

# Unbalanced Seal

## Single Acting, Independent of Direction of Rotation

### Mechanical Seal Series 731 & 77

#### Standard Style

Face Materials:

Carbon / Ceramic

Carbon / Lecrolloy

Metal Parts:

SS 316

Secondary Seal :

Nitrile

#### Applications:

- Water Pumps
- Submersible Pumps

#### Seal Characteristics:

- Single acting
- Unbalanced
- Conical spring (731)
- Single helical coil spring (77)
- Independent of direction of rotation
- Torque transmission by Elastomer Collar

#### Operating Limits:

Shaft Diameter  $d_1$  : 6 .....70mm

Pressure  $p$  : 6 bar (max)

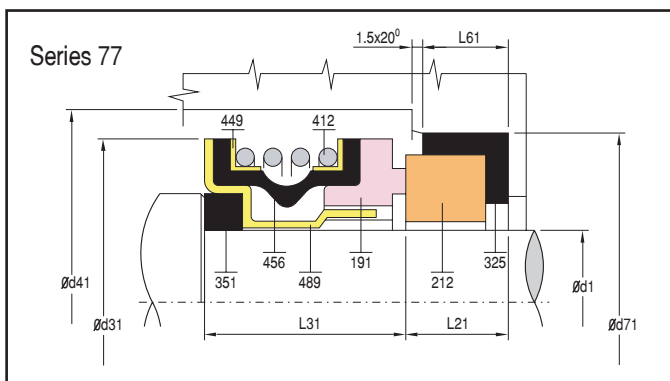
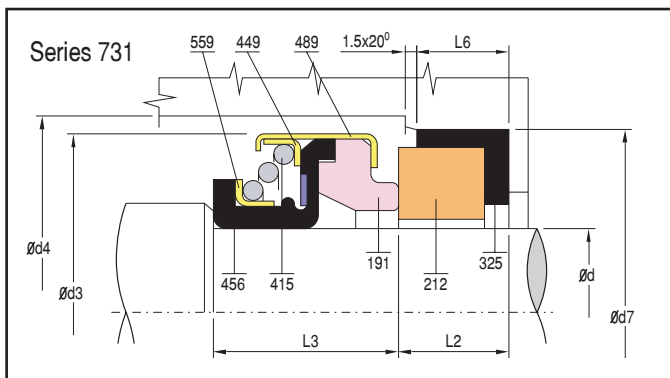
Temperature  $t$  : -20 ... +90°C

Velocity  $v$  : 12 m/sec



**Series 731** : This is single coil taper spring with elastomeric bellow seal. This is a desposable seal (cheaper in cost, hence spares can not be available). This seal is specially developed for monoblock pumps and water application only. This seal will get accomodated in less axial length.

**Series 77** : This is single coil spring with elastomeric bellow seal. This is a desposable seal, cheaper in cost, hence spares can not be available. This seal is specially developed for water and light duty applications.



**Part No. Description**

- 191 Seal Ring
- 212 Mating Ring
- 325 M. Ring Cup
- 351 Shaft Packing
- 412 Spring
- 415 Conical Spring
- 449 Spring Holder
- 456 Bellow
- 489 Retainer
- 559 Drive Ring

