



CORROSION RESISTANT CYLINDERS



Clippard's line of Delrin® head stainless steel cylinders offer all of the advantages of Clippard's high quality, reliable stainless steel cylinders, with the added benefit of corrosion resistance. These cylinders are ideal for applications where equipment cleanliness is critical, since they can be put to work in harsh environments requiring frequent use of hot water and chemicals.

Clippard corrosion resistant cylinders are available in bore sizes ranging from 5/8" to 1 1/2". Standard stroke lengths range from 1/2" to 6". The cylinder tubes and rods are made of stainless steel. The rods are ground, polished, and roller burnished. Buna-N® seals are standard with a Viton® option available for compatibility. A magnetic piston is also optional.

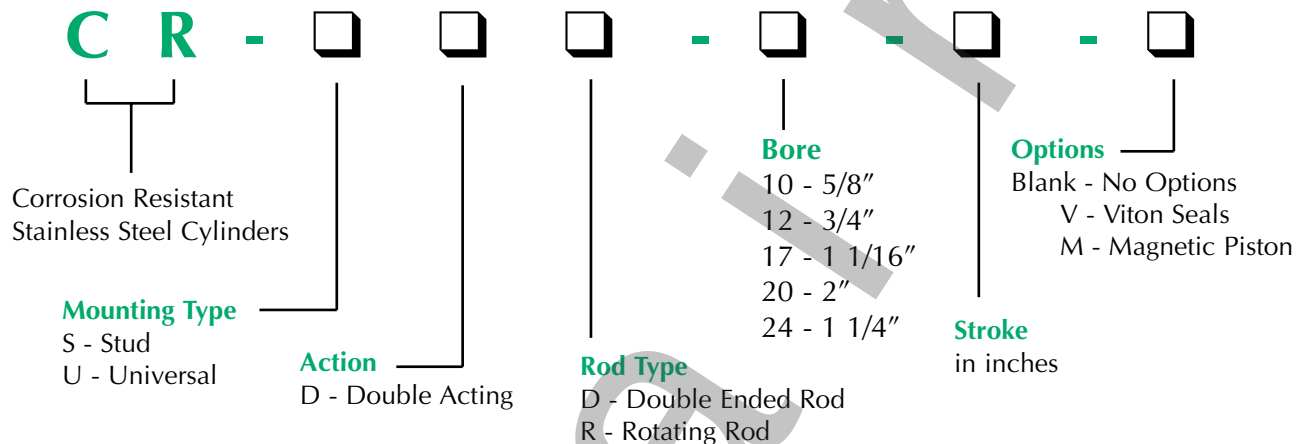
These lightweight cylinders have a temperature range from 32° F to 180° F, and have a pressure rating of 150 psig (air). A variety of mounting styles are available.

Delrin® and Viton® are registered trademarks of DuPont

CORROSION RESISTANT CYLINDER



NUMBERING SYSTEM



Features

- Delrin® heads with a positive double seal
- Available with magnetic pistons
- 303 stainless steel ground, polished and roller burnished piston rods
- Precision rolled construction for a solid leakproof cylinder
- Buna-N seals (Viton® optional for compatibility only)
- 304 stainless steel tube
- Pressure Range 0 to 150 psig
- Temperature range: 32° F to 180° F
- Optional stainless steel mounting nuts
- Aluminum alloy pistons, optional Delrin® pistons available; consult factory

Delrin® is a registered trademark of Du Pont





CORROSION RESISTANT CYLINDER

5/8" BORE

CR-SDD-10-□-□

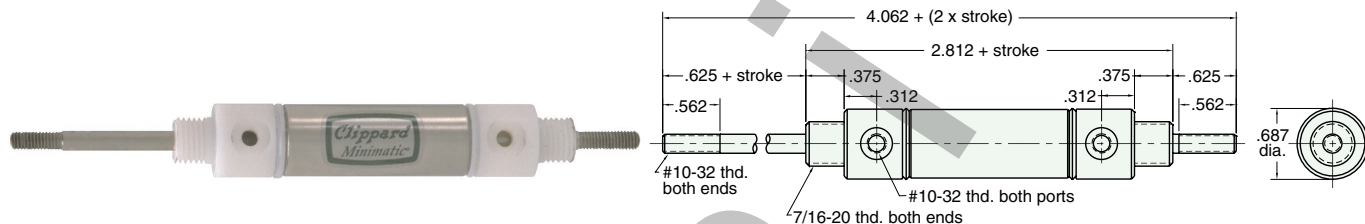
Mount: Stud
Type: Double Acting
Double Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4

Options: M, V, N, P2, P3, P4, P5, P6, P7, P8

Furnished without nut(s).

