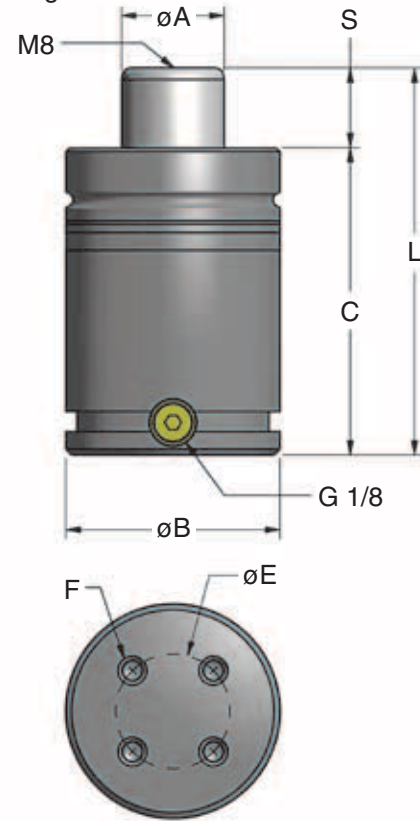


DADCO offers the 90.5B2.01500 and 90.5B2.03000 Models as replacements for the corresponding 90.5B Models. For new designs and to update 90.5B.00750, 90.5B.05000 or 90.5B.07500 Models, DADCO recommends using the 90.8 Series. For information on the 90.8 Series, refer to the 90.10/90.8 Catalog.

— For Retrofit Only —

| Part No.        | S<br>mm<br>inch | 01500 – 03000   |                 |
|-----------------|-----------------|-----------------|-----------------|
|                 |                 | C               | L               |
| 90.5B2.____.013 | 12.5<br>0.49    | 114.1<br>4.492  | 126.6<br>4.984  |
| 90.5B2.____.025 | 25<br>0.98      | 126.6<br>4.984  | 151.6<br>5.969  |
| 90.5B2.____.038 | 37.5<br>1.48    | 139.1<br>5.476  | 176.6<br>6.953  |
| 90.5B2.____.050 | 50<br>1.97      | 151.6<br>5.969  | 201.6<br>7.937  |
| 90.5B2.____.063 | 62.5<br>2.46    | 164.1<br>6.461  | 226.6<br>8.921  |
| 90.5B2.____.075 | 75<br>2.95      | 176.6<br>6.953  | 251.6<br>9.906  |
| 90.5B2.____.080 | 80<br>3.15      | 181.6<br>7.150  | 261.6<br>10.299 |
| 90.5B2.____.088 | 87.5<br>3.44    | 189.1<br>7.445  | 276.6<br>10.890 |
| 90.5B2.____.100 | 100<br>3.94     | 201.6<br>7.937  | 301.6<br>11.874 |
| 90.5B2.____.113 | 112.5<br>4.43   | 214.1<br>8.429  | 326.6<br>12.858 |
| 90.5B2.____.125 | 125<br>4.92     | 226.6<br>8.921  | 351.6<br>13.843 |
| 90.5B2.____.138 | 137.5<br>5.41   | 239.1<br>9.413  | 376.6<br>14.827 |
| 90.5B2.____.150 | 150<br>5.91     | 251.6<br>9.906  | 401.6<br>15.811 |
| 90.5B2.____.160 | 160<br>6.30     | 261.6<br>10.299 | 421.6<br>16.598 |
| 90.5B2.____.175 | 175<br>6.89     | 276.6<br>10.890 | 451.6<br>17.780 |
| 90.5B2.____.200 | 200<br>7.87     | 301.6<br>11.874 | 501.6<br>19.748 |
| 90.5B2.____.225 | 225<br>8.86     | 326.6<br>12.858 | 551.6<br>21.717 |
| 90.5B2.____.250 | 250<br>9.84     | 351.6<br>13.843 | 601.6<br>23.685 |



TO - Basic Model

| Model         |     | 90.5B2.01500 | 90.5B2.03000 |
|---------------|-----|--------------|--------------|
| Contact Force | daN | 1527         | 2945         |
|               | lb. | 3432         | 6619         |
| 90% Travel    | daN | 2046         | 4263         |
|               | lb. | 4599         | 9584         |
| A             |     | 36           | 50           |
|               |     | 1.42         | 1.97         |
| B             |     | 75           | 95           |
|               |     | 2.953        | 3.740        |
| E             |     | 40           | 60           |
|               |     | 1.575        | 2.362        |
| F             |     | 4 x M8       | 4 x M8       |

### Ordering Example:

**90.5B2.01500.025. TO. C. 150**

**Part Number:**

Includes Series, Model and Stroke Length.

