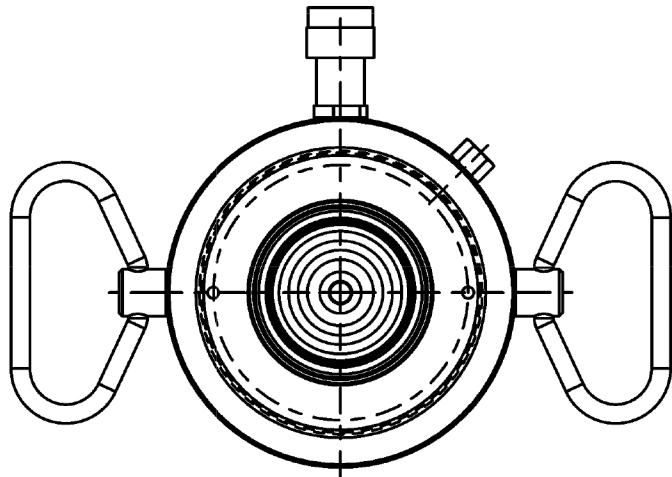
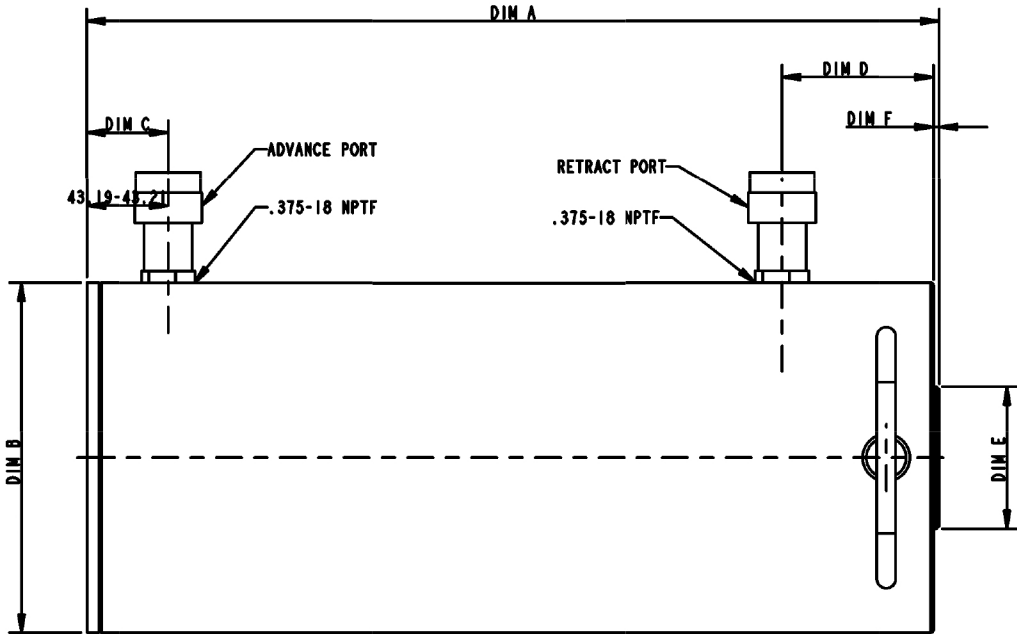
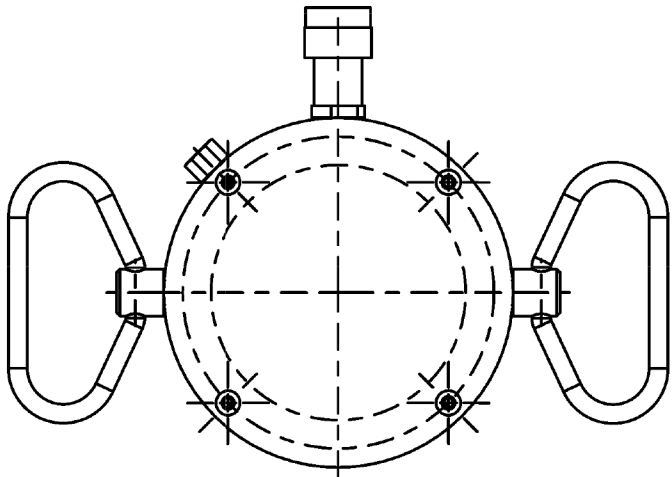


