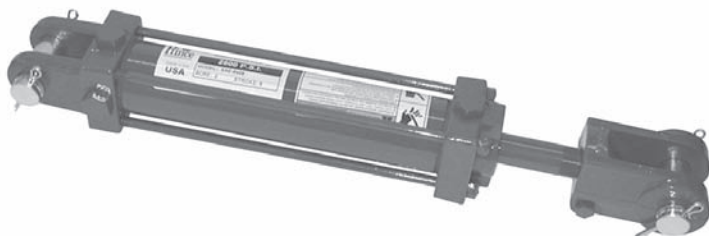




THE MAJESTIC LINE

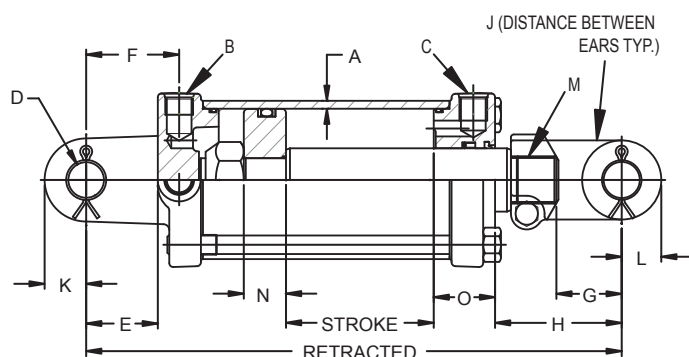
2500 PSI TIE ROD DOUBLE ACTING

THE "MAJESTIC LINE" Tie Rod-DA-Medium Duty Rods



FEATURES:

- Honed tubing
- Chromed, ground & polished piston rod will operate at full pressure through 16" stroke
- Ductile iron piston, butt, gland & clevis
- Urethane u-cup & urethane wiper in gland
- Pins, clips & cotters included
- Standard color is red
- Stroke control may be installed on 8" strokes
- Side ports available on request at no additional cost



Rods are sized for a maximum safe push load (2:1 safety factor) given in the table. This is based on the pin configuration shown with no center support.

