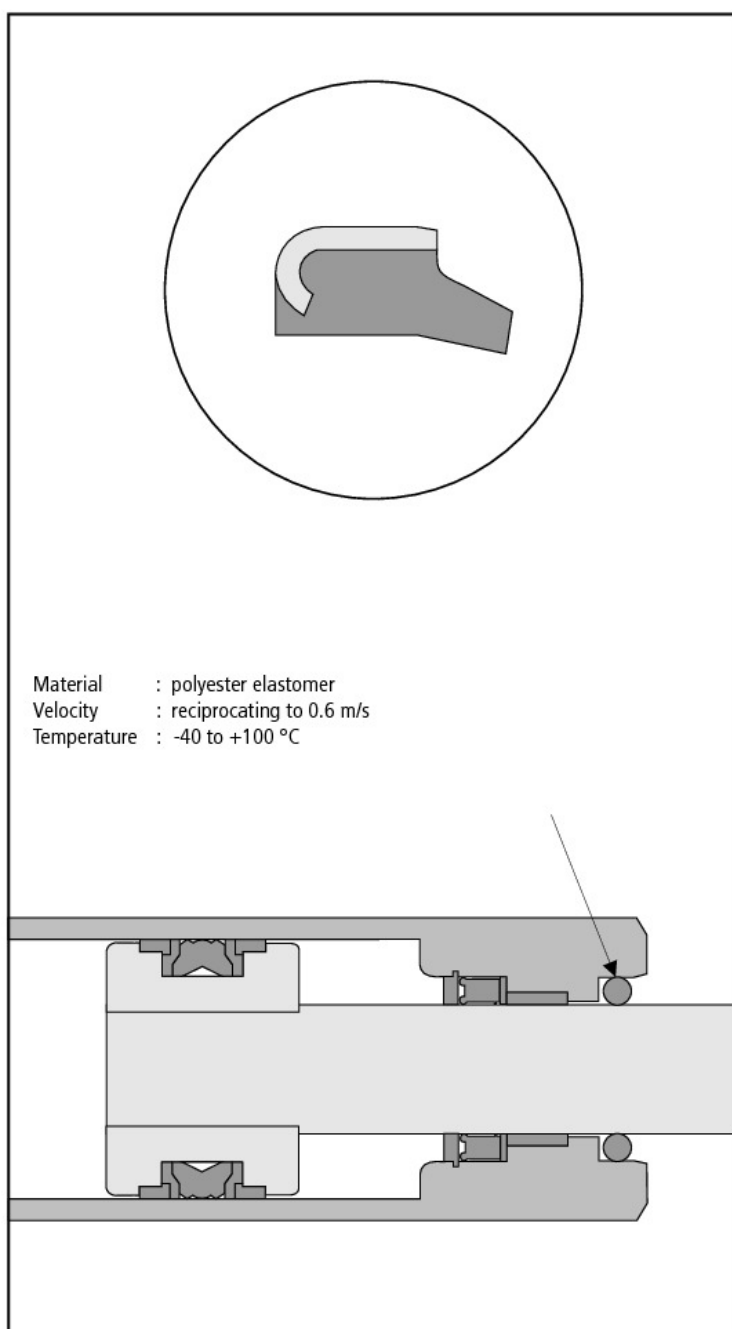


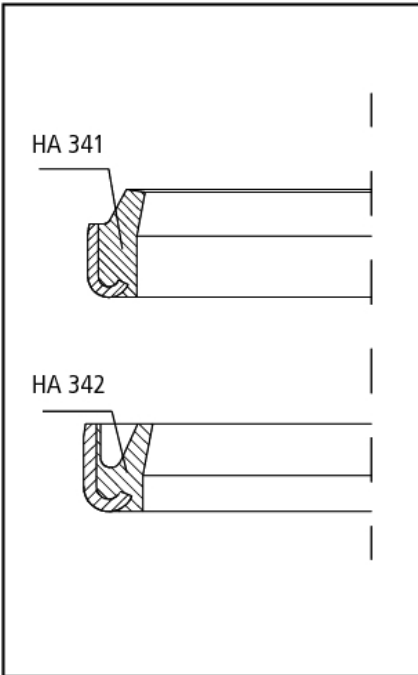
Single acting polyurethane wipers HA 341 and HA 342 ensure safe and secure wiper action under extreme conditions, especially in low temperature application.

