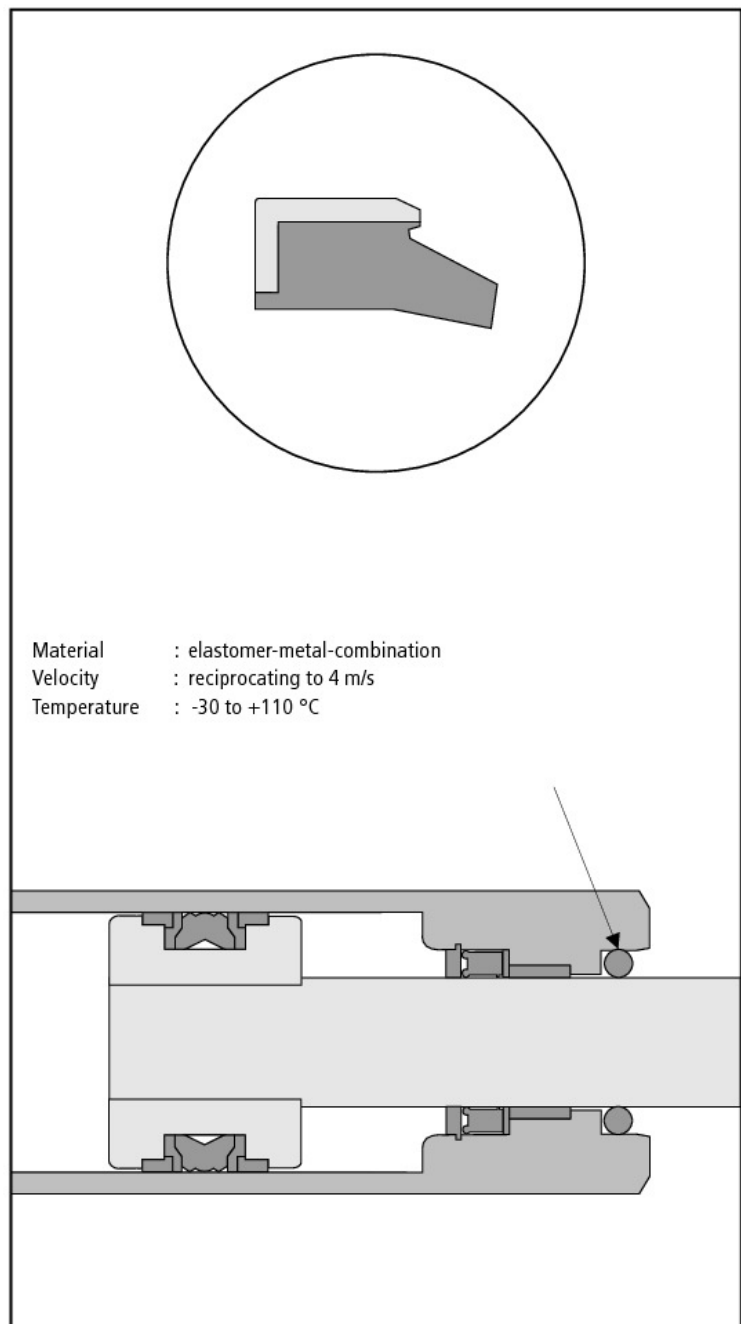
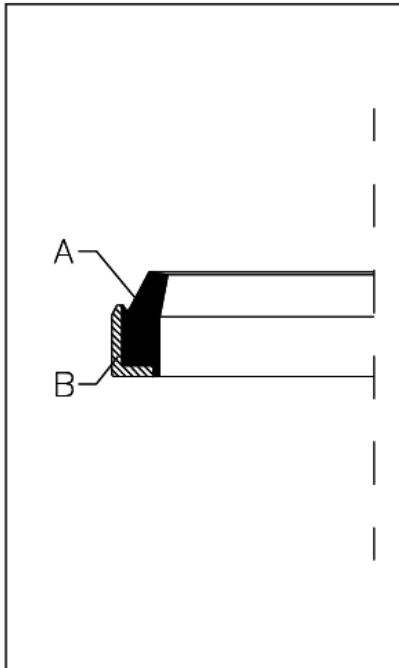
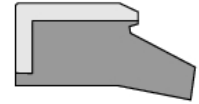


The single acting wiper HA 300 which has been in use for a long time excels in terms of high wiper action and easy assembly. It reliably blocks the entry of dirt-particles into the system, thus enhancing service life of rod seals and slides.