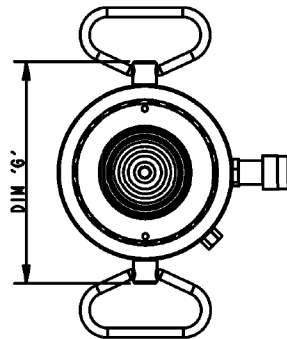
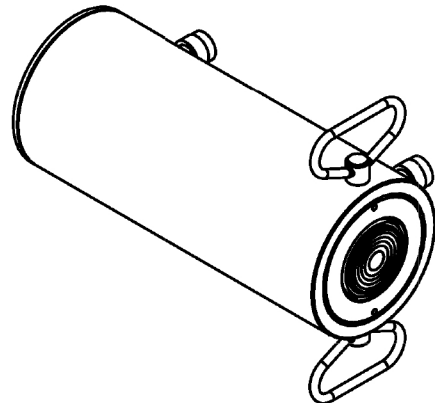
REVISION HISTORY		
REV	ECN #	DATE/INITIAL
A	0301022	11-10-02/CF
B	0304060	06-17-03/CF
C	0311032	11-24-03/FDS



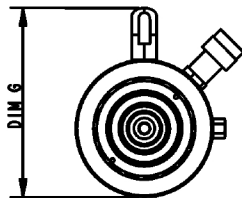
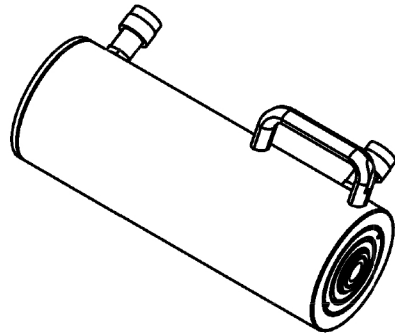
MODEL RAR10010 SHOWN
SCALE 1:2

NOTES:
1. DIMENSIONS ARE REFERENCE ONLY.

MODEL NUMBER	NOMINAL CYLINDER CAPACITY ADV/RET TONS	STROKE		MAX CYLINDER CAPACITY ADV/RET (TONS)		CYLINDER EFFECTIVE AREA ADV RET		OIL CAPACITY		COLLAPSED HEIGHT DIM A		EXTENDED HEIGHT		OUTSIDE DIAMETER DIM B		CYLINDER BORE DIAMETER		PLUNGER DIAMETER		BASE TO ADVANCE PORT DIM C		BASE TO RETRACT PORT DIM D		SADDLE DIAMETER DIM E		SADDLE PROTRUSION HEIGHT DIM F		HANDLE PROTRUSION OVERALL DIM G		WEIGHT	
		mm	INCH	METRIC	IMPERIAL	mm ²	INCH ²	cm ³	INCH ³	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	Kg	LBS
RAR202	20	50.0	1.97	22.3	24.2	3117.2	4.83	155.9	9.52	189.2	7.45	239.2	9.42	113.0	4.45	63.0	2.48	40.0	1.58	30.2	1.19	50.0	1.97	30.0	1.18	3.0	.12	168.0	6.61	7.4	16.31
RAR204		100.0	3.94					311.7	19.03	239.2	9.42	339.2	13.35																	8.0	17.64
RAR206		150.0	5.91					467.6	28.55	289.2	11.29	439.2	17.29																	8.6	18.96
RAR208		200.0	7.87					623.4	38.01	339.2	13.35	539.2	21.23																	9.2	20.28
RAR2010		250.0	9.84					779.3	47.53	389.2	15.32	639.2	25.17																	9.8	21.61
RAR302	30	50.0	1.97	31.5	34.2	4417.9	6.85	220.9	13.49	201.2	7.92	251.2	9.89	125.0	4.92	75.0	2.95	50.0	1.97	30.2	1.19	55.0	2.17	40.0	1.58	3.0	.12	180.0	7.09	8.6	18.96
RAR304		100.0	3.94					441.8	26.99	251.2	9.89	351.2	13.83																	9.5	20.94
RAR306		150.0	5.91					662.7	40.48	301.2	11.86	451.2	17.76																	10.4	22.93
RAR308		200.0	7.87					883.6	53.91	351.2	13.83	551.2	21.70																	11.3	24.91
RAR3010		250.0	9.84					1104.5	67.40	401.2	15.80	651.2	25.64																	12.2	26.90
RAR502	50	50.0	1.97	50.6	54.9	7088.2	10.99	354.4	21.65	201.2	7.92	251.2	9.89	145.0	5.71	95.0	3.74	75.0	2.95	30.2	1.19	56.0	2.21	50.0	1.97	3.0	.12	200.0	7.87	11.1	24.47
RAR504		100.0	3.94					708.8	43.30	251.2	9.89	351.2	13.83																	12.7	28.0
RAR506		150.0	5.91					1063.2	64.95	301.2	11.86	451.2	17.76																	14.3	31.53
RAR508		200.0	7.87					1417.6	86.49	351.2	13.83	551.2	21.70																	15.9	35.05
RAR5010		250.0	9.84					1772.1	108.14	401.2	15.80	651.2	25.64																	17.5	38.58
RAR1002	100	50.0	1.97	102.2	110.9	14313.9	22.19	715.7	43.71	251.2	9.89	301.2	11.86	185.0	7.28	135.0	5.32	90.0	3.54	43.2	1.70	80.0	3.15	75.0	2.95	3.0	.12	235.0	9.25	16.4	36.16
RAR1004		100.0	3.94					1431.4	87.43	301.2	11.86	401.2	15.80																	19.3	42.55
RAR1006		150.0	5.91					2147.1	131.14	351.2	13.83	501.2	19.73																	22.2	48.94
RAR1008		200.0	7.87					2862.8	174.64	401.2	15.80	601.2	23.67																	25.1	55.34
RAR10010		250.0	9.84					3578.5	218.35	451.2	17.76	701.2	27.61																	28.0	61.73
RAR1502	150	50.0	1.97	162.1	175.9	22698.0	35.18	1134.9	69.30	248.2	9.77	298.2	11.74	230.0	9.06	170.0	6.70	110.0	4.33	38.2	1.50	75.0	2.95	94.0	3.70	3.0	.12	280.0	11.02	24.2	53.35
RAR1504		100.0	3.94					2269.8	136.61	298.2	11.74	398.2	16.68																	28.9	63.71
RAR1506		150.0	5.91					3404.7	207.91	348.2	13.71	498.2	19.61																	33.2	73.19
RAR1508		200.0	7.87					4539.6	276.87	398.2	15.68	598.2	23.55																	37.9	83.56
RAR15010		250.0	9.84					5674.5	346.17	498.2	19.61	748.2	29.46																	42.6	93.92



