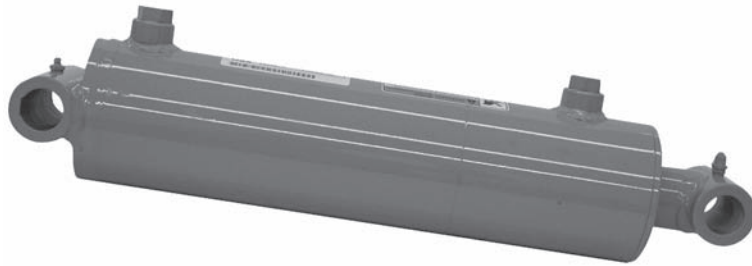




# THE FORTRESS LINE

3000 PSI EXTENDED DUTY

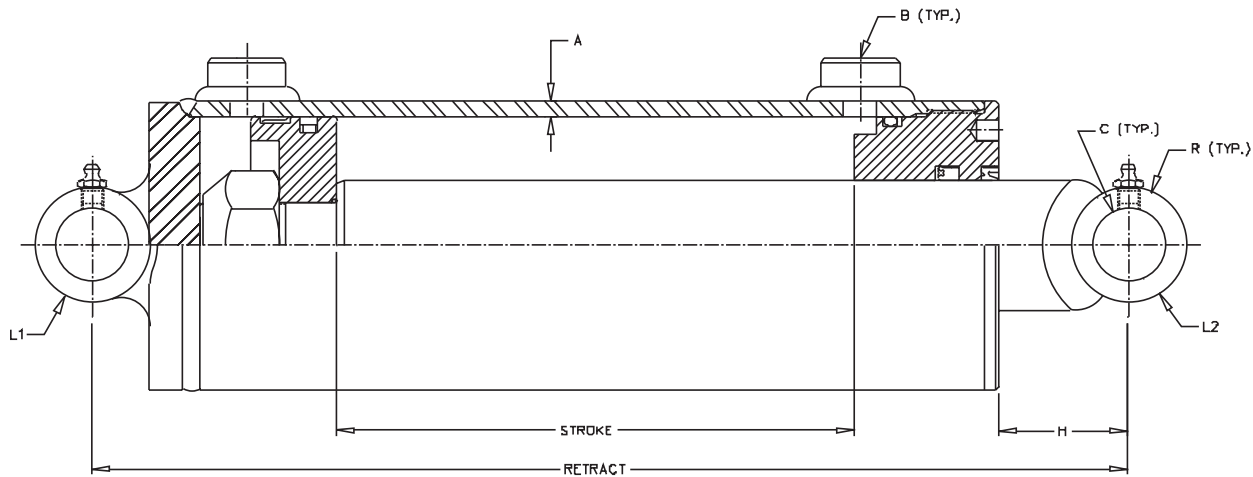
THE "FORTRESS" Welded-Da-Heavy Duty-3000 PSI



**FEATURES:**

- Heavy duty welded construction
- Chromed, ground, and polished piston rod
- Skived tubing
- Ductile iron piston
- Thread-in ductile iron gland
- Urethane u-cup, metal encased wiper, teflon cap seal and wear ring
- Crosstube end fittings with grease zerks
- Painted: highway yellow
- Matches closed length of Royal line cylinders (up to 42" stroke)

