

Category

- Seal, Double Acting Rod

Construction

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

Housing

- Rectangular groove in one piece gland

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 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
- _UBN = urethane seal ring
- _MBN = moly/glass seal ring
- _BBV = 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)

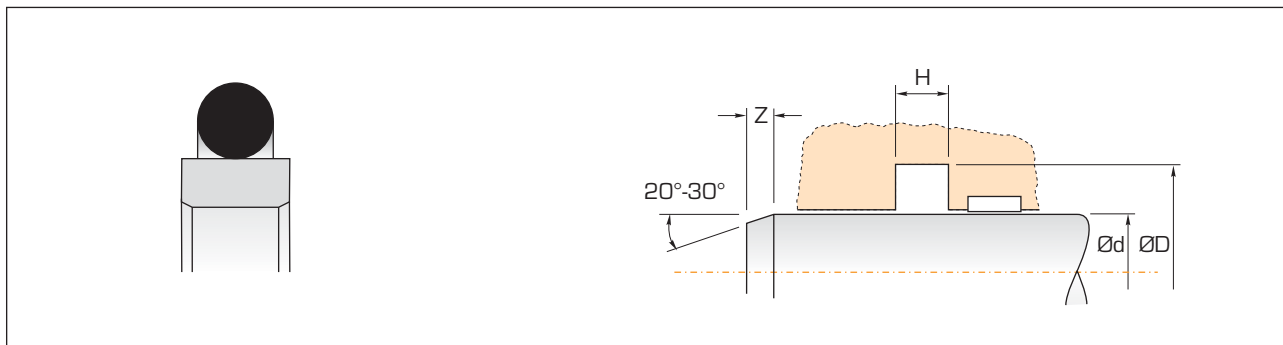
| Pressure (psi) | 1500 | 2500 | 3750 | 5000 |
|------------------|-------|-------|-------|-------|
| Maximum gap (in) | 0.025 | 0.020 | 0.015 | 0.010 |

Chamfer

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

Standard Cross Sections

| Series | ØD | H | Std. Ø Range | O-ring |
|----------|------------|------|--------------|--------|
| RRM/ABBN | Ød + 4.90 | 2.20 | 3 to 7.9 | 1.78 |
| RRM/BBBN | Ød + 7.30 | 3.20 | 8 to 18.9 | 2.62 |
| RRM/CBBN | Ød + 10.70 | 4.20 | 19 to 37.9 | 3.53 |
| RRM/DBBN | Ød + 15.10 | 6.30 | 38 to 199.9 | 5.33 |
| RRM/EBBN | Ød + 20.50 | 8.10 | 200 to 255.9 | 6.99 |
| RRM/FBBN | Ød + 24.00 | 8.10 | 256 to 649.9 | 6.99 |
| RRM/GBBN | Ød + 27.30 | 9.50 | 650 + | 8.4 |



