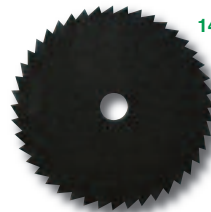
**Saw Blades**

*Many Other Styles & Sizes Available, Please Inquire*

14-1875



14-1891



*Selection Continues On Next Page*

Dotco Circular, 1/4" Arbor Hole - 12,000 RPM Recommended					
Part No.	Type	Diameter	Grit	Maximum Cut	Recommended Use
14-1875	High Speed Steel	1-1/4"	22	3/32" D x 1/16" W	Aluminum, Laminated Plastics, Pressboard & Wood
14-0930	High Speed Steel	1-1/4"	44	3/32" D x 1/16" W	Aluminum, Laminated Plastics, Pressboard & Wood
14-1895	High Speed Steel	1-1/2"	22	7/32" D x 1/16" W	Aluminum, Laminated Plastics, Pressboard & Wood
14-1890	High Speed Steel	2"	22	7/16" D x 1/16" W	Aluminum, Laminated Plastics, Pressboard & Wood
14-1891	High Speed Steel	2"	44	7/16" D x 1/16" W	Aluminum, Laminated Plastics, Pressboard & Wood
14-1892	High Speed Steel	2"	60	7/16" D x 1/16" W	Aluminum, Laminated Plastics, Pressboard & Wood

**Saw Blades (cont'd)**



14-1400



14-2700



14-1745



14-2701

**Dotco Circular, 1/4" Arbor Hole - 20,000 RPM Recommended (for non-metallic materials only)**

Part No.	Type	Diameter	Teeth/Grit	Maximum Cut	Recommended Use
14-1396*	Carbide Chip	1-1/2"	30/80 Grit	7/32" D x 3/32" W	Fiberglass & Rubber
14-2395*	Carbide Chip	2"	30/80 Grit	7/16" D x 3/32" W	Fiberglass & Rubber
14-1398*	Diamond Chip	1-1/2"	40/60 Grit	7/32" D x 5/64" W	Fiberglass & Rubber
14-1400*	Diamond Chip	2"	40/60 Grit	7/16" D x 5/64" W	Fiberglass & Rubber

**Dotco Circular Oscillating, 3/8" Arbor Hole**

Part No.	Type	Diameter	Teeth/Grit	Maximum Cut	Recommended Use
14-1740*	Carbide Chip	2"	36/80 Grit	7/16" D x 3/32" W	Fiberglass
14-1741*	Diamond Chip	2"	40/60 Grit	7/16" D x 5/64" W	Fiberglass & Carbon Composites
14-1742	Stainless Steel	2-1/2"	124	9/16" D x 3/64" W	Wood, Composites, Aluminum & Plastic
14-1743	Carbide	2-1/2"	120	9/16" D x 1/16" W	Cured Graphite Composites
14-1744	Razor	2-1/2"	—	9/16" D x 3/64" W	Cardboard & Light Plastic
14-1745	Stainless Steel	2-1/2"	120	9/16" D x 3/64" W	Cardboard & Light Plastic
14-1746	Flush Stainless	2-1/2"	124	9/16" D x 3/64" W	Wood, Composites, Aluminum & Plastic
14-1747	Razor	3"	—	9/16" D x 3/64" W	Cardboard & Light Plastic

**Dotco Circular, 3/4" Arbor Hole**

Part No.	Type	Diameter	Teeth/Grit	Maximum Cut	Recommended Use
14-2701*	Carbide Chip**	4"	36/80 Grit	1" D x 1/8" W	Fiberglass & Hard Rubber
14-2694*	Carbide Chip	4"	36 Grit	1" D x 11/64" W	Hard Rubber
14-2697*	Carbide Chip	4"	80 Grit	1" D x 1/8" W	Fiberglass
14-2699*	Carbide Tip	4"	20	1" D x 7/64" W	Thin Fiberglass, Plastic Laminates to 1/8"
14-2700*	Carbide Tip	4"	20	1" D x 7/64" W	Fiberglass, Plastic Laminates to 1/2"
14-2710*	Carbide Tip	4"	20	1" D x 7/64" W	Thin Non-Ferrous Materials to 1/8"
14-2711*	Carbide Tip	4"	12	1" D x 7/64" W	Non-ferrous Materials to 1/2"
14-2690*	Diamond Chip	4"	60/80 Grit	1" D x 5/64" W	Fiberglass

\* For sawing non-metallic materials only. \*\* Slim blade for fiberglass cutting with minimal dust.

**5-Pack Jig Saw Blades**

Part No.	Type	Overall Length	Teeth Per Inch	Thickness & Width	Recommended Use
49-12300	Bi-Metal	3-5/8" (92 mm)	6	.032" x 5/16"	Particle & Fiber Board
49-12301	Bi-Metal	4" (102 mm)	6	.032" x 5/16"	Wood (fast cut), Particle & Fiber Board
49-12312	Wood	2-3/4" (70 mm)	10	.039" x 5/32"	Wood & Plastic (clean scroll cut)
49-12324	Bi-Metal	3-5/8" (92 mm)	10	.032" x 5/16"	Wood (medium/rough cut) & Plastic
49-12330	Metal	2-3/4" (70 mm)	14	.039" x 5/16"	Non-Ferrous Metal (1/8" to 1/4")
49-12331	Metal	2-3/4" (70 mm)	18	.039" x 5/16"	Mild Steel, Non-Ferrous Metal (1/8" to 3/16")*
49-12354	Bi-Metal	2-3/4" (70 mm)	18	.032" x 5/16"	Metal (1/8" to 3/16")*
49-12361	Bi-Metal	4" (102 mm)	10	.032" x 5/16"	Wood (clean cut), Particle & Fiber Board

**USATCO Safety Wire Twister Kit**



**Includes:**

6" & 9" Safety Wire Twisters (04-134SR6 & 04-134SR), Three 1 lb Spools Of Safety Wire (.025", .032" & .041") & Plastic Kit Box

Part Number	Description
53-134	Complete 6 PC Kit

**Milbar® Safety Wire Twister Kits**



**Pro Kit:**

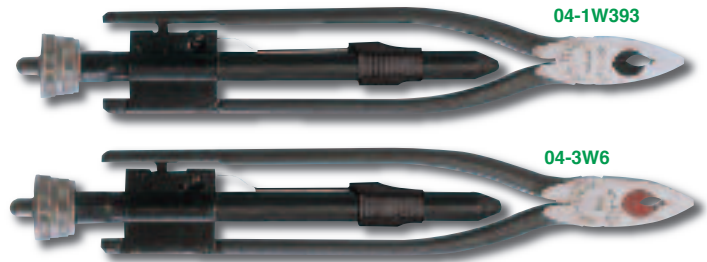
Three Wire Twisters (9" Auto, 6" Mini & 19" Deep Reach), Three 1/4 lb. Spools Of Safety Wire (.020", .032" & .040") & Kit Box

**Limited Access Kit:**

Two Wire Twisters (6" Mini & 19" Deep Reach), Three 1/4 lb. Spools Of Safety Wire (.020", .032" & .040") & Kit Box

Part Number	Description	Weight
04-105W	Pro Kit	4 lbs (1.8 kgs)
04-109W	Limited Access Kit	2.75 lbs (1.3 kgs)

**Milbar® Auto Return Safety Wire Twisters**



- High carbon alloy steel forgings.
- Spring return feature for quick & easy production use.
- Cushioned throat model catches clipped ends to prevent F.O.D.

Part Number	Nose Style	Overall Length
04-11WS	Diagonal	6" (152 mm)
04-1W393	Diagonal	9" (229 mm)
04-3W6	Cushion Throat	9" (229 mm)
04-5W4	Left Hand Twist	9" (229 mm)

**Milbar® Tigerwave Rev. Safety Wire Twister**

*Narrow Head For Tight Spaces*

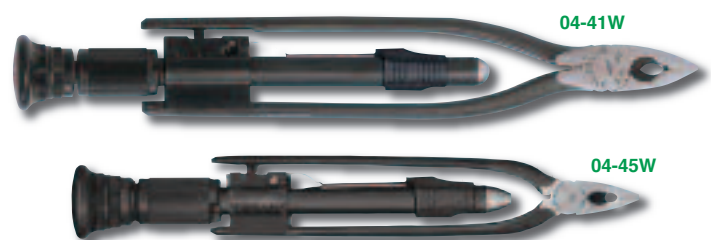


*Textured Non-Slip Grip*

- Reversible - with improved, smooth operating shift mechanism.
- Patented "One-Click" technology for easy opening and closing.
- Precision machined from high grade 4140 tool steel.
- Wave jaw holds work securely, eliminates wire damage.
- Heat and chemical resistant Viton® cushion throat traps wire cutoffs for no F.O.D. damage.

Part Number	Nose Style	Overall Length
04-7W	Diagonal	6" (152 mm)

**Milbar® Rev. Auto Return Safety Wire Twisters**



*Aerospace Standard AS567*

- Patented reversible twist action.
- Quick acting reversible sleeve.
- Spring return twist rod & sure grip clutch action knob.

Part Number	Wire Capacity	Overall Length
04-45W	.041"	6" (152 mm)
04-41W	.060"	9" (229 mm)
04-42W	.060"	12" (305 mm)

## CABLE, WIRE & TUBING TOOLS

### Milbar® Manual Return Safety Wire Twisters



04-11W

- High carbon alloy steel forgings.
- Full performance at an economical price for occasional use.

Part Number	Nose Style	Overall Length
04-11W	Diagonal	6" (152 mm)

### Economy Auto Return Safety Wire Twisters



04-134SR6

- For use on wire up to .060" diameter.
- Fast spiral action.

Part Number	Nose Style	Overall Length
04-134SR6	Tapered	6" (152 mm)
04-134SR	Tapered	9" (229 mm)

### Milbar® Deep Reach Wire Twister

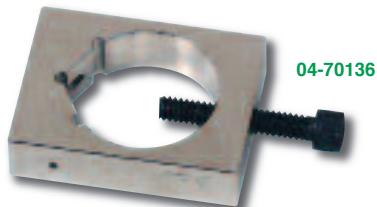


- Provides access to deep safety wiring jobs.
- Twister mechanism with two extensions attached.

Part Number	Overall Length
04-134	19" (48.3 cm)

### Safety Wire Jigs

1/16"  
Drill Hole



04-70136

#### Nut Jig

- Drill nut & bolt heads up to 3/4" diameter.



04-70132

#### Drill Jig

- Drill holes in bolt sizes 8-32, 10-32, 1/4"-20, 1/4"-28 & 5/16"-24 accurately and without breakage.

Part Number	Description
04-70136	Nut Jig
04-70132	Drill Jig
53-701326	Special: Both Jigs

### Stainless Steel Aircraft Safety Wire

- Conforms to gov. spec QQW423, Milspec MS-20995-C.
- Convenient 1 lb. center core top dispensers.

Part Number	Diameter	Length
43-020	.020"	937'
43-025	.025"	599'
43-032	.032"	366'
43-041	.041"	223'



43-020

Note: 1/4 lb spools and other diameters available, please inquire.

### Bessey® Cable Cutter

#### Stainless Steel Blade

For multi-core cable with diameters up to 1/3" (8.4 mm).



Part Number	Capacity	Overall Length	Weight
D49-BE	3/8"	6-1/2" (165 mm)	4 oz (113 g)

### Cable Cutters



04-316

Part Number	Cable Capacity	Overall Length	Weight
04-316	3/16"	8" (203 mm)	0.6 lbs (0.3 kgs)
04-1490	1/4"	13" (330 mm)	1.5 lbs (0.7 kgs)

### Swage-It Rigging Kit



Quick & Convenient

#### Includes:

Swage-It (04-2), 1/2" Extension Wench, Cable Cutter (04-316), Sleeves: (10) 1/16" Oval & (5) 1/8" Oval, & Folding Vinyl Pouch

Part Number	Capacity
04-4	1/16", 3/32" & 1/8" Ovals & Stops



**Swage-It Tools**



04-2

**Will Swage:**

**04-2:** 1/16", 3/32" & 1/8"    **04-3:** 1/8", 5/32", 3/16" & 1/4"

Part Number	Overall Length	Weight
04-2	7" (178 mm)	0.5 lbs (0.2 kgs)
04-3	14" (356 mm)	3 lbs (1.4 kgs)

Part Number	Description
53-2-3	Special: Both Tools

**Single Hole Swaging Tools**



04-5321

Part Number	Will Swage	Overall Length	Weight
04-5321	3/64"	8" (203 mm)	0.5 lbs (0.2 kgs)
04-232	1/16"	8" (203 mm)	0.5 lbs (0.2 kgs)

**3-Cavity Swaging Tool**



**Will Swage:**

Ovals: 1/16", 3/32" & 1/8"

Part Number	Type	Overall Length	Weight
P-22-234	Hand Held	15" (38 cm)	2.5 lbs (1.1 kgs)

**5-Cavity Swaging Tools**



04-2632H

**Will Swage:**

Ovals: 1/16", 3/32", 1/8", 5/32" & 3/16"

Stops: 1/16", 3/32", 1/8", 5/32", 3/16" & 7/32"

Part Number	Type	Overall Length	Weight
04-2632H	Hand Held	26-1/2" (67 cm)	6 lbs (2.7 kgs)
04-2632B	Bench Mounted	16" (41 cm)	5 lbs (2.3 kgs)

**Locoloc® Hand Swager Kit**

*Exerts 14 Tons  
Of Pressure*

*Rugged & Portable*



- Gauge supplied with each interchangeable die.
- Dies are 1 lb. each & come with steel carrying case.
- Will swage 1/4", 9/32", 5/16", 3/8", 7/16" & 1/2" ovals.

Part Number	Swager Overall Length	Swager Weight
3-K	24" (61 cm)	15 lbs (6.8 kgs)

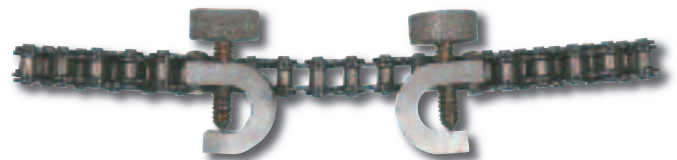
**Locoloc® Sleeve Gauges (Go/NoGo)**



GA-1P

Part Number	Sleeve Sizes
GA-1P	1/32", 3/64", 1/16", 3/32", 1/8", 5/32" & 3/16"
GA-2P	7/32", 1/4", 9/32" & 5/16"
GA-3P	3/8", 7/16" & 1/2"

**Turnbuckle Wrench Cable Rigging Tool**



- Allows free adjustment of the turnbuckle.
- Accommodates all sizes of aircraft cable.
- Consists of two clamps joined by 12" of sprocket type chain.

Part Number	Description
70452	Cable Rigging Tool

**Ratchet Terminal Crimper**



Crimps insulated terminals, ensures a perfect swage every time.

Part Number	Capacity
18900	10 to 22 gauge

# CABLE, WIRE & TUBING TOOLS

## Portable Pneumatic Cable Terminal Swager Kit



520JK

*Certified & Calibrated*

- All swaging & cutting dies of hardened, heat treated steel.
- Dies clearly marked for type & size swaged terminal or cable cut.
- Yoke assembly easily accessible for quick changing of dies.
- Meets government specification GGG-S-00825A (GSA-FSS).
- Includes heavy-duty steel carrying case.

**Includes:**

Cylinder & Yoke Assembly, 27 Dies, Air Hose Assembly, Single Action Foot Control Valve Assembly With Lubricator & Air Filter, Baseplate, Hand Cable Cutters, Turnbuckle Wrench, Gauges & Instruction Manual

Part Number	Description	Weight
520JK	Complete Kit	105 lbs (48 kgs)
39-520JK	Rebuilt Kit*	105 lbs (48 kgs)
520J	Swager Only	19 lbs (8.6 kgs)

\* Rebuilt kits subject to availability.

## Portable Pneu. Swaged Terminal Pull Tester Kit



520CTK

*Certified & Calibrated*

- Can pull test all types and sizes of terminals to 1/4" diameter.
- Lightweight & compact, requires no experience to use.
- Includes heavy-duty steel carrying case.

**Includes:**

Pull Tester, Terminal Adapters: AN667 (5/32" - 1/4"), AN663/664 (1/16" - 3/16"), AN666/669 Right Thread (1/16" - 7/32"), AN666/669 Left Thread (1/16" - 1/4"), AN667/668 (3/16" - 3/8") Terminal Pins, Jaws (1/16" - 1/4" cables)

Part Number	Description	Weight
520CTK	Complete Kit	70 lbs (32 kgs)
39-520CTK	Rebuilt Kit*	70 lbs (32 kgs)

\* Rebuilt kits subject to availability.

## Portable Manual Cable Swager Kit



04-1K630

- Roll type tool will swage MS type terminals to 3/16".
- Includes heavy-duty steel carrying case.

**Includes:**

Portable Manual Swager, Dies (rolls): 5 Straight Shank Sets (1/16" - 3/16"), 3 Ball Terminal Sets (1/16" - 1/8") & Gauges

Part Number	Description	Weight
04-1K630	Complete Kit	64 lbs (29 kgs)

## Bench Mount Manual Swaging Machine Kit



04-2K630

*Easy Crank Operation:  
Will Swage AN & MS  
Type Fittings To 3/8"*

**Includes:**

Swager With Bench Mount, Dies (rolls): 10 Straight Shank Sets (1/16" - 3/8") & 7 Ball Terminal Sets (1/16" - 1/4"), Straight Shank Die Auxiliary Adapter, Appropriate Gauges, Spring Clip & Adjustable Stop Guide Assemblies

**Note:** Bench not included.

Part Number	Description	Weight
04-2K630	Complete Kit	300 lbs (136 kgs)

**Hydraulic Swager With Enerpac®**



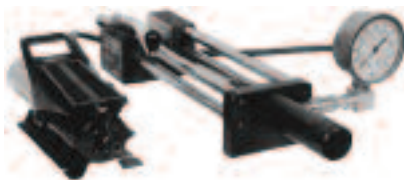
*Accommodates Cable Sizes To 3/8"*

- Swages by applying a designated number of pressure increments while rotating the cable terminal assembly.
- Included adapter accepts standard AT520 family of swaging dies (included with 520JK shown on previous page\*).

**Note:** Unit requires 100-120 psi. \* Dies also available separately, please inq.

Part Number	Weight
520H	90 lbs (40.8 kgs)

**Hydraulic Pull Tester Kit**



Provides pull-test for all swaged terminals listed in this section.

Part Number	Weight
520HTK	40 lbs (18.1 kgs)

**Pull Tester Calibration Kit**



- Includes adapters required to certify 520CTK (previous page).
- A quality assurance tool recognized by the Boeing company.
- Eliminates costly outside calibration services.

NSN #4920-00-949-9409

Part Number	Weight
520CGC	3 lbs (1.4 kgs)

**Pneumatic Stationary Cable Swager**

*Swage Over 90% Of Aircraft Type Terminals*



- Unit can swage ball terminals AN633 to -6 (3/16") & sleeve terminals to -8 (1/4").
- Features a heavy-duty yoke with shock absorber.
- Automatic swaging time controls, 2-stage foot switch.
- Die racks built into sides of unit, includes air filter & lubricator.

Part Number	Dimensions	Weight
520D	12"D x 24"W x 58"H	400 lbs (181 kgs)

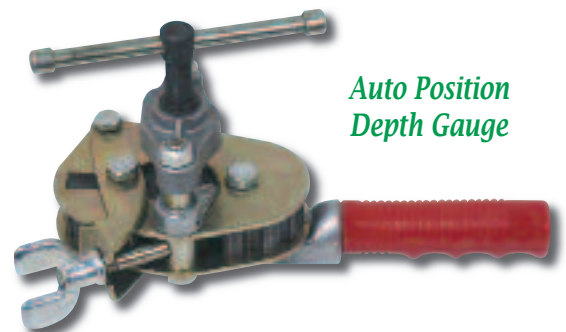
**Swaged Terminal Gauge**



Multiple gauges designed to check all swaged terminals within range of 520JK swager (shown on previous page).

Part Number	Description
520SG	Swaged Terminal Gauge

**Rolo-Flair® 37° Rotary Flaring Tool**



*Auto Position Depth Gauge*

**Flares:**

Copper & Aluminum Alloys: 1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8" & 3/4" O.D.

Part Number	Weight
212-FB	3 lbs (1.4 kgs)

## CABLE, WIRE & TUBING TOOLS

### USATCO 37° Single & Double Lap Flaring Tool Kit



53-256-FK

#### New Foam Fitted Case Helps Prevent F.O.D.

- Portable or vise mounted, sliding handle for maximum leverage.
- Adapters revolve for quick size change.
- Unit can also flare single 37° S.A.E. standard & oversize.

#### Flares:

Soft copper & aluminum to AN standards: 3/16", 1/4", 5/16", 3/8" & 1/2" O.D.

#### Flaring Tool Kit:

Flaring Tool (04-256-F), Inner-Outer Reamer (02-208-F), Tubing Cutter (02-512), Four Protrusion Gauges with Case, Instructions & Foam Fitted Carrying Case

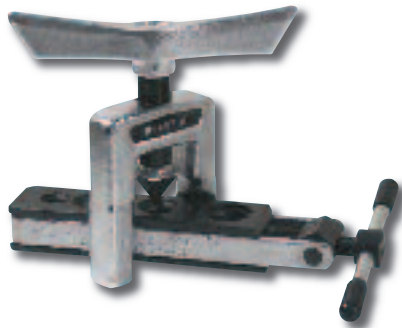
Part Number	Description
53-256-FK	Complete 9 PC Kit
04-256-F	Flaring Tool, Gauges & Case Only

### Rol-Air 37° Flaring Tool

- Faceted, hard chrome finish cone for perfect scoreless flares.
- Slip on yoke permits use in tight quarters.

#### Flares:

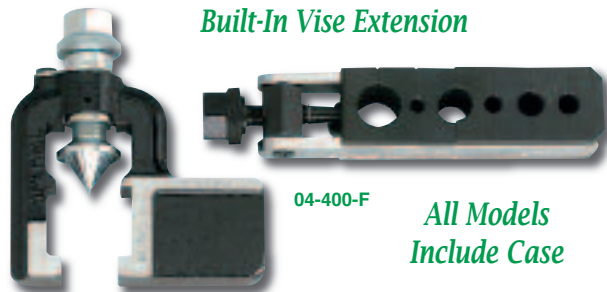
Soft Copper, Alum. & Brass: 3/16", 1/4", 5/16", 3/8", 1/2" & 5/8" O.D.



Part Number	Weight
04-507-FB	2.5 lbs (1.1 kgs)

### 37° Flaring Tools

#### Built-In Vise Extension



04-400-F

All Models Include Case

- Forms 37° tubing flares to government specifications.
- Positive stop gauge assures correct size of flare.
- Special burnishing action polishes flare face.
- Roller action cuts effort required & maintains original wall thickness which eliminates stress concentration.