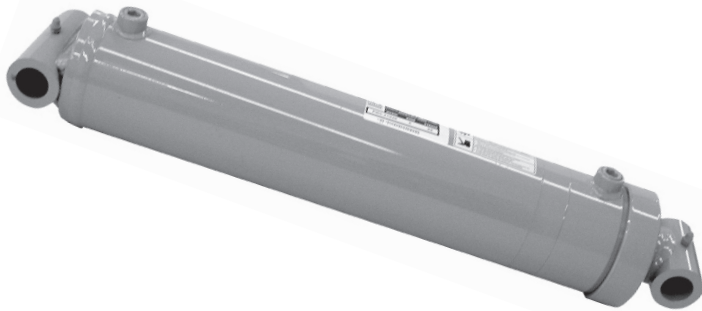
\* Spacers included in these models



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)	Ret	Rod Dia.	A	B	C	R	H	L1	L2
SAE-64008	4 X 8	42	3000	FULL PSI	17	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64012	4 X 12	48	3000	FULL PSI	21	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64016	4 X 16	55	3000	FULL PSI	25	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64020	4 X 20	62	3000	FULL PSI	29	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64024	4 X 24	69	3000	FULL PSI	33	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64030	4 X 30	79	3000	FULL PSI	39	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64032	4 X 32	83	3000	FULL PSI	41	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64036	4 X 36	90	3000	28,710 LBS	45	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64040	4 X 40	96	3000	23,700 LBS	49	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64042	4 X 42	100	3000	21,680 LBS	51	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64048*	4 X 48	115	3000	16,640 LBS	59	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64060*	4 X 60	138	3000	10,890 LBS	73	2	7/32	#10 SAE	1.265	1	2 1/4	4 3/4	3 1/4
SAE-64508	4 1/2 X 8	54	3000	FULL PSI	17	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64512	4 1/2 X 12	62	3000	FULL PSI	21	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64516	4 1/2 X 16	71	3000	FULL PSI	25	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64520	4 1/2 X 20	80	3000	FULL PSI	29	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64524	4 1/2 X 24	89	3000	FULL PSI	33	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64530	4 1/2 X 30	104	3000	FULL PSI	39	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64532	4 1/2 X 32	106	3000	FULL PSI	41	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64536	4 1/2 X 36	115	3000	48,860 LBS	45	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64540	4 1/2 X 40	124	3000	38,650 LBS	49	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64542	4 1/2 X 42	128	3000	35,330 LBS	51	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64548*	4 1/2 X 48	147	3000	26,690 LBS	59	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4
SAE-64560*	4 1/2 X 60	177	3000	17,210 LBS	73	2 1/4	1/4	#10 SAE	1.265	1	2 1/4	5 1/4	3 1/4

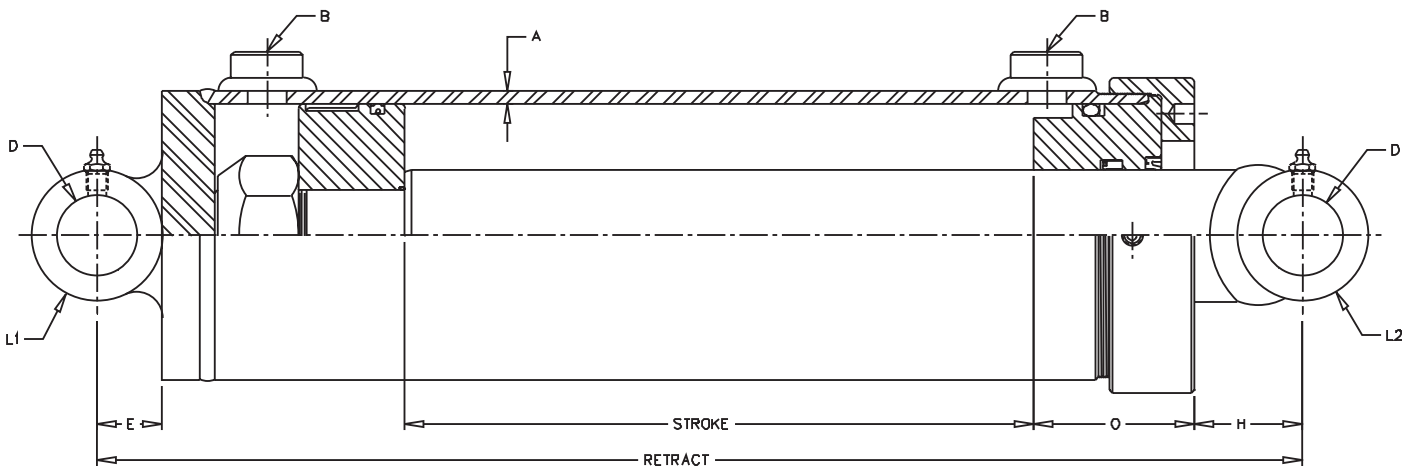
THE "GLADIATOR" Welded-DA-Heavy Duty-3000 PSI



**FEATURES:**

- Heavy duty welded construction
- Externally threaded gland cap
- Chromed, ground, and polished piston rod
- Skived tubing
- Ductile iron piston
- Urethane u-cup, metal encased wiper, polyurethane crown seal and wear ring
- Crosstube end fittings with grease zerks
- Painted: highway yellow
- Matches closed length of Royal line cylinders (up to 42" stroke)

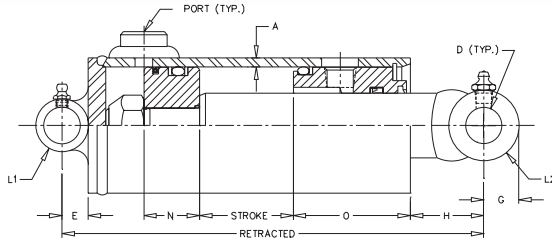
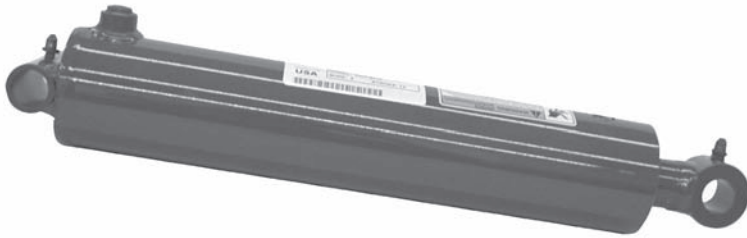
\* Spacer included in these models



