

How to Order and Specify

Example: All Steel Construction Cylinder

Cap fixed clevis, 3 1/4" bore x 12" stroke, 1" rod with 3/4"-16 x 1.12 short male threads. Front and rear end caps have ports at *position 1*, cushions at *position 2* and nothing at *positions 3 and 4*.

End Cap Side Locations: **1 2 3 4** **1 2 3 4**

MH 3 325 x 12 AM - A C N N - A C N N - O _

Position No: **A B C D E F G H J**

A Cylinder Model: Specify *MH* in this position.

- 1 1/2" bore through 24" bore
- Longer lasting improved nitrile seals. (Std.)
- Machined steel cylinder heads. (Std.)
- Removable, internally lubricated, bearing cartridge. (Std.)
- D.O.M. Seamless tube with hard chrome plated I.D. (Std.)
- Internally lubricated for life; no in-line lubrication required. (Std.)
- 100,000 PSI yield, chrome plated piston rod (Std.)
- Adjustable cushions with captive screw. (Cushions are optional)
- In-port mounted proximity switches for near end of stroke position sensing (*optional*). These replace mechanical limit switches
- "Slip Tuff" coated rod cartridge for severe side loaded

B Specify Cylinder Mounting Style: See inside for illustrations.

- | | |
|---|---|
| <p>MH 0 No Mount . . . (<i>Adaptable for front or rear flush mounts</i>)</p> <p>MH 1 Foot Side Lugs (MS2)</p> <p>MH 2 Head Trunnion (MT1)</p> <p>MH 3 Cap Fixed Clevis (MP1)</p> <p>MH 4 Head Rectangular Flange (MF1)</p> <p>MH 5 Cap Rectangular Flange (MF2)</p> <p>MH 6 Intermediate Trunnion (MT4)
(<i>See XI note on back page</i>)</p> <p>MH 7 Cap Trunnion (MT2)</p> <p>MH 8 Head Tie Rod Extended (MX3)</p> <p>MH 11 Cap Tie Rod Extended (MX2)</p> <p>MH 12 Head & Cap Tie Rod Extended (MX1)</p> <p>MH 13 End Angles (MS1)</p> | <p>MH 14 End Lugs (MS7)</p> <p>MH 15 Centerline Lugs (MS3)</p> <p>MH 16 Side Tapped (MS4)</p> <p>MH 17 Head Square Flange (MF5)</p> <p>MH 18 Cap Square Flange (MF6)</p> <p>MH 19 Head Square Block (<i>For 8" and larger bores</i>) . . . (ME3)</p> <p>MH 20 Cap Square Block (<i>For 8" and larger bores</i>) . . . (ME4)</p> <p>MH 21 Cap Detachable Eye (MP4)</p> <p>MH 22 Cap Fixed Spherical Eye (MP5)</p> <p>MH 24 Cap Detachable Clevis (MP2)</p> <p>MH 25 Cap Fixed Eye (MP3)</p> <p>MH 27 Cap Detachable Clevis (<i>Equals MP1 envelope dimensions</i>)</p> |
|---|---|

C Specify Cylinder Bore

150	=	1 1/2" bore	500	=	5" bore
200	=	2" bore	600	=	6" bore
250	=	2 1/2" bore	800	=	8" bore
325	=	3 1/4" bore	1000	=	10" bore
400	=	4" bore	1200	=	12" bore

Note: For 14" bore through 24" bore call Peninsular.

D Specify Stroke Length

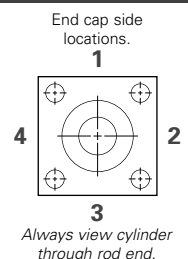
Peninsular MH Cylinders can be ordered in 1/4" increments with stroke lengths from 1/2" to over 15 feet.

For Stop Spool (Stop Tube) and Spring Return Extend applications, contact Peninsular to determine call out for correct stroke length to specify.

