

**Tools for Sheet Metalwork Professionals – UK and Worldwide**



# skinpins

Temporary Fasteners  
**NEXT DAY SERVICE**

• [Click Here](#) •



# collets

**NEXT DAY SERVICE**

• [Click Here](#) •



**INTERACTIVE PDF**  
For Easy Navigation



From  
the UK  
to You  
Worldwide



Clickable Tabs for Easy Navigation



## Tools for Experts By Experts

Quality of design and manufacturing ensures you receive the benefits of investment into product research.

The fully computerised engineering department uses CATIA® to design the products. The components are then manufactured and finished on state-of-the-art plant, before undergoing stringent quality control.

Dedicated to customer satisfaction and providing you with the tools you need, when you need them – at the lowest possible price.

**Supplied worldwide by  
William Lees & Sons Ltd.**





**Next Day Delivery!**

# collets



DeSoutter Drill Models:  
 205 050 331 3  
 205 050 329 3  
 205 050 333 3

DeSoutter Drill Models:  
 205 050 338 3  
 205 050 341 3  
 205 050 335 3

Compatibility:  
 • DeSoutter  
 • Atlas Copco  
 • Ingersoll Rand



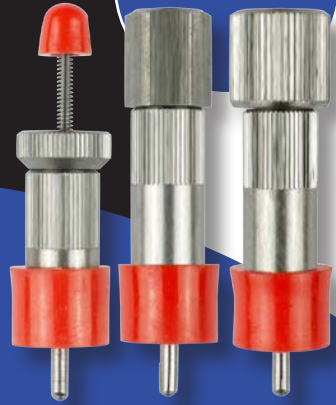
Capacity	Type A	Type B
1.0mm	2172	
1.1mm	2182	
1.2mm	2192	
1.3mm	2202	
1.4mm	2212	
1.5mm	2222	
1.6mm	2232	18922
1.7mm	2242	
1.8mm	2252	18932
1.9mm	2262	
2.0mm	2272	18942
2.1mm	2282	
2.2mm	2292	18952
2.3mm	2302	
2.4mm (3/32")	2312	
2.5mm	2322	
2.6mm	2332	18972
2.7mm	2342	
2.8mm	2352	18982
2.9mm	2362	
3.0mm	2372	18992
3.1mm	2382	
3.2mm (1/8")	2392	19002
3.3mm	2402	
3.4mm	2412	19022
3.5mm	2422	
3.6mm	2432	19032
3.7mm	2442	
3.8mm	2452	19042
3.9mm	2462	
4.0mm	2472	19052
4.1mm	2482	
4.2mm	2492	19062
4.3mm	2502	
4.4mm	2512	19072
4.5mm	2522	
4.6mm	2532	19082
4.7mm	2542	
4.8mm (3/16")	2552	19092
4.9mm	2562	
5.0mm	2572	19102
5.2mm		19122
5.4mm		19132
5.6mm		19142
5.8mm		19152
6.0mm		19162
6.2mm		19172
6.4mm		19182
6.6mm		19182
1/16"	91442	
3/32"	91452	
1/8"	91462	
5/32"	91472	
3/16"	91482	

**FOD-Free Options**



Used by:  
 • Airbus  
 • Boeing  
 • BAE Systems  
 and many others worldwide

- ✓ Available from stock
- ✓ Re-usable and economical
- ✓ Non-marking to protect the surface
- ✓ Quick and easy installation and removal
- ✓ Colour-coded for easy identification
- ✓ FOD-Free option also available
- ✓ Non-standard sizes also available



• Imperial • Standard and FOD-free Options – for up to 1/2" maximum depth

Standard Part No:	SSL 3/32	SSL 1/8	SSL 5/32
FOD-free Part No:	LSC 3/32	LSC 1/8	LSC 5/32
Colour Code	Red	Yellow	Blue
Grip Range	0 - 1/2"	0 - 1/2"	0 - 1/2"
Drill Size	#40	#30	#21

• Imperial • Standard Extra Long – for work up to 1" maximum depth

Standard Part No:	SEL 3/32	SEL 1/8	SEL 5/32	SEL 3/16	SEL 1/4
Colour Code	Red	Yellow	Blue	Black	White
Grip Range	0 - 1"	0 - 1"	0 - 1"	0 - 1"	0 - 1"
Drill Size	#40	#30	#21	#10	1/4"

• Metric • Standard and FOD-free Options – for up to 12.5mm maximum depth

Standard Part No:	MSL 2.5	MSL 3.0	MSL 3.5	MSL 4.0	MSL 4.5
FOD-free Part No:	MLSC 2.5	MLSC 3.0	MLSC 3.5	MLSC 4.0	-
Colour Code	Green	Brown	Clear	Black	To Suit
Grip Range	0 - 12.5mm	0 - 12.5mm	0 - 12.5mm	0 - 12.5mm	0 - 12.5mm

• Metric • Standard Extra Long and FOD-free Options – for up to 25mm maximum depth

Standard Part No:	MSEL 2.5	MSEL 3.0	MSEL 3.2	MSEL 3.5	MSEL 4.0	MSEL 4.8	MSEL 5.0	MSEL 6.0
FOD-free Part No:	MELSC 2.5	MELSC 3.0	MELSC 3.2	MELSC 3.5	MELSC 4.0	MELSC 4.8	MELSC 5.0	MELSC 6.0
Colour Code	Green	Brown	White	Clear	Black	Blue	Green	Red
Grip Range	0 - 25mm	0 - 25mm	0 - 25mm	0 - 25mm	0 - 25mm	0 - 25mm	0 - 25mm	0 - 25mm

## U.S. INDUSTRIAL AIRCRAFT RIVET GUNS

- CE certified
- Takes .401 shank rivet sets
- Lightweight aluminum handle
- Price includes spring retainer & regulator (TP97)
- Precision machined hardened and ground valve
- "Sure Grip" powder coated finish
- Teasing trigger
- Precision machined and hardened cylinder for long life
- Made in U.S.A.

This "X" type feathering trigger riveter is the only rivet gun that allows you to slowly begin riveting without damage to the skin. This is critical in performing riveting operations. This gun is used by aircraft mechanics worldwide. It's also the perfect tool for kit builders.



Our most popular Rivet Guns!

Part No.	Blows Per Min.	Capacity Alum.	Bore	Stroke	Length	Weight
TP82	2580	1/8"	9/16"	1-1/2"	5-11/16"	2.4 lbs.
TP83	2160	3/16"	1/2"	2-7/8"	6-11/16"	2.5 lbs.
TP84	1740	1/4"	1/2"	3-1/16"	8-1/2"	2.75 lbs.

## U.S. INDUSTRIAL PROFESSIONAL GRADE RIVET GUNS

- Available in offset or straight handle (specify)
- Comes with retainer spring and regulator (TP2012)
- .401 shank diameter
- Light feathered touch
- Precision machined hardened and ground valve
- "Sure Grip" powder coated finish
- Teasing trigger
- Precision machined and hardened cylinder for long life
- Made in U.S.A.
- CE certified

Part No.	Blows Per Min.	Capacity Alum.	Bore	Stroke	Length	Weight
US1X	3600	1/8"	9/16"	1-1/2"	5-11/16"	2.0 lbs.
US2X	2580	1/8"	1/2"	2-1/4"	6-11/16"	2.3 lbs.
US3X	2160	3/16"	1/2"	2-7/8"	7-5/16"	2.3 lbs.
US4X	1740	1/4"	1/2"	3-1/16"	8-1/2"	2.8 lbs.

## U.S. INDUSTRIAL PROFESSIONAL GRADE RIVET GUNS

- Available in offset handle only
- Comes with retainer spring and regulator (TP2012)
- .401 or .498 shank diameter (specify)
- Precision machined hardened and ground valve
- "Sure Grip" powder coated finish
- Teasing trigger
- Precision machined and hardened cylinder for long life
- Made in U.S.A.
- CE certified

Part No.	Blows Per Min.	Capacity Alum.	Bore	Stroke	Length	Weight
US5X	1560	1/4"	3/4"	2-11/16"	9-1/4"	5.0 lbs.
US7X	900	3/8"	3/4"	5-13/16"	11-1/2"	6.1 lbs.
US9X	1140	5/16"	3/4"	3-7/8"	10"	5.3 lbs.



US3X



US7X

## U.S. INDUSTRIAL PROFESSIONAL GRADE LIMITED ACCESS RIVET GUNS

- Available in offset handle only
- .401 special short shank sets required (See page 14)
- Comes with retainer spring and regulator (TP97)
- Precision machined hardened and ground valve
- "Sure Grip" powder coated finish
- Teasing trigger
- Precision machined and hardened cylinder for long life
- Made in U.S.A.
- CE certified

Part No.	Blows Per Min.	Capacity Alum.	Bore	Stroke	Length	Weight
US100B	2850	5/32"	9/16"	1-7/8"	3-5/8"	2.1 lbs.
US200B	2700	3/16"	9/16"	2-1/4"	5-3/8"	3.1 lbs.



US200B

## U.S. INDUSTRIAL "RECOILLESS" RIVET GUNS

- Unique Viscoelastic dampening system reduces damaging low-frequency vibration
- Ergonomic design - comfortable, balanced tool
- Compact design
- Reduced noise output
- Few moving parts create a durable, reliable tool
- TP1 swivel regulator supplied as standard equipment
- Precision machined hardened and ground valve
- "Sure Grip" powder coated finish
- Teasing trigger
- Precision machined and hardened cylinder for long life
- CE certified



US3R

Used by most major aircraft manufacturers

PART NO.	CAPACITY		BORE	STROKE	BLOWS PER MIN.	RIVET SET DIA.	OVERALL LENGTH	WEIGHT	INLET
	ALUM.	STEEL							
US2R	5/32"	1/8"	1/2"	2"	2250	.401	6-7/8"	2.8 lbs.	1/4 NPT
US3R	3/16"	5/32"	1/2"	3"	1900	.401	7-7/8"	3.0 lbs.	1/4 NPT
US4R	7/32"	3/16"	1/2"	4"	1650	.401	8-7/8"	3.3 lbs.	1/4 NPT
US5R	1/4"	3/16"	1/2"	5"	1400	.401	9-7/8"	3.5 lbs.	1/4 NPT

Our recoilless rivet guns have been ergonomically designed for maximum comfort while reducing the job-related effects of prolonged exposure to the vibrations associated with riveting. Independent testing\* has shown that our tools will greatly lessen job-related effects of prolonged exposure to vibration and boost user productivity.

\*Study performed by the University of Michigan School of Engineering Acoustics and Vibration Laboratory. Reprints of report available upon request.

## 4-PIECE U.S. INDUSTRIAL BUCKING BAR KIT PART NO: TP150

Contains: TP638, TP647, TP670, TP1112



## 6-PIECE U.S. INDUSTRIAL BUCKING BAR KIT PART NO: TP150-6

Contains all of the bucking bars in TP150  
Plus: TP669, TP1111



## 10-PIECE U.S. INDUSTRIAL BUCKING BAR KIT PART NO: TP150-10

Contains all of the bucking bars in TP150-6  
Plus: TP692, TP736, TP751, TP1090



## 15-PIECE U.S. INDUSTRIAL BUCKING BAR KIT PART NO: TP150-15

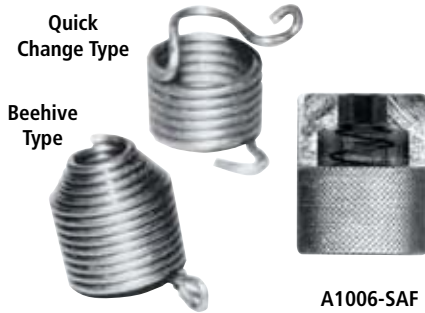
Contains all of the bucking bars in TP150-10  
PLUS: TP639, TP662, TP646, TP633, TP760B-



## RETAINER SPRINGS

Our retainer springs come in two styles:

- Quick Change Type: designed to make possible the speedy changing of rivet sets in your rivet gun.
- Beehive Type: designed to securely hold rivet sets in the rivet gun.



A1006-SAF

## STEEL AIR TOOL REGULATOR PART NO: TP97

.19 lb.

- Steel construction
- Great for rivet guns
- Helps "feather" trigger
- Has positive adjustment
- Fits most air tool air inlets
- 1/4" pipe thread



## RIVET GUN TYPE SCREW REMOVAL TOOL PART NO: TP328

1.8 lbs.

- Useful in removing screws that are corroded or have stripped heads
- .401 Parker taper shank for use in rivet gun
- 3/8" square socket end with 1/4" hex adapter included
- Use standard Phillips or Slotted insert bits
- Rivet gun required



## ASSORTED TOOLING

### .401 SHANK RIVETING TOOLS

- Retainer tools used with standard aircraft riveting guns
- .401 shank diameter



- PART NO: 909** Twin blade cutter
- PART NO: 911** Moil point
- PART NO: 1955** Body ripper
- PART NO: 1957** Panel cutter
- PART NO: 1959** Metal trimmer

- PART NO: 910** Chisel
- PART NO: 912** Rivet Buster
- PART NO: 1960** Spotweld breaker
- PART NO: 905** Scraper
- PART NO: SM97** Flush set

## BRASS AIR TOOL REGULATOR PART NO: TP2012

.25 lb.

- Solid brass construction
- Chicago pneumatic type
- Helps "feather" trigger
- Has positive adjustment
- Fits most air tool air inlets
- 1/4" pipe thread



## RETAINER SPRING SET PART NO: TP88

.25 lb.

These 2-piece rivet set retainers fit 2X, 3X, 4X and many other rivet guns.

- Beehive type and quick change
- 1-1/8" inner diameter



## U.S. INDUSTRIAL SWIVEL REGULATOR PART NO: TP1

.25 lb.

- 360° swivel to allow hose to drop down
- Ball detent regulator
- 1/4" connection
- 25 CFM



## 90° ANGLE ATTACHMENT PART NO: TP347

(Fits US 2X-3X-4X, US TP82-83-84, CP2X-3X-4X, Cleco E3-E4-E5)

1.8 lbs.

- Threads onto rivet gun
- 5/32" capacity
- 2-1/2" angle head height
- Use .401 short shank rivet sets SMJ500 series
- Allows for angle riveting in close quarters



## ASSORTED TOOLING .498 SHANK RIVETING TOOLS

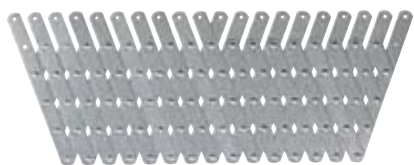
- PART NO: H1972** (Chisel)
- PART NO: H1997** (Moil point)
- PART NO: H1975** (Rivet buster)

- Fits heavy duty aircraft riveting tools
- .498 shank diameter



## U.S. INDUSTRIAL RIVET FAN SPACING TOOL PART NO: TP621

This tool will save hours in layout time for rivet spacing. The rivet fan spacing tool easily expands or contracts while maintaining equal hole spacing. Made of all stainless steel for durability, this tool is a must for all sheet metal fabricators.



## U.S. INDUSTRIAL BENCH TOP RIVET CUTTER PART NO: TP626

- Made of hardened and ground steel - very easy to use
- Cuts rivets 1/16", 1/8", 3/32", 5/32" and 3/16" diameter
- Will also cut wire and screws



## RIVETERS TAPE PART NO: TP808A

3/4" wide x 72 yard roll  
PART NO: TP808B

1" wide x 72 yard roll  
• 1/4" adhesive strip on each edge  
A tremendous time and labor saver. Riveters tapes are designed specifically for use during the riveting of small and large aircraft parts. Rivets are held securely in place prior to bucking, and are fully visible through the transparent, adhesive-free center window. Rivet does not come in contact with adhesive. (Not made by 3M)



## U.S. INDUSTRIAL C YOKE RIVET SET .401 SHANK

(1 5/16" reach, 2 3/8" gap)

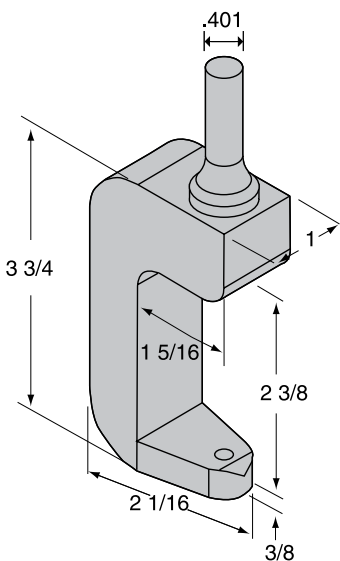
**PART NO: SMCK-1A**

(Flush face, no set hole)

**PART NO: SMCK-1**

(With .187 set hole for squeezer set)

- .401 shank for rivet gun
- Shanks available



## U.S. INDUSTRIAL C YOKE RIVET SET .401 SHANK

(1 1/2" reach, 2 1/2" gap)

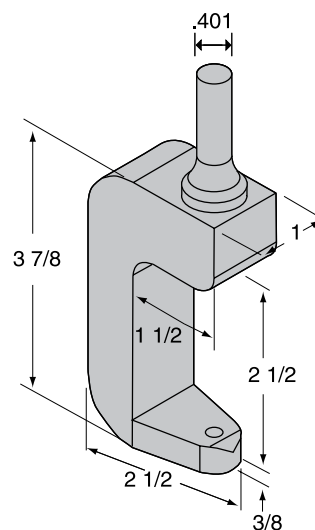
**PART NO: SMOF-A-401A**

(Flush face, no set hole)

**PART NO: SMOF-A-401**

(With .187 set hole for squeezer set)

- .401 shank for rivet gun
- Shanks available



## U.S. INDUSTRIAL C YOKE RIVET SET .401 SHANK

(1 1/2" reach, 3" gap)

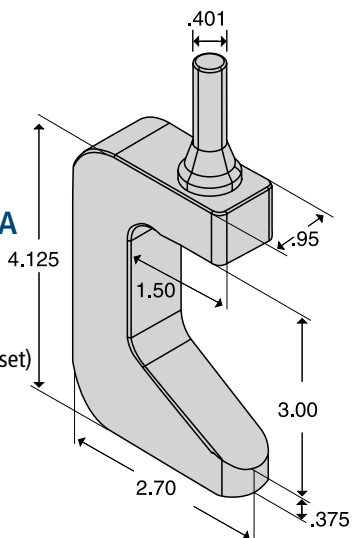
**PART NO: SMOF-C-401A**

(Flush face)

**PART NO: SMOF-C-401**

(With .187 set hole for squeezer set)

- .401 shank for rivet gun
- Shanks available



## U.S. INDUSTRIAL C YOKE RIVET SET .401 SHANK

(1 1/2" reach, 3" gap)

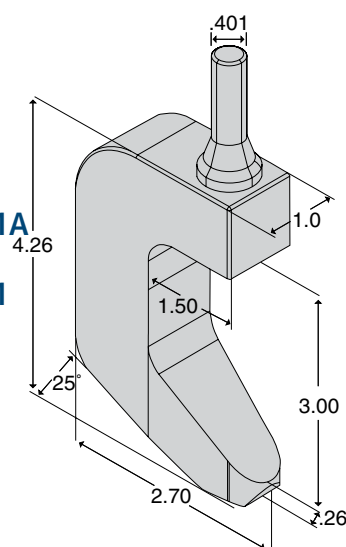
**PART NO: SMOF-D-401A**

(Flush face)

**PART NO: SMOF-D-401**

(With .187 set hole for squeezer set)

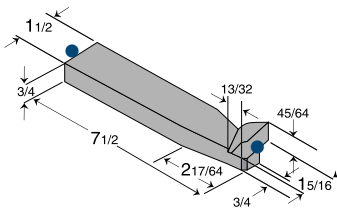
- .401 shank for rivet gun
- Shanks available



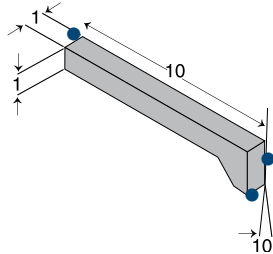
RIVETING TOOLS

BUCKING BARS

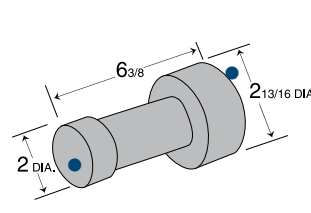
Our bucking bars are cast with Ductile Iron to insure a non porous finish which is very important in order to have that highly polished finish. They are heat treated to 38-42 RC and can be repolished many times without changing hardness. Work surfaces are highly polished. Quantity prices available on request.



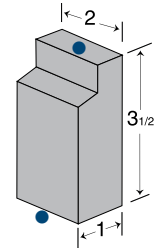
TP101B 2.19 lbs.



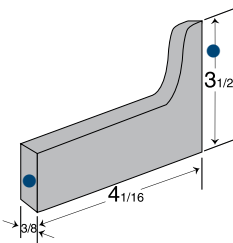
TP463-10 3 lbs.



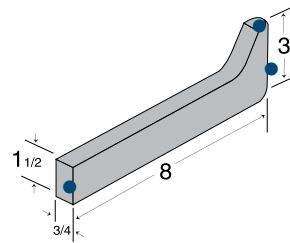
TP601 6 lbs.



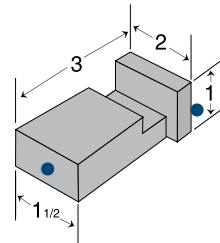
TP605 1.5 lbs.



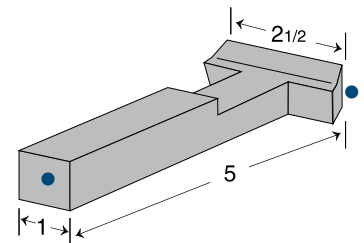
TP610 .75 lbs.



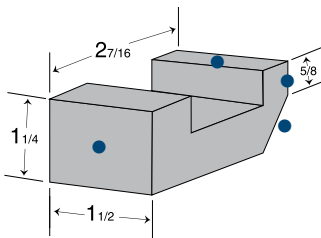
TP614 2.75 lbs.



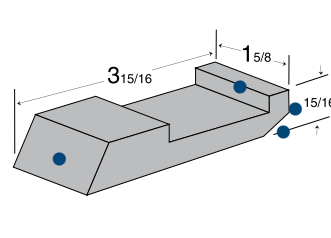
TP619 1.25 lbs.



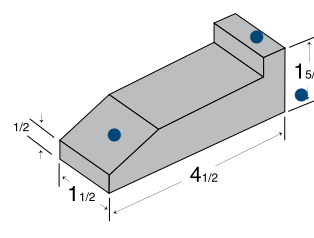
TP633 1.25 lbs.



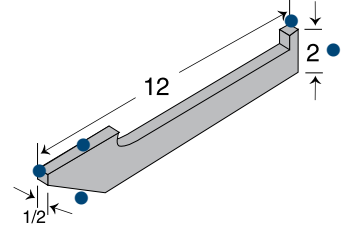
TP634 1 lb.



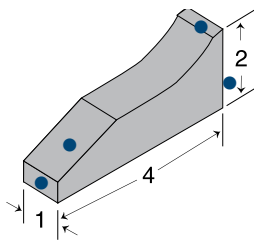
TP638 1.25 lbs.



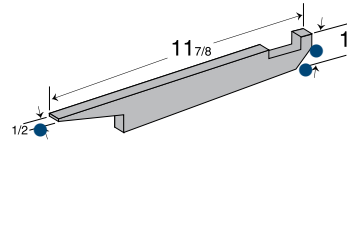
TP639 2 lbs.



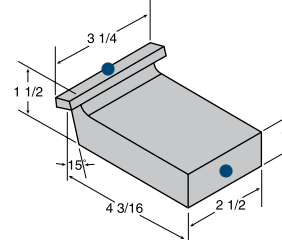
TP646 2.25 lbs.



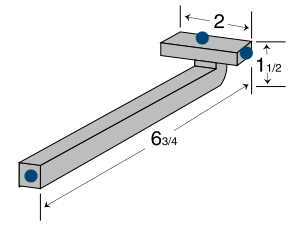
TP647 1.5 lbs.



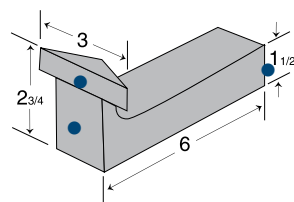
TP649 2 lbs.



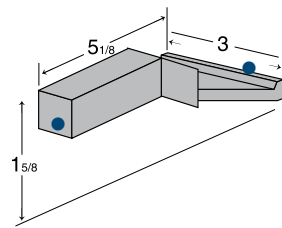
TP658 2.9 lbs.



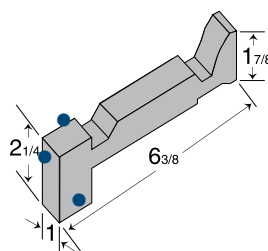
TP662 1.82 lbs.



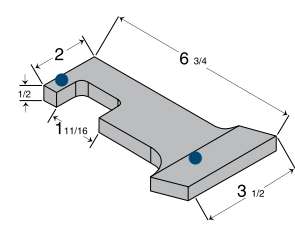
TP667 4.88 lbs.



TP669 1.38 lbs.



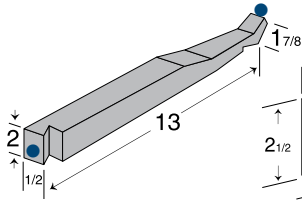
TP670 1.75 lbs.



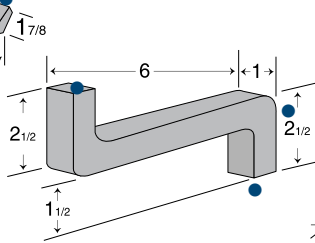
TP671 3 lbs.

• Indicates polished side

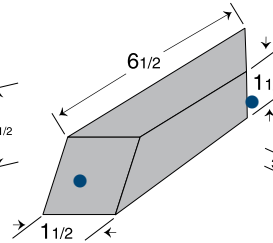
U.S. Industrial Tool offers bucking bars in a wide selection of sizes, shapes and weights, enabling the user to pick up the proper bar for the job. It is also possible to have "custom" bars made to your specifications if a quantity is needed.



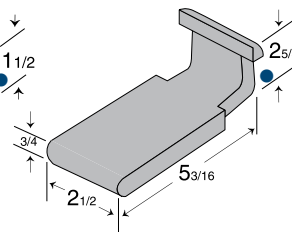
TP683 3.25 lbs.



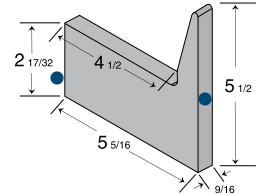
TP690 2.75 lbs.



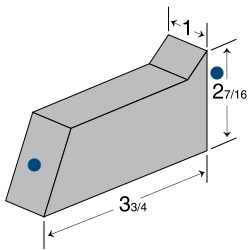
TP692 3 lbs.



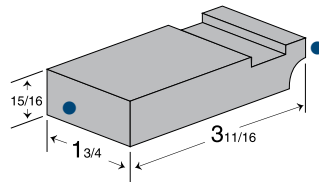
TP701 3 lbs.



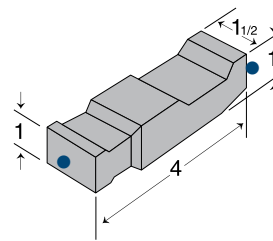
TP715 2 lbs.



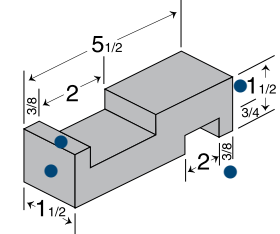
TP721 1.75 lbs.



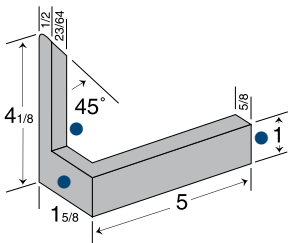
TP723 1.5 lbs.



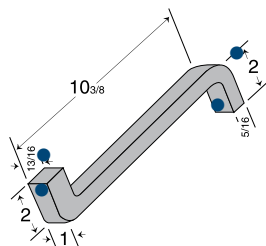
TP730 1.25 lbs.



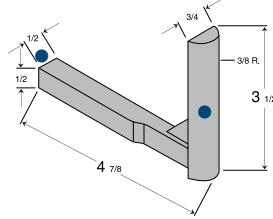
TP736 2.38 lbs.



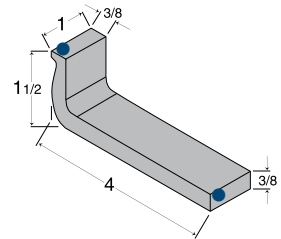
TP750V-1 1.25 lbs.



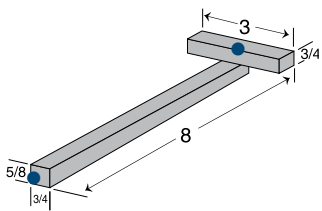
TP751 3.16 lbs.



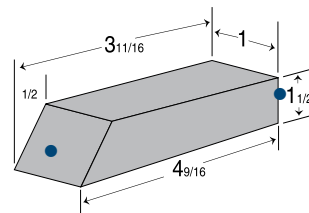
TP751V-1 1 lb.



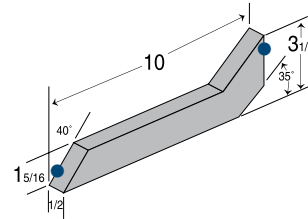
TP752P-1 1 lb.



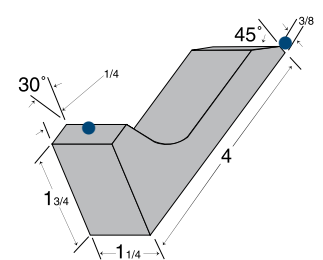
TP753 1.5 lbs.



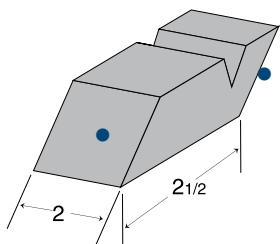
TP760B-10 .75 lb.



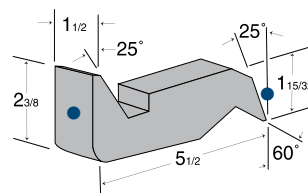
TP760C-1 1.75 lbs.



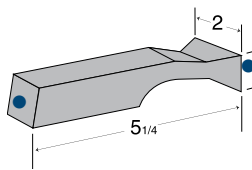
TP763 2.5 lbs.



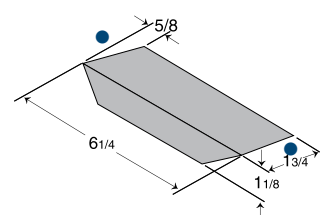
TP1090 1.38 lbs.



TP1111 2.6 lbs.



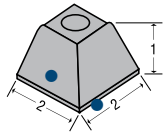
TP1112 1.38 lbs.



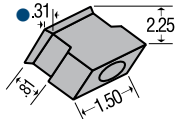
TP1177 3.25 lbs.

• Indicates polished side

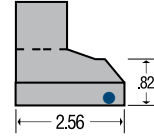
Our bucking bars are cast with Ductile Iron to insure a non porous finish which is very important in order to have that highly polished finish. They are heat treated to 38-42 RC and can be repolished many times without changing hardness. Work surfaces are highly polished. **Quantity prices available on request.**



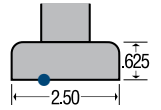
TP1520S 1 lb.



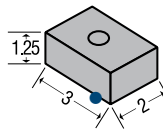
TP1525S .94 lb.



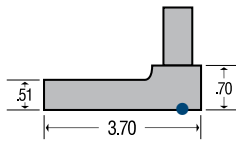
TP15050 1.19 lbs.



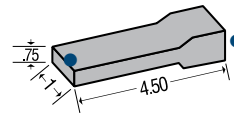
TP1500H 1.09 lbs.



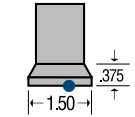
TP1535S 2.31 lbs.



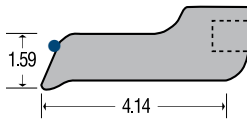
TP1510A 1.34 lbs.



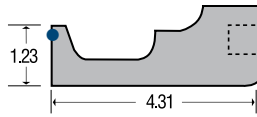
TP1530S 1 lb.



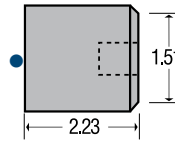
TP1515C .56 lb.



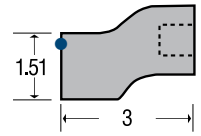
TP2000B 3.9 lbs.



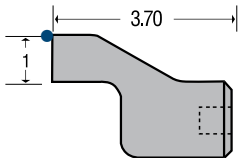
TP2005B 3.2 lbs.



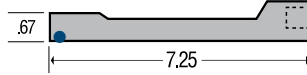
TP2010B 2.95 lbs.



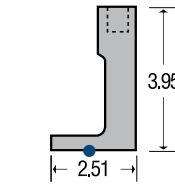
TP2015B 2.66 lbs.



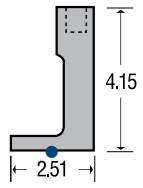
TP2020B 3.28 lbs.



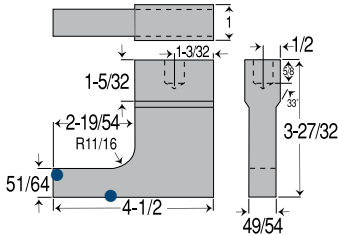
TP2025B 2.8 lbs.



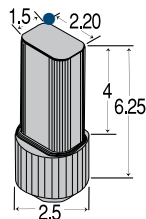
TP2030B 3.1 lbs.



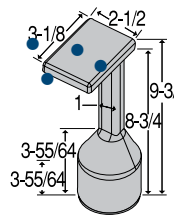
TP2035B 3.45 lbs.



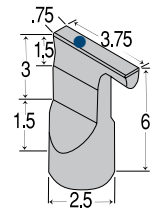
TP2040B 2.75 lbs.



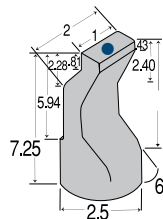
TP0000H 6.75 lbs.



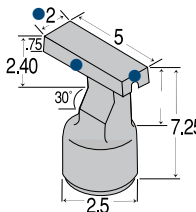
TP3560H 7.1 lbs.



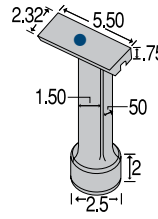
TP777 6.3 lbs.



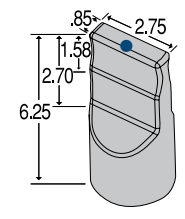
TP3553H 4.5 lbs.



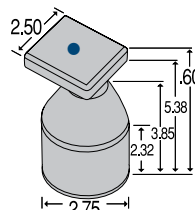
TP3554H 7.9 lbs.



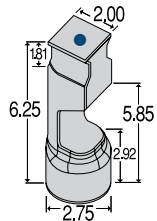
TP3565H 8 lbs.



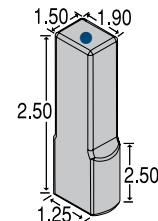
TP3559H 5.92 lbs.



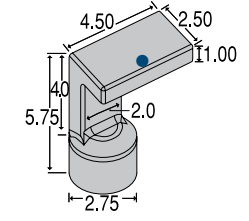
TP3558H 6.03 lbs.



TP3568H 8.46 lbs.



TP0000H2 6 lbs.

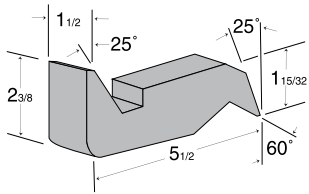


TP35500H-L 8.241 lbs.

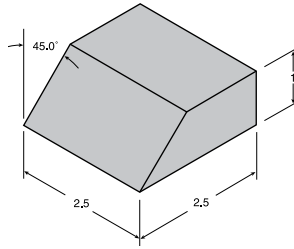
• Indicates polished side

## U.S. INDUSTRIAL TUNGSTEN BUCKING BARS

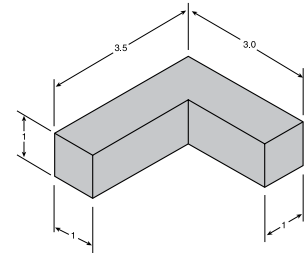
Bucking bars made of tungsten provide increased weight (density) to allow riveting in confined areas. The weight to size ratio provides good kinetic energy transfer and will expedite the installation process. We offer a standard shapes and a consistent weight that should allow up to 3/16 diameter fastener installation. We can quote special contours upon request.



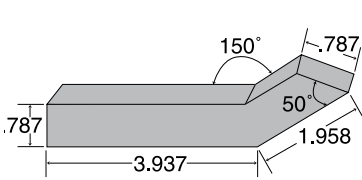
TP1111T 7.03 lbs.



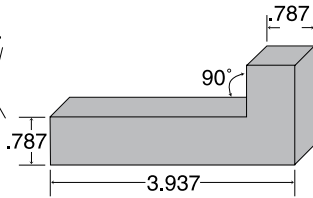
TP51T 3.50 lbs.



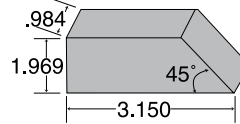
TP52T 3.80 lbs.



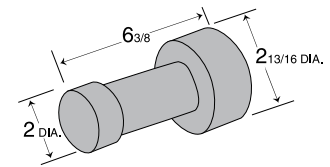
TP54T 2.20 lbs.



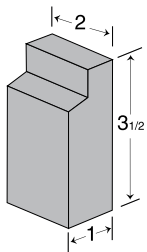
TP55T 1.76 lbs.



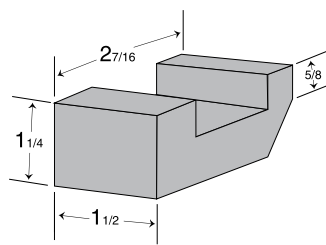
TP56T 2.97 lbs.



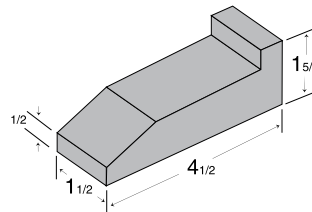
TP601T 12.25 lbs.



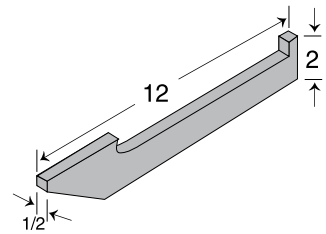
TP605T 3.39 lbs.



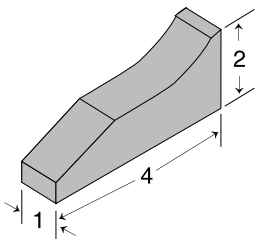
TP634T 2.02 lbs.



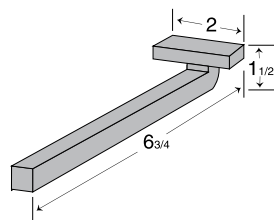
TP639T 3.77 lbs.



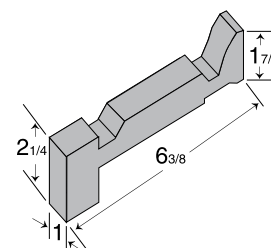
TP646T 6.05 lbs.



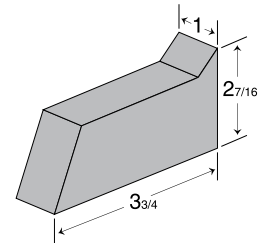
TP647T 3.15 lbs.



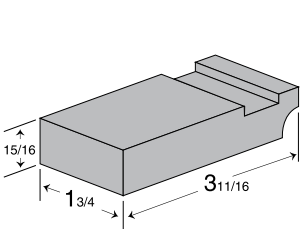
TP662T 4.38 lbs.



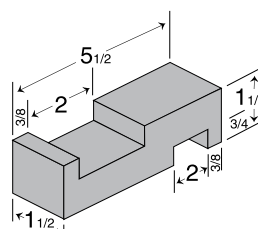
TP670T 5.23 lbs.



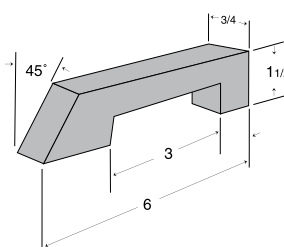
TP721T 3.30 lbs.



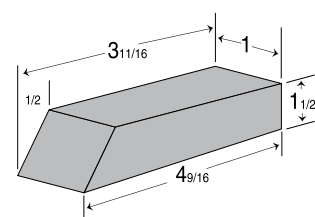
TP723T 3.08 lbs.



TP736T 4.63 lbs.



TP760B-1T 2.86 lbs.



TP760B-10T 3.55 lbs.

## U.S. INDUSTRIAL "RECOILLESS+" BUCKING BARS

Our Recoilless bucking bars greatly reduce the vibration associated with driving rivets. Designed with the same intent as our recoilless rivet gun, these bucking bars can also be used with all conventional rivet guns.

- For up to 3/16 diameter fasteners and 4 lb. dollies
- Quick-change design enables you to change the dollies in just seconds<sup>†</sup>
- Several weights to accommodate a wide range of fastener installations
- Viscoelastic Dampening System for maximum operator protection<sup>†</sup>
- "Sure-Grip" powder coat finish for positive handling
- Comes complete with TP1500H dolly and 31021 shank
- Ergonomic hand grip ball (31042, shown below) is available at additional cost on TP111 Series tools
- Manufactured in the U.S.A. by U.S. Industrial Tool

PART NO.	DESIGN	LENGTH	DIA.	DAMPENED	WEIGHT
TP111R	All Steel	3.78"	1-7/8"	Viscoelastic <sup>†</sup>	2.00 lbs.
TP111RA	Steel/Alum.	3.78"	1-7/8"	Viscoelastic <sup>†</sup>	1.00 lbs.
TP111RAA	Alum.	3.78"	1-7/8"	Viscoelastic <sup>†</sup>	0.91 lbs.



TP111R  
w/TP1500H Dolly

### IMPORTANT!!

Bucking rivets without using a recoilless bucking bar exposes the user to much higher vibration than using recoilless with standard bucking bars.

## U.S. INDUSTRIAL LARGE CAPACITY "RECOILLESS+" BUCKING BARS

The TP1111R/TP1111RA fills the need for additional dampening for large diameter and harder grade fasteners.

A wide selection of Dolly heads are available.

- For 3/16" or larger diameter fasteners and 4 lb. dollies or heavier
- Quick change design enables you to change the dollies in just seconds<sup>†</sup>
- Several weights to accommodate a wide range of fastener installations
- Viscoelastic Dampening System/for maximum operator protection<sup>†</sup>
- "Sure-Grip" powder coat finish for positive handling
- Comes with TP0000H2 dolly and 31021 shank
- All dollies include unique safety retainers to retain dolly to bucking bar body
- Manufactured in the U.S.A. by U.S. Industrial Tool

PART NO.	DESIGN	LENGTH	DIA.	DAMPENED	WEIGHT
TP1111R	All Steel	5.75"	1-7/8"	Viscoelastic <sup>†</sup>	3.20 lbs.
TP1111RA	Steel/Alum.	5.75"	1-7/8"	Viscoelastic <sup>†</sup>	3.13 lbs.
TP1111RB	All Steel	5.75"	1-7/8"	Viscoelastic <sup>†</sup>	3.20 lbs.



TP1111RB  
w/TP0000H2  
Dolly  
(Includes 31042  
Ergonomic Hand  
Grip Ball)

### ERGONOMIC HAND GRIP BALL PART NO: 31042

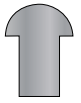
- Standard on TP1111RB, optional on all other types

### OPTIONAL DOLLY SHANKS

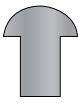
PART NO.	LENGTH
31021	2-1/2" standard
31021-1	3-1/4"
31021-2	4-3/4"
31021-3	6-1/2"

NOTE: Long term exposure to low frequency vibration caused by riveting may be harmful to your hands and arms. We suggest you take frequent breaks when riveting to reduce this exposure.

<sup>†</sup> Patent 5,588,323



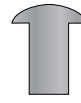
AN435  
BUTTON



AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



AN470  
UNIVERSAL



AN442  
FLAT

All rivet sets are made from tool grade steel and are heat treated to ensure the highest quality. Some items may require 6 piece minimum order.



### STRAIGHT TYPE RIVET SET AN430 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM10-4302	SM11-4302	SM12-4302	SM13-4302	SM14-4302
3/32"	SM10-4303	SM11-4303	SM12-4303	SM13-4303	SM14-4303
1/8"	SM10-4304	SM11-4304	SM12-4304	SM13-4304	SM14-4304
5/32"	SM10-4305	SM11-4305	SM12-4305	SM13-4305	SM14-4305
3/16"	SM10-4306	SM11-4306	SM12-4306	SM13-4306	SM14-4306
1/4"	SM10-4308	SM11-4308	SM12-4308	SM13-4308	SM14-4308

### STRAIGHT TYPE RIVET SET AN470 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM10-4702	SM11-4702	SM12-4702	SM13-4702	SM14-4702
3/32"	SM10-4703	SM11-4703	SM12-4703	SM13-4703	SM14-4703
1/8"	SM10-4704	SM11-4704	SM12-4704	SM13-4704	SM14-4704
5/32"	SM10-4705	SM11-4705	SM12-4705	SM13-4705	SM14-4705
3/16"	SM10-4706	SM11-4706	SM12-4706	SM13-4706	SM14-4706
1/4"	SM10-4708	SM11-4708	SM12-4708	SM13-4708	SM14-4708
3/32"	SM10-4703-I	-	-	-	-
1/16"	SM10-4704-I	-	-	-	-
5/32"	SM10-4705-I	-	-	-	-
1/16"	SM10-4706-I	-	-	-	-

### STRAIGHT TYPE RIVET SET AN442 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM10-4422	SM11-4422	SM12-4422	SM13-4422	SM14-4422
3/32"	SM10-4423	SM11-4423	SM12-4423	SM13-4423	SM14-4423
1/8"	SM10-4424	SM11-4424	SM12-4424	SM13-4424	SM14-4424
5/32"	SM10-4425	SM11-4425	SM12-4425	SM13-4425	SM14-4425
3/16"	SM10-4426	SM11-4426	SM12-4426	SM13-4426	SM14-4426
1/4"	SM10-4428	SM11-4428	SM12-4428	SM13-4428	SM14-4428

### STRAIGHT TYPE RIVET SET AN435 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM10-4352	SM11-4352	SM12-4352	SM13-4352	SM14-4352
3/32"	SM10-4353	SM11-4353	SM12-4353	SM13-4353	SM14-4353
1/8"	SM10-4354	SM11-4354	SM12-4354	SM13-4354	SM14-4354
5/32"	SM10-4355	SM11-4355	SM12-4355	SM13-4355	SM14-4355
3/16"	SM10-4356	SM11-4356	SM12-4356	SM13-4356	SM14-4356
1/4"	SM10-4358	SM11-4358	SM12-4358	SM13-4358	SM14-4358

### STRAIGHT TYPE RIVET SET AN455 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM10-4552	SM11-4552	SM12-4552	SM13-4552	SM14-4552
3/32"	SM10-4553	SM11-4553	SM12-4553	SM13-4553	SM14-4553
1/8"	SM10-4554	SM11-4554	SM12-4554	SM13-4554	SM14-4554
5/32"	SM10-4555	SM11-4555	SM12-4555	SM13-4555	SM14-4555
3/16"	SM10-4556	SM11-4556	SM12-4556	SM13-4556	SM14-4556
1/5"	SM10-4558	SM11-4558	SM12-4558	SM13-4558	SM14-4558

### STRAIGHT TYPE RIVET SET AN450 .401 SHANK

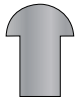
RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM10-4502	-	-	-	-
3/32"	SM10-4503	-	-	-	-
1/8"	SM10-4504	-	-	-	-
5/32"	SM10-4505	-	-	-	-
3/16"	SM10-4506	-	-	-	-
1/4"	SM10-4508	-	-	-	-

### STRAIGHT TYPE RIVET SET AN456 .401 SHANK

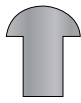
RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM10-4562	SM11-4562	SM12-4562	SM13-4562	SM14-4562
3/32"	SM10-4563	SM11-4563	SM12-4563	SM13-4563	SM14-4563
1/8"	SM10-4564	SM11-4564	SM12-4564	SM13-4564	SM14-4564
5/32"	SM10-4565	SM11-4565	SM12-4565	SM13-4565	SM14-4565
3/16"	SM10-4566	SM11-4566	SM12-4566	SM13-4566	SM14-4566
1/4"	SM10-4568	SM11-4568	SM12-4568	SM13-4568	SM14-4568

### STRAIGHT TYPE RIVET SET AN450 .401 SHANK

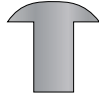
RIVET SIZE	3-1/2" OAL HARD	5-1/2" OAL SOFT	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
-	SM10-500H	SM10-500S	-	-	-



AN435  
BUTTON



AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



AN470  
UNIVERSAL



AN442  
FLAT

All rivet sets are made from tool grade steel and are heat treated to ensure the highest quality. Some items may require 6 piece minimum order.



### 10° OFFSET TYPE RIVET SET AN450 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM20-4302	SM21-4302	SM22-4302	SM23-4302	SM24-4302
3/32"	SM20-4303	SM21-4303	SM22-4303	SM23-4303	SM24-4303
1/8"	SM20-4304	SM21-4304	SM22-4304	SM23-4304	SM24-4304
5/32"	SM20-4305	SM21-4305	SM22-4305	SM23-4305	SM24-4305
3/16"	SM20-4306	SM21-4306	SM22-4306	SM23-4306	SM24-4306
1/4"	SM20-4308	SM21-4308	SM22-4308	SM23-4308	SM24-4308

### 10° OFFSET TYPE RIVET SET AN456 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM20-4562	SM21-4562	SM22-4562	SM23-4562	SM24-4562
3/32"	SM20-4563	SM21-4563	SM22-4563	SM23-4563	SM24-4563
1/8"	SM20-4564	SM21-4564	SM22-4564	SM23-4564	SM24-4564
5/32"	SM20-4565	SM21-4565	SM22-4565	SM23-4565	SM24-4565
3/16"	SM20-4566	SM21-4566	SM22-4566	SM23-4566	SM24-4566
1/4"	SM20-4568	SM21-4568	SM22-4568	SM23-4568	SM24-4568

### 10° OFFSET TYPE RIVET SET AN442 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM20-4422	SM21-4422	SM22-4422	SM23-4422	SM24-4422
3/32"	SM20-4423	SM21-4423	SM22-4423	SM23-4423	SM24-4423
1/8"	SM20-4424	SM21-4424	SM22-4424	SM23-4424	SM24-4424
5/32"	SM20-4425	SM21-4425	SM22-4425	SM23-4425	SM24-4425
3/16"	SM20-4426	SM21-4426	SM22-4426	SM23-4426	SM24-4426
1/8"	SM20-4428	SM21-4428	SM22-4428	SM23-4428	SM24-4428

### 10° OFFSET TYPE RIVET SET AN470 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM20-4562	SM21-4562	SM22-4562	SM23-4562	SM24-4562
3/32"	SM20-4563	SM21-4563	SM22-4563	SM23-4563	SM24-4563
1/8"	SM20-4564	SM21-4564	SM22-4564	SM23-4564	SM24-4564
5/32"	SM20-4565	SM21-4565	SM22-4565	SM23-4565	SM24-4565
3/16"	SM20-4566	SM21-4566	SM22-4566	SM23-4566	SM24-4566
1/4"	SM20-4568	SM21-4568	SM22-4568	SM23-4568	SM24-4568
3/32"	SM20-4703-I				
1/8"	SM20-4704-I				
5/32"	SM20-4705-I				
3/16"	SM20-4706-I				
1/4"	SM20-4708-I				

### 10° OFFSET TYPE RIVET SET AN455 .401 SHANK

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
1/16"	SM20-4552	SM21-4552	SM22-4552	SM23-4552	SM24-4552
3/32"	SM20-4553	SM21-4553	SM22-4553	SM23-4553	SM24-4553
1/8"	SM20-4554	SM21-4554	SM22-4554	SM23-4554	SM24-4554
5/32"	SM20-4555	SM21-4555	SM22-4555	SM23-4555	SM24-4555
3/16"	SM20-4556	SM21-4556	SM22-4556	SM23-4556	SM24-4556
1/4"	SM20-4558	SM21-4558	SM22-4558	SM23-4558	SM24-4558

### FLUSH TYPE RIVET SET .401 SHANK

2 1/2" OAL x 1" Face	3" OAL x 1" Face	5 1/2" OAL x 1" Face	7 1/2" OAL x 1" Face	3" OAL x 1-1/4" Face	5 1/2" OAL x 1-1/4" Face	3 1/8" OAL x 1/2" Face	3 1/4" OAL x 3/4" Face	2 1/4" OAL x 1/8" Face	2 1/4" OAL x 1/4" Face
SM90	SM91	SM92	SM93	SM94	SM95	SM96	SM97	SM98	SM99



### FLUSH TYPE RIVET SET WITH RUBBER GUARD .401 SHANK

2-5/8" OAL x 3/4" Face	2-5/8" OAL x 1" Face	2-5/8" OAL x 1-1/4" Face
TP91	TP91A	TP91B

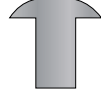




AN435  
BUTTON



AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



AN470  
UNIVERSAL



AN442  
FLAT

**KNOCK-OUT PUNCHES  
.401 SHANK**



RIVET SIZE	3-1/2" OAL
1/8"	SMK010-4
5/32"	SMK010-5
3/16"	SMK010-6
1/4"	SMK010-6

**HIGH SHEAR RIVET PUNCHES  
.401 SHANK**



RIVET SIZE	3-1/2" OAL
1/8"	SMHS401K-4
5/32"	SMHS401K-6
3/16"	SMHS401K-6
1/4"	SMHS401K-8

**HIGH SHEAR RIVET SET  
.401 SHANK**



RIVET SIZE	3-1/2" OAL
1/8"	SMHS10-4
5/32"	SMHS10-5
3/16"	SMHS10-6
1/4"	SMHS10-6



**STRAIGHT BELL TYPE RIVET SET  
AN430 .401 SHANK**

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
1/16"	SM50-4302	SM51-4302	SM52-4302
3/32"	SM50-4303	SM51-4303	SM52-4303
1/8"	SM50-4304	SM51-4304	SM52-4304
5/32"	SM50-4305	SM51-4305	SM52-4305
3/16"	SM50-4306	SM51-4306	SM52-4306
1/4"	SM50-4308	SM51-4308	SM52-4308
5/16"	SM50-43010	SM51-43010	SM52-43010
3/8"	SM50-43012	SM51-43012	SM52-43012

**STRAIGHT BELL TYPE RIVET SET  
AN456 .401 SHANK**

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
1/16"	SM50-4562	SM51-4562	SM52-4562
3/32"	SM50-4563	SM51-4563	SM52-4563
1/8"	SM50-4564	SM51-4564	SM52-4564
5/32"	SM50-4565	SM51-4565	SM52-4565
3/16"	SM50-4566	SM51-4566	SM52-4566
1/4"	SM50-4568	SM51-4568	SM52-4568
5/16"	SM50-45610	SM51-45610	SM52-45610
3/8"	SM50-45612	SM51-45612	SM52-45612

**STRAIGHT BELL TYPE RIVET SET  
AN442 .401 SHANK**

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
1/16"	SM50-4422	SM51-4422	SM52-4422
3/32"	SM50-4423	SM51-4423	SM52-4423
1/8"	SM50-4424	SM51-4424	SM52-4424
5/32"	SM50-4425	SM51-4425	SM52-4425
3/16"	SM50-4426	SM51-4426	SM52-4426
1/4"	SM50-4428	SM51-4428	SM52-4428
5/16"	SM50-44210	SM51-44210	SM52-44210
3/8"	SM50-44212	SM51-44212	SM52-44212

**STRAIGHT BELL TYPE RIVET SET  
AN470 .401 SHANK**

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
1/16"	SM50-4702	SM51-4702	SM52-4702
3/32"	SM50-4703	SM51-4703	SM52-4703
1/8"	SM50-4704	SM51-4704	SM52-4704
5/32"	SM50-4705	SM51-4705	SM52-4705
3/16"	SM50-4706	SM51-4706	SM52-4706
1/4"	SM50-4708	SM51-4708	SM52-4708
5/16"	SM50-47010	SM51-47010	SM52-47010
3/8"	SM50-47012	SM51-47012	SM52-47012

**STRAIGHT BELL TYPE RIVET SET  
AN455 .401 SHANK**

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
1/16"	SM50-4552	SM51-4552	SM52-4552
3/32"	SM50-4553	SM51-4553	SM52-4553
1/8"	SM50-4554	SM51-4554	SM52-4554
5/32"	SM50-4555	SM51-4555	SM52-4555
3/16"	SM50-4556	SM51-4556	SM52-4556
1/4"	SM50-4558	SM51-4558	SM52-4558
5/16"	SM50-45510	SM51-45510	SM52-45510
3/8"	SM50-45512	SM51-45512	SM52-45512

**STRAIGHT BELL TYPE RIVET SET  
AN435 .401 SHANK**

RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
1/16"	SM50-4352	SM51-4352	SM52-4352
3/32"	SM50-4353	SM51-4353	SM52-4353
1/8"	SM50-4354	SM51-4354	SM52-4354
5/32"	SM50-4355	SM51-4355	SM52-4355
3/16"	SM50-4356	SM51-4356	SM52-4356
1/4"	SM50-4358	SM51-4358	SM52-4358
5/16"	SM50-43510	SM51-43510	SM52-43510
3/8"	SM50-43512	SM51-43512	SM52-43512



AN435  
BUTTON



AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



AN470  
UNIVERSAL



AN442  
FLAT

All rivet sets are made from tool grade steel and are heat treated to ensure the highest quality. Some items may require 6 piece minimum order.

**REMOVAL RIVET SET  
.401 SHANK**



RIVET SIZE	5-1/2" OAL
1/8"	SMHSC401B-4
5/32"	SMHSC401B-5
3/16"	SMHSC401B-6
1/4"	SMHSC401B-8
5/16"	SMHSC401B-10
3/8"	SMHSC401B-12

**HUCK LOCKBOLT RIVET SET  
.401 SHANK**



RIVET SIZE	3-1/2" OAL
1/8"	SMH10-4
5/32"	SMH10-5
3/16"	SMH10-6
1/4"	SMH10-8

**FLUSH TYPE RIVET SET WITH 10° SWIVEL  
.401 SHANK**



3" OAL x 3/4" Face	3" OAL x 1-3/16" Face	3" OAL x 3/4" Face	3" OAL x 1-3/16" Face Replacement Tip
SM180	SM181	SM187	SM188

**DOUBLE OFFSET TYPE RIVET SET  
AN455 .401 SHANK**

RIVET SIZE	5-1/2" OAL	7-1/2" OAL
3/32"	SM130-4553	SM131-4553
1/8"	SM130-4554	SM131-4554
5/32"	SM130-4555	SM131-4555
3/16"	SM130-4556	SM131-4556

**DOUBLE OFFSET TYPE RIVET SET  
AN456 .401 SHANK**

RIVET SIZE	5-1/2" OAL	7-1/2" OAL
3/32"	SM130-4563	SM131-4563
1/8"	SM130-4564	SM131-4564
5/32"	SM130-4565	SM131-4565
3/16"	SM130-4566	SM131-4566

**DOUBLE OFFSET TYPE RIVET SET  
AN470 .401 SHANK**

RIVET SIZE	5-1/2" OAL	7-1/2" OAL
3/32"	SM130-4703	SM131-4703
1/8"	SM130-4704	SM131-4704
5/32"	SM130-4705	SM131-4705
3/16"	SM130-4706	SM131-4706

**SHORT SHANK TYPE RIVET SET  
AN470 .401 SHANK SPECIAL**

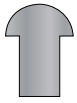


RIVET SIZE	1-3/16" OAL	1-5/8" OAL	1-3/16" OAL x 3/8" HEAD FLUSH
3/32"	SMJ510-4703	SMJ520-4703	SMJ500
1/8"	SMJ510-4704	SMJ520-4704	-
5/32"	SMJ510-4705	SMJ520-4705	-
3/16"	SMJ510-4706	SMJ520-4706	-

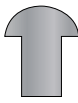
**FLUSH TYPE RIVET SET 10° OFFSET  
.401 SHANK**



3-1/2" OAL x 1" Face	5-1/2" OAL x 1" Face	7-1/2" OAL x 1" Face
SM140	SM141	SM142



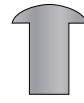
AN435  
BUTTON



AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



AN470  
UNIVERSAL



AN442  
FLAT

## GOOSENECK TYPE RIVET SET AN470 .401 SHANK



RIVET SIZE	7-1/2" OAL	7-1/2" OAL FLUSH
3/32"	SMGN-4703	SMGN-500H
1/8"	SMGN-4704	-
5/32"	SMGN-4705	-
3/16"	SMGN-4706	-

## 10° OFFSET TYPE RIVET SET AN470 BAC .401 SHANK



RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
3/32"	SM20-4703-BAC	SM21-4703-BAC	SM22-4703-BAC
1/8"	SM20-4704-BAC	SM21-4704-BAC	SM22-4704-BAC
5/32"	SM20-4705-BAC	SM21-4705-BAC	SM22-4705-BAC
3/16"	SM20-4706-BAC	SM21-4706-BAC	SM22-4706-BAC

## STRAIGHT BELL TYPE RIVET SET AN470 BAC .401



RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
5/16"	SM50-47010-BAC	SM51-47010-BAC	SM52-47010-BAC
3/8"	SM50-47012-BAC	SM51-47012-BAC	SM52-47012-BAC

## STRAIGHT TYPE RIVET SET AN470 BAC .401 SHANK



RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL	10-1/2" OAL	13-1/2" OAL
3/32"	SM10-4703-BAC	SM11-4703-BAC	SM12-4703-BAC	SM13-4703-BAC	SM14-4703-BAC
1/8"	SM10-4704-BAC	SM11-4704-BAC	SM12-4704-BAC	SM13-4704-BAC	SM14-4704-BAC
5/32"	SM10-4705-BAC	SM11-4705-BAC	SM12-4705-BAC	SM13-4705-BAC	SM14-4705-BAC
3/16"	SM10-4706-BAC	SM11-4706-BAC	SM12-4706-BAC	SM13-4706-BAC	SM14-4706-BAC
7/32"	SM10-4707-BAC	SM11-4707-BAC	SM12-4707-BAC	SM13-4707-BAC	SM14-4707-BAC
1/4"	SM10-4708-BAC	SM11-4708-BAC	SM12-4708-BAC	SM13-4708-BAC	SM14-4708-BAC

## DIMPLING DIES FOR RIVET GUNS

While the Dimple die sets for squeezers can be used with standard .401 Shank Rivet Guns through the use of the TP93 Bucking Blocks, an even better method of dimpling is by using the specially designed swivel head dimpling tools. These tools are 3-1/2" long, and have a .401 shank to fit standard rivet guns. The swivel head helps with "self alignment" of the male and female sides. This method of dimpling is usually used when the hole to be dimpled is out of reach of the rivet squeezer yoke or when it is necessary to dimple behind flanges or other obstacles. With this style tooling it is possible to dimple almost anywhere on the aircraft.

\*Can be used in conjunction with TP93 Bucking Block-

## RIVET SET EXTENSION ADAPTER .401 SHANK



8" OAL
SM401E

## 10° OFFSET BELL TYPE RIVET SET AN470 BAC .401 SHANK



RIVET SIZE	3-1/2" OAL	5-1/2" OAL	7-1/2" OAL
5/16"	SM60-47010-BAC	SM61-47010-BAC	SM62-47010-BAC
3/8"	SM60-47012-BAC	SM61-47012-BAC	SM62-47012-BAC

## ELLIPTICAL FACE FLUSH RIVET SET WITH GUARD .401 SHANK

Specifically designed to drive countersunk rivets and prevent damage to skin surface. The elliptical face concentrates all forces on the center area of the rivet. Specifically designed for use on the following fasteners:

Military Standard: MS14218/MS14219,  
BOEING BACR 15FV & BRILES BRFZ & BRFR  
Shear Head Fasteners.



2-1/4" OAL x 3/4" Face	2-1/4" OAL x 1-1/4" Face
SM1111-1	SM1111-2

## SWIVEL DIMPLING TOOL .401 SHANK



PART NO.	"L"	TYPE
SM10SP	3-1/2"	Punch
SM10SD	3-1/2"	Die

Example: To order L = 3 1/2 - 1/8" Rivet

CUPPINGS	3/32	1/8	5/32	3/16
For 100° Rivets (AN426)	4263	4264	4265	4266

**UNIVERSAL STRAIGHT 5 PIECE SET MIX**  
**PART NO: TP89** (U.S. Made)  
**PART NO: TP89-I** (Imported)

- 3-1/2" sets
- .401 shank
- Contains one each:  
SM10-4703-3/32"  
SM10-4704-1/8"  
SM10-4705-5/32"  
SM10-4706-3/16"  
SM90-Flush Set 1" dia.
- Includes pouch



**UNIVERSAL STRAIGHT 6 PIECE SET MIX**  
**PART NO: TP89-6**

- 3-1/2" sets
- .401 shank
- Contains one each:  
SM10-4703-3/32"  
SM10-4704-1/8"  
SM10-4705-5/32"  
SM10-4706-3/16"  
SM10-4708-1/4"  
SM90-Flush Set 1" dia.
- Includes pouch



**UNIVERSAL STRAIGHT LONG 5 PIECE SET MIX**  
**PART NO: TP89L**

- 5-1/2" long sets
- .401 shank
- Contains one each:  
SM11-4703-3/32"  
SM11-4704-1/8"  
SM11-4705-5/32"  
SM11-4706-3/16"  
SM92-Flush Set 1" dia.
- Includes pouch



**UNIVERSAL OFFSET LONG 4 PIECE SET MIX**  
**PART NO: TP90L**

- 5-1/2" long sets
- .401 shank
- Contains one each:  
SM21-4703-3/32"  
SM21-4704-1/8"  
SM21-4705-5/32"  
SM21-4706-3/16"
- Includes pouch



**UNIVERSAL OFFSET 5 PIECE SET MIX**  
**PART NO: TP90** (U.S. Made)  
**PART NO: TP90-I** (Imported)

- 3-1/2" sets
- .401 shank
- Contains one each:  
SM20-4703-3/32"  
SM20-4704-1/8"  
SM20-4705-5/32"  
SM20-4706-3/16"  
SM20-4708-1/4"
- Includes pouch



**UNIVERSAL GOOSENECK 4 PIECE SET MIX**  
**PART NO: SMGNK-4**

- 7-1/2" sets
- .401 shank
- Contains one each:  
SMGN-4703-3/32"  
SMGN-4704-1/8"  
SMGN-4705-5/32"  
SMGN-4706-3/16"
- Includes pouch



## U.S. INDUSTRIAL RIVET GUN KIT

### PART NO: TP176

(includes TP83 rivet gun)

### PART NO: TP176-4

(includes TP84 rivet gun)

15.25 lbs.