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.)	Retract	Rod Dia.	A	B NPTF	D	E	H	L1	O	L2
PMC-21008	5 x 8	75	3000	FULL PSI	19"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21012	5 x 12	85	3000	FULL PSI	23"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21016	5 x 16	90	3000	FULL PSI	27"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21020	5 x 20	105	3000	FULL PSI	31"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21024	5 x 24	115	3000	FULL PSI	35"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21030	5 x 30	130	3000	FULL PSI	41"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21036	5 x 36	145	3000	FULL PSI	47"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21048*	5 x 48	180	3000	39,125 LBS	61"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21054*	5 x 54	195	3000	31,150 LBS	68"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-21060*	5 x 60	215	3000	25,360 LBS	75"	2 1/2	1/4	3/4"	1.515	1 1/4	2 1/16	5 3/4	3 1/8	4"
PMC-22008	6 x 8	100	3000	FULL PSI	19"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"
PMC-22012	6 x 12	110	3000	FULL PSI	23"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"
PMC-22016	6 x 16	125	3000	FULL PSI	27"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"
PMC-22024	6 x 24	150	3000	FULL PSI	35"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"
PMC-22030	6 x 30	170	3000	FULL PSI	41"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"
PMC-22036	6 x 36	190	3000	FULL PSI	47"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"
PMC-22048*	6 x 48	240	3000	79,700 LBS	61"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"
PMC-22054*	6 x 54	265	3000	63,400 LBS	68"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"
PMC-22060*	6 x 60	290	3000	51,700 LBS	75"	3	1/4	3/4"	1.515	1 1/4	2 1/16	6 3/4	3 1/16	4"

### THE "ROYAL" Welded-Heavy Duty-Universal Mountings



#### FEATURES:

- Honed tubing
- Welded construction
- Chromed, ground & polished rod
- Ductile iron piston & gland
- Crosstube end fittings with grease zerks
- Urethane u-cup and urethane wiper in gland
- O-ring with backup washers & cast iron ring piston seals
- Truarc snap ring gland retainer
- Standard color is red
- Rod seal is a urethane u-cup

Model No.	Style	Wt.	PSI	Column Load (Lbs)	Ret	Rod Dia.	A	PORTS NPTF	D	E	G	H	L1	L2	N	O
PMC-5408	2 1/2 X 8	17	2500	FULL PSI	16	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5412	2 1/2 X 12	20	2500	FULL PSI	20	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5414	2 1/2 X 14	22	2500	FULL PSI	22	1 3/8	3/16	3/8	.760	7/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5416	2 1/2 X 16	23	2500	FULL PSI	24	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5420	2 1/2 X 20	27	2500	FULL PSI	28	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5424	2 1/2 X 24	30	2500	FULL PSI	32	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5430	2 1/2 X 30	35	2500	8,975 LBS	38	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5432	2 1/2 X 32	41	2500	8,000 LBS	40	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5436	2 1/2 X 36	44	2500	6,475 LBS	44	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-5442	2 1/2 X 42	47	2500	4,870 LBS	50	1 3/8	3/16	3/8	.760	9/16	3/4	2 9/16	3	1 3/8	1 1/4	2 1/2
PMC-8308	3 X 8	22	2500	FULL PSI	16	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8312	3 X 12	26	2500	FULL PSI	20	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8314	3 X 14	29	2500	FULL PSI	22	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8316	3 X 16	31	2500	FULL PSI	24	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8320	3 X 20	35	2500	FULL PSI	28	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8324	3 X 24	41	2500	FULL PSI	32	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8330	3 X 30	46	2500	13,000 LBS	38	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8332	3 X 32	48	2500	11,540 LBS	40	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8336	3 X 36	52	2500	9,320 LBS	44	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8340	3 X 40	56	2500	7,660 LBS	48	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8342	3 X 42	59	2500	7,020 LBS	50	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-8348	3 X 48	65	2500	5,460 LBS	56	1 1/2	3/16	1/2	1.015	11/16	1	2 5/16	3 1/2	1 1/2	1 1/4	2 5/8
PMC-5508	3 1/2 X 8	26	2500	FULL PSI	16	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5512	3 1/2 X 12	29	2500	FULL PSI	20	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5514	3 1/2 X 14	32	2500	FULL PSI	22	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5516	3 1/2 X 16	34	2500	FULL PSI	24	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5520	3 1/2 X 20	38	2500	FULL PSI	28	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5524	3 1/2 X 24	44	2500	20,210 LBS	32	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5530	3 1/2 X 30	48	2500	13,540 LBS	38	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5532	3 1/2 X 32	52	2500	12,040 LBS	40	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5536	3 1/2 X 36	56	2500	9,700 LBS	44	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5540	3 1/2 X 40	60	2500	7,975 LBS	48	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5542	3 1/2 X 42	64	2500	7,300 LBS	50	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5548	3 1/2 X 48	70	2500	5,680 LBS	56	1 1/2	3/16	1/2	1.015	11/16	1	1 11/16	4	1 1/2	1 1/2	2 5/8
PMC-5608	4 X 8	35	2500	FULL PSI	17	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5612	4 X 12	41	2500	FULL PSI	21	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5614	4 X 14	45	2500	FULL PSI	23	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5616	4 X 16	48	2500	FULL PSI	25	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5620	4 X 20	56	2500	FULL PSI	29	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5624	4 X 24	62	2500	FULL PSI	33	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5630	4 X 30	72	2500	FULL PSI	39	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5632	4 X 32	74	2500	FULL PSI	41	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5636	4 X 36	80	2500	28,710 LBS	45	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5640	4 X 40	85	2500	23,700 LBS	49	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5642	4 X 42	92	2500	21,680 LBS	51	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5648	4 X 48	100	2500	16,930 LBS	57	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8
PMC-5660	4 X 60	120	2500	11,160 LBS	69	2	3/16	1/2	1.265	15/16	1 1/8	2 1/8	4 1/2	2	1 5/16	2 7/8

