

## Category

- Seal, Single Acting Piston

## Construction

- Bronze filled PTFE ring, energised with an NBR 70° O-ring

## Housing

- Rectangular groove in one piece piston

## Duty

- Medium to heavy

## Features

- Compact, low friction design
- Static and running friction are very similar, hence no stick-slip
- Can be supplied in many size & material combinations
- Broad fluid compatibility

## Comments

- A good choice for new designs.

## Manufacturer

- Transeals

## Size Range

- Metric & imperial
- ISO & special

## Options

- Many alternative material combinations are available
- \_USN = urethane seal ring
- \_MSN = moly/glass seal ring
- \_BSV = bronze seal ring with Viton energiser

## Metric Specifications

### Operating Conditions

|                    |               |
|--------------------|---------------|
| Maximum Speed:     | 4.0 m/sec     |
| Temperature Range: | -30°C ~ 100°C |
| Maximum Pressure:  | 350 bar       |

### Surface Finish

|                       |                |
|-----------------------|----------------|
| Dynamic Sealing Face: | 0.1 ~ 0.4 µmRa |
| Static Sealing Face:  | 1.6 µmRa max   |
| Other Faces:          | 3.2 µmRa max   |

### Extrusion Gap (Diametral)

| Pressure (bar)   | 100  | 170  | 260  | 350  |
|------------------|------|------|------|------|
| Maximum gap (mm) | 0.60 | 0.50 | 0.40 | 0.30 |

### Chamfer

$$\text{Minimum } Z = H \times 0.8$$

## Imperial Specifications

### Operating Conditions

|                    |               |
|--------------------|---------------|
| Maximum Speed:     | 12.0 ft/sec   |
| Temperature Range: | -22°F ~ 212°F |
| Maximum Pressure:  | 5000 psi      |

### Surface Finish

|                       |                |
|-----------------------|----------------|
| Dynamic Sealing Face: | 4 ~ 16 µinCLA  |
| Static Sealing Face:  | 63 µinCLA max  |
| Other Faces:          | 125 µinCLA max |

### Extrusion Gap (Diametral)

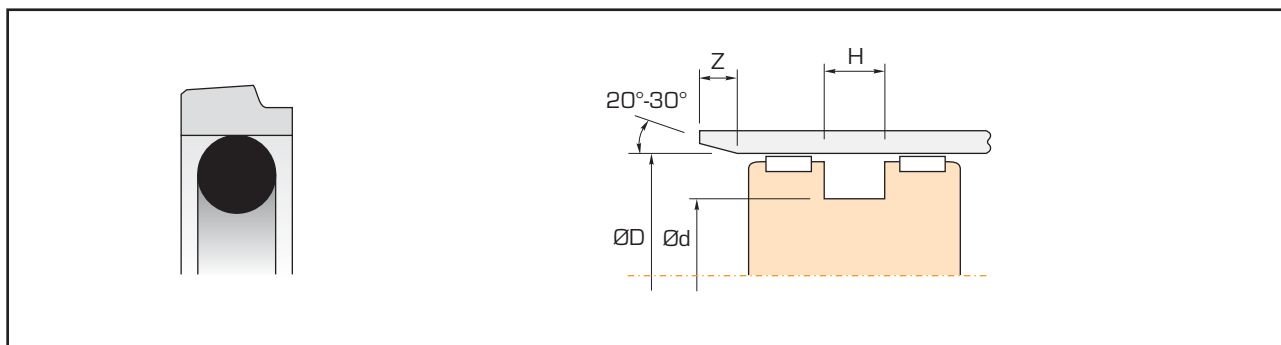
| Pressure (psi)   | 1500  | 2500  | 3750  | 5000  |
|------------------|-------|-------|-------|-------|
| Maximum gap (in) | 0.025 | 0.020 | 0.015 | 0.010 |

### Chamfer

$$\text{Minimum } Z = H \times 0.8$$

## Standard Cross Sections

| Series    | Ød         | H    | Std. Ø Range | O-ring |
|-----------|------------|------|--------------|--------|
| PRM/ABSBN | ØD - 4.90  | 2.20 | 8 to 14.9    | 1.78   |
| PRM/BBSN  | ØD - 7.30  | 3.20 | 15 to 39.9   | 2.62   |
| PRM/CBSN  | ØD - 10.70 | 4.20 | 40 to 79.9   | 3.53   |
| PRM/DBSN  | ØD - 15.10 | 6.30 | 80 to 132.9  | 5.33   |
| PRM/EBSN  | ØD - 20.50 | 8.10 | 133 to 329.9 | 6.99   |
| PRM/FBSN  | ØD - 24.00 | 8.10 | 330 to 669.9 | 6.99   |
| PRM/GBSN  | ØD - 27.30 | 9.50 | 670 +        | 8.4    |



