

Design

Manufactured in polyacetal resin, the Hallite 63 bearing ring is extremely versatile, offering very low friction and excellent resistance to abrasion and wear.

The materials natural resistance to water makes it an ideal choice for pneumatic applications.

They can be used in conjunction with almost any Hallite piston seal.

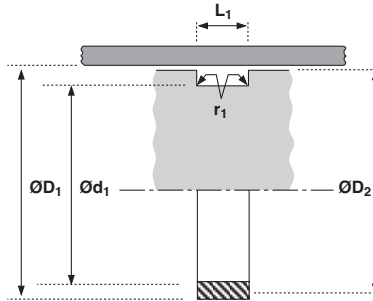
Piston Diameter D₂

Where a seal is used, this dimension is critical and must be within specified extrusion gap relative to the seal. Where a seal is not used:

$$\text{ØD}_2 (\text{min}) = \text{ØD}_1 - 1.00\text{mm} (0.040\text{'})$$

Features

- Low friction
- Good compressive strength
- Compatible with water based fluids
- Functions well in non-lubricated applications
- 1/16" cross sections offered for use in pneumatic applications



Technical details

Operating Conditions

Maximum Speed	5.0 m/sec	15.0 ft/sec
Maximum Temperature	-45°C +110°C	-50°F +230°F

Typical Physical Properties

Specific Gravity	1.41	1.41
Coefficient of Thermal Expansion	1.1 x 10 ⁻⁴ per °C	1.9 x 10 ⁻⁴ per °K
Compressive Stress to Give 1% Deflection (ASTM D695)	23°C 31MN/m ²	73°F 4,500p.s.i.
Compressive Stress to Give 10% Deflection (ASTM D695)	23°C 110MN/m ²	73°F 16,000p.s.i.

Surface roughness

Dynamic Sealing Face ØD ₁	µmRa 0.1 < > 0.4	µmRt 4 max	µinCLA 4 < > 16	µinRMS 5 < > 18
Static Sealing Face Ød ₁ L ₁	3.2 max	16 max	125 max	140 max

Chamfers & Radii

Groove Section ≤ S mm	2.5	3.2	3.8
Max Fillet Rad r ₁ mm	0.4	0.4	0.8
Groove Section ≤ S in	0.100	0.125	0.150
Max Fillet Rad r ₁ in	0.016	0.016	0.032

Tolerances

	ØD ₁	Ød ₁	ØD ₂	L ₁
mm	H11	f9	see note above	+0.2 +0
in	H11	f9	see note above	+0.008 +0