#### Standard Model Flares:

Steel, Stainless Steel (including MIL-T-6845), Titanium & Other Metal Tubing: 3/16", 1/4", 5/16", 3/8", 1/2" & 5/8" O.D.

Part Number	Model	Weight
04-400-F	Standard	2.5 lbs (1.1 kgs)

#### Heavy-Duty Model Flares:

Annealed Stainless (MIL-T-6345 or AMS5566), Cold Drawn Stainless Steel, Annealed Copper & Aluminum Tubing: 1/8", 3/16", 1/4", 5/16", 3/8" & 1/2" O.D.

Part Number	Model	Weight
04-447-F	Heavy-Duty	3.25 lbs (1.5 kgs)



04-537-F

#### Large Size Model Flares:

Soft Steel, Copper, Aluminum & Annealed Stainless Steel:  
 04-537-F: 3/4", 7/8", 1" & 1-1/4" O.D.  
 04-637-F: 1-1/4", 1-1/2" & 2" O.D.

Part Number	Model	Weight
04-537-F	Large Size	13 lbs (5.9 kgs)
04-637-F	Large Size	13 lbs (5.9 kgs)

Pro Tube Beading Kit

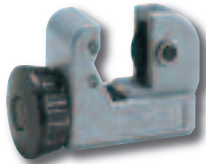


- Makes perfect, mar-free beads in aluminum, copper, brass & mild steel tubes ranging from 1/4" to 1" diameter.
- Simple, reliable tools with ground, hardened & polished surfaces & high-polymer gripping jaws - lifetime guarantee.
- Meets MILSPEC MS33660D & SAE AS5131 standards.

Part Number	Description	Weight
70821	12 PC Kit	7 lbs (3.2 kgs)

Compact Tube Cutter

- Enclosed feed requires only 1-1/4" clearance.
- Replaceable hardened steel cutter wheel with two friction reducing steel rollers.



Part Number	Capacity	Weight
02-123R	1/8" to 5/8" O.D.	3 ozs (85 g)

Heavy-Duty Industrial Tube Cutter



*Conforms To Gov't Spec GGG-C-771d*

- Cuts copper, aluminum, brass & thin wall stainless steel (to 3/16" thickness).
- Includes flare cut-off groove rollers, fold-away reamer & extra cutting wheel.

Part Number	Capacity	Weight
02-512	1/8" to 1-1/8" O.D.	6.5 ozs (184 g)

Rapid Action Ratchet Tube Wrenches

*Ideal For Closed System Fittings*



*Heavy-Duty Construction*

- Unique open jaw design speeds installation of tube fittings & valves, hex nuts, bolts & fasteners in hard to reach areas.
- 12-point contact distributes torque pressure evenly in hex flats.
- Hardened steel jaws & heavy gauge alloy steel handles.

Part Number	Hex OD Size	Overall Length
195-05	5/16"	5-1/2" (140 mm)
195-06	3/8"	5-1/2" (140 mm)
195-07	7/16"	5-3/8" (137 mm)
195-08	1/2"	5-1/2" (140 mm)
195-09	9/16"	5-1/2" (140 mm)
195-10	5/8"	7-5/32" (182 mm)
195-11	11/16"	7-1/4" (184 mm)
195-12	3/4"	7-5/16" (186 mm)
195-13	13/16"	9-1/8" (232 mm)
195-14	7/8"	9-3/32" (231 mm)
195-15	15/16"	9-1/4" (235 mm)
195-16	1"	9-9/32" (236 mm)



7 PC Wrench Kit With Carrying Pouch	
Part Number	Sizes Included
195-7STDS	3/8", 7/16", 1/2", 9/16", 5/8", 11/16" & 3/4"

11 PC Wrench Kit With Carrying Pouch	
Part Number	Sizes Included
195-11STDS	3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16" & 1"

# CABLE, WIRE & TUBING TOOLS

## Lever Type Tube Benders

04-364-06



- Each tool bends one size, no scoring or flattening of tubing.
- Open side design slips over tube at any point.
- Calibrated markings with up to 180° bend.
- Wide hook grips tubing securely for smooth & tight radius bends.

Part Number	Tube O.D.	Radius To Center Of Tube	Weight
04-364-02	1/8"	3/8"	0.5 lbs (0.2 kgs)
04-364-03	3/16"	7/16"	0.5 lbs (0.2 kgs)
04-364-04	1/4"	9/16"	1 lbs (0.5 kgs)
04-364-05	5/16"	11/16"	1 lbs (0.5 kgs)
04-364-06	3/8"	15/16"	1.75 lbs (0.8 kgs)
04-364-07	7/16"	1-1/2"	3.5 lbs (1.6 kgs)
04-364-08	1/2"	1-1/2"	3.5 lbs (1.6 kgs)
04-364-10*	5/8"	2-1/4"	5.5 lbs (2.5 kgs)
04-364-12*	3/4"	3"	7 lbs (3.2 kgs)
04-364-14*	7/8"	3"	10.5 lbs (4.8 kgs)
04-364-16*	1"	3-1/2"	10.5 lbs (4.8 kgs)

\* For annealed copper & aluminum tubing only.

## 180° Triple Header Tube Benders

*Lightweight  
Die-Cast  
Aluminum*

*Rugged  
& Precise*



*Cushioned Grips &  
Adjustable Hook*

370-FH

- For soft copper, aluminum & thin wall steel tubing.
- Make smooth, tight radius bends up to 180°.
- Calibrated markings for accurate left, right & offset bends.

Part Number	Radius To Center Of Tube	Capacity
370-FH	Varies*	1/4", 3/8 & 1/2" O.D.

\* Radius to center: 11/16" (1/4"), 1-1/8" (3/8"), 1-1/2" (1/2").

Part Number	Radius To Center Of Tube	Capacity
470-FH	Varies**	3/16", 1/4", 5/16 & 3/8" O.D.

\*\* Radius to center: 7/16" (3/16"), 9/16" (1/4"), 11/16" (5/16"), 15/16" (3/8").

## 90° Triple Header Tube Benders

*Fast & Easy*

04-368-FH

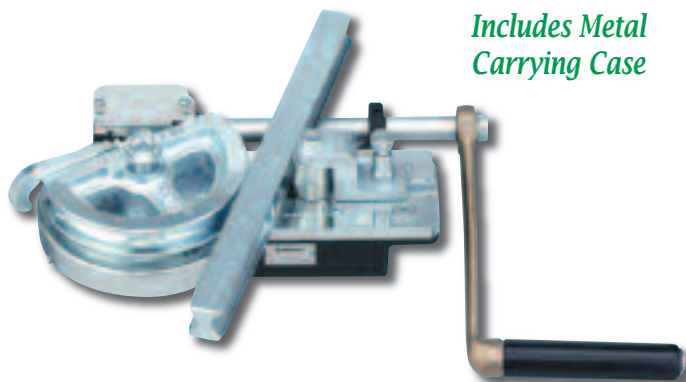


- Make up to 90° bends.
- For soft copper, aluminum & thin wall steel tubing.
- Calibrated markings for making accurate left, right or offset bends.
- 90° starting point requires less effort.

Part Number	Radius To Center Of Tube	Capacity
04-367-FH	9/16"	1/8", 3/16" & 1/4" O.D.
04-368-FH	15/16"	1/4", 5/16" & 3/8" O.D.

## Worm-Gear Tube Bender Kit

*Includes Metal  
Carrying Case*



- Precision tool for the highest quality work.
- For aircraft grade stainless (MIL-T-6845) and other metal tubing.
- Unit has 50-1 ratio worm-gear & crank with revolving hand grip.
- Follow bar eliminates drawing action & helps keep tube in virtually perfect round.
- Conforms to federal spec. GGG-B-191b, Type I, Class 2.
- Also meets ANSI spec. B31.1 & ASME Section III Nuclear code.

Included Capacity		
Tube O.D.	Tube Wall Thickness	Radius To Center Of Tube
1/4"	.016" to .049"	3/4"
5/16"	.020" to .065"	1"
3/8"	.028" to .083"	1-1/4"
5/16"	.035" to .083"	2"
3/8"	.042" to .083"	2-1/2"
7/16"	.049" to .083"	3"

Part Number	Weight
04-600-F	35 lbs (16 kgs)

**Inner-Outer Reamers**

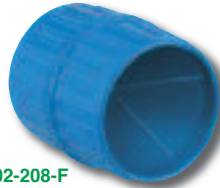
**Standard Model:**

Alum. & Soft Metal: 3/16" to 1-1/2" O.D.

**Heavy-Duty Model:**

Stainless Steel, Copper, Brass &

Other Metals: 3/16" to 1-1/2" O.D. **02-208-F**



Reams tube edges with three hollow ground tool steel cutters.

Part Number	Model	Weight
02-208-F	Standard	0.6 lbs (0.3 kgs)
02-208-FSS	Heavy-Duty	0.6 lbs (0.3 kgs)

**Varitemp® Heat Guns**

*Powerful  
High Speed  
Universal  
Motor*



- Delivers a lockable, variable temp. from ambient up to 1000°F.
- Adj. rubber backed base permits 90° rotation for benchtop use.
- Three position "Off - Cold - Hot" rocker switch.

Part Number	Temp. Range	Power	Weight
VT750C	Ambient to 1000°F (540°C)	120V - 60Hz 14.5A - 1740W	3.8 lbs (1.7 kgs)
VT752C	Ambient to 750°F (400°C)	220V - 50Hz 7A - 1680W	3.8 lbs (1.7 kgs)

**Master Heat Guns**

HG501A



*Powerful  
High Speed  
Universal  
Motor*

- Three position "Off - Cold - Hot" rocker switch.
- Delivers a forced blow up to 750°F with no danger of open flame.
- Adj. rubber backed base permits 90° rotation for benchtop use.

Part Number	Temp. Range	Power	Weight
HG501A	500° to 750°F (260° to 400°C)	120V - 60Hz 14A - 1680W	3.7 lbs (1.7 kgs)
HG502A	500° to 750°F (260° to 400°C)	220V - 50Hz 7A - 1680W	3.7 lbs (1.7 kgs)

**Master Heat Gun Kit**



- Quality attachments made of heavy-duty cold rolled steel.
- Case protects heat gun & provides ample attachment storage.

**Master Heat Gun Kit:**

HG501A Master Heat Gun (shown above), Shrink Attachment (for tubing up to 3/4" O.D.), 2-1/4" Spreader Attachment, 7/8" Reducer Attachment & Carrying Case

Part Number	Weight
HG501AK	8 lbs (3.6 kgs)

**Proheat Varitemp® Heat Guns**

*Compact &  
Lightweight*



- Preselect and maintain any temperature from 130° to 1000°F (50° to 540°C).
- Patented electronic temperature controls.
- Ergonomically designed housing with built-in stand for hands-free use.
- Powerful airflow at 4000 FPM and 16 CFM.

PH1200

Part No.	Power	Weight
PH1200	120V, 60Hz, 11A, 1300W	1.6 lbs (0.7 kgs)
PH2200A1	230V, 50/60Hz, 6.2A, 1426W (European plug)	
PH2200A6	230V, 50/60Hz, 6.2A, 1426W (UK plug)	

**NEW Varitemp Heat Gun Kits**

- Quality attachments made of heavy-duty cold rolled steel.
- Includes protective fitted tool case, made in the USA.

**Includes:**

Heat Gun (model choices below), 3" Spreader Attachment, 1-3/8" Shrink Tubing Attachment, 1/2" Specialty Connector, 5/16" & 9/16" Reducer Attachments & Carrying Case

Part Number	Gun Included	Weight
PH1200K	PH1200	4.5 lbs (2.0 kgs)
PH2200K-A1	PH2200 (European plug)	
PH2200K-A6	PH2200 (UK plug)	

**Type T5 Aircraft Cable Tensiometers**

*Rugged & Accurate*



*Small & Lightweight (only 12 ounces)*

- These reliable instruments won't suffer from temperature error.
- May be used continuously without resetting or checking.
- Includes appropriate riser blocks, case & documentation.



Replacement Riser Blocks				
#1	#2	#2C	#3	#3A
38-T5-1	38-T5-2	38-T5-2C	38-T5-3	38-T5-3A

**Foam Fitted T5 Tensiometer Case**

*Helps Prevent F.O.D.*

*Protect Your Instrument*



Part Number	Description
62-2002	Foam Fitted Plastic Case

Tensiometer Part Number	For Use On Cables	Reading Interval	Ranges	Riser Used
T5-2002-101-00	1/16", 3/32" & 1/8"	5 (10 to 50) lbs	10 to 100 lbs	#1
	5/32" & 3/16"	10 (50 to 150) lbs	15 to 150 lbs	#2C
	7/32" & 1/4"	10 (50 to 150) lbs	25 to 150 lbs	#3
T5-2002-104-00	1/16", 3/32" & 1/8"	10 (30 to 200) lbs	30 to 200 lbs	#1
	5/32" & 3/16"	20 (200 to 300) lbs	30 to 300 lbs	#2C
	7/32" & 1/4"	20 (200 to 300) lbs	30 to 300 lbs	#3
T5-2002-401-00	1/16", 3/32" & 1/8"	5 (10 to 50) lbs	10 to 100 lbs	#1
	5/32" & 3/16"	10 (50 to 150) lbs	15 to 150 lbs	#2C
	7/32" & 1/4"		25 to 150 lbs	#3
	5 & 10 CWT	5 (10 to 50) lbs	10 to 100 lbs	#1
	15 CWT	10 (50 to 150) lbs	15 to 150 lbs	#2C
	20 & 25 CWT	10 (50 to 150) lbs	15 to 150 lbs	#2C
T5-8002-104B-00	1/16"	For All Cables	10 to 300 lbs	#1
	3/32" & 1/8"	5 (10 to 50) lbs	10 to 300 lbs	#2
	5/32" & 3/16"	10 (60 to 100) lbs	10 to 300 lbs	#2C
	7/32" & 1/4"	20 (120 to 300) lbs	10 to 300 lbs	#3A
T5-8005-110-00	3/16"	50 (300 to 1600) lbs	300 to 1600 lbs	#2
	7/32" & 1/4"	50 (300 to 1600) lbs	300 to 1600 lbs	#2C
	5/16"	50 (300 to 1600) lbs	300 to 1600 lbs	#3A
T5-8005-111-00	3/16"	50 (500 to 1000) lbs	500 to 2000 lbs	#2
	7/32" & 1/4"	100 (1000 to 2000) lbs	500 to 2000 lbs	#2C
	5/16"	100 (1000 to 2000) lbs	500 to 2000 lbs	#3A
T5-8008-106-00	1/8" & 5/32"	20 (40 to 600) lbs	40 to 600 lbs	#2
	3/16"	20 (40 to 600) lbs	40 to 600 lbs	#2C
	1/4"	20 (40 to 600) lbs	40 to 600 lbs	#3



Digital Aircraft Cable Tensiometers



Store Readings  
With Memory  
Function

Adjustable  
Backlight  
& Contrast

Lightweight,  
Only 1.5 lbs

90252

- Large, easy to read graphic display clearly shows selected cable size, tension & battery charge level.
- Preset accuracy is +/- 2% (custom settings are material specific).
- Stores five tension readings & can calculate average value.
- Select tension values to indicate Lbs, Kgs or Newtons.

All Models Include:

Digital Tensiometer, Cable Diameter Gauge, Rechargeable NIMH Battery with Power Supply, Instructions, Calibration Certificate & Durable Padded Carrying Case

Note: Optional data input & output configurations available, please inquire.

Standard Preset: 1/16", 3/32", 1/8" & 5/32"		
Part Number	Range	Resolution
90252	20 to 250 lbs	0.5 lbs

Standard Preset: 1/8", 5/32", 3/16" & 1/4"		
Part Number	Range	Resolution
90253	40 to 500 lbs	1.0 lbs

Standard Preset: CWT-5, CWT-10, CWT-15, CWT-20 & CWT-25		
Part Number	Range	Resolution
90254	20 to 250 lbs	0.5 lbs

Standard Preset: 1/16", 3/32", 1/8", 5/32" & CWT-5 to CWT-25		
Part Number	Range	Resolution
90255	20 to 250 lbs	0.5 lbs

USATCO Tensiometer Calibration

USATCO's well equipped facility has 50 years of experience (we can test with 'british' cables). Our test weights are certified traceable to N.B.S. Washington DC. It is recommended that tensiometers be calibrated annually to ensure proper functioning of the device. Send us your tensiometer for repair, test, calibration or certification. Or send us your unit(s) for rebuild or trade-in quote. Please send to our NY facility: 60 Fleetwood Court, Ronkonkoma, NY 11779-6907

Type T60 Aircraft Cable Tensiometers



T60C81A

Dial  
Pointer  
Lock

- Positive 3-point cable gap & no alternate risers (no losable parts).
- Unit is not damaged by cable tensions above stated range.
- Unit includes fitted carrying case & instructions.

Part No.	Ranges	For Use On Cables
T60C81A	10 to 200 lbs	1/16", 3/32", 1/8", 5/32", 3/16", 7/32" & 1/4"
T60C91A	150 to 450 lbs	1/8", 5/32", 3/16", 7/32" & 1/4"

Rebuilt & Calibrated Aircraft Cable Tensiometers



Dial  
Pointer  
Lock

39-C8

- Rugged units require no oiling & require a minimum of care.
- Adjustable zero setting dial for cables of different diameters.
- Cable size indicator measures unknown cable diameters.
- Includes reference test bar, fitted carrying case & instructions.

Part No.	Ranges	For Use On Cables*
39-C8	10 to 200 lbs	1/16", 3/32", 1/8", 5/32", 3/16", 7/32" & 1/4"
	30 to 200 lbs	
	80 to 200 lbs	
39-C9	150 to 450 lbs	1/8", 5/32", 3/16", 7/32" & 1/4"

\* Please specify cable size when ordering.

## TESTING & MEASURING

### Digital Protractor / Inclinometers

70576



- Versatile digital level, 360° protractor & inclinometer for instant and accurate measurements of level, angle & tilt.
- Rugged sensors & high-impact machined aluminum frame.
- Hold button freezes the displayed angle.
- 'V' grooves in edges for accurate reading on curved surfaces.
- Floating zero - provides zero selection anywhere in the 360° range.

Pro 360 - 0.1° Resolution			
Part Number	Range	Overall Length	Weight
70576	360° (4 x 90°)	6" (152 mm)	10.2 oz (289 g)

Accuracy: ± 0.1° (level ± 10°), ± 0.1° (plumb ± 10°), ± 0.2° maximum error.



70577

#### Pro 3600

- Features greater accuracy & SPC output.
- SPC uses serial port (RS-232) & 10 pin rectangular connector.

Pro 3600 - 0.01° Resolution (0° to ± 10°), 0.10° (10° to 90°)			
Part Number	Range	Overall Length	Weight
70577	360° (4 x 90°)	6" (152 mm)	10.4 oz (295 g)

Accuracy: ± 0.05° (0° to 10°), ± 0.20° (10° to 80°), ± 0.10° (80° to 90°).

### Protractor & Depth Gauge



- Stainless steel construction with permanently etched gradations.
- Locking nut for making both depth & angle measurements.
- Narrow depth gauge has etched gradations in 32nds & 64ths.

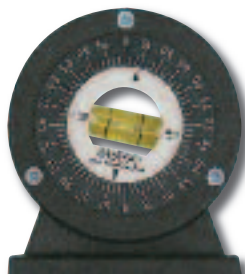
Part Number	Depth Gauge	Angle Range
19	6" x 1/4"	±180°

### Economy Angle Protractor

#### Built-In Pitch Angle Calculator

Finds or measures any angle where pitch or slope is necessary. Magnetic base and back.

Part Number	Weight
L36P	0.4 lbs (0.2 kgs)



### Telescoping Gauge Sets

Satin Chrome Finish



Includes Carrying Case

10-933-0

- Contact points constructed of hardened tool steel that are precision ground on the end measuring radius.
- Self-centering rigid handle for uniform contact pressure.

Part Number	Type	Measuring Range
10-933-0	Mitutoyo® Deluxe	5/16" to 6"
57-430-1	Economy	5/16" to 6"

### Sheet Metal Gauge

Chrome Finished Tool Steel



Hardened & Tempered

- American standard wire gauge (0 to 36) for non-ferrous metals.
- Stamped numbers with decimal equivalents stamped on reverse.

Part Number	Thickness	Diameter
20	3/32"	3-1/4" (83 mm)

### SPI® Precision Inspection Gauge Ball Sets

10-193-1



Meets All Grade 24 AFBMA Standards

- Within 0.0001" / 0.0025 mm of actual size.
- Spherical accuracy within 0.000025" / 0.0006 mm.
- 63 HRC chrome alloy steel - surface finish to 1.5 micro-inches.

Part Number	Type	Includes
10-193-1	Inch	26 Pairs, 1/8" to 1"
10-194-9	Metric	25 Pairs, 1 mm to 25 mm

SPI® Pin Gauge Sets



Certificate Of Accuracy Included

13-123-5

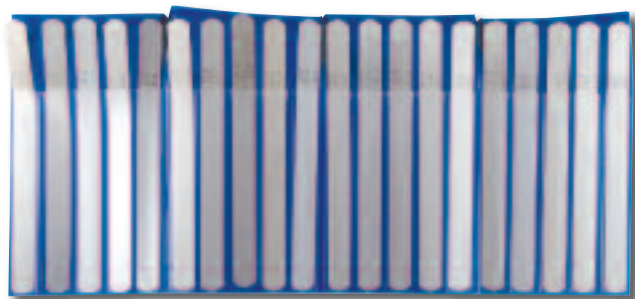
Quick & Accurate

- Measure hole size, slot width, use as go/nogo gaging, etc.
- Inspected with equipment calibrated & traceable to NIST.
- 2" hardened drill rod RC 60-62, 10 micro finish or better.
- Includes pin gauge holder & attractive molded plastic case.

Accuracy +0.0002" -0"	Accuracy -0.0002" +0"	Range	Set
13-120-1	13-121-9	0.011" to 0.060"	50 PC
13-122-7	13-123-5	0.061" to 0.250"	190 PC
13-124-3	13-125-0	0.251" to 0.500"	250 PC
13-126-8	13-127-6	0.501" to 0.625"	125 PC
13-128-4	13-129-2	0.626" to 0.750"	125 PC
13-130-0	13-131-8	0.751" to 0.832"	82 PC
13-132-6	13-133-4	0.833" to 0.916"	84 PC
13-134-2	13-135-9	0.917" to 1.000"	84 PC

SPI® Feeler (Thickness) Gauge Sets

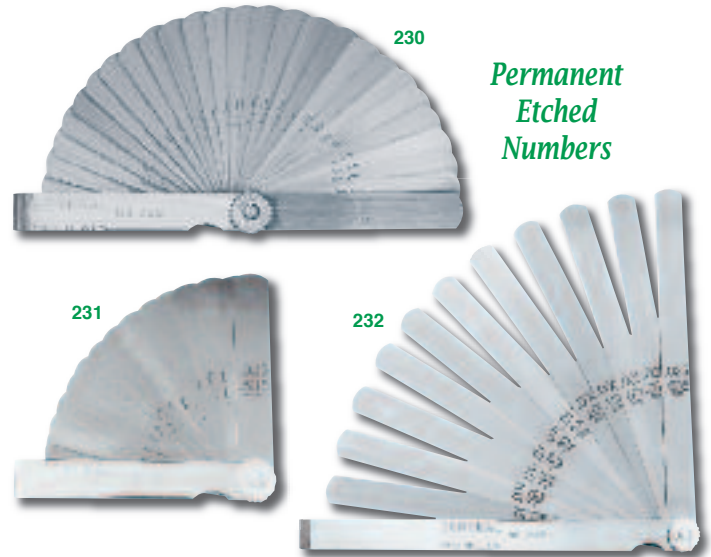
Tempered Steel Hardened To 45 RC



- Thickness etched on each leaf, accuracy meets federal specs.
- Plastic case with individual blade pockets included.