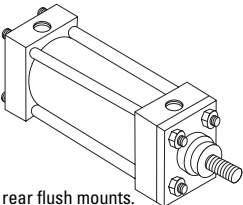
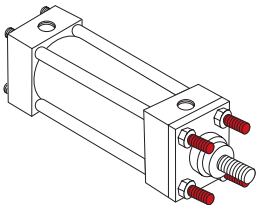
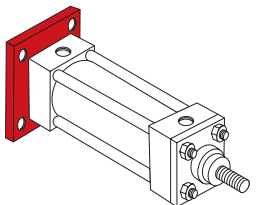
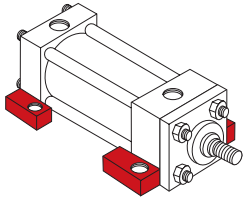
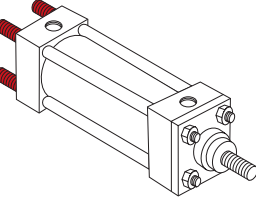
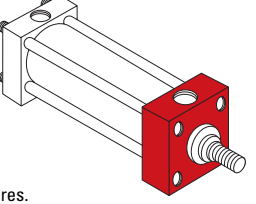
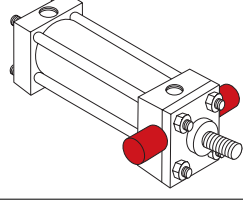
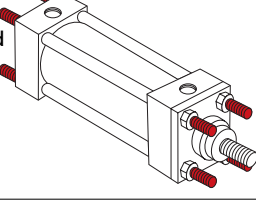
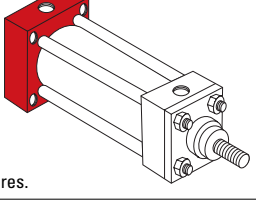
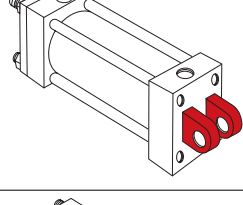
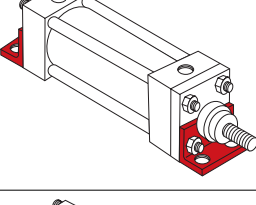
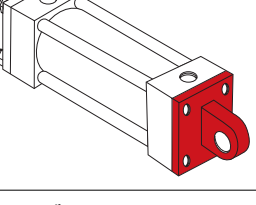
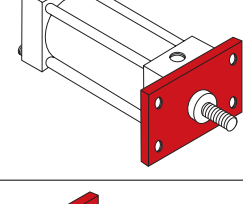
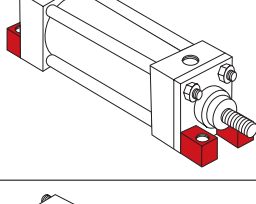
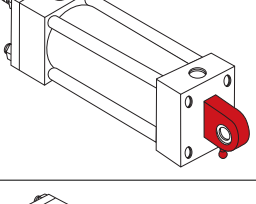
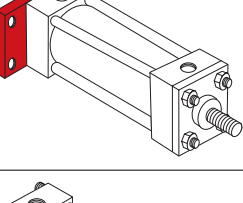
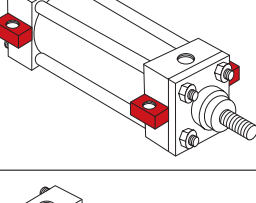
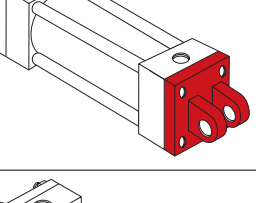
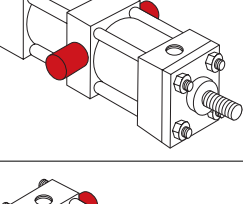
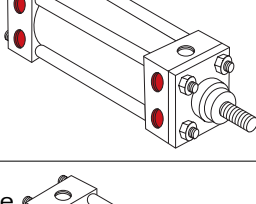
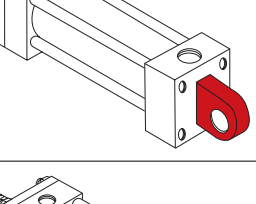
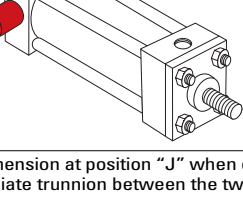
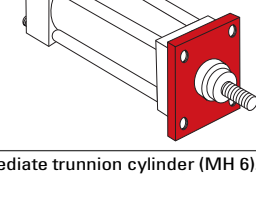
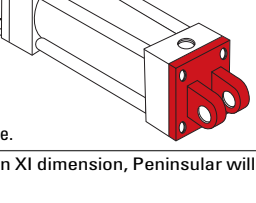
E Specify Piston Rod Diameter and Rod Threads: See Rod Chart on next page.

