



STAINLESS STEEL CYLINDER

NUMBERING SYSTEM

Stroke
In inches & fractions of an inch

Mounting Type
S - Stud
U - Universal
C - Clevis
F - Front Block
E - End Stud
T - Trunnion

Rod Type
D - Double Ended Rod
R - Rotating Rod
N - Non-Rotating Rod
H - Hollow Rod

Cylinder Type
D - Double Acting
S - Single Acting
R - Reverse Acting
F - Front Spring Bias
B - Back Spring Bias

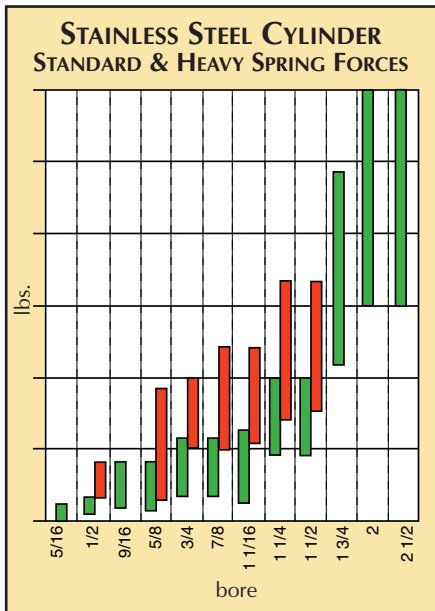
Bore
5/32" - [page 9](#)
05 - 5/16"
08 - 1/2"
09 - 9/16"
10 - 5/8"
12 - 3/4"
14 - 7/8"

Options
C - Cushions
F - Cushion Front End
R - Cushion Rear End
M - Magnetic Piston for Position Sensors
B - Bumpers
W - Rod Wiper
V - FKM Seals
N - No Threads
S - Side Ported
H - Heavy Spring
P* - Rotated Ports
* See [page 4](#)
TG - PTFE Based Grease

RoHS

Not all combinations are available - consult factory

SPECIFICATIONS

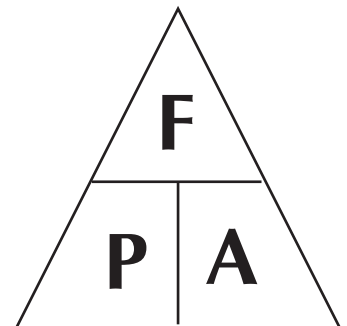


Bore Size	5/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1-1/16"	1-1/4"	1-1/2"	1-3/4"	2"	2-1/2"	3"
Force Factor - Extend (Area)	0.07	0.19	0.25	0.31	0.44	0.60	0.88	1.2	1.7	2.4	3.1	4.9	7.0
Rod Size	1/8"	3/16"	3/16"	3/16"	1/4"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	5/8"	3/4"
Rod Area	0.01	0.03	0.03	0.03	0.05	0.05	0.08	0.11	0.15	0.20	0.31	0.31	0.44
Force Factor - Retract (Area)	0.06	0.16	0.22	0.28	0.39	0.55	0.80	1.09	1.55	2.20	2.90	4.59	6.56

The force required, operating air pressure and cylinder bore are all factors that must be determined or known when sizing an air cylinder. If two are known the other is easily calculated per the formulas and triangle shown below.

F - Force or load in pounds $F = P \times A$
P - Pressure $P = F / A$
A - Area of cylinder $A = F / P$
 (square inches)

Area is derived using either of the following formulas: **Diameter** ² x 0.7854 or **Radius** ² x π



Standard Spring Forces (lbs)

Bore	5/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1-1/16"	1-1/4"	1-1/2"	1-3/4"	2"	2-1/2"
At Rest	0.5	0.9	1.7	1.3	3.0	3.0	2.0	4.5	4.5	11.0	15.0	15.0
Compressed	1.0	2.0	4.0	4.0	6.0	6.0	7.0	10.0	10.0	24.0	30.0	30.0

Heavy Spring Forces (lbs)

Bore	5/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1-1/16"	1-1/4"	1-1/2"	1-3/4"	2"	2-1/2"
At Rest	N/A	2.0	N/A	3.3	5.0	5.0	5.5	8.5	8.5	N/A	N/A	N/A
Compressed	N/A	4.0	N/A	9.0	10.0	10.0	13.0	17.0	17.0	N/A	N/A	N/A