A Overview

2H & 3H Family Model Code

5.00	C	K	F	P	TB	2H	H	N	A
Bore Dia.	Cushion Head	Double Rod End Cylinder	Mounting Style	Mounting Modification	Combination Mounting Style[5]	Series Designator	Piston Seal	Piston Magnet	Gland & Seal

Bore Dia.
Specify bore dia. in inches
1.50
2.00
2.50
3.25
4.00
5.00
6.00
7.00
8.00

Cushion Head
Use "C" only if head end cushion is required.

Double Rod End Cylinder
Use "K" only if a double rod end cylinder is required.[1]

Mounting Style
Mounting style offering varies by series. See 'Standard Specifications' pages for availability.
T = Basic, No Mount
TB = Tie Rods Extended Head
TC = Tie Rods Extended Cap
TD = Tie Rods Extended Both Ends
J = Head Rectangular Flange
JB = Head Square Flange
JJ = Head Rectangular
H = Cap Rectangular Flange
HB = Cap Square Flange
HH = Cap Rectangular
C = Side Lug[2]
F = Side Tapped[2]
BB = Cap Fixed Clevis
D = Head Trunnion
DB = Cap Trunnion
DD = Intermediate Fixed Trunnion[3]
DE = Heavy Duty Intermediate Fixed Trunnion[3]
SB = Spherical Bearing
SE = Heavy Duty Spherical Bearing
TX = Special Mounting (Consult Factory)[4]

Mounting Modification
P = Use only if Thrust Key required. (Style C or F.)
M = Use only for Manifold Port O-Ring Seal. Applies to C Mount only.

Combination Mounting Style[5]
Any practical mounting style listed.

Series Designator
1.50"-6.00" Bore
2H, 2HD, 2HB
7.00"-8.00" Bore
3H, 3HD, 3HB

Piston Seal
H = Parker HP (standard) Piston Seal
K = Parker KP (universal) Piston Seal[6]
R = Parker RP (extrusion resistant) Piston Seal
W = Parker WP (mixed media) Piston Seal

Piston Magnet
N = No Magnet
3 = Magnet Piston with SS Cylinder Tube for Global Switches
7 = Magnet with Carbon Steel Cylinder Tube for ALS Switches

Gland & Seal
2H & 3H
A = Threaded Jewel Gland with TS2000 Rod Seal (for Class 1 service) – additional Seal Classes are available
2HD, 2HB, 3HD, 3HB
H = Bolt-on Gland Class 1 Service Standard. Additional Seal Classes are available. See Seal Code for details.
K = Bolt-on Lipseal Gland with Buffer Seal (Not available 0.625" rod)
All Series
F = Gland with dual PTFE Rod Seals and PTFE Wiperseal[6] (Low Friction)

Series 2HB & 3HB Minimum Stroke Table

Bore Ø	All Mounting Styles Except DD & DE	Mounting Styles DD & DE
1.50	1.062	2.875
2.00	1.562	3.750
2.50	1.437	3.625
3.25	1.687	4.375
4.00	1.937	5.000
5.00	1.937	5.437
6.00	2.562	6.687
7.00	3.437	8.062
8.00	2.937	8.250

Shaded boxes identify required model number fields.

[1] Available mounting styles for K Type cylinders are located at the end of Section A. When ordering a double rod end cylinder, the piston rod number and piston rod end threads are to be specified for both rod ends.

The model number should be created as viewing the primary rod end on the left hand side.
Example: K Type Cylinder:
4.00CKTD2HLT14A28AC10.000

[2] Mounting Styles C and F should have a minimum stroke length equal to or greater than their bore size.

[3] Specify XI dimension.

[4] Special mounting styles that do not resemble a standard catalog offering will be designated as style TX by the factory. See page 4 for instructions to enter a mounting that resembles a standard style.

[5] In general, the model numbers as read left to right corresponding to the cylinder as viewed from left to right with the primary end at the left. The second or subsequent mountings are mountings called out as they appear in the assembly moving away from the rod end. Except when tie rod extension mountings are part of a combination, all combinations should have a "S" (Special) in the model code and a note in the body of the order clarifying the mounting arrangement. The "P", as used to define a thrust key is not considered to be a mounting. However it is located at the primary end.

[6] Piston seal code K and Gland & Seal code F must be selected for Class 8 service. Dual PTFE rod seals with PTFE wiperseal not available for 0.625" rod.

2H & 3H Family Model Code

T	1	S	1	4	2	A	C	16.000
Port Type	Seals	Special Modification	Piston Rod Number[9]	Piston Rod End	Piston Rod Alternate Thread[12]	Piston Rod Threads	Cushion Cap	Stroke[8]

Seals
- 1 = Standard Seals
- 2 = Water Base Fluid Seals
- 3 = EPR Seals
- 4 = Low Temperature Seals
- 5 = Fluorocarbon Seals
- 6 = High Water Content Fluid
- 8 = Energized PTFE Seals
- E = Fluorocarbon Seals – Piston Rod only
- N = High Temperature Rod Gland[7]

Special Modification
Use only if special modifications are required:
- Oversize Ports
- Port Position Change
- Special Seals
- Stop Tube[8]
- Stroke Adjusters
- Tie Rod Supports
- Other

Piston Rod Number[9]
1, 2, 3, 4, 5

Piston Rod Alternate Thread[12]
Use only for male thread two times longer than standard.

Cushion Cap
- C = Standard Floating Cushion Bushing Design
  1.50" - 6.00" Bore
- F = Solid Cap Orifice Design

Stroke[8]
Specify in inches

Piston Rod Threads
- A = UNF Standard Integral Cut Thread
- H = UNF Optional High Strength Stud (Style 4 through 2.000" rod only)
- M = Metric[13]
- N = No Thread[14]

Port Type
- T = SAE Straight Thread O-Ring (Std.)
- U = NPTF Ports (Dry Seal Pipe Thread)
- R = BSP Ports (Parallel Thread ISO 228)
- P = SAE 4-Bolt Flange Ports (3,000 psi)
- B = BSPT Ports (Taper Thread)
- G = Metric Thread Ports
- Y = Metric Thread Ports per ISO 6149
- M = Used only for Manifold Port O-ring Seal. M option must be specified (Mounting Modification), applies to Mounting Style C only.

Piston Rod End

4	=	Style 4 Small Male
4B	=	Style 4 Small Male with Buffer Seal Gland
7	=	Style 7 Female Thread for Spherical Rod Eye for Piston Rod Codes larger than Code #1 (Style SB only)
7B	=	Style 7 Female Thread with Buffer Seal Gland
8	=	Style 8 Intermediate Male
8B	=	Style 8 Intermediate Male with Buffer Seal Gland
9	=	Style 9 Short Female[10]
9B	=	Style 9 Short Female[10] with Buffer Seal Gland
55	=	Style 55 Rod End for Flange Coupling
55B	=	Style 55 Rod End with Buffer Seal Gland
3	=	Style 3 Special (Specify)[11]
3B	=	Style 3 Special (Specify)[11] with Buffer Seal Gland

Shaded boxes identify required model number fields.

