

## Technical Information

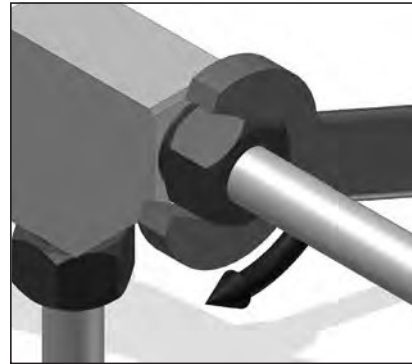
### Tools and Installation Instruction

Please find following all instructions and tooling needed to install Parker MPI™ Fittings and Valves.

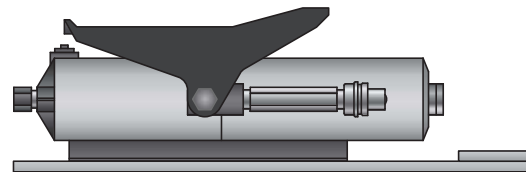
For your assistance, we have also included female port dimensions for the Parker X44 Adapter connection. This port configuration is rated for 15,000 psi when using material with at least 60,000 psi yield strength

### Overview:

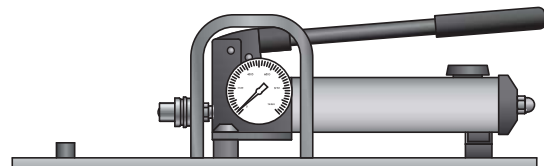
- Assembly
- Gaugeability
- Remake
- Gap Gauge
- Hydraulic Preset Tools
- Port Dimensions



Gap Gauge



Parker Part No.  
MPI AIR PUMP KIT

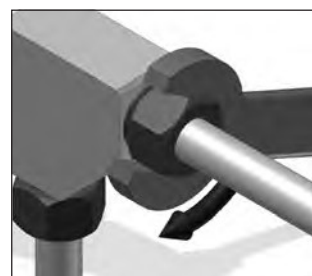
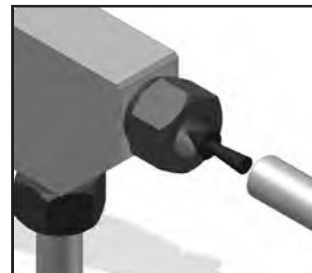


Parker Part No.  
MPI HAND PUMP KIT

Parker MPI™ Fittings can be assembled by hand but hydraulic preset is recommended for 3/4" and required for 1" to insure proper markup (Required for 2507 Super Duplex Tubing along with using -XF ferrule sets on sizes 12 & 16).

## Assembly

1. Parker MPI™ Fittings are sold completely assembled and ready for immediate use. Simply insert the tube as illustrated until it bottoms in the fitting body. (If the fitting is disassembled, note that the small tapered end of the ferrule(s) go into the fitting body.)
2. Turn the nut to the "finger-tight" position. Hold the fitting body with a second wrench to prevent the body from turning as you tighten the nut. For hand assembly, tighten the nut 1-1/2 turns. For 3/4" and 1" sizes, preset the nut and ferrules and then tighten the nut 1/2 turn only. See page 79 & 80 for more information on preset connections. Parker recommends that you mark the nut (using a scribe or ink) to help you count the turns.



## Gaugeability

Check the gap between the nut and the body hex with the end of the gauge by inserting the gauge (as shown) into the beveled gap between the nut and body hex. Gently turn the gauge (that is, it "twists out"). However, if the gauge slides into the beveled gap, (does not "twist out") the fitting is not properly made up and you must check the entire assembly procedure.



## Remake

For maximum number of remakes, mark the fitting and nut before disassembly. Before retightening, make sure the assembly has been inserted into the fitting until the ferrule seats in the fitting. Retighten the nut by hand. Rotate the nut with a wrench to the original position as indicated by the previous marks lining up. (A noticeable increase in mechanical resistance will be felt indicating the ferrule is being re-sprung into sealing position.)