For magnetic option add .312



CR-SDR-10-□-□

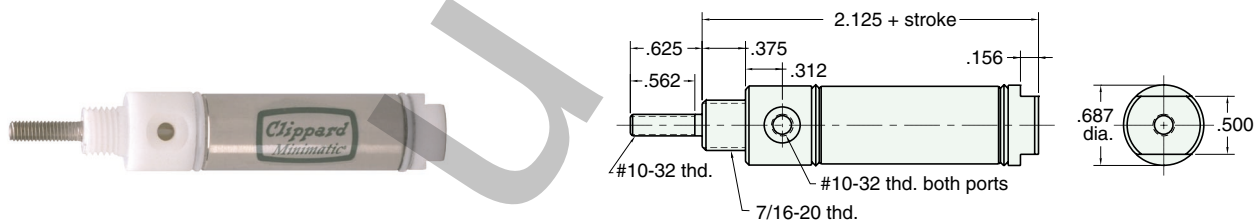
Mount: Stud
Type: Double Acting
Rotating Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4

Options: M, V, N

Furnished without nut(s).

For magnetic option add .312



CR-UDR-10-□-□

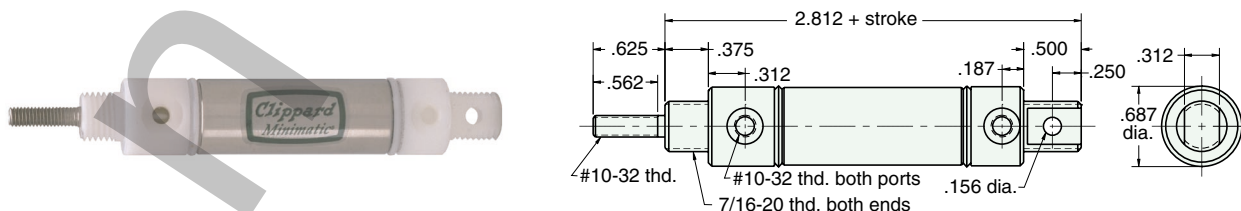
Mount: Universal
Type: Double Acting
Rotating Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4

Options: M, V, N, P2, P3, P4, P5, P6, P7, P8

Furnished without nut(s).

For magnetic option add .312



Stainless Steel Mounting

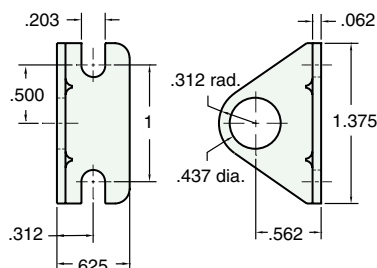
Foot Bracket

Model Number: FB-0892-SS

Nut

Model Number: N07-20-SS

Max. Torque in lbs.: 4.0



CORROSION RESISTANT CYLINDER



3/4" BORE

CR-SDD-12-□-□

Mount: Stud

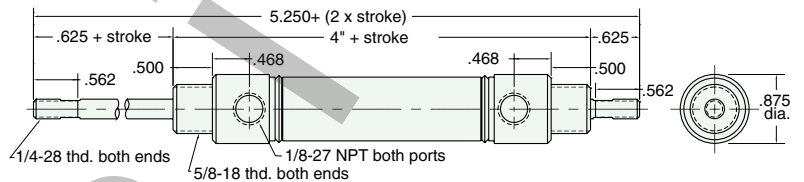
Standard Stroke Lengths: 1, 2, 3, 4, 5, 6

Type: Double Acting
Double Rod

Options: M, V, N, P2, P3, P4, P5, P6, P7, P8

Furnished without nut(s).

