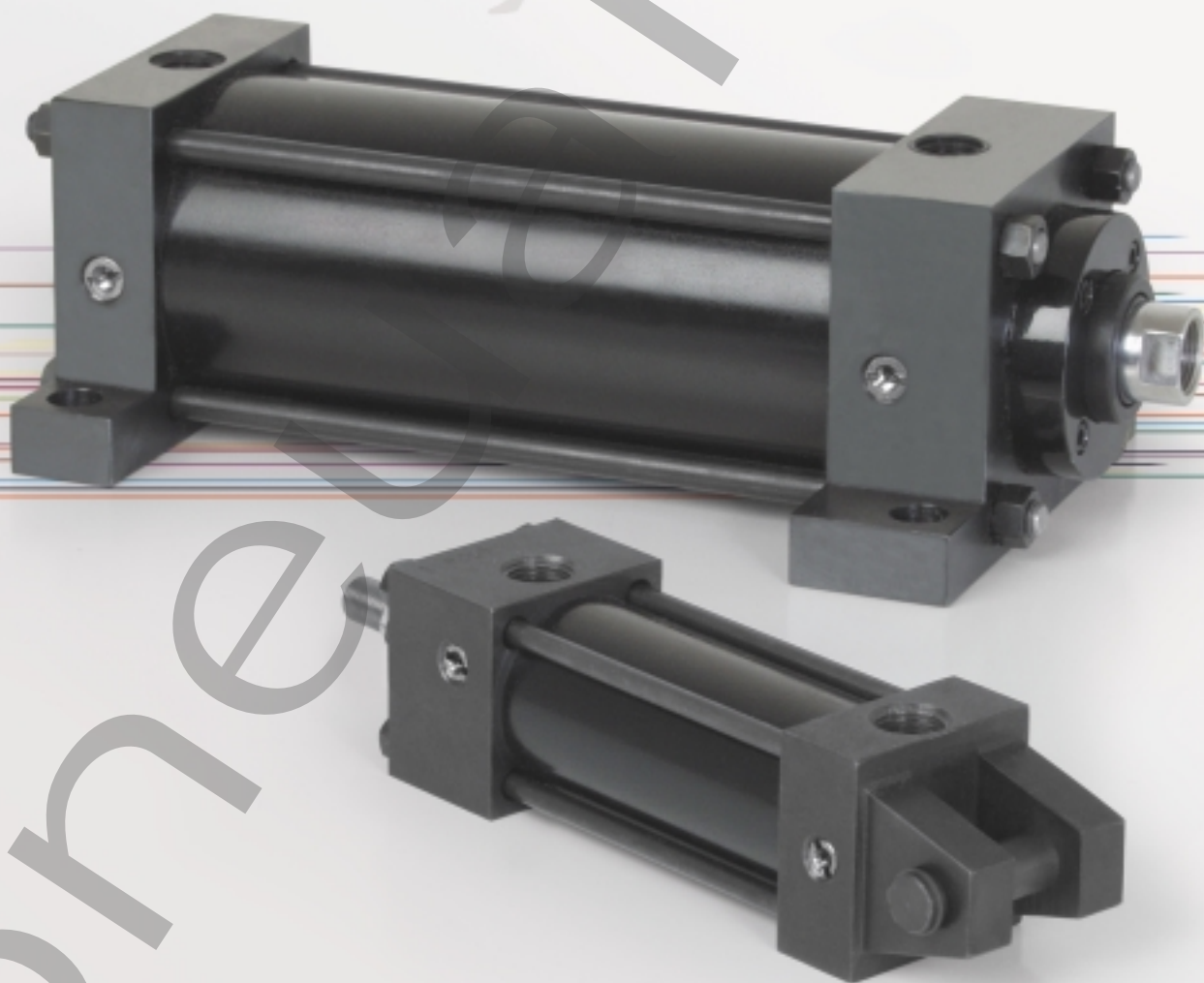


ORDER
ONLINE



Cylinders



ASP Series Cylinder Line

Steel Body NFPA Cylinder Line

We're everywhere you need us to be!



ASP Series

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ASP Series Steel Body NFPA



The **In Force Cylinder Line** is a heavy-duty, steel body cylinder line that is designed and built to exceed all of your strenuous application requirements. The **ASP Series** is an NFPA Steel Body *pneumatic cylinder line*. The **ASP Series** encompasses many of the same proven design features as our original NFPA Interchangeable cylinder, the A Series. This includes the extra long graphite filled cast iron rod bushing and a standard oversize wear band (located on the rear of the piston). Additionally, we have also included the proven "T" Seal piston seal configuration with carboxilated nitrile with self-lubricating Teflon® compound. These are just a sample of things that make the **ASP Series** the *Superior Steel Body air cylinder line*.

Tube

The steel **tube** is honed to a fine micro-finish and then surface hardened by a Nitrotec process. Nitrotec is an innovative process that creates a thin (.001") uniform and extremely hard (64 to 71 Rc) iron nitride layer infused with a film of iron oxide. This process provides a smooth corrosion free sealing surface and superior abrasion resistance.

End Caps

The **end caps** are accurately machined from precision square steel blocks. They also have a black oxide finish to protect from corrosion. Additionally, a recess on the piston-mating surface (at both ends) enables the air to work on a larger piston area for effortless breakaway (even at low pressures).

Rod Bushing

The ASP Series (1-1/2" through 8") includes a graphite filled, cast iron **rod bushing** that is extra long in length. Graphite filling offers the best bearing surface when using a hard chrome plated piston rod. Cast iron provides maximum resistance against wear. The added length adds superior alignment and support of the piston rod as well as provides maximum load bearing support. Sizes 10" through 14" bores include an extra long bronze rod bushing.

Rod Seal

The carboxilated nitrile with Teflon® compound rod seal is self-lubricating and durable. The rounded lip design ensures proper sealing and long life.

Rod Wiper

The standard **rod wiper** construction is highly durable polyurethane.

Piston Rod

The high strength steel (100,000 psi minimum yield) **piston rod** has a ground, polished, and chrome plated surface. This surface provides maximum life for both the rod bushing and the seals.

Bushing Retainer

The **bushing retainer** allows cartridge removal (cylinder repair) without complete disassembly (except X1 and X3 mounts). Full-face retainer on 1-1/2" through 2-1/2" bore. Round retainer on 3-1/4" through 14" bore. Both the Full-face and round retainer are steel construction.

Tie-Rods

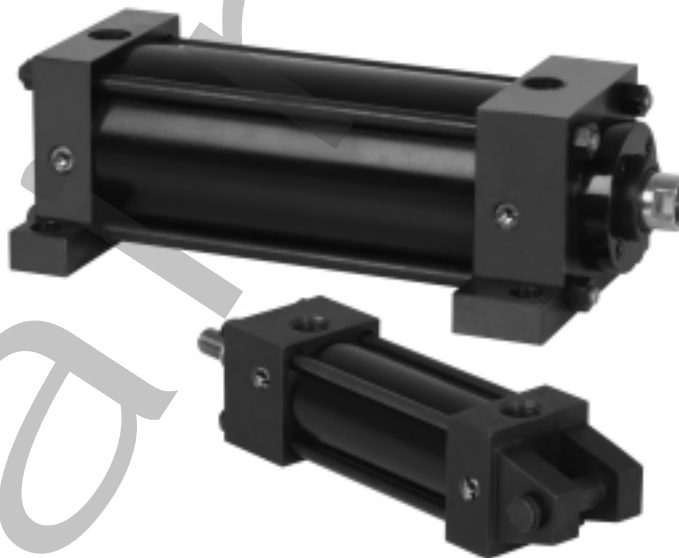
The **tie-rods** are 100,000 psi minimum yield steel for maximum holding power. They are roll formed for superior strength and engagement (up to 5/8").

Piston Seal

The **piston seal** is carboxilated nitrile with Teflon® compound for self-lubricating. The "T" seal with back-up rings prevents rolling and seals at all pressures.

Wear Band

The **wear band** is a stable, lubricating strip located on the piston. We separated the load bearing points by locating the wear band at the rear of the piston. This maximizes column strength at full-extension.



Piston

The solid aluminum alloy **piston** is strong and durable.

Cushion Seal

The floating **cushion seal** design enables rapid stroke reversal by providing instantaneous full-flow to the piston. Each cushion has a flush, retained adjustment needle.

Tube End Seal

The **tube end seals** are compression type and reusable.

Ports

Our enhanced **port** design enables the cylinder to work more efficiently. The use of precise machining depths and tool shape allows a smooth flow path into and out of the cylinder.

Standard Specifications:

- Meets NFPA specifications
- Bore sizes from 1-1/2" through 14"
- Piston rod diameters from 5/8" to 3-1/2"
- Nominal pressure rating is 250 psi air
- Standard temperature -10° F to 165° F (-23° C to 74° C)
- All steel construction, except piston (aluminum)
- NPTF ports
- Flexible port locating
- Solid one-piece S2, P1, P3 and U3 head and cap (no welded lugs on 1-1/2" through 8" bores).



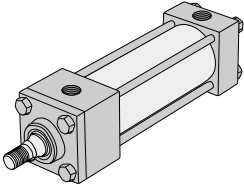
ASP Series
Steel Body NFPA



Standard ASP Series Mounts - Centerline Mounts

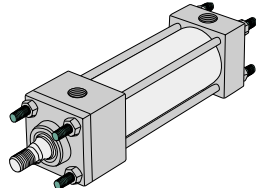
X0 Mount

Basic No Mount



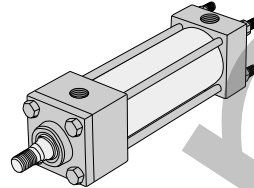
X1 Mount

Extended Tie Rods - Both Ends



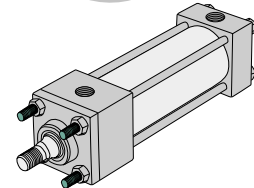
X2 Mount

Extended Tie Rods - Cap End



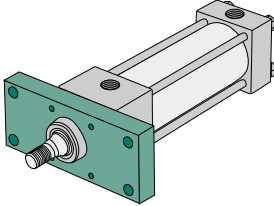
X3 Mount

Extended Tie Rods - Head End



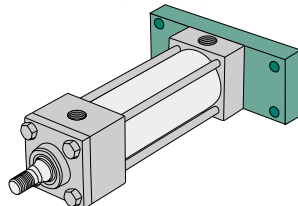
F1 Mount

Head Rectangular Flange



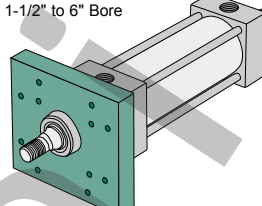
F2 Mount

Cap Rectangular Flange



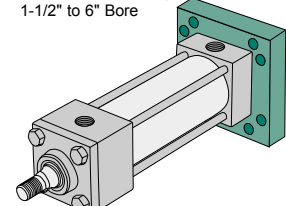
F5 Mount

Head Square Flange
1-1/2" to 6" Bore



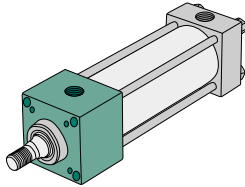
F6 Mount

Cap Square Flange
1-1/2" to 6" Bore



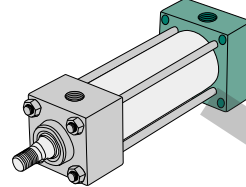
E3 Mount

Head Square Mount



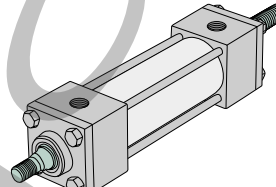
E4 Mount

Cap Square Mount



DA Mount

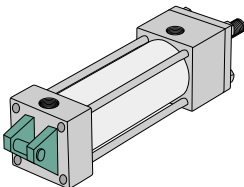
Double Rod End



Pivot Mounts

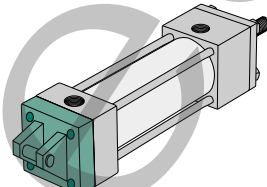
P1 Mount

Fixed Clevis



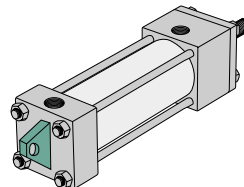
P2 Mount

Detachable Clevis



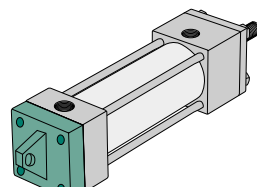
P3 Mount

Fixed Eye



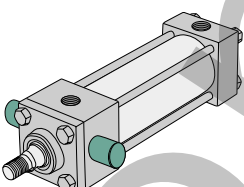
P4 Mount

Detachable Eye



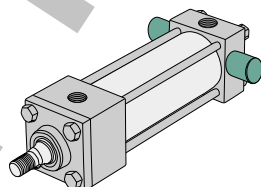
T1 Mount

Head Trunnion



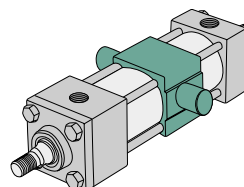
T2 Mount

Cap Trunnion



T4 Mount

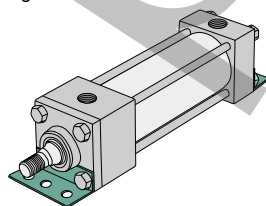
Intermediate Trunnion



Foot Mounts

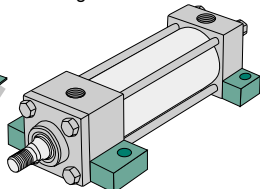
S1 Mount

Angle Mount



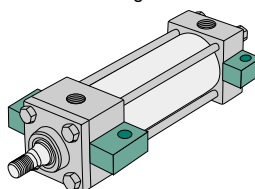
S2 Mount

Side Lugs



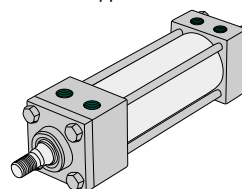
S3 Mount

Centerline Lugs



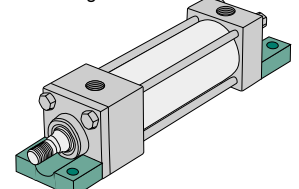
S4 Mount

Bottom Tapped



S7 Mount

End Lugs





ASP Series
Steel Body NFPA



How To Order

P1 ASP L-04 A 1 1 D-C AA 1 1

Cylinder Mounting

- E3* = Head Square
- E4* = Cap Square
- F1** = Front Flange
- F2** = Rear Flange
- P1 = Fixed Clevis
- P2 = Detachable Clevis
- P3 = Fixed Eye
- P4 = Detachable Eye
- S1 = Angle Mount
- S2** = Side Lugs
- S3 = Centerline Lugs
- S4** = Bottom Tapped
- S7 = End Lugs
- T1 = Head Trunnion
- T2 = Cap Trunnion
- T4** = Mid Trunnion
- X0 = Basic No Mount
- X1 = Extended Tie Rods (Both Ends)
- X2 = Cap Extended Tie Rods
- X3 = Head Extended Tie Rods
- F5** = Head Square Flange
- F6** = Cap Square Flange

*8"-14" Bore Only
**1-1/2"-6" Bore Only

Cylinder Type

ASP = Steel Body NFPA Pneumatic Cylinder Line

Cylinder Bore

- K = 1.50 R = 4.00 X = 10.00
- L = 2.00 T = 5.00 Y = 12.00
- M = 2.50 U = 6.00 B = 14.00
- P = 3.25 W = 8.00

Note: Consult factory for strokes greater than 99."

Full Inches of Stroke

- 00 = 0" Stroke
- 01 = 1" Stroke
- 02 = 2" Stroke
- 03 = 3" Stroke
- 04 = 4" Stroke
- 05 = 5" Stroke
- 99 = 99" Stroke

Fractional Inches of Stroke

- A = 0" E = 1/4" I = 1/2" M = 3/4"
- B = 1/16" F = 5/16" J = 9/16" N = 13/16"
- C = 1/8" G = 3/8" K = 5/8" O = 7/8"
- D = 3/16" H = 7/16" L = 11/16" P = 15/16"

Rod Diameter

- 1 = 0.625" 5 = 2.000"
- 2 = 1.000" 6 = 2.500"
- 3 = 1.375" 7 = 3.000"
- 4 = 1.750" 8 = 3.500"

Rod Diameter by Bore Size

BORE	STANDARD DIAMETER	1ST OVERSIZED	2ND OVERSIZED	3RD OVERSIZED
1-1/2	5/8	1	N/A	N/A
2	5/8	1	1-3/8	N/A
2-1/2	5/8	1	1-3/8	1-3/4
3-1/4	1	1-3/8	1-3/4	2
4	1	1-3/8	1-3/4	2
5	1	1-3/8	1-3/4	2
6	1-3/8	1-3/4	2	2-1/2
8	1-3/8	1-3/4	2	2-1/2
10	1-3/4	2	2-1/2	3
12	2	2-1/2	3	3-1/2
14	2-1/2	3	3-1/2	N/A

NOTE: Text shown in Bold and Italics denotes an extended lead time.

Cap Cylindicator Position

(Leave blank if NS or CR is not used.)

Head Cylindicator Position

(Leave blank if NS or CR is not used.)

Options

- AA = No Options
- EB = Silencer Bumpers
- KA = Stroke Adjuster
- DA = Double Rod End
- RB = Rod Boot
- GA = High Temp Rod Boot
- MA = Metallic Rod Scraper
- LB = Low Breakaway
- RA* = Save Air Stroke Adjust
- SA = Stainless Rod
- ST = Stainless Tie Rods
- SS = Stainless Rod and Tie Rods
- VA** = Viton Seals
- 1A* = Rod Extension
- 2A* = Thread Extension
- 3A = Rod Stud
- 4A* = Stop Tube
- 4D* = Double Piston Stop Tube
- FB = Four Wrench Flats
- JN = Jam Nut
- PA = Polypak Rod Seal
- PP = Polypak Piston
- NA = Nickel Plated
- NS = Cylindicator Ready "No Stroke to Go"
- CR = Cylindicator Ready "Stroke to Go"

* Specify length

** Viton is not recommended for non-lube service

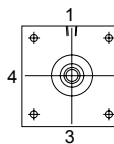
Note: For additional and combination options, consult factory for details.

Cushions

Position	1	2	3	4	Fixed
No Cushions	A	A	A	A	A
Head & Cap	B	C	D	E	Y
Head Only	F	G	H	J	W
Cap Only	K	L	M	N	V

NOTE: Standard port location is position 1 and Standard cushion location is position 2.

