The purpose of the profile A1 wiper ring is to prevent dust, dirt, grains of sand and metal swarf from penetrating. This is achieved by a special design which largely prevents the development of scratches, protects the guiding parts and extends the working life of the seals.
Oversized diameters ensure a tight fit in the groove thus preventing the penetration of foreign particles and dampness.

The profile A1 wiper ring provides a technically accurate closure at the cylinder; no screwrings and brackets are required. No close tolerances are necessary and no metal inserts. The corrosion which may occur with metal-cased wipers will be prevented. For the groove close tolerances are not required.

If minor quantities or other diameters are required, these may be cut from the next largest size having the same cross-section (for further instruction please refer to „installation").

- Good wear resistance.
- High temperature resistance in case of suitable compound selection.
- 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 DIN ISO 6195, Type E.
- Product geometry prevents dirt deposits at the front face of the cylinder.
- Installation in closed and undercut housings.

Range of application

The profile A1 wiper ring is designed for axially operated rods in hydraulic and pneumatic cylinders, plungers and rod-guidances.

Operating temperature	-35 °C to +100 °C
Sliding speed	≤ 2 m/s

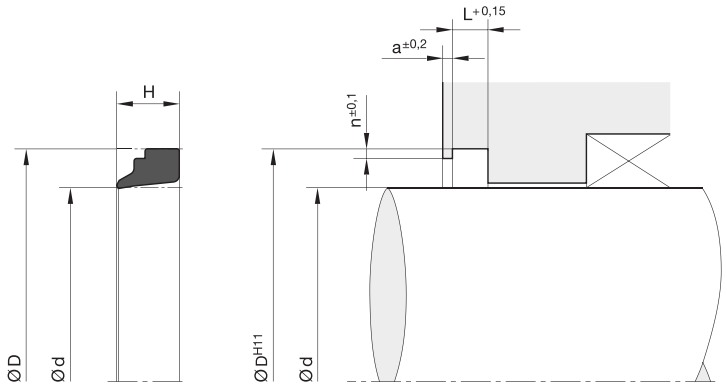
Compounds

The standard material is a NBR-based elastomer compound with a hardness of approx. 90 Shore A.
The profile A1 (NBR) wiper ring is resistant to greases, lubricants, hydraulic oils, HFA-, HFB-, HFC-media, petrol, petroleum, water and lyes.

Installation

The profile A1 wiper ring is supplied as a continuous ring. Any pressure on the back of the ring should be avoided. Intermediate sizes may easily be cut from the next largest ring with the same cross-section. The ring is to be cut at an angle of 90° to the new circumference length (+ 2 to 3 % in excess). Due to the excess length the two ends will fit closely together so that no gap will occur. Gluing is not necessary. The wiper can easily be pressed into the groove and will fit perfectly tight.

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.

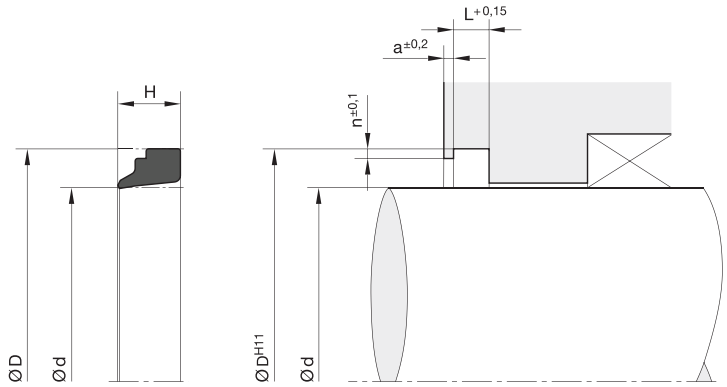


For surface finish, lead in chamfer and other installation dimensions see „General installation guidelines“.

d	D	H	L	a	n	Order code
4	12	7	4	1	1	A1 0015 N3587
5	8	4	2.2	1	0.5	A1 0025 N3587
6	10	4	2.2	1	0.5	A1 0035 N3587
8	14	5	2.6	1	1	A1 0042 N3587
8	16	7	4	1	1	A1 0045 N3587
10	16	5	2.6	1	1	A1 1002 N3587
10	18	7	4	1	1	A1 1005 N3587
12	18	5	2.6	1	1	A1 1009 N3587
12	20	7	4	1	1	A1 1010 N3587
14	20	5	3.1	1	1	A1 1014 N3587
14	22	7	4	1	1	A1 1015 N3587
15	23	7	4	1	1	A1 1020 N3587
16	22	5	3.1	1	1	A1 1016 N3587
16	24	7	4	1	1	A1 1025 N3587
17	25	7	4	1	1	A1 1030 N3587
18	24	5	3.1	1	1	A1 1034 N3587
18	26	7	4	1	1	A1 1035 N3587
20	26	5	3.1	1	1	A1 2026 N3587
20	28	7	4	1	1	A1 2005 N3587
22	30	7	4	1	1	A1 2010 N3587
23	31	7	4	1	1	A1 2015 N3587
24	32	7	4	1	1	A1 2020 N3587
25	33	7	4	1	1	A1 2025 N3587
26	34	7	4	1	1	A1 2030 N3587
28	36	7	4	1	1	A1 2035 N3587
30	36	7	4	1	1	A1 3003 N3587
30	38	7	4	1	1	A1 3005 N3587
32	40	7	4	1	1	A1 3010 N3587
33	41	7	4	1	1	A1 3015 N3587
34	42	7	4	1	1	A1 3020 N3587
35	43	7	4	1	1	A1 3025 N3587
36	44	7	4	1	1	A1 3030 N3587
38	46	7	4	1	1	A1 3035 N3587
40	48	7	4	1	1	A1 4005 N3587

d	D	H	L	a	n	Order code
42	50	7	4	1	1	A1 4015 N3587
44	52	7	4	1	1	A1 4025 N3587
45	53	7	4	1	1	A1 4030 N3587
46	54	7	4	1	1	A1 4040 N3587
47	55	7	4	1	1	A1 4045 N3587
48	56	7	4	1	1	A1 4050 N3587
50	58	7	4	1	1	A1 5005 N3587
50	62	10	5.5	1.5	1.5	A1 5010 N3587
51	59	7	4	1	1	A1 5015 N3587
52	60	7	4	1	1	A1 5020 N3587
54	62	7	4	1	1	A1 5030 N3587
55	63	7	4	1	1	A1 5035 N3587
56	64	7	4	1	1	A1 5040 N3587
57	65	7	4	1	1	A1 5042 N3587
58	66	7	4	1	1	A1 5045 N3587
60	68	7	4	1	1	A1 6005 N3587
60	72	10	5.5	1.5	1.5	A1 6010 N3587
62	70	7	4	1	1	A1 6015 N3587
63	71	7	4	1	1	A1 6020 N3587
64	72	7	4	1	1	A1 6025 N3587
65	73	7	4	1	1	A1 6030 N3587
66	74	7	4	1	1	A1 6035 N3587
67	75	7	4	1	1	A1 6040 N3587
68	76	7	4	1	1	A1 6045 N3587
70	78	7	4	1	1	A1 7005 N3587
72	80	7	4	1	1	A1 7015 N3587
73	81	7	4	1	1	A1 7018 N3587
75	83	7	4	1	1	A1 7025 N3587
78	86	7	4	1	1	A1 7040 N3587
80	88	7	4	1	1	A1 8002 N3587
82	90	7	4	1	1	A1 8010 N3587
83	91	7	4	1	1	A1 8015 N3587
85	93	7	4	1	1	A1 8025 N3587
86	94	7	4	1	1	A1 8030 N3587

Further sizes on request.



