

HES

ANELLI GUIDA ESTERNO TIPO HES

Descrizione

I pattini di guida tipo HES hanno la funzione di mantenere in asse tutto il sistema cilindro (stelo con testata e pistone con camicia) e svolgono due importanti compiti: aiutano la tenuta stelo, il raschiatore e la tenuta pistone a lavorare senza disallineamenti ed evitano il contatto tra le parti metalliche. Il materiale, con un coefficiente di attrito molto basso, non crea perdite di carico (linearità) e sopporta deformazioni elevate sotto carico grazie al punto di rammollimento vicino al punto di fusione (lavora in esercizio a 115° C). Per facilitare la scelta della guida pistone o stelo e conoscerne l'altezza più idonea consigliamo la formula a p.139.

Dati tecnici

Velocità:	‹ 0,8 m/s
Temperatura:	da - 40° C a + 115° C
Fluidi:	oli e fluidi a base minerale (v. tabella 3 a p. 14)

Materiale

Il materiale è una resina poliacetalica rinforzata con fibra di vetro. Per temperature di esercizio superiori ai 115° C il materiale è una resina poliammidica rinforzata. Codice materiale per temp ‹ 115°C: Ro
Codice materiale per temp › 115°C: R1

Montaggio

La guida tagliata e l'ottima elasticità semplificano il montaggio, mentre la presenza di smussi sui due lati facilita l'inserimento del pistone.

Nota: sezione tecnica guide p.158

HES TYPE EXTERNAL WEAR RING

Description

The HES wear rings have been developed in order to keep all the partsof the cylinder aligned (the rod with the head, the piston with the bore).
They play an important roleas they help the rod seal, the wiper and the piston seal working without any misalignments and at the same time they prevent any contact between the metal parts.
The material, which has a very lowfriction factor, does not cause load losses (linearity).It endures deformations under heavy loads, as the softening point is close to the fusion point (it works at 115° C).
For an easier choice of the piston or rod guide, we suggest the use of the formula at page 139 to find the wear ring length.

Technical data

Speed:	*‹ 0,8 m/s*
Temperature:	*from - 40° C to + 115° C*
Fluids:	*mineral oils and fluids (see table 3, page 14)*

Material

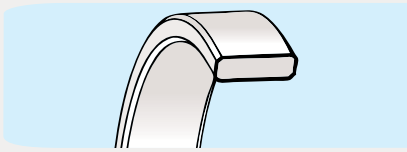
The material is a polyacetalic resin reinforced with fibreglass.
For working temperatures higher than 115° C, the material is a reinforced polyamide resin.
Compound reference for temp ‹ 115°C: Ro
Compound reference for temp › 115°C: R1