Special Features:

- Anti wear polyurethane
- Good abrasion resistance, long life
- Stability due to polyurethane and metal cage combination
- Easy slide in assembly for press fit.



Material : polyester elastomer
Velocity : reciprocating to 0.6 m/s
Temperature : -40 to +100 °C



Description

Wipers HA 341 and HA 342 provide exceptional wiper action even for very contaminated piston rods and at very low temperatures.

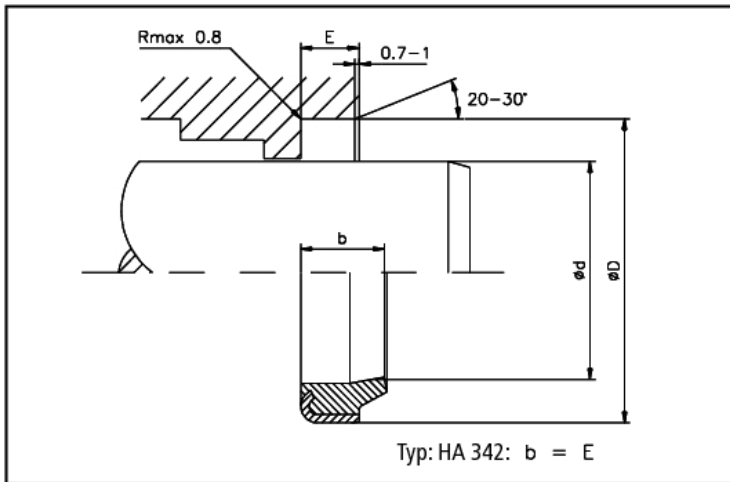
In comparison to designs in NBR, polyurethane wipers display much higher resistance to wear and corrosion, better anti ageing behaviour and therefore a much longer service life of the rod seal.

Stick slip behaviour is improved due to optimisation of sealing lip design. The integrated and specially formed metal cage ensures high stability of the wiper by itself. "Fatigue" or "tilting" of wiper is not possible with these designs.

In case of wipers without or only with an inserted cage, the wiper lip can touch against the rod and thus corrode prematurely.

The drawing to the left shows various designs of both types of wipers: HA 341 with a protruding wiper lip and HA 342 without a protruding wiper lip. The advantage of HA 342 is that it is better protected and that it allows for a better length of stroke.

The designs HA 341 resp. HA 342 are optimal with respect to wear of NBR metal wipers. They have proven their superiority, especially in low temperature applications.



Limitations on Use	
Velocity	: reciprocating to 0.6 m/s
Temperature	: -40 bis +100 °C

Media for Use	
Mineral oil based hydraulic oils, Bio Oils and flame resistant pressure fluids on request.	