Cylinder Orientation



Port Size

Position	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"
1	B	C	D	E	F	G	1
2	H	I	J	K	L	M	2
3	N	O	P	Q	R	S	3
4	T	U	V	W	X	Y	4

Rod End Style

- 1 = Style #1 Male Thread
- 2 = Style #2 Male Thread
- 3 = Style #3 Female Thread
- 4 = Special Rod End (Specify Threads)

Rod End Styles

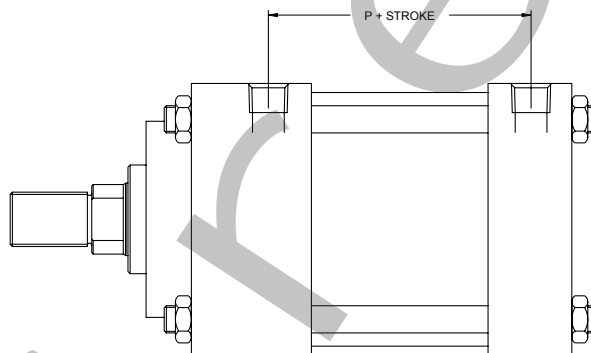
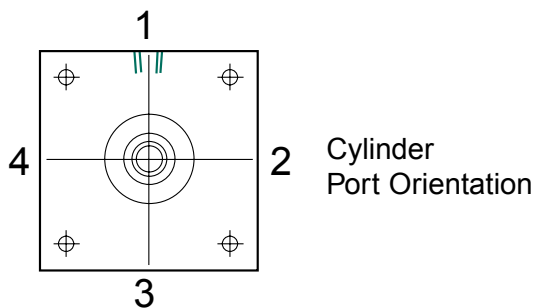
DIAMETER	STYLE #1 STANDARD MALE THREAD	STYLE #2 OPTIONAL MALE THREAD	STYLE #3 OPTIONAL FEMALE THREAD
5/8	7/16-20	1/2-20	7/16-20
1	3/4-16	7/8-14	3/4-16
1-3/8	1-14	1 1/4-12	1-14
1-3/4	1 1/4-12	1 1/2-12	1 1/4-12
2	1 1/2-12	1 3/4-12	1 1/2-12
2-1/2	1 7/8-12	2 1/4-12	1 7/8-12
3	2 1/4-12	2 3/4-12	2 1/4-12
3-1/2	2 1/2-12	3 1/4-12	2 1/2-12



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Port Size Availability



The above drawing represents port location # 1.

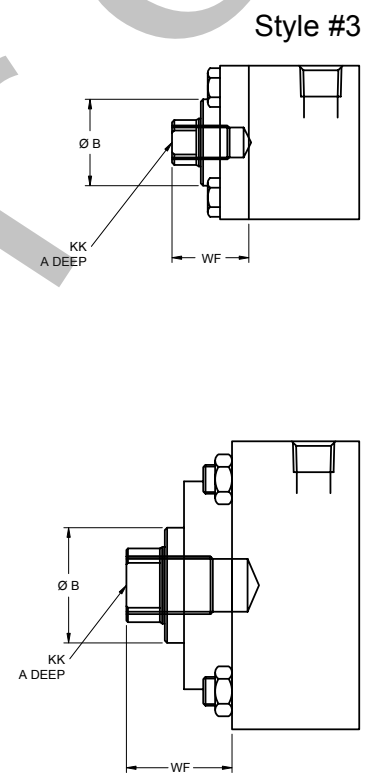
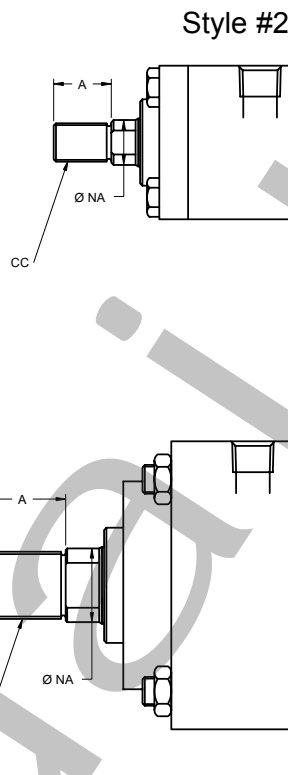
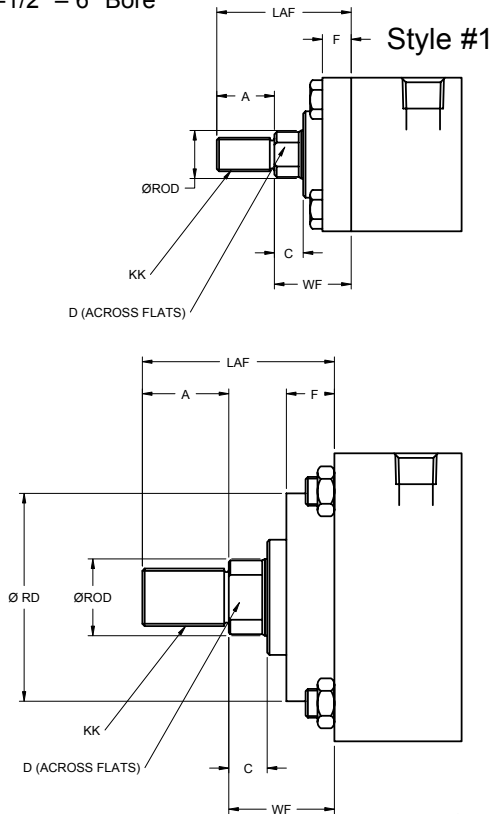
Note: Larger port sizes per given bore may require slight changes in the "P" dimension

BORE	ROD	1/8 NPTF	1/4 NPTF	3/8 NPTF	1/2 NPTF	3/4 NPTF	1 NPTF	1-1/4 NPTF
1-1/2	5/8	◆	◆	◆	N/A	N/A	N/A	N/A
	1	◆	◆	N/A	N/A	N/A	N/A	N/A
2	5/8	◆	◆	◆	◆	N/A	N/A	N/A
	1	◆	◆	◆	N/A	N/A	N/A	N/A
	1-3/8	◆	◆	◆	N/A	N/A	N/A	N/A
2-1/2	5/8	◆	◆	◆	◆	N/A	N/A	N/A
	1	◆	◆	◆	◆	N/A	N/A	N/A
	1-3/8	◆	◆	◆	N/A	N/A	N/A	N/A
3-1/4	1-3/4	◆	◆	◆	◆	N/A	N/A	N/A
	1	◆	◆	◆	◆	◆	N/A	N/A
	1-3/8	◆	◆	◆	◆	◆	N/A	N/A
	1-3/4	◆	◆	◆	◆	N/A	N/A	N/A
4	2	◆	◆	◆	◆	◆	N/A	N/A
	1	◆	◆	◆	◆	◆	N/A	N/A
	1-3/8	◆	◆	◆	◆	◆	N/A	N/A
5	1-3/4	◆	◆	◆	◆	◆	N/A	N/A
	1-3/8	◆	◆	◆	◆	◆	N/A	N/A
	1-3/4	◆	◆	◆	◆	◆	N/A	N/A
	2	◆	◆	◆	◆	◆	N/A	N/A
6	1-3/8	◆	◆	◆	◆	◆	◆	N/A
	1-3/4	◆	◆	◆	◆	◆	◆	N/A
	2	◆	◆	◆	◆	◆	N/A	N/A
8	2-1/2	◆	◆	◆	◆	◆	N/A	N/A
	1-3/8	◆	◆	◆	◆	◆	◆	N/A
	1-3/4	◆	◆	◆	◆	◆	◆	N/A
	2	◆	◆	◆	◆	◆	◆	N/A
10	2-1/2	◆	◆	◆	◆	◆	◆	N/A
	1-3/4	◆	◆	◆	◆	◆	◆	N/A
	2	◆	◆	◆	◆	◆	◆	N/A
12	3	◆	◆	◆	◆	◆	N/A	N/A
	2	◆	◆	◆	◆	◆	◆	◆
	2-1/2	◆	◆	◆	◆	◆	◆	◆
	3	◆	◆	◆	◆	◆	◆	N/A
14	3-1/2	◆	◆	◆	◆	◆	◆	N/A
	2-1/2	◆	◆	◆	◆	◆	◆	◆
	3	◆	◆	◆	◆	◆	◆	◆
	3-1/2	◆	◆	◆	◆	◆	◆	◆



Standard and Optional Rod Ends

1-1/2" – 6" Bore



Bore	Rod	KK(1)	CC(2)	KK(3)	A	B	C	D	NA	LAF	WF	F
1-1/2	5/8	7/16-20	1/2-20	7/16-20	0.750	1.125	0.375	0.500	0.585	1.750	1.000	0.375
	1	3/4-16	7/8-14	3/4-16	1.125	1.400	0.500	0.813	0.960	2.500	1.375	0.375
2	5/8	7/16-20	1/2-20	7/16-20	0.750	1.125	0.375	0.500	0.585	1.750	1.000	0.375
	1	3/4-16	7/8-14	3/4-16	1.125	1.500	0.500	0.813	0.960	2.500	1.375	0.375
2-1/2	1-3/8	1-14	1 1/4-12	1-14	1.625	2.000	0.625	1.125	1.313	3.250	1.625	0.375
	5/8	7/16-20	1/2-20	7/16-20	0.750	1.125	0.375	0.500	0.585	1.750	1.000	0.375
	1	3/4-16	7/8-14	3/4-16	1.125	1.500	0.500	0.813	0.960	2.500	1.375	0.375
3-1/4	1-3/8	1-14	1 1/4-12	1-14	1.625	2.000	0.625	1.125	1.313	3.250	1.625	0.625
	1-3/4	1 1/4-12	1 1/2-12	1 1/4-12	2.000	2.375	0.750	1.500	1.688	3.875	1.875	0.625
	2	1 1/2-12	1 3/4-12	1 1/2-12	2.250	2.625	0.875	1.750	1.940	4.250	2.000	0.625
4	1	3/4-16	7/8-14	3/4-16	1.125	1.500	0.500	0.813	0.960	2.500	1.375	0.625
	1-3/8	1-14	1 1/4-12	1-14	1.625	2.000	0.625	1.125	1.313	3.250	1.625	0.625
	1-3/4	1 1/4-12	1 1/2-12	1 1/4-12	2.000	2.375	0.750	1.500	1.688	3.875	1.875	0.625
5	2	1 1/2-12	1 3/4-12	1 1/2-12	2.250	2.625	0.875	1.750	1.940	4.250	2.000	0.625
	1	3/4-16	7/8-14	3/4-16	1.125	1.500	0.500	0.813	0.960	2.500	1.375	0.625
	1-3/8	1-14	1 1/4-12	1-14	1.625	2.000	0.625	1.125	1.313	3.250	1.625	0.625
6	1-3/4	1 1/4-12	1 1/2-12	1 1/4-12	2.000	2.375	0.750	1.500	1.688	3.875	1.875	0.750
	2	1 1/2-12	1 3/4-12	1 1/2-12	2.250	2.625	0.875	1.750	1.940	4.250	2.000	0.750
	2-1/2	1 7/8-12	2 1/4-12	1 7/8-12	3.000	3.125	1.000	2.060	2.440	5.250	2.250	0.750



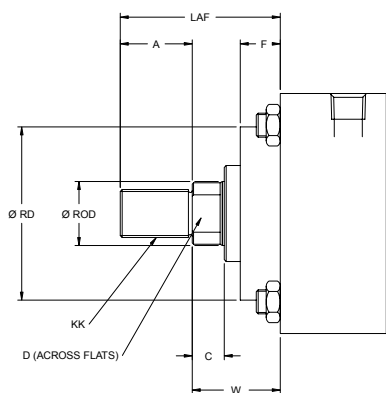
ASP Series
Steel Body NFPA



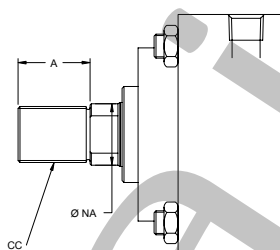
Large Bore

8" – 14" Bore: Standard and Optional Rod Ends

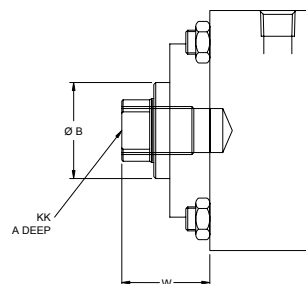
Style #1



Style #2



Style #3

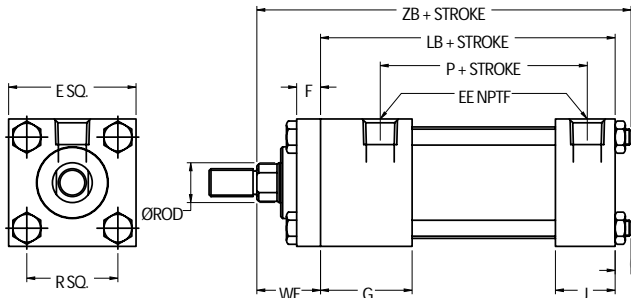


BORE	ROD	KK(1)	CC(2)	KK(3)	A	B	C	D	NA	LAF	W	F
8	1-3/8	1-14	1 1/4-12	1-14	1.625	2.000	0.625	1.125	1.313	3.250	1.625	0.750
	1-3/4	1 1/4-12	1 1/2-12	1 1/4-12	2.000	2.375	0.750	1.500	1.688	3.875	1.875	0.750
	2	1 1/2-12	1 3/4-12	1 1/2-12	2.250	2.625	0.875	1.750	1.940	4.250	2.000	0.750
	2-1/2	1 7/8-12	2 1/4-12	1 7/8-12	3.000	3.125	1.000	2.060	2.440	5.250	2.250	0.750
10	1-3/4	1 1/4-12	1 1/2-12	1 1/4-12	2.000	3.125	0.750	1.500	1.690	3.875	1.875	0.750
	2	1 1/2-12	1 3/4-12	1 1/2-12	2.250	3.125	0.875	1.750	1.940	4.250	2.000	0.750
	2-1/2	1 7/8-12	2 1/4-12	1 7/8-12	3.000	3.125	1.000	2.060	2.440	5.250	2.250	0.750
	3	2 1/4-12	2 3/4-12	2 1/4-12	3.500	3.750	1.000	2.625	2.875	5.750	2.250	0.750
12	2	1 1/2-12	1 3/4-12	1 1/2-12	2.250	3.125	0.875	1.750	1.940	4.250	2.000	0.750
	2-1/2	1 7/8-12	2 1/4-12	1 7/8-12	3.000	3.125	1.000	2.060	2.440	5.250	2.250	0.750
	3	2 1/4-12	2 3/4-12	2 1/4-12	3.500	3.750	1.000	2.625	2.875	5.750	2.250	0.750
	3-1/2	2 1/2-12	3 1/4-12	2 1/2-12	3.500	4.250	1.000	3.000	3.438	5.750	2.250	0.750
14	2-1/2	1 7/8-12	2 1/4-12	1 7/8-12	3.000	3.125	1.000	2.060	2.440	5.250	2.250	0.750
	3	2 1/4-12	2 3/4-12	2 1/4-12	3.500	3.750	1.000	2.625	2.875	5.750	2.250	0.750
	3-1/2	2 1/2-12	3 1/4-12	2 1/2-12	3.500	4.250	1.000	3.000	3.438	5.750	2.250	0.750

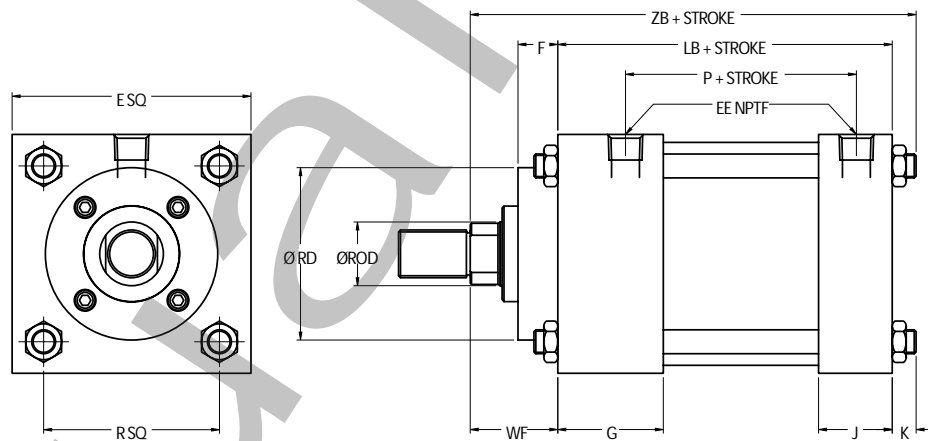


Basic No Mount Cylinder

1-1/2" through 2-1/2" Bore



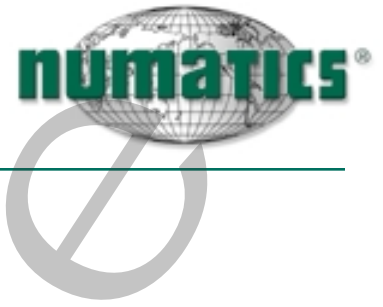
3-1/4" through 6" Bore



BORE	ROD	E	EE	F	G	J	K	LB	P	R	RD	WF	ZB
1-1/2	5/8	2.000	0.375	0.375	1.500	1.000	0.250	3.625	2.250	1.430	N/A	1.000	4.875
	1	2.000	0.250	0.375	1.500	1.000	0.250	3.625	2.103	1.430	N/A	1.375	5.250
2	5/8	2.500	0.375	0.375	1.500	1.000	0.313	3.625	2.250	1.840	N/A	1.000	4.938
	1	2.500	0.375	0.375	1.500	1.000	0.313	3.625	2.250	1.840	N/A	1.375	5.313
	1-3/8	2.500	0.375	0.375	1.500	1.000	0.313	3.625	2.250	1.840	N/A	1.625	5.563
2-1/2	5/8	3.000	0.375	0.375	1.500	1.000	0.313	3.750	2.375	2.190	N/A	1.000	5.062
	1	3.000	0.375	0.375	1.500	1.000	0.313	3.750	2.375	2.190	N/A	1.375	5.438
	1-3/8	3.000	0.375	0.375	1.500	1.000	0.313	3.750	2.375	2.190	N/A	1.625	5.688
	1-3/4	3.000	0.375	0.375	1.500	1.000	0.313	3.750	2.375	2.190	N/A	1.875	5.938
3-1/4	1	3.750	0.500	0.625	1.750	1.250	0.375	4.250	2.625	2.760	2.706	1.375	6.000
	1-3/8	3.750	0.500	0.625	1.750	1.250	0.375	4.250	2.625	2.760	3.110	1.625	6.250
	1-3/4	3.750	0.500	0.625	1.750	1.250	0.375	4.250	2.625	2.760	N/A	1.875	6.500
	2	3.750	0.500	0.625	1.750	1.250	0.375	4.250	2.625	2.760	N/A	2.000	6.625
4	1	4.500	0.500	0.625	1.750	1.250	0.375	4.250	2.625	3.320	2.706	1.375	6.000
	1-3/8	4.500	0.500	0.625	1.750	1.250	0.375	4.250	2.625	3.320	3.110	1.625	6.250
	1-3/4	4.500	0.500	0.625	1.750	1.250	0.375	4.250	2.625	3.320	3.788	1.875	6.500
	2	4.500	0.500	0.625	1.750	1.250	0.375	4.250	2.625	3.320	N/A	2.000	6.625
5	1	5.500	0.500	0.625	1.750	1.250	0.500	4.500	2.875	4.100	2.706	1.375	6.375
	1-3/8	5.500	0.500	0.625	1.750	1.250	0.500	4.500	2.875	4.100	3.110	1.625	6.625
	1-3/4	5.500	0.500	0.625	1.750	1.250	0.500	4.500	2.875	4.100	3.788	1.875	6.875
	2	5.500	0.500	0.625	1.750	1.250	0.500	4.500	2.875	4.100	4.250	2.000	7.000
6	1-3/8	6.500	0.750	0.750	2.000	1.500	0.500	5.000	3.125	4.880	3.110	1.625	7.125
	1-3/4	6.500	0.750	0.750	2.000	1.500	0.500	5.000	3.125	4.880	3.788	1.875	7.375
	2	6.500	0.750	0.750	2.000	1.500	0.500	5.000	3.125	4.880	4.250	2.000	7.500
	2-1/2	6.500	0.750	0.750	2.000	1.500	0.500	5.000	3.125	4.880	5.500	2.500	8.000