[7] Energized PTFE rod seals & wiperseal. All other cylinder seals are fluorocarbon. Not available for 0.625" rod.

[8] S = Stop Tube. Specify: stop tube length, net stroke and gross stroke. Gross stroke = stop tube length + net stroke. Gross stroke to be placed in the model number field.

Example:

2.000 inches long stop tube
+14.000 inches net stroke
16.000 inches gross stroke

See tables on these pages for minimum allowable strokes for Series 2HB and Piston Rod End Styles 9 & 9B.

[9] Refer to Rod buckling chart in Section H to assure rod number selected will not buckle under load.

[10] Style 9 stroke restrictions may apply. See Style 9 Minimum Stroke Table for details.

[11] Provide dimensions for KK, A, W or WF. If otherwise special, furnish dimensioned sketch.

[12] Available only in combination with Style 4 or Style 8.

[13] See Section G for detailed information regarding standard metric rod end thread sizes.

[14] Must be specified for Piston Rod End Style 55.

Style 9 Minimum Stroke Table

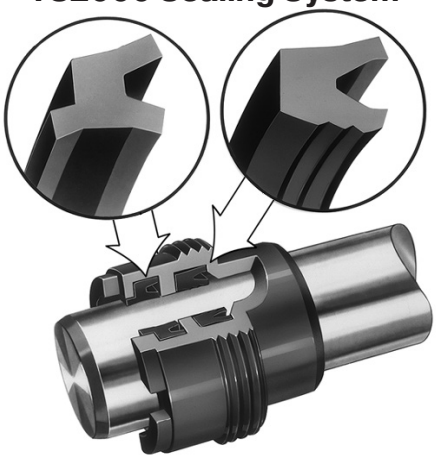
Bore Ø	Rod Ø	Minimum Stroke	
		Style 9	Style 9B
1.50 - 4.00	All	None	None
5.00	2.000	None	None
	2.500	1.000	0.56
	3.000	1.375	1.94
	3.500	1.625	1.19
6.00	2.500	None	None
	3.000	1.375	0.94
	3.500	1.375	0.94
	4.000	2.000	1.56
7.00	3.000	1.250	0.81
	3.500	1.500	1.06
	4.000	1.500	1.06
	4.500	2.500	2.06
	5.000	3.125	2.31
8.00	3.500	1.500	1.06
	4.000	1.500	1.06
	4.500	2.375	1.94
	5.000	2.875	2.06
	5.500	3.625	2.81

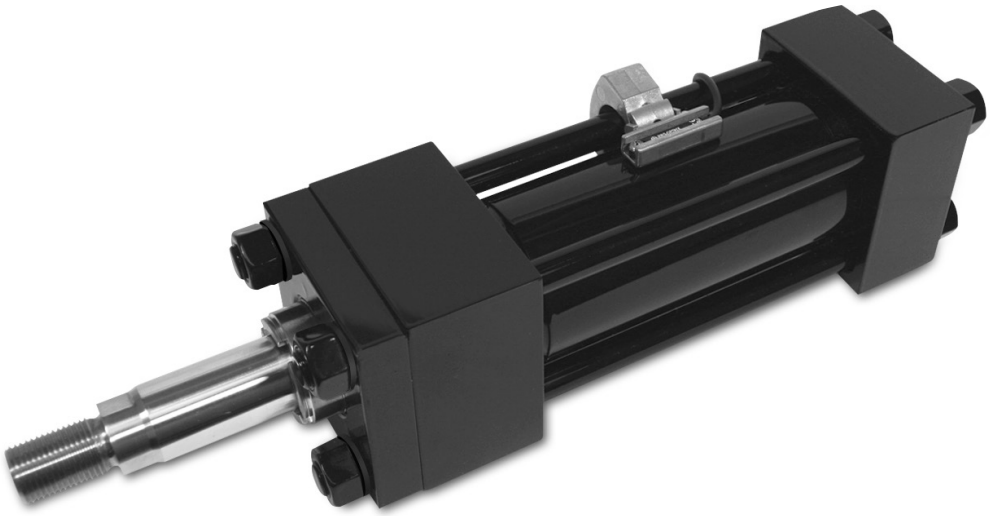
Parker Series 2H 1.50"-6.00" and 3H 7.00" & 8.00" Bore Heavy Duty Hydraulic Cylinder

Series 2H 1.50"-6.00" and 3H 7.00" & 8.00" Bore cylinders set the standard for performance, durability, and trouble free operation. Parker's superior design, the use of high quality materials and stringent manufacturing practices provide all customers with long cylinder service life and reduced operating costs. Design features such as the "Jewel" rod gland, hard chrome plated piston rods, and stepped cushions provide increased machine productivity through reduced downtime, faster cycle times, and improved system efficiency. Every Parker cylinder is individually tested before leaving our plant to assure proper performance and leak free operation. All Parker Cylinder products carry an eighteen month warranty.

Select Parker Series 2H and 3H cylinders for your hydraulic cylinder requirements. Parker Series 2H and 3H will provide the value and performance you need for all of your industrial hydraulic application demands.

Parker "Jewel" Gland with TS2000 Sealing System





⚠PROP 65 WARNING **WARNING:** This product can expose you to chemicals including **Lead and Lead Compounds** which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Standard Specifications

- Heavy Duty Service – ANSI/(NFPA) T3.6.7R3 - 2009 Specifications and Mounting Dimension Standards
- Standard Construction – Square Head – Tie Rod Design
- Nominal Pressure – 3000 psi[1]
- Standard Fluid – Hydraulic Oil
- Standard Temperature – –10°F to +165°F[2]
- Bore Diameters – 1.50" through 6.00" (Larger sizes available)
- Piston Rod Diameter – 0.625" through 4.000"
- Mounting Styles – 19 standard styles at various application ratings
- Strokes – Available in any practical stroke length
- Cushions – Optional at either end or both ends of stroke. "Float Check" design is standard at cap end.
- Rod Ends – Four Standard Choices – Specials to Order

In line with our policy of continuing product improvement, specifications in this catalog are subject to change.

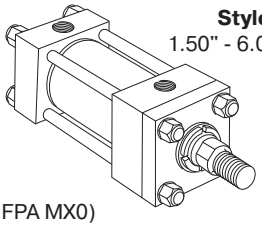
Note: Series 2H Hydraulic Cylinders fully meet ANSI/(NFPA) T3.6.7R3 - 2009 Specifications and Mounting Dimension Standards for Square Head Industrial Fluid Power Cylinders.

