

PISTON SEAL

PS096



Features:

Piston seal profile PS096 consists of two piece seal set for sealing pistons with one polyestar seal ring and one energizer square ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	SQUARE ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS096-01	PU05/PU59/PU48	NB03	-35 to 100°C	315 Bar	0.5 m/s
PS096-02	HY13	NB03	-35 to 100°C	315 Bar	0.5 m/s

For compound detail please refer Royal seal compounds. (Section - III)

Properties:

- High abrasion resistance.
- Low wear and high extrusion resistance.
- Easy installation.

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments.
- Agricultural equipments

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	≤ 2.5 μm	0.05-0.3 μm
Bottom of groove	≤ 6.3 μm	≤ 1.6 μm
Side of groove	≤ 15 μm	≤ 3μm



Extrusion gap dimension :

The gap dimension on the non-pressurised side of the seal is decisive for sealing function. Figures show the maximum radial clearance on each side using maximum gland bush groove inner dia and minimum rod dia considering respective tolerances.

Profile dimension	Maximum permissible gap (S) for Metric Sizes (mm)		
	16 Mpa	26 Mpa	32 Mpa
H			
3.20	0.15	0.10	-
4.20	0.20	0.15	-
6.30	0.25	0.20	0.12
8.10	0.30	0.25	0.15

Profile dimension	Maximum permissible gap (S) for Imperial Sizes (inch)		
	16 Mpa	26 Mpa	32 Mpa
H			
0.129	0.006	0.004	-
0.166	0.008	0.006	-
0.283	0.010	0.008	0.005
0.378	0.012	0.010	0.006

Installation:

PS096 piston seals can be fitted on single-piece pistons. First insert the rubber Square / Rectangular ring. into the housing carefully to avoid twisting of Square / Rectangular ring. . The polyurethane ring is then carefully pushed over the piston into place above the Square / Rectangular ring. The polyurethane seal normally returns to its original size after installation.

Ordering format :

Please mention ROYAL order code in your order.

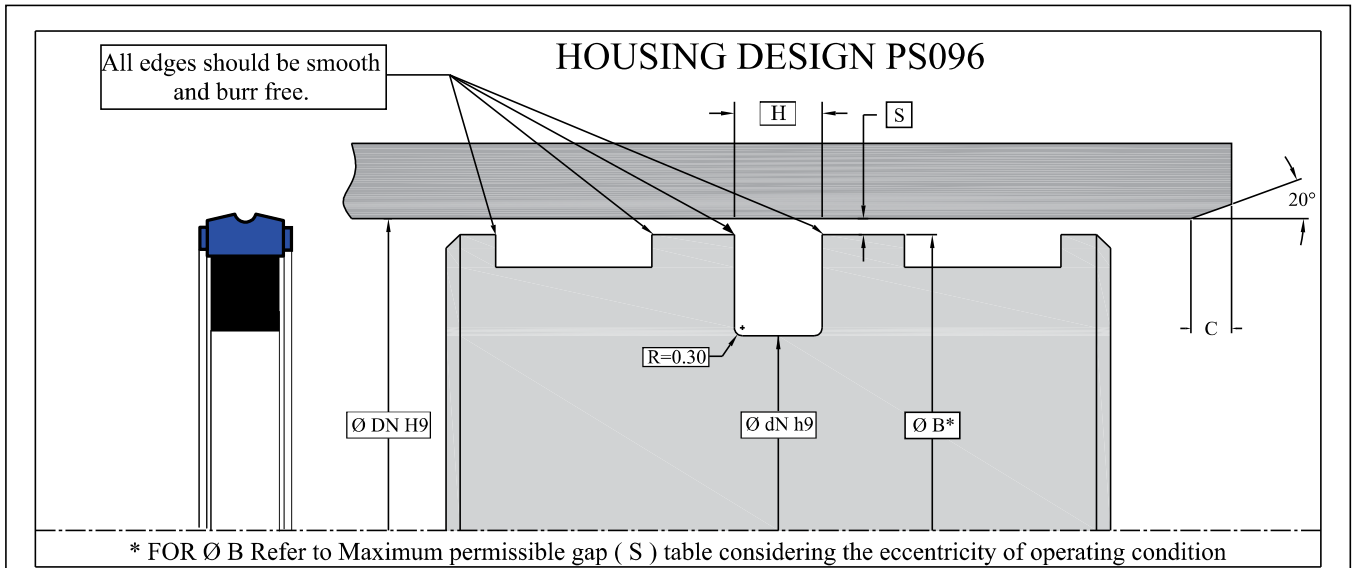
Example: Metric Size 25.00 X 17.50 X 3.20 X2.00 for **PS096-M-01-025.00 X 017.50 X 03.20**