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

d	D	H	L	a	n	Order code
88	96	7	4	1	1	A1 8040 N3587
90	98	7	4	1	1	A1 9005 N3587
92	100	7	4	1	1	A1 9015 N3587
93	101	7	4	1	1	A1 9020 N3587
95	103	7	4	1	1	A1 9030 N3587
97	105	7	4	1	1	A1 9045 N3587
100	108	7	4	1	1	A1 A010 N3587
105	117	10	5.5	1.5	1.5	A1 A035 N3587
106	118	10	5.5	1.5	1.5	A1 A040 N3587
110	118	7	4	1	1	A1 B005 N3587
110	122	10	5.5	1.5	1.5	A1 B010 N3587
112	124	10	5.5	1.5	1.5	A1 B020 N3587
114	122	7	4	1	1	A1 B028 N3587
115	127	10	5.5	1.5	1.5	A1 B035 N3587
118	130	10	5.5	1.5	1.5	A1 B050 N3587
120	132	10	5.5	1.5	1.5	A1 C010 N3587
125	137	10	5.5	1.5	1.5	A1 C020 N3587
128	140	10	5.5	1.5	1.5	A1 C035 N3587
130	142	10	5.5	1.5	1.5	A1 D010 N3587
135	147	10	5.5	1.5	1.5	A1 D025 N3587
140	152	10	5.5	1.5	1.5	A1 E010 N3587
142	154	10	5.5	1.5	1.5	A1 E020 N3587
145	157	10	5.5	1.5	1.5	A1 E035 N3587
149	157	7	4	1	1	A1 E090 N3587
150	162	10	5.5	1.5	1.5	A1 F005 N3587
152	164	10	5.5	1.5	1.5	A1 F015 N3587
155	167	10	5.5	1.5	1.5	A1 F030 N3587
160	172	10	5.5	1.5	1.5	A1 G010 N3587
165	177	10	5.5	1.5	1.5	A1 G025 N3587
166	178	10	5.5	1.5	1.5	A1 G030 N3587
168	176	7	4	1	1	A1 G060 N3587
170	182	10	5.5	1.5	1.5	A1 H010 N3587
175	187	10	5.5	1.5	1.5	A1 H025 N3587
180	192	10	5.5	1.5	1.5	A1 J010 N3587

d	D	H	L	a	n	Order code
185	197	10	5.5	1.5	1.5	A1 J050 N3587
190	202	10	5.5	1.5	1.5	A1 K015 N3587
195	207	10	5.5	1.5	1.5	A1 K030 N3587
200	212	10	5.5	1.5	1.5	A1 L003 N3587
210	218	7	4	1	1	A1 L009 N3587
210	225	13	6.5	2	2	A1 L010 N3587
220	235	13	6.5	2	2	A1 M010 N3587
230	245	13	6.5	2	2	A1 M016 N3587
235	250	13	6.5	2	2	A1 M020 N3587
240	255	13	6.5	2	2	A1 N015 N3587
250	265	13	6.5	2	2	A1 N040 N3587
260	275	13	6.5	2	2	A1 O005 N3587
265	280	13	6.5	2	2	A1 O030 N3587
300	315	13	6.5	2	2	A1 Q010 N3587
305	320	13	6.5	2	2	A1 Q015 N3587
310	325	13	6.5	2	2	A1 Q020 N3587
315	330	13	6.5	2	2	A1 Q025 N3587
320	335	13	6.5	2	2	A1 Q030 N3587
340	355	13	6.5	2	2	A1 Q035 N3587
365	380	13	6.5	2	2	A1 Q050 N3587
400	415	13	6.5	2	2	A1 R020 N3587
450	465	13	6.5	2	2	A1 R015 N3587
500	515	13	6.5	2	2	A1 S015 N3587

Further sizes on request.

A1 (PUR)

The function of the profile A1 Ultrathan® wiper ring is to prevent dust, dirt, grains of sand and metal swarf from penetrating. This is achieved by a special design which largely prevents the development of chamfers, protects the guiding parts and extends the working life of the seals.
Oversized diameters ensure a tight fit in the groove thus preventing the penetration of foreign particles and dampness.
This profile A1 wiper ring provides a technically accurate closure at the cylinder; no screwrings and brackets are required. No close tolerances are necessary and no metal inserts. The corrosion which may occur with metal-cased wipers will be prevented. For the groove close tolerances are not required.

If minor quantities or other diameters are required, these may be cut from the next largest size having the same cross-section (for further instruction please refer to „Installation").

- Extreme wear 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 DIN ISO 6195, Type E.
- Product geometry prevents dirt deposits at the front face of the cylinder.
- Installation in closed and undercut housings.
- Additional sizes of machined products available on short notice.

Range of application

The profile A1 Ultrathan® wiper ring is designed for axially operated rods in hydraulic cylinders, plungers and rod guidances.

Operating temperature	-35 °C to +110 °C
Sliding speed	≤ 2 m/s

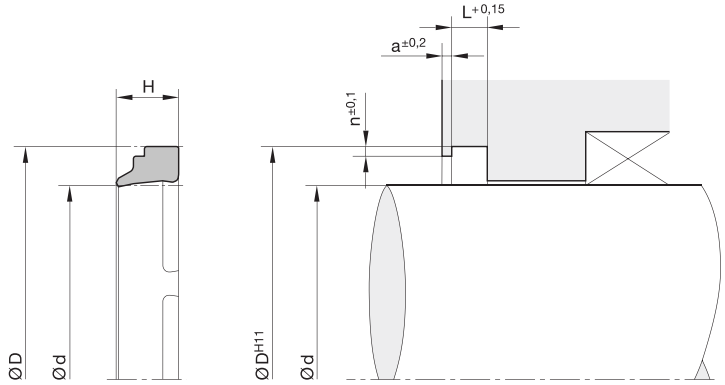
Compounds

The Ultrathan® P5008 compound is a Parker material based on polyurethane with a hardness of approx. 93 Shore A. Its main advantages in comparison with other polyurethane materials currently available on the market are the increased heat and wear resistance.

Installation

The profile A1 Ultrathan® wiper ring can be snapped into simple housings. The wiper lip should not come into contact with piston rod eye or their connecting pieces. It is however recommended that the wiper lip be positioned outside the housing so that the wiped-off dirt can be easily removed.

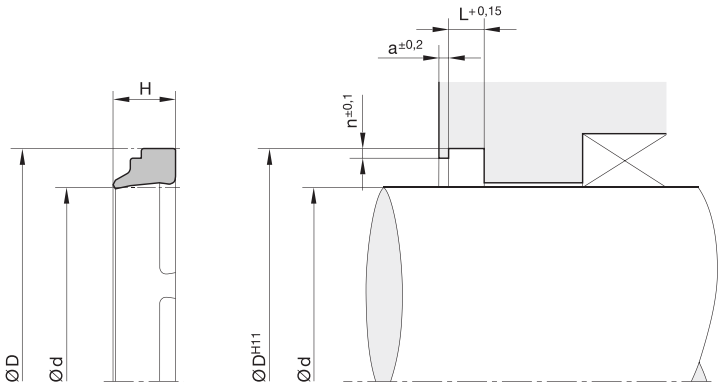
In case of special operating conditions (specific pressure loads, temperature, speed, use in water, HFA, HFB fluids etc.), please contact our consultancy service for a selection of the material and design best suiting your particular application requirements.



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

d	D	H	L	a	n	Order code
12	20	7	4	1	1	A1 1010 P5008
14	22	7	4	1	1	A1 1015 P5008
16	24	7	4	1	1	A1 1025 P5008
18	26	7	4	1	1	A1 1035 P5008
20	28	7	4	1	1	A1 2005 P5008
22	30	7	4	1	1	A1 2010 P5008
25	33	7	4	1	1	A1 2025 P5008
28	36	7	4	1	1	A1 2035 P5008
30	38	7	4	1	1	A1 3005 P5008
32	40	7	4	1	1	A1 3010 P5008
35	43	7	4	1	1	A1 3025 P5008
36	44	7	4	1	1	A1 3030 P5008
38	46	7	4	1	1	A1 3035 P5008
40	48	7	4	1	1	A1 4005 P5008
42	50	7	4	1	1	A1 4015 P5008
45	53	7	4	1	1	A1 4030 P5008
48	56	7	4	1	1	A1 4050 P5008
50	58	7	4	1	1	A1 5005 P5008
50	62	10	5.5	1.5	1.5	A1 5010 P5008
55	63	7	4	1	1	A1 5035 P5008
56	64	7	4	1	1	A1 5040 P5008
60	68	7	4	1	1	A1 6005 P5008
62	70	7	4	1	1	A1 6015 P5008
63	71	7	4	1	1	A1 6020 P5008
65	73	7	4	1	1	A1 6030 P5008
70	78	7	4	1	1	A1 7005 P5008
70	82	10	5.5	1.5	1.5	A1 7008 P5008
75	83	7	4	1	1	A1 7025 P5008
78	86	7	4	1	1	A1 7040 P5008
80	88	7	4	1	1	A1 8002 P5008
80	92	10	5.5	1.5	1.5	A1 8003 P5008
85	93	7	4	1	1	A1 8025 P5008
90	98	7	4	1	1	A1 9005 P5008
95	103	7	4	1	1	A1 9030 P5008

Further sizes on request.