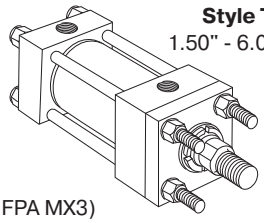
[1] If hydraulic operating pressure exceeds 3000 psi, send application data for engineering evaluation and recommendation. See Section H for actual design factors.

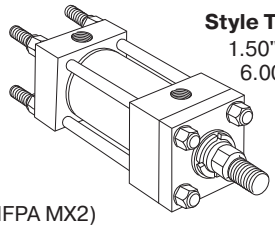
[2] See Section H for higher temperature service.

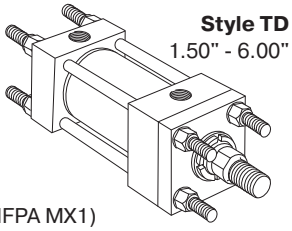
Available Mounting Styles

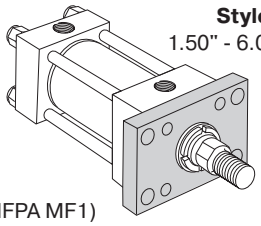
Most of the illustrated mounting styles below are available in double rod cylinders.

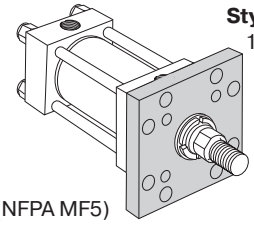
Basic
Style T
1.50" - 6.00"

(NFPA MX0)

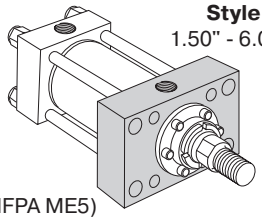
Tie Rods Extended Head End
Style TB
1.50" - 6.00"

(NFPA MX3)

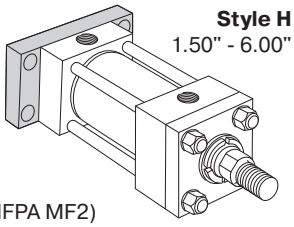
Tie Rods Extended Cap End
Style TC
1.50" - 6.00"

(NFPA MX2)

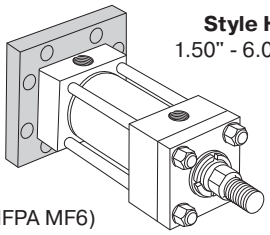
Tie Rods Extended Both Ends
Style TD
1.50" - 6.00"

(NFPA MX1)

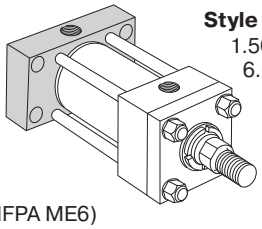
Head Rectangular Flange
Style J
1.50" - 6.00"

(NFPA MF1)

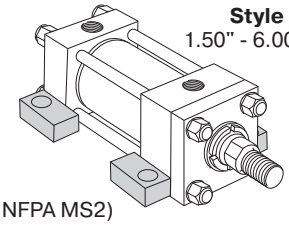
Head Square Flange
Style JB
1.50" - 6.00"

(NFPA MF5)

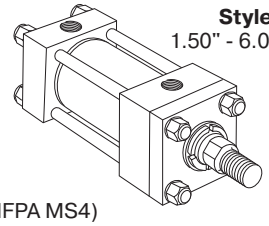
Head Rectangular
Style JJ
1.50" - 6.00"

(NFPA ME5)

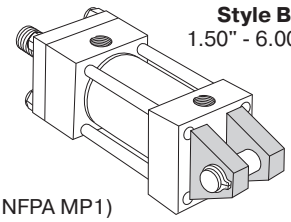
Cap Rectangular Flange
Style H
1.50" - 6.00"

(NFPA MF2)

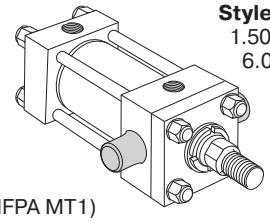
Cap Square Flange
Style HB
1.50" - 6.00"

(NFPA MF6)

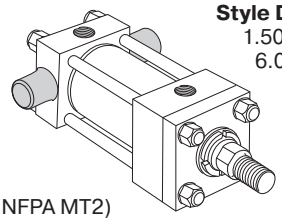
Cap Rectangular
Style HH
1.50" - 6.00"

(NFPA ME6)

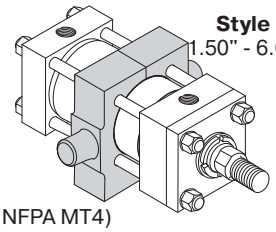
Side Lug
Style C
1.50" - 6.00"

(NFPA MS2)

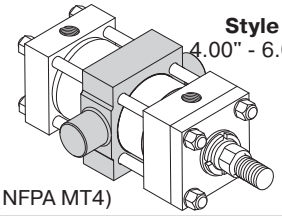
Side Tapped
Style F
1.50" - 6.00"

(NFPA MS4)

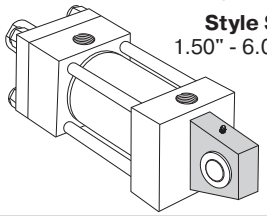
Cap Fixed Clevis
Style BB
1.50" - 6.00"

(NFPA MP1)

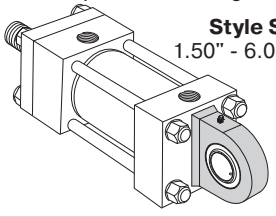
Head Trunnion
Style D
1.50" - 6.00"

(NFPA MT1)

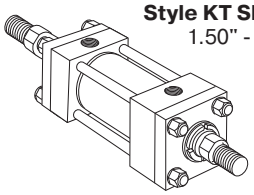
Cap Trunnion
Style DB
1.50" - 6.00"

(NFPA MT2)

Intermediate Fixed Trunnion
Style DD
1.50" - 6.00"

(NFPA MT4)

HD Intermediate Fixed Trunnion
Style DE
4.00" - 6.00"

(NFPA MT4)

Spherical Bearing
Style SB
1.50" - 6.00"


