

## DAS WH

**Hallite**  
Premier Advanced Sealing Technologies

# 780

**PISTON SEAL**  
Double-Acting  
Five Part Assembly

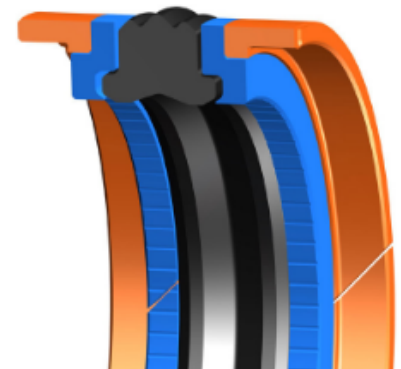
## DESIGN

The Hallite 780 double-acting piston seal in a robust five part assembly is designed specifically for one piece pistons in a wide range of medium duty applications. The seal is also suitable for two piece pistons.

The Hallite 780 is comprised of a nitrile rubber sealing element, two split support rings, and two split L-shaped bearings located either side of the seal. The well-proven nitrile rubber sealing element is designed to be extremely wear resistant with multi-lips for efficient dynamic sealing with minimal low pressure friction and, when pressurized, will be protected from extrusion damage by the extending lips of the support rings.

The support ring is manufactured from a tough, flexible, wear resistant thermoplastic polyester elastomer (TPE) and scarf cut for assembly.

Both the L-shaped bearings and support rings are grooved to ensure that the fluid pressure properly energises the sealing element and to prevent the possibility of any pressure trapping within the seal assembly.



## FEATURES

- Excellent position holding characteristics under load
- Excellent on a variety of tube surface finishes
- Extremely well proven in a variety of applications using hydraulic oil
- Extremely wear resistant
- Low friction

## 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	Colour
Standard	Nitrile 1411-Polyester-POM	Black-Blue-Orange

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## SEAL MANUFACTURERS

## DISTRIBUTORS

## GASKET CUTTERS

**DUBLIN** Unit B1, Nangor Road Business Park, Nangor Road, Dublin D12 TNY6, Ireland **T:** +353 (0)1 427 7900 **E:** dublin@abbeyseals.ie

**CORK** 31A Euro Business Park, Little Island, Cork, T45 X310, Ireland **T:** +353 (0)21 500 3555 **E:** cork@abbeyseals.ie

**DIRECTORS** P.J. Flanagan, C. Flanagan, J. Flanagan, A. Flanagan, N. Flanagan. Registered in Ireland No. 110912

## TECHNICAL DETAILS

OPERATING CONDITIONS	METRIC	INCH
Maximum Speed	0.5 m/sec	1.5 ft/sec
Temperature Range	-30°C +100°C	-22°F +212°F
Maximum Pressure	400 bar	6000 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.

SURFACE ROUGHNESS	µmRa	µmRz	µmRt	µinRa	µinRz	µinRt
Dynamic Sealing Face ØD <sub>1</sub>	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face Ød <sub>1</sub>	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Static Housing Faces L <sub>1</sub>	3.2 max	10 max	16 max	125 max	394 max	630 max

RADII						
Groove Section ≤ S mm	5.00	7.50	8.00	10.00	12.50	15.00
Min Chamfer C mm	2.40	4.00	5.00	5.00	6.50	7.50
Max Chamfer C <sub>1</sub> mm	0.40	0.40	0.40	0.80	0.80	0.80
Max Fillet Rad r <sub>1</sub> mm	0.40	0.40	0.40	0.40	0.80	0.80
Max Fillet Rad r <sub>2</sub> mm	0.40	0.40	0.40	0.40	0.80	0.80
Groove Section ≤ S in	0.312	0.375	0.500			
Min Chamfer C in	0.156	0.187	0.217			
Max Chamfer C <sub>1</sub> in	0.016	0.032	0.032			
Max Fillet Rad r <sub>1</sub> in	0.016	0.016	0.032			
Max Fillet Rad r <sub>2</sub> in	0.016	0.016	0.032			

TOLERANCES	ØD <sub>1</sub>	Ød <sub>1</sub>	Ød <sub>2</sub>	Ød <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>
mm	H9	h9	h9	h11	+0.20 -0	+0.10 -0
in	H9	h9	h9	h11	+0.016 +0.005	+0.004 -0

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