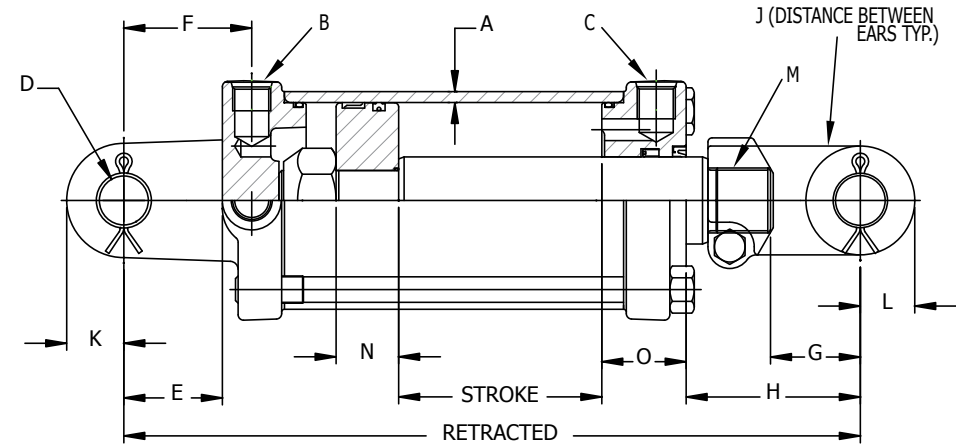
Model No.	Style	Wt.	PSI	Column Load (Lbs.)	Re-tract	Rod Dia.	A SAE	B SAE	C SAE	D	E	F	G	H	J	K	L	M	N	O
SAE-8404	2 x 4	18	2500	FULL PSI	14 1/4	1	1/8	3/4-16	3/4-16	1.015	1 13/16	2 3/8	1 13/16	3 1/2	1.06	15/16	1 1/8	1-14	7/8	2 1/4
SAE-8406	2 x 6	19	2500	FULL PSI	16 1/4	1	1/8	3/4-16	3/4-16	1.015	1 13/16	2 3/8	1 13/16	3 1/2	1.06	15/16	1 1/8	1-14	7/8	2 1/4
SAE-8408	2 x 8	20	2500	FULL PSI	20 1/4	1	1/8	3/4-16	3/4-16	1.015	1 13/16	2 3/8	1 13/16	5 1/2	1.06	15/16	1 1/8	1-14	7/8	2 1/4
SAE-8410	2 x 10	21	2500	FULL PSI	20 1/4	1	1/8	3/4-16	3/4-16	1.015	1 13/16	2 3/8	1 13/16	3 1/2	1.06	15/16	1 1/8	1-14	7/8	2 1/4
SAE-7006	2 1/2 x 6	22	2500	FULL PSI	16 1/4	1 1/8	1/8	3/4-16	3/4-16	1.015	1 7/8	2 13/32	1 13/16	3 1/2	1.06	15/16	1 1/8	1 1/8-12	1	2 3/8
SAE-7008	2 1/2 x 8	23	2500	FULL PSI	20 1/4	1 1/8	1/8	3/4-16	3/4-16	1.015	1 7/8	2 13/32	1 13/16	5 1/2	1.06	15/16	1 1/8	1 1/8-12	1	2 3/8
SAE-7106	3 x 6	24	2500	FULL PSI	16 1/4	1 1/8	3/16	3/4-16	3/4-16	1.015	1 7/8	2 7/16	1 13/16	3 3/4	1.06	15/16	1 1/8	1 1/8-12	1	1 15/16
SAE-7108	3 x 8	26	2500	FULL PSI	20 1/4	1 1/8	3/16	3/4-16	3/4-16	1.015	1 7/8	2 7/16	1 13/16	5 3/4	1.06	15/16	1 1/8	1 1/8-12	1	1 15/16
SAE-7208A	3 1/2 x 8	31	2500	FULL PSI	20 1/4	1 1/8	3/16	3/4-16	3/4-16	1.015	1 7/8	2 7/16	1 13/16	5 7/8	1.06	1 1/4	1 1/4	1 1/8-12	1	1 13/16
SAE-8608	4 x 8	42	2500	FULL PSI	20 1/4	1 1/2	3/16	3/4-16	3/4-16	1.015	1 3/4	2 7/16	1 7/8	5 1/4	1.06	1 1/4	1 1/4	1 1/2-12	1	1 13/16
SAE-8610	4 x 10	45	2500	FULL PSI	20 1/4	1 1/2	3/16	3/4-16	3/4-16	1.015	1 3/4	2 7/16	1 7/8	3 1/4	1.06	1 1/4	1 1/4	1 1/2-12	1	1 13/16
SAE-8208	5 x 8	64	2500	FULL PSI	20 1/4	1 3/4	1/4	7/8-14	7/8-14	1.265	1 3/4	2 5/8	2	4	1.06	1 1/4	1 1/4	1 1/2-12	1	2 1/2
SAE-8210	5 x 10	67	2500	FULL PSI	22 1/4	1 3/4	1/4	7/8-14	7/8-14	1.265	1 3/4	2 5/8	2	4	1.06	1 1/4	1 1/4	1 1/2-12	1	2 1/2

THE 3000 PSI Tie Rod-DA-Extra Heavy Duty Rods

Model No.	Style	Wt.	PSI	Column Load (Lbs.)	Re-tract	Rod Dia.	A	B SAE	C SAE	D	E	F	G	H	J	K, L	M	N	O
C400080ABDDA03B	4 x 8	50	3000PSI	Full PSI	20 1/4	2	3/16	3/4 - 16	3/4 - 16	1.265	1 3/4	2 7/16	1.875	5 1/4	1.06	1 1/4	1 1/2-12	1.25	1 13/16
C400160ABDDA03B	4 x 16	68	3000PSI	Full PSI	31 1/2	2	3/16	3/4 - 16	3/4 - 16	1.265	1 3/4	2 7/16	1.875	8 1/2	1.06	1 1/4	1 1/2-12	1.25	1 13/16
C400240ABDDA03B	4 x 24	81	3000PSI	Full PSI	36 1/4	2	3/16	3/4 - 16	3/4 - 16	1.265	1 3/4	2 7/16	1.875	5 1/4	1.06	1 1/4	1 1/2-12	1.25	1 13/16
C400260ABDDA03B	4 x 26	84	3000PSI	Full PSI	38 1/4	2	3/16	3/4 - 16	3/4 - 16	1.265	1 3/4	2 7/16	1.875	5 1/4	1.06	1 1/4	1 1/2-12	1.25	1 13/16

ALSO AVAILABLE FROM STOCK

A complete line of Hydraulic Directional Control Valves,
Gear Pumps, LSHT Motors as well as Custom Designed Products to fit your needs.