Part Number	Range	Leaves	Leaf Size
91-343-4	0.001" to 0.025"	20	6" (152 mm)
91-344-2	0.05 to 1.00 mm	20	6" (152 mm)

Feeler (Thickness) Gauges



Permanent Etched Numbers

- Knurled lock nut holds leaves in desired position.
- Easy to read numbers include thousandths and mm equivalents.

Standard Feeler Gauge Sets			
Part Number	Range	Leaves	Leaf Size
230	0.037 to 0.635 mm	26	3" (76 mm)
231	0.002" to 0.025"	15	3" (76 mm)
232	0.002" to 0.025"	15	6" (152 mm)

Precision Feeler Gauge Set

- Made of high-grade precision gauge steel.
- Meets government specification GG-G-86b.

Part Number	Range	Leaves	Leaf Size
226	0.0015" to 0.025"	26	3" (76 mm)

SPI® Countersink Gauges

Convenient 5" Pocket Size

- Fast & accurate measurements of countersink diameters.
- Direct major reading of countersink angles to 0.002".
- Convenient one hand operation, dial reading is held until reset.
- Each gauge includes setting ring & foam lined storage case.



20-535-1

Part Number	Diameter Range	C'sink Angle	Part Number	Diameter Range	C'sink Angle
20-530-2	0.020 - 0.170"	82°	20-541-9	0.160 - 0.360"	100°
20-535-1	0.020 - 0.170"	90°	20-542-7	0.360 - 0.560"	100°
20-536-9	0.160 - 0.360"	90°	20-545-0	0.020 - 0.170"	110°
20-537-7	0.360 - 0.560"	90°	20-546-8	0.160 - 0.360"	110°
20-540-1	0.020 - 0.170"	100°	20-547-6	0.360 - 0.560"	110°

## TESTING & MEASURING

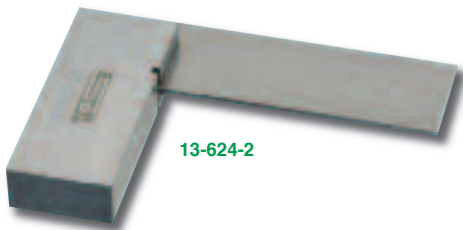
### Bolt Gauge



- Sizes all bolts up to 5/8" diameter & 5" long.
- Complete instructions & bolt identification data on reverse side.

Part Number	Overall Dimensions
1350	5-1/2" x 6"

### SPI® Machinist Squares & Sets



- Hardened steel blades permanently secured to beam ensures rigidity, and working edges of blades lapped to accuracy.
- Precision ground for straightness & parallelism.

Part Number	Linear Dimensions	Accuracy (square, parallel)
13-624-2	2" Blade, 2" Beam	0.0010", 0.0005"
13-625-9	3" Blade, 2-1/2" Beam	0.0011", 0.0006"
13-626-7	4" Blade, 3" Beam	0.0012", 0.0006"
13-627-5	6" Blade, 4" Beam	0.0014", 0.0007"
13-628-3	9" Blade, 5-1/2" Beam	0.0017", 0.0009"
13-629-1	12" Blade, 7-1/2" Beam	0.0020", 0.0010"



Sets Include  
Fitted Plastic Case

Machinist Square Sets		
Part Number	Description	Sizes
13-632-5	3 PC Set	2, 3 & 4"
13-633-3	3 PC Set	2, 4 & 6"
13-634-1	4 PC Set	2, 3, 4 & 6"
13-635-8	4 PC Set	4, 6, 9 & 12"

### Ultratest® Steel Rulers



- Ultra fine black graduations on hard satin chrome finish.
- Easy read type are black with white graduations.

Satin Chrome Finish - 5R Graduations			
Part Number	Type	Width	Overall Length
645	Flex	1/2"	6" (152 mm)
665	Rigid	3/4"	6" (152 mm)
1245	Flex	1/2"	12" (305 mm)
1265	Rigid	1"	12" (305 mm)
1845	Flex	3/4"	18" (457 mm)
1865	Rigid	1-1/8"	18" (457 mm)
2445	Flex	3/4"	24" (610 mm)
2465	Rigid	1-1/8"	24" (610 mm)

Easy Read Finish - 5R Graduations			
Part Number	Type	Width	Overall Length
8166	Flex	1/2"	6" (152 mm)
8167	Rigid	3/4"	6" (152 mm)
8266	Flex	1/2"	12" (305 mm)
8267	Rigid	1"	12" (305 mm)
8766	Flex	3/4"	18" (457 mm)
8767	Rigid	1-1/8"	18" (457 mm)
8866	Flex	3/4"	24" (610 mm)
8867	Rigid	1-1/8"	24" (610 mm)

Note: Graduations: 32nds, 64ths, 10ths & 100ths.

### Lufkin® P1000 Tape Measures



Comfortable  
& Durable

Hi-Visibility  
Case



Accuracy Exceeds  
NIST Standards

- Super tough ABS case with comfortable non-slip rubber overmold.
- Patented long-life end hook & full length clear-coated blade.

Part Number	Blade Width	Blade Length	Scale
PHV1316	3/4" (19 mm)	16' (5 m)	Inch
PHV1425	1" (25 mm)	25' (7.5 m)	Inch
PHV1425ED	1" (25 mm)	25' (7.5 m)	Inch, 10ths, 100ths
PHV1035CME	3/4" (19 mm)	16' (5 m)	Inch, Metric
PHV1023CME	1/2" (13 mm)	10' (3 m)	Inch, Metric

**Fowler® IP54 Digital Micrometers**



*Protected To IP54 Specification*

- Carbide measuring faces & large easy to read display.
- Includes shop hardened case & standards.

± 0.001" Accuracy - 0.00005" Resolution	
Part Number	Range
P54-860-001	0" to 1"
P54-860-002	1" to 2"
P54-860-003	2" to 3"

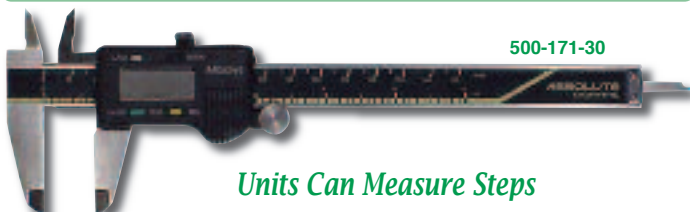
**Fowler® Digital Calipers**



- Patented ceramic capacitive sensor.
- Stainless steel frame & large easy to read display.

± 0.001" Accuracy - 0.0005" Resolution	
Part Number	Range
P54-100-004	0" to 4"
P54-100-000	0" to 6"
P54-100-008	0" to 8"
P54-100-112	0" to 12"

**Mitutoyo® Digimatic Calipers**



500-171-30

*Units Can Measure Steps*

- With thumb roller & unique thumb lock.
- Zero setting, data hold & error alarm (SPC output available).

± 0.001" Accuracy - 0.0005" Resolution	
Part Number	Range
500-171-30	0" to 6"
500-172-20	0" to 8"

**Mitutoyo® Digimatic Measurement Kits**



64PKA076

- Sturdy fitted mahogany case with accessory compartments.
- Kits include either a standard digital ratchet micrometer or a digital friction thimble micrometer which provides a higher degree of positive repeatability.
- Micrometers conform to IP65 specification.
- Calipers include Absolute Encode technology allowing the user to zero at any point for incremental comparison measurements.

**Includes:**

Digimatic Micrometer (0" to 1" ), Digimatic Caliper (0" to 6" ), Micrometer Spanner, Batteries & Mahogany Case

0.00005" Micrometer Resolution - 0.0005" Caliper Resolution	
Part Number	Description
64PKA076	Measurement Kit with Ratchet Micrometer
64PKA077	Measurement Kit with Friction Thimble Micrometer

**Fowler® Electronic Depth Gauge**



*Six Interchangeable Rod Extensions Provide A Large 0-22" Capacity*

*Includes Shop Hardened Case*



- Relative and absolute measuring modes.
- Carbide contact point with two extra points for small work.
- Hardened steel base, ground and microlapped for accuracy\*.
- Direct inch-metric conversion, zero reset and hold feature.

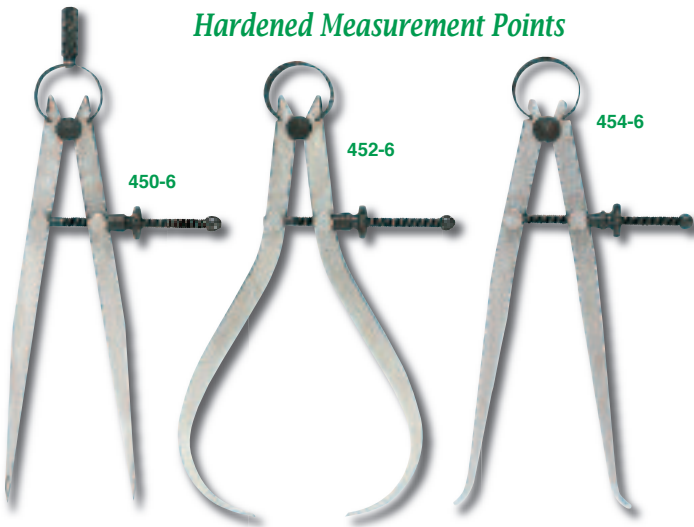
Part Number	Range	Travel**	Resolution
54-125-777	0-22" (0-550mm)	0-1"	0.0005" (0.01mm)

\* Base size is 4" x 0.0630". \*\* Electronic indicator stem is 3/8".

# TESTING & MEASURING

## Dividers & Calipers

*Hardened Measurement Points*



- Special caliper steel with hardened point dividers.
- Hardened & tempered bow springs & fulcrum spools assure uniform tension without side play.
- Meets government specification GGG-C-95.

Part Number	Description	Overall Length
450-6	Flat Leg Divider	6" (152 mm)
452-6	Outside Caliper	6" (152 mm)
454-6	Inside Caliper	6" (152 mm)

## SPI® Hardness Testing File Set



- Practical, inexpensive method to quickly determine approx. hardness of heat treated workpieces & materials.
- Handy, color coded set of size testing files covers nominal hardness from 40 RC to 65 RC in increments of 5 RC.
- Special curved design for easy access in hard to reach places.

Part Number	Description
98-720-6	Hardness Testing File Set

## SPI® Surface Roughness Standards Sets



Economy set of 30 (7/8" x 3/8") electro formed, solid nickel specimens. Each type of surface finish is truly and consistently reproduced, offering a realistic idea of the feel, appearance & texture of the machined components. Conforms to S.A.E. & military specifications for visual & tactile inspections. Includes instructions and graph correlating inch & metric surface finish values plus ISO "N" scale.

### Specimens Included:

Three Flat Lapping (2, 4 & 8 μ"), Three Reaming (16, 32 & 63 μ"), Six Grinding (2, 4, 8, 16, 32 & 63 μ"), Six Horizontal Milling (16, 32, 63, 125, 250 & 500 μ"), Six Vertical Milling (16, 32, 63, 125, 250 & 500 μ") & Six Turning (16, 32, 63, 125, 250 & 500 μ")

Part Number	Description
30-695-1	Surface Roughness Standards Set

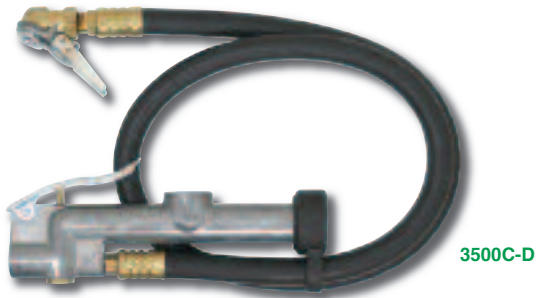
Part Number	Description
30-695-1CAL	Surface Roughness Standards Set With Long Form Calibration Report

## More Gauges & Measuring Devices

- BRZF (C'sink Go / No-Go) . . . . . 79
- Cherry Blind Rivet Gauges . . . . . 118
- Drill Bit Gauges . . . . . 27
- Hi-Shear Grip Gauge . . . . . 131
- Hi-Shear Pin Protrusion Gauges . . . . 131
- Rivet Gauges . . . . . 40
- Sleeve Gauges (Locoloc) . . . . . 191
- Swaged Terminal Gauges . . . . . 193
- Visu-Lok & Composi-Lok Gauges . . . . 131



Schrader® Lever Control Type Inflating Gauges



Three foot hose length for safe distance when mounting tires.

Part Number	Air Chuck	Range
3500C-D	Clip-On	10 to 120 psi
3651C-D	Dual Foot	10 to 120 psi

Tire & Pressure Gauges

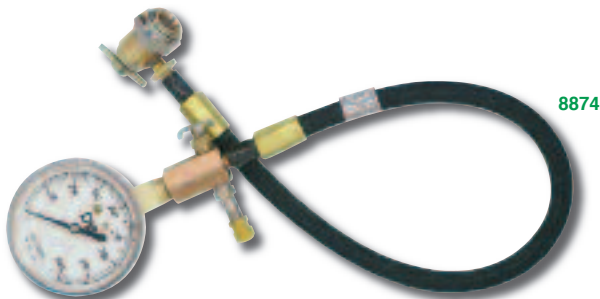


- Bourdin type dial gauge with flexible hose & 6" dual chuck.
- Includes recalibration screw for adjustments & metal carrying case.

Part Number	Range	Overall Length
8885	10 to 200 psi	18" (45.7 cm)
8844	0 to 400 psi	18" (45.7 cm)
8844B*	0 to 400 psi	18" (45.7 cm)

\* Includes three metal extensions.

Hydraulic Shock Strut Gauges



- Screw type locking chuck securely attaches to valve.
- Includes drain cock for bleeding pressures & metal carrying case.

Part Number	Range	Overall Length
8874*	0 to 400 psi	18" (45.7 cm)
8875	0 to 1,500 psi	25" (63.5 cm)
8876	0 to 3,000 psi	18" (45.7 cm)

\* Includes three metal extensions.

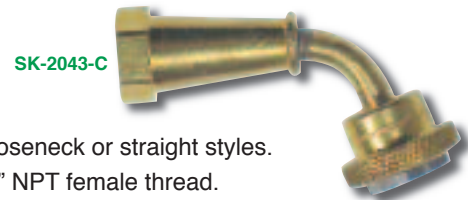
Digital Pressure Gauge



- Four digit display to 10ths of PSI (also reads in Bar, KPa etc.).
- Pressure bleeder valve, zero button & peak hold reading.
- Swivel fitting dual foot chuck & protective rubber boot.
- Backlight button for low light conditions, manual & auto shutoff.

Part Number	Range	Accuracy
TTL-300-DTG	300 PSI	± 0.5% of Full Scale

High Pressure Hose Couplings



- Gooseneck or straight styles.
- 1/8" NPT female thread.

Part Number	Style	Working Pressure	Proof Pressure
SK-2043-C	Gooseneck	5,000 psi	10,000 psi
SK-2043-S	Straight	5,000 psi	10,000 psi
SK-2043-5	Replacement Seal		

Replacement Lock Chucks

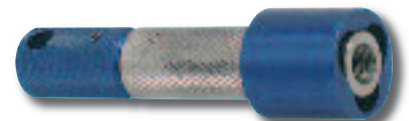
Note: 3/8"-24 side hose connector.

Part No.	Type	Thread
9043	T-Handle	.305"-32
8927	T-Handle	.485"-26
9044	No Handle	.307"-32



Valve Core Removal Tool

Rapid & Safe  
Tire Deflation



- Knurled design for easy handling.
- Exhausts air towards wheel & traps the valve core within the tool.

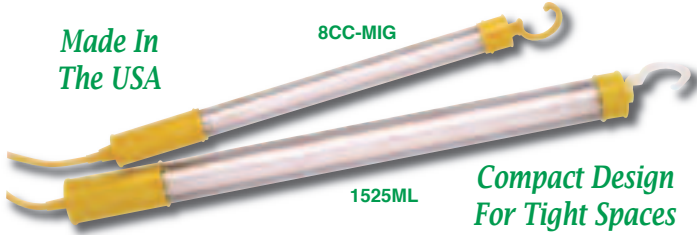
Part Number	Description
ATSK3614	Valve Core Removal Tool

## LIGHTING & INSPECTION

### KH® Industrial Quality Portable Work Lights

Made In  
The USA

8CC-MIG



1525ML

Compact Design  
For Tight Spaces

- Compact design excellent for tight spaces.
- Shock absorbing system protects tubes from drops & vibration.
- Provides cool, even illumination of working area.

8 Watt Midget - 120 VAC, 60 Hz (NEMA 1-15 Plug Included)			
Part Number	Cord	Weight	Overall Length
8CC-MIG	13' (coiled)	2.25 lbs (1.0 kgs)	16" (41 cm)
825-MIG	25' (straight)	2.75 lbs (1.2 kgs)	16" (41 cm)

15 Watt Mighty - 120 VAC, 60 Hz (NEMA 1-15 Plug Included)			
Part Number	Cord	Weight	Overall Length
1525ML	25' (straight)	3 lbs (1.4 kgs)	22-1/4" (57 cm)
1550ML	50' (straight)	4.5 lbs (2.0 kgs)	22-1/4" (57 cm)

#### High Power Rubber Handle Models

- Weather resistant construction & in-line rubber ballast box.
- Impact resistant lens & high-visibility yellow rubber end caps.

20 Watt - 120 VAC, 60 Hz (Plug Not Included)			
Part Number	Cord	Total Weight	Overall Length
2050-T12	50' (straight)	10 lbs (4.5 kgs)	32" (81 cm)

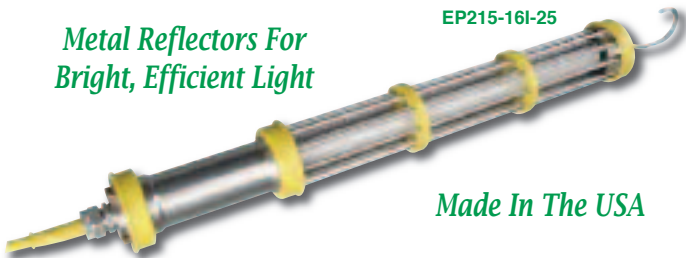
34 Watt - 120 VAC, 60 Hz (Plug Not Included)			
Part Number	Cord	Total Weight	Overall Length
4050-T12	50' (straight)	10 lbs (4.5 kgs)	56" (142 cm)

Note: 120 VAC, 50 Hz & 220 VAC, 50/60 Hz also available, please inquire.

### KH® Heavy-Duty Hazardous Location Work Lights

Metal Reflectors For  
Bright, Efficient Light

EP215-16I-25



Made In The USA

- Slim, lightweight design with a soft, wide plane of light that is ideal for maintenance, inspection, and repair in tight spaces.
- All aluminum body with rubber bumpers & annealed tubeshield.

\* Units furnished without plug and are suitable for Class I, Divisions 1 & 2 Group D; Class II, Divisions 1 & 2 Groups E, F & G; Class III, Divisions 1 & 2.

15 Watt - 120 VAC, 60 Hz (Plug Not Included)			
Part Number	Cord	Total Weight	Overall Length
EP215-16I-25	25'	12.25 lbs (5.6 kgs)	27" (69 cm)
EP215-16I-50	50'	14.5 lbs (6.6 kgs)	27" (69 cm)

### KH® Hazardous Location Work Lights

Made In  
The USA

EP326-16S-25

NEMA 4  
Watertight



- Built in reflectors for wide shadowless illumination.
- Integrated, pivoting hook for positioning versatility.
- Commercial fluorescent lamp provides 10,000 hours of life

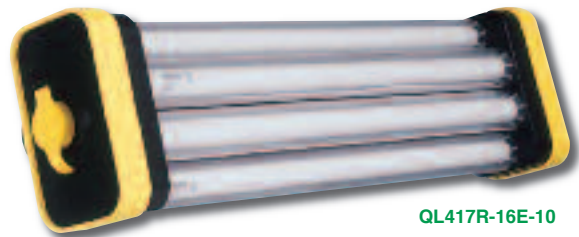
Non-sparking aluminum housing with hard coated anodized exterior, molded bumper guards, lamp shock absorbers and annealed glass tubeshield for durability in high-impact situations

\* Units furnished without plug and are suitable for Class I, Division 1 Groups C & D; Class II, Division 1 Groups E, F & G; Class III, Division 1; NEMA 4, Type 4.

26 Watt - 120 VAC, 60 Hz (Plug Not Included)			
Part Number	Cord	Total Weight	Overall Length
EP326-16S-25	25'	10 lbs (4.5 kgs)	14-1/2" (37 cm)
EP326-16S-50	50'	10 lbs (4.5 kgs)	14-1/2" (37 cm)

Note: 120 VAC, 50 Hz & 220 VAC, 50/60 Hz also available, please inquire.

### KH® Quad Light Wide-Area Lighting



QL417R-16E-10

- Stand, mount or hang in a variety of positions for lighting flexibility.
- Lamp shock absorbers & impact-resistant coated bulbs.
- Tool free relamping & protected on/off power switch.
- Rapid start, high frequency electronic ballast.
- Integrated cord storage system & daisy-chain ready operation.

#### All Models Include:

Quad Light Fixture, Four Lamps, Standard SJOW Cord, NEMA 5-15 Convertible Plug-Connector & Flexible Mounting Straps

68 Watt (17 Per Bulb) - 120 VAC, 60 Hz - Electronic Ballast				
Part Number	Lumens	Cord	Total Weight	O.A.L.
QL417R-16E-10	5,200	10'	11.5 lbs (5.2 kgs)	27-3/4" (71 cm)
QL417R-16E-25	5,200	25'	13.5 lbs (6.1 kgs)	52" (132 cm)

128 Watt (32 Per Bulb) - 120 VAC, 60 Hz - Electronic Ballast				
Part Number	Lumens	Cord	Total Weight	O.A.L.
QL432R-16E-10	11,800	10'	16.5 lbs (7.5 kgs)	27-3/4" (71 cm)
QL432R-16E-25	11,800	25'	18.5 lbs (8.4 kgs)	52" (132 cm)



**Hazardous Location Flashlight**

*Bright LEDs With 50,000 Hour Life*



**Chemical Proof Housing**

**Includes One Year Warranty**

- UL certified pro flashlight ensures a safe & well lit workplace.
- Multi-function operating use as flashlight, floodlight or both.
- Replaceable high quality NiMH battery pack included.
- Only 3 hour charge time (AC & DC adapters also included).
- Bright LEDs with 50,000 hour life.
- Impact & moisture resistant housing with anti-roll design.