For magnetic option add .312



CR-SDR-12-□-□

Mount: Stud

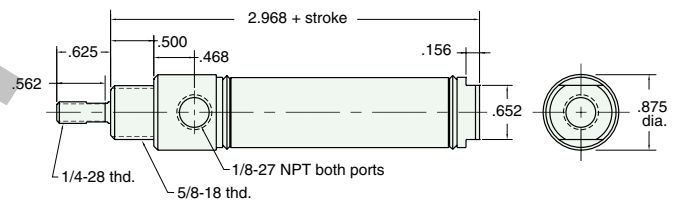
Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4, 5, 6

Type: Double Acting
Rotating Rod

Options: M, V, N, P6, P7, P8

Furnished without nut(s).

For magnetic option add .312



CR-UDR-12-□-□

Mount: Stud

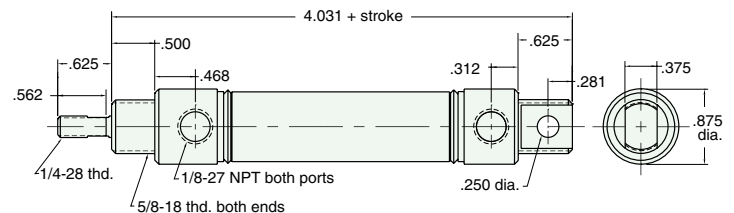
Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4, 5, 6, 8, 10, 12

Type: Double Acting
Rotating Rod

Options: M, V, N, P2, P3, P4, P5, P6, P7, P8

Furnished without nut(s).

For magnetic option add .312



Stainless Steel Mounting

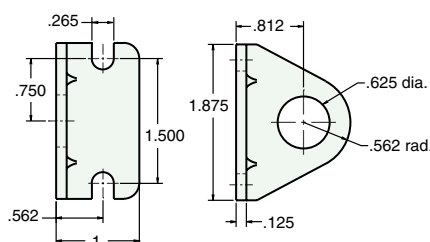
Foot Bracket

Model Number: FB-1791-SS

Nut

Model Number: N10-18-SS

Max. Torque in lbs.: 12





CORROSION RESISTANT CYLINDER

1 1/16" BORE

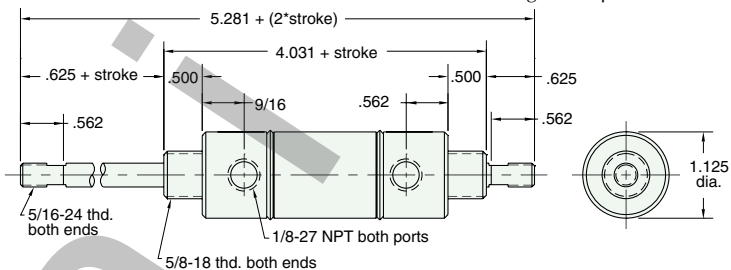
CR-SDD-17-□-□

Mount: Stud
Type: Double Acting
Double Rod

Standard Stroke Lengths: 1, 2, 3, 4, 5, 6

Options: M, V, N, P6, P7, P8

Furnished without nut(s).
For magnetic option add .312

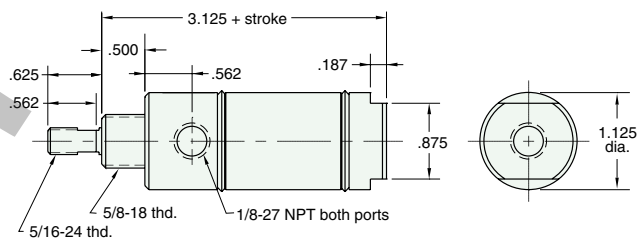

CR-SDR-17-□-□

Mount: Stud
Type: Double Acting
Rotating Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4, 5, 6

Options: M, V, N

Furnished without nut(s).
For magnetic option add .312

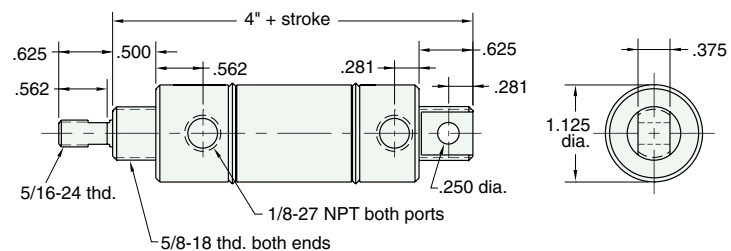

CR-UDR-17-□-□

Mount: Stud
Type: Double Acting
Rotating Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4, 5, 6, 8, 10, 12