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

Typ HA 341

d f8/h9	D H8	E +0,2	b	Part N°.
16,00	22,00	4,00	6,00	HA341 0160-01-200
20,00	30,00	7,00	10,00	HA341 0200-01-200
25,00	35,00	7,00	10,00	HA341 0250-01-200
28,00	38,00	7,00	10,00	HA341 0280-01-200
30,00	40,00	5,50	10,00	HA341 0300-01-200
30,00	40,00	7,00	10,00	HA341 0300-02-200
32,00	42,00	7,00	10,00	HA341 0320-01-200
32,00	45,00	7,00	10,00	HA341 0320-02-200
35,00	45,00	7,00	10,00	HA341 0350-01-200
36,00	45,00	7,00	10,00	HA341 0360-01-200
36,00	46,00	7,00	10,00	HA341 0360-02-200
38,10	50,80	7,00	10,00	HA341 0381-01-200
40,00	50,00	5,50	10,00	HA341 0400-01-200
40,00	50,00	7,00	10,10	HA341 0400-02-200
45,00	55,00	7,00	10,00	HA341 0450-01-200
45,00	60,00	7,00	10,00	HA341 0450-02-200
50,00	60,00	7,00	10,00	HA341 0500-01-200
50,00	65,00	7,00	10,00	HA341 0500-02-200
50,80	63,50	7,00	10,00	HA341 0508-01-200
55,00	65,50	7,00	10,00	HA341 0550-01-200
55,00	70,00	7,00	10,00	HA341 0550-02-200
56,00	66,00	7,00	10,00	HA341 0560-01-200
57,15	70,00	7,00	10,00	HA341 0571-01-200
60,00	70,00	7,00	10,00	HA341 0600-01-200
63,00	73,00	7,00	10,00	HA341 0630-01-200
63,00	75,00	7,00	10,00	HA341 0630-02-200
63,00	78,00	7,00	10,00	HA341 0630-03-200
63,50	76,20	7,00	10,00	HA341 0635-01-200
65,00	75,00	7,00	10,00	HA341 0650-01-200
70,00	80,00	7,00	10,00	HA341 0700-01-200
75,00	83,00	7,00	10,00	HA341 0750-01-200
75,00	85,00	7,00	10,00	HA341 0750-02-200
80,00	90,00	7,00	10,00	HA341 0800-01-200
85,00	95,00	7,00	10,00	HA341 0850-01-200
90,00	100,00	7,00	10,00	HA341 0900-01-200
95,00	105,00	7,00	10,00	HA341 0950-01-200
100,00	110,00	7,00	10,00	HA341 1000-01-200
110,00	120,00	7,00	10,00	HA341 1100-01-200
105,00	115,00	7,00	10,00	HA341 1050-01-200
120,00	130,00	7,00	12,00	HA341 1200-01-200
125,00	140,00	9,00	12,00	HA341 1250-01-200

Typ HA 342

d f8/h9	D H8	E +0,2	Part N°.
12,00	20,00	4,00	HA342 0120-01-200
15,00	21,00	5,00	HA342 0150-01-200
15,90	23,00	5,00	HA342 0159-01-200
20,00	28,00	5,00	HA342 0200-01-200
25,00	32,00	7,00	HA342 0250-01-200
25,00	35,00	7,00	HA342 0250-02-200
30,00	40,00	4,00	HA342 0300-01-200
30,00	40,00	4,50	HA342 0300-02-200
30,00	43,00	7,50	HA342 0300-03-200
35,00	45,00	4,00	HA342 0350-01-200
35,00	45,00	4,50	HA342 0350-02-200
35,00	50,00	7,50	HA342 0350-03-200
36,00	46,00	7,00	HA342 0360-01-200
36,00	48,00	6,00	HA342 0360-02-200
38,00	50,00	7,50	HA342 0380-01-200
40,00	50,00	4,00	HA342 0400-01-200
40,00	50,00	4,50	HA342 0400-02-200
40,00	52,00	6,00	HA342 0400-03-200
45,00	55,00	4,00	HA342 0450-01-200
45,00	55,00	5,00	HA342 0450-02-200
45,00	55,00	3,20	HA342 0450-03-200
45,00	60,00	7,50	HA342 0450-04-200
50,00	60,00	4,00	HA342 0500-01-200
50,00	60,00	5,00	HA342 0500-02-200
50,00	60,00	7,00	HA342 0500-03-200
50,00	60,00	7,00	HA342 0500-04-200
50,00	63,00	4,00	HA342 0500-05-200
50,00	65,00	7,50	HA342 0500-06-200
50,80	63,50	7,92	HA342 0508-01-200
55,00	65,00	3,20	HA342 0550-01-200
55,00	68,00	4,00	HA342 0550-02-200
55,00	70,00	7,50	HA342 0550-03-200
56,00	70,00	7,50	HA342 0560-01-200
57,15	69,85	6,35	HA342 0571-01-200
60,00	70,00	7,00	HA342 0600-01-200
60,00	75,00	7,50	HA342 0600-02-200
60,00	75,00	4,00	HA342 0600-03-200
63,00	78,00	7,50	HA342 0630-01-200
63,50	76,50	7,92	HA342 0635-01-200
65,00	75,00	7,00	HA342 0650-01-200
65,00	75,00	7,00	HA342 0650-02-200