## Metric Sizes

| Part No.          | ØD        | Ød        | H              |
|-------------------|-----------|-----------|----------------|
| <i>Tolerances</i> | <i>H9</i> | <i>h9</i> | <i>+0.2 -0</i> |
| PRM20BSN          | 20.00     | 12.70     | 3.20           |
| PRM25BSN          | 25.00     | 17.70     | 3.20           |
| PRM30CBSN         | 30.00     | 19.30     | 4.20           |
| PRM35CBSN         | 35.00     | 24.30     | 4.20           |
| PRM40CBSN         | 40.00     | 29.30     | 4.20           |
| PRM45CBSN         | 45.00     | 34.30     | 4.20           |
| PRM50CBSN         | 50.00     | 39.30     | 4.20           |
| PRM55CBSN         | 55.00     | 44.30     | 4.20           |
| PRM60DBSN         | 60.00     | 44.90     | 6.30           |
| PRM65DBSN         | 65.00     | 49.90     | 6.30           |
| PRM70DBSN         | 70.00     | 54.90     | 6.30           |
| PRM80DBSN         | 80.00     | 64.90     | 6.30           |
| PRM90DBSN         | 90.00     | 74.90     | 6.30           |
| PRM100DBSN        | 100.00    | 84.90     | 6.30           |
| PRM110DBSN        | 110.00    | 94.90     | 6.30           |
| PRM120DBSN        | 120.00    | 104.90    | 6.30           |
| PRM130DBSN        | 130.00    | 114.90    | 6.30           |
| PRM140DBSN        | 140.00    | 124.90    | 6.30           |
| PRM150DBSN        | 150.00    | 134.90    | 6.30           |
| PRM160DBSN        | 160.00    | 144.90    | 6.30           |
| PRM170DBSN        | 170.00    | 154.90    | 6.30           |
| PRM180DBSN        | 180.00    | 164.90    | 6.30           |
| PRM190DBSN        | 190.00    | 174.90    | 6.30           |
| PRM200EBSN        | 200.00    | 179.50    | 8.10           |
| PRM210EBSN        | 210.00    | 189.50    | 8.10           |
| PRM220EBSN        | 220.00    | 199.50    | 8.10           |
| PRM230EBSN        | 230.00    | 209.50    | 8.10           |
| PRM240EBSN        | 240.00    | 219.50    | 8.10           |
| PRM250EBSN        | 250.00    | 229.50    | 8.10           |
| PRM280FBSN        | 280.00    | 256.00    | 8.10           |
| PRM300FBSN        | 300.00    | 276.00    | 8.10           |

Contact Transeals for additional sizes.

## Imperial Sizes

| Part No.          | ØD        | Ød        | H                |
|-------------------|-----------|-----------|------------------|
| <i>Tolerances</i> | <i>H9</i> | <i>h9</i> | <i>+0.008 -0</i> |
| PRI100BSN         | 1.000     | 0.712     | 0.126            |
| PRI125CBSN        | 1.250     | 0.828     | 0.165            |
| PRI150CBSN        | 1.500     | 1.078     | 0.165            |
| PRI175CBSN        | 1.750     | 1.328     | 0.165            |
| PRI200CBSN        | 2.000     | 1.578     | 0.165            |
| PRI225CBSN        | 2.250     | 1.828     | 0.165            |
| PRI250DBSN        | 2.500     | 1.906     | 0.248            |
| PRI275DBSN        | 2.750     | 2.156     | 0.248            |
| PRI300DBSN        | 3.000     | 2.406     | 0.248            |
| PRI325DBSN        | 3.250     | 2.656     | 0.248            |
| PRI350DBSN        | 3.500     | 2.906     | 0.248            |
| PRI375DBSN        | 3.750     | 3.156     | 0.248            |
| PRI400DBSN        | 4.000     | 3.406     | 0.248            |
| PRI425DBSN        | 4.250     | 3.656     | 0.248            |
| PRI450DBSN        | 4.500     | 3.906     | 0.248            |
| PRI475DBSN        | 4.750     | 4.156     | 0.248            |
| PRI500DBSN        | 5.000     | 4.406     | 0.248            |
| PRI550DBSN        | 5.500     | 4.906     | 0.248            |
| PRI600DBSN        | 6.000     | 5.406     | 0.248            |
| PRI650DBSN        | 6.500     | 5.906     | 0.248            |
| PRI700DBSN        | 7.000     | 6.406     | 0.248            |
| PRI800EBSN        | 8.000     | 7.192     | 0.319            |
| PRI1000EBSN       | 10.000    | 9.192     | 0.319            |
| PRI1200FBSN       | 12.000    | 11.054    | 0.319            |

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