Part No.	Flashlight	Floodlight	Weight	O.A.L.
XPR-9860	240 lumens	320 lumens	13-5/8" (345 mm)	28.0 oz (0.8 kgs)

Note: Flashlight is UL approved: Class 1, Division 1 & 2, Groups C & D.

**Light Loupe Magnifying Flashlight**

**10X Magnification**



- Great for close inspection jobs in low light areas.
- Crystal clear 10X lens shielded by a hard plastic holder.
- Magnifier can be used with or without flashlight.

Part Number	Weight	Overall Length
70663	0.18 lbs (0.08 kgs)	6-7/8" (175 mm)

Note: Unit requires 2 'C' cell batteries, not included.

**Steelman® Bend-A-Light Pro**

*Durable Handle With Brass Shafts*



**Two AA Batteries Included**

- High intensity flexible light bends & holds position.
- Protective cover can be used as handle extension.

Part Number	Description	Overall Length
5221	Bend-A-Light Pro	16" (40.6 cm)
56091	Replacement Bulb	—

**Mag-Lite® Flashlights**

*Limited Lifetime Warranty*



**Made In The USA**

- High-strength alum. alloy case is o-ring sealed for water resistance.
- Includes spare lamp safely secured in the tail cap.
- 3-position self cleaning rotary switch & cam action focus.

Maglite - 14 Hour Battery Life*			
Part No.	Batteries*	Weight (w/batteries)	Overall Length
71084	2 D-Cell	1.5 lbs (0.7 kgs)	10" (254 mm)
71085	3 D-Cell	1.9 lbs (0.9 kgs)	12-11/32" (314 mm)

Mini Maglite - 6 Hour Battery Life*			
Part No.	Batteries*	Weight (w/batteries)	Overall Length
71086	2 AA	3.78 oz (107 g)	5-3/4" (146 mm)

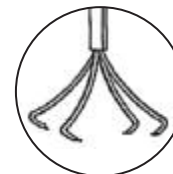
Mini Maglite & Black Polypropylene Holster - 6 Hour Battery Life*			
Part No.	Batteries*	Weight (w/batteries)	Overall Length
71087	2 AA	3.78 oz (107 g)	5-3/4" (146 mm)

\* Batteries not included. Battery life rated for continuous on (approximate).

Replacement Lamps		
Part Number	For Use With	Pack Size
100161	Mini Maglite	2 Pack
100163	Maglite	1 Pack

**Flexible Spring Claw**

*Perfect For Objects Dropped In Hard To Reach Areas*

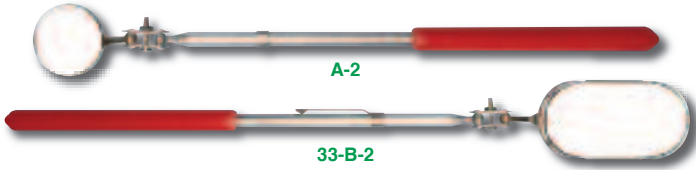


Part Number	Overall Length
16	23-1/2" (60 cm)

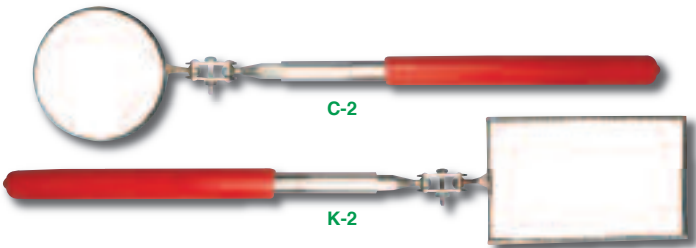
## LIGHTING & INSPECTION

### Ullman® All-Angle Inspection Mirrors

- All-angle joints hold firm to allow fast & accurate 360° inspection.
- Replaceable clear glass mirror & insulating grip.
- Inner hex rods on telescoping models prevent mirror swing.

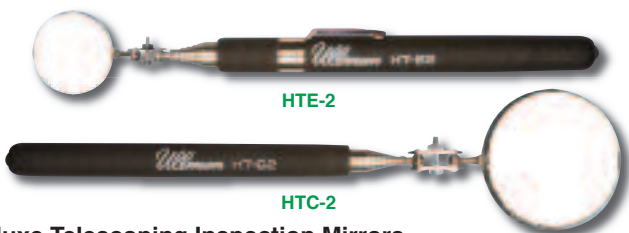


Standard (non-telescoping)		
Part Number	Mirror Size	Overall Length
A-2	7/8" Diameter	7-1/2" (19 cm)
33-B-2	1" x 2" Oval	8-1/2" (21.6 cm)
E-2	1-1/4" Diameter	8" (20 cm)



Telescoping			
Part No.	Mirror Size	Overall Length	Extends To
C-2	2-1/4" Diameter	10" (25.4 cm)	14" (35.6 cm)
K-2	2-1/8" x 3-1/2"	11-1/4" (28.6 cm)	15-1/4" (38.7 cm)
S-2	3-1/4" Diameter	11" (27.9 cm)	15" (38.1 cm)

Telescoping & Magnifying			
Part No.	Mirror Size	Overall Length	Extends To
C-2M	2-1/4" Diameter	10" (25.4 cm)	14" (35.6 cm)
C-2ML	2-1/4" Diameter	16" (40.6 cm)	26" (66 cm)
K-2M	2-1/8" x 3-1/2"	11-1/4" (28.6 cm)	15-1/4" (38.7 cm)
K-2ML	2-1/8" x 3-1/2"	17-1/4" (44 cm)	27-1/2" (70 cm)

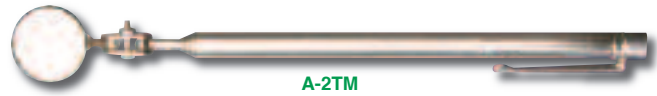


### Deluxe Telescoping Inspection Mirrors

- Stainless steel telescoping handle is strong & lightweight.
- Comfortable textured grip keeps hands secure even when wet.

Deluxe Telescoping			
Part No.	Mirror Size	Overall Length	Extends To
HTE-2	1-1/4" Diameter	6-1/2" (16.5 cm)	35" (89 cm)
HTC-2	2-1/4" Diameter	6-1/2" (16.5 cm)	36-3/8" (92.4 cm)
98669	3-1/4" Diameter	6-1/2" (16.5 cm)	29-1/2" (75 cm)

### Ullman® All-Angle Inspection Mirrors (cont'd)



Pocket Telescoping With Magnetic Pick-Up			
Part No.	Mirror Size	Overall Length	Extends To
A-2TM	7/8" Diameter	5-5/8" (14.3 cm)	19-1/2" (49.5 cm)
B-2TM	1-1/4" Diameter	5-5/8" (14.3 cm)	19-7/8" (50.5 cm)
E-2TM	1" x 2"	5-5/8" (14.3 cm)	20-3/4" (52.7 cm)

Replacement Head Ass'y	
Part Number	For Model
A-2HD	A-2
B-2HD	33-B-2
C-2HD	C-2
E-2HD	E-2
K-2HD	K-2
S-2HD	S-2
C-2MHD	C-2M, C-2ML
K-2MHD	K-2M, K-2ML

Replacement Mirror Only	
Part Number	For Model
B-2R	33-B-2
K-2R	K-2
K-2MR	K-2M, K-2ML

Note: Other models available, please inq.

### Ullman® All-Angle LED Light Inspection Mirrors

*Easy Inspection In Any Lighting Condition*



- Compact LED lights illuminate dark areas for perfect inspection.
- All-angle ball joint holds mirror firmly for easy viewing.
- Stainless steel telescoping mechanism & cushioned handle.

Part Number	Mirror Size	Extension
HTE-2LT	1-3/8" Diameter	6-3/4" to 35-1/2"
HTC-2LT	2-3/8" Diameter	6-3/4" to 37"
HTS-2LT	3-3/8" Diameter	6-3/4" to 30-1/4"

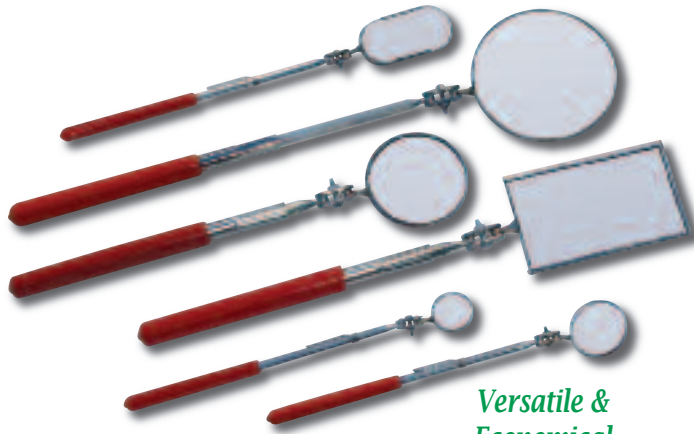
### Ullman® All-Angle Telescoping Magnifying Glass



- Durable shatter-resistant magnifying head.
- Stainless steel telescoping mechanism & cushioned handle.

Part No.	Mirror Size	Overall Length	Extends To
MG-2	2-3/8" Diameter	6-7/8" (17.5 cm)	36-1/8" (92 cm)

**Ullman® All-Angle Inspection Mirror Kit**



*Versatile & Economical*

**Includes:**

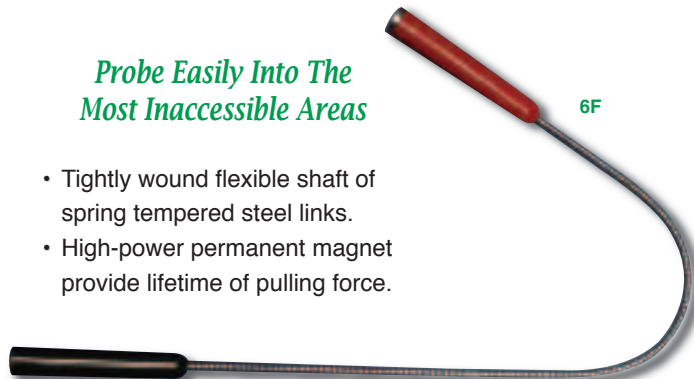
Three Standard (1" x 2" oval, 7/8" & 1-1/4" dia.) & Three Telescoping (2-1/8" x 3-1/2" rectangular, 2-1/4" & 3-1/4" dia.)

Part Number	Description
53-70315	Complete 6 PC Kit

**Ullman® Spring Flex Magnetic Retrievers**

*Probe Easily Into The Most Inaccessible Areas*

- Tightly wound flexible shaft of spring tempered steel links.
- High-power permanent magnet provide lifetime of pulling force.



Part Number	Overall Length
6F	17-1/2" (44.5 cm)
6FL	25" (63.5 cm)

**Ullman® All-Angle LED Light Magnetic Retrievers**

*Retrieve Objects Up To 8 Pounds*



*Steel Magnetic Head*

HTLP-1

- Compact LED light illuminates dark areas for perfect retrieval.
- Stainless steel telescoping mechanism & cushioned handle.

Part Number	Type	Extension
HTLP-2	Standard	8" to 32-3/4"
HTLP-1	Rotating Head*	6-3/4" to 27-3/4"

\* Includes sliding magnet shield to prevent unwanted attachments.

**Ullman® All-Angle Magnetic Retrievers**



*Molded Nylon Heads*

*Perfect for Use In Water, Oil etc.*

2

High-power permanent magnet provides lifetime of pulling force.

Telescoping		
Part Number	Overall Length	Extends To
1	16-3/4" (42.5 cm)	26-3/4" (68 cm)
2	10-5/8" (27 cm)	14-5/8" (37 cm)

Standard (non-telescoping)	
Part Number	Overall Length
3	6" (folded) to 8-1/2" (21.6 cm)



Pocket Telescoping		
Part Number	Overall Length	Extends To
4T	4" (10.2 cm)	19-1/2" (49.5 cm)



**Mechanic's Insulated Pocket Retriever**

- Insulating polypropylene unaffected by oil or gasoline.
- Pencil shaped with pocket clip - virtually unbreakable.

Mechanic's Pocket Retriever	
Part Number	Overall Length
9	6" (152 mm)

**Bessey® Pyrometer-Thermometer**

*Probe Rated To 1200°F (650°C)*



*Probe & Flex Cord Included*

- Multi-purpose measuring device for bearings, gears etc..
- Digital readout from -58°F (-50°C) to 2000°F (1300°C).

Note: Replacement probe with handle available, please inquire.

Part Number	Weight
HH-11 A	2.0 lbs (0.9 kgs)

## LIGHTING & INSPECTION

### 4 PC Interchangeable Tip Hook & Pick Set

*Zipper-Top Vinyl Pouch Included*

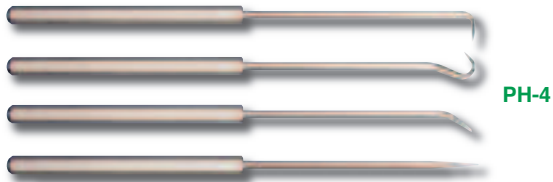


*Built-In  
Retrieval  
Magnet*

- Ideal for separating wires, removing or retrieving small parts.
- Aluminum handle with magnet picks up small nuts, bolts etc.

Part Number	Tips Included
HW4	Straight, 90°, Hook & Combination

### Hook & Pick Sets



PH-4



MP-6

- Ideal for separating wires, removing or retrieving small parts.
- High-carbon polished steel permanently attached to alum. handle.

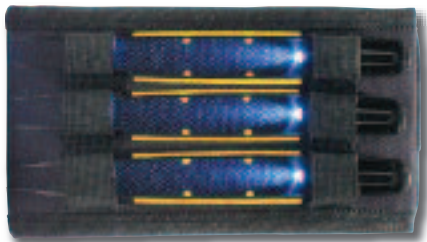
Part No.	Type	Picks Included
PH-4	4 PC Set	Straight, Complex, 90° & Hook
MP-6	5 PC Micro Set	Straight, Bayonet, Double Angle, 45° & Hook (Includes Vinyl Pouch)

### General® Lighted Tweezer Set



*Batteries  
Included*

*Includes Heavy-Duty Nylon Carrying Case*



- Bright white LED illuminates dark & confined work areas.
- Anti-glare heat treated steel with non-slip comfort grips.
- Includes smooth point, serrated bent & serrated blunt tweezers.

Part Number	Description
71171	3 PC Lighted Tweezer Set

### SPI® Stainless Steel Precision Tweezer Set

**NEW**



- Stainless steel construction for corrosion resistance and long life.
- This versatile set contains AA, OO, 2A, 3C, #5 & #7 pattern tip, SA-precision tweezers with a 4-3/4" overall length.
- Anti-magnetic - suitable for electronics use.
- Includes protective plastic pouch with closing snaps.

Part Number	Description
90-990-3	7 PC Tweezer Set

### Dykem® Brite-Mark Paint Markers

96-696-0



96-699-4



- Non-xylene based formula makes bright, permanent marks on metal, rubber, plastic, glass, vinyl, etc..
- Heavy-duty aluminum body with valve actuated mechanism that stops paint from drying in the barrel when cap is off.
- The quick drying, indoor/outdoor paint resists fading and chipping.

**NEW**

Part Number	Color	Part Number	Color
96-696-0	Blue	96-700-0	Orange
96-697-8	Black	96-701-6	Red
96-698-6	White	96-702-6	Green
96-699-4	Yellow		

### Torque Seal® Inspection Lacquer

96556

*Fast  
Drying*



*1/2 oz  
Tube*

- Inexpensive solution widely used as "anti-sabotage lacquer".
- Inspectors can visually detect any movement or tampering.
- Excellent adhesion to all metals & most other surfaces.

Color	Orange	Red	Yellow
Part Number	96556	96557	96558

**Flexeel® Reinforced Polyurethane Straight Hose**



- An excellent alternative to bulkier rubber & plastic hoses.
- Lightweight & tough, retains flexibility even in cold environments.
- Reinforced construction & reusable strain relief fitting.

Temperature Range: -40°F to +165°F. Working Pressure: 200 PSI (@70°F).

1/4" MPT Fitting, 1/4" I.D.	
Part Number	Length
PFE40254	25' (7.6 m)
PFE40504	50' (15.3 m)
PFE41004	100' (30.5 m)

3/8" MPT Fitting, 3/8" I.D.	
Part Number	Length
PFE60256	25' (7.6 m)
PFE60506	50' (15.3 m)
PFE61006	100' (30.5 m)

1/2" MPT Fitting, 1/2" I.D.	
Part Number	Length
PFE80258T	25' (7.6 m)
PFE80508T	50' (15.3 m)
PFE81008T	100' (30.5 m)

Note: 1/4" & 3/8" I.D. hose available in transparent blue, red or yellow (please specify when ordering). 1/2" I.D. hose available only in transparent blue.

**Flexcoil® Polyurethane Self Storing Air Hose**



- Toughest recoil hose available - highly kink & abrasion resistant.
- Resistant to most oils & fuels.
- Lightweight yet extremely durable with outstanding coil memory.

Part Number	Overall Length	I.D.	O.D.
PU14-15	15' (4.6 m)	1/4"	3/8"
PU14-25	25' (7.6 m)	1/4"	3/8"
PU38-15	15' (4.6 m)	3/8"	9/16"
PU38-25	25' (7.6 m)	3/8"	9/16"

**Ultra Light Air Hose**



- Approximately 1/3 to 1/2 the weight of ordinary air hose.
- Does not lose air flow characteristics because of lighter weight.
- Extremely flexible, less fatigue with continuous use.

Standard Hose - 300 PSI Max. Work Pressure			
Part Number	Overall Length	I.D.	O.D.
3600-25	25' (7.6 m)	1/4"	.472"
3600-35	35' (10.7 m)	1/4"	.472"
3600-50	50' (15.2 m)	1/4"	.472"

Leader Hose - 300 PSI Max. Work Pressure			
Part Number	Overall Length	I.D.	O.D.
3600-5	5' (1.5 m)	1/4"	.475"

**General Purpose Safety Hose**

- Flexible & abrasion resistant with non-marking cover.
- Complies with RMA Class B designation for medium oil resistance.

Safety Hose - 250 PSI Max. Work Pressure			
Part Number	Overall Length	I.D.	O.D.
3660-25	25' (7.6 m)	1/4"	1/2"
3660-50	50' (15.2 m)	1/4"	1/2"
3760-25	25' (7.6 m)	3/8"	5/8"
3760-50	50' (15.2 m)	3/8"	5/8"

**Flexeel® Reinforced Polyurethane Leader Hose**



- Helps eliminate stress and wear points from bending & pulling.
- Easier & wider range of motion with shock absorbing action.
- Lightweight & tough, retains flexibility even in cold environments.

Temperature Range: -40°F to +165°F. Working Pressure: 200 PSI (@70°F).

1/4" NPT Fitting, 1/4" I.D.	
Part Number	Length
FP0412BS	12" (30 cm)
FP0418BS	18" (46 cm)
FP0424BS	24" (61 cm)

1/4" NPT Fitting, 3/8" I.D.	
Part Number	Length
FP06124BS	12" (30 cm)
FP06184BS	18" (46 cm)
FP06244BS	24" (61 cm)

## AIR HOSE & ACCESSORIES

### Dynabrade® Dynaswivel Air Line Connectors



- Patented universal joint swivels 360° at two pivot points.
- Allows air line to drop to the floor & provides superb tool handling.

Aluminum Construction			
Part No.	Thread Size	Air Flow Range	Weight
95460	1/4" NPT	0 to 25 CFM	0.20 lbs (0.09 kgs)
15-95461	3/8" NPT	26 to 45 CFM	0.40 lbs (0.18 kgs)
15-95462	1/2" NPT	46 to 65 CFM	0.80 lbs (0.36 kgs)

Aluminum Construction With Flow Control			
Part No.	Thread Size	Air Flow Range	Weight
15-95734	1/4" NPT	0 to 25 CFM	0.25 lbs (0.11 kgs)

No-Mar Composite Construction			
Part No.	Thread Size	Air Flow Range	Weight
15-94300	1/4" NPT	0 to 33 CFM	0.15 lbs (0.06 kgs)

### Ball Swivel Connectors

- Combines the features of ball swivel fittings & connectors.
- No additional fitting needed.
- Nickel plated hardened steel connector & nut, all brass fitting.



1/4" NPT

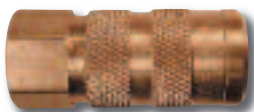
Part Number	Interchange
15-04BS	Industrial
14-04BS	ARO

### ARO Type 14 Air Hose Quick Connects



Plug, Female Thread	
Part Number	Type
15-300	Plug 1/4" NPT

Plug, Male Thread	
Part Number	Type
15-202	Plug 1/8" NPT
15-200	Plug 1/4" NPT



Female Thread	
Part Number	Type
15-100	Auto 1/4" NPT
15-106	Auto 3/8" NPT

Male Thread	
Part Number	Type
15-101	Auto 1/4" NPT
15-107	Auto 3/8" NPT

Note: 100 PSIG inlet, 25 SCFM pressure drop @5 PSIG, 34 SCFM pressure drop @10 PSIG.

### Swivel Manifolds



3032S

- Ports rotate 360° for flexible multi-directional connections.
- Chrome plated brass for superior corrosion resistance.
- 1/4" MPT supply & output (accepts 1/4" quick-disconnects).

Part Number	Style
3022S	Two Port
3032S	Three Port

### Multiple Connection Manifolds



90278

All Models Have  
1/4" NPT Outlets

Anodized Aluminum Straight		
Part Number	Type	Weight
90276	4 Port, 1/4" Inlet	0.5 lb. (0.2 kgs)
90278	6 Port, 1/4" Inlet	0.7 lb. (0.3 kgs)



3122

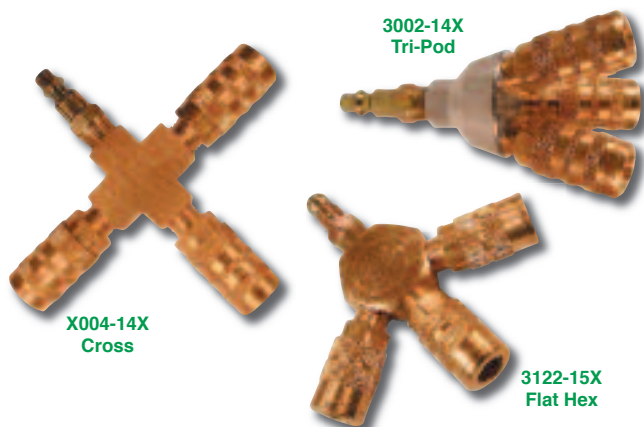
Solid Brass Flat Hex		
Part Number	Type	Weight
3122	3 Port, 1/4" Inlet	0.3 lb. (0.1 kgs)
3132	3 Port, 3/8" Inlet	0.3 lb. (0.1 kgs)



90272

Solid Aluminum Tri-Pod		
Part Number	Type	Weight
90272	3 Port, 1/4" Inlet	0.3 lb. (0.1 kgs)
90274	3 Port, 3/8" Inlet	0.3 lb. (0.1 kgs)

**Multiple Connection Manifold Assemblies**



Includes 1/4" air line connector & three 1/4" six ball couplers.