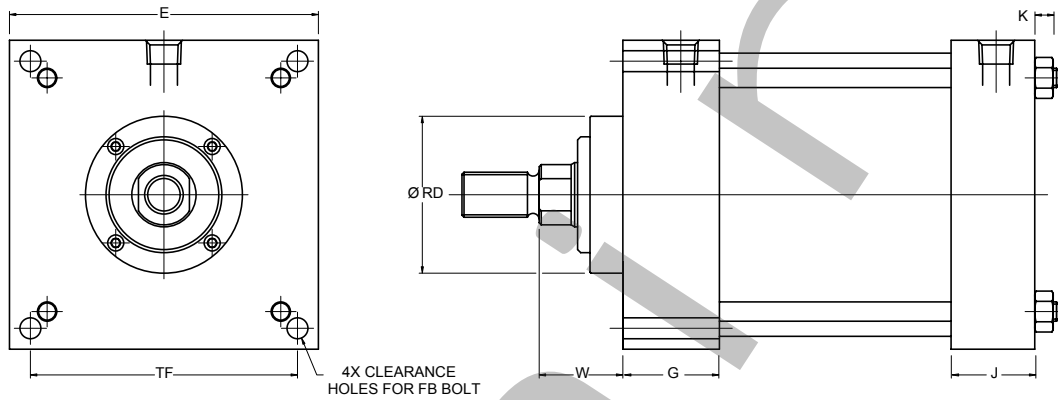
ASP Series
Steel Body NFPA



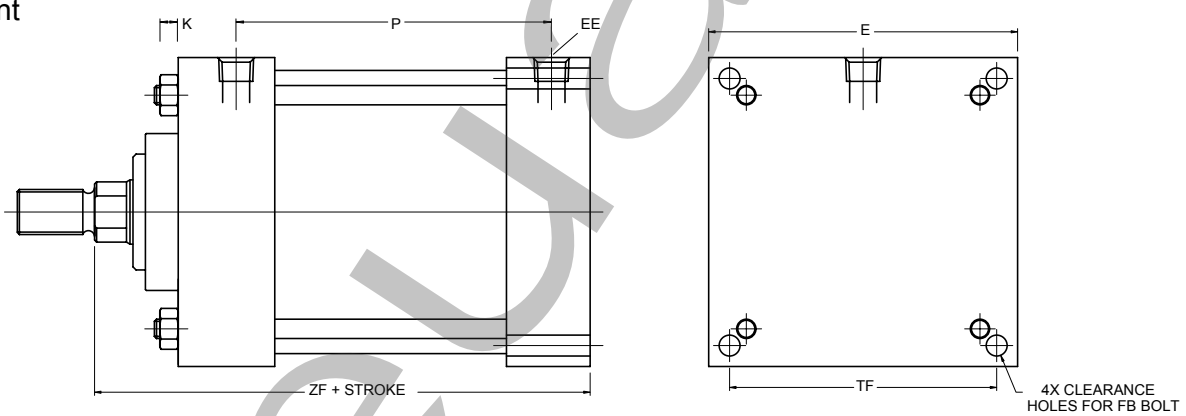
Large Bore
E3 and E4 Mount

8" through 14" Bore

E3 Mount



E4 Mount



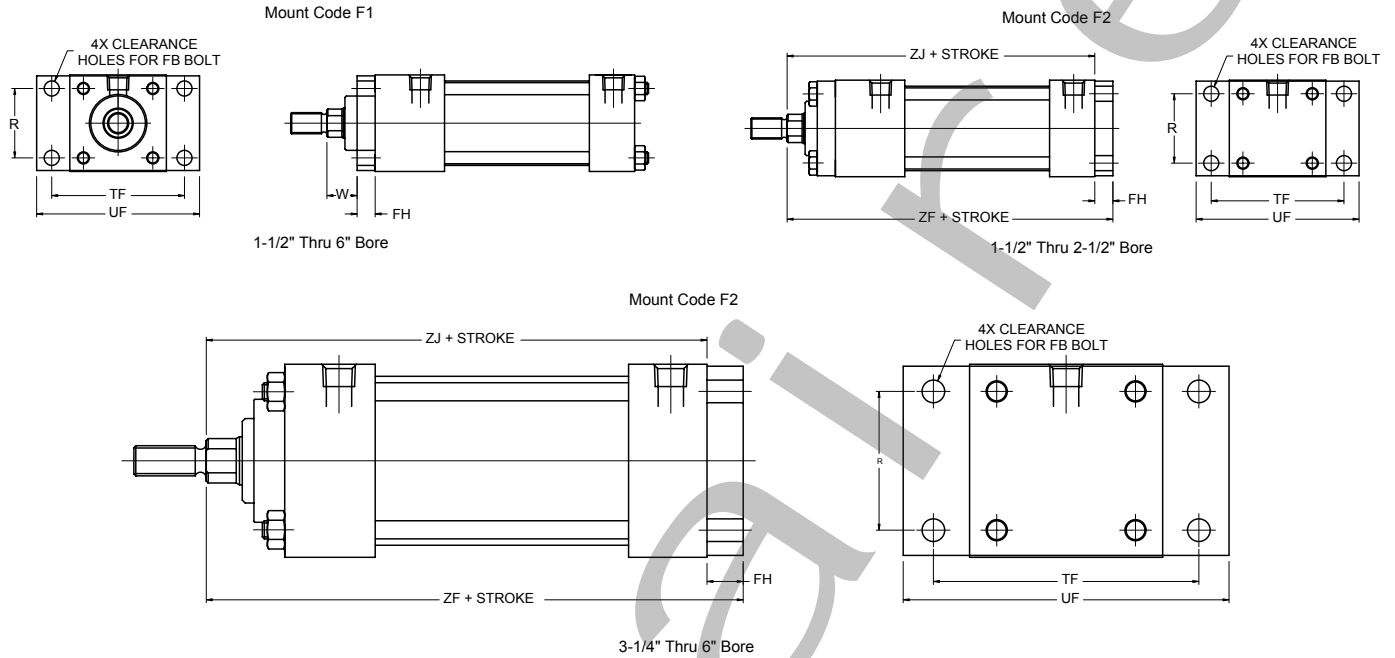
BORE	ROD	E	EE	F	FB	G	J	K	LB	P	RD	TF	W	ZF
8	1-3/8	8.500	0.750	0.625	0.625	2.000	1.500	0.625	5.125	3.250	3.110	7.580	1.625	6.750
	1-3/4	8.500	0.750	0.750	0.625	2.000	1.500	0.625	5.125	3.250	3.788	7.580	1.875	7.000
	2	8.500	0.750	0.750	0.625	2.000	1.500	0.625	5.125	3.250	4.250	7.580	2.000	7.125
	2-1/2	8.500	0.750	0.750	0.625	2.000	1.500	0.625	5.125	3.250	5.500	7.580	2.250	7.375
10	1-3/4	10.625	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.125	3.788	9.400	1.875	8.250
	2	10.625	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.125	4.250	9.400	2.000	8.375
	2-1/2	10.625	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.125	5.500	9.400	2.250	8.625
	3	10.625	1.000	0.750	0.750	2.250	2.000	0.750	6.375	4.125	7.500	9.400	2.250	8.625
12	2	12.750	1.000	0.750	0.750	2.250	2.000	0.750	6.875	4.625	4.250	11.100	2.000	8.875
	2-1/2	12.750	1.000	0.750	0.750	2.250	2.000	0.750	6.875	4.625	5.500	11.100	2.250	9.125
	3	12.750	1.000	0.750	0.750	2.250	2.000	0.750	6.875	4.625	7.500	11.100	2.250	9.125
	3-1/2	12.750	1.000	0.750	0.750	2.250	2.000	0.750	6.875	4.625	7.500	11.100	2.250	9.125
14	2-1/2	14.750	1.250	0.750	0.875	2.750	2.250	0.875	8.125	5.500	5.500	12.870	2.250	10.375
	3	14.750	1.250	0.750	0.875	2.750	2.250	0.875	8.125	5.500	7.500	12.870	2.250	10.375
	3-1/2	14.750	1.250	0.750	0.875	2.750	2.250	0.875	8.125	5.500	7.500	12.870	2.250	10.375



ASP Series
Steel Body NFPA



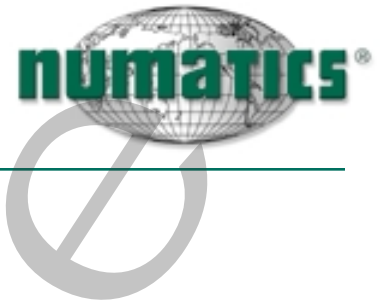
F1 and F2 Mounts



BORE	ROD	FB	FH	R	TF	UF	W	ZJ	ZF
1-1/2	5/8	0.250	0.380	1.430	2.750	3.380	0.630	4.630	5.000
	1	0.250	0.380	1.430	2.750	3.380	1.000	5.000	5.380
2	5/8	0.310	0.380	1.840	3.380	4.130	0.630	4.630	5.000
	1	0.310	0.380	1.840	3.380	4.130	1.000	5.000	5.380
	1-3/8	0.310	0.380	1.840	3.380	4.130	1.250	5.250	5.630
2-1/2	5/8	0.310	0.380	2.190	3.880	4.630	0.630	4.750	5.130
	1	0.310	0.380	2.190	3.880	4.630	1.000	5.130	5.500
	1-3/8	0.310	0.380	2.190	3.880	4.630	1.250	5.380	5.750
3-1/4	1-3/4	0.310	0.380	2.190	3.880	4.630	1.500	5.630	6.000
	1	0.380	0.630	2.760	4.690	5.500	0.750	5.630	6.250
	1-3/8	0.380	0.630	2.760	4.690	5.500	1.000	5.880	6.500
	1-3/4	0.380	0.630	2.760	4.690	5.500	1.250	6.130	6.750
4	2	0.380	0.630	2.760	4.690	5.500	1.380	6.250	6.880
	1	0.380	0.630	3.320	5.440	6.250	0.750	5.630	6.250
	1-3/8	0.380	0.630	3.320	5.440	6.250	1.000	5.880	6.500
	1-3/4	0.380	0.630	3.320	5.440	6.250	1.250	6.130	6.750
5	2	0.380	0.630	3.320	5.440	6.250	1.380	6.250	6.880
	1	0.500	0.630	4.100	6.630	7.630	0.750	5.880	6.500
	1-3/8	0.500	0.630	4.100	6.630	7.630	1.000	6.130	6.750
	1-3/4	0.500	0.630	4.100	6.630	7.630	1.250	6.380	7.000
6	2	0.500	0.630	4.100	6.630	7.630	1.380	6.500	7.130
	1-3/8	0.500	0.750	4.880	7.630	8.630	0.880	6.630	7.380
	1-3/4	0.500	0.750	4.880	7.630	8.630	1.130	6.880	7.630
	2-1/2	0.500	0.750	4.880	7.630	8.630	1.500	7.250	8.000

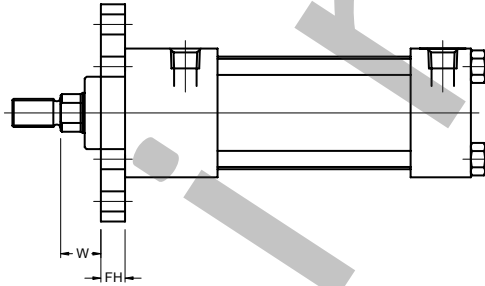
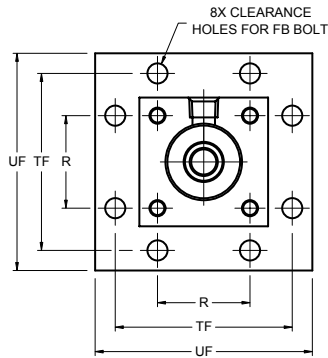


ASP Series
Steel Body NFPA



F5 Mount

Mount Code F5



1-1/2" Thru 6" Bore

BORE	ROD	FB	FH	R	TF	UF	W
1-1/2	5/8	0.25	0.38	1.43	2.75	3.38	0.63
	1	0.25	0.38	1.43	2.75	3.38	1.00
2	5/8	0.31	0.38	1.84	3.38	4.13	0.63
	1	0.31	0.38	1.84	3.38	4.13	1.00
	1-3/8	0.31	0.38	1.84	3.38	4.13	1.25
2-1/2	5/8	0.31	0.38	2.19	3.88	4.63	0.63
	1	0.31	0.38	2.19	3.88	4.63	1.00
	1-3/8	0.31	0.38	2.19	3.88	4.63	1.25
	1-3/4	0.31	0.38	2.19	3.88	4.63	1.50
3-1/4	1	0.38	0.63	2.76	4.69	5.50	0.75
	1-3/8	0.38	0.63	2.76	4.69	5.50	1.00
	1-3/4	0.38	0.63	2.76	4.69	5.50	1.25
	2	0.38	0.63	2.76	4.69	5.50	1.38
4	1	0.38	0.63	3.32	5.44	6.25	0.75
	1-3/8	0.38	0.63	3.32	5.44	6.25	1.00
	1-3/4	0.38	0.63	3.32	5.44	6.25	1.25
	2	0.38	0.63	3.32	5.44	6.25	1.38
5	1	0.50	0.63	4.10	6.63	7.63	0.75
	1-3/8	0.50	0.63	4.10	6.63	7.63	1.00
	1-3/4	0.50	0.63	4.10	6.63	7.63	1.25
	2	0.50	0.63	4.10	6.63	7.63	1.38
6	1-3/8	0.50	0.75	4.88	7.63	8.63	0.88
	1-3/4	0.50	0.75	4.88	7.63	8.63	1.13
	2	0.50	0.75	4.88	7.63	8.63	1.25
	2-1/2	0.50	0.75	4.88	7.63	8.63	1.50