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

d	D	H	L	a	n	Order code
97	105	7	4	1	1	A1 9045 P5008
100	108	7	4	1	1	A1 A010 P5008
105	117	10	5.5	1.5	1.5	A1 A035 P5008
110	122	10	5.5	1.5	1.5	A1 B010 P5008
120	132	10	5.5	1.5	1.5	A1 C010 P5008
125	137	10	5.5	1.5	1.5	A1 C020 P5008
128	140	10	5.5	1.5	1.5	A1 C035 P5008
130	142	10	5.5	1.5	1.5	A1 D010 P5008
140	152	10	5.5	1.5	1.5	A1 E010 P5008
145	157	10	5.5	1.5	1.5	A1 E035 P5008
150	162	10	5.5	1.5	1.5	A1 F005 P5008
160	172	10	5.5	1.5	1.5	A1 G010 P5008
170	182	10	5.5	1.5	1.5	A1 H010 P5008
180	192	10	5.5	1.5	1.5	A1 J010 P5008
190	202	10	5.5	1.5	1.5	A1 K015 P5008
200	212	10	5.5	1.5	1.5	A1 L003 P5008
220	235	13	6.5	2	2	A1 M010 P5008
230	245	13	6.5	2	2	A1 M016 P5008
240	255	13	6.5	2	2	A1 N015 P5008
260	275	13	6.5	2	2	A1 O005 P5008
275	290	13	6.5	2	2	A1 O075 P5008
325	340	13	6.5	2	2	A1 Q032 P5008

Further sizes on request.

The profile AF Ultrathan® wiper ring serves the purpose of preventing the penetration of dust, dirt, sand, and metal swarf into hydraulic cylinders. This reduces the risk of scoring caused by contaminants from external sources imbedded in the sliding parts. The excellent wiping effect is achieved by the special design of the wiper lip.
The proven PU-compound P5008 stands for high abrasion resistance, minor permanent deformation, and robustness vis-a-vis external mechanical impact. By means of a press fit of the metal scan vis-a-vis the external diameter of the seal housing, the wiper is securely held in place in the axially open installation housing. Thanks to the flush end fit of the wiper lip with the cylinder head the lip enjoys a high degree of protection against damage from external causes.

Profile AF provides a proper sealing end device from an engineering point of view and, in conjunction with our rod seals profiles B3 and BU constitutes a sealing system that has been tried and proven under the toughest field conditions.

- Robust seal profile for harshest operating conditions.
- Extreme wear resistance.
- Suitable for fully automatic installation.
- Dimensions according to DIN ISO 6195, Type B.
- Simple fabrication of the housing.

Range of application

Hydraulic cylinders and valves.

Operating temperature	-35 °C to +100 °C
Sliding speed	≤ 2 m/s

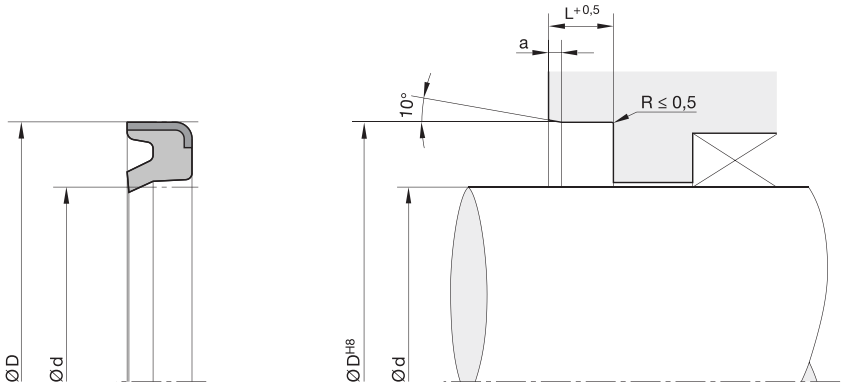
Compounds

Standard material of the elastomer part is Ultrathan® P5008, a polyurethane-based Parker compound with a hardness of approx. 93 Shore A. In comparison with other polyurethane materials currently available on the market, it excels because of its increased heat and wear resistance.

Installation

The profile AF Ultrathan® wiper rings are manufactured with a slightly oversized outer diameter D, thus ensuring a secure press fit in the groove D^{H8} after installation. Any contact of the wiper lip with piston rod eyes or other connecting parts should be avoided.

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.



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

d	D	L	a	ISO[1)]	Order code
20	30	7	1	•	AF 2030 Z5071*
25	35	7	1	•	AF 2535 Z5071*
30	40	6	1		AF 3040 Z5071
36	48	6	1		AF 3648 Z5071
40	50	7	1	•	AF 4050 Z5071*
40	52	6	1		AF 4052 Z5071
45	55	7	1	•	AF 4555 Z5071*
45	60	7.5	1		AF 4560 Z5071
50	60	7	1	•	AF 5060 Z5071*
50	65	7.5	1		AF 5064 Z5071
56	70	7.5	1		AF 5656 Z5071
57.15	69.96	7.92	1.5		AF 5715 Z5071
60	70	7	1		AF 6005 Z5071
60	74	8	1.5		AF 6008 Z5107
60	75	-	0.7		AF 6028 Z5071
63	73	7	1	•	AF 6375 Z5071
63	78	7.5	1		AF 6378 Z5071
65	79	8	1.5		AF 6505 Z5071
65	80	5	0.7		AF 6509 Z5071
69.85	95.4	12.7	2		AF 6908 Z5071*
70	80	7	1	•	AF 7005 Z5071
70	84	8	1.5		AF 7016 Z5071
70	85	7.5	1		AF 7085 Z5071
71	86	5	0.7		AF 7110 Z5071
75	85	7	1		AF 7505 Z5071
75	89	8	1.5		AF 7537 Z5071
75	90	5	0.7		AF 7590 Z5071
76.5	96.5	10	2		AF 7696 Z5071*
80	90	7	1	•	AF 8090 Z5071*
80	94	8	1.5		AF 8013 Z5071
80	95	5	0.7		AF 8005 Z5071
80	100	10	2		AF 8021 Z5071
82.55	108.08	12.7	2		AF 8205 Z5071*
85	95	7	1		AF 8505 Z5071
85	99	8	1.5		AF 8509 Z5071
85	105	10	2		AF 8515 Z5071*
90	100	7	1	•	AF 9020 Z5071
90	104	8	1.5		AF 9033 Z5071
90	105	6	1		AF 9030 Z5071
90	110	10	2		AF 9037 Z5071
95	109	8	1.5		AF 9505 Z5071
100	114	8	1.5		AF A014 Z5071
100	115	7	1		AF A016 Z5071
100	115	9	1.5	•	AF A015 Z5071*
100	120	10	2		AF A021 Z5071
101.6	114	8	1.5		AF A024 Z5071
110	125	9	1.5	•	AF B025 Z5071
110	126	9	1.5		AF B009 Z5071
110	130	10	2		AF B011 Z5071
120	140	8	1.5		AF C023 Z5071
120	140	10	2		AF C024 Z5071
125	140	9	2	•	AF C514 Z5071*

1) DIN ISO 6195, Type B
* Moulds not available on the date of printing.
Further sizes on request.