Options: M, V, N, P2, P3, P4, P5, P6, P7, P8

Furnished without nut(s).
For magnetic option add .312

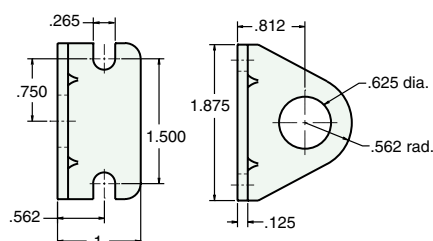


Stainless Steel Mounting

Foot Bracket
Model Number: FB-1791-SS

Nut
Model Number: N10-18-SS

Max. Torque in lbs.: 12



CORROSION RESISTANT CYLINDER



1 1/4" BORE

CR-SDD-20-□-□

Mount: Stud

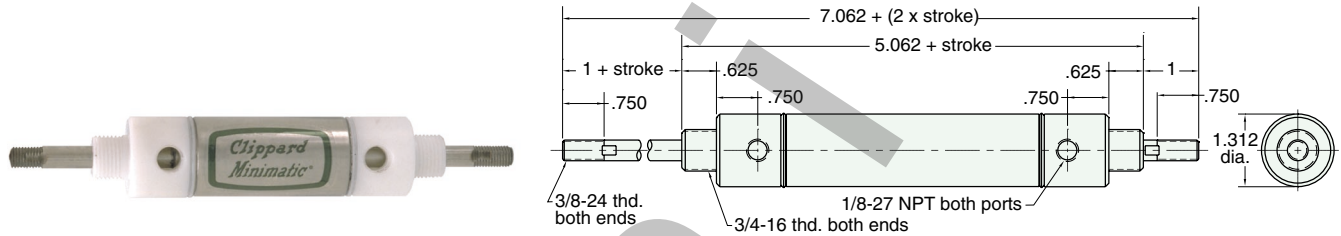
Type: Double Acting
Double Rod

Standard Stroke Lengths: 1, 2, 3, 4, 5, 6

Options: M, V, N, P6, P7, P8

Furnished without nut(s).

For magnetic option add .312



CR-SDR-20-□-□

Mount: Stud

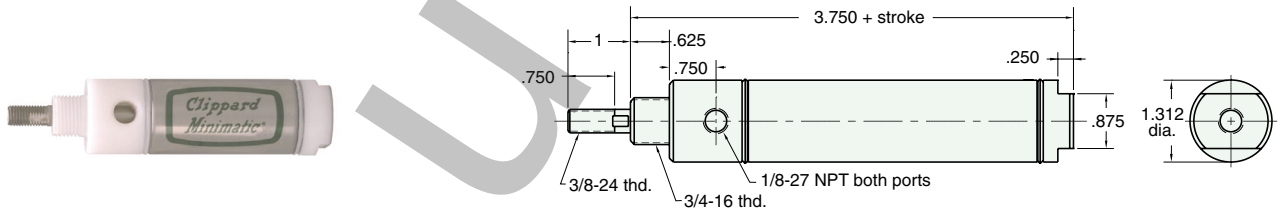
Type: Double Acting
Rotating Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4, 5, 6

Options: M, V, N

Furnished without nut(s).

For magnetic option add .312



CR-UDR-20-□-□

Mount: Universal

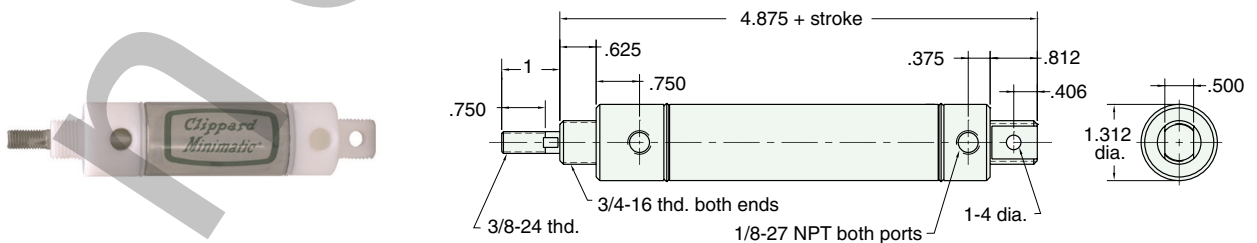
Type: Double Acting
Rotating Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4, 5, 6, 8, 10, 12

Options: M, V, N, P2, P3, P4, P5, P6, P7, P8

Furnished without nut(s).