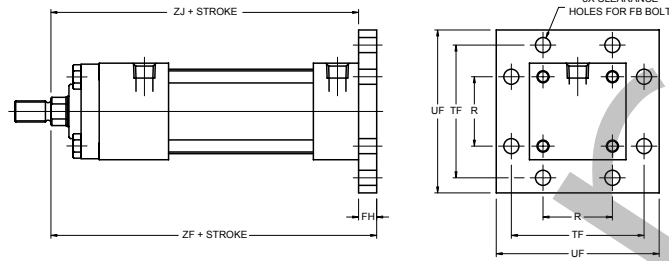


ASP Series
Steel Body NFPA



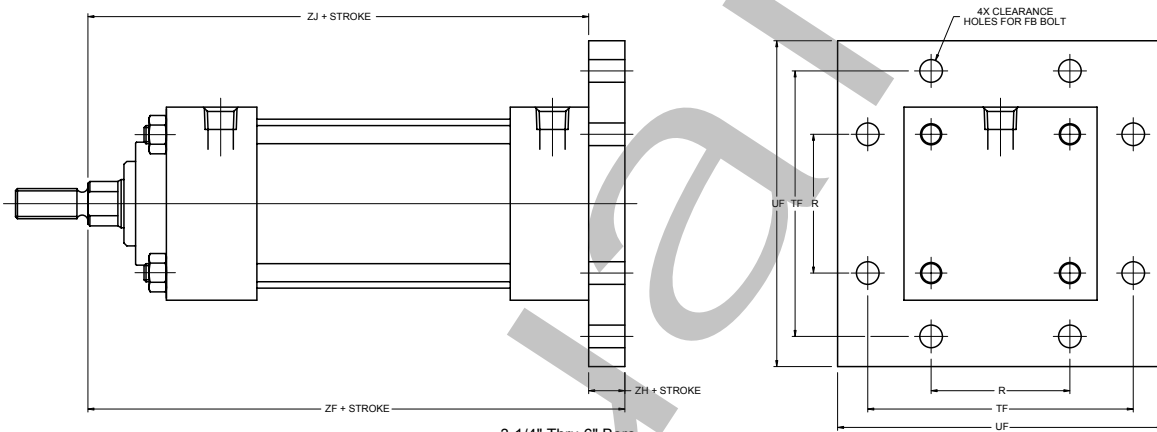
F6 Mount

Mount Code F6



1-1/2" Thru 2-1/2" Bore

Mount Code F6

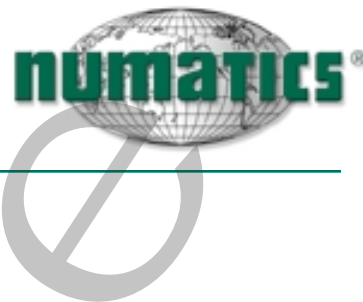


3-1/4" Thru 6" Bore

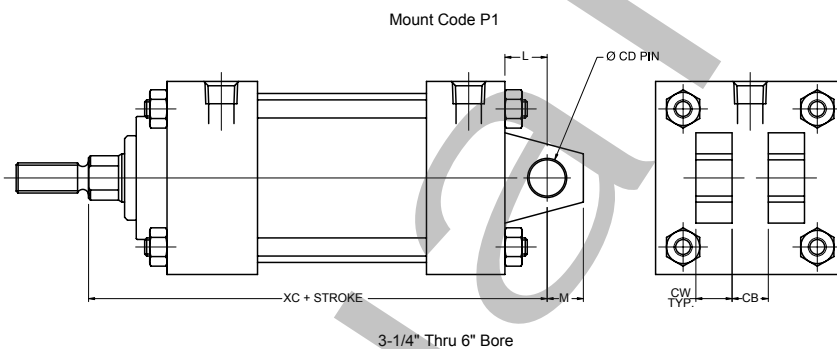
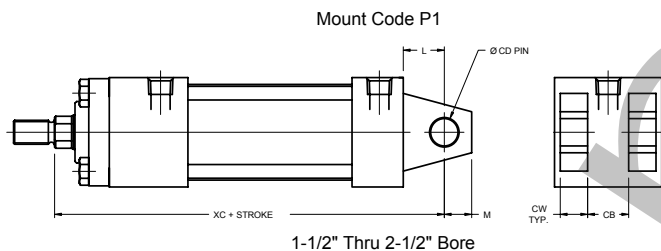
BORE	ROD	FB	FH	R	TF	UF	ZJ	ZF
1-1/2	5/8	0.25	0.38	1.43	2.75	3.38	4.63	5.00
	1	0.25	0.38	1.43	2.75	3.38	5.00	5.38
2	5/8	0.31	0.38	1.84	3.38	4.13	4.63	5.00
	1	0.31	0.38	1.84	3.38	4.13	5.00	5.38
	1-3/8	0.31	0.38	1.84	3.38	4.13	5.25	5.63
2-1/2	5/8	0.31	0.38	2.19	3.88	4.63	4.75	5.13
	1	0.31	0.38	2.19	3.88	4.63	5.13	5.50
	1-3/8	0.31	0.38	2.19	3.88	4.63	5.38	5.75
	1-3/4	0.31	0.38	2.19	3.88	4.63	5.63	6.00
3-1/4	1	0.38	0.63	2.76	4.69	5.50	5.63	6.25
	1-3/8	0.38	0.63	2.76	4.69	5.50	5.88	6.50
	1-3/4	0.38	0.63	2.76	4.69	5.50	6.13	6.75
	2	0.38	0.63	2.76	4.69	5.50	6.25	6.88
4	1	0.38	0.63	3.32	5.44	6.25	5.63	6.25
	1-3/8	0.38	0.63	3.32	5.44	6.25	5.88	6.50
	1-3/4	0.38	0.63	3.32	5.44	6.25	6.13	6.75
5	2	0.38	0.63	3.32	5.44	6.25	6.25	6.88
	1	0.50	0.63	4.10	6.63	7.63	5.88	6.50
	1-3/8	0.50	0.63	4.10	6.63	7.63	6.13	6.75
	1-3/4	0.50	0.63	4.10	6.63	7.63	6.38	7.00
6	2	0.50	0.63	4.10	6.63	7.63	6.50	7.13
	1-3/8	0.50	0.75	4.88	7.63	8.63	6.63	7.38
	1-3/4	0.50	0.75	4.88	7.63	8.63	6.88	7.63
	2	0.50	0.75	4.88	7.63	8.63	7.00	7.75
	2-1/2	0.50	0.75	4.88	7.63	8.63	7.25	8.00



ASP Series
Steel Body NFPA



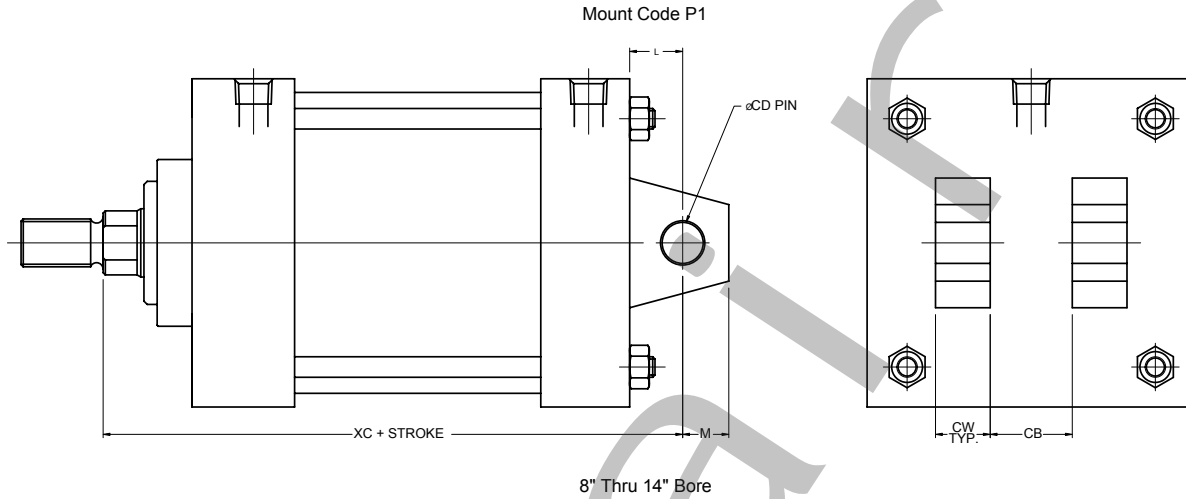
P1 Mounts



BORE	ROD	CB	CD	CW	L	M	XC
1-1/2	5/8	0.75	0.500	0.50	0.75	0.50	5.38
	1	0.75	0.500	0.50	0.75	0.50	5.75
2	5/8	0.75	0.500	0.50	0.75	0.50	5.38
	1	0.75	0.500	0.50	0.75	0.50	5.75
	1-3/8	0.75	0.500	0.50	0.75	0.50	6.00
2-1/2	5/8	0.75	0.500	0.50	0.75	0.50	5.50
	1	0.75	0.500	0.50	0.75	0.50	5.88
	1-3/8	0.75	0.500	0.50	0.75	0.50	6.13
3-1/4	1-3/4	0.75	0.500	0.50	0.75	0.50	6.38
	1	1.25	0.750	0.63	1.25	0.75	6.88
	1-3/8	1.25	0.750	0.63	1.25	0.75	7.13
	1-3/4	1.25	0.750	0.63	1.25	0.75	7.38
4	2	1.25	0.750	0.63	1.25	0.75	7.50
	1	1.25	0.750	0.63	1.25	0.75	6.88
	1-3/8	1.25	0.750	0.63	1.25	0.75	7.13
5	1-3/4	1.25	0.750	0.63	1.25	0.75	7.38
	2	1.25	0.750	0.63	1.25	0.75	7.50
	1	1.25	0.750	0.63	1.25	0.75	7.13
6	1-3/8	1.50	1.000	0.75	1.50	1.00	8.13
	1-3/4	1.50	1.000	0.75	1.50	1.00	8.38
	2	1.50	1.000	0.75	1.50	1.00	8.50
	2-1/2	1.50	1.000	0.75	1.50	1.00	8.75



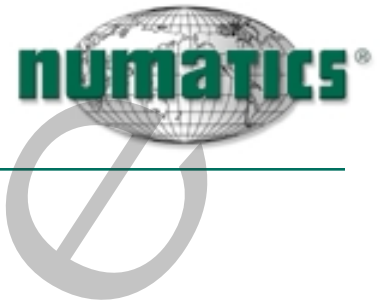
P1 Mounts continued



BORE	ROD	CB	CD	CW	L	M	XC
8	1-3/8	1.50	1.000	0.75	1.50	1.00	8.25
	1-3/4	1.50	1.000	0.75	1.50	1.00	8.50
	2	1.50	1.000	0.75	1.50	1.00	8.63
	2-1/2	1.50	1.000	0.75	1.50	1.00	8.88
10	1-3/4	2.00	1.375	1.00	2.13	1.38	10.38
	2	2.00	1.375	1.00	2.13	1.38	10.50
	2-1/2	2.00	1.375	1.00	2.13	1.38	10.75
	3	2.00	1.375	1.00	2.13	1.38	10.75
12	2	2.50	1.750	1.25	2.25	1.75	11.13
	2-1/2	2.50	1.750	1.25	2.25	1.75	11.38
	3	2.50	1.750	1.25	2.25	1.75	11.38
	3-1/2	2.50	1.750	1.25	2.25	1.75	11.38
14	2-1/2	2.50	2.000	1.25	2.50	2.00	12.88
	3	2.50	2.000	1.25	2.50	2.00	12.88
	3-1/2	2.50	2.000	1.25	2.50	2.00	12.88

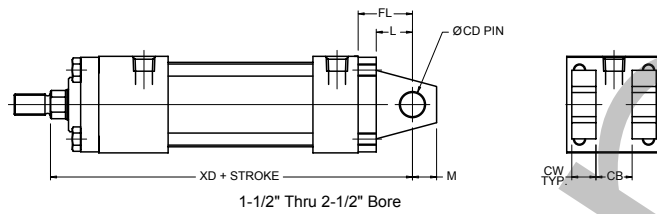


ASP Series
Steel Body NFPA

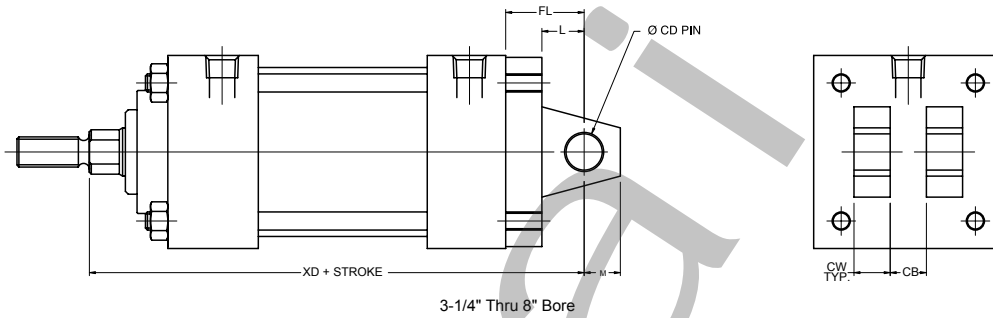


P2 Mounts

Mount Code P2



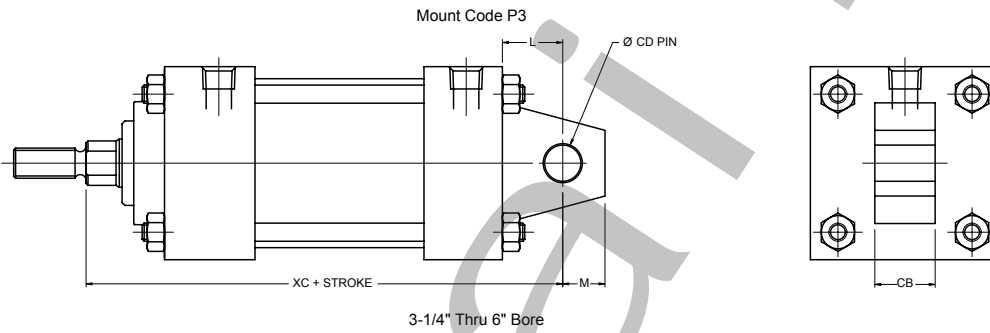
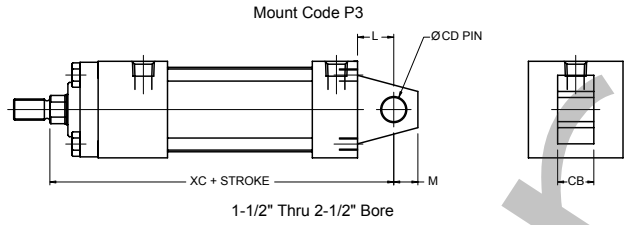
Mount Code P2



BORE	ROD	CB	CD	CW	FL	L	M	XD
1-1/2	5/8	0.75	0.500	0.50	1.13	0.75	0.50	5.75
	1	0.75	0.500	0.50	1.13	0.75	0.50	6.13
2	5/8	0.75	0.500	0.50	1.13	0.75	0.50	5.75
	1	0.75	0.500	0.50	1.13	0.75	0.50	6.13
	1-3/8	0.75	0.500	0.50	1.13	0.75	0.50	6.38
2-1/2	5/8	0.75	0.500	0.50	1.13	0.75	0.50	5.88
	1	0.75	0.500	0.50	1.13	0.75	0.50	6.25
	1-3/8	0.75	0.500	0.50	1.13	0.75	0.50	6.50
2-1/2	1-3/4	0.75	0.500	0.50	1.13	0.75	0.50	6.75
	1	1.25	0.750	0.63	1.88	1.25	0.75	7.50
	1-3/8	1.25	0.750	0.63	1.88	1.25	0.75	7.75
3-1/4	1-3/4	1.25	0.750	0.63	1.88	1.25	0.75	8.00
	2	1.25	0.750	0.63	1.88	1.25	0.75	8.13
	1	1.25	0.750	0.63	1.88	1.25	0.75	7.50
4	1-3/8	1.25	0.750	0.63	1.88	1.25	0.75	7.75
	1-3/4	1.25	0.750	0.63	1.88	1.25	0.75	8.00
	2	1.25	0.750	0.63	1.88	1.25	0.75	8.13
5	1	1.25	0.750	0.63	1.88	1.25	0.75	7.75
	1-3/8	1.25	0.750	0.63	1.88	1.25	0.75	8.00
	1-3/4	1.25	0.750	0.63	1.88	1.25	0.75	8.50
6	2	1.25	0.750	0.63	1.88	1.25	0.75	8.38
	1-3/8	1.50	1.000	0.75	2.25	1.50	1.00	8.88
	1-3/4	1.50	1.000	0.75	2.25	1.50	1.00	9.13
8	2	1.50	1.000	0.75	2.25	1.50	1.00	9.25
	2-1/2	1.50	1.000	0.75	2.25	1.50	1.00	9.50
	1-3/8	1.50	1.000	0.75	2.25	1.50	1.00	9.00
8	1-3/4	1.50	1.000	0.75	2.25	1.50	1.00	9.25
	2	1.50	1.000	0.75	2.25	1.50	1.00	9.38
	2-1/2	1.50	1.000	0.75	2.25	1.50	1.00	9.63



P3 Mounts



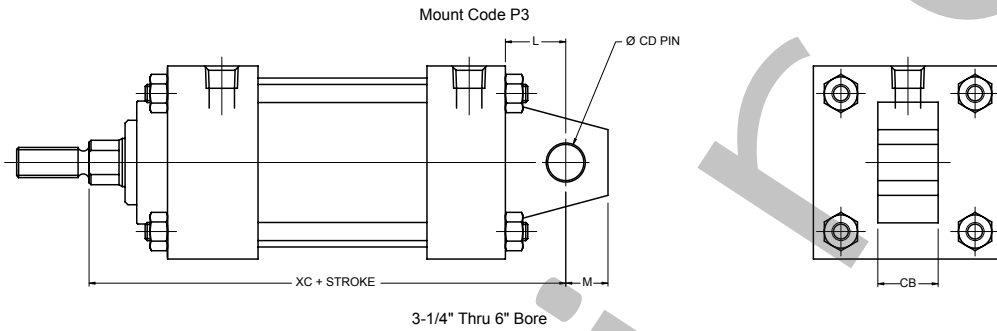
BORE	ROD	CB	CD	L	M	XC
1-1/2	5/8	0.75	0.50	0.75	0.50	5.38
	1	0.75	0.50	0.75	0.50	5.75
2	5/8	0.75	0.50	0.75	0.50	5.38
	1	0.75	0.50	0.75	0.50	5.75
	1-3/8	0.75	0.50	0.75	0.50	6.00
2-1/2	5/8	0.75	0.50	0.75	0.50	5.50
	1	0.75	0.50	0.75	0.50	5.88
	1-3/8	0.75	0.50	0.75	0.50	6.13
3-1/4	1-3/4	0.75	0.50	0.75	0.50	6.38
	1	1.25	0.75	1.25	0.75	6.88
	1-3/8	1.25	0.75	1.25	0.75	7.13
	1-3/4	1.25	0.75	1.25	0.75	7.38
4	2	1.25	0.75	1.25	0.75	7.50
	1	1.25	0.75	1.25	0.75	6.88
	1-3/8	1.25	0.75	1.25	0.75	7.13
	1-3/4	1.25	0.75	1.25	0.75	7.38
5	2	1.25	0.75	1.25	0.75	7.50
	1	1.25	0.75	1.25	0.75	7.13
	1-3/8	1.25	0.75	1.25	0.75	7.38
	1-3/4	1.25	0.75	1.25	0.75	7.63
6	2	1.25	0.75	1.25	0.75	7.75
	1-3/8	1.50	1.00	1.50	1.00	8.13
	1-3/4	1.50	1.00	1.50	1.00	8.38
	2-1/2	1.50	1.00	1.50	1.00	8.50
						8.75



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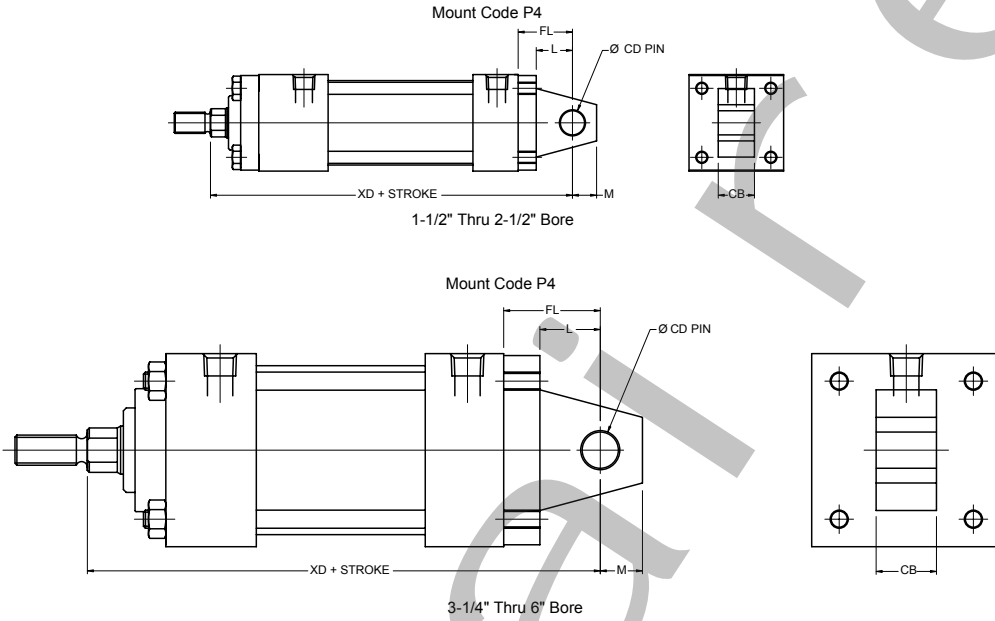
P3 Mounts continued