Example: Imperial Size 1.000"X 0.691"X 0.129"X 0.118" for **PS096-I-01-01.000 X 00.691 X 0.129**



ROYAL

SEALS FOR HYDRAULICS & PNEUMATICS

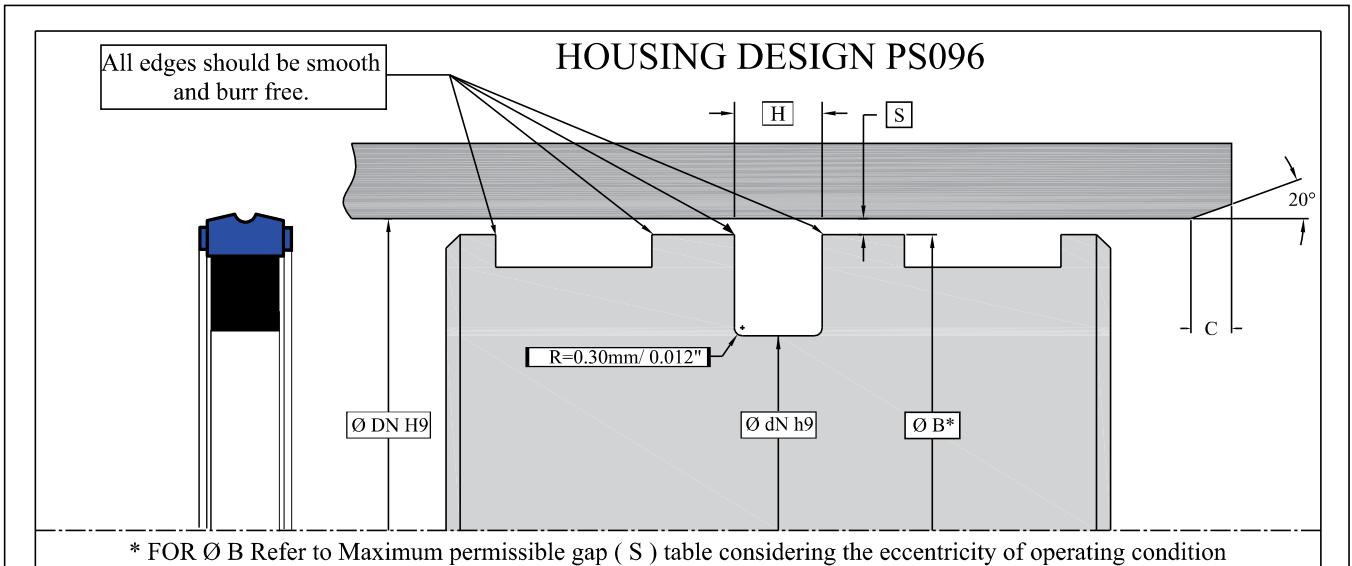


DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
25.00	17.50	3.20	2.00	PS096-M-01-025.00 X 017.50 X 03.20
30.00	22.50	3.20	2.00	PS096-M-01-030.00 X 022.50 X 03.20
32.00	24.50	3.20	2.00	PS096-M-01-032.00 X 024.50 X 03.20
40.00	29.00	4.20	2.50	PS096-M-01-040.00 X 029.00 X 04.20
45.00	34.00	4.20	2.50	PS096-M-01-045.00 X 034.00 X 04.20
50.00	37.00	6.30	2.50	PS096-M-01-050.00 X 037.00 X 06.30
50.00	39.00	4.20	2.50	PS096-M-01-050.00 X 039.00 X 04.20
55.00	39.50	6.30	3.00	PS096-M-01-055.00 X 039.50 X 06.30
60.00	44.50	6.30	3.00	PS096-M-01-060.00 X 044.50 X 06.30
60.00	49.00	6.30	3.00	PS096-M-01-060.00 X 049.00 X 06.30
63.00	47.50	6.30	3.00	PS096-M-01-063.00 X 047.50 X 06.30
63.00	48.00	7.50	5.00	PS096-M-01-063.00 X 048.00 X 07.50
65.00	49.50	6.30	3.00	PS096-M-01-065.00 X 049.50 X 06.30
65.00	52.00	6.30	3.00	PS096-M-01-065.00 X 052.00 X 06.30
70.00	54.50	6.30	4.00	PS096-M-01-070.00 X 054.50 X 06.30
70.00	55.00	7.50	4.00	PS096-M-01-070.00 X 055.00 X 07.50
70.00	59.00	4.20	3.00	PS096-M-01-070.00 X 059.00 X 04.20
75.00	59.50	6.30	4.00	PS096-M-01-075.00 X 059.50 X 06.30
75.00	62.00	6.30	3.00	PS096-M-01-075.00 X 062.00 X 06.30
80.00	64.50	6.30	4.00	PS096-M-01-080.00 X 064.50 X 06.30
80.00	66.50	6.30	4.00	PS096-M-01-080.00 X 066.50 X 06.30
90.00	74.50	6.30	4.00	PS096-M-01-090.00 X 074.50 X 06.30
100.00	79.00	8.10	5.00	PS096-M-01-100.00 X 079.00 X 08.10
100.00	84.50	6.30	4.00	PS096-M-01-100.00 X 084.50 X 06.30
110.00	89.00	8.10	5.00	PS096-M-01-110.00 X 089.00 X 08.10
115.00	94.00	8.10	5.00	PS096-M-01-115.00 X 094.00 X 08.10
120.00	99.00	8.10	5.00	PS096-M-01-120.00 X 099.00 X 08.10
