

Features:

Piston seal profile PS064 consists of two piece seal set for sealing pistons with one seal ring and one energizer Square / Rectangular ring.

Composition:

SEAL COMBINATION	SEAL RING COMPOUND	ENERGIZER	TEMP. RANGE	WORKING PRESSURE (Max.)	SURFACE SPEED (Max.)
PS064-01	PT02	NB03	-20 to 100°C	400 Bar	4 m/s

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

Properties:

- Low friction, free of stick slip
- High abrasion resistance
- Wide temperature Range
- Good thermal conductivity
- Low wear and high extrusion resistance
- Wide fluid application range
- Resistance against cold flow
- Minimum installation space required

Application:

- Mobile Hydraulics
- Injection moulding machines
- Machine tools
- Material Handling Equipments
- Control and regulating apparatus

Surface finish:

Roughness depth	R(max)	Ra
Sliding surface	$\leq 2.5 \mu\text{m}$	0.05-0.3 μm
Bottom of groove	$\leq 6.3 \mu\text{m}$	$\leq 1.6 \mu\text{m}$
Side of groove	$\leq 15 \mu\text{m}$	$\leq 3\mu\text{m}$



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 the minimum piston OD and max bore Ø considering respective tolerances.

Profile dimension	Maximum permissible gap (S) in Metric Sizes (mm)			
H	160 bar	260 bar	320 bar	400 bar
4.50	0.25	0.20	0.15	ASK ROYAL
7.50	0.30	0.25	0.20	ASK ROYAL
11.00	0.35	0.30	0.22	ASK ROYAL

Installation :

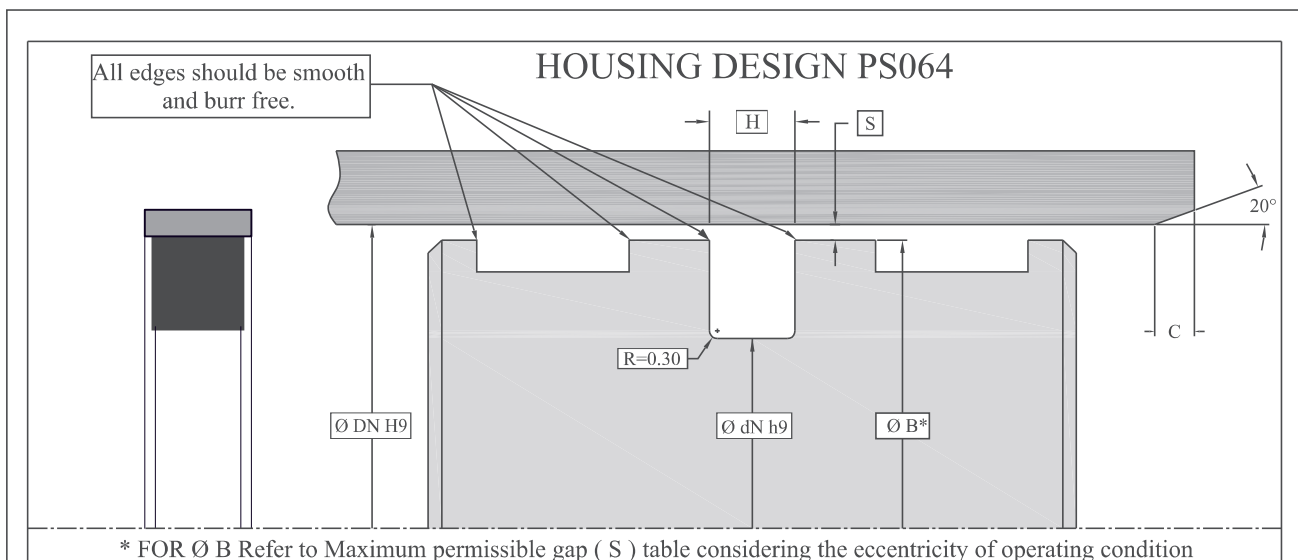
PS064 piston seals can be fitted on single-piece pistons. First insert the rubber Square / Rectangular ring into the housing carefully to avoid twisting. The PTFE ring is then carefully pushed over the piston into place above the Square / Rectangular ring. An assembly tool eases installation of small, PTFE rings. The PTFE seal normally returns to its original size after installation. It is advisable to calibrate the PTFE ring by mounting it on a steel tube (duly machined and polished), having inner diameter equal to cylinder bore diameter. Immediately after calibration, the piston should be installed in the cylinder.

