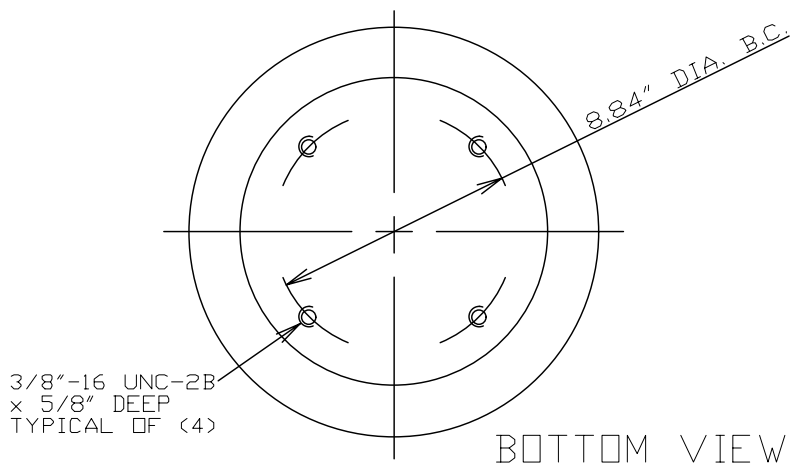
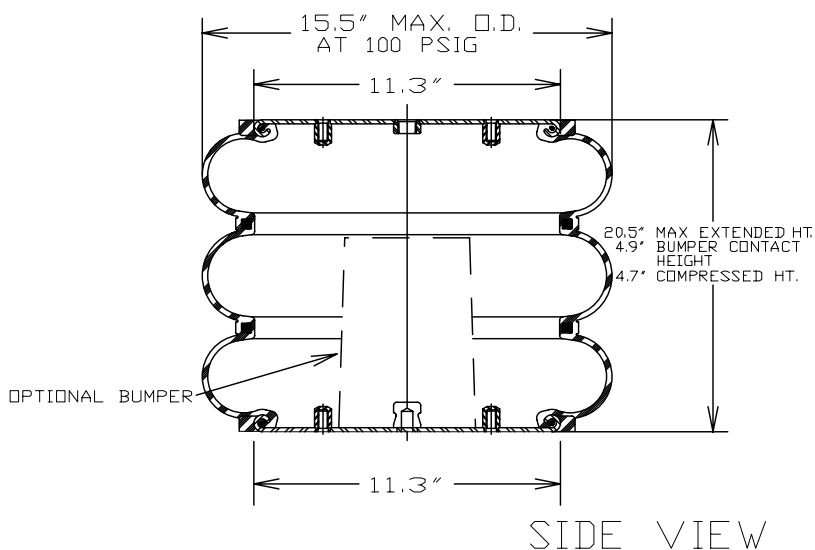
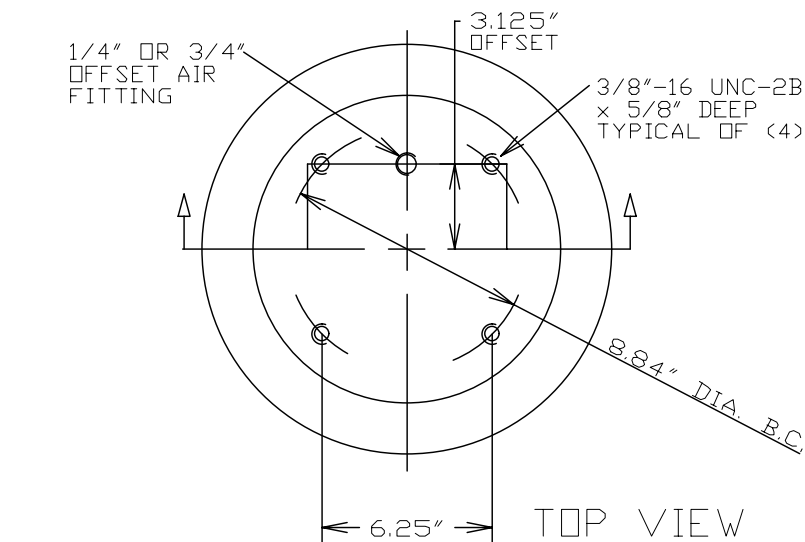


