

## Rod Seals

### Technical details

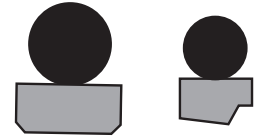
Metric

Inch

#### Operating conditions

Maximum Speed	1.0 m/sec
Temperature Range	-30°C + 100°C
Maximum Pressure	250 bar
In Tandem with Hallite 16	400 bar

3.0 ft/sec
-22°F + 212°F
3500 p.s.i.
6000 p.s.i.



#### Maximum extrusion gap

Pressure bar	100	160	250
Maximum Gap mm L <sub>1</sub> 4.2 mm	0.40	0.30	0.24
Maximum Gap mm L <sub>1</sub> 6.3 mm	0.50	0.40	0.30
Maximum Gap mm L <sub>1</sub> 8.1 mm	0.60	0.50	0.35
Pressure p.s.i.	1500	2300	3500

Figures show the maximum permissible gap all on one side using minimum rod  $\varnothing$  and maximum clearance  $\varnothing$ .

#### Surface roughness

	$\mu\text{mRa}$	$\mu\text{mRt}$	$\mu\text{inCLA}$	$\mu\text{inRMS}$
Dynamic Sealing Face $\varnothing d_1$	0.05 <-> 0.4	2.5 max	2 <-> 16	2 <-> 18
Static Sealing Face $\varnothing D_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L <sub>1</sub>	3.2 max	16 max	125 max	140 max

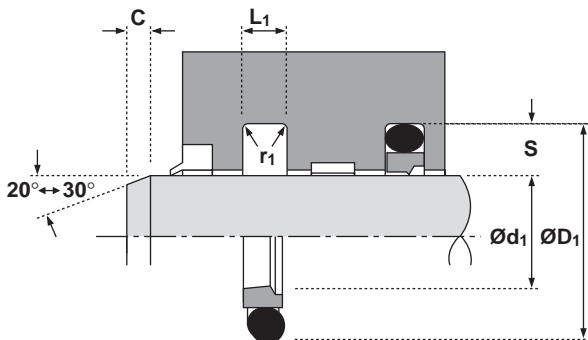
#### Chamfers & Radii

Groove Section $\leq$ S mm	5.50	7.75	10.50	12.25	14.00	15.50
Min Chamfer C mm	3.00	5.00	7.00	7.50	8.00	10.00
Max Fillet Rad r1 mm	0.80	1.20	1.60	1.60	2.00	2.00

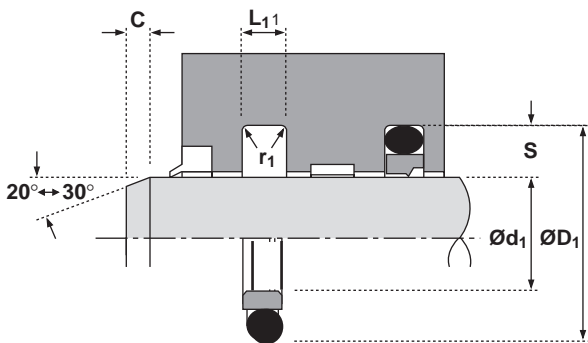
#### Tolerances

mm	$\varnothing d_1$	$\varnothing D_1$	L <sub>1</sub>
	f8	H9	+0.2 -0

716 SPN- For good surface finishes



716 ON- For poorer surface finishes



### Design

The Hallite 716 SPN and 716 ON assemblies consist of a TPE face ring and a rubber O ring energiser. The seal can be used on its own in application up to 250 bar / 3500p.s.i. In applications where pressure peaks occur or in high speed applications it is recommended that the seal is used in tandem with the Hallite 16 PTFE seal.

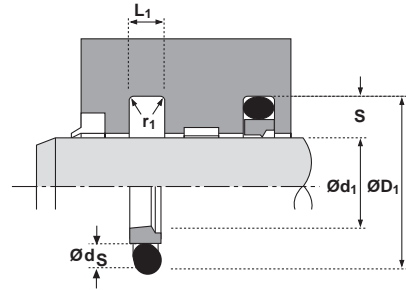
It is recommended that technical guidance is sought if this option is considered. The wear resistant thermoplastic polyester elastomer (TPE) ring is energised by an O ring. The Hallite 716 is also available in a modified design developed for rotary and swivelling applications, such as swivel joints on mobile hydraulic equipment.

### Availability

Hallite 716 is manufactured to order. There is no ex - stock availability. Sizes are available without tooling charges up to a rod diameter of 1000mm.

716 SPN / ON

# 716SPN/ON



STD. f8	$\varnothing d_1$ RANGE	HEAVY f8	$\varnothing D_1$ H9	$L_1$ +0.2 -0	S	$\varnothing d_s$
19 - 37.9	-	-	$\varnothing d_1 + 11.0$ ( $\varnothing d_1 + 10.7$ )	4.2‡	5.5* (5.35)	3.53
38 - 199.9	19 - 37.9	-	$\varnothing d_1 + 15.5$ ( $\varnothing d_1 + 15.1$ )	6.3‡	7.75* (7.55)	5.33
200 - 255.9	38 - 199.9	-	$\varnothing d_1 + 21.0$ ( $\varnothing d_1 + 20.5$ )	8.1‡	10.5* (10.25)	7.0
256 - 649.9	200 - 255.9	-	$\varnothing d_1 + 24.5$ ( $\varnothing d_1 + 24.0$ )	8.1‡	12.25* (12.0)	7.0
650 - 999.9	256 - 649.9	-	$\varnothing d_1 + 28.0$ ( $\varnothing d_1 + 27.3$ )	9.5	14.0 (13.65)	8.0 ÷ 8.4
1000	650	-	$\varnothing d_1 + 31.0$	12.0	15.5 (15.0)	10.0

The housings marked ‡ in the table are in accordance with ISO 7425-2  
Sections shown in brackets are for specialist applications.