The profile AG Ultrathan® wiper ring serves the purpose of preventing the penetration of dust, dirt, sand, and metal swarf at the spherical bearings of a hydraulic cylinder rod end. This reduces the danger of „scuffing" on the swivel bolt as a result of contamination from external sources. The excellent wiping effect is achieved by the special design of the wiper lip. Furthermore, the wiper lip opens up during lubrication allowing excess lubricant to escape.

The proven PU-compound P5008 stands for high abrasion resistance, minor permanent deformation, and robustness vis-a-vis external mechanical impact. By means of a press fit of the metal scan vis-a-vis the external diameter of the seal housing, the wiper is securely held in place in the axially open installation housing. Thanks to the flush end fit of the wiper lip with the swivel riveting jig the lip enjoys a high degree of protection against damage from external causes.

- Robust seal profile for harshest operating conditions.
- Extreme wear resistance.
- Suitable for fully automatic installation.
- Simple fabrication of the housing.

Range of application

Hydraulic cylinders and valves

Operating temperature	-35 °C to +100 °C
Sliding speed	≤ 2 m/s

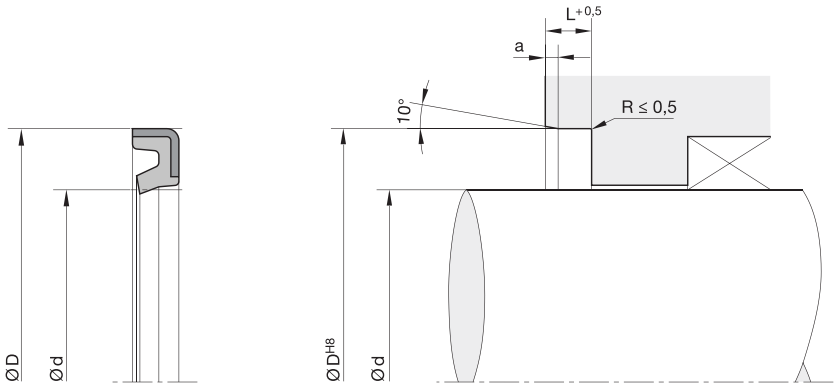
Compounds

Standard material of the elastomer part is Ultrathan® P5008, a polyurethane-based Parker compound with a Shore A hardness of approx. 93. In comparison with other polyurethane materials currently available on the market, it excels because of its increased heat and wear resistance.

Installation

The profile AG Ultrathan® wiper rings are manufactured with a slightly oversized outer diameter D, thus ensuring a secure press fit in the groove D^{H8} after installation. Any contact of the wiper lip with piston rod eyes or other connecting parts should be avoided.

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.



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

d	D	L	a	Order code
25	35	4	1	AG 2535 Z5071
30	40	4	1	AG 3040 Z5071
35	45	4	1	AG 3545 Z5071
38	48	4	1	AG 3848 Z5071
40	50	4	1	AG 4050 Z5071
45	55	4	1	AG 4555 Z5071
50	60	5	1	AG 5060 Z5071
50	65	5	1	AG 050F Z5071
55	65	4.2	1	AG 5565 Z5071
60	70	4.5	1	AG 6071 Z5071
60	75	5	1	AG 6028 Z5071
63	80	5	1	AG 6380 Z5071
65	80	5	1	AG 6509 Z5071
70	80	4.5	1	AG 7081 Z5071
70	85	5	1	AG 7005 Z5071
70	85	7.5	1	AG 7085 Z5071
71	86	5	1	AG 7110 Z5071
75	90	5	1	AG 7590 Z5071
80	90	4.5	1	AG 8091 Z5071
80	95	5	1	AG 8005 Z5071
80	95	6.5	1	AG 8006 Z5071
85	95	4.5	1	AG 8596 Z5071
85	100	4	1	AG 8500 Z5071
85	100	6	1	AG 8506 Z5071
90	105	4	1	AG 9005 Z5071
90	105	6	1	AG 9030 Z5071
95	110	6.5	1	AG 9510 Z5071
95	110	8	1.5	AG 9511 Z5071
100	115	7	1	AG A016 Z5071
100	120	6.5	1	AG A020 Z5071
105	120	7	1	AG A105 Z5071
110	125	6.5	1	AG B023 Z5071
110	125	8	1.5	AG B110 Z5071
110	130	4.5	1	AG B131 Z5071
120	135	6.5	1	AG C006 Z5071
120	135	8	1.5	AG C120 Z5071

Further sizes on request.

Double wiper with metal case

AH

The profile AH Ultrathan® double wiper ring serves the purpose of preventing the penetration of dust, dirt, sand, and metal swarf into hydraulic cylinders. This reduces the risk of scoring caused by contaminants from external sources embedded in the sliding parts. The excellent wiping effect is achieved by the special design of the wiper lip. In addition, the sealing lip on the side of the medium reduces the residual oil film.

The proven Ultrathan® compound P5008 stands for high abrasion resistance, minor permanent deformation, and robustness vis-a-vis external mechanical impact. By means of a press fit of the metal case vis-a-vis the external diameter of the seal housing, the wiper is securely held in place in the axially open installation housing.

- Robust seal profile for harshest operating conditions.
- Extreme wear resistance.
- Suitable for fully automatic installation.
- Product geometry prevents dirt deposits at the front face of the cylinder.
- Simple fabrication of the housing.

Range of application

Hydraulic cylinders

Operating temperature	-35 °C to +100 °C
Sliding speed	≤ 2 m/s

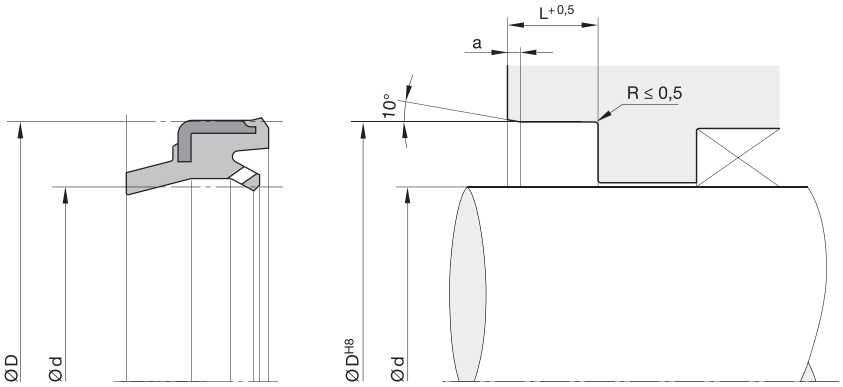
Compounds

Ultrathan® P5008 is a polyurethane-based Parker compound with a hardness of approx. 93 Shore A.
In comparison with other polyurethane materials currently available on the market it excels because of its increased heat and wear resistance.

Installation

The profile AH double wiper rings are manufactured with a slightly oversized outer diameter D, thus ensuring a secure press fit in the groove D^{H8} after installation. Any contact of the wiper lip with piston rod eyes or other connecting parts should be avoided.

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.



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

d	D	L	a	ISO[1)]	Order code
20	30	7	1	•	AH 2030 Z5071*
22	32	7	1	•	AH 2232 Z5071*
25	35	7	1	•	AH 2535 Z5071*
28	38	7	1	•	AH 2838 Z5071*
32	42	7	1	•	AH 3242 Z5071*
36	46	7	1	•	AH 3646 Z5071*
40	50	7	1	•	AH 4050 Z5071*
45	55	7	1	•	AH 4555 Z5071*
50	60	7	1	•	AH 5060 Z5071*
56	66	7	1	•	AH 5666 Z5071*
60	70	7	1	•	AH 6070 Z5071
63	73	7	1	•	AH 6373 Z5071*
70	80	7	1	•	AH 7080 Z5071*
70	80	7	1.5		AH 7008 Z5071*
75	89	8	1.5		AH 7589 Z5071*
80	90	7	1	•	AH 8090 Z5071*
80	90	8	1.5		AH 8007 Z5071
80	94	8	1.5		AH 8095 Z5071
85	99	8	1.5		AH 8599 Z5071
90	100	7	1	•	AH 9010 Z5071*
90	100	9.5	1.5		AH 9007 Z5071
90	104	8	1.5		AH 9004 Z5071
90	109	8	1.5		AH 9509 Z5071
100	110	7	1.5		AH A010 Z5071
100	114	8	1.5		AH A114 Z5071
100	115	9	1	•	AH A115 Z5071*
115	125	9	1	•	AH A125 Z5071*
125	140	9	1	•	AH B140 Z5071*

1) DIN ISO 6195, Type B
* Moulds not available on the date of printing.
Further sizes on request.

