

 American<sup>®</sup>

## Corrosion Resistant Air Cylinders



 CR<sup>®</sup> Series

Standard Catalog

9/16 inch through  
2-1/2 inch bore

American Cylinder Co., Inc.

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American's CR<sup>®</sup> air cylinders are designed to withstand exposure to a wide range of moisture, lubricants and certain solvents. The major components of CR air cylinders are acetal resin and stainless steel. CR air cylinders are available in 9/16", 3/4", 1 1/16", 1 1/2", 2" and 2 1/2" bore sizes.

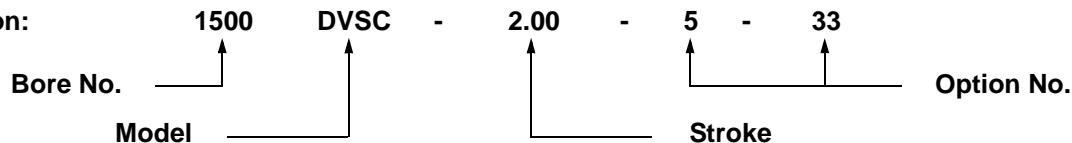
## HOW TO ORDER:

**Example:** 1 1/2" Bore Double Acting Universal Mount Corrosion Resistant Cylinder  
2" Stroke -Quad-X Wiper/Seal - Ports Rotated 90°

**Model No.:** 1500DVSC-2.00-5-33

**Model No.**

**Composition:**



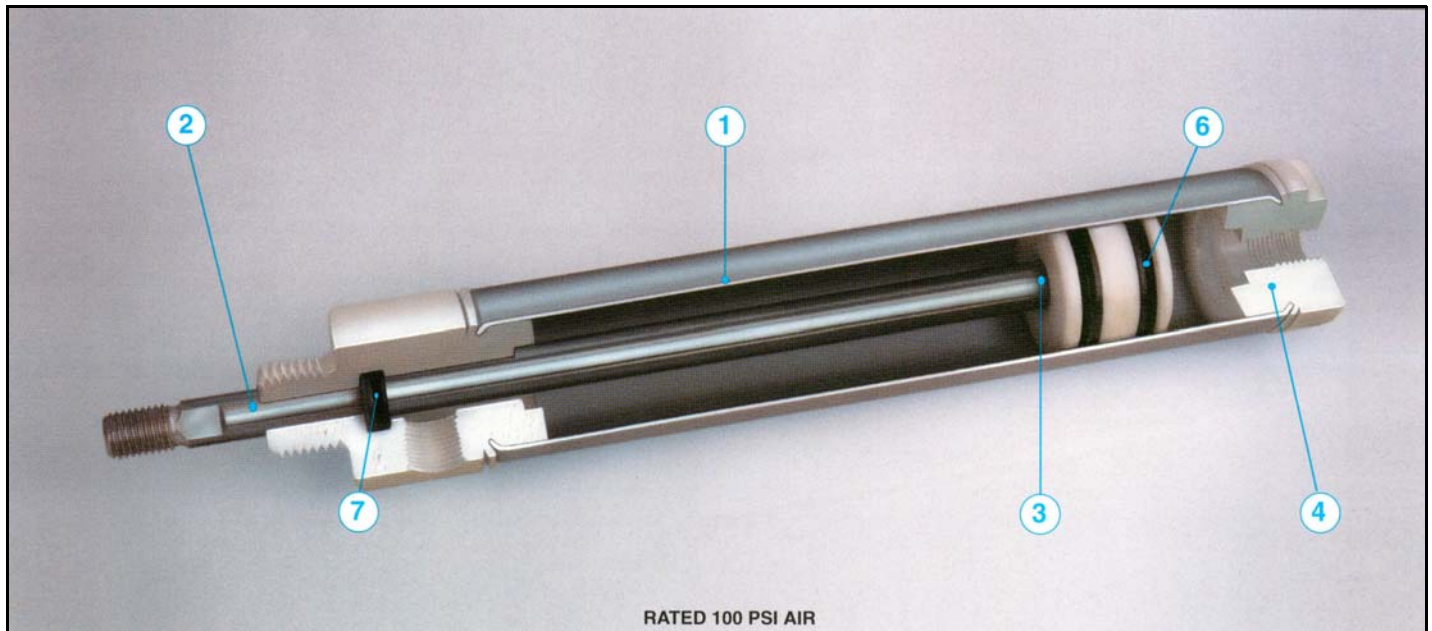
Bore	No.	Model Description	Model	Standard Options	No.
9/16"	562	Single Acting Nose Mount	SNSC	Unmilled Threaded Rear Mtg. Stud	3
3/4"	750	Single Acting Universal Mount	SVSC	Magnetic Field Piston	4
1 1/16"	1062	Double Acting Nose Mount	DNSC	Quad-X Wiper/Seal	5
1 1/2"	1500	Double Acting Universal Mount	DVSC	Magnalube <sup>®</sup> Lubrication	6
2"	2000	Double End Rod	DESC	No Rod Threads & Flats - Std. Rod Extension	9
2 1/2"	2500	Volume Chamber	VCSC	Fluoroelastomer Seals & Magnalube <sup>®</sup>	31*
				Ports Rotated 90° (counterclockwise)	33
				FDA Seals & Lubrication	35
				Quad-X Seal in Front Piston Groove	51