- Our best selling kit
- Contains one of our most popular rivet guns, TP83 or TP84 which features:
  - Precision machined hardened and ground valve
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life

This complete kit contains all the basic tools required for most riveting applications. In addition, the tools are well organized in the molded plastic case, making it the perfect kit for the A & P student, mechanic, airline maintenance personnel or homebuilder.

#### This 21 piece kit includes:

- |             |  |          |  |
|-------------|--|----------|--|
| 1 TP83/TP84 | 3X or 4X offset handle rivet gun   | 1 TP88   | spring retainers (2 pc.) (Includes: beehive type, quick change rivet set retainers with a 1-1/8" inner diameter that fit 2X, 3X, 4X and many other rivet guns) |
| 1 TP89i     | straight rivet sets (5 pc.) (Includes: 1 flush set of 5 .401 shank SM10 series, straight 3/32" through 3/16" with pouch) | 1 TP1112 | bucking bar  |
| 1 TP90i     | offset rivet sets (5 pc.) (Includes: Set of 5 .401 shank SM20 series, straight 3/32" through 1/4" with pouch)            | 1 TP638  | bucking bar  |
| 1 TP91      | flush set with guard   | 1 TP647  | bucking bar  |
|             |  | 1 TP670  | bucking bar  |
|             |  | 1 TP97   | air tool regulator   |
|             |  | 1 A1142  | air tool oil   |
|             |  | 1 TP216M | molded plastic case  |



Custom molded case included

### – CUSTOM KITS ALSO AVAILABLE UPON REQUEST –

## 12-PIECE RECOILLESS RIVETING TOOL KIT

### PART NO: US2RRBK

(includes US2R Recoilless Rivet Hammer)

### PART NO: US3RRBK

(includes US3R Recoilless Rivet Hammer)

#### KIT CONTAINS:

- 1 US2R or US3R ... Recoilless Rivet Hammer
- 1 TP111R ..... Recoilless Bucking Bar
- 1 TP1500H ..... Bucking Dollie
- 1 TP1525S ..... Bucking Dollie
- 1 TP1505O ..... Bucking Dollie
- 1 TP2020B ..... Bucking Dollie
- 1 TP1510A ..... Bucking Dollie
- 1 TP1530S ..... Bucking Dollie
- 1 TP1540S ..... Bucking Dollie
- 1 TP1 ..... Swivel Regulator
- 1 TP218 ..... Case with foam insert
- 1 A1142 ..... 4 oz. oil

## 9-PIECE RECOILLESS RIVETING TOOL KIT

### PART NO: US4RRBK

(includes US4R Recoilless Rivet Hammer)

### PART NO: US5RRBK

(includes US5R Recoilless Rivet Hammer)

#### KIT CONTAINS:

- 1 US4R or US5R ... Recoilless Rivet Hammer
- 1 TP111R ..... Recoilless Bucking Bar
- 1 TP0000H ..... Bucking Dollie
- 1 TP3553H ..... Bucking Dollie
- 1 TP3558H ..... Bucking Dollie
- 1 TP3559H ..... Bucking Dollie
- 1 TP1 ..... Swivel Regulator
- 1 TP218-1 ..... Large Case with foam insert
- 1 A1142 ..... 4 oz. oil



Case included

US3RRBK

NOTE: Long term exposure to low frequency vibration caused by riveting may be harmful to your hands and arms. We suggest you take frequent breaks when riveting to reduce this exposure.

## U.S. INDUSTRIAL DELUXE STUDENT TOOL KIT

**PART NO: TP176ST**

(includes TP83 rivet gun)

**PART NO: TP176ST-4**

(includes TP84 rivet gun)

13.4 lbs.

This kit meets most school requirements for basic sheet metal tools. These high quality tools will take the student through school and into the profession for years of outstanding service.

- Contains one of our most popular rivet guns, TP83 or TP84 which features:
  - Precision machined hardened and ground valve
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life



– CUSTOM KITS ALSO AVAILABLE UPON REQUEST –

### This 58 piece kit includes:

- |   |  |   |
|---|--|---|
| 1 TP83/TP84 .....3X or 4X offset handle rivet gun | 1 TP89i .....5 pc. straight rivet set mix (AN470) (Includes: 1 flush set of 5 .401 shank SM10 series, straight 3/32" through 3/16" with pouch) | 1 TP45 .....3/8" air drill  |
| 1 TP97 .....air tool regulator                    | 1 TP670 .....bucking bar   | 6 TP49 .....drill bits  |
| 1 A1006-234X .....beehive spring retainer         | 1 TP346 .....rivet cutter  | 1 TP145DSK .....4 pc. drill stop kit  |
| 1 A1007-234X .....quick change spring retainer    | 1 TP74 .....cleco pliers   | 1 TP61K .....micro stop countersink & 3 cutters (1 ea.: TP61, TP62-21, 30, 40 & storage tube) |
|   | 40 TP75 .....cleco fasteners (10 ea.: 3/32, 1/8, 5/32, 3/16)   | 1 TP279 .....military style tool pouch  |

NOTE: Long term exposure to low frequency vibration caused by riveting may be harmful to your hands and arms. We suggest you take frequent breaks when riveting to reduce this exposure.



– CUSTOM KITS ALSO AVAILABLE UPON REQUEST –

**This 536 piece kit includes:**

- |   |  |   |
|---|--|---|
| 1 TP82/<br>TP83/TP84 .....2X, 3X or 4X offset handle<br>rivet gun   | 1 TP88 .....beehive and quick change<br>retainer springs                       | 500 TP75 cleco fasteners<br>(325 pcs. TP75-3/32 & 175<br>pcs. TP75-1/8) |
| 1 TP89i .....straight rivet set (Includes:<br>1 flush set of 5 .401 shank<br>SM10 series, straight 3/32"<br>through 3/16" with pouch) | 1 TP97 .....air tool regulator   | 1 TP74 .....cleco pliers  |
| 1 TP90i .....10° offset rivet sets (Includes:<br>Set of 5 .401 shank SM20<br>series, straight 3/32" through<br>1/4" with pouch)       | 1 TP96 .....rivet cutter   | 1 TP44 .....hand seamer   |
| 1 TP91i .....flush rivet set with rubber<br>guard   | 1 TP61 .....micro stop countersink   | 1 TP266 .....deburring tool   |
|   | 1 TP116 .....hand rivet squeezer   | 1 TP638 .....bucking bar  |
|   | 1 TP4263 .....dimple and die set   | 1 TP647 .....bucking bar  |
|   | 1 TP4264 .....dimple and die set   | 1 TP670 .....bucking bar  |
|   | 1 TP116A .....squeezer set mix   | 1 TP1112 .....bucking bar   |
|   | 1 TP45 .....3/8" air drill   | 1 TP216 .....tool box with tote tray                                    |
|   | 1 TP162 .....fluting pliers  | 3 TP49-12 .....jobber length drill bits                                 |
|   | 3 TP62 .....countersink cutter pilots<br>(1 ea.: TP62-21, TP62-30,<br>TP62-40) | 3 TP49-28 .....jobber length drill bits                                 |

**U.S. INDUSTRIAL  
"KIT BUILDER'S KIT"**

**PART NO: TP176RV**

(includes TP83 rivet gun)

**PART NO: TP176RV- 2**

(includes TP82 rivet gun)

**PART NO: TP176RV- 4**

(includes TP84 rivet gun)

40 lbs.

Initially designed for the RV3, RV4 and RV6 builders, this new kit has proven to be very popular with virtually all aircraft kit builders.

- Contains one of our most popular rivet guns, TP82, TP83 or TP84 which features:
  - Precision machined hardened and ground valve
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life

## U.S. INDUSTRIAL MUSTANG KIT PART NO: TP176MUS

(includes TP83 rivet gun)

### PART NO: TP176MUS-4

(includes TP84 rivet gun)  
34 lbs.

This kit is designed especially for the assembly of the Mustang Kit aircraft. It is comprised of over 300 items, specifically required in the fabrication and assembly of this aircraft.

- Contains one of our most popular rivet guns, TP83 or TP84 which features:
  - Precision machined hardened and ground valve
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life



– CUSTOM KITS ALSO AVAILABLE UPON REQUEST –

### This 317 piece kit includes:

1 TP83/TP84 .....3X or 4X Offset Handle Rivet Gun	25 TP75L-1/8 .....Cleco Fasteners	1 TP81 .....Hand Nibbler
1 TP91 .....Flush Rivet Set	80 TP75-3/32 .....Cleco Fasteners	4 TP49-30 .....Drill Bits
1 SM10-4703 .....Rivet Set	1 TP74 .....Cleco Pliers	4 TP49-3/32 .....Drill Bits
1 SM10-4704 .....Rivet Set	1 TP44 .....Hand Seamer	4 TP49-40 .....Drill Bits
1 SM10-4705 .....Rivet Set	1 TP227G .....Duckbill Pliers	4 TP49-1/8 .....Drill Bits
1 A1007-234X .....Quick Change Retainer Spring	1 TP266 .....Deburring Tool	2 TP49-12 .....Drill Bits
1 TP346 .....Heavy Duty Rivet Cutter	1 TP888-3 .....Hand Rivet Squeezer	2 TP49-3/16 .....Drill Bits
1 TP61K .....Stop Countersink Kit (1 ea.: TP61, TP62-21, 30 40 & storage tube)	1 TP116A .....Squeezer Sets (2 flush & 4 universal AN470 head)	1 TPA5611 .....Unibit Drill
1 TP722 .....Fluting Pliers	1 TP751 .....Bucking Bar	1 TP294HD .....Auto Center Punch
130 .....TP75-1/8 Cleco Fasteners	1 TP670 .....Bucking Bar	1 TP735K .....Hand Pack Trial Kit
	1 SM181 .....Swivel Flush Rivet Set	1 TPF56 .....Flat File
	5 TP641HC .....Handi-Clamp	1 TP4263 .....Dimple and Die Set
	25 TP75L-3/32 .....3/32 Cleco Fasteners	1 TP4264 .....Dimple and Die Set
		1 TP216 .....Tool Box



– CUSTOM KITS ALSO AVAILABLE UPON REQUEST –

**This 503 piece kit includes:**

- |   |  |  |
|---|--|--|
| 1 TP83/TP84 .....3X or 4X Offset Handle Rivet Gun               | 1 TP45 .....3/8" Capacity Air Drill                | 1 TP51K .....Aviation Snip Kit - Left, Right, Straight           |
| 1 SM10-4706i .....3/16" Universal Rivet Set                     | 250 TP75-3/32 .....3/32 Cleco Fasteners            | 1 TP46K .....90° Drill Attachment with Bits #40, #30, 21         |
| 1 SM10-4703i .....3/32 Universal Rivet Set                      | 150 .....TP75-1/8 1/8 Cleco Fasteners              | 1 TP70AT .....Chip Chaser  |
| 1 SM10-4704i .....1/8 Universal Rivet Set                       | 25 TP75L-3/16.....3/16 Cleco Fasteners             | 1 TP844 .....Swivel Hand Pop Riveter                             |
| 1 TP91 .....Flush Set with Rubber Guard                         | 1 TP74 .....Cleco Plier                            | 1 TPA5588 .....Hook Scriber                                      |
| 1 A1007-234X .....Quick Change Retainer Spring                  | 1 TP266 .....Deburring Tool with 7 Blades          | 1 TP294AP .....Center Punch                                      |
| 1 TP61 .....Stop Countersink                                    | 1 TP838 .....90° Countersink/Deburring Set         | 1 BG383-1 .....Tape Measure                                      |
| 1ea.TP62 .....100° Countersink Cutter Pilots (12, 21, 30, & 40) | 1ea.TP638, TP647, TP721, TP760B-1 Bucking Bars     | 1 TP604B .....12" Ruler 32nds, 64ths, 10ths, 100ths, Graduations |
| 1ea.TP62A 120° Countersink Cutter Pilots (30)                   | 1ea.TP49-11/64, 1/4, 1/16 Jobber Drill Bits        | 1 TP297 .....Spring Divider (Caliper)                            |
| 1 TP116 .....Hand Rivet Squeezer                                | 1 TP249 .....60 pcs. - #1-#60 Jobber Drill Bit Set | 1 TP216 .....Tool Box  |
| 1 TP116A .....Squeezer Set (2 flush & 4 universal AN470 head)   | 1ea.TP55-30, 406" Aircraft Extension Bits          |  |
| 1 TP4263SB .....1/8 Dimple Die Set                              | 1 TP55A-40 .....12" Aircraft Extension Bit         |  |
| 1 TP4264SB .....3/32 Dimple Die Set                             | 10ea. ....TP1235G, TP1265G Side Grip Clamps        |  |
|   | 2 TP538STC .....Tension Clamp                      |  |

**U.S. INDUSTRIAL GLASTAR KIT**  
**PART NO: TP176G**  
(includes TP83 rivet gun)  
**PART NO: TP176G-4**  
(includes TP84 rivet gun)  
47 lbs.

This kit is designed especially for the Glastar kit aircraft. The tools included are recommended by the manufacturer, specifically for the assembly of the sheet metal portion of the kit. Many of these tools will also be used in other areas of its construction.

- Contains one of our most popular rivet guns, TP83 or TP84 which features:
  - Precision machined hardened and ground valve
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life

## DELUXE SHEET METAL TOOL KIT PART NO: TP176RVDLX

New for 2003, this complete 541 piece kit provides you with all of the sheetmetal tools you'll need to build a RV aircraft.

- Contains one of our most popular rivet guns, TP83 which features:
  - Precision machined hardened and ground valve
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life



– CUSTOM KITS ALSO AVAILABLE UPON REQUEST –

### This 591 piece kit includes:

1 TP808A .....riveters tape - 36 yds.	1 TP44 .....hand seamer	1 TP4263 .....dimple & die set
1 TP83 .....rivet gun	1 TP842 .....back riveting plate	1 TP4264 .....dimple & die set
1 TP6150 .....riveting & dimpling fixture	1 TP888-3 .....hand squeezer	1 TP5095 .....dimple & die set
1 TP45 .....drill	1 TP844 .....swivel riveting tool	1 SM130-4703 .....rivet set
1 TP466 .....dead blow hammer	1 A1007-234X .....quick-change retainer spring	1 TP313 .....back riveting set
1 TP819B .....unibit drill	1 AT514 .....edge breaker	1 TP62-19 .....countersink cutter
1 TPA5610 .....unibit drill	1 TP55AC-30.....extension bit	1 TP62-28 .....countersink cutter
1 TP740E .....6x1x1 cut & polish med.	1 TP55AC-40.....extension bit	175 TP75-1/8 .....cleco fastener
1 TPAF10 .....flat file	1 TP1 .....air tool swivel regulator	10 TP75-3/16 .....cleco fastener
1 TPA5593 .....file card	1 TP266 .....deburring tool	325 TP75-3/32 .....cleco fastener
1 TP244 .....hearing protector	1 TP54-19 .....threaded drill bit	4 TP1245G .....side grip fastener
1 A1142 .....air tool oil	1 TP89 .....straight rivet set mix	4 TP1265G .....side grip fastener
1 TP843 .....plastic rivet set block	1 TP96 .....rivet cutter	1 TP54-10 .....threaded drill bit
1 221 .....screwdriver bit	1 TP74 .....cleco plier	1 TP54-12 .....threaded drill bit
1 222 .....hex insert bit	1 TP145DSK .....4 pc. drill stop kit	1 TP54-21 .....threaded drill bit
3 TP49-12 .....drill bit	1 TP61 .....stop countersink	1 TP54-30 .....threaded drill bit
1 TP49-19 .....drill bit	1 TP62-21 .....countersink	1 TP54-40 .....threaded drill bit
6 TP49-30 .....drill bit	1 TP62-30 .....countersink	1 A1006-234X .....beehive retainer spring
6 TP49-40 .....drill bit	1 TP62-40 .....countersink	1 TP260 .....2 drawer tool box
1 TP904L .....high capacity offset snips	1 TP62-10 .....countersink	1 TP647 .....bucking bar
1 TP722 .....fluting plier	1 TP604C .....flexible steel rule	1 TP670 .....bucking bar
1 TP904R .....high capacity offset snips	1 TP4 .....angle drill attachment	1 TP634 .....bucking bar



**MASTER KIT  
BUILDER'S KIT**  
**PART NO: TP176MKB**  
(includes TP83 rivet gun)  
**PART NO: TP176MKB-2**  
(includes TP82 rivet gun)  
**PART NO: TP176MKB-4**  
(includes TP84 rivet gun)]  
50 lbs.

The Master Kit Builders Kit contains all the tools supplied in the "Kit Builders" tool kit plus many more. It is designed to supply all the major, most commonly used tools for the building of sheet metal aircraft. These items can be used on RV's, Zenair, Questair and Mustang Aeronautic kits as well as many, many others. A huge savings can be realized by purchasing this kit over the individual tool prices.

- Contains one of our most popular rivet guns, TP82, TP83, or TP84 which features:
  - Precision machined hardened and ground valve
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life

KITS

MASTER KIT BUILDER'S KIT

**– CUSTOM KITS ALSO AVAILABLE UPON REQUEST –**

**This 562 piece kit includes:**

1 TP82/TP83/ TP84 ..... 2X, 3X or 4X offset handle rivet gun	1 TP722 ..... fluting pliers	1 TP844 ..... swivel hand pop riveter
1 TP89i ..... straight rivet set (Includes: 1 flush set of 5 .401 shank SM10 series, straight 3/32" through 3/16" with pouch)	1 TP61 ..... micro stop countersink countersink cutter pilots (1 ea.: TP62-21, TP62-30, TP62-40)	1 TP636 ..... 1/8" "pop" dimple die set
1 TP90i ..... 10" offset rivet sets (Includes: Set of 5 .401 shank SM20 series, straight 3/32" through 1/4" with pouch)	3 TP62 ..... cleco fasteners (325 pcs. TP75-3/32 & 175 pcs. TP75-1/8)	6 TP49-40 ..... drill bit
1 TP91 ..... flush rivet set with rubber guard	500 TP75 ..... cleco pliers	4 TP49-30 ..... drill bit
1 TP88 ..... beehive and quick change retainer springs	1 TP74 ..... hand seamer	2 TP49-12 ..... drill bit
1 TP97 ..... air tool regulator	1 TP266 ..... deburring tool	1 TP49-1/4 ... drill bit
1 TP96 ..... rivet cutter	1 TP638 ..... bucking bar	4 TP145DS ..... drill stops (#40, #30, #12, 1/4)
1 TP45 ..... 3/8" air drill	1 TP647 ..... bucking bar	1 TP312 ..... circle hole cutter
	1 TP670 ..... bucking bar	1 TP116 ..... hand rivet squeezer
	1 TP1112 ..... bucking bar	1 TP116A ..... rivet sets for TP116 (2 flush & 4 universal AN470 head)
	1 TP51 ..... aviation snip - right	1 TP4263 ..... 3/32" dimple die set
	1 TP52 ..... aviation snip - left	1 TP4264 ..... 1/8" dimple die set
	1 TP53 ..... aviation snip - straight	1 TP722 ..... fluting plier (small flute)
		1 TP260 ..... 2 Drawer Tool Box

US902 pneumatic Cleco installation tool is optional, but recommended.

NOTE: Long term exposure to low frequency vibration caused by riveting may be harmful to your hands and arms. We suggest you take frequent breaks when riveting to reduce this exposure.

## U.S. INDUSTRIAL MASTER AIRCRAFT TOOL KIT PART NO: TP176M

(includes TP83 rivet gun)  
**PART NO: TP176M-4**  
(includes TP84 rivet gun)  
48 lbs.

- Ideal starter sheet metal kit
- Contains one of our most popular rivet guns, TP83 or TP84 which features:
  - Precision machined hardened and ground valve
  - Teasing trigger
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life

This 121-piece complete Aircraft Mechanics Kit is excellent for aircraft restoration, repair and manufacturing. Ideal for the A & P mechanic, student and homebuilder, this kit comes with everything from sheet metal tools to riveting tools in a two-drawer tool chest.



### – CUSTOM KITS ALSO AVAILABLE UPON REQUEST –

#### This 121 piece kit includes:

1 TP83/TP84 ...	3X or 4X offset handle rivet gun	1 TP91i .....	1/4" with pouch)	1 TP74 .....	Cleco pliers
40 TP75 .....	Cleco fasteners (10 ea.: 3/32", 1/8", 5/32" & 3/16"	1 TP638 .....	Flush set with guard	1 TPMM250-1	Strap duplicator #40
20 TP109M .....	Wing nut fasteners (5 ea.: 3/32", 1/8", 5/32" & 3/16"	1 TP1112 .....	Bucking bar	1 TPMM250-2	Strap duplicator #30
1 TP145DSK ...	Drill stop kit (1 ea.: #21, #30, #40 & #10)	1 TP670 .....	Bucking bar	1 TPMM250-3	Strap duplicator #21
3 TP62 .....	Replaceable pilots (1 ea.: #21, #30 & #40)	1 TP647 .....	Bucking bar	1 TPMM250-5	Strap duplicator #10
3 TP54 .....	Threaded drill bits (1 ea.: #21, #30 & #40)	1 TP97 .....	Air tool regulator	1 TP57 .....	Cone jaw chuck
1 TP88 .....	Spring retainer set	1 TP51 .....	Aviation snip - left	1 TP162 .....	Fluting pliers
1 TP89i .....	Straight rivet set mix (Includes: 1 flush set of 5 .401 shank SM10 series, straight 3/32" through 3/16" with pouch)	1 TP52 .....	Aviation snip - right	1 TP76K .....	Hand punch kit
1 TP90i .....	Offset rivet set mix (Includes: Set of 5 .401 shank SM20 series, straight 3/32" through	1 TP53 .....	Aviation snip - straight	1 TP44 .....	Hand seamer
		1 TP61 .....	Stop countersink	1 TP81 .....	Hand nibbler
		1 TP45 .....	3/8" pistol grip air drill	5 TP123SG ...	Side grip fasteners
		1 TP46 .....	90° angle attachment	1 TP70AT .....	Chip chaser
		1 TP346 .....	Heavy duty rivet cutter	1 TP675 .....	Air vacuum
		1 TP116 .....	Hand rivet squeezer	1 TP260 .....	2-drawer tool box
		1 TP116A .....	Squeezer set mix (Includes: 6 assorted rivet sets, .187 shank, universal type 3/32", 1/8", 5/32", 3/16" and two flush sets)	1 TP714 .....	Std. Aviation Handbook



KITS

DELUXE SHEET METAL KIT



## DELUXE SHEET METAL TOOL KIT PART NO: TP176DLX

(includes TP83 rivet gun)

## PART NO: TP176DLX-4

(includes TP84 rivet gun)

200 lbs.

This deluxe tool set is designed to meet the professional aircraft mechanics many needs, and includes just about every hand tool required for working with sheet metal. Also included is a great feathering throttle rivet gun, an ergonomically designed air drill and a powerful and versatile air rivet squeezer and rivet shaver. All the items in this kit were selected for their high quality and versatility. (Must be shipped motor freight)

- Contains one of our most popular rivet guns, TP83 or TP84 which features:
  - Precision machined hardened and ground valve
  - "Sure Grip" powder coated finish
  - Teasing trigger
  - Precision machined and hardened cylinder for long life

### This 503 piece kit includes:

1	TP83/TP84	3X or 4X Offset Handle Rivet Gun	1	US902	Cleco Fastener Installation Tool
5	TP109M-3/32	Wing Nut Fastener	1	US114C	Rivet Squeezer
5	TP109M-1/8	Wing Nut Fastener	1	US7092DARE-2800	Angle Drill
5	TP109M-5/32	Wing Nut Fastener	1	TP276	Rivet Removal Tool
5	TP109M-3/16	Wing Nut Fastener	1	TP844	Swivel Riveting Tool
1	TP145DSK	Drill Stop Kit	1	TP726K	Rivet Nut Tool Kit (Includes: 6-32, 8-32, 10-32, notcher & handy case)
1	TP89i	Rivet Set Mix (Includes: 1 flush set of 5 .401 shank SM10 series, straight 3/32" through 3/16" with pouch)	6	TP641HC	Handi-Clamp
1	TP90i	Rivet Set Mix (Includes: Set of 5 .401 shank SM20 series, straight 3/32" through 1/4" with pouch)	1	TP68K	Safety Wire Twister Kit (Includes: TP68SR wire twister, TP277 handy twister, 1 each of .020, .032, & .041 safety wire & handy carrying case)
1	TP91	Flush Rivet Set	1	TP249	Jobber Drill Set (60 pc. Number sizes 1 thru 60, 118", High Speed Steel)
1	TP175	Bucking Bar Kit	1	TP312	Hole Cutter
1	TP51K	Aviation Snip Combo (left, right, straight)	1	US7387RS	Rivet Shaver
1	TP266	Deburring Tool	1	TP143-9/16	Rivet Shaver Cutter
1	TP61K	Stop Countersink Kit (1 ea.: TP61, TP62-21, 30 40 & storage tube)	1	A1142	Air Tool Oil
1	TP46	Angle Drill Attachment	1	TP604B	Flexible Steel Rule
1	TP346	Heavy Duty Rivet Cutter	1	TPA5588	Hook Scriber
1	TP4263K	Dimple & Die Kit (Includes: 3/32", 1/8", 5/32" and 3/16" with plastic box)	1	TP294S	Noxon Spring Center Punch
1	TP116	Hand Rivet Squeezer	1	TP853	Rivet Length Gauge
1	TP722	Fluting Plier	1	TP55-10	Extension Bit
1	TP74	Cleco Pliers	1	TP55-21	Extension Bit
1	TP76K	Portable Hand Punch Kit	1	TP55-30	Extension Bit
1	TP44	Hand Seamer	1	TP55-40	Extension Bit
1	TP81	Hand Nibbler	1	TP55A-10	Extension Bit
5	TP1235G	Side Grip Fastener	1	TP55A-21	Extension Drill
1	TP70AT	Chip Chaser	1	TP55A-30	Extension Bit
1	TP675	Mini Vac	1	TP55A-40	Extension Bit
1	TP75K-80	Cleco Fastener (20 pc. ea. size: 3/32", 1/8", 5/32", 3/16" & 1/4")	1	130	Die Grinder
1	A1007-234X	Quick Change Retainer Spring	1	TP229B	Round Tree Rotary Burr
1	TP875	Mini Air Drill	1	TP230	Cylindrical Rotary Burr
1	TP258	Angle Drill Collet & Chuck Kit	1	TP854	Shop Head Rivet Gauge Set
1	TPMM250K	Strap Duplicator Kit (Includes: #40, 30, 21 & 10 with pouch)	1	TP714	Std. Aviation Maint. Handbook
5	TP1255G	Side Grip Fastener	1	TP260D	Tool Box and Cabinet
			1	TP854	Shop Head Rivet Gauge Set

Tool box & cabinet included

## U.S. INDUSTRIAL HEAVY DUTY HAND RIVET SQUEEZERS

**PART NO: TP888-1** (With 1" "C" yoke, 3.4 lbs. - No Upper Set Hole)

**PART NO: TP888-2** (With 2" "C" yoke, 3.85 lbs.)

**PART NO: TP888-3** (With 3" "C" yoke, 4.4 lbs.)

**PART NO: TP888-4** (With 2" & 3" "C" yokes, 5.4 lbs.)

**PART NO: TP888-5** (With 1", 2", & 3" "C" yoke, 6.5 lbs.)

**PART NO: TP888-6** (With 5" "C" yoke, 8 lbs.)

**PART NO: TP888-7** (With 1", 2", 3" & 5" "C" yoke, 8.5 lbs.)

This versatile tool is available individually as a 1", 2", 3" or 5" model or as combination units. By simply removing 3 hardened pins you can change the yoke to match your riveting or dimpling application. Longer, redesigned handle for increased force and ease of operation.

- Capable of forces in excess of 3,600 lbs.
- .187 shank rivet set holes
- Comes with 4 Universal AN470 rivet sets and 2 flush sets (TP116A), .187 shank
- Adjustable set holder
- 3/32" to 3/16" rivet capacity
- Has removable "C" yoke
- 15.2" length
- Made from ductile steel
- Storage pouch included
- Made in the U.S.A.



## HAND RIVET SQUEEZER

**PART NO: TP116**

2.5 lbs.

A basic tool for all riveting operations. It has a unique adjustable rivet set holder which can be adjusted for various rivet lengths. All parts are heat treated.

- Heavy duty
- .187 shank rivet set holes
- Comes with 4 Universal AN470 rivet sets and 2 flush sets (TP116A)
- 3/32" to 3/16" rivet capacity
- 1-1/2" reach x 1-1/2" gap
- 14" length
- Storage pouch included



These silent alligator-type compression riveters are excellent for many assembly operations - used in aircraft, automotive, truck, bus components, boats, metal furniture, toys, electronic chassis and appliance assembly.

- One-man operation increases productivity
- Rolling cam and wedge assembly greatly multiplies compression force of piston
- "Squeeze" action permits easy control, exceptional accuracy and uniformity

- High joint integrity independent of operator skill level
- Speed of squeeze riveter can be controlled by throttle
- Swivel air inlet aids maneuverability
- Tandem cylinder doubles compression force available from tool
- Develops full squeezing force with only 90 p.s.i. air pressure
- One piece bearing for long life
- Yellow "Sure Grip" finish for positive handling
- Cast alloy steel lever positioned for user comfort
- Made in the U.S.A.
- CE certified



US114AA  
Single Cylinder



US114TAA  
Tandem Cylinder

## HIGH OUTPUT SQUEEZE RIVETERS

PART NO.	RIVET CAPACITY†		FORCE LBS.	REACH	GAP	MAX TRAVEL	OVERALL LENGTH	WEIGHT LBS.
	ALUM	STEEL						
*US114AA	5/32"	1/8"	4,300	1-1/2"	7/8"	5/8"	9-3/16"	3.8
*US114AA-2-1/4	1/8"	3/32"	3,900	2-1/4"	7/8"	7/8"	10-1/8"	4.3
*US114AA-3	3/32"	N/A	3,400	3"	7/8"	1-1/4"	10-3/4"	4.5
*US114AA-5-1/2	3/32"	N/A	2,200	5-1/2"	7/8"	15/16"	13-1/4"	6.4
*US114TAA	1/4"	3/16"	7,500	1-1/2"	7/8"	5/8"	12"	5.0
*US114TAA-2-1/4	3/16"	5/32"	6,300	2-1/4"	7/8"	7/8"	13"	5.5
*US114TAA-3	3/16"	1/8"	5,600	3"	7/8"	1-1/4"	13-3/4"	6.0
*US114TAA-5-1/2	5/32"	N/A	3,000	5-1/2"	7/8"	15/16"	16"	7.9

### NOTE

Optional jaws available on pages 34-35



US114A  
Single Cylinder



US114TA  
Tandem Cylinder

## STANDARD OUTPUT SQUEEZE RIVETERS

PART NO.	RIVET CAPACITY†		FORCE LBS.	REACH	GAP	MAX TRAVEL	OVERALL LENGTH	WEIGHT LBS.
	ALUM	STEEL						
*US114A	1/8"	3/32"	3,000	1-1/2"	7/8"	5/8"	9-3/16"	3.8
*US114A-2-1/4	1/8"	3/32"	2,200	2-1/4"	7/8"	7/8"	10-1/8"	4.3
*US114A-3	3/32"	1/16"	1,800	3"	7/8"	1-1/4"	10-3/4"	4.5
*US114A-5-1/2	3/32"	N/A	1,250	5-1/2"	7/8"	15/16"	13-1/4"	6.4
*US114TA	3/16"	5/32"	6,000	1-1/2"	7/8"	5/8"	12"	5.0
*US114TA-2-1/4	5/32"	1/8"	4,300	2-1/4"	7/8"	7/8"	13"	5.5
*US114TA-3	1/8"	3/32"	3,400	3"	7/8"	1-1/4"	13-3/4"	6.0
*US114TA-5-1/2	1/8"	N/A	2,600	5-1/2"	7/8"	15/16"	16"	7.9

\* NOTE: If you require .250 set holder hole, specify "S" (example: US114A-S). If you require .5mm set holder holes, specify "mm" (example: US114A-MM). Patent Pending. Tool provided with 35599 Guard Standard.  
† Rivet capacities are for reference only, based on mild tensile fastener grades. Actual compression trials on sample rivets will provide absolute force requirements. Provide us with your rivet samples for testing at no additional charge

These versatile C-Type Squeezers are excellent for many assembly operations - used in aircraft, automotive, truck, bus components, boats, metal furniture, toys, electronic chassis and appliance assembly.

- One-man operation increases productivity
- Rolling cam and wedge assembly greatly multiplies compression force of piston
- "Squeeze" action permits easy control, exceptional accuracy and uniformity
- High joint integrity independent of operator skill level

- Speed of squeeze riveter can be controlled by throttle
- Swivel air inlet aids maneuverability
- Tandem cylinder doubles compression force available from tool
- Develops full squeezing force with only 90 p.s.i. air pressure
- One piece bearing for long life
- Yellow "Sure Grip" finish for positive handling
- Cast alloy steel lever positioned for user comfort
- Made in the U.S.A.
- CE certified



US114CC  
Single Cylinder



US114TCC  
Tandem Cylinder

### HIGH OUTPUT SQUEEZE RIVETERS

PART NO.	RIVETCAPACITY*		FORCE LBS.	REACH	GAP	MAX TRAVEL	OVERALL LENGTH	WEIGHT LBS.
	ALUM	STEEL						
*US114CC	5/32"	1/8"	4,200	1-1/2"	1-1/4"	9/16"	10-1/4"	3.0
*US114TCC	1/4"	3/16"	7,700	1-1/2"	1-1/4"	9/16"	14"	5.5

- Tandem cylinder doubles compression force of tool.

**NOTE**  
Optional jaws available on pages 34-35



US114C  
Single Cylinder



US114TC  
Tandem Cylinder

### STANDARD OUTPUT SQUEEZE RIVETERS

PART NO.	RIVETCAPACITY*		FORCE LBS.	REACH	GAP	CLOSED HEIGHT	MAX TRAVEL	OVERALL LENGTH	WEIGHT LBS.
	ALUM	STEEL							
*US114C	1/8"	3/32"	3,000	1-1/2"	1-1/4"	11/16"	9/16"	10-1/4"	3.0
*US114TC	3/16"	5/32"	6,000	1-1/2"	1-1/4"	11/16"	9/16"	14"	5.5

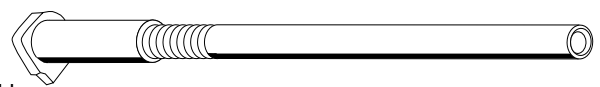
- Tandem cylinder doubles compression force of tool.

### UPGRADE TO MORE POWER!

Send in old style US114C or US114TC, and we'll factory install upgrade. Call for details.

### ADJUSTABLE SET HOLDER PART NO: 5052ADJ

- Convert US114 Series & CP214 Series compression riveters to adjustable set holder.
- Must be used with "C" Yokes that have 1" thick base or less
- 3/16" (.187) shank I.D.



\* NOTE: If you require .250 set holder hole, specify "S" (example: US114A-S). If you require .5mm set holder holes, specify "mm" (example: US114A-MM).

Patent Pending. Tool provided with 35599 Guard Standard.

†Rivet capacities are for reference only based on mild tensile fastener grades. Actual compression trials on sample rivets will provide absolute force requirements. Provide us with your rivet samples for testing at no additional charge.

These silent alligator-type compression riveters are excellent for many assembly operations - used in aircraft, automotive, truck, bus components, boats, metal furniture, toys, electronic chassis and appliance assembly.

- One-man operation increases productivity
- Rolling cam and wedge assembly greatly multiplies compression force of piston
- "Squeeze" action permits easy control, exceptional accuracy and uniformity

- High joint integrity independent of operator skill level
- Speed of squeeze riveter can be controlled by throttle
- Swivel air inlet aids maneuverability
- Tandem cylinder doubles compression force available from tool
- Develops full squeezing force with only 90 p.s.i. air pressure
- One piece bearing for long life
- Cast alloy steel lever positioned for user comfort
- Made in the U.S.A.
- CE certified



US151A  
Single Cylinder



US151TA  
Tandem Cylinder

**NOTE**  
Optional jaws available on pages 34-35

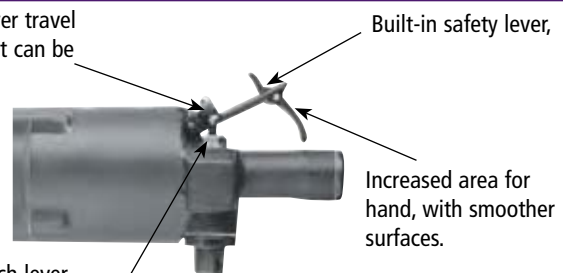
PART NO.	RIVET CAPACITY		FORCE LBS.	REACH	GAP	MAX TRAVEL	OVERALL LENGTH	WEIGHT LBS.
	ALUM	STEEL						
US151A-2-7/8	5/32"	1/8"	5,200	2-7/8"	7/8"	5/8"	19-1/2"	15.0
US151A-5	1/8"	3/32"	3,400	5"	7/8"	1-3/8"	21-5/8"	19.0
US151A-7	1/8"	3/32"	3,000	7"	7/8"	1-11/16"	23-5/8"	23.0
US151A-9-1/8	1/8"	3/32"	3,000	9-1/8"	1-3/16"	1-11/16"	25-3/4"	25.0
US151A-4	3/16"	5/32"	6,500	4"	1-1/32"	1-7/16"	20-5/8"	20.5
US151A-3 1/4*	7/32"	3/16"	8,800	3 1/4"	1 23/64"	1-15/16"	18 3/4"	15.2
US151TA-2-7/8	1/4"	3/16"	10,400	2-7/8"	7/8"	5/8"	23-3/4"	17.5
US151TA-5	3/16"	5/32"	6,800	5"	7/8"	1-3/8"	25-7/8"	21.5
US151TA-7	3/16"	5/32"	6,000	7"	7/8"	1-11/16"	27-7/8"	26.0
US151TA-9-1/8	3/16"	5/32"	6,000	9-1/8"	1-3/16"	1-11/16"	30"	28.0
US151TA-4	7/32"	3/16"	11,000	4"	1-3/32"	1-7/16"	25"	22.8
US151TA-3 1/4*	7/32"	1/4"	15,000	3 1/4"	1 23/64"	1 3/8"	24 1/2"	21.5

\* No set hole in stationary jaw.

**U.S. INDUSTRIAL TOOL HAS A NEW ERGONOMIC MULTI-LEVER\* THAT ALLOWS LESS FINGER PRESSURE AND LESS TRAVEL TO ACTIVATE.**

\*Patent Pending. Tool provided with 35599 Guard standard.

Fully adjustable lever travel begins with 22°, but can be adjusted to 12°.



Unique variable pitch lever, allowing decrease in hand force per activation.

For Lever Assembly, reference Part No. 95508AS

\* NOTE: If you require .250 set holder hole, specify "S" (example: US151A-S). If you require .5mm set holder holes, specify "mm" (example: US151A-MM). Patent Pending. Tool provided with 35599 Guard Standard.  
†Rivet capacities are for reference only, based on mild tensile fastener grades. Actual compression trials on sample rivets will provide absolute force requirements. Provide us with your rivet samples for

These versatile C-Type Squeezers drive a wide variety of rivets and can be used for staking, stamping and pressing. Extensively used in assembly of aircraft, trucks, buses, boats, appliances, automotive components, metal furniture, toys and electronic chassis.

- Rolling cam and wedge assembly greatly multiplies compression force of piston
- "Squeeze" action permits easy control, exceptional accuracy and uniformity.

- High joint integrity independent of operator skill level
- Silent operation
- Plunger speed can be controlled by throttle
- Swivel air inlet aids maneuverability
- Optional yokes available
- Develops full squeezing force with only 90 p.s.i. air pressure
- Cast alloy steel lever positioned for user comfort
- Made in the U.S.A.
- CE certified



US151C  
Single Cylinder

**NOTE**  
Optional jaws available on pages 34-35

PART NO.	RIVET CAPACITY*		FORCE LBS.	REACH	GAP	CLOSED HEIGHT	MAX TRAVEL	OVERALL LENGTH	WEIGHT LBS.
	ALUM	STEEL							
US151C	3/16"	5/32"	6,000	2-1/8"	1-3/16"	25/32"	9/16"	17-1/2"	9.5
US151TC	1/4"	7/32"	12,000	2-1/8"	1-3/16"	25/32"	9/16"	21-3/4"	12.5



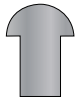
US155  
Single Cylinder

**NOTE**  
Optional jaws available on pages 34-35

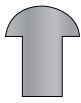
PART NO.	RIVET CAPACITY*		FORCE LBS.	REACH	GAP	CLOSED HEIGHT	MAX TRAVEL	OVERALL LENGTH	WEIGHT LBS.
	ALUM	STEEL							
US155	1/4"	7/32"	12,000	2-1/8"	1-7/8"	25/32"	7/8"	20"	21

- Short stroke adjustment limits return travel of rivet set holder; can be disengaged quickly to provide maximum opening
- Use .250 squeezer sets

\* NOTE: If you require .250 set holder hole, specify "S" (example: US151A-S). If you require .5mm set holder holes, specify "mm" (example: US151A-MM). Patent Pending. Tool provided with 35599 Guard Standard.  
†Rivet capacities are for reference only, based on mild tensile fastener grades. Actual compression trials on sample rivets will provide absolute force requirements. Provide us with your rivet samples for



AN435  
BUTTON



AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



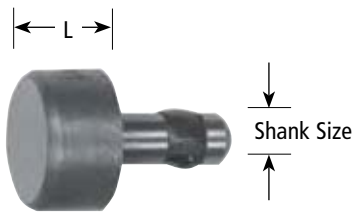
AN470  
UNIVERSAL



AN442  
FLAT

All squeezer sets are made from tool grade steel and are heat treated to ensure the highest quality. Some items may require 6 piece minimum order.

**SQUEEZER SETS - FLUSH STYLE**



**SQUEEZER SETS - CUPPED STYLE**



**.187 SHANK SQUEEZER SETS**

**SQUEEZER SET FOR ROUND AN430 .187 SHANK**

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM200-4302	SM201-4302	SM202-4302	SM203-4302	SM204-4302
3/32"	SM200-4303	SM201-4303	SM202-4303	SM203-4303	SM204-4303
1/8"	SM200-4304	SM201-4304	SM202-4304	SM203-4304	SM204-4304
5/32"	SM200-4305	SM201-4305	SM202-4305	SM203-4305	SM204-4305
3/16"	SM200-4306	SM201-4306	SM202-4306	SM203-4306	SM204-4306
1/4"	SM200-4308	SM201-4308	SM202-4308	SM203-4308	SM204-4308

**SQUEEZER SET FOR MOD. BRAZIER AN456 .187 SHANK**

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM200-4562	SM201-4562	SM202-4562	SM203-4562	SM204-4562
3/32"	SM200-4563	SM201-4563	SM202-4563	SM203-4563	SM204-4563
1/8"	SM200-4564	SM201-4564	SM202-4564	SM203-4564	SM204-4564
5/32"	SM200-4565	SM201-4565	SM202-4565	SM203-4565	SM204-4565
3/16"	SM200-4566	SM201-4566	SM202-4566	SM203-4566	SM204-4566
1/4"	SM200-4568	SM201-4568	SM202-4568	SM203-4568	SM204-4568

**SQUEEZER SET FOR FLAT AN442 .187 SHANK**

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM200-4422	SM201-4422	SM202-4422	SM203-4422	SM204-4422
3/32"	SM200-4423	SM201-4423	SM202-4423	SM203-4423	SM204-4423
1/8"	SM200-4424	SM201-4424	SM202-4424	SM203-4424	SM204-4424
5/32"	SM200-4425	SM201-4425	SM202-4425	SM203-4425	SM204-4425
3/16"	SM200-4426	SM201-4426	SM202-4426	SM203-4426	SM204-4426
1/4"	SM200-4428	SM201-4428	SM202-4428	SM203-4428	SM204-4428

**SQUEEZER SET FOR UNIVERSAL AN470 .187 SHANK**

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM200-4702	SM201-4702	SM202-4702	SM203-4702	SM204-4702
3/32"	SM200-4703	SM201-4703	SM202-4703	SM203-4703	SM204-4703
1/8"	SM200-4704	SM201-4704	SM202-4704	SM203-4704	SM204-4704
5/32"	SM200-4705	SM201-4705	SM202-4705	SM203-4705	SM204-4705
3/16"	SM200-4706	SM201-4706	SM202-4706	SM203-4706	SM204-4706
3/16"	SM200-4708	SM201-4708	SM202-4708	SM203-4708	SM204-4708

**SQUEEZER SET FOR BRAZIER AN455 .187 SHANK**

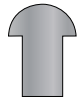
RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM200-4552	SM201-4552	SM202-4552	SM203-4552	SM204-4552
3/32"	SM200-4553	SM201-4553	SM202-4553	SM203-4553	SM204-4553
1/8"	SM200-4554	SM201-4554	SM202-4554	SM203-4554	SM204-4554
5/32"	SM200-4555	SM201-4555	SM202-4555	SM203-4555	SM204-4555
3/16"	SM200-4556	SM201-4556	SM202-4556	SM203-4556	SM204-4556
1/5"	SM200-4558	SM201-4558	SM202-4558	SM203-4558	SM204-4558

**SQUEEZER SET FOR BUTTON AN435 .187 SHANK**

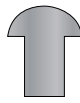
RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM200-4352	SM201-4352	SM202-4352	SM203-4352	SM204-4352
3/32"	SM200-4353	SM201-4353	SM202-4353	SM203-4353	SM204-4353
1/8"	SM200-4354	SM201-4354	SM202-4354	SM203-4354	SM204-4354
5/32"	SM200-4355	SM201-4355	SM202-4355	SM203-4355	SM204-4355
3/16"	SM200-4356	SM201-4356	SM202-4356	SM203-4356	SM204-4356
1/4"	SM200-4358	SM201-4358	SM202-4358	SM203-4358	SM204-4358

**SQUEEZER SET FOR FLUSH STYLE 1/2" BODY DIAMETER .187 SHANK**

RIVET SIZE	1/8" OAL	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL	7/8" OAL	1" OAL
	SM210	SM211	SM212	SM213	SM214	SM215	SM216	SM217



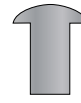
AN435  
BUTTON



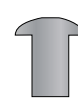
AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



AN470  
UNIVERSAL



AN442  
FLAT

All squeezer sets are made from tool grade steel and are heat treated to ensure the highest quality. Some items may require 6 piece minimum order.

## .250 SHANK SQUEEZER SETS

### SQUEEZER SET FOR ROUND AN430 .250 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM220-4302	SM221-4302	SM222-4302	SM223-4302	SM224-4302
3/32"	SM220-4303	SM221-4303	SM222-4303	SM223-4303	SM224-4303
1/8"	SM220-4304	SM221-4304	SM222-4304	SM223-4304	SM224-4304
5/32"	SM220-4305	SM221-4305	SM222-4305	SM223-4305	SM224-4305
3/16"	SM220-4306	SM221-4306	SM222-4306	SM223-4306	SM224-4306
1/4"	SM220-4308	SM221-4308	SM222-4308	SM223-4308	SM224-4308
5/16"	SM220-43010	SM221-43010	SM222-43010	SM223-43010	SM224-43010
3/8"	SM220-43012	SM221-43012	SM222-43012	SM223-43012	SM224-43012

### SQUEEZER SET FOR UNIVERSAL AN470 .250 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM220-4702	SM221-4702	SM222-4702	SM223-4702	SM224-4702
3/32"	SM220-4703	SM221-4703	SM222-4703	SM223-4703	SM224-4703
1/8"	SM220-4704	SM221-4704	SM222-4704	SM223-4704	SM224-4704
5/32"	SM220-4705	SM221-4705	SM222-4705	SM223-4705	SM224-4705
3/16"	SM220-4706	SM221-4706	SM222-4706	SM223-4706	SM224-4706
1/4"	SM220-4708	SM221-4708	SM222-4708	SM223-4708	SM224-4708
5/16"	SM220-47010	SM221-47010	SM222-47010	SM223-47010	SM224-47010
3/8"	SM220-47012	SM221-47012	SM222-47012	SM223-47012	SM224-47012

### SQUEEZER SET FOR FLAT AN442 .250 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM220-4422	SM221-4422	SM222-4422	SM223-4422	SM224-4422
3/32"	SM220-4423	SM221-4423	SM222-4423	SM223-4423	SM224-4423
1/8"	SM220-4424	SM221-4424	SM222-4424	SM223-4424	SM224-4424
5/32"	SM220-4425	SM221-4425	SM222-4425	SM223-4425	SM224-4425
3/16"	SM220-4426	SM221-4426	SM222-4426	SM223-4426	SM224-4426
1/4"	SM220-4428	SM221-4428	SM222-4428	SM223-4428	SM224-4428
5/16"	SM220-44210	SM221-44210	SM222-44210	SM223-44210	SM224-44210
3/8"	SM220-44212	SM221-44212	SM222-44212	SM223-44212	SM224-44212

### SQUEEZER SET FOR BUTTON AN435 .250 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM220-4352	SM221-4352	SM222-4352	SM223-4352	SM224-4352
3/32"	SM220-4353	SM221-4353	SM222-4353	SM223-4353	SM224-4353
1/8"	SM220-4354	SM221-4354	SM222-4354	SM223-4354	SM224-4354
5/32"	SM220-4355	SM221-4355	SM222-4355	SM223-4355	SM224-4355
3/16"	SM220-4356	SM221-4356	SM222-4356	SM223-4356	SM224-4356
1/4"	SM220-4358	SM221-4358	SM222-4358	SM223-4358	SM224-4358
5/16"	SM220-43510	SM221-43510	SM222-43510	SM223-43510	SM224-43510
3/8"	SM220-43512	SM221-43512	SM222-43512	SM223-43512	SM224-43512

### SQUEEZER SET FOR BRAZIER AN455 .250 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM220-4552	SM221-4552	SM222-4552	SM223-4552	SM224-4552
3/32"	SM220-4553	SM221-4553	SM222-4553	SM223-4553	SM224-4553
1/8"	SM220-4554	SM221-4554	SM222-4554	SM223-4554	SM224-4554
5/32"	SM220-4555	SM221-4555	SM222-4555	SM223-4555	SM224-4555
3/16"	SM220-4556	SM221-4556	SM222-4556	SM223-4556	SM224-4556
1/4"	SM220-4558	SM221-4558	SM222-4558	SM223-4558	SM224-4558
5/16"	SM220-45510	SM221-45510	SM222-45510	SM223-45510	SM224-45510
3/8"	SM220-45512	SM221-45512	SM222-45512	SM223-45512	SM224-45512

### SQUEEZER SET FOR TUBULAR AN450 .250 SHANK

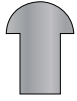
RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM220-4502	SM221-4502	SM222-4502	SM223-4502	SM224-4502
3/32"	SM220-4503	SM221-4503	SM222-4503	SM223-4503	SM224-4503
1/8"	SM220-4504	SM221-4504	SM222-4504	SM223-4504	SM224-4504
5/32"	SM220-4505	SM221-4505	SM222-4505	SM223-4505	SM224-4505
3/16"	SM220-4506	SM221-4506	SM222-4506	SM223-4506	SM224-4506
1/4"	SM220-4508	SM221-4508	SM222-4508	SM223-4508	SM224-4508
5/16"	SM220-45010	SM221-45010	SM222-45010	SM223-45010	SM224-45010
3/8"	SM220-45012	SM221-45012	SM222-45012	SM223-45012	SM224-45012

### SQUEEZER SET FOR MOD. BRAZIER AN456 .250 SHANK

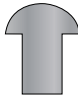
RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM220-4562	SM221-4562	SM222-4562	SM223-4562	SM224-4562
3/32"	SM220-4563	SM221-4563	SM222-4563	SM223-4563	SM224-4563
1/8"	SM220-4564	SM221-4564	SM222-4564	SM223-4564	SM224-4564
5/32"	SM220-4565	SM221-4565	SM222-4565	SM223-4565	SM224-4565
3/16"	SM220-4566	SM221-4566	SM222-4566	SM223-4566	SM224-4566
1/4"	SM220-4568	SM221-4568	SM222-4568	SM223-4568	SM224-4568
5/16"	SM220-45610	SM221-45610	SM222-45610	SM223-45610	SM224-45610
3/8"	SM220-45612	SM221-45612	SM222-45612	SM223-45612	SM224-45612

### SQUEEZER SET FOR FLUSH STYLE 5/8" BODY DIAMETER .250 SHANK

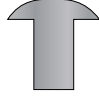
RIVET SIZE	1/8" OAL	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL	7/8" OAL	1" OAL
	SM230	SM231	SM232	SM233	SM234	SM235	SM236	SM237



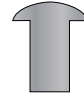
AN435  
BUTTON



AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



AN470  
UNIVERSAL



AN442  
FLAT

All squeezer sets are made from tool grade steel and are heat treated to ensure the highest quality. Some items may require 6 piece minimum order.

## .312 SHANK SQUEEZER SETS

### SQUEEZER SET FOR ROUND AN430 .312 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM240-4302	SM241-4302	SM242-4302	SM243-4302	SM244-4302
3/32"	SM240-4303	SM241-4303	SM242-4303	SM243-4303	SM244-4303
1/8"	SM240-4304	SM241-4304	SM242-4304	SM243-4304	SM244-4304
5/32"	SM240-4305	SM241-4305	SM242-4305	SM243-4305	SM244-4305
3/16"	SM240-4306	SM241-4306	SM242-4306	SM243-4306	SM244-4306
1/4"	SM240-4308	SM241-4308	SM242-4308	SM243-4308	SM244-4308
5/16"	SM240-43010	SM241-43010	SM242-43010	SM243-43010	SM244-43010
3/8"	SM240-43012	SM241-43012	SM242-43012	SM243-43012	SM244-43012

### SQUEEZER SET FOR UNIVERSAL AN470 .312 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM240-4702	SM241-4702	SM242-4702	SM243-4702	SM244-4702
3/32"	SM240-4703	SM241-4703	SM242-4703	SM243-4703	SM244-4703
1/8"	SM240-4704	SM241-4704	SM242-4704	SM243-4704	SM244-4704
5/32"	SM240-4705	SM241-4705	SM242-4705	SM243-4705	SM244-4705
3/16"	SM240-4706	SM241-4706	SM242-4706	SM243-4706	SM244-4706
1/4"	SM240-4708	SM241-4708	SM242-4708	SM243-4708	SM244-4708
5/16"	SM240-47010	SM241-47010	SM242-47010	SM243-47010	SM244-47010
3/8"	SM240-47012	SM241-47012	SM242-47012	SM243-47012	SM244-47012

### SQUEEZER SET FOR FLAT AN442 .312 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM240-4422	SM241-4422	SM242-4422	SM243-4422	SM244-4422
3/32"	SM240-4423	SM241-4423	SM242-4423	SM243-4423	SM244-4423
1/8"	SM240-4424	SM241-4424	SM242-4424	SM243-4424	SM244-4424
5/32"	SM240-4425	SM241-4425	SM242-4425	SM243-4425	SM244-4425
3/16"	SM240-4426	SM241-4426	SM242-4426	SM243-4426	SM244-4426
1/4"	SM240-4428	SM241-4428	SM242-4428	SM243-4428	SM244-4428
5/16"	SM240-44210	SM241-44210	SM242-44210	SM243-44210	SM244-44210
3/8"	SM240-44212	SM241-44212	SM242-44212	SM243-44212	SM244-44212

### SQUEEZER SET FOR BUTTON AN435 .312 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM240-4352	SM241-4352	SM242-4352	SM243-4352	SM244-4352
3/32"	SM240-4353	SM241-4353	SM242-4353	SM243-4353	SM244-4353
1/8"	SM240-4354	SM241-4354	SM242-4354	SM243-4354	SM244-4354
5/32"	SM240-4355	SM241-4355	SM242-4355	SM243-4355	SM244-4355
3/16"	SM240-4356	SM241-4356	SM242-4356	SM243-4356	SM244-4356
1/4"	SM240-4358	SM241-4358	SM242-4358	SM243-4358	SM244-4358
5/16"	SM240-43510	SM241-43510	SM242-43510	SM243-43510	SM244-43510
3/8"	SM240-43512	SM241-43512	SM242-43512	SM243-43512	SM244-43512

### SQUEEZER SET FOR BRAZIER AN455 .312 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM240-4552	SM241-4552	SM242-4552	SM243-4552	SM244-4552
3/32"	SM240-4553	SM241-4553	SM242-4553	SM243-4553	SM244-4553
1/8"	SM240-4554	SM241-4554	SM242-4554	SM243-4554	SM244-4554
5/32"	SM240-4555	SM241-4555	SM242-4555	SM243-4555	SM244-4555
3/16"	SM240-4556	SM241-4556	SM242-4556	SM243-4556	SM244-4556
1/4"	SM240-4558	SM241-4558	SM242-4558	SM243-4558	SM244-4558
5/16"	SM240-45510	SM241-45510	SM242-45510	SM243-45510	SM244-45510
3/8"	SM240-45512	SM241-45512	SM242-45512	SM243-45512	SM244-45512

### SQUEEZER SET FOR TUBULAR AN450 .312 SHANK

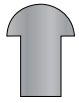
RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM240-4502	SM241-4502	SM242-4502	SM243-4502	SM244-4502
3/32"	SM240-4503	SM241-4503	SM242-4503	SM243-4503	SM244-4503
1/8"	SM240-4504	SM241-4504	SM242-4504	SM243-4504	SM244-4504
5/32"	SM240-4505	SM241-4505	SM242-4505	SM243-4505	SM244-4505
3/16"	SM240-4506	SM241-4506	SM242-4506	SM243-4506	SM244-4506
1/4"	SM240-4508	SM241-4508	SM242-4508	SM243-4508	SM244-4508
5/16"	SM240-45010	SM241-45010	SM242-45010	SM243-45010	SM244-45010
3/8"	SM240-45012	SM241-45012	SM242-45012	SM243-45012	SM244-45012

### SQUEEZER SET FOR MOD. BRAZIER AN456 .312 SHANK

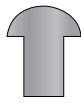
RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM240-4562	SM241-4562	SM242-4562	SM243-4562	SM244-4562
3/32"	SM240-4563	SM241-4563	SM242-4563	SM243-4563	SM244-4563
1/8"	SM240-4564	SM241-4564	SM242-4564	SM243-4564	SM244-4564
5/32"	SM240-4565	SM241-4565	SM242-4565	SM243-4565	SM244-4565
3/16"	SM240-4566	SM241-4566	SM242-4566	SM243-4566	SM244-4566
1/4"	SM240-4568	SM241-4568	SM242-4568	SM243-4568	SM244-4568
5/16"	SM240-45610	SM241-45610	SM242-45610	SM243-45610	SM244-45610
3/8"	SM240-45612	SM241-45612	SM242-45612	SM243-45612	SM244-45612

### SQUEEZER SET FOR FLUSH STYLE 5/8" BODY DIAMETER .312 SHANK

RIVET SIZE	1/8" OAL	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL	7/8" OAL	1" OAL
	SM250	SM251	SM252	SM253	SM254	SM255	SM256	SM257



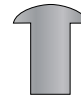
AN435  
BUTTON



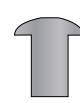
AN430  
ROUND



AN455  
BRAZIER



AN456 MODIFIED  
BRAZIER



AN470  
UNIVERSAL



AN442  
FLAT

All squeezer sets are made from tool grade steel and are heat treated to ensure the highest quality. Some items may require 6 piece minimum order.

### .375 SHANK SQUEEZER SETS

#### SQUEEZER SET FOR ROUND AN430 .375 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM260-4302	SM261-4302	SM262-4302	SM263-4302	SM264-4302
3/32"	SM260-4303	SM261-4303	SM262-4303	SM263-4303	SM264-4303
1/8"	SM260-4304	SM261-4304	SM262-4304	SM263-4304	SM264-4304
5/32"	SM260-4305	SM261-4305	SM262-4305	SM263-4305	SM264-4305
3/16"	SM260-4306	SM261-4306	SM262-4306	SM263-4306	SM264-4306
1/4"	SM260-4308	SM261-4308	SM262-4308	SM263-4308	SM264-4308
5/16"	SM260-43010	SM261-43010	SM262-43010	SM263-43010	SM264-43010
3/8"	SM260-43012	SM261-43012	SM262-43012	SM263-43012	SM264-43012

#### SQUEEZER SET FOR UNIVERSAL AN470 .375 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM260-4702	SM261-4702	SM262-4702	SM263-4702	SM264-4702
3/32"	SM260-4703	SM261-4703	SM262-4703	SM263-4703	SM264-4703
1/8"	SM260-4704	SM261-4704	SM262-4704	SM263-4704	SM264-4704
5/32"	SM260-4705	SM261-4705	SM262-4705	SM263-4705	SM264-4705
3/16"	SM260-4706	SM261-4706	SM262-4706	SM263-4706	SM264-4706
1/4"	SM260-4708	SM261-4708	SM262-4708	SM263-4708	SM264-4708
5/16"	SM260-47010	SM261-47010	SM262-47010	SM263-47010	SM264-47010
3/8"	SM260-47012	SM261-47012	SM262-47012	SM263-47012	SM264-47012

#### SQUEEZER SET FOR FLAT AN442 .375 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM260-4422	SM261-4422	SM262-4422	SM263-4422	SM264-4422
3/32"	SM260-4423	SM261-4423	SM262-4423	SM263-4423	SM264-4423
1/8"	SM260-4424	SM261-4424	SM262-4424	SM263-4424	SM264-4424
5/32"	SM260-4425	SM261-4425	SM262-4425	SM263-4425	SM264-4425
3/16"	SM260-4426	SM261-4426	SM262-4426	SM263-4426	SM264-4426
1/4"	SM260-4428	SM261-4428	SM262-4428	SM263-4428	SM264-4428
5/16"	SM260-44210	SM261-44210	SM262-44210	SM263-44210	SM264-44210
3/8"	SM260-44212	SM261-44212	SM262-44212	SM263-44212	SM264-44212

#### SQUEEZER SET FOR BUTTON AN435 .375 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM260-4352	SM261-4352	SM262-4352	SM263-4352	SM264-4352
3/32"	SM260-4353	SM261-4353	SM262-4353	SM263-4353	SM264-4353
1/8"	SM260-4354	SM261-4354	SM262-4354	SM263-4354	SM264-4354
5/32"	SM260-4355	SM261-4355	SM262-4355	SM263-4355	SM264-4355
3/16"	SM260-4356	SM261-4356	SM262-4356	SM263-4356	SM264-4356
1/4"	SM260-4358	SM261-4358	SM262-4358	SM263-4358	SM264-4358
5/16"	SM260-43510	SM261-43510	SM262-43510	SM263-43510	SM264-43510
3/8"	SM260-43512	SM261-43512	SM262-43512	SM263-43512	SM264-43512

#### SQUEEZER SET FOR BRAZIER AN455 .375 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM260-4552	SM261-4552	SM262-4552	SM263-4552	SM264-4552
3/32"	SM260-4553	SM261-4553	SM262-4553	SM263-4553	SM264-4553
1/8"	SM260-4554	SM261-4554	SM262-4554	SM263-4554	SM264-4554
5/32"	SM260-4555	SM261-4555	SM262-4555	SM263-4555	SM264-4555
3/16"	SM260-4556	SM261-4556	SM262-4556	SM263-4556	SM264-4556
1/4"	SM260-4558	SM261-4558	SM262-4558	SM263-4558	SM264-4558
5/16"	SM260-45510	SM261-45510	SM262-45510	SM263-45510	SM264-45510
3/8"	SM260-45512	SM261-45512	SM262-45512	SM263-45512	SM264-45512

#### SQUEEZER SET FOR TUBULAR AN450 .375 SHANK

RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM260-4502	SM261-4502	SM262-4502	SM263-4502	SM264-4502
3/32"	SM260-4503	SM261-4503	SM262-4503	SM263-4503	SM264-4503
1/8"	SM260-4504	SM261-4504	SM262-4504	SM263-4504	SM264-4504
5/32"	SM260-4505	SM261-4505	SM262-4505	SM263-4505	SM264-4505
3/16"	SM260-4506	SM261-4506	SM262-4506	SM263-4506	SM264-4506
1/4"	SM260-4508	SM261-4508	SM262-4508	SM263-4508	SM264-4508
5/16"	SM260-45010	SM261-45010	SM262-45010	SM263-45010	SM264-45010
3/8"	SM260-45012	SM261-45012	SM262-45012	SM263-45012	SM264-45012

#### SQUEEZER SET FOR MOD. BRAZIER AN456 .375 SHANK

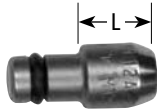
RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM260-4562	SM261-4562	SM262-4562	SM263-4562	SM264-4562
3/32"	SM260-4563	SM261-4563	SM262-4563	SM263-4563	SM264-4563
1/8"	SM260-4564	SM261-4564	SM262-4564	SM263-4564	SM264-4564
5/32"	SM260-4565	SM261-4565	SM262-4565	SM263-4565	SM264-4565
3/16"	SM260-4566	SM261-4566	SM262-4566	SM263-4566	SM264-4566
1/4"	SM260-4568	SM261-4568	SM262-4568	SM263-4568	SM264-4568
5/16"	SM260-45610	SM261-45610	SM262-45610	SM263-45610	SM264-45610
3/8"	SM260-45612	SM261-45612	SM262-45612	SM263-45612	SM264-45612

#### SQUEEZER SET FOR FLUSH STYLE 5/8" BODY DIAMETER .375 SHANK

RIVET SIZE	1/8" OAL	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL	7/8" OAL	1" OAL
	SM270	SM271	SM272	SM273	SM274	SM275	SM276	SM277

### LIMITED ACCESS SQUEEZER SET MINI BODY AN470 .187 SHANK

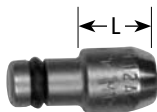
- Cupped
- 3/8" body dia.
- .187 shank dia.