BORE	ROD	CB	CD	L	M	XC
8	1-3/8	1.50	1.00	1.50	1.00	8.25
	1-3/4	1.50	1.00	1.50	1.00	8.50
	2	1.50	1.00	1.50	1.00	8.63
	2-1/2	1.50	1.00	1.50	1.00	8.88
10	1-3/4	2.00	1.38	2.13	1.38	10.38
	2	2.00	1.38	2.13	1.38	10.50
	2-1/2	2.00	1.38	2.13	1.38	10.75
	3	2.00	1.38	2.13	1.38	10.75
12	2	2.50	1.75	2.25	1.75	11.13
	2-1/2	2.50	1.75	2.25	1.75	11.38
	3	2.50	1.75	2.25	1.75	11.38
	3-1/2	2.50	1.75	2.25	1.75	11.38
14	2-1/2	2.50	2.00	2.50	2.00	12.88
	3	2.50	2.00	2.50	2.00	12.88
	3-1/2	2.50	2.00	2.50	2.00	12.88



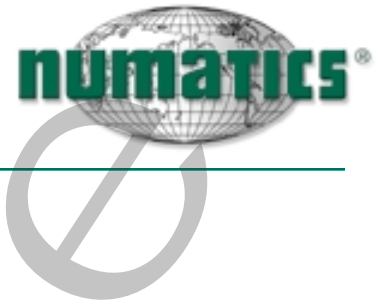
P4 Mounts



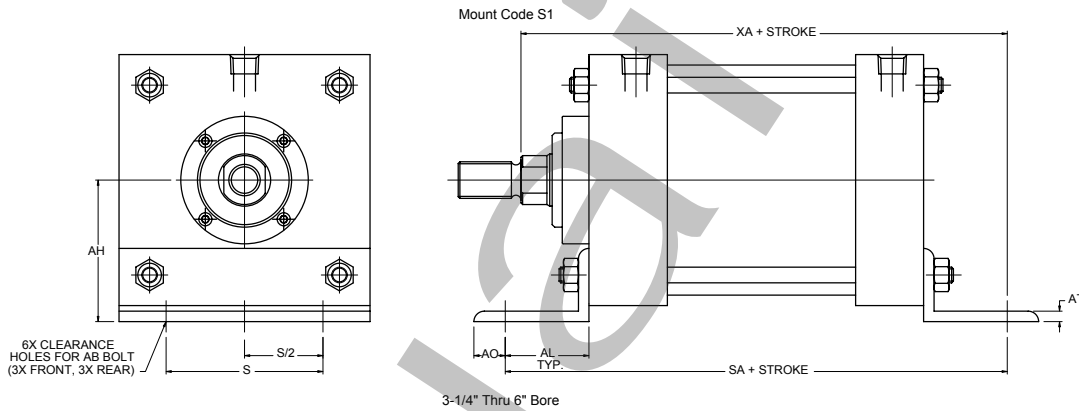
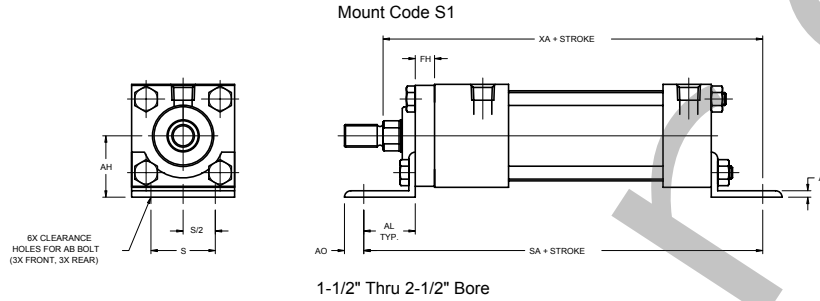
BORE	ROD	CB	CD	FL	L	M	XD
1-1/2	5/8	0.75	0.50	1.13	0.75	0.50	5.75
	1	0.75	0.50	1.13	0.75	0.50	6.13
2	5/8	0.75	0.50	1.13	0.75	0.50	5.75
	1	0.75	0.50	1.13	0.75	0.50	6.13
	1-3/8	0.75	0.50	1.13	0.75	0.50	6.38
2-1/2	5/8	0.75	0.50	1.13	0.75	0.50	5.88
	1	0.75	0.50	1.13	0.75	0.50	6.25
	1-3/8	0.75	0.50	1.13	0.75	0.50	6.50
3-1/4	1-3/4	0.75	0.50	1.13	0.75	0.50	6.75
	1	1.25	0.75	1.88	1.25	0.75	7.50
	1-3/8	1.25	0.75	1.88	1.25	0.75	7.75
	1-3/4	1.25	0.75	1.88	1.25	0.75	8.00
4	2	1.25	0.75	1.88	1.25	0.75	8.13
	1	1.25	0.75	1.88	1.25	0.75	7.50
	1-3/8	1.25	0.75	1.88	1.25	0.75	7.75
	1-3/4	1.25	0.75	1.88	1.25	0.75	8.00
5	2	1.25	0.75	1.88	1.25	0.75	8.13
	1	1.25	0.75	1.88	1.25	0.75	7.75
	1-3/8	1.25	0.75	1.88	1.25	0.75	8.00
	1-3/4	1.25	0.75	1.88	1.25	0.75	8.50
6	2	1.25	0.75	1.88	1.25	0.75	8.38
	1-3/8	1.50	1.00	2.25	1.50	1.00	8.88
	1-3/4	1.50	1.00	2.25	1.50	1.00	9.13
	2	1.50	1.00	2.25	1.50	1.00	9.25
8	2-1/2	1.50	1.00	2.25	1.50	1.00	9.50
	1-3/8	1.50	1.00	2.25	1.50	1.00	9.00
	1-3/4	1.50	1.00	2.25	1.50	1.00	9.25
	2	1.50	1.00	2.25	1.50	1.00	9.38
	2-1/2	1.50	1.00	2.25	1.50	1.00	9.63



ASP Series
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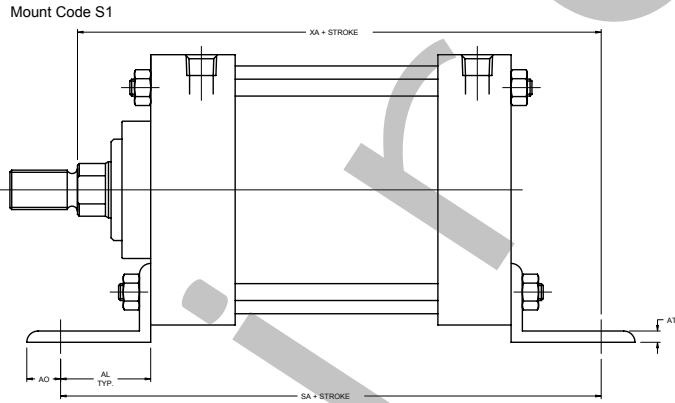
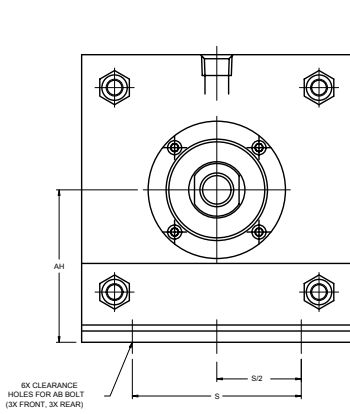
S1 Mounts



BORE	ROD	AB	AH	AL	AO	AT	FH	S	SA	XA
1-1/2	5/8	0.38	1.19	1.00	0.38	0.13	0.38	1.25	6.00	5.63
	1	0.38	1.19	1.00	0.38	0.13	0.38	1.25	6.00	6.00
2	5/8	0.38	1.44	1.00	0.38	0.13	0.38	1.75	6.00	5.63
	1	0.38	1.44	1.00	0.38	0.13	0.38	1.75	6.00	6.00
	1-3/8	0.38	1.44	1.00	0.38	0.13	0.38	1.75	6.00	6.25
2-1/2	5/8	0.38	1.63	1.00	0.38	0.13	0.38	2.25	6.13	5.75
	1	0.38	1.63	1.00	0.38	0.13	0.38	2.25	6.13	6.13
	1-3/8	0.38	1.63	1.00	0.38	0.13	0.38	2.25	6.13	6.38
	1-3/4	0.38	1.63	1.00	0.38	0.13	0.38	2.25	6.13	6.63
3-1/4	1	0.50	1.94	1.25	0.50	0.13	0.63	2.75	7.38	6.88
	1-3/8	0.50	1.94	1.25	0.50	0.13	0.63	2.75	7.38	7.13
	1-3/4	0.50	1.94	1.25	0.50	0.13	0.63	2.75	7.38	7.38
	2	0.50	1.94	1.25	0.50	0.13	0.63	2.75	7.38	7.50
4	1	0.50	2.25	1.25	0.50	0.13	0.63	3.50	7.38	6.88
	1-3/8	0.50	2.25	1.25	0.50	0.13	0.63	3.50	7.38	7.13
	1-3/4	0.50	2.25	1.25	0.50	0.13	0.63	3.50	7.38	7.38
5	2	0.50	2.25	1.25	0.50	0.13	0.63	3.50	7.38	7.50
	1	0.63	2.75	1.38	0.63	0.19	0.63	4.25	7.88	7.25
	1-3/8	0.63	2.75	1.38	0.63	0.19	0.63	4.25	7.88	7.50
	1-3/4	0.63	2.75	1.38	0.63	0.19	0.63	4.25	7.88	7.75
6	2	0.63	2.75	1.38	0.63	0.19	0.63	4.25	7.88	7.88
	1-3/8	0.75	3.25	1.38	0.63	0.19	0.75	5.25	8.50	8.00
	1-3/4	0.75	3.25	1.38	0.63	0.19	0.75	5.25	8.50	8.25
	2	0.75	3.25	1.38	0.63	0.19	0.75	5.25	8.50	8.38
	2-1/2	0.75	3.25	1.38	0.63	0.19	0.75	5.25	8.50	8.63



S1 Mounts continued

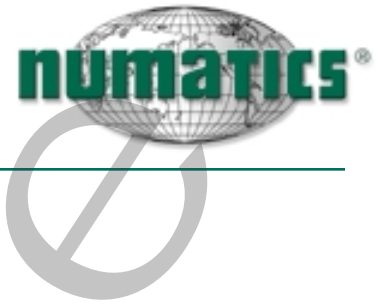


8" through 14"

BORE	ROD	AB	AH	AL	AO	AT	S	SA	XA
8	1-3/8	0.75	4.25	1.81	0.69	0.25	7.13	8.75	8.56
	1-3/4	0.75	4.25	1.81	0.69	0.25	7.13	8.75	8.81
	2	0.75	4.25	1.81	0.69	0.25	7.13	8.75	8.94
	2-1/2	0.75	4.25	1.81	0.69	0.25	7.13	8.75	9.91
10	1-3/4	1.00	5.31	2.13	0.88	0.25	8.88	10.63	10.38
	2	1.00	5.31	2.13	0.88	0.25	8.88	10.63	10.50
	2-1/2	1.00	5.31	2.13	0.88	0.25	8.88	10.63	10.75
	3	1.00	5.31	2.13	0.88	0.25	8.88	10.63	10.75
12	2	1.00	6.38	2.13	0.88	0.38	11.00	11.13	11.00
	2-1/2	1.00	6.38	2.13	0.88	0.38	11.00	11.13	11.25
	3	1.00	6.38	2.13	0.88	0.38	11.00	11.13	11.25
	3-1/2	1.00	6.38	2.13	0.88	0.38	11.00	11.13	11.25
14	2-1/2	1.25	7.38	2.44	1.06	0.38	12.63	13.00	12.81
	3	1.25	7.38	2.44	1.06	0.38	12.63	13.00	12.81
	3-1/2	1.25	7.38	2.44	1.06	0.38	12.63	13.00	12.81

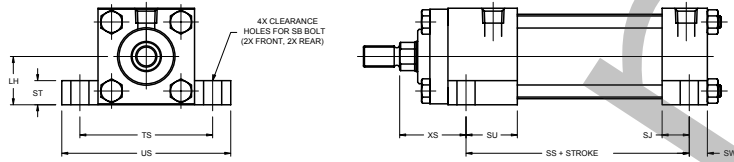


ASP Series
Steel Body NFPA



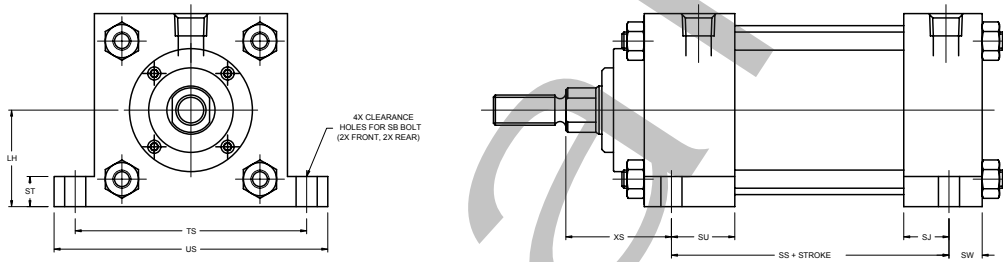
S2 Mounts

Mount Code S2



1-1/2" Thru 2-1/2" Bore

Mount Code S2



3-1/4" Thru 6" Bore

BORE	ROD	LH	SB	SJ	SS	ST	SU	SW	TS	US	XS
1-1/2	5/8	1.00	0.38	0.63	2.88	0.50	1.13	0.38	2.75	3.50	1.38
	1	1.00	0.38	0.63	2.88	0.50	1.13	0.38	2.75	3.50	1.75
2	5/8	1.25	0.38	0.63	2.88	0.50	1.13	0.38	3.25	4.00	1.38
	1	1.25	0.38	0.63	2.88	0.50	1.13	0.38	3.25	4.00	1.75
	1-3/8	1.25	0.38	0.63	2.88	0.50	1.13	0.38	3.25	4.00	2.00
2-1/2	5/8	1.50	0.38	0.63	3.00	0.50	1.13	0.38	3.75	4.50	1.38
	1	1.50	0.38	0.63	3.00	0.50	1.13	0.38	3.75	4.50	1.75
	1-3/8	1.50	0.38	0.63	3.00	0.50	1.13	0.38	3.75	4.50	2.00
	1-3/4	1.50	0.38	0.63	3.00	0.50	1.13	0.38	3.75	4.50	2.25
3-1/4	1	1.88	0.50	0.75	3.25	0.75	1.25	0.50	4.75	5.75	1.88
	1-3/8	1.88	0.50	0.75	3.25	0.75	1.25	0.50	4.75	5.75	2.13
	1-3/4	1.88	0.50	0.75	3.25	0.75	1.25	0.50	4.75	5.75	2.38
	2	1.88	0.50	0.75	3.25	0.75	1.25	0.50	4.75	5.75	2.50
4	1	2.25	0.50	0.75	3.25	0.75	1.25	0.50	5.50	6.50	1.88
	1-3/8	2.25	0.50	0.75	3.25	0.75	1.25	0.50	5.50	6.50	2.13
	1-3/4	2.25	0.50	0.75	3.25	0.75	1.25	0.50	5.50	6.50	2.38
	2	2.25	0.50	0.75	3.25	0.75	1.25	0.50	5.50	6.50	2.50
5	1	2.75	0.75	0.56	3.13	1.00	1.06	0.69	6.88	8.25	2.06
	1-3/8	2.75	0.75	0.56	3.13	1.00	1.06	0.69	6.88	8.25	2.31
	1-3/4	2.75	0.75	0.56	3.13	1.00	1.06	0.69	6.88	8.25	2.56
	2	2.75	0.75	0.56	3.13	1.00	1.06	0.69	6.88	8.25	2.69
6	1-3/8	3.25	0.75	0.81	3.63	1.00	1.31	0.69	7.88	9.25	2.31
	1-3/4	3.25	0.75	0.81	3.63	1.00	1.31	0.69	7.88	9.25	2.56
	2	3.25	0.75	0.81	3.63	1.00	1.31	0.69	7.88	9.25	2.69
	2-1/2	3.25	0.75	0.81	3.63	1.00	1.31	0.69	7.88	9.25	2.94

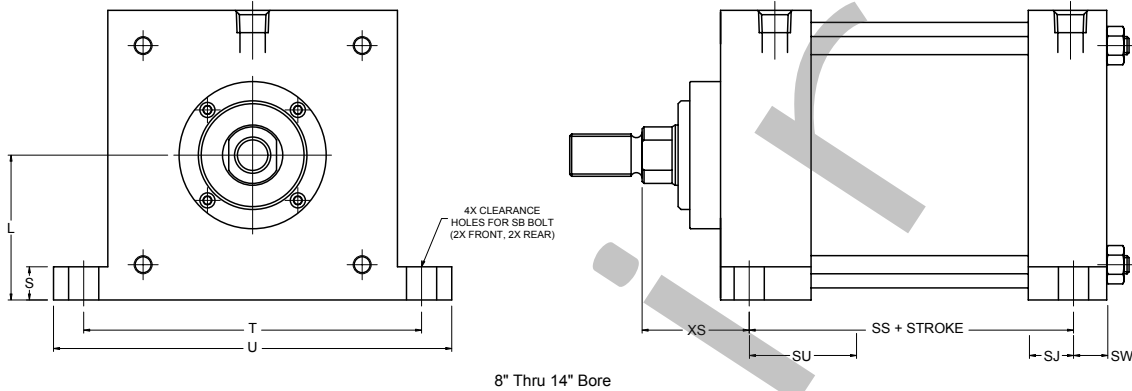


ASP Series
Steel Body NFPA



S2 Mounts continued

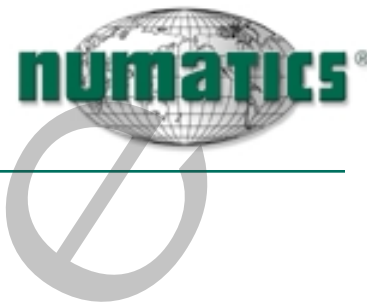
Mount Code S2



BORE	ROD	LH	SB	SJ	SS	ST	SU	SW	TS	US	XS
8	1-3/8	4.25	0.75	0.81	3.75	1.00	1.31	0.69	9.88	11.25	2.31
	1-3/4	4.25	0.75	0.81	3.75	1.00	1.31	0.69	9.88	11.25	2.56
	2	4.25	0.75	0.81	3.75	1.00	1.31	0.69	9.88	11.25	2.69
	2-1/2	4.25	0.75	0.81	3.75	1.00	1.31	0.69	9.88	11.25	2.94
10	1-3/4	5.31	1.00	1.13	4.63	1.25	1.38	0.88	12.38	14.13	2.75
	2	5.31	1.00	1.13	4.63	1.25	1.38	0.88	12.38	14.13	2.88
	2-1/2	5.31	1.00	1.13	4.63	1.25	1.38	0.88	12.38	14.13	3.13
	3	5.31	1.00	1.13	4.63	1.25	1.38	0.88	12.38	14.13	3.13
12	2	6.38	1.00	1.13	5.13	1.25	1.38	0.88	14.50	16.25	2.88
	2-1/2	6.38	1.00	1.13	5.13	1.25	1.38	0.88	14.50	16.25	3.13
	3	6.38	1.00	1.13	5.13	1.25	1.38	0.88	14.50	16.25	3.13
	3-1/2	6.38	1.00	1.13	5.13	1.25	1.38	0.88	14.50	16.25	3.13
14	2-1/2	7.38	1.25	1.13	5.88	1.50	1.63	1.13	17.00	19.25	3.38
	3	7.38	1.25	1.13	5.88	1.50	1.63	1.13	17.00	19.25	3.38
	3-1/2	7.38	1.25	1.13	5.88	1.50	1.63	1.13	17.00	19.25	3.38