Assemblies			
Tri-Pod	Flat Hex	Cross	Coupler
3002-14X	3122-14X	X004-14X	ARO Interchange
3002-15X	3122-15X	X004-15X	Industrial Interchange

**Conical Mufflers**



- Offers an economical method of reducing noise levels below 90 dBA, conforming with OSHA standards.
- Nickel plated body, 40 micron sintered bronze element.
- Easy to install - threads into your air tool exhaust port.

Part Number	Size	Hex	Overall Length
CMF18	1/8"	7/16"	29/32" (23 mm)
CMF28	1/4"	9/16"	1-1/4" (32 mm)
CMF38	3/8"	11/16"	1-9/16" (40 mm)
CMF48	1/2"	7/8"	1-3/16" (30 mm)

**Speed Control Mufflers**



- Governs air flow accurately while reducing exhaust noise.
- Brass body with knurled knob & sintered bronze element.
- Lock nut prevents adjustment changes due to vibration.

Part Number	Size	Part Number	Size
MF101S	1/8" MPT	MF103S	3/8" MPT
MF102S	1/4" MPT	MF104S	1/2" MPT

**Filter - Regulator - Lubricator Mini Assemblies**



- Standard assemblies have zinc die cast bodies.
- Gauge provided uninstalled for installation on either side.

Standard Assemblies		Mini Assemblies	
Part Number	Pipe Size	Part Number	Pipe Size
15-628-2	1/4"	15-528-1	1/8"
15-628-3	3/8"	15-528-2	1/4"
15-628-4	1/2"		
15-728-6*	3/4"		

\* 15-728-6 is a high capacity assembly that includes a metal bowl.

**Air Tool Lubricant**



- Specially formulated high grade 10 weight lubricant.
- Adheres to motor parts, giving better and longer lubrication.
- Prevents rust and removes moisture for longer tool life.

Part Number	Size
ATL004	4 oz (113 g)
ATL016	1 pint (0.4 liters)
ATL032	1 quart (1.9 liters)
ATL128	1 gallon (3.8 liters)

## AIR HOSE & ACCESSORIES

### Air Tool Cleaner

*Keep Tools Running At Maximum Efficiency*

- Removes varnish, sludge, rust & dirt.
- Will not harm internal seals.
- Prevents harmful build-up when used regularly.

Part Number	Size
ATC004	4 oz (113 g)



### Guardair® Whisper Jet Safety Air Gun

*Durable Cast Aluminum Body*

- Unique nozzle reduces noise levels 6-20 dB from conventional air guns.
- Knurled adjusting nut controls air volume.
- Meets OSHA noise & safety standards.
- Solid tip design prevents blockage of nozzle.



Part Number	Air Inlet	Thrust @100PSI	Air Usage	Weight
15-80	1/4" NPT	1.1 lbs	20 CFM	0.6 lbs (0.27 kgs)

### Guardair® Jet Guard Safety Air Gun

*Durable Cast Aluminum Body*

- Patented protective air cone protects operator from dangerous chip fly-back.
- Knurled adjusting nut controls air volume.
- Delivers high thrust with pinpoint accuracy.
- Meets OSHA noise & safety standards.



Part Number	Air Inlet	Thrust @100PSI	Air Usage	Weight
15-74SK	1/4" NPT	0.4 lbs	35 CFM	0.6 lbs (0.27 kgs)

### Guardair® Whisper Jet Extended Safety Air Guns

*Durable Cast Aluminum Body*

*Ideal For Limited Access Areas*

- Unique nozzle reduces noise levels 6-20 dB from conventional air guns.
- Meets OSHA noise & safety standards.
- Solid tip design prevents blockage of nozzle.
- Other lengths up to 72" also available, please inquire.



15-80LJ6

Part Number	Extension Length	Air Inlet	Thrust @100PSI	Air Usage	Weight
15-80LJ6	6"	1/4" NPT	1.5 lbs	29 CFM	0.6 lbs (0.27 kgs)
15-80LJ12	12"				0.7 lbs (0.32 kgs)

### Guardair® Syphon Spray Air Gun

*Durable Cast Aluminum Body*

- High vacuum syphon delivers up to sixteen gallons per hour.
- 12" extension great for limited access areas.
- Includes six foot syphon hose with sinker.
- Adjustable trigger & nozzle tip to control volume & spray pattern.
- Spray oils, solvents, cleaners, mold release agents & coatings.



Part Number	Air Inlet	Flow Rate @100PSI	Air Usage	Weight
15-79SG012	1/4" NPT	16 gph	9 CFM	1.5 lbs (0.7 kgs)

### Coilhose® Safety Blow Gun

*Ergonomic Design*

*OSHA Compliant*

- Tough zinc die cast body, replaceable tip & vinyl thumb grip.
- Four self-lubricating O-Rings prevent valve leakage.
- Large operating lever reduces operator fatigue & discomfort.



Part Number	Air Inlet	Maximum Pressure	Air Usage	Weight
600S-DL	1/4" NPT	150 PSI	11 CFM	0.36 lbs (0.16 kgs)



**Air Operated Sealant Guns**



- Smooth, uniform flow applied exactly where you want it.
- Zinc plated, corrosion resistant retainer prevents cartridge split.

Note: Hose assembly ordered separately on next page.

Pistol Grip (250-A)	Palm Grip (250-B)	Included Retainer
72-C04076	72-C04074	2.5 Ounce
72-C04090	72-C04087	6 Ounce
72-C04068	72-C04066	12 Ounce
72-C04093	—	No Retainer

**Air Operated Sealant Gun Retainers**

Corrosion resistant zinc plated retainers prevent cartridge split.

72-C04091



2.5 Ounce	6 Ounce	12 Ounce
72-C04077	72-C04091	72-C04069

**Manual Operated Sealant Guns**



72-C05213

- No air supply required, great for 'in-field' applications.
- Utilizes standard cartridges & nozzles on the following pages.

Part Number	Cartridge Capacity
72-C05214	2.5 Ounce
72-C05213	6 Ounce
72-C05212	12 Ounce

**Replacement Retainers**

2.5 Ounce	6 Ounce	12 Ounce
226819	226820	226822

**Air Operated Sealant Gun Kits**



72-C27128

Includes:

Pistol Grip Sealant Gun, 5 Cartridges With Plungers, Cartridge Caps (5 each: 72-C05215 & 72-C04159), Assorted Nozzles (5 each: 72-C04125, 72-C08608, 72-C04127 & 72-C04136), Air Hose & Plastic Carrying Case

Part Number	Description
72-C27127	2.5 Ounce Capacity Kit
72-C27128	6 Ounce Capacity Kit
72-C27129	12 Ounce Capacity Kit

**Fuel Tank Repair Kit**



Includes:

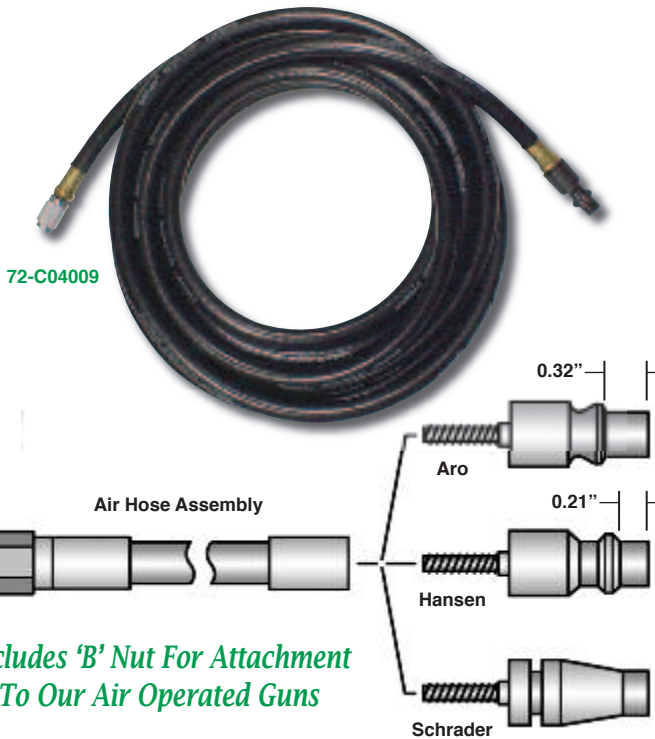
Pistol Grip Gun With 2.5 & 6 oz Retainers, High-Pressure Injection Gun (507-A: shown on next page), Metal Nozzle Assortment, Air Hose (male connector, female coupler), Sealant Mixer (229340: for two-part aircraft sealants\*) & Metal Fitted Case (not shown)

\* See page 222 for complete 229340 sealant mixer specifications.

Part Number	Description
226978	Fuel Tank Repair Kit

# APPLICATION TOOLS & ACCESSORIES

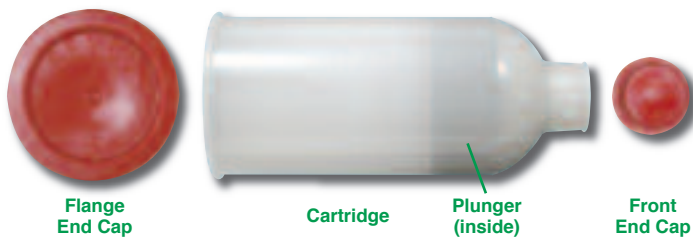
## Air Hose Assemblies



Includes 'B' Nut For Attachment To Our Air Operated Guns

Aro Connect	Hansen Connect	Schrader Connect	Overall Length
72-C04008	72-C04025	72-C04044	5' (1.5 m)
72-C04009	72-C04026	72-C04045	10' (3.0 m)
72-C04010	72-C04028	72-C04047	15' (4.6 m)
72-C04011	72-C04029	72-C04048	20' (6.1 m)
72-C04012	72-C04030	72-C04049	25' (7.6 m)
72-C04013	72-C04031	72-C04050	30' (9.1 m)

## Disposable Plastic Cartridges, Plungers & Caps



- For use with air or manual operated dispensing devices.
- Low density polyethylene construction (also available in high-density polyethylene, please inquire).

Cartridge Only	Cartridge & Plunger	Capacity
72-C04107	72-C04104	2.5 Ounce
72-C04088	72-C04159	6 Ounce
72-C04067	72-C04057	12 Ounce

Part Number	Description
72-C04105	Plastic Plunger
72-C04142	Front End Cap (threads into neck)
72-C05215	Flange End Cap (stops plunger backout)

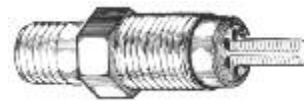
## High-Pressure Injection Gun



Designed for post assembly injection of sealants of the MIL-S-8802 Class B viscosity range into confirmed areas & voids, as in channel sealing & areas requiring material to be injected into small orifices under pressure. Threaded gun cap accepts 1/8" pipe thread needle nozzle or zerk connector.

Part Number	Description
507-A	High-Pressure Injection Gun

## Semco® Spring Loaded Rivet Nozzles

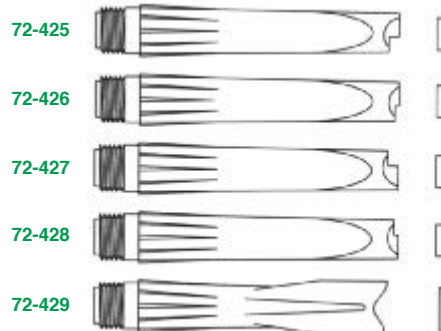


- Apply required amount of sealant to countersink & rivet holes.
- Spring-loaded tip allows a precisely dispensed shot of sealant.

Part Number	Hole Size	Color Code	Orifices*
234285	3/32"	Green	(6) .030"
226837	1/8"	Blue	(6) .031"
226838	5/32"	Black	(6) .035"
226839	3/16"	White	(6) .060"
226840	1/4"	Red	(6) .044"

\* Six dispensing holes for even distribution of sealant.

## Fillet Nozzles



- For application of sealant fillets over lap joints.
- Can eliminate the need for working of sealant with spatulas.
- Built-in step guides nozzle along lap joint.

3-3/4" Overall Length	
Part Number	Step
72-425	.12" Right
72-426	.06" Right
72-427	.12" Left
72-428	.06" Left
72-429	No Step

Specialty Application Nozzles

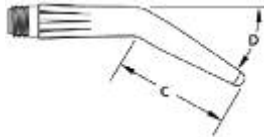
Precision Molded

1/4" NPT



**Bent Nozzles:** Most styles can be furnished with a bend. To order, use the part number of the nozzle style required, then add the desired angle of bend (D) and the length of bend from the tip (C).

**Example:** To order an 8" long, 1/8" orifice nozzle with a 20° bend 2" from the tip, use part number 72-C04123-20-2



**Note:** For ordering help & pricing on bent nozzles, please inquire.



Part Number	Orifice	Overall Length
72-C04141	1/16"	2-1/2" (64 mm)



Part Number	Orifice	Overall Length
72-C04138	1/8"	2-1/2" (64 mm)



Part Number	Orifice	Overall Length
72-C04136	1/32"	4" (102 mm)



Part Number	Orifice	Overall Length
72-415	No Orifice	4" (102 mm)



Part Number	Orifice	Overall Length
72-C04132	1/16"	4" (102 mm)



Part Number	Orifice	Overall Length
72-C04131	3/32"	4" (102 mm)



Part Number	Orifice	Overall Length
72-C04129	1/8"	4" (102 mm)

Specialty Application Nozzles (cont'd)



Part Number	Orifice	Overall Length
72-C04127	1/16"	6" (152 mm)



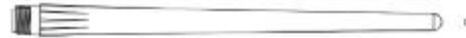
Part Number	Orifice	Overall Length
72-C04125	1/8"	6" (152 mm)



Part Number	Orifice	Overall Length
72-C04115	3/8"	6" (152 mm)



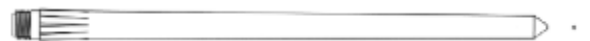
Part Number	Orifice	Overall Length
72-C04124	1/16"	8" (203 mm)



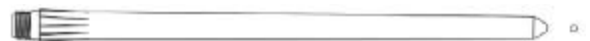
Part Number	Orifice	Overall Length
72-C04123	1/8"	8" (203 mm)



Part Number	Orifice	Overall Length
72-8690	3/32" Vent Duck	9" (229 mm)



Part Number	Orifice	Overall Length
72-C04122	1/16"	10" (254 mm)



Part Number	Orifice	Overall Length
72-C04120	1/8"	10" (254 mm)



Part Number	Orifice	Overall Length
72-C04119	5/16"	10" (254 mm)



Part Number	Orifice	Overall Length
72-8607	1/16" x 1/4"	6" (152 mm)

# APPLICATION TOOLS & ACCESSORIES

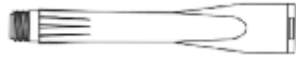
## Specialty Application Nozzles (cont'd)



Part Number	Orifice	Overall Length
72-8608	11/64" Cup	4" (102 mm)



Part Number	Orifice	Overall Length
72-8610	3/64" x 9/64"	4-1/2" (114 mm)



Part Number	Orifice	Overall Length
72-8613	3/64" x 3/8"	5" (127 mm)



Part Number	Orifice	Overall Length
72-C04116	1/16" x 1/2"	4" (102 mm)



Part Number	Orifice	Overall Length
72-8642	3/16"	4" (102 mm)



Part Number	Orifice	Overall Length
72-C04117	1/8" x 3/4"	4-1/2" (114 mm)



Part Number	Orifice	Overall Length
72-8645	1/8" x 1"	4-3/8" (111 mm)



Part Number	Orifice	Overall Length
72-8646	1/16"	3-15/16" (100 mm)



Part Number	Orifice	Overall Length
72-8648	1/8"	5-3/16" (132 mm)



Nozzle Extension

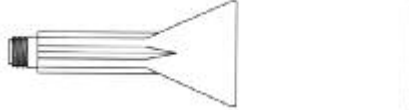
Part Number	Orifice	Overall Length
72-600E	—	6-3/8" (162 mm)

## Specialty Application Nozzles (cont'd)

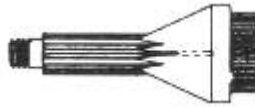


Floorboard Nozzle

Part Number	Orifice	Overall Length
72-231674	(12) 1/32" Diameter	1-3/8" (35 mm)



Part Number	Orifice	Overall Length
72-8630	1-3/4"	4" (102 mm)

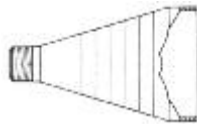


Part Number	Orifice	Overall Length
72-8630-9	1-3/4"	4-7/8" (124 mm)



Funnel Nozzle

Part Number	Orifice	Overall Length
72-231718	7/8"	1-3/8" (35 mm)



Funnel Nozzle

Part Number	Orifice	Overall Length
72-231348	1-27/32"	3-1/8" (79 mm)

## Roller Nozzles



- Apply sealant evenly over a wide area of substrate.
- Ideal for the application of faying surface sealants.
- Use with our disposable cartridges (see page 216).

Roller Assembly	Replacement Roller	Size
232693	232701	1" (25 mm)
232692	232702	2" (51 mm)

**Sealant Spatulas**

*Reinforced Plastic Construction*

226241



226242



226243



*7-1/4" Overall Length*

Part Number	End Widths
226241	0.19" & 0.38" (4.82 & 9.65 mm)
226242	0.13" & 0.28" (3.30 & 7.11 mm)
226243	0.48" & 0.38" (12.19 & 9.65 mm)

Part Number	Description
226244	All Three Spatulas With Plastic Case

**Sealant Smoothing Tool**



Fiberglass reinforced plastic for tooling & smoothing sealants.

Part Number	Overall Length
231349	9-1/2" (241 mm)

**Solid Brass Sealant Smoothing Tool**

*Non-Sparking & Reusable,  
Perfect For Aerospace Work*



Part Number	Overall Length
70799	9" (229 mm)

**Sealant Spreaders**

*Reinforced Plastic Construction*

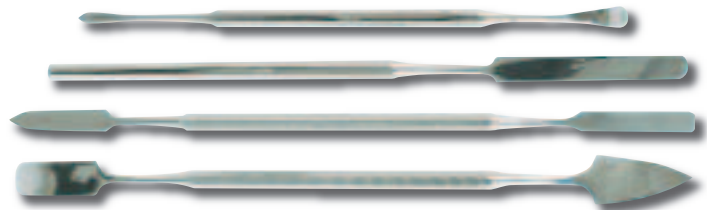


229395

229394

Part Number	Type	Dimensions
229394	Standard	4.0" x 2.8" (102 x 71 mm)
229395	Comb	3.0" x 3.0" (76 x 76 mm)

**Stainless Steel Sealant Spatula Set**



*Surgical Stainless Steel Construction*

- Four double-end tools with different angles & knife shapes.
- Great for shaping & spreading sealant & other soft materials.

Part Number	Description
57-104-2	Complete 4 PC Set

**Nylon Sealant Tape Roller**

*For Applying Sealant Tape*



Allows maximum pressure for a leak-proof & smooth seal.

Part Number	Roller Diameter	Roller Width
70339	1-1/4" (32 mm)	2" (51 mm)

**Masking Tape Cutter**

*Durable Acrylic Plastic Construction*

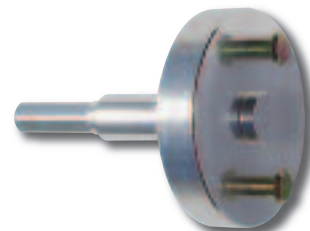


Note: May scratch new sheet metal.

Part Number	Dimensions
70796	8"L (3/16" thick) x 1" Wide

**Sealant Mixer**

*Quick & Easy*



Securely chucks into your drill for mixing Semkit sealant tubes.

Part Number	Shank
70337	1/4" Hex

## APPLICATION TOOLS & ACCESSORIES

### Sioux® Sealant Removal Angle Die Grinder Kit



Fitted Case

Perfect For Limited Access Areas

- Remove aircraft sealants quickly & safely with minimal effect on paint, primer or aircraft metal.
- 800 RPM drill includes both 45° & 90° angle head assemblies.
- Eliminates the need to use chemical solvents for better worker health & safety, as well as easier cleanup.

**Includes:**

800 RPM Drill Motor, 45° & 90° Angle Head Assemblies, Five 96933 Cutters, Five 96935 Cutters & Fitted Carrying Case

Part Number	Description
1AM1141/51K	Complete 14 PC Kit

### Dynabrade® Sealant Removal Angle Drill

New Extended Rear Muffler

Low Profile 1/2" Angle Head



NEW

- Safe, aggressive & efficient sealant removal.
- Tool can also be used as a standard angle drill.
- Governor-controlled motor maintains speed under load.
- For use with sealant removal cutters below (not included).

Sealant Removal Angle Drill, 0.4 hp (0.30 kW)			
Rear Exhaust	Free RPM	Overall Length	Weight
49455	950	13" (329 mm)	2.1 lbs (0.9 kgs)

### Sealant Removal Cutters

- Bottom & side cutting plastic blades.
- Aggressively removes sealant without damaging substrate.
- Internal cavity on 96935 for use over standard fasteners & rivets.



Part Number	Diameter	Recommended RPM	Max RPM
96933	.40"	950	3,200
96935	.83"	950	3,200

### Dynabrade® Sealant Removal Angle Die Grinder

Lightweight Ergonomic Design

1/4" & 6 MM Collets Included

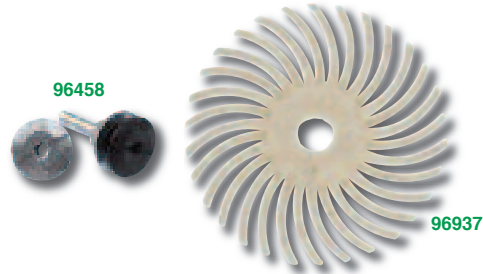
NEW



- Safe, aggressive & efficient sealant removal.
- Kevlar® phenolic vanes for longer tool life
- Tool can also be used as a standard die grinder.
- For use with sealant removal discs below (not included).

Sealant Removal Angle Die Grinder, 0.4 hp (0.30 kW)				
Part No.	Exhaust	RPM	Overall Length	Weight
47800	Front	12,000	6" (150 mm)	1.0 lbs (0.45 kgs)
48315	Rear	12,000	6-1/2" (164 mm)	1.0 lbs (0.45 kgs)

### Sealant Removal Bristle Discs



- Abrasive, particle filled discs remove up to 1/16" of sealant.
- Bristles remove sealant without damaging underlying surface.

