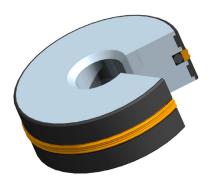


# Hallite 720

**Unitized Piston** 







The Hallite Type 720 is a ready to fit complete piston. The steel piston has a non-metallic bearing material molded over the outer diameter using a special proprietary process. It is then finished machined to provide a tight tolerance with the bore of the tube (usually 0.001 to 0.005" from mating surface.) This reduces the effects of damage from contamination.

Originally designed and patented by Hallite over 35 years ago, the Unitized Piston eliminates any possibility of metal to metal contact and increases sealing performance.

An accepted solution for Construction, Off-Highway and Agricultural cylinders, the Unitized Piston provides the customer with proven extended service life while significantly reducing manufacturing, warranty and assembly costs.

Produced in a wide range of sizes, bearing and seal materials, Hallite's unique Unitized Piston is compatible with the most demanding applications, off-duty cycles, temperatures and pressures, and can be custom designed for OEM applications up to 14" in diameter.



#### **Benefits**

- Reduction in premature failures and warranty claims
- Ease of field service and retrofit
- Extends cylinder performance life
- Heavy duty, high pressure capabilities for today's high pressure systems (5,000 to 10,000 psi; 345 to 690 bar continuous)



# "The Unitized Piston provides the OEM customer with proven extended service life while significantly reducing manufacturing, warranty and assembly costs."

Maximum Speed       1m/sec       3.0 ft/sec         Temperature Range       -30°C + 100°C       -22°F + 212°F         Maximum Pressure       350 bar       5000 p.s.i.         Surface roughness       µmRa       µmRt       µinCLA       µinRMS         Dynamic Sealing Face ØD1       0.1-0.4       4max       4-16       5-18         Static Housing (Rod end)       3.2 max       16 max       125       137         Radii         Max Fillet Rad r1 mm       3         Max Fillet Rad r2 in       0.125         Tolerances       0D1       0D2       0d2         mm       H9       +0.05-0       f9	Technical details Operating conditions	Metric		Inch	
Dynamic Sealing Face ØD1       0.1-0.4       4max       4-16       5-18         Static Housing (Rod end)       3.2 max       16 max       125       137         Radii         Max Fillet Rad r1 mm       3         Max Fillet Rad r1 in       0.125         Tolerances         ØD1       ØD2       Ød2	Temperature Range	-30°C + 100°	С	-22°F +212°F	
Static Housing (Rod end)       3.2 max       16 max       125       137         Radii       Max Fillet Rad r <sub>1</sub> mm       3         Max Fillet Rad r <sub>1</sub> in       0.125         Tolerances       0D <sub>1</sub> 0D <sub>2</sub> 0d <sub>2</sub>	Surface roughness	μmRa	μmRt	μinCLA	μinRMS
Radii	Dynamic Sealing Face ØD <sub>1</sub>	0.1-0.4	4max	4-16	5-18
Max Fillet Rad r1 mm       3         Max Fillet Rad r1 in       0.125         Tolerances       ØD1       ØD2       Ød2	Static Housing (Rod end)	3.2 max	16 max	125	137
Max Fillet Rad $r_1$ in 0.125  Tolerances $\emptyset D_1$ $\emptyset D_2$ $\emptyset d_2$	Radii				
Tolerances $0D_1$ $0D_2$ $0d_2$	Max Fillet Rad r <sub>1</sub> mm	3			
	Max Fillet Rad r <sub>1</sub> in	0.125			
mm H9 +0.05 -0 f9	Tolerances	$\emptyset D_1$	$\emptyset D_2$	$\emptyset d_2$	
	mm	Н9	+0.05 -0	f9	
in H9 +0.002 -0 f9	in	H9	+0.002 -0	f9	

#### metric

ØD <sub>1</sub>	TOL H9	ØD <sub>2</sub>	TOL	L <sub>1</sub> +0.2 -0	PART No.	ØD <sub>1</sub>	TOL H9	ØD <sub>2</sub>	TOL	L <sub>1</sub> +0.2 -0	PART No.
32	+0.06 +0.00	12.0	+0.05 -0.0	25.0	7240510	63	+0.07 +0.00	25.0	+0.05 -0	25.0	7242510
40	+0.06 +0.00	16.0	+0.05 -0.0	25.0	7241010	70	+0.07 +0.00	25.0	+0.05 -0.	29.0	7243010
50	+0.06 +0.00	20.0	+0.05 -0.0	25.0	7241510	80	+0.07 +0.00	25.0	+0.05 -0	29.0	7243510
60	+0.07 +0.00	25.0	+0.05 -0.0	25.0	7242010	100	+0.09 +0.00	32.0	+0.05 -0	40.0	7244010