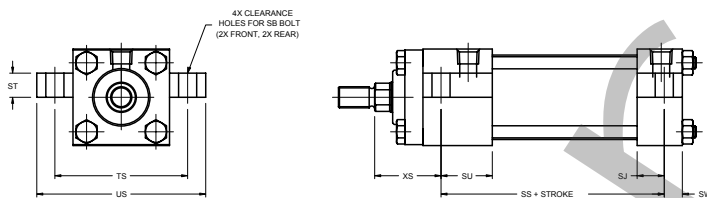


ASP Series
Steel Body NFPA



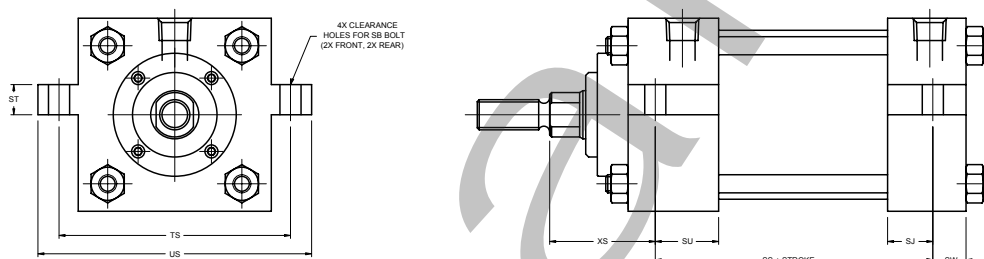
S3 Mounts

Mount Code S3



1-1/2" Thru 2-1/2" Bore

Mount Code S3



3-1/4" Thru 6" Bore

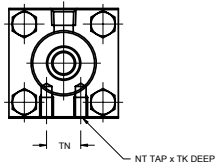
BORE	ROD	SB	SJ	SS	ST	SU	SW	TS	US	XS
1-1/2	5/8	0.38	0.63	2.88	0.50	1.13	0.38	2.75	3.50	1.38
	1	0.38	0.63	2.88	0.50	1.13	0.38	2.75	3.50	1.75
2	5/8	0.38	0.63	2.88	0.50	1.13	0.38	3.25	4.00	1.38
	1	0.38	0.63	2.88	0.50	1.13	0.38	3.25	4.00	1.75
	1-3/8	0.38	0.63	2.88	0.50	1.13	0.38	3.25	4.00	2.00
2-1/2	5/8	0.38	0.63	3.00	0.50	1.13	0.38	3.75	4.50	1.38
	1	0.38	0.63	3.00	0.50	1.13	0.38	3.75	4.50	1.75
	1-3/8	0.38	0.63	3.00	0.50	1.13	0.38	3.75	4.50	2.00
	1-3/4	0.38	0.63	3.00	0.50	1.13	0.38	3.75	4.50	2.25
3-1/4	1	0.50	0.75	3.25	0.75	1.25	0.50	4.75	5.75	1.88
	1-3/8	0.50	0.75	3.25	0.75	1.25	0.50	4.75	5.75	2.13
	1-3/4	0.50	0.75	3.25	0.75	1.25	0.50	4.75	5.75	2.38
	2	0.50	0.75	3.25	0.75	1.25	0.50	4.75	5.75	2.50
4	1	0.50	0.75	3.25	0.75	1.25	0.50	5.50	6.50	1.88
	1-3/8	0.50	0.75	3.25	0.75	1.25	0.50	5.50	6.50	2.13
	1-3/4	0.50	0.75	3.25	0.75	1.25	0.50	5.50	6.50	2.38
5	2	0.50	0.75	3.25	0.75	1.25	0.50	5.50	6.50	2.50
	1	0.75	0.56	3.13	1.00	1.06	0.69	6.88	8.25	2.06
	1-3/8	0.75	0.56	3.13	1.00	1.06	0.69	6.88	8.25	2.31
	1-3/4	0.75	0.56	3.13	1.00	1.06	0.69	6.88	8.25	2.56
6	2	0.75	0.56	3.13	1.00	1.06	0.69	6.88	8.25	2.69
	1-3/8	0.75	0.81	3.63	1.00	1.31	0.69	7.88	9.25	2.31
	1-3/4	0.75	0.81	3.63	1.00	1.31	0.69	7.88	9.25	2.56
	2	0.75	0.81	3.63	1.00	1.31	0.69	7.88	9.25	2.69
	2-1/2	0.75	0.81	3.63	1.00	1.31	0.69	7.88	9.25	2.94



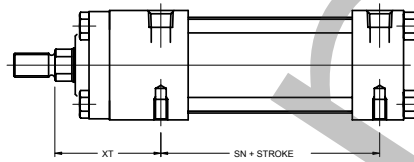
ASP Series
Steel Body NFPA



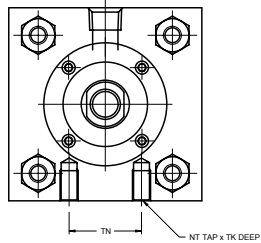
S4 Mounts



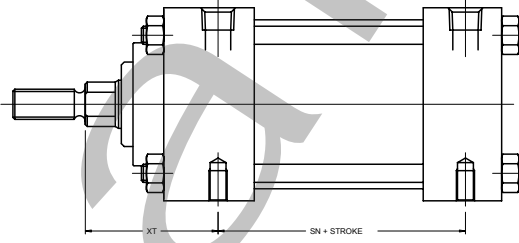
Mount Code S4



1-1/2" Thru 2-1/2" Bore



MOUNT CODE S4



3-1/4" THRU 8" BORE

BORE	ROD	NT	TK	TN	SN	XT
1-1/2	5/8	1/4-20	0.375	0.625	2.250	1.938
	1	1/4-20	0.313	0.625	2.250	2.313
2	5/8	5/16-18	0.500	0.875	2.250	1.938
	1	5/16-18	0.500	0.875	2.250	2.313
	1-3/8	5/16-18	0.375	0.875	2.250	2.563
2-1/2	5/8	3/8-16	0.625	1.250	2.375	1.938
	1	3/8-16	0.625	1.250	2.375	2.313
	1-3/8	3/8-16	0.375	1.250	2.375	2.563
	1-3/4	3/8-16	0.375	1.250	2.375	2.563
3-1/4	1	1/2-13	0.750	1.500	2.625	2.438
	1-3/8	1/2-13	0.750	1.500	2.625	2.688
	1-3/4	1/2-13	0.750	1.500	2.625	2.938
	2	1/2-13	0.500	1.500	2.625	3.063
4	1	1/2-13	0.750	2.063	2.625	2.438
	1-3/8	1/2-13	0.750	2.063	2.625	2.688
	1-3/4	1/2-13	0.750	2.063	2.625	2.938
5	2	1/2-13	0.750	2.063	2.625	3.063
	1	5/8-11	1.000	2.688	2.875	2.438
	1-3/8	5/8-11	1.000	2.688	2.875	2.688
	1-3/4	5/8-11	1.000	2.688	2.875	2.938
6	2	5/8-11	1.000	2.688	2.875	3.063
	1-3/8	3/4-10	1.125	3.250	3.125	2.813
	1-3/4	3/4-10	1.125	3.250	3.125	3.063
	2	3/4-10	1.125	3.250	3.125	3.188
	2-1/2	3/4-10	1.125	3.250	3.125	3.438

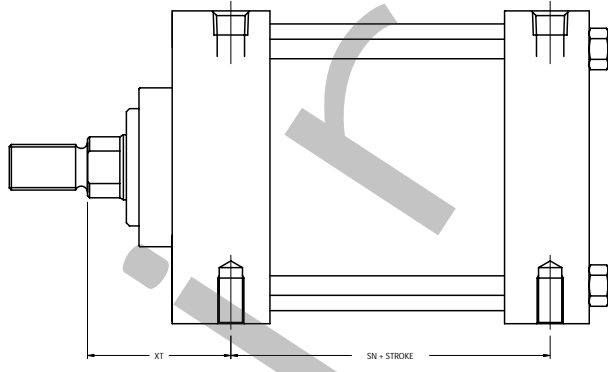
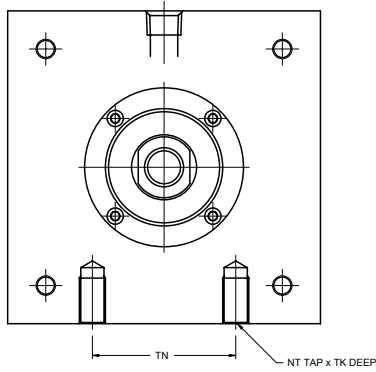


ASP Series
Steel Body NFPA



S4 Mounts continued

Mount Code S4



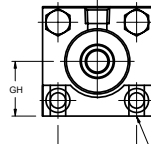
10" Thru 14" Bore

BORE	ROD	NT	TK	TN	SN	XT
8	1-3/8	3/4-10	1.125	4.500	3.250	2.813
	1-3/4	3/4-10	1.125	4.500	3.250	3.063
	2	3/4-10	1.125	4.500	3.250	3.188
	2-1/2	3/4-10	1.125	4.500	3.250	3.438
10	1-3/4	1-8	2.000	5.500	4.125	3.125
	2	1-8	2.000	5.500	4.125	3.250
	2-1/2	1-8	2.000	5.500	4.125	3.500
	3	1-8	2.000	5.500	4.125	3.500
12	2	1-8	2.000	7.250	4.625	3.250
	2-1/2	1-8	2.000	7.250	4.625	3.500
	3	1-8	2.000	7.250	4.625	3.500
	3-1/2	1-8	2.000	7.250	4.625	3.500
14	2-1/2	1 1/4-7	2.500	8.375	5.500	3.813
	3	1 1/4-7	2.500	8.375	5.500	3.813
	3-1/2	1 1/4-7	2.500	8.375	5.500	3.813

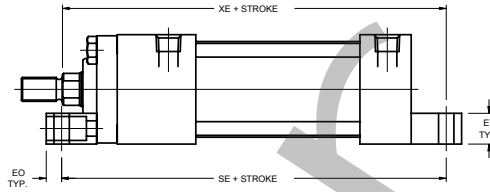


S7 Mounts

Mount Code S7

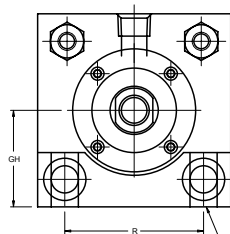


4X CLEARANCE HOLES FOR EB BOLT (2X FRONT, 2X REAR)

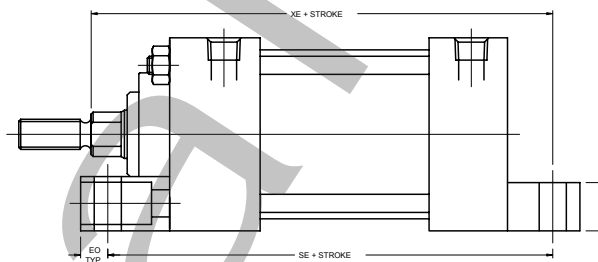


1-1/2" Thru 2-1/2" Bore

Mount Code S7



4X CLEARANCE HOLES FOR EB BOLT (2X FRONT, 2X REAR)



3-1/4" Thru 6" Bore

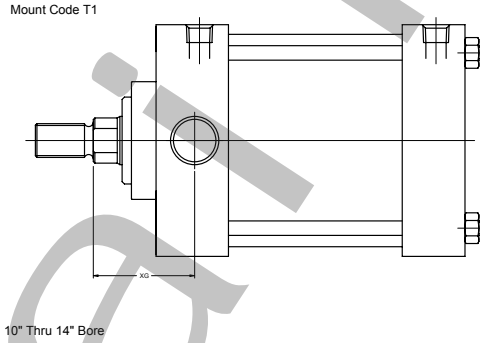
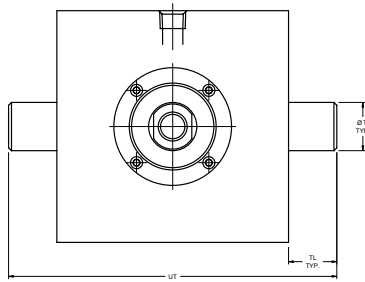
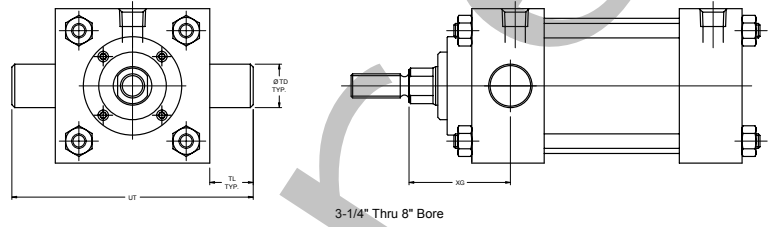
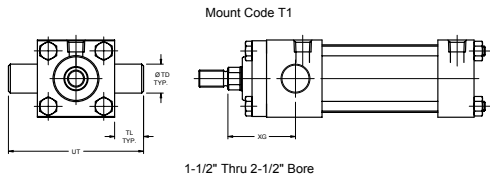
BORE	ROD	EB	GH	SE	ET	EO	R	XE
1-1/2	5/8	0.25	1.00	5.500	0.55	0.25	1.43	5.38
	1	0.25	1.00	5.500	0.55	0.25	1.43	5.75
2	5/8	0.31	1.25	5.875	0.64	0.31	1.84	5.56
	1	0.31	1.25	5.875	0.64	0.31	1.84	5.94
2-1/2	5/8	0.31	1.50	6.625	0.80	0.31	2.19	5.81
	1	0.31	1.50	6.625	0.80	0.31	2.19	6.19
	1-3/8	0.31	1.50	6.625	0.80	0.31	2.19	6.44
3-1/4	1	0.38	1.88	6.625	0.95	0.50	2.76	6.50
	1-3/8	0.38	1.88	6.625	0.95	0.50	2.76	6.75
	1-3/4	0.38	1.88	6.625	0.95	0.50	2.76	7.00
	2	0.38	1.88	6.625	0.95	0.50	2.76	7.13
4	1	0.38	2.25	6.875	1.17	0.50	3.32	6.63
	1-3/8	0.38	2.25	6.875	1.17	0.50	3.32	6.88
	1-3/4	0.38	2.25	6.875	1.17	0.50	3.32	7.13
5	2	0.38	2.25	6.875	1.17	0.50	3.32	7.25
	1	0.50	2.75	7.250	1.39	0.50	4.10	6.94
	1-3/8	0.50	2.75	7.250	1.39	0.50	4.10	7.19
6	1-3/4	0.50	2.75	7.250	1.39	0.50	4.10	7.44
	2	0.50	2.75	7.250	1.39	0.50	4.10	7.56
	1-3/8	0.50	3.25	7.750	1.61	0.50	4.88	7.63
	1-3/4	0.50	3.25	7.750	1.61	0.50	4.88	7.88
6	2	0.50	3.25	7.750	1.61	0.50	4.88	8.00
	2-1/2	0.50	3.25	7.750	1.61	0.50	4.88	8.25



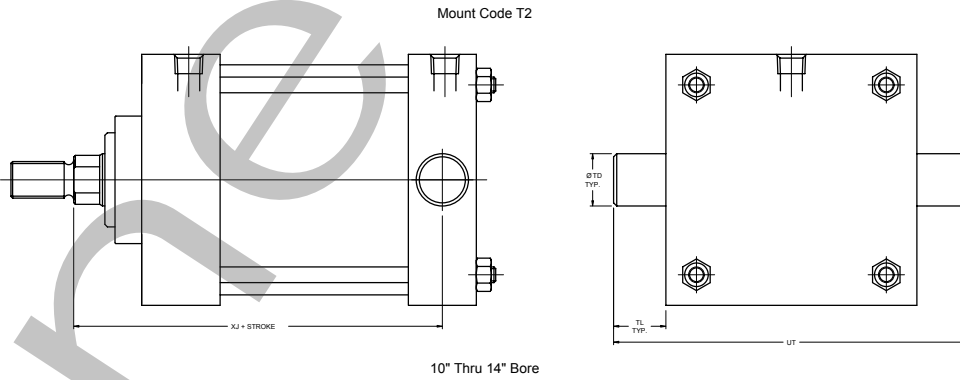
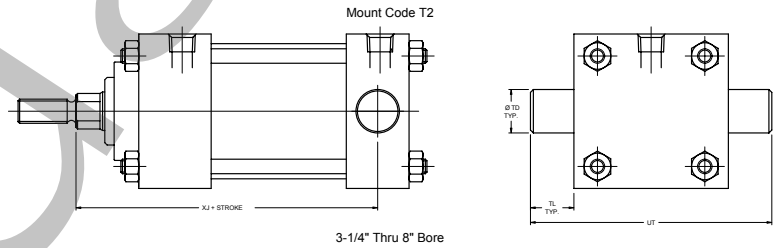
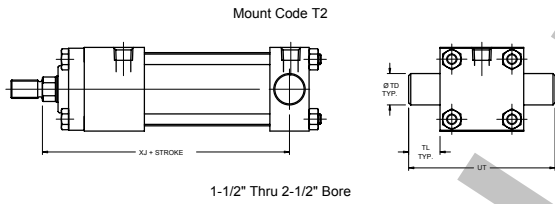
ASP Series Steel Body NFPA



