Design

A robust assembly designed specifically for one piece pistons, the Hallite 53 double acting seal uses a rubber sealing element which has proved itself in service to be extremely wear resistant and capable of working most effectively in a wide variety of medium duty applications. The seal is also suitable for two piece pistons.

The assembly comprises a rubber seal, two split support rings and two split bearings, one of each located either side of the seal.

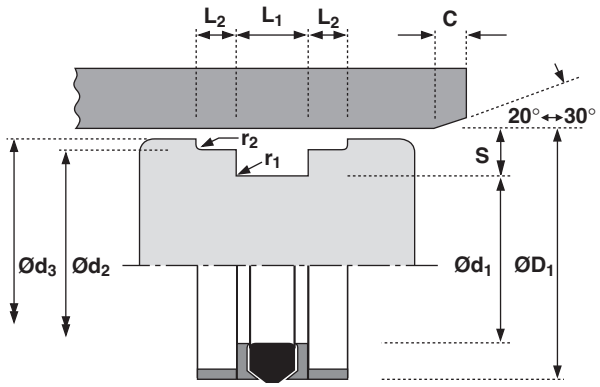
The nitrile rubber seal is designed to have its section compressed by the housing, to ensure a low pressure seal and, when pressurised, be protected from extrusion damage by the extending lips of the support ring. The support ring is manufactured from a tough flexible polymer and scarf cut for assembly.

The proportions of the range have been determined to give a satisfactory performance when used with the recommended operating conditions.

Note: Other sizes of this design are shown under Hallite 50, 64 and 68. Also see Hallite 753 for interchangeable sizes.

Features

- Well proven design
- Long life



Technical details

	Metric			Inch		
Operating conditions						
Maximum Speed	0.5 m/sec			1.5 ft/sec		
Temperature Range	-30°C +100°C			-22°F +212°F		
Maximum Pressure	500 bar			7500 p.s.i.		
Surface roughness	**µmRa**	**µmRt**		**µinCLA**	**µinRMS**	
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4	4 max		4 < > 16	5 < > 18	
Static Sealing Face $Ød_1$ $Ød_2$	1.6 max	10 max		63 max	70 max	
Static Housing Faces $Ød_3$ L_1 L_2	3.2 max	16 max		125 max	140 max	
Chamfers & Radii						
Groove Section ≤ S mm	5.0	7.5	8.0	10.0	12.5	15.0
Min Chamfer C mm	2.4	4.0	5.0	5.0	6.5	7.5
Max Fillet Rad r_1 mm	0.4	0.4	0.4	0.4	0.8	0.8
Max Fillet Rad r_2 mm	0.4	0.4	0.4	0.4	0.8	0.8
Groove Section ≤ S in	0.312	0.375	0.500			
Min Chamfer C in	0.156	0.187	0.217			
Max Fillet Rad r_1 in	0.016	0.016	0.032			
Max Fillet Rad r_2 in	0.016	0.016	0.032			

Tolerances	**$ØD_1$**	**$Ød_1$**	**$Ød_2$**	**$Ød_3$**	**L_1**	**L_2**
mm	H11	h10	f9	h11	+0.4 +0.15	+0.1 -0
in	H11	h10	f9	h11	+0.016 +0.005	+0.004 -0