FEATURES:

- Honed tubing
- Heavy duty, high strength tie-rods
- Induction hardened piston rods plated with RoyalPlate Plus® (piston rods on 2" bore not hardened)
- Ductile iron piston, butt, gland & clevis
- Urethane u-cup & metal encased wiper 2 1/2" bore & larger models
- Crown seal on piston
- Pins & cotter pins (Hardened pins on 4", 4 1/2" & 5" models)
- Standard color is safety yellow
- Stroke control may be installed on 8" strokes (2" - 3.5" bore, A models only)
- Side ports available on request
- Nylon bearing ring on 4", 4 1/2" & 5" bore models
- 3000 PSI continuous operating pressure

2 INCH BORE CYLINDERS								
New Standard Model No.	Old Standard Model No. 2500 PSI / 3000 PSI	List Price	Stroke	Wt	Column Load (lbs)	Retract	Tare Dist. (H)	Standard Dimensions of 2 Inch Bore Cylinders
B200040ABAAA03B	none /SAE-32004	\$ 147.10	4"	17	9425 lbs	14 ¼	3 ½	* 1 ½" rod diameter
B200060ABAAA03B	none /SAE-32006	\$ 149.50	6"	19	9425 lbs	16 ¼	3 ½	A ¾" cylinder tube wall thickness
A200080ABAAA03B	none /SAE-32008	\$ 152.80	8"	21	9425 lbs	20 ¼	5 ½	B, C SAE ¾ -16 extend & retract ports
B200100ABAAA03B	none /SAE-32010	\$ 153.40	10"	22	9425 lbs	20 ¼	3 ½	D 1.015" clevis pin hole size
B200120ABAAA03B	SAE-9012 /SAE-32012	\$ 155.30	12"	23	9425 lbs	22 ¼	3 ½	E, F 1 ½" base clevis throat depth with 2 ½" from pin center to port center
B200140ABAAA03B	SAE-9014 /SAE-32014	\$ 158.50	14"	25	9425 lbs	24 ¼	3 ½	G 1 ½" rod clevis throat depth
A200160ABAAA03B	SAE-9016 /SAE-32016	\$ 165.60	16"	28	7630 lbs	31 ½	8 ¾	J 1.06" min. distance between ears at pin center line
B200180ABAAA03B	SAE-9018 /SAE-32018	\$ 170.00	18"	28	9200 lbs	28 ¼	3 ½	K 1 ½" base clevis ear radius
B200200ABAAA03B	SAE-9020 /SAE-32020	\$ 175.70	20"	30	7760 lbs	30 ¼	3 ½	L 1 ½" rod clevis ear radius
B200240ABAAA03B	SAE-9024 /SAE-32024	\$ 187.20	24"	33	5730 lbs	34 ¼	3 ½	M 1 ½" - 12 UNF-3 piston rod clevis thread size
B200300ABAAA03B	SAE-9030 /SAE-32030	\$ 204.30	30"	37	3910 lbs	40 ¼	3 ½	N 7/8" piston width
								O 2 ¾" gland width

2.5 INCH BORE CYLINDERS								
New Standard Model No.	Old Standard Model No. 2500 PSI / 3000 PSI	List Price	Stroke	Wt	Column Load (lbs)	Retract	Tare Dist. (H)	Standard Dimensions of 2.5 Inch Bore Cylinders
B250060ABAAA03B	none /SAE-32506	\$ 152.10	6"	22	14730 lbs	16 ¼	3 ½	* 1 ½" rod diameter
A250080ABAAA03B	SAE-9108 /SAE-32508	\$ 155.40	8"	25	14730 lbs	20 ¼	5 ½	A ¾" cylinder tube wall thickness
B250100ABAAA03B	SAE-9110 /SAE-32510	\$ 161.40	10"	26	14730 lbs	20 ¼	3 ½	B, C SAE ¾ -16 extend & retract ports
B250120ABAAA03B	SAE-9112 /SAE-32512	\$ 168.50	12"	28	14730 lbs	22 ¼	3 ½	D 1.015" clevis pin hole size
B250140ABAAA03B	SAE-9114 /SAE-32514	\$ 175.70	14"	30	14730 lbs	24 ¼	3 ½	E, F 1 ½" base clevis throat depth with 2 ½" from pin center to port center
A250160ABAAA03B	SAE-9116 /SAE-32516	\$ 184.10	16"	34	11520 lbs	31 ½	8 ¾	G 1 ½" rod clevis throat depth
B250180ABAAA03B	SAE-9118 /SAE-32518	\$ 190.00	18"	34	13880 lbs	28 ¼	3 ½	J 1.06" min. distance between ears at pin center line
B250200ABAAA03B	SAE-9120 /SAE-32520	\$ 197.20	20"	36	11720 lbs	30 ¼	3 ½	K 1 ½" base clevis ear radius
B250240ABAAA03B	SAE-9124 /SAE-32524	\$ 211.70	24"	41	8670 lbs	34 ¼	3 ½	L 1 ½" rod clevis ear radius
B250300ABAAA03B	SAE-9130 /SAE-32530	\$ 233.10	30"	47	5930 lbs	40 ¼	3 ½	M 1 ½" - 12 UNF-3 piston rod clevis thread size
								N 1" piston width
								O 2 ¾" gland width

