

# 764

## PISTON SEAL

*Double-Acting  
Polyurethane Face with Pre-Loaded O-Ring*

### DESIGN

The Hallite 764 double-acting piston seal is a compact, low friction seal for light to medium duty applications. The advanced face geometry gives the Hallite 764 single-acting capabilities making it an excellent choice for double-acting applications where minimal dynamic leakage is required.

The Hallite 764 is comprised of a tough, wear resistance-thermoplastic polyurethane face seal which is pre-loaded by a NBR O-ring. The housing width allows a narrow width piston to be used.

We recommend that an adequate bearing, such as the Hallite 506 or 87 bearing strip, is mounted on one or both sides of the seal. For further details of bearing grooves, please refer to the appropriate product data sheet.



### FEATURES

- Double-acting seal with single-acting capabilities
- Advanced face geometry provides enhanced dynamic and static sealing
- Excellent wear resistance and high extrusion resistance
- More tolerant to contamination
- Rapid recovery after assembly
- Operates on wide range of surface finishes
- Ideal for use with Hallite 506 or 87 bearing

### MATERIALS

As standard, this product comes in the following materials. Contact your local Hallite technical team if you would like to find out if this profile can be made in a custom material to suit your application. For further material details, please refer to the Hallite Material Table.

MATERIAL OPTIONS	Name	Face Type	Face Color
Standard	Hythane® 361- NBR	TPU-AU	Orange

## TECHNICAL DETAILS

OPERATING CONDITIONS	METRIC	INCH
Maximum Speed	1.0 m/sec	3.0 ft/sec
Temperature Range	-30°C +110°C	-22°F +230°F
Maximum Pressure	250 bar	3600 psi

**NOTE**

Data given are maximum values and can apply depending on specific application. Maximum ratings of temperature, pressure, or operating speeds are dependent on fluid medium, surface, gap value, and other variables such as dynamic or static service. Maximum values are not intended for use together at the same time, e.g. max temperature and max pressure. Please contact your Hallite technical representative for application support.

MAXIMUM EXTRUSION GAP			
Pressure bar	100	160	250
Maximum Gap mm	0.60	0.50	0.40
Pressure psi	1500	2400	3750
Maximum Gap in	0.024	0.020	0.016

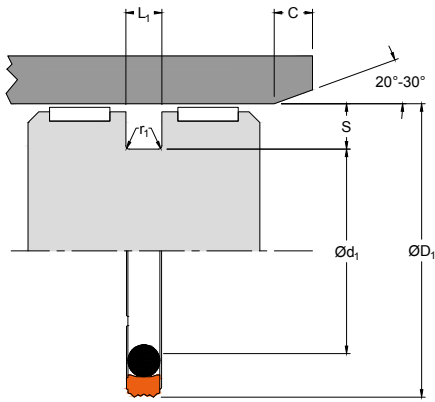
**NOTE**

Figures show the maximum permissible gap all on one side using minimum rod  $\varnothing$  and maximum clearance  $\varnothing$ . Refer to Housing Design section.

SURFACE ROUGHNESS	$\mu\text{mRa}$	$\mu\text{mRz}$	$\mu\text{mRt}$	$\mu\text{inRa}$	$\mu\text{inRz}$	$\mu\text{inRt}$
Dynamic Sealing Face $\varnothing D_1$	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $\varnothing d_1$	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Static Housing Faces $L_1$	3.2 max	10 max	16 max	125 max	394 max	630 max

CHAMFERS & RADII				
Groove Section $\leq S$ mm	3.75	5.50	7.75	10.50
Min Chamfer C mm	2.00	2.50	5.00	5.00
Max Fillet Rad $r_1$ mm	0.40	0.80	1.20	1.60
Groove Section $\leq S$ in	0.150	0.220	0.310	0.410
Min Chamfer C in	0.080	0.100	0.200	0.200
Max Fillet Rad $r_1$ in	0.016	0.032	0.047	0.063

TOLERANCES	$\varnothing D_1$	$\varnothing d_1$	$L_1$
mm	H9	h9	+0.20 -0
in	H9	h9	+0.008 -0



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### PART NUMBER RANGE

INCH					
ØD <sub>1</sub>	TOL H9	Ød <sub>1</sub>	TOL h9	L <sub>1</sub> +0.008-0	PART No.
1.250	+0.003 0.000	0.817	0.000 -0.002	0.165	4751210
1.375	+0.003 0.000	0.942	0.000 -0.002	0.165	4764110
1.500	+0.003 0.000	1.067	0.000 -0.002	0.165	4764210
2.000	+0.003 0.000	1.390	0.000 -0.003	0.248	4764810
2.125	+0.003 0.000	1.515	0.000 -0.003	0.248	4765410
2.500	+0.003 0.000	1.890	0.000 -0.003	0.248	4766810
2.750	+0.003 0.000	2.140	0.000 -0.003	0.248	4759710
2.750	+0.003 0.000	2.318	0.000 -0.003	0.165	4741410
3.000	+0.003 0.000	2.390	0.000 -0.003	0.248	4767110