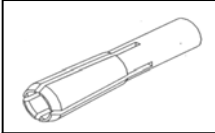
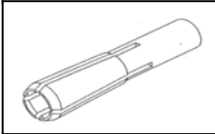

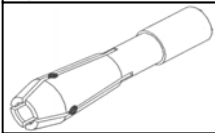
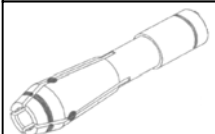
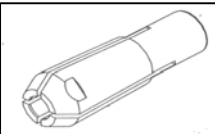
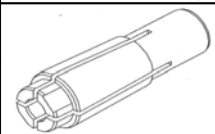
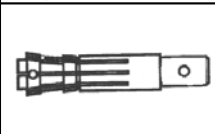
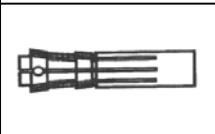
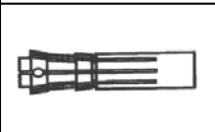


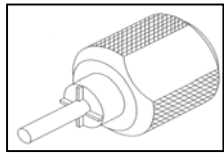
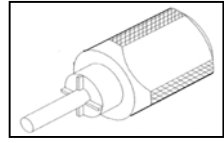
Excellon Driller Collets

<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PE101	202163-13		Collet-Driller For Spindle Models: 1000/1010 Maximum Runout .0002"
PE101-1	202163-13		Super collet Driller For Spindle Models: 1000/1010 Maximum Runout .00005"
PE404	213018-17		Collet-Driller Non-Locking (Male) For Spindle Models: ABW100/110 Nyloc set in screw to secure during drilling. Maximum Runout .00005"
PE405	216824-14		Collet-Driller Locking (Female) For Spindle Models: ABW100/110 Maximum Runout .00005"
PSL405	414741-01		Collet-Driller Sur-Lock For Spindle Models: ABW125 Maximum Runout .00005"

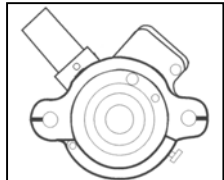
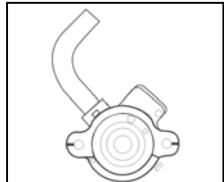
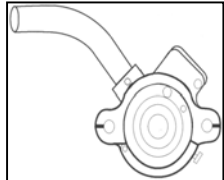
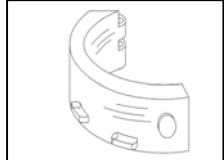
Excellon Driller/Router Collets

<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PE202	*212938-16		Collet-D/R Tapered Nose For Spindle Models: 400/420/800/820/880 Maximum Runout .0002"
PE302	212938-16		Collet-D/R Straight Nose For Spindle Models: 400/420/800/820/880 Maximum Runout .0002"
PE804	216390-18		Collet-D/R ABW R80 (Male) For Spindle Models: ABWR80
PE805-4	*216844-10		Collet-D/R ABW R80 / 4 Slot (Female) For Spindle Models: ABWR80
PE805-6	216844-10		Collet-D/R ABW R80 / 6 Slot (Female) For Spindle Models: ABWR80

Collet Tools

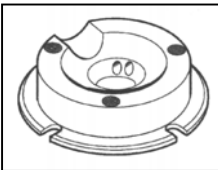
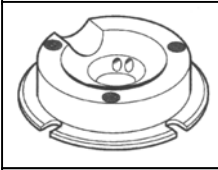
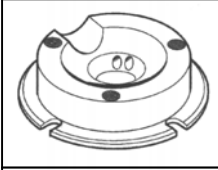
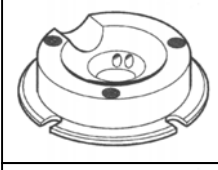
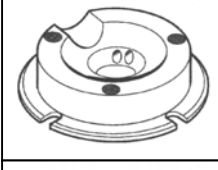

PCR125-Short Prima Design		Collet Adjustment Tool-Short Handle Tangs fit into collet slots. Collet is threaded in until proper drag is felt on the adjustable carbide pin in tool.
PCR125-Long Prima Design		Collet Adjustment Tool-Long Handle Tangs fit into collet slots. Collet is threaded in until proper drag is felt on the adjustable carbide pin in tool.
PCB125 Prima Design		Collet Cleaning Brush S/S .125" bristle diameter. Stainless steel bristles
PCB250 Prima Design		Collet Cleaning Brush Nylon .250" bristle diameter. Nylon bristles