For magnetic option add .312



Stainless Steel Mounting

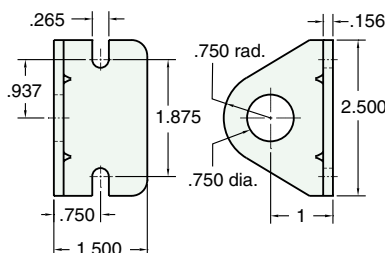
Foot Bracket

Model Number: FB-2491-SS

Nut

Model Number: N12-16-SS

Max. Torque in lbs.: 20





CORROSION RESISTANT CYLINDER

1 1/2" BORE

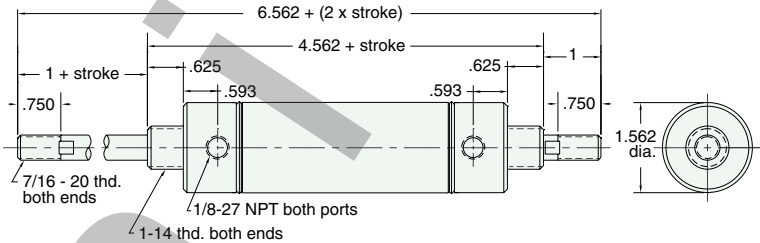
CR-SDD-24-□-□

Mount: Stud
Type: Double Acting
Double Rod

Standard Stroke Lengths: 1, 2, 3, 4, 5, 6, 8, 10, 12

Options: M, V, N, P6, P7, P8

Furnished without nut(s).
For magnetic option add .312



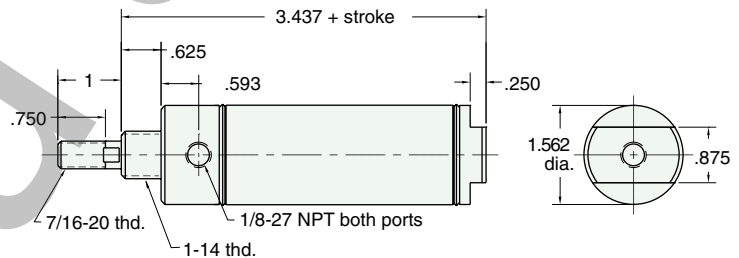
CR-SDR-24-□-□

Mount: Stud
Type: Double Acting
Rotating Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4, 5, 6, 8, 10, 12

Options: M, V, N

Furnished without nut(s).
For magnetic option add .312



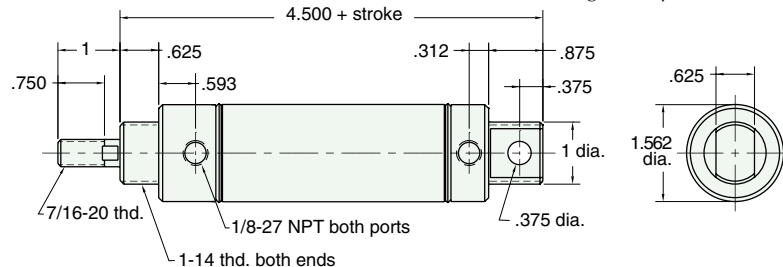
CR-UDR-24-□-□

Mount: Universal
Type: Double Acting
Rotating Rod

Standard Stroke Lengths: 1/2, 1, 1-1/2, 2, 3, 4, 5, 6, 8, 10, 12

Options: M, V, N, P2, P3, P4, P5, P6, P7, P8

Furnished without nut(s).
For magnetic option add .312



Stainless Steel Mounting

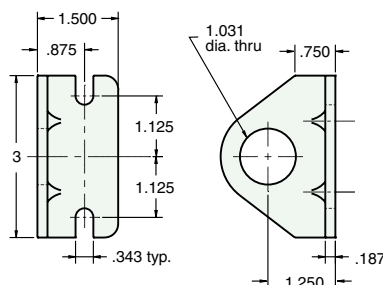
Foot Bracket

Model Number: FB-2891-SS

Nut

Model Number: N16-14-SS

Max. Torque in lbs.: 30

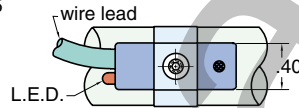
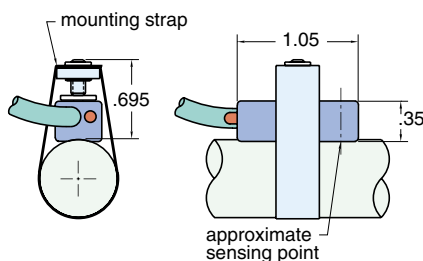