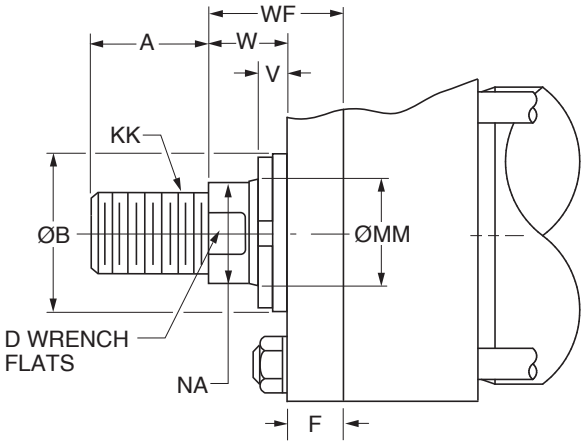
HD Spherical Bearing
Style SE
1.50" - 6.00"


Double Rod Cylinders
Style KT Shown
1.50" - 6.00"


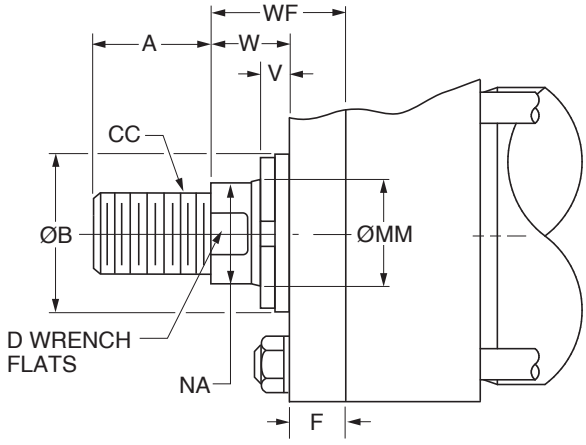
⚠PROP 65 WARNING **WARNING:** This product can expose you to chemicals including **Lead and Lead Compounds** which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Rod End Dimensions

Thread Style 4 (NFPA Style SM)
Small Male



Thread Style 8 (NFPA Style IM)
Intermediate Male



Rod End Dimensions

Bore Ø	Rod No.	MM Rod Ø	Thread		A	B Ø +.000 -.002	D	F	NA	V	W	WF
			Style 8 CC	Style 4 KK								
1.50	1 (Std.)	0.625	1/2-20	7/16-20	0.75	1.124	0.50	0.38	0.56	0.25	0.63	1.00
	2	1.000	7/8-14	3/4-16	1.13	1.499	0.88	0.38	0.94	0.50	1.00	1.38
2.00	1 (Std.)	1.000	7/8-14	3/4-16	1.13	1.499	0.88	0.63	0.94	0.25	0.75	1.38
	2	1.375	1 1/4-12	1-14	1.63	1.999	1.13	0.63	1.31	0.38	1.00	1.63
2.50	1 (Std.)	1.000	7/8-14	3/4-16	1.13	1.499	0.88	0.63	0.94	0.25	0.75	1.38
	2	1.750	1 1/2-12	1 1/4-12	2.00	2.374	1.50	0.63	1.69	0.50	1.25	1.88
	3	1.375	1 1/4-12	1-14	1.63	1.999	1.13	0.63	1.31	0.38	1.00	1.63
3.25	1 (Std.)	1.375	1 1/4-12	1-14	1.63	1.999	1.13	0.75	1.31	0.25	0.88	1.63
	2	2.000	1 3/4-12	1 1/2-12	2.25	2.624	1.69	0.75	1.94	0.38	1.25	2.00
	3	1.750	1 1/2-12	1 1/4-12	2.00	2.374	1.50	0.75	1.69	0.38	1.13	1.88
4.00	1 (Std.)	1.750	1 1/2-12	1 1/4-12	2.00	2.374	1.50	0.88	1.69	0.25	1.00	1.88
	2	2.500	2 1/4-12	1 7/8-12	3.00	3.124	2.06	0.88	2.38	0.38	1.38	2.25
	3	2.000	1 3/4-12	1 1/2-12	2.25	2.624	1.69	0.88	1.94	0.25	1.13	2.00
5.00	1 (Std.)	2.000	1 3/4-12	1 1/2-12	2.25	2.624	1.69	0.88	1.94	0.25	1.13	2.00
	2	3.500	3 1/4-12	2 1/2-12	3.50	4.249	3.00	0.88	3.38	0.38	1.38	2.25
	3	2.500	2 1/4-12	1 7/8-12	3.00	3.124	2.06	0.88	2.38	0.38	1.38	2.25
	4	3.000	2 3/4-12	2 1/4-12	3.50	3.749	2.63	0.88	2.88	0.38	1.38	2.25
6.00	1 (Std.)	2.500	2 1/4-12	1 7/8-12	3.00	3.124	2.06	1.00	2.38	0.25	1.25	2.25
	2	4.000	3 3/4-12	3-12	4.00	4.749	3.38	1.00	3.88	0.25	1.25	2.25
	3	3.000	2 3/4-12	2 1/4-12	3.50	3.749	2.63	1.00	2.88	0.25	1.25	2.25
	4	3.500	3 1/4-12	2 1/2-12	3.50	4.249	3.00	1.00	3.38	0.25	1.25	2.25

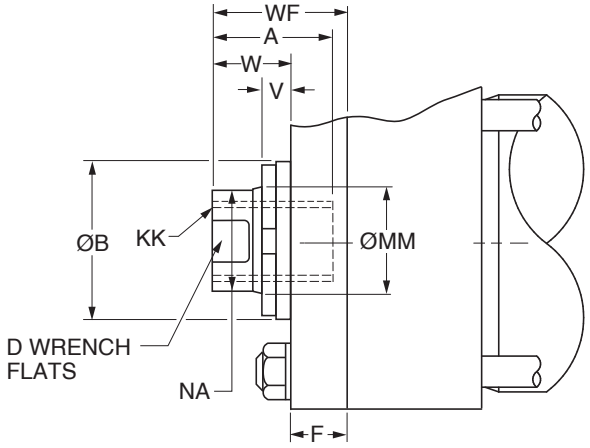
"Special" Thread Style 3

Special thread, extension, rod eye, blank, etc., are also available.

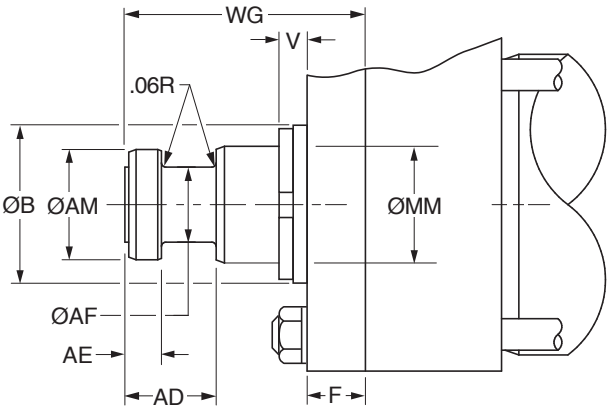
To order, specify "Style 3" and give desired dimensions for KK, A, W or WF.
If otherwise special, furnish dimensioned sketch.