**Special Features:**

- Excellent wiper action at low friction
- Low wear even under demanding conditions
- Form vulcanised elastomer and metal combination
- Easy assembly in open grooves; secure sealing of wiper
- Groove geometry is easy to produce
- Elastomeric parts available in FPM for special applications
- Extensive size series also for ISO mounting spaces.



**Wiper Ring (Part A)**

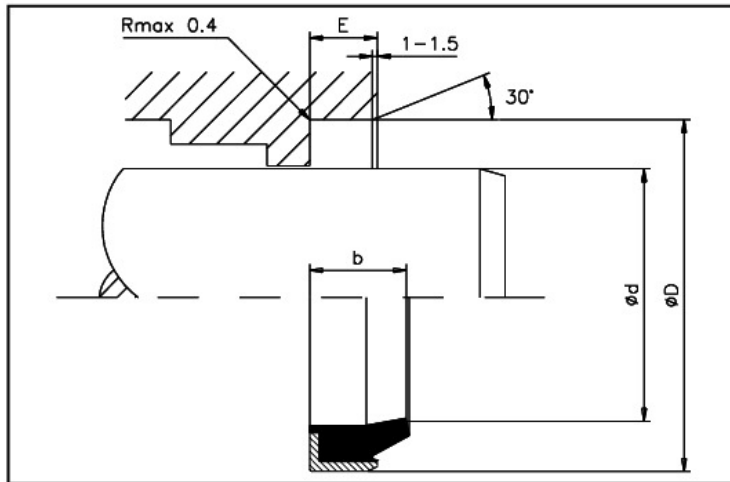
Material: Acrylonitrile Rubber (NBR)

Special materials and practical design of the robust wiper lip ensure good wiper action at low friction. Entry of contaminants into the system is reliably prevented, thus enhancing the life of rod seals and slides. Wiper ring is inseparably vulcanized into the metallic ring.

**Metal Cage (Part B)**

Material: Steel

The precision metal cage is finished to an oversize at the external diameter and close manufacturing tolerances guarantee a secure hold and precise press-fit in the housing. This cage is also available in high grade steel on request.



Limitations on Use	
Velocity	: reciprocating to 4 m/s
Temperature	: -30 to +110 °C

Media for Use	
Mineral oil based hydraulic oil, flame resistant pressure media and emulsions (HFA, HFB, HFC), non-polluting pressure fluids (Bio Oils).	

Surface Finish			
Surfaces	Rmax	Rz	Ra
Faces	2,5 µm	1,6 µm	0,4 µm
Groove root	16,0 µm	10,0 µm	3,2 µm
Groove flanks	16,0 µm	10,0 µm	3,2 µm