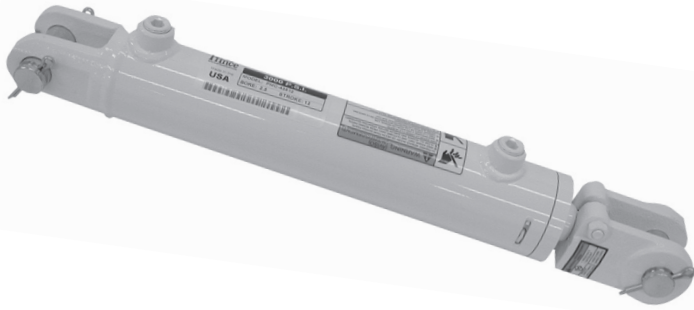
NOTE: If disassembly is necessary - Be sure to put a wire or "O" Ring in snap ring groove so when the piston is pulled out - The cast iron ring will not catch in groove



# THE SWORD LINE

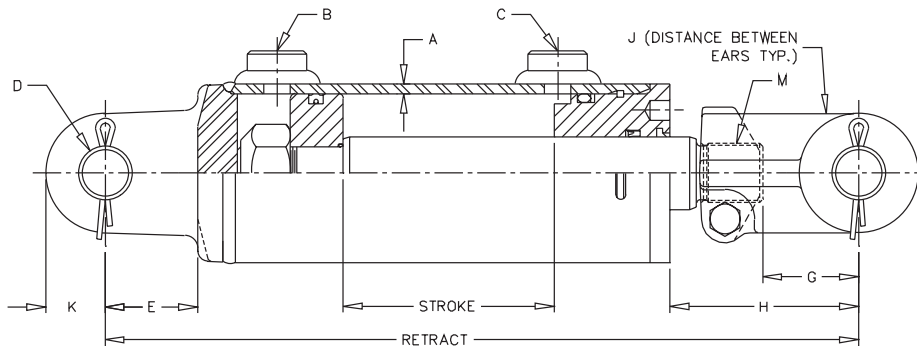
## ALL PURPOSE LINE

### THE "SWORD" Welded-DA-Heavy Duty-3000 PSI



#### FEATURES:

- Skived/honed tubing
- Heavy duty welded construction
- Chromed, ground & polished piston rod
- Ductile iron piston, gland & clevis, cast steel base end
- Urethane u-cup & urethane wiper in gland, crown seal on piston
- Square ring gland retainer provides positive lock
- Pins, clips & cotters included
- Standard color is white
- Stroke control may be installed on 8" strokes