\* The specification of Fluoroelastomer Seals on CR<sup>®</sup> cylinders is for chemical compatibility only, not high temperature service.

## STANDARD STROKE LENGTHS - CR<sup>®</sup> Series

Models SNSC & SVSC - Page 3			Models DNSC & DVSC - Page 4			Power Factor	
Bore	Standard Stroke Lengths (in.)	Power Factor	Bore	Standard Stroke Lengths (in.)	Push	Pull	
3/4"	1/2, 1, 1 1/2, 2, 3, 4	.44	9/16"	1/2, 1, 1 1/2, 2, 3, 4	.25	.22	
1 1/16"	1/2, 1, 1 1/2, 2, 3, 4	.89	3/4"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6	.44	.39	
1 1/2"	1/2, 1, 1 1/2, 2, 3, 4	1.77	1 1/16"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6	.89	.81	
			1 1/2"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6	1.77	1.62	
			2"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6, 8, 10, 12	3.14	2.83	
			2 1/2"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6, 8, 10, 12	4.91	4.60	
Models DESC - Page 5							
Bore	Standard Stroke Lengths (in.)	Power Factor					
9/16"	1/2, 1, 1 1/2, 2, 3, 4	.22					
3/4"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6	.39					
1 1/16"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6	.81					
1 1/2"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6	1.62					
2"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6, 8, 10, 12	2.83					
2 1/2"	1/2, 1, 1 1/2, 2, 3, 4, 5, 6, 8, 10, 12	4.60					

## STANDARD FEATURES AND BENEFITS



① **Stainless Steel Cylinder Body:** Type 304 Stainless Steel manufactured to special mill specifications and tolerances to insure a long cylinder life.

② **Stainless Steel Rod:** Ground & Polished Type 303 Stainless Steel rods are standard. All rods have wrench flats and stress relief grooves.

③ **Piston Rod Assembly:** Piston rods are threaded, anaerobically sealed, and machine staked into the piston for triple protection.

④ **End Caps (Rod Guide & Rear Head):** Made of acetal resin, a crystalline thermoplastic co-polymer made by the polymerization of formaldehyde.

⑤ **Springs:** Springs for spring action cylinders are made from stainless steel and designed for millions of cycles. Special spring forces are available.

⑥ **Buna-N U-Cup Rod & Piston Seals:** Pressure energized lip type seals provide low breakaway friction and maximize cylinder life expectancy. Standard Buna-N seals are recommended for operating temperatures of -20° F (-25°C) to 200° F (95°C). FDA approved seals are available as a standard Option (-35).

⑦ **Rod Seal:** Precision machined rod seal groove provides a smooth sealing surface while positively retaining the seal without requiring additional components and relying on press fit containment.

⑧ **Prelubricated:** All cylinders are factory lubricated with a special high endurance oil mixture. FDA approved lubrication is standard with the FDA seal Option (-35).

⑨ **Pre-Tested:** The quality of each cylinder is assured by testing each unit for leakage prior to shipment. Quality control provides added value to American cylinders.

Product enhancements resulting from our quality improvement program may necessitate changes in specifications without notice.

