The profile BD Ultrathan® rod seal is the result of a further development of the Parker seal Park-O-Pak® with a secondary sealing lip and a highly extrusion resistant back-up ring. Due to the secondary lip, additional lubricant is retained in the sealing gap. This greatly prevents dry-run and wear, thus increasing the seals service life. Additionally, this second sealing lip may even act as a substitute for a costly tandem arrangement when, under certain conditions, satisfactory sealing performance can only be achieved by two seals placed one behind the other in separate installation grooves.
These seals may be used for all applications where the physical properties of normal or fabric reinforced elastomers are insufficient.

- Exceptionally high static and dynamic sealing performance.
- Enhanced sealing performance in non-pressurized conditions.
- Penetration of air into the system is largely prevented.
- Robust seal profile for harshest operating conditions.
- Extreme wear resistance.
- Easier installation.
- Insensitive to extreme pressure peaks.
- Improved lubrication due to pressure medium deposit in the dynamic contact area.
- Extremely high extrusion resistance.
- Excellent media resistance in case of suitable compound selection.
- Suitable compounds available for special requirements of the chemical process industry.
- Suitable compounds available for special requirements of the food processing industry.
- Dimensions according to ISO 5597.
- Installation in closed and undercut housings.
- Low compression set.
- Machined small-volume series and samples available with short lead times.

Range of Application

Mainly for the sealing of piston rods and plungers on heavy duty applications in mobile and stationary hydraulics.

Working pressure	≤ 500 bar
Pressure peaks	≤ 1000 bar
Working temperature	-35 °C to +110 °C
Surface speed	≤ 0.5 m/s
Media	Mineral-oil based hydraulic oils.

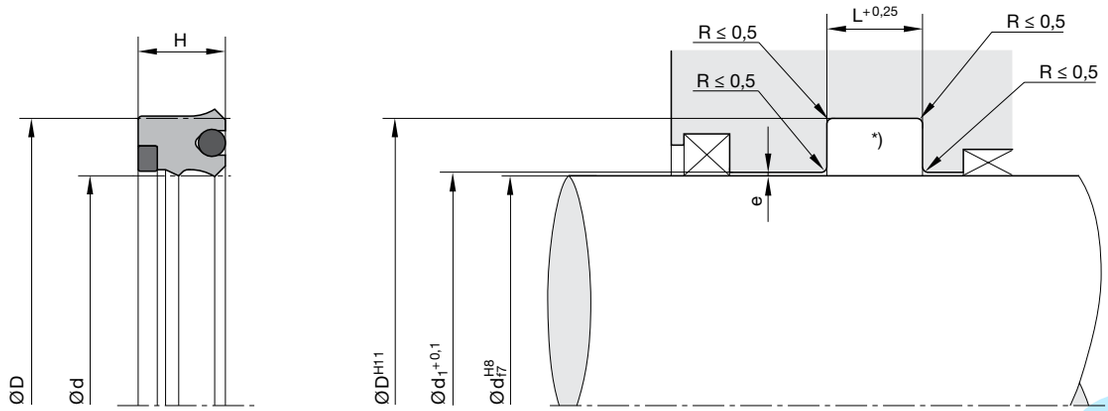
Compounds

The compound P5008 is a Parker material based on polyurethane with a hardness of approx. 93 Shore A.
NBR-O-ring with approx. 70 Shore A.
Back-up ring made of filled polyamide (W5019).

Installation

The seals should have an axial clearance (see columns H and L). To avoid damage at the sealing lips, the seals should not be pulled over sharp edges during installation.
Normally these seals may be snapped into closed grooves. Where access is restricted special assembly tools may be required. Proposals for the design of such tools will be provided on request. Tolerance guidelines H8/f7.

In case of special operating conditions (specific pressure loads, temperature, speed, use in water, HFA, HFB fluids etc.), please contact our consultancy service for a selection of the material and design best suiting your particular application requirements.



* In the case of designs according to ISO standard, the radii given there should be used.
"e" see chapter "Maximum gap allowance"

For surface finish, lead in chamfer and other installation dimensions see "General installation guidelines".

d	D	H	L	d_1	ISO[1)]	Order code
40	55	11.4	12.5	40.5	•	BD 0040 00042
50	65	11.4	12.5	50.5	•	BD 0050 00042
56	71	11.4	12.5	56.5		BD 0056 00042
60	75	11.4	12.5	60.5		BD 0060 00042
63	78	11.4	12.5	63.5		BD 0063 00042
65	80	11.4	12.5	65.5		BD 0065 00042
70	85	11.4	12.5	70.5	•	BD 0070 00042
75	90	11.4	12.5	75.5		BD 0075 00042
80	95	11.4	12.5	80.5	•	BD 0080 00042
85	100	11.4	12.5	85.5		BD 0085 00042
85	100	12	13	85.5		BD 0086 00042
90	105	11.4	12.5	90.5	•	BD 0090 00042
95	110	12	13	95.5		BD 0092 00042
100	115	12	13	100.5		BD 0095 00042
100	120	13.5	15	100.6		BD 0099 00042
100	120	14.5	16	100.6	•	BD 0100 00042
110	130	14.5	16	110.6	•	BD 0110 00042
120	140	14.5	16	120.6		BD 0120 00042
125	145	14.5	16	125.6	•	BD 0125 00042
130	150	14.5	16	130.6		BD 0130 00042
140	160	14.5	16	140.6	•	BD 0140 00042
150	170	14.5	16	150.6		BD 0150 00042
160	180	14.5	16	160.6		BD 0160 00042
170	190	14.5	16	170.6		BD 0170 00042
180	205	18.2	20	180.8	•	BD 0180 00042
190	215	18.2	20	190.8		BD 0190 00042
200	230	22.7	25	200.8	•	BD 0200 00042
210	240	22.7	25	210.8		BD 0021 00042
220	250	22.7	25	220.8	•	BD 0220 00042
230	260	22.7	25	230.8		BD 0230 00042
240	270	22.7	25	240.8		BD 0240 00042

1) ISO 5597
Further sizes on request.