d f8/h9	D H8	E +0,2	b	Part N°.
10,00	16,00	3,00	4,50	HA300 0100-01-100
10,00	20,00	5,00	8,00	HA300 0100-02-100
12,00	20,00	4,00	6,00	HA300 0120-01-100
12,00	22,00	5,00	8,00	HA300 0120-02-100
14,00	19,80	3,00	4,50	HA300 0140-01-100
14,00	20,00	3,50	5,00	HA300 0140-02-100
14,00	22,00	3,00	4,00	HA300 0140-03-100
15,00	25,00	5,00	8,00	HA300 0150-01-100
16,00	22,00	3,00	4,00	HA300 0160-01-100
16,00	24,00	3,00	4,00	HA300 0160-02-100
16,00	26,00	5,00	8,00	HA300 0160-03-100
18,00	28,00	5,00	7,00	HA300 0180-01-100
18,00	28,00	7,00	10,00	HA300 0180-02-100
18,00	28,00	7,00	12,00	HA300 0180-03-100
18,00	32,00	5,00	9,00	HA300 0180-04-100
20,00	28,00	3,50	5,00	HA300 0200-01-100
20,00	28,00	5,00	8,00	HA300 0200-02-100
20,00	30,00	4,00	6,00	HA300 0200-03-100
20,00	30,00	5,00	8,00	HA300 0200-04-100
20,00	30,00	7,00	10,00	HA300 0200-05-100
20,00	35,00	7,00	10,00	HA300 0200-06-100
21,00	28,00	3,50	5,00	HA300 0210-01-100
22,00	28,00	5,00	9,00	HA300 0220-01-100
22,00	32,00	5,00	7,00	HA300 0220-02-100
22,00	32,00	7,00	10,00	HA300 0220-03-100
22,00	35,00	5,00	8,00	HA300 0220-04-100
24,00	32,00	5,00	7,00	HA300 0240-01-100
25,00	31,00	5,00	7,00	HA300 0250-01-100
25,00	33,00	4,00	7,00	HA300 0250-02-100
25,00	35,00	5,00	8,00	HA300 0250-03-100
25,00	35,00	7,00	10,00	HA300 0250-04-100
28,00	38,00	5,00	8,00	HA300 0280-01-100
28,00	38,00	7,00	10,00	HA300 0280-02-100
28,00	40,00	7,00	10,00	HA300 0280-03-100
30,00	40,00	5,00	8,00	HA300 0300-01-100
30,00	40,00	7,00	10,00	HA300 0300-02-100
30,00	45,00	5,00	8,00	HA300 0300-03-100
32,00	40,00	4,00	7,00	HA300 0320-01-100
32,00	40,00	7,00	10,00	HA300 0320-02-100

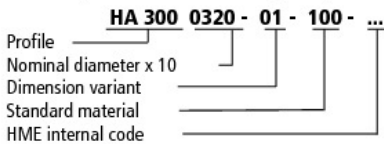
d f8/h9	D H8	E +0,2	b	Part N°.
32,00	42,00	5,00	7,00	HA300 0320-03-100
32,00	42,00	7,00	10,00	HA300 0320-04-100
32,00	45,00	4,00	8,00	HA300 0320-05-100
32,00	45,00	5,00	7,00	HA300 0320-06-100
32,00	45,00	7,00	10,00	HA300 0320-07-100
35,00	45,00	5,00	8,00	HA300 0350-01-100
35,00	45,00	7,00	10,00	HA300 0350-02-100
35,00	52,00	7,00	10,00	HA300 0350-03-100
36,00	45,00	7,00	10,00	HA300 0360-01-100
36,00	46,00	7,00	10,00	HA300 0360-02-100
38,00	48,00	7,00	10,00	HA300 0380-01-100
40,00	50,00	5,00	8,00	HA300 0400-01-100
40,00	50,00	7,00	10,00	HA300 0400-02-100
40,00	52,00	5,00	8,00	HA300 0400-03-100
40,00	52,00	7,00	10,00	HA300 0400-04-100
42,00	52,00	7,00	10,00	HA300 0420-01-100
42,00	55,00	7,00	10,00	HA300 0420-02-100
45,00	55,00	7,00	10,00	HA300 0450-01-100
45,00	60,00	7,00	10,00	HA300 0450-02-100
48,00	60,00	7,00	10,00	HA300 0480-01-100
50,00	56,00	5,00	7,00	HA300 0500-01-100
50,00	56,00	5,00	8,00	HA300 0500-02-100
50,00	60,00	5,00	7,00	HA300 0500-03-100
50,00	60,00	7,00	10,00	HA300 0500-04-100
50,00	65,00	7,00	10,00	HA300 0500-05-100
52,00	62,00	7,00	10,00	HA300 0520-01-100
55,00	63,00	7,00	10,00	HA300 0550-01-100
55,00	65,00	7,00	10,00	HA300 0550-02-100
56,00	65,00	7,00	10,00	HA300 0560-01-100
56,00	66,00	7,00	10,00	HA300 0560-02-100
60,00	70,00	7,00	10,00	HA300 0600-01-100
60,00	80,00	7,00	10,00	HA300 0600-03-100
63,00	75,00	7,00	10,00	HA300 0630-01-100
65,00	75,00	7,00	10,00	HA300 0650-01-100
70,00	80,00	7,00	10,00	HA300 0700-01-100
75,00	85,00	7,00	10,00	HA300 0750-01-100
75,00	87,00	5,00	7,00	HA300 0750-02-100
78,00	88,00	7,00	10,00	HA300 0780-01-100
80,00	90,00	7,00	10,00	HA300 0800-01-100