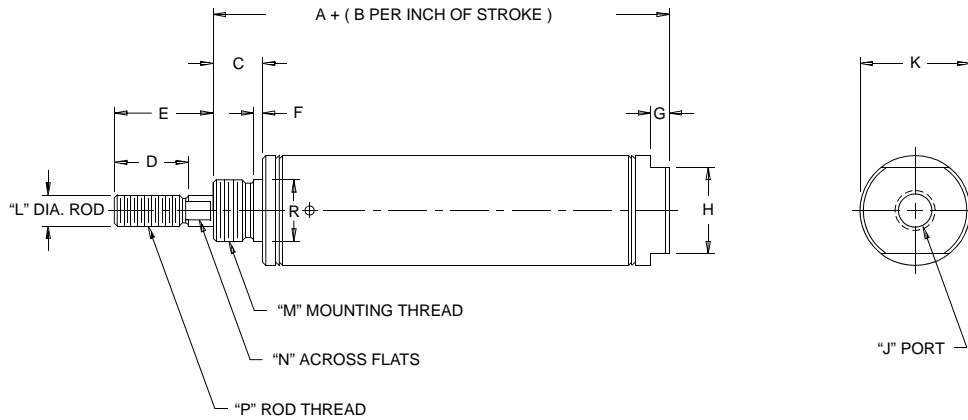
### SPECIAL DESIGN CYLINDERS

American Cylinder engineers and our Specials Department can design and manufacture special cylinders to meet the needs of your unusual or difficult applications. Contact your American Cylinder Distributor or the factory direct with your special requirements.