RIVET SIZE	5/32" OAL	1/4" OAL	3/8" OAL
3/32"	SM290-4703	SM291-4703	SM292-4703
1/8"	SM290-4704	SM291-4704	SM292-4704
5/32"	SM290-4705	SM291-4705	SM292-4705
3/16"	SM290-4706	SM291-4706	SM292-4706

### LIMITED ACCESS SQUEEZER SET MODIFIED UNIVERSAL BCAR15FT .187 SHANK

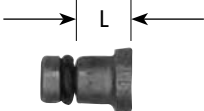
- Cupped
- 3/8" body dia.
- .187 shank dia.



RIVET SIZE	5/32" OAL	1/4" OAL	3/8" OAL
3/32"	SM290-4703-BAC	SM291-4703-BAC	SM292-4703-BAC
1/8"	SM290-4704-BAC	SM291-4704-BAC	SM292-4704-BAC
5/32"	SM290-4705-BAC	SM291-4705-BAC	SM292-4705-BAC
3/16"	SM290-4706-BAC	SM291-4706-BAC	SM292-4706-BAC

### LIMITED ACCESS SQUEEZER SET FLUSH STYLE .187 SHANK

- Flush
- 3/8" body dia.
- .187 shank dia.



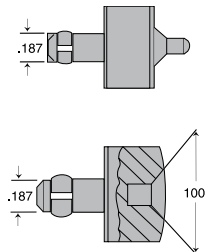
1/8" OAL	1/4" OAL	3/8" OAL
SM295	SM296	SM297

Dimpling sheet metal is one way of providing a depressed area for the rivet head to sit flush with the surface. This dimpling can be achieved through a variety of methods involving pressing or hammering a male and female punch and die while sandwiching the sheet metal in between. Several styles of dimple and die sets are as follows:

### DIMPLE & DIE SET FOR RIVET SQUEEZERS

This style dimple and die is designed to be used in manually or pneumatically operated compression riveters, both portable and stationary. They are available in several sizes and degrees as well as a choice of shank diameters, .187 the most common while .250, .312, and .375 are also available on special orders. Individual male and female dimple dies are available upon request. Ask our sales staff for assistance.

\*Can be used in conjunction with TP93 Bucking Block



### DIMPLE & DIE SETS .187 SHANK

2 piece set

PART NO.	RIVET SIZE
<b>AN426-100° RIVET</b>	
TP4263*	3/32"
TP4264*	1/8"
TP4265*	5/32"
TP4266*	3/16"
TP4268*	1/4"
<b>AN509-100° SCREW</b>	
TP5094	#6
TP5095	#8
TP5096	#10
TP5098	1/4"
TP50910	5/16"

Dimple dies available in 120°. 6 piece minimum order.

### SPRING BACK DIMPLE & DIE SET

PART NO: TP4263SB (3/32")

PART NO: TP4264SB (1/8")

These newly designed dimple dies are the answer to producing exact dimples every time. They actually press the dimple a few thousandths deeper than normal and when the pressure is released, the sheetmetal "memory" will allow the dimple to "springback" to a perfect 100°. These are ideal for the sheet metal aircraft kit builders.

- .187 diameter shank
- 1/2" body diameter

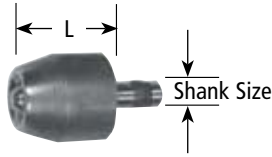


### DIMPLE & DIE SET KIT PART NO: TP4263K

- Includes 3/32", 1/8", 5/32", and 3/16"

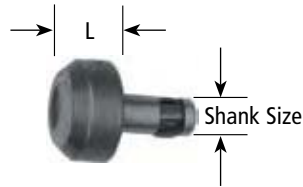


### SQUEEZER SET FOR SEMI-TUBULAR RIVETS AN450 .187 SHANK



RIVET SIZE	1/4" OAL	3/8" OAL	1/2" OAL	5/8" OAL	3/4" OAL
1/16"	SM200-4502	SM201-4502	SM202-4502	SM203-4502	SM204-4502
3/32"	SM200-4503	SM201-4503	SM202-4503	SM203-4503	SM204-4503
1/8"	SM200-4504	SM201-4504	SM202-4504	SM203-4504	SM204-4504
5/32"	SM200-4505	SM201-4505	SM202-4505	SM203-4505	SM204-4505
3/16"	SM200-4506	SM201-4506	SM202-4506	SM203-4506	SM204-4506
1/4"	SM200-4508	SM201-4508	SM202-4508	SM203-4508	SM204-4508
5/16"	SM200-45010	SM201-45010	SM202-45010	SM203-45010	SM204-45010

### SQUEEZER SETS FOR BOEING BACR15FT .187 SHANK



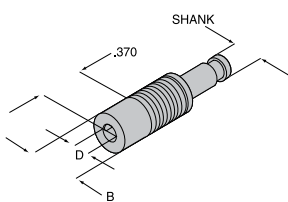
RIVET SIZE	5/32" OAL	1/4" OAL	3/8" OAL
3/32"	SM200-4703-BAC	SM201-4703-BAC	SM202-4703-BAC
1/8"	SM200-4704-BAC	SM201-4704-BAC	SM202-4704-BAC
5/32"	SM200-4705-BAC	SM201-4705-BAC	SM202-4705-BAC
3/16"	SM200-4706-BAC	SM201-4706-BAC	SM202-4706-BAC
7/32"	SM200-4707-BAC	SM201-4707-BAC	SM202-4707-BAC
1/4"	SM200-4708-BAC	SM201-4708-BAC	SM202-4708-BAC

### SQUEEZER SET FOR OVAL HEAD .187 SHANK

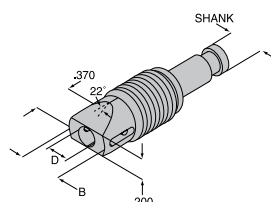
RIVET SIZE	1/4" OAL
1/16"	SM200-2-OVAL
3/32"	SM200-3-OVAL
1/8"	SM200-4-OVAL
5/32"	SM200-5-OVAL
3/16"	SM200-6-OVAL
1/4"	SM200-8-OVAL
5/16"	SM200-10-OVAL

### SPRING LOADED FLUSH SETS

- 1 - 1/2" O.A.L.



Style A/B

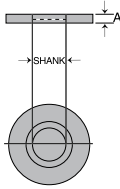


Style AA/BB

PART NO.	"D"	"B"	"SHANK SIZE"
SM305-100A-SET	0.500	0.750	.187
SM305-100B-SET	0.625	0.825	.187
SM305-200A-SET	0.500	0.750	.250
SM305-200B-SET	0.625	0.825	.250
SM305-100AA-SET	0.500	0.750	.187
SM305-100BB-SET	0.625	0.825	.187
SM305-200AA-SET	0.500	0.750	.250
SM305-200BB-SET	0.625	0.825	.250

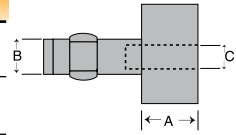
## SPACER SHIMS .187 SHANK

PART NO.	"A"
SMS0	1/64" thickness
SMS1	1/32" thickness
SMS2	1/16" thickness



## SHANK ADAPTERS

PART NO.	"A"	"B"	"C"
SMSA-1	1/2"	.250	.187
SMSA-2	3/8"	.312	.187
SMSA-3	3/8"	.375	.187
SMSA-4	3/4"	.375	.312
SMSA-5	9/16"	.187	.250



## MASTER SQUEEZER SET KIT PART NO: TP116M

All the standard sets needed for most riveting applications.

- Fits all hand & air powered riveters requiring .187 diameter shank rivet sets
- Kit includes sets for AN470, AN455, AN442, AN435 and flush sets, spacer shims and TP843 Organizer
- 38 pieces



## SQUEEZER SET MIX PART NO: TP116A

- 6 assorted rivet sets .187 shank
- Universal type 3/32", 1/8", 5/32", 3/16" and two flush sets



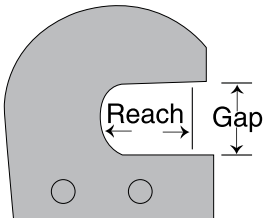
## AN470 SQUEEZER SET KIT PART NO: TP116M470

All the rivet sets you will need for your compression riveter (.187 shank) when setting flush or universal head rivets. Kit consists of 10 universal head rivet sets, 9 flush rivet sets, 9 shims and and TP843 Organizer.

1 SM200-4703	1 SM200-4708	1 SM201-4706	2 SM212	3 SMS0
1 SM200-4704	1 SM201-4703	1 SM201-4708	1 SM213	3 SMS1
1 SM200-4705	1 SM201-4704	2 SM210	1 SM214	3 SMS2
1 SM200-4706	1 SM201-4705	2 SM211	1 SM215	1 TP843

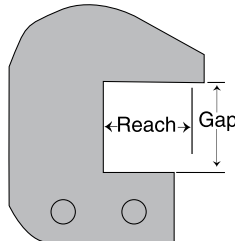
**U.S. INDUSTRIAL "C" YOKES TO FIT US114 & CP214 CENEL HEAVY DUTY MODEL**

PART NO.	REACH	GAP
YK1-2 1/2-2	2-1/2"	2"
YK1-3-3	3"	3"
YK1-3-3 1/2	3"	3-1/2"
YK1-3 1/2-2	3-1/2"	2"
538	1-1/2"	1-1/4"
958	2"	1-1/4"
959	2-1/2"	1-3/8"
960 HD	3"	1-1/2"
961 HD	3-1/2"	1-1/2"
1310C	5"	2-1/2"
1337C	2-1/16"	2-1/16"
1349C	1-3/4"	1-3/4"
1925C	2-3/8"	2-5/16"
2282C	4-1/2"	1-1/2"
2319C	1-3/16"	1-5/16"
872004	3-7/8"	1-3/16"
872006	5-3/8"	1-1/4"
872009	2-3/4"	1-3/16"
872016	5-23/32"	1-3/16"
872017	1-3/4"	1-1/4"
872019	1-3/16"	1-3/16"
872025	5"	2"



**U.S. INDUSTRIAL "C" YOKES TO FIT US151 & CP0351 CUNEL COMPRESSION RIVETERS WITH STANDARD #1A YOKE FRAME**

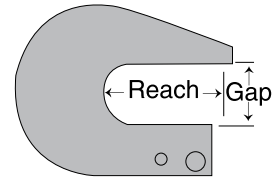
PART NO.	REACH	GAP
982	4-7/16"	1-3/16"
986T-3091	4-1/16"	1-7/16"
987	1-7/16"	2-5/8"
990	2-1/8"	1-3/16"
990FM	1-1/4"	1-17/32"
990-T3091	2-3/8"	1-3/16"
1004	3-1/2"	1-1/4"
1005	2"	2"
1887C	6"	1-1/4"
2060C	3-1/2"	2"
10005	7/8"	1"
10015	2-1/8"	2-1/8"
35230	5"	2-1/2"



**U.S. INDUSTRIAL "C" YOKES TO FIT TP888 HAND RIVET SQUEEZER**

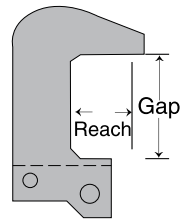
PART NO.	REACH	GAP
9070-1*	1"	1-1/4"
9070-2	2"	1-1/4"
9070-3	3"	1-1/4"
9070-5	5"	2-3/8"

\*Less Set Hole



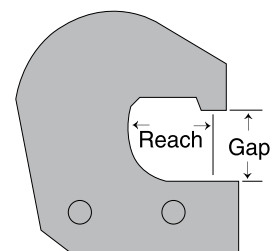
**U.S. INDUSTRIAL "C" YOKES TO FIT US151 & CP0351 CUNEL COMPRESSION RIVETERS WITH #2A YOKE FRAME**

PART NO.	REACH	GAP
991	2-1/16"	1"
994	3-3/4"	1-1/4"
995	3-5/16"	3"
35231	5"	2-1/2"
35237	1-1/2"	3-1/2"
4545	4-1/2"	4-1/2"
35235	6-1/2"	3-1/2"
35233	2"	3-3/4"
35232	2-1/2"	5"



**U.S. INDUSTRIAL "C" YOKES TO FIT US155 & CP355 CEBEL COMPRESSION RIVETER**

PART NO.	REACH	GAP
1010	2-1/8"	1-7/8"
1045	4-1/2"	1-15/16"
35234	12"	3-1/2"



**CUSTOM YOKES & JAWS ARE AVAILABLE - MADE TO YOUR DRAWINGS OR OURS**



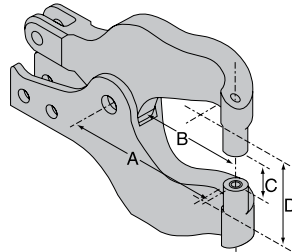
### About our Yokes & Jaws

- All designs supported by F.E.A. analysis for maximum allowable stresses and model displacement
- Alloyed steel
- Precision ground
- Austempered for extreme toughness

**CUSTOM YOKES & JAWS ARE AVAILABLE - MADE TO YOUR DRAWINGS OR OURS**

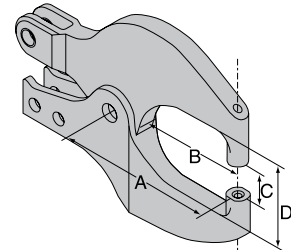
### ALLIGATOR JAW FRONT HEAD ASSEMBLIES FOR US114AA/TAA

Includes all bearings and pins for proper installation into housing



### ALLIGATOR JAW FRONT HEAD ASSEMBLIES FOR US114AA/TAA

Includes all bearings and pins for proper installation into housing



### STRAIGHT TYPE

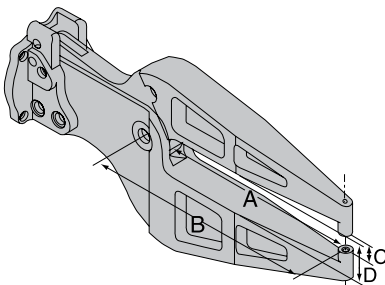
### OFFSET - RIGHT HAND

PART NO.	"A"	"B"	"C"	"D"
2242	3-3/4"	3-1/8"	7/8"	2-1/8"
1961	3-3/16"	2-19/32"	7/8"	2-1/8"

PART NO.	"A"	"B"	"C"	"D"
5107	2-1/8"	1-1/2"	7/8"	1-5/8"
5113	2-1/4"	1-9/16"	11/16"	1-7/64"
5112	3"	2-1/2"	39/64"	1-23/64"
5108	3"	2-1/4"	7/8"	2-1/8"
5110	3"	2-3/8"	7/8"	2-1/8"
5109	3-3/4"	3"	7/8"	2-1/8"
5114	6-1/8"	5-1/2"	7/8"	2-1/8"
5115	6-1/8"	5-1/2"	7/8"	3-1/2"

### ALLIGATOR JAW FRONT HEAD ASSEMBLIES FOR US151TA/A

Includes all bearings and pins, guards and adapter for proper installation onto cylinder (May require wedge change at extra charge). Standard set hole size .187, option .250 set hole (specify). -S Extra Charge.



### STRAIGHT TYPE

PART NO.	"A"	"B"	"C"	"D"	OPT. WEDGE
95216	2-7/8"	4"	29/32"	1-41/64"	35161
95217	5"	6-3/16"	7/8"	1-15/16"	35161
95222	7"	8-1/8"	13/16"	1-7/8"	35161
95218	9"	10-1/4"	13/16"	1-7/8"	35162
95226	3-55/64"	5-1/32"	1-1/32"	2-19/32"	35161-7
95315	3-1/4"	4-3/8"	1-23/32"	21/8"	35161-7
95336	4-7/8"	6"	1"	4-3/4"	35161-7
95224	5"	6-1/8"	1-3/8"	3 41/64"	35161
95219RBS	9-1/8"	10-1/4"	3"	1-7/8"	35162

## U.S. INDUSTRIAL SQUEEZE RIVETER PEDESTAL STAND

**PART NO: SRPS-151** (Manual Operation)

**PART NO: SRPS-151AB** (Air) (Not shown)

(Stand with air actuated valves & remote foot pedal.

Provides a safety guarded design variable speed remote foot pedal and 8 feet of hose, all necessary hardware and installation instructions. Allow with SRPS-151 style floor stand. For US and APT models only) 85 lbs.

- Heavy duty steel construction
- US151 and APT740 series squeezers
- Quick release clamp allows portable tool to be used for stationary production riveting
- Foot pedal throttle assembly frees up operator's hands
- Tool not included
- 41" working height
- 45" height
- Shipped freight collect



SRPS-151

## U.S. INDUSTRIAL UNIVERSAL BAIL (HANGER) FOR 151 TOOLS

14.7 lbs.

**PART NO: US151-3615** (Not Shown)

(Multi-swivel 360° two-directions 24" OAL)

21.5 lbs.

- Rotates 360°
- 7" diameter
- While the tool is suspended by the balancer, the operator is allowed to effortlessly position the tool for most applications
- Ball bearing design
- Tools not included



## U.S. INDUSTRIAL BENCH RIVETER

62 lbs. (as shown)

**PART NO: US114TCC-98**

**PART NO: US114TCC-98G** Heavy Duty

- Includes bench mounting brackets
- Includes air activated foot control with safety guard
- Features adjustable lower set holder
- Tandem cylinder
- Made in the USA by U.S. Industrial Tool
- Check our selection of offset rivet sets on page 35, and spring loaded rivet sets on page 34 for the more demanding application.

PART NO.	RIVET CAPACITY		REACH	GAP	FORCE LBS	MAX TRAVEL	WGT. LBS.
	ALUM	STEEL					
US114TCC-98	3/16"	1/4"	9"	3-1/2"	7,700	9/16"	62
US114TCC-98G	3/16"	1/4"	10"	3-1/2"	7,700	9/16"	70



## U.S. INDUSTRIAL ADJUSTABLE SET HOLDER FOR 151C TOOLS

**PART NO: 151ADJ-K**

(Factory installed)

- Replace standard design set holder with a manually adjustable set holder, eliminates the need to shim or replace rivet set to accommodate various length rivets
- Available for 1A or 2A yoke frames (specify)
- If ordered on new tool, specify: 151ADJ option at additional cost
- Tool not included
- STD .250 set hole



## U.S. INDUSTRIAL FOOT THROTTLE ASSEMBLY PART NO: FCT-151 PART NO: FCT-151AK (Air)

(Air actuated valves & remote foot pedal. Provides a safety guarded design variable speed remote foot pedal and 8 feet of hose, all necessary hardware and installation instructions. For US and APT models only. Not shown)

- .51 lb.
- Replaces lever actuated throttle
- For use on all US151 & CP351 series squeezers
- Aids in mounting of portable squeezers for bench or special applications
- All required hardware included
- Foot pedal can be moved for convenient use
- 6' cable included
- Tool not included



FCT-151

## U.S. INDUSTRIAL AIR-ACTUATED FOOT CONTROL THROTTLE ASSEMBLY PART NO: FCT-114

- 1 lb.
- Replaces lever actuated throttle
- For use on all US114 series and CP214 series squeezers
- Air line connects directly to foot control throttle
- Includes easy-to-install backhead
- Tool not included
- 6' hose



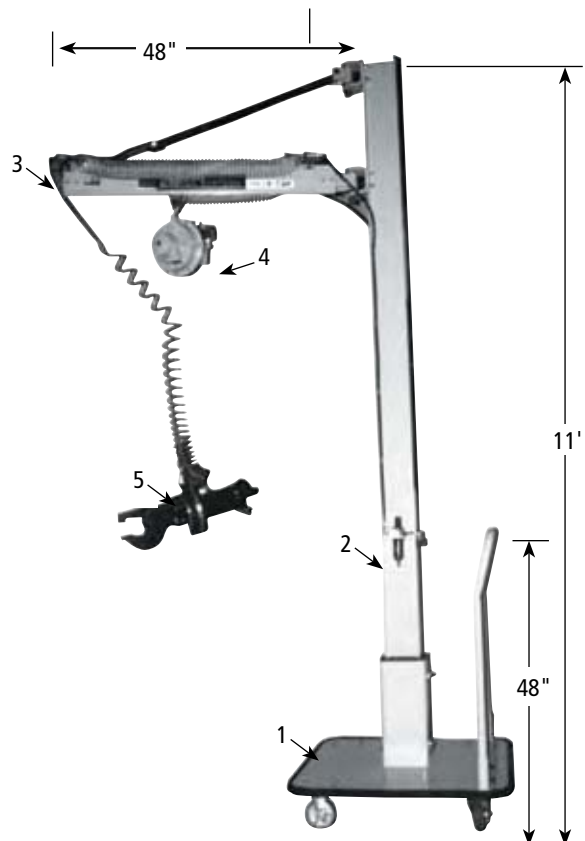
## U.S. INDUSTRIAL MOBILE FLOOR TOOL BALANCER PART NO: US151MFC

Designed to suspend various types of power tools. Mobile design allows movement throughout assembly area to provide access to numerous applications.

- 285 lbs (less tool)
- Maximum tool suspension weight: 65 lbs.

Includes:

- 1 Heavy duty counterbalanced cart assembly with 8" casters
- 2 Built-in air regulator and gauge
- 3 180° swing JIB arm assembly
- 4 Adjustable air balancer
- 5 US151-3600 universal tool bail for rivet squeezers

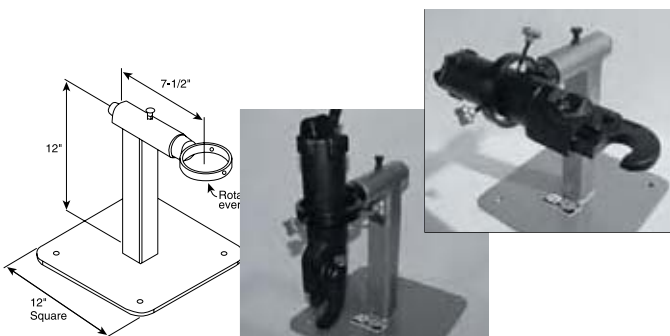


## U.S. INDUSTRIAL MULTI-ANGLE BENCH MOUNT STAND PART NO: US114BMS

23 lbs.  
A versatile bench stand for use with all US114 and US114T type rivet squeezers. Stand can be used as left- or right-hand orientation. A full 360° adjustment of tool angle allows operator to customize for comfort and ease of insertion of part into tool. Made of heavy gauge gray steel.

Included:

- Multi-angle bench mount and hardware
- FCT-114 air-actuated foot control throttle assembly
- Tool not included

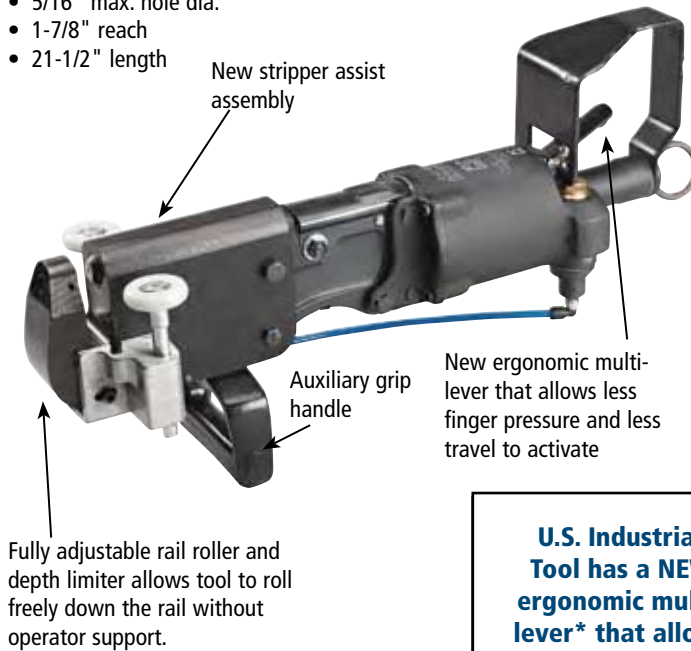


Truck trailer and box manufacturer's require tools that are designed specifically for their needs. U.S. Industrial Tool has those tools in our US151 Series Punching and Squeezing tools. Unfortunately, the industry has no standard extruded rail design which in turn requires small modifications to our standard design tools to fit each and every trailer builder. We at U.S. Industrial Tool can provide those modifications if you provide us with either a dimensioned drawing layout of your roof rail assembly or a sample rail. We'll provide the necessary modifications within reason or we'll advise you, if not structurally advisable with our standard tools, or offer additional options to achieve your goal. Once completed, we'll catalog those unique changes and provide you with a special tool part number fitting your application. For future needs, all you'll have to do is specify by tool part number and you'll receive a tool ready for service.

### U.S. INDUSTRIAL SUPER ROOF PUNCH PART NO: US151SPU

- 22.4 lbs.
- 540 clearance gap
- .480 max. material thickness - total stack up
- 5/16" max. hole dia.
- 1-7/8" reach
- 21-1/2" length

- We can provide punch yoke modifications to fit most every trailer rail configuration



### U.S. INDUSTRIAL PORTABLE PUNCH PART NO: US151PU

20.5 lbs.

- Quicker and cheaper than drilling
- Makes clean, accurate holes without burrs
- 5,400 lbs. force maximum
- 3/16" maximum material thickness
- 5/16" maximum hole diameter
- 1-7/8" reach
- 1/2" gap
- 21-1/2" length
- Manufactured in the U.S.A.



**U.S. Industrial Tool has a NEW ergonomic multi-lever\* that allows less finger pressure and less travel to activate.**

\*Patent Pending. Tool provided with 35599 Guard standard.

Fully adjustable lever travel begins with 22°, but can be adjusted to 12°.

Increased area for hand, with smoother surfaces.

Unique variable pitch lever, allowing decrease in hand force per activation.

For Lever Assembly, reference Part No. 95508AS

## Rivet Squeezers for Trailer Assembly - now available in two styles for trailer building!

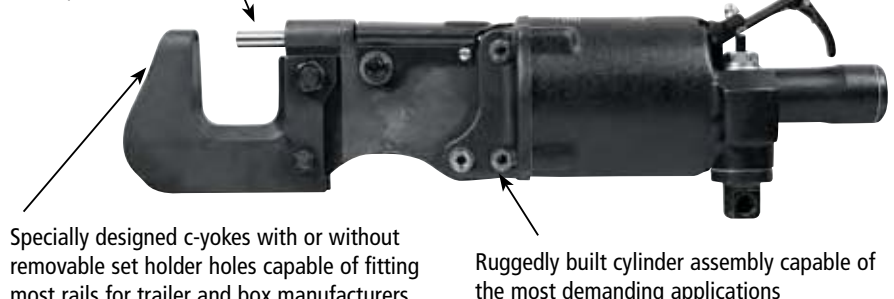
### US151-1A-2F

C-Yoke solid design with hardened upper anvil, eliminating removable sets, provides faster spotting of rivet shank by operator.



### US151-1A-3M

Standard set holder has a 3/16 brazier cupping integral (also available with replaceable set holder)



New ergonomic lever assembly 95508AS (not shown in photo; see diagram above)

Specially designed c-yokes with or without removable set holder holes capable of fitting most rails for trailer and box manufacturers

Ruggedly built cylinder assembly capable of the most demanding applications

Regardless of how much care and time is used in setting flush rivets, an occasional head will not be flush with the skin. Either it won't be hammered or squeezed enough or the head will be tilted to one side or the other, leaving a slightly raised surface. To help eliminate this defect in aerodynamics, the raised surface must be removed and this job can be accomplished with the use of one of our pneumatic Rivet Shavers. These high-powered ergonomically designed tools will quickly and effortlessly mill off the flaws and make the head flush to the surface. Available in Straight and Pistol Grip models and with a variety of optional skirts to accommodate different diameter cutters. The shavers come with stabilizer bars to keep the cutter on the rivet and not sliding on the skin. The US7387RSE is equipped with a 4" extended skirt and spindle to reach into hard to access areas. A stabilizer is not available for the extended model. Manufactured in the U.S.A. by U.S. Industrial Tool.

**U.S. INDUSTRIAL RIVET SHAVER KIT**  
**PART NO: US7387RSK**

This 16 piece shaver kit includes the tools necessary to work on all types and sizes of aluminum and steel rivets.

**KIT INCLUDES:**

- US7387RS rivet shaver
- 3685-5/16" skirt
- 3686-3/8" skirt
- 3687-7/16" skirt
- 3688-1/2" skirt
- 3689-9/16" skirt
- 3690-5/8" skirt
- 3691-3/4" skirt
- TP143-5/16" shaver bit
- TP143-3/8" shaver bit
- TP143-7/16" shaver bit
- TP143-1/2" shaver bit
- TP143-9/16" shaver bit
- TP143-5/8" shaver bit
- TP143-3/4" shaver bit
- TP217 storage box



**U.S. INDUSTRIAL AIR POWERED RIVET SHAVER**  
**PART NO: US7387RS**  
**PART NO: US7387RSE**

(For limited access applications, 4" extension. Ideal for rivet removal tasks)

- Shaves clean and precise regardless of rivet height
- Adjustable depth cut in .001" increments
- Comes with stabilizer and 9/16" standard skirt
- Uses 1/4" x 28 male threaded shaver bits
- .75 HP motor
- Features non-adjustable/variable speed trigger
- Manufactured in the U.S.A.
- CE certified



**U.S. INDUSTRIAL AIR POWERED STRAIGHT RIVET SHAVER**  
**PART NO: US7092RSS**

- Straight handle design
- Shaves clean and precise regardless of rivet height
- Adjustable depth cut in .001" increments
- Comes with stabilizer and 9/16" standard skirt
- Uses 1/4" x 28 male threaded shaver bits
- 5/8" capacity
- 8-1/2" length
- Rear exhaust
- Manufactured in the U.S.A.
- CE certified



PART NO.	RPM	CAP.	LENGTH	WEIGHT	SKIRT SIZES AVAILABLE
US7387RS	18,000	1"	6.75"	2.75 lbs.	5/16", 3/8", 7/16", 1/2" 9/16", 5/8", 3/4", 1"
US7387RSE	18,000	1/2"	10.75"	3.50 lbs.	5/16", 3/8", 1/2"

## U.S. INDUSTRIAL SHOP HEAD RIVET GAUGE SET PART NO: TP854

- This gauge eliminates guessing if your rivets are properly set
- Each gauge checks the dovetail height and offset shank of rivet (1.5d of the rivet shank)
- Set of four gauges for -3, -4, -5, & -6 rivets
- Made from aluminum and anodized
- Can also be used for flush rivets
- Color coded



## U.S. INDUSTRIAL RIVET SET ORGANIZER PART NO: TP843

- Plastic organizer block holds up to 28 pieces of dimple dies and squeezer sets
- 5" X 8" X 1/2" thick with 28 equal spaced .187" holes
- Precision machined by U.S. Industrial Tool
- Rivet sets not included



## U.S. INDUSTRIAL PRO MECHANIC PRECISION RIVET HEAD GAUGES

- PART NO: TP854P-3** (3/32 or -3 rivet size)
- PART NO: TP854P-4** (1/8 or -4 rivet size)
- PART NO: TP854P-5** (5/32 or -5 rivet size)
- PART NO: TP854P-6** (3/16 or -6 rivet size)
- PART NO: TP854P-7** (7/32 or -7 rivet size)
- PART NO: TP854P-8** (1/4 or -8 rivet size)



- Precision machined
- Provides accurate rivet shank measurement of minimum to maximum. Dovetail finished diameters, as driven.
- Approximately 1" x 1" size
- Nominal gauge slot for identification of rivet diameter
- Dovetail heights and based on 1.5 D (rivet diameter versus length of shank minus actual material stack up)

## U.S. INDUSTRIAL RIVET CUTTER PART NO: TP96

- 1 lb.
- Cuts 3/32" to aluminum rivets
- Quick and easy to use
- Hardened cutting edges
- Rubber grips for long life



## U.S. INDUSTRIAL RIVET LENGTH GAUGE PART NO: TP853

- This gauge eliminates the guessing of rivet lengths
- Measures 3, 4, 5, and 6 rivets (1.5d of the rivet shank)
- Made from machined aluminum and anodized)
- Ideal for the kit builder
- Can also be used for flush rivets



## RIVET SHAVER BITS

- .06 lb.
- Solid carbide blade
- For use in any shaver that takes a 1/4" x 28 thread.



- PART NO: TP143-5/16**
- PART NO: TP143-3/8**
- PART NO: TP143-7/16**
- PART NO: TP143-1/2**
- PART NO: TP143-9/16**
- PART NO: TP143-5/8**
- PART NO: TP143-3/4**
- PART NO: TP143-1**

## HEAVY DUTY RIVET CUTTER PART NO: TP346

- All cast steel construction
- Cuts 1/16 to 1/4" aluminum rivets - domed and countersunk head types
- 10 rivet sizes available
- Adjustable rivet length gauges in 1/16" of inch



## RIVET SHAVER SKIRTS

Designed to fit US7387RS and US7387RSE rivet shavers.



PART NO.	SIZE
<b>For use with US7387RS</b>	
3685	5/16"
3686	3/8"
3687	7/16"
3688	1/2"
3689	9/16"
3690	5/8"
3691	3/4"
3695	1"
<b>For use with US7387RSE</b>	
3692	5/16"
3693	3/8"
3694	1/2"

## RIVET SHAVER BITS PART NO: TP791-3/8

3/8" body diameter

## PART NO: TP791-1/2

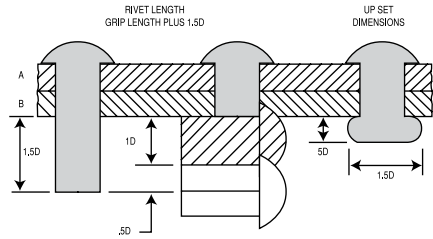
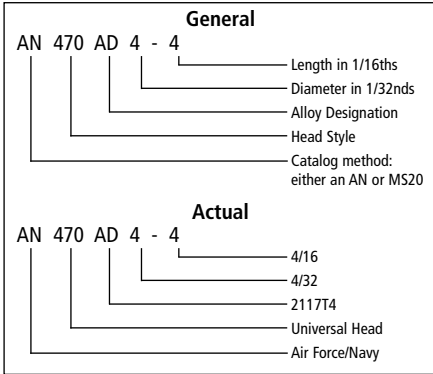
1/2" body diameter

.06 lb.

- Unique 2-flute center cutting design with 14 total flutes. Self-centering feature eliminates any cutter chatter and increases operator control.
- Solid carbide
- 1/4" x 28 male threaded shank

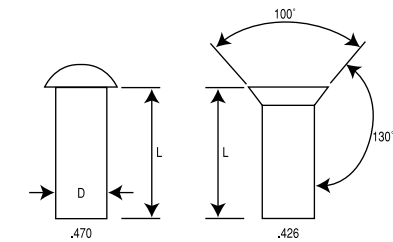


## RIVET DESIGNATIONS

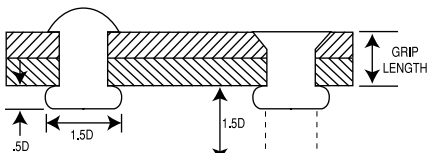


A RIVET IS DRIVEN 1.5D WIDE AND .5D HIGH. IT MUST EXTEND THROUGH THE GRIP LENGTH PLUS 1.5 DIA. A + B EQUALS GRIP LENGTH.

## RIVET SETTING DIMENSIONS

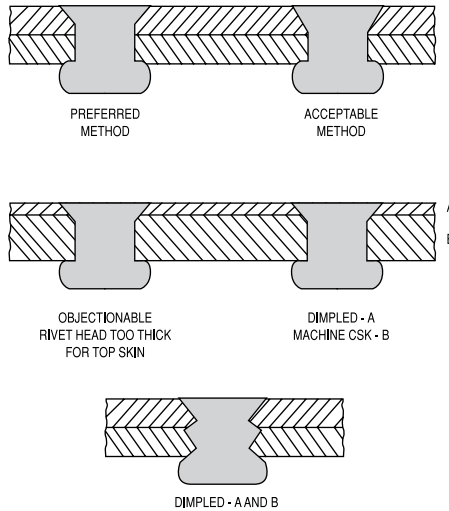


THE .470 UNIVERSAL AND .426 COUNTERSINK RIVETS ARE THE MOST COMMONLY USED SOLID-SHANK FASTENERS.

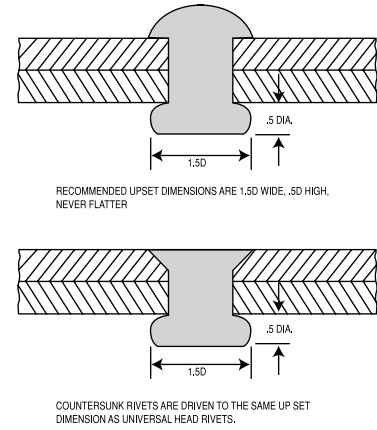


THE DRIVEN DIMENSIONS OF .470 OR .426 RIVETS ARE THE SAME.

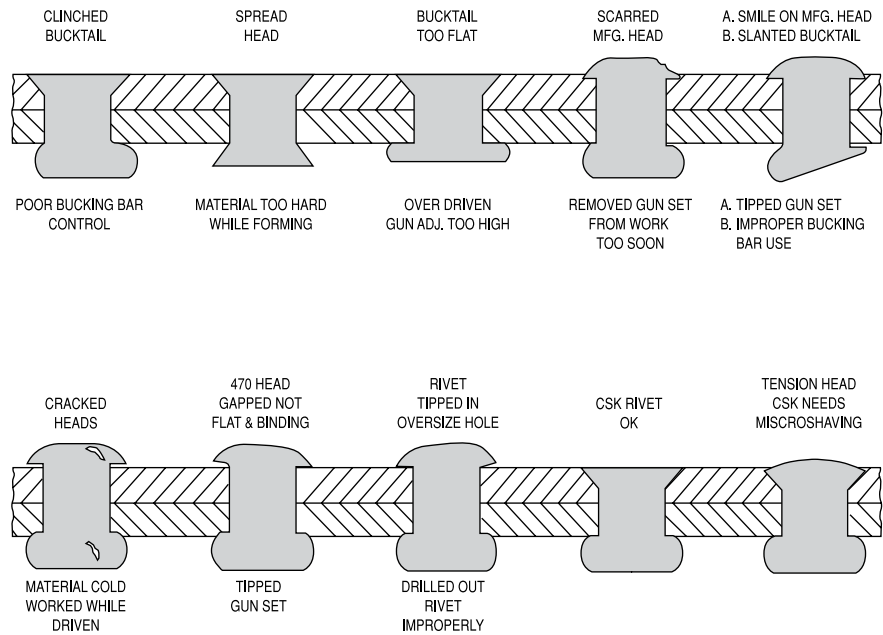
## COUNTERSINK/DIMPLING



## RIVET SETTING DIMENSIONS



## COMMON RIVET PROBLEMS & REASONS



Rivet Size	Rivet Diameter Decimal	Drill Number	Drill Decimal	Hole Over Size	Cleco Color	Bucking Bar Weight	Min. Edge Distance	Min. Rivet Pitch
3/32	.0937	40	.0980	.0043	Silver	2-3 lbs.	3/16	9/32
1/8	.125	30	.1285	.0035	Copper	3-4 lbs.	1/4	3/8
5/32	.15625	21	.1590	.0028	Black	3-4.5 lbs.	5/16	15/32
3/16	.1875	11	.1910	.0035	Gold	4-5 lbs.	3/8	9/16

## HERE'S WHY WE'RE THE LEADER IN HOT & COLD DIMPLERS

For over 25 years, U.S. Industrial Tool & Supply Co. has been manufacturing high quality Stationary Hot and Cold Dimpling machines to our many dedicated customers worldwide. During this time, we have also met the demand to supply, and stock, a huge variety of accessory tooling to satisfy most aviation requirements. Our machines are loaded with more safety and user-friendly features, as standard equipment, than ANY of our competitors. And NONE of these competitors offer any of the following highly innovative, state-of-the-art items and features.

## FEATURES

### INTEGRATED COMPUTER

U.S. Industrial Tool includes an integrated computer system as standard equipment on all our US150EA machines, both hot and cold. The compact PLC microprocessor requires less power and generates less heat. It also replaces relays and timers found on competitors' machines, allowing many more programming options. The processor will isolate and monitor all of the machines functions for trouble-shooting and safety, as well as interface with the air valves, sensors, microswitches etc. This equipment is only available on our equipment.

### OTHER INNOVATIVE COMPUTER FEATURES:

- 7-11 m/sec max response time to input signals improving machine cycle speeds.
- Output signal voltage a 24 V DC for safety protection of all operator activated switches and valves
- Fully programmable and can be reconfigured for additional input sensors or field loaded with operating program or quickly checked to verify program accuracy.
- LED input/output provide maintenance and set up assistance, allowing monitoring of machine sequence of operation
- Power-Failure Interrupt
- Battery-Backed Ram
- EEPROM memory systems constrains

### TWO STAGE HI/LOW PRESSURE FOR US150 (EA) MACHINES, COLD TYPE ONLY

An innovative control that provides pinch point protection to the operator through out the entire machine stroke. System conform to OSHA CFR 29 standards and CE standards.

How it works: A 1st stage low pressure air cylinder assembly advances the machine set holder upon foot signal for the operator. The forces are monitored by our built in machine controller. Forces are the same throughout the machine stroke (travel) because of our unique variable\* pitch lever assembly. At any point in the stroke (travel) it contacts an object it stalls at a measurable 5lbs of force or less. If the operator is properly aligned and wants to proceed with high pressure (high force) a second pedal activation is required to complete the cycle. Failure to initiate signal for high Pressure the machine will in 5 seconds, return to machine start. Visual indicator lights located on the front of the machine provide a continued conformation to the operator as to where they are in the machine cycle, (Low Pressure or High Pressure). Additionally, the forces in low pressure are so light that the operator can adjust/align their assembly without surface damage providing increased operator confidence and reduction in scrap and rework. Training time for new operators is reduced significantly.

\*Patent Pending

## SPECIAL SERVICES

- On-site operator training seminars
- On-site maintenance training seminars
- On-site calibration service
- Factory machine re-manufacture and conversion service
- Tooling design and manufacture for special/ unique applications

## U.S. INDUSTRIAL COLD RIVETER PART NO: US150EA-36 COLD

• CE certified  
Includes everything except US14050 Force Monitor (optional). Shipped freight collect.



**NOW INCLUDES OUR TWO-STAGE PINCH POINT PROTECTION CIRCUIT CONFORMING TO CFR29 OSHA STANDARDS.**

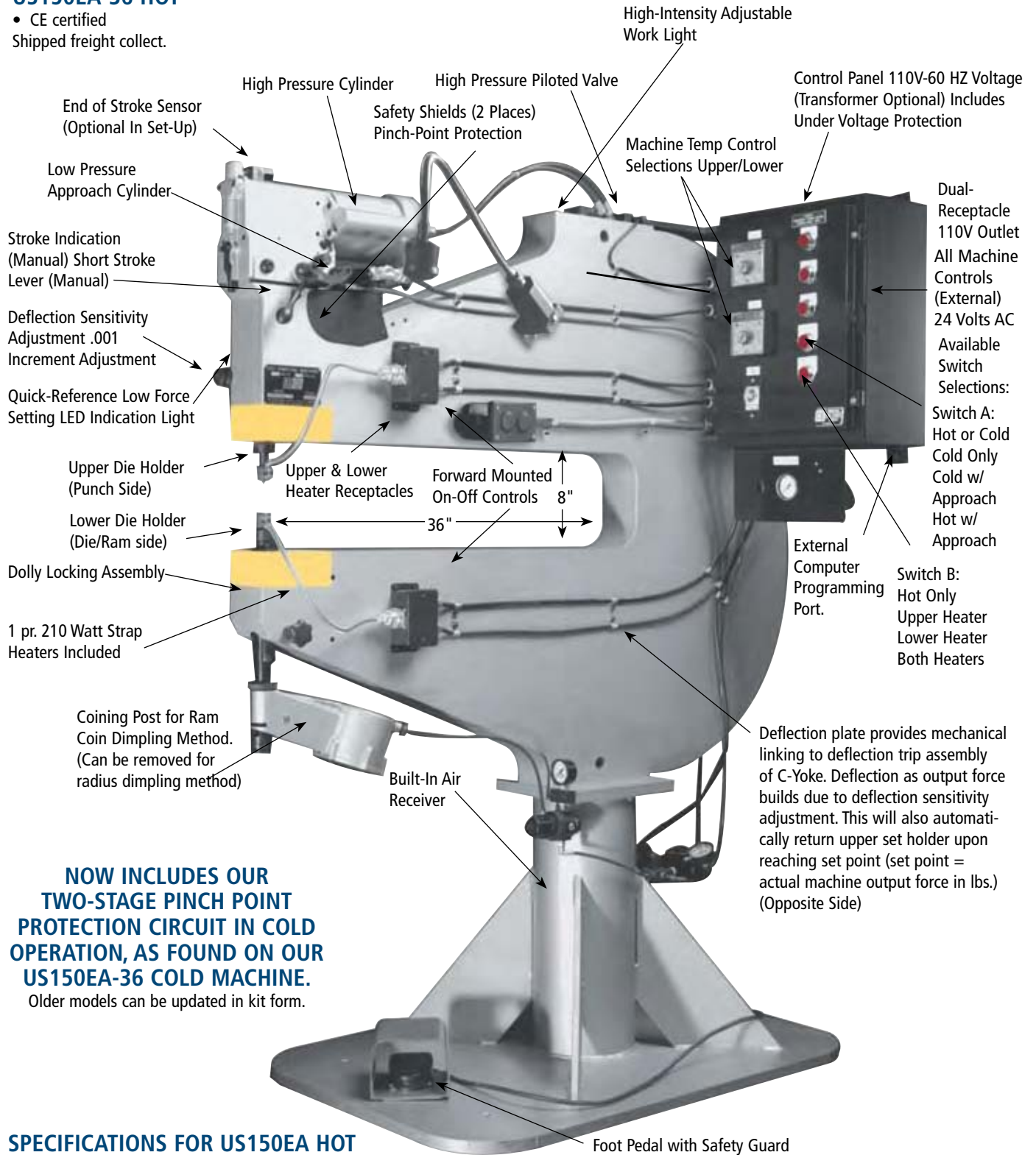
### SPECIFICATIONS FOR US150EA COLD

3,200 lbs.

Type No.	COLD Rivet Capacity		Max Force (Pounds)	Max Set Holder	Part of stroke at	Voltage
US150EA-36 COLD	Alum	Steel	With 90 lbs Air Pressure 24,000 lbs.	Travel (Inches) 1 3/4"	Maximum Force 1 3/4" Final 3/16"	(Input)
	*1/2"	*3/8"				110V-AC 60HZ

## U.S. INDUSTRIAL HOT DIMPLER - RIVETER US150EA-36 HOT

- CE certified
- Shipped freight collect.



**NOW INCLUDES OUR TWO-STAGE PINCH POINT PROTECTION CIRCUIT IN COLD OPERATION, AS FOUND ON OUR US150EA-36 COLD MACHINE.**  
Older models can be updated in kit form.

### SPECIFICATIONS FOR US150EA HOT

3,200 lbs.

Tool No.	Heat Controllers Temp. Range	Dwell Timer Range	Set Holder Plunger Stroke			Voltage (Input)
			Max force (lbs) at 90 PSI air pressure	Max Set Holder Travel Inches	Part of stroke at max force	
US150EA-36 HOT	0° - 800°	0-30 Seconds	24,000 lbs.	1 3/4"	Final 3/16"	110V-AC

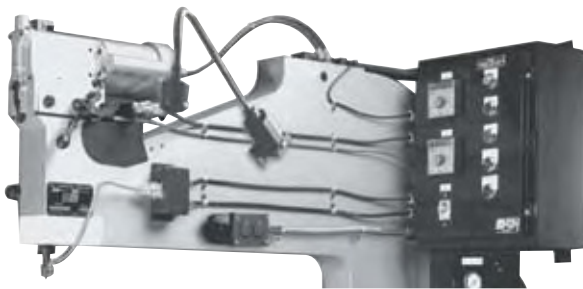
## FACTORY RECONDITIONING SERVICES

U.S. Industrial Tool offers factory reconditioning of the following machine types:

- Cold Riveting, (Ref. US150- Series)
- EA Cold Riveting (Ref. US150EA-COLD)
- EA Hot Dimpling (Ref. US150 EA-HOT)

We provide a cost estimate prior to machine receipt. Included is disassembly, stripping and repainting.

Examination of all existing machine components and replacement of all parts not to current manufacturing tolerances. This includes all mechanical components as well as installation of our current P.L.C. design electrical circuit. Fully tested and certified with 1 year warranty on parts and labor. Promptly crated, packaged and returned.



### U.S. INDUSTRIAL HOT DIMPLER CONVERSION KIT PART NO: \*US450SSCK

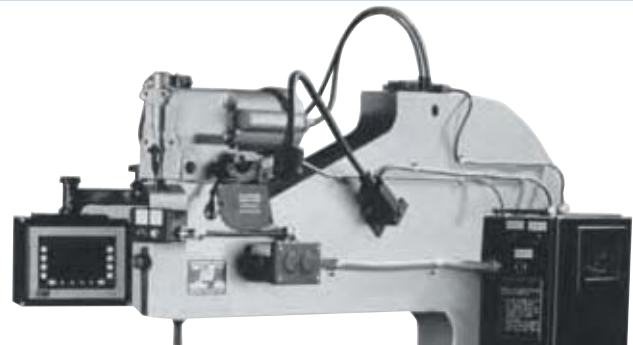
Update any older Chicago Pneumatic or Zephyr hot dimpler to latest value and P.L.C. Control Circuit Design. Features included can be found on our full page US150EAHOT-36 Display.

Shipped freight collect.

Basic kit includes:

- Complete electrical control panel with foot pedal
- Complete power head assembly set-up for two-stage circuit
- High pressure piloted valve.
- Hoses and hardware as required
- Installation instructions
- CE certified
- **NEW!! Two-stage Hi-Low pinch point cold operation now included in hot panel operation circuit.**

**Special Note:** \*The kit in itself covers the dimpling machine's main operating systems. You may require other parts not supplied in the kit, due to the condition of the existing machine.



### U.S. INDUSTRIAL COLD RIVETER CONVERSION KIT PART NO: \*US450CKEAB

Update any older style Chicago Pneumatic or Zephyr & (EA) Cold type riveter to our latest valve and P.L.C. Control Circuit Design. Included is our Two-Stage Hi/Low Pressure System. Features included can be found on our full page US150EACOLD-36 display.

Shipped freight collect.

Basic kit includes:

- Complete electrical control panel with foot pedal
- Complete power head assembly set-up for two-stage circuit
- High pressure piloted valve
- Hoses and hardware as required
- Instructions
- CE certified

**Special Note:** \*The kit in itself covers the riveting machines main operating systems you may require other parts not supplied in the kit due to the condition of the existing machine.

### HAND HELD TRANSIENT FORCE RECORDER

{Includes recorder and one compression load cell (specify size)}

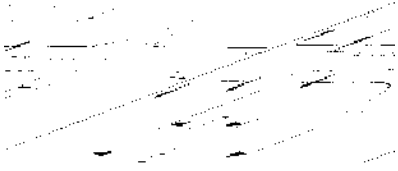
#### PART NO: US13095

Available Load Cells:

- USCLC-500 - Compression Load cell - 500 lbs. maximum capacity (for EA type Two-Stage Cold Machines)
- USCLC-15000 - Compression Load Cell - 15,000 lbs. max. capacity (for portable rivet squeezers)
- USCLC-30000 - Compression Load Cell - 30,000 lbs. max. capacity (For all stationary type riveting machines)

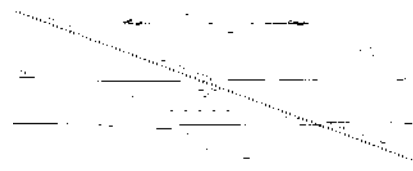
Our transient force recorder and compression load cells have been designed for U.S. Industrial Tool for the expressed intent to be used on rivet squeezing tools. The portability of the recorder allows shop floor use in even the worst environments. The data is supplied in "real time" on 3 x 5 LCD display. A necessary tool for calibration of all two-stage cold riveting circuits. Or to provide set-up conformation for your portable squeezers. (For more information ask for our complete product bulletin).





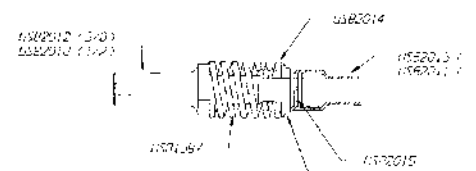
**U.S. INDUSTRIAL RIVET SET ADAPTERS**

PART NO.	TYPE	A	B	C	D	E
US81392	CR-1	3/16"	7/8"	9/32"	7/16"	1-7/8"
US81393	CR-2	1/4"	7/8"	3/8"	9/16"	1-7/8"
US82189	CR-3	5/16"	1-1/8"	7/16"	21/32"	1-7/8"
US82190	CR-4	3/8"	1-1/4"	1/2"	3/4"	1-7/8"
US85030	CR-1	3/16"	7/8"	9/32"	9/16"	4-1/8"
US85031	CR-2	1/4"	7/8"	3/8"	9/16"	4-1/8"
US85032	CR-3	5/16"	1-1/8"	7/16"	3/4"	4-1/8"
US85033	CR-4	3/8"	1-1/4"	1/2"	3/4"	4-1/8"



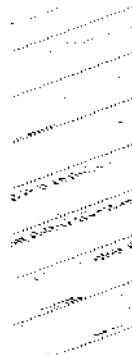
**U.S. INDUSTRIAL FLUSH SETS**

PART NO.	A	B
US81391	23/64"	2-1/4"
US81390	31/64"	2-1/4"
US81389	39/64"	2-1/4"
US85110	23/64"	3-1/2"
US85111	31/64"	3-1/2"
US85112	39/64"	3-1/2"



**U.S. INDUSTRIAL PRESSURE PAD DOLLIES**

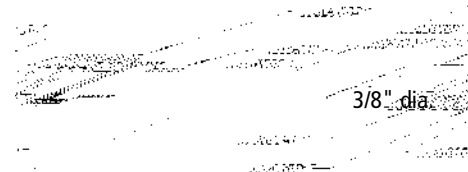
PART NO.	DESCRIPTION
US78692	Assembly Complete 1/2" Pressure Pad Dollie
US78691	Assembly Complete 3/8" Pressure Pad Dollie



**U.S. INDUSTRIAL UPPER ANVIL PRESSURE DOLLIES OFFSET**

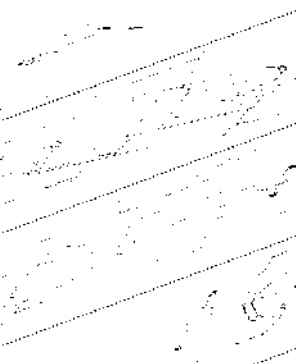
PART NO.	A	B	C
*US102500	4-1/8"	1-3/16"	25/64"
*US102501	3-1/4"	2-5/8"	5/16"

\*Includes two piece mating anvil



**U.S. INDUSTRIAL ADAPTER - QUICK CHANGE PRESSURE PAD DOLLIES LIMITED ACCESS**

PART NO.	LENGTH
US102700	-
US102701	5/32"
US102702	1/4"
US102703	1/8"
US102710	-
US102711	1/8"
US102712	5/32"
US102713	1/4"
US102716	-



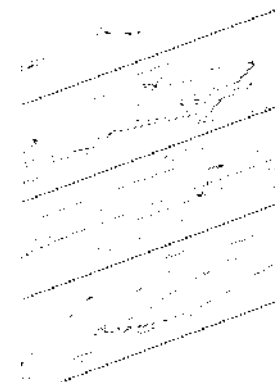
**U.S. INDUSTRIAL OFFSET RIVET SETS**

PART NO.	E
SMOFA1	3/16"
SMOFA2	1/4"
SMOFA3	5/16"
SMOFA4	3/8"



**U.S. INDUSTRIAL OFFSET RIVET SETS**

PART NO.	E
SMOFB1	3/16"
SMOFB2	1/4"
SMOFB3	5/16"
SMOFB4	3/8"



**U.S. INDUSTRIAL OFFSET RIVET SETS**

PART NO.	E
SMOFC1	3/16"
SMOFC2	1/4"
SMOFC3	5/16"
SMOFC4	3/8"

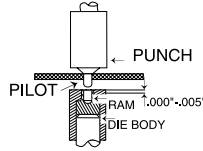


**U.S. INDUSTRIAL OFFSET RIVET SETS**

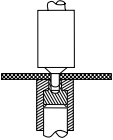
PART NO.	E
SMOFD1	3/16"
SMOFD2	1/4"
SMOFD3	5/16"
SMOFD4	3/8"

## WHAT IS RAM COIN DIMPLING?

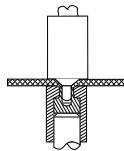
**POSITION 1** - The punch and die assembly is shown in a normal open position. The punch pilot is just entering the hole in the sheet.



**POSITION 2** - The punch pilot is through the sheet and the sheet has contacted the coining ram face and die face. When performing hot dimpling, these heated surfaces coming into an "area contact" with the sheet allows a rapid and even distribution of heat to the material immediately surrounding the hole.



**POSITION 3** - As punch cone descends, the ram is forced down against rapidly increasing back pressure. Thus, shear strains set up near circumference of dimple are balanced, thereby preventing circumferential crack-outs. As compression loads between ram and punch cone increase, metal at bottom of cone is moved inwardly toward the punch pilot, eliminating radial cracks and minimizing hole stretch. As illustrated, the pressure loaded coining ram is fully depressed and the dimpling cycle is completed.



## STRAP HEATERS

Our U.S. Industrial Strap Heaters incorporate the latest technology in heater designs. Our new and unique coil design has improved the life expectancy 2 to 3 times longer than the original Mica style, while providing a better range of temperature output. The elements are rated for 750°F continuous operation, with an input voltage of 110V A.C. Our Strap Heaters are available in either straight or offset styles and in various lengths to suit your applications. The elements are available separately or as a complete Strap Heater assembly.

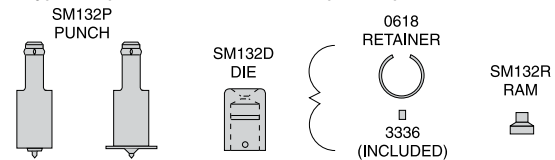


STRAIGHT TYPE PART NO.	OFFSET TYPE PART NO.	CONNECTOR TYPE
US2881-B15 Heater Assembly - 210 Watt	US2880-B15 Heater Assembly -210 Watt	CANNON
US2881-22 Heater Element Only - 210 Watt	US2881-22 Heater Element Only - 210 Watt	-
US1982-B15 Heater Assembly - 350 Watt	-	CANNON
US1982-B22 Heater Element Only - 350 Watt	US1982-B22 Heater Element Only - 350 Watt	-
US28810-B150 Heater Element Only - 210 Watt	US28800-B150 Heater Element Only - 210 Watt	MIL-C-26482

## RAM COIN DIMPLING ASSEMBLIES

A wide variety of radius type and ram coin dimple dies and punches are available from stock. They are manufactured to exact tolerances from Hot work tool steel, especially selected for this application. This provides resistance to wear and the tempering effects of operating at prolonged elevated temperatures. Our assemblies can be used for Cold or Hot dimpling. We are also capable of designing and manufacturing to your specifications or for special faster applications.

- For use in either spring load or air coin post equipped machines.
- Radius type dimple dies also available upon request.



FASTENER	PUNCH SIZE	PUNCHES PART NO.	DIES PART NO.	RAMS PART NO.
AN426 RIVET 100"	3/32"	SM132PR3-3/32"	SM132DR3-3/32"	SM132RR3-3/32"
	1/8"	SM132PR4-1/8"	SM132DR4-1/8"	SM132RR4-1/8"
	5/32"	SM132PR5-5/32"	SM132DR5-5/32"	SM132RR5-5/32"
	3/16"	SM132PR6-3/16"	SM132DR6-3/16"	SM132RR6-3/16"
	1/4"	SM132PR8-1/4"	SM132DR8-1/4"	SM132RR8-1/4"
AN & NAS SCREWS 100"	6/32"	SM132PS4-6/32"	SM132DS4-6/32"	SM132RS4-6/32"
	8/32"	SM132PS5-8/32"	SM132DS5-8/32"	SM132RS5-8/32"
	10/32"	SM132PS6-10/32"	SM132DS6-10/32"	SM132RS6-10/32"
	1/4-28	SM132PS8-1/4"	SM132DS8-1/4"	SM132RS8-1/4"

## TEMPERATURE METER PART NO: SM805TM

This meter is used to verify that heater temperature is accurate to the heat controller setting.



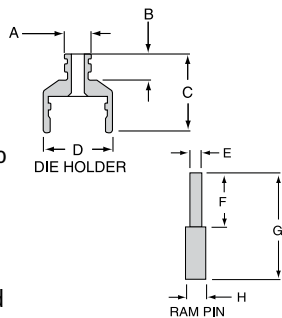
## U.S. INDUSTRIAL COINING POST ADAPTERS

- Allows you to remove coining post die tooling and adapt coin in post for Cold Riveting without having to replace coining post with conventional adjusting screw assembly.

PART NO.	DIMENSION SIZE			
	A	B	C	D
SM153-375-2	0.375	3/4	1-3/8	1-3/4
SM153-312-2	0.312	5/8	1-3/8	1-3/4
SM153-375-1	0.312	5/8	1-3/8	1-3/4
SM153-250-2	0.250	5/8	3/4	1-3/4
SM153-250-1	0.250	5/8	3/4	7/16
SM153-187-2	0.187	1/2	3/4	1 3/4
SM153-187-1	0.187	1/2	3/4	7/16

## U.S. INDUSTRIAL COINING POST ASSEMBLY DIE TOOLING

- For use on lower side - coining post to accept die and ram assembly for Hot Dimpling
- Available in different heights and diameters (Ref: Dim. A.)
- Die holder and pin must be purchased together



DIE HOLDER TYPE PART NO.	DIMENSION SIZE			
	A	B	C	D
US89730 (Std. Shaft)	0.499	0.500	1.500	1.310
US89730-1 (Ext. Shaft)	0.499	1.590	2.590	1.310
US89730-JUMBO (Jumbo)	0.875	0.875	2.000	1.312

RAM PIN TYPE PART NO.	DIMENSION SIZE			
	E	G	F	H
US89729 (Std. Shaft)	0.248	1.200	0.2400	0.437
US89729-1 (Ext. Shaft)	0.248	2.290	0.3490	0.437
US89729-JUMBO (Jumbo)	0.248	1.700	0.2900	0.437

## U.S. INDUSTRIAL BRAKE RIVETERS

### PART NO: US150BR-8

(8" Throat depth or reach, 4" gap, 48" max. height, 235 lbs.)

### PART NO: US150BR-12

(12" Throat depth or reach, 4" gap, 52" max. height, 275 lbs.)

- Includes adjustable workbed
- All the same features as found on our US150 series machines on page 42
- CE certified (requires machine to be factory installed with US13046MPB Two Stage, Hi-Low Pressure system)
- Machines shipped freight collect

For optimal machine safety, specify with two stage, pinch point protection, at additional cost.

## ADJUSTABLE WORKBED

### PART NO: US150BRS

(Adjustable horseshoe work bed only, can be easily installed on any US150 or CP450 machine)

- Adjustable work bed has 5" maximum vertical travel
- Work bed has 10" I.D. with 17" O.D.
- Will accept up to 12" tall torque tubes



## GOODYEAR/LORAL AEROSPACE CORPORATION BRAKE RIVETING TOOLS

We have a complete selection of tooling for the installation of Goodyear/Loral™ aircraft brakes. Most of the listed tools are designed with .312 shank diameter to fit the U.S. Industrial 150 Riveter or the Chicago Pneumatic 450 Riveter. We also have a selection of tools designed for use in Taumel and Bracker machines. These tools are manufactured in strict accordance with Goodyear/ Loral™ standards.

114-139-1	5T1-26037
114-151-1	5T1-26123
5T1-25092	5T1-26150
5T1-25286	5T1-26206
5T1-25287	5T1-26245
5T1-25309	5T1-70948
5T1-25310	5T1-71785
5T1-25311	5T2-10066
5TI-25355	5T2-10067
5T1-25453	5T2-10068
5T1-25455	5T2-10073
5T1-25460	5T2-10080
5TI-25465-1	5T2-10157
5TI-25465-2	5T2-10431
5T1-25470	5T2-5994
5T1-25775	5T1-1/4 Deriveting Punch
5T1-25807	5T1 Deriveting Anvil
5TI-25855	

**U.S. INDUSTRIAL PEDESTAL COMPRESSION RIVETERS US150**

- PART NO: US150-8** (8" reach, 4" gap, 48" height, .312 set shank, 190 lbs.)
- PART NO: US150-12** (12" reach, 4" gap, 52" height, .312 set shank, 230 lbs.)
- PART NO: US150-24** (24" reach, 5" gap, 57" height, .312 set shank, 475 lbs.)
- PART NO: US150-36** (36" reach, 8-1/2" gap, 78" height, .375 set shank, 1,800 lbs.)

- All have 1-3/8" stroke

A new stationary pneumatic compression riveter providing high volume riveting and dimpling. This one-man pedestal riveter is capable of exceptional accuracy and has the capacity to cold squeeze 3/8" solid stainless steel rivets with 16,000 lbs. of force. Our machine is designed to allow the user to vary the machine speed with foot touch control. The user can bring sets down to work surface at any speed adjustment with no loss of power. Standard equipment includes air actuated foot control, and filter-regulator-lubricator combo. Made in the USA by U.S. Industrial Tool.

OPTION: US14032 - As the operator depresses the foot pedal providing a momentary signal (press and release), the set holder will move forward and upon full stroke complete the rivet upsetting and automatically retract to start position, awaiting an operator follow-up signal. Shipped freight collect.

**Also available with a two stage Hi-low pressure system. Providing operator pinch point protection for CE certification.**

**TWO STAGE HI-LOW PRESSURE SYSTEM**

**PART NO: US13046MPB**

- CE certified (requires system to be factory installed)

**Featuring** Variable foot control for improved operator control is provided at no extra charge.



## U.S. INDUSTRIAL BENCH TOP HAND RIVETING & DIMPLING FIXTURE

**PART NO: TP6150**

16 lbs.