Metric Sizes

| Part No. | Ød | ØD | H |
|-------------------|-----------|-----------|-----------------|
| <i>Tolerances</i> | <i>f8</i> | <i>H9</i> | <i>+0.2 - 0</i> |
| RRM20CBBN | 20.00 | 30.70 | 4.20 |
| RRM22CBBN | 22.00 | 32.70 | 4.20 |
| RRM25CBBN | 25.00 | 35.70 | 4.20 |
| RRM28CBBN | 28.00 | 38.70 | 4.20 |
| RRM30CBBN | 30.00 | 40.70 | 4.20 |
| RRM32CBBN | 32.00 | 42.70 | 4.20 |
| RRM35CBBN | 35.00 | 45.70 | 4.20 |
| RRM38CBBN | 38.00 | 48.70 | 4.20 |
| RRM40DBBN | 40.00 | 55.10 | 6.30 |
| RRM42DBBN | 42.00 | 57.10 | 6.30 |
| RRM45DBBN | 45.00 | 60.10 | 6.30 |
| RRM48DBBN | 48.00 | 63.10 | 6.30 |
| RRM50DBBN | 50.00 | 65.10 | 6.30 |
| RRM53DBBN | 53.00 | 68.10 | 6.30 |
| RRM55DBBN | 55.00 | 70.10 | 6.30 |
| RRM60DBBN | 60.00 | 75.10 | 6.30 |
| RRM63DBBN | 63.00 | 78.10 | 6.30 |
| RRM65DBBN | 65.00 | 80.10 | 6.30 |
| RRM70DBBN | 70.00 | 85.10 | 6.30 |
| RRM72DBBN | 72.00 | 87.10 | 6.30 |
| RRM75DBBN | 75.00 | 90.10 | 6.30 |
| RRM80DBBN | 80.00 | 95.10 | 6.30 |
| RRM82DBBN | 82.00 | 97.10 | 6.30 |
| RRM85DBBN | 85.00 | 100.10 | 6.30 |
| RRM90DBBN | 90.00 | 105.10 | 6.30 |
| RRM95DBBN | 95.00 | 110.10 | 6.30 |
| RRM100DBBN | 100.00 | 115.10 | 6.30 |
| RRM110DBBN | 110.00 | 125.10 | 6.30 |
| RRM120DBBN | 120.00 | 135.10 | 6.30 |
| RRM130DBBN | 130.00 | 145.10 | 6.30 |
| RRM140DBBN | 140.00 | 155.10 | 6.30 |
| RRM150DBBN | 150.00 | 165.10 | 6.30 |
| RRM160DBBN | 160.00 | 175.10 | 6.30 |
| RRM170DBBN | 170.00 | 185.10 | 6.30 |
| RRM170DBBN | 170.00 | 185.10 | 6.30 |
| RRM180DBBN | 180.00 | 195.10 | 6.30 |
| RRM190DBBN | 190.00 | 205.10 | 6.30 |

Metric Sizes (cont'd)

| Part No. | Ød | ØD | H |
|------------|--------|--------|------|
| RRM200DBBN | 200.00 | 215.10 | 6.30 |
| RRM250DBBN | 250.00 | 265.10 | 6.30 |
| RRM300DBBN | 300.00 | 315.10 | 6.30 |
| RRM350EBBN | 350.00 | 370.50 | 8.10 |
| RRM400FBBN | 400.00 | 424.00 | 8.10 |
| RRM450GBBN | 450.00 | 477.30 | 9.50 |

Imperial Sizes

| Part No. | Ød | ØD | H |
|-------------------|-----------|-----------|-------------------|
| <i>Tolerances</i> | <i>f8</i> | <i>H9</i> | <i>+0.008 - 0</i> |
| RRI062BBBN | 0.625 | 0.913 | 0.126 |
| RRI075CBBN | 0.750 | 1.172 | 0.165 |
| RRI087CBBN | 0.875 | 1.297 | 0.165 |
| RRI100CBBN | 1.000 | 1.422 | 0.165 |
| RRI112CBBN | 1.125 | 1.547 | 0.165 |
| RRI125CBBN | 1.250 | 1.672 | 0.165 |
| RRI137CBBN | 1.375 | 1.797 | 0.165 |
| RRI150DBBN | 1.500 | 2.094 | 0.248 |
| RRI175DBBN | 1.750 | 2.344 | 0.248 |
| RRI200DBBN | 2.000 | 2.594 | 0.248 |
| RRI225DBBN | 2.250 | 2.844 | 0.248 |
| RRI250DBBN | 2.500 | 3.094 | 0.248 |
| RRI275DBBN | 2.750 | 3.344 | 0.248 |
| RRI300DBBN | 3.000 | 3.594 | 0.248 |
| RRI312DBBN | 3.125 | 3.719 | 0.248 |
| RRI325DBBN | 3.250 | 3.844 | 0.248 |
| RRI350DBBN | 3.500 | 4.094 | 0.248 |
| RRI375DBBN | 3.750 | 4.344 | 0.248 |
| RRI400DBBN | 4.000 | 4.594 | 0.248 |
| RRI450DBBN | 4.500 | 5.094 | 0.248 |
| RRI500DBBN | 4.000 | 4.594 | 0.248 |
| RRI550DBBN | 5.500 | 6.094 | 0.248 |
| RRI600DBBN | 6.000 | 6.594 | 0.248 |
| RRI700DBBN | 7.000 | 7.594 | 0.248 |
| RRI800EBBN | 8.000 | 8.808 | 0.319 |
| RRI800FBBN | 8.000 | 8.946 | 0.319 |