Rod End Dimensions

Thread Style 9[2]
(NFPA Style SF) Small Female



Style 55[1]
Flanged Rod End



Rod End Dimensions

Bore Ø	Rod No.	MM Rod Ø	Thread Style 9 KK	A	AD	AE +.001 -.001	AF Ø	AM Ø	B Ø +.000 -.002	D	F	NA	V	W	WF	WG
1.50	1 (Std.)	0.625	7/16-20	0.75	0.63	0.249	0.38	0.57	1.124	0.50	0.38	0.56	0.25	0.63	1.00	1.75
	2	1.000	3/4-16	1.13	0.94	0.374	0.69	0.95	1.499	0.88	0.38	0.94	0.50	1.00	1.38	2.38
2.00	1 (Std.)	1.000	3/4-16	1.13	0.94	0.374	0.69	0.95	1.499	0.88	0.63	0.94	0.25	0.75	1.38	2.38
	2	1.375	1-14	1.63	1.06	0.374	0.88	1.32	1.999	1.13	0.63	1.31	0.38	1.00	1.63	2.75
2.50	1 (Std.)	1.000	3/4-16	1.13	0.94	0.374	0.69	0.95	1.499	0.88	0.63	0.94	0.25	0.75	1.38	2.38
	2	1.750	1 1/4-12	2.00	1.31	0.499	1.13	1.70	2.374	1.50	0.63	1.69	0.50	1.25	1.88	3.13
	3	1.375	1-14	1.63	1.06	0.374	0.88	1.32	1.999	1.13	0.63	1.31	0.38	1.00	1.63	2.75
3.25	1 (Std.)	1.375	1-14	1.63	1.06	0.374	0.88	1.32	1.999	1.13	0.75	1.31	0.25	0.88	1.63	2.75
	2	2.000	1 1/2-12	2.25	1.69	0.624	1.38	1.95	2.624	1.69	0.75	1.94	0.38	1.25	2.00	3.75
	3	1.750	1 1/4-12	2.00	1.31	0.499	1.13	1.70	2.374	1.50	0.75	1.69	0.38	1.13	1.88	3.13
4.00	1 (Std.)	1.750	1 1/4-12	2.00	1.31	0.499	1.13	1.70	2.374	1.50	0.88	1.69	0.25	1.00	1.88	3.13
	2	2.500	1 7/8-12	3.00	1.94	0.749	1.75	2.45	3.124	2.06	0.88	2.38	0.38	1.38	2.25	4.50
	3	2.000	1 1/2-12	2.25	1.69	0.624	1.38	1.95	2.624	1.69	0.88	1.94	0.25	1.13	2.00	3.75
5.00	1 (Std.)	2.000	1 1/2-12	2.25	1.69	0.624	1.38	1.95	2.624	1.69	0.88	1.94	0.25	1.13	2.00	3.75
	2	3.500	2 1/2-12	3.50	2.69	0.999	2.50	3.45	4.249	3.00	0.88	3.38	0.38	1.38	2.25	5.63
	3	2.500	1 7/8-12	3.00	1.94	0.749	1.75	2.45	3.124	2.06	0.88	2.38	0.38	1.38	2.25	4.50
	4	3.000	2 1/4-12	3.50	2.44	0.874	2.25	2.95	3.749	2.63	0.88	2.88	0.38	1.38	2.25	4.88
6.00	1 (Std.)	2.500	1 7/8-12	3.00	1.94	0.749	1.75	2.45	3.124	2.06	1.00	2.38	0.25	1.25	2.25	4.50
	2	4.000	3-12	4.00	2.69	0.999	3.00	3.95	4.749	3.38	1.00	3.88	0.25	1.25	2.25	5.75
	3	3.000	2 1/4-12	3.50	2.44	0.874	2.25	2.95	3.749	2.63	1.00	2.88	0.25	1.25	2.25	4.88
	4	3.500	2 1/2-12	3.50	2.69	0.999	2.50	3.45	4.249	3.00	1.00	3.38	0.25	1.25	2.25	5.63

"Special" Thread Style 3

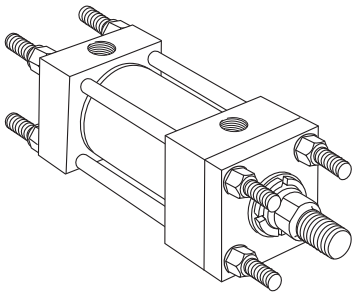
Special thread, extension, rod eye, blank, etc., are also available.

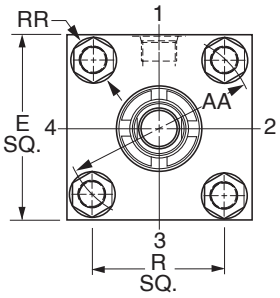
To order, specify "Style 3" and give desired dimensions for KK, A, W or WF. If otherwise special, furnish dimensioned sketch.

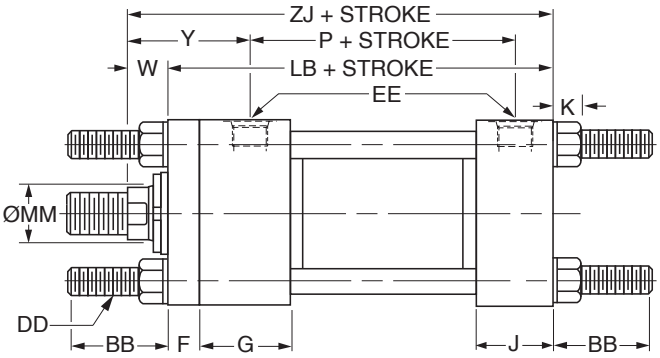
[1] For special WG dimension, specify "Style 3" and give desired dimension for WG. For other changes, place "S" in the model code, and describe rod end with dimensioned sketch.

[2] Style 9 stroke restrictions may apply. See Style 9 Minimum Stroke Table on How to Order page for details.