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.)	Retract	Rod Dia.	A	B NPTF	C NPTF	D	E	G	H	J	K	M
PMC-19408*	1 1/2 x 8	13	3000	FULL PSI	20 1/4	3/4	3/16	3/8	3/8	.765	2 5/8	2 5/8	5 1/4	5/8	3/4	-
PMC-19410*	1 1/2 x 10	14	3000	4,600 LBS	20 1/4	3/4	3/16	3/8	3/8	.765	2 5/8	2 5/8	3 1/4	5/8	3/4	-
PMC-19412*	1 1/2 x 12	16	3000	3,525 LBS	22 1/4	3/4	3/16	3/8	3/8	.765	2 5/8	2 5/8	3 1/4	5/8	3/4	-
PMC-19416*	1 1/2 x 16	20	3000	1,525 LBS	31 1/2	3/4	3/16	3/8	3/8	.765	2 5/8	2 5/8	8 1/2	5/8	3/4	-
PMC-42008	2 x 8	19	3000	FULL PSI	20 1/4	1 1/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	5 9/16	1 1/16	1	1 1/8-12
PMC-42010	2 x 10	20	3000	FULL PSI	20 1/4	1 1/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1	1 1/8-12
PMC-42012	2 x 12	22	3000	FULL PSI	22 1/4	1 1/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1	1 1/8-12
PMC-42016	2 x 16	25	3000	FULL PSI	31 1/2	1 1/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	8 13/16	1 1/16	1	1 1/8-12
PMC-42020	2 x 20	28	3000	7,575 LBS	30 1/4	1 1/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1	1 1/8-12
PMC-42024	2 x 24	31	3000	5,600 LBS	34 1/4	1 1/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1	1 1/8-12
PMC-42508	2 1/2 x 8	21	3000	FULL PSI	20 1/4	1 1/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	5 9/16	1 1/16	1	1 1/8-12
PMC-42510	2 1/2 x 10	22	3000	FULL PSI	20 1/4	1 1/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1	1 1/8-12
PMC-42512	2 1/2 x 12	23	3000	FULL PSI	22 1/4	1 1/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1	1 1/8-12
PMC-42516	2 1/2 x 16	27	3000	10,800 LBS	31 1/2	1 1/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	8 13/16	1 1/16	1	1 1/8-12
PMC-42520	2 1/2 x 20	31	3000	11,700 LBS	30 1/4	1 1/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1	1 1/8-12
PMC-42524	2 1/2 x 24	35	3000	8,600 LBS	34 1/4	1 1/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1	1 1/8-12
PMC-43008	3 x 8	23	3000	FULL PSI	20 1/4	1 3/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	5 9/16	1 1/16	1 1/8	1 1/8-12
PMC-43010	3 x 10	26	3000	FULL PSI	20 1/4	1 3/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1 1/8	1 1/8-12
PMC-43012	3 x 12	28	3000	FULL PSI	22 1/4	1 3/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1 1/8	1 1/8-12
PMC-43016	3 x 16	33	3000	16,900 LBS	31 1/2	1 3/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	8 13/16	1 1/16	1 1/8	1 1/8-12
PMC-43020	3 x 20	39	3000	17,300 LBS	30 1/4	1 3/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1 1/8	1 1/8-12
PMC-43024	3 x 24	43	3000	12,800 LBS	34 1/4	1 3/8	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 9/16	1 1/16	1 1/8	1 1/8-12
PMC-43508	3 1/2 x 8	29	3000	FULL PSI	20 1/4	1 1/2	3/16	1/2	1/2	1.015	1 3/4	1 13/16	5 3/8	1/16	1 1/4	1 1/2-12
PMC-43510	3 1/2 x 10	31	3000	FULL PSI	20 1/4	1 1/2	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1/16	1 1/4	1 1/2-12
PMC-43512	3 1/2 x 12	33	3000	FULL PSI	22 1/4	1 1/2	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1/16	1 1/4	1 1/2-12
PMC-43516	3 1/2 x 16	38	3000	24,200 LBS	31 1/2	1 1/2	3/16	1/2	1/2	1.015	1 3/4	1 13/16	8 3/8	1/16	1 1/4	1 1/2-12
PMC-43520	3 1/2 x 20	43	3000	24,700 LBS	30 1/4	1 1/2	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1/16	1 1/4	1 1/2-12
PMC-43524	3 1/2 x 24	48	3000	18,250 LBS	34 1/4	1 1/2	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1/16	1 1/4	1 1/2-12
PMC-44008	4 x 8	40	3000	FULL PSI	20 1/4	1 3/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	5 3/8	1 1/8	1 1/4	1 1/2-12
PMC-44010	4 x 10	43	3000	FULL PSI	20 1/4	1 3/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1 1/8	1 1/4	1 1/2-12
PMC-44012	4 x 12	45	3000	FULL PSI	22 1/4	1 3/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1 1/8	1 1/4	1 1/2-12
PMC-44016	4 x 16	54	3000	FULL PSI	31 1/2	1 3/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	8 3/8	1 1/8	1 1/4	1 1/2-12
PMC-44020	4 x 20	58	3000	FULL PSI	30 1/4	1 3/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1 1/8	1 1/4	1 1/2-12
PMC-44024	4 x 24	60	3000	33,525 LBS	34 1/4	1 3/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1 1/8	1 1/4	1 1/2-12
PMC-44030	4 x 30	65	3000	22,900 LBS	40 1/4	1 3/4	3/16	1/2	1/2	1.015	1 3/4	1 13/16	3 3/8	1 1/8	1 1/4	1 1/2-12

\*Uses formed clevis & 3/4" pin.