F-G Specify Plumbing Configuration for Front End Cap (F) and Rear End Cap (G)

- N** = No air supply port. No cushion adjustment screw.
- A** = Air supply port.
- S** = Proximity switch will be affixed by Peninsular to the cylinder head. (Complete position **H**)
- M** = Cylinder head is prepared to receive an "in-port" mounted proximity switch. Peninsular will not mount the switch to the cylinder head. (Specify 'O' in position **H**)
- C** = Cushion adjustment screw.
- B** = Cushion adjustment screw and port at same end cap side location.



NFPA Mounting Styles

MH 0 No Mount  Adaptable for front or rear flush mounts.	MH 8 Head Tie Rod Extended (MX3) 	MH 18 Cap Square Flange (MF6) 
MH 1 Foot Side Lugs (MS2) 	MH 11 Cap Tie Rod Extended (MX2) 	MH 19 Head Square Block (ME3)  For 8" and bigger bores.
MH 2 Head Trunnion (MT1) 	MH 12 Head and Cap Tie Rod Extended (MX1) 	MH 20 Cap Square Block (ME4)  For 8" and bigger bores.
MH 3 Cap Fixed Clevis (MP1) 	MH 13 End Angles (MS1) 	MH 21 Cap Detachable Eye (MP4) 
MH 4 Head Rectangular Flange (MF1) 	MH 14 End Lugs (MS7) 	MH 22 Cap-Fixed Spherical Eye (MP5) 
MH 5 Cap Rectangular Flange (MF2) 	MH 15 Centerline Lugs (MS3) 	MH 24 Cap Detachable Clevis (MP2) 
MH 6 Intermediate Trunnion (MT4)  *See note	MH 16 Side Tapped (MS4) 	MH 25 Cap-Fixed Eye (MP3) 
MH 7 Cap Trunnion (MT2) 	MH 17 Head Square Flange (MF5) 	MH 27 Cap Detachable Clevis  Equals MP1 envelope.

Note: Specify XI dimension at position "J" when ordering an intermediate trunnion cylinder (MH 6). In the absence of an XI dimension, Peninsular will center the intermediate trunnion between the two end caps.

H Proximity Switches: Identify the required proximity switch that is to be affixed to cylinder.

If a switch is not supplied with the cylinder, specify 0 (zero) in this position.

Specify Type

S	Namco Standard / Mini-Connector	T-31	Turck Micro-Connector
L	Namco Low Profile / Micro-Connector	B-11	Balluff Mini-Connector
LPR	Namco Low-Profile Rotatable	B-31	Balluff Micro-Connector
T-11	Turck Mini-Connector	O	None

Spacers are not used under the proximity switch. U.S. Patent No. 4,726,282 and D295,753

(If proximity switch cords are required, contact Peninsular.)

RF Inductive (In-Port Mounted) Proximity Switch Probe Length Dimensions (Both cylinder heads)

Bore Size:	1 1/2"	2"	2 1/2"	3 1/4"	4"	5"	6"	8"	10"	12"
Probe Length:	1.025	1.025	1.025	1.025	1.250	2.062	2.062	2.875	3.775	4.562

J Specify Optional Features with Slash Mark and Alpha Character(s)

/B	Adjustable Stroke	/R	Threaded Stud Rod End	/O	Other options (describe)
/E	Extended Piston Rod*	/S	Scraper Ring		
/F	Bronze Rod Cartridge	/U	Non-Rotatable Piston Rod		
/H	Rod Boot Cover	/V	Viton Seals		
/J	Spring Extend	/XI	Specify XI Dimension (MH6)		
/K	Spring Return	/Y	Double Rod End		
/N	Stop Tube*	/Z	"Slip Tuff" Coated Rod Cartridge		

* Specify Length

E Specify Piston Rod Diameter and Rod Threads

**First letter denotes
Rod Diameter, specify:**

- A** = (Standard Rod Diameter)
- B** = (Medium Rod Diameter)
- C** = (Large Rod Diameter)
- D** = (Oversized Rod Diameter)
- E** = (Oversized Rod Diameter)

**Second letter denotes
Rod Threads, specify:**

- M** = (External NFPA Short Male)
- F** = (NFPA Short Female)
- D** = (NFPA Full Male)
- I** = (NFPA Intermediate Male)
- A** = (NFPA Long Male)
- X** = (Other Rod Ends —
please specify)