Make the job of dimpling or riveting faster and easier by using our Bench Top Fixture. Allows you to reach deeper into the sheet than is allowable with other hand tools. Ideal for the kit builder.

- Heavy duty solid steel yoke design
- Includes .187 die holder and die extension to accept any standard dimple and die set or squeezer type rivet sets
- 19" throat reach x 4" gap



## U.S. INDUSTRIAL DIMPLE & DIE SET

**PART NO: TP635** (3/32" AN426 rivet)

**PART NO: TP636** (1/8" AN426 rivet)

- For use with Pop style hand or powered riveters
- Makes perfect dimples for AN426 100° rivets
- Includes extra mandrels for repeated use
- Ideal for hard to reach areas



## U.S. INDUSTRIAL BUCKING BLOCKS

**PART NO: TP93**

Bucking blocks are actually holding fixtures for dimple and dies normally used in rivet squeezers. They enable the fabricator to perform dimpling operations in areas not accessible to rivet squeezers. They are operated with a rivet gun - much like setting a rivet. They can also be used with all .187 shank rivet sets.



## U.S. INDUSTRIAL RIVET REMOVAL TOOL

**PART NO: TP276**

**PART NO: TP276B**

For Trailer or Boat Manufacturing & Repair – AN455/456 brazier style

.28 lb.  
Our rivet removal tool is designed to keep the drill bit centered on the AN470 or brazier rivet head. The cupped drill guide also keeps the bit from slipping off and ruining the sheet metal around it. This tool is completely adjustable for drilling depth. It comes complete with four guides and drill bits for #3, #4, #5, and #6 rivets.

Made in the U.S.A.



## REPLACEMENT BITS

**PART NO: TP54L-10**

**PART NO: TP54L-21**

**PART NO: TP54L-30**

**PART NO: TP54L-40**

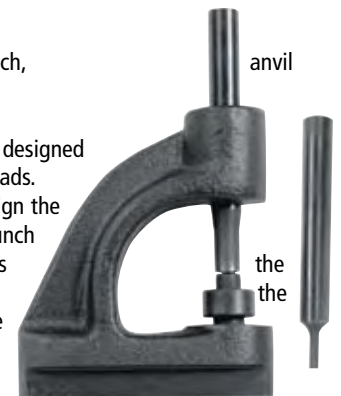
## BRAKE LINING RIVET TOOL

**PART NO: TP95**

1 lb.

- Cast steel frame
- Supplied with rivet removal punch, and rivet set for 1/8" rivets
- 3" L x 1" W x 3-1/2" H

This is the original brake rivet tool designed for replacing small aircraft brake pads. Simply mount the tool in a vise, align the rivet to the panel and strike the punch with a hammer. This easily removes old pad. For installation, install new pad and rivet and align to the rivet set. Gently strike the set to upset the rivet.



## U.S. INDUSTRIAL BRAKE LINING RIVET TOOL

**PART NO: TP950**

1.03 lbs.

- Heavy duty cast frame with "T" handle screw
- Supplied with rivet removal punch, anvil and rivet set for 1/8" rivets
- 3" L x 1" W x 3-1/2" H
- Includes plastic pouch

This is a highly improved method of removing and replacing your brake pads. The feed screw assures complete control and helps eliminate the possibility of damaging the pads. Made in the U.S.A.



## TOOL SELECTION CHART

The tooling and pulling head combinations shown in the chart below will install the diameter rivets indicated by the shaded areas, in all grip lengths, head styles, and materials, **except as noted**.

TOOL PART NO.	TOOL TYPE	CHERRYMAX CR3212/13 ETC.	CHERRYMAX "A" CR4622/23 ETC.	CHERRY LOCK CR2162/63 ETC.	CHERRYLOCK "A" CR2172/73 ETC.	INTERMAX CR4192/93 ETC.	NUT PLATE RIVETS CCR264/274 ETC.	MAXIBOLTS CR7310/11 ETC.
G27	Hand	-4 dia. only Head included	-4 dia. only Head included		-3 dia. only. Use 728-33 pulling head	-4 dia. only Head included		
G30	Hand				-3 dia only Head Included			
G704B	Power	H701B-456 pulling head pulls -4, 5, 6 dia.	H701B-456 head Pulls -4, 5, 6, dia. up to 4 grip		H955 series pulling heads	H701B-456 pulling head pulls -4, 5, 6 dia.	H9015 series pulling head w/ 704A9 adapter	Pulls -4, -5 dia. S type w/ H701B-456 head
G746	Power	H701B-456 pulling head pulls -4, 5, 6 dia.	H701B-456 pulling head pulls -4, 5, 6 dia.		H955 series pulling heads	H701B-456 pulling head pulls -4, 5, 6 dia.	H9015 series pulling head w/ 704A9 adapter	Pulls -4, -5 dia. S type w/ H701B-456 head
G747	Power	H701B-456 pulling head pulls 4,5,6 dia.	H701B-456 pulling head pulls 4,5,6 dia.		H955 series pulling heads	H701B-456 pulling head pulls -4, 5, 6 dia.	H747-3NPR	Pulls -4, 5 dia. S type w/ H701B -456 head
G750A	Hand	Pulls -4, 5, 6 dia. Pulling head included	Pulls -4, 5, 6 dia. Pulling head included			Pulls -4, 5, 6 dia. Pulling head included		Pulls -4, -5 dia. S type head included
G784	Power	H680B200A -4, 5, 6 dia., H680B208 pulls -8 dia.	H680B200A -4, 5, 6 dia., H680B208 pulls -8 dia.	H681 series pulling heads	H9055 series pulling head w/ 680B46 adapter	H680B200A -4, 5, 6 dia., H680B208 pulls -8 dia.	H9015 series pulling head w/ 680B46 adapter	
G83	Power	CherryMax CR3212/13 ect H701B-456 700-244 adapter	CherryMax CR4622/23 ect H701B-456					Maxi Bolts CR7310/11ect. H83A-5MB -5 dia. H83A-6MB -6 dia.. H83A-8MB -8 dia
G84	Power	H701B-456 W/744-300 adapter	H701B-456 w/744-300 adapter					
G86A	Power	H9040-4C pulls -4 dia., H9040-5C pulls -5, 6 dia.	H9040-4C pulls -4 dia., H9040-5C pulls -5, 6 dia.	H640B series pulling heads	H9055 w/ 226 adapter. H9044-8 for -8 dia.	H9040-4C pulls -4 dia., H9040-5C pulls -5, 6 dia.	H9015 pulling heads w/ 226 adapter	Pulls -4, -5, -6, -8 dia. S type w/ H9040 heads
G87D	Power							Pulls -5, -6, -8, -10, -12 dia. w/ Huck head. 522 adapter for -5 & 6 dia.

**WARNING:** Operating Cherry tools with a damaged or missing stem deflector, or using the deflector as a handle, may result in severe personal injury.

## WE ARE ONE OF THE WORLD'S LARGEST CHERRY TOOL DISTRIBUTORS!

These high quality, durable riveting tools are used throughout the aircraft industry.

### CHERRY HAND RIVETER PART NO: G750A

2-Step power feature allows the user to squeeze the handle throughout the increased power requirement, without feeling the need to squeeze harder to install the fastener. Pulling Heads can also be purchased separately as shown on page 51.

- Hand hydraulic riveter
- Lightweight, compact and versatile
- Hydraulic assist - one handed operation
- Double stage hydraulic pump for rapid advance permitting low effort for high pulling force
- Simple, durable construction
- Weight 1.8 lbs.
- Pulling capacity 3800 lbs.
- Pulls the following without an adapter: Cherry Max - 4, 5, 6; Maxibolt - 4, 5; Cherry Max "AB" - 4, 5, 6; Inter Max - 4, 5, 6
- NSN 5120-01-432-9361
- Adapter 750A-088 for use with H781-456 & H753A-456 pulling heads



**IDEAL FOR THE KIT  
BUILDER**

### CHERRY HAND RIVETER KIT PART NO: G750ACMR

- Kit includes H750A-456 straight pulling heads H753A-456 right angle and H781-456 offset pushing head and adapters
- NSN 5120-01-432-6190



**CHERRY PNEUMATIC RIVETER**  
**PART NO: G704B**

4.5 lbs.

- Can install 1/8", 5/32", and 3/16" Cherrymax rivets
- Air powered
- Sold without pulling heads
- Optional stem catcher bag #670A20 is recommended
- NSN - 5130-01-044-7207



**CHERRY PNEUMATIC RIVETER**  
**PART NO: G746A**

4.25 lbs.

- Can install 1/8", 5/32" & 3/16" Cherrymax "A" rivets
- Hydraulic powered
- Sold without pulling heads
- Optional stem catcher bag #670A20 is recommended



**CHERRY PNEUMATIC RIVETER**  
**PART NO: G747**

3.63 lbs.

- Lightweight, ergonomic riveter
- Air powered
- Can install 1/8", 5/32", and 3/16" CherryMax Rivets and 1/8" and 5/32" blind bolts in all materials
- New plastic base to provide scratch resistant surface
- Installs 3/32 Cherry nutplate rivets with H747-3NPR
- Sold without pulling heads
- Optional stem catcher bag #670A20 is recommended



**CHERRY PNEUMATIC RIVETER**  
**PART NO: G84**

7 lbs.

- Can install 1/8", 5/32", 3/16", and 1/4" Cherrymax rivets
- Air powered
- Sold without pulling heads
- Pulling capacity 5750 lbs.
- Accepts H701B-456 pulling head with 744-300 adapter
- Requires H84-8 pulling head for 1/4 blind rivets
- Will also install lockbolts with proper nose piece
- Optional stem catcher bag #670A20 is recommended



**MAGNETIC DRIVING ANVIL CATCHER**  
**PART NO: 701B32**

The 701B32 magnetic driving anvil catcher provides a method to securely catch and hold the driving anvil as they fall away after CherryMAX rivet installation. This anvil catcher slips onto the nose of the pulling head without any need for permanent attachment.



**STEM CATCHER BAG**  
**PART NO: 670A20**

The 670A20 stem catcher bag is a convenient accessory which helps eliminate litter from the shop floor. This plastic bag equipped with a heavy duty zipper snaps over the stem deflector of the G701A, G704B, G744, G845A, and G846 CherryMAX riveters to catch the spent stems as they are ejected from the rear of the rivet head

**CHERRYLOCK HAND RIVETER**  
**PART NO: G30**

13 oz.

- Pulls 3/32" Cherrylock "A" rivets
- Ideal for nut plate applications



The pulling heads shown below are not furnished with riveters and must be ordered separately. When selecting the proper pulling head refer to the tool selection chart on page 50 for the appropriate riveter/pulling head combination.

**STRAIGHT**  
**PART NO: H749A-456**

- Non-Standard (for use with G749A Hand Riveter)
- For installing 1/8", 5/32" and 3/16" Cherrymax rivets



**RIGHT ANGLE**  
**PART NO: H753A-456**

- For use with G701A, G704B, G747 and G749A Riveters
- For installing 1/8", 5/32" and 3/16" Cherrymax rivets



**STRAIGHT**  
**PART NO: H750A-8**

- For use with G750A for 1/4" Cherrymax Rivets
- For installing 1/4" Cherrymax rivets



**STRAIGHT**  
**PART NO: H701B-456**

- For use with G701A, G704B and G747 Riveters
- For installing 1/8", 5/32" and 3/16" Cherrymax rivets



**PART NO: H781-456 OFFSET**

- For use with G701A, G704B, G747 and G749A Riveters
- For installing 1/8", 5/32" and 3/16" Cherrymax rivets



**OFFSET**  
**PART NO: H827-8**

- For use with G744 or G84 Riveter
- For installing 1/4" Cherrymax rivets



**PULLING HEAD**  
**PART NO: H680B200A**

- For use with G684A, G685B-S, G686B-S, G689, G700 and G784 Riveters)
- For installing 1/8", 5/32" and 3/16" Cherrymax rivets



**STRAIGHT**  
**PART NO: H84-8**

- For use with G84 Riveter
- For installing 1/4" Cherrymax rivets



**RIGHT ANGLE**  
**PART NO: H828-8**

- For use with G744 or G84 Riveter
- For installing 1/4" Cherrymax rivets



**NUT-PLATE POWER RIVETER**  
**PART NO: G702A**

3 1/2 lbs.

The Cherry G702A is a pneumatic/hydraulic tool designed specifically for the most efficient installation of Cherry Nut-plate Rivets.

- Stroke - 3/4"
- 90 PSI
- Pull load 1,000 lbs.
- Uses H702-3NPR Pulling Head
- 728A9-3 Nosepiece for 3/32" Rivets
- 728A9-104 Nosepiece for 1/8" Rivets



**PULLING HEAD**  
**PART NO: H702-3NPR**

The H702-3NPR pulling head fits directly on the G702 power riveter. It comes equipped with a 728A9 nosepiece for installing 3/32" rivets and a 728A9-104 nose piece for installing 1/8" rivets.



**CHERRY G27 HAND RIVETER KIT**  
**PART NO: G27KIT**

13 oz.

- Installs Cherry Nut Plate Rivets
- Comes with 728A9-4 nosepiece (1/8") & 728A9-104 Nosepiece (1/8")
- Overall Length - 9 1/4"



Cherry rivets may be installed with either hand or power riveters, the choice being influenced by several factors: the quantity of rivets to be installed, the availability of an air supply, the accessibility of the work, and the size and type of the rivet to be installed. In addition to a hand or powered riveter, it is necessary to select the correct pulling head to complete the installation tool. Pulling heads must be ordered separately, for G36A and Power Riveters.

### CHERRY POWER RIVETER PART NO: G83

4.58 lbs.  
The G83 pneumatic/hydraulic lock bolt installation tool is a heavy duty production tool designed for high speed installation of the most popular size aircraft lock bolts.



- One hand operation in any position
- Can also be used to install blind bolts and blind rivets
- All Huck pulling heads for the 352 and 230 style tools will fit directly on this tool
- With optional nose piece this tool will also pull CherryMax Rivets

### PART NO: 744B25 ADAPTER

Adapts the 352 (Huck) blind bolt pulling head to the G744 riveter



### STRAIGHT PULLING HEAD

Available for 5/32" & 3/16" maxibolts

PART NO: H83A-5MB - 5/32"  
PART NO: H83A-6MB - 3/16"



### RIGHT ANGLE PULLING HEAD

PART NO: H828-5MB - 5/32"  
PART NO: H828-6MB - 3/16"

This pulling head aids installation of maxibolts in your limited access applications. Available for 5/32" or 3/16" diameter maxibolts.



### CHERRYLOCK® PULLING HEADS

PART NO: H680B200A  
PART NO: H680B208

Designed to enable the Cherrylock Hydroshift riveting tools, such as G684, G685B-s, G686B-s, G689, G700 and G784 to install CherryMAX rivets. Will install either head style (universal or countersunk) and all dia. (1/8", 5/32", & 3/16") of CherryMAX rivets.



### CHERRY POWERED RIVETER PART NO: G87D

- 10.5 lbs.
- Pneumatic-hydraulic lockbolt installation tool
  - 9400 lbs. pulling capacity
  - Sold without pulling heads
  - Heavy duty model



### CHERRY POWERED RIVETER PART NO: G784

- 8 lbs.
- Powerful Cherrylock pneumatic-hydraulic riveter
  - Used to install most all Cherrylock rivets up to 1/2" grip
  - H681 series pulling heads fit directly on this tool
  - Sold without pulling heads



### RIVET GRIP GAUGE PART NO: 269C3

- A simple gauge used to determine material thickness and proper rivet grip length
- For use on Cherrymax, Cherrylock and Cherry 9000 MS rivets

### MATERIAL THICKNESS & GRIP GAUGE PART NO: 269C5

A simple, self explanatory gauge for determining material thickness and proper lockbolt grip length. (Not Shown)



### CHERRY® DIGITAL THICKNESS GAUGE PART NO: CDG1

A new and more accurate method of measuring material thickness in preparation for the installation of blind fasteners.

- Utilizes sensitive electronic technology to provide grip length data
- Capable measuring from 0-.500" or 0-13MM by selecting the measurement system option button
- Measurement read is then used to select the correct grip length for the product to be installed
- Direct readings in 1/8" (4mm) through 3/8" (10mm) hole diameters



### PULLING HEADS PART NO: H681 SERIES

A separate pulling head is required for each diameter Cherrylock rivet. Countersunk (c) pulling heads can be used for installing both universal and countersunk head Cherrylock rivets. Extension heads are available to increase the normal head length to reach into difficult access areas. These heads fit directly onto models G700, and G784.



RIVET DIAMETER	PULLING HEAD PART NUMBER	DIMENSIONS	
		A	B
3/32"	H681-3C - Universal Head & Countersunk Head (MS 20426)	.163	.332
1/8"	H681-4C - Universal Head & Countersunk Head (MS 20426)	.208	.341
1/8"	H681-4F - Countersunk Head (156°)	.430	.358
1/8"	H681-4S - Countersunk Head (NAS 1097)	.174	.341
1/8"	H681-5C - Universal Head & Countersunk Head (MS 20426)	.269	.352
5/32"	H681-5F - Countersunk Head (156°)	.535	.338
5/32"	H681-5S - Countersunk Head (NAS 1097)	.225	.352
5/32"	H681-6C - Universal Head & Countersunk Head (MS 20426)	.335	.386
3/16"	H681-6F - Countersunk Head (156°)	.625	.367
3/16"	H681-6S - Countersunk Head (NAS 1097)	.281	.386
1/4"	H681-8C - Universal Head & Countersunk Head (MS 20426)	.458	.398
1/4"	H681-8S - Countersunk Head (NAS 1097)	.374	.398

## PULLING HEAD EXTENSIONS

Combinations of these extensions may be used to reach many restricted installation areas by increasing the overall length of the pulling head.

- PART NO: 704A12-2 (2")** NSN 5130-01-145-0206
- PART NO: 704A12-4 (4")** NSN 5130-01-1450-207
- PART NO: 704A12-6 (6")** NSN 5130-01-145-0208
- PART NO: 704A12-12 (12")** NSN 5130-01-178-0331

These extensions will fit directly on to the G747A CherryMAX Riveters.

- 750-088 adapter required when used on G750A

- PART NO: 744B35-2 (2")**
- PART NO: 744B35-4 (4")**
- PART NO: 744B35-6 (6")**
- PART NO: 744B35-12 (12")**

Any combination of these extensions may be used to reach the desired length. They fit directly on the G-744 and G84 CherryMAX riveters.

- 744A20 Adapter required when used on G-84



## PULLING HEAD ADAPTER

### PART NO: 740A26

Permits the G-740, G-84 and G-86 Cherry riveters to accept the H749-456, H753-456 and H763-456 pulling heads for installing 1/8", 5/32" and 3/16" CherryMAX rivets.



## PULLING HEAD ADAPTER

### PART NO: 680B57

This adapter fits all Cherry Hydroshift Riveters to permit the use of H640B and H642 (40 Series) for the installation of Cherrylock rivets. It also permits the use of H40, H90 and H9040 pulling heads for the installation of "MS" style rivets.



## ADAPTERS FOR PULLING HEADS

### PART NO: 680B46

- Fits all Cherry Hydroshift Riveters
- Permits the use of H615B pulling heads

### PART NO: 704A6

- Fits the G701A, G704B, G747 and G749A riveters
- Permits the installation of MS type blind rivets in shorter grip lengths
- Fits G750A with 750-088 adapter
- 750-088 adapter required when used on G750A



## PULLING HEAD ADAPTER

### PART NO: 704A9

Permits the use of H9015 screw on type pulling head.



## ADAPTERS

These adapters permit various Cherry riveters to accept pulling heads for the installation of CherryMAX rivets that the riveters were not originally intended to pull.

### PART NO: 680B205

Permits the G686B-S, G689, G700 and G784 to accept the H753A-456 and H781-456 pulling heads for installing 1/8", 5/32", and 3/16" CherryMAX rivets.



### PART NO: H680B208 STRAIGHT

(for use with G784 Riveter)

- 3/16 Rivet



### PART NO: 744A20

Permits the G84 riveter to accept the H701-456, H753-456 and H781-456 pulling heads for installing 1/8", 5/32", and 3/16" CherryMAX rivets and G846 up to -4 grip wiredraw rivets.



## POP AIR-HYDRAULIC RIVETOOLS PART NO: PRG540

- Standard of excellence for the industry, these riveters are first choice for high production assembly. The most widely used heavy-duty blind riveters in the world, they help to increase productivity and avoid downtime. Sets Pop's entire range of blind rivets
- Mandrel collection system available
- 4-3/4" base diameter
- .019cf/rivet - air consumption
- 85 psi max. - air required
- 7-1/2" length
- 11-3/16" height
- Pulls 3/32", 1/8", 5/32", 3/16", 1/4" Aluminum Rivets
- 4.5 lbs.



## POP PNEUMATIC RIVETOOLS PART NO: PRG510A-PLUS

- 4 lbs.
- Designed for high production and trouble-free operation, these popularly priced tools are ideal for a variety of applications
  - 6-9/16" length
  - 9-5/8" height
  - .008cf/rivet - air consumption
  - 85 psi max.- air required
  - 4-1/2" base diameter
  - Pulls 3/32", 1/8", 5/32", 3/16" Aluminum Rivets



## POP AIR-HYDRAULIC TOOLS PART NO: PRT5400

- Lightweight
- Ergonomic
- Stronger Design
- This powerful tool features an extra long pulling stroke
- Mandrel collection system available (MCS5400)
- .015cf/rivet - air consumption
- 85 psi max. - air required
- 10" length
- 11" height
- Pulls 1/4" Steel Rivets



## POP RECHARGEABLE RIVET TOOL KIT PART NO: MCS5800

- Battery operated
  - 3/32" - 3/16" aluminum rivets
  - 12 volt rechargeable battery
  - 1900 rivet capacity - one hour recharging
- Kit includes:
- 4 nose pieces
  - Wrench
  - Battery
  - Battery charger
  - Steel carrying case



## POP RIVET GUN PART NO: PRG30

- Lightweight, heavy-duty professional hand riveter
- Sets 3/32", 1/8", 5/32", 3/16" steel blind rivets without adjustments by changing nose bushing



## SWIVEL RIVETING TOOL PART NO: TP844

- Rotates 360° and rivets in any position
- High leverage handles for added power
- Hardened steel construction for long life
- Extended nose for hard to reach places
- Will pull 3/32", 1/8", 5/32", and 3/16" rivets



## POP RIVET REMOVAL KIT PART NO: TP71400

- Like our rivet remover tool for pop fasteners
- Comes with 3 sizes 1/8, 3/16, 1/4
- Plastic Case
- Stops pop rivets from spinning while you drill
- Teeth bite rivet
- Timesaver



Individual sizes also available:

- PART NO: TP71401 (1/8")**
- PART NO: TP71403 (3/16")**
- PART NO: TP71405 (1/4")**

## HAND HYDRAULIC RIVETER PART NO: TP135

2.7 lbs.  
This kit provides both the features of blind riveting and nutsetting and is ideally suited for general aviation repair applications.

- Hydraulic riveter/nutsetter
- Pulling capacity - 3,750 lbs.
- Hydraulic power source
- Comes with universal nosepiece for Cherry Max sizes 1/8", 5/32" and 3/16"; pull through nut plate rivet nosepiece 3/32" & 1/8" and a 1/8" nosepiece for Cherry Max and pop rivets
- Pull-up studs and anvils are provided in sizes 6-32, 8-32, 10-32 and 1/4-28 riv-nuts
- Plastic case included



## HAND HYDRAULIC RIVETER PART NO: TP135-1

- 1.3 lbs.
- Hydraulic riveter
  - Pulling capacity - 3,750 lbs.
  - Hydraulic power source
  - Size - 6-1/4" x 5-3/8" x 1-3/4"
  - Comes with three nose pieces: 1/8", 5/32" & 3/16" for Cherry Max rivets
  - Plastic case included



## AIR RIVETER PART NO: TP135-2

1.9 lbs.  
This new air operated riveter combines a unique blend of power, versatility and compact size. This tool will pull almost all styles of blind rivets. A wide variety of optional adapters, nose pieces and pulling heads are available.

- Air powered riveter
- Pulling capacity - 4,000 lbs.
- Operated at 90 PSI
- Size - 6" x 6-3/4" x 1-7/8"
- Ideal for production use
- Comes with 4 nose pieces for Cherry Max rivets - 3/32", 1/8", 5/32" and 3/16"



## ECONOMY RIV-NUT TOOL

**PART NO: L845A** (6/32)

**PART NO: L845B** (8/32)

**PART NO: L845C** (10/32)

**PART NO: L845D** (1/4 X 20)

**PART NO: L845-4/40** (4-40)

**PART NO: L845E** (1/4 X 28)

**PART NO: L845M6** (6mm)

1 lb.

- Metric sizes: M3 thru M6 (specify size) at additional cost
- Adequate upset for: aluminum, brass, steel and stainless
- Includes allen wrench
- Replacement parts not available
- Made in the U.S.A.



## U.S. INDUSTRIAL WRENCH TYPE RIV-NUT TOOL

**PART NO: TP726A - 6-32**

**PART NO: TP726B - 8-32**

**PART NO: TP726C - 10-32**

**PART NO: TP726N - NOTCHER**

**PART NO: TP726K - KIT**

(Kit includes: TP726A, TP726B, TP726C, TP726N and handy case)

- Excellent for close quarters, overall height less mandrel 1-1/2"
- Uses 3/4" open end or socket wrench
- TP726N - Notcher - manually operated
- Made in the U.S.A.



## HI-LOK HAND WRENCH

**PART NO: TP931A**

Hi-Lok Installation Wrench (3/8" O.D. x 3" Handle)

**PART NO: TP931B**

Hi-Lok Installation Wrench (3/8" O.D. x 6" Handle)

- 1/4" drive for Std. Hi-Lok Fasteners
- Roller Clutch Design wrench handle available in 2 different lengths



## BLIND RIV-NUT KIT

**PART NO: TP224**

3 lbs.

This kit contains 62 assorted aluminum rivet nuts in sizes: 6-32, 8-32, 10-24, 10-32, 1/4"-20, 5/16"-18 and 3/8"-16.

**KIT CONTENTS:**

- Hand tool
- 7 mandrels
- 4 nosepieces
- Packaged in handsome tote box



Replacement mandrels for TP224

39254-6/32

39259-5/16-18

39267-5mm

39255-8/32

39272-5/16-24

39268-6mm

39256-10/24

39260-3/8-18

39269-8mm

39257-10/32

39266-4mm

39270-10mm

## BLIND RIVET NUT SPEED DRIVERS

For inserting threaded blind fasteners

**PART NO: L6000A** (6/32)

**PART NO: L6000B** (8/32)

**PART NO: L6000C** (10/32)

**PART NO: L6000D** (1/4 - 28)

1.5 lbs.

## BLIND RIV-NUT SPEED DRIVER KIT

**PART NO: TP6000K**

(Kit includes: L6000 speed driver with SCA 6/32", SCA 8/32", SCA 10/32" mandrels, nosepieces, and box)

- Semi-production, high speed push pull, smooth spiral action
- Available in thread sizes: #4 thru #10
- Sizes #4 thru #10 adequate upset strength for: brass, aluminum and steel
- For stainless steel uses sizes #4 thru #8
- Easy on and off threading of rivet nut with push pull knob
- Adjustable anvil for different length rivet nuts
- Repair parts available
- Specify size
- Made in the U.S.A.



**PART NO: L7000A** (6/32)

**PART NO: L7000B** (8/32)

**PART NO: L7000C** (10/32)

**PART NO: L7000D** (1/4 - 28)

1.5 lbs.

- Semi-production spiral action same as the L-6000
- Made with a longer stroke for the slotted rivet nuts
- Repair parts available
- Specify size
- Made in the U.S.A.



## REPLACEMENT MANDREL AND NOSEPIECE FOR L6000 & L7000

**PART NO: SCA-6/32"**

**PART NO: SCA-8/32"**

**PART NO: SCA-10/32"**

**PART NO: SCA-1/4" X 28**

(Requires L20 coupler at extra cost)

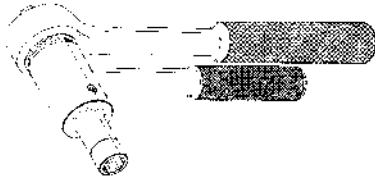
## LOCKFAST COMPOSI-LOCK TOOLS

### VISU-LOK II RATCHET HAND TOOL

Includes:

- Ratchet wrench
- Holder
- Nose tip connector
- Universal nose tip
- Wrench gear

Spare parts or conversion of kits to another size upon request.

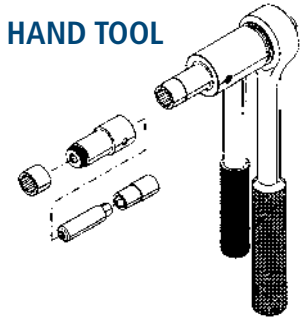


### COMPOSI-LOK II RATCHET HAND TOOL

Includes:

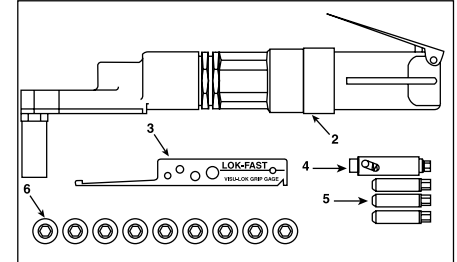
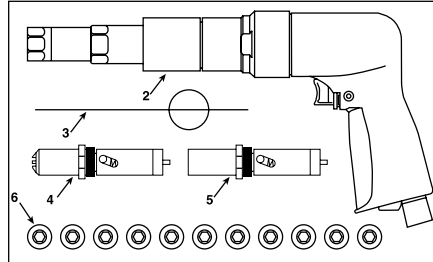
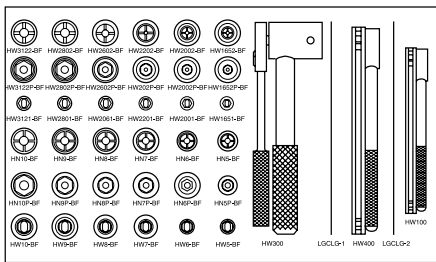
- Ratchet wrench
- Holder
- Nose tip connector
- Universal nose tip
- Wrench gear

Spare parts or conversion of kits to another size upon request.



FASTENER SIZE	COMPLETE ASSY. PART NO.
5/32"	<b>DNH5AA</b>
3/16"	<b>DNH6AA</b>
1/4"	<b>DNH8AA</b>
5/16"	<b>DNH10AA</b>
3/8"	<b>DNH12AA</b>

FASTENER SIZE	COMPLETE ASSY. PART NO.
5/32"	<b>DNH5AA-BF</b>
3/16"	<b>DNH6AA-BF</b>
7/32"	<b>DNH7AA-BF</b>
1/4"	<b>DNH8AA-BF</b>
9/32"	<b>DNH9AA-BF</b>
5/16"	<b>DNH10AA-BF</b>
3/8"	<b>DNH12AA-BF</b>



### VISU-LOK RATCHET HAND TOOL (JO-BOLT)

**PART NO: 4000 KIT**

- 1 ..... Tool Box
- 2 ..... Ratchet Hand Tool
- 3 ..... Visu-Lok Grip Gauge
- 4 ..... Fastener Driver (5, 6, 8, 10, 12)
- 5 ..... Flush Nose, -5  
Protruding Nose, -5  
Millable Nose, -5  
Reduced Flush Nose, -5  
Flush Nose, -6
- 6 ..... Protruding Nose, -6, -8, -10, -12  
Millable Nose, -6, -8,  
Reduced Flush Nose, -6, -8, -10, -12  
Flush Nose, -8, -10, -12

### VISU-LOK PISTOL MASTER TORQUE DRIVER (JO-BOLT)

**PART NO: 4090 KIT**

- 1 ..... Tool Box
- 2 ..... Pneumatic Motor
- 3 ..... Grip Gauge
- 4 ..... PT Flush Nose
- 5 ..... PT Protruding Nose
- 6 ..... Flush Nose (4 pcs.)  
Protruding Nose (3 pcs.)  
Millable Nose (4 pcs.)

### LOCKFAST COMPOSI-LOK RIGHT ANGLE MASTER TORQUE DRIVER ASSEMBLY

**PART NO: 4060 KIT**

- 1 ..... Tool Box
- 2 ..... Complete Driver Assy.
- 3 ..... Composi-Lok Grip Gauge
- 4 ..... Master Torque Driver
- 5 ..... Fastener Drivers (5, 6, 8)
- 6 ..... Reduced Flush Nose, -5  
Protruding Nose, 5  
Flush, -5  
Reduced Flush Nose, -6  
Protruding Nose, -6  
Flush Nose, 6  
Reduced Flush Nose, -8  
Protruding Nose, -8  
Flush Nose, -8



## U.S. INDUSTRIAL ENGLISH WHEEL (NON-POWERED) WHAT IS A WHEEL MACHINE?

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.

It is especially useful on large panels. The wheel works equally well on aluminum or steel. Two men work together to form a large panel. The wheel can produce very smooth, very complicated curved shapes.

The upper wheel - always with a flat rolling surface - is fixed to the machine. The curve, or crown, of the interchangeable lower wheel - the roller - determines the shape of the piece being formed. The more curve in the roller, the more curve in the work. An adjustment on the lower wheel varies the amount of pressure exerted against the metal by the roller. A knob below the roller sets this pressure. In addition to the pressure adjustment, U.S. wheels have a quick-release lever. This allows the operator to drop the roller away from the upper wheel so the work can be removed and inserted quickly without losing the pressure setting.

MADE IN THE U.S.A.

CAPACITY	REACH	OPENING HEIGHT INSIDE TOOLING POST	MAX. GAP W/D LOWER ANVIL WHEEL	OVERALL HEIGHT	WT. (LBS.)
.125 Thick Soft Alum. *1,450 lbs.	44"	38"	3"	77-3/4"	1450*
.063 Thick Mild Steel	44"	38"	3"	77-3/4"	1450*

### USING THE WHEEL

First, check to see how much curve you want in the metal panel. Choose a roller corresponding to that curve and install it in the machine. Insert the metal between the wheels. Adjust the roller so it has a slight amount of pressure against the work. Remember: Less pressure is needed to form aluminum than is needed for steel. The panel is pushed and pulled - back and forth - between the wheels. The first few passes - movement in either direction - will show if the pressure is right. If it is too light, the work will skid or slip between the wheels. If it's too heavy, roller marks will show up in the work.

How a metal panel is moved between the wheels is very important. Each pass of the metal through the wheel must be so close to the previous one that they nearly overlap. Otherwise, the panel will stretch unevenly, making its surface wavy and irregular. So keep each pass very close to the previous one. Because the U.S. Wheel is primarily a stretching machine, you must avoid running the edge of the work through the wheel. A stretched edge requires the extra work of shrinking - and shrinking is not easy.



### US1001\*

Includes 3 standard wheels:

**TP1001-1**

Anvil Wheel - 12" radius

**TP1001-2**

Anvil Wheel - 2-3/8" radius

**TP1001-3**

Anvil Wheel - 5" radius

### OPTIONAL WHEELS

(Wheels complete with axle & bearings)

**TP1001-4**

Anvil Wheel - 8-1/2" radius

**TP1001-5**

Anvil Wheel - 3-1/4" radius

**TP1001-6**

Flat Anvil Wheel

\*Shipped Freight Collect Export crating at extra cost.

## U.S. INDUSTRIAL PRO MOBILE SHAPER PART NO: USFPMS-2001

This mobile forming center can be navigated within the shop, allowing the worker to do many tasks right at the work site, as well as store the many different forming tools needed for truly professional results. Our Pro Mobile Shaper performs 4 operations in a single, mobile machine.

- Hammering for pre-forming
- Wheeling and raising of metal panel
- Shrinking or stretching
- Planishing

Each machine comes equipped as follows:

- Mobile unit on large casters
- English wheel and raising machine – foot activated design with six (6) different forming rollers
- Shot bag
- Interchanged pre-forming and planishing dollies – one (1) different crown
- Foot operated shrinker
- Hands tools not included
- Throat opening: 24" deep x 19" high
- Overall height: 51"
- Replacement wheels available
- Optional stretcher jaws available
- Made in the U.S.A.
- 760 lbs. shipping weight

**NOTE:**  
More accessories now available.



## MITTLER BROS. ENGLISH WHEEL PART NO: 2900

You have been asking us for it, now here it is. An economic wheeling machine to reproduce or duplicate the original body parts or repair panels. Deep 26-1/2" throat and 2" wide anvil wheels allow working to the center of a 50" panel.

The machine is perfect for small jobs from motorcycle gas tanks to race car body parts. This machine works great as an entry level machine or small production machine. A very affordable way to learn the art of wheeling.

It is designed to be bolted to any bench and the welded unit comes painted. The weld up kit includes all machined parts, material cut to length for the frame and complete blue prints to allow you to build a quality wheeling machine.

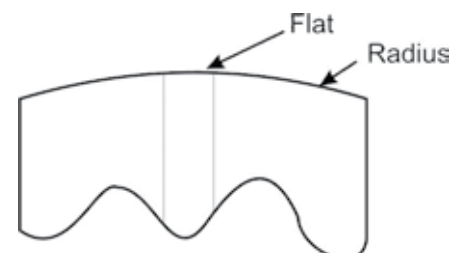
- 1/16" mild steel, .125" soft aluminum capacity
- 3" x 3" x 1/4" tube frame
- 7" x 2" upper wheel
- Heavy duty kick wheel and shaft
- Built-in anvil wheel roll holder
- Frame & Wheels complete: 125 lbs.
- Ships UPS
- 6 anvil wheels included: (2-1/2" dia. x 2" wide; CNC machined, heat-treated steel)
  - Flat
  - 5" Rad with 3/8" Flat
  - 12" Rad with 3/4" Flat
  - 3-1/4" Rad with 1/4" Flat
  - 8-1/2" Rad with 1/2" Flat
  - 2-3/8" Rad with 1/8" Flat



Adjustable Anvil Angle



Roller Cam Action Release Lever on Top Wheel



## ECKOLD® AIR POWERED HAND FORMER DRIVE KIT PART NO: 702-000-000

(Conversion Kit complete)

### PART NO: HF80CH-702

(HF80CH fitted with 702-000-000 kit)

Convert your existing Eckold hand operated hand former to an air powered hand former with remote foot pedal control. Foot pedal speed and sensitivity is adjustable and allows the operator precise control of applied forces. Hands-free operation will make forming/connecting much less challenging than hand operated. Detailed installation instructions are included with each kit. A real enhancement to productivity and operational ease.



## ECKOLD "PICCOLO" FORMERS

**STRETCHING and SHRINKING:** with standard tooling available in sizes of 40 - 50 - 60mm diameters.



### STRETCHING OPTIONS:

Beak forming tool for acute angles or channels. No-Mar tools for stretching without damaging surface of alloy materials

### PLANISHING:

Tools do not damage surface of material due to their elasticity.



### DOMING:

Tools capable of minimum doming radius of 2.17"



### REFORMING:

Reforming and calibrating tools are used to size preformed components to the required exact radius.



### FLATTENING:

Used to take out "oil cans" or "bananas" by shrinking concentrically.



### STRAIGHTENING:

Used for straightening distorted and deformed parts.



### FLANGING:

Inside-outside-irregular configuration.



**PART NO: KF324** (Piccolo Kraftformer, manual pressure control)

**PART NO: KF330** (Piccolo Kraftformer, automatic pressure control)

The Eckold electrically operated machines are designed for speed and accuracy of operation. These universal machines are used for cold chipless metal forming. The "Piccolo" has a variety of optional jaws available, all with quick-change features. The speed and ease of operation add to the high quality and profitability of the job being performed. Ideal for aircraft and auto restoration metal forming.

### TECHNICAL DATA

760 lbs. (Approx.)

- Throat reach: 14"
- Throat gap (less tooling): 9-1/2"
- Vertical tooling clearance: 6-3/8" - 7-1/2"
- Overall height: 61-1/4" - 65-5/8"
- Adjustment of ram: 1.30" by hand wheel, 1.18" by geared motor
- Strokes per minute: 400
- Kind of current: 3 phase AC
- Forming capacity:
  - Deep drawing steel: .079
  - Light metal: .100
  - Stainless steel: .060
- Voltage and frequency: per customer request
- Shipped motor freight - freight collect



KF324



KF330

ECKOLD OFFERS TWO LARGER MODELS OF POWER DRIVEN MACHINES VARYING IN SIZE, CAPACITY, AND THROAT DEPTH. ASK OUR SALES STAFF FOR MORE INFORMATION.

## ECKOLD SHEET METAL HAND FORMER

### PART NO: HF80CH

(Includes one set of standard shrinking and stretching jaws - FWA405SSP & FWR407SSP)

**PART NO: HF80CHWT** (Without tooling)

**PART NO: HS40SSP** (Beak tool)

**PART NO: HFL70SSP** (No-Mar jaws)

The Eckold Handformer consists of a pedestal, column and head. The jaws are activated by pressing down on the lever. The quick-change holders on the jaws eliminate down time so the Handformer is always ready for use. Great for shrinking, stretching, punching, bending and notching.

### SPECIFICATIONS:

69 lbs.

- Reach when shrinking & stretching - 3.150"
- Gap when shrinking & stretching - 2.362"
- Working capacity:
  - steel of deep-drawn quality - .059"
  - light metal - .079"
  - Stainless steel - .059"
- Adjustable work height - 32.680" to 44.490"



A wide variety of tooling available



## ECKOLD POWER FORMER PART NO: KF170P

- Manufactured by Eckold in Switzerland
- Pneumatic operation
- Adjustable Ram and Stroke positions to allow for sensitive pressure adjustment
- Utilizes unique quick change tool mechanism
- Adjustable height
- Moves on wheels
- Used for shrinking, stretching, flattening, punching, notching
- A reasonably priced, quality machine



## U.S. INDUSTRIAL/ECKOLD FOOT FORMER PART NO: USPF150

(Includes 1 each FWA405K & FWR407K jaws)

- Designed and developed through a team effort between Eckold AG and U.S. Industrial Tool
- Ideal for use in sheet metal shops, schools, auto restoration facilities, aircraft maintenance shops and manufacturers
- Quick change tooling allows change-over in seconds
- Cast iron base with built in work shelf for tool storage
- Adjustable stroke to compensate for metal thickness
- Foot operation allows the use of both hands on large jobs
- Provides compound leverage and is much more comfortable for the operator
- Allows for greater control in correcting operations



PART NO.	REACH	GAP	CAPACITY	HEIGHT	WEIGHT
USPF150	6"	3-1/2"	16 ga. mild steel 14 ga. aluminum	40"	365 lbs.
KF170P	7"	4"	16 ga. mild steel 14 ga. aluminum	60"	550 lbs.

## OPTIONAL JAWS

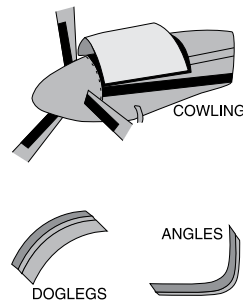
PART NO.	SHRINKING	STRETCHING	DIA.	CAPACITY
<b>STEEL TYPE - STANDARD</b>				
FWA405K	X		40mm	16 ga. mild steel
FWR407K		X	40mm	16 ga. mild steel
<b>STEEL TYPE - EXTENDED</b>				
FWA602K	X		60mm	14 ga. mild steel
FWR603K		X	60mm	14 ga. mild steel
HS40K	X		40mm	16 ga. mild steel
<b>NO-MAR TYPE - STANDARD</b>				
HFL70K	X		40x70mm	18 ga. aluminum
<b>NO-MAR TYPE - BEAK - EXTENDED</b>				
HLA60K	X		38x65mm	19 ga. aluminum
HLR60K		X	28x65mm	19 ga. aluminum

## ONE OF OUR BEST SELLING TOOLS!

These exceptional metal formers are great for making smooth radius bends in sheet metal without cutting, heating, or hammering the material. Reproduce just about anything with a curved edge. Mount them on your work bench or in a vise. Use the shrinker to contract metal, to make inside curves and use the stretcher to expand the metal for outside curves. The hand operated press gives a 45-to-1 leverage, works metal up to 18 gauge mild steel, 20 gauge stainless, and 17 gauge aluminum. Specially hardened jaws are reversible for double life. Each 12 lb. unit comes completely assembled and ready to use.

### SHEET METAL SHRINKER PART NO: TP371

- 12 lbs.  
• 1" reach capability



### SHEET METAL STRETCHER PART NO: TP372

- 12 lbs.  
• 1" reach capability



### SHRINKER STRETCHER COMBINATION PART NO: TP372C

- 13 lbs.  
Buy one unit with shrinking jaws and extra stretching jaws and easily convert to stretching or shrinking.



### SHRINKER STRETCHER STAND PART NO: TP371ST

- 15.8 lbs.  
• To be used on TP371/TP372 only  
• Designed to hold both Shrinking and Stretching tools  
• Heavy duty steel construction  
• 23" height  
• Tools not included



### U.S. INDUSTRIAL DEEP THROAT SHEET METAL SHRINKER PART NO: TP395

- 64 lbs.  
• Bench mount  
• 8" reach  
• 5-1/2" gap  
• 18 gauge mild steel capacity



### ACCESSORIES PART NO: 9084

Stretcher jaw

### PART NO: 9078

Shrinker jaw

### POWER SHRINKER STRETCHER PART NO: TP371PSS

(Complete power stand and foot pedal with TP371 & TP372 included)

### PART NO: TP372PSS-B

(Complete power stand and foot pedal without shrinker or stretcher)

- Power standing bench mountable
- Allows quick-change release drive to move from shrinking to stretching
- Includes pneumatic cylinder
- Foot pedal with some speed control allows hands-free operation



## ECKOLD PLANISHING HAMMER KIT PART NO: GL2

The GL2 is essential for the manual cold forming of metal and aluminum sheet. A portable design where the work can be brought to the tool on the tool to the work. Any industry that has to do prototype manufacture or repairs of existing product can use this kit successfully!

- Quick Change Tooling Design
- Includes: Three (3) different forming dies for planishing, stretching and curving.
- Handy Storage Shelf "The Eckold Tool for a Perfect Finish."



**ECKOLD FORMERS ARE THE MOST WIDELY USED MACHINES WORLDWIDE!**

## MITTLER BROS. PLANISHING HAMMER 12" PART NO: 2700 14" PART NO: 2700-24 UNIVERSAL STAND PART NO: 3100-100

Speed up fabrication time on complex multi form aluminum and steel panels. This tool is ideal for making those impossible-to-find replacement parts, as well as making your own custom designs. Adjuster sets load force and makes anvil changes a breeze. Foot pedal controller frees your hands for complete control.

- 4,600 hits per minute at 90 PSI
- 12" and 24" throat depth available
- 9 Radius anvils come complete with hammer:
- Flat, 3/4", 1-1/2", 2", 3", 4", 6", 8" and 12"
- Bench mounted
- Stand available



**LOWER ANVILS ALSO SOLD SEPARATELY.  
PLEASE CONTACT US**

## TENNSMITH HYDRAULIC POWERED SQUARING SHEAR PART NO: TP52H

1,300 lbs. shipping weight - shipped freight collect at extra cost

- 16 gauge mild steel capacity
- 20 gauge stainless steel capacity
- 52-1/4" max. cutting length
- 30" back gauge range
- 37" front gauge range
- 60" x 80" floor space with gauges in position
- 60 strokes per minute, full length
- 600 p.s.i. max. operating pressure
- 10 gal. oil reservoir capacity
- 56 cu. ft. export crate (at extra cost)
- Specify electrical requirements



A first class hydraulic system. The system features a variable volume pressure-compensated vane pump, solenoid actuated valve, 3 horsepower electric motor, 10 gallon tank with sight gauge and thermometer, pressure gauge and heavy duty tie rod cylinders. The motor is protected by a magnetic starter and electrical safety features including a conveniently located low voltage on/off switch and shrouded electric foot switch. One stroke per second cycle time provides the speed to get the job done quickly.

## TENNSMITH 16 GAUGE METAL SHEARS PART NO: TP36MS

700 lbs. shipping weight - shipped freight collect at extra cost

- 16 gauge mild steel capacity
- 20 gauge stainless steel capacity
- 37" max. cutting length
- 30" back gauge range
- 37" front gauge range
- 45" x 80" floor space with gauges
- 41" height
- 45 cu. ft. export crate (at extra cost)

## TENNSMITH 950 lbs. shipping weight - shipped freight collect at extra cost

950 lbs. shipping weight - shipped freight collect at extra cost

- 16 gauge mild steel capacity
- 20 gauge stainless steel capacity
- 52-1/4" max. cutting length
- 30" back gauge range
- 37" front gauge range
- 60" x 80" floor space with gauges
- 41" height
- 59 cu. ft. export crate



Squaring shears offer precision shearing and rugged construction. Ideal for shearing mild steel and stainless steel as well as plastic, lead, zinc, brass, copper and aluminum. The shear frame, bed and cutter head assemblies are constructed of heavy-duty cast iron. The shear bed is machined and then surface ground to precision tolerances to assure an accurate working surface. The lower shear blade is bed adjusting and the upper shear blade can be adjusted by means of its exclusive truss bar on the cutter head. The standard double locking back gauge, which features vernier wheels for fine adjustment, gives highly accurate readings. Safety features include a "full vision" finger guard and positive pedal stops.

## MITTLER BROS. FOOT SHEAR PART NO: 3000-52-16

The newest addition to our line of high quality, American-made sheet metal working tools for the demanding hobbyist or professional.

- Precision machined steel
- 48" cut with 52" table
- 16 ga. mild steel; .080" 6061 aluminum; 24 ga. stainless
- Reversible blades for extended life
- Adjustable blade clearance for maximum versatility
- Adjustable hold down pressure
- 835 lbs.
- Shipped freight collect



Optional Back Gauge Kit



## HEAVY DUTY 36" METAL BRAKES

**PART NO: TP368**  
**PART NO: TP368S**

58 lbs.  
(Optional brake stand)

- Precision bends from 1° to 135°
- Radius bends
- 1" reverse step bends
- 36" width
- 20 gauge capacity
- Adjustable tension bars
- Bench or stand mount



## SHEET METAL BRAKE

**PART NO: TP866**

29 lbs.

- A vice mounted tool with a capacity of 18 gauge mild steel
- Max. sheet width 24"
- Produces up to 100° folds - suitable for channel and box sections
- Clamping blade is spring-lift assisted for easier operation
- Includes a protractor attachment which permits the angle of fold to be measured in degrees



## MIGHTY BRUT BENDER®

**PART NO: TP886**

- 11 lbs.
- Powerful 30" bender handles 16 gauge aluminum and 18 gauge steel
  - Constructed of heavy duty 1/4" extruded aluminum
  - 12" bending handles with knobs
  - Makes perfect bends to over 90°
  - 1 year warranty

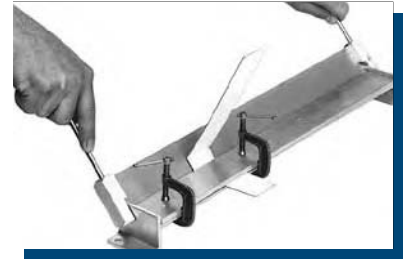


## MIGHTY MINI BENDER

**SHEET METAL BRAKE**  
**PART NO: TP73**

2.60 lbs.

- Clean smooth bends up to 90° in metals up to 16 gauge
- Forms boxes, covers & trays by slotting the break bar
- Form flanges up to 1" height
- Adjusts for stock thickness & sharpness of bend
- Requires 2 C-clamps (order separately, see below)
- 18" length
- Made in U.S.A.



## C-CLAMPS

**PART NO: TP73A**

## BEVERLY THROATLESS SHEARS

Throatless shears are ideal all-purpose metal cutting tools. They permit any desired cut in heavy gauge materials while still handling lighter gauges without distortion.

**PART NO: TP253**  
**PART NO: TP253B - BLADES**

- 18 lbs.
- 14 gauge mild steel capacity
  - 18 gauge stainless capacity
  - 18" height (less handle)
  - 4-1/4" blade length

**PART NO: TP254**  
**PART NO: TP254B - BLADES**

- 35 lbs.
- 10 gauge mild steel capacity
  - 14 gauge stainless capacity
  - 15" height (less handle)
  - 4-3/8" blade length



## FLOOR STAND FOR SHEARS

**PART NO: TP255** (Not shown)

- Works on TP253, TP254 & TP257

## BEVERLY SLITTING SHEAR

**PART NO: TP257**

- 10.5 lbs
- Equipped with high carbon, high chrome blades
  - 10 gauge mild steel slitting capacity
  - 3/16" mild steel trimming capacity
  - 3/16" x 2" bar stock capacity
  - 8" height (less handle)
  - 3-1/2" blade length
  - 14 gauge stainless capacity



## TENNSMITH 16-18 GAUGE METAL NOTCHER PART NO: TP142 METAL NOTCHER

170 lbs. shipping weight -  
shipped freight collect at extra cost  
Optional Stand - 95 lbs. shipping weight

This model is a versatile, heavy duty bench tool for shearing, notching and piercing work. The heavy cast iron construction allows the notcher to be used to side shear 6" of material to its rated capacity, the throat behind the upper ram is beveled on one side to permit long strips of material to pass without restriction.

- 90° Notches can be accomplished in two operations
- 16 gauge max. mild steel notching capacity
- 5.35 cu. ft. export crate (at extra cost)
- 18 gauge max. mild steel piercing capacity
- 6" x 6" x 90° notch
- 11.5 cu. ft. export crate (at extra cost)



TENNSMITH'S new SR slip rolls combine precision turned, ground and polished rolls with heavy duty cast iron end frames latch and base to make an accurate and durable forming tool. Convenient operating features include large roll adjusting screws, scales for speeding repeat set up and front-mounted handle to lift the upper roll for material removal. Wire grooves are standard.



## TENNSMITH SLIP ROLLS PART NO: TPSR24 - 24" SLIP ROLL

190 lbs. shipping weight - shipped freight collect at extra cost

- 20 gauge mild steel capacity
- 24" max. forming length
- 2" roll diameter
- 1" min. forming radius
- 3/16", 1/4" & 5/16" wire grooves
- 8.4 cu. ft. export crate (at extra cost)
- Heavy duty fabricated floor stand available
- 13.3 cu. ft. export crate (at extra cost)

## TENNSMITH COMBINATION ROTARY MACHINE PART NO: TPR22

67 lbs. shipping weight - shipped freight collect at extra cost

- 22 gauge mild steel capacity
- 2" diameter shaft distance
- 7" throat
- 2.4 cu. ft. export crate (at extra cost)



This model with interchangeable rolls is a versatile forming tool for manually performing numerous sheet metal operations. The tool features a solid cast steel enclosed frame and smooth meshing gears. This one machine will perform turning, burring, wiring, elbow edging, flattening and flanging operations. Material can be fed through the rolls in either direction by selecting the proper arbor. The forming pressure of the rolls is controlled by the crank on top of the frame. This unit comes complete with 5 rolls. A hand crank, spanner and bench stand are also included on this machine. A true value in versatility, efficiency and cost.

## PART NO: TPSR36 - 36" SLIP ROLL

250 lbs. shipping weight - shipped freight collect at extra cost

- 22 gauge mild steel capacity
- 36" max. forming length
- 2" roll diameter
- 1" min. forming radius
- 3/16", 1/4" & 5/16" wire grooves
- 10.7 cu. ft. export crate (at extra cost)
- Heavy duty fabricated floor stand available
- 17.8 cu. ft. export crate (at extra cost)

## PART NO: TPSR42 - 42" SLIP ROLL

270 lbs. shipping weight - shipped freight collect at extra cost

- 24 gauge mild steel capacity
- 42" max. forming length
- 2" roll diameter
- 1" min. forming radius
- 3/16", 1/4" & 5/16" wire grooves
- 12 cu. ft. export crate (at extra cost)
- Heavy duty fabricated floor stand available
- 20.0 cu. ft. export crate (at extra cost)

## MITTLER BROS. 48" ULTIMATE BOX & PAN BRAKE PART NO: 2800-48-16 STAND PART NO: 2800-400

550 lbs. shipping weight -  
shipped freight collect at extra cost  
Optional Stand - 130 lbs. shipping weight

The Ultimate Box & Pan Brake has a unique "3 Finger" design. This design incorporates moveable fingers on the bed and apron, as well as the usual upper fingers. This design allows the operator to make bend combinations that before were extremely difficult, if not impossible.

The Ultimate Box & Pan Brake has toolless upper set back adjustments and is designed to bend 16 gauge mild steel the full width with the included apron (leaf) angle fingers. A complete set of upper and bed fingers are included as well as the angle fingers for the apron, and a leaf counterweight.

- 16 gauge mild steel capacity
- 48" w/ 49" of clearance bending length
- 3-1/2" max. depth of box
- 1-1/2" max. lift of beam
- 125° max. degree of bend
- 1" front to rear adjustment
- 1/4" min. reverse bend (with 1/4" apron fingers)



Optional Stand

These heavy-duty hand brakes are designed and built for long service and accurate bending. Welded steel plate construction, heavy truss rods and braces provide strength and durability. These brakes have numerous adjustment features including: leveling screws and lock nuts on the pedestals; jack screws, shims, and tensioner bolts on the apron; truss rods on the apron, base, and upper leaf. Removable apron angle and insert permit 1/4" reverse bends in lighter material. The aprons on these brakes are supported by large pins in free-floating bearings. The upper leaf adjustment screws feature TENNSMITH exclusive roller-type thrust bearings to prevent upper leaf creep. Cast steel clamp handles, heavy counterweights and an apron stop rod complement the many other fine features of these heavy-duty brakes.

**These items are shipped freight collect, they may require special material handling.**



**TPHB97-18**



**TPHB121-16**



**TPHB121-18**



**TPHB97-16**

**TENNSMITH® HEAVY DUTY BENCH BRAKES**

SPECIFICATIONS	TPHB97-18	TPHB121-18	TPHB97-16	TPHB121-16
Capacity, mild steel	18 gauge (1.2mm)	18 gauge (1.2mm)	16 gauge (1.6mm)	16 gauge (1.6mm)
Bending length	97 in. (2464mm)	121 in. (3073mm)	97 in. (2464mm)	21 in. (3073mm)
Max. lift of beam	1-7/8" (47mm)	1-7/8" (47mm)	1-7/8" (47mm)	2 1/4" (57mm)
Front to rear beam adjustment	1/2" (13mm)	1/2" (13mm)	1/2" (13mm)	1/2" (13mm)
Min. reverse bend	1/4" (6mm)	1/4" (6mm)	1/4" (6mm)	1/4" (6mm)
Minimum flange in capacity material	1" (25mm)	1" (25mm)	1" (25mm)	1" (25mm)
Dimensions	138/48/59-1/2" 3506/1220/1512mm	159/52/60" 4039/1321/1524mm	140/52/60" 3556/1321/1524mm	161/53/59-1/2" 4090/1347/1512mm
Shipping weight	1385 lbs. (628 kg.)	2300 lbs. (1043 kg.)	1675 lbs. (759.8 kg.)	2875 lbs. (1304 kg.)
Export crate (additional charge)	125 cu. ft. 3.54 cu. m.	169 cu. ft. 4.78 cu. m.	141 cu. ft. 3.99 cu. m.	187 cu. ft. 5.30 cu. m.

**UNIVERSAL HAND BRAKE  
TPHBU48-16**

495 lbs. shipping weight

Shipped freight collect at extra cost

This model is a heavy duty brake suitable for box and pan or straight bending. This brake features a removable apron angle and apron insert, permitting 1/4" reverse bends in lighter materials. The upper leaf and nose bar has a wide range of adjustment for radius bending. Standard equipment includes an apron stop rod for repeat bends, extension handles and a counterweight.



**SHEET METAL BRAKE  
TPU48-22**

Finger Brake 48"

**TPS48-22**

Bar Brake 48" (not shown)

Shipped freight collect at extra cost



**UNIVERSAL HAND BRAKE  
TPHBU48-12**



**BOLTED ASSEMBLY FLOOR STAND  
TP-STAND**

95 lbs. shipping weight

Shipped freight collect at extra cost

SPECIFICATIONS	TPHBU48-16	TPHBS48	TPU48-22	TPS48-22	TPHBU48-12
Capacity, mild steel	16 gauge (1.6mm)	16 gauge (1.6mm)	22 gauge (0.75mm)	22 gauge (0.75mm)	12 gauge (2.7mm)
Capacity, stainless	-	-	-	-	16 gauge (1.6mm)
Bending length	48-1/4" (1225mm)	48-1/4" (1225mm)	48-1/4" (1225mm)	48-1/4" (1225mm)	48-1/4" (1225mm)
Max. depth of box	4" (101.7mm)	-	3" (76.2mm)	-	4" (101.6mm)
Front to rear beam adjustment	5/8" (16mm)	5/8" (16mm)	1/4" (3mm)	1/4" (3mm)	1" (25.4mm)
Min. reverse bend	1/4" (6mm)	1/4" (6mm)	5/16" (7.9mm)	5/16" (7.9mm)	1/4" (6.3mm)
Minimum flange in capacity material	1" (25mm)	1" (25mm)	3/8" (9.5mm)	3/8" (9.5mm)	1" (25.4mm)
Fingerwidths	2", 3", 4" 51, 76, 101mm	-	2", 3", 4" 51, 76, 101mm	-	2", 3", 4" 51, 76, 101mm
Shipping weight	495 lbs. (224.5 kg.)	460 lbs. (208.7 kg.)	280 lbs. (127 kg.)	220 lbs. (100 kg.)	1330 lbs. (603.3 kg.)
Optional Stand Shipping weight	95 lbs. (43 kg.)	95 lbs. (43 kg.)	95 lbs. (43 kg.)	95 lbs. (43 kg.)	-
Export crate (additional charge)	2.5 cu. ft. 0.07 cu. m.	2.5 cu. ft. 0.07 cu. m.	2.5 cu. ft. 0.07 cu. m.	2.5 cu. ft. 0.07 cu. m.	79.5 cu. ft. 2.25 cu. m.

## MITTLER BROS. POWER DRIVE BEAD ROLLERS

- Adjustable depth of bead
- Oilite bushings
- 1-18" throat height
- Variable speed foot control
- Forward/reverse switch
- All fabricated construction
- Include choice of one set of standard shape rolls
- 24" Throat Depth Manual Drive Bead Roller also available

PART NO.	THROAT DEPTH	CAPACITY
TP1008-24	24"	.040" mild steel; .050" aluminum
TP1008-36	36"	.040" mild steel; .050" aluminum
TP1008-42	42"	.040" mild steel; .050" aluminum



SHEETMETAL TOOLS

BEAD ROLLERS

## MITTLER BROS. BEAD ROLLER STANDS

PART NO: TP10085-24

(for 24" bead roller)

PART NO: TP10085-36

(for 36" - 42" bead roller)

PART NO: 200-031-R

(for 10" & 14" rotary machines)

Two-piece gusseted design for easy shipping and extra strength. Industrial coated finish. These fit our industrial bead rollers as well.



## MITTLER BROS. TUBE BEAD ROLLS PART NO: 201-010 HD POWER TUBE

(1-1/4" min. ID x .095" wall alum.)

## PART NO: 201-001 STD POWER TUBE

(1" min. ID / .049" wall alum.)

(for 10" & 14" rotary machines)

- Rolls a bead so hoses won't slip off
- Ideal addition to the bead roller
- Fits all of our power drive units
- HD Power Tube great for turbo charger tubes



## MITTLER BROS. ROLL HOLDER

PART NO: 200-RH

This handy item slips over our Bead Roller Stand and gives you a perfect place to store up to ten sets of rolls.



## MITTLER BROS. DEPTH STOP PART NO: TP1008A

Fits our industrial power drive bead rollers and our standard power drive units as well.



## FLARE TOOLS

### PART NO: TP1005 KIT

(Complete 9 piece kit includes sizes: 1/2", 5/8", 3/4", 1", 1-1/4", 1-1/2", 1-3/4", 2", 2-1/2")

- Precision machined and heat treated
- Forms lightening holes for access or strengthening

- Requires a pre-cut hole
- 16 gauge mild steel capacity
- Hand wrench operated

Individual sizes available:

- TP1005A-1/2"
- TP1005B-5/8"
- TP1005C-3/4"
- TP1005D-1"
- TP1005E-1-1/4"
- TP1005F-1-1/2"
- TP1005G-1-3/4"
- TP1005H-2"
- TP1005I-2-1/2"



## PUNCH & FLARE TOOLS

### PART NO: TP1006 KIT

(Complete 7 piece kit includes sizes: 1", 1-1/4", 1-1/2", 1-3/4", 2", 2-1/2" and 3")

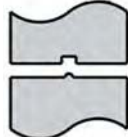
- Precision machined and heat treated
- Forms lightening holes for access or strengthening
- Punches and flares tool in one operation
- Requires a pilot drill hole.
- Each assembly has anti-friction bearing included

Individual sizes available:

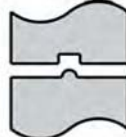
- TP1006A-1"
- TP1006B-1-1/4"
- TP1006C-1-1/2"
- TP1006D-1-3/4"
- TP1006E-2"
- TP1006F-2-1/2"
- TP1006G-3"



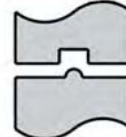
## OPTIONAL SHAPE ROLLS



TP1008-1B  
1/8" Bead



TP1008-2B  
3/16" Bead



TP1008-3B  
1/4" Bead



TP1008-4B  
5/16" Bead



TP1008-5B  
3/8" Bead



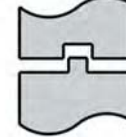
TP1008-6B  
1/2" Bead



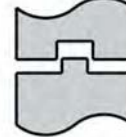
TP1008-1F  
1/8" Flat



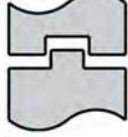
TP1008-2F  
3/16" Flat



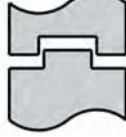
TP1008-3F  
3/8" Flat



TP1008-4F  
5/16" Flat



TP1008-5F  
3/8" Flat



TP1008-6F  
1/2" Flat



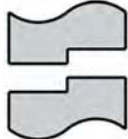
TP1008-1FR  
Full Radius Tank Roll



TP1008-1TR  
Tank Roll



TP1008-1SR  
Step Roll



TP1008-2SR  
1/8" Step Roll



TP1008-1S  
45 Step

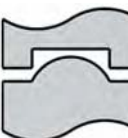


TP1008-1SO  
Spoiler Roll



TP1008-1BL  
Body Line

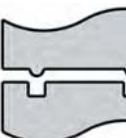
## ADDITIONAL SHAPE ROLLS AVAILABLE AT EXTRA COST



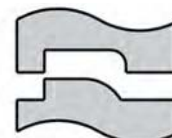
TP1008-7B  
1" Bead



TP1008-1SE  
Shear



TP1008-1PS  
1/8" Pin Stripe  
(7/8" center to center  
bead)



TP1008-1LR  
Louver Roll  
(form up to .040  
aluminum)

**MITTLER BROS.  
MANUAL BENCH PRESS  
PART NO: 2200-M**

- Speed up sheet metal fabrication and add those finishing touches
- Uses industry standard punch & dies for round, square & oblong holes
- Can also be used as a standard arbor press
- Comes with tooling to adapt to our Punch & Flares and Punch & Beads (sold separately)
- Rugged welded plate construction
- Bronze bushings for long life
- New wrench design
- 3 ton capacity
- Max. tooling capacity: 3" dia. punch; 16 ga. mild steel



**MITTLER BROS.  
HYDRAULIC BENCH PRESS  
PART NO: 2200-H**

- Speed up sheet metal fabrication and add those finishing touches
- Uses industry standard punch & dies for round, square & oblong holes
- Can also be used as a standard arbor press
- Comes with tooling to adapt to our Punch & Flares and Punch & Beads (sold separately)
- Rugged construction
- Welded boxed plate design
- 5 ton hydraulic cylinder included
- New wrench design
- Max. tooling capacity: 3" dia. punch; 16 ga. mild steel



**MITTLER BROS.  
PUNCH & DIE MOUNTING KIT  
PART NO: 2200-040**

Includes die holder and hardware (required for round and oblong punch & die sets; punch & die sold separately) and coupling nut.