# THE WIZARD LINE

## 3000 PSI EXTENDED DUTY

### THE "WIZARD" Welded-DA-37° JIC Male Ports



#### FEATURES:

- Honed tubing
- Chromed, ground & polished rod
- Ductile iron piston & gland
- Optional end fittings available
- Urethane u-cup and wiper
- Crown seal standard, "T" seal optional
- Wear ring on piston
- Thread in gland with o-ring to protect threads
- Standard color is gloss black

CYLINDERS AND ACCESSORIES

Model No.	Style	Wt.	PSI	Column Load (Lbs)	Ret (B)	Rod Dia.	A	C	D (Dia.)	E (45°)	Crosstube Adder (F)	Tang Adder (G)	Clevis Adder (G)	Ports
F150040	1 1/2 X 4	7	3000	FULL PSI	9 1/2	3/4	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F150060	1 1/2 X 6	8	3000	FULL PSI	11 1/2	3/4	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F150080	1 1/2 X 8	8	3000	FULL PSI	13 1/2	3/4	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F150100	1 1/2 X 10	9	3000	4,770 LBS	15 1/2	3/4	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F150120	1 1/2 X 12	10	3000	3,640 LBS	17 1/2	3/4	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F150160	1 1/2 X 16	10	3000	2,315 LBS	21 1/2	3/4	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F150200	1 1/2 X 20	12	3000	1,600 LBS	25 1/2	3/4	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F150240	1 1/2 X 24	14	3000	1,175 LBS	29 1/2	3/4	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F175040	1 3/4 X 4	9	3000	FULL PSI	9 1/2	1	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F175060	1 3/4 X 6	10	3000	FULL PSI	11 1/2	1	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F175080	1 3/4 X 8	11	3000	FULL PSI	13 1/2	1	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F175100	1 3/4 X 10	12	3000	FULL PSI	15 1/2	1	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F175120	1 3/4 X 12	13	3000	FULL PSI	17 1/2	1	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F175160	1 3/4 X 16	15	3000	7,120 LBS	21 1/2	1	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F175200	1 3/4 X 20	17	3000	4,935 LBS	25 1/2	1	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F175240	1 3/4 X 24	20	3000	3,620 LBS	29 1/2	1	3/16	1	.760	.22	3/4	1 3/4	1 3/4	9/16-37°
F200040	2 X 4	12	3000	FULL PSI	9 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F200060	2 X 6	13	3000	FULL PSI	11 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F200080	2 X 8	14	3000	FULL PSI	13 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F200100	2 X 10	15	3000	FULL PSI	15 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F200120	2 X 12	17	3000	FULL PSI	17 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F200160	2 X 16	18	3000	FULL PSI	21 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F200200	2 X 20	22	3000	7,855 LBS	25 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F200240	2 X 24	24	3000	5,760 LBS	29 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F200300	2 X 30	28	3000	3,900 LBS	35 1/2	1 1/8	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225040	2 1/4 X 4	14	3000	FULL PSI	9 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225060	2 1/4 X 6	15	3000	FULL PSI	11 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225080	2 1/4 X 8	16	3000	FULL PSI	13 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225100	2 1/4 X 10	18	3000	FULL PSI	15 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225120	2 1/4 X 12	19	3000	FULL PSI	17 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225160	2 1/4 X 16	22	3000	FULL PSI	21 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225200	2 1/4 X 20	25	3000	11,900 LBS	25 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225240	2 1/4 X 24	28	3000	8,730 LBS	29 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F225300	2 1/4 X 30	33	3000	5,912 LBS	35 1/2	1 1/4	3/16	1	.760	.25	3/4	1 3/4	1 3/4	9/16-37°
F250040	2 1/2 X 4	15	3000	FULL PSI	9 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250060	2 1/2 X 6	17	3000	FULL PSI	11 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250080	2 1/2 X 8	18	3000	FULL PSI	13 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250100	2 1/2 X 10	20	3000	FULL PSI	15 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250120	2 1/2 X 12	21	3000	FULL PSI	17 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250160	2 1/2 X 16	25	3000	FULL PSI	21 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250200	2 1/2 X 20	29	3000	FULL PSI	25 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250240	2 1/2 X 24	32	3000	12,705 LBS	29 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250300	2 1/2 X 30	37	3000	8,605 LBS	35 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F250360	2 1/2 X 36	43	3000	6,212 LBS	41 1/2	1 3/8	3/16	1	.760	.31	3/4	1 3/4	1 3/4	9/16-37°
F275040	2 3/4 X 4	16	3000	FULL PSI	9 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275060	2 3/4 X 6	18	3000	FULL PSI	11 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275080	2 3/4 X 8	20	3000	FULL PSI	13 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275100	2 3/4 X 10	22	3000	FULL PSI	15 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275120	2 3/4 X 12	24	3000	FULL PSI	17 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275160	2 3/4 X 16	28	3000	FULL PSI	21 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275200	2 3/4 X 20	32	3000	FULL PSI	25 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275240	2 3/4 X 24	36	3000	FULL PSI	29 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275300	2 3/4 X 30	42	3000	12,120 LBS	35 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°
F275360	2 3/4 X 36	48	3000	8,750 LBS	41 1/2	1 1/2	3/16	1	.760	.38	3/4	1 3/4	1 3/4	9/16-37°