## Gap Gauge

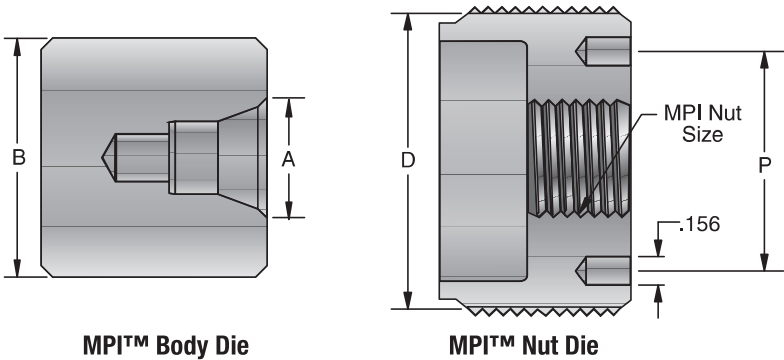
This one handy gauge works for all MPI™ sizes. The end of the gauge checks the fitting gap after make-up.

Parker Part Number: **MPI GAP GAUGE**



Gap Gauge

# MPI™ Hydraulic Preset Tools (316 Tubing)

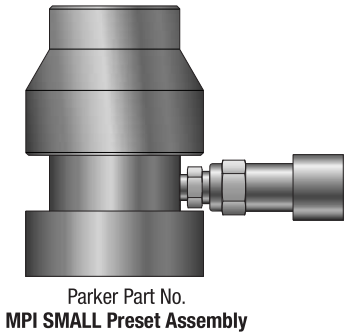


## 316 Tubing

Body Dies and Nut Dies Used with the MPI™ Small Preset Assembly

MPI Small Preset Assembly		Inches					Preset Pressure PSIG
Body Die Part No.	Nut Die Part No.	A	B	D	P	MPI™ Nut Size	
4 MPI Body Die	4 MPI Nut Die	.50	1.25	1.62	1.20	4	3,200
6 MPI Body Die	6 MPI Nut Die	.63	1.25	1.62	1.20	6	4,000
8 MPI Body Die	8 MPI Nut Die	.82	1.25	1.62	1.20	8	6,800
9 MPI Body Die	9 MPI Nut Die	.88	.88	1.62	1.20	9	8,500

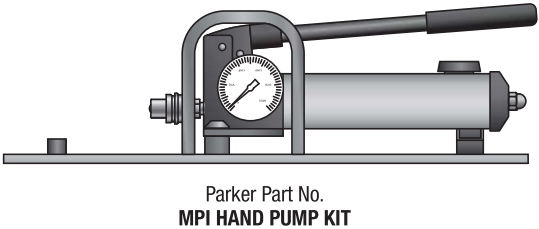
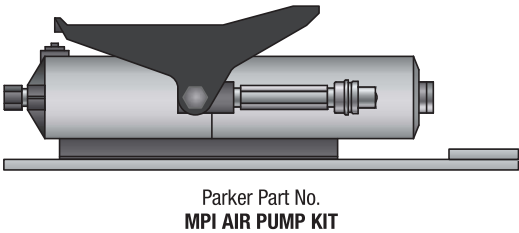
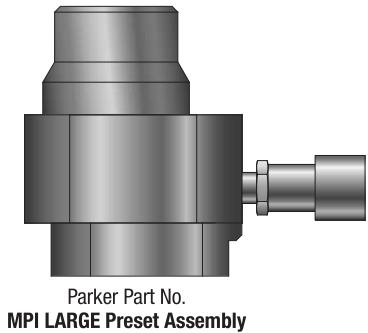
Dimensions in inches are for reference only, subject to change.



Body Dies and Nut Dies Used with the MPI™ Large Preset Assembly

MPI Large Preset Assembly		Inches					Preset Pressure PSIG	-XF Preset Pressure (psi)
Body Die Part No.	Nut Die Part No.	A	B	D	P	MPI™ Nut Size		
*9 MPI Body Die	9 MPI Large Nut Die	.88	1.25	2.00	1.67	9	3,600	-
12 MPI Body Die	12 MPI Nut Die	1.13	1.75	2.00	1.67	12	5,200	6,000
16 MPI Body Die	16 MPI Nut Die	1.44	1.75	2.00	1.67	16	8,000	8,000

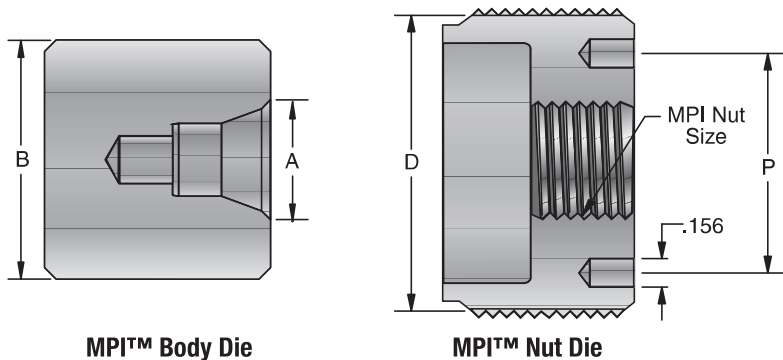
\* Requires a 9 MPI Body Die Adapter  
Dimensions in inches are for reference only, subject to change.



