

Material

The 254 Series piston seal features a robust NBR elastomer, a profile ring in PTFE-Bronze compound and back-up rings in high-strength polyacetal (POM).

Material	Code
PTFE-Bronze compound /NBR / POM	T24

Operating Parameters

Temperature	°C	°F
hydraulic oil	-30...+100	-22...+212
water oil emulsions (HFA)	-	-
water-glycol fluids (HFC)	-	-
polyol esters (HFD)	-	-
water	-	-

Speed	1.5 m/s (5 ft/sec)
Pressure	500 bar (7250psi)

Note: for other materials or fluids please contact our engineering department

Description

The 254 Series piston seal consists of a NBR energised elastomer, a PTFE compound profile ring and two anti-extrusion back-up rings. It is designed for double-acting cylinders in heavy duty applications subject to severe pressure spikes.

Product Benefits

- High pressure resistance
- High temperature resistance
- High extrusion resistance
- Low friction
- Compatible with a wide range of media

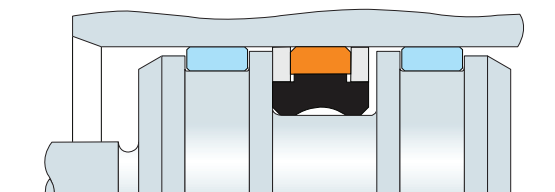
Applications

The 254 Series piston seal is ideal for low to high-pressure sealing applications requiring low-friction performance.

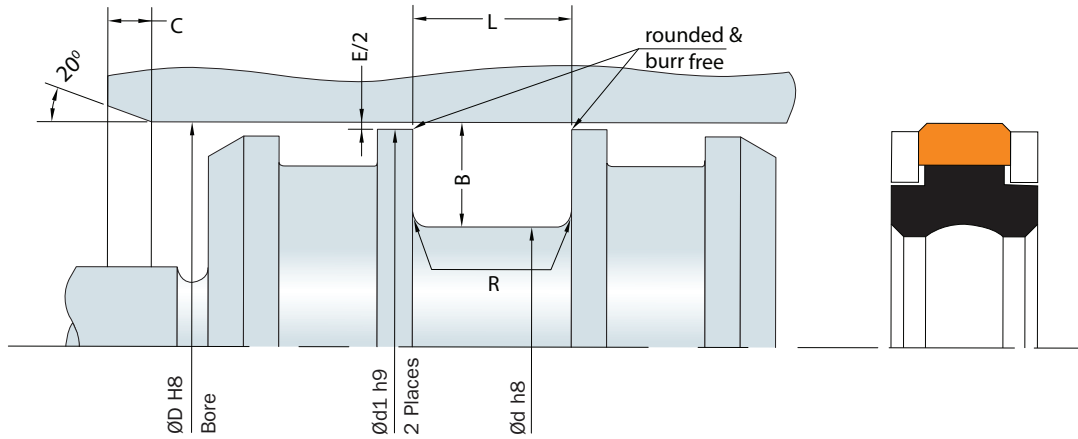
Typical applications include:

- Mobile hydraulics
- Earthmoving equipment

Installation Drawing



Design Guidelines



Metric Series

	B	d	L ^{+0.2}	C	d1 <500	R typical
Series 1	6.00 mm	D-12	10.00	6.00 mm	D-0.40	0.5
Series 2	8.50 mm	D-17	14.00	8.00 mm	D-0.50	0.5
Series 3	10.00 mm	D-20	17.50	10.50 mm	D-0.50	0.5
Series 4	12.50 mm	D-25	19.00	10.50 mm	D-0.70	0.5

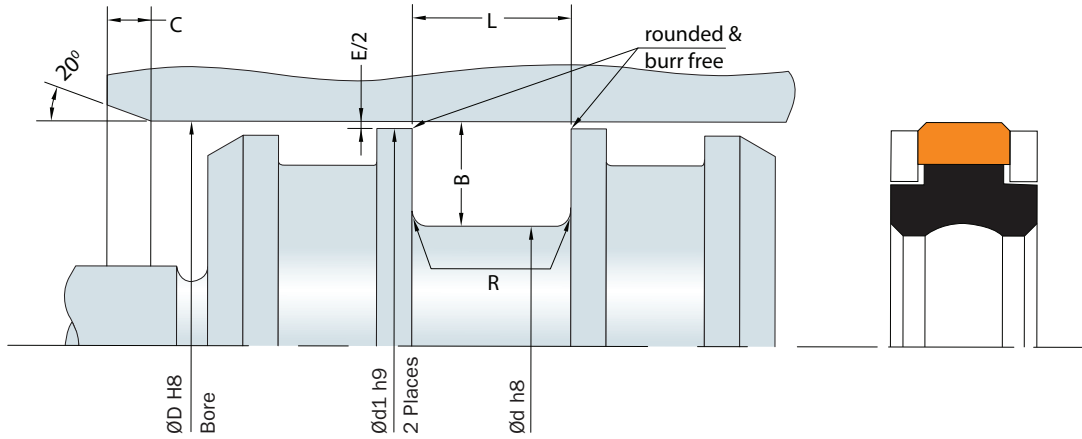
Inch Series

	B	d	L ^{+0.008}	C	d1 <500	R typical
Series 1	0.236 inches	D-0.472	0.393	0.236 inches	D-0.016	0.020
Series 2	0.335 inches	D-0.670	0.551	0.315 inches	D-0.020	0.020
Series 3	0.393 inches	D-0.787	0.688	0.413 inches	D-0.020	0.020
Series 4	0.492 inches	D-0.984	0.748	0.413 inches	D-0.028	0.020

The extrusion gap "E" is suitable for pressure up to 500 bar (7250 psi) and temperatures up to 80° C (176° F). For higher pressures or temperatures, please consult our engineering department for guidance.

Surface Finish

Surface roughness	Ra	Rt	RMS
Sliding surface	≤0.3 µm	≤3 µm	8 RMS
Surface of groove I.D.	≤1.8 µm	≤10 µm	64 RMS
Sides of groove	≤3 µm	≤16 µm	125 RMS



Parts List

ØD	ød	B	L	H	T24 PTFE-Bronze
50.00	38.00	6.00	10.00	9.00	254.92337
63.00	51.00	6.00	10.00	9.00	254.91953
70.00	53.00	8.50	14.00	13.40	254.92027
80.00	63.00	8.50	14.00	13.40	254.92356
90.00	73.00	8.50	14.00	13.40	254.92672
100.00	83.00	8.50	14.00	13.40	254.92576
105.00	88.00	8.50	14.00	13.40	254.91904
110.00	93.00	8.50	14.00	13.40	254.91933
115.00	98.00	8.50	14.00	13.40	254.91705
120.00	103.00	8.50	14.00	13.40	254.91838
125.00	108.00	8.50	14.00	13.40	254.92360
130.00	105.00	12.50	19.00	18.40	254.92325
140.00	115.00	12.50	19.00	18.40	254.92249
150.00	125.00	12.50	19.00	18.40	254.92243
160.00	135.00	12.50	19.00	18.40	254.91810
165.00	140.00	12.50	19.00	18.40	254.91880
180.00	155.00	12.50	19.00	18.40	254.92382
200.00	175.00	12.50	19.00	18.40	254.92577
250.00	225.00	12.50	19.00	18.40	254.91889
280.00	255.00	12.50	19.00	18.40	254.91825
300.00	275.00	12.50	19.00	18.40	254.92626
320.00	295.00	12.50	19.00	18.40	254.92069