# 3B14-450



| ASSEMBLY NUMBER  | ELASTOMER   | AIR FITTING                | BUMPER INCLUDED |
|------------------|-------------|----------------------------|-----------------|
| 3B14-450         | NAT. RUBBER | 1/4"-18 NPTF OFFSET 3.125" | NO              |
| 3B14-453         | NAT. RUBBER | 1/4"-18 NPTF OFFSET 3.125" | YES             |
| 3B14-374         | NAT. RUBBER | 3/4"-14 NPTF OFFSET 3.125" | NO              |
| 3B14-411         | NAT. RUBBER | 3/4"-14 NPTF OFFSET 3.125" | YES             |
| FLEX MEMBER ONLY | NAT. RUBBER | ----                       | ---             |

## SPRING FEATURES:

- LOAD RANGE (ISOLATOR).....1700-11000 lb
- DESIGN HEIGHT RANGE (ISOLATOR)....10.5-12.5 in
- USEABLE STROKE w/o BUMPER (ACTUATOR)...15.8 in
- USEABLE STROKE WITH BUMPER (ACTUATOR)..15.6 in
- ASSEMBLY WEIGHT.....22.0 lb
- TEMPERATURE RANGE\*.....
- FORCE TO COMPRESS AT 0 PSIG INTERNAL PRESSURE NO BUMPER IS:  
120 LBS TO GO TO 4.75" HEIGHT

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

## OTHER OPTIONS:

### UPPER BEAD PLATE:

- 3/4" OFFSET AIR FITTING

### LOWER BEAD PLATE:

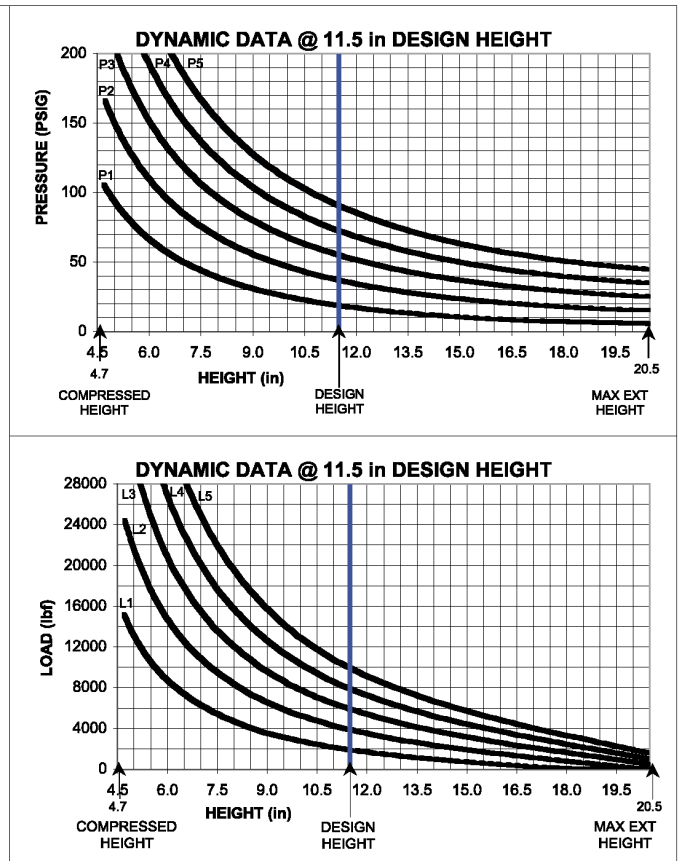
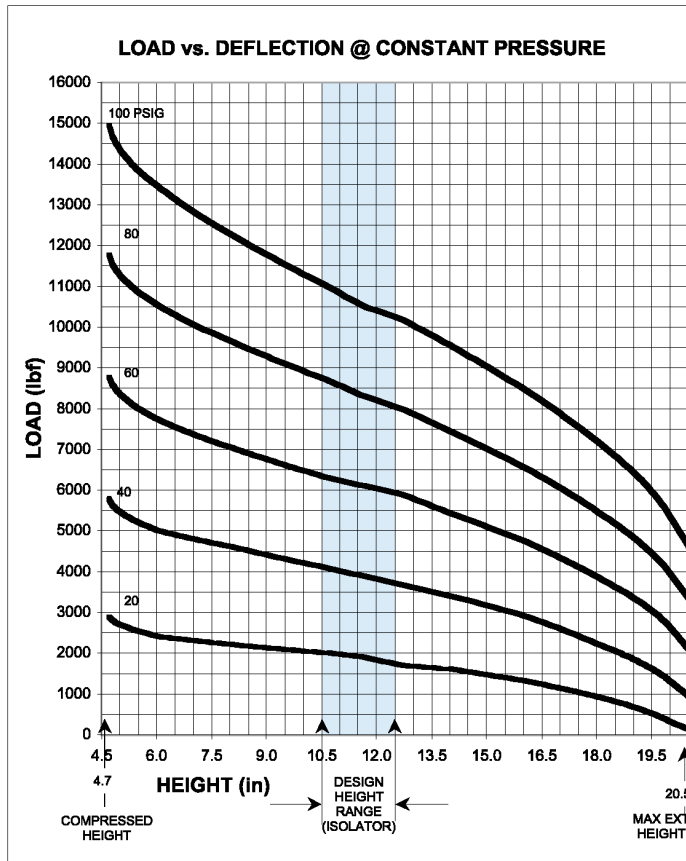
- BUMPER