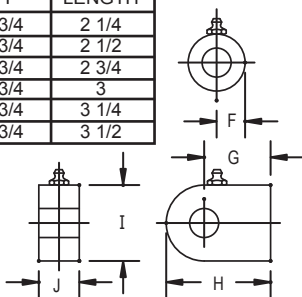
# THE WIZARD LINE

3000 PSI EXTENDED DUTY

## BASE END FITTINGS

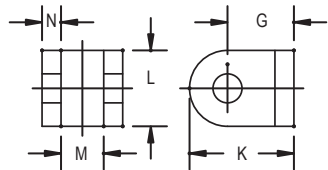
### BASE END CROSSTUBE

MODEL	F	LENGTH
F150	3/4	2 1/4
F175	3/4	2 1/2
F200	3/4	2 3/4
F225	3/4	3
F250	3/4	3 1/4
F275	3/4	3 1/2



### BASE END TANG DIMENSIONS

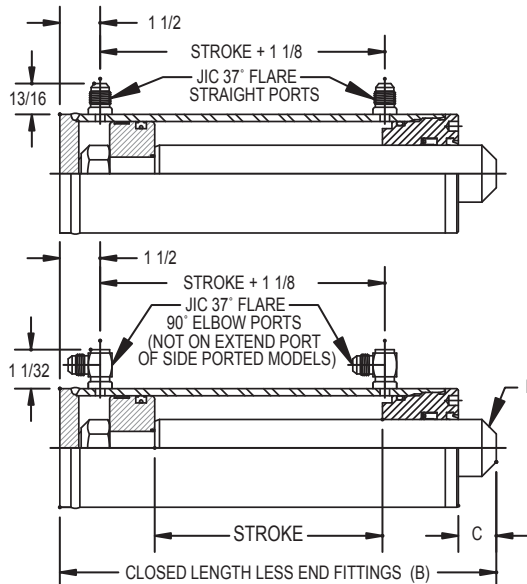
MODEL	G	H	I	J
F150	1 3/4	2 5/8	1 1/2	3/4
F175	1 3/4	2 5/8	1 1/2	3/4
F200	1 3/4	2 3/4	2	1
F225	1 3/4	2 3/4	2	1
F250	1 3/4	2 7/8	2 1/4	1
F275	1 3/4	2 7/8	2 1/4	1



### BASE END CLEVIS DIMENSIONS

MODEL	G	K	L	M	N
F150	1 3/4	2 5/8	1 1/2	7/8	3/8
F175	1 3/4	2 5/8	1 1/2	7/8	3/8
F200	1 3/4	2 3/4	2	1 1/8	1/2
F225	1 3/4	2 3/4	2	1 1/8	1/2
F250	1 3/4	2 3/4	2	1 1/8	1/2
F275	1 3/4	2 3/4	2	1 1/8	1/2

## BASIC "WIZARD" CYLINDER



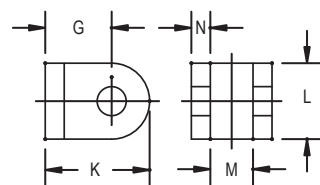
IMPORTANT: EXTEND ROD BEFORE WELDING ON END FITTINGS. SEAL DAMAGE WILL OCCUR FROM EXCESSIVE HEAT

## ROD END FITTINGS



### ROD END CROSSTUBE

MODEL	F	LENGTH
F150	3/4	1 1/2
F175	3/4	1 1/2
F200	3/4	1 1/2
F225	3/4	2
F250	3/4	2
F275	3/4	2



### ROD END CLEVIS DIMENSIONS

MODEL	G	K	L	M	N
F150	1 3/4	2 5/8	1 1/2	7/8	3/8
F175	1 3/4	2 5/8	1 1/2	7/8	3/8
F200	1 3/4	2 3/4	2	1 1/8	1/2
F225	1 3/4	2 3/4	2	1 1/8	1/2
F250	1 3/4	2 3/4	2	1 1/8	1/2
F275	1 3/4	2 3/4	2	1 1/8	1/2

## MODEL NUMBER SYSTEM

F 2 2 5 2 4 3 C S S T X C

ALL PORTS ARE JIC 37° FLARE #6 MALE THREADS ARE STANDARD

BASE MODEL NUMBER IDENTIFIES BORE SIZE  
EXAMPLE: 225 IS 2 1/4 BORE

STROKE. THE FIRST TWO DIGITS ARE INCHES. THE LAST DIGIT IS 1/8'S OF AN INCH (CUSTOM MODELS ONLY).  
EXAMPLE: 243 IS 24 3/8" STROKE