- Capacity: 16 ga. mild steel; .100" aluminum
- 5/32" to 3/4" individual punch & die sets also available
- 1/4" x 1" oblong punch & die set also available



**MITTLER BROS.  
SPRING LOADED CENTER  
PART NO: 7200-SLC**

This handy item makes it easy to locate your hole punch or flare center by just center punching and then lining up the pin in the dimple when using the bench press.



**MITTLER BROS.  
CORNER PUNCH KIT  
PART NO: 2200-CPA**

Great for making those little boxes and trays.

- Capacity: 16 ga. mild steel
- 1" x 1" cut out
- Includes Tooling Adapter Kit



**MITTLER BROS.  
SHEAR KIT  
PART NO: 2200-SA**

Great for cutting sheet metal up to 16 ga. mild steel. Cut your blanks for the corner punch & 90° break shown below.

- Capacity: 16 ga. mild steel
- Includes Tooling Adapter Kit



**MITTLER BROS.  
90° BRAKE KIT  
PART NO: 2200-90DA**

Finish up those boxes and trays with this handy brake.

- Capacity: 1/8" mild steel
- Includes Ram Adapter



**MITTLER BROS.  
TOOLING ADAPTER KIT  
PART NO: 2200-TA**

Tooling Adapter Kit is required for the kits on this page. The kit includes the ram adapter block, the lower adapter plate and hardware.



## MITTLER BROS. LOUVER PRESS KIT

The Louver Press Kit is a profit-making tool. Each kit includes a 10-ton hydraulic ram, die mounting plate, precision slide assembly, one set of louver dies, blueprints, bill of material and instructions for building a 48" throat louver press.

- 10 tons of versatile louver, hole punch and press brake power
- Punches steel, aluminum or stainless
- Punching capacity of 16 ga. mild steel; bending capacity of 3/16" mild steel
- 1" - 5" Individual louver punches sold separately(punch assemblies only)

### MITTLER BROS. PUNCH & FLARE ADAPTER KIT PART NO: 500-PFA



### MITTLER BROS. 90° BRAKE KIT PART NO: 2200-90DAL



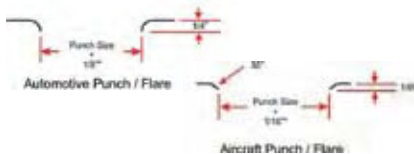
### MITTLER BROS. REPLACEMENT STRIPPER ASSEMBLY PART NO: 500-050



## MITTLER BROS. PUNCH & FLARE TOOLS

Just drill a pilot hole for the draw bolt, then apply the tool and tighten the bolt for a smooth, flared or beaded hole in one easy step. Our Punch & Flare or Punch & Bead tools can also be used as a hole punch simply by using the punch and die.

- Adds strength while keeping panel flat and smooth with no sharp edges.
- Aircraft style punch & flare tools also available for .020" - .040" material
- Full sets available



### Automotive Punch & Bead Sets

PART NO.	DIAMETER
1300-013-B	1"
1300-014-B	1-1/4"
1300-015-B	1-1/2"
1300-016-B	1-3/4"
1300-017-B	2"
1300-018-B	2-1/2"
1300-020-B	3"
1300-403-B	1" thru 3"

### Automotive Punch & Flare Sets

PART NO.	DIAMETER
TP1006A-1	1"
TP1006B-11/4	1-1/4"
TP1006C-11/2	1-1/2"
TP1006D-13/4	1-3/4"
TP1006E-2	2"
TP1006F-21/2	2-1/2"
TP1006G-3	3"
1300-403	1" thru 3"

## MITTLER BROS. LOUVER PUNCHES

Order a Start-Up Kit with the size of the louver punch you want. After that, you will just have to order the size punch assembly you need. You will already have the mounting pieces you need.

- Capacity: 16 ga. mild steel



### Louver Punch Start-Up Kits

PART NO.	SIZE
2200-LA-01	1"
2200-LA-02	2"
2200-LA-03	3"
2200-LA-04	4"
2200-LA-05	5"

### Individual Louver Punch Kits

PART NO.	SIZE
500-041	1"
500-042	2"
500-043	3"
500-044	4"
500-045	5"

## HYDRAULIC PUMP



PART NO.	TYPE	SIZE HOSE & FITTING
900-504-20	Air	20"
900-508-20	Electric	20"

## MITTLER BROS. GAUGE HOLE PUNCHES

### PART NO: 1300-028

(2-1/16" Hole Punch)

### PART NO: 1700-021

(2-5/8" Hole Punch)

### PART NO: 1300-019

(2-1/16" Punch & Flare)

- Capacity: .040" to .062" mild steel



## MITTLER BROS. FLARE TOOLS

Now in one easy step, you can flare sheet metal panels for improved strength and appearance. Just use the flare tools over your existing holes and draw them up with the supplied bolt.



### Automotive Flare Tools

PART NO.	DIAMETER
TP1005A-1/2	1/2"
TP1005B-5/8	5/8"
TP1005C-3/4	3/4"
TP1005D-1	1"
TP1005E-11/4	1-1/4"
TP1005F-11/2	1-1/2"
TP1005G-13/4	1-3/4"
TP1005H-2	2"
TP1005E-21/2	2-1/2"
1300-401	1/2" thru 2 1/2"

## BOSSING MALLETS

**PART NO: TPA5522** 23 oz.

**PART NO: TPA5522-1** 11.7 oz.

**PART NO: TPA5522-2** 26 oz.

This 3 mallet set offers a variety of shapes so that you can select a hammer perfectly suited to the job at hand. An extra deep "reach" from the face of each mallet to the handle makes forming deep bowl shapes quick and easy.

- Use with a shot bag to shape aluminum or AK steel without the handle striking the edge of your workpiece
- Non-marring plastic for long life and sturdy hickory handles
- Made in the USA



## EDGE ROLLING TOOL

**PART NO: TP980**

For pre-binding skin edges on lap joints and butt joints before riveting. Edge rolling will prevent the skin edges from curling up during the riveting process. Ball bearing style nylon rollers for non-marring, plus an extra set of rollers are included.



PART NO.	SMALL RADIUS	LARGE RADIUS	DIAMETER	HEAD LENGTH	WEIGHT
TPA5522	3/4"	1-3/8"	2-3/4"	8"	23 oz.
TPA5522-1	1/2"	2-1/4"	2"	7"	11.7 oz.
TPA5522-2	1"	3"	3"	7"	26 oz.

## U.S. INDUSTRIAL HOLE FLANGING TOOL

**PART NO: TP326**

- Ideal tool for flanging lightening holes
- Ball bearing construction
- Easy to use



## PORTABLE HAND PUNCH KIT

**PART NO: TP76K**

(Complete tool & die kit, 3.06 lbs.)  
Kit includes complete tool & die set with 7 punches, 7 dies ranging from 3/32" to 9/32", and a metal case. Its 1.2 tons of punching power puts a 1/4" hole through 16 gauge metal.

### INDIVIDUAL DIE SETS:

**PART NO: TP40** (7/32" die range)

**PART NO: TP41** (1/4" die range)

**PART NO: TP42** (9/32" die range)

**PART NO: TP77** (3/32" die range)

**PART NO: TP78** (1/8" die range)

**PART NO: TP79** (5/32" die range)

**PART NO: TP80** (3/16" die range)



## ADEL HAND NIBBLING TOOL

**PART NO: TP81**

**PART NO: TP81A** (Replacement punch)

.44 lb.

- Hand operated
- Cuts sheet metal like a punch & die
- Ideal for templates, shims & radio chassis



## U.S. INDUSTRIAL FLUTING PLIERS

**PART NO: TP722**

.4 lbs.

- Polished machined jaws
- Forged steel construction and hardened
- Cushion grip handles
- Ideal for kit builders
- 9-1/2" length
- Manufactured in the U.S.A. by U.S. Industrial Tool



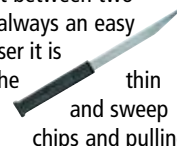
## CHIP CHASER

**PART NO: TP70AT** (.19 lb.)

**PART NO: TP70A** (extra blades)

Removal of metal chips left between two sheets after drilling is not always an easy task. By using our chip chaser it is much easier. Simply slide the thin blade between the sheets and sweep to the side catching the chips and pulling them out.

- Swedish Clock Spring Steel replaceable blades
- Blunt hook end



## HAND SEAMER

**PART NO: TP44**

1.5 lbs.

- Wide, deep jaws machined for smooth parallel fit
- Forms precise folds and seams
- 1" deep x 3-1/2" wide throat



## FLUTING PLIERS

**PART NO: TP162**

Fluting pliers are commonly used to form and stiffen ribs in cowlings. The TP162 leaves a large flute and is useful for bigger jobs while the small flute of the TP722 is ideal for more exacting work and smaller parts.

.39 lb.

- Jaws are covered with a special heavy phenolic coating to "cushion the bite"
- Quality drop forged tool
- Plastic grip handles
- 8" length



## OFFSET HAND SEAMER

**PART NO: TP44-0**

1.25 lbs.

- Offset design allows for additional leverage
- 1-1/4" deep x 3-1/8" wide throat
- Cast aluminum design



## ALUMINUM SNIPS

**PART NO: TP792** (12" O.A.L., 1 lb.)

**PART NO: TP793** (14" O.A.L., 1.31 lbs)

- Strong & lightweight with inlaid steel blades
- Resharpenable blades that replace easily when necessary
- Baked enamel finish
- Cuts both straight and curves



Superior quality, heavy duty snips are only 1/3 the weight of steel types and give many more years of service. Comfortable, contoured aluminum handles have reinforced ribs to duplicate the strength of steel. Handles will not spring when cutting heavy gauge sheet metal. Inlaid blades are cutlery grade moly steel, electronically heat treated and tempered for continuous use. Precision ground, beveled cutting edges stay sharp longer and make pattern and circle cutting an easy job.

## LEVER SNIPS

**PART NO: TP133** (Right hand snip, cuts left & straight)

**PART NO: TP134** (Left hand snip, cuts right & straight)

.75 lb.

- Offset cutting tool
- Leaves two clean, finished edges
- 8-1/2" length



## ROBIN OFFSET HEAVY DUTY SNIP

**PART NO: TP299**

1.63 lbs.

This offset blade design allows the sheet to pass under your hand. The steel forged blades keep metal from stretching and causing puckering marks along the cut edge.

- 16 gauge mild steel capacity
- German made



## TINNER SNIPS

- Heat treated Alloy steel
- Comfortable Plastisol handles
- Available in two styles - Duckbill (circular cut) and Flat (Straight cut)



PART NO.	SIZE	LENGTH OF CUT	BLADE TYPE
<b>TP924A</b>	7"	1-1/2"	DUCKBILL
<b>TP924B</b>	12-3/4"	2-3/4"	DUCKBILL
<b>TP925A</b>	7"	1-1/2"	FLAT
<b>TP925B</b>	12-3/4"	2-3/4"	FLAT

## AVIATION SNIPS COMBO

**PART NO: TP51K** (12" O.A.L., 1 lb.)

Kit is 2.4 lbs.

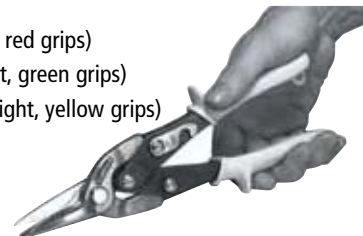
- Buy all 3 pieces and save
- This unique lightweight design allows cutting to be fast and easy

**PART NO: TP51** (Cuts left, red grips)

**PART NO: TP52** (Cuts right, green grips)

**PART NO: TP53** (Cuts straight, yellow grips)

.80 lb. each

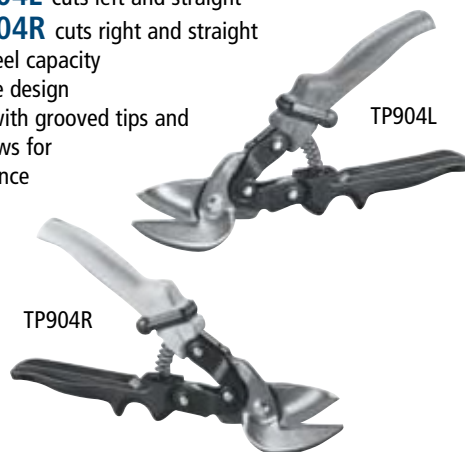


## HIGH CAPACITY OFFSET SNIPS

**PART NO: TP904L** cuts left and straight

**PART NO: TP904R** cuts right and straight

- 18 gauge mild steel capacity
- Ergonomic handle design
- Alloy steel jaws with grooved tips and serrated upper jaws for optimal performance



## ROBIN CRAFTSMAN SNIP

**PART NO: TP439** (Straight cut)

**PART NO: TP440** (Curved cut)

Suited for fine trimming. Guaranteed to provide a burr-free edge. A must for the sheet metal mechanics' tool box!

- 7" length
- 24 gauge capacity
- Made in Germany



## ROBIN HOLE TIN SNIP

**PART NO: TP438**

The Robin tin snip is the original hole tin snip, guaranteed to provide burr-free cutting. Spring loaded to minimize operator fatigue.

- 9" length
- 18 gauge capacity
- Made in Germany



## U.S. INDUSTRIAL TAB SHEAR PART NO: US7000

- Capacity: 1/16" steel, 3/32" aluminum
- Max. throat opening: 1/8" height\*, 3" length\*
- 8-1/2" long
- 4,500 max. force at 90 PSI
- Precision shearing of router tabs on aluminum, steel, titanium and stainless steel or similar shearing and trimming operations for other applications
- Double-action trigger valve
- Improved grip design for operator comfort
- Shear blades may be re-sharpened or rotated to a new edge
- Strengthened frame for improved durability
- 6.5 lbs.
- Made in U.S.A.



## KETT SHEAR - ELECTRIC PART NO: K200

- 7/32" width of cut
- 180" per minute cutting speed
- 2,500 RPM
- 18 gauge mild steel capacity
- 3.2 amps



## U.S. INDUSTRIAL TAB SHEAR PART NO: US7000T

(Tandem Cylinder Design - Increased Force)

- Capacity: 1/8" steel, 3/16" aluminum
- Max. throat opening: 3" height\*, 12-1/4" length\*
- 8-1/2" long
- 6,500 max. force at 90 PSI
- 9.8 lbs.
- Made in U.S.A.

### OPTIONS

#### PART NO: 79042

- D-Handle Adjustable Position

\*As the part height increases the throat length decreases.



## U.S. INDUSTRIAL SHEAR PART NO: US7387PS PART NO: US7092PS

Straight handle, not shown  
2.14 lbs.

A compact, quiet and powerful tool with an advanced ergonomic handle design.

- Cuts straight lines or curves
- 18 gauge mild steel capacity
- 180"/minute cutting speed
- 7/32" width of cut
- 8-1/4" length
- Manufactured in the U.S.A.



## PART NO: US7000BMS

Bench top stand allows stationary mounting of tab shear for added convenience, remote foot pedal, quick-change release, less tool, 4.10 lbs.

## PART NO: US7000BMST

Bench Top Stand with remote foot pedal, not shown



## AIR NIBBLER PART NO: M400A

1.8 lbs.

- Nibbles steel or aluminum sheet without distorting or twisting
- Cuts a tight 1/4" radius with great accuracy
- Adjustable die guide for forward, backward, right or left cutting
- Small enough to start cut in center of panel using a 1" hole
- 16 gauge mild steel capacity
- 21341 Die
- 21340 Punch



## SHEAR HEAD PART NO: TP179

1 lb.

- 1-1/2" I.D. Bore
- Converts standard type air or electric drill with 3/8" x 24 spindle to a power shear
- 18 gauge mild steel capacity
- 7/32" width of cut



## U.S. INDUSTRIAL METAL FORMING SHOT BAG

**PART NO: TPA5526**

**PART NO: TPA5526 - 8"**

Stretch metal without nicks or gouges with this pliable 3/4 oz. top grain cowhide bag. This double-stitched bag fills through a 1" opening sealed with velcro. The filled bag gives you a surface to pound sheet metal into, absorbs the hammer blows and gives smooth results. The bag is 12" round or 8" x 1-1/2" thick and is easy to use with minimum practice. Shot is not supplied with bag. Shot can be purchased at a local sporting goods store.



## BULLSEYE BODY PICK

**PART NO: TPA5533** (15" reach)

**PART NO: TPA5534** (20" reach)

**PART NO: TPA5535** (30" reach)

**PART NO: TPA5536**

(Set of three)

- Time saving dent removal tool



## SUPER PLASTIC MALLETS

**PART NO: TPA5523** (wood barrel)

**PART NO: TPA5524** (2-1/2" dia. bossing shape)

**PART NO: TPA5525** (2-3/4" dia. barrel shape)

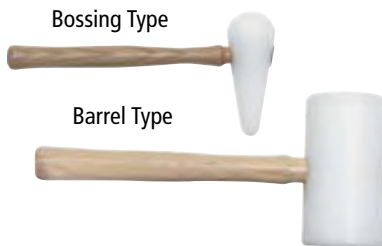
**PART NO: TPA5552** (1-3/4" barrel shape)

**PART NO: TPA5553** (3-9/16" barrel shape)

**PART NO: TPA5554** (2" boss shape)

**PART NO: TPA5555** (3" barrel)

- Polyethylene head
- Hardwood handle with brass wedge
- Eliminates marring
- Long life, split resistant



## BRASS HAMMER

**PART NO: TP871A** (24 oz.)

**PART NO: TP871B** (32 oz.)

**PART NO: TP871C** (48 oz.)

- Non-sparking brass
- Hickory handle
- Prevents damage to delicate parts



## SYKES-PICKAVANT BUMPING BLADES

**PART NO: TP718** (Flat, 22 oz.)

**PART NO: TP719** (Half-round, 20 oz.)

- Used for slapping out dents
- Serrated teeth prevent metal stretch
- PVC grip for comfort



## NO-MAR HAMMER

**PART NO: TP178**

1.2 lbs.

- 1-1/4" head diameter x 3-3/4"
- 13" handle length

These hammers come with press-on tips and hickory handles. The tips are easily replaced but will not come loose while in use.



## BLOCKING HAMMERS

**PART NO: TP938A** (3 lbs. - 1 1/2" diameter)

**PART NO: TP938B** (2 lbs. - 1 3/8" diameter)

**PART NO: TP938C** (1.5 lbs. - 1 1/8" diameter)

These heavy-duty hammers make metal work projects quicker and easier. They are ideal for roughing (blocking) high-dome shapes in aluminum or steel. Use them to quickly block metal into shape before planishing.

- Polished hammer surfaces minimize marks on metal
- Each hammer has two crowns to suit a variety of projects
- All hammers heads are 5 3/4" long with fiberglass handle comfort grip



## SYKES-PICKAVANT PANEL BEATERS

- English made
- World-renowned for tool balance and quality!

### PART NO: TP535A

Standard bumping - flat faces



### PART NO: TP535G

Curved pein & finish - crowned face



### PART NO: TP535H

Straight pein & finish - flat face (not shown)

### PART NO: TP535I

Pick & finishing - crowned face



### PART NO: TP535J

Pick & finishing - flat face



### PART NO: TP535K

Fender bumping 2.19 lbs.



- Extra long reach curved beater is an effective tool where direct access is impossible
- 1-1/8" diameter
- 8-1/4" length

### PART NO: TP535E

Standard bumping - crowned faces



### PART NO: TP535F

Heavy shrinking - flat face



## SYKES-PICKAVANT BODY REPAIR TOOL PANEL PACK KIT

### PART NO: TP542K

15.44 lbs.

A basic set of 6 pieces, consisting of the more popular tools essential to the professional body repair craftsman and invaluable to the do-it-yourself enthusiast.

#### KIT CONTENTS:

- 1 (ea.) standard bumping beater - flat face
- 1 (ea.) straight pein & finishing beater - crowned face
- 1 (ea.) pry & surfacing spoon
- 1 (ea.) utility dolly
- 1 (ea.) curved dolly
- 1 (ea.) toe dolly
- English made



## SYKES-PICKAVANT DOLLIES

All hand dollies are produced from top quality forged steel, heat-treated under controlled conditions and then ground and carefully polished to a high standard of surface finish. Weights and dimensions given are approximate, only intended to give an impression of size. Length dimension refers to the largest overall measurement.



PART NO.	TYPE	"L"	WT.
TP541A	Round	2-1/2"	1.63 lbs.
TP541B	Heel	3-1/4"	2.25 lbs.
TP541C	Utility	2-7/8"	3.00 lbs.
TP541D	Curved	5-3/8"	3.38 lbs.
TP541E	Toe	5"	3.00 lbs.
TP541G	Gen. Purpose	4"	2.75 lbs.

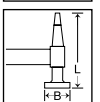
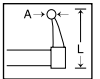
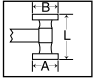
Induction hardened action Wood and steel wedged for maximum retention and safety Induction hardened striking surface.



Highly polished working face

High quality forged alloy steel to British Standards

Top quality Hickory shaft



PART NO.	"A"	"B"	"C"	WEIGHT
TP535A	1-5/8"	1-1/2"	3-13/16"	.94 lb.
TP535B	1-5/8"	1-1/2"	3-13/16"	.94 lb.
TP535E	1-7/8"	1-5/8"	3-13/16"	1.19 lbs.
TP535F	1-5/8"	1-1/2"	3-13/16"	.94 lb.
TP535G	1-5/8"	-	5-1/2"	.94 lb.
TP535H	1-5/8"	-	5-1/2"	.94 lb.
TP535I	1-1/2"	-	5-5/8"	.94 lb.
TP535J	1-1/2"	-	5-5/16"	.94 lb.
TP535K	1-1/2"	-	8-1/4"	2.19 lbs.

TP535RH (Replacement Handle)

## SYKES-PICKAVANT SPOONS

Spoons are used in the body repair trade for a variety of jobs: bumping, levering, prying, etc. Although of similar styles, each has its own particular function. No craftsman should be without a good selection of these hand tools.



PART NO.	TYPE	"L"	WT.
TP536C	Long Reach Dolly	14-1/4"	4.25 lbs.
TP536E	High Crown	7-1/2"	3.30 lb.

## U.S. INDUSTRIAL WOOD SLAPPERS

PART NO: TPA5514 Gentle Curve

PART NO: TPA5515 Medium Curve

PART NO: TPA5516 Sharp Curve

PART NO: TPA5517 Leather Cover



These slappers are made from select hard maple. They are used like a hammer or mallet to shape metal. Three different shaped slappers are available that are designed to form the desired curve in the metal. Slappers can be used to form metal over a shot bag, tee dollies or many other self made dies. Leather covers are also available and should be used when forming aluminum to avoid marring the surface.

## U.S. INDUSTRIAL T-DOLLIES

PART NO: TPA5518 Small 1/2" dia. x 4"

PART NO: TPA5519 Med. 3/4" dia. x 6"

PART NO: TPA5520 Large 1" dia. x 8"

PART NO: TPA5521 T-Dolly set (includes

TPA5518, TPA5519, TPA5520 & TPA5521)

These handy T-dollies can be used to form flanges and edges by hammering (with hammer or slapper) the metal over the rounded dolly. These dollies are available in three sizes and may be held by hand or in a vise.



## U.S. INDUSTRIAL MULTI-PURPOSE DOLLIE

PART NO: TP594 (Medium Crown)

PART NO: TP595 (Low Crown)

5.2 lbs.


- Can be hand-held and used as a portable forming die or can be vise mounted and used as a bench forming dolly.
- Made of heat treated alloy steel and die face highly polished.
- 2-3/4" wide forming face
- 6 1/2" Length



## SYKES-PICKAVANT BODY BLADE HOLDERS

For best results, all body blades should be used with a properly designed holder which provides adequate support over the entire length of the cutting face.

### ADJUSTABLE HOLDER

**PART NO: TP574** Holder less blade 

**PART NO: TP574K** Holder with TP578A 9 T.P.I. Blade

2 lbs.

- Single screw adjustment provides 2-position grip for planing/filing
- Quick action turnbuckle contours blade to suit shape of work - concave, flat, convex
- Chrome plated for long life
- Blade supported over full length by spring steel backing plate
- English Made

### FLEXIFILES

**PART NO: TP596K** 1 Each TP596 A through F

**PART NO: TP596H** Plastic File Handle

- Superior steel needle files which can be bent by hand to conform to workpiece.
- Can be bent over 100 times
- 66 Rockwell hardness
- 6-1/4" Length



PART NO.	"L"
TP596A	Equalling
TP596B	Round
TP596C	Half Round
TP596D	Square
TP596E	Three Square
TP596F	Barrette

## SYKES-PICKAVANT BODY BLADES

Sykes-Pickavant blades, manufactured to internationally accepted standards, are produced from alloy steel blanks and heat treated to controlled limits to insure sufficient service and life. Each tooth is individually milled and undercut for fast and smooth operation, teeth are shaped to reduce clogging.



### PART NO: TP578A

Standard cut, flat, double-sided. flexible - 14" - 9 T.P.I. - General purpose blade suitable for use on soft metals, lead and solder fillers.

### PART NO: TP578B

Plastic cut, flat, double-sided, flexible - 14" 6 1/2 T.P.I. - Specially designed for dealing with plastic body fillers.

### PART NO: TP578F

Fine cut, flat, double sided, flexible - 14" - 13 T.P.I. - A good general purpose blade for use on all but the hardest of materials. Excellent results on aluminum, copper and brass.

## SPEC -OUT NIB FILE

**PART NO: TP916A** Coarse

**PART NO: TP916B** Fine

Very unique file for removing runs or dirt nubs from painted surface without damage to surrounding area.

- 1 1/4" square blocks
- Honed tips of teeth on the pad, shave without digging in



TP916A



TP916B

## HUTCHINS SANDING BOARDS

- Designed especially for craftsmen who depend on long-life quality and performance
- Hutchins patented low-silhouette paper clamps are tempered steel for easy loading and tension security
- Speed handles are made from select hardwood, shaped without sealers or hard finishes to prevent any blisters or skin abrasions

### PART NO: TP598

The best investment in sanding boards. Versatile, long life, featherweight aluminum with cushioned base. Wet or dry sanding on any surface. No warping or chipping. Uses standard 2-3/4" x 17-1/2" abrasives.



### PART NO: TP601SB

Best value. Long-life aluminum sanding board with cushioned base. For all-purpose sanding of small areas. Ideal for wet or dry sanding. Uses 3" x 11" abrasives (1/3 std sheet).



## SYKES-PICKAVANT METAL SHEARS

**PART NO: TP546** (16 Ga. capacity - mild steel)

**PART NO: TP546CW** (cutting wheel)

**PART NO: TP547**(10 Ga. capacity - mild steel - not shown)

- Cuts without edge distortion
- Can be bench or vise mounted
- English made

An efficient metal shear that will produce curved and straight cuts in mild steel. A lever and ratchet action operates the roller cutters, which are adjustable for material thickness, and the cutting action can be reversed for cutting internal angles. Built-in replaceable shear pins prevent overloading.



## SYKES-PICKAVANT ROLASTEP PORTABLE EDGE SETTER

**PART NO: TP548**

- 18 gauge capacity - mild steel
- .040 average step depth
- 1/2" width of step
- 1-1/4" min. internal radius
- English made

A lightweight, portable tool for producing a continuous stepped flange along the edge of sheet metal. Most useful when joining two edges to create a flush fitting joint. The Rolastep is designed for hand operation using a spanner, or socket and ratchet or an air ratchet. Small diameter twin-drive rollers can be adjusted to the correct gauge of metal to prevent thinning or distortion.



## SYKES-PICKAVANT DOOR SKINNER

**PART NO: TP551**

- Two step operation:
  - Pre-bending to acute angles
  - Tightening skin to door frame
- English made

A tool designed for the body repairer when replacing door skins - enabling the flange to be crimped tight. Two replaceable tough nylon parts prevent damage to the door skin when crimping the flange. 1-1/4" wide pad is reversible, giving access right into corners, while the 2" long pad enables flange crimping to be carried out more quickly.



## SYKES-PICKAVANT HAND EDGE SETTER

**PART NO: TP549**

- 18 gauge capacity - mild steel
- Hand operated
- English made

Portable, hand-operated "joggler" is designed to produce a stepped panel edge to create a flush fitting lap joint on replacement panels. A "joggled" panel edge provides a stiffer joint and prevents distortion.



## PANEL FLANGER

**PART NO: TP556**

- .401 shank
- A "joggler" tool designed for use in an air hammer/riveter. Allows you to produce a flange so panels can be flush mounted.



## BAILEIGH TUBE & PIPE NOTCHER

**PART NO: TN-800**

- No tooling changes up to 3" OD
- Perfect weld joint
- 1/2" min. - 3" max. capacity
- Angles and offsets



## WE ALSO CARRY BAILEIGH...

- IRON WORKERS
- DRAW BENDERS
- MANDREL BENDERS
- TUBE & PIPE NOTCHERS

...AND OTHER QUALITY METAL WORKING MACHINES.

PLEASE CONTACT US FOR COMPLETE DETAILS

## MITTLER BROS. ULTIMATE TUBING NOTCHER

This unit combines all the great features you've come to expect with the added benefit of a variable speed control. The variable speed control allows you to speed up the cutter speed for thin walled tubing, helping to reduce hooking, and allows you to slow down the cutter speed for large diameter, thick walled tubing to prevent cutter burn out. This machine maintains torque and power at all RPM ranges.

- Easily handles 3/4" OD thin wall to 2-1/2" OD 1/4" wall
- 1-1/2 HP AC motor, 208/220 Volts, 15 amp, 1 phase, 50/60 cycle
- Max. diameter: 2" tubing/std. vise; 2-1/2" tubing/upgraded vise
- 75 to 250 RPM adjustable cutter speed control
- Height adjustable vise option available
- Calibrated no-clog swivel vise with 1" increments - allows quick and accurate set-ups
- Specify required voltage: 208/220/230/240
- Comes with power cord. No plug supplied.
- Shipped freight collect
- 385 lbs.

## ULTIMATE NOTCHER STAND PART NO: 400-A400

Rugged fabricated stand with safe storage for spare cutters.

- 33-1/2" stand height
- 44-1/2" working height
- Locking casters



## CHIP TRAY PART NO: 400-100

- Simple bolt-on design
- Fits all our Ultimate Notchers



## WISE JAW SHIM PART NO: 1100-100

Required for 1/2" and 5/8" OD tubing



## ULTIMATE VARIABLE SPEED TUBING NOTCHER PART NO: 400-VS

- Capacity: 3/4" to 2" tubing
- 1-1/2 HP motor
- Standard vise and chip tray

## UPGRADE - ULTIMATE VARIABLE SPEED TUBING NOTCHER PART NO: 408-V50

- Capacity: 2-1/2" tubing or 2" pipe
- 1-1/2 HP motor
- Larger V-block jaws and chip tray
- Recommended for pipe notching

## ADJUSTABLE VISE KITS PART NO: 1100-A50

(Standard vise)

## PART NO: 1100-A00

(Upgraded vise)

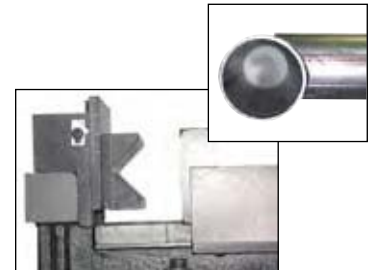
- Height adjustable vise jaws make tubing offsets a snap
- Add to your existing vise to make it height adjustable

## ULTIMATE VARIABLE SPEED TUBING NOTCHER PART NO: 400-ADJ

- Capacity: 3/4" to 2" tubing
- 1-1/2 HP motor
- Adjustable height vise jaws and chip tray

## UPGRADE - ULTIMATE VARIABLE SPEED TUBING NOTCHER PART NO: 400-VSUADJ

- Capacity: 2-1/2" tubing or 2" pipe
- 1-1/2 HP motor
- Adjustable height vise jaws and chip tray
- Recommended for pipe notching



## HIGH HELIX & FINE TOOTH CUTTERS

- Recommended for thin walled tubing
- Goes great with the Variable Speed Notcher
- Made in the USA
- Adapter bushings sold separately

PART NO.	TUBING	PIPE SIZE	CUT LENGTH	BUSHING
400-525	2-3/8"	2"	4"	-
400-526	2"		4"	-
400-527	1.90"	1-1/2"	4"	-
400-528	1-3/4"		4"	-
400-528-F	1-3/4"	Fine	4"	-
400-529	1.66"	1-1/4"	4"	-
400-530	1-5/8"		4"	-
400-531	1-1/2"		4"	-
400-531-F	1-1/2"	Fine	4"	-
400-532	1-3/8"		4"	-
400-533	1-1/4"	1"	4"	-
400-533-F	1-1/4"	Fine	4"	-
400-534	1-1/8"		4"	1"
400-535	1"		4"	1"
400-555	1"	High Helix	2"	1"
400-536	7/8"		3-1/2"	7/8"
400-556	7/8"	High Helix	1-3/4"	3/4"
400-537	3/4"		3"	3/4"
400-557	3/4"	High Helix	1-3/4"	3/4"
400-547	5/8"		2-1/2"	5/8"
400-558	5/8"	High Helix	1-3/4"	5/8"
400-538	1/2"		2"	5/8"
400-559	1/2"	High Helix	1-1/4"	1/2"

## HYDRAULIC 90° TUBING BENDER PART NO: 900

(with 1 set of round shoes up to 1-3/4" OD & 1 hour video)

**PART NO: 900-504-6** Air hydraulic pump, hose & fitting

**PART NO: 900-508-6** Electric hydraulic pump, hose & fitting

- Bend mild steel, stainless, aluminum and 4130 tubing, as well as pipe
- 3/4" to 2" OD standard sizes
- 25 tons of hydraulic power
- Self-contained – does not need to be anchored
- Easy access flip top
- Engraved reference scale to last a lifetime
- Now includes adjustable saddles
- Maximum capacity: 2" OD tubing, .125" wall; 1-1/2" pipe, 1.90" OD, .145 wall
- Free 1-hour instructional video or DVD on master tube bending included with every Hydraulic 90° Tubing Bender



## DIGITAL READ OUT FOR HYDRAULIC 90° TUBING BENDER PART NO: 900-D

**ONE-HOUR TUBE BENDING  
VIDEO (FREE WITH PURCHASE  
OF 90° TUBING BENDER, PART  
NO: 900-D)**

**PART NO: 900-500** (Video)  
**PART NO: 900-500-DVD** (DVD)

## LEVER TYPE TUBING BENDER PART NO: TP856

Ideal tool for making gentle bends or sharp 45 and 90 degree bends in aluminum, copper and mild steel tubing. Easily bends 1/4", 5/16" and 3/8" tubing. (Not recommended for 3/8" steel.)



### Round Tube Shoe Sets

PART NO.	TUBE SIZE	CL RAD.
900-S01	2"	8"
900-S02	2"	7"
900-S03	1-3/4"	8"
900-S04	1-3/4"	8"
900-S05	1-5/8"	7"
900-S06	1-5/8"	6"
900-S07	1-1/2"	7"
900-S08	1-1/2"	6"
900-S09	1-3/8"	5"
900-S10	1-1/4"	5"
900-S11	1-1/8"	4"
900-S12	1"	4"
900-S13	7/8"	4"
900-S14	3/4"	4"

### Square Tube Shoe Sets

PART NO.	TUBE SIZE	CL RAD.
900-S25	2"	8"
900-S26	1-1/2"	7"
900-S27	1-1/4"	5"
900-S28	1-1/8"	4"
900-S29	1"	4"
900-S30	3/4"	4"

### Pipe Shoe Sets

PART NO.	PIPE SIZE	OD	CL RAD.
900-S41	1-1/2"	1.90	8"
900-S42	1-1/4"	1.66	6"
900-S43	1"	1.315	5"
900-S44	3/4"	1.050	4"
900-S45	1/2"	.84	4"

## 180° MANUAL BENDER

**PART NO:** (with 1 set of shoes)

Great for those special projects such as safety loops that don't require a large expensive bender. Also great for Kart Nerf bars and bumpers.

- Bends 4130 tubing
- Shoes from 3/8" through 1", round or square
- Maximum capacity: 1" OD tubing, .065 wall to .095 wall
- Easy to mount



### Round Tube Shoe Sets

PART NO.	TUBE SIZE	CL RAD.
950-S01	1"	3-1/2"
950-S02	7/8"	3-1/2"
950-S03	3/4"	2-1/2"
950-S04	5/8"	2-1/2"
950-S05	1/2"	2"
950-S20	Combo* 3/8" / 1/2"	2"

### Square Tube Shoe Sets

PART NO.	TUBE SIZE	CL RAD.
950-S06	1"	3-1/2"
950-S07	7/8"	3-1/2"
950-S08	3/4"	2-1/2"
950-S09	5/8"	2-1/2"
950-S10	1/2"	2"
950-S21	Combo 3/8" / 1/2"	2"

\* 3-pc. set - Main shoe, follow roller & lock block

## HYDRAULIC 180° TUBING BENDER PART NO: 2500

(25 ton ram, with 1 set of round shoes up to 1-3/4" OD & digital read-out)

**PART NO: 900-504-6** Air hydraulic pump, hose & fitting

**PART NO: 900-508-6** Electric hydraulic pump, hose & fitting

- Screwless follow bar adjustment
- CAM action follow bar pressure release
- Digital readout in 1° increments for maximum repeatability
- Rolling stand with locking casters
- Improved follow bar design prevents tube scratching
- Precision CNC machined
- 25 tons of hydraulic power
- Now includes adjustable saddles
- Maximum capacity: 2" OD tubing, .125" wall; 1-1/2" pipe, 1.90" OD, .145 wall
- 450 lbs.
- 48" W x 48" L x 28" H
- Ships freight collect



### Round Tube Shoe Sets

PART NO.	TUBE SIZE	CL RAD.
2500-500	2"	8"
2500-501	1-3/4"	8"
2500-502	1-3/4"	7"
2500-503	1-5/8"	7"
2500-504	1-1/2"	6"
2500-505	1-3/8"	5"
2500-506	1-1/4"	5"
2500-507	1-1/8"	4"
2500-508	1"	4"
2500-509	3/4"	4"

\* Shoe sets include shoe, follow bar, saddle & pin.



Compound bends are easier with redesigned top.

### Square Tube Shoe Sets

PART NO.	TUBE SIZE	CL RAD.
2500-518	2"	8"
2500-516	1-3/4"	8"
2500-515	1-3/4"	7"
2500-514	1-1/2"	6"
2500-513	1-1/4"	5"
2500-512	1-1/8"	4"
2500-510	1"	4"
2500-511	3/4"	4"

\* Shoe sets include shoe, follow bar, saddle & pin.



Swing-out / Removeable Work Tray holds follow bar and removes for compound bends.

### Pipe Shoe Sets

PART NO.	PIPE SIZE	OD	CL RAD.
2500-532	1-1/2"	1.90	8"
2500-531	1-1/4"	1.66	6"
2500-520	1"	1.31	5"

\* Shoe sets include shoe, follow bar, saddle & pin.

## U.S. INDUSTRIAL PNEUMATIC DRILL

- PART NO: US7387P-4500** Includes chuck guard & chuck key
- PART NO: US7387P-2800** Includes chuck guard & chuck key
- PART NO: US7387P-1200** Includes chuck guard & chuck key
- PART NO: US7387P-500** Includes chuck guard & chuck key
- PART NO: US7387P-15000** Includes chuck guard & chuck key

Ergonomically designed, compact, quiet, and powerful are just a few of the benefits available with this air drill. The short body length is ideal for working in tight areas while the light weight and perfect balance makes it the mechanics favorite drill.

- .75 HP motor - High Torque Motor
- Variable speed teasing trigger standard - adjustable trigger optional
- Made in the USA
- CE certified

PART NO.	RPM	CAPACITY	LENGTH	WEIGHT
US7387P-4500	4500	1/4"	6"	2.00 lbs.
US7387P-2800	2800	1/4"	6"	2.00 lbs.
US7387P-1200	1200	3/8"	7-1/2"	2.13 lbs.
US7387P-500	500	3/8"	7-1/2"	2.13 lbs.
US7387P-15000	15000	1/4"	5/38"	1.82 lbs.



## U.S. INDUSTRIAL QUICK-CHANGE PNEUMATIC DRILL

Ergonomically designed, compact, quiet, and powerful are just a few of the benefits available with this air drill. The short body length is ideal for working in tight areas while the light weight and perfect balance makes it the mechanics favorite drill.

- .75 HP motor - High Torque Motor
- Variable speed teasing trigger standard - adjustable trigger optional
- Uses TP248B Jacob's keyless chuck.
- Made in the USA
- CE certified

PART NO.	RPM	CAPACITY	LENGTH	WEIGHT
US7387PK-2800	2800	1/4"	6"	2.00 lbs.



## MINI PNEUMATIC DRILL

- 1.33 lbs.
- Small pistol drill
- 1/4" capacity
- Ergonomic handle design
- 2800 RPM
- 5-5/8" long
- Comes with chuck key
- Teasing trigger



## DOTCO

**PART NO: 14CNL91-51** 5200 RPM, 3/8" capacity

**PART NO: 14CNL92-51** 3200 RPM, 3/8" capacity  
2.3 lbs.

- 7" O.A.L.

**PART NO: 14CNL95-51** 1900 RPM, 3/8" capacity

2.7 lbs.

- 8.4" O.A.L.



## MERCURY PNEUMATIC DRILL

**PART NO: TP45**

2.5 lbs.

- General duty
- Includes Jacobs Chuck & key
- 2200 RPM
- 3/8" capacity
- 7" length



## SIOUX MINI AIR DRILL

**PART NO: 1410**

2600 RPM, 1/4" capacity

**PART NO: 1412SIOUX**

3600 RPM, 1/4" capacity

1.3 lbs.

- 6.3" length



## DESOUTTER

**PART NO: DR350-P550-C10** (550 RPM)

**PART NO: DR350-P1000-C10** (1000 RPM)

**PART NO: DR350-P2000-C10** (2000 RPM)

**PART NO: DR350-P3000-C10** (3000 RPM)

**PART NO: DR350-P4500-C10** (4500 RPM)



## SIOUX

**PART NO: 1450ES**

2600 RPM, 1/4" capacity

**PART NO: 1452ES**

3300 RPM, 1/4" capacity

**PART NO: 1453ES** 4500 RPM, 1/4" capacity

**PART NO: 1454ES** 2600 RPM, 3/8" capacity

**PART NO: 1456ES** 6000 RPM, 1/4" capacity

2.5 lbs.

- 2-stage trigger
- .75 HP motor
- Adjustable speed control
- 7" length



## INGERSOLL RAND

**PART NO: 728JA1**

3800 RPM, 5/16" capacity

**PART NO: 728LA2**

2100 RPM, 3/8" capacity

2.5 lbs.

- 7" O.A.L.

**PART NO: 728NA3** 950 RPM, 1/2" capacity

3.1 lbs.

- 8-3/4" O.A.L.



## SIOUX REVERSIBLE DRILL

**PART NO: 1450ESR** 2600 RPM, 1/4" capacity

2.6 lbs.

- 7-1/2" length



**MERCURY**

**PART NO: 130** 5-11/16" length - 20 oz.

- 25,000 RPM
- 1/4" collet



**MERCURY**

**PART NO: 135AHD-12** 12,000 RPM

**PART NO: 135AHD-25** 25,000 RPM

- .94 lbs.
- 1/4" collet
- 4-7/8" length
- 2-29/32" angle head height



**U.S. INDUSTRIAL ANGLE DRILL**

**PART NO: US7092DARE-4500** 4,500 RPM

**PART NO: US7092DARE-2800** 2,800 RPM

- 90° angle head
- Rear exhaust
- 1/4" drilling capacity
- 59/64" angle head height
- 1/4" -28
- 12-5/8" length
- 78 DB
- Made in the U.S.A.
- CE certified



**MERCURY GEARLESS ANGLE DIE GRINDER KIT**

- PART NO: TP964**
- Features rear exhaust grinder
  - Lightweight composite housing
  - Reduces vibration
  - Thermal insulated
  - 1/4" (3mm)
  - 1/8" (6mm)



**U.S. INDUSTRIAL QUICK CHANGE COLLET DRILL**

**PART NO: US7092DARE-CTL-4500** 4,500 RPM

9/32" spindle with collets. Collets include: 40, 30, 28, 21, 12 & 11

**PART NO: US7092DARE-CTL-2800** 2,800 RPM

9/32" spindle with collets. Collets include: 40, 30, 28, 21, 12 & 11  
2.3 lbs.

Our latest entry to the angle drill market, maintaining our tradition of the smallest angle head design for close-quarter drilling operations.



**U.S. INDUSTRIAL STRAIGHT DRILL**

**PART NO: US7092SDRE-2800** 2,800 RPM

**PART NO: US7092SDRE-4500** 4,500 RPM

**PART NO: US7092SDRE-500** 500 RPM

**PART NO: US7092SDRE-15,000** 15,000 RPM

- 2 lbs.
- Rear exhaust
- Powerful and quiet
- 1/4" capacity
- 8" length (500 rpm 9" length)
- .75 HP
- Made in the U.S.A.
- CE certified



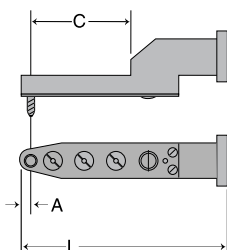
**U.S. INDUSTRIAL FLAT ANGLE DRILL**

**PART NO: US7092PAN-2800** 2,800 RPM

**PART NO: US7092PAN-4500** 4,500 RPM

2.65 lbs.

- Small, powerful, quiet
- 1/4" - 28 spindle
- The original "pancake" design
- 11" length
- Specifications:
- "A" = 7/16"
- "C" = 2-1/8"
- "L" = 4-1/8"
- Made in the U.S.A.
- CE certified



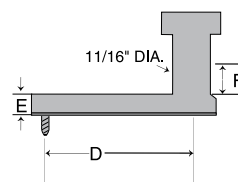
**U.S. INDUSTRIAL FLAT ANGLE DRILL**

**PART NO: US7092FO-2800** 2,800 RPM

**PART NO: US7092FO-4500** 4,500 RPM

2.2 lbs.

- Small, powerful, quiet
- 1/4" - 28 spindle
- Allows access into difficult to reach applications
- 8-3/4" length
- Specifications - angle head:
- "D" = 2-7/16"
- "E" = 5/8"
- "F" = 2-3/8"
- Made in the U.S.A.
- CE certified



## DOTCO® SERIES ANGLE DRILL PART NO: 15LF

Nominal .4 HP - Front & Rear Exhaust

Capacity: 1/4" Drill

Air inlet: 1/4" N.P.T.F. - Use 5/16" (7.9 mm) I.D. Hose Specifications @ 90 psi (620 kPa) maximum air pressure

PART NO.	SPEED RPM	WEIGHT		LENGTH	
		LBS.	KGS.	IN.	MM.
<b>1/4" - 28 Internal Thread - Front Exhaust</b>					
15LF251-62	4,750	1.50	.68	10.00	254
15LF252-62	3,500	1.50	.68	10.00	254
15LF253-62	2,800	1.50	.68	10.00	254
15LF254-62	2,100	1.68	.76	10.38	263
<b>1/4" - 28 Internal Thread - Rear Exhaust</b>					
15LF281-62	4,750	1.50	.68	10.00	254
15LF282-62	3,500	1.50	.68	10.00	254
15LF283-62	2,800	1.50	.68	10.00	254
15LF284-62	2,100	1.68	.76	10.38	263



## DESOUTTER ANGLE DRILL D370LX-2000 TS

1.69 lbs.

- 2,500 RPM
- 1/4"-28 spindle
- 90° X 90° angle head
- Head swivels 360°
- 10-1/2" length



## DESOUTTER 90° ANGLE DRILL PART NO: D32-L-2800S

- 2,800 RPM
- 1/4x28 spindle thread
- .28 hp
- 1.06" angle head height



## U.S. INDUSTRIAL ANGLE DRILL ATTACHMENT PART NO: TP4 - DRILL ATTACHMENT PART NO: TP4K - DRILL ATTACHMENT KIT

Kit includes TP4 attachment, and #21, #30 & #40 bits  
.80 lbs.

- Replaces our original TP46
- Easy to use
- Accepts cone jaw chuck
- 90° heavy duty design capable of 6,000 rpm operation
- Accepts any 1/4" x 28 threaded drill bits
- 1/4" x 28 female threaded spindle
- 7" overall length
- 15/16" angle head height
- Will mount to any standard drill chuck
- Rated up to 1/4" hole drilling capacity
- Maximum T.I.R. - .005"



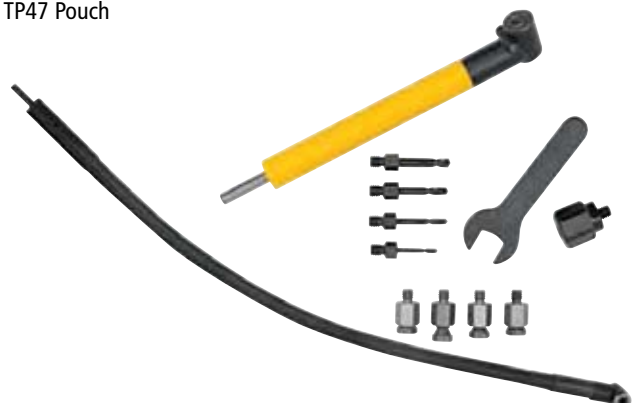
This top quality attachment is our own make and is made in the U.S.A.



## U.S. INDUSTRIAL DRILL KIT PART NO: TP47DLX

Includes:

- 1 - TP4 Angle Drill
- 1 - TP47 Snake Drill
- 1 - TP258 Collet Drill
- 1 - TP47 Pouch



## 90° ANGLE ATTACHMENT PART NO: TP363

- 1-to-1 gear ratio
- 5/16" capacity
- Takes 1/4" x 28 threaded drill bits or cone jaw chuck
- 1/4" x 28 female threaded spindle
- 6" length
- 1-5/8" angle head height



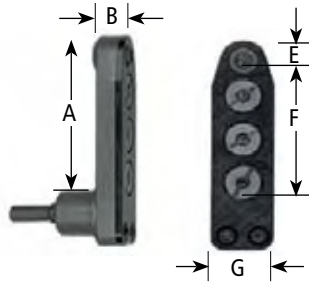
## 45° ANGLE ATTACHMENT PART NO: TP364

- 1-to-1 gear ratio
- 5/16" capacity
- Takes 1/4" x 28 threaded drill bits or cone jaw chuck
- 1/4" x 28 female threaded spindle
- 6-11/16" length



## "L" TYPE OFFSET DRILL ATTACHMENT

- Fits any 1/4" drill chuck (air or electric)
- 1/4" x 28 female threaded spindle standard
- Heavy duty design



## 90° ANGLE FLEXIBLE SNAKE DRILL PART NO: TP365

- 1-to-1 gear ratio
- 5/16" capacity
- Takes 1/4" x 28 threaded drill bits or cone jaw chuck
- 1/4" x 28 female threaded spindle
- 30" length
- 1-3/8" angle head height



## 45° ANGLE FLEXIBLE SNAKE DRILL PART NO: TP366

- 1-to-1 gear ratio
- 5/16" capacity
- Takes 1/4" x 28 threaded drill bits or cone jaw chuck
- 1/4" x 28 female threaded spindle
- 30" length



## 360° ANY ANGLE FLEXIBLE SNAKE DRILL PART NO: TP367

- 1.75 lbs.
- Full 360° operation of head
- 1/4" capacity
- Comes with cone jaw chuck
- 30" length



## STRAIGHT FLEXIBLE SNAKE DRILL PART NO: TP367A

- For straight away drilling
- 1/4" capacity
- Takes 1/4" x 28 threaded drill bits or cone jaw chuck
- 1/4" x 28 female threaded spindle
- 30" length
- 25/32" diameter



## U.S. INDUSTRIAL SNAKE DRILL ATTACHMENT PART NO: TP47 - SNAKE DRILL ATTACHMENT PART NO: TP47K - SNAKE DRILL ATTACHMENT

- Includes 1 ea.: TP47, TP54-21, TP54-30, and TP54-40
- Accepts 1/4" x 28 threaded drill bits or cone jaw chuck
  - 1/4" x 28 female threaded spindle
  - 26" length
  - 1" angle head height
  - Will mount to any standard drill chuck

Similar to an angle attachment, but with a flexible shaft that allows you to get into tight spots.



## ANGLE DRILL COLLET & CHUCK KIT PART NO: TP258

.25 lbs.

This 10 piece kit gives you three different methods of drilling in tight spots. Each shank is 1/4" x 28 which will thread into most drill spindles that angle attachments and angle drills are supplied with.

### KIT CONTENTS

- (4) #200 collets & adapters - drill sizes 11, 21, 30 & 40
- (4) threaded drill bits (1-1/4" length) - drill sizes: 10, 21, 30 & 40
- (1) cone jaw chuck



## THREADED DRILL BIT EXTENSION

- PART NO: TP973-2** (2" length)  
**PART NO: TP973-4** (4" length)  
**PART NO: TP973-6** (6" length)

Our threaded drill bit extensions are designed to be used in a standard 1/4" or larger chuck, and allow you to use your 1/4"x28 threaded drill bits in a standard drill motor.



## U.S. INDUSTRIAL MINI-AIR VACUUM

**PART NO: TP675**

.53 lb.

- Venturi type design with 1" I.D.
- Lightweight ABS plastic construction
- Picks up ferrous and non-ferrous chips, bolts and rivets
- Throttle with special lock-on feature
- TP575-10 - 18" flexible hose included
- 1/4" inlet
- Air required
- Made in USA



## ALUMINUM MINI-AIR VACUUM

**PART NO: TP575**

.53 lb.

- Venturi type design with 1" I.D.
- Cast aluminum construction
- Picks up ferrous and non-ferrous chips, bolts and rivets
- Throttle with special lock-on feature
- TP575-10 - 18" flexible hose included
- 1/4" inlet
- Air required



## ACCESSORIES

**PART NO: TP275B**

Spare bag and clip for either vacuum

**PART NO: TP275-1**

Spare bag only for either vacuum

**PART NO: TP275B-1**

Spare clip for either vacuum

**PART NO: TP575-10**

18" clear flexible hose for 1" I.D. vacuum

**PART NO: TP575-24**

24" clear flexible hose for 1" I.D. vacuum

**PART NO: TP575-36**

36" clear flexible hose for 1" I.D. vacuum

**PART NO: TP575R-10**

12" rigid tube for 1" I.D. vacuum

**PART NO: TP575R-24**

24" rigid tube for 1" I.D. vacuum

## OL' JOINT JIGGER

**PART NO: TP977**

The Ol' Joint Jigger is designed to clamp the tube or pipe and feed the saw into the work, thus not grabbing or collapsing thin wall tubing or causing any of the problems commonly encountered with tube notching by other methods. Joints in tubing, or pipe, up to 2" OD are made quickly and accurately. Simply mount the unit to a bench top or clamp in a vise and use your 1/2" electric or pneumatic drill for power and a good quality bi-metal/high speed hole saw from 9/16" to 2".



## AUTO CENTER PUNCH

**PART NO: TP294HD** Center Punch  
**PART NO: TP294HD-1**

Replacement Punch  
.21 lbs.

Our heavy duty automatic center punch is designed for industrial use. It is fully adjustable for heavy or light marking. To operate, locate the point to be center punched and press the tool into it. The spring loaded hammer (internal) will automatically deliver a measured blow to the work piece. No need for a hammer. The tip can also be sharpened for extended tool life.

- 5.5" overall length



## NOXON SPRING CENTER PUNCH

**PART NO: TP294S**

No hammer required. This double ended punch is actually two punches in one, a prick punch on one end and a center punch on the other. Tremendous energy is stored as the lifetime spring is stretched and when the plunger is released, all the energy goes directly to the point. Due to the unique design of the tool, a light blow is directed to the prick punch, and a heavy blow to the center punch.



## DRILL POINT GAUGE

**PART NO: TP841**

- For all 118 and 135 degree straight shank and taper shank drills
- Checks lip length and lip angle on both right and left hand drills
- Includes instructions for grinding drills and sketches of points
- Made from .032 stainless steel for long life
- 5-1/2" overall length



## 4 IN 1 CHUCK KEY

**PART NO: CK12050**

One tool that fits nearly all 1/4" & 3/8" drill chuck eliminates the need to search your tool box or drawers for the correct key. It includes a strong magnet for attachment to your box or work area for easy access.



## CENTER PUNCH

**PART NO: TP294AP**

.19 lb.

This tool is very similar to the TP294HD except it has a large "head" which makes the tool very easy and comfortable to use. It is fully adjustable for high or low the hammering stroke a resharpener for prolonged tool life.

- 5" overall length



## COUNTERSINK/DEBURRING SET

**3 IN 1**

**PART NO: TP838**

.36 lb.

- Molded plastic handle with 1/4" hex shank holder
- Three deburring bits - 90° angle, 7/16", 5/8", 3/4" diameter
- 4" overall length handle



## OPTICAL CENTER PUNCH

**PART NO: TP583**

- Patented, ingenious new approach to center punching accurate locations on templates, prototype parts, sheet metal in mild steel, aluminum, etc.
- Convenient cross-hair alignment assures positive location within less than .002" and the center point of the punch is automatically positioned at the desired spot
- Recessed cross-hairs cannot be scratched
- Base member is made of clear acrylic plastic, allowing ample light to view cross-hairs even in dark areas



## ANGLE DRILL CHUCK

### PART NO: JO532

- Keyed type Jacobs Chuck
- 5/32" capacity
- 1/4" x 28 male threaded spindle
- For use on all types of angle attachm
- 1-5/16" length
- Includes key



## REPLACEMENT DRILL CHUCKS

### PART NO: SM1G61-3/8-24 1/4" capacity, 8 oz.

### PART NO: SM4G61-3/8-24 3/8" capacity, 8.5 oz.

- Light duty
- Designed to fit any 3/8" x 24 spindle
- 3 jaws
- Key included



## HEAVY DUTY INDUSTRIAL CHUCKS

### PART NO: 7BA 3/8-24 1/4" capacity, .75 lbs.

### PART NO: 41BA 3/8-24 3/8" capacity, .88 lbs.

- Designed to fit any 3/8" x 24" spindle
- 3 jaws
- Key included
- Industrial quality designed for years of use



## KEYLESS DRILL CHUCKS

### PART NO: TP248 1/4" capacity

### PART NO: TP248A 3/8" capacity

- .38 lb.
- Designed to fit any 3/8" x 24 spindle
- 3 jaws



## JACOB'S KEYLESS CHUCK

### PART NO: TP248B

- 3/8 x 24 spindle thread
- 0-3/8" capacity



## CONE JAW CHUCK

### PART NO: TP57

.13 lbs.

Heavy duty yet mini size fits any angle drill or attachment with 1/4" x 28 threads. It's just what you need for close quarter drilling.

- Capacity from 1/16" to 1/4"
- 3/4" length
- Wrench included



## U.S. INDUSTRIAL TOOL

### QUICK CHANGE CHUCK ADAPTER

### PART NO: TP0800 3/8-24 female thread for pistol grip drills

### PART NO: TP0801 1/4-28 male thread for 90° angle drills

### PART NO: TP0800W Removal wrench for TP0800/TP0801

This chucking system allows quick changing of tooling in seconds, yet provides unparalleled accuracy opposed to any other competitor's design chucking system.

- Designed specifically for quick change tools
- Drilling bits, countersinks and sanding attachments
- Run out accuracy .003 T.I.R.
- Precision ground



Strap duplicators are ideal tools for quickly locating the proper alignment of rivet holes for panel replacement. Three styles are available in either 6 1/4" or 13 1/4" lengths. The Bushing Style duplicator is used by sliding the end with the pin between the sheets and locating the hole to be duplicated from inside. The Inverted type staggers both sheets (top and bottom) and locates the hole to be duplicated from the bottom. The Punch type locates the hole in the same manner as the Bushing type; however, instead of drilling through the bushings, you lightly tap this one with a hammer to center punch the new panel and drill it later.

## STRAP DUPLICATORS

- Precise method for drilling duplicate holes in overlapping sheet - 6-1/4" length

### BUSHING TYPE

TPMM250-1/4"
TPMM250-1 #40
TPMM250-2 #30
TPMM250-3 #21
TPMM250-5 #10
TPMM250K - 4 pc. kit w/pouch

### INVERTED TYPE

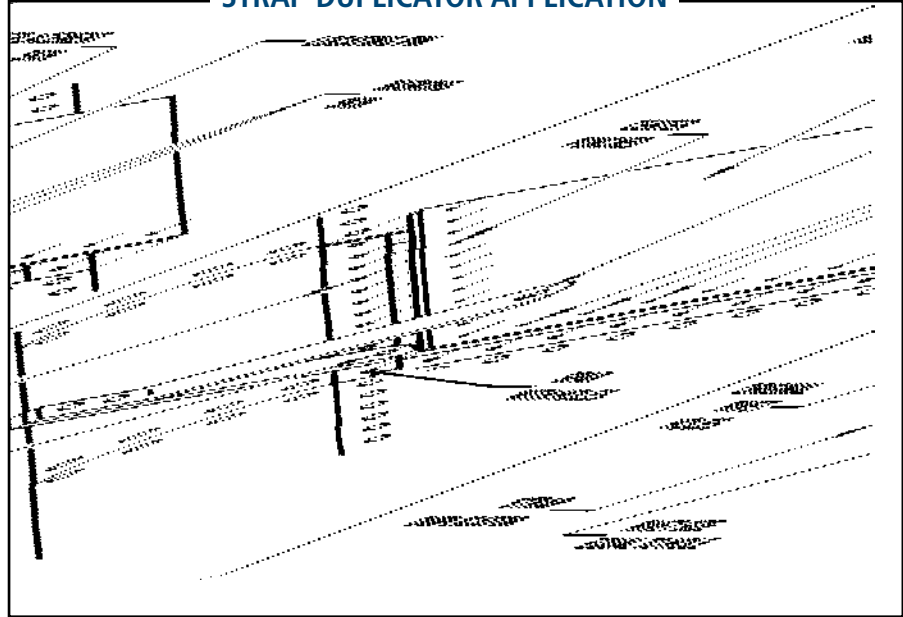
TPMM255-1/4"
TPMM255-1 #40
TPMM255-2 #30
TPMM255-3 #21
TPMM255-5 #10
TPMM255K - 4 pc. kit w/pouch

### PUNCH TYPE

TPMM260-1/4"
TPMM260-1 #40
TPMM260-2 #30
TPMM260-3 #21
TPMM260-5 #10
TPMM260K - 4 pc. kit w/pouch

4 pc. kit includes -1, -2, -3 and -5 only.

## STRAP DUPLICATOR APPLICATION



## LARGE STRAP DUPLICATORS

- Precise method for locating and drilling duplicate holes in overlapping sheet - 13-1/4" length

### BUSHING TYPE

TPMM350-1/4"
TPMM350-1 #40
TPMM350-2 #30
TPMM350-3 #21
TPMM350-5 #10

### INVERTED TYPE

TPMM355-1/4"
TPMM355-1 #40
TPMM355-2 #30
TPMM355-3 #21
TPMM355-5 #10

### PUNCH TYPE

TPMM360-1/4"
TPMM360-1 #40
TPMM360-2 #30
TPMM360-3 #21
TPMM360-5 #10



BUSHING TYPE



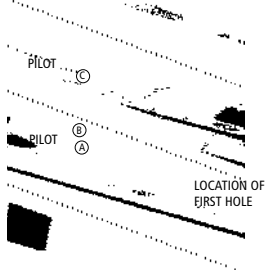
INVERTED TYPE



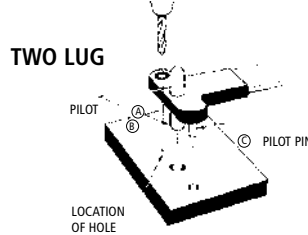
PUNCH TYPE

## NUT PLATE DRILL JIG APPLICATION

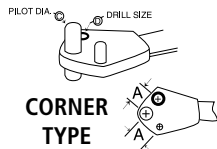
Exploded view illustrating alignment of pilot (A) with pilot hole when drilling the first hole.



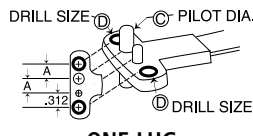
View illustrating alignment of pilot (B) with pilot hole, and the alignment of pilot pin (C) with hole drilled in the first operation. Assuring accurate location when drilling the second hole.