Excellon Magnetic Driller Pressure Foot Assembly

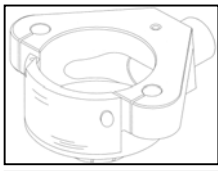
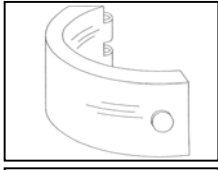
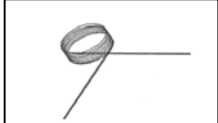
<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PEPF2000-00	218177-03 218177-13		Magnetic Pressure Foot Assembly With air purge. Straight vacuum tube (Position 2 - 6)
PEPF 2000-90	218177-05 218177-07		Magnetic Pressure Foot Assembly With air purge. Curved vacuum tube (Position 1)
PEPF2000-45	218177-10 218177-11		Magnetic Pressure Foot Assembly With air purge. Curved vacuum tube (Uniline machine)
PE148	217243-15		Window - LTC Magnetic Pressure Foot Observation window .910" tall

Only Prima magnetic pressure feet and pressure foot inserts come with patented phantom sealed magnets for unbeatable life

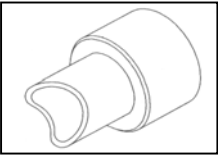
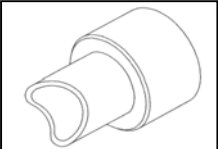
Excellon Magnetic Pressure Foot Inserts

PE177-06G	232524-01		Magnetic Pressure Foot Insert-30% Glass .400" I.D. For laser tool check pressure foot
PE177-06S	232524-01		Magnetic Pressure Foot Insert-Steel .400" I.D. For laser tool check pressure foot
PE177-20G	232524-03		Magnetic Pressure Foot Insert-30% Glass .140" I.D. For laser tool check pressure foot
PE177-20S	232524-03		Magnetic Pressure Foot Insert-Steel .140" I.D. For laser tool check pressure foot
PE177-38G	232524-02		Magnetic Pressure Foot Insert-30% Glass .265" I.D. For laser tool check pressure foot
PE177-38S	232524-02		Magnetic Pressure Foot Insert-Steel .265" I.D. For laser tool check pressure foot




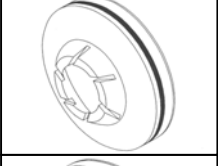

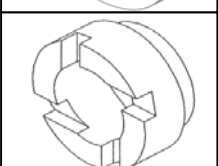
Excellon Driller Pressure Foot Assembly & Components

<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PEPF600-0875	215086-19		Driller Pressure Foot Assembly Accepts .875" O.D. hose.
PEPF600-1062	215086-19		Driller Pressure Foot Assembly Accepts 1.062" O.D. hose.
PE140	200496-15		Window 1.45" tall-clear Plexiglas.
PE144	206023-14		Window Spring Holds window closed.

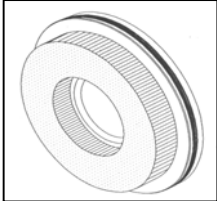
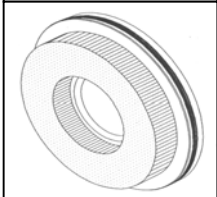
Excellon Driller Pressure Foot (continued...)

PE250	Prima Design		Silent Sleeve-Hardened Steel Accepts .875" O.D. hose.
PE251	Prima Design		Silent Sleeve-Hardened Steel Accepts 1.062" O.D. hose.