3 INCH BORE CYLINDERS								
New Standard Model No.	Old Standard Model No. 2500 PSI / 3000 PSI	List Price	Stroke	Wt	Column Load (lbs)	Retract	Tare Dist. (H)	Standard Dimensions of 3 Inch Bore Cylinders
B300060ABAAA03B	none /SAE-33006	\$ 161.70	6"	26	21210 lbs	16 ¼	3 ¾	* 1 ½" rod diameter
A300080ABAAA03B	SAE-9208 /SAE-33008	\$ 170.40	8"	29	21210 lbs	20 ¼	5 ½	A ¾" cylinder tube wall thickness
B300100ABAAA03B	SAE-9210 /SAE-33010	\$ 177.80	10"	30	21210 lbs	20 ¼	3 ¾	B, C SAE ¾ -16 extend & retract ports
B300120ABAAA03B	SAE-9212 /SAE-33012	\$ 186.50	12"	33	21210 lbs	22 ¼	3 ¾	D 1.015" clevis pin hole size
B300140ABAAA03B	SAE-9214 /SAE-33014	\$ 195.10	14"	35	21210 lbs	24 ¼	3 ¾	E, F 1 ½" base clevis throat depth with 2 ½" from pin center to port center
A300160ABAAA03B	SAE-9216 /SAE-33016	\$ 205.10	16"	40	16730 lbs	31 ½	9	G 1 ½" rod clevis throat depth
B300180ABAAA03B	SAE-9218 /SAE-33018	\$ 212.40	18"	40	20120 lbs	28 ¼	3 ¾	J 1.06" min. distance between ears at pin center line
B300200ABAAA03B	SAE-9220 /SAE-33020	\$ 221.20	20"	42	17010 lbs	30 ¼	3 ¾	K 1 ½" base clevis ear radius
B300240ABAAA03B	SAE-9224 /SAE-33024	\$ 242.60	24"	47	12620 lbs	34 ¼	3 ¾	L 1 ½" rod clevis ear radius
B300300ABAAA03B	SAE-9230 /SAE-33030	\$ 280.80	30"	54	8640 lbs	40 ¼	3 ¾	M 1 ½" - 12 UNF-3 piston rod clevis thread size
B300360ABAAA03B	SAE-9236 /SAE-33036	\$ 319.00	36"	61	6290 lbs	46 ¼	3 ¾	N 1" piston width
B300480ABAAA03B	SAE-9248 /SAE-33048	\$ 395.40	48"	75	3760 lbs	58 ¼	3 ¾	O 1 ½" gland width