Tie Rods Extended Both Ends Mounting
Style TD
(NFPA Style MX1)





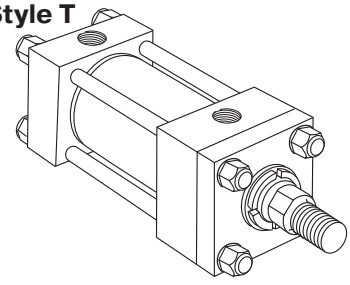


Style TD – Dimensional and Mounting Data

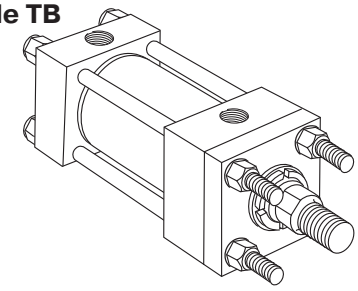
Bore Ø	Rod No.	MM Rod Ø	AA	BB	DD	E	EE		F	G	J	K Max.	R	RR	W	Y	Add Stroke		
							NPTF[1]	SAE[2]									LB	P	ZJ
1.50	1 (std.)	0.625	2.31	1.38	3/8-24	2.50	1/2	10	0.38	1.75	1.50	0.42	1.63	0.68	0.63	2.00	5.00	2.88	5.63
	2	1.000	2.31	1.38	3/8-24	2.50	1/2	10	0.38	1.75	1.50	0.42	1.63	0.68	1.00	2.38	5.00	2.88	6.00
2.00	1 (std.)	1.000	2.90	1.81	1/2-20	3.00	1/2	10	0.63	1.75	1.50	0.57	2.05	0.90	0.75	2.38	5.25	2.88	6.00
	2	1.375	2.90	1.81	1/2-20	3.00	1/2	10	0.63	1.75	1.50	0.57	2.05	0.90	1.00	2.63	5.25	2.88	6.25
2.50	1 (std.)	1.000	3.61	1.81	1/2-20	3.50	1/2	10	0.63	1.75	1.50	0.57	2.55	0.90	0.75	2.38	5.38	3.00	6.13
	2	1.750	3.61	1.81	1/2-20	3.50	1/2	10	0.63	1.75	1.50	0.57	2.55	0.90	1.25	2.88	5.38	3.00	6.63
	3	1.375	3.61	1.81	1/2-20	3.50	1/2	10	0.63	1.75	1.50	0.57	2.55	0.90	1.00	2.63	5.38	3.00	6.38
3.25	1 (std.)	1.375	4.60	2.31	5/8-18	4.50	3/4	12	0.75	2.00	1.75	0.68	3.25	1.11	0.88	2.75	6.25	3.50	7.13
	2	2.000	4.60	2.31	5/8-18	4.50	3/4	12	0.75	2.00	1.75	0.68	3.25	1.11	1.25	3.13	6.25	3.50	7.50
	3	1.750	4.60	2.31	5/8-18	4.50	3/4	12	0.75	2.00	1.75	0.68	3.25	1.11	1.13	3.00	6.25	3.50	7.38
4.00	1 (std.)	1.750	5.40	2.31	5/8-18	5.00	3/4	12	0.88	2.00	1.75	0.68	3.82	1.11	1.00	3.00	6.63	3.75	7.63
	2	2.500	5.40	2.31	5/8-18	5.00	3/4	12	0.88	2.00	1.75	0.68	3.82	1.11	1.38	3.38	6.63	3.75	8.00
	3	2.000	5.40	2.31	5/8-18	5.00	3/4	12	0.88	2.00	1.75	0.68	3.82	1.11	1.13	3.13	6.63	3.75	7.75
5.00	1 (std.)	2.000	7.00	3.19	7/8-14	6.50	3/4	12	0.88	2.00	1.75	0.94	4.95	1.55	1.13	3.13	7.13	4.25	8.25
	2	3.500	7.00	3.19	7/8-14	6.50	3/4	12	0.88	2.00	1.75	0.94	4.95	1.55	1.38	3.38	7.13	4.25	8.50
	3	2.500	7.00	3.19	7/8-14	6.50	3/4	12	0.88	2.00	1.75	0.94	4.95	1.55	1.38	3.38	7.13	4.25	8.50
	4	3.000	7.00	3.19	7/8-14	6.50	3/4	12	0.88	2.00	1.75	0.94	4.95	1.55	1.38	3.38	7.13	4.25	8.50
6.00	1 (std.)	2.500	8.10	3.63	1-14	7.50	1	16	1.00	2.25	2.25	1.05	5.73	1.77	1.25	3.50	8.38	4.88	9.63
	2	4.000	8.10	3.63	1-14	7.50	1	16	1.00	2.25	2.25	1.05	5.73	1.77	1.25	3.50	8.38	4.88	9.63
	3	3.000	8.10	3.63	1-14	7.50	1	16	1.00	2.25	2.25	1.05	5.73	1.77	1.25	3.50	8.38	4.88	9.63
	4	3.500	8.10	3.63	1-14	7.50	1	16	1.00	2.25	2.25	1.05	5.73	1.77	1.25	3.50	8.38	4.88	9.63

[1]NPTF ports are available at no extra charge. [2]SAE straight thread ports are standard and are indicated by port number.

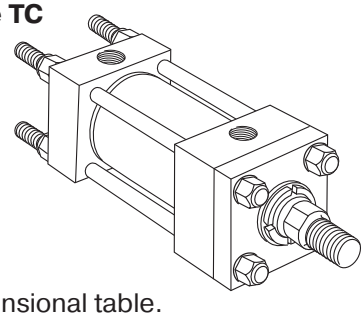
Style T



Style TB

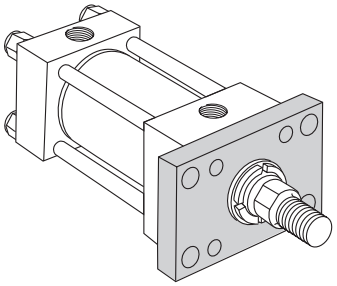


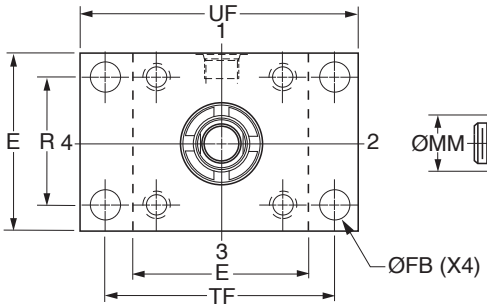
Style TC

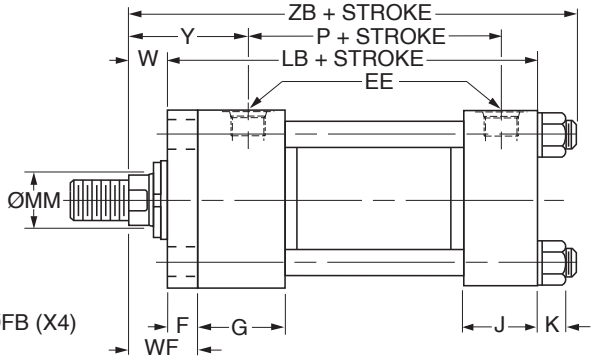


Dimensions for T, TB and TC Mount may be obtained from the above dimensional table.