d f8/h9	D H8	E +0,2	b	Part N°.
85,00	95,00	7,00	10,00	HA300 0850-01-100
90,00	100,00	7,00	10,00	HA300 0900-01-100
95,00	105,00	7,00	10,00	HA300 0950-01-100
<b>100,00</b>	<b>110,00</b>	<b>7,00</b>	<b>10,00</b>	<b>HA300 1000-01-100</b>
105,00	115,00	7,00	10,00	HA300 1050-01-100
<b>110,00</b>	<b>120,00</b>	<b>7,00</b>	<b>10,00</b>	<b>HA300 1100-01-100</b>
115,00	125,00	7,00	10,00	HA300 1150-01-100
120,00	130,00	7,00	10,00	HA300 1200-01-100
<b>125,00</b>	<b>140,00</b>	<b>9,00</b>	<b>12,00</b>	<b>HA300 1250-01-100</b>
130,00	145,00	9,00	12,00	HA300 1300-01-100
135,00	145,00	7,00	10,00	HA300 1350-01-100
135,00	150,00	9,00	12,00	HA300 1350-02-100
<b>140,00</b>	<b>150,00</b>	<b>7,00</b>	<b>10,00</b>	<b>HA300 1400-01-100</b>
140,00	155,00	9,00	12,00	HA300 1400-02-100

d f8/h9	D H8	E +0,2	b	Part N°.
145,00	160,00	9,00	12,00	HA300 1450-01-100
150,00	165,00	9,00	12,00	HA300 1500-01-100
<b>160,00</b>	<b>175,00</b>	<b>9,00</b>	<b>12,00</b>	<b>HA300 1600-01-100</b>
163,00	175,00	7,00	10,00	HA300 1630-01-100
170,00	185,00	10,00	14,00	HA300 1700-01-100
<b>180,00</b>	<b>195,00</b>	<b>10,00</b>	<b>14,00</b>	<b>HA300 1800-01-100</b>
<b>200,00</b>	<b>220,00</b>	<b>12,00</b>	<b>16,00</b>	<b>HA300 2000-01-100</b>
210,00	230,00	12,00	16,00	HA300 2100-01-100
<b>220,00</b>	<b>240,00</b>	<b>9,00</b>	<b>12,00</b>	<b>HA300 2200-01-100</b>
310,00	340,00	16,00	22,00	HA300 3100-01-100
<b>320,00</b>	<b>340,00</b>	<b>12,00</b>	<b>16,00</b>	<b>HA300 3200-01-100</b>
<b>360,00</b>	<b>380,00</b>	<b>15,00</b>	<b>18,00</b>	<b>HA300 3600-01-100</b>
390,00	420,00	16,00	22,00	HA300 3900-01-100
490,00	520,00	16,00	22,00	HA300 4900-01-100

Dimensions in bold correspond to rod diameter as per ISO 3320.  
Further sizes also available in FPM on request.

### Example for ordering Wipers:



### Material Key:

**Wiper**  
100 - NBR  
120 - FPM

Issue

01 05

**WARNING:** Limits of application stated herein are standard values. They could be individually transgressed with due consideration to respective service conditions. In the event of a large duty cycle, pulsating operation and other complex operational conditions, simultaneous transgression of these values is not recommended. Due to a large variety of service conditions that may arise in course of actual use, the company does not take responsibility of or guarantee the functional accuracy of the individual components. Rights for changes are reserved.