**Mount Option:**

TO = Basic Model. See 90.10/90.8 Catalog for additional mount options. *When not specified, default is TO. Mount ordered with cylinder will be attached at the factory.*

**Charging Pressure:**

15-150 bar (220-2175 psi). *When not specified, default is 150 bar.*

**Operating System:**

C = Self-contained, F = Open Flow Fitting. *When not specified, default is C, self-contained.*

## 90.5B2 Operating and Technical Specifications

### Operating Specifications

|                          |                               |
|--------------------------|-------------------------------|
| Charging Medium:         | Nitrogen Gas                  |
| Charging Pressure Range: | 15 – 150 bar (220 – 2175 psi) |
| Operating Temperature:   | 4°C – 71°C (40°F – 160°F)*    |
| Maximum Speed:           | 1.6 m/sec (63 in/sec)         |

*\*For extended range applications contact DADCO.*

#### 90.5B2 Series Repair Kits

Include a fully assembled DADCO cartridge, dust cover, bottle of assembly oil and step-by-step maintenance manual.

| Model        | Kit Number   |
|--------------|--------------|
| 90.5B2.01500 | 90.208.01500 |
| 90.5B2.03000 | 90.208.03000 |

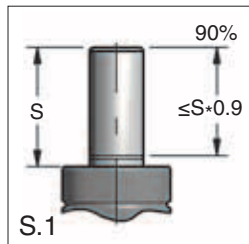
#### 90.5B2.01500 On-Contact Force

| Imperial |      | Metric |      |
|----------|------|--------|------|
| psi      | lb.  | bar    | daN  |
| 2175     | 3432 | 150    | 1527 |
| 2000     | 3155 | 125    | 1272 |
| 1750     | 2761 | 100    | 1018 |
| 1500     | 2367 | 75     | 763  |
| 1000     | 1578 | 50     | 509  |
| 500      | 789  | 25     | 254  |
| 250      | 394  | 20     | 204  |

#### 90.5B2.03000 On-Contact Force

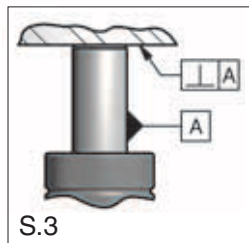
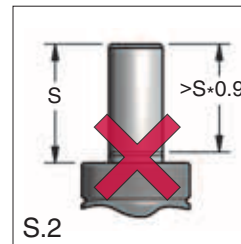
| Imperial |      | Metric |      |
|----------|------|--------|------|
| psi      | lb.  | bar    | daN  |
| 2175     | 6619 | 150    | 2945 |
| 2000     | 6087 | 125    | 2454 |
| 1750     | 5326 | 100    | 1963 |
| 1500     | 4565 | 75     | 1473 |
| 1000     | 3043 | 50     | 982  |
| 500      | 1522 | 25     | 491  |
| 250      | 761  | 20     | 393  |

### Standard Installation Principles



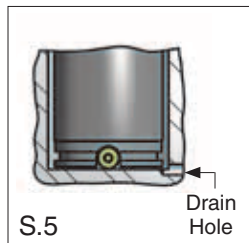
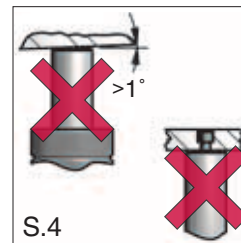
#### Provide Stroke Reserve

- DADCO's 90.5B2 Series Gas Springs will permit travel of the full nominal stroke; however, at least a 10% stroke reserve is recommended to achieve optimal performance and safety (S.1, S.2).
- Overstroking the rod or impacting the top of the gas spring will cause permanent damage.



#### Avoid Side Loading

- Side loading resulting from press action or die construction causes increased wear on the bearing, seal and piston rod (S.4). Therefore, avoid side loading when possible (S.3).

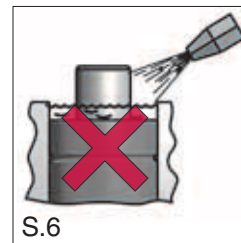


#### Rod End Thread

- The end of the piston rod has a construction thread intended for assembly and disassembly only and should never be used to mount or secure the gas spring (S.4). Die vibration and/or misalignment will damage the spring.

#### Protect From Fluids

- Direct contact with certain die lubricants and cleaners should be avoided (S.6). Protect gas springs by providing adequate drainage in gas spring pockets (S.5).



# DADCO®

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**The global leader in nitrogen gas spring technology**