Head Rectangular Flange Mounting
Style J
(NFPA Style MF1)







Style J – Dimensional and Mounting Data

Bore Ø	E	EE		F	FB Ø	G	J	K Max.	R	TF	UF	Add Stroke	
		NPTF[1]	SAE[2]									LB	P
1.50	2.50	1/2	10	0.38	0.44	1.75	1.50	0.42	1.63	3.44	4.25	5.00	2.88
2.00	3.00	1/2	10	0.63	0.56	1.75	1.50	0.57	2.05	4.13	5.13	5.25	2.88
2.50	3.50	1/2	10	0.63	0.56	1.75	1.50	0.57	2.55	4.63	5.63	5.38	3.00
3.25	4.50	3/4	12	0.75	0.69	2.00	1.75	0.68	3.25	5.88	7.13	6.25	3.50
4.00	5.00	3/4	12	0.88	0.69	2.00	1.75	0.68	3.82	6.38	7.63	6.63	3.75
5.00	6.50	3/4	12	0.88	0.94	2.00	1.75	0.94	4.95	8.19	9.75	7.13	4.25
6.00	7.50	1	16	1.00	1.06	2.25	2.25	1.05	5.73	9.44	11.25	8.38	4.88

[1]NPTF ports are available at no extra charge.
[2]SAE straight thread ports are standard and are indicated by port number.

Style J – Dimensional and Mounting Data

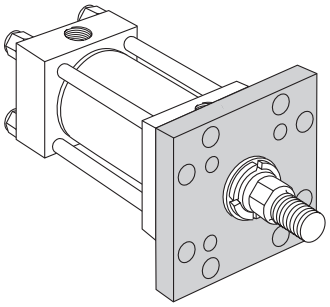
Bore Ø	Rod No.	MM Rod Ø	W	WF	Y	Add Stroke
						ZB Max.
1.50	1 (std.)	0.625	0.63	1.00	2.00	6.29
	2	1.000	1.00	1.38	2.38	6.67
2.00	1 (std.)	1.000	0.75	1.38	2.38	6.81
	2	1.375	1.00	1.63	2.63	7.06
2.50	1 (std.)	1.000	0.75	1.38	2.38	6.93
	2	1.750	1.25	1.88	2.88	7.43
	3	1.375	1.00	1.63	2.63	7.18
3.25	1 (std.)	1.375	0.88	1.63	2.75	8.06
	2	2.000	1.25	2.00	3.13	8.43
	3	1.750	1.13	1.88	3.00	8.31
4.00	1 (std.)	1.750	1.00	1.88	3.00	8.56
	2	2.500	1.38	2.25	3.38	8.94
	3	2.000	1.13	2.00	3.13	8.68
5.00	1 (std.)	2.000	1.13	2.00	3.13	9.44
	2	3.500	1.38	2.25	3.38	9.69
	3	2.500	1.38	2.25	3.38	9.69
	4	3.000	1.38	2.25	3.38	9.69
6.00	1 (std.)	2.500	1.25	2.25	3.50	10.93
	2	4.000	1.25	2.25	3.50	10.93
	3	3.000	1.25	2.25	3.50	10.93
	4	3.500	1.25	2.25	3.50	10.93

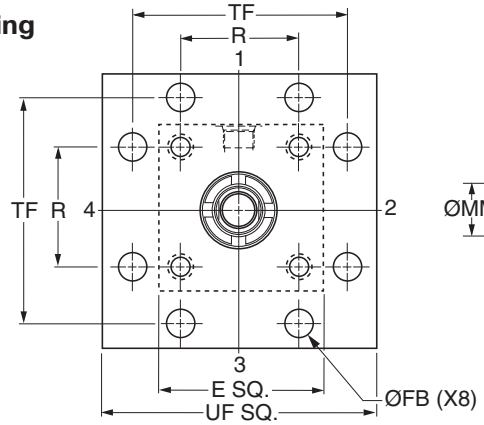
Style J – Maximum Operating Pressure / 2H

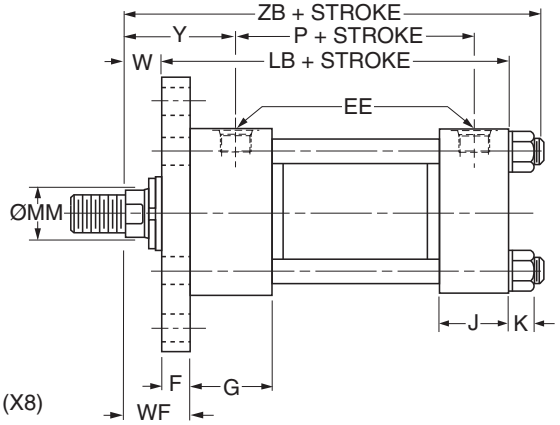
Bore Ø	Maximum psi Push[3]			
	Rod Code			
	1	2	3	4
1.50	1500	1000	-	-
2.00	2000	1200	-	-
2.50	2000	1100	1500	-
3.25	1800	1300	1400	-
4.00	1800	1300	1700	-
5.00	1300	800	1200	1000
6.00	1200	800	1000	900

[3]Maximum Pressure Rating – Push Application.

Head Square Flange Mounting
Style JB
(NFPA Style MF5)







Style JB – Dimensional and Mounting Data

Bore Ø	E	EE		F	FB Ø	G	J	K Max.	R	TF	UF	Add Stroke	
		NPTF[1]	SAE[2]									LB	P
1.50	2.50	1/2	10	0.38	0.44	1.75	1.50	0.42	1.63	3.44	4.25	5.00	2.88
2.00	3.00	1/2	10	0.63	0.56	1.75	1.50	0.57	2.05	4.13	5.13	5.25	2.88
2.50	3.50	1/2	10	0.63	0.56	1.75	1.50	0.57	2.55	4.63	5.63	5.38	3.00
3.25	4.50	3/4	12	0.75	0.69	2.00	1.75	0.68	3.25	5.88	7.13	6.25	3.50
4.00	5.00	3/4	12	0.88	0.69	2.00	1.75	0.68	3.82	6.38	7.63	6.63	3.75
5.00	6.50	3/4	12	0.88	0.94	2.00	1.75	0.94	4.95	8.19	9.75	7.13	4.25
6.00	7.50	1	16	1.00	1.06	2.25	2.25	1.05	5.73	9.44	11.25	8.38	4.88

[1]NPTF ports are available at no extra charge.
[2]SAE straight thread ports are standard and are indicated by port number.