Excellon Driller Inserts

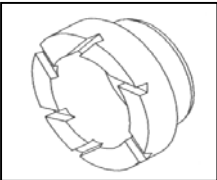
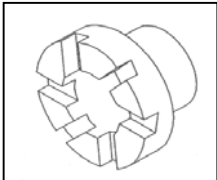
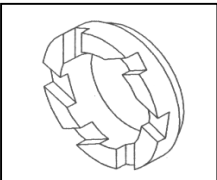
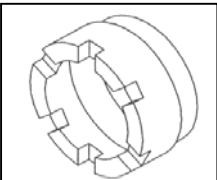
<u>Prima Part #</u>	<u>OEM #</u>	<u>Picture</u>	<u>Description</u>
PE183	202482-25		Insert-Hard Anodized Aluminum Standard OEM replacement. Large I.D. bore clears LCAT gripper.
PE184	*202482-25		Insert-Delrin Large I.D. bore clears LCAT gripper. Ramp on bottom allows insert to glide over location pins if contact occurs.
PE185	202482-17		Insert-Hard Anodized Aluminum Standard OEM replacement. For use with standard tool change gripper.
PE186	*202482-17		Insert-Delrin For use with standard tool change gripper. Ramp on bottom allows insert to glide over location pins if contact occurs.
PE160	*202482-17		Disc-Hard Anodized Aluminum With locking o-ring around O.D. Accepts PE161 insert only.
PE161			Insert-Delrin Presses into PE160 disc. Tail Diameter: .601" Head Diameter: .250" Overall Length: .375" I.D.: .440"

Excellon Driller Brushes

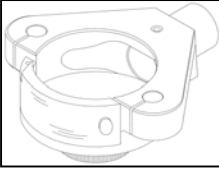
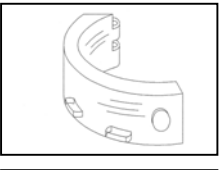
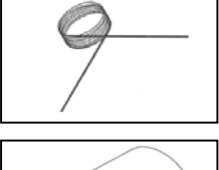
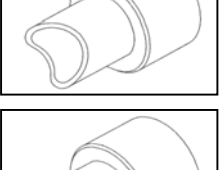
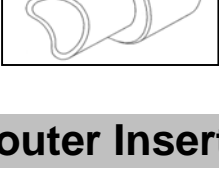
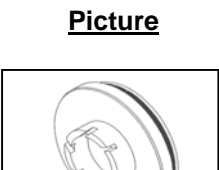
<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PEB410-1	202470-29		Brush-Horse Hair Driller Heavy bristle.
PEB410-11	202470-29		Brush-Gold Nylon Driller Heavy bristle.

All brushes come standard with a bristle length .250" and can be special ordered with bristle lengths up to .500"

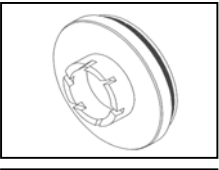

Excellon Broken Drill Detector Pressure Foot Inserts

<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PE165	409712-2		Insert-Nylon Microwave passes thru insert. Tail Diameter: .627" Head Thickness: .200" Overall Length: .400" I.D.: .400"/.540"
PE166	409712-10		Insert-Teflon Microwave passes thru insert. Tail Diameter: .457" Head Thickness: .200" Overall Length: .500" I.D.: .400"
PE167	208949-11		Insert-Delrin Infrared passes over top of insert. Tail Diameter: .677" Head Thickness: .135" Overall Length: .200" I.D.: .525"
PE168	208949-52		Insert-Delrin Infrared passes over top of insert. Tail Diameter: .677" Head Thickness: .250" Overall Length: .375" I.D.: .525"

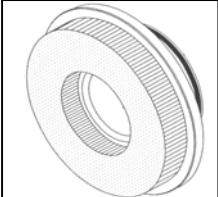
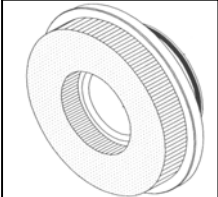
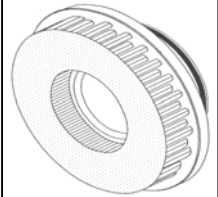
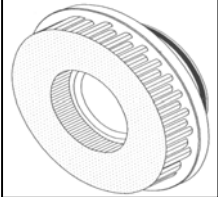
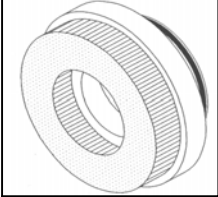
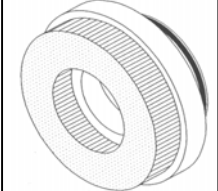
Excellon Driller/Router Pressure Foot Assembly & Brushes

<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PEPF500-0875	202576-14		Driller/Router Pressure Foot Assembly Accepts .875" O.D. hose.
PEPF500-1062	*202576-14		Driller/Router Pressure Foot Assembly Accepts 1.062" O.D. hose.
PE141	202580-18		Window D/R 1.00" tall-clear plexiglass.
PE144	206023-14		Window Spring Holds window closed.
PE250	Prima Design		Silent Sleeve-Hardened Steel Accepts .875" O.D. hose.
PE251	Prima Design		Silent Sleeve-Hardened Steel Accepts 1.062" O.D. hose.

