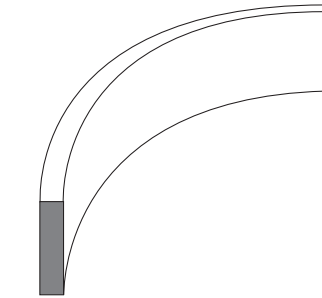


Guide Ring Tape

Wear Rings

SP-506

(Metric & Inch Size)

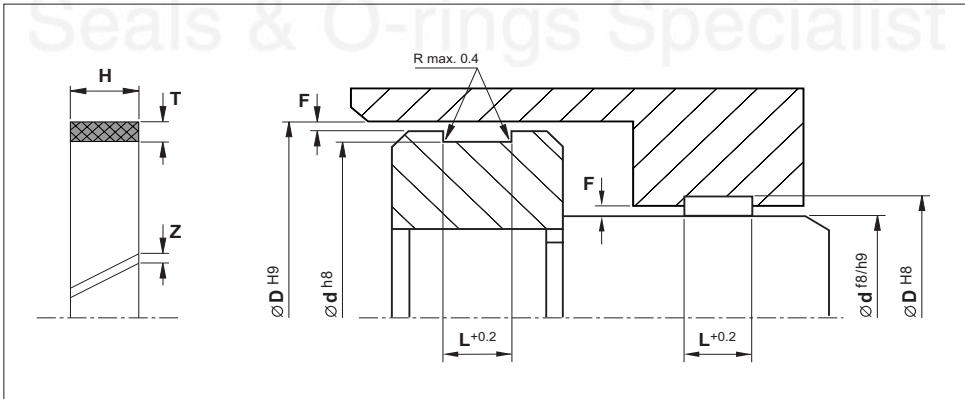


SP-506

| Material | Dynamic Load (N/mm ²) | Temp. (°c) | Speed (m/s) |
|------------------|-----------------------------------|-------------|-------------|
| Polyester Fabric | 53 | -40 +120 | 5 |

- Good sliding properties.
- Excellent for high side-load.
- High wear resistance.
- Long service life.

Installation Recommendation



| Surface roughness | Ra | Rt | Bore/Rod | | Clearance F | |
|--------------------|----------|---------|------------|--------|-------------|--|
| | | | D/d | F min. | F max. | |
| Sliding surface | ≤ 0.3 µm | ≤ 4 µm | 8 - 20 | 0.20 | 0.30 | |
| Surface of housing | ≤ 1.8 µm | ≤ 10 µm | 20 - 100 | 0.25 | 0.40 | |
| Sides of housing | ≤ 3.0 µm | ≤ 16 µm | 101 - 250 | 0.30 | 0.60 | |
| | | | 251 - 500 | 0.40 | 0.80 | |
| | | | 501 - 1000 | 0.50 | 1.10 | |

Guide Ring Tape

(Metric Size)

| Groove Dia. | | | Wear Ring Width | Wear Ring Thickness | Reference (For order processing) |
|-------------|---------|------|-----------------|---------------------|-------------------------------------|
| d | D | L | H | T | |
| D - 3 | d + 3 | 4.2 | 4.0 | 1.5 | SP-XX-15042 |
| D - 4 | d + 4 | 4.2 | 4.0 | 2.0 | SP-XX-20042 |
| D - 5 | d + 5 | 5.6 | 5.2 | 2.5 | SP-506-25056 |
| D - 4 | d + 4 | 5.7 | 5.5 | 2.0 | SP-XX-20057 |
| D - 5 | d + 5 | 5.7 | 5.5 | 2.5 | SP-XX-25057 |
| D - 4 | d + 4 | 6.3 | 6.1 | 2.0 | SP-XX-20063 |
| D - 5 | d + 5 | 6.3 | 6.1 | 2.5 | SP-XX-25063 |
| D - 4 | d + 4 | 8.1 | 7.9 | 2.0 | SP-XX-20081 |
| D - 5 | d + 5 | 8.1 | 7.9 | 2.5 | SP-XX-25081 |
| D - 6 | d + 6 | 8.1 | 7.9 | 3.0 | SP-XX-30081 |
| D - 8 | d + 8 | 8.1 | 7.9 | 4.0 | SP-XX-40081 |
| D - 4 | d + 4 | 9.7 | 9.5 | 2.0 | SP-XX-20097 |
| D - 5 | d + 5 | 9.7 | 9.5 | 2.5 | SP-XX-25097 |
| D - 6 | d + 6 | 9.7 | 9.5 | 3.0 | SP-XX-30097 |
| D - 8 | d + 8 | 9.7 | 9.5 | 4.0 | SP-XX-40097 |
| D - 5 | d + 5 | 12.7 | 12.5 | 2.5 | SP-XX-25127 |
| D - 6.2 | d + 6.2 | 12.7 | 12.5 | 3.1 | SP-XX-31127 |
| D - 5 | d + 5 | 13.0 | 12.6 | 2.5 | SP-506-25130 |
| D - 3 | d + 3 | 15.0 | 14.8 | 1.5 | SP-XX-15150 |
| D - 4 | d + 4 | 15.0 | 14.8 | 2.0 | SP-XX-20150 |
| D - 5 | d + 5 | 15.0 | 14.8 | 2.5 | SP-XX-25150 |
| D - 6 | d + 6 | 15.0 | 14.8 | 3.0 | SP-XX-30150 |
| D - 6.2 | d + 6.2 | 19.0 | 18.5 | 3.1 | SP-XX-31190 |
| D - 6 | d + 6 | 20.0 | 19.5 | 3.0 | SP-XX-30200 |
| D - 5 | d + 5 | 20.0 | 19.8 | 2.5 | SP-XX-25200 |
| D - 6 | d + 6 | 25.0 | 24.5 | 3.0 | SP-XX-30250 |
| D - 5 | d + 5 | 25.0 | 24.6 | 2.5 | SP-506-25250 |
| D - 5 | d + 5 | 25.0 | 24.8 | 2.5 | SP-XX-25250 |
| D - 6 | d + 6 | 30.0 | 29.5 | 3.0 | SP-XX-30300 |
| D - 5 | d + 5 | 30.0 | 29.8 | 2.5 | SP-XX-25300 |
| D - 6 | d + 6 | 40.0 | 39.5 | 3.0 | SP-XX-30400 |
| D - 6 | d + 6 | 50.0 | 49.5 | 3.0 | SP-XX-30500 |