#### inch

ØD <sub>1</sub>	TOL H9	ØD <sub>2</sub>	TOL	L <sub>1</sub> +0.2 -0	PART No.	ØD <sub>1</sub>	TOL H9	ØD <sub>2</sub>	TOL	L <sub>1</sub> +0.2 -0	PART No.
1.500	+0.003	0.500	+0.002	1.000	H1380*	4.000	+0.004	1.000	+0.002	1.000	H1386
	-0.000		-0.000				-0.000		-0.000		
2.000	+0.003	0.750	+0.002	1.000	H1381*	4.000	+0.004	1.000	+0.002	1.500	H1387
	-0.000		-0.000				-0.000		-0.000		
2.250	+0.003	1.000	+0.002	1.000	H1443*	4.500	+0.004	1.000	+0.002	1.500	H1388
	-0.000		-0.000				-0.000		-0.000		
2.500	+0.003	1.000	+0.002	1.000	H1382*	5.000	+0.004	1.500	+0.002	1.250	H1389
	-0.000		-0.000				-0.000		-0.000		
3.000	+0.003	1.000	+0.002	1.000	H1383	5.000	+0.004	1.500	+0.002	1.750	H1390
	-0.000		-0.000				-0.000		-0.000		
3.500	+0.004	1.000	+0.002	1.000	H1384	6.000	+0.004	1.500	+0.002	2.500	H1359
	-0.000		-0.000				-0.000		-0.000		
3.500	+0.004	1.000	+0.002	1.500	H1385						
	-0.000		-0.000								

<sup>\*</sup> Not fitted with an internal static sealing O-Ring.



#### **Hallite Seals**

Hallite produces high performance hydraulic sealing solutions for the world's fluid power industry. The company enjoys an enviable reputation for high quality and reliability within the mobile hydraulics, mining, off-highway, construction, agriculture, mechanical handling and automation markets.

Hallite products, engineered in a wide variety of advanced materials, are chosen by leading manufacturers for their exceptional performance in the most demanding, safety-critical high specification applications.

Hallite operations are located in Australia, Brazil, Canada, China, France, Germany, India, Italy, the UK and the USA. All Hallite locations are committed to providing quality seals in the shortest possible time. Hallite combines carefully chosen and managed stocks in local markets, supported by a fast track moulding capability. All locations can now boast a CNC machining cell, branded Hallite Service, which can provide immediate delivery for non-standard and breakdown situations.

Additionally a worldwide network of service partners completes the global presence and ensures the full range of Hallite products is readily accessible.

#### **UNITED STATES**

#### **Hallite Seals Americas**

50777 Varsity Court Wixom,

Michigan 48393

T: +1 (248) 668 5200 F: +1 (248) 668 5210 E: seals@hallite.us

#### **AUSTRALIA**

### Hallite Seals Australia Pty.

Unit 4, 1273 The Horsley Drive Wetherill Park, NSW 2164

T: +61 (0)29 620 7300 F: +61 (0)29 620 7400 E: seals@hallite.com.au

#### **BRAZIL**

#### Hallite do Brasil Tecnologia em Vedações Ltda.

Avenida 5, 1367 - Jd Claret Rio Claro - SP, 13503-254

T: +55 (0)19 35231859 F: +55 (0)19 35324805 E: info@halliteseals.com.br

#### CANADA

#### Hallite Seals (Canada) Ltd.

5630 Kennedy Road, Mississauga, Ontario, L4Z 2A9

T: +1 (905) 361 2350 F: +1 (905) 361 2342 E: seals@hallite.ca

#### CHINA

#### Hallite (Shanghai) Co. Ltd.

785 Xing Rong Road, Jiading Industrial Park Jiading District, Shanghai 201804 T: +86 (0)21 3351 7272

F: +86 (0)21 3351 7085 E: fast.shanghai@fenner.com **GERMANY** 

#### Dichtelemente Hallite GmbH

Billwerder Ring 17 21035 Hamburg

T: +49 (0)40 73 47 48-0 F: +49 (0)40 73 47 48 49 E: seals@hallite.de

#### INDIA

## Hallite Sealing Solutions India Pvt. Ltd.

Special Plot #10, 3rd Main, 1st Stage,

Peenya Industrial Estate, Bangalore - 560 068 T: +91 80 4180 0908

F: +91 80 4180 0900 E: seals@hallite.in

#### **ITALY**

#### Hallite Italia srl

Via Francia 21, Loc. Guasticce 57017 Collesalvetti - Livorno

T: +39 (0) 58 642 8287 / 9734 F: +39 (0) 58 642 9845

E: seals@hallite.it

#### **UNITED KINGDOM**

#### Hallite Seals International Ltd.

130 Oldfield Road, Hampton Middlesex, TW12 2HT

T: +44 (0)20 8941 2244 F: +44 (0)20 8783 1669 E: seals@hallite.com