PISTON SEAL:  
C=CROWN SEAL  
H=HIGH PSI TEFLON SEAL  
T="T" SEAL

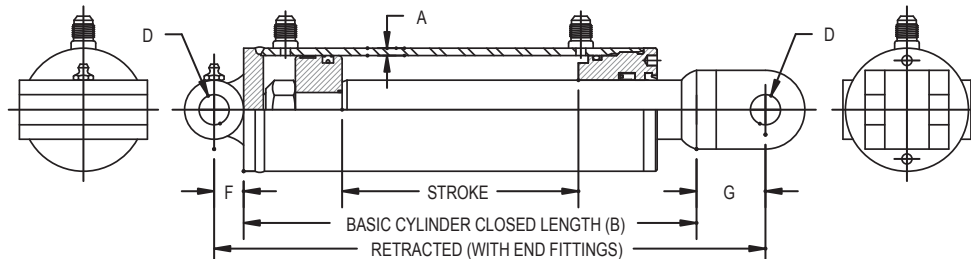
ROD END FITTING: C=CLEVIS  
X=CROSSTUBE  
N=BLANK

BASE END FITTING: C=CLEVIS  
X=CROSSTUBE  
T=TANG  
N=BLANK

PORT LOCATION:  
T=TOP PORT - PERPENDICULAR TO PIN HOLE  
S=SIDE PORT - IN LINE WITH PIN HOLE

RETRACT PORT:  
S=STRAIGHT  
E=90° ELBOW - AVAILABLE ON TOP AND SIDE PORTED MODELS

EXTEND PORT:  
S=STRAIGHT  
E=90° ELBOW - AVAILABLE ON TOP PORTED MODELS ONLY



\* CUSTOM STROKE LENGTHS ARE AVAILABLE. MINIMUM ORDER MAY BE REQUIRED. CONTACT YOUR SALES REPRESENTATIVE WITH YOUR REQUIREMENTS



# THE WIZARD LINE

3000 PSI EXTENDED DUTY

## LIST PRICE MATRIX

SERIES	BASE PRICE INCLUDES 4" STROKE	ADD PER INCH OF STROKE OVER 4"	JIC 37° FLARE PER PORT ADDER		OPTIONS						
			STRAIGHT (STANDARD)	90° ELBOW EACH	BASE END FITTING				ROD END FITTING		
					X=CROSSTUBE	T=TANG	C=CLEVIS	N=BLANK	X=CROSSTUBE	C=CLEVIS	N=BLANK
F-150	\$158.10	\$2.20	N/C	\$2.00	\$17.50	\$11.00	\$13.40	N/C	\$18.80	\$15.70	N/C
F-175	\$161.40	\$2.50	N/C	\$2.00	\$17.90	\$11.00	\$13.40	N/C	\$18.80	\$15.70	N/C
F-200	\$164.50	\$2.70	N/C	\$2.00	\$18.30	\$12.70	\$14.90	N/C	\$18.80	\$17.20	N/C
F-225	\$170.70	\$3.50	N/C	\$2.00	\$18.70	\$12.70	\$14.90	N/C	\$19.50	\$17.20	N/C
F-250	\$177.20	\$3.50	N/C	\$2.00	\$18.90	\$14.20	\$14.90	N/C	\$19.50	\$17.20	N/C
F-275	\$185.70	\$3.60	N/C	\$2.00	\$19.30	\$14.20	\$14.90	N/C	\$19.50	\$17.20	N/C

## HOW TO USE THE MATRIX

### MODEL: F175160CSSTXC

EXAMPLE #1: 1 3/4 BORE X 16" STROKE WITH STANDARD PORTS, CROSSTUBE ON THE BASE, AND CLEVIS ON THE ROD END.

SERIES	BASE	STROKE	PORTS	X=BASE CROSSTUBE	C=ROD CLEVIS	LIST PRICE
F-175	\$161.40	16"STROKE LESS 4" IN BASE= 12" X \$2.50= \$30.00	N/C	\$17.90	\$15.70	\$225.00

### MODEL: F175160CEETNN

EXAMPLE #2: SAME CYLINDER, NO FITTINGS ON BASE OR ROD.

SERIES	BASE	STROKE	PORTS	X=BASE CROSSTUBE	C=ROD CLEVIS	LIST PRICE
F-175	\$161.40	\$30.00	N/C	N/C	N/C	\$191.40

### MODEL: F175160CEETCX

EXAMPLE #3: SAME CYLINDER WITH 90° PORTS BOTH ENDS CLEVIS ON BASE AND CROSSTUBE ON ROD END.

SERIES	BASE	STROKE	PORTS	C=BASE CLEVIS	X=ROD CROSSTUBE	LIST PRICE
F-175	\$161.40	\$30.00	2 X \$2.00= \$4.00	\$13.40	\$18.80	\$227.60