Style JB – Dimensional and Mounting Data

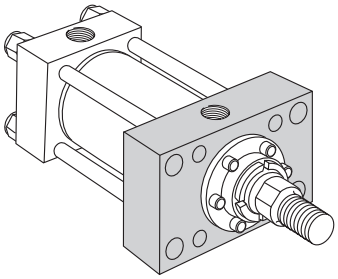
Bore Ø	Rod No.	MM Rod Ø	W	WF	Y	Add Stroke ZB Max.
1.50	1 (std.)	0.625	0.63	1.00	2.00	6.29
	2	1.000	1.00	1.38	2.38	6.67
2.00	1 (std.)	1.000	0.75	1.38	2.38	6.81
	2	1.375	1.00	1.63	2.63	7.06
2.50	1 (std.)	1.000	0.75	1.38	2.38	6.93
	2	1.750	1.25	1.88	2.88	7.43
	3	1.375	1.00	1.63	2.63	7.18
3.25	1 (std.)	1.375	0.88	1.63	2.75	8.06
	2	2.000	1.25	2.00	3.13	8.43
	3	1.750	1.13	1.88	3.00	8.31
4.00	1 (std.)	1.750	1.00	1.88	3.00	8.56
	2	2.500	1.38	2.25	3.38	8.94
	3	2.000	1.13	2.00	3.13	8.68
5.00	1 (std.)	2.000	1.13	2.00	3.13	9.44
	2	3.500	1.38	2.25	3.38	9.69
	3	2.500	1.38	2.25	3.38	9.69
	4	3.000	1.38	2.25	3.38	9.69
6.00	1 (std.)	2.500	1.25	2.25	3.50	10.93
	2	4.000	1.25	2.25	3.50	10.93
	3	3.000	1.25	2.25	3.50	10.93
	4	3.500	1.25	2.25	3.50	10.93

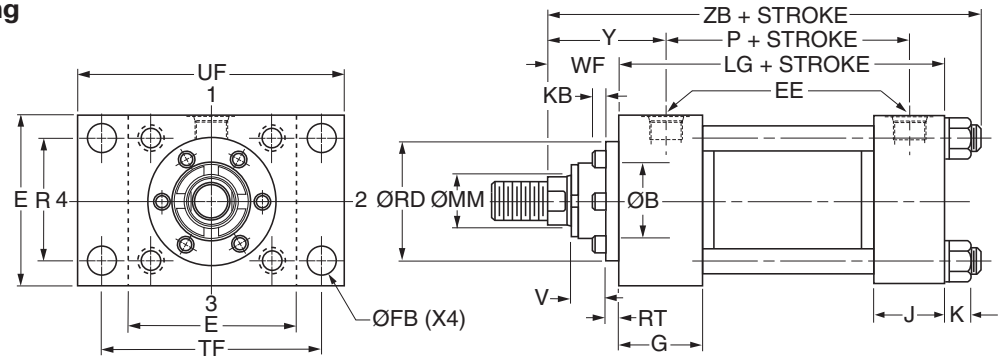
Style JB – Maximum Operating Pressure / 2H

Bore Ø	Maximum psi Push[3] Rod Code			
	1	2	3	4
1.50	3000	3000	-	-
2.00	3000	3000	-	-
2.50	3000	3000	3000	-
3.25	3000	3000	3000	-
4.00	3000	3000	3000	-
5.00	3000	3000	3000	3000
6.00	3000	2700	3000	2700

[3]Maximum Pressure Rating – Push Application.

Head Rectangular Mounting
Style JJ
(NFPA Style ME5)





Style JJ – Dimensional and Mounting Data

Bore Ø	E	EE		FB Ø	G	J	K Max.	R	TF	UF	Add Stroke	
		NPTF[1]	SAE[2]								LG	P
1.50	2.50	1/2	10	0.44	1.75	1.50	0.42	1.63	3.44	4.25	4.63	2.88
2.00	3.00	1/2	10	0.56	1.75	1.50	0.57	2.05	4.13	5.13	4.63	2.88
2.50	3.50	1/2	10	0.56	1.75	1.50	0.57	2.55	4.63	5.63	4.75	3.00
3.25	4.50	3/4	12	0.69	2.00	1.75	0.68	3.25	5.88	7.13	5.50	3.50
4.00	5.00	3/4	12	0.69	2.00	1.75	0.68	3.82	6.38	7.63	5.75	3.75
5.00	6.50	3/4	12	0.94	2.00	1.75	0.94	4.95	8.19	9.75	6.25	4.25
6.00	7.50	1	16	1.06	2.25	2.25	1.05	5.73	9.44	11.25	7.38	4.88

[1]NPTF ports are available at no extra charge.
[2]SAE straight thread ports are standard and are indicated by port number.

Style JJ – Dimensional and Mounting Data

Bore Ø	Rod No.	MM Rod Ø	B Ø +.000 -.002	KB	RD Ø	RT	V	WF	Y	Add Stroke
										ZB Max
1.50	1 (std.)	0.625	1.124	0	1.94	0.38	0.25	1.00	2.00	6.29
	2	1.000	1.499	0	2.38	0.38	0.50	1.38	2.38	6.67
2.00	1 (std.)	1.000	1.499	0	2.38	0.38	0.50	1.38	2.38	6.81
	2	1.375	1.999	0.19	2.87	0.36	0.63	1.63	2.63	7.06
2.50	1 (std.)	1.000	1.499	0	2.38	0.38	0.50	1.38	2.38	6.93
	2	1.750	2.374	0.19	3.47	0.38	0.75	1.88	2.88	7.43
	3	1.375	1.999	0.19	2.87	0.36	0.63	1.63	2.63	7.18
3.25	1 (std.)	1.375	1.999	0.19	2.87	0.36	0.63	1.63	2.75	8.06
	2	2.000	2.624	0.13	3.72	0.63	0.50	2.00	3.13	8.43
	3	1.750	2.374	0.19	3.47	0.38	0.75	1.88	3.00	8.31
4.00	1 (std.)	1.750	2.374	0.19	3.47	0.38	0.75	1.88	3.00	8.56
	2	2.500	3.124	0.25	4.25	0.60	0.63	2.25	3.38	8.94
	3	2.000	2.624	0.13	3.72	0.63	0.50	2.00	3.13	8.68
5.00	1 (std.)	2.000	2.624	0.13	3.72	0.63	0.50	2.00	3.13	9.44
	2	3.500	4.249	0.25	5.76	0.63	0.63	2.25	3.38	9.69
	3	2.500	3.124	0.25	4.25	0.60	0.63	2.25	3.38	9.69
	4	3.000	3.749	0.22	5.26	0.63	0.63	2.25	3.38	9.69
6.00	1 (std.)	2.500	3.124	0.25	4.25	0.60	0.63	2.25	3.50	10.93
	2	4.000	4.749	0.16	6.31	0.75	0.50	2.25	3.50	10.93
	3	3.000	3.749	0.22	5.26	0.63	0.63	2.25	3.50	10.93
	4	3.500	4.249	0.25	5.76	0.63	0.63	2.25	3.50	10.93