**Other rod sizes & thread
sizes are available, please
call Peninsular.**

**For Bore Sizes 14" through
24" bore, contact Peninsular.**

Bore Size	Rod Diameter	Short Male Specify "M"	Short Female Specify "F"	Full Male Specify "D"	Intermediate Male Specify "I"	Long Male Specify "A"
1.50	A = 0.62	7/16"-20 x 0.75	7/16"-20 x 0.75	5/8"-18 x 0.75	1/2"-20 x 0.75	1/2"-20 x 1.12
	B = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
2.00	A = 0.62	7/16"-20 x 0.75	7/16"-20 x 0.75	5/8"-18 x 0.75	1/2"-20 x 0.75	1/2"-20 x 1.12
	B = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
2.50	A = 0.62	7/16"-20 x 0.75	7/16"-20 x 0.75	5/8"-18 x 0.75	1/2"-20 x 0.75	1/2"-20 x 1.12
	B = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
	C = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
3.25	A = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
	B = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	C = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
4.00	A = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
	B = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	C = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	D = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
5.00	A = 1.00	3/4"-16 x 1.12	3/4"-16 x 1.12	1"-14 x 1.12	7/8"-14 x 1.12	7/8"-14 x 1.87
	B = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	C = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	D = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
6.00	A = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	B = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	C = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
	D = 2.50	1-7/8"-12 x 3.00	1-7/8"-12 x 3.00	2-1/2"-12 x 3.00	2-1/4"-12 x 3.00	2-1/4"-12 x 4.50
	E = 3.00	2-1/4"-12 x 3.50	2-1/4"-12 x 3.50	3"-12 x 3.50	2-3/4"-12 x 3.50	2-3/4"-12 x 5.50
8.00	A = 1.38	1"-14 x 1.62	1"-14 x 1.62	1-3/8"-12 x 1.62	1-1/4"-12 x 1.62	1-1/4"-12 x 2.50
	B = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	C = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
	D = 2.50	1-7/8"-12 x 3.00	1-7/8"-12 x 3.00	2-1/2"-12 x 3.00	2-1/4"-12 x 3.00	2-1/4"-12 x 4.50
	E = 3.00	2-1/4"-12 x 3.50	2-1/4"-12 x 3.50	3"-12 x 3.50	2-3/4"-12 x 3.50	2-3/4"-12 x 5.50
10.00	A = 1.75	1-1/4"-12 x 2.00	1-1/4"-12 x 2.00	1-3/4"-12 x 2.00	1-1/2"-12 x 2.00	1-1/2"-12 x 3.00
	B = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
	C = 2.50	1-7/8"-12 x 3.00	1-7/8"-12 x 3.00	2-1/2"-12 x 3.00	2-1/4"-12 x 3.00	2-1/4"-12 x 4.50
	D = 3.00	2-1/4"-12 x 3.50	2-1/4"-12 x 3.50	3"-12 x 3.50	2-3/4"-12 x 3.50	2-3/4"-12 x 5.50
	E = 3.50	2-1/2"-12 x 3.50	2-1/2"-12 x 3.50	3-1/2"-12 x 3.50	3-1/4"-12 x 3.50	3-1/4"-12 x 6.50
12.00	A = 2.00	1-1/2"-12 x 2.25	1-1/2"-12 x 2.25	2"-12 x 2.25	1-3/4"-12 x 2.25	1-3/4"-12 x 3.50
	B = 2.50	1-7/8"-12 x 3.00	1-7/8"-12 x 3.00	2-1/2"-12 x 3.00	2-1/4"-12 x 3.00	2-1/4"-12 x 4.50
	C = 3.00	2-1/4"-12 x 3.50	2-1/4"-12 x 3.50	3"-12 x 3.50	2-3/4"-12 x 3.50	2-3/4"-12 x 5.50
	D = 3.50	2-1/2"-12 x 3.50	2-1/2"-12 x 3.50	3-1/2"-12 x 3.50	3-1/4"-12 x 3.50	3-1/4"-12 x 6.50
	E = 4.00	3"-12 x 4.00	3"-12 x 4.00	4"-12 x 4.00	3-3/4"-12 x 4.00	3-3/4"-12 x 7.50



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