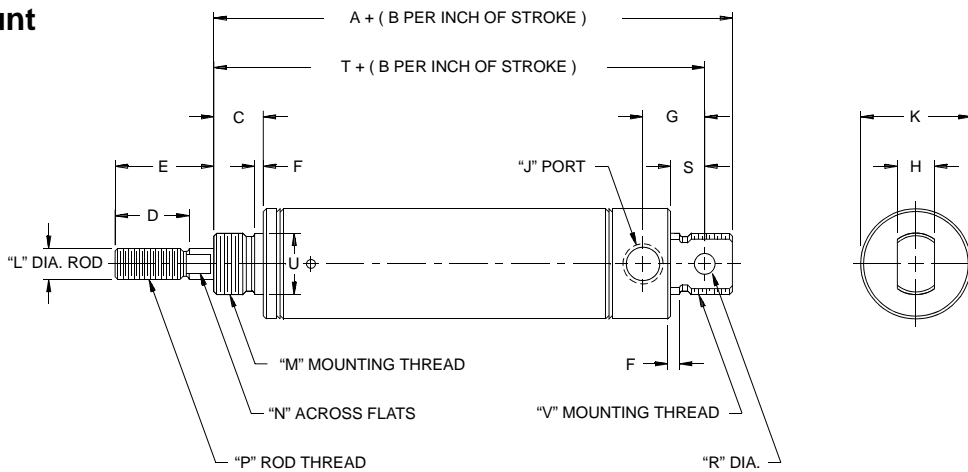


## SINGLE ACTING: Nose Mount, Universal Mount

### Nose Mount



### Universal Mount



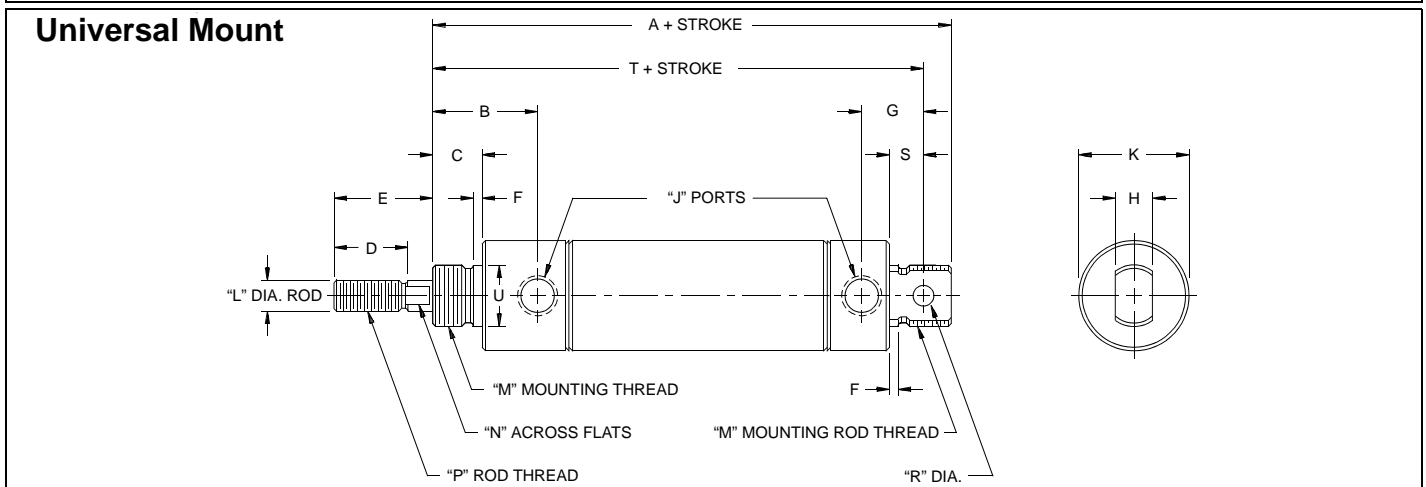
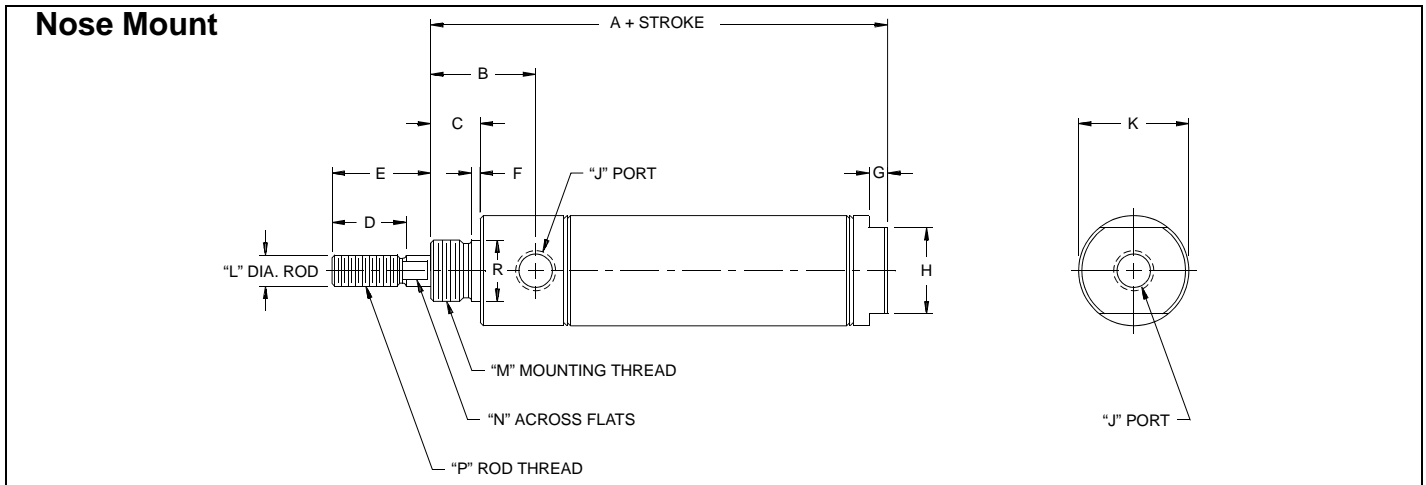
### CR<sup>®</sup> Series - Model SNSC - Single Acting Nose Mount

Bore	Dimension																Spring Forces		Mounting Accessories	
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R*	Rod Ret.	Rod Ext.	Foot Bkt.	Mtg. Nut	
9/16"	1.46	1.62	.37	.50	0.50	.05	.18	.50	#10-32	.62	.18	7/16-20	--	#10-32	.43	2	4	MS11SD	MS15SD	
3/4"	1.50	1.68	.43	.50	0.50	.05	.18	.62	1/8 NPT	0.87	.25	1/2-20	.21	1/4-28	0.50	3	6	MS21SS	MS25SS	
1 1/16"	1.93	1.56	.50	.50	0.50	.05	.18	.87	1/8 NPT	1.18	.31	5/8-18	.25	5/16-24	0.62	3	6	MS21	MS25	
1 1/2"	2.18	1.68	.62	.75	1.00	.09	.25	.87	1/8 NPT	1.62	.43	1-14	.37	7/16-20	1.00	6	12	MS61	MS45	