CAUTION: USE APPROVED EYE PROTECTION



CORNER TYPE



ONE LUG

## ONE LUG TYPE

PART NO.	BOLT SIZE REF.	A	C	D
TP518G	#6	.344	.139	#40
TP518H	#8	.344	.164	#40
TP518J	#10	.344	.191	#40
TP518K	1/4	.344	.248	#40
TP518L*	#10 Spec.	.344	.213	#40
TP518LF*	#8 & #10	.344	.281	#40
TP518YF*	1/4	.500	.343	#40
TP518PA	#4	.344	.139	#40
TP518PB	#6	.218	.139	#40
TP518PC	#8	.234	.164	#40
TP518PD	#10	.250	.191	#40
TP518PE	1/4	.281	.248	#40
TP518*	#2	.125	.086	#51
NASBA02				
TP518*	#3	.133	.099	#51
NASBA03				
TP518*	#4	.148	.112	#51
NASBA04				
TP518*	#6	.171	.139	#51
NASBA06				

NOTE: Plate nut drill jigs with special dimensions are available upon request.

## CORNER TYPE

PART NO.	BOLT SIZE REF.	A	C	D
TP518R*	#6	.344	.139	#40
TP518S	#8	.344	.164	#40
TP518T	#10	.344	.191	#40
TP518U	1/4	.500	.248	#40
TP518V*	5/16	.500	.312	#30
TP518W*	3/8	.500	.372	#30
TP518*	3/8	.500	.372	#30
NAS-C-A6				
TP518SA	#4	.203	.112	#40
TP518SB	#6	.218	.139	#40
TP518SC	#8	.234	.164	#40
TP518SD	#10	.250	.191	#40
TP518SE*	1/4	.281	.248	#40
TP518SF*	5/16	.312	.312	#30
TP518*	#2	.125	.086	#51
NAS-CA02				
TP518*	#3	.138	.099	#51
NAS-CA03				
TP518*	#4	.148	.122	#51
NAS-CA04				
TP518*	#6	.172	.139	#51
NAS-CA06				

## MINI ANCHORNUT

PART NO.	BOLT SIZE REF.	A	B	C	D
TP518-TA	#10	.250	.219	.191	#40
TP518-TB	1/4	.281	.219	.248	#40
TP518-TC*	5/16	.312	.250	.312	#30
TP518NAS-DA08*	#8	.234	.219	.164	#40
TP518NAS-DA5*	5/16	.359	.269	.312	#30
TP518NAS-DA6*	3/8	.414	.269	.312	#30

\*Minimum 3 pc. order

## TWO LUG TYPE

PART NO.	BOLT SIZE REF.	A	B	C	D
TP518A	#6	.344	.688	.139	#40
TP518B	#8	.344	.688	.164	#40
TP518C	#10	.344	.688	.191	#40
TP518D	1/4	.500	1.000	.248	#40
TP518E	5/16	.500	1.000	.312	#30
TP518F	3/8	.500	1.000	.372	#30
TP518M	-	.375	.750	.4375	#40
TP518N*	-	.500	1.000	.6875	#30
TP518P*	-	.6875	1.375	.811	#30
TP518BF*	#8 & #10	.344	.688	.281	#40
TP518DF*	1/4	.500	.688	.343	#40
TP518NA	#4	.203	.406	.112	#40
TP518NB	#6	.218	.436	.139	#40
TP518NC	#8	.234	.468	.164	#40
TP518ND	#10	.250	.500	.191	#40
TP518NE	1/4	.281	.562	.248	#40
TP518NF*	5/16	.3125	.625	.312	#30
TP518*	#2	.125	.250	.086	#51
NAS-AA02					
TP518*	#3	.1325	.265	.099	#51
NAS-AA03					
TP518*	#4	.148	.296	.112	#51
NAS-AA04					
TP518*	#6	.1715	.343	.139	#51
NAS-AA06					

## DRILLING AID KIT PART NO: TP518KIT

• Includes TP518 A, B, C, D, with pouch

## BOELUBE LUBRICANTS

A space age lubricant developed by The Boeing Company offering the latest technological advances in machining. Using a unique chemistry that fights friction at the interface of the cutting edge and the work piece. The reduction of friction at these surfaces minimizes heat and concurrent chip weld so that tools retain the cutting edge longer, leading to closer tolerances and prime chip yield. The lubricant is recommended for use on titanium, inconel, aluminum, steel, graphite, composites, honeycomb, kevlar, plastic and wood.

### BOELUBE 90 LUBRICANT PART NO: TP968A

4 oz. container with spout

### PART NO: TP968B

1 gallon



- Works great as an airtool lubricant
- For all mist, spray, one shot and thru the tool applications
- Remains in a fully liquid state at temperatures as low as 20°
- Non-toxic
- Will increase speed of air motors up to 25% in some cases

### BOELUBE PASTE PART NO: TP969A

4 oz. jar

### PART NO: TP969B

12 oz. jar



Boelube pastes provide excellent lubrication and are extremely cost effective in single point work such as tapping, drilling and reaming. A small amount of past applied to the tool is all that is required to obtain extended tool life with little or no clean up required. Non-toxic.

### BOELUBE SOLID PART NO: TP970A

3.5 oz. push tube

### PART NO: TP970B

14.5 oz. cartridge

Boelube solids provide a cost effective means of producing a high quality finish in a multitude of applications such as drilling, tapping, reaming, abrasive belts, files, deburring tool, grinding wheels and saw blades. Non-toxic.



## THREADED SHANK DRILLS HIGH SPEED STEEL

Type B Threaded, Hex Shank

HSS Adapter Drill - NAS 965

1/4-28 UNF Class 2A Thread Surface Treated-Steam Oxide

Threaded drills quickly thread into angle drills and drill attachments pictured in this catalog. Drills are manufactured to NAS 965 Type B construction with 135° P-3 split points. High Speed Steel drills are for drilling general to medium duty, low tensile strength materials in confined areas. Special sizes are available upon request. Please inquire.



## COBALT

Type D Threaded Square Shank

Cobalt Adapter Drill - NAS 965

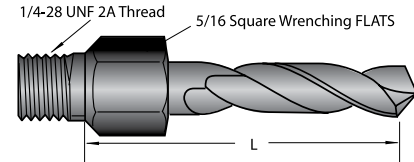
1/4-28 UNF Class 2A Thread Surface Treated-Steam Oxide

Drills are manufactured to NAS 965 Type D construction with 135° P-9 split points. Cobalt drills are for drilling hard, tough, high tensile strength materials in confined areas.



When ordering, specify part number and add desired size to the end of part number.

Example: To order a 5/8" long HSS drill in #40 size, specify TP54A-40.



PART NO.		TP54A	TP54	TP54L	TP54CA	TP54C	TP54CL
SIZE	DEC. EQUIV.	HSS L=5/8"	HSS L=1-1/4"	HSS L=2-1/2"	COBALT L=5/8"	COBALT L=1-1/4"	COBALT L=2-1/2"
40	.0980	•	•	•	•	•	•
30	.1285	•	•	•	•	•	•
27	.1440	•	•	•	•	•	•
21	.1590	•	•	•	•	•	•
20	.1610	•	•	•	•	•	•
19	.1660	•	•	•	•	•	•
16	.1770	•	•	•	•	•	•
13	.1850	•	•	•	•	•	•
3/16	.1875	•	•	•	•	•	•
12	.1890	•	•	•	•	•	•
11	.1910	•	•	•	•	•	•
10	.1935	•	•	•	•	•	•
8	.1990	•	•	•	•	•	•
5	.2055	•	•	•	•	•	•
3	.2130	•	•	•	•	•	•
7/32	.2188	•	•	•	•	•	•
D	.2460	•	•	•	•	•	•
1/4	.2500	•	•	•	•	•	•
F	.2570	•	•	•	•	•	•
5/16	.3125	•	•	•	•	•	•

## HSS THREADED SHANK DRILL SETS – SHORT LENGTH TYPE

PART NO: TP54K-12 3 PIECES EACH TP54-#10, 21, 30, 40)

PART NO: TP54K-24 6 Pieces each TP54-#10, 21, 30, 40

PART NO: TP54K-8 - STUBBY KIT 2 pieces each TP54A-10, 21,30, 40

PART NO: TP54LK-8 - LONG KIT 2 pieces each TP54L-10, 21,30, 40

## COBALT DRILL THREADED SHANK DRILL SETS – SHORT LENGTH TYPE

PART NO: TP54CK-12 3 Pieces each TP54C-#10, 21, 30, 40

PART NO: TP54CK-24 6 Pieces each TP54C-#10, 21, 30, 40

PART NO: TP54CAK-8 - STUBBY KIT 2 pieces each TP54CA-10, 21,30, 40

PART NO: TP54CLK-8 - LONG KIT 2 pieces each TP54CL-10, 21,30, 40

## JOBBER LENGTH DRILLS

(Available in number & fractional sizes)

**High Speed Steel - Cobalt - Titanium Nitride Coated**

- TP49 Type - Self-centering for aluminum, magnesium & mild steels
- TP49B Type - Self-centering for hard steels & titanium
- TP49C Type - Self-centering for high tensile strength materials

When ordering, specify part number and add desired size to the end of part number.

Example: To order a 118° SP HSS drill in #1 size, specify TP49-1.

Example: To order a 135° SP cobalt drill in 1/64" size, specify TP49C-1/64.

### NUMBER SIZES

PART NO.				TP49	TP49B	TP49C
SIZE	DEC. EQUIV.	FLUTE LENGTH	OAL	HSS 118° SP	HSS 135° SP	COBALT 135° 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	•	•	•
33	.1130	1-1/2	2-5/8	•	•	•
34	.1110	1-1/2	2-5/8	•	•	•
35	.1100	1-1/2	2-5/8	•	•	•
36	.1065	1-7/16	2-1/2	•	•	•
37	.1040	1-7/16	2-1/2	•	•	•
38	.1015	1-7/16	2-1/2	•	•	•
39	.0995	1-3/8	2-3/8	•	•	•
40	.0980	1-3/8	2-3/8	•	•	•
41	.0960	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	•	•	•
44	.0860	1-1/8	2-1/8	•	•	•
45	.0820	1-1/8	2-1/8	N/A	•	•
46	.0810	1-1/8	2-1/8	•	•	•
47	.0785	1	2	N/A	•	•
48	.0760	1	2	•	•	•
49	.0730	1	2	•	•	•
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	•	•	•
54	.0550	7/8	1-7/8	•	•	•
55	.0520	7/8	1-7/8	•	•	•
56	.0465	3/4	1-3/4	•	•	•
57	.0430	3/4	1-3/4	•	•	•
58	.0420	11/16	1-5/8	•	•	•
59	.0410	11/16	1-5/8	•	•	•
60	.0400	11/16	1-5/8	•	•	•

### FRACTIONAL SIZES

PART NO.				TP49	TP49B	TP49C
SIZE	DEC. EQUIV.	FLUTE LENGTH	OAL	HSS 118° SP	HSS 135° SP	COBALT 135° SP
1/64	.0156	3/16	3/4	•	N/A	•
1/32	.0313	1/2	1-3/8	N/A	N/A	•
3/64	.0469	3/4	1-3/4	N/A	N/A	•
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	•	•	•
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	•	N/A	•
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	•	N/A	•
13/32	.4062	3-7/8	5-1/4	•	•	•
27/64	.4219	3-15/16	5-3/8	•	N/A	•
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	.4843	4-1/2	6	•	•	•
1/2	.5000	4-1/2	6	•	•	•

### JOBBER LENGTH DRILL BIT SETS

**PART NO: TP249**

60 pc. - Number sizes 1 thru 60 - 118°, HSS

**PART NO: TP249A**

15 pc. - Fractional sizes 1/16" thru 1/2" by 32nds - 135° Split Point, HSS

**PART NO: TP249B**

21 pc. - Fractional sizes 1/16" thru 3/8" by 64ths - 135° Split Point, HSS

**PART NO: TP249C**

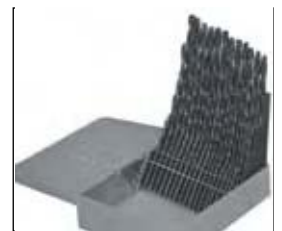
60 pc. - Number sizes 1 thru 60 - 135° Split Point, Cobalt

**PART NO: TP249D**

21 pc. - Fractional sizes 1/16" thru 3/8" by 64ths - 135° Split Point, Cobalt

**PART NO: TP249E**

60 pc. - Number sizes 1 thru 60 - 118° Titanium Nitride coated



All sets come complete with steel storage box.  
Empty steel storage boxes available at your request.  
Extra charge applies.

## AIRCRAFT EXTENSION DRILLS



When ordering, specify part number and add desired size to the end of part number.  
**Example: To order a 6" long, 135° SP HSS drill in #1 size, specify TP55-1.**

PART NO.		TP55	TP55A	TP55C	TP55AC
SIZE	DEC EQUIV.	HSS 135° SP 6" OAL	HSS 135° SP 12" OAL	COBALT 135° SP 6" OAL	COBALT 135° SP 12" OAL
1	.2280	•	•	•	•
2	.2210	•	•	•	•
3	.2130	•	•	•	•
4	.2090	•	•	•	•
5	.2055	•	•	•	•
6	.2040	•	•	•	•
7	.2010	•	•	•	•
8	.1990	•	•	•	•
9	.1960	•	•	•	•
10	.1935	•	•	•	•
11	.1910	•	•	•	•
12	.1890	•	•	•	•
13	.1850	•	•	•	•
14	.1820	•	•	•	•
15	.1800	•	•	•	•
16	.1770	•	•	•	•
17	.1730	•	•	•	•
18	.1695	•	•	•	•
19	.1660	•	•	•	•
20	.1610	•	•	•	•
21	.1590	•	•	•	•
22	.1570	•	•	•	•
23	.1540	•	•	•	•
24	.1520	•	•	•	•
25	.1495	•	•	•	•
26	.1470	•	•	•	•
27	.1440	•	•	•	•
28	.1405	•	•	•	•
29	.1360	•	•	•	•
30	.1285	•	•	•	•
31	.1200	•	•	•	•
32	.1160	•	•	•	•
33	.1130	•	•	•	•
34	.1110	•	•	•	•
35	.1100	•	•	•	•
36	.1065	•	•	•	•
37	.1040	•	•	•	•
38	.1015	•	•	•	•
39	.0995	•	•	•	•
40	.0985	•	•	•	•

## AIRCRAFT EXTENSION DRILL KITS

- Kits contain #10, 21, 30 & 40.

**PART NO: TP55K-12** (3 ea.)     **PART NO: TP55CK-24** (6 ea.)  
**PART NO: TP55K-24** (6 ea.)     **PART NO: TP55ACK-12** (3 ea.)  
**PART NO: TP55AK-12** (3 ea.)     **PART NO: TP55ACK-24** (6 ea.)  
**PART NO: TP55AK-24** (6 ea.)  
**PART NO: TP55CK-12** (3 ea.)

## EXTENDRILLS

**PART NO: TP152** 9" length  
**PART NO: TP153** 4" length  
**PART NO: TP154**



Collets - #21, 28, 30 and 40 - specify size

- For deep or long reach jobs
- 1/4" shank extension rods
- For TP152 and TP153 you must use TP154 Collets.

## DRILL STOPS

Designed as a versatile aid that helps eliminate drill bit breakage and provides a sure stop to regulate hole depth.



- Locks in drill with two set screws
- Unique rounded face eliminates surface marring
- Color coded by size for easy identification
- Manufactured by our affiliated company, California Associated Products

PART NO.	COLOR CODE	DRILL SIZE
TP145DS-50	Black	#50
TP145DS-40	Zinc	#40
TP145DS-30	Copper	#30
TP145DS-28	Zinc	#28
TP145DS-21	Black	#21
TP145DS-20	Zinc	#20
TP145DS-12	Brass	#12
TP145DS-10	Brass	#10
TP145DS-1/4	Copper	#1/4
TP145DS-5/16	Black	#5/16

Also available in the following Kit Forms:

**TP145DSK** (1 EA.) #40, 30, 21, 10 drill stops  
**TP145DSK1** (1 EA.) #50 thru #10 drill stops  
**TP145DSK2** (1 EA.) #50 thru #5/16 drill stops

## DRILL JIGS

**PART NO: TP401**

Fits bolt sizes: 8-32, 10-32, 1/4-20, 1/4-28 & 5/16-24

**PART NO: TP401A**

Fits bolt sizes: metric - 6 x 1.0, 8 x 1.0, 8 x 1.25, 10 x 1.25 & 10 x 1.5

**PART NO: TP402**

Designed for drilling thru nuts or bolt heads up to 3/4" dia.  
Wt. .75 lb.

- Designed to enable safety wire holes to be drilled accurately through bolts without drill breakage
- Bolt is threaded to the required depth, then the hole is drilled through on a perfect center
- All steel construction



TP401



TP402

## DRILL HOUSINGS AND BUSHINGS

### PART NO: TP483

Housing only - order drill bushing separately

- Hand held guide to keep drills and taps 90° to skin surface
- Drill bushings can be interchanged in one housing
- Made of clear plastic with steel liner to accept standard flange lock type bushings



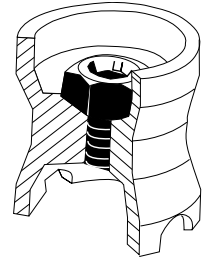
Housing

Bushing

## DRILL HOUSINGS AND BUSHINGS

### PART NO: TP783 Housing only - order drill bushing separately

- Hand held guide to keep drills and taps 90° to skin surface
- Drill bushings can be interchanged in one housing
- Made of clear plastic to accept standard threaded drill bushings
- Threaded drill bushing size - 1/2-13



## FLANGE LOCK DRILL BUSHINGS

PART NO.	DRILL SIZE
TP483A	#40
TP483B	3/32"
TP483C	#30
TP483D	1/8"
TP483E	#21
TP483F	5/32"
TP483G	#10
TP483H	3/16"
TP483I	7/32"
TP483J	1/4"

## FLANGE LOCK DRILL BUSHINGS

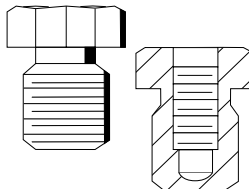
PART NO.	DRILL SIZE
TP783A	#40
TP783B	3/32"
TP783C	#30
TP783D	1/8"
TP783E	#21
TP783F	5/32"
TP783G	#10
TP783H	3/16"
TP783I	7/32"
TP783J	1/4"

## DRILL ADAPTERS

### PART NO: TP500K

Kit includes one of each of the following: 500-40, 500-30, 500-21, 500-10

- For plain shank drill - jobber type
- Set screw type
- 1/4" - 28 threaded shank



PART NO.	DRILL SIZE	DECIMAL SIZE
500-51	#51	.067
500-50	#50	.070
500-40	#40	.098
500-30	#30	.1285
500-21	#21	.159
500-20	#20	.161
500-11	#11	.191
500-10	#10	.1935

## PRECISION DRILL GAUGE

### PART NO: TP565A

Fractional size gauge 1/16" to 1/2" in 64ths

### PART NO: TP565B

Drill & tap gauge #1 to #60 range, including table for tap size, tap drill and body drill for machine screws from 2-56 to 1/4"-28.



## UNIBIT® DRILL

**PART NO: TPA5609** 11 hole sizes from 3/4" to 1-3/8", 1/2" shank

**PART NO: TPA5610** 9 hole sizes from 1/4" to 3/4"

**PART NO: TPA5611** 13 hole sizes from 1/8" to 1/2"

**PART NO: TPA5612** 6 hole sizes from 3/16" to 1/2"

- Drills through metal and plastic
- Automatically de-burrs drilled hole
- High speed steel
- 1/4" shank fits all drills



## UNIBIT® DRILL KIT

### PART NO: TPA5610K

Includes 1 each of the following Unibits, plus carrying case:

#### TPA5611-#1

13 sizes ranging from 1/8" to 1/2" in 1/32" increments, 1/4" shank

#### TPA5612-#2

6 sizes ranging from 3/16" to 1/2" in 1/16" increments, 1/4" shank

#### TPA5612A-#4

12 sizes ranging from 3/16" to 7/8" in 1/16" increments, 3/8" shank

#### TPA5609

11 sizes ranging from 3/4" to 1-3/8" in 1/16" increments, 1/2" shank



## CLECO PLIERS PART NO: TP74

- Installs CLEKO-LOK C-CC-CHD fasteners
- Installs Monogram M, MM, ML, MEL & MHD fasteners
- Installs Kwik-Lok K-KK, KL, KEL & KHD fasteners
- Made from forged steel and nickel plated to resist wear and abuse
- Top quality forged construction



## CLECO REVERSE PLIERS PART NO: TP74B

- Used in limited access areas
- Requires less travel per activation



## CLECO FASTENERS

Manufactured in the U.S.A. by our affiliated company, HP-Omni Manufacturing, a major supplier to Boeing Aircraft. Our Clecos are plier operated, spring loaded with a durable steel plated body. Designed for sheets that require precise holding of the material while other operations are completed. The TP75 Series Fasteners are the standard button plunger type "Clecos". Use TP74 manual plier or US902 pneumatic installation tool for ease of operation.



## TP75 FASTENERS - STANDARD SERIES - MOST COMMON



PART NO.	COLOR CODE	"G" GRIP	"D" DIAMETER	DRILL SIZE	40 PC. SET	80 PC. SET	240 PC. SET	500 PC. SET
TP75-3/32	Zinc	0-1/4"	3/32"	#40	TP75K-40 (10 pc. ea. size)	TP75K-80 (20 pc. ea. size)	TP75K-240 (60 pc. ea. size)	TP75K-500 (125 pc. ea. size)
TP75-1/8	Copper	Overall	1/8"	#30				
TP75-5/32	Black	Length	5/32"	#21				
TP75-3/16	Brass	2-1/4"	3/16"	#10	N/A	N/A	N/A	N/A
TP75-1/4	Copper		1/4"	1/4"				

## TP75L FASTENERS - LONG SERIES



PART NO.	COLOR CODE	"G" GRIP	"D" DIAMETER	DRILL SIZE	40 PC. SET	80 PC. SET	240 PC. SET	500 PC. SET
TP75L-3/32	Zinc	1/4-1/2"	3/32"	#40	TP75LK-40 (10 pc. ea. size)	TP75LK-80 (20 pc. ea. size)	TP75LK-240 (60 pc. ea. size)	TP75LK-500 (125 pc. ea. size)
TP75L-1/8	Copper	Overall	1/8"	#30				
TP75L-5/32	Black	Length	5/32"	#21				
TP75L-3/16	Brass	2-1/2"	3/16"	#10				

## TP75EL FASTENERS - EXTRA LONG SERIES



PART NO.	COLOR CODE	"G" GRIP	"D" DIAMETER	DRILL SIZE	40 PC. SET	80 PC. SET	240 PC. SET	500 PC. SET
TP75EL-3/32	Zinc	1/2-3/4"	3/32"	#40	TP75ELK-40 (10 pc. ea. size)	TP75ELK-80 (20 pc. ea. size)	TP75ELK-240 (60 pc. ea. size)	TP75ELK-500 (125 pc. ea. size)
TP75EL-1/8	Copper	Overall	1/8"	#30				
TP75EL-5/32	Black	Length	5/32"	#21				
TP75EL-3/16	Brass	2-3/4"	3/16"	#10				

## TP75CC FASTENERS - MINI SERIES



PART NO.	COLOR CODE	"G" GRIP	"D" DIAMETER	DRILL SIZE	40 PC. SET	80 PC. SET	240 PC. SET	500 PC. SET
TP75CC-3/32	Zinc	0-1/4"	3/32"	#40	TP75CC-40 (10 pc. ea. size)	TP75CC-80 (20 pc. ea. size)	TP75CC-240 (60 pc. ea. size)	TP75CC-500 (125 pc. ea. size)
TP75CC-1/8	Copper	Overall	1/8"	#30				
TP75CC-5/32	Black	Length	5/32"	#21				
TP75CC-3/16	Brass	1-3/4"	3/16"	#10				

## TP75CHD FASTENERS - EXTENDED GRIP RANGE AND HEAVY DUTY SERIES



PART NO.	COLOR CODE	"G" GRIP	"D" DIAMETER	DRILL SIZE	40 PC. SET	80 PC. SET	240 PC. SET	500 PC. SET
TP75CHD-3/32	Zinc	0-1/2"	3/32"	#40	TP75CHD-40 (10 pc. ea. size)	TP75CHD-80 (20 pc. ea. size)	TP75CHD-240 (60 pc. ea. size)	TP75CHD-500 (125 pc. ea. size)
TP75CHD-1/8	Copper	Overall	1/8"	#30				
TP75CHD-5/32	Black	Length	5/32"	#21				
TP75CHD-3/16	Brass	2-1/2"	3/16"	#10				

## SIDE GRIP CLAMPS

Side-Grip clamps are designed to clamp at the edge of the work area. Ideal for holding workpieces of all types, particularly during bonding, sealing or gluing operations.

- Plier-operated
- Spring loaded
- Constant clamping force
- Color-coded for easy identification
- Use TP74 or US902 installation tool
- Made in the USA



PART NO.	CLAMPING CAP. (GAP)	EFF. BODY DEPTH (REACH)	BODY LENGTH
TP123SG	0-1/2"	1/2"	2-3/16"
TP124SG	0-3/4"	1/2"	2-7/16"
TP125SG	0-1/2"	1"	2-3/16"
TP126SG	0-3/4"	1"	2-7/16"

## HANDI-CLAMP

Handi-Clamps are a specially designed tool for clamping various types of surfaces, shapes and thicknesses. Ideal for holding light plastics, wood, sheet metal and other materials temporarily.



TOOL NO.	CLAMPING CAP.	JAW DEPTH
TP640HC	0-5/16"	1"
TP641HC	0-5/16"	1-1/2"

## TENSION CLAMPS

Spring tension clamps come with increased gap and reach. All-steel construction allows use in elevated temperatures. Constant 70 lbs. clamp force provided.

- Plier-operated
- Spring-loaded
- Use TP74 or US902 installation tool



TOOL NO.	CLAMPING CAP. (GAP)	EFF. BODY DEPTH (REACH)
TP537STC	1/4"-1"	2"
TP538STC	0-3/4"	3"
TP539STC	1/2"-1 1/4"	3"
TP540STC	0-3/4"	3 1/2"

## U.S. INDUSTRIAL CLECO INSTALLATION DRIVER PART NO: TP835

.14 lb.

Developed to install all types of Wing Nut and Hex Nut Reusable Fasteners. Can be used with any power tool that has a 1/4" capacity chuck or a 1/4" hex spindle. We recommend a driving tool with an adjustable clutch since damage to the aircraft structure can occur if excessive torque is applied.

- Simple alternative to a dedicated power tool used to install Wing/Hex Nut Fasteners
- Increases productivity
- Usable in field repairs or for kit aircraft construction
- Comes with a hex wrench for retaining fastener body
- Heat treated steel construction
- 3-1/2" overall length, 2-1/2" extends beyond chuck



## WING NUT FASTENERS



PART NO.	COLOR CODE	G GRIP	D DIA.	DRILL SIZE
TP109M-3/32	ZINC	0-1/2"	3/32"	#40
TP109M-1/8	COPPER	0-1/2"	1/8"	#30
TP109M-5/32	BLACK	0-1/2"	5/32"	#20
TP109M-3/16	BRASS	0-1/2"	3/16"	#10
TP109M-1/4	COPPER	0-1/2"	1/4"	1/4"
TP109L-3/32	ZINC	0-1"	3/32"	#40
TP109L-1/8	COPPER	0-1"	1/8"	#30
TP109L-5/32	BLACK	0-1"	5/32"	#20
TP109L-3/16	BRASS	0-1"	3/16"	#10
TP109L-1/4	COPPER	0-1"	1/4"	1/4"

## HEX NUT FASTENERS



PART NO.	COLOR CODE	G GRIP	D DIA.	DRILL SIZE
TP109HXM-3/32	ZINC	0-1/2"	3/32"	#40
TP109HXM-1/8	COPPER	0-1/2"	1/8"	#30
TP109HXM-5/32	BLACK	0-1/2"	5/32"	#20
TP109HXM-3/16	BRASS	0-1/2"	3/16"	#10
TP109HXM-1/4	COPPER	0-1/2"	1/4"	1/4"
TP109HXL-3/32	ZINC	0-1"	3/32"	#40
TP109HXL-1/8	COPPER	0-1"	1/8"	#30
TP109HXL-5/32	BLACK	0-1"	5/32"	#20
TP109HXL-3/16	BRASS	0-1"	3/16"	#10
TP109HXL-1/4	COPPER	0-1"	1/4"	1/4"

## NO-MAR REUSABLE FASTENER BOOTS

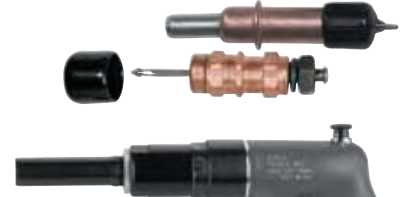
### PART NO: TP75NM

For all plier operated cleco fasteners except TP75CC series

### PART NO: TP109NM

For all wing nut/hex nut cleco fasteners

- Eliminate surface marring both on painted and unpainted surfaces
- Polyurethane composition - color - black
- Easy slip on feature
- One size fits all



## SIOUX HEX NUT DRIVER

### PART NO: SR9A-25

- Pneumatic
- Reversible
- Pre-set torque control
- Designed to be used on all brands and styles of hex nut fasteners
- Made in the USA



## DOTCO HEX NUT DRIVER

### PART NO: 56CTS93-91

- Pneumatic
- Reversible
- Designed to be used on all brands and styles of hex nut fasteners
- Made in the USA



PART NO.	RPM	INTERNAL HEX SIZE	EXTERNAL HEX SIZE	LENGTH	WEIGHT
SR9A-25	1,900	1/2" 12PT.	9/16" 6 PT.	9 1/8"	2.90 lbs.
56CTS93-91	1,700	1/2" 12PT.	9/16" 6 PT.	8 1/4"	1.90 lbs.

## U.S. INDUSTRIAL PNEUMATIC CLECO FASTENER INSTALLATION TOOL

The Pneumatic Cleco Fastener Installation Tool, #US902, has been developed to eliminate the constant, repetitive motion associated with the common cleco plier. It also adds speed and efficiency to the installation and removal of cleco fasteners. This tool is ideal for kit builders, mechanics and aircraft production assemblers.

- Lever throttle
- 360° swivel mount
- For use on button type and side grip temporary fasteners
- Quiet operation
- Straight handle
- 6 foot polyurethane lead hose
- Made in the U.S.A.
- CE certified

### SPECIFICATIONS - US902 & US902E

PART NO.	WEIGHT	LENGTH	AIR INLET
US902	0.75 lb.	5-1/2"	1/4"
US902E	1 lb.	9-1/2"	1/4"

### ERGONOMIC HANDLE



US902

**A MUST FOR EVERY AIRCRAFT BUILDER!**



US902E

## "NO MAR" SHEET METAL FASTENERS

These specialty fasteners are designed with the following features

- Reusable
- No pliers or installation tools are needed
- Plastic "No Mar" body
- Color coded for quick identification
- Unique tip provides maximum gripping strength
- Speed nut spins up or down with a flick of the finger

PART NO.	COLOR CODE	GRIP
TPSSL-3/32"	Red	0" - 1/2"
TPSSL-1/8"	Yellow	0" - 1/2"
TPSSL-5/32"	Blue	0" - 1/2"
TPSSL-3/16"	Black	0" - 1/2"
TPSEL-3/32"	Red	0" - 1"
TPSEL-1/8"	Yellow	0" - 1"
TPSEL-5/32"	Blue	0" - 1"
TPSEL-3/16"	Black	0" - 1"
TPSEL-1/4"	White	0" - 1"



## US INDUSTRIAL STOP COUNTERSINKS

- Standard series countersinks have a hardened bushing supporting the spindle
- Rated to 3000 RPM
- For flush riveting, rivet shaving & collar removal
- 1/4" shank fits any power tool chuck
- 1/4" x 28 female threaded spindle will accept replaceable pilot cutter, hollow cutters, rivet shaver bits, etc.
- Hardened and ground precision spindle
- Adjustable in .001 increments
- Wrench flats on spindle to aid in cutter removal
- Can be fitted with other skirt styles (see below)
- 9/32" shaft travel
- 4" length
- Made in U.S.A.



### PART NO: TP61

Std. Stop Countersink w/TP61-S Skirt Wt. .28 lbs.

### PART NO: TP61K

Kit includes 1 ea: TP61, TP62-21, 30, 40 & storage tube - Wt. .34 lbs.

### TP61MM

Std. Countersink with 6 mm thread - Wt. .25 .

### TP61WF

Std. Countersink w/TP61WF - 1 polished steel skirt - Wt. .31 lbs.

### TP61WFT

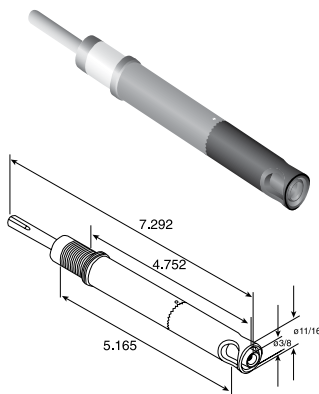
Std. Countersink w/TP61WF - 1T Teflon faced skirt - Wt. .32 lbs.

## U.S. INDUSTRIAL EXTENDED TRAVEL STOP COUNTERSINK

### PART NO: TP61BBEX

Developed to provide increased spindle travel, allowing use of TP62DC Series Drilling-Reaming-Countersinking cutters. The slender design and the 1-1/2" travel allows users the all-in-one operation of drilling-reaming-countersinking all at once and with precision hole diameter and depth control.

- High speed type full compliment ball bearings for spindle support
- 1/4" shank fits any power tool chuck
- 1/4x28 female threaded spindle will accept replaceable/integral pilot cutters, hollow cutters, rivet shaver bits & drilling-reaming-countersinking cutters
- Hardened and ground precision spindle
- Depth adjustments in .001 increments
- Wrench flats on spindle to aid in cutter removal
- Optional skirt: TP61-TRP Tripod style with nylon feet. Call for details.
- 1-1/2" spindle travel
- 7.2" O.A.L.
- Made in U.S.A.



## US INDUSTRIAL STOP COUNTERSINKS - BEARING TYPE

- High speed series countersinks have ball bearings supporting the spindle
- For flush riveting, rivet shaving & collar removal
- 1/4" shank fits any power tool chuck
- 1/4" x 28 female threaded spindle will accept replaceable pilot cutter, hollow cutters, rivet shaver bits, etc.
- Hardened and ground precision spindle
- Adjustable in .001 increments
- Wrench flats on spindle to aid in cutter removal
- Can be fitted with other skirt styles (see below)
- 9/32" shaft travel
- 4" length
- Made in U.S.A.



### TP61B

High Speed Stop Countersink w/TP61-S skirt. Rated to 6,000 rpm. Wt. .28 lbs. (Needle bearing)

### TP61BB

High Speed Stop Countersink w/TP61-S skirt. Rated to 10,000 rpm. Wt. .31 lbs. (Double ball bearing)

### TP61BMM

High Speed Stop Countersink w/TP61-S skirt. Rated to 6,000 rpm with 6mm thread. Wt. .31 lbs. (Needle bearing)

### TP61BBMM

High Speed Stop Countersink w/TP61-S skirt. Rated to 10,000 rpm with 6mm thread. Wt. .31 lbs. (Double ball bearing)

### TP61BWF

High Speed Countersink w/TP61WF - 1 polished steel skirt. Rated to 6,000 rpm. Wt. .34 lbs. (Double ball bearing)

### TP61BWFT

High Speed Countersink w/TP61WF - 1T Teflon faced skirt. Wt. .35 lbs. (Double ball bearing)

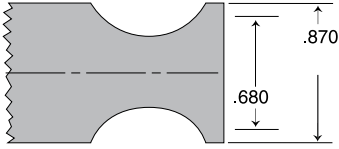
## JUMBO COUNTERSINK

### TP59

- Rated to 3,000 rpm
- For flush riveting, rivet shaving and collet removal
- Shank dia. 3/8"
- Female threaded spindle 3/8 - 24
- Cutter capacity 1 1/4"
- Adjustable in .001 increments
- 1/2" shaft travel
- Bearings
- Uses TP60 series countersink pilots

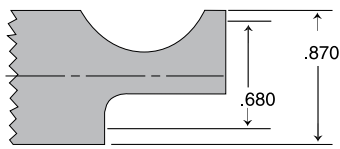


## TP61 SERIES MICROSTOP COUNTERSINK REPLACEMENT SKIRTS



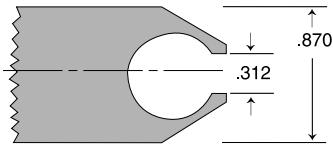
**TP61 S**

5/8" cutter capacity, polished face



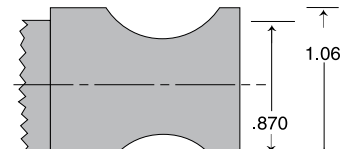
**TP61 ST-1**

5/8" cutter capacity



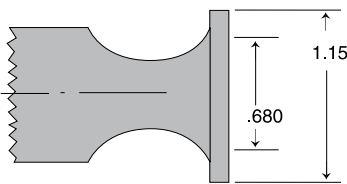
**TP61 CT-1**

5/16" cutter capacity, polished face



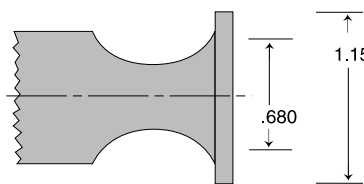
**TP61 BL-1**

3/4" cutter capacity, polished face



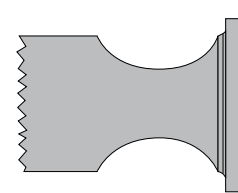
**TP61 WF-1T**

5/8" cutter capacity, Teflon No-Mar face



**TP61 WF-1**

5/8" cutter capacity, polished face



**TP61 WF-TN**

5/8" cutter capacity, Thread or No-Mar face (Replace No-Mar face only - TP61 WF-TNRP)

## STOP COUNTERSINK PILOT KIT

**PART NO: TP62K**

Includes: TP62-40, TP62-30, TP62-21, and TP62-3/16



## STEEL COUNTERSINKS

**PART NO: TP250**

(100° angle, 5/16" dia.)

**PART NO: TP250A**

(100° angle, 3/8" dia.)

**PART NO: TP251A**

(120° angle, 3/8" dia.)

- High speed steel
- 1/4" rd. shank
- 1-3/4" length
- 6 flute



## ROSEBUD DEBURRING BIT

**PART NO: TPCR3438** (3/8" dia.)

**PART NO: TPCR3438-7/16**

(7/16" dia.)

**TPCR3438-1/2** (1/2" dia.)

- High speed steel
- 1/4" x 28 threaded shank
- 3/4" O.A.L
- 100° angle
- 3 flute

Especially suited for use in angle drills and angle attachments for hole deburring in close quarters. Precision ground angle to insure concentricity. Can also be used with TP120 speed deburring tool on page 102.



## INTEGRAL PILOT STOP COUNTERSINKS FOR BRILES TENSION HEAD RIVETS

- High speed steel construction
- 1/4" X 28 threaded shank
- Use with all TP61 Series stop countersinks
- In conformance with military STD #MS14218, Briles Rivet Corp. STD#BRFZ, Boeing Aircraft #BACR15FV, and VOI-Shan VRFZ Rivet Standards



## JUMBO COUNTERSINK PILOTS

- 100° Angle
- 3 flute
- 3/8-24 thread
- Adapts to TP59 (on page 86)



PART NO.	ANGLE	BODY DIA.	STD. SIZES AVAILABLE
TP62BR	120°	3/8"	1/8", 5/32", 3/16", 7/32", 1/4"

PART NO.	ANGLE	BODY DIA.	STD. SIZES AVAILABLE
TP60-1/4	100°	3/4"	1/4"
TP60-3/8	100°	3/4"	3/8"

## INTEGRAL PILOT STOP COUNTERSINKS

- High speed steel construction (standard) three flutes
- Carbide tipped - for longer life (optional) two flutes
- Diamond bonded for non-metallic materials (TP62D)
- 1/4" x 28 threaded shank
- Use with all TP61 series stop countersinks

Our countersink cutters fit in all adjustable - stop or micro-stop type countersinking units with 1/4" x 28 threads. Each unit is precision ground to exacting tolerances and relieved to insure concentricity of countersink angle.



## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62

PILOT SIZE	HSS 100° COUNTERSINK ANGLE X 7/16" BODY DIAMETER
8	TP62-8
10	TP62-10
11	TP62-11
12	TP62-12
13	TP62-13
16	TP62-16
21	TP62-21
30	TP62-30
27	TP62-27
40	TP62-40
3/16"	TP62-3/8
1/4"	TP62-1/4
3/8"	TP62-3/8

## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62A-1

PILOT SIZE	HSS 120° COUNTERSINK ANGLE X 3/8" BODY DIAMETER
21	TP62A-1-21
30	TP62A-1-30
40	TP62A-1-40
3/16"	TP62A-1-3/16
1/4"	TP62A-1-1/4

## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62C-1

PILOT SIZE	CARBIDE TIPPED 100° COUNTERSINK ANGLE X 3/8" BODY DIAMETER
21	TP62C-1-21
30	TP62C-1-30
40	TP62C-1-40
3/16"	TP62C-1-3/16
1/4"	TP62C-1-1/4

## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62-1

PILOT SIZE	HSS 100° COUNTERSINK ANGLE X 3/8" BODY DIAMETER
21	TP62-1-21
30	TP62-1-30
40	TP62-1-40
3/16"	TP62-1-3/16
1/4"	TP62-1-1/4

## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62C

PILOT SIZE	CARBIDE TIPPED 100° COUNTERSINK ANGLE X 7/16" BODY DIAMETER
21	TP62C-21
30	TP62C-30
40	TP62C-40
3/16"	TP62C-3/16
1/4"	TP62C-1/4

## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62AC-1

PILOT SIZE	CARBIDE TIPPED 120° COUNTERSINK ANGLE X 3/8" BODY DIAMETER
21	TP62AC-1-21
30	TP62AC-1-30
40	TP62AC-1-40
3/16"	TP62AC-1-3/16
1/4"	TP62AC-1-1/4

## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62A

PILOT SIZE	HSS 120° COUNTERSINK ANGLE X 7/16" BODY DIAMETER
21	TP62A-21
30	TP62A-30
40	TP62A-40
3/16"	TP62A-3/16
1/4"	TP62A-1/4

## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62AC

PILOT SIZE	CARBIDE TIPPED 120° COUNTERSINK ANGLE X 7/16" BODY DIAMETER
21	TP62AC-21
30	TP62AC-30
40	TP62AC-40
3/16"	TP62AC-3/16
1/4"	TP62AC-1/4

## INTEGRAL PILOT THREADED SHANK COUNTERSINKS PART NO: TP62D

PILOT SIZE	DIAMOND BONDED 100° COUNTERSINK ANGLE X 1/2" BODY DIAMETER
21	TP62D-21
30	TP62D-30
40	TP62D-40
3/16"	TP62D-3/16

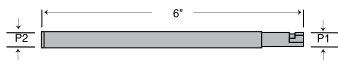
## PLAIN PILOTS FOR REVERSE COUNTERSINKS AND SPOTFACERS

Plain pilots designed for use with TP470 thru TP481 high speed steel & carbide reverse countersinks and TP491 thru TP503 high speed steel & carbide reverse spotfacers. Featuring bayonet lock design. Refer to charts to match proper pilot to cutter.



## STEP PILOTS FOR REVERSE COUNTERSINKS AND SPOTFACERS

Step pilots are designed for use with TP-470 thru TP-481 - high speed steel and carbide reverse countersinks and TP-491 thru TP-503 high speed steel & carbide reverse spotfacers. Step pilots have a step (larger than the pilot hole in the reverse cutter being used) to pilot the workpiece.

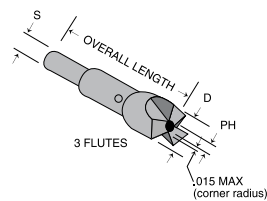


PART NO.	"P1" MINOR DIA.	"P2" MAJOR DIA.
TP511P-3/32	3/32"	1/8"
TP511R-1/8	1/8"	5/32"
TP511S-5/32	5/32"	3/16"
TP511T-3/16	3/16"	1/4"
TP511W-1/4	1/4"	5/16"
TP512X-5/32	5/32"	3/16"
TP512T-3/16	3/16"	1/4"
TP5112W-1/4	1/4"	5/16"
TP512X-5/16	5/16"	3/8"
TP513Z-3/8	3/8"	1/2"
TP516V-1/4	1/4"	5/16"
TP516X-5/16	5/16"	3/8"
TP514Z-3/8	3/8"	1/2"
TP515V-1/2	1/2"	9/16"
TP517Z-3/8	3/8"	1/2"

## COUNTERBORES - CARBIDE TIPPED

- Used for cutting highly abrasive materials or where longer tool life is desired.
- 3 flutes
- Use TP516 series pilots

Counterbores come with 1/4" standard straight shank diameter (ref. "s"), can be used in drill presses and all portable drill motors. All cutters furnished with 1/64" corner radius. Maximum non-cutting diameter is 1/32" larger than pilot hole.

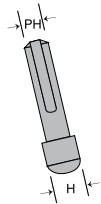


PART NO.	"D" DIA.	"PH" PILOT HOLE DIA.	"S" SHANK DIA.	O.A.L.
TP515-1	1/4"	3/32"	1/4"	2-3/8"
TP515-2	9/32"	3/32"	1/4"	2-3/8"
TP515-3	5/16"	3/32"	1/4"	2-3/8"
TP515-4	11/32"	3/32"	1/4"	2-3/8"
TP515-5	3/8"	3/32"	1/4"	2-3/8"
TP515-6	13/32"	1/8"	1/4"	2-3/4"
TP515-7	7/16"	1/8"	1/4"	2-3/4"
TP515-8	15/32"	1/8"	1/4"	2-3/4"
TP515-9	1/2"	1/8"	1/4"	2-3/4"
TP515-10	17/32"	1/8"	1/4"	2-3/4"
TP515-11	9/16"	1/8"	1/4"	2-3/4"
TP515-12	19/32"	1/8"	1/4"	2-3/4"
TP515-13	5/8"	1/8"	1/4"	2-3/4"
TP515-14	21/32"	3/16"	1/4"	2-3/4"
TP515-15	11/16"	3/16"	1/4"	2-3/4"

PLAIN PILOT NO.	"P" PLAIN PILOT DIAMTER
TP510P	3/32"
TP510R	1/8"
TP510S	5/32"
TP510T	3/16"
TP510W	1/4"
TP510X	5/16"
TP510Z	3/8"
TP510V	1/2"

## PILOTS FOR COUNTERBORES

Pilots will fit almost all standard aircraft counterbores. Made out of quality tool steel. Heat treated and ground to insure concentricity.



PART NO.	"H" PILOT HEAD DIA.	"PH" STD. SHANK DIA.
TP516-1	3/32 (.093)	3/32"
TP516-2	1/8 (.125)	3/32"
TP516-3	5/32 (.156)	3/32"
TP516-4	#20 (.161)	3/32"
TP516-5	3/16 (.187)	3/32"
TP516-6	#10 (.193)	3/32"
TP516-7	7/32 (.218)	3/32"
TP516-7A	7/32 (.218)	1/8"
TP516-8	1/4 (.250)	3/32"
TP516-8A	1/4 (.250)	1/8"
TP516-9	"F" (.257)	3/32"
TP516-9A	"F" (.257)	1/8"
TP516-10	9/32 (.281)	1/8"
TP516-10A	9/32 (.281)	3/16"
TP516-11	5/16 (.312)	1/8"
TP516-11A	5/16 (.312)	3/16"
TP516-12	11/32 (.343)	3/16"
TP516-13	3/8 (.375)	3/16"
TP516-14	13/32 (.406)	3/16"
TP516-15	7/16 (.437)	3/16"
TP516-16	15/32 (.468)	3/16"
TP516-17	1/2 (.500)	3/16"

## COUNTERBORES - HIGH SPEED STEEL

- High speed steel
- TP516 series pilots

Counterbores come with standard straight shank diameter and can be used in drill presses and portable drill motors. Corner radius varies. Special four flute design to permit faster cutting and to allow more coolant to reach cutting edges on deep cuts.

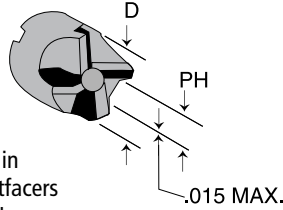


PART NO.	"D" CUTTER DIA.	"PH" PILOT HOLE DIA.	"S" SHANK DIA.
TP517-1	1/4"	3/32"	1/4"
TP517-2	9/32"	3/32"	1/4"
TP517-3	5/16"	3/32"	1/4"
TP517-4	11/32"	3/32"	1/4"
TP517-5	3/8"	3/32"	1/4"
TP517-6	13/32"	1/8"	1/4"
TP517-7	7/16"	1/8"	1/4"
TP517-8	15/32"	1/8"	1/4"
TP517-9	1/2"	1/8"	1/4"
TP517-10	17/32"	1/8"	1/4"
TP517-11	9/16"	1/8"	1/4"
TP517-12	19/32"	1/8"	1/4"
TP517-13	5/8"	1/8"	1/4"
TP517-14	21/32"	3/16"	1/4"
TP517-15	11/16"	3/16"	1/4"

## REVERSE SPOTFACERS

- High speed steel construction (standard)
- Solid carbide (optional) for cutting highly abrasive material or where longer tool life is desired

Reverse spotfacers are designed for use in restricted areas where conventional spotfacers cannot be utilized. Cutters furnished with 1/32" corner radius.



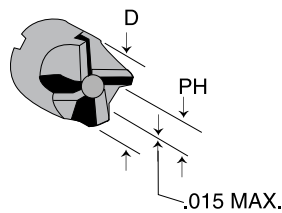
## HIGH SPEED STEEL

PART NO.	"D" CUTTER DIA.	"PH" PILOT HOLE DIA.	PILOT REF.	
			PLAIN PILOT	STEP PILOT
TP491-1/4P	1/4"	3/32"	TP510P	TP511P-3/32
TP491-1/4R	1/4"	1/8"	TP510R	TP511R-1/8
TP492-5/16P	5/16"	3/32"	TP510P	TP511P-3/32
TP492-5/16S	5/16"	5/32"	TP510S	TP511S-5/32
TP493-3/8T	3/8"	3/16"	TP510T	TP511T-3/16
TP494-7/16S	7/16"	5/32"	TP510S	TP511S-5/32
TP494-7/16T	7/16"	3/16"	TP510T	TP511T-3/16
TP495-1/2W	1/2"	1/4"	TP510W	TP511W-1/4
TP495-1/2S	1/2"	5/32"	TP510S	TP511S-5/32
TP495-1/2T	1/2"	3/16"	TP510T	TP511T-3/16
TP496-9/16S	9/16"	5/32"	TP510S	TP512X-5/32
TP496-9/16W	9/16"	1/4"	TP510W	TP512W-1/4
TP497-5/8W	5/8"	1/4"	TP510W	TP512W-1/4
TP497-5/8X	5/8"	5/16"	TP510X	TP512X-5/16
TP498-11/16W	11/16"	1/4"	TP510W	TP512W-1/4
TP499-3/4W	3/4"	1/4"	TP510W	TP512W-1/4
TP499-3/4X	3/4"	5/16"	TP510X	TP512X-5/16
TP500-7/8X	7/8"	5/16"	TP510X	TP512X-5/16
TP500-7/8Z	7/8"	3/8"	TP510Z	TP513Z-3/8
TP501-1Z	1"	3/8"	TP510Z	TP513Z-3/8
TP502-1 1/8Z	1-1/8"	3/8"	TP510Z	TP514Z-3/8
TP503-1 1/4Z	1-1/4"	3/8"	TP510Z	TP514Z-3/8

## REVERSE SPOTFACER KIT PART NO: TP883K

Thirteen piece kit including the most commonly used back spot facers and pilots.

- 1 ea. - 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", and 5/8" cutters
- 1 ea. - 3/32", 1/8", 3/16", 1/4", and 5/16" pilots
- Convenient storage case



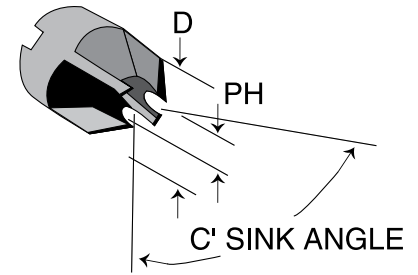
## CARBIDE

PART NO.	"D" CUTTER DIA.	"PH" PILOT HOLE DIA.	PILOT REF.	
			PLAIN PILOT	STEP PILOT
TP491C-1/4R	1/4"	1/8"	TP510R	TP511R-1/8
TP493C-5/16P	5/16"	3/32"	TP510P	TP511P-3/32
TP494C-3/8T	3/8"	3/16"	TP510T	TP511T-3/16
TP495C-7/16T	7/16"	3/16"	TP510T	TP511T-3/16
TP496C-1/2T	1/2"	3/16"	TP510T	TP511T-3/16
TP497C-9/16W	9/16"	1/4"	TP510W	TP512W-1/4
TP498C-5/8X	5/8"	5/16"	TP510X	TP512X-5/16
TP499C-11/16W	11/16"	1/4"	TP510W	TP512W-1/4
TP500C-3/4X	3/4"	5/16"	TP510X	TP512X-5/16
TP501C-7/8Z	7/8"	3/8"	TP510Z	TP513Z-3/8
TP502C-1Z	1"	3/8"	TP510Z	TP513Z-3/8

## REVERSE COUNTERSINKS

- High speed steel construction (standard)
- Solid carbide (optional) for cutting highly abrasive material or where longer tool life is desired
- 100° countersink angle

Reverse countersinks are designed for use in restricted areas where conventional countersinks cannot be utilized.



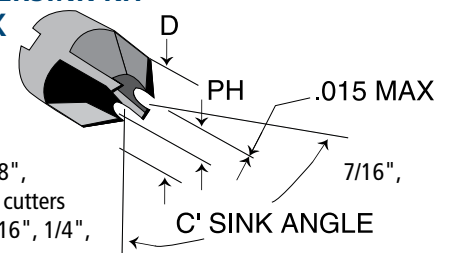
## HIGH SPEED STEEL

PART NO.	"D" CUTTER DIA.	"PH" PILOT HOLE DIA.	PILOT REF.	
			PLAIN PILOT	STEP PILOT
TP470-1/4P	1/4"	3/32"	TP510P	TP511P-3/32
TP470-1/4R	1/4"	1/8"	TP510R	TP511R-1/8
TP471-5/16R	5/16"	1/8"	TP510R	TP511R-1/8
TP471-5/16S	5/16"	3/32"	TP510P	TP511P-3/32
TP472-3/8T	3/8"	3/16"	TP510T	TP511T-3/16
TP473-7/16T	7/16"	3/16"	TP510T	TP511T-3/16
TP474-1/2T	1/2"	3/16"	TP510T	TP511T-3/16
TP474-1/2W	1/2"	1/4"	TP510W	TP511W-1/4
TP475-9/16T	9/16"	3/16"	TP510T	TP512T-3/16
TP475-9/16W	9/16"	1/4"	TP510W	TP512W-1/4
TP476-5/8X	5/8"	5/16"	TP510X	TP512X-5/16
TP477-11/16W	11/16"	1/4"	TP510W	TP512W-1/4
TP477-11/16X	11/16"	5/16"	TP510X	TP512X-5/16
TP478-3/4W	3/4"	1/4"	TP510W	TP516V-1/4
TP478-3/4X	3/4"	5/16"	TP510X	TP516X-5/16
TP479-7/8X	7/8"	5/16"	TP510X	TP516X-5/16
TP480-1X	1"	5/16"	TP510X	TP517X-5/16
TP481-1 1/4Z	1-1/4"	3/8"	TP510Z	TP517Z-3/8

## REVERSE COUNTERSINK KIT PART NO: TP882K

A popular thirteen piece assortment of high speed steel reverse countersinks.

- 1 ea. - 1/4", 5/16", 3/8", 1/2", 9/16", and 5/8" cutters
- 1 ea. - 3/32", 1/8", 3/16", 1/4", and 5/16" pilots
- Convenient storage case



## CARBIDE

PART NO.	"D" CUTTER DIA.	"PH" PILOT HOLE DIA.	PILOT REF.	
			PLAIN PILOT	STEP PILOT
TP470C-1/4R	1/4"	1/8"	TP510R	TP511R-1/8
TP471C-5/16R	5/16"	1/8"	TP510R	TP511R-1/8
TP472C-3/8T	3/8"	3/16"	TP510T	TP511T-3/16
TP473C-9/16T	9/16"	3/16"	TP510T	TP512T-3/16
TP474C-1/2T	1/2"	3/16"	TP510T	TP511T-3/16
TP475C-9/16W	9/16"	1/4"	TP510W	TP512W-1/4
TP476C-5/8X	5/8"	5/16"	TP510X	TP512X-5/16
TP477C-11/16W	11/16"	1/4"	TP510W	TP512W-1/4
TP478C-3/4X	3/4"	5/16"	TP510X	TP516X-5/16
TP479C-7/8X	7/8"	5/16"	TP510X	TP516X-5/16
TP480C-1X	1"	5/16"	TP510X	TP517X-5/16

## HOLE SAWS FINE TOOTH HIGH SPEED STEEL DESIGN

Ideally suited for cutting aluminum, sheet steel, plastics and radial holes on curved surfaces. All hole saws are precision ground to prevent bending and heat treated to a C60 Rockwell range. The O.D. is ground concentric with the arbor hole to insure close tolerance holes. TP435-1 through TP435-20 saws have a 5/16"-24 thread; TP435-21 through TP435-45 have a 1/2"-20 thread.



PART NO.	DIAMETER
TP-435-1	3/8"
TP-435-2	13/32"
TP-435-3	7/16"
TP-435-4	15/32"
TP-435-5	1/2"
TP-435-6	17/32"
TP-435-7	9/16"
TP-435-8	19/32"
TP-435-9	5/8"
TP-435-10	21/32"
TP-435-11	11/16"
TP-435-12	23/32"
TP-435-13	3/4"
TP-435-14	25/32"
TP-435-15	13/16"
TP-435-16	27/32"
TP-435-17	7/8"
TP-435-18	29/32"
TP-435-19	15/16"
TP-435-20	31/32"
TP-435-21	1"
TP-435-22	1-1/16"
TP-435-23	1-1/8"
TP-435-24	1-3/16"
TP-435-25	1-1/4"
TP-435-26	1-5/16"
TP-435-27	1-3/8"
TP-435-28	1-7/16"
TP-435-29	1-1/2"
TP-435-30	1-9/16"
TP-435-31	1-5/8"
TP-435-32	1-11/16"
TP-435-33	1-3/4"
TP-435-34	1-13/16"
TP-435-35	1-7/8"
TP-435-36	1-15/16"
TP-435-37	2"
TP-435-38	2-1/8"
TP-435-39	2-1/4"
TP-435-40	2-3/8"
TP-435-41	2-1/2"
TP-435-42	2-5/8"
TP-435-43	2-3/4"
TP-435-44	2-7/8"
TP-435-45	3"

## HOLLOW CUTTERS PART NO: TP455

- For collar removal on Hi-Shear and Huck fasteners
- 1/4" x 28 male threaded shank
- 4 flute
- HSS material



HSS PART NO.	"D" DIA.	"A" I.D.	FASTENER TYPE	FASTENER SIZE
TP455-1/8	.365	.124	HI SHEAR	1/8
TP455-5/32	.365	.157	HI SHEAR	5/32
TP455-3/16	.438	.1875	HI SHEAR	3/16
TP455-1/4	.500	.250	HI SHEAR	1/4
TP455-5/16	.562	.310	HI SHEAR	5/16
TP455-3/8	.625	.373	HI SHEAR	3/8
TP455-L6	.323	.1875	HUCK	L6 LOCK BOLT
TP455-L8	.413	.250	HUCK	L8 LOCK BOLT
TP455-058	.372	.265	HUCK	058 BLIND RIVET
TP455-L10	.528	.3125	HUCK	L10 LOCK BOLT
TP455-0510	.465	.339	HUCK	0510 BLIND RIVET
TP455-L12	.622	.375	HUCK	L12 LOCK BOLT
TP455-0512	.550	.397	HUCK	0512 BLIND RIVET

## HOLE SAW ARBORS

- Precision ground to insure concentricity
- 3/16 pilot dia. x 1/4" shank
- 5/16-24 thread
- Use on TP435-1 through TP435-20 only

### PART NO: TP436

- 3/16 pilot dia. x 1/4" shank
- 5/16-24 thread
- Use on TP435-1 through TP435-20 only

### PART NO: TP436A

- 1/4 pilot dia. x 1/4" shank
- 5/16-24 thread
- Use on TP435-1 through TP435-20 only

### PART NO: TP436B

- 1/4 pilot dia. x 1/2" shank
- 1/2-20 thread
- Use on TP435-21 through TP435-45 only

### PART NO: TP436C

- 3/8 pilot dia. x 1/2" shank
- 1/2-20 thread
- Use on TP435-21 through TP435-45 only



## INSTRUMENT PANEL HOLE CUTTERS

### PART NO: TP292 2-1/4"

### PART NO: TP292A 3-1/8"

- Cuts clean burr-free holes
- Use ordinary wrench
- Requires 7/16" pre-drilled hole
- 10 gauge mild steel capacity



## BLAIR HOLE CUTTERS

### PART NO: TP147

.38 lbs.

- Cuts perfect holes in most materials
- Cuts up to 3/16" pre-set depth holes
- Fits any 1/4" drill

This set contains 7 blades from 1/4" to 5/8" arbor, pilot and holder. Each blade will cut over 3,000 holes in sheet metal. New blades thread onto arbor easily and the adjusting screw makes minute depth control of cuts possible. Depth rod determines the distance the retracting pin can recede and thereby adjusts to the depth of cut.



## MALCO HOLE CUTTER

### PART NO: TP312

### PART NO: TP312B

Replacement cutting bit

- Cuts holes 2 - 12" dia. in 16 gauge sheet metal
- Use with any standard 1/4" or larger drill
- Cutter pivots on pre-drilled center hole
- Patented shoe permits smooth hole finishing
- High speed bearings at top and bottom of drill shaft for perfect cutting balance and long life of mill-type cutting bit (Drill not included)



## ARBORS

**PART NO: 351B** Fits saws #375-380A

**PART NO: 353A** Fits saws #381-398

**PART NO: 356B** Fits saws #403-437

- Saw screws easily from the drill shank
- For use with hole saws
- High speed 1/4" pilot drills
- Available for saws 5/8" to 6"



Arbors are all heat-treated and practically indestructible. They fit any two or three jaw chucks. The "quick-change" arbor allows changing hole saws in seconds without removing arbor from the chuck. A simple fingertip turn of the knurled collar draws up the two drive pins from the matched holes in the saw cap.

## HOLE SAWS

- High speed steel with welded edge
- 1-1/8" depth of cut
- Knock-out slots provide easy removal of cores
- Fine tooth

PART NO.	SIZE	CUTTINGSPEED RPMs				
		MILD STEEL	TOOL/STNLS.	CAST IRON	BRASS	ALUM.
375	5/8"	550	275	365	730	825
375A	11/16"	500	250	330	665	750
377	3/4"	460	230	300	600	690
377A	13/16"	425	210	280	560	635
378	7/8"	390	195	260	520	585
378A	15/16"	370	185	245	495	555
379	1"	350	175	235	470	525
379A	1-1/16"	325	160	215	435	480
380	1-1/8"	300	150	200	400	450
381	1-1/4"	275	140	180	360	410
381A	1-5/16"	260	135	170	345	390
382	1-3/8"	250	125	165	330	375
383	1-1/2"	230	115	150	300	345
384	1-5/8"	210	105	140	280	315
385	1-3/4"	195	95	130	260	295
386	1-7/8"	180	90	120	240	270
387	2"	170	85	115	230	255
410	2-1/16"	165	80	110	220	245
388	2-1/8"	160	80	105	210	240
389	2-1/4"	150	75	100	200	225
390	2-3/8"	140	70	95	190	220
391	2-1/2"	135	65	90	180	205
412	2-9/16"	130	65	85	175	200
392	2-5/8"	130	65	85	170	195
393	2-3/4"	125	60	80	160	185
394	2-7/8"	120	60	80	160	180
395	3"	115	55	75	150	170
396	3-1/8"	110	55	70	140	165
397	3-1/4"	105	50	70	140	155
398	3-3/8"	100	50	65	130	150
402	3-1/2"	95	45	65	130	145
403	3-5/8"	95	45	60	120	140
404	3-3/4"	90	45	60	120	135
405	3-7/8"	90	45	60	120	135
415	4"	85	40	55	110	130
417	4-1/8"	80	40	55	110	120
418	4-1/4"	80	40	55	110	120
411	4-3/8"	80	40	50	100	120
413	4-1/2"	75	35	50	100	105
416	4-3/4"	70	35	45	95	95
433	5"	65	30	45	90	90
435	5-1/2"	60	25	40	85	85
437	6"	55	25	35	75	75

## CIRCLE (FLY) CUTTER

**PART NO: TP461**

- Adjusts from 1" to 6" diameter circles
- Replaceable 3/16" cutter bit and 1/4" pilot drill
- Operates on drills equipped with 3/8" or larger chucks



**PART NO: TP461A** Cutter Blade

**PART NO: TP461B** Pilot Drill

## DEBURRING TOOL

**PART NO: TP266**

- Curved blade swivels freely and automatically
- Blades install quickly
- Seven blades included (TP266A)

For faster, easier deburring . . . follows all shapes, holes and contours.



## REPLACEMENT BLADES

**PART NO: TP266A**

- For steel and aluminum

**PART NO: TP266B**

- For brass and cast iron
- Can rotate clockwise and counter-clockwise

**PART NO: TP266C**

- For straight edges on all materials

**PART NO: TP266D**

- Removes internal and external burrs simultaneously from holes drilled into tubing and sheet metal

**PART NO: TP266E**

- For small holes in steel and aluminum

**PART NO: TP266F**

- For small holes in brass and cast iron
- Can rotate clockwise and counter-clockwise



## MACHINIST DE-BURRING SCRAPER

**PART NO: TP790**

.16 lb.