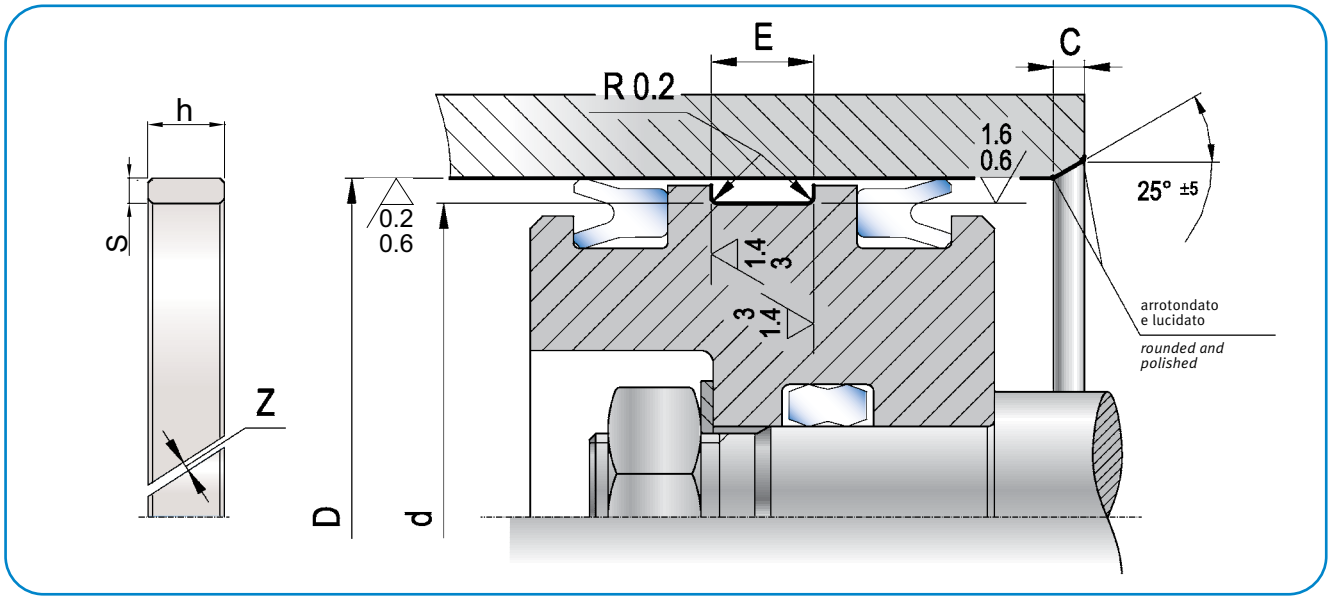
Assembling

The assembling can be easily done since the wear ring is cut and extremely elastic.
The chamfers on both sides have been studied to better insert the wear ring in the rod.

Note: wear rings technical section p.158

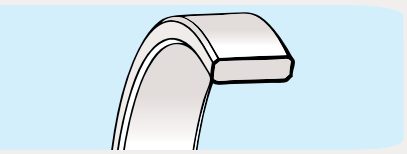
HES





D H9	d +0 -0,05	E +0,2	C	ART / *ITEM*
16,0	12,0	9,6	› 3	HES 0160 0120 096 Ro
18,0	14,0	9,6	› 3	HES 0180 0140 096 Ro
20,0	16,0	9,6	› 3	HES 0200 0160 096 Ro
22,0	18,0	9,6	› 3	HES 0220 0180 096 Ro
24,0	20,0	9,6	› 3	HES 0240 0200 096 Ro
25,0	20,0	5,6	› 3	HES 0250 0200 056 Ro
25,0	20,0	9,7	› 3	HES 0250 0200 097 Ro
25,0	21,0	9,6	› 3	HES 0250 0210 096 Ro
27,0	22,0	5,6	› 3	HES 0270 0220 056 Ro
27,0	22,0	9,7	› 3	HES 0270 0220 097 Ro
28,0	24,0	9,6	› 3	HES 0280 0240 096 Ro
30,0	25,0	5,6	› 3	HES 0300 0250 056 Ro
30,0	25,0	9,7	› 3	HES 0300 0250 097 Ro
30,0	26,0	9,6	› 3	HES 0300 0260 096 Ro
32,0	27,0	5,6	› 3	HES 0320 0270 056 Ro
32,0	27,0	9,7	› 3	HES 0320 0270 097 Ro
32,0	28,0	9,6	› 3	HES 0320 0280 096 Ro
33,0	28,0	5,6	› 3	HES 0330 0280 056 Ro
33,0	28,0	9,7	› 3	HES 0330 0280 097 Ro
34,0	30,0	9,6	› 3	HES 0340 0300 096 Ro
35,0	30,0	5,6	› 3	HES 0350 0300 056 Ro
35,0	30,0	9,7	› 3	HES 0350 0300 097 Ro
35,0	31,0	9,6	› 3	HES 0350 0310 096 Ro
36,0	32,0	9,6	› 3	HES 0360 0320 096 Ro

D H9	d +0 -0,05	E +0,2	C	ART / *ITEM*
37,0	32,0	5,6	› 3	HES 0370 0320 056 Ro
37,0	32,0	9,7	› 3	HES 0370 0320 097 Ro
38,1	35,1	2,5	› 3	HES 0381 0351 025 Ro
40,0	35,0	5,6	› 3	HES 0400 0350 056 Ro
40,0	35,0	9,7	› 3	HES 0400 0350 097 Ro
40,0	36,0	9,6	› 3	HES 0400 0360 096 Ro
40,0	37,0	2,5	› 3	HES 0400 0370 025 Ro
41,0	36,0	5,6	› 3	HES 0410 0360 056 Ro
41,0	36,0	9,7	› 3	HES 0410 0360 097 Ro
44,4	41,4	2,5	› 3	HES 0444 0414 025 Ro
45,0	40,0	5,6	› 3	HES 0450 0400 056 Ro
45,0	40,0	9,7	› 3	HES 0450 0400 097 Ro
45,0	40,0	15,0	› 3	HES 0450 0400 150 Ro
45,0	41,0	9,6	› 3	HES 0450 0410 096 Ro
48,0	43,0	5,6	› 3	HES 0480 0430 056 Ro
50,0	44,0	9,6	› 3	HES 0500 0440 096 Ro
50,0	45,0	5,6	› 3	HES 0500 0450 056 Ro
50,0	45,0	9,7	› 3	HES 0500 0450 097 Ro
50,0	45,0	15,0	› 3	HES 0500 0450 150 Ro
50,8	47,8	2,5	› 3	HES 0508 0478 025 Ro
52,0	47,0	5,6	› 3	HES 0520 0470 056 Ro
52,0	47,0	9,7	› 3	HES 0520 0470 097 Ro
55,0	49,0	12,8	› 3	HES 0550 0490 128 Ro
55,0	50,0	5,6	› 3	HES 0550 0500 056 Ro