POSITION SENSORS



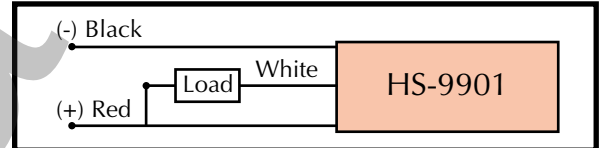
HS-9901

Hall Effect Sensor



Output type	Sinking (open collector output)
Input voltage (Vin)	5 to 28 VDC
Operation temp.	0 to 185°F
Input current (Iin)	25 mA maximum
Output voltage drop	.4 VDC maximum
Output current (Iout)	Iout = .3 Vin, 300 mA maximum
Power dissipation	300 mW maximum
Lead Wire	22 ga. x 4 ft. also avail. in 12 ft. length HS-9901-12
Circuit protection	Reverse polarity protected, transient voltage protected and false pulse protected.

Hall Effect Wiring Diagram

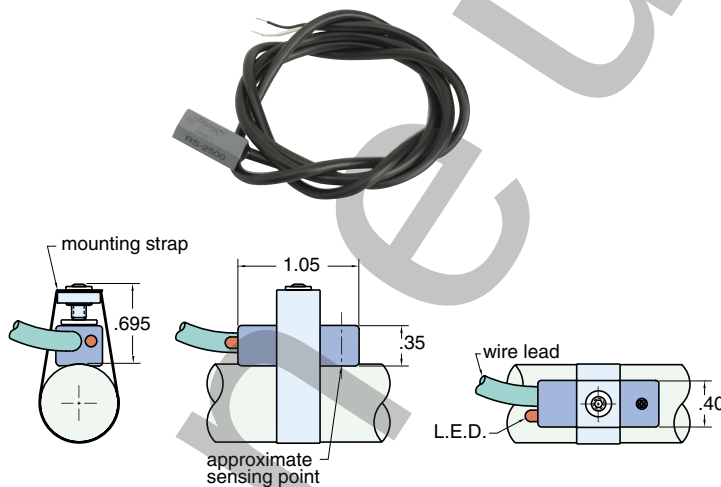
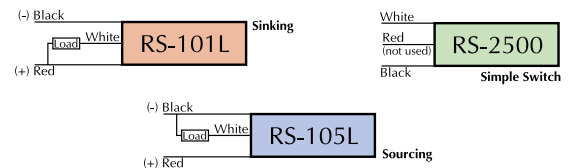


RS-

Magnetic Reed Switch

RS-101L • RS-105L • RS-2500

Circuit Diagram



Part Number	RS-101L	RS-105L	RS-2500
Output Type	Sinking	Sourcing	Simple Switch
Power Range	10w		25w
Supply Voltage	3 to 36 VAC or VDC		220 VAC or VDC
Current Range	1.0 A max.		
LED	Provided	Provided	Not Provided
Lead Wire	22 ga. x 4 ft.		
Operating Temp.	0 to 300°		
Rated Life	10,000,000 cycles		
Housing	molded plastic		
Response Time	1 mSec		
Switching Logic	SPST normally open		