Bristle Disc Arbor & Two Caps	
Part Number	Capacity
96458	1/8" to 1/4" & 3/8" to 1/2"

Bristle Discs			
Part Number	Diameter	Recommended RPM	Max RPM
96937	2"	12,000	20,000
96939	3"	12,000	20,000

### USATCO 'Extreme Edge' Sealant Scraper Kit

Chemical Resistant, Long Edge Life

**Scraper Kit Includes:**

Four Scrapers with various profiles & Fabric Carrying Pouch



Part Number	Description
70800	Complete 5 PC Kit

**USATCO 'Extreme Edge' Sealant Scrapers**

*Chemical Resistant, Long Edge Life*



94176

- Non-metallic construction perfect for aerospace work.
- Great for removing sealants, adhesives, stickers etc.
- Resharpenable, non-marring scrapers are strong & lightweight.

Part Number	Uses
94176	Specially designed for scraping tubes & pipes.



94177

Part Number	Uses
94177	Great for internally radiused surfaces.



94178

Part Number	Uses
94178	Perfect for removing gaskets on alum. or steel.



94179

Part Number	Uses
94179	Concentrated scraping into corners & edges.



94180

Part Number	Uses
94180	Allows angle scraping in both directions.



94181

Part Number	Uses
94181	For narrow channels, slots & detail scraping.

*Many Other Profiles Available, Please Inquire*



*For .401 Shank 'Extreme Edge' Scrapers See Page 38*

**USATCO Celcon Sealant Scraper Kit**

*Boeing Approved To Avoid Scratching Alclad Aluminum*

53-93650



*Double Angle Tips For Toughness, Chemical Resistant*

All scraper blades are 6" long and 3/16" thick.



**Kit Includes:**

Six Scrapers (2 each: 1/4" Tip, 1" Tip & 2" Tip) & Black Handle

Part Number	Description
53-93650	Complete 7 PC Kit

Replacement Parts	
Part Number	Description
93633	Celcon Scraper Blade with 1/4" Tip
93634	Celcon Scraper Blade with 1" Tip
93635	Celcon Scraper Blade with 2" Tip
93636	Replacement Handle

Optional Parts	
Part Number	Description
93637	Phenolic Scraper Blade with 1" Tip

**Note:** Acrylic and nylon scraper blades also available, please inquire.

**Celcon Sealant Scrapers**

*Boeing Approved To Avoid Scratching Alclad Aluminum*



70792

*Chemical Resistant*



70794

Celcon Sealant Scrapers		
Part Number	Size	Tip Width
70792	6"L (3/16" thick)	3/4"
70794	9"L (3/16" thick)	3/4" & 1/4"

# APPLICATION TOOLS & ACCESSORIES

## Specialty Sealant Scrapers

70784



70780



Glass Filled Nylon Plastic Construction, Double Angle Tips For Toughness

Hardened Sealant Scrapers		
Part Number	Size	Tip Width
70784	8"L (3/16" thick)	2" & 3/4"
70780	9"L (3/16" thick)	3/4" & 1/4"



Glass Filled Nylon Plastic Construction, Double Angle Tips For Toughness

Hardened Sealant & Seat Track Scraper		
Part Number	Size	Tip Width
70782	9"L (3/16" thick)	3/4" & 1/4"



Acrylic Plastic Construction, Long Angled Edge, Single End With Rounded Handle

Soft Sealant Scraper		
Part Number	Size	Tip Width
70786	6"L (3/16" thick)	3/4"



Acrylic Plastic Construction, Long Angled Edge

Soft & Wet Sealant Scraper		
Part Number	Size	Tip Width
70788	9"L (3/16" thick)	3/4" & 1/4"



Acrylic Plastic Construction, Double Angle Tips For Toughness

Soft Sealant Scraper		
Part Number	Size	Tip Width
70790	9"L (3/16" thick)	1" & 1/4"

Note: May scratch new sheet metal. No-Mar scrapers available on previous page.

## Hand Scraper

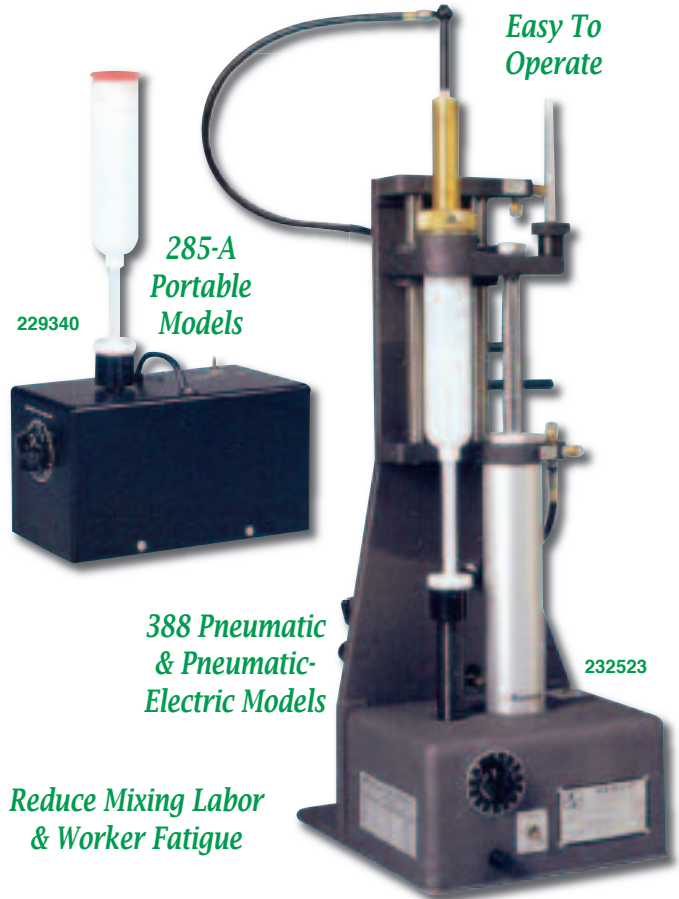


Specially blended plastic designed for sealants, paint, glues etc.

Part Number	Overall Length
11493	5-7/8" (149 mm)

## 388 Automatic Semkit Package Mixers

*Easy To Operate*



*285-A Portable Models*

229340

*388 Pneumatic & Pneumatic-Electric Models*

232523

*Reduce Mixing Labor & Worker Fatigue*

**Model 388** Semkit package mixers are stationary, pneumatic and pneumatic-electric units that provide automatic mixing of filled Semkit packages. Use of the mixer reduces worker fatigue and assures the user a more thorough and consistent mix, kit to kit.

- Auto mixing of Semkit packages for a thorough & uniform mix.
- Timer automatically shuts off mixer at preset mix time.
- Additional unit capacities available, please inquire.

Note: Operates @ 40-90 PSI, 1.2 CFM & 115 VAC.

388 Pneumatic Semkit Auto Package Mixers			
Part Number	Type	Capacity	Weight
221269	Pneumatic / Electric 110V	2.5, 6 & 8 oz	75 lbs (34 kgs)
221269-220	Pneumatic / Electric 220V		
232523	Full Pneumatic		

**Model 285-A** Semkit package mixers are portable, electric units that provide automatic mixing of filled Semkit packages. Use of the mixer reduces worker fatigue and assures the user a more thorough and consistent mix, kit to kit.

- Electric, semi-auto mixing for a thorough & uniform mix.
- User moves cartridge vertically while drive spindle rotates.
- Bell timer signals completion of mix.

285-A Portable Electric Semkit Semi-Auto Package Mixers		
Part Number	Power	Weight
229340	115 VAC	14 lbs (6.3 kgs)
234535	230V / 50 Hz	14 lbs (6.3 kgs)



Heavy-Duty Hand Operated Grease Guns

Heavy-Duty Die-Cast Head

Rugged Baked Enamel Finish



- Heavy-duty rod, spring & follower.
- Rapid spin barrel threads for fast loading.
- 4 jaw coupler with ball check, filler nipple for 3-way loading.

Lever Grip	Pistol Grip	Extension
L1310	L1320	Straight Rigid
L1350	L1325	12" Flex

Heavy-Duty Air Operated Grease Guns

Heavy-Duty Die-Cast Head

Rugged Baked Enamel Finish



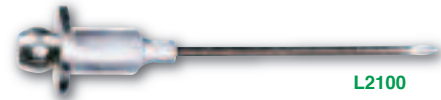
- Rapid spin barrel threads for fast loading.
- 4 jaw coupler with ball check, filler nipple for 3-way loading.

Standard Model			
Part Number	Extension	Capacity	Air Motor
L1455	Straight Rigid & 12" Flex	15.75 oz	40:1 Ratio

Heavy-Duty Models			
Part Number	Extension	Capacity	Air Motor
L1550	Straight Rigid	15.75 oz	60:1 Ratio
L1555	12" Flex		

\* Heavy-duty models include O-ring, heavy-duty rod, spring & follower.

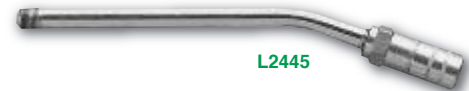
Grease Gun Adapters & Extensions



Grease Injector Needle	
Part Number	Notes
L2100	For Sealed Bearings & U-Joints



6" Straight Rigid Extension With 4 Jaw Coupler	
Part Number	Notes
L2435	Standard 1/8" NPT



6" Angled Rigid Extension With 4 Jaw Coupler	
Part Number	Notes
L2445	Standard 1/8" NPT



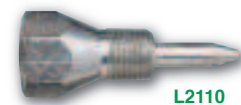
6" Straight Rigid Extension	
Part Number	Notes
L2430	Standard 1/8" NPT



6" Angled Rigid Extension	
Part Number	Notes
L2440	Standard 1/8" NPT



7" Angled Rigid 360° Swivel Extension With 4 Jaw Coupler	
Part Number	Notes
L2455	Standard 1/8" NPT



Needle Point Grease Coupler	
Part Number	Notes
L2110	Dispense A Fine Line In Hard To Reach Areas

## APPLICATION TOOLS & ACCESSORIES

### Grease Gun Adapters & Extensions (cont'd)

L2130



#### Seal-Off Coupler

Part Number	Notes
L2130	Ideal For Greasing Plugs, Spindles Etc.



L2420

#### 360° Thread Swivel Adapter

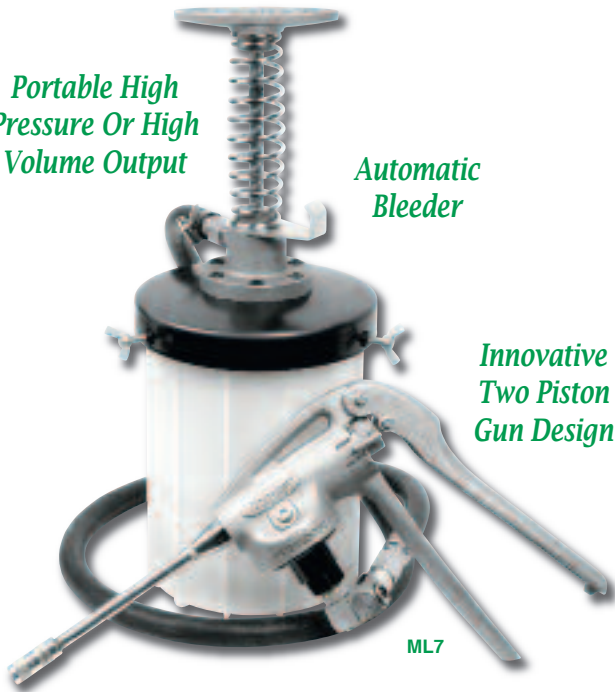
Part Number	Notes
L2420	For 1/8" NPT Extensions

### MegaLube® High Pressure Manual Grease Pump

*Portable High Pressure Or High Volume Output*

*Automatic Bleeder*

*Innovative Two Piston Gun Design*



ML7

- Megaboost variable stroke design can be set for high volume-low pressure or low volume-high pressure (at 10,000 PSI).
- Rubber edged follower plate prevents air locks and decreases grease waste (22 shots per prime).
- Heavy-duty primer assembly also doubles as carrying handle.
- Ergonomically designed gun grip for one or two handed use.
- Rugged one piece aluminum gun housing.

#### Includes:

Heavy-Duty Plunger Assembly, Megaboost Grease Gun, Dent Proof 7lb Grease Container, Z-Swivel, 10' Rubber Grease Hose & 4 Jaw Coupler

Part Number	Grease Capacity	Volume Per Stroke	Max. Pressure	Grease Type	Weight
ML7	7 lb, 1 gal	1 Ounce	10,000 PSI	NLGI 1 & 2	8.2 lbs (3.7 kgs)

### Super-Lube® High Pressure Manual Grease Pump



K3

- Patented two-way system delivers grease at 10,000 PSI.
- Fully sealed system ensures contaminant, air pocket free greasing\*.
- Includes 10' hose & rubber edged follower plate.
- Primer is depressed by hand & loads for 60 shots of grease.

\* If air pockets occur unit is designed to pump air out - avoiding air locks.

Part Number	Capacity
K3	35 lb (15.9 kg) Pail

### Maxi-Lube® High Pressure Pneu. Grease Pump

*Convenient 360° Swivel Assembly*



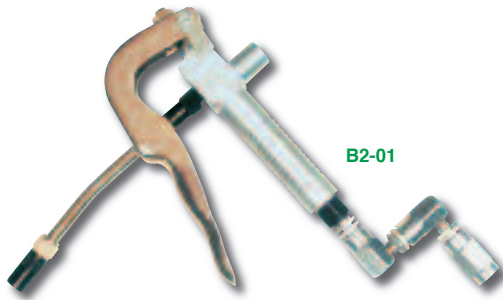
P6

- Corrosion resistant oilless air motor delivers grease at 10,000 PSI.
- Fully sealed system ensures contaminant, air pocket free greasing\*.
- Features booster gun with 3 jaw super grip coupler.
- Includes 13' grease hose & follower plate assembly.

\* If air pockets occur unit is designed to pump air out - avoiding air locks.

Part Number	Capacity
P3	35 lb (15.9 kg) Pail
P6	120 lb (54.4 kg) Drum

Grease Pump Control Guns



- Includes 3 jaw super grip coupler.
- Booster gun greasing pressure to over 10,000 PSI on demand.

Standard	
Part Number	Type
B2	Booster Gun
B3	Control Gun

With Z-Swivel 360° Assembly	
Part Number	Type
B2-01	Booster Gun
B3-01	Control Gun

Z-Swivel Assembly

For Grease Pump Control Guns



Part Number	Description
ZSB	360° Z-Swivel

Grease Hoses



Note: Some models available in bulk, please inquire.

Standard	
Part Number	Overall Length
L2200	12" (30.4 cm)
L2205*	12" (30.4 cm)
L2210	18" (45.7 cm)
L2220	24" (60.9 cm)

\* L2205 includes 3-Jaw Coupler.

With Spring Guard	
Part Number	Overall Length
L2200SP	12" (30.4 cm)
L2210SP	18" (45.7 cm)
L2230SP	36" (91.4 cm)

High-Pressure Grease 'Whip' Hoses



5,000 PSI working pressure - 20,000 PSI burst pressure.

Standard	
Part Number	Overall Length
L2250	12" (30.4 cm)
L2260	18" (45.7 cm)

With Quick Connect & 3-Jaw Coupler	
Part Number	Overall Length
L2256	16" (40.6 cm)
L2266	22" (55.8 cm)

High-Pressure Grease Hose

1/4" NPT

Grease hose extension for all maxi-lubes.



Part Number	Overall Length
LH1414414	12' (3.5 m)
LH1430014	25' (7.5 m)

3 Jaw High-Pressure Grease Coupler

Equipped with ball check to prevent pressure loss.



Part Number	Description
L2020	3 Jaw Grease Coupler

Zerk Extractors



Easy Removal Of Broken NPT Threads

Part No.	Use
L5960	Taps 1/4" NPT, Wrench Fits 5/16" & 3/8" Hex
L5970	Taps 1/8" NPT, Wrench Fits 7/16" & 3/8" Hex

# APPLICATION TOOLS & ACCESSORIES

## Grease Fitting Assortments



L5900



L5910

### Standard 8 PC Includes:

1/4"-28 Fittings: (4) Short Straight (2) 45° & (2) 90°

Part No.	Use
L5900	Replacing damaged fittings, converting from plugs.

### Metric 8 PC Includes:

6MM x 1MM Fittings: (4) Short Straight, (2) 45° & (2) 90°

Part No.	Use
L5910	For domestic & foreign cars & trucks.



L5950

### Standard 83 PC Includes:

1/4"-28 Fittings: (18) Short Straight, (10) 45° & (10) 90°

1/8" MNPT Fittings: (25) Short Straight, (10) 45° & (10) 90°

Part No.	Use
L5950	Most popular sizes with refillable plastic box.

## Aviation Lube Kit



- Create custom setups for almost any situation.
- Includes one of each accessory listed below, case & parts list.

Part Number	Description
ACK2	Complete 14 PC Kit

### Replacement Accessories

Part Number	Description
KY	Standard Supergrip Coupler
KDN	90° Needlepoint Coupler
KDS	90° Limited Access Coupler
KZHY	Hypodermic Needlepoint Coupler
KZDXL	Straight Needlepoint Coupler (4-1/4")
KZLNJ	'J' Needlepoint Coupler (12")
KZLNS	Straight Needlepoint Coupler (12")
KZLNR	90° Needlepoint Coupler (12")
KZLN45	45° Needlepoint Coupler (12")
KZSNR	90° Needlepoint Coupler (4-1/4")
KDE8	Rigid Extension (8")
KDF21	Flex Extension (21")
J65	Filler Nozzle Adapter

## Suction Gun



- Heavy-duty double lipped follower.
- Positive grip handle & flexible vinyl hose.

Part Number	Capacity
L1700	16 oz

**Tap & Hexagon Die Kit**

*High-Carbon Steel Taps & Hexagon Dies*



**Includes:**

Offset Adjustable Handle Tap Wrench (0 to 1/2"), Plain Die Stock, Tap & Dies (1/4"-20, 1/4"-28, 5/16"-18, 5/16"-24, 3/8"-16, 3/8"-24, 7/16"-14, 7/16"-20, 1/2"-13 & 1/2"-20), 1/8"-27 Pipe & Plastic Storage Case

Part Number	Description
24614	Complete 24 PC Kit

**Tap & Adjustable Round Die Kit**

*High-Carbon Steel Taps & Adjustable Round Dies*



**Includes:**

T-Handle Tap Wrench (0 to 1/4"), Adj. Handle Tap Wrench (0 to 1/2"), Adj. Die Stock, 18 Leaf Thread Pitch Gauge, Screwdriver, Tap & Dies (4-40, 6-32, 8-32, 10-24, 10-32 & 12-24), Fractional Tap & Dies (1/4"-20, 1/4"-28, 5/16"-18, 5/16"-24, 3/8"-16, 3/8"-24, 7/16"-14, 7/16"-20, 1/2"-13 & 1/2"-20), 1/8"-27 Pipe & Plastic Storage Case

Part Number	Description
25914	Complete 39 PC Kit

**Tap & Drill Kit**

- High carbon steel taps & high speed steel drill bits.
- Produces a strong thread that is easy to tap.
- 135° split point drill bits for fast, precise drilling.



**Includes:**

T-Handle Tap Wrench, Tap & Drills (4-40, 6-32, 8-32, 10-24, 10-32 & 1/4"-20) & Plastic Storage Case

Part Number	Description
80187	Complete 13 PC Kit

**Machine, Fractional & Metric Tap & Hex Die Sets**

*Comprehensive & Portable*



26377

**76 PC Set Includes:**

Machine Screw Plug Tap & 5/8" Hexagon Dies (4-40 NC, 6-32 NC, 8-32 NC, 10-24 NC, 10-32 NF, 12-24 NC), Fractional Plug Tap & 1" Hexagon Dies (1/4"-20 NC, 1/4"-28 NF, 5/16"-18 NC, 5/16"-24 NF, 3/8"-16 NC, 3/8"-24 NF, 7/16"-14 NC, 7/16"-20 NF, 1/2"-13 NC, 1/2"-20 NF), Metric Plug Tap & 5/8" Hexagon Dies (3mm-0.50, 4mm-0.70, 4mm-0.75, 5mm-0.80, 5mm-0.90, 6mm-1.00), Metric Plug Tap & 1" Hexagon Dies (7mm-1.00, 8mm-1.00, 8mm-1.25, 9mm-1.00, 9mm-1.25, 10mm-1.25, 10mm-1.50, 11mm-1.50, 12mm-1.50, 12mm-1.75), Pipe Thread Plug Tap & 1" Hexagon Dies (1/8"-27 NPT, 1/8"-28 BSP), Threading Tools: Adjustable Die Stock (1" Dies), Plain Die Stock (5/8" Hexagon Dies), Adj. Handle Tap Wrench (#0 to 1/2"), Two-in-One Tap Wrench (1/4" to 1/2"), T-Handle Wrench (#0 to 1/4"), Thread Pitch Gauges (16 Leaf Metric & 18 Leaf Standard), Fitted Carrying Case

Part Number	Description
26376	Complete 76 PC Kit

**117 PC Includes:**

All tools in the above kit, Drill Bits (Wire Gauge #3, 7, 9, 16, 19, 20, 21, 25, 29, 30, 36, 39, 43, Letter B, F, H, I, J, O, Q, R, S, U, Z, Fractional 5/64", 7/64", 5/32", 1/4", 19/64", 5/16", 21/64", 3/8", 25/64", 13/32", 27/64", 29/64"), Spiral Flute Screw Extractors (EX-1, EX-2, EX-3, EX-4, EX-5)

Part Number	Description
26377	Complete 117 PC Kit

# SHOP TOOLS

## IRWIN® Tap Wrench



Made In The USA

- Spring tension sliding handle is only 3-3/4" in overall length - perfect for hard to reach areas.
- Hardened for longer life and smoother operation.
- Stepped recess for #0 to #10.

Part Number	Tap Capacity
12001	#0 to 1/4" (6.35 mm)

## Sioux® Pneumatic Tappers



Rapid Reverse

STP10P3C20

Note: Air Inlet 1/4" NPT - 3/8" (10 mm) air hose recommended.

1.0 hp (0.75 kW), 400 in.-lb Torque (45 Nm)				
Part Number	Chuck Cap.	Free RPM	O.A.L.	Weight
STP10P3C20	#10-5/16"	300	7.3" (185 mm)	2.9 lbs (1.3 kgs)
STP10P3C32	1/4"-1/2"			

## Carbide Broken Tap Remover Kit



- Tough sub-micron carbide easily cuts through hardened HSS taps of any style (straight flute, spiral flute etc.).
- Will also drill through broken bolts, drills, pins etc.
- Quickly removes broken taps with simple four step process.
- For use on conventional or CNC milling machines.

Part Number	Description
97-320-6	Complete 8 PC Kit

## Drill-Out Broken Bolt Extractors



Style A

Style B

Quick & Easy

- Removes broken bolts & studs without damaging threads.
- High quality H.S.S., heat treated & precision ground.
- Suitable for removal of inch as well as metric broken studs.