### CR<sup>®</sup> Series - Model SVSC - Single Acting Universal Mount

Bore	Dimension																		Mounting Accessories			
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U*	V	Foot Bkt.	Pivot Bkt.	Rod Clevis
9/16"	2.00	1.62	.37	.50	0.50	.05	.43	.31	#10-32	.62	.18	7/16-20	--	#10-32	.15	.25	1.81	1.00	7/16-20	MS11SD	MS15SD	MS14S
3/4"	2.56	1.68	.43	.50	0.50	.05	.62	.37	1/8 NPT	0.87	.25	1/2-20	.21	1/4-28	.25	.34	2.28	0.62	5/8-18	MS21SS	MS23SP	MS24S
1 1/16"	3.25	1.56	.50	.50	0.50	.05	.62	.37	1/8 NPT	1.12	.31	5/8-18	.25	5/16-24	.25	.34	2.96	0.62	5/8-18	MS21	MS23SP	MS24
1 1/2"	3.68	1.68	.62	.75	1.00	.09	.81	.62	1/8 NPT	1.56	.43	1-14	.37	7/16-20	.37	.50	3.31	1.00	1-14	MS61	MS63SP	MS64S

## DOUBLE ACTING: Nose Mount, Universal Mount



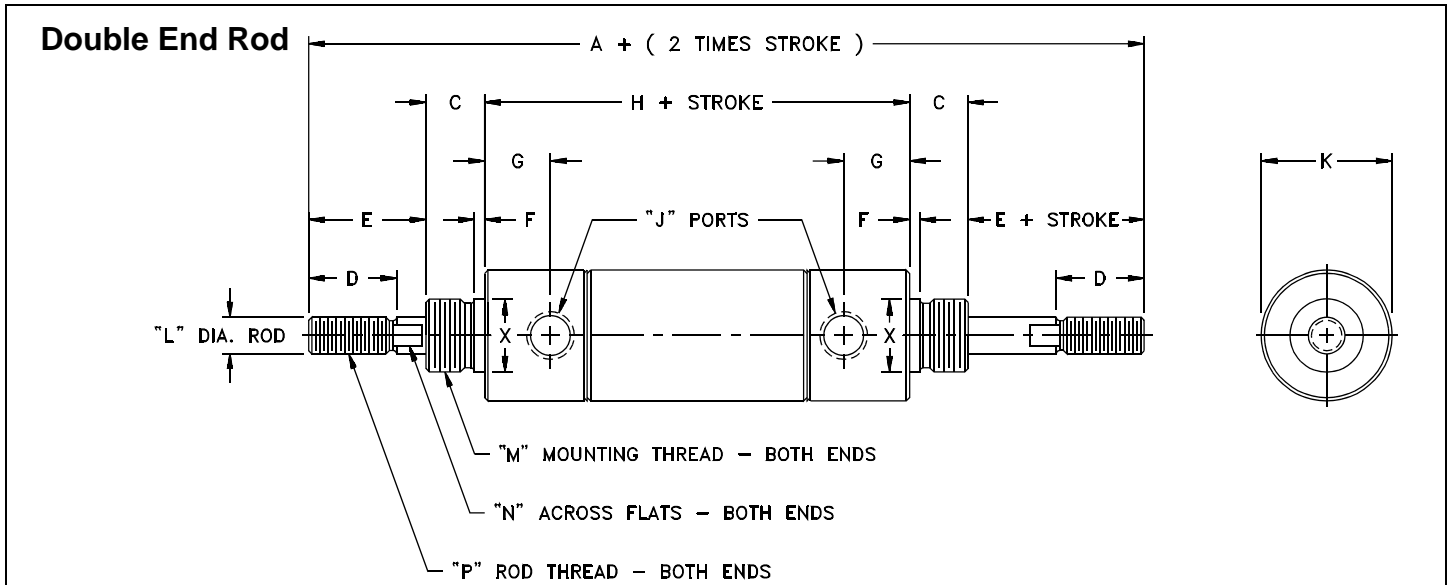
### CR<sup>®</sup> Series - Model DNSC - Double Acting Nose Mount