- Hollow ground (3) three blades with 60° angle cutting surface
- Ideal for sheet edge or general de-burring requirements
- Lacquered hardwood handle
- 12" O.A.L. with 4" blade



## SPEE-D-BURR DEBURRING TOOL

**PART NO: TP796**

This unique industrial hand tool deburrs holes of all types with a simple twist of the wrist. (Bit not included)

- Accommodates all deburring attachments, rotary files and countersinks with 1/4" straight shanks.
- Unique ratchet action allows constant turning without changing your hand position.
- Lightweight alloy construction.



## DOUBLE EDGE SCRAPER

**PART NO: TP370**

**PART NO: TP370A** Replacement Blade

- Tool simultaneously removes burrs from both sides of workpiece
- Capacity 1/32" to 1/2" thick
- Unique round cutting blades that can be rotated around and reversed for long life
- Blades are made of M-2 steel and hardened to 64 RC
- Includes two blades



## DISPOSABLE BURR PART NO: TP557

A low priced tool that can tackle almost every deburring job. Tool consists of TP266A blade, handle and pocket clip.



## RIVET HOLE SPEED DEBURRING TOOL PART NO: TP120

**PART NO: TP120K** Includes TPCR3438  
.19 lb.

- Designed with 1/4" x 28 female threaded shank
- Curved shank swivels freely in handle
- Allows for faster deburring with less effort
- Will accept our TPCR3438 type "rosebud" cutters or TP62 type countersink pilot cutters



## BURRAWAY KIT PART NO: TP479K

Complete 11 piece kit that enables you to have on hand at all times the solution to burr removal problems for the most common hole sizes.

### KIT CONTAINS:

- 1 each 1/8", 5/32", 7/32", 3/16", & 1/4" complete burraway tools per size
- 1 replacement blade
- 1 molded storage case



## COUNTERSINK VERSA/BURR PART NO: TP490 PART NO: TP490A

Replacement 3/4" countersink cutter

### PART NO: TP490B

Replacement 1/2" countersink cutter  
Countersink Versa/Burr includes the handle, TP490A, 3/4" countersink cutter and countersink holder that telescopes from 1/4" to 3-1/4". Ideal for reaching into deep parts.



## MASTER DEBURRING TOOL KIT PART NO: TP375

• Molded plastic storage case  
A deluxe kit that gives you a complete assortment of deburring tools for every job.

### This 18 piece kit includes:

- 1 keyway burr
- 1 double burr
- 1 C holder with 3/4" countersink
- 1 D holder with mini-scraper
- 1 double header with B/E holder
- 1 chamfering tool, holder, blade
- 1 versa/burr handle
- 1 1/2" countersink
- 1 scraper
- 4 miscellaneous replacement bits



## BURRAWAY PRECISION DEBURRING OR CHAMFERING HOLE TOOL

- Removes feathered edges and extruded burrs, front, back or both sides...in one pass
- One simple set screw adjustment controls depth of cut
- Use in fixed spindle machines or portable power tools
- Tool will generally deburr 4 to 10 times as many holes per grind as the drill that was used to make hole. Blades can be re-ground 5 to 10 times.
- Each tool comes complete with arbor and blade for double cutting
- Use on a drill press for best results



TOOL NO.	HOLE SIZE INCHES
TP474	3/32"
TP474B	REPLACEMENT BLADE
TP475	1/8"
TP475B	REPLACEMENT BLADE
TP476	5/32"
TP476B	REPLACEMENT BLADE
TP477	3/16"
TP477B	REPLACEMENT BLADE

## BURR-OFF DE-BURRING TOOL

- The original "clothespin" tool
- Deburr holes - front and back - both sides in one pass ...no tool adjustments, no refixturing, no double handling of parts
- Can be used in fixed spindle machine or portable power tool



TOOL NO.	RANGE OF HOLE SIZE	SHANK DIA.	LENGTH
*TP480A	.125-.140	.124	4"
*TP480B	.140-.156	.139	4"
*TP480C	.156-.172	.155	4"
*TP480D	.172-.188	.171	4"
*TP480E	.187-.203	.186	4"
*TP480F	.203-.219	.202	4"
TP480G	.219-.234	.218	4"
TP480H	.234-.250	.233	4"
TP480I	.250-.266	.249	4"

\*These tools standard with one (1) cutting edge.

## TUNGSTEN CARBIDE ROTARY BURRS

- Standard cut (TP229's)
- Deburs steel cast and ferrous metals
- Coarse cut (TP230's)
- For soft materials, aluminum, magnesium and brass
- Solid carbide construction
- Brazed to heat treated steel shanks
- Shank size 1/4"



## 8 PIECE DEBURRING KIT PART NO: TP229-8

Includes: TP229, TP230, TP229L, TP230L, TP229V, TP230V, TP229B, TP230B and wooden box.



## 16 PIECE DEBURRING KIT PART NO: TP229-16

Includes: TP229A, TP229B, TP229C, TP229D, TP229E, TP229I, TP229J, TP229M, TP229O, TP229U, TP229W, TP230A, TP230I, TP230M, TP230U, TP230W and wooden box.



AIR TOOLS

BURRS

PART NO.	TYPE	DIA. OF BURR	LENGTH OF BURR	STD. CUT	COARSE CUT
TP229I	Flame	1/4"	5/8"	•	N/A
TP230I	Flame	1/4"	5/8"	N/A	•
TP229J	Flame	5/16"	3/4"	•	N/A
TP230J	Flame	5/16"	3/4"	N/A	•
TP230K	Flame	1/2"	1-1/4"	N/A	•
TP229L	Cylindrical Ball Nose	1/4"	5/8"	•	N/A
TP230L	Cylindrical Ball Nose	1/4"	5/8"	N/A	•
TP229M	Cylindrical Ball Nose	3/8"	3/4"	•	N/A
TP230M	Cylindrical Ball Nose	3/8"	3/4"	N/A	•
TP230N	Cylindrical Ball Nose	3/4"	1"	N/A	•
TP229O	Inverted Cone	1/4"	5/16"	•	N/A
TP230O	Inverted Cone	1/4"	5/16"	N/A	•
TP229P	Inverted Cone	1/2"	1/2"	•	N/A
TP230P	Inverted Cone	1/2"	1/2"	N/A	•
TP230Q	Inverted Cone	3/4"	5/8"	N/A	•
TP229R	Deburring Pointing 60°	1/4"	3/16"	•	N/A
TP230R	Deburring Pointing 60°	1/4"	3/16"	N/A	•
TP229S	Deburring Pointing 60°	3/8"	1/4"	•	N/A
TP230S	Deburring Pointing 60°	3/8"	1/4"	N/A	•
TP230T	Deburring Pointing 60°	5/8"	1/2"	N/A	•
TP229U	Ball Shape	1/8"	1/8"	•	N/A
TP229V	Ball Shape	1/4"	1/4"	•	N/A
TP230V	Ball Shape	1/4"	1/4"	N/A	•
TP229W	Ball Shape	3/8"	3/8"	•	N/A
TP230W	Ball Shape	3/8"	3/8"	N/A	•
TP229X	Ball Shape	1/2"	1/2"	•	N/A
TP230X	Ball Shape	1/2"	1/2"	N/A	•
TP229	Cylindrical	1/4"	5/8"	•	N/A
TP230	Cylindrical	1/4"	5/8"	N/A	•
TP229A	Cylindrical	3/8"	3/4"	•	N/A
TP230A	Cylindrical	3/8"	3/4"	N/A	•
TP230F	Cylindrical	3/4"	3/4"	N/A	•
TP229B	Round Tree	1/4"	5/8"	•	N/A
TP230B	Round Tree	1/4"	5/8"	N/A	•
TP229C	Round Tree	3/8"	3/4"	•	N/A
TP230C	Round Tree	3/8"	3/4"	N/A	•
TP230G	Round Tree	3/4"	1-1/4"	N/A	•
TP229D	Cone	1/4"	5/8"	•	N/A
TP230D	Cone	1/4"	5/8"	N/A	•
TP229E	Cone	3/8"	3/4"	•	N/A
TP230E	Cone	3/8"	3/4"	N/A	•
TP230H	Cone	3/4"	1-5/16"	N/A	•

## RECIPROCATING BODY SAW PART NO: 955

- 1.2 lbs.
- Lightweight, slim design for cutting in confined areas, curved surfaces and tight radii
  - Cuts all types of aluminum, plastic, fiberglass, sheet metal, composites and kevlar
  - 16 gauge steel capacity
  - 4" stroke length
  - 9000 strokes per minute
  - 9-1/4" length
  - Includes 3 assorted blades and adjustable guard
  - 5SAW - 5 blade set - 24 tooth
  - 5SAWR - 5 blade - 36 tooth



## AIR NIBBLER PART NO: M400A

- 1.8 lbs.
- Nibbles steel or aluminum sheet without distorting or twisting
  - Cuts a tight 1/4" radius with great accuracy
  - Adjustable die guide for forward, backward, right or left cutting
  - Small enough to start cut in center of panel using a 1" hole
  - 16 gauge mild steel capacity
  - 21341 Die
  - 21340 Punch



## U.S. INDUSTRIAL PANEL CUTTING SAW PART NO: US7387PAS

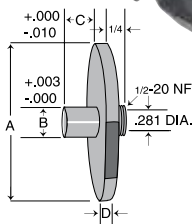
- 4 lbs.
- Cuts a wide range of material: up to 3/16" aluminum, 16 gauge mild steel, 5/8" plastic laminates; and, with our diamond saw blades, cuts kevlar and composite materials.
- 5/16" depth of cut
  - Uses 1-1/4" - 2" dia. saw blades - specify
  - 7/16" arbor hole
  - 11-3/4" length
  - Includes (4) 1-3/4" saw blades
  - CE certified



Compact, quiet & powerful, with advanced ergonomic advantages to the user.

## U.S. INDUSTRIAL ROUTER PART NO: US7092RO

- 2.12 lbs.
- Lightweight straight handle router
- 12,000 RPM
  - Accepts 1/4" shank router bits
  - Includes 14-2501 router guide
  - 6" length
  - Manufactured in the U.S.A.
  - CE certified



## U.S. INDUSTRIAL PANEL CUTTING SAW KIT PART NO: US7387PASK

- Includes US7387PAS Panel Saw
- |                    |                            |
|--------------------|----------------------------|
| 4 157-34 Sawblades | 1 TP584B Diamond Saw Blade |
| 4 157-36 Sawblades | 1 TP584D Diamond Saw Blade |
| 4 157-54 Sawblades | 1 TP584D Diamond Saw Blade |
| 4 157-56 Sawblades | 1 TP584D Diamond Saw Blade |
- Tool Case



## ROUTER GUIDES for router bits with 1/4" shanks DIMENSIONS IN INCHES

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	3/8	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	2-1/2	1/2	1/2	3/16

## KETT PANEL SAW ELECTRIC PART NO: K221

- 5 lbs.
- Capacity 18 gauge mild steel - 1/4" plastic
  - 2500 rpm
  - 120 volt



## GEORGES RENAULT STRAIGHT & ANGLE GRINDERS

**PART NO: KC340-9/KC331-9** Straight type with 1/4" collet

**PART NO: KA320-9/KA312-9** Angle type with 1/4" collet

**PART NO: KA320-9FE/KA312-9FE**

Straight type with 1/4" collet, front exhaust

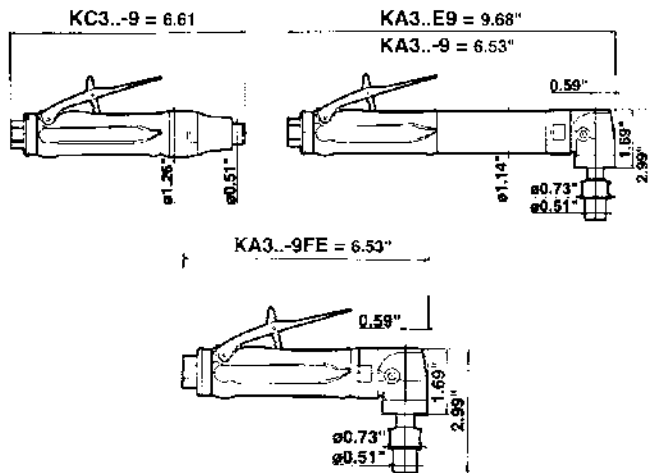
**PART NO: KA613-9** Heavy-duty angle type with 1/4" collet

### Accessories included:

- Series 300 resilient collet,  $\varnothing$  1/4" (5.55 to 6.35 mm)
- Exhaust hose L = 31" (0.8 m)
- Exhaust hose L = 60" (1.5 m)
- Hose clamp
- 1/4" air hose nipple for 5/16" (8 mm) ID hose
- 3/8" air hose nipple for 3/8" (10 mm) ID hose
- Flat wrench, 7/16" (11 mm)
- Flat wrench, 11/16" (17 mm)

### Accessories included with KA320-9FE/KA312-9FE:

- Series 300 resilient collet,  $\varnothing$  1/4" (5.55 to 6.35 mm)
- 1/4" air hose nipple for 5/16" 98 mm ID hose
- Clip-on silencer
- Flat wrench, 7/16" (11 mm)
- Flat wrench, 11/16" (17 mm)



KC340-9/KC331-9



KA320-9/KA312-9



KA613-9



KA320-9FE/KA312-9FW

PART NO.	FREE SPEED rpm	COLLETT MAX. CAP. in.	POWER		WEIGHT		AIR CONSUMPTION				AIR INLET THREAD in.	HOSE DIA. in.
			hp	W	lb.	kg	AT FREE SPEED		AT MAX OUTPUT			
							cm	l/s	cfm	l/s		
KC340-9	40,000	1/4	0.5	375	0.84	0.38	16.0	7.5	21	10.0	1/4	5/16
KC331-9	31,000	1/4	0.5	375	0.84	0.38	9.5	4.5	20	9.5	1/4	5/16
KA320-9	20,000	1/4	0.5	375	1.13	0.51	13.5	6.5	21	10.0	1/4	5/16
KA312-9	12,000	1/4	0.5	375	1.13	.051	6.5	3.0	19	9.0	1/4	5/16
KA613-9	13,000	1/4	0.8	600	2.40	1.10	21.0	10.0	32	15.0	3/8	3/8
KA320-9FE	20,000	1/4	0.5	375	1.13	0.51	6.5	3.0	19	9.0	1/4	5/16
KA312-9FE	12,000	1/4	0.5	375	1.13	0.51	6.5	3.0	19	9.0	1/4	5/16

## SIoux STALL TORQUE PNEUMATIC SCREWDRIVER

**PART NO: 2P2107** 700 RPM

1.8 lbs.

- 240 inch lbs. stall torque
- 1/4" hex female drive
- Pistol grip handle

**PART NO: 2P2207** 1,200 RPM

1.8 lbs.

- 115 inch lbs. stall torque
- 1/4" hex female drive
- Pistol grip handle

**PART NO: 2P2307** 1,200 RPM

2.3 lbs.

- 65 inch lbs. stall torque
- 1/4" hex female drive
- Pistol grip handle



## DOTCO

**PART NO: 56CNS93-71**

2.2 lbs.

- 92 inch lbs. positive clutch
- 1/4" hex female drive
- Small pistol grip handle

**PART NO: 56CNS93-73**

2.4 lbs.

- 92 inch lbs. adjustable clutch
- 1/4" hex female drive
- Small pistol grip handle



## INGERSOLL RAND

**PART  
5RANC1**

900 RPM

2.8 lbs.

- 13-70 inch lbs. torque
- Adjustable cushion clutch
- 1/4" hex female drive
- Pistol grip handle

**PART NO: 7RAMC1** 1000 RPM

3.3 lbs.

- 20-110 inch lbs. torque
- Adjustable cushion clutch
- 1/4" hex female drive
- Pistol grip handle



Other models featuring different RPMs and clutch types available.



**1/4" HEX SLOTTED**

PART NO.	LENGTH	FITS SCREW SIZE
1210	1-15/16"	1-Flat, 2-Round
1310	1-15/16"	2-Flat, 3-Round
1510	1-15/16"	3-Flat, 4-Round
1810	1-15/16"	4-Flat, 5-Round
2110	1-15/16"	5-Flat, 6-Round
2510	1-15/16"	6-Flat, 7-Round
2710	1-15/16"	8-Flat, 10-Round
3110	1-15/16"	10-Flat, 12-Round
3610	1-15/16"	12-Flat, 14-Round



**1/4" HEX PHILLIPS**

PART NO.	LENGTH	FITS SCREW SIZE
1811	1-15/16"	#1 Point
2512	1-15/16"	#2 Point
2513	1-15/16"	#3 Point
1821	2-3/4"	#1 Point
2522	2-3/4"	#2 Point
2523	2-3/4"	#3 Point
1831	3-1/2"	#1 Point
2532	3-1/2"	#2 Point
2533	3-1/2"	#3 Point



**INSERT BITS  
1/4" HEX SLOTTED**

PART NO.	SCREW SIZE
212	#1 Point
213	#2 Point
214	#3 Point

**INSERT BIT HOLDER  
MAGNETIC**

PART NO: M10A 2-7/8" length, 1/4" hex shank

**NON-MAGNETIC**

PART NO: 490 1-5/8" length, 1/4" hex shank



Power Bits



**INSERT BITS  
1/4" HEX PHILLIPS**

PART NO.	SCREW SIZE
221	#1 Point
222	#2 Point
223	#3 Point



**SCREWDRIVER BITS  
WITH FINDER SLEEVE  
1/4" HEX SLOTTED**

PART NO.	SCREW SIZE
L320	5-Flat
M320	6-Flat
P320	8-Flat
R320	10-Flat
S320	12-Flat



**SOCKET HEAD - ALLEN  
1/4" INSERT**

PART NO.	SCREW SIZE
185-00	1/16"
185-0	5/64"
185-1	3/32"
185-9	7/64"
185-2	1/8"
185-10	9/64"
185-3	5/32"
185-4	3/16"
185-5	7/32"
185-6	1/4"
185-7	5/16"
185-8	3/8"



**MAGNETIC INSERT  
SCREWDRIVER**

PART NO: TP287 2-1/2" Length, 4.5 oz.

PART NO: TP288 8" Length, 6 oz.

- #1 and #2 Phillips bits
- #4-6 and #6-8 slotted bits
- Use standard 1/4" shank insert bits
- Storage handle for bits



**HAND TYPE TORQUE  
SCREWDRIVER**

PART NO: TP914

Hand held, adjustable torque - limiting with calibrated micrometer scale "torque by feel." Turn and click and its torqued to micrometer accuracy.

- Torque range 2-36 inch lbs. graduated in 2 in lb. increments
- 1/4" female hex drive for use with insert bits
- 7 1/2" OAL



**HEAVY DUTY  
SCREW REMOVAL TOOL**

PART NO: TP884 1/4"-3/8" screw cap.

PART NO: TP855 #8-1/4" screw cap.

Heat treated, plated, and built for a lifetime. This screw removal tool doesn't care if it's a phillips, tri-wing, or high torque. Removes all common screws; then folds up for quick storage and has a compartment in the handle for accessories.

- Heavy duty screw remover
- Heat Treated, plated for long life
- Removes all common screws and accepts all 1/4" hex bits
- T handle or ratchet not included
- 3/8" to 1/4" hex socket adapter bit holder required



Power Bits



Tri-Wing Bits

PART NO.	LENGTH INCHES	SHANK SIZE	RECESS NO.	TENSION HEAD	SCREWHEAD
TW0	1-1/4"	1/4" Hex	0	0.80	N/A
TW1	1-1/4"	1/4" Hex	1	2.56	4.40
TW2	1-1/4"	1/4" Hex	2	4.40	6.32
TW3	1-1/4"	1/4" Hex	3	6.32	8.32
TW4	1-1/4"	1/4" Hex	4	8.32	10.32
TW5	1-1/4"	1/4" Hex	5	10.32	1/4"-28

PART NO.	LENGTH INCHES	SHANK SIZE	RECESS NO.	TENSION HEAD	SCREWHEAD
TW0D	1"	1/4" Hex	0	0.80	N/A
TW1D	1"	1/4" Hex	1	2.56	4.40
TW2D	1"	1/4" Hex	2	4.40	6.32
TW3D	1"	1/4" Hex	3	6.32	8.32
TW4D	1"	1/4" Hex	4	8.32	10.32
TW5D	1"	1/4" Hex	5	10.32	1/4"-28

## ABRASIVE TECHNOLOGY P.B.S. DIAMOND TOOLING

P.B.S.™ is a unique, patented, state-of-the-art diamond bonding system. With this tooling, diamonds are individually brazed in place. This process promotes high diamond exposure and completely eliminates the loss of diamond particles through pull-out. Plus, with P.B.S.™ the abrasive section will not strip or peel. This translates into increased productivity and part consistency with an aggressive tool that is:

- Long lasting
- Less loading
- Faster cutting
- Cooler running

## RECOMMENDED USE & MATERIALS

Low wheel speed is one of the major causes of poor performance of super-abrasive products. Wheel loading and heat build-up are common signs of low SFPM. We recommend that P.B.S.™ products operate in the range of 5000 to 12,000 SFPM (9000 SFPM is ideal). Coolant should be used whenever possible to prolong life.

## SAWS

- P.B.S.™ Bonded Technology
- 40 mesh diamond
- RADIUS edge
- Available in continuous rim or slotted type

Saws can be used with standard type arbor that will allow use in die grinders, straight drills, etc., or can be used in specially designed saws and panel saws.



PART NO.	DIA.	KERF	CORE	ARBOR
<b>CONTINUOUS RIM TYPE - 1/8" RETURN</b>				
TP584A	1-1/2"	1/16"	3/64"	1/4"
TP584B	1-3/4"	1/16"	3/64"	7/16"
TP584C	2"	1/16"	3/64"	3/8"
TP584D	2"	1/16"	3/64"	7/16"
TP584E	2"	3/32"	1/16"	3/8"
TP584F	2"	1/8"	3/32"	3/8"
TP584G	2-1/2"	1/16"	3/64"	7/16"
TP584H	3"	1/16"	3/64"	3/8"
TP584I	3"	3/32"	1/16"	3/8"
TP584J	3"	1/8"	3/32"	3/8"
TP584K	4"	1/16"	3/64"	3/8"
TP584L	4"	3/32"	1/16"	3/8"
TP584M	4"	1/8"	3/32"	3/8"
<b>SLOTTED RIM TYPE - 1/8" RETURN</b>				
TP585A	3"	1/16"	3/64"	3/8"
TP585B	3"	3/32"	1/16"	3/8"
TP585C	3"	1/8"	3/32"	3/8"
TP585D	4"	1/16"	3/64"	3/8"
TP585E	4"	3/32"	1/16"	3/8"
TP585F	4"	1/8"	3/32"	3/8"

## MOUNTED SAWS

- P.B.S.™ Bonded Technology
- 40 mesh diamond
- Continuous rim type



PART NO.	DIA.	KERF	CORE	SHANK DIA.	OVERALL LENGTH
TP586A	1/2"	3/32"	1/16"	1/4"	3"
TP586B	3/4"	3/32"	1/16"	1/4"	3"
TP586C	1"	3/32"	1/16"	1/4"	3"
TP586D	2"	3/32"	1/16"	1/4"	3"
TP586E	3"	3/32"	1/16"	3/8"	3"
TP586F	4"	3/32"	1/16"	3/8"	3"

## ROUTER BITS PART NO: TP592 SERIES

- P.B.S.™ Bonded Technology
- 40 mesh diamond
- Abrasive length
- 2 flutes on 3/8" diameter and larger



PART NO.	DIA.	SHANK DIA.	OVERALL LENGTH
TP592A	1/4"	1/4"	3"
TP592B	3/8"	1/4"	3"
TP592C	1/2"	1/4"	3"
TP592D	5/8"	3/8"	3"
TP592E	3/4"	3/8"	3"
TP592F	1"	3/8"	3"

## CORE DRILLS

- P.B.S.™ Bonded Technology
- 40 mesh diamond
- 1" cutting depth



PART NO.	DRILL O.D.	SHANK DIA.
TP591A	1/8"	1/4"
TP591B	5/32"	1/4"
TP591C	3/16"	1/4"
TP591D	1/4"	3/8"
TP591E	3/8"	3/8"
TP591F	1/2"	3/8"
TP591G	3/4"	3/8"
TP591H	1"	3/8"
TP591I	1-1/4"	3/8"
TP591J	1-1/2"	3/8"
TP591K	2"	3/8"

## JIG SAW BLADES

- P.B.S.™ Bonded Technology
- 40 mesh diamond



PART NO.	FITS FOLLOWING JIG SAW	OVERALL LENGTH
TP587	Black & Decker Saws or equal	3"
TP588	Rockwell Bayonet Saw or equal	3"
TP589	Rockwell Tiger Saw or equal	4"
TP591	Bosch Saws or equal (not shown)	4"

## PERMA GRIT TOOLS

PermaGrit is a complete line of gritted tungsten carbide sanding and cutting tools. These tools can be used to cut the hardest most abrasive materials including cast iron, aircraft composites, and super hard metal alloys.

All the sanding and file tools come in both coarse and fine grit. The TP910SB series sanding blocks come with both the fine and coarse grit surfaces on opposite sides.

PART NO.	DESCRIPTION	GRIT TYPE
TP910SB-1	Sanding Block - 5-1/2" long x 2" wide	Fine & Coarse
TP910SB-2	Sanding Block - 11" long x 2" wide	Fine & Coarse
TP910RF-1C	Round File - 3/4" dia.	Coarse
TP910RF-1F	Round File - 3/4" dia.	Fine
TP910RF-2C	Round File - 1/2" dia.	Coarse
TP910RF-2F	Round File - 1/2" dia.	Fine
TP910CV-1C	Coving Tool 9" long x 1" wide x 1 1/2" radius	Coarse
TP910CV-2C	Coving Tool 9" long x 1" wide x 1 1/2" radius	Fine
TP910FF-1C	Flat File- 11" long X 1 1/2" wide	Coarse
TP910FF-1F	Flat File - 11" long X 1 1/2" wide	Fine
TP910RS-1	Round Saw Blade - 6" o.a.l.	Saw type
TP910RS-2	Round Saw Blade - 12" o.a.l.	Saw type
TP910HS-1	Hack Saw Blade - 12" o.a.l.	Saw type



TP910CV-1C (coarse) or TP910CV-1F (fine)



TP910FF-1C (coarse) or TP910FF-1F (fine)



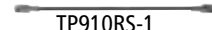
TP910RF-1C (coarse) or TP910RF-1F (fine)



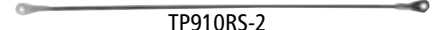
TP910SB-1



TP910SB-2



TP910RS-1



TP910RS-2



TP910HS-1

## INTEGRAL PILOT STOP COUNTERSINKS

### PART NO: TP62D

100° angle, 1/2" body diameter, standard sizes available: 3/16"-21-30-40. (Specify size.)

The latest design in diamond bonded countersink cutters. Can be used in adjustable-stop or micro-stop type countersinking units. (TP61)

- P.B.S.™ Bonded Technology
- 60 mesh diamond
- 1/4" x 28 male threaded shank



## HAND FILES

**PART NO: TP593A** 30 mesh diamond

**PART NO: TP593B** 60 mesh diamond

- P.B.S.™ Bonded Technology
- 10" overall length, 6" abrasive length
- Diamond abrasive 4 sides



## PLEXIGLASS DRILL BITS

**PART NO: TP967-1/8**

**PART NO: TP967-5/32**

**PART NO: TP967-3/16**

**PART NO: TP967-1/4**

- Fractional Straight Shank
- Specially designed for drilling plastics and laminates
- 60° point for quick penetration and reduced cracking



## HAND FABRIC SHEARS

**PART NO: TP612** Heavy duty, 10" OAL, 4 3/4" length of cut

**PART NO: TP613** Special cut, 7" OAL, 1 1/2" length of cut

These hand shears are intended for use in cutting composite fabric and thin cured laminates. Each tool's cutting surfaces are P.B.S. diamond bonded to prolong blade cutting edges over traditional fabric shears.

- 10 micron diamond
- Forged steel construction



## US INDUSTRIAL CAM-LOC PLIER PART NO: TP786

- .25 lb.
- Ergonomic design
  - Molded polyurethane hand grips
  - High quality plier designed specifically for stud series 2600, 2700 and 4002
  - Manufactured in the U.S.A. by U.S. Industrial Tool



## DUCKBILL PLIERS PART NO: TP227G

- .25 lb.
- By Proto
  - Versatile for all types of work
  - Diamond knurled teeth for positive gripping
  - 1-9/16" long nose
  - 7-13/16" length
  - Plastisol dipped handles



## WISS PINKING SHEARS PART NO: TP631

- Leather belt sheath for shear - not shown  
.63 lb.
- To prevent material from unraveling
  - Industrial quality - Drop forged construction
  - 9" long - 3 1/4" effective blade length



## AN BOLT GAUGE PART NO: TP789

- Sizes all bolts, up 5/8" diameter and 5" length
- Heavy gauge steel for long life
- 5-1/2" wide x 6" high
- Complete instructions and helpful bolt identification data on reverse side



## CIRCULAR SHEET METAL & WIRE GAUGES PART NO: TP597A

American standard and B&S gauge for measuring wire diameter, and non-ferrous sheets, with copper, aluminum, brass, etc.)

## PART NO: TP597B

- U.S. standard gauge, for measuring steel and iron plate
- Made of heavy gauge steel, satin-chrome finish
  - Front face shows gauge sizes, back shows decimal equivalents



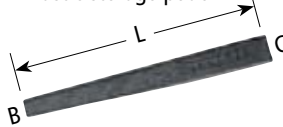
## MICRO PICK SET PART NO: TP607

- 5 pieces - 1 each: 45°, hook, bayonet, straight and double angle picks
  - Vinyl storage pouch
- Ideal for soldering, gluing, positioning, adjusting and retrieving small parts. Separates chips, scraps and scribes molds, dies, etc. Needle tips made of stainless steel.



## SCREW EXTRACTOR SET PART NO: TP9500A

- 6 pieces
- Contains one (1) item each
- Plastic storage pouch



USS	ID	B	C	L
1/4", 5/16" 3/8"	1/8" --	1/8" 11/64"	3/16" 3/16"	2-5/16" 2-5/8"
7/16" 1/2", 9/16" 5/8"	1/8" 1/4" 3/8"	13/64" 19/64" 11/32"	1/4" 5/16" 3/8"	2-7/8" 3" 3-1/4"

## RATCHET LESS WRENCH

PART NO: TP826 3/8" drive wrench

PART NO: TP827 1/4" drive wrench

This ratchet is great to use in confined areas. It's designed to "get a bite" every time. There is no neutral area or play between motions.

- Manufactured by Radian
- Comes in 3/8" or 1/4" sizes
- Professional mechanics quality
- Lifetime warranty
- Can be used with all standard attachments
- Attachments not included



## BRISTOL-TYPE SCREWDRIVER SET PART NO: TP321

- 1 lb.
- 9 Bristol-type fluted blades, plus a full size handle
  - Blade sizes: .048 6 flute, .060 6 flute, .069 4 flute, .072 6 flute, .076 4 flute, .096 6 flute, .111 6 flute, .145 6 flute and .183 6 flute
  - Packaged in handy roll-up pouch



## SPRING SCALES PART NO: TP319

- 0-50 lbs. in 1 lb. markings
- PART NO: TP319A  
0-100 lbs. in 1 lb. markings
- PART NO: TP320  
0-300 lbs. in 5 lb. markings

- Used for balancing and rigging control surfaces as well as landing gear checks
- Dial recessed for protection
- Top and bottom hooks
- All metal case



## SIDEWINDER SPEED WRENCH

PART NO: TP623-3/8 Square drive

PART NO: TP624-1/2 Square drive

PART NO: TP625-1/4 Square drive

- Can be used as a standard ratchet or as a speed wrench
- Allows fast operation in restricted area
- One revolution of "T" handle equals 8 normal up and down movements of ratchet handle



## PART NO: TP963

This wrench set was formerly known as Bonney. Available from 3/4" to 1-1/2" with 30° offset.



## JEWELERS SCREWDRIVER KIT PART NO: TP344

- Knurled chrome plated handles
- Blades hardened and tempered with black parkenized finish

This 12 piece kit includes:

- Phillips screwdrivers, size: 1, 0, 00
- Slotted screwdrivers, size: 1/32", 3/64", 1/64", 5/64", 3/32"
- 5 hex wrenches, size: 5/32", 1/8", 7/64", 3/32", 5/64"
- 1 awl
- 1 magnetic pickup
- 1 handy storage case



## GASKET PUNCH SET

### PART NO: TP460

- Compact and economical set for punching holes in soft materials and leather
- Set of 10 punches - one each: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4", 7/8" and 1" with driving mandrel
- Molded plastic case



## EASY GRIP ROLLER

**PART NO: TP262A** 5/16 ID x 1 1/4" OD x 3" long

**PART NO: TP262AR**

**PART NO: TP262B** 5/16 ID x 1 1/4" OD x 4" long

**PART NO: TP262BR** Replacement Roller

.37 lb.

- Rubber is highly dense and medium soft (50 Durometer), free revolving on tubular bearing
- Heavy duty black plastic handle with brass insert



## HELICOIL REPAIR KIT

**PART NO: TP959** 14mm style

**PART NO: TP960** 18mm style

Helicoil complete spark plug repair kit.

Each kit includes:

- 5 different length inserts (6 pieces of each)
- Tap
- Installation tool



## FLEXIBLE STEEL RULES

- Accuracy meets federal specifications
- Micro-fine graduations
- Made of tool steel
- Satin chrome finish, no glare



PART NO.	SIZE (LENGTH)	WIDTH	THICKNESS	GRADUATION
TP604A	6"	1/2"	.015	32nds, 64ths, 10ths, 100ths
TP604B	12"	1/2"	.015	32nds, 64ths, 10ths, 100ths
TP604C	24"	3/4"	.020	32nds, 64ths, 10ths, 100ths
TP604D	6"/150mm	1/2"	.015	10ths, 100ths, 1/2mm, 1mm
TP604E	12"/300mm	1/2"	.015	10ths, 100ths, 1/2mm, 1mm
TP604F	24"/600mm	1/2"	.020	10ths, 100ths, 1/2mm, 1mm

## HOOK SCRIBER

### PART NO: TPA5588

- Fine quality hardened steel points
- Knurled handle
- Chrome finished



## CARBIDE METAL SCRIBER

### PART NO: TP603

### PART NO: TP603A

Replacement carbide tip assembly - not shown

- Pocket scriber with adjustable carbide tip assembly for easy resharpening or replacement
- Fitted with pocket clip - tip automatically retractable
- Carbide tip 1/16" diameter
- 6-1/2" length



## STRAIGHT EDGE SCRIBE

### PART NO: TP817

With this unique tool you can quickly and accurately scribe sheet metal and plastics without measuring. Simply determine the distance required and draw the scribe along the edge. Very simple to use and extremely accurate.

- Scribes edges 1/8", 3/16", 5-16", 3/8", 1/2", 5/8" & 3/4".
- Magnetic back attaches to tool box
- Hole for hanging



## 3 STEP TAP

### PART NO: TP231

**PART NO: TP231R** Replacement tap only

.19 lbs.

- Ideal for retapping stripped threads
- Taps 3 thread sizes: 6-32, 8-32 and 10-32



## HELI-COIL SERRATED SPARK PLUG INSERTS

### PART NO: TP492

18-1.50mm x 1/2" plug length

### PART NO: TP493

18-1.50mm x 9/16" plug length

**PART NO: TP494** 18mm piloted tap

- Manufactured from 18-8 round stainless wire
- Eliminate thread failure due to stripping, vibration, fatigue
- Increased tapped thread strength

### Special note:

Repairs to damaged spark plug parts on aircraft engines should be made in accordance with the Manufacturer's Service Bulletin for each specific engine.



## FLEXIBLE SPRING CLAW PART NO: TP195

.31 lb.  
• Release plunger - claws retract  
• Grips tight & sure  
This bright plated steel spring reaches into otherwise inac awkward plac equipped with an arm spring claw.



## ELECTRICAL CONNECTOR PLIERS PART NO: TP345 PART NO: TP345A

Replacement plastic inserts, pair .75 lb.  
• Designed for installation and removal of electrical connectors  
• Manufactured of non-sparking steel alloy  
• Removable plastic inserts  
• Adjustable from 3/4" diameter to 2-1/2" diameter



## TELESCOPING INSPECTION MIRRORS

• Copper backed clear view mirrors  
• Double ball joints allow 360° viewing  
• Plastic grip handles

### PART NO: TP887

Oval Telescoping mirror 1" X 2" Extends to 19-1/2" and closes to 4-1/2" pocket clip.



### PART NO: TP888

Circular Telescoping mirror 1-1/4" diameter. Extends to 18-1/2", closes to 4-1/2" pocket clip



### PART NO: TP889

Circular Telescoping mirror 7/8" diameter. Extends to 18" and closes to 4-1/2" pocket clip



## TELESCOPING MIRRORS PART NO: TP193

Rectangular, 2-1/8" x 3-1/2" mirror size  
**PART NO: TP192**  
Round, 2-1/4" diameter, not shown .38 lb.  
• 11-1/4" length extends to 15-1/4"



## SWAGE SLEEVE GAUGE PART NO: TP353

Gauges the following size swages: 1/32", 3/64", 1/16", 3/32", 1/8", 5/32" and 3/16"



## CABLE SWAGING TOOL PART NO: TP64

1 lb.  
Small, light weight and easy to use makes the TP64 one of our most popular tools. This tool clamps nicopress sleeves 1/16", 3/32" and 1/8". It can be held in your hand or clamped in a vice and operated by a hand wrench or impact. It is small enough to accomplish many rigging jobs right on the aircraft or boat that are not accessible to larger tools.  
• 1/2" x 1" x 7" overall size



## CABLE SWAGING KIT PART NO: TP64K

1.75 lbs.  
• (TP64) swaging tool for 1/16", 3/32", 1/8" cable  
• (TP64A) 4 ea. 1/16" stainless thimbles  
• (TP64B) 8 ea. 3/32" or 1/8" stainless thimbles  
• (TP64C) 4 ea. 1/16" sleeves  
• (TP64D) 4 ea. 3/32" sleeves  
• (TP64E) 4 ea. 1/8" sleeves  
• (TP353) swage sleeve gauge  
• (TP64X) storage case



## REPLACEMENT THIMBLES & SLEEVES PART NO: TP64A PART NO: TP64B PART NO: TP64C PART NO: TP64D PART NO: TP64E

## HAND SWAGER PART NO: TP228

6.5 lbs.  
• Swages 1/16", 3/32", 1/8", 5/32", and 3/16" oval and stop sleeves  
• 26" length



## FLARING TOOL PART NO: TP138 PART NO: TP138C Replacement cone

2.8 lbs.  
• Faceted, hard chrome finished cone  
• Rolls out perfect 37° flares above die block  
• Automatically burnishes flare face  
• Original wall thickness is maintained at base of flare  
• Flare sizes: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" & 3/4"  
• Use on aluminum, brass or copper tubing (Not for use on steel)



## TUBING CUTTER PART NO: TP579

.25 lb.  
• 1/8" to 1-1/8" capacity  
• Cuts copper, aluminum, steel, brass & plastic  
• Two rollers provide burr-free square cut



## FLEX MAGIMMICK PART NO: TP196 Telescopic, .31 lbs. PART NO: TP197 Spring

• Flexible tempered steel shaft  
• Probes easily into most remote areas for ferrous metal objects  
• High power permanent magnet provides lifetime pulling power  
• 17-1/2" length



A variety of safety wire twisters are available either separately or in kits. Our U.S. Industrial brand is manufactured overseas to our own specifications and subject to our quality control inspections and approval. Standard twisters are available in 9" manual return, bearing return and spring or automatic return. A 6" automatic return twister is also available for close quarter work. These tools are commonly used for safetying nuts, bolts, electrical connectors and oil filters. Simply clamp to the wire and pull the knob and the plier spins the wire. Very fast and easy to use.

## AUTOMATIC SAFETY WIRE TWISTERS

### PART NO: TP68SR

- 9" overall length
- Automatic (spring return)
- "Three-in-one" tool: plier, twister & cutter
- Use on wire .060 or less



## MINI SAFETY WIRE TWISTERS

### PART NO: TP68SR-6

- Wt. .56 lb.
- 6" O.A.L.
- Spring return
- "Three-in-one" tool: plier, twister & cutter
- Use on wire .041 or less



## ROBINSON SAFETY WIRE TWISTER

### PART NO: TP68R

- 1 lb.
- 9" Long
- "Three-in-one" tool: plier, twister & cutter
- Manual return
- Top of the line quality
- Made in the U.S.A.



## E.Z. SAFETY WIRE TWISTERS

### PART NO: TP277

- 6" O.A.L.

### PART NO: TP277A

- 18" O.A.L. standard duty
- Makes fast, neat twists in tight or hard to reach places
- One hand operation
- Use on wire to .060 diameter



## SAFETY WIRE TWISTER KITS

### PART NO: TP68K (Pictured)

- Kit contains:
- Wt. 5.8 lbs.
- TP68SR wire twister
- TP277 handy twister
- 3 rolls of safety wire: 1 each .020, .032 & .041
- Handy carrying case

### PART NO: TP68DLX

- Kit contains:
- Wt. 6 lbs
- TP68SR spring return wire twister
- TP68SR-6 automatic wire twister
- TP277 handy twister
- 3 rolls of safety wire: 1 each .020, .032 & .041
- Handy carrying case



## AIRCRAFT SAFETY WIRE

### PART NO: TP65 .032 diameter

### PART NO: TP66 .041 diameter

### PART NO: TP67 .020 diameter

- 1 lb. spool
- 302 MS - 20995-C stainless steel wire
- Conforms to Mil Spec W6713



## TUBING CUTTER PART NO: TP155

- 1 oz.
- Easy-to-use mini-cutter
  - Nylon construction
  - Easy operation and long tool life
  - Usable in tight places
  - For all types of metal tubing
  - Handles smallest tubing to 5/8" O.D.
  - Completely non-corrosive



## CABLE CUTTER PART NO: TP63

- 1 lb.
- Plastic coated grips
  - 3/16" diameter and smaller cable
  - 8" length

These powerful cutters have unique triangular jaws that cut clean and never fray ends on cables.



## "EZ - BEADER" TUBING BEADER

- PART NO: TP885A** 3/8" tube O.D.  
**PART NO: TP885B** 1/2" tube O.D.  
**PART NO: TP885C** 5/8" tube O.D.  
**PART NO: TP885D** 3/4" tube O.D.  
**PART NO: TP885F** 1" tube O.D.  
**PART NO: TP885G** 1-1/4" tube O.D.  
**PART NO: TP885H** 1-1/2" tube O.D.  
**PART NO: TP885I** 1-3/4" tube O.D.  
**PART NO: TP885J** 2" tube O.D.  
**PART NO: TP885K** Includes TP885A-TP885D  
**PART NO: TP885K9**

10 pc. kit of all sizes (TP885A-TP885J) in storage pouch.

- Designed to replace the original Parker beading tools.
- Compact Design
  - Capable of tubing wall thickness from .035 to .065 thick.



## TOOL POUCH PART NO: TP279

- .94 lb.
- Featuring extra-heavy duty nylon construction with a sewn-in rigid bottom and industrial grade zipper
- Military type
  - 8 inner, 6 outer pockets with Sure Locks
  - Oil and chemical resistant
  - Convenient tote handles
  - 12" L x 6" W x 7" D
  - Tools not included



## SIPHON SPRAY GUN PART NO: TP702

- .94 lb.
- Designed for spraying solvents, soaps, etc.
  - 8' clear plastic suction tubing
  - 6" nose extension
  - Pistol grip style



## MINI-SAW PART NO: TP146

This slim profile mini-saw is ideal for working in very confined areas and for flush cutting at any angle.

- .31 lb.
- Easy-to-use
  - For jobs hack saws cannot do
  - Uses all standard lengths of blades
  - Uses other types of 1/2" saw blades
  - Finger locking screw for easy blade changing
  - Nickel plated steel construction
  - Non-slip vinyl cushion grip



## ALL PURPOSE CRIMPING, STRIPPING AND CUTTING TOOL PART NO: TP913

Crimps insulated and non-insulated terminals, lugs, and splices. Cuts wire, strips wire, cuts bolts, and crimps.

- D4TO 10 AWG Wire Sizes
- Plastic covered handles
- 8 1/2" O.A.L.



## AUTOMATIC WIRE STRIPPER PART NO: TP305

1 lb.

- Strips wire and cable
- Fast and economical
- Holding jaws grip wire until handles are released
- 22 to 8 gauge solid or stranded wire
- Single squeeze action strips and removes insulation up to 7/8" length



## AUTOMATIC WIRE STRIPPER PART NO: TP305A

Speed-O-Matic wire stripper good for all your avionic needs.

- 14 gauge through 30 gauge



## 2 IN 1 WIRE STRIPPER PART NO: TP988

- Cuts at one end and strips at the other
- Handles copper (electronic) wire from a 26AWG to 14AWG
- The stripper self adjusts to the proper wire gauge
- Stainless steel, induction hardened jaws cut flush



## ISO-TIP CORDLESS SOLDERING TOOL KIT PART NO: TP7700

**PART NO: TP7700B** Set of 2 Replacement Batteries

- Recharges in 3 to 4-1/2 hours (cannot overcharge)
- Long lasting nickel cadmium battery
- Makes up to 125 electronic joints when unit is fully charged.
- 50 watts tip performance
- Over 700° F tip temperature
- 5 - 10 seconds average soldering time
- 120V recharging stand
- 1 (ea.) TP7546 tip
- 1 (ea.) TP7545 tip



## DESOLDERING TOOL PART NO: TP369 PART NO: TP7456

Replacement nozzles - set of three

- 14mm long nozzle with 3mm diameter tip
- 13-1/2" long

Push down the spring loaded plunger, touch nozzle tip to unwanted solder, press the button and the solder disappears up the chamber barrel. Double-action design has plunger return to position after cocking, so there is no recoil upon releasing. Precision plunger and chamber fit maintains high vacuum.



## FRACTURE RESISTANT FASTENER ORGANIZER PART NO: TP840

.99 lbs.

Handy fastener organizer that allows the storage of rivets, screws, plate nuts, pins, etc. Provides quick access and easy selection of hardware right at your work site. Spring loaded doors on each compartment insure that the fasteners will stay stored and will stop unwanted spills if knocked over.

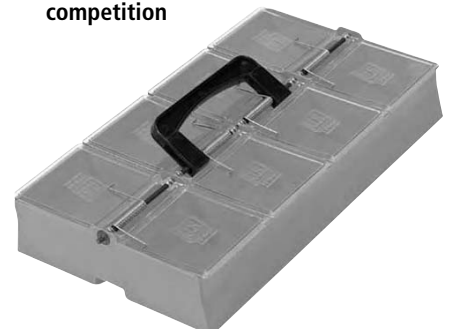
- 7" X 12" X 2" (Units are stackable).
- 8 compartments 3" wide X 2-7/8" length X 1-3/4" deep
- **ABS plastic construction**
- Drop away handle for ease of carrying and storing

Accessories at additional cost:

## DIVIDER TRAY PART NO: TP840-2

Divide each compartment in half with a simple slide-in insert.

**Tougher than the competition**



## MASTER HEAT GUN

**PART NO: HG501A** 500° - 750° F Heat Range - 14 Amps

**PART NO: HG751B** 750° - 1000° F Heat Range - 14.5 Amps

3.5 lbs.

- For industrial use in shrink tubing, de-solder, activate adhesives, remove paint, etc.
- Sturdy die-cast aluminum housing
- Adjustable air intake controls
- Non-slip rubber backed base permits full 90° rotation of heat gun for use in any position
- 120 Volts - 60 Hz - Voltage requirement

## ATTACHMENT & REPLACEMENT HEATING ELEMENTS

**PART NO: A160HG** Shrink tubing attachment for up to 3/4" O.D.

**PART NO: A170HG** Shrink tubing attachment for 3/4" to 2" O.D.

**PART NO: 51024** Shrink packaging attachment 8" wide, not recommended for HG751

**PART NO: 51309** 1/4" Pin Point Attachment, not recommended for HG751

**PART NO: 51013** Molded carrying case - Not shown, for HG501 only

**PART NO: HAS011K** Replacement heating element HG501 - Not shown

**PART NO: HAS043K** Replacement heating element HG751 - Not shown



AH170HG



AH160HG

## NYLON TIE TIGHTENING TOOL

**PART NO: TP961**

Grips nylon cable ties and tightens with secure grip. Also cuts excess with thumb lever.



## NYLON TIES

**PART NO: TP961A**

- 4"
- Pack of 100
- 18# tensile strength
- Made in the U.S.A.

**PART NO: TP961B**

- 7"
- Pack of 100
- 50# tensile strength
- Made in the U.S.A.



## MICROMETER ELECTRONIC / DIGITAL

- PART NO: TP895E**
- .0-1" capacity
  - .0001"/.001mm accuracy
  - Carbide Faces
  - Ratchet stop
  - Case included
- Made In China



## PRECISION MICROMETERS

**PART NO: TP212** 0-1" Capacity, .31 lbs.

**PART NO: TP213** 1-2" Capacity, .38 lbs.

**PART NO: TP214** 2-3" Capacity, .5 lbs.

- Friction stop
- Satin finish
- Guaranteed accuracy to .001

Ideal for general hobbyists, automotive and aircraft use. Made of the finest castings with machine cut graduations.



## DELUXE MICROMETER SET

**PART NO: TP935** 6 Pc. Micrometer Set

- .001 Guaranteed Accuracy

### KIT CONTENTS:

- 1 Piece 0 - 1" Micrometer
- 1 Piece 1 - 2" Micrometer
- 1 Piece 2 - 3" Micrometer
- 1 Piece 3 - 4" Micrometer
- 1 Piece 4 - 5" Micrometer
- 1 Piece 5 - 6" Micrometer
- 1 Wooden Box



## PRECISION MICROMETER KIT

**PART NO: TP509**

- Industrial quality, carbide-tipped faces; micro-lapped for high degree of flatness and parallelism
- Positive wear adjustable spindle lock
- Hammertone silver baked finish frame
- Guaranteed accuracy to .001"



### KIT CONTENTS:

- 1 piece 0"-1" micrometer
- 1 piece 1"-2" micrometer
- 1 piece 2"-3" micrometer
- Plastic molded storage case

## CYLINDER BORE GAUGE PART NO: TP137BK

- Accurately checks cylinder taper and out-of-round
- Self-centering mechanism
- 2-6" measuring range
- .0001 measuring graduation
- 9" length of arm
- 5 heads - 2 extensions included
- Fitted case



## CALIPERS

**PART NO: TP295** Outside spring  
Meets federal specifications - Type II & Class I

**PART NO: TP296** Inside spring  
Meets federal specifications - Type I & Class I

**PART NO: TP297** Spring divider  
Meets federal specifications - Type A & Class 2/ High carbon steel legs, heat treated

- Fully hardened and tempered joints, springs and washers
- Caliper ends fully rounded
- 6" maximum size



TP295



TP296



TP297

## FOWLER TOOL MAKER UNIVERSAL MEASURING KIT PART NO: TP396

### 4 PIECE SET INCLUDES:

- 1 "One-Rev" dial caliper reading .001" graduations - outside, inside and depth measurement
- 1 friction thimble micrometer 0" - 1" reading in .001" graduations
- 1-6" Flexible scale in the following graduations: 32nd, 64ths, 10ths and 100ths
- 1 molded plastic storage case



## COMBINATION SQUARE AND MITRE HEAD PART NO: TPA5589

- 12" rule: 1/8", 1/16" & 1/32" graduations
- Precision ground for accuracy
- Great for layout work



## THICKNESS GAUGE - POCKET TYPE PART NO: TP896

- 0-0.5" range
- 0.0005" resolution



## SCREW PITCH GAUGES PART NO: TP901

Blades allow measurement of both inside as well as outside threads

4 - 42 T.P.I. Range for Std. 60° thread

- 30 total blades



## CALIPER ELECTRONIC DIGIMATIC PART NO: TP903EL

- 6" - 150mm capacity
  - .0005" / 0.001 mm accuracy
  - Large LCD display with Imprinted line scale
  - Case included
- Made in China



## CALIPER MULTIFUNCTION DIGIMATIC PART NO: TP902EM

- 6" - 150MM capacity
  - .0005" / 0.001mm accuracy
  - Big LCD display
  - On / Off switch
  - No display of invalid zero
  - Movable minus point
  - Case included
  - Holds readings - capture minimum or maximum values
- Made in China



## CALIPER ELECTRONIC DIGIMATIC PART NO: TP903E

- 6" - 150 mm capacity
  - .0005" / 0.001 mm accuracy
  - Auto/off feature
  - LCD display with imprinted line scale
  - Case included
- Made in China



## CALIPER ELECTRONIC MULTIFUNCTION DIGIMATIC PART NO: TP902ET

- 6" - 150mm capacity
  - .0005" / 0.001 mm accuracy
  - Big LCD Display - on/off switch
  - No display of invalid zero
  - Presettable tolerance range for efficient out of tolerance control
  - Case included
- Made in China



## MONGOOSE FLEXIBLE FIBER OPTIC BOROSCOPE KIT PART NO: TP941

The Mongoose System is USA built with a 10,000 pixel imaging, 180 degree articulation, 50 degree field of view, steel coil shaft with water tight and chemical resistant sheathing. Focusing eye piece with 60X magnification, and a glass covered digital lens.

### Boroscope Specifications

- Shaft Diameter - 7.6 mm
- Flexible Length - 96 cm
- Minimum inside radius bend - 11.5 mm
- 2-way tip deflection - 180°
- Length of deflection - 75 mm
- Field of View - 50°
- Working Distance - 5 - 35 mm
- Fiber bundle Diameter - 0.58 mm
- Pixels -10,000
- Maximum Temperature 200°



### Several Options Available

- Remote 9" monitor
- CCD Camera System
- Color Printer

### Included in kit

- 7.6 mm Flexible Fiberoptic Boroscope
- 150 Watt Halogen light source
- 1.82 m light guide
- Durable storage case

## FLEXLITE BOROSCOPE INSPECTION KIT PART NO: TP263

3 lbs.

### KIT CONTAINS:

- Boroscope with straight-thru scan tube
- 45° scan tube
- 60° scan tube
- 3 cell flashlight
- Illuminated mirror
- 6X magnifier
- Focusing head
- 6" rigid extension
- Carrying case



This Boroscope is designed to provide accurate inspection of the interior of an aircraft engine } cylinder at a price affordable to everyone. The entire engine interior can be viewed by interchanging the three scan tubes. Built-in focusing range, for close inspection, provides up to 6X magnification. Also included are a rigid 6" cable extender and illuminated swivel mirror that fits over the focusing head sleeve, providing viewing in inaccessible areas. Illumination is provided with a 3-cell battery light giving a powerful single beam of light (or focuses to broad range).

## FLEXIBLE FIBER OPTIC SCOPE PART NO: TP905

Breakthrough in fiber optic technology provides a handy tool for diagnosis. The flexible cable fits into opening up to 1/2" diameter. Adjustable focus brings small objects in clear view.

- Omni-directional cable bends in every direction
- One-hand operation with pressure activated light switch
- Sealed lens and cable are submersible
- Replaceable batteries
- 18" Flexible cable length

### 45° ANGLE MIRROR ATTACHMENT

PART NO: TP905-45 (not shown)

- Adapts to TP905



## FLEXIBLE FIBER OPTIC BOROSCOPE PART NO: TP905-36 SD

Flexible fiber optic boroscope has a flexible, non-obedient cable, 36" long x .230 diameter. The powerful halogen bulb illuminates dark locations for sharp, clear viewing as close as 3/4". The uses are endless. Uses standard AA batteries (not included). Inquire about other models available.



## RAYTEK NON-CONTRACT INFRARED TEMPERATURE SENSOR

**PART NO: TP978A**  
**PART NO: TP978B**  
**PART NO: TP978C**

With their broader temperature range and improved optics for measuring temperatures from a greater distance, the ST Pro Series offers a combination of accuracy and value. Each unit includes a rugged rubber overlay and a durable storage case.



PART NO.	TEMP.	SENSING DISTANCE	ACCURACY
TP978A	-25°-750°F	up to 6'	±1%
TP978B	-25°-950°F	up to 6'	±1%
TP978C	-25°-1100°F	up to 15'	±1%

## SMART TOOL MODULE

**PART NO: TP986**

The Smart Tool Sensor Module displays degrees, percent of slope and pitch to 1/10 of a degree. It also features an audio sound at level and plumb. This is an ideal tool for all types of construction.



## PROPELLER PROTRACTOR

**PART NO: TP273**

3.8 lbs.

This Universal propeller protractor is a device used to measure the propeller blade angle at a specific blade station and determine if the propeller is properly adjusted. The blade angle is referenced from the propeller plane of rotation, which is 90° to the crank shaft centerline. The frame of the protractor is made of aluminum and has three sides which are 90° to each other. A swing out level is located in the lower corner to assist in determining proper vertical line.



## AERO ANGLE DIGITAL PROTRACTOR

**PART NO: TP464**

- Multi functional digital level, protractor and inclinometer
- Instant LCD display of level, angle and tilt to highest accuracy, one tenth of a degree reading
- Operates on standard 9V alkaline battery for over 100 hours of operation - battery included
- Certs. by Metal Lab- San Jose, CA - 408-943-6600
- Made in U.S.A.

## SMART LEVEL

**PART NO: TP872**

A precise digital level for accurate angle readings.

- Accurate to .01 degree
- Reads angles in degrees, % of slope and pitch
- Shuts off automatically when not in use



### SPECIFICATIONS

Measuring range:	+/-45°
Resolution:	+/-1°
Accuracy: 0-10	+/-1°
10-45	+/-1-1/2% of reading
Zero repeatability:	+/-1°
Cross Axis error:	Less than 1% up to 45° cross angle
Setting time:	2 seconds
Operation temp. range:	32° to 150° F
Dimensions:	5.45" long; 3.21" high; 1.50" wide
Weight:	.77 lb.

## CABLE TENSIO METERS

### Accurate and Reliable...

There is no temperature error in these tensiometers. No preliminary adjustments on the instruments are necessary. These ruggedly constructed, durable instruments may be used continuously without resetting or checking. Extreme heat or bitter cold does not affect the accuracy of the indicator readings. One instrument is usable on many cable sizes with absolute accuracy.

### Compact Size...

The small size of these instruments permits entry through small openings, and permits accurate readings on cables located in confined areas difficult to reach.

### Easy to Use...

Testing cable tension can be done with one hand in a matter of seconds.

### Lightweight... Only 12 ounces!

PART NO.	FOR USE ON CABLE (INCHES)	RANGES IN. LBS.	READING INTERVAL (POUNDS)	RISER USED
TP222	1/16, 3/32, 1/8	10-100	5 (5-50)	#1
	5/32, 3/16	15-150	10 (50-150)	#2C
	7/32, 1/4	20-150	10 (50-150)	#3
TP222A	1/16, 3/32, 1/8,	30-200	10 (30-200)	#1
	5/32, 3/16	30-300	10 (30-200)	#2C
	7/32, 1/4	30-300	20 (30-300)	#3
TP222B	1/16	0-60	2 (6-22) 5(25-40) 10 (50-60)	#1 (fixed)
TP222C	1/8, 5/32	40-600	20 (40-600)	#2
	10, 15 Cwt	40-600	20 (40-600)	#2C
	3/16, 25 Cwt	40-600	20 (40-600)	#3
TP222D	1/4, 45 Cwt	40-600	20 (40-600)	#3
	3/16, 7/32, 1/4	100-800	50 (100-800)	#2C
TP222E	5/16	100-800	50(100-800)	#3A
	3/16	500-2000	50(300-2000)	#2
	7/32, 1/4	500-2000	50(300-2000)	#2C
TP222F	5-16	500-2000	50(300-2000)	#3A
	1/16, 3/32, 1/8	10-100	5 (10-50)	#1
	3, 5, 10 Cwt	10-150	5 (50-150)	#2C
	5/32, 3/16	10-150	5 (10-50)	#2C
	15, 25 Cwt	10-150	10 (50-150)	#3
TP222G	7/32, 1/4	10-150	5 (10-50)	#3
	35, 45 Cwt	10-150	10 (50-150)	#3
	1/16	10-300	5 (5-50)	#1
	3/32, 1/8	10-300	10 (60-100)	#2
TP222H	5/32, 3/16	10-300	20 (120-300)	#2C
	7/32, 1/4	10-300	20 (120-300)	#3A
	1/8, 5/32	40-600	20 (40-600)	#2
TP222I	3/16	40-600	20 (40-600)	#2C
	1/4	40-600	20 (40-600)	#3
	3/16, 7/32, 1/4	40-600	20 (40-600)	#2C
TP222J	5/16	40-600	50 (30-600)	#3A
	3/16	300-1600	50 (300-1600)	#2
	7/32, 1/4	300-1600	50 (300-1600)	#2C
	5/16	300-1600	50 (300-1600)	#3A

## TURNBUCKLE WRENCH

### PART NO: TP128

.38 lbs.

- Cable rigging tool
- Works on all sizes of aircraft cables and turnbuckles

Anchors cables to allow free adjustment of turnbuckles and makes turnbuckle adjustment a two-handed operation, as opposed to three-handed.



## CABLE TENSIO METER

**PART NO: TP222** 15-150 lbs. range

**PART NO: TP222A** 30-300 lbs. range .75 lbs.

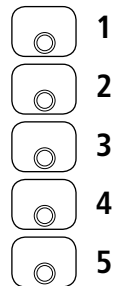
- Chart converting reading to pounds of tension enclosed

Flight control cables are an extremely important factor to safe flights as is the proper tension on these cables. The TP222 Tensiometer is our best tool for accurately measuring this tension. Two models are available. TP222 measures in a range from 15-150 lbs. and the TP222A measures from 30-300 lbs. Tension can be checked in cables 1/16", 1/8", 3/32", 3/16", 7/32" & 1/4" in diameter.



## RISER BLOCKS

	PART NO.	NUMBER
1	Riser #1	#1
2	Riser #2	#2
3	Riser #2C	#2C
4	Riser #3	#3
5	Riser #3A	#3A



AIRFRAME & POWER PLANT

## CABLE TENSIO METER

### PART NO: TP170

(10-70 lbs. tension range for 1/16", 1/8" and 3/32" cable)

### PART NO: TP170A

(50-350 lbs. tension range for 5/32" and 3/16" cable)  
2.3 lbs.

Small, light weight and easy to use, these cable tensiometers are designed to handle a variety of cable sizes.

- Calibration charge extra



CABLE ADJUSTMENT TOOLS

## SPARK PLUG CLEANER

**PART NO: TP12** 2.2 lbs.

**PART NO: TP163** Powder, 1.8 lbs.

**PART NO: TP164** Bag, .06 lbs.

- Cleans any size plug without changing grommet
- 2-way valve
- Complete with abrasive powder and bag



## MASTER FEELER BLADE SET

**PART NO: TP462**

- Contains 26 blades
- .0015" to .025" (.038 - .635mm)
- 3-5/16" x 1/2"



## CHAMPION RETRACTABLE GAP GAUGE

**PART NO: TP298**

.06 lb.

- High impact plastic case
- 4 sets Go & No Go wire gauges
- 2 sets .015 - .019/0.40 - 0.55mm
- 2 sets .018 - .022/0.45 - 0.55mm
- 3" length



## CHAMPION SPARK PLUG SOCKET

**PART NO: TP329**

- 1/2" Square drive x 7/8" hex - extra deep
- A "built-in" permanent magnet holds plug from dropping
- Especially designed for shielded aviation spark plugs



## SPARK PLUG SERVICE KIT

**PART NO: TP12K**

**KIT CONTENTS:**

- 1 TP12 cleaner
- 1 TP164 extra bag
- 1 TP163 extra powder
- 1 TP298 Go & No Go wire gauge
- 1 TP339 spark plug tray
- 1 TP340 gapper



## U.S. INDUSTRIAL SPARK PLUG GAPPER

**PART NO: TP340**

.38 lb.

- Designed for use on all massive electrode spark plugs
- Eliminates guessing of plug gap



## U.S. INDUSTRIAL SPARK PLUG VIBRATOR CLEANER

**PART NO: TP857A**

**PART NO: TP857-1**

Replacement Blades

Light weight - 1 lb.

Ideal tool for removing stubborn lead & carbon deposits around the electrodes, without damaging the plug.

- Hand held
- 120V - 60Hz power required
- Includes 2 replacement tips, collets, and storage pouch



## CHAMPION PLUG THREAD LUBRICANT

**PART NO: TP470**

- High temperature graphite lubricant
- Used to prevent galling and seizure of spark plug thread
- Sturdy plastic 4 oz. bottle, with brush attached to cap



## MAGNETO LOCK TOOL

**PART NO: TP259**

.06 lb.

- "E" gap timing aid for Bendix magnetos
- Locates and secures magneto position while out of engine
- Holds position during installation



## BUSHING AND BEARING DRIVER SETS

**PART NO: TP348**

22 pieces 3/8 to 1-3/8 ID range, wt. 5 lbs.

**PART NO: TP348A**

10 pieces 15/16 to 1-7/8 ID range, wt. 3.5 lbs.

- Remove or install internal bushings and bearings
- All parts are hardened and rustproof plated
- Handy storage case



## P-LEAD ADAPTERS FOR MAGNETO TIMING

**PART NO: TP917**

The P-Lead Adapter is unique in it allows connection to the magneto timer leads for all aircraft bendix magnetos. It provides immediate and positive connection and eliminates those old stripped bade P-Leads. It also insures the proper spring pressure against the intense contact.



## SPARKPLUG CLEANER/TESTER PART NO: TP237

This is a very good, yet relatively inexpensive, method for both cleaning and testing your spark plugs. Cleans with a powerful blast of air and abrasive to quickly remove the carbon deposits. Once cleaned, the plug is screwed into the test side of the unit and by observing the quality of the spark at the electrode you can determine the effectiveness of the plug. This test is done using up to 150psi air pressure. Supplied with a 12mm, 14mm and 18mm threaded adapter.

- Operates on 115 volts
- 19"x11"x10"
- 20.5 lbs.



## SPARK PLUG TRAY PART NO: TP339

- 1 lb.
- Sturdy steel tray holds up to 12 aviation spark plugs
  - Holes numbered to correspond with engine cylinders



## SPARK PLUG GAP SETTING TOOL PART NO: TP200

1 lb.  
Designed for use as a hand tool, for mounting on a bench or to be held in a vise.