■ RS-101L & RS-105L

■ RS-101L, RS-105L & RS-2500

RS-2500 pictured

Universal Clamps



SC-08 • SC-10 • SC-12 • SC-14 • SC-17 • SC-20
SC-24 • SC-28 • SC-32 • SC-40 • SC-48

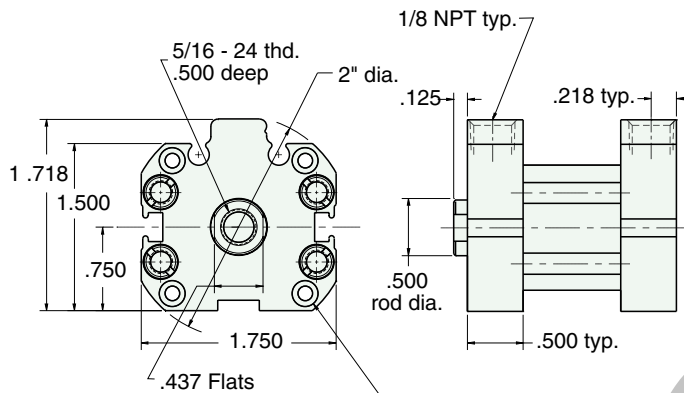
Clippard's stainless steel clamps are designed to be used with the Hall Effect and the reed switch. All clamps should be ordered based upon the size of the cylinder on which it will be mounted. The part numbers show the bore size using the numerical code. Each clamp is 3/8" wide stainless steel, and is equipped with a locking screw with #5-40 threads.



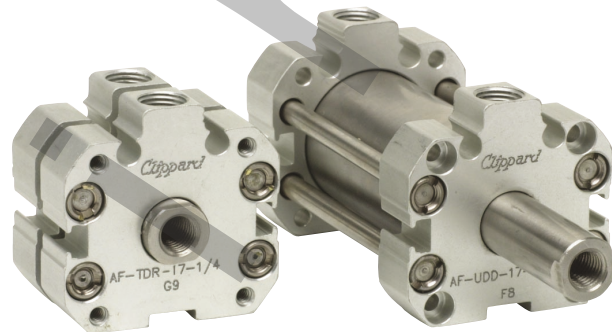
1 1/16" BORE AFO COMPACT CYLINDER



AF-□□□-17-□



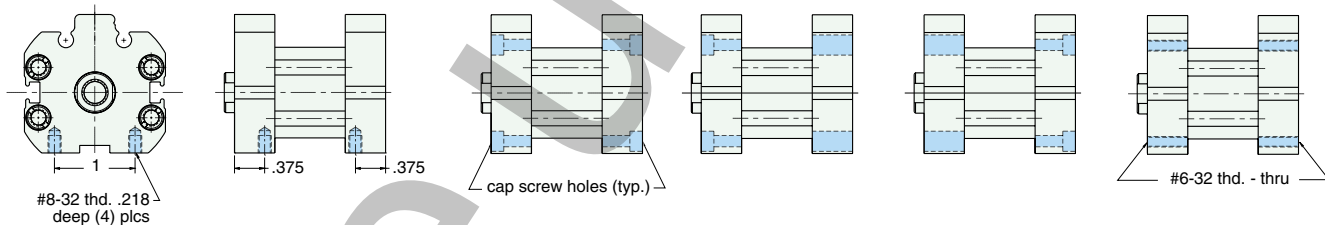
Mounting holes for #6 socket head cap screw. (4) plcs equally spaced on 1 .687 dia. bolt circle



See page 71 for Air Force One numbering system

MOUNTING STYLES

Five mounting styles give you versatility and fast, easy installation.



Bottom Mount
AF-Bxx-17-x

Universal Mount
AF-Uxx-17-x

Front Mount
AF-Fxx-17-x

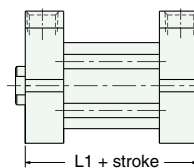
Rear Mount
AF-Rxx-17-x

Thread Mount
AF-Txx-17-x

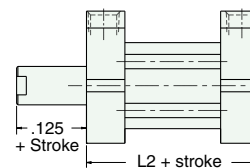
CYLINDER LENGTHS

"L"	Stroke	Spring Return	Spring Extend
L1	1/4" - 1"	7/8	
L1	1 1/8" - 2"	1 1/2	
L1	2 1/8" - 3"	2 1/8	
L1	3 1/8" - 4"	2 3/4	
L2	1/4" - 1"		1 3/8
L2	1 1/8" - 2"		2
L2	2 1/8" - 3"		2 5/8
L2	3 1/8" - 4"		3 1/4

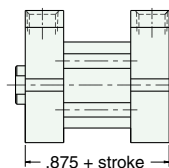
Overall length of body is stroke plus "L"



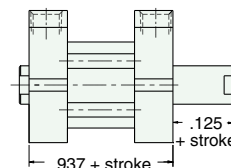
Spring Return
AF-xSR-17-x



Spring Extend
AF-xRR-17-x



Double Acting
Single Rod
AF-xDR-17-x



Double Acting
Double Rod
AF-xDD-17-x

Spring Forces

Spring Return

Compressed	At Rest
11.500 lbs.	5.500 lbs.