Because of their special profile, the profile AM wiper rings prevent the penetration of dust, dirt, grains of sand and metal swarf. Scoring is avoided to a great extent. Therefore sliding surfaces will be protected, the service life of the seals will be extended.
Oversized diameters ensure a tight fit when assembled and prevent the penetration of foreign particles at the outer diameter of the wiper. The profile AM wiper rings will provide a neat closure at the cylinder; no special screwrings or holding plates are required.

- Good wear resistance.
- Suitable for fully automatic installation.
- High temperature resistance in case of suitable compound selection.
- Excellent media resistance in case of suitable compound selection.

Range of application

Hydraulic and pneumatic cylinders, valve lifters etc.

Operating temperature	-35 °C to +100 °C
Pneumatics	-35 °C to +80 °C
Sliding speed	≤ 2 m/s

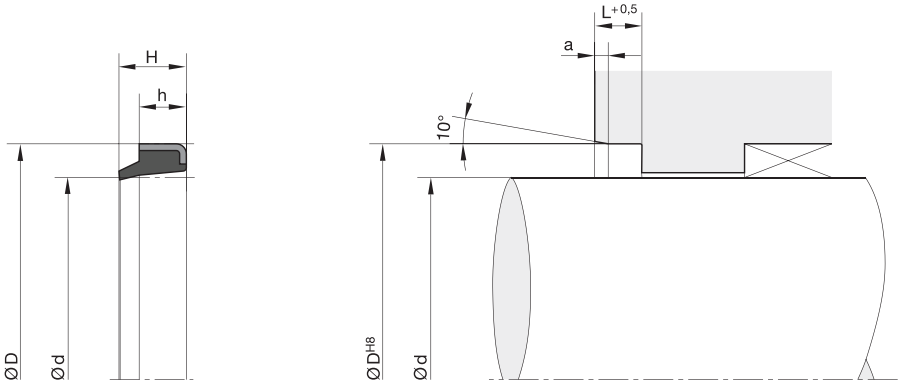
Compounds

Standard compound for the rubber part of the wiper is a NBR elastomer with a hardness of approx. 90 Shore A (Z5053). Additionally, a large number of dimensions is also available with FKM elastomer (Z5066).

Installation

The profile AM wiper rings are manufactured with a slightly oversized outer diameter D, thus ensuring a secure press fit in the groove D^{H8} after installation. Any contact of the wiper lip with piston rod eyes or other connecting parts should be avoided.

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.



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

d	D	H	h/L	a	ISO[1)]	Order code
6	13	4.5	3	0.6		AM 0018 Z5053
10	16	4.5	3	0.6		AM 1016 Z5053
10	20	8	5	1		AM 1020 Z5053
12	20	6	4	0.8		AM 1029 Z5053
12	22	8	5	1		AM 1030 Z5053
14	22	4	3	0.6		AM 1035 Z5053
16	22	4	3	0.6		AM 1053 Z5053
16	26	8	5	1		AM 1055 Z5053
18	28	10	7	1.4	•	AM 1080 Z5053
20	28	5	3.5	0.8		AM 2001 Z5053
20	30	6	4	0.8		AM 2003 Z5053
20	30	10	7	1.4	•	AM 2005 Z5053
22	28	9	5	1		AM 2012 Z5053
22	32	10	7	1.4	•	AM 2015 Z5053
24	35	8	5	1		AM 2435 Z5053
25	35	10	7	1.4	•	AM 2048 Z5053
28	40	10	7	1.4		AM 2087 Z5053
30	40	8	5	1		AM 3010 Z5053
30	40	10	7	1.4		AM 3012 Z5053
32	45	8	4	0.8		AM 3020 Z5053
32	45	10	7	1.4		AM 3022 Z5053
35	45	10	7	1.4		AM 3050 Z5053
36	45	10	7	1.4		AM 3054 Z5053
36	46	8	5	1		AM 3055 Z5053
40	50	8	5	1		AM 4004 Z5053
40	50	10	7	1.4	•	AM 4005 Z5053
42	52	10	7	1.4		AM 4022 Z5053
45	55	10	7	1.4	•	AM 4050 Z5053
45	60	10	7	1.4		AM 4052 Z5053
50	56	8	5	1		AM 5004 Z5053
50	60	8	5	1		AM 5007 Z5053
50	60	10	7	1.4	•	AM 5006 Z5053
50	65	8	5	1		AM 5010 Z5053
55	63	10	7	1.4		AM 5050 Z5053
55	65	10	7	1.4		AM 5048 Z5053
56	66	8	5	1		AM 5051 Z5053
56	66	10	7	1.4	•	AM 5052 Z5053
60	70	10	7	1.4		AM 6007 Z5053
60	74	8	5	0.8		AM 6008 Z5053
63	75	10	7	1.4		AM 6035 Z5053
63	83	8	5	1		AM 6043 Z5053
65	75	10	7	1.4		AM 6050 Z5053
70	80	10	7	1.4	•	AM 7008 Z5053
75	85	10	7	1.4		AM 7050 Z5053
80	90	10	7	1.4	•	AM 8009 Z5053
84	94	8	5	1		AM 8044 Z5053
85	95	10	7	1.4		AM 8050 Z5053
90	100	7	5	1		AM 9009 Z5053
90	100	10	7	1.4	•	AM 9010 Z5053
95	106	10	7	1.4		AM 9507 Z5053
100	110	7	5	1		AM A007 Z5053
100	110	10	7	1.4		AM A010 Z5053
110	120	10	7	1.4		AM B020 Z5053
115	125	10	7	1.4		AM B050 Z5053
120	130	10	7	1.4		AM C030 Z5053
125	140	12	9	1.8	•	AM C050 Z5053
130	145	12	9	1.8		AM D001 Z5053
140	155	12	9	1.8	•	AM E005 Z5053
150	166	12	8	1.8		AM F003 Z5053
160	176	12	8	1.8		AM G008 Z5053
165	180	12	8	1.8		AM G060 Z5053
170	185	14	10	2		AM H015 Z5053
180	195	14	10	2		AM J009 Z5053
200	220	16	12	2.4		AM L020 Z5053
240	260	16	12	2.4		AM N010 Z5092

1) DIN ISO 6195, Type B
Further sizes on request.

The function of wiper rings is to prevent dust, dirt, grains of sand and metal swarf from penetrating into axially moving rods and plungers. Thus the development of scratches is largely prevented, guiding elements and seals are protected and the working life of the sealing system is extended.

Profile AD consists of a PTFE wiper ring and an elastomer O-ring as a preloading element. It combines two functions: wiping against pollution from outside and a sealing function which reduces the residual oil film.

The material combination of the slipper ring (PTFE) and the O-ring (elastomer) makes this product suitable for a wide range of applications, especially for aggressive media and/or high temperatures. Multiple compounds can alternatively be selected according to the individual application profile.

- Excellent wear resistance.
- Minimal break-away and dynamic friction and no stick-slip tendency ensures uniform motion even at low speeds.
- Good energy efficiency due to low friction.
- High temperature resistance assured by suitable O-ring compound selection.
- Adaptable to nearly all media thanks to high chemical resistance of the sealing ring and large O-ring compound selection.
- Dimensions according to DIN ISO 6195, Type C or Type D.
- Available in diameters from 4 to 3000 mm.
- Installation in closed and undercut housings.