- Low cost efficient gap setting tool
- Closes gaps on massive electrode type aviation spark plugs
- Complete with two adapters for 18mm spark plugs and one gap gauge (TP298)
- Includes storage pouch



## SPARK PLUG HOLE THREAD CHASER PART NO: TP784

- Fits 14mm - 18mm holes
- Renews damaged threads, removes carbon and corrosion with a few turns
- Allows firm seating of plugs and assures metal to metal contact for effective heat transfer
- Long 13/16" hex design prevents wobble
- Neoprene ring holds chaser snugly in socket
- Heat treated steel



## ECONOMY SPARK PLUG HOLDER PART NO: TP797

- 3 lbs.
- Manufactured from 100% recycled plastic
  - Impervious to water, chemicals & solvents that could be associated with the cleaning of spark plugs.
  - 9" long x 4" wide x 4" high
  - Each tray holds 12 plugs and each hole is labeled for easy identification
  - Made in the U.S.A.



## CHAMPION AVIATION SPARK PLUG CLEANER & TESTER PART NO: TP338

- 15 lbs.
- Designed to clean and test all massive and fine wire plugs
  - (2) flexible rubber adapters for 14 & 18 mm plugs
  - Steel adapter for 14 & 18 mm are standard and conveniently stored on the top of the cleaner
  - 115/230 volt, 50-60 HZ, 35 watt power requirement



## FLARING TOOL FOR PUSH ROD HOUSING PART NO: TP385

- For A & C series - expanding ball type tool
- Balls rotate inside housing, expanding it into aluminum box



## OIL FILTER DRAIN KIT

### PART NO: TP433

Usable on any horizontal mounted oil filter. Allows you to drain oil from filter prior to removal. No spills or additional mess to clean up.



## AIRWOLF OIL FILTER CUTTER

### PART NO: TP876

### PART NO: TP876-1

Replacement Cutter Wheel

The new Airwolf Oil Filter Cutter is constructed of tough 6061-76 anodized aluminum and stainless steel rollers for easy rotation. The razor sharp cutting wheel is easily replaced when or if needed. This rugged and easy to use tool is a great addition to any mechanics tool box.



## DIAL INDICATOR TORQUE WRENCHES

- Easily calibrated
- Follow-up needle allows quick and easy verification of actual torque value applied
- 20% overload factor built into all dial wrenches, without losing calibration
- Chrome plated
- Accurate in both right- and left-hand directions.

Dial indicator torque wrenches are a state-of-the-art tool. Torque beam design provides long life and accuracy. These wrenches meet or exceed the requirements of Spec. GGG-W-686C. Additional Certification Charge (Please Specify when ordering).



PART NO.	TORQUE RANGE IN LBS.	ADJUST IN INCREMENTS OF...	SQ. DR. SIZE	LENGTH	WEIGHT
TP349	0-250	5 in. lbs.	3/8"	10"	1.0 lbs.
TP349A	0-600	10 in. lb.	3/8"	14-7/8"	1.7 lbs.
TP350	0-250	5 ft. lbs.	1/2"	21-1/2"	2.7 lbs.

## CHAMPION OIL FILTER CUTTER

### PART NO: TP271

### PART NO: TP271-7

Replacement Cutter Wheel  
1 lb.

This is a very high quality tool designed to quickly and easily open your aircraft oil filters for inspection. It comes with an 18mm adapter which allows you to install it onto your filter. Once on, the tool rotates around the filter and the cutting wheel cuts a burr-free edge allowing you to remove the end of the filter and access to the filter element.



## CHAMPION LEAD-MASTER WRENCHES

### PART NO: TP644 3/4"/1.9 cm

### PART NO: TP645 7/8"/2.2 cm

.25 lb.

- Reduce time to remove and install spark plug ignition leads
- Permits short arc turning with 12 point grip head
- T-handle design
- Open box wrench



## OIL FILTER CUTTER

### PART NO: TP881

### PART NO: TP881A

Replacement wheel

This new, low cost unit is very quick and easy to use - simply attach the tool to the top of the filter and rotate. In just a couple of turns, the can is cut and the filter element can be removed for inspection.

- Made of anodized 6061 aluminum
- Cutter wheel is easily replaced when required



## CYLINDER BASE NUT WRENCHES

- PART NO: TP2882** 9/16" hex
- PART NO: TP2882-2** 1/2" hex
- PART NO: TP2882-3** 5/8" hex
- PART NO: TP2882-4** 3/4" hex
- PART NO: TP2882K4** set of 4 .88 lb. each

Designed with a 1/2" square drive, these rugged hex head cylinder base wrenches are made to last. The hex heads are extra thin for easy access over the cylinder bolts. They are available individually or as a complete 4-piece set. A few of the engines and required size wrenches are in chart on right.

- For continental engines
- 12 point hex wrench end
- Made from alloy steel forgings, heat-treated for maximum strength and toughness



ENGINE TYPE	WRENCH
A40, A50, A75, A80	1/2" - 9/16"
O200, C75, C85, C90	1/2" - 9/16"
O300, C125, C145	1/2" - 9/16"
I0360	1/2" - 9/16"
E165- E185, E225	1/2" - 9/16"
520 & 470, I0320 series	5/8" - 9/16"

Hex LH & RH Std. Type

## LYCOMING VALVE SPRING COMPRESSOR

### PART NO: TP687

- Fits all lycoming parallel valve and angle valve, horizontally opposed engines
- Lightweight aluminum construction
- Fits on rocker shaft



## VALVE SPRING COMPRESSOR

### PART NO: TP227

- 2.81 lbs.
- Fits all continental and lycoming engines
- Small case, easy to use - the hook installs on rocker shaft (or on special rocker nut furnished) and c-shaped collar compresses spring to allow keeper removal
- All stress parts heat-treated
- 18" long handle



## PISTON RING COMPRESSORS

Flexible Band Type

### PART NO: TP849

For 3-7/8" and 4-1/16" bore engines (A40, A50, A65, A75, A80, O-200, C75, C85, C90, O-300, C125, and C145)

### PART NO: TP850

For 5" and 5-1/4" bore engines (E165, E185, E225, 470 series and 520 series)



## PROPELLER SHAFT OIL SEAL INSTALLER

### PART NO: TP398

- Fits both continental and lycoming engines
- For all flanged shafts
- Installs one piece stretch seals without damaging sealing surfaces



## CYLINDER BASE NUT WRENCHES

### PART NO: TP6494-2

### PART NO: TP6494-3

### PART NO: TP6494K

- set of 2 1.44 lbs. each
- For lycoming engines (narrow deck)
- For socket type nuts (internal wrenching)
- Standard 1/2" square female drive end
- Made from alloy steel forgings, heat-treated for maximum toughness



## HOSE ASSEMBLY TOOL

### PART NO: TP491-3

Use on MS24587-3 & MS27404-3D fittings

### PART NO: TP491-4

Use on MS24587-4 & MS27404-4D fittings

### PART NO: TP491-5

Use on MS24587-5 fittings

### PART NO: TP491-6

Use on MS24587-6 & MS27404-5D fittings

### PART NO: TP491-8

Use on MS24587-8 & MS27404-8D fittings

### PART NO: TP491-10

Use on MS24587-8 & MS27404-10D fittings

.25 lb. each

- Hardened steel for long life
- Tapered nose on mandrel for easy insertion

### TP491K

Set of 5  
These are hand assembly tools for use on MS24587 and MS27404AN flared fittings. Use of the correct tool will reduce damage to the inner sleeve and speed assembly time.

## PUSH ROD SPRING COMPRESSOR

### PART NO: TP384

For compressing and holding push rod springs on all engines with spring-loaded tubes. The tool compresses the spring which can then be removed with furnished clips. Eliminates wiring springs together - to install, simply insert spring and pull off clip.



## TIRE BEAD BREAKER PART NO: TP310TB

31 lbs.

- Simple to operate
- Handle tires up to 10" from outside rim and 14" wide
- Ideal for both tube and tubeless tires



## AIRCRAFT TIRE AND STRUT GAUGES

### PART NO: TP377

6-160 PSI Range - 5 PSI increments

### PART NO: TP377A

0-300 PSI Range - 5 PSI increments

### PART NO: TP377B

100-3,000 PSI Range - 100 PSI increments (for checking and servicing aircraft struts only)

- Dual range master gauge
- Swivel angle chuck
- Button valve to bleed off excess pressure - (TP377B Only)
- Has recalibrating screw for adjustments
- Dual calibrations - PSI in black, KPA in red



## HIGH PRESSURE INFLATING CONNECTOR PART NO: TP506

**PART NO: TP506S** Replacement Seal .13 lb.

- .305 - 32" thread size with 1/8" NPT cable connection
- Allows strut inflation or deflation without removing hose
- "T" handle depresses core pin when rotated
- Max. working pressure 3000 PSI



## OLEO STRUT PUMP PART NO: TP286

5.4 lbs.

- Up to 1,500 PSI output
- Operates on 50 to 150 PSI air pressure



## HIGH PRESSURE INFLATING CONNECTION PART NO: TP505

**PART NO: TP505S** Replacement Seal

- Fits .305-32" thread size with 1/8" NPT male connection
- Hard fiber sealing washer
- Maximum working pressure 3000 PSI



## TIRE VALVE REPAIR TOOL PART NO: TP463

.06 lb.

- Valve core remover
- Repairs both male & female valve core threads
- Convenient 4-in-1 construction



## PORTABLE AIR TANK PART NO: TP239

12 lbs.

- Pressure tested at 325 PSI
- Safety valve release
- Stainless steel air gauge
- Enamel finish
- 4' hose with chuck
- 7 gallon capacity
- 19" height
- 12" diameter



## AMMCO BRAKE BLEEDER PART NO: TP293

21 lbs.

- Diaphragm type
- Separates fluid from pressurized air
- Safety relief valve
- Equipped with swivel casters
- 4 gallon fluid reservoir
- 12' hose assembly
- Quick change and auto shutoff
- Dual scale pressure gauge 0-31 psi range
- Compatible with mil-spec. 5606 type fluid



## BRAKE BLEEDER TANK PART NO: TP458

- Fills and bleeds brakes in a single operation
- One gallon capacity with handle and dip stick
- Pressure release safety valve and pressure gauge
- 3" neoprene hose
- Compatible with MIL 5606
- Plastic tank



## SCHRADER VALVE EXTENSIONS METAL TYPE

**PART NO: TP507A** 3/4" length

**PART NO: TP507B** 1-1/4" length

## NYLON TYPE

**PART NO: TP507C** 3/4" length

**PART NO: TP507D** 1-1/4" length

- Extensions provide seal against contamination while extending valve mouth for convenient access.



## U.S. INDUSTRIAL DIFFERENTIAL CYLINDER TESTER

**PART NO: TP104**

**PART NO: TP104-9B** 14mm adapter w/ copper washer

**PART NO: TP104-9A** 18mm adapter w/ copper washer  
2 lbs.

Our Differential Cylinder Pressure Tester is a fast and accurate test to help determine worn or cracked rings, locate defective intake or exhaust valves, worn or stripped spark plug bushings or leaky head gaskets among others. This unit is the best on the market.

- Pre-calibrated
- .040 Orifice
- Re-Certification Calibration service available on all models
- Includes storage pouch

### MASTER ORIFICE TOOL

**PART NO: 646953A**

- Used to calibrate Differential Cylinder Tester

**#1 WORLDWIDE**  
Found in more mechanics' tool boxes than any other!



## HI-VOLTAGE CABLE TESTER

**PART NO: TP103**

1.3 lbs.

This unit operates off the aircraft power supply and provides a fast and accurate test of aircraft ignition cables.

- Accurate testing of aircraft ignition cables
- Simple 3 wire connection
- Press button and test is complete

**TP103E**

Made by Eastern Technology



## ENGINE TEST TOOL KIT

**PART NO: TP615**

16 lbs.

This small test kit is designed to allow the aircraft mechanic a convenient and economical way to purchase the basic small engine test equipment.

**This kit contains:**

- 1 TP104 cylinder pressure tester
- 1 TP105 magneto timing light
- 1 TP102 timing indicator
- 1 TP103 high voltage cable tester
- 1 TP216 tool box



## TIMING INDICATOR

**PART NO: TP102**

1.3 lbs.

This quality tool is supplied with an 18mm top dead center indicator for the #1 cylinder. The Timing Indicator attaches to most aircraft engines, equipped with propeller nose cones (spinners), by an elastic strap. They are very easy to use and are accurate to 1/2°.

- Aluminum unit designed to speed up progress of timing magnetos to engine

**PART NO: TP102E**

Made by Eastern Technology



## MAGNETO TIMING LIGHT

**PART NO: TP105**

1.75 lbs.

• Complete with batteries  
For internal timing and synchronizing of magnetos to the aircraft engines. Simply attach 3 clips to magnetos and adjust until both bright lights flash in synchrony and the buzzer changes pitch.

**PART NO: TP105E**

Made by Eastern Technology



## INDUCTOR DUAL MAGNETO TIMING LIGHT

**PART NO: TP300**

.62 lb.

- Timing indicators are light emitting diodes (L.E.D.)
- 3/4" x 3" x 5" compact size
- Requires (4) AA pen light batteries
- Unit will time dual or single magnetos in one step
- Anodized aluminum case

**PART NO: TP300B**

Same operation as the TP300, however the TP300B has a "four phase audio signal" (electronic tweeter) which eliminates the need to watch the lights while timing.

Note: These units ARE NOT designed for use with battery ignition systems.



## MAGNAFLUX ECONOMY SPOT CHECK KIT PART NO: TP269EK

### KIT CONTENTS:

- 1 can of penetrant
- 1 can of developer
- 2 cans of cleaner

This general purpose dye penetrant kit locates fatigue cracks in aircraft parts. Penetrant gives clean, vivid indications of surface flaws. Conforms to all mil. specs and is non-chlorinated.

Cannot ship via UPS Air. Haz-mat charge is \$15.00.



## MAGNAFLUX SPOT CHECK DYE PENETRANT TEST KIT

### KIT CONTENTS:

- 2 TP769P 16 oz. cans penetrant
- 2 TP769D 16 oz. cans developer
- 4 TP769C 16 oz. cans cleaner
- 1 brush
- 1 can lever
- 1 pack of wiping cloths
- 1 plastic carrying case

### Special Shipping Note:

General purpose kit for infrequent use. Reveals cracks and other surface irregularities in virtually any non-porous material. Vivid red color requires no ultraviolet light. Designed to also be used on special alloys like titanium and nickel. Non-chlorinated.  
Cannot ship via UPS Air.  
Haz-mat charge extra.

## PART NO: TP769 REPLACEMENT CHEMICALS

PART NO: TP769C Cleaner

PART NO: TP769D Developer - Spot Check

PART NO: TP769P

Penetrant - Spot Check

PART NO: TP770D

Developer - Zyglo

PART NO: TP770P

Penetrant - Zyglo

- 16 oz. spray cans
- Non-chlorinated

PART NO: TP770DD

Dry Developer

- 1 pt. can

Cannot ship via UPS Air.

Haz-mat charge extra.



## MAGNAFLUX ZYGLO DYE PENETRANT TEST KIT PART NO: TP270

### KIT CONTENTS:

- 2 TP770P 12 oz. cans penetrant
- 2 TP770D 12 oz. cans developer
- 1 TP770DD 1 pint dry developer
- 3 TP770C 12 oz. cans cleaner
- 1 ZB-100 black light in plastic storage case
- power requirement: 100 w, 115 v, 60hz
- 1 wire brush
- 1 can lever
- 1 pack of wiping cloths
- 1 plastic carrying case

General purpose Zyglo kit reveals cracks and other surface imperfections in virtually any non-porous material. Fluorescent penetrants provide maximum visibility. More sensitive than red dye penetrant. Materials approved to MIL-I-25135 Rev. E. Non-Halogenated.

Cannot ship via UPS Air. Haz-mat charge extra.



## PART NO: TP270R REFILL KIT

### KIT CONTENTS:

- 2 TP770P 12 oz. can penetrant
- 1 TP770DD 12 oz. can dry developer
- 2 TP770D 12 oz. can developer
- 3 TP770C 12 oz. can cleaner

Cannot ship via UPS Air. Haz-mat charge extra.

## MAULE FABRIC TESTER PART NO: TP180

1 lb.

- Thoroughly tests airplane fabrics to meet minimum FAA requirements
- Does not punch holes in fabric
- Accurately calibrates in one inch pounds



## SPOTCHECK JR. PART NO: TP880

Brand new from Magnaflux comes Spotcheck Jr. Although only 6-1/4" long and 2-1/8" wide, the Spotcheck Jr. holds everything needed to detect surface cracks in welds, castings, forgings and other important components. The mini aerosol cans include 2 each SKC-S Solvent Cleaner, and one each SKL-SP Spotcheck Red Die Penetrant and SKD-S2 Developer. The nozzles are safely covered when the unit is closed, preventing accidental spray.

Cannot ship via UPS Air. Haz-mat charge extra.



## LED EXTENSION LIGHT PART NO: TP99B

The unique design of a slim profile allows this light to fit into tight areas normally inaccessible to other lights. The 26 LEDs provide a super bright, high intensity light. The head swivels to provide light where you need it without struggling with a twisted cord. Supplied with a high-quality 18/2 SVT cord, and rubber handle with a commercial grade on/off switch. A protective guard keeps contaminants out of the switch.



## FLUORESCENT WORKLIGHT PART NO: TP99E

This worklight uses a 26 watt bulb for bright, clear illumination of your work or inspection area. The cord is a heavy duty 16/3 SJTW with a handle that has two tool outlets that are circuit-breaker protected with a reset button on the lighted switch. It also has a rotating hook for easy hanging and positioning, plus a double guard to protect against heat.



## STUBBY II COMBO LIGHT PART NO: TP99C

The Stubby II Combo LED light combines a rough service 13 watt fluorescent lamp, rated for 10,000 hours, plus 20 long-life LEDs in the end, which allow a direct beam of light for tight, confined areas. This light comes with a 18/3 SJTOW 25 ft. cord and a 2-way switch in the handle to control the fluorescent tube or the LED lamps.



## LITE CORD REEL PART NO: TP99F

This Lite Cord Reel comes with 50' of 16/3 cord and a patented 13 watt rough service lamp that is 10 times more impact resistant than any other brand. The handle has a tool outlet for power tools and the reel comes with a quick-release wall mounting bracket so you can use it as a stationary or portable reel.



## COMPACT WORKLIGHT PART NO: TP99D

A 20-ft., 18/2 SVT cord equips this outstanding light, while its bright, 13 watt fluorescent tube provides more than ample light for most inspections. The clear end cap also allows you to shine a direct light beam into tight areas or small holes. The lamp has a patented service light that is 10 times more impact-resistant than any others on the market.



## HALOGEN LIGHTS

The perfect solution when extra light is needed on the work site. Each fixture utilizes 500 watt halogen bulbs (inc.). All units have 18/3 SJTW power supply cords.

### 500 WATT PORTABLE WORKLIGHT PART NO: TP982

Insulated rubber grip handle and metal housing. Includes on/off switch and 5-foot 18/3 power cord.



### 1000 WATT TRIPOD WORKLIGHT PART NO: TP982A

Features 2 500W halogen lights. Pole extends 6 feet. Metal housing with 18/3 power cords.

### 500 WATT REPLACEMENT BULB PART NO: TP982B

## THE STUBBY EXTENSION LIGHT PART NO: TP99A

- Heavy duty
- Portable
- 2" diameter x 9-3/4" length
- Comes with on/off switch
- Fluorescent
- OSHA approved
- Durable and shatter resistant outer tube for long life
- 15 watt lamp
- 110 volt
- 25' cord



## EXTENSION LIGHT PART NO: TP99

- Comes with on/off switch
- Heavy duty
- Portable
- Fluorescent
- OSHA approved
- Rugged and safe
- Burns cool
- 15 watts
- 110 volts
- 25 ft. cord
- 2" diameter x 23"



## FLEXLITE PART NO: TP262

- Small & lightweight pocket design
- 5-1/2" L x 3/4" dia. battery
- Clips on pocket housing
- Aluminum case
- 5/8" head diameter
- Head in gold anodized finish
- Uses 2 "AA" cell batteries
- 6" flex shaft length (not included)



## INSTRUMENT TYPE FLASHLIGHTS

Finest made - machine tooled precision MAG LITES

**PART NO: TP335** 10-1/4" long

**PART NO: TP334** 5-3/4" long

- TP335 requires 2 "D" batteries (not included)
- Either light can be focused from soft flood spot with a simple turn
- Waterproof, made of aircraft grade aluminum
- Simple design and rugged construction
- "Mini" features 2200 peak beam candlepower - 60 to 70 times more powerful than any other (2 cell) "AA" battery flashlight



**PART NO: TP334B** Replacement bulb

## TELE-MULTI TOOL KIT PART NO: TP262K

Stainless steel telescopic shaft with brass quick change couplers. Contains 3 lb. and 10 lb. magnets, 2 mirrors, magnifier, telescopic handle and a flex shaft handle.



## BEND-A-LIGHT PART NO: TP310 PART NO: TP310K

(Includes: clip, magnet, magnet to replace light for dropped partpick-up, inspection mirror, vinyl storage pouch)

**PART NO: TP310L** Bulb only

- High intensity light beam produced through a flexible shaft
- 10" ultra slim shaft
- Fits in as small as a 1/4" opening
- Unbreakable PVC extension extends tool to 27" and doubles as a protective cover
- Requires 2 "AA" cell batteries (not included)
- 1/8" diameter



## RECHARGEABLE FLASHLIGHT PART NO: TP965

Bright, 15,000 candle power, halogen bulb gives hours of light. Small and lightweight. Complete with nicad battery and charger.



## ILLUMINATED MAGNIFIER PART NO: TP264

- 10X power magnifier
- Highest optical quality
- Good resolution
- Excellent illumination
- Battery case made of rust-proof brass
- Uses 2 "C" cell batteries (not included)
- Perfect inspection aid



Quick disconnect couplers offer a quick and efficient method of joining pneumatic lines. Our standard series couplers require two hand operation. Coupler sleeve must be retracted in order to insert or remove connector. These couplers interchange with a variety of other brands of industry couplers meeting type #15/58/12 specifications.

## SOCKET MALE PIPE THREAD COUPLER



PART NO.	DESCRIPTION
D321	1/4" Series, 1/8" M.P.T. Pipe Thrd.
D341	1/4" Series, 1/4" M.P.T. Pipe Thrd.
D361	1/4" Series, 3/8" M.P.T. Pipe Thrd.
D441	3/8" Series, 1/4" M.P.T. Pipe Thrd.
D461	3/8" Series, 3/8" M.P.T. Pipe Thrd.
D481	3/8" Series, 1/2" M.P.T. Pipe Thrd.
D561	1/2" Series, 3/8" M.P.T. Pipe Thrd.
D581	1/2" Series, 1/2" M.P.T. Pipe Thrd.

## SOCKET FEMALE PIPE THREAD COUPLER



PART NO.	DESCRIPTION
D320	1/4" Series, 1/8" F.P.T. Pipe Thrd.
D340	1/4" Series, 1/4" F.P.T. Pipe Thrd.
D360	1/4" Series, 3/8" F.P.T. Pipe Thrd.
D440	3/8" Series, 1/4" F.P.T. Pipe Thrd.
D460	3/8" Series, 3/8" F.P.T. Pipe Thrd.
D480	3/8" Series, 1/2" F.P.T. Pipe Thrd.
D560	1/2" Series, 3/8" F.P.T. Pipe Thrd.
D580	1/2" Series, 1/2" F.P.T. Pipe Thrd.

## SOCKET HOSE STEM COUPLER



PART NO.	DESCRIPTION
D342	1/4" Series, 1/4" Hose Stem
D352	1/4" Series, 5/16" Hose Stem
D362	1/4" Series, 3/8" Hose Stem
D462	3/8" Series, 3/8" Hose Stem
D482	3/8" Series, 1/2" Hose Stem
D582	1/2" Series, 1/2" Hose Stem

## PLUG MALE PIPE THREAD



PART NO.	DESCRIPTION
P321	1/4" Series, 1/8" M.P.T. Pipe Thrd.
P341	1/4" Series, 1/4" M.P.T. Pipe Thrd.
P361	1/4" Series, 3/8" M.P.T. Pipe Thrd.
P441	3/8" Series, 1/4" M.P.T. Pipe Thrd.
P461	3/8" Series, 3/8" M.P.T. Pipe Thrd.
P481	3/8" Series, 1/2" M.P.T. Pipe Thrd.
P561	1/2" Series, 3/8" M.P.T. Pipe Thrd.
P581	1/2" Series, 1/2" M.P.T. Pipe Thrd.

## PLUG FEMALE PIPE THREAD



PART NO.	DESCRIPTION
P320	1/4" Series, 1/8" F.P.T. Pipe Thrd.
P340	1/4" Series, 1/4" F.P.T. Pipe Thrd.
P360	1/4" Series, 3/8" F.P.T. Pipe Thrd.
P440	3/8" Series, 1/4" F.P.T. Pipe Thrd.
P460	3/8" Series, 3/8" F.P.T. Pipe Thrd.
P480	3/8" Series, 1/2" F.P.T. Pipe Thrd.
P560	1/2" Series, 3/8" F.P.T. Pipe Thrd.
P580	1/2" Series, 1/2" F.P.T. Pipe Thrd.

## PLUG HOSE STEM



PART NO.	DESCRIPTION
P342	1/4" Series, 1/4" Hose Stem
P352	1/4" Series, 5/16" Hose Stem
P362	1/4" Series, 3/8" Hose Stem
P442	3/8" Series, 1/4" Hose Stem
P462	3/8" Series, 3/8" Hose Stem
P482	3/8" Series, 1/2" Hose Stem
P562	1/2" Series, 3/8" Hose Stem
P582	1/2" Series, 1/2" Hose Stem

## AIR SWIVEL

**PART NO: 95460** 1/4" N.P.T. - Flow range to 25 CFM

**PART NO: 95461** 3/8" N.P.T. - Flow range to 26 to 45 CFM

**PART NO: 95462** 1/2" N.P.T. - Flow range to 45 to 65 CFM

A universal joint that connects portable air tools to an air line. It swivels 360° (AT TWO LOCATIONS) which allows air hose to drop out of the operator's way no matter how tool is held. For use with all air tools; grinders, sanders, glue guns, staple guns, drills, buffers, etc...



## HOSE MENDERS



PART NO.	DESCRIPTION
S1414	1/4" x 1/4" Hose Shank
S5656	5/16" x 5/16" Hose Shank
S3838	3/8" x 3/8" Hose Shank

## HOSE STEMS



PART NO.	DESCRIPTION
B1414	1/4" Series, 1/4" Hose Shank
B1456	1/4" Series, 5/16" Hose Shank
B1438	1/4" Series, 3/8" Hose Shank
B3838	3/8" Series, 3/8" Hose Shank
B1212	1/2" Series, 1/2" Hose Shank

## SAFETY AIR BLOW GUN

**PART NO: TP98**

- Conforms with OSHA standard for the maximum air pressure



## AIR INLET CAP

**PART NO: TP984**

One of the worst things that will affect your air tool is the introduction of foreign matter (contaminates) through the air inlet. Dirt, etc. is often picked up when the tool is disconnected from the air hose and laid on the floor, workbench or toolbox. This problem can be greatly reduced by using a simple, convenient cap pushed over the inlet fitting on the tool. The one-piece design of ring, tether and cap remains with the tool once installed. Simply push the cap on or off when using the air supply. The cap is always right there when needed. Saves down time and costly repairs. The cap fits all 1/4" male plug fittings.



## PNEUMATIC LUBRICATORS

- PART NO: A1015** 1/4" pipe
- PART NO: A1016** 3/8" pipe
- PART NO: A1017** 1/2" pipe
- PART NO: A1018** 3/4" pipe
- PART NO: A1019** 1" pipe

- General purpose type
- Spray oil at predetermined rate
- Keeps air tools properly lubricated



## PNEUMATIC FILTERS

- PART NO: A1020** 1/4" pipe
- PART NO: A1021** 3/8" pipe
- PART NO: A1022** 1/2" pipe
- PART NO: A1023** 3/4" pipe
- PART NO: A1024** 1" pipe

- General purpose type
- Removes pipeline impurities such as scale dirt and moisture



## PNEUMATIC REGULATORS

- PART NO: A1025** 1/4" pipe
- PART NO: A1026** 3/8" pipe
- PART NO: A1027** 1/2" pipe
- PART NO: A1028** 3/4" pipe
- PART NO: A1029** 1" pipe

- General purpose type
- Allows operator to set desired air pressure near air tool
- Equalizes air pressure while air tool is in use
- Included with gauge



## PNEUMATIC F.R.L. COMBINATION

- PART NO: A1030** 1/4" pipe
- PART NO: A1031** 3/8" pipe
- PART NO: A1032** 1/2" pipe
- PART NO: A1033** 3/4" pipe
- PART NO: A1034** 1" pipe

- General purpose type



## LEMAN PNEUMATIC LUBRICATOR

**PART NO: TP290**

- .16 lb.
- Miniature series
- Adjustable lubricant level
- Ball check valve prevents lubrication injection when not in use
- Flow sensor ensures performance
- Silicone rubber diaphragm
- 1-1/4" diameter
- 1/4" female pipe thread
- 150 PSI maximum working pressure
- 2-5/8" length



## PNEUMATIC INTEGRATED FILTER/REGULATOR

- PART NO: A1085** 1/4" pipe
- PART NO: A1086** 3/8" pipe
- PART NO: A1087** 1/2" pipe

- Mini size type
- 9-1/2" O.A.L.
- Metal bowl with sight glass - 5 oz. cap
- Gauge included



## AIR TOOL OIL

- PART NO: A1142** 4 oz.
- PART NO: A1037** Quart
- PART NO: A1038** Gallon

- Specially formulated for pneumatic tools
- Lubricates and rustproofs
- Removes moisture
- Prolongs tool life



## CLEAN FUNNEL

**PART NO: TP906A**

Light blue - 13.5" long - 0.5" spout O.D.

**PART NO: TP906B**

Dark blue - 10.5" long - 0.75" spout (O.D.)

**PART NO: TP906C**

Dark green - 8.5" long - 1" spout (O.D.)

- Innovative liquid dispensing funnel, designed to prevent contamination
- Screw on caps at each end to seal out contaminants as well as eliminating leaking while in storage
- Comes in various colors to aid in unwanted mixing of fluids
- Capacity: 1.25 quart size.



## 4 AND 6 WAY MANIFOLDS

**PART NO: TP727**

4 each 1/4" FPT outlets/2 each 3/8" FPT inlet points

**PART NO: TP728**

6 each 1/4" FPT outlets/2 each 3/8" FPT inlet points

- Front to back and top to bottom mounting holes provide convenient positioning alternatives
- Anodized aluminum construction



## POLYURETHANE SELF-STORING RETRACTABLE AIR HOSE

Polyurethane has outstanding memory and flexibility which makes it the ideal material. It is extraordinarily tough, resistant to abrasion, and is not subject to kink damage. The increased flexibility creates an ergonomic condition less tiring to users.

### FEATURES:

- Super flexibility
- Male pipe - 360° swivel fittings
- Retains its shape
- Transparent color
- Good chemical resistance
- 125 psi working pressure
- Very tough and abrasion resistant
- Vibraseal thread sealant self-sealing fittings



PART NO.	HOSE SIZE I.D.	FITTING SIZE M.P.T.	HOSE LENGTH	RETRACTED LENGTH*
1410PY	.250	1/4"	10'	6"
1425PY	.250	1/4"	25'	16"
3810PY	3/8"	3/8"	10'	5-1/2"
3825PY	3/8"	3/8"	25'	14"

\*Retracted length does not include 8" and 16" straight tails provided on (each) hose.

## NYLON SELF-STORING AIR HOSE

### FEATURES:

- Highly flexible
- Resistant to most chemicals
- Excellent dimensional stability
- Abrasion and corrosion resistant
- Male pipe -360° swivel fittings
- Self-retracting
- 200 psi working pressure



PART NO.	HOSE SIZE I.D.	FITTING SIZE M.P.T.	HOSE LENGTH	RETRACTED LENGTH*
1412	1/4"	1/4"	12'	6-1/2"
1425	1/4"	1/4"	25'	10-1/2"
1450	1/4"	1/4"	50'	21"
3812	3/8"	3/8"	12'	6-3/8"
3825	3/8"	3/8"	25'	10-1/4"
3850	3/8"	3/8"	50'	20-1/2"
1212	1/2"	1/2"	12'	5"
1225	1/2"	1/2"	25'	9"

## NEOPRENE AIR HOSE

**PART NO: 6301** 1/4" I.D.

**PART NO: 6304** 3/8" I.D.

**PART NO: 6306** 1/2" I.D.

**PART NO: 6307** 3/4" I.D.

**PART NO: 6308** 1" I.D.

- Heavy duty double strand
- High tensile rayon 2 braid cord
- Maximum pressure 250 psi



## 1/4" & 3/8" INDUSTRIAL AIR HOSE WITH 1/4" MALE FITTINGS

**PART NO: A1008** 1/4" x 25'

**PART NO: A1009** 1/4" x 50'

**PART NO: A1011** 3/8" x 25'

**PART NO: A1010** 3/8" x 50'



## WHIP HOSE

**PART NO: A1012** 1/4" x 6'

**PART NO: A1013**

3/8" x 6'

**PART NO: A1014**

1/2" x 6'



## LIGHT-HEAVY DUTY SERIES AIR HOSE

**PART NO: EB35000**

**PART NO: 22FLRC**

- Cast aluminum housing
- Automatic safety lock - if spring tension should change, built in locking mechanism engages
- External tension adjustment
- Manual drum lock
- 360°/swivel clevis/hanger
- 3/16" diameter steel cable



## AIR OPERATED SEALANT GUN KITS

### PART NO: TP484K

2.5 oz. cap., pistol grip handle design, six cartridges, plungers, caps and valve protectors, and a selection of nozzles)

### PART NO: TP485K

6 oz. cap., pistol grip handle design, six cartridges, plungers, caps and valve protectors, and a selection of nozzles

### PART NO: TP486K

12 oz. cap., pistol grip handle design, six cartridges, plungers, caps and valve protectors, and a selection of nozzles



Gun bodies and handles are made of durable, lightweight aluminum. The corrosion resistant retainers are made of a special high strength steel to prevent cartridge splitting under high pressures. Easy to use: to load, simply turn knob and disengage the retainer. Insert filled cartridge, replace the retainer with the cartridge and then tighten the knob. To operate, simply pull trigger to open air valve.

## ACCESSORIES: POLYETHYLENE CARTRIDGES & NOZZLE ACCESSORIES

### TP484A

2.5 oz. cartridge

### TP484B

2.5 oz. cartridge & plunger

### TP485A

6 oz. cartridge

### TP485B

6 oz. cartridge & plunger

### TP486A

12 oz. cartridge

### TP486B

12 oz. cartridge & plunger

### TP487A

End cap - snaps on back end of cartridge

### TP487B

Valve protector - protects air valve in gun

### TP487C

Plunger

## COUNTERBORE DISPENSER CARTRIDGE ASSEMBLIES

### TP489A

6 oz. cap. - 1/8"

### TP489B

6 oz. cap. - 5/32"

### TP489C

6 oz. cap. - 3/16"

For application where each rivet or bolt hole in an aircraft assembly is sealed. Simply insert in hole and depress, release proper amount of sealant covering both hole and seat.

## STANDARD PLASTIC NOZZLES

PART NO.	LENGTH	ORIFICE SIZE
TP488A	6"	1/16"
TP488B	6"	1/8"
TP488C	10"	1/16"
TP488D	10"	1/8"
TP488E	6"	1/16" x 1/4"
TP488F	4-3/8"	3/8" x 3/64"
TP488G	4-3/8"	1/8" x 3/4"

## AIR SPRAY GUN

### PART NO: TP507

### PART NO: TP507C

3 lbs.

- Full fan and fluid control
- 8" - 10" spray pattern
- 50-70 PSI air pressure/12 CFM @ 70 PSI
- 1 quart cup capacity
- Heavy duty design for production type applications
- Adjustable fluid control with stainless steel needle and nozzle



## AIR SPRAY GUN MINI TOUCH-UP

### PART NO: TP506B

### PART NO: TP506C

Spare 8 oz. aluminum locking cup  
1 lb.

- Lightweight versatile spray gun for detailing, stenciling, touch-up, spotting and shading
- Adjustable fluid control with stainless steel needle and nozzle
- 5" - 6" spray pattern
- 30-50 PSI air pressure/4 CFM @ 50 PSI
- 8 oz. cup capacity



## AIR BRUSH KIT

### PART NO: TP508

- External mix gun
- 3/4" - 2" spray pattern
- 15-50 PSI air pressure

### KIT CONTENTS:

- Fine head assembly air brush
- 5 ft. air hose with 1/4" pipe adapter
- 2 oz. jaw with cover
- 3/4 oz. jar
- Regulator & wrench for head



## REUSABLE PRESSURE SPRAYER

### PART NO: TP962

- Green enameled, pressurized sprayer
- 1 quart capacity for solvents



## MAXILUB GREASE SYSTEM PART NO: TP893

MaxiLub system is an air operated grease pump designed to fit a standard 35 pound container. Included is a high pressure air pump, follower plate assembly, 13' of grease hose and the booster grease gun.



## BEARING PACKER PART NO: TP309

- Fits bearings up to 5-5/16" diameter and 2" thick
- Works with air grease guns



## BEARING PACKER PART NO: TP309A

Hand-bearing packer makes the job easy.



## UTILITY GREASE GUNS PART NO: TP874A

4-3/4" Pump Head Length, Vacuum Primed (pictured)

### PART NO: TP874B

8" Pump Head Length, Spring Primed

- 3 oz. lubricating capacity
- Lightweight, one-hand operation
- Handles multiviscous grades of lubricants and are easily refilled
- For Zerk fittings



## MINILUB GREASE GUN PART NO: TP892

MiniLub is a highly portable, manual greasing system designed to fit a standard 7 pound (1 gallon) pail. This unit has a patented 2 way system that delivers grease at either high volume or high pressure (over 10,000 PSI).



## GREASE GUN ACCESSORY KIT PART NO: TP894

Designed to be used with either the TP893 or TP892 systems. This kit contains a wide range of quick connect accessories for professional lubrication of civil and military aircraft including those hard to reach areas like flaptracks, ailerons and landing gears.



## U.S. INDUSTRIAL MINI-AIR VACUUM PART NO: TP675

.53 lb.

- Venturi type design with 1" I.D.
- Lightweight ABS plastic construction
- Picks up ferrous and non-ferrous chips, bolts and rivets
- Throttle with special lock-on feature
- TP575-10 - 18" flexible hose included
- 1/4" inlet
- Air required
- Made in USA



## ALUMINUM MINI-AIR VACUUM PART NO: TP575

.53 lb.

- Venturi type design with 1" I.D.
- Cast aluminum construction
- Picks up ferrous and non-ferrous chips, bolts and rivets
- Throttle with special lock-on feature
- TP575-10 - 18" flexible hose included
- 1/4" inlet
- Air required



## ACCESSORIES

**PART NO: TP275B** Spare bag and clip for either vacuum

**PART NO: TP275-1** Spare bag only for either vacuum

**PART NO: TP275B-1** Spare clip for either vacuum

**PART NO: TP575-10** 18" clear flexible hose for 1" I.D. vacuum

**PART NO: TP575-24** 24" clear flexible hose for 1" I.D. vacuum

**PART NO: TP575-36** 36" clear flexible hose for 1" I.D. vacuum

**PART NO: TP575R-10** 12" rigid tube for 1" I.D. vacuum

**PART NO: TP575R-24** 24" rigid tube for 1" I.D. vacuum

## LONG REACH PLIER KITS

### PART NO: TP942

Long Reach Plier Kit (e pcs) for access into the most demanding applications. Each plier has a full 11" reach.

- Medium carbon steel, hardened, fully polished
- Cushion P.V.C. Handles
- Leather storage pouch



## CHESCO FOLD-UP HEX WRENCH SETS

- Rust resistant black oxide keys are accessible from both sides of the case
- Glass - reinforced nylon resin case
- Spring washer helps hold keys at desired position



PART NO.	UNIT OF MEASURE	KEY SIZES
TP922A	Inch	.50, 1-16, 5-64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16
TP922B	Inch	5/64, 3/32, 7/16, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4
TP922C	Inch	3/16, 7/32, 1/4, 5/16, 3/8
TP923A	Metric	1.5, 2, 2.5, 3, 4, 5, 6mm
TP923B	Metric	2, 2.5, 3, 4, 5, 6, 8mm
TP923C	Metric	4, 5, 6, 8, 10mm

## REAMERS

- Removable handle with 3/8" square drive to use reamer with socket wrench
- Made of finest quality tool steel for use on sheet metal or similar material
- Not for use in machine tools
- Made in USA



PART NO.	DESCRIPTION-
TP932A	Repair Reamer (1/8" to 1/2")
TP932B	Repair Reamer (1/2" to 1")
TP932K	Repair Reamer Set (11214 and 11221)

## RATCHET TAP WRENCH

- Three position gear box allows quick and easy left/right tapping
- Ideal for hard-to-reach areas
- Made in USA



PART NO.	DESCRIPTION-
TP933A	For Tap Sizes No. 0-1/4"
TP933B	For Tap Sizes 1/4" to 1/2"

## PIN ROUTER BITS

Taper pin router bits are used for cutting, trimming and routing around cowling, door sills, plexiglass, elongating door latch holes and cable holes, trimming on wing terminals on bulkheads, ribs on fuselage, etc. Taper pin bits allow you to start a cut without drilling first.

## HIGH SPEED STEEL

PART NO.	SIZE TYPE	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH
TP456A	1	.098	13/16"	2"
TP456B	2	.128	7/8"	2-1/4"
TP456C	3	.1875	1-1/16"	2-1/2"
TP456D	4	.250	1-1/4"	2-3/4"

## DZUS - GROMMET SETTING TOOLS

- For the replacement of Dzus studs with grommets
- Will not set winged stud type fasteners



PART NO.	DZUS STUD TYPE SIZE
TP835A	A/#3
TP835B	A/#4
TP835C	F/#4
TP835D	A/#5
TP835E	F/#5
TP835F	A/#6.5
TP835G	F/#6.5

F = Flush Heads - 2 pc. per size  
A = All Others - 3 pc. per size

## RIVET HOLE BRUSHES

**PART NO: TP465** 5 piece set - 1 each size

**PART NO: TP6721** 3/32" diameter pilot

**PART NO: TP6741** 1/8" diameter pilot

**PART NO: TP6761** 5/32" diameter pilot

**PART NO: TP6781** 3/16" diameter pilot

**PART NO: TP6801** 1/4" diameter pilot

- Stainless steel brushes designed to remove corrosion, paint and other contaminants from rivet hole area
- Assures a positive electrical contact to eliminate static electricity
- 1/4" shank diameter
- Rated up to 8,000 RPM
- .004" wire diameter
- 1/2" brush diameter



## TRANSFER PUNCHES

**PART NO: TP457K** 60 piece wire gauge size kit

- 1 each of #1-60 and index stand
- Made of tool steel. Rockwell hardened to RC 58-61

- Tolerance +/- .0005
- 4-7/8" overall length



## WISE-GRIP® LOCKING PLIERS

- Made from Alloy Steel and heat treated
- Heavy-duty jaw grips work of all shapes
- Controlled power via simple hand squeeze
- Can put one ton of pressure between the jaws
- Available in various jaws and nose designs

PART NO.	SIZE	JAW ADJUSTMENT	JAW TYPE
TP918A	4"	0 - 15/16"	Curved
TP918B	7"	0 - 1 5/8"	Curved
TP918C	10"	0 - 1 7/8"	Curved
TP919A	7"	0 - 1 1/8"	Straight
TP920A	4"	0 - 1 5/8"	Long
TP920B	6"	0 - 2 1/4"	Long

## PART NO: TP921K

(3 pc kit includes 1 (ea) TP918A, TP918C and TP920A)



## WELDING CLAMPS

### PART NO: TP156

- 1 lb.
- 9" welding clamp pliers
  - Designed specially for the professional welder or metal worker
  - Drop-forged jaws



## LOCKING C-CLAMP PLIER

- 1.1 lbs.
- Drop-forged
  - Quick Release



PART NO.	O.A.L.	OPENING	REACH	WEIGHT
TP157	6"	0 - 2-1/8"	1-1/2"	0.53 lb
TP157A	11"	0 - 4"	2-5/8"	1.63 lbs.
TP157B	18"	0 - 8"	9-1/2"	2.12 lbs.

## SPRING CLAMP

- Ergonomic non-slip grips
- No-mar jaw pads

PART NO.	JAW OPENING SIZE
TP833A	1"
TP833B	2"
TP833C	3"



## SPRING CLAMPS

- PART NO: TP199** 4" size, 2 oz.  
**PART NO: TP199A** 6" size, 3 oz.  
**PART NO: TP199B** 1" size, vinyl handles & tips  
**PART NO: TP199C** 2" size, vinyl handles & tips

- Pressed steel
- Rust proof plated
- Grips firmly



## C-CLAMPS

Deep and extra deep reach clamps made of ductile iron frames with steel screws, swivel head and sliding crosspin handles.



PART NO.	GAP	THROAT REACH
TP469A	1"	3"
TP469B	2"	3-1/2"
TP469C	3"	4-1/2"
TP469D	2-1/2"	6-1/4"
TP469E	2-1/2"	1-3/4"
TP469F	3"	1-7/8"
TP469G	4"	2-1/16"
TP469H	5"	2-1/2"
TP469I	6"	2-3/4"
TP469J	8"	3-1/4"
TP469K	10"	3-5/8"

## Z8" SHEET METAL CLAMPING PLIER

### PART NO: TP158

- 1.5 lbs.
- Drop-forged jaws
  - For the professional sheet metal worker
  - For the welder and mechanic



## TOGGLE CLAMPS

### PART NO: TP176A

1-1/8" reach, 1" gap (bottom screw only)

### PART NO: TP176B

1-3/4" reach, 1" gap (bottom screw only)

### PART NO: TP176C

2-1/2" reach, 3" gap (top & bottom screw)



## QUICK GRIP BAR CLAMP

- Pistol grip action adjusts & tightens with just one hand
- Quick release trigger
- No-mar jaw pads



PART NO.	JAW ADJUSTMENT RANGE	THROAT REACH
TP832A	0-6"	2-7/16"
TP832B	0-12"	3-1/4"
TP832C	0-24"	3-1/4"

## A

Adjustable Set Holder	28
Air Brush Kit	142
Air Drills:	
Angle	90-91
Pistol Grip	89
Straight	90
Air Filter	140
Air Fittings	139
Air Hose	141
Air Grinders	114
Air Inlet Cap	139
Air Manifold	140
Air Nibblers	113
Air Screwdrivers	115
Air Swivels	139
Air Tank	134
Air Tool Lubricator	140
Air Tool Regulators	140
AirVac	143
Aircraft Brake Rivet Sets	52, 54
Alligator Jaws	39
Aluminum Snip	79
Angle Drills	90-91
Angle Drill Accessories	91-92
Angle Drill Attachment	91-92
Arbors	107, 109
Automatic Center Punch	93
Aviation Snips	79

## B

Bail Hanger	40
Baileigh Tube & Pipe Notcher	84
Balancers	41
Bar Clamp	145
Bead Roller	74-75
Bead Breaker	134
Bearing Tools	143
Bench Dimpler	54
Bench Press	76
Bench Riveter	40
Bit Holders	116
Blair Hole Cutters	109
Blind Riveters	55-56, 58, 6
Blind Riv-Nut Tools	61
Blocking Hammer	81
Blow Gun	139
Body Files	83
Body Tools	81-84, 113
Boe Lube	97
Bolt Gauge	119
Bonney Wrench 3 Set	119
Borescopes	127
Box Brake	72
Brake Bleeders	134
Brake Riveters	52, 54
Brake Rivet Tools	52, 54
Brakes, Sheet Metal	70-73, 76
Bristol Screwdrivers	119
Bucking Bars	3, 6-9
Bucking Blocks	54
Bullseye Pick	81
Bumping Blades	81
Burrs, Carbide	112
Burraway	111
Bushing Driver	130

## C

C Clamps	145
C Yokes	38
C Yoke Rivet Set	37-38
Cable Cutters	123
Cable Swage Tools	121
Cable Tensionmeter	129
Calipers	126
Cam Loc Plier	119
Cannon Plug Plier	121
Carbide Burrs	112
Center Punches	93
Cherry Riveters	55-59
Cherry Rivet Grip Gauge	58
Cherry Material Thickness Gauge	58
Cherry Pulling Heads	57-59
Chip Chaser	78
Chisels	4
Chuck, Drill	94
Chuck Key	93
Circle Cutters	109-110
Clamps	145
Cleco Fasteners	101-103
Cleco Installers	101-103
Cold Riveter	47
Cold Riveter Accessories	50
Collets	92
Combination Rotary Machine	72
Combination Square	126
Composi-Lok	62
Composite Tools	117-118
Compression	
Riveters	26-30, 40, 47-48, 52-54
Cone Jaw Chuck	94
Counter Bores	107-108
Countersinks & Pilots	104-108, 111
Couplings	139
Crimping Tools	124
Cylinder Base Wrenches	133
Cylinder Bore Gauge	126
Cylinder Pressure Tester	135

## D

Deburring Tools	110-112
Diamond Tooling	117-118
Die Grinders	114
Differential Pressure Tester	135
Digital Protractor	128
Dimple Die Fixture	54
Dimple Die Sets	35, 54
Dollies	82
Door Skinner	84
Drills:	
Air	88-91
Angle	90-91
Pistol Grip	88-89
Straight	90
Drill Attachments	91-94
Drill Bits/Accessories	97-100
Drill Bushings	100
Drill Chucks	94
Drill Gauges	93, 100
Drill Guide	100
Drill Housing	100
Drill Jigs	93, 99
Drill Stops	99

Duck Bill Pliers	119
Dzus Grommet Tool	144

## E

Easy Grip Roller	120
Eckold Equipment	66-69
Edge Roller	78
Edge Scraper	110
Edge Scribe	120
Edge Setter	84
Electric Shear	80
Electrical Connector Plier	121
Electrical Cord Reel	137
Elliptical Flush Sets	15
Engine Test Tool Kit	135
Engine Tools	135
English Wheel	63-65
Extension Drills	99
Extension Light	137-138

## F

Fabric Shear	118
Fabric Tester	136
Fastener Boots	102
Fastener Organizer	124
Fasteners, Reusable	101-103
Feeler Blades	130
Fiberoptic Boroscope	127
Files	83
Filter	140
Finger Brake	73
Flanging Tool	78
Flaring Tool	121, 131
Flashlights	138
Flat Angle Drills	90
Flexible Claw	121
Fluorescent Lights	137-138
Flush Rivet Set	12, 14, 15, 37
Fluting Pliers	78
Fly Cutter	110
Foot Former	66-67
Foot Shear	70
Foot Throttle	41
Funnels	140

## G

Gap Gauge	130
Gap Setting Tool	131
Gasket Punch Set	120
Gooseneck Rivet Sets	15
Grease Gun	143
Grip Gauge	58

## H

Halogen Lights	137
Hammers, Brass	81
Hammers, Body	82
Hammers, Rivet	2-3
Hand Brakes	70-73
Hand Former	66, 68
Hand Hydraulic Riveter	55
Hand Punch	77-78
Hand Rivet Squeezer	26
Hand Seamers	78
Hand Swager	121
Handi Clamp	102

Heavy Duty (Hand) Rivet Squeezer	26
Heat Guns	125
Heli-Coil	120
Hex Nut Driver	102
Hex Nut Fasteners	102
Hex Wrenches	144
Hi-Lok Hand Wrench	61
Hi-Lok Tools	61
Hi Shear Rivet Set	13
Hi-Voltage Cable Tester	135
Hole Cutter	109
Hole Finders	95
Hole Punch	75, 77-79
Hole Saws	109-110
Hollow Cutters	109
Hose	141
Hose Assembly Tools	133
Hose Couplers	139
Hose Reels	141
Hot Dimplers	48
Hot Dimpler Accessories	51
Hydraulic Squaring Shear	70

## I

Inflation Connection	134
Inflation Gauge	134
Insert Bits	116
Inspection Lights	137-138
Inspection Mirrors	121
Instrument Panel Hole Punch	109

## J

Jewelers Screwdrivers	119
Jigsaw Blades	117
Jobber Bits	98
Jobolt Tools	62
Joint Jigger	93

## K

Keyless Chuck	94
Knock-Out Punches	13

## L

Lead Master Wrench	132
Length Gauge, Rivet	44
Level	128
Lever Snips	79
Gasket Inspection	133-134
Lockfast Tools	62
Louver Punches	77
Lubricants	97, 140
Lubricators	140
Lycoming Valves	
Spring Compression	133

## M

Magnaflux	136
Magnetic Screwdriver	116
Magneto Timing Light	135
Magneto Tools	130
Magnifiers	138
Mallets	81
Manifold, Air	140
Metal Formers	63-77
Maule Fabric Tester	136

Measuring Kit ..... 126  
 Mechanical Fingers ..... 121  
 Micro Pick ..... 119  
 Micrometers ..... 125  
 Micro Stop Counter  
 Sinks ..... 93, 104-106, 111  
 Mini Air Drill ..... 89  
 Mini Air Vacuum ..... 93, 143  
 Mini Saw ..... 123  
 Mirrors ..... 121  
 Mittler Bros. 69-70, 72, 74-77, 85-88  
 Mounted Saw ..... 117

**N**  
 Nibbler ..... 113  
 No Mar Boots ..... 102  
 No Mar Fasteners ..... 103  
 No Mar Hammer ..... 81  
 Notchers ..... 72, 84-85  
 Nut Plate Drill Jig ..... 96  
 Nylon Tie Tool ..... 125

**O**  
 Offset Drill Attachment ..... 92  
 Offset Snips ..... 79  
 Oil ..... 140  
 Oil Filter Tools ..... 132  
 Oleo Strut Pump ..... 134  
 Optical Center Punch ..... 93

**P**  
 P-Lead Adapter ..... 130  
 Paint Spray Gun ..... 142  
 Panel Beaters ..... 82  
 Panel Flanger ..... 84  
 Panel Saw ..... 113  
 Pedal Former ..... 67  
 Pedestal Riveter ..... 46-53  
 Piccolo Former ..... 66  
 Picks ..... 81, 119  
 Pilots ..... 107  
 Pin Router Bit ..... 144  
 Pinking Shear ..... 119  
 Pipe Notcher ..... 84-85  
 Piston Tools ..... 133  
 Planishing Hammer ..... 69  
 Plexiglass Drill Bits ..... 118  
 Plier Kit ..... 145  
 Pneumatic Punches ..... 42  
 Pop Riveters ..... 60  
 Pop Rivet Removal Kit ..... 60  
 Portable Air Tank ..... 134  
 Power Former ..... 66-67  
 Propeller Protractors ..... 128  
 Propeller Tools ..... 128, 133  
 Protractors ..... 128  
 Pulling Heads ..... 57-59  
 Punch & Flare Tools ..... 75, 77  
 Punches ..... 77-78, 144  
 Push Rod Spring Compressor ..... 133

**Q**  
 Quick Change Drill ..... 94  
 Quick Grip Bar Clamp ..... 145

**R**

Ram Coin Assemblies ..... 51  
 Ratchet Wrenches ..... 62, 119  
 Raytek ..... 128  
 Reamers ..... 144  
 Reciprocating Saw ..... 113  
 Recoil Hose ..... 141  
 Recoilless Bucking Bar ..... 10  
 Recoilless Bucking Dollies ..... 10  
 Recoilless Rivet Hammers ..... 3  
 Regulators ..... 140  
 Retainer Springs ..... 4  
 Reverse Countersinks  
 and Spotfacers ..... 107-108  
 Riser Blocks ..... 129  
 Riv-Nut Tools ..... 61-62  
 Rivet Cutters ..... 5, 44  
 Rivet Fan Spacer ..... 5  
 Rivet Gauge ..... 44  
 Rivet Guns ..... 2-3  
 Rivet Gun Kits ..... 17-25  
 Rivet Hammer Accessories ..... 4-5  
 Rivet Hole Brushes ..... 144  
 Rivet Length Gauge ..... 44  
 Rivet Removal Tool ..... 54  
 Rivet Sets ..... 11-16, 31-37  
 Rivet Set Organizer ..... 44  
 Rivet Shaver & Bits ..... 43-44  
 Rivet Spacer ..... 5  
 Rivet Squeezers ..... 26-30  
 Rivet Squeezer Bench Stand ... 40-41  
 Rivet Squeezer Sets ..... 31-37  
 Riveters:  
 Blind ..... 55-56, 58, 60  
 Cherry ..... 55-59  
 Hand Squeezers ..... 26  
 Hydraulic ..... 56-60  
 Pneumatic Hammers ..... 2-3  
 Pneumatic Squeezers ..... 26-30  
 Pop ..... 60  
 Riveters Tape ..... 5  
 Robin Snips ..... 79  
 Roller ..... 120  
 Roof Punch ..... 42  
 Rotary Burrs ..... 112  
 Rotary Machine ..... 72  
 Router ..... 117, 144  
 Router Bits ..... 144  
 Router Guides ..... 113  
 Rulers ..... 120

**S**  
 Safety Blow Gun ..... 139  
 Safety Wire ..... 122  
 Safety Wire Drill Jig ..... 99  
 Safety Wire Tools ..... 122  
 Sanding Board ..... 83  
 Saws ..... 113, 123  
 Saw Blades ..... 117-118  
 Scales ..... 119  
 Scrapers ..... 4, 110  
 Screw Extractors ..... 119  
 Screw Removal Tool ..... 116, 119  
 Screwdrivers ..... 115  
 Screwdriver Bits ..... 116  
 Screwdriver Sets ..... 116  
 Screw Pitch Gauge ..... 126

Scribes ..... 120  
 Sealant Gun ..... 142  
 Seamers ..... 78  
 Shear Head ..... 80  
 Shears ..... 70-71, 76, 80, 84  
 Sheetmetal Brake ..... 70-73, 76  
 Sheetmetal Gauge ..... 119  
 Shop Head Rivet Gauge ..... 44  
 Shot Bag ..... 81  
 Shrinkers ..... 66-68  
 Side Grip Fasteners ..... 102  
 Siphon Spray Gun ..... 123  
 Slappers ..... 82  
 Slip Rolls ..... 72  
 Slitting Shear ..... 71  
 Smart Level ..... 128  
 Snake Drill Attachment ..... 92  
 Snips ..... 79  
 Soldering Tools ..... 124  
 Spark Plug Cleaners ..... 130-131  
 Spark Plug Tools ..... 130-131  
 Speed Wrench ..... 119  
 Spoons ..... 82  
 Spot Check Penetrant ..... 136  
 Spot Facers ..... 107-108  
 Spray Gun ..... 142  
 Spring Back Dimple Dies ..... 35  
 Spring Clamps ..... 133  
 Spring Scales ..... 119  
 Squeezer ..... 26, 30  
 Stationary Riveter ..... 47-54  
 Stop Countersinks ..... 104-105  
 Straight Drill ..... 98-99  
 Strap Duplicators ..... 95  
 Strap Heaters ..... 51  
 Stretchers ..... 66-68  
 Strut Gauge ..... 134  
 Strut Pump ..... 134  
 Swaging Tools ..... 121  
 Swivel Dimpling Tool ..... 15  
 Swivel Regulator ..... 4

**T**  
 T-Dollies ..... 82  
 Tab Shear ..... 80  
 Tap, 3-Step ..... 120  
 Tape ..... 5  
 Temperature Sensors ..... 128  
 Tensionmeters ..... 129  
 Tension Clamps ..... 102  
 Test Leads ..... 135  
 Thickness Gauge ..... 126  
 Thread Chaser ..... 131  
 Thread Lube ..... 130  
 Threaded Drill Bits ..... 97  
 Throatless Shear ..... 71  
 Timing Indicator ..... 135  
 Timing Lights ..... 135  
 Tire Bead Breaker ..... 134  
 Tire Gauges ..... 134  
 Tire Tools ..... 134  
 Tire Valve Repair Tool ..... 134  
 Toggle Clamp ..... 145  
 Tool Balancer ..... 141  
 Tool Kits ..... 17-25, 43, 62  
 Tool Pouch ..... 123

Torque Wrenches ..... 132  
 Transfer Punches ..... 144  
 Tube Notcher ..... 84-87  
 Tubing Beaders ..... 123  
 Tubing Bender ..... 86-87  
 Tubing Cutter ..... 121, 123  
 Turnbuckle Wrench ..... 129

**U**  
 Unibit ..... 100

**V**  
 Vacuums ..... 93, 143  
 Valve Extensions (Tire) ..... 134  
 Valve Spring Compressor ..... 133  
 Valve Tools (Engine) ..... 133  
 Vibrator Cleaning Tool ..... 130  
 Videos ..... 86  
 Vise Grips ..... 145

**W**  
 Welding Clamp ..... 145  
 Wing Nut Fastener ..... 102  
 Wire Strippers ..... 124  
 Wire Twisters ..... 122  
 Wood Slappers ..... 82  
 Wrenches:  
 Base ..... 133  
 Speed ..... 119  
 Tap ..... 144  
 Torque ..... 132  
 Wrench Rivnut Tools ..... 61

**Y**  
 Yokes, (Rivet Squeezers) ..... 38-39

**Z**  
 Zyglo Test Kit ..... 136

## Did You Know?

### RIVETING TIPS

To avoid marks on the rivet heads when using a universal rivet set, use masking tape. Place one or two pieces on the end of the set with the adhesive to the cupping side to help cushion the rivet head. Replace when necessary. Also, placing a piece of masking tape on the face of a flush rivet set will keep the set from leaving surface marks.

### WHAT ARE SPRING BACK DIMPLE DIES?

Spring Back Dimple Dies have special angles machined on the faces. The male dimple die is concave (about 1° negative taper) and the female dimple die is convex (about 2° positive taper). When used, the angle causes the material being formed to bend slightly upward. The surface then "springs back" after dimpling to a flat surface. The result is a smoother finish. Any surface markings left by the dimple dies can be removed with a bit of sanding.

### FLUTING PLIERS & HAND SEAMERS

Fluting pliers are used to straighten ribs flanges and to form curved stringers. The jaws form the metal in such a way that "shrinks" a small section of a flange. As a small area is pushed down, it pulls the adjacent material into the bend. Done closely together, you'll end up with a curved piece of material.

Hand Seamers are much like a hand-held bending brake. Use these to bend or straighten small flanges, or to bend tabs in different directions. Make sure your hand seamer has a radius on the edge of the jaw so the bend isn't too sharp.

### DEBURRING TIPS

It's always a good idea to deburr the edges of aluminum sheets and parts with a hand scraping tool. On the ends of angles and other parts it would be good to belt sand or roughly file and radius all sharp corners and edges. Your wheels will last longer and wear down less quickly if you take this step first before running the parts against the wheel.

### THE DIFFERENCE BETWEEN 2X, 3X & 4X RIVET GUNS

The 2X gun has a shorter stroke and hits more blows per minute than the 3X, and therefore is easier to control. The 3X has a longer stroke and hits harder than the 2X. Either will work for setting 3/32" and 1/8" rivets, and both have adjustable air pressure control. The difference between a 3X and a 4X gun is that the 4X is a little longer and has a 1/4" capacity.

### WHAT TO LOOK FOR WHEN BUYING AN AIR COMPRESSOR

Don't base your decision on horsepower. Because horsepower is based on wattage the motor uses, a very efficient motor at the same wattage can outperform an inefficient motor with the same horsepower.

Always look for a compressor with at least 5cfm @ 90 psi. This is the minimum required to run air drills and rivet guns. For tools that use continuous air power, such as spray guns, look for 7-9cfm @ 90 psi.

Size of tank will determine the length of time you can operate a continuous use tool before you have to wait for the compressor to "catch up."

### AIR TOOL MAINTENANCE TIPS

Oil all of your air tools daily when in use with a non-detergent type oil. Four or five drops of air tool oil in the rear air inlet should do fine. Also check your compressor daily for excess water and drain when necessary. Store your tools in a clean, dry environment when not in use. Cover air inlets and rivet gun barrels to keep dirt and foreign matter out. Remember, the best maintenance is lubricating and running your tools frequently to avoid problems.

### DRILLING AID TIPS

Rivet fan spacing tools are an easy way to evenly space lay-out of rivets. Draw your rivet line and mark the first and last rivets. Extend the fan spacer with the hole in the first finger over the rivet mark on one end of the line. Slightly close the tool until the hole in the first finger beyond the last rivet mark aligns with it. Using a pen, mark all the rivet holes along this line.

For Nutplates first drill a clearance hole for the screw. Locate the jig with the large pin in hole (both a small & large pin will be sticking up). Drill the first rivet hold with a #40 drill. Flip over the jig and insert the large pin in the clearance hole and the small pin in the first rivet hole just drilled. Drill the second rivet hole. Deburr and countersink holes and install nutplate.

Always use a drill stop on your drill when using a strap duplicator. Pre-set the drill depth to avoid drilling into the bottom part of the strap duplicator. Repeated drilling into the bottom part will eventually drill through and cause the guide pin to fall off and will ruin the strap duplicator.

### METAL CUTTING TIPS

To avoid marks on the edge of your material left by most metal snips, cut about 1/16" away from the finish line. This makes it easier to cut by not having to stay on a straight line or by worrying about cutting too deep. Use either a vixen file or coarse emery cloth attached to a straight board (to form a sanding block) to remove snip marks.

### PUNCH USE TIPS

Punches are used to align holes when having difficulty setting a rivet. Insert the punch into the two mating holes and simply turn it in a circular motion. The holes should move into alignment easily.

To remove a rivet, drill into the rivet the depth of the head. Insert a punch equal to the drill size and use it to break off the head. Then, use the punch to drive out the rivet shaft.

### MEASURING TIPS FOR AN BOLTS

Remember that AN bolts lengths are measured in 1/8" increments. Therefore, a -4 length is equal to 4/8", or 1/2". A -7 length would equal 7/8". After the -7 length, the next bolt is a -10 (equal to 1"). After 1", the 2-digit AN numbers begin. The first number is now read as full inches and the second number is read as fractions in 1/8ths. Therefore, a -25 length is 2-5/8" and a -34 length is 3-1/2". Diameters are measured in 1/16" increments, so that a -3 diameter is 3/16" and a -4 diameter is 1/4".