Note: One Pump Kit, Preset Assembly, Body Die and Nut Die are required for presetting. Pump Kits and Preset Assemblies can be interchanged but Body Dies and Nut Dies are for a specific Preset Assembly. Detailed operating instructions are included with each kit. Copies may also be obtained by contacting the Division.

Technical  
Information

## MPI™ Hydraulic Preset Tools (2507 Tubing)

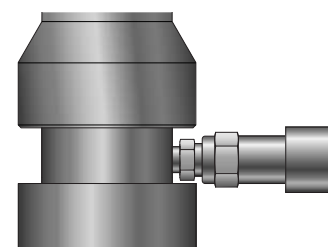


### 2507 Tubing

Body Dies and Nut Dies Used with the MPI™ Small Preset Assembly

MPI Small Preset Assembly		Inches					Preset Pressure PSIG
Body Die Part No.	Nut Die Part No.	A	B	D	P	MPI™ Nut Size	
6 MPI Body Die	6 MPI Nut Die	.63	1.25	1.62	1.20	6	4,400
8 MPI Body Die	8 MPI Nut Die	.82	1.25	1.62	1.20	8	8,000

Dimensions in inches are for reference only, subject to change.

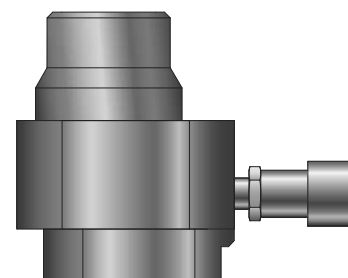


Parker Part No.  
**MPI SMALL Preset Assembly**

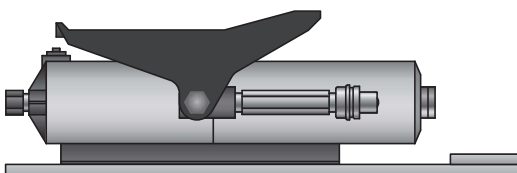
Body Dies and Nut Dies Used with the MPI™ Large Preset Assembly

MPI Large Preset Assembly		Inches					Preset Pressure PSIG	-XF Preset Pressure (psi)
Body Die Part No.	Nut Die Part No.	A	B	D	P	MPI™ Nut Size		
10 MPI Body Die	10 MPI Large Nut Die						4,400	-
12 MPI Body Die*	12 MPI Nut Die	1.13	1.75	2.00	1.67	12	5,600	6,000
16 MPI Body Die	16 MPI Nut Die	1.44	1.75	2.00	1.67	16	8,800	8,000

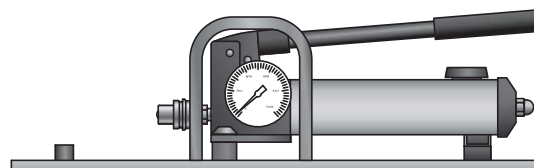
\* Requires a 9 MPI Body Die Adapter  
Dimensions in inches are for reference only, subject to change.