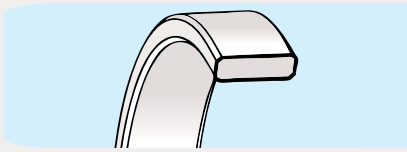


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D H9	d +0 -0,05	E +0,2	C	ART / *ITEM*
55,0	50,0	9,7	› 3	HES 0550 0500 097 Ro
55,0	50,0	15,0	› 3	HES 0550 0500 150 Ro
60,0	54,0	12,8	› 3	HES 0600 0540 128 Ro
60,0	55,0	5,6	› 3	HES 0600 0550 056 Ro
60,0	55,0	9,7	› 3	HES 0600 0550 097 Ro
60,0	55,0	15,0	› 3	HES 0600 0550 150 Ro
61,0	56,0	5,6	› 3	HES 0610 0560 056 Ro
61,0	56,0	9,7	› 3	HES 0610 0560 097 Ro
63,0	57,0	12,8	› 3	HES 0630 0570 128 Ro
63,0	58,0	5,6	› 3	HES 0630 0580 056 Ro
63,0	58,0	9,7	› 3	HES 0630 0580 097 Ro
63,5	60,5	2,5	› 3	HES 0635 0605 025 Ro
65,0	59,0	12,8	› 3	HES 0650 0590 128 Ro
65,0	60,0	5,6	› 3	HES 0650 0600 056 Ro
65,0	60,0	9,7	› 3	HES 0650 0600 097 Ro
65,0	60,0	15,0	› 3	HES 0650 0600 150 Ro
68,0	63,0	5,6	› 3	HES 0680 0630 056 Ro
68,0	63,0	9,7	› 3	HES 0680 0630 097 Ro
70,0	64,0	12,8	› 3	HES 0700 0640 128 Ro
70,0	65,0	5,6	› 3	HES 0700 0650 056 Ro
70,0	65,0	9,7	› 3	HES 0700 0650 097 Ro
70,0	65,0	15,0	› 3	HES 0700 0650 150 Ro
70,0	60,0	10,0	› 3	HES 0700 0660 100 Ro
72,0	67,0	5,6	› 3	HES 0720 0670 056 Ro
75,0	69,0	12,8	› 3	HES 0750 0690 128 Ro
75,0	70,0	5,6	› 3	HES 0750 0700 056 Ro
75,0	70,0	9,7	› 3	HES 0750 0700 097 Ro
75,0	70,0	15,0	› 3	HES 0750 0700 150 Ro
80,0	74,0	12,8	› 4	HES 0800 0740 128 Ro
80,0	75,0	5,6	› 4	HES 0800 0750 056 Ro
80,0	75,0	9,7	› 4	HES 0800 0750 097 Ro
80,0	75,0	15,0	› 4	HES 0800 0750 150 Ro
85,0	79,0	12,8	› 4	HES 0850 0790 128 Ro
85,0	80,0	5,6	› 4	HES 0850 0800 056 Ro
85,0	80,0	9,7	› 4	HES 0850 0800 097 Ro
85,0	80,0	15,0	› 4	HES 0850 0800 150 Ro
90,0	84,0	12,8	› 4	HES 0900 0840 128 Ro
90,0	85,0	5,6	› 4	HES 0900 0850 056 Ro
90,0	85,0	9,7	› 4	HES 0900 0850 097 Ro
90,0	85,0	15,0	› 4	HES 0900 0850 150 Ro
95,0	89,0	12,8	› 4	HES 0950 0890 128 Ro
95,0	90,0	5,6	› 4	HES 0950 0900 056 Ro
95,0	90,0	9,7	› 4	HES 0950 0900 097 Ro
95,0	90,0	15,0	› 4	HES 0950 0900 150 Ro
97,0	92,0	5,6	› 4	HES 0970 0920 056 Ro