3.5 INCH BORE CYLINDERS								
New Standard Model No.	Old Standard Model No. 2500 PSI / 3000 PSI	List Price	Stroke	Wt	Column Load (lbs)	Retract	Tare Dist. (H)	Standard Dimensions of 3.5 Inch Bore Cylinders
A350080ABAAA03B	SAE-9308A /SAE-33508	\$ 184.80	8"	35	28860 lbs	20 ¼	5 ¾	* 1 ¾" rod diameter
B350100ABAAA03B	SAE-9310A /SAE-33510	\$ 193.90	10"	37	28860 lbs	20 ¼	3 ¾	A ¾" cylinder tube wall thickness
B350120ABAAA03B	SAE-9312A /SAE-33512	\$ 205.00	12"	39	28860 lbs	22 ¼	3 ¾	B, C SAE ¾ -16 extend & retract ports
B350140ABAAA03B	SAE-9314A /SAE-33514	\$ 216.00	14"	42	28860 lbs	24 ¼	3 ¾	D 1.015" clevis pin hole size
A350160ABAAA03B	SAE-9316A /SAE-33516	\$ 228.90	16"	46	16900 lbs	31 ½	9	E, F 1 ½" base clevis throat depth with 2 ½" from pin center to port center
B350180ABAAA03B	SAE-9318A /SAE-33518	\$ 237.90	18"	47	20400 lbs	28 ¼	3 ¾	G 1 ½" rod clevis throat depth
B350200ABAAA03B	SAE-9320A /SAE-33520	\$ 248.90	20"	49	17240 lbs	30 ¼	3 ¾	J 1.06" min. distance between ears at pin center line
B350240ABAAA03B	SAE-9324A /SAE-33524	\$ 271.00	24"	54	12780 lbs	34 ¼	3 ¾	K 1 ½" base clevis ear radius
B350300ABAAA03B	SAE-9330A /SAE-33530	\$ 311.80	30"	62	8760 lbs	40 ¼	3 ¾	L 1 ½" rod clevis ear radius
B350360ABAAA03B	SAE-9336A /SAE-33536	\$ 352.50	36"	69	6370 lbs	46 ¼	3 ¾	M 1 ½" - 12 UNF-3 piston rod clevis thread size
B350480ABAAA03B	SAE-9348A /SAE-33548	\$ 434.10	48"	85	3800 lbs	58 ¼	3 ¾	N 1" piston width
								O 1 ½" gland width

4 INCH BORE CYLINDERS								
New Standard Model No.	Old Standard Model No. 2500 PSI / 3000 PSI	List Price	Stroke	Wt	Column Load (lbs)	Retract	Tare Dist. (H)	Standard Dimensions of 4 Inch Bore Cylinders
A400080ABACA03B	SAE-9408 /SAE-34008	\$ 244.40	8"	48	37700 lbs	20 ¼	5 ¾	* 1 ¾" rod diameter
B400100ABACA03B	SAE-9410 /SAE-34010	\$ 255.00	10"	50	37700 lbs	20 ¼	3 ¾	A ¾" cylinder tube wall thickness
B400120ABACA03B	SAE-9412 /SAE-34012	\$ 268.20	12"	54	37700 lbs	22 ¼	3 ¾	B, C SAE ¾ -16 extend & retract ports
B400140ABACA03B	SAE-9414 /SAE-34014	\$ 281.30	14"	57	37700 lbs	24 ¼	3 ¾	D 1.015" clevis pin hole size
A400160ABACA03B	SAE-9416 /SAE-34016	\$ 296.70	16"	64	37700 lbs	31 ½	8 ½	E, F 1 ½" base clevis throat depth with 2 ½" from pin center to port center
B400180ABACA03B	SAE-9418 /SAE-34018	\$ 307.50	18"	64	37700 lbs	28 ¼	3 ¾	G 1 ½" rod clevis throat depth
B400200ABACA03B	SAE-9420 /SAE-34020	\$ 320.50	20"	68	37700 lbs	30 ¼	3 ¾	J 1.06" min. distance between ears at pin center line
B400240ABACA03B	SAE-9424 /SAE-34024	\$ 339.00	24"	75	33710 lbs	34 ¼	3 ¾	K 1 ½" base clevis ear radius
B400300ABACA03B	SAE-9430 /SAE-34030	\$ 378.20	30"	85	22990 lbs	40 ¼	3 ¾	L 1 ½" rod clevis ear radius
B400360ABACA03B	SAE-9436 /SAE-34036	\$ 417.50	36"	95	16680 lbs	46 ¼	3 ¾	M 1 ½" - 12 UNF-3 piston rod clevis thread size
B400480ABACA03B	SAE-9448 /SAE-34048	\$ 496.00	48"	116	9920 lbs	58 ¼	3 ¾	N 1 ½" piston width
								O 1 ½" gland width