Spring Extend

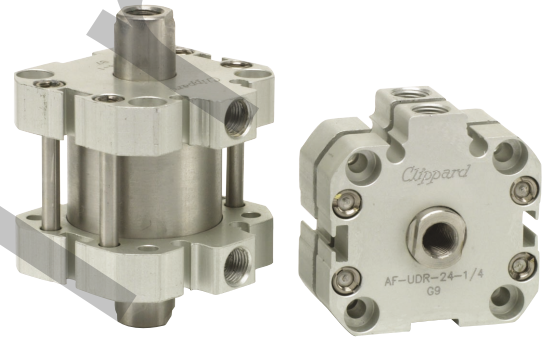
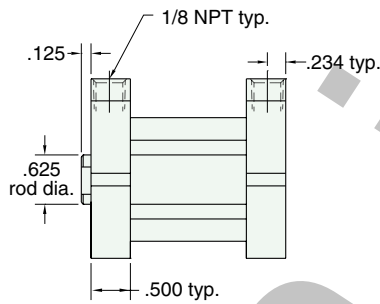
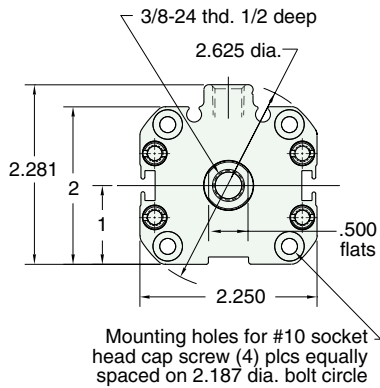
Compressed	At Rest
11.500 lbs.	5.500 lbs.



1 1/2" BORE AFO COMPACT CYLINDER



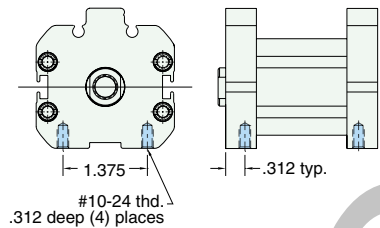
AF-□□□-24-□



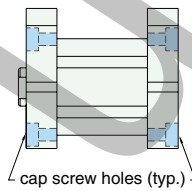
See page 71 for Air Force One numbering system

MOUNTING STYLES

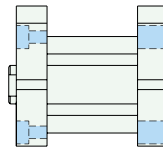
Five mounting styles give you versatility and fast, easy installation.



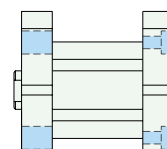
Bottom Mount
AF-Bxx-24-x



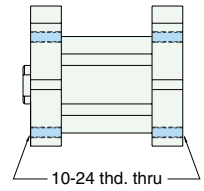
Universal Mount
AF-Uxx-24-x



Front Mount
AF-Fxx-24-x



Rear Mount
AF-Rxx-24-x

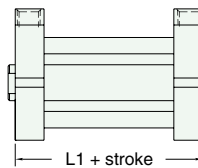


Thread Mount
AF-Txx-24-x

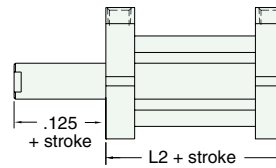
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L1	1 1/8" - 2"	1 1/2	
L1	2 1/8" - 3"	2 1/8	
L1	3 1/8" - 4"	2 3/4	
L2	1/4" - 1"		1 3/8
L2	1 1/8" - 2"		2
L2	2 1/8" - 3"		2 5/8
L2	3 1/8" - 4"		3 1/4

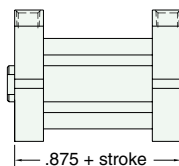
Overall length of body is stroke plus "L"



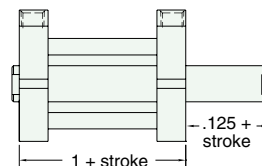
Spring Return
AF-xSR-24-x



Spring Extend
AF-xRR-24-x



Double Acting
Single Rod
AF-xDR-24-x



Double Acting
Double Rod
AF-xDD-24-x

Spring Forces

Spring Return

Compressed	At Rest
13 lbs.	7.500 lbs.

Spring Extend

Compressed	At Rest
13 lbs.	7.500 lbs.