Range of application

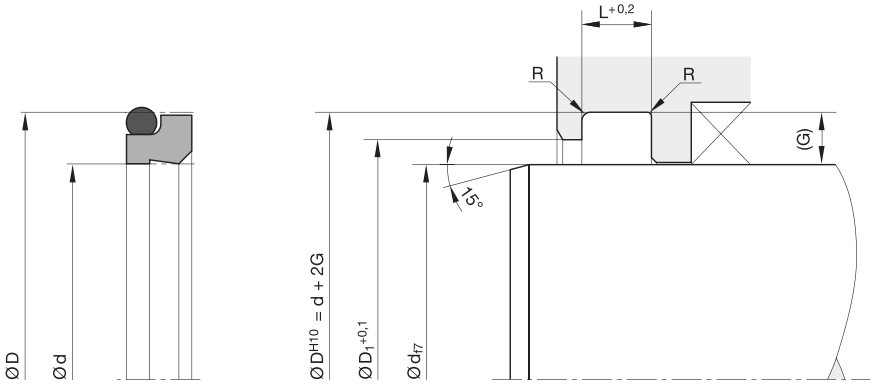
Operating temperature	-30 °C to +100 °C [1]
with FKM O-ring	-30 °C to +200 °C
Sliding speed	≤ 4 m/s

[1] With deviation from standard temperature range, please contact our consultancy service for adequate O-ring compound.

Compounds

Wiper ring: Polon® 052, modified PTFE with 40 % bronze.
O-ring: N0674, NBR elastomer with approx. 70 Shore A.

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.

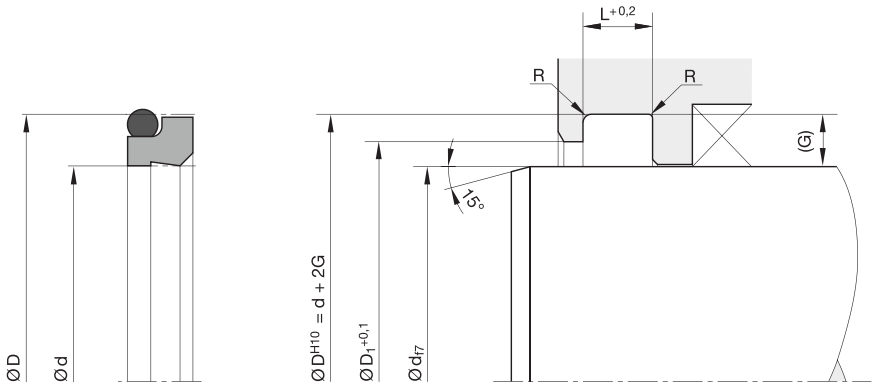


For surface finish, lead in chamfer and other installation dimensions see „General installation guidelines“.

Housing dimensions

Series no.	Cross-section	O-ring cross-section (mm)	Recommended rod Ø range d (mm) ≥	<	Groove width L (mm)	Groove depth G (mm)	Ø Retainer ring D_1 (mm)	Radius max. R (mm)	ISO[1]	ISO[2]
00590	A	1.78	6	12	3.7	2.40	d + 1.5	0.4	•	
00590	B	2.62	12	65	5.0	3.40	d + 1.5	0.4	•	
00590	C	3.53	65	250	6.0	4.40	d + 2.0	0.4		
00590	D	5.33	250	420	8.4	6.10	d + 2.0	0.4		
00590	E	6.99	420	650	11.0	8.00	d + 2.5	0.4		
00590	G	8.40	650	1000	14.0	10.00	d + 2.5	0.4		
00590	K	1.78	6	25	4.0	3.00	d + 2.5	0.4		•
00590	L	2.62	28	50	5.0	4.00	d + 3.0	0.4		•
00590	M	3.53	56	100	6.0	5.00	d + 3.0	0.4		•
00590	N	5.33	110	200	8.5	7.50	d + 4.0	0.4		•
00590	O	6.99	220	360	12.0	10.00	d + 6.0	0.4		•

1) Housing dimensions according to DIN ISO 6195, Type D.
2) Housing dimensions according to DIN ISO 6195, Type C.



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

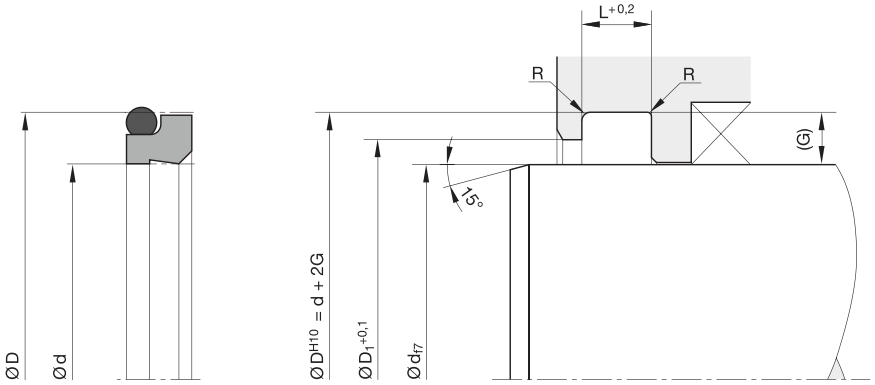
Ordering example

Rod diameter 40 mm

AD 0400 052 00591 B (40 × 46.8 × 5)

AD	Profile			
0400	Rod diameter × 10			
052	Compound			
00591	Series no. / compound code O-ring			
	00590	without O-ring		
	00591	N0674 (NBR)	70±5 Shore A	-30 / +110°C
	00592	V0747 (FKM)	75±5 Shore A	-25 / +200°C
	00593	N3575 (NBR)	75±5 Shore A	-50 / +110°C
	00594	E0540 (EPDM)	80±5 Shore A	-40 / +150°C
	00595	N3578 (NBR)	75±5 Shore A	-30 / +110°C
	00596	N0552 (NBR)	90±5 Shore A	-30 / +100°C
	00597	N1173 (HNBR)	70±5 Shore A	-30 / +150°C
B	Cross-section			

Please note:
For certain applications, it might be convenient to use a non-standard cross-section – reduced or heavier. In these cases, please replace the standard cross-section code (in above example: „B“) by the one you require (for example „A“ or „C“).

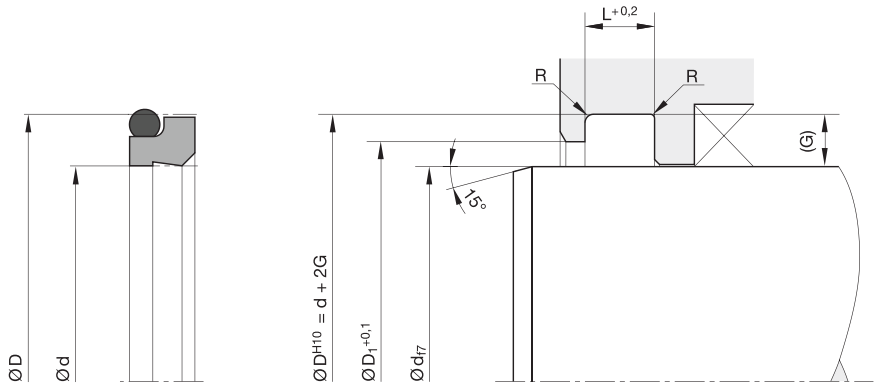


For surface finish, lead in chamfer and other installation dimensions see „General installation guidelines“.