Excellon Driller / Router Inserts

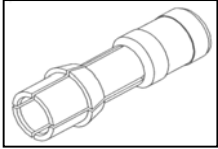
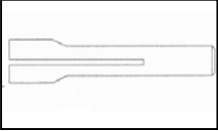
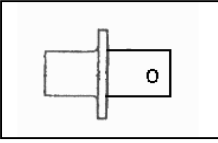
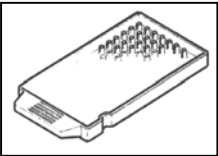
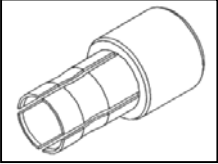
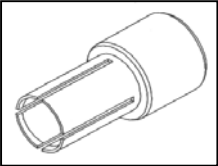
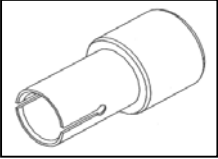
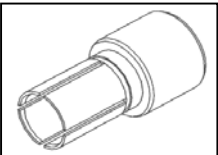
<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PE195	202610-12		Insert-Hard Anodized Aluminum Standard OEM replacement.
PE196	*202610-12		Insert-Delrin Ramp on bottom allows insert to glide over location pins if contact occurs.

Excellon Driller / Router Brushes

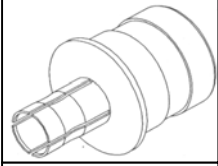
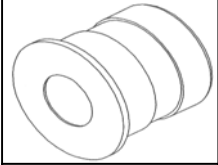
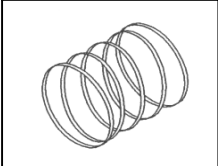

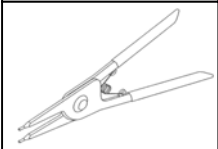
<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PEB400-1	*202614-18		Brush-Horse Hair Heavy bristle. Larger diameter for exceptional hold down. Does not allow floating option during cutoff.
PEB400-11	*202614-18		Brush-Gold Nylon Heavy bristle. Larger diameter for exceptional hold down. Does not allow floating option during cutoff.
PEB401-1	*202614-18		Brush-Horse Hair Staggered bristle pattern, for better air flow. Larger diameter for exceptional hold down. Does not allow floating option during cutoff.
PEB401-11	*202614-18		Brush-Gold Nylon Staggered bristle pattern, for better air flow. Larger diameter for exceptional hold down. Does not allow floating option during cutoff.
PEB405-1	202614-18		Brush-Horse Hair Heavy bristle. Smaller diameter allows for floating during cutoff.
PEB405-11	202614-18		Brush-Gold Nylon Heavy bristle. Smaller diameter allows for floating during cutoff.

All brushes come standard with a bristle length .250" and can be special ordered with bristle lengths up to .500"

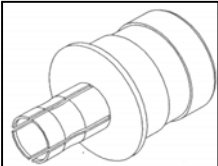
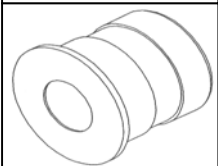
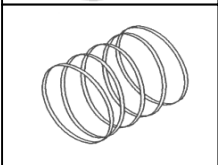
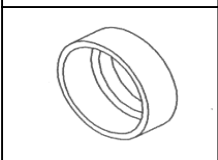
Excellon Transfer Collets and Tool Change Components

<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PE128	211968-11		Transfer Collet LCAT, Spring Steel With rubber boot to protect debris from entering cylinder.
PE138	218024-18		Transfer Collet LCAT, Spring Steel 10mm transfer collet
PE139	218023-19		Transfer Collet Sleeve For use with 10mm transfer collet
PEC1200	211991-12		Drill Cassette TMS System cassette 120 drill capacity
PE120	*203076-17		Gripper-Spring Steel Highest quality gripper with extremely high memory.
PE122	*203076-17		Gripper-Steel Alloy Comparable to spring steel.
PE124	*203076-17		Gripper-Delrin An economical alternative. Safe for machine and drill point.
PE125	203076-17		Gripper-Beryllium Copper O.E.M. type. Tangs will break in case of bad tool change.