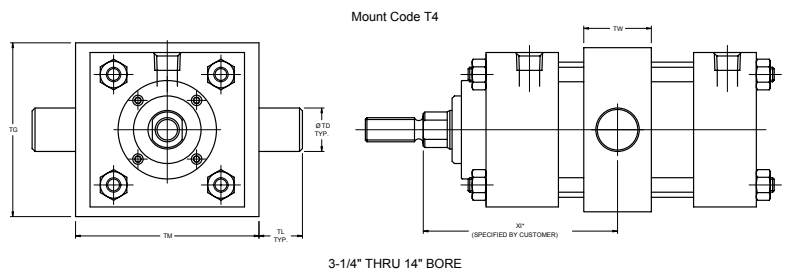
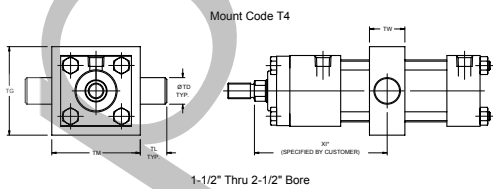
T1 Mounts



T2 Mounts



T4 Mounts





ASP Series
Steel Body NFPA



T Mounts continued

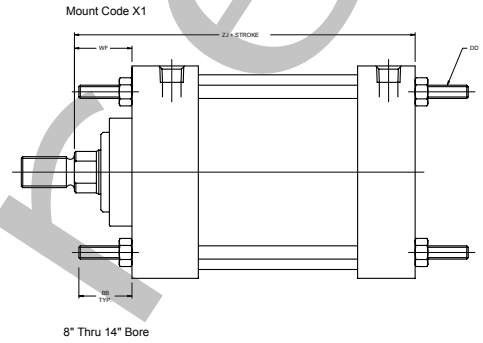
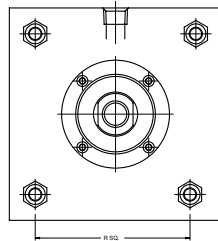
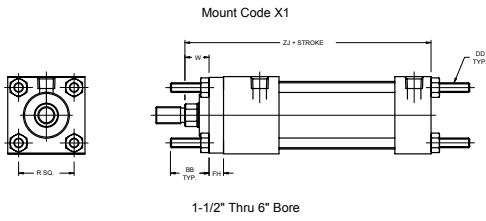
BORE	ROD	TD	TG	TL	TM	TW	UT	XG	XI (MIN)	XJ
1-1/2	5/8	1.000	2.50	1.00	2.50	1.25	4.00	1.75	3.13	4.13
	1	1.000	2.50	1.00	2.50	1.25	4.00	2.13	3.50	4.50
2	5/8	1.000	3.00	1.00	3.00	1.50	4.50	1.75	3.25	4.13
	1	1.000	3.00	1.00	3.00	1.50	4.50	2.13	3.63	4.50
	1-3/8	1.000	3.00	1.00	3.00	1.50	4.50	2.38	3.88	4.75
2-1/2	5/8	1.000	3.50	1.00	3.50	1.50	5.00	1.75	3.25	4.25
	1	1.000	3.50	1.00	3.50	1.50	5.00	2.13	3.63	4.63
	1-3/8	1.000	3.50	1.00	3.50	1.50	5.00	2.38	3.88	4.88
	1-3/4	1.000	3.50	1.00	3.50	1.50	5.00	2.63	4.13	5.13
3-1/4	1	1.000	4.25	1.00	4.50	2.00	5.75	2.25	4.13	5.00
	1-3/8	1.000	4.25	1.00	4.50	2.00	5.75	2.50	4.38	5.25
	1-3/4	1.000	4.25	1.00	4.50	2.00	5.75	2.75	4.63	5.50
	2	1.000	4.25	1.00	4.50	2.00	5.75	2.88	4.75	5.63
4	1	1.000	5.00	1.00	5.25	2.00	6.50	2.25	4.13	5.00
	1-3/8	1.000	5.00	1.00	5.25	2.00	6.50	2.50	4.38	5.25
	1-3/4	1.000	5.00	1.00	5.25	2.00	6.50	2.75	4.63	5.50
	2	1.000	5.00	1.00	5.25	2.00	6.50	2.88	4.75	5.63
5	1	1.000	6.00	1.00	6.25	2.00	7.50	2.25	4.13	5.25
	1-3/8	1.000	6.00	1.00	6.25	2.00	7.50	2.50	4.38	5.50
	1-3/4	1.000	6.00	1.00	6.25	2.00	7.50	2.75	4.63	5.75
	2	1.000	6.00	1.00	6.25	2.00	7.50	2.88	4.75	5.88
6	1-3/8	1.375	7.00	1.38	7.63	2.50	9.25	2.63	4.88	5.88
	1-3/4	1.375	7.00	1.38	7.63	2.50	9.25	2.88	5.13	6.13
	2	1.375	7.00	1.38	7.63	2.50	9.25	3.00	5.25	6.25
	2-1/2	1.375	7.00	1.38	7.63	2.50	9.25	3.25	5.50	6.50
8	1-3/8	1.375	9.50	1.38	9.75	2.50	11.25	2.63	4.88	6.00
	1-3/4	1.375	9.50	1.38	9.75	2.50	11.25	2.88	5.13	6.25
	2	1.375	9.50	1.38	9.75	2.50	11.25	3.00	5.25	6.38
	2-1/2	1.375	9.50	1.38	9.75	2.50	11.25	3.25	5.50	6.63
10	1-3/4	1.750	11.75	1.75	12.00	3.00	14.13	3.00	5.63	7.25
	2	1.750	11.75	1.75	12.00	3.00	14.13	3.13	5.75	7.38
	2-1/2	1.750	11.75	1.75	12.00	3.00	14.13	3.38	6.00	7.63
	3	1.750	11.75	1.75	12.00	3.00	14.13	3.38	6.00	7.63
12	2	1.750	13.75	1.75	14.00	3.00	16.25	3.13	5.75	7.88
	2-1/2	1.750	13.75	1.75	14.00	3.00	16.25	3.38	6.00	8.13
	3	1.750	13.75	1.75	14.00	3.00	16.25	3.38	6.00	8.13
	3-1/2	1.750	13.75	1.75	14.00	3.00	16.25	3.38	6.00	8.13
14	2-1/2	2.000	16.00	2.00	16.25	3.50	18.75	3.63	6.75	9.25
	3	2.000	16.00	2.00	16.25	3.50	18.75	3.63	6.75	9.25
	3-1/2	2.000	16.00	2.00	16.25	3.50	18.75	3.63	6.75	9.25



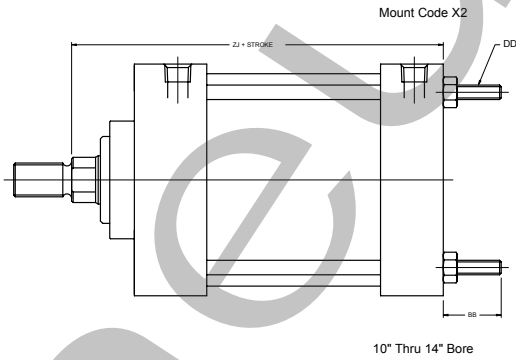
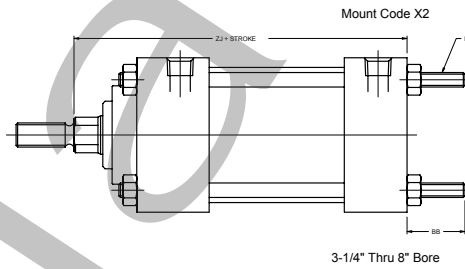
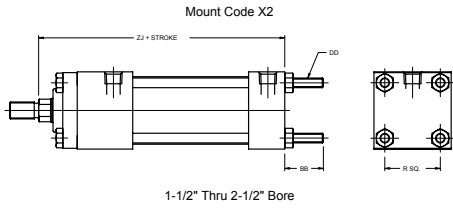
ASP Series Steel Body NFPA



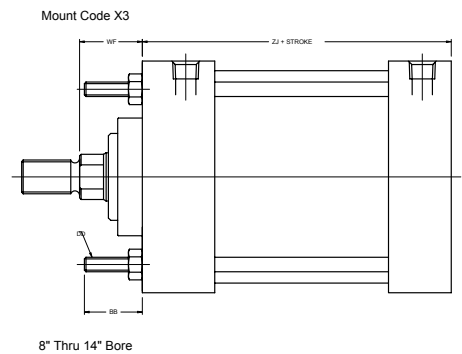
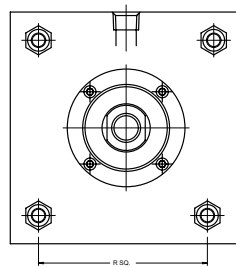
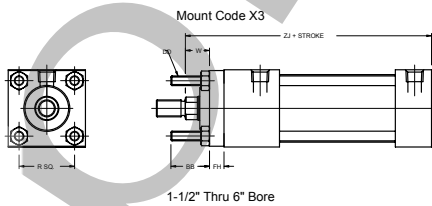
X1 Mounts



X2 Mounts



X3 Mounts





ASP Series
Steel Body NFPA



X Mounts continued

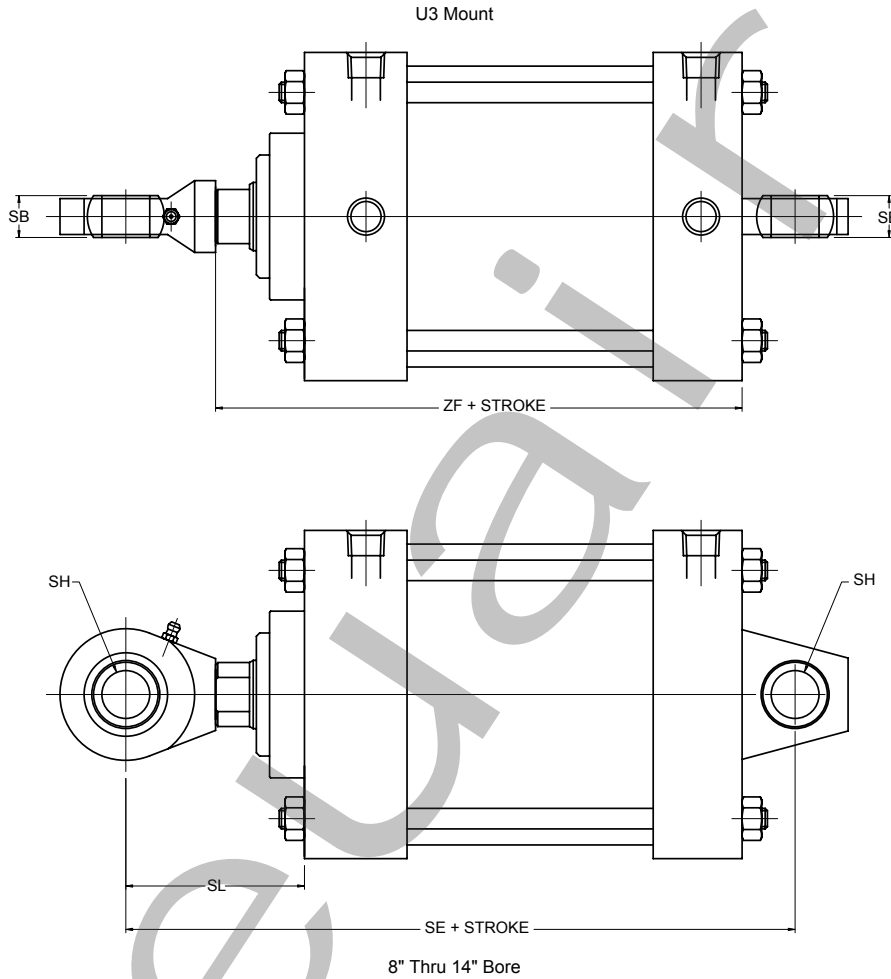
BORE	ROD	BB	DD	FH	R	W	ZJ
1-1/2	5/8	1.000	1/4-28	0.38	1.43	0.63	4.625
	1	1.000	1/4-28	0.38	1.43	1.00	5.000
2	5/8	1.125	5/16-24	0.38	1.84	0.63	4.625
	1	1.125	5/16-24	0.38	1.84	1.00	5.000
	1-3/8	1.125	5/16-24	0.38	1.84	1.25	5.250
2-1/2	5/8	1.125	5/16-24	0.38	2.19	0.63	4.750
	1	1.125	5/16-24	0.38	2.19	1.00	5.125
	1-3/8	1.125	5/16-24	0.38	2.19	1.25	5.375
	1-3/4	1.125	5/16-24	0.38	2.19	1.50	5.625
3-1/4	1	1.375	3/8-24	0.63	2.76	0.75	5.625
	1-3/8	1.375	3/8-24	0.63	2.76	1.00	5.875
	1-3/4	1.375	3/8-24	0.63	2.76	1.25	6.125
	2	1.375	3/8-24	0.63	2.76	1.38	6.250
4	1	1.375	3/8-24	0.63	3.32	0.75	5.625
	1-3/8	1.375	3/8-24	0.63	3.32	1.00	5.875
	1-3/4	1.375	3/8-24	0.63	3.32	1.25	6.125
	2	1.375	3/8-24	0.63	3.32	1.38	6.250
5	1	1.813	1/2-20	0.63	4.10	0.75	5.875
	1-3/8	1.813	1/2-20	0.63	4.10	1.00	6.125
	1-3/4	1.813	1/2-20	0.63	4.10	1.25	6.375
	2	1.813	1/2-20	0.63	4.10	1.38	6.500
6	1-3/8	1.813	1/2-20	0.75	4.88	0.88	6.625
	1-3/4	1.813	1/2-20	0.75	4.88	1.13	6.875
	2	1.813	1/2-20	0.75	4.88	1.25	7.000
	2-1/2	1.813	1/2-20	0.75	4.88	1.50	7.250
8	1-3/8	2.313	5/8-18	N/A	6.44	1.63	6.750
	1-3/4	2.313	5/8-18	N/A	6.44	1.88	7.000
	2	2.313	5/8-18	N/A	6.44	2.00	7.125
	2-1/2	2.313	5/8-18	N/A	6.44	2.25	7.375
10	1-3/4	2.690	3/4-16	N/A	8.06	1.88	8.250
	2	2.690	3/4-16	N/A	8.06	2.00	8.375
	2-1/2	2.690	3/4-16	N/A	8.06	2.25	8.625
	3	2.690	3/4-16	N/A	8.06	2.25	8.625
12	2	2.690	3/4-16	N/A	9.41	2.00	8.875
	2-1/2	2.690	3/4-16	N/A	9.41	2.25	9.125
	3	2.690	3/4-16	N/A	9.41	2.25	9.125
	3-1/2	2.690	3/4-16	N/A	9.41	2.25	9.125
14	2-1/2	3.190	7/8-14	N/A	10.90	2.25	10.375
	3	3.190	7/8-14	N/A	10.90	2.25	10.375
	3-1/2	3.190	7/8-14	N/A	10.90	2.25	10.375



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U3 Mount

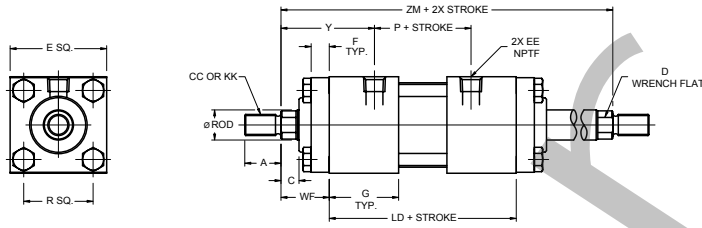


BORE	ROD	SB	SH	SL	SE
8	1-3/8	0.88	1.00	3.50	10.13
	1-3/4	0.88	1.00	3.75	10.38
	2	0.88	1.00	3.88	10.50
	2-1/2	0.88	1.00	4.13	10.75
10	1-3/4	1.19	1.38	4.00	12.50
	2	1.19	1.38	4.13	12.63
	2-1/2	1.19	1.38	4.38	12.88
	3	1.19	1.38	4.38	12.88
12	2	1.53	1.75	4.50	13.63
	2-1/2	1.53	1.75	4.75	13.88
	3	1.53	1.75	4.38	13.88
	3-1/2	1.53	1.75	4.38	13.88
14	2-1/2	1.75	2.00	5.00	15.63
	3	1.75	2.00	4.38	15.63
	3-1/2	1.75	2.00	4.38	15.63