* For order processing, if you need material PTFE+Bronze for ring width 4.0 mm., thickness 1.5 mm.
The computer code will be SP-55-15042

Recommended Ring Gap

| Bore Range mm. | Rod Range mm. | Z Gap mm. |
|-------------------|------------------|--------------|
| 10 - 24.9 | 8 - 19.9 | 1.0 - 1.5 |
| 25 - 44.9 | 20 - 39.9 | 1.5 - 2.0 |
| 45 - 79.9 | 40 - 74.9 | 2.0 - 4.0 |
| 80 - 129.9 | 75 - 124.9 | 3.0 - 5.0 |
| 130 - 349.9 | 125 - 299.9 | 4.0 - 6.0 |
| 350 - 1000.0 | 300 - 1000.0 | 5.0 - 8.0 |

The Calculation when cutting from rolls, length (A) is calculated as follows :

$$\text{For Piston } A = \pi \times (D - T) - Z$$

$$\text{For Rod } A = \pi \times (d + T) - Z$$

A = Length to cut

D = Bore diameter

d = Rod diameter

T = Thickness of selected tape

Z = Gap

Guide Ring Tape

(Inch Size)

| Groove Dia. | | | Wear Ring Width | Wear Ring Thickness | Reference (For order processing) |
|-------------|----------|-------|-----------------|---------------------|-------------------------------------|
| d | D | L | H | T | |
| D - 0.25 | d + 0.25 | 0.375 | 0.365 | 0.125 | SP-506-1250375 |
| D - 0.25 | d + 0.25 | 0.500 | 0.496 | 0.125 | SP-506-1250500 |
| D - 0.25 | d + 0.25 | 0.625 | 0.620 | 0.125 | SP-506-1250625 |
| D - 0.25 | d + 0.25 | 0.750 | 0.737 | 0.125 | SP-506-1250750 |
| D - 0.25 | d + 0.25 | 1.000 | 0.988 | 0.125 | SP-506-1251000 |

* For order processing, if you need material Polyester Fabric for ring width 0.365 inch., thickness 0.125 mm. The computer code will be **SP-506-1250375**

Recommended Ring Gap

| Bore Range inch. | Rod Range inch. | Z Gap inch. |
|---------------------|--------------------|----------------|
| 0.393 - 0.980 | 0.315 - 0.783 | 0.039 - 0.059 |
| 0.981 - 1.768 | 0.784 - 1.572 | 0.059 - 0.079 |
| 1.769 - 3.146 | 1.573 - 2.952 | 0.079 - 0.157 |
| 3.147 - 5.115 | 2.953 - 4.920 | 0.118 - 0.197 |
| 5.116 - 13.776 | 4.921 - 11.810 | 0.157 - 0.236 |
| 13.777 - 40.00 | 11.811 - 40.00 | 0.197 - 0.315 |

The Calculation when cutting from rolls, length (A) is calculated as follows :

$$\text{For Piston } A = \pi \times (D - T) - Z$$

$$\text{For Rod } A = \pi \times (d + T) - Z$$

A = Length to cut

D = Bore diameter

d = Rod diameter

T = Thickness of selected tape

Z = Gap

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