Bore	Dimension											*Pilot Diameter				Mounting Accessories	
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R*	Foot Bkt.	Mtg. Nut
9/16"	2.21	0.75	.37	.50	0.50	.05	.18	.50	#10-32	0.60	.18	7/16-20	--	#10-32	.43	MS11SD	MS15SD
3/4"	3.18	0.96	.50	.50	0.50	.05	.18	.62	1/8 NPT	0.87	.25	5/8-18	.21	1/4-28	0.62	MS21	MS25
1 1/16"	3.25	1.03	.50	.50	0.50	.05	.18	.87	1/8 NPT	1.18	.31	5/8-18	.25	5/16-24	0.62	MS21	MS25
1 1/2"	3.31	1.12	.62	.75	1.00	.09	.18	.87	1/8 NPT	1.62	.43	1-14	.37	7/16-20	1.00	MS61	MS65
2"	4.31	1.50	.81	.87	1.25	.10	.25	1.25	1/4 NPT	2.12	.62	1 1/4-12	.56	1/2-20	1.25	MS81S	MS85
2 1/2"	4.37	1.50	.81	.87	1.25	.12	.25	1.50	1/4 NPT	2.61	.62	1 3/8-12	.56	1/2-20	1.50	MS91S	MS95

### CR<sup>®</sup> Series - Model DVSC - Double Acting Universal Mount

Bore	Dimension														*Pilot Diameter			Mounting Accessories			
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U*	Foot Bkt.	Pivot Bkt.	Rod Clevis
9/16"	2.75	0.75	.37	.50	0.50	.05	.43	.30	#10-32	0.60	.18	7/16-20	--	#10-32	.15	.23	0.84	.43	MS11SD	MS15SD	MS14S
3/4"	4.09	0.96	.50	.50	0.50	.05	.62	.37	1/8 NPT	0.87	.25	5/8-18	.21	1/4-28	.25	.34	3.81	0.62	MS21	MS23SP	MS24S
1 1/16"	4.12	1.03	.50	.50	0.50	.05	.62	.37	1/8 NPT	1.18	.31	5/8-18	.25	5/16-24	.25	.34	3.84	0.62	MS21	MS23SP	MS24
1 1/2"	4.50	1.12	.62	.75	1.00	.09	.81	.62	1/8 NPT	1.62	.43	1-14	.37	7/16-20	.37	.50	4.12	1.00	MS61	MS63SP	MS64S
2"	5.68	1.50	.81	.87	1.25	.10	.93	.75	1/4 NPT	2.12	.62	1 1/4-12	.56	1/2-20	.37	.56	5.25	1.25	MS81S	MS93SP	MS94
2 1/2"	5.75	1.50	.81	.87	1.25	.12	.93	.75	1/4 NPT	2.61	.62	1 3/8-12	.56	1/2-20	.37	.56	5.31	1.50	MS91S	MS95	MS94

