

Piston seal type 0018

Type 0018 is a two piece single acting piston seal which consists of asymmetrical profile with pressure relieving grooves and a thermoplastic back-up ring.



Characteristics

Type: 0018

Principle of operation: Single acting

Max. operating pressure: 400 bar

Maximum speed: 0.5 m/s

Application

- Heavy duty cylinders , scrap cutters and hydraulic jacks.

Technical Information

- Superior static and dynamic sealing effect
- Improved sealing gap due to the active back-up ring
- Relief grooves against dynamic pressure
- Easy assembly into the closed groove
- Simple groove design
- Highly wear resistant

Construction

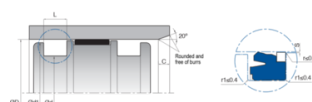
- Maximum permissible sealing gap at 100 Bar : 1.0 mm
- Maximum permissible sealing gap at 150 Bar : 0.8 mm
- Maximum permissible sealing gap at 250 Bar : 0.7 mm
- Maximum permissible sealing gap at 400 Bar : 0.6 mm
- Note: The largest sealing gap value occurring on the non-pressurized side of the seal does have a vital importance for the function of the seal and in this respect it is quite important to use the S value lower than the above indicated numbers.

Operating Principle

- Easily assembled into one piece piston. It is very important that the assembly tools must be of soft material and have no sharp edges. Before installation all individual parts of the seal must be oiled with system oil. Mineral oils [DIN 51524]

Options

- The permissible sealing gap values of type 0018 piston seal is given in the below table



OPERATING CONDITIONS			
MEDIA	Mineral oils (DIN 51524)	HFA and HFB	HFC
TEMPERATURE	from -30°C till +100°C	from +5°C till +50°C	from -30°C till +40°C
PRESSURE	max. 400 Bar	max. 400 Bar	max. 400 Bar
SPEED	max. 0.5 m/s	max. 0.5 m/s	max. 0.5 m/s
Note: The above data are maximum values and cannot be used at the same time.			

SURFACE ROUGHNESS	Ra	Rmax
Sliding Surface	max. 0.4 µm	max. 3.2 µm
Groove Base	max. 1.6 µm	max. 10 µm
Groove Flanks	max. 3.2 µm	max. 16 µm
Note: It is recommended to have 50% to 90% of the working surface material contact area value.		

Bore diameter mm	Groove diameter mm	Groove width mm	Material seal	Material back-up ring	Temperature range °C	Article
14	8	6	PUR	POM	-35 / 100	14192806

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Bore diameter	Groove diameter	Groove width	Material seal	Material back-up ring	Temperature range	Article
mm	mm	mm			°C	
36	27	6	PUR	POM	-35 / 100	14192807
40	25	11	PUR	POM	-35 / 100	14391223
45	30	9.5	PUR	POM	-35 / 100	14192808
45	30	11	PUR	POM	-35 / 100	14391226
50	35	9.5	PUR	POM	-35 / 100	14391227
50	35	11	PUR	POM	-35 / 100	14192809
55	40	9.5	PUR	POM	-35 / 100	14192810
55	40	11	PUR	POM	-35 / 100	14391228
60	45	9.5	PUR	POM	-35 / 100	12961636
60	45	11	PUR	POM	-35 / 100	14192811
63	48	9.5	PUR	POM	-35 / 100	24109359
63	48	10	PUR	POM	-35 / 100	14199436
63	50	10	PUR	POM	-35 / 100	14192812
65	50	11	PUR	POM	-35 / 100	14192813
70	50	13	PUR	POM	-35 / 100	14199437
70	50	16.5	PUR	POM	-35 / 100	14192815
70	55	10	PUR	POM	-35 / 100	14192814
75	55	13	PUR	POM	-35 / 100	14192816
80	60	12.5	PUR	POM	-35 / 100	14192817
80	60	13	PUR	POM	-35 / 100	14199438
85	70	9.3	PUR	POM	-35 / 100	14192818
90	70	13	PUR	POM	-35 / 100	14199439
100	80	13	PUR	POM	-35 / 100	14199440
100	88	8.5	PUR	POM	-35 / 100	14192819
110	90	13	PUR	POM	-35 / 100	14199441
120	100	13	PUR	POM	-35 / 100	14192820
125	100	16.2	PUR	POM	-35 / 100	14199442
140	115	15	PUR	POM	-35 / 100	14192821
140	120	12.5	PUR	POM	-35 / 100	14192822
150	120	19	PUR	POM	-35 / 100	14192823
170	150	12.5	PUR	POM	-35 / 100	14192824
180	150	19	PUR	POM	-35 / 100	14192825
220	190	17	PUR	POM	-35 / 100	14192826
240	210	17	PUR	POM	-35 / 100	14192827

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