4.5 INCH BORE CYLINDERS								
New Standard Model No.	Old Standard Model No. 2500 PSI / 3000 PSI	List Price	Stroke	Wt	Column Load (lbs)	Retract	Tare Dist. (H)	Standard Dimensions of 4.5 Inch Bore Cylinders
B450080ACDDA03B	none /SAE-34508	\$ 322.70	8"	60	47710 lbs	20 ¼	4	* 2" rod diameter
B450120ACDDA03B	none /SAE-34512	\$ 353.00	12"	69	47710 lbs	24 ¼	4	A ¾" cylinder tube wall thickness
B450140ACDDA03B	none /SAE-34514	\$ 368.10	14"	74	47710 lbs	26 ¼	4	B, C SAE ¾ -14 extend & retract ports
A450160ACDDA03B	none /SAE-34516	\$ 385.60	16"	81	47710 lbs	31 ½	7 ¼	D 1.265" clevis pin hole size
B450180ACDDA03B	none /SAE-34518	\$ 398.40	18"	83	47710 lbs	30 ¼	4	E, F 2 ¼" base clevis throat depth with 2 ½" from pin center to port center
B450200ACDDA03B	none /SAE-34520	\$ 413.60	20"	87	47710 lbs	32 ¼	4	G 2" rod clevis throat depth
B450240ACDDA03B	none /SAE-34524	\$ 443.80	24"	97	44710 lbs	36 ¼	4	J 1.13" min. distance between ears at pin center line
B450300ACDDA03B	none /SAE-34530	\$ 489.40	30"	110	37530 lbs	42 ¼	4	K 1 ½" base clevis ear radius
B450360ACDDA03B	none /SAE-34536	\$ 534.90	36"	124	27430 lbs	48 ¼	4	L 1 ½" rod clevis ear radius
B450480ACDDA03B	none /SAE-34548	\$ 646.70	48"	152	16470 lbs	60 ¼	4	M 1 ½" - 12 UNF-3 piston rod clevis thread size
								N 1 7/8" piston width
								O 1 ½" gland width

5 INCH BORE CYLINDERS								
New Standard Model No.	Old Standard Model No. 2500 PSI / 3000 PSI	List Price	Stroke	Wt	Column Load (lbs)	Retract	Tare Dist. (H)	Standard Dimensions of 5 Inch Bore Cylinders
B500080ACDDA03B	SAE-9508 /SAE-35008	\$ 350.80	8"	72	58900 lbs	20 ¼	4	* 2" rod diameter
B500120ACDDA03B	SAE-9512 /SAE-35012	\$ 381.50	12"	83	58900 lbs	24 ¼	4	A ¾" cylinder tube wall thickness
B500140ACDDA03B	SAE-9514 /SAE-35014	\$ 396.90	14"	88	58900 lbs	26 ¼	4	B, C SAE ¾ -14 extend & retract ports
A500160ACDDA03B	SAE-9516 /SAE-35016	\$ 417.40	16"	96	58900 lbs	31 ½	7 ¼	D 1.265" clevis pin hole size
B500180ACDDA03B	SAE-9518 /SAE-35018	\$ 427.70	18"	98	58900 lbs	30 ¼	4	E, F 1 ¾" base clevis throat depth with 2 ½" from pin center to port center
B500200ACDDA03B	SAE-9520 /SAE-35020	\$ 443.10	20"	103	58900 lbs	32 ¼	4	G 2" rod clevis throat depth
B500240ACDDA03B	SAE-9524 /SAE-35024	\$ 464.10	24"	113	54510 lbs	36 ¼	4	J 1.13" min. distance between ears at pin center line
B500300ACDDA03B	SAE-9530 /SAE-35030	\$ 512.50	30"	129	37620 lbs	42 ¼	4	K 1 ¾" base clevis ear radius
B500360ACDDA03B	SAE-9536 /SAE-35036	\$ 563.90	36"	144	27520 lbs	48 ¼	4	L 1 ¾" rod clevis ear radius
B500480ACDDA03B	SAE-9548 /SAE-35048	\$ 678.80	48"	175	16550 lbs	60 ¼	4	M 1 ½" - 12 UNF-3 piston rod clevis thread size
								N 1 7/8" piston width
								O 2 ½" gland width



3 / 7 Warranty

3 year warranty on standard products means you can confidently utilize equipment year after year. RoyalPlate Plus® rods are warranted against rust and corrosion for 7 years.

RoyalPlate Plus® Plating

Prevents rust and corrosion more than twice as long as hard chrome plating and gas nitride treated steel bar.

Flexible Configurations

Cylinders are easily configured by available options such as port size and location, stroke length, pin size and paint color.

Exceptional Paint Performance

Aircraft quality two-part chemical cure polyester urethane paint will not fade and will outperform powder coating for the life of the cylinder.