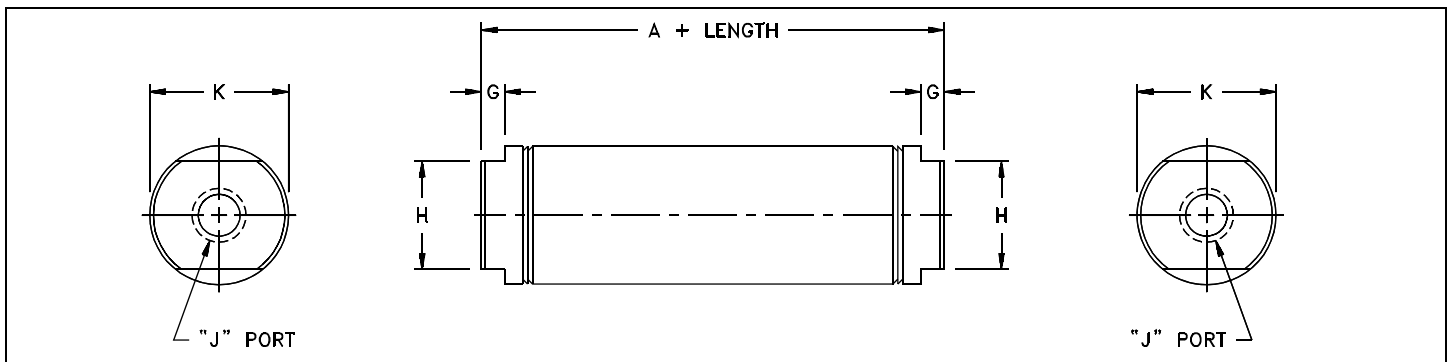
## DOUBLE ACTING: Double End Rod



### CR<sup>®</sup> Series - Model DESC - Double End Rod

Bore	Dimension													Mounting Accessories			
	A	C	D	E	F	G	H	J	K	L	M	N	P	X	Foot Bkt.	Rod Clevis	Mtg. Nut
9/16"	3.93	.37	0.50	0.50	.05	.37	2.18	#10-32	0.60	.18	7/16-20	--	#10-32	0.43	MS11SD	MS14S	MS15SD
3/4"	5.56	0.50	0.50	0.50	.05	.46	3.56	1/8NPT	0.87	.25	5/8-18	.21	1/4-28	0.62	MS21	MS24S	MS25
1 1/16"	5.62	0.50	0.50	0.62	.05	.56	3.37	1/8NPT	1.18	.31	5/8-18	.25	5/16-24	0.62	MS21	MS24	MS25
1 1/2"	6.62	0.62	0.75	1.00	.09	.62	3.37	1/8NPT	1.62	.43	1-14	.37	7/16-20	1.00	MS61	MS64S	MS65
2"	8.31	0.81	0.87	1.25	.10	.68	4.18	1/4NPT	2.12	.62	1 1/4-12	.56	1/2-20	1.25	MS81	MS94	MS85
2 1/2"	8.31	0.81	0.87	1.25	.12	.68	4.18	1/4NPT	2.61	.62	1 3/8-12	.56	1/2-20	1.50	MS91S	MS94	MS95

## VOLUME CHAMBERS



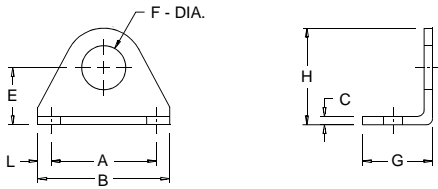
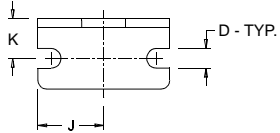
### CR<sup>®</sup> Series - Model VCSC\*

Bore	Model No.	Dimension					Volume (In <sup>3</sup> )
		A	G	H	J	K	
9/16"	562VCS- □□□	1.62	.18	0.50	#10-32	0.60	.17 + .25 per Inch
3/4"	750VCS- □□□	2.31	.18	0.62	1/8NPT	0.87	.38 + .44 per Inch
1 1/16"	1062VCS- □□□	2.37	.18	0.87	1/8NPT	1.18	.81 + .89 per Inch
1 1/2"	1500VCS- □□□	2.37	.18	0.87	1/8NPT	1.62	1.73 + 1.77 per Inch
2"	2000VCS- □□□	2.81	.25	1.25	1/4NPT	2.12	3.64 + 3.14 per Inch
2 1/2"	2500VCS- □□□	2.81	.25	1.50	1/4NPT	2.61	5.90 + 4.90 per Inch

NOTES □ Enter desired length to two decimal places to complete Model Number.  
\* Standard lengths for Volume Chambers are identical to the standard Double Acting stroke lengths listed on Page 1.

# MOUNTING ACCESSORIES: Dimensional Data

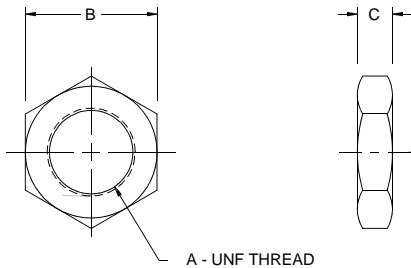
## Foot Bracket



Bore	Foot Bkt. No.	Dimension										
		A	B	C	D	E	F	G	H	J	K	L
9/16"	MS11SD	1.00	1.37	.06	.21	.56	.44	.62	0.93	.68	.31	.18
3/4" S.A.	MS21SS	1.25	1.62	.12	.18	.68	.50	.75	1.09	.81	.43	.18
3/4"	MS21	1.50	1.87	.12	.28	.81	.62	1.00	1.37	.93	.56	.18
1 1/16"	MS21	1.50	1.87	.12	.28	.81	.62	1.00	1.37	.93	.56	.18
1 1/2"	MS61	1.87	2.37	.12	.28	1.18	1.00	1.37	2.06	1.18	.78	.25
2"	MS81S	2.25	3.12	.25	.34	1.50	1.37	1.62	2.56	1.56	1.00	.43
2 1/2"	MS91S	2.87	3.75	.24	.34	1.75	1.50	1.62	3.06	1.87	1.00	.43

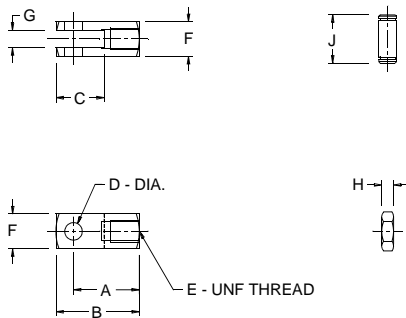
Note: One mounting nut is provided with each foot bracket ordered.