Parker Part No.  
**MPI LARGE Preset Assembly**



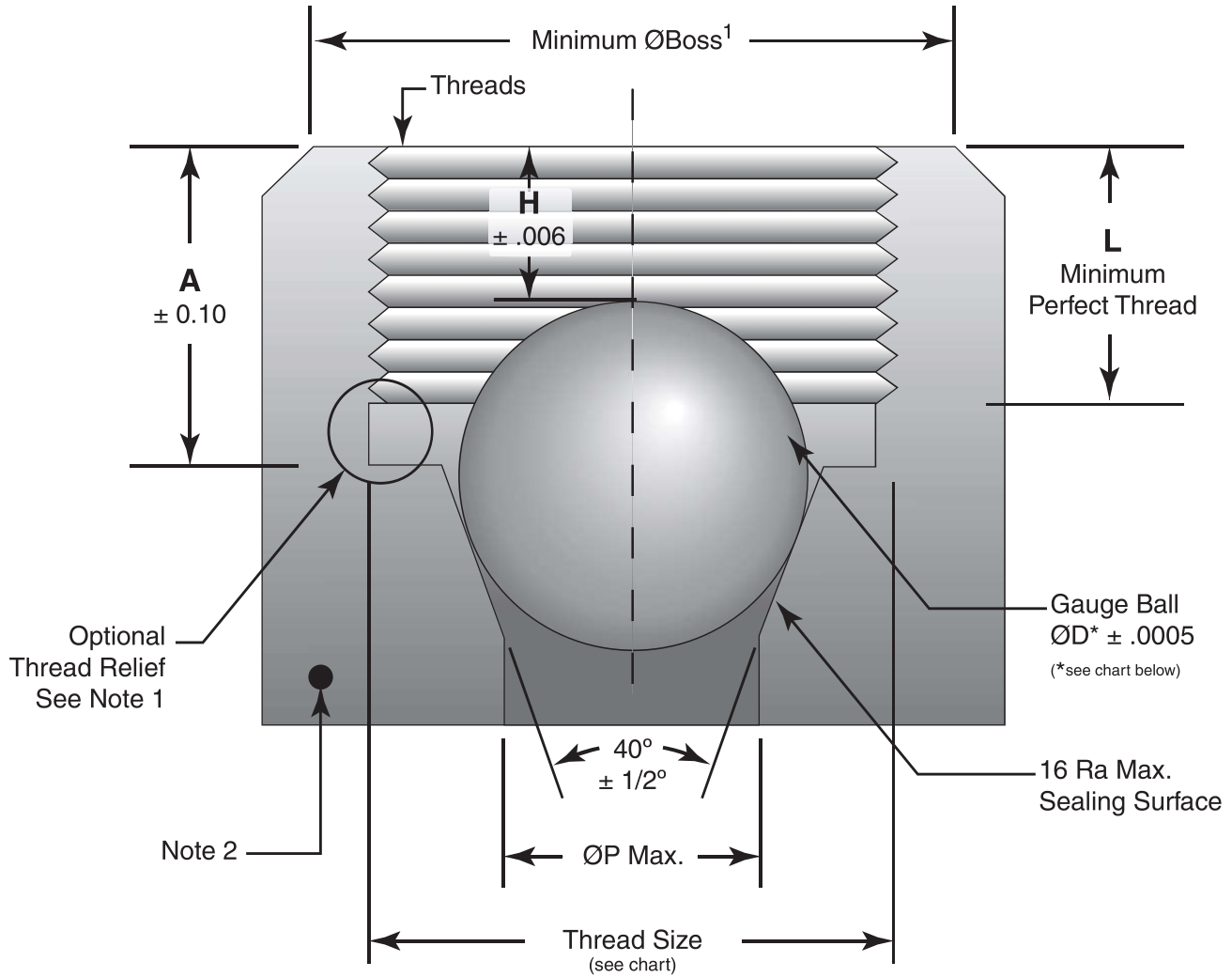
Parker Part No.  
**MPI AIR PUMP KIT**



Parker Part No.  
**MPI HAND PUMP KIT**

Note: One Pump Kit, Preset Assembly, Body Die and Nut Die are required for presetting. Pump Kits and Preset Assemblies can be interchanged but Body Dies and Nut Dies are for a specific Preset Assembly. Detailed operating instructions are included with each kit. Copies may also be obtained by contacting the Division.

## Port Dimensions for Parker X44™ Adapter



Port Dimensions for Parker X44™ Adapter									
Size	Threads	A	ØD*	H	L	ØP Max.	Min. ØBoss	Maximum Working Pressure PSI	Assembly Torque
6	5/8-18 UNF-2B	.516	.3750	.386	.409	.291	3/4	15,000	40 ft-lb
9	7/8-14 UNF-2B	.547	.6250	.222	.435	.385	1-1/16	15,000	80 ft-lb
12	1-1/8-12 UNF-2B	.680	.7500	.324	.549	.541	1-3/8	15,000	165 ft-lb

**Note:**

1. If produced with the optional thread relief, the minimum boss diameter shall be increased by 1/16"
2. 60,000 psi minimum yield strength required for port material.
3. ØP is the maximum thru hole. Drill size should be .010" smaller than diameter shown.
4. All dimensions are in inches unless otherwise specified.