Standard range

Size	Groove				O-ring			ISO[1]
	Ø d (mm)	Ø D (mm)	Ø D_1 (mm)	L (mm)	No.	CS (mm)	ID (mm)	
0040	4	8.80	5.50	3.70	2-009	1.78	5.28	•
0050	5	9.80	6.50	3.70	2-010	1.78	6.07	•
0070	7	11.80	8.50	3.70	2-011	1.78	7.65	
0080	8	12.80	9.50	3.70	2-012	1.78	9.25	•
0100	10	14.80	11.50	3.70	2-013	1.78	10.82	•
0120	12	18.80	13.50	5	2-113	2.62	13.94	•
0140	14	20.80	15.50	5	2-114	2.62	15.54	•
0150	15	21.80	16.50	5	2-115	2.62	17.12	
0160	16	22.80	17.50	5	2-116	2.62	18.72	•
0180	18	24.80	19.50	5	2-117	2.62	20.29	•
0200	20	26.80	21.50	5	2-118	2.62	21.89	•
0240	24	30.80	25.50	5	2-120	2.62	25.07	
0250	25	31.80	26.50	5	2-121	2.62	26.64	•
0260	26	32.80	27.50	5	2-122	2.62	28.24	
0280	28	34.80	29.50	5	2-123	2.62	29.82	•
0300	30	36.80	31.50	5	2-124	2.62	31.42	
0320	32	38.80	33.50	5	2-126	2.62	34.59	•
0350	35	41.80	36.50	5	2-127	2.62	36.17	
0370	37	43.80	38.50	5	2-129	2.62	39.34	
0380	38	44.80	39.50	5	2-130	2.62	40.94	
0400	40	46.80	41.50	5	2-131	2.62	42.52	•
0420	42	48.80	43.50	5	2-132	2.62	44.12	
0450	45	51.80	46.50	5	2-134	2.62	47.29	•
0480	48	54.80	49.50	5	2-136	2.62	50.47	
0500	50	56.80	51.50	5	2-137	2.62	52.07	•
0520	52	58.80	53.50	5	2-138	2.62	53.64	
0550	55	61.80	56.50	5	2-140	2.62	56.82	
0580	58	64.80	59.50	5	2-142	2.62	59.99	
0600	60	66.80	61.50	5	2-143	2.62	61.60	
0650	65	73.80	67	6	2-231	3.53	66.27	

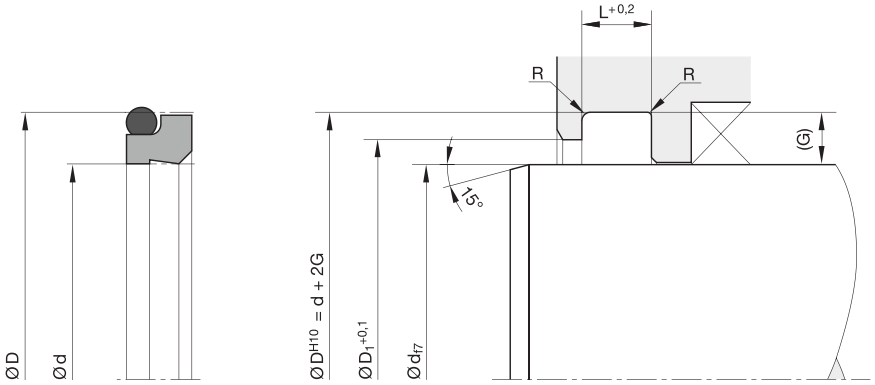
[1] Housing dimensions according to DIN ISO 6195, Type C or Type D.
Further sizes on request.



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

Size	Groove				O-ring			ISO[1]
	Ø d (mm)	Ø D (mm)	Ø D_1 (mm)	L (mm)	No.	CS (mm)	ID (mm)	
0700	70	78.80	72	6	2-233	3.53	72.62	•
0750	75	83.80	77	6	2-234	3.53	75.79	
0800	80	88.80	82	6	2-236	3.53	82.14	•
0850	85	93.80	87	6	2-237	3.53	85.32	
0900	90	98.80	92	6	2-239	3.53	91.67	•
0950	95	103.80	97	6	2-241	3.53	98.02	
1000	100	108.80	102	6	2-242	3.53	101.19	•
1100	110	118.80	112	6	2-245	3.53	110.72	•
1200	120	128.80	122	6	2-249	3.53	123.42	
1250	125	133.80	127	6	2-250	3.53	126.59	•
1300	130	138.80	132	6	2-252	3.53	132.94	
1400	140	148.80	142	6	2-255	3.53	142.47	
1500	150	158.80	152	6	2-258	3.53	151.99	
1550	155	163.80	157	6	2-259	3.53	158.34	
1600	160	168.80	162	6	2-260	3.53	164.69	
1700	170	178.80	172	6	2-261	3.53	171.04	
1750	175	183.80	177	6	2-262	3.53	177.39	
1800	180	188.80	182	6	2-263	3.53	183.74	
1850	185	193.80	187	6	2-263	3.53	183.74	
1900	190	198.80	192	6	2-264	3.53	190.09	
1950	195	203.80	197	6	2-265	3.53	196.44	
2000	200	208.80	202	6	2-266	3.53	202.79	
2100	210	218.80	212	6	2-267	3.53	209.14	
2200	220	228.80	222	6	2-269	3.53	221.84	
2250	225	233.80	227	6	2-270	3.53	228.19	
2300	230	238.80	232	6	2-271	3.53	234.54	
2400	240	248.80	242	6	2-272	3.53	240.89	
2500	250	258.80	252	6	2-274	3.53	253.59	•
2600	260	272.20	262	8.40	2-378	5.33	266.07	
2700	270	282.20	272	8.40	2-379	5.33	278.77	

[1] Housing dimensions according to DIN ISO 6195, Type C or Type D.
Further sizes on request.



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

Size	Groove				O-ring			ISO[1]
	Ø d (mm)	Ø D (mm)	Ø D_1 (mm)	L (mm)	No.	CS (mm)	ID (mm)	
2800	280	292.20	282	8.40	2-379	5.33	278.77	•
2900	290	302.20	292	8.40	2-380	5.33	291.47	
3000	300	312.20	302	8.40	2-381	5.33	304.17	
3100	310	322.20	312	8.40	2-381	5.33	304.17	
3200	320	332.20	322	8.40	2-382	5.33	329.57	•
3300	330	342.20	332	8.40	2-382	5.33	329.57	
3400	340	352.20	342	8.40	2-382	5.33	329.57	
3500	350	362.20	352	8.40	2-383	5.33	354.97	
3600	360	372.20	362	8.40	2-383	5.33	354.97	•
3700	370	382.20	372	8.40	2-383	5.33	354.97	
3800	380	392.20	382	8.40	2-384	5.33	380.37	
3900	390	402.20	392	8.40	2-384	5.33	380.37	
4000	400	412.20	402	8.40	2-385	5.33	405.26	
4100	410	422.20	412	8.40	2-385	5.33	405.26	
4200	420	432.20	422.50	8.40	2-386	5.33	430.66	
4300	430	446	432.50	11	2-463	6.99	430.66	
4400	440	456	442.50	11	2-464	6.99	443.38	
4500	450	466	452.50	11	2-465	6.99	456.03	
4600	460	476	462.50	11	2-466	6.99	468.76	
4700	470	486	472.50	11	2-466	6.99	468.76	
4800	480	496	482.50	11	2-467	6.99	481.46	
4900	490	506	492.50	11	2-468	6.99	494.16	
5000	500	516	502.50	11	2-469	6.99	506.86	

[1] Housing dimensions according to DIN ISO 6195, Type C or Type D.
Further sizes on request.

The AV wiper protects the hydraulic system against, dust, dirt, moisture and other environmental influences.
The moulded dirt shield on the wiper prevents the migration of moisture underneath the wiper in the groove. The common occurrence of corrosion in the groove can thus be avoided. In applications with a vertically positioned piston rod head the dirt shield to protect the seal groove is particularly effective. Water running down the piston rod is diverted and does not enter the wiper groove. Due to the press fit in the housing and the pressure relief drill hole the risk of the wiper being pushed out of the cylinder housing is minimised.

- Robust seal profile for harshest operating conditions.
- Extreme wear 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.
- The dirt shield prevents the intrusion of dirt and moisture in vertical cylinder applications.
- Installation in closed and undercut housings.
- Additional sizes of machined products available on short notice.

Range of application

The AV wiper can be used in all hydraulic cylinders and is particularly well-suited for mobile applications.