## Mounting Nut



Bore	Mtg. Nut No.	Dimension		
		A	B	C
9/16"	MS15SD	7/16-20	.68	.25
3/4" S.A.	MS25SS	1/2-20	.74	.31
3/4"	MS25	5/8-18	.93	.37
1 1/16"	MS25	5/8-18	.93	.37
1 1/2"	MS65	1-14	1.50	.54
2"	MS85	1 1/4-12	1.87	.50
2 1/2"	MS95	1 3/8-12	1.87	.50

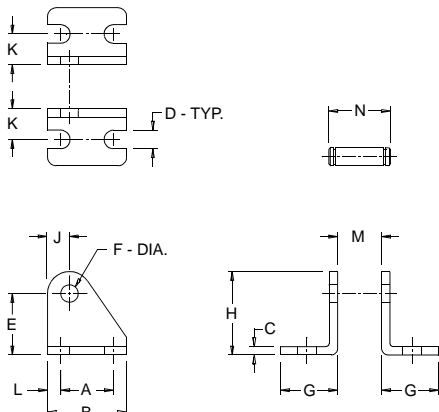
## Rod Clevis



Bore	Rod Clevis No.	Dimension									
		A	B	C	D	E	F	G	H	J	
9/16"	MS14S	0.75	0.93	.56	.18	#10-32	.37	.18	.12	0.56	
3/4"	MS24S	0.93	1.18	.68	.25	1/4-28	.50	.25	.15	0.68	
1 1/16"	MS24	0.93	1.18	.68	.25	5/16-24	.50	.25	.18	0.68	
1 1/2"	MS64S	1.31	1.68	.93	.37	7/16-20	.75	.37	.25	1.01	
2"	MS94	1.31	1.68	.93	.37	1/2-20	.75	.37	.37	1.01	
2 1/2"	MS94	1.31	1.68	.93	.37	1/2-20	.75	.37	.37	1.01	

Note: Rod nut, pin and E-rings are provided with each rod clevis ordered.

## Pivot Bracket



Bore	Pivot Bkt. No.	Dimension													
		A	B	C	D	E	F	G	H	J	K	L	M	N	
9/16"	MS13SP	.50	0.75	.06	.18	.56	.15	.50	0.77	.20	.28	.12	.31	0.62	
3/4"	MS23SP	.75	1.12	.12	.26	.87	.25	.81	1.18	.31	.43	.18	.37	0.87	
1 1/16"	MS23SP	.75	1.12	.12	.26	.87	.25	.81	1.18	.31	.43	.18	.37	0.87	
1 1/2"	MS63SP	1.00	1.50	.12	.26	1.37	.37	1.00	1.75	.37	.62	.25	.62	1.18	
2"	MS93	1.00	1.50	.12	.26	1.37	.37	1.00	1.75	.37	.62	.25	.75	1.31	
2 1/2"	MS93	1.00	1.50	.12	.26	1.37	.37	1.00	1.75	.37	.62	.25	.75	1.31	

Note: Pivot pin and E-rings are provided with each bracket ordered.



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**ON THE INTERNET**

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## ***Warranty***

American Cylinder Co., Inc. warrants its products to be free from defects in material and workmanship under normal wear and service for a period of 3 years from date of shipment of the order. American Cylinder Company shall have no liability under this warranty if: 1) The product is used other than in accordance with specifications. 2) The product is subjected to abuse, negligence, accident, misapplication, or unintended use. 3) The product is manufactured to buyer's specifications.

Manufacturer's liability shall be limited to allowance of credit or replacement of defective product. American Cylinder Company shall not be liable or responsible for injuries or damages to persons or property arising out of the use or operation of American Cylinder products.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, LIABILITY FOR LOST PROFIT OR FOR INDIRECT, INCIDENTAL, CONSEQUENTIAL OR COMMERCIAL LOSSES, AND OF ALL OTHER OBLIGATIONS OR LIABILITIES.

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