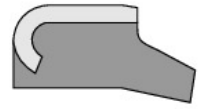
Typ HA 341

d f8/h9	D H8	E +0,2	b	Part N°.
140,00	155,00	9,00	12,00	HA341 1400-01-200
180,00	195,00	9,00	12,00	HA341 1800-01-200

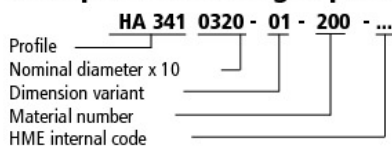
Typ HA 342

d f8/h9	D H8	E +0,2	Part N°.
65,00	80,00	7,50	HA342 0650-03-200
65,00	80,00	5,00	HA342 0650-04-200
66,60	79,30	7,37	HA342 0666-01-200
70,00	80,00	4,50	HA342 0700-01-200
70,00	80,00	5,00	HA342 0700-02-200
70,00	80,00	7,00	HA342 0700-03-200
70,00	84,00	8,00	HA342 0700-04-200
70,00	85,00	7,50	HA342 0700-05-200
71,00	86,00	5,00	HA342 0710-01-200
75,00	90,00	4,50	HA342 0750-01-200
75,00	90,00	7,50	HA342 0750-02-200
75,00	95,00	10,00	HA342 0750-03-200
76,50	96,50	10,00	HA342 0765-01-200
80,00	90,00	4,50	HA342 0800-01-200
80,00	90,00	7,00	HA342 0800-02-200
80,00	95,00	6,00	HA342 0800-03-200
80,00	95,00	7,00	HA342 0800-04-200
80,00	95,00	7,50	HA342 0800-05-200
80,00	95,00	7,50	HA342 0800-06-200
80,00	95,00	5,00	HA342 0800-07-200
80,00	100,00	10,00	HA342 0800-08-200
85,00	95,00	7,00	HA342 0850-01-200
85,00	100,00	6,00	HA342 0850-02-200
85,00	100,00	10,00	HA342 0850-03-200
85,00	100,00	4,00	HA342 0850-04-200
85,00	105,00	10,00	HA342 0850-05-200
89,00	76,20	7,92	HA342 0890-01-200
90,00	100,00	4,50	HA342 0900-01-200
90,00	100,00	7,00	HA342 0900-02-200
90,00	104,00	8,00	HA342 0900-03-200
90,00	105,00	6,00	HA342 0900-04-200
90,00	105,00	6,00	HA342 0900-05-200
90,00	110,00	10,00	HA342 0900-06-200
92,03	79,20	5,85	HA342 0920-01-200
95,00	115,00	10,00	HA342 0950-01-200
100,00	110,00	4,50	HA342 1000-01-200
100,00	110,00	7,00	HA342 1000-02-200
100,00	115,00	7,50	HA342 1000-03-200
100,00	115,00	6,50	HA342 1000-04-200
100,00	115,00	4,00	HA342 1000-05-200
100,00	120,00	10,00	HA342 1000-06-200
105,00	120,00	7,50	HA342 1050-01-200
110,00	120,00	7,00	HA342 1100-01-200
110,00	125,00	7,00	HA342 1100-02-200
110,00	125,00	9,00	HA342 1100-03-200
110,00	130,00	10,00	HA342 1100-04-200
115,00	130,00	7,50	HA342 1150-01-200
120,00	130,00	7,00	HA342 1200-01-200
120,00	140,00	10,00	HA342 1200-02-200
130,00	140,00	7,00	HA342 1300-01-200
130,00	145,00	7,50	HA342 1300-02-200
140,00	155,00	7,00	HA342 1400-01-200
140,00	155,00	9,00	HA342 1400-02-200
150,00	160,00	7,00	HA342 1500-01-200
160,00	175,00	10,00	HA342 1600-01-200
170,00	185,00	7,00	HA342 1700-01-200
190,00	210,00	10,00	HA342 1900-01-200

Dimensions in bold correspond to rod diameter ISO 3320.
 Extensive range of inch measurement diagrams available on request.



Example for ordering Wipers:



Issue

01	05
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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.