**Series 731**

| SEAL SIZE<br>d <sup>+0.00</sup> <sub>-0.05</sub> | d3    | d4    | d7 <sup>±0.05</sup> | L2   | L3 <sup>±0.5</sup> | L6   |
|--|-------|-------|---------------------|------|--------------------|------|
| 6.0  | 18.0  | 24.0  | 22.0                | 4.0  | 8.5                | 3.5  |
| 8.0  | 18.0  | 24.0  | 22.0                | 4.0  | 11.0               | 3.5  |
| 9.0  | 24.0  | 28.0  | 26.0                | 5.0  | 11.0               | 4.5  |
| 10.0   | 24.0  | 28.0  | 26.0                | 5.0  | 11.0               | 4.5  |
| 11.0   | 24.0  | 28.0  | 26.0                | 5.0  | 11.0               | 4.5  |
| 12.0   | 24.0  | 28.0  | 26.0                | 5.0  | 13.0               | 4.5  |
| 12.0   | 32.0  | 36/40 | 29.5/38             | 8.0  | 13.0               | 7.0  |
| 13.0   | 24.0  | 28.0  | 26.0                | 5.0  | 13.0               | 4.5  |
| 14.0   | 32.0  | 36/40 | 29.5/38             | 8.0  | 13.0               | 7.0  |
| 15.0   | 32.0  | 36/40 | 29.5/38             | 8.0  | 13.0               | 7.0  |
| 15.0   | 35.0  | 40.0  | 29.5/38             | 8.0  | 13.0               | 7.0  |
| 16.0   | 32.0  | 36/40 | 29.5/38             | 8.0  | 13.0               | 7.0  |
| 16.0   | 35.0  | 40.0  | 29.5/38             | 8.0  | 13.0               | 7.0  |
| 17.0   | 39.0  | 45.0  | 42.0                | 8.0  | 13.0               | 7.0  |
| 18.0   | 39.0  | 45.0  | 42.0                | 8.0  | 13.0               | 7.0  |
| 19.0   | 39.0  | 45.0  | 42.0                | 8.0  | 13.0               | 7.0  |
| 20.0   | 39.0  | 45.0  | 42.0                | 8.0  | 13.0               | 7.0  |
| 20.0   | 42.0  | 50.0  | 45.0                | 10.0 | 13.0               | 8.5  |
| 22.0   | 42.0  | 50.0  | 45.0                | 10.0 | 13.0               | 8.5  |
| 24.0   | 47.0  | 60.0  | 50.0                | 10.0 | 14.0               | 8.5  |
| 25.0   | 47.0  | 60.0  | 50.0                | 10.0 | 14.0               | 8.5  |
| 28.0   | 54.0  | 68.0  | 57.0                | 10.0 | 15.0               | 8.5  |
| 30.0   | 54.0  | 68.0  | 57.0                | 10.0 | 15.0               | 8.5  |
| 32.0   | 54.0  | 68.0  | 57.0                | 10.0 | 15.0               | 8.5  |
| 35.0   | 60.0  | 72.0  | 63.0                | 10.0 | 16.0               | 8.5  |
| 38.0   | 65.0  | 72.0  | 68.0                | 12.0 | 18.0               | 10.0 |
| 40.0   | 65.0  | 72.0  | 68.0                | 12.0 | 18.0               | 10.0 |
| 45.0   | 70.0  | 80.0  | 73.0                | 12.0 | 20.0               | 10.0 |
| 50.0   | 85.0  | 92.0  | 88.0                | 15.0 | 23.0               | 13.0 |
| 55.0   | 85.0  | 92.0  | 88.0                | 15.0 | 23.0               | 13.0 |
| 60.0   | 105.0 | 115.0 | 110.0               | 15.0 | 30.0               | 13.0 |
| 70.0   | 105.0 | 115.0 | 110.0               | 15.0 | 32.0               | 13.0 |

**Series 77**

| SEAL SIZE<br>d1 <sup>+0.00</sup> <sub>-0.05</sub> |       | d31  | d41  | d71 <sup>±0.05</sup> | L21  | L31 <sup>±0.5</sup> | L61 |
|---|-------|------|------|----------------------|------|---------------------|-----|
| inch  | mm    |      |      |                      |      |                     |     |
| 0.375"  | 34.92 | 23.8 | 28.0 | 22.00                | 6.2  | 16.0                | 5.2 |
| 0.500"  | 12.70 | 27.0 | 31.0 | 25.40                | 6.2  | 16.6                | 5.2 |
| 0.625"  | 15.80 | 31.0 | 36.0 | 31.75                | 10.3 | 18.7                | 8.8 |
| 0.750"  | 19.05 | 34.2 | 39.0 | 34.93                | 10.3 | 18.7                | 8.8 |
| 1.000"  | 25.40 | 43.0 | 47.0 | 41.28                | 11.1 | 20.6                | 9.5 |