### Style A

- Special left-handed drill bits with unique extractor collet, conveniently use with any reversible power drill.

### Style B

- Reversible combination tool with drill-out bit on one end & extractor on the opposite end.

Style A		Style B	
Part Number	Removes	Part Number	Removes
97-526-8	1/4" & 6 mm	97-576-3	#5, #6 & 3 mm
97-527-6	5/16" & 8 mm	97-577-1	#8 & 4 mm
97-528-4	3/8" & 10 mm	97-578-9	#10 & 5 mm
97-529-2	1/2" & 12 mm	97-579-7	1/4" & 6 mm



97-580-5

### Extractor Kit

- Includes seven extractors (#5 to 1/2" range) & fitted case.

Part Number	Description
97-580-5	Complete 8 PC Kit

## El Brutus® "Johnson Bar" Screw Extractor

Note: Bits & ratchet not included.



96380

Accessory  
Compartment  
In Handle

Used On Tip Caps  
For Copters

Folds Up For Easy Storage

- Heat-treated, plated & built for a lifetime.
- Works on Phillips, Tri-Wing & Hi-Torque screws.
- Chosen to standardize aircraft & missile maintenance DOD wide.

Part No.	For Screws	Weight	Overall Length
96380	#8 to 1/4"	3.2 lbs (1.4 kgs)	17" (43.2 cm)
96560	1/4" to 3/8"	4.5 lbs (2.0 kgs)	18-3/4" (47.4 cm)

Note: 96380 NSN number: 5120-01-398-2869, 96560 NSN number: 5120-01-398-2868.

**Irwin® Screw Extractors**



**Straight Flute**

ST-6

- Designed for softer & thin walled materials.
- Eases extraction because it does not expand material.
- Removes both left & right hand threaded parts.

Part No.	Drill Size	Removes Bolts & Screws
ST-1	9/64"	3/16" - 5/16", 5 - 8 mm, #10
ST-2	3/16"	3/8", 10 mm
ST-3	15/64"	7/16", 1/8" NPT, 1/8" BSP, 10 mm
ST-4	5/16"	1/2" - 9/16", 1/4" NPT, 1/4" BSP, 12 - 14 mm
ST-5	3/8"	5/8", 3/8" NPT, 3/8" BSP, 16 mm
ST-6	15/32"	3/4", 1/2" NPT, 1/2" BSP, 20 mm



**Spiral Flute**

EX-6

- Designed to remove broken studs, bolts, screws & fittings.
- Aggressive left hand spiral design for extra gripping power.

Part No.	Drill Size	Removes Bolts & Screws
EX-1	5/64"	3/32" - 5/32", 2.5 - 4 mm, #3 - #6
EX-2	7/64"	5/32" - 7/32", 4 - 6 mm, #6 - #12
EX-3	5/32"	7/32" - 9/32", 6 - 8 mm, #12
EX-4	1/4"	9/32" - 3/8", 1/8" NPT, 1/8" BSP, 8 - 10 mm
EX-5	19/64"	3/8" - 5/8", 3/8" NPT, 3/8" BSP, 10 - 16 mm
EX-6	13/32"	5/8" - 7/8", 3/8" NPT, 3/8" BSP, 16 - 22 mm

**Irwin® Screw Extractor Sets**



70258



70254

**Straight Flute Set**

- Extractors will not expand material removed (easier removal).

**Spiral Flute Set**

- Extractors have an aggressive left hand spiral for extra power.

Straight Flute	Spiral Flute	Extractors Included
70258	70252	#2, 3, 4 & 5
70260	70254	#1, 2, 3, 4 & 5
70262	70256	#1, 2, 3, 4, 5 & 6

**Irwin® Spiral Flute Extractor & Drill Bit Set**



- Aggressive left hand spiral for extra power.
- Each extractor is paired with the correct size cobalt drill bit.

Part No.	Extractors Included	Cobalt Drill Bits Included
70245	#1, 2, 3, 4 & 5	5/64", 7/64", 5/32", 1/4" & 19/64"

**Sureshot Sprayer**

*Air Powered  
Aerosol Alternative*

- Refillable, rechargeable & completely portable.
- Perfect for lubricants, cleaners, solvents, penetrating oils etc.\*

*Made In The USA*



\* Not for use with flammable liquids. Not recommended for paint.

Part Number	Capacity
70043	32 oz.

**Paint Cutters & Arbors**

90425



70420



- Cuts a ring into paint around the screw head.
- Reduces excess paint chip during screw removal process.
- Straight shank arbors are 1/4"-28 female thd., 3/8" body dia.

Cutters, 1/4"-28 Thd. Shank	
Part Number	Screw Size
70420	#4
70422	#6
70424	#8
70426	#10
70428	1/4"

Arbors, 1/4" Straight Shank		
Part Number	Body Length	Shank Length
90425	2"	7/8"
90426	4"	7/8"
90427	6"	7/8"

**Acid Swab Brushes**

*Economical & Versatile*

*Stiff Horsehair Fill*



Part Number	Brush Width	Overall Length
11131	3/8"	6-1/32" (153 mm)
13132	1/2"	6-1/16" (154 mm)

## SHOP TOOLS

### Heavy-Duty Wet/Dry Vacuums

*High Vacuum  
Lift With No  
Moving Parts*



*Dependable,  
Trouble Free  
Operation*

*Use Standard  
30 Or 55  
Gallon Drums\**

- Extremely powerful - designed to handle tough jobs quickly.
- Additional accessories & options available, please inquire.

#### Vacuum Heads Include:

Vacuum Generating Head, Cartridge Filter, 20' Vinyl Vacuum Hose, 12" Wet/Dry Metal Floor Tool with 4" Wand & 24" Long Crevice Tool

Vacuum Heads				
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Shipping Weight
15-551B	55 Gallon	2"	89 SCFM	60 lbs (27 kgs)
15-551D	55 Gallon	1-1/2"	60 SCFM	52 lbs (24 kgs)
15-301B	30 Gallon	2"	89 SCFM	55 lbs (25 kgs)
15-301D	30 Gallon	1-1/2"	60 SCFM	49 lbs (22 kgs)

Dual Venturi Vacuum Head				
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Shipping Weight
15-552B	55 Gallon	2"	163 SCFM	55 lbs (25 kgs)

#### Complete Vacuum Kits Include:

Vacuum Generating Head, Cartridge Filter, Drum, Drum Dolly, 20' Vinyl Vacuum Hose, 12" Wet/Dry Metal Floor Tool with 4" Wand, 24" Long Crevice Tool & 20' Air Supply Hose (3/4")

Complete Vacuum Kits				
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Shipping Weight
15-551BC	55 Gallon	2"	89 SCFM	121 lbs (55 kgs)
15-301DC	30 Gallon	1-1/2"	60 SCFM	97 lbs (44 kgs)

Dual Venturi Complete Vacuum Kit				
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Shipping Weight
15-552BC	55 Gallon	2"	163 SCFM	138 lbs (63 kgs)

Note: 3/4" Air Inlet, 100 PSI Air Pressure. \* Minimum 19 gauge drum required.

### Compact Heavy-Duty Vacuum Kits

*Dependable,  
Trouble Free  
Operation*



15-O41MC

#### Compact Vacuum Kits Include:

Vacuum Generating Head with Exhaust Silencer & Carrying Handle, Cartridge Filter, Canister Style Drum with External Filter, 10' x 1-1/4" Vacuum Hose, Surface Utility Tool with Extension Wand, Crevice Tool & 12' Air Supply Hose (3/8" I.D.)

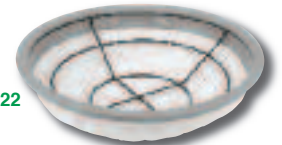
Compact Vacuum Kits				
Part Number	Drum Size	Hose Fitting	Vacuum Flow	Shipping Weight
15-O41MC	4 Gallon	1-1/4"	56 SCFM	26 lbs (12 kgs)
15-O81MC	8 Gallon	1-1/4"	61 SCFM	34 lbs (15 kgs)

### Vacuum Accessories



15-822

15-635



15-635-B



For 4 & 8 Gallon Vacuums	
Part Number	Description
15-805	4 Gallon Standard Filter Assembly (incl. filter frame & cloth internal filter with gasket)
15-822	8 Gallon Standard Filter Assembly (incl. filter frame & cloth internal filter with gasket)

For 30 & 55 Gallon Vacuums	
Part Number	Description
15-635	Standard Cartridge Filter
15-635PK	Standard Cartridge Filter (package of six)
15-635-B	Internal Filter Bag (for maximum filter life & performance)



**USATCO Supersonic Air Vac**



- No moving parts to burn out.
- Safe, non-electric power source. *Lightweight & Economical*
- Lightweight (only 1 lb) & heavy-duty one piece construction.

Part Number	Accessories Included
53-A1080	Round Brush, Slim Crevice Tool & 5" Wide Nozzle
53-A1082	18" Flex Hose Extension
53-A1092	Round Brush, Crevice Tool & 18" Rigid Ext. Wand



Air Vac Accessories	
Part Number	Description
15-AVA-11	Round Brush
15-AVA-12	Crevice Tool
15-AVA-13	5" Wide Nozzle
15-AVA-14	18" Rigid Extension Wand
15-AVA-15	18" Flex Hose Extension
38-AVP8	Replacement Bag
38-AVP2-B	Fully On Air Flow Plug*

\* Useful where on-off control is done with a remote.

**USATCO Supersonic Junior Air Vac**



- Locking trigger.
- Lightweight (8.5 oz) venturi design with 1" I.D.
- 18" flex hose included.
- 1/4" air inlet.

Part Number	Description
15-1580	Junior Air Vac with 18" Flex Hose
38-1580-1	Replacement Bag

**Mini Air Vac**

*One Piece Aluminum Construction*



- Locking trigger.
- Lightweight (8.5 oz), venturi type design with 1" I.D.
- Hose included. 1/4" air inlet.

Part Number	Description
15-1780	Mini Air Vac with 18" Flex Hose
15-1980	Mini Air Vac with 12" Rigid Hose
15-2180	Mini Air Vac with Hepa Filter Bag & 12" Rigid Hose
38-1580-1	Replacement Bag

**Cyclo® Orbital Aircraft Polishers**

*Exceptional Stability & Smoothness*

*Lightweight & Durable*



*Will Not Mar, Burn Or Leave Swirl Marks*

- Counterbalanced heads efficient in both open & tight areas.
- Dual 4" orbital action heads & heavy-duty cast alum. housing.
- Polishing motion simulates a gentle hand-rubbed quality.

3200 RPM - 7.25 lbs (3.3 kgs)	
Part Number	Motor
5	115V - 60 Hz
5CE	230V - 50 Hz (CE approved)
11A	0.45 hp Pneumatic

**USATCO Decimal Conversion Charts**

*Quick & Convenient*

90389

Handy reference charts showing the decimal conversion of fractional, wire gauge, metric & letter sizes (0.1 mm to 1"). Poster also includes useful tap and drill conversion charts.

Part No.	Type	Size
90389	Pocket Card	3-1/8" x 5"
90396	Poster	22" x 32"



## SHOP TOOLS

### E-Z Grip Friction Drops

#### Easy To Use, No Waiting

- Instant traction to lock on to stripped or worn fastener heads for easy removal.
- Eliminates cutting, chiseling or drilling.
- Extends your tool life & keeps fastener heads from stripping.
- Non-toxic, contains no silicones.
- Conforms or exceeds applicable ASTM testing requirements.



Part Number	Size
70390	3 Ounce Squeeze Bottle

### Boelube® Lubricant

- High-strength polar lubricating film reduces friction & heat generation.
- Greatly improves tool life, surface finish & hole quality.
- Superior lubricity when machining aluminum, titanium and inconel.
- Non-corrosive, non-flammable and chemically stable, with no hazardous substances.



70307-L

Part Number	Size	Color	Type
70200-00	14.5 Oz. Cartridge	White	Solid
70200-13	1.6 Oz. Push Tube	White	
70200-40	3.5 Oz. Push Tube	White	
70307-02	2 Oz. Jar	Blue / Soft	Paste
70307-L	4 Oz. Jar	Blue / Soft	
70307-12	12 Oz Jar	Blue / Soft	
70305-12	12 Oz Jar	Pink / Hard	Liquid
70104-04	1 Gallon Container	Red	
70104-05	5 Gallon Pail	Red	
70104-07	15 Gallon Drum	Red	
70104-09	55 Gallon Drum	Red	
70090-L	4 Oz Bottle	Clear	

### Boelube Lubricator Bottle

Very Handy



Fits Easily In Pocket Or Toolbox

Insert any drill, tap or reamer (non-rotating) into the 1/4" opening at the top of the bottle for quick & easy lubrication.

Part Number	Type
70104-HHL	Red Liquid

### Variable Speed Vertical Bandsaws



Heavy-Duty Steel Frame

Multi-Tilting Work Table

VBS-1408

- Designed for cutting of both ferrous & non-ferrous metals.
- Heavy-duty, completely enclosed steel frame.
- Large, multi-tilting work table.
- Variable speed two speed gearbox offers high efficiency cutting.

#### All Models Include:

Work Lamp, Chip Blower, Workpiece Guide, Blade & Tire Cleaning Brush, Tool Set, Bi-Metal Blade, Blade Welder, Grinder & Cutter

Specifications	VBS-1408 & VBS-1610	VBS-2012
Motor Power	1.5HP, 115/230V, 1Ph, Pre-wired 115V	2HP, 230/460V, 3Ph, Pre-wired 230V
Blade Speed	82 to 330 SFPM	65 to 3280 SFPM
Height Cap.	8"	12"
Blade Size	1/8" to 1/2" x 114"	1/8" to 1" x 156-1/2"
Work Table Size	20" x 20"	24" x 22-1/2"
Welder	1.5 KVA	4-13/64 KVA
Overall Height	71.5" (181.6 cm)	84" (213.4 cm)
Weight	643 lbs (292 kgs)	1244 lbs (564 kgs)

Part Number	Description
VBS-1408	14" Vertical Bandsaw
VBS-1610	16" Vertical Bandsaw
VBS-2012	20" Vertical Bandsaw

20" Variable Speed Drill Press

*UL Listed Motor*

- Variable spindle speed easily changed with front mounted dial.
- Large, T-slotted work table with quick release clamp.
- Internal depth stop with easy to read depth gauge.
- Conveniently located operating controls.



**Specifications**

Motor Power	1.5HP, 115/230V, 1Ph, Pre-wired 230V
Spindle Speed	300 to 2000 RPM
Drilling Capacity (iron)	1-1/2"
Drilling Capacity (mild steel)	1-1/4"
Work Table Size	22" x 19-1/2"
Work Table Weight Capacity	110 lbs
Overall Height	68" (172.7 cm)
Weight	715 lbs (324 kgs)

Part Number	Description
J-2221VS	20" Variable Speed Drill Press

Heavy-Duty Arbor Presses

*For All Production & Assembly Operations*

- Precision cut steel rams & pinions for accurate operation.
- Tables and slotted table plates are flat & parallel to provide accurate support.



Part No.	Pressure	Capacity	Height	Weight
AP-0	0.5 ton	4" High 6-5/8" Dia.	10" (25.4 cm)	19 lbs (8.6 kgs)
AP-1	1.0 ton	5" High 8" Dia.	12" (30.5 cm)	26.5 lbs (12 kgs)
AP-2	2.0 ton	7-3/8" High 11-3/8" Dia.	16-1/4" (41.3 cm)	61 lbs (27.7 kgs)

Portable Vise With Vacuum Base & Tilt Head

*Highly Maneuverable*

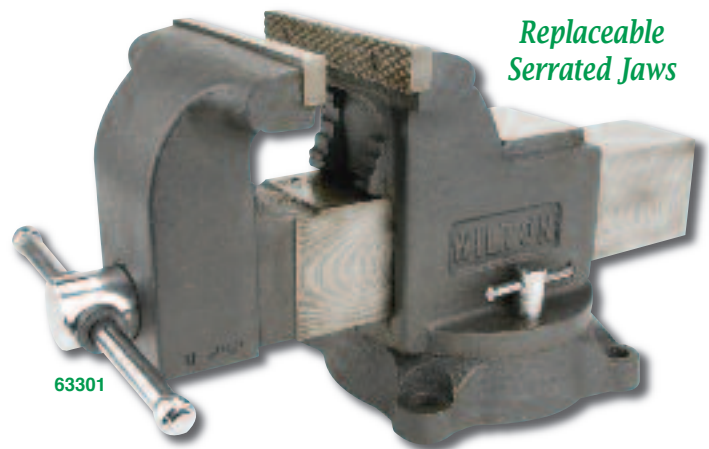


- Lightweight & portable - mounts on any clean, flat surface.
- Cast aluminum body with 360° swivel base & 180° tilt head.
- Steel V-grooved jaws with removable rubber jaw faces.

Part Number	Jaw Width	Jaw Capacity	Weight
63500	2-3/4"	2-1/2"	3.5 lbs (1.6 kgs)

Shop Vises

*Replaceable Serrated Jaws*



- 360° base with double lockdown for quick & easy positioning.
- Built-in pipe jaws handle a variety of pipe sizes.
- Large anvil work surface & rubber pinch point safety guards.

Part Number	Jaw Width	Jaw Cap.	Pipe Jaw Capacity	Height	Weight
63300	4"	4"	5/8" to 2"	6.5" (165 mm)	23.25 lbs (10.6 kgs)
63301	5"	5"	5/8" to 2-3/8"	8.4" (213 mm)	30.05 lbs (13.6 kgs)
63302	6"	6"	5/8" to 2-1/2"	9.7" (246 mm)	45.65 lbs (20.7 kgs)
63304	8"	8"	3/4" to 3"	11.4" (290 mm)	70.40 lbs (31.9 kgs)

## SHOP TOOLS

### Light Duty Spark Guard Face Shield



*Lightweight,  
Comfortable  
& Adjustable*

*Cushioned  
Sweatband*

- Spark guard is positively stopped in working position.
- Room allowance for safety or prescription glasses.

Part Number	Description
90479	Spark Guard Face Shield

### Bruder Safeguard® Knee & Elbow Pads



40150

#### Knee Pads

- Hinged hard cover & velcro straps.

#### Elbow Pads

- Grain leather covered viscoelastic pad & stretch fabric over elbow.

Part Number	Type	Size
40150	Knee Pads (pair)	One Size Fits All
40311S	Elbow Pads (pair)	Small
40311M	Elbow Pads (pair)	Medium
40311L	Elbow Pads (pair)	Large

### Protective Rubber Gloves



*Rolled  
Edge*

For use with acids, alkalis, salts & ketones.

Part Number	Overall Length
96856	14" (356 mm)

### Impacto® Hand Protection



471-30

401-30

475-30

*Perfect For  
Riveting*

- 1/8" viscoelastic pads insulate wearer from impact & vibration.
- Available in sizes XS, S, M, L & XL (please specify when ordering\*).

\* It is best to order 1 size smaller than your normal size.

Part Number	Padding	Construction
401-30	Full Palm	Kidskin
471-30	Full Palm To Wrist	Kidskin
475-30	Full Palm, Web & Wrist	Kidskin

### Hearing Protection

90441



90440



#### Ear Plugs

- One size fits all soft silicone rubber effectively seals the ear.
- Can be boiled or sterilized for proper cleaning.

Part Number	Includes
90441	Ear Plugs & Carrying Case

#### Ear Covers

- Rugged & comfortable, with swivel earcup construction.
- Universal fit, contoured earcups for use with safety hats, etc.

Part Number	Weight
90440	8 oz (227 g)

**Safety Goggles**

- Polycarbonate lenses exceed USAS & federal specifications for impact resistance. Sub-freezing to 275°F temp range.
- Comfortable soft vinyl body fits over prescription glasses.
- Meets all optical standards for prism, power & definition.



Part Number	Description
90460	Safety Goggles

**Deluxe Visitor Spectacles**

*High Impact Resistance*



*Distortion Free Lenses*

- Comfortable & lightweight (will fit over prescription glasses).
- Exclusive wraparound side shields & anti-glare brow guard.

Part Number	Description
90455	Visitor Spectacles

**Waterloo® Heavy-Duty 3-Drawer Toolbox**

*Comfort Grip Handle*



*Heavy-Duty, High Impact Polypropylene Construction*

- Non-marring plastic shell with all steel full-extension drawers.
- Lockable lid (lock not included) with metal latches & piano hinge.

Part Number	L x W x H	Weight
62-54405	23" x 10.5" x 13.5"	16 lbs (7.3 kgs)

**Waterloo® Multi-Purpose Toolboxes**



*Comfort Grip Handle*

62-54404

*Will Not Dent Or Rust, No Marring Of Work Surface*

*Heavy-Duty, High Impact Polypropylene Construction*



62-54406



- Lightweight & portable, a popular alternative to metal toolboxes.
- Removable plastic tote tray included with both models.
- Lockable lid (lock not included) with metal latches & piano hinge.

Part Number	L x W x H	Weight
62-54404	17" x 9.5" x 9"	4 lbs (1.8 kgs)
62-54406	20" x 9.5" x 9"	5 lbs (2.3 kgs)

**Mechanics Canvas Tool Bags**



*Hard Fiber Bottom*

62-279

- Large brass zippered main compartment.
- Inside dividers & two outside snap accessory compartments.
- Heavy-duty rugged cotton web carry handles.

Part Number	Color
62-279	Black
62-280	Green

# SHOP TOOLS

## Waterloo® Shop Tool Chests



62-54407  
(top)



62-70433  
(bottom)

**Steel Construction**

- Internal keyed locking system protects valuable tool collections.
- Full extension ball bearing drawer slides hold 25 lbs per drawer.
- Made in the USA with global components - 1 year limited warranty.

### 5-Drawer Tool Chest (top)

- Hinged cover stay holds lid open during use.

Part Number	L x W x H	Weight
62-54407	26" x 12" x 17-1/2"	46 lbs (20.9 kgs)

### 5-Drawer Rolling Tool Chest (bottom)

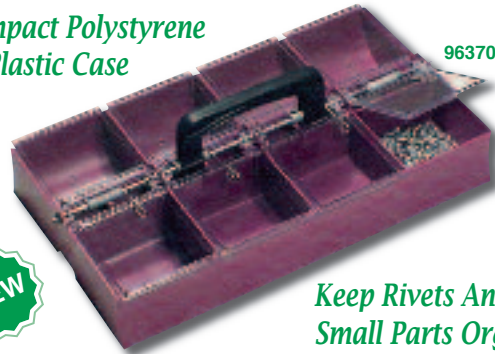
- Sturdy 4" x 2" casters support up to 500 pounds.
- Top mat protects surface.

Part Number	L x W x H	Weight
62-70433	26-1/2" x 18" x 32"	73 lbs (33.1 kgs)

## Fastener Storage Cases

**High Impact Polystyrene Plastic Case**

96370



**Keep Rivets And Other Small Parts Organized**

- See-through & spring loaded compartment covers.
- Curved tray bottoms for quick and easy part removal.