Operating temperature	-35 °C to +100 °C
Sliding speed	≤ 2 m/s

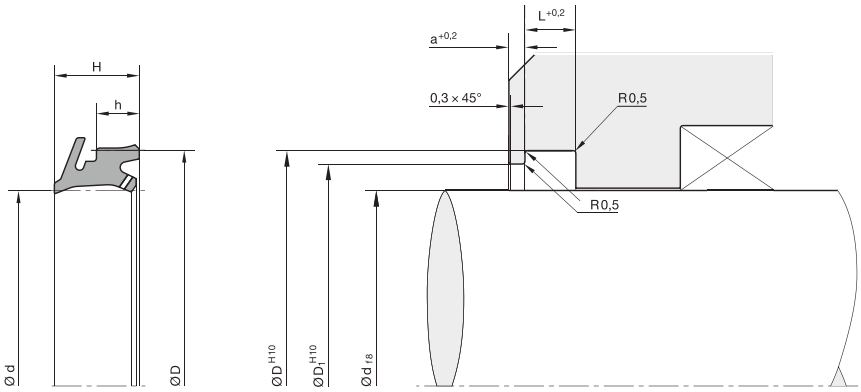
Compounds

The standard material is Ultrathan® P5008, a Parker compound based on polyurethane with a hardness of approx. 93 Shore A. Compared to off-the-shelf polyurethane grades it is characterized by higher thermal and hydrolysis resistance and a lower compression set.

Installation

The profile AV double lip wiper ring can easily be snapped into grooves of simple design. Any contact of the wiper lip with piston rod eyes or other connecting parts should be avoided.
However, we recommend the wiper lip to be out-side the housing, so that the wiped-off dirt falls off.
A ring-shaped area for improved abutting of the dirt shield should be provided at the front side of the cylinder.

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.



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

d	D	H	L	a	D_1	Order code
28	36	7.75	4	1	34	AV2836P5008*
30	38	7.75	4	1	36	AV3038P5008*
36	44	7.75	4	1	42	AV3644P5008*
40	48	7.75	4	1	46	AV4048P5008
45	53	7.75	4	1	51	AV4553P5008
56	68	10	5.5	1.5	65	AV5668P5008*
63	75	10	5.5	1.5	72	AV6375P5008*
80	92	10	5.5	1.5	89	AV8092P5008*
100	115	16	9.5	3	110	AVA115P5008*
125	140	16	9.5	3	135	AVC140P5008*
140	155	16	9.5	3	150	AVE155P5008*
160	175	16	9.5	3	170	AVJ020P5008*
180	195	16	9.5	3	190	AVK195P5008*
200	215	16	9.5	3	210	AVL215P5008*

* Moulds not available on the date of printing.

The purpose of the profile AY Ultrathan® double lip wiper is to prevent dust, dirt, grains of sand, and metal swarfs. This is achieved by a special design which largely prevents scoring, protects the guiding parts and extends the service life of the seals. In addition, the sealing lip facing the media reduces the residual oil film. The profile AY double wiper ring closes the rod in the direction of the cylinder. No special screwrings or brackets are required for installation. No close tolerances and no metal inserts are required. The wiper is supplied as a continuous ring and can easily be pressed into the groove.
The polyurethane compound ensures excellent properties with regard to dry run, increased wear resistance, and extended service life due to good resistance to ozone and radiation caused by weather conditions.

We recommend profile AY Ultrathan® double-lip wiper when using PTFE rod seals or whenever the residual oil film is to be kept at a minimum.

- Extreme wear 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 DIN ISO 6195, Type C.
- Installation in closed and undercut housings.
- Additional sizes of machined products available on short notice.

Range of application

Double wiper rings profile AY are designed for axially operated rods in hydraulic and pneumatic cylinders, lifters, and rod guidances.

Operating temperature	-35 °C to +100 °C
Pneumatics	-35 °C to +80 °C
Sliding speed	≤ 2 m/s

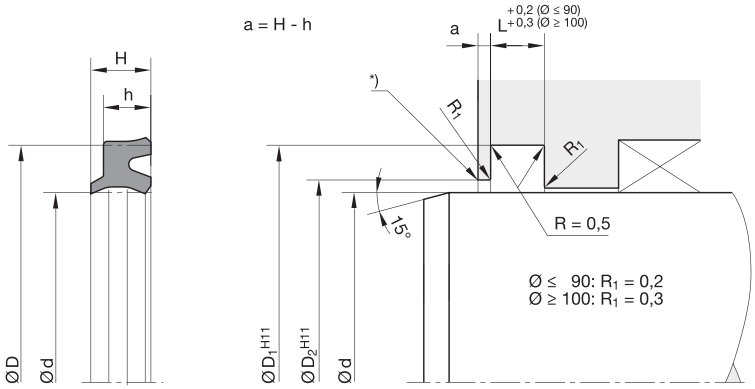
Compounds

Ultrathan® P5008 is a polyurethane-based Parker compound with a hardness of approx. 93 Shore A. In comparison with other polyurethane materials currently available on the market it excels because of its increased heat resistance, improved against hydrolysis, and lower compression set values.

Installation

The profile AY double lip wiper ring can easily be snapped into grooves of simple design. Any contact of the wiper lip with piston rod eyes or other connecting parts should be avoided.
However, we recommend the wiper lip to be out-side the housing, so that the wiped-off dirt falls off.

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.



* Edges deburred

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

d	D	H	h	D_2	L	ISO[1)]	Order code
8	13	4.1	3.1	10.5	3.5		AY 0080 P5008
10	16	4.8	3.6	12.5	4	•	AY 1003 P5008
12	18	4.8	3.6	14.5	4	•	AY 1020 P5008
14	20	4.8	3.6	16.5	4	•	AY 1040 P5008
15	21	4.8	3.6	17.5	4		AY 1521 P5008
16	22	4.8	3.6	18.5	4	•	AY 1059 P5008
18	24	4.8	3.6	20.5	4	•	AY 1080 P5008
20	26	4.8	3.6	22.5	4	•	AY 2026 P5008
22	28	4.8	3.6	24.5	4	•	AY 2020 P5008
25	31	4.8	3.6	27.5	4	•	AY 2050 P5008
28	36	5.8	4.5	31	5	•	AY 2080 P5008
30	38	5.8	4.5	33	5		AY 3001 P5008
32	40	5.8	4.5	35	5	•	AY 3002 P5008
35	43	5.8	4.5	38	5		AY 3039 P5008
36	44	5.8	4.5	39	5	•	AY 3060 P5008
37	45	5.8	4.5	40	5		AY 3070 P5008
40	48	5.8	4.5	43	5	•	AY 4002 P5008
45	53	5.8	4.5	48	5	•	AY 4045 P5008
50	58	5.8	4.5	53	5	•	AY 5002 P5008
51	59	5.8	4.5	54	5		AY 5010 P5008
55	65	6.8	5.3	58	6		AY 5050 P5008
56	66	6.8	5.3	59	6	•	AY 5060 P5008
60	70	6.8	5.3	63	6		AY 6003 P5008
63	73	6.8	5.3	66	6	•	AY 6030 P5008
65	75	6.8	5.3	68	6		AY 6065 P5008
70	80	6.8	5.3	73	6	•	AY 7000 P5008
75	85	6.8	5.3	78	6		AY 7085 P5008
80	90	6.8	5.3	83	6	•	AY 8030 P5008
85	95	6.8	5.3	88	6		AY 8050 P5008
90	100	6.8	5.3	93	6	•	AY 9000 P5008
100	110	6.8	5.3	103	6	•	AY A005 P5008
110	125	9.5	7.5	114	8.5	•	AY B000 P5008
120	135	9.5	7.5	124	8.5	•	AY C020 P5009
125	140	9.5	7.5	129	8.5	•	AY C030 P5008
138	158	9.5	7.5	142	8.5		AY D838 P5008
140	155	9.5	7.5	144	8.5	•	AY E001 P5008
160	175	9.5	7.5	164	8.5	•	AY G001 P5008

1) DIN ISO 6195, Type C, for ISO 6020-2 cylinders.
Further sizes on request.