Ordering format :

Please mention ROYAL order code in your order.

Example: Metric Size 30 X 20.5 X 4.5

For Temp range: -20°C to +100°C (Square Ring material is NB03) Order code is **PS064-M-01-030.00 X 020.50 X 04.50**



ROYAL STANDARD SIZE LIST

DN (H9)	dN (h9)	H (+0.20)	C	ORDER CODE
30.00	20.50	4.50	2.00	PS064-M-01-030.00 X 020.50 X 04.50
31.50	22.00	4.50	3.50	PS064-M-01-031.50 X 022.00 X 04.50
32.00	22.50	4.50	3.50	PS064-M-01-032.00 X 022.50 X 04.50
35.00	25.50	4.50	3.50	PS064-M-01-035.00 X 025.50 X 04.50
35.50	26.00	4.50	3.50	PS064-M-01-035.50 X 026.00 X 04.50
40.00	30.00	4.50	3.50	PS064-M-01-040.00 X 030.00 X 04.50
45.00	35.00	4.50	3.50	PS064-M-01-045.00 X 035.00 X 04.50
50.00	40.00	4.50	4.00	PS064-M-01-050.00 X 040.00 X 04.50
55.00	45.00	4.50	4.00	PS064-M-01-055.00 X 045.00 X 04.50
56.00	46.00	4.50	4.00	PS064-M-01-056.00 X 046.00 X 04.50
60.00	50.00	4.50	4.00	PS064-M-01-060.00 X 050.00 X 04.50
63.00	48.00	7.50	4.00	PS064-M-01-063.00 X 048.00 X 07.50
65.00	50.00	7.50	4.00	PS064-M-01-065.00 X 050.00 X 07.50
70.00	55.00	7.50	5.00	PS064-M-01-070.00 X 055.00 X 07.50
75.00	60.00	7.50	5.00	PS064-M-01-075.00 X 060.00 X 07.50
80.00	65.00	7.50	5.00	PS064-M-01-080.00 X 065.00 X 07.50
85.00	70.00	7.50	5.00	PS064-M-01-085.00 X 070.00 X 07.50
90.00	75.00	7.50	5.00	PS064-M-01-090.00 X 075.00 X 07.50
95.00	80.00	7.50	5.00	PS064-M-01-095.00 X 080.00 X 07.50
100.00	85.00	7.50	5.00	PS064-M-01-100.00 X 085.00 X 07.50
105.00	90.00	7.50	5.00	PS064-M-01-105.00 X 090.00 X 07.50
108.00	92.00	7.50	5.00	PS064-M-01-108.00 X 092.00 X 07.50
110.00	94.00	7.50	5.00	PS064-M-01-110.00 X 094.00 X 07.50
112.00	96.00	7.50	6.50	PS064-M-01-112.00 X 096.00 X 07.50
115.00	99.00	7.50	6.50	PS064-M-01-115.00 X 099.00 X 07.50
120.00	104.00	7.50	6.50	PS064-M-01-120.00 X 104.00 X 07.50
125.00	109.00	7.50	6.50	PS064-M-01-125.00 X 109.00 X 07.50
130.00	114.00	7.50	6.50	PS064-M-01-130.00 X 114.00 X 07.50
135.00	119.00	7.50	6.50	PS064-M-01-135.00 X 119.00 X 07.50
140.00	124.00	7.50	6.50	PS064-M-01-140.00 X 124.00 X 07.50
145.00	129.00	7.50	6.50	PS064-M-01-145.00 X 129.00 X 07.50