Part No.	Sections	L x W x H	Part No.	Sections	L x W x H
96365	2	12-3/8" x 7-1/4" x 2"	96368	5	12-3/8" x 7-1/4" x 2"
96366	3		96369	6	
96367	4	6-3/8" x 7-1/4" x 2"	96370	8	

## Air Scribe Kit

**Lightweight & Easy To Operate**



CP9361-1

**Write On Material Up To 64R Hardness**

**Writes Like A Ballpoint Pen**

- Simple piston supplied power for trouble free use.
- Change of stylus converts tool to scaler or hammer.
- Graduated sleeve throttle permits accurate power selection.

### Complete Kit Includes:

Air Scribe, Anvil, Flat Chisel, Chisel Blank, Round Nose Chisel, 2 Carbide Tipped Stylus, 8' Air Hose (3/16" ID), Air Filter Assembly & Carrying Case

Part Number	Description
CP9361-1	Complete 10 PC Kit
CP9361	Air Scribe, Stylus, Hose & Filter Ass'y Only

### Replacement Parts Kit Includes:

Anvil, Flat Chisel, Chisel Blank, Rounded Nose Chisel, Carbide Tipped Stylus & Two 'O' Rings

Part Number	Description
P058425	Complete 7 PC Kit
P054177	Carbide Tipped Stylus Only

**Fixed Two Point Machinist Scriber**

*Durable Hardened & Ground Points*



- Knurled body with hardened & ground steel needle points.
- One straight point & one 90° point.

Part Number	Overall Length
80	6-7/16" (214 mm)

**Hand & Stamp Sets**

- Suitable for use on steel, cast iron & other metals.
- Hardened & tempered tips.

*Made In The USA*

Number Sets (1 to 9)	Letter Sets (A to Z & Dot)	Character Size
HSN-1/16	HSL-1/16	1/16"
HSN-3/32	HSL-3/32	3/32"
HSN-1/8	HSL-1/8	1/8"
HSN-3/16	HSL-3/16	3/16"
HSN-1/4	HSL-1/4	1/4"
HSN-3/8	HSL-3/8	3/8"
HSN-1/2	HSL-1/2	1/2"



HSN-3/32

**Cordless Electric Kevlar Scissor Kit**



*Carbide Blades*

- Cuts aramid fibers, kevlar and other tough materials.
- Lightweight & maneuverable with superior ergonomic design.
- Short rapid strokes for intricate work & long lasting battery.

**Includes:**

Tool, Standard Blade Assembly (for straight, quick cuts), Blade Assembly with Shoe (for patterns & fabric), Rechargeable DC Battery, Battery Charger, AC Adaptor & 110V Transformer with Power Cord

**Note:** Not recommended for material over 1/8" thick due to short stroke.

Part Number	Description
70224	Complete 7 PC Kit



94126



94128

Replacement Blade Assemblies	
Part Number	Description
94126	Standard Blade Ass'y (for straight, quick cuts)
94128	Blade Ass'y with Shoe (for patterns & fabric)

**Leatherman Multi-Purpose Tools**

*Limited Warranty & 25 Year Guarantee*



70289

*100% Stainless Steel*



71136

*Leather Case Included*



71138

*Made In The USA*

**NEW Super Tool 300 Includes:**

Needlenose Pliers; Regular Pliers; Wire Cutters; Hard Wire Cutters; Stranded Wire Cutters; Electrical Crimper; Wire Stripper; Knife; Serrated Knife; Saw; Awl w/Thread Loop, 9" Ruler (22 cm); Can Opener; Bottle Opener; Wood/Metal File; Phillips Screwdriver; Flat Screwdrivers (small, medium & large)

Part Number	Closed Length	Weight
70289	4-1/2" (11.5 cm)	9.6 oz (272 g)

**Wave Includes:**

Needlenose Pliers; Regular Pliers; Wire Cutters; Hard Wire Cutters; Wire Stripper; Knife; Serrated Knife; Saw; Spring Action Scissors, 8" Ruler (19 cm); Can Opener; Bottle Opener; Wood/Metal File; Diamond Coated File; Bit Drivers (small & large), Flat Screwdriver (medium)

Part Number	Closed Length	Weight
71136	4" (10 cm)	8.5 oz (241 g)

**Crunch Includes:**

Regular Pliers; Locking Pliers; Wire Cutters; Hard Wire Cutters; Wire Stripper; Serrated Knife; 8" Ruler (19 cm); Pin Vise; Bottle Opener; Wood/Metal File; 1/4" Hex Bit Driver, Phillips Screwdriver; Flat Screwdrivers (small, medium & large)

Part Number	Closed Length	Weight
71138	4" (10 cm)	6.9oz (196 g)

## A

A-N Elec. Connector Pliers	162
Abrasives	177-185
Abrasive Test Kits	181-184
Acid Swab Brush	229
Adapter Drills	22-23
<b>Air Drills</b>	
Angle Drills	18-20
NutPlate Drill	27
Pancake Drills	5, 20
Pistol Grip Drills	2-5
Air Guns	214
Air Hose	211
Air Line Connectors	212-213
Air Scribe	236
Air Tool Cleaner	213
Air Tool Lubricant	213
Air Tool Power Regulators	30, 213
Alligator Yokes	52
Angle Drill Attachments	6-9
Angle Finder	200
Arbor Press	233
Aviation Snips	156-159

## B

Back Countersinks & Spotfacers	82-83
Bandsaw	232
Bar Nut Fasteners	153
Beading Kit (tube)	195
Belt Sanders	169-170
Bench / Bending Brakes	69-70
Bench Riveters	60

## Bits

Drill	9-16, 22-23, 27, 89
Insert (screwdriver)	140-143
Router	91, 100-101
Blair Hole Cutters	84
Blind Hole Spotter Sets	88

## Blind Riveters

Cherry	102-113
Huck	119-122
Pop	123
Blow Guns	214
Boelube (lubricant)	232
Bolt Extractor	228
Bolt Gauge	202
Bonding Brushes	95
Brakes (sheet metal)	69-70
Break Loose Tool	39
BRFZ Countersinks	79

## Brushes

Acid Swab	229
File Cleaning Brush	176
Pencil End Wire Brushes	185
Pilot Bonding (wire rivet hole)	95
Bucking Bars	41-45
Buffer	231
Buffing Discs	179
Burnishing Tool	92
Burr-Off Tools	94
Burrs	174-175
Burroway Tools	94-95
Bushings (drilling)	25-26

## C

C-Lock Fastener Tools	162
C-Yokes	51-52
Cable Cutters	190
Cable Swagers	190-193
Cable Tensiometers	198-199
Calipers	203-204

Camloc Plier	162
Cannon Plug Plier	162
Carbide Burrs	174-175
Cartridge Rolls (sanding)	180-182
Cartridges (sealant)	216
Cases (storage)	235-236
Caulking Guns	215
Center Punches	86-87
Chamfer Tools (deburring)	92-93
Cherry Tooling	102-118
Chip Chasers	25

## Chisels

.401 Shank	39
Hand	88
Hand (sealant removal)	220-222
Chucking Reamers	10, 17
Chucks (drilling)	5-6
Circle Cutters	85

## Clamps

Angle (90°)	146
'C'	144-145
'F'	145
Lever Lock	149
Locking Plier Type	148, 161
Spring	145-146
Spring Tension	148
Toggle	147-148
Universal	145
Clecos, Cleco Plier	149

## Collar Removal Tools

Hi-Shear	128-130
Rivet Gun Type	37

## Collets

Drill	20-21
Grinder	173
Collet Chucks	20
Composi-Lok Tools	133-134
Composite Tooling	89-91
Cone Jaw Chuck	20
Connects (air hose)	212-213
Conversion Charts	231
Counterbores	79-81
Countersink Cages	76-79

## Countersink Cutters

Standard (micro-stop)	77-79
Diamond Plated	89
Straight Shank	79-80
Countersink Extensions	79
Couplings (air hose)	212-213
Crimpers	159
Cut-Off Tool	99
Cylindrical Body Fasteners	150

## D

Deburring Tools	92-95
Depth Gauge	203
Diamond Plated Tooling	89-91
Die Grinders	171-173
Die Heaters	59
Dimple Die Sets	38, 57, 61
Dimplers	58-59
Dividers	204

## Drills

Angle Drills	18-20
Drill Press	233
NutPlate Drill	27
Pancake Drills	5, 20
Pistol Grip Drills	2-5
Drill Attachments	6-9

## Drill Bits

Acrylic	16
Composite Cutting	89
Extension	13-14
Jobber's	10-12
Left Hand Spiral	16
NutPlate	27
Step Drills	9
Stubby	15
Threaded Shank	22-23
Drill Block	26
Drill Gauges	27
Drill Guides	26, 28

## Drill Jigs

C-Lock	162
Nutplate	28
Safety Wire	189
Tube Drilling	28
Drill Press	233
Drill Sets	8, 16
Drill Stands	25-26
Drill Stops	27
Drilling Lubricant (boelube)	232
Duplicating Punches	88
DZUS (z-lock) Driver	162

## E

E-Z Buck Dies	57
Ear Plugs	234
EI Brutus Screw Extractor	228
Elbow Pads	234
End Plate & Control Upgrade (riv.)	59
English Wheeling Machines	74-75
Engraving Pen	236

## Extensions

.401 Shank	40
Countersink	79
Drilling	6-9
Grease Gun	223-224
Screwdriver Bit	143
Vacuum	231
Extractors (screw)	228-229
Eyewear	235

## F

Face Shield	234
Fastener Storage Cases	236
Fasteners	149-155

## Fastener Installation Tools

C-Lock	162
Cleco / Monogram	149
Cylindrical Body	150
DZUS (z-lock)	162
Hex Body	151, 153
Wing Nut	153
Feeler Gauges	201
File Brush, File Handle	176
Files, Hand	176-177
Files, Nib	175
Files, Rotary	174-175

## Filters

Air Line	213
Vacuum	230
Flap Wheels (sanding)	180-182
Flaring Kit (riveting)	56
Flaring Tools (tube)	193-194
Flashlights	207
Flex Hones	180

## Floor Stands

Rivet Squeezer	51
Shrinker/Stretcher	72
Stationary Riveter	61



Fluorescent Lamps .....206  
 Fluting Pliers .....160  
 Flush Rivet Sets .....32-35  
 Flush Squeezer Sets .....55  
 Foot Control (squeezer) .....50-51  
 Foot Shears .....71  
 Footpiece (countersink) .....76  
 Friction Drops .....232  
 Fuel Tank Repair Kit .....215

**G**

Gasket Cutter .....85

**Gauges**

BACR15FT (countersink) .....79  
 BRFZ (countersink) .....79  
 Bolt .....202  
 Cherry .....118  
 Composi-Lok .....131  
 Countersink .....201  
 Depth .....203  
 Drill .....27  
 Feeler Blade .....201  
 Hi-Shear .....131  
 Inspection Sets .....200-201, 204  
 Riveting .....40  
 Sheet Metal .....200  
 Sleeve Gauges (locoloc) .....191  
 Swaged Terminal .....193  
 Tire .....205  
 Visu-Lok/Jo-Bolt .....131

Gloves .....234  
 Goggles .....235  
 Grease Guns & Access .....223-224  
 Grease Pumps .....224-225  
 Grinders .....170-173  
 Grip Gauges .....131  
 Ground Wire Hole Burnishing Kit .....95

**H**

**Hammers**

Hand .....165  
 Pneumatic .....29-30  
 Stationary (planishing) .....75

Hand Brakes .....69-70  
 Hand Files .....175-177  
 Hand Hydraulic Riveter .....112  
 Hand Rivet Squeezers .....53-54  
 Hand Seamers .....160  
 Hand & Stamp Sets .....237  
 Hardness Testing Set .....204  
 Hearing Protection .....234  
 Heat Guns .....197  
 Hex Body Fasteners .....151-153  
 Hex Keys .....163-164  
 Hex Keys (Hi-Shear) .....127  
 Hi-Lok Tools .....126-130  
 Hi-Shear Tooling .....126-135  
 Hi-Torque Bits .....141-142  
 Hole Burnishing Kit (ground-wire) .....95  
 Hole Cutters .....85  
 Hole Finders .....24-26  
 Hole Punches .....85-86  
 Hole Saws .....83-85, 91  
 Hollow End E-Z Buck Dies .....57

**Hose**

Air .....211  
 Grease .....225  
 Sealant Gun .....216

Hose Couplings .....205, 212-213, 225  
 Huck Tooling .....119-122

Impact Wrenches .....136  
 Inclinometer .....200  
 Injection Gun (sealant) .....216  
 Insert Bits .....140-143  
 Inspection Lacquer .....210  
 Inspection Mirrors .....208-209

**J**

**Jig Saw Blades**

Composite Cutting .....90  
 Standard .....188

Jo-Bolt Tools .....133  
 Johnson Bar .....228

**K**

K-Fast Sockets .....129  
 Kevlar Shears .....159, 237  
 Key Seating Tool .....125  
 Keyless Chucks .....5-6

**Kits (USATCO)**

Angle Drill Attachment Kit .....8  
 Back C'Sink & Spotfacer Kits .....82  
 Blind Rivet / Blind Bolt Kits .....65  
 Composite Kit .....68  
 Counterbore Kits .....80  
 Countersink Cutter Kit .....76  
 Drill Stand Kit .....25-26  
 Flaring Tool Kit (tubing) .....194  
 Glaster Kit .....67  
 Hand Flaring Kit (riveting) .....56  
 Hi-Shear .....130-134  
 Homebuilder's Kits .....61, 66  
 Rivet Gun Kit .....62  
 Rivet Shaver Kit .....96  
 Rivet Squeezer Kit .....65  
 RV Kit .....64  
 Sealant Gun Kit .....215  
 Sheet Metal Kits .....63-64  
 Squeezer Set Kits .....56  
 Student's Kits .....64, 68  
 Wire Twister Kit .....190

Knee Pads .....234  
 Knock-Out Punches .....37-38

**L**

Leatherman Tools .....237  
 Lights .....206-207  
 Line Clamp Pliers .....162  
 Lite-N-ing Punches .....85  
 Lock Chucks .....205  
 Locking Pliers .....161  
 Lube Tools (aircraft) .....226  
 Lubricating Systems (air line) .....213

**M**

Machinist Squares .....202  
 Mallets .....165  
 Manifolds (air line) .....212-213  
 Markers .....210  
 Measurement Kits .....203  
 Measuring Tape .....202  
 Micro-Stop Countersink Cages .....76-79  
 Micrometers .....203  
 Mini Burrs .....175  
 Mirrors .....208-209  
 Mixers (sealant) .....219, 222  
 MO Type Fasteners .....154-155  
 Mufflers (air line) .....213  
 Multitools .....237

**N**

Needle Files .....177  
 Nib Files .....175

**Nibblers**

Hand .....160  
 Pneumatic .....97-98

No-Mar Fasteners .....155

**Notchers**

Stationary .....72  
 Hand .....159  
 Rivnut .....125

Nozzles (sealant) .....216-218  
 Nutplate Drill Jigs .....28  
 Nutplate Drill Motor .....27  
 Nutplate Blind Riveters .....107  
 Nutrunner .....137

**O**

Offset Drill Attachments .....8-9

**P**

Package Mixers .....222  
 Paint Cutters .....229  
 Paint Markers .....210  
 Panel Saw .....186  
 Pencil End Wire Brushes .....185  
 Pencil Grinders .....170-171  
 Phillips Bits .....140-141  
 Pick Sets .....210  
 Pilot Bonding Brushes .....95  
 Pin Protrusion Gauges .....131  
 Pinking Shears .....159  
 Planishing Hammer .....75  
 Pliers .....160-162  
 Plus Type Driver .....124  
 Polisher .....231  
 Pop Tooling .....123  
 Power Booster (rivet squeezer) .....49  
 Power Regulators .....30, 213  
 Pressure Gauges (tire) .....205  
 Protractors .....200  
 Pull Testers (swagers) .....192-193

**Pulling Heads**

Cherry .....114-118 (also 102-112)  
 Huck (nose assemblies) .....119-122

Punch Holder .....88  
 Punches .....85-88  
 Punches & Dies (squeezer) .....57  
 Pyrometer / Thermometer .....209

**R**

**Ratchet Wrenches**

Hi-Shear (hand) .....126-130  
 Hi-Shear (pneumatic) .....133-135  
 Pneumatic .....137

**Reamers**

Chucking .....16-17  
 Hand .....16  
 Threaded Shank .....21  
 Tube Reamer .....197

Reciprocating Saws .....186-187  
 Regulators .....30, 213  
 Retainer Springs .....30  
 Retainers (sealant gun) .....215  
 Retrieving Tools .....207-210  
 Reverse Countersinks & Spotfacers .....82-83  
 Rivet Cutters, Chopper .....41  
 Rivet Fan Spacing Tool .....24  
 Rivet Gauges .....40  
 Rivet Guns .....29-30  
 Rivet Gun Kit .....62  
 Rivet Hole Brushes .....95  
 Rivet Punch-Out Tools .....37-38  
 Rivet Removal Tool (chucking) .....24  
 Rivet Set Adapters .....40  
 Rivet Set Caps .....40

Rivet Sets	31-36	Sealant Mixers	219, 222	Tape Measure	202
Rivet Set Packs	34-35	Sealant Nozzles	216-218	Taper Router	100
Rivet Shavers	96-97	Sealant Removal	219-222	Tapper (pneumatic)	228
Rivet Squeezer Set Kits	56	Sealant Smoothers	219	Temporary Fasteners	149-155
Rivet Squeezer Sets	54-57	Seamers	160	Tensiometers	198-199
<b>Rivet Squeezers</b>		Seat Track Cleaners	184	Threaded Insert Drivers	125
Hand	53-54	Service Kits (Cherry blind riveter)	118	Threaded Shank Adapter Drills	22-23
Pneumatic	46-49	Set Holder (rivet squeezer)	49	Thermometer	209
Rivet Stem Shaver	131	Shank Adapters (rivet guns)	40	Throatless Shear	72
<b>Riveters</b>		<b>Shears</b>		Throttle Guard (rivet squeezer)	49
Blind Riveters (cherry)	102-113	Hand	159	Tight Squeeze Tool (Hi-Shear)	127
Blind Riveters (huck)	119-122	Pneumatic	98-99	Tire Gauges	205
Blind Riveters (pop)	123	Stationary	71	Toggle Clamps	147-148
Rivet Guns	29-30	Throatless	72	Toolboxes	235-236
Rivet Squeezers	46-49, 53-54	Sheet Metal Cutter Kits	84-85	Torque Seal	210
Stationary	59-60	Sheet Metal Fasteners	149-155	Torque Wrenches	138
Riveters Tape	41	Shrinker / Stretchers	72-73	Torq-Set Bits	143
Riveting Gloves	234	Side Grip Fasteners	149	Torx Bits	142
RIVETNUT Drivers	125	Skin Wedge	41	Transfer Punches	88
Roller Ratchet	127	Skinpins	155	Trim Shears	98
Rotary Files	174-175	<b>Skirts</b>		Tri-Wing Bits	143
Rotary Machine	75	Countersink	76	Tube Beading Kit	195
Roughness Testing Set	204	Rivet Shaver	97	Tube Benders, Cutters	195-196
<b>Router Bits</b>		Slip Rolls	70	Tube Flaring Tools	193-194
Composite Cutting	91	Slotted Bits	141	Tube Wrenches	195
Standard	100-101	Snake Drill Attachments	6-7	Turnbuckle Wrench	191
Taper	100	Snap Ring Pliers	138	Tweezers	210
Router Guides	101	Snips	156-159	<b>U</b>	
Routers	99-100	Socket Drive Angle Drill Attachment	8	Upsetters	124
Rubberized Abrasives	182-183	Socket Head Bits	142	Utility Pliers	237
Rulers	202	<b>Sockets</b>		<b>V</b>	
<b>S</b>		Hi-Lok/Hi-Lite Installation	127	Vacuums	230-231
Safety Apparel	234-235	Hi-Lok Collar Removal	128	Vacuum Sanders	167-169
Safety Lever (rivet squeezer)	47	Hi-Lok/Eddie Bolt Collar Removal	128	Valve Core Removal Tool	205
Safety Wire	189	K-Fast 8-Spline	129	Vises	233
Safety Wire Twisters	189-190	Savi-Socket	128	Vise-Grip Pliers	161
Sanders	166-170	Standard (SAE & metric)	164	Visu-Lok Tools	133-134
Sanding Belts	185	Soft Blank Sets (squeezers)	55	<b>W</b>	
Sanding Discs	177-181	Spatulas (sealant)	219	Washer Wrench Set	162
Sanding Drums	184	Spline Drive Keys	164	<b>Wedges</b>	
<b>Sanding Pads</b>		Spotter Sets (blind hole)	88	Non-Marring	185
Diamond (composite)	91	Sprayer (cleaner / lubricant)	229	Skin Wedge (sheet metal)	41
Standard	177	Spring Back Dimple Dies	57	Weld Shaver	97
Sanding Sleeves	184	Spring Dividers/Calipers	204	Wheeling Machines	74-75
Savi-Socket (Hi-Shear)	128	Spring Retainers (rivet guns)	30	Wing Nut Fasteners	153-154
<b>Saws</b>		Squares (machinist)	202	Wire Twisters	189-190
Pneumatic	186-187	Squaring Shear	71	Wrench Type Upsetter	124
Stationary (bandsaw)	232	Squeezer Floor Stands	51	<b>Wrenches</b>	
<b>Saw Blades</b>		Squeezer Sets	54-57	Cylinder Base Nut	163
Composite Cutting	90	Stamp Sets	237	'Ford' Type	163
Hole Saws	83-84, 91	Step Drills	9	Hi-Shear	126-135
Standard	187-188	Stop Countersinks	76-79	Impact	136
Scales	202	Storage Cases	235-236	Ratchet	137
<b>Scissors</b>		Strap Die Heaters	59	Torque	138
Hand	159	Strap Duplicators	24-25	Tube	195
Electric (kevlar)	237	Stretchers (metal)	72-73	Washer Wrenches	162
Pneumatic	99	Strut Gauges	205	<b>Y</b>	
<b>Scrapers</b>		Suction Gun	226	Yokes	51-52
.401 Shank	38	Surface Preparation Discs (abrasive)	179	Yoke Pins	51, 53
Hand	220-222	Swab Brushes	229	<b>Z</b>	
Hand Deburring	92-93	Swaging Tools	190-193	Zerk Extractors	225
Screw Extractors	228-229	Swivel Dimpling Punch & Die	39	Z-Lock (DZUS) Driver	162
Screw Removal Tool (.401 shank)	39	<b>T</b>			
Screwdriver Bits	140-143	Tab Shear	99		
<b>Screwdrivers</b>		Tap & Dies	227-228		
Hand & Ratcheting	138-139	Tap Remover	228		
Pneumatic	139-140	Tap Wrench	228		
Scribers	236-237	Tape (riveting)	41		
Sealant Guns	215	Tape Cutter, Roller	219		

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