## RECOMMENDED MAX. TORQUE VALUES

| 3/8"-16 UNC BLIND TAP TYP. OF (8) | 1/4"-18 UNC AIR FITTING | 3/4"-14 UNC AIR FITTING |
|-----------------------------------|-------------------------|-------------------------|
| 300 in-lb<br>25 ft-lb             | 240 in-lb<br>20 ft-lb   | 240 in-lb<br>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) | Volume @ 100 PSIG (in <sup>3</sup> ) | Nominal Force (lb) |           |           |           |            |
|----------------------|--------------------------------------|--------------------|-----------|-----------|-----------|------------|
|                      |                                      | @ 20 PSIG          | @ 40 PSIG | @ 60 PSIG | @ 80 PSIG | @ 100 PSIG |
| 20.5                 | 2140                                 | 100                | 900       | 2000      | 3300      | 4500       |
| 20.0                 | 2120                                 | 300                | 1300      | 2600      | 3900      | 5300       |
| 18.0                 | 2040                                 | 900                | 2200      | 3800      | 5400      | 7100       |
| 16.0                 | 1920                                 | 1300               | 2900      | 4700      | 6500      | 8400       |
| 14.0                 | 1740                                 | 1600               | 3400      | 5400      | 7400      | 9500       |
| 12.5                 | 1590                                 | 1700               | 3700      | 5900      | 8000      | 10200      |
| 11.5                 | 1480                                 | 1900               | 3900      | 6100      | 8300      | 10500      |
| 10.5                 | 1330                                 | 2000               | 4100      | 6300      | 8700      | 11000      |
| 8.0                  | 1030                                 | 2200               | 4600      | 7000      | 9600      | 12200      |
| 6.0                  | 770                                  | 2400               | 5000      | 7700      | 10500     | 13400      |
| 4.7                  | 510                                  | 2900               | 5800      | 8800      | 11800     | 15000      |

## DYNAMIC CHARACTERISTICS

| Design Height (in) | Load (lb) | Pressure (PSIG) | Spring Rate (lb/in) | Natural Frequency |      |
|--------------------|-----------|-----------------|---------------------|-------------------|------|
|                    |           |                 |                     | cpm               | Hz   |
| 12.5               | 2000      | 20              | 475                 | 91                | 1.52 |
|                    | 4000      | 39              | 740                 | 81                | 1.35 |
|                    | 6000      | 58              | 1035                | 78                | 1.30 |
|                    | 8000      | 77              | 1235                | 74                | 1.23 |
| 11.5               | 2000      | 19              | 470                 | 91                | 1.52 |
|                    | 4000      | 38              | 775                 | 83                | 1.38 |
|                    | 6000      | 56              | 1025                | 78                | 1.30 |
|                    | 8000      | 74              | 1335                | 77                | 1.28 |
| 10.5               | 2000      | 19              | 560                 | 100               | 1.67 |
|                    | 4000      | 37              | 775                 | 83                | 1.38 |
|                    | 6000      | 54              | 1115                | 81                | 1.35 |
|                    | 8000      | 71              | 1570                | 83                | 1.38 |
| 10.5               | 10000     | 88              | 1830                | 80                | 1.33 |