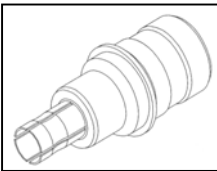
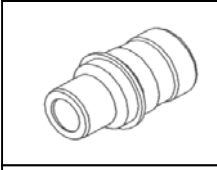
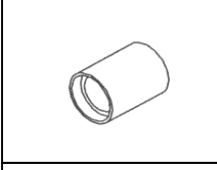
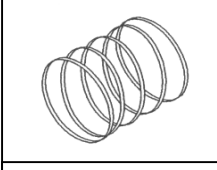


Driller Gripper Assemblies w/ Safety Snap Ring Retainer

<u>Prima Part#</u>	<u>OEM Part#</u>	<u>Picture</u>	<u>Description</u>
PE203-120	*200517-10		Driller Gripper Assy. w/Spring Steel Gripper
PE203-122	*200517-10		Driller Gripper Assy. w/Steel Alloy Gripper
PE203-124	*200517-10		Driller Gripper Assy. w/Delrin Gripper
PE203-125	200517-10		Driller Gripper Assy. w/Beryllium Gripper
PE203	200609-27		Housing-Hard Anodized Aluminum Accepts PE212 Safety Snap Ring only.
PE211	404912-19		Spring Housing spring.
PE212	Prima Design		Safety Snap Ring-Delrin Retains components in PE203 housing.
PT215	Prima Design		Snap Ring Pliers Used to install and remove PE212.

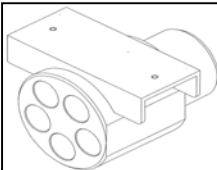
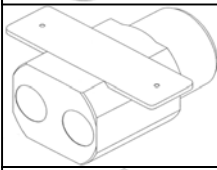
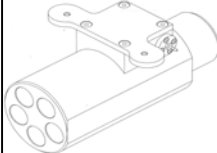
Driller Gripper Assemblies w/ Press In Retainer

PE204-120	*200517-10		Driller Gripper Assy. w/Spring Steel Gripper
PE204-122	*200517-10		Driller Gripper Assy. w/Steel Alloy Gripper
PE204-124	*200517-10		Driller Gripper Assy. w/Delrin Gripper
PE204-125	200517-10		Driller Gripper Assy. w/Beryllium Gripper
PE204	200609-27		Housing-Hard Anodized Aluminum Accepts PE208 press in retainer only. OEM style
PE211	404912-19		Spring Housing spring.
PE208	200610-16		Press In Retainer Retains components in PE204 housing.

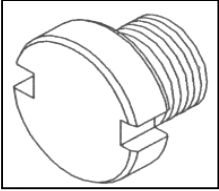
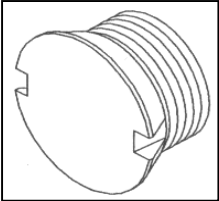
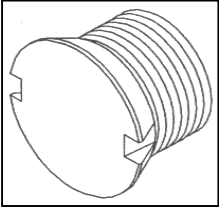
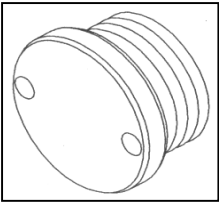
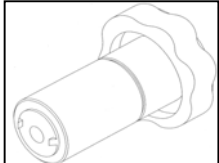
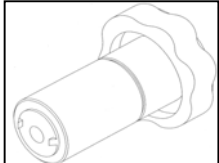
D/R Gripper Assemblies w/ Safety Snap Ring Retainer

PE201-120	*201523-10		D/R Gripper Assy. w/Spring Steel Gripper
PE201-122	*201523-10		D/R Gripper Assy. w/Steel Alloy Gripper
PE201-124	*201523-10		D/R Gripper Assy. w/Delrin Gripper
PE201-125	201523-10		D/R Gripper Assy. w/Beryllium Gripper
PE201	201524-27		Housing-Hard Anodized Aluminum Accepts PE212 Safety Snap Ring only.
PE210	Prima Design		Spacer Housing spring
PE211	404912-19		Spring Housing spring.
PE212	Prima Design		Safety Snap Ring-Delrin Retains components in PE201 housing.
PT215	Prima Design		Snap Ring Pliers Used to install and remove PE212.

