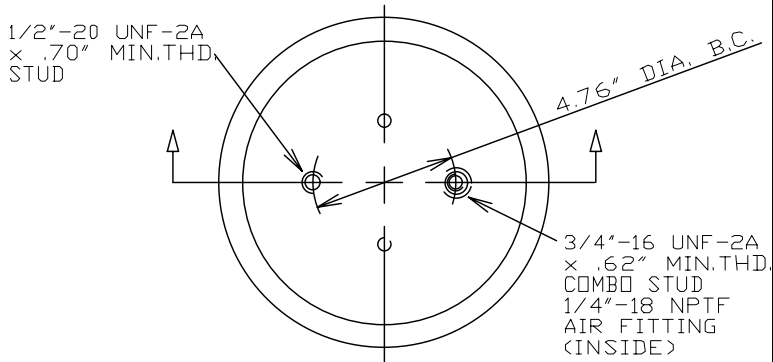
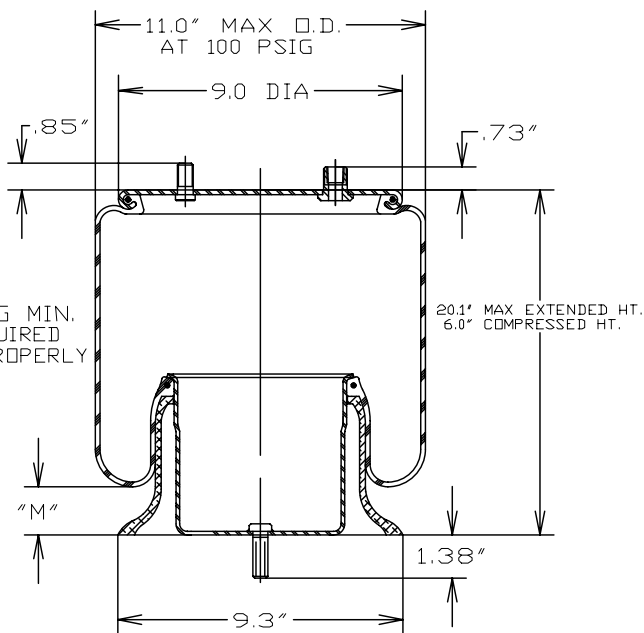


1R10-089

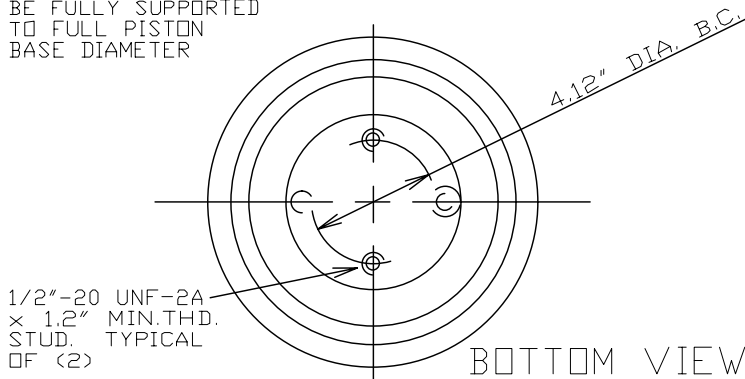


TOP VIEW



SIDE VIEW

THIS SURFACE TO BE FULLY SUPPORTED TO FULL PISTON BASE DIAMETER



BOTTOM VIEW

ASSEMBLY NUMBER	ELASTOMER	AIR FITTING	BUMPER INCLUDED
1R10-089	NAT.RUBBER	1/4\"-18 NPTF COMBO STUD	NO

SPRING FEATURES:

- LOAD RANGE (ISOLATOR).....900-5200 lb
- DESIGN HEIGHT RANGE (ISOLATOR).....9.5-13.5 in
- USEABLE STROKE (ACTUATOR).....14.1 in
- ASSEMBLY WEIGHT.....11.4 lb
- TEMPERATURE RANGE*.....
- COMPOSITE PISTON

* NOTE: PRODUCT LIFE MAY BE SHORTENED WHEN OPERATING AT OR NEAR EXTREME TEMPERATURES. SEE TEMPERATURE RANGE GUIDELINES SECTION.

OTHER OPTIONS:

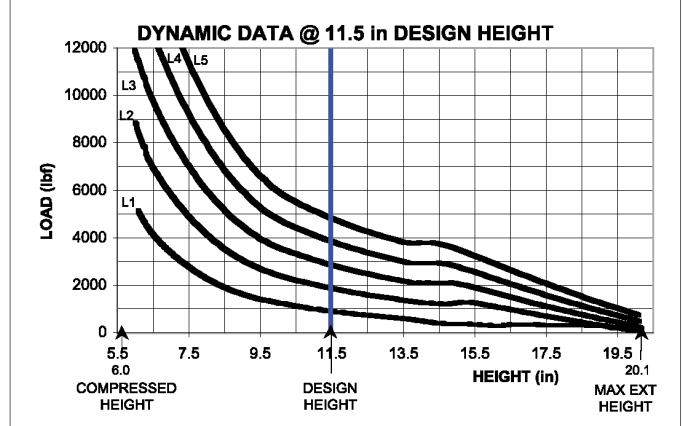
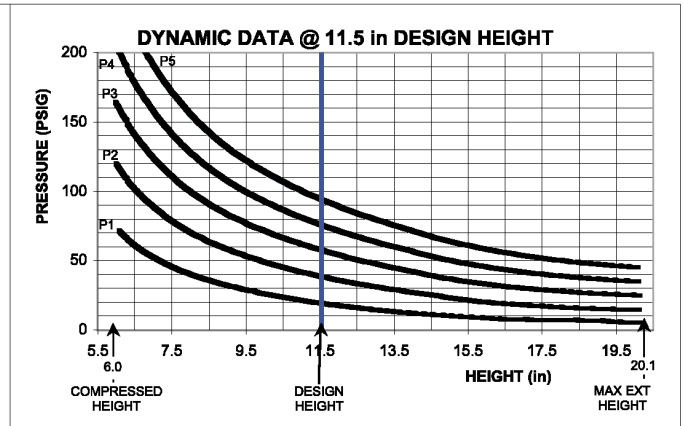
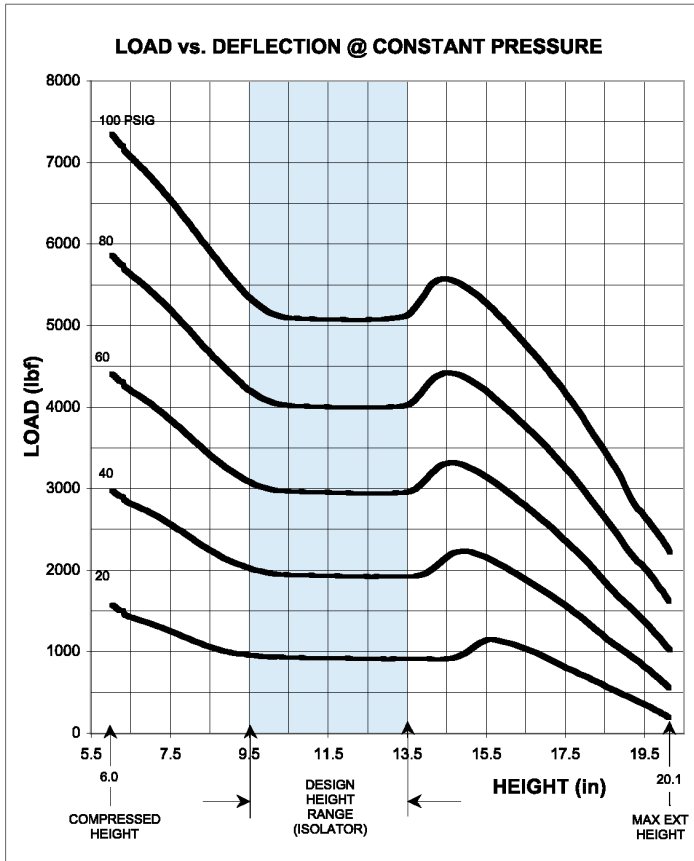
- UPPER RETAINER WITH ALTERNATE BOLT LENGTHS AND SPACINGS. VARIOUS HEIGHT BUMPERS
- ALTERNATE ALUMINUM PISTONS WITH DIFFERENT SPRING RATES

RECOMMENDED MAX. TORQUE VALUES

3/4\"-16 UNF COMBO STUD	1/2\"-20 UNF STUD TYP. OF (3)	1/4\"-18 UNC AIR FITTING
600 in-lb 50 ft-lb	300 in-lb 25 ft-lb	240 in-lb 20 ft-lb

NOTE: SEE GUIDELINES FOR PROPER APPLICATION OF THIS PRODUCT

GRAPHS FOR REFERENCE ONLY - USE THE CHART DATA BELOW FOR DESIGN WORK



****NOTE: MAXIMUM INFLATION PRESSURE IS 100 PSIG. MAXIMUM JOUNCE PRESSURE IS 200 PSIG. IF YOUR APPLICATION WILL EXCEED THESE LIMITS, CONSULT A GOODYEAR REPRESENTATIVE FOR APPLICATION ASSISTANCE.**

CONSTANT PRESSURE CHARACTERISTICS

Assembly Height (in)	Meniscus Height "M" Dim. @ 100 PSIG (in)	Volume @ 100 PSIG (in ³)	Nominal Force (lb)				
			@ 20 PSIG	@ 40 PSIG	@ 60 PSIG	@ 80 PSIG	@ 100 PSIG
20.1	4.5	1125	250	580	950	1500	2100
19.0	4.5	1080	420	900	1500	2100	2800
17.0	4.5	978	850	1600	2400	3400	4300
15.0	4.3	860	1100	2100	3200	4200	5300
13.5	3.4	766	900	1900	2900	4000	5200
11.5	2.2	651	900	1900	2900	4000	5000
9.5	1.1	544	900	1900	3000	4100	5200
8.0	0.7	462	1100	2300	3500	4800	6000
7.0	0.4	401	1300	2600	3900	5300	6700
6.0	0.4	335	1500	2900	4400	5800	7300

DYNAMIC CHARACTERISTICS

Design Height (in)	Load (lb)	Pressure (PSIG)	Spring Rate (lb/in)	Natural Frequency	
				cpm	Hz
13.5	1000	19	175	79	1.32
	2000	37	130	48	0.80
	3000	53	105	35	0.58
	4000	70	175	40	0.67
	5000	87	245	41	0.68
11.5	1000	19	205	85	1.42
	2000	38	315	75	1.25
	3000	56	410	69	1.15
	4000	74	510	67	1.12
	5000	91	600	65	1.08
9.5	1000	18	325	107	1.78
	2000	37	460	90	1.50
	3000	56	595	84	1.40
	4000	73	750	82	1.37
	5000	90	875	79	1.32