120.00	99.00	10.50	5.00	PS096-M-01-120.00 X 099.00 X 10.50
125.00	104.00	8.10	5.00	PS096-M-01-125.00 X 104.00 X 08.10
130.00	109.00	8.10	5.00	PS096-M-01-130.00 X 109.00 X 08.10



ROYAL

SEALS FOR HYDRAULICS & PNEUMATICS



ROYAL STANDARD SIZE LIST

DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
140.00	119.00	8.10	5.00	PS096-M-01-140.00 X 119.00 X 08.10
140.00	119.00	10.50	7.00	PS096-M-01-140.00 X 119.00 X 10.50
150.00	129.00	8.10	5.00	PS096-M-01-150.00 X 129.00 X 08.10
150.00	129.00	10.50	7.00	PS096-M-01-150.00 X 129.00 X 10.50
160.00	139.00	8.10	5.00	PS096-M-01-160.00 X 139.00 X 08.10
165.00	144.00	8.10	5.00	PS096-M-01-165.00 X 144.00 X 08.10
170.00	149.00	8.10	5.00	PS096-M-01-170.00 X 149.00 X 08.10
180.00	159.00	8.10	5.00	PS096-M-01-180.00 X 159.00 X 08.10
200.00	179.00	8.10	5.00	PS096-M-01-200.00 X 179.00 X 08.10

IMPERIAL SIZES

DN (H9)	dN (h9)	H (+0.008")	C	ORDER CODE
1.000	0.691	0.129	0.118	PS096-I-01-01.000 X 00.691 X 0.129
1.250	0.941	0.129	0.118	PS096-I-01-01.250 X 00.941 X 0.129
1.500	1.191	0.129	0.118	PS096-I-01-01.500 X 01.191 X 0.129
1.750	1.441	0.129	0.118	PS096-I-01-01.750 X 01.441 X 0.129
2.000	1.691	0.129	0.118	PS096-I-01-02.000 X 01.691 X 0.129
2.250	1.941	0.129	0.118	PS096-I-01-02.250 X 01.941 X 0.129
2.500	2.191	0.129	0.118	PS096-I-01-02.500 X 02.191 X 0.129
2.750	2.441	0.129	0.118	PS096-I-01-02.750 X 02.441 X 0.129
3.000	2.462	0.283	0.197	PS096-I-01-03.000 X 02.462 X 0.283
3.000	2.575	0.166	0.197	PS096-I-01-03.000 X 02.575 X 0.166
3.250	2.712	0.283	0.197	PS096-I-01-03.250 X 02.712 X 0.283
3.500	2.962	0.283	0.197	PS096-I-01-03.500 X 02.962 X 0.283
3.750	3.212	0.283	0.197	PS096-I-01-03.750 X 03.212 X 0.283
4.000	3.462	0.283	0.197	PS096-I-01-04.000 X 03.462 X 0.283
4.250	3.712	0.283	0.197	PS096-I-01-04.250 X 03.712 X 0.283
4.500	3.962	0.283	0.197	PS096-I-01-04.500 X 03.962 X 0.283