Excellon Vacuum Manifolds

<u>Prima Part#</u>	<u>OEM Part#</u>		<u>Description</u>
PEVM200-2	411110-14		Manifold 2 Inlet Ports
PEVM200-4	411110-14		Manifold 4 Inlet Ports
PEVM200-5	411110-14		Manifold 5 Inlet Ports
PEVM300-2	Prima Design		Manifold 2 Inlet Ports / Low Profile
PEVM300-3	Prima Design		Manifold 3 Inlet Ports / Low Profile
PEVM400-2	411110-14		Manifold 2 Inlet Ports / Air Operated Shutoff
PEVM400-4	411110-14		Manifold 4 Inlet Ports / Air Operated Shutoff
PEVM400-5	411110-14		Manifold 5 Inlet Ports / Air Operated Shutoff

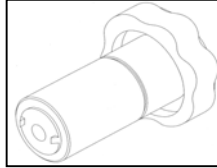
Tooling Plugs and Wrenches

<u>Prima Part#</u>	<u>OEM Part#</u>		<u>Description</u>
PP625-180 (Delrin)	ZZDO1H		Multiline Compatible For 1/8" thru 3/16" diameter location Pins. Head Size: .615" diameter x .180" thick Thread: 7/16-20 Overall Length: .325"
PP626-180 (30% Glass)	ZZDO1H		
PP627-180 (G-10)	ZZDO1H		
PP700-350 (Delrin)	Prima Design		Tapered Tooling Plug For 3/8" thick riser plates. For 1/8" thru 1/4" diameter location Pins. Head Size: .700" diameter Thread: 9/16-18 Overall Length: .325"
PP702-350 (G-10)	Prima Design		
PP703-350 (Phoenolic)	Prima Design		
PP704-350 (30% Glass)	Prima Design		
PP700-450 (Delrin)	Prima Design		Tapered Tooling Plug For 1/8" thru 1/4" diameter location Pins. Head Size: .700" diameter Thread: 9/16-18 Overall Length: .450"
PP702-450 (G-10)	Prima Design		
PP703-450 (Phoenolic)	Prima Design		
PP704-450 (30% Glass)	Prima Design		
PP875-125 (Delrin)	Prima Design		Tooling Plug For 1/8" thru 1/4" diameter location Pins. Head Size: .870" diameter x .125" thick. Thread: 3/4-16 Overall Length: .440"
PP876-125 (30% Glass)	Prima Design		
PP877-125 (G-10)	Prima Design		
PP900-440 (Delrin)	Prima Design		Tapered Tooling Plug For 1/8" thru 1/4" diameter location Pins. Head Size: .865" diameter Thread: 3/5-16 Overall Length: .440"
PP901-440 (30% Glass)	Prima Design		
PT600	Prima Design		Tooling Plug Wrench Hardened steel wrench with aluminum handle. For PP600 series plugs.

Tooling Plug Wrenches (continued...)

PT700

Prima Design

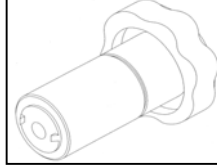


Tooling Plug Wrench

Hardened steel wrench with aluminum handle.
For PP700 series plugs.

PT900

Prima Design



Tooling Plug Wrench

Hardened steel wrench with aluminum handle.
For PP875/PP900 series plugs.

Tooling Plates and Riser Plates

- ~ Prima machine manufactures custom tooling plates for all drilling and routing machines
- ~ All tooling plates are precision machined from highly stable cast aluminum plate
- ~ Prima's machining practices produce a series of plates with less than .003" flatness across all plates
- ~ Prima can bottom pocket plates to reduce weight
- ~ Prima has drawings on most machines tooling plates
- ~ Prima can install any plug style and any locations
- ~ Riser plates also available