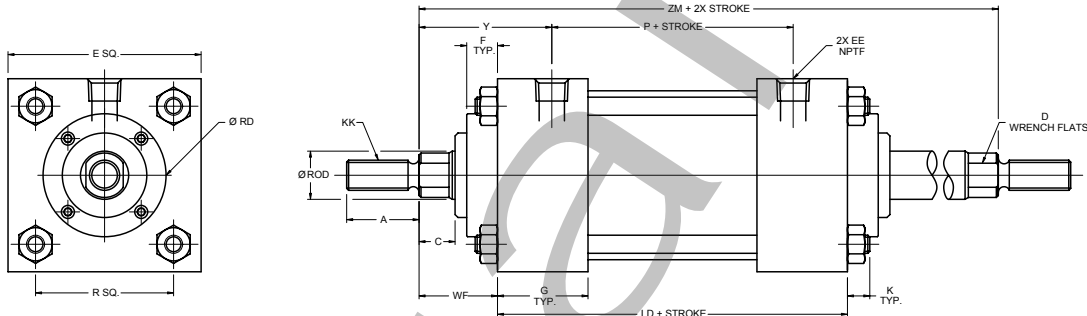


Double Rod Mounts

DA-DOUBLE ROD END



1-1/2" THRU 2-1/2" BORE

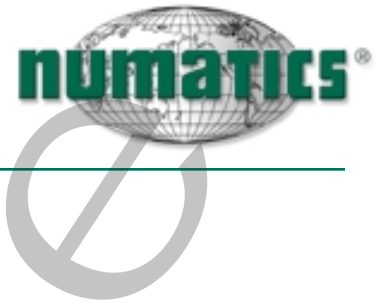


BORE	ROD	A	C	D	E	EE	F	G	K	KK	LD	P	R	SN*	SS*	RD	WF	Y	ZM
1-1/2	5/8	0.750	0.375	0.500	2.000	0.375	0.375	1.500	N/A	7/16-20	4.125	2.325	1.430	2.250	3.375	N/A	1.000	1.938	6.125
	1	1.125	0.500	0.813	2.000	0.250	0.375	1.500	N/A	3/4-16	4.125	1.965	1.430	2.250	3.375	N/A	1.375	2.460	6.875
2	5/8	0.750	0.375	0.500	2.500	0.375	0.375	1.500	N/A	7/16-20	4.125	2.250	1.840	2.250	3.375	N/A	1.000	1.938	6.152
	1	1.125	0.500	0.813	2.500	0.375	0.375	1.500	N/A	3/4-16	4.125	2.375	1.840	2.250	3.375	N/A	1.375	2.250	6.875
	1-3/8	1.625	0.625	1.125	2.500	0.375	0.375	1.500	N/A	1-14	4.125	2.250	1.840	2.250	3.375	N/A	1.625	2.500	7.375
2-1/2	5/8	0.750	0.375	0.500	3.000	0.375	0.375	1.500	N/A	7/16-20	4.250	2.375	2.190	2.375	3.500	N/A	1.000	1.813	6.250
	1	1.125	0.500	0.813	3.000	0.375	0.375	1.500	N/A	3/4-16	4.250	2.375	2.190	2.375	3.500	N/A	1.375	2.188	7.000
	1-3/8	1.625	0.625	1.125	3.000	0.375	0.375	1.500	N/A	1-14	4.250	2.375	2.190	2.375	3.500	N/A	1.625	2.438	7.500
	1-3/4	2.000	0.750	1.500	3.000	0.375	0.375	1.500	N/A	1 1/4-12	4.250	2.250	2.190	2.375	3.500	N/A	1.875	2.688	8.000
3-1/4	1	1.125	0.500	0.813	3.750	0.500	0.625	1.750	0.375	3/4-16	4.750	2.625	2.760	2.625	3.750	2.706	1.375	2.438	7.500
	1-3/8	1.625	0.625	1.125	3.750	0.500	0.625	1.750	0.375	1-14	4.750	2.625	2.760	2.625	3.750	3.110	1.625	2.688	8.000
	1-3/4	2.000	0.750	1.500	3.750	0.500	0.625	1.750	0.375	1 1/4-12	4.750	2.625	2.760	2.625	3.750	N/A	1.875	2.938	8.500
	2	2.250	0.875	1.750	3.750	0.500	0.625	1.750	0.375	1 1/2-12	4.750	2.625	2.760	2.625	3.750	N/A	2.000	3.063	8.750
4	1	1.125	0.500	0.813	4.500	0.500	0.625	1.750	0.375	3/4-16	4.750	2.625	3.320	2.625	3.750	2.706	1.375	2.438	7.500
	1-3/8	1.625	0.625	1.125	4.500	0.500	0.625	1.750	0.375	1-14	4.750	2.625	3.320	2.625	3.750	3.110	1.625	2.688	8.000
	1-3/4	2.000	0.750	1.500	4.500	0.500	0.625	1.750	0.375	1 1/4-12	4.750	2.625	3.320	2.625	3.750	3.788	1.875	2.938	8.500
	2	2.250	0.875	1.750	4.500	0.500	0.625	1.750	0.375	1 1/2-12	4.750	2.625	3.320	2.625	3.750	N/A	2.000	3.063	8.750
5	1	1.125	0.500	0.813	5.500	0.500	0.625	1.750	0.500	3/4-16	5.000	2.875	4.100	2.875	3.625	2.706	1.375	2.438	7.750
	1-3/8	1.625	0.625	1.125	5.500	0.500	0.625	1.750	0.500	1-14	5.000	2.875	4.100	2.875	3.625	3.110	1.625	2.688	8.250
	1-3/4	2.000	0.750	1.500	5.500	0.500	0.625	1.750	0.500	1 1/4-12	5.000	2.875	4.100	2.875	3.625	3.788	1.875	2.938	8.750
	2	2.250	0.875	1.750	5.500	0.500	0.625	1.750	0.500	1 1/2-12	5.000	2.875	4.100	2.875	3.625	4.250	2.000	3.063	9.000
6	1-3/8	1.625	0.625	1.125	6.500	0.750	0.750	2.000	0.500	1-14	5.500	3.125	4.880	3.125	4.125	3.125	1.625	2.813	8.750
	1-3/4	2.000	0.750	1.500	6.500	0.750	0.750	2.000	0.500	1 1/4-12	5.500	3.125	4.880	3.125	4.125	3.788	1.875	3.063	9.250
	2	2.250	0.875	1.750	6.500	0.750	0.750	2.000	0.500	1 1/2-12	5.500	3.125	4.880	3.125	4.125	4.250	2.000	3.188	9.500
	2-1/2	3.000	1.000	2.060	6.500	0.750	0.750	2.000	0.500	1 7/8-12	5.500	3.125	4.880	3.125	4.125	5.500	2.500	3.438	10.000

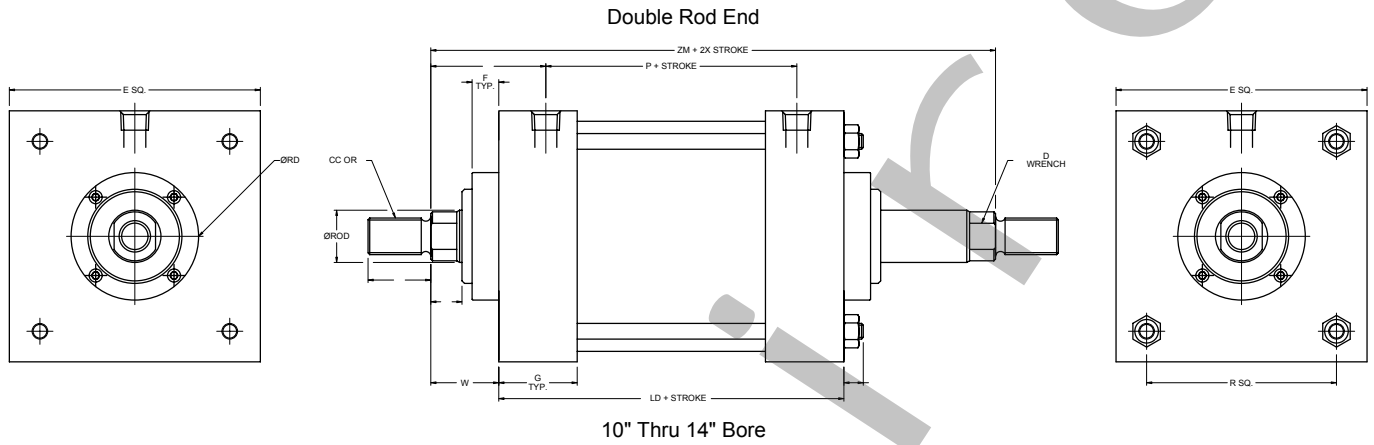
* For bottom tap and side lug.



ASP Series
Steel Body NFPA



Double Rod Mounts continued



10" Thru 14" Bore

BORE	ROD	A	C	D	E	EE	F	G	K	KK	LD	P	R	SN*	SS*	RD	WF	Y	ZM
8	1-3/8	1.625	0.625	1.125	8.500	0.750	0.625	2.00	0.625	1-14	5.625	3.250	6.440	3.250	4.250	3.125	1.625	2.810	8.875
	1-3/4	2.000	0.750	1.500	8.500	0.750	0.750	2.00	0.625	1 1/4-12	5.625	3.250	6.440	3.250	4.250	3.788	1.875	3.060	9.375
	2	2.250	0.875	1.750	8.500	0.750	0.750	2.00	0.625	1 1/2-12	5.625	3.250	6.440	3.250	4.250	4.250	2.000	3.185	9.625
	2-1/2	3.000	1.000	2.060	8.500	0.750	0.750	2.00	0.625	1 7/8-12	5.625	3.250	6.440	3.250	4.250	5.500	2.250	3.435	10.125
10	1-3/4	2.000	0.750	1.500	10.625	1.000	0.750	2.25	0.750	1 1/4-12	6.625	4.125	8.063	4.125	4.875	3.788	1.875	3.125	10.375
	2	2.250	0.875	1.750	10.625	1.000	0.750	2.25	0.750	1 1/2-12	6.625	4.125	8.063	4.125	4.875	4.250	2.000	3.250	10.625
	2-1/2	3.000	1.000	2.060	10.625	1.000	0.750	2.25	0.750	1 7/8-12	6.625	4.125	8.063	4.125	4.875	5.500	2.250	3.500	11.125
	3	3.500	1.000	2.625	10.625	1.000	0.750	2.25	0.750	2 1/4-12	6.625	4.125	8.063	4.125	4.875	7.500	2.250	3.500	11.125
12	2	2.250	0.875	1.750	12.750	1.000	0.750	2.25	0.750	1 1/4-12	7.125	4.625	9.410	4.625	5.375	4.250	2.000	3.250	11.125
	2-1/2	3.000	1.000	2.060	12.750	1.000	0.750	2.25	0.750	1 1/2-12	7.125	4.625	9.410	4.625	5.375	5.500	2.250	3.500	11.625
	3	3.500	1.000	2.625	12.750	1.000	0.750	2.25	0.750	1 7/8-12	7.125	4.625	9.410	4.625	5.375	7.500	2.250	3.500	11.625
	3-1/2	3.500	1.000	3.000	12.750	1.000	0.750	2.25	0.750	2 1/4-12	7.125	4.625	9.410	4.625	5.375	7.500	2.250	3.500	11.625
14	2-1/2	3.000	1.000	2.060	14.750	1.250	0.750	2.75	0.875	1 7/8-12	8.625	5.500	10.900	5.500	6.375	5.500	2.250	3.810	13.125
	3	3.500	1.000	2.625	14.750	1.250	0.750	2.75	0.875	2 1/4-12	8.625	5.500	10.900	5.500	6.375	7.500	2.250	3.810	13.125
	3-1/2	3.500	1.000	3.000	14.750	1.250	0.750	2.75	0.875	2 1/2-12	8.625	5.500	10.900	5.500	6.375	7.500	2.250	3.810	13.125

* For bottom tap and side lug.

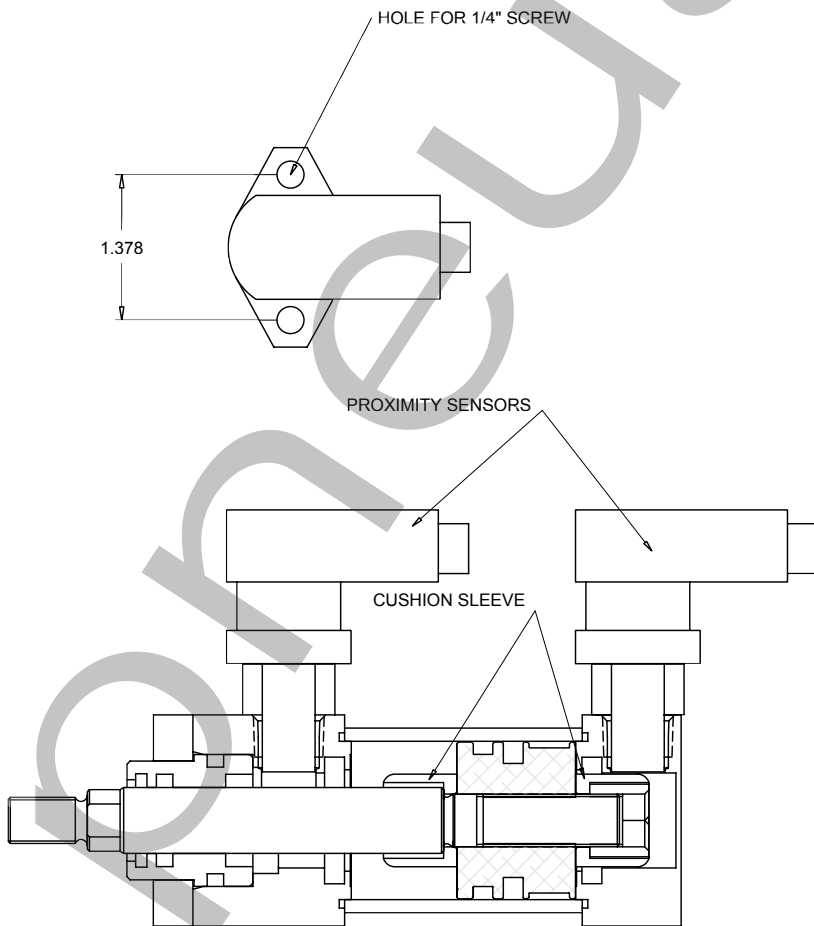


ASP Series
Steel Body NFPA



Cylinder Position Sensors
("Cylindicator Ready" Option)

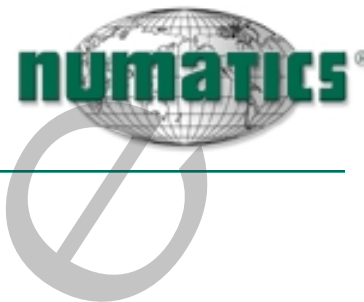
The *In Force* Cylinder Line offers cylinder position sensing using inductive proximity switches. The steel tube construction does not enable the use of conventional pneumatic cylinder position sensing through magnetic field sensors. Inductive proximity sensors are commonly used on steel tube cylinders (both pneumatic and hydraulic). These sensors are typically mounted to the cylinder end caps via screws through spacers. The sensor determines end of stroke positioning by detecting the steel cushion sleeves (also know as cylinder spuds) as they pass beneath the sensor. There are two common types of sensors. The first is "No Stroke to Go." This is where the sensor is switched when the cylinder reaches end of stroke. The other type is "Stroke to Go." This is where the sensor is switched slightly before the cylinder reaches end of stroke. This is commonly utilized when a reduction of cycle time is desired. However, the timing is crucial and end of stroke may not be achieved soon enough after switching. *In Force* cylinders ordered with the "Cylindicator Ready" option includes the spacers and tapped holes necessary to mount to most common switches.



BORE	ROD DIAMETER	PROBE LENGTH
1-1/2	5/8	1.025
	1	N/A
2	5/8	1.250
	1	1.025
	1-3/8	1.025
2-1/2	5/8	2.062
	1	1.250
	1-3/8	1.025
3-1/4	1-3/4	1.025
	1	1.250
	1-3/8	1.250
4	2	1.025
	1	2.062
	1-3/8	2.062
5	1-3/4	2.062
	1	2.875
	1-3/8	2.062
6	1-3/4	2.062
	2	2.062
	1-3/8	2.875
8	1-3/4	2.875
	2-1/2	2.875
	1-3/8	3.775
10	1-3/4	3.775
	2	3.775
	2-1/2	3.775
12	1-3/4	4.560
	2	4.560
	2-1/2	4.560
14	3	3.775
	2	Special
	2-1/2	Special
16	3	4.560
	3-1/2	Special
	2-1/2	Special
18	3	Special
	3-1/2	Special



ASP Series
Steel Body NFPA



Seal Kit: Includes internal cylinder seals.

Repair Kit: Includes bushing and all internal cylinder seals.

BORE	ROD	REPAIR KIT		SEAL KIT	
		NON-CUSHIONED	CUSHIONED	NON-CUSHIONED	CUSHIONED
1-1/2	5/8	K90-K01	ASP98-K01	K91-K01	ASP97-K11
	1	K90-K06	N/A	K91-K06	N/A
2	5/8	K90-L01	ASP98-L11	K91-L01	ASP97-L11
	1	K90-L05	ASP98-L15	K91-L05	ASP97-L15
	1-3/8	ASP98-L07	N/A	ASP97-L07	N/A
2-1/2	5/8	K90-M01	ASP98-M11	K91-M01	ASP97-M11
	1	K90-M05	ASP98-M15	K91-M05	ASP97-M15
	1-3/8	ASP98-M07	N/A	ASP97-M07	N/A
	1-3/4	ASP98-M08	N/A	ASP97-M08	N/A
3-1/4	1	K90-P01	ASP98-P11	K91-P01	ASP97-P11
	1-3/8	K90-P05	ASP98-P15	K91-P05	ASP97-P15
	1-3/4	ASP98-P07	ASP98-P07	ASP97-P07	ASP97-P17
	2	ASP98-P08	N/A	ASP97-P08	N/A
4	1	K90-R01	ASP98-R11	K91-R01	ASP97-R11
	1-3/8	K90-R05	ASP98-R15	K91-R05	ASP97-R15
	1-3/4	ASP98-R07	ASP98-R07	ASP97-R07	ASP97-R17
	2	ASP98-R08	ASP98-R08	ASP97-R08	ASP97-R18
5	1	K90-T01	ASP98-T11	K91-T01	ASP97-T11
	1-3/8	K90-T05	ASP98-T15	K91-T05	ASP97-T15
	1-3/4	ASP98-R07	ASP98-R07	ASP97-R07	ASP97-R17
	2	ASP98-R08	ASP98-R08	ASP97-R08	ASP97-R18
6	1-3/8	K90-U01	ASP98-U11	K91-U01	ASP97-U11
	1-3/4	K90-U05	ASP98-U15	K91-U05	ASP97-U15
	2	ASP98-U07	ASP98-U07	ASP97-U07	ASP97-U17
	2-1/2	ASP98-U08	ASP98-U08	ASP97-U08	ASP97-U18
8	1-3/8	K90-W01	ASP98-W11	K91-W01	ASP97-W11
	1-3/4	K90-W05	ASP98-W15	K91-W05	ASP97-W15
	2	ASP98-W07	ASP98-W07	ASP97-W07	ASP97-W17
	2-1/2	ASP98-W08	ASP98-W08	ASP97-W08	ASP97-W18
10	1-3/4	K90-X01	ASP98-X11	K91-X01	ASP97-X11
	2	K90-X05	ASP98-X15	K91-X05	ASP97-X15
	2-1/2	K90-X09	ASP98-X19	K91-X09	ASP97-X19
	3	ASP98-X08	ASP98-X08	ASP97-X08	ASP97-X18
12	2	K90-Y01	ASP98-Y11	K91-Y01	ASP97-Y11
	2-1/2	K90-Y05	ASP98-Y15	K91-Y05	ASP97-Y15
	3	ASP98-Y07	ASP98-Y07	ASP97-Y07	ASP97-Y17
	3-1/2	ASP98-Y08	ASP98-Y08	ASP97-Y08	ASP97-Y18
14	2-1/2	K90-B01	ASP98-B11	K91-B01	ASP97-B11
	3	ASP98-B07	ASP98-B07	ASP97-B07	ASP97-B17
	3-1/2	ASP98-B08	ASP98-B08	ASP97-B08	ASP97-B18