RAR 100/150 SERIES
SCALE 1:4



RAR 20/30/50
SCALE 1:4

THIRD ANGLE PROJECTION		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		DATE		DRAWN BY:CF		11/18/02		TOLERANCES ARE:	
FIRST ANGLE PROJECTION		FRACTIONS: 1/16, 1/8, 1/4, 1/2, 3/4, 1, 2, 3, 4, 5, 6, 8, 10, 12, 16, 20, 24, 30, 36, 40, 48, 60, 72, 96, 120, 144, 180, 240, 360, 480, 720, 1440, 2880, 5760, 11520, 23040, 46080, 92160, 184320, 368640, 737280, 1474560, 2949120, 5898240, 11796480, 23592960, 47185920, 94371840, 188743680, 377487360, 754974720, 1509949440, 3019898880, 6039797760, 12079595520, 24159191040, 48318382080, 96636764160, 193273528320, 386547056640, 773094113280, 1546188226560, 3092376453120, 6184752906240, 12369505812480, 24739011624960, 49478023249920, 98956046499840, 197912092999680, 395824185999360, 791648371998720, 1583296743997440, 3166593487994880, 6333186975989760, 12666373951979520, 25332747903959040, 50665495807918080, 101330991615836160, 202661983231672320, 405323966463344640, 810647932926689280, 1621295865853378560, 3242591731706757120, 6485183463413514240, 12970366926827028480, 25940733853654056960, 51881467707308113920, 103762935414616227840, 207525870829232455680, 415051741658464911360, 830103483316929822720, 1660206966633859645440, 3320413933267719290880, 6640827866535438581760, 13281655733070877163520, 26563311466141754327040, 53126622932283508654080, 106253245864567017308160, 212506491729134034616320, 425012983458268069232640, 850025966916536138465280, 1700051933833072276930560, 3400103867666144553861120, 6800207735332289107722240, 13600415470664578215444480, 27200830941329156430888960, 54401661882658312861777920, 108803323765316625723555840, 217606647530633251447111680, 435213295061266502894223360, 870426590122533005788446720, 1740853180245066011576893440, 3481706360490132023153786880, 6963412720980264046307573760, 13926825441960528092615147520, 27853650883921056185230295040, 55707301767842112370460590080, 111414603535684224740921180160, 222829207071368449481842360320, 445658414142736898963684720640, 891316828285473797927369441280, 1782633656570947595854738882560, 3565267313141895191709477765120, 7130534626283790383418955530240, 14261069252567580766837911060480, 28522138505135161533675822120960, 57044277010270323067351644241920, 114088554020540646134703288483840, 228177108041081292269406576967680, 456354216082162584538813153935360, 912708432164325169077626307870720, 1825416864328650338155252615741440, 3650833728657300676310505231482880, 7301667457314601352621010462965760, 14603334914629202705242020925931520, 29206669829258405410484041851863040, 5841333965851681									