D H9	d +0 -0,05	E +0,2	C	ART / *ITEM*
100,0	94,0	12,8	› 4	HES 1000 0940 128 Ro
100,0	95,0	5,6	› 4	HES 1000 0950 056 Ro
100,0	95,0	9,7	› 4	HES 1000 0950 097 Ro
100,0	95,0	15,0	› 4	HES 1000 0950 150 Ro
100,0	95,0	20,0	› 4	HES 1000 0950 200 Ro
100,0	95,0	25,0	› 4	HES 1000 0950 250 Ro
105,0	99,0	12,8	› 4	HES 1050 0990 128 Ro
105,0	100,0	5,6	› 4	HES 1050 1000 056 Ro
105,0	100,0	9,7	› 4	HES 1050 1000 097 Ro
105,0	100,0	15,0	› 4	HES 1050 1000 150 Ro
105,0	100,0	20,0	› 4	HES 1050 1000 200 Ro
105,0	100,0	25,0	› 4	HES 1050 1000 250 Ro
110,0	104,0	12,8	› 4	HES 1100 1040 128 Ro
110,0	105,0	9,7	› 4	HES 1100 1050 097 Ro
110,0	105,0	15,0	› 4	HES 1100 1050 150 Ro
110,0	105,0	20,0	› 4	HES 1100 1050 200 Ro
110,0	105,0	25,0	› 4	HES 1100 1050 250 Ro
115,0	109,0	12,8	› 4	HES 1150 1090 128 Ro
115,0	110,0	9,7	› 4	HES 1150 1100 097 Ro
115,0	110,0	15,0	› 4	HES 1150 1100 150 Ro
115,0	110,0	20,0	› 4	HES 1150 1100 200 Ro
115,0	110,0	25,0	› 4	HES 1150 1100 250 Ro
120,0	114,0	12,8	› 4	HES 1200 1140 128 Ro
120,0	115,0	9,7	› 4	HES 1200 1150 097 Ro
120,0	115,0	15,0	› 4	HES 1200 1150 150 Ro
120,0	115,0	20,0	› 4	HES 1200 1150 200 Ro
120,0	115,0	25,0	› 4	HES 1200 1150 250 Ro
125,0	119,0	12,8	› 4	HES 1250 1190 128 Ro
125,0	120,0	9,7	› 4	HES 1250 1200 097 Ro
125,0	120,0	15,0	› 4	HES 1250 1200 150 Ro
125,0	120,0	20,0	› 4	HES 1250 1200 200 Ro
125,0	120,0	25,0	› 4	HES 1250 1200 250 Ro
130,0	124,0	12,8	› 4	HES 1300 1240 128 Ro
130,0	125,0	15,0	› 4	HES 1300 1250 150 Ro
130,0	125,0	20,0	› 4	HES 1300 1250 200 Ro
130,0	125,0	25,0	› 4	HES 1300 1250 250 Ro
135,0	129,0	12,8	› 4	HES 1350 1290 128 Ro
135,0	130,0	15,0	› 4	HES 1350 1300 150 Ro
135,0	130,0	20,0	› 4	HES 1350 1300 200 Ro
135,0	130,0	25,0	› 4	HES 1350 1300 250 Ro
140,0	134,0	12,8	› 4	HES 1400 1340 128 Ro
140,0	135,0	15,0	› 4	HES 1400 1350 150 Ro
140,0	135,0	20,0	› 4	HES 1400 1350 200 Ro
140,0	135,0	25,0	› 4	HES 1400 1350 250 Ro
145,0	139,0	12,8	› 4	HES 1450 1390 128 Ro

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D H9	d +0 -0,05	E +0,2	C	ART / *ITEM*
145,0	140,0	15,0	› 4	HES 1450 1400 150 Ro
145,0	140,0	20,0	› 4	HES 1450 1400 200 Ro
145,0	140,0	25,0	› 4	HES 1450 1400 250 Ro
150,0	144,0	12,8	› 4	HES 1500 1440 128 Ro
150,0	145,0	15,0	› 4	HES 1500 1450 150 Ro
150,0	145,0	20,0	› 4	HES 1500 1450 200 Ro
150,0	145,0	25,0	› 4	HES 1500 1450 250 Ro
155,0	149,0	19,2	› 4	HES 1550 1490 192 Ro
160,0	154,0	19,2	› 5	HES 1600 1540 192 Ro
160,0	155,0	15,0	› 5	HES 1600 1550 150 Ro
165,0	159,0	19,2	› 5	HES 1650 1590 192 Ro
170,0	164,0	19,2	› 5	HES 1700 1640 192 Ro
175,0	169,0	19,2	› 5	HES 1750 1690 192 Ro
180,0	174,0	19,2	› 5	HES 1800 1740 192 Ro
185,0	179,0	19,2	› 5	HES 1850 1790 192 Ro

D H9	d +0 -0,05	E +0,2	C	ART / *ITEM*
190,0	184,0	19,2	› 5	HES 1900 1840 192 Ro
195,0	189,0	19,2	› 5	HES 1950 1890 192 Ro
200,0	194,0	19,2	› 5	HES 2000 1940 192 Ro
210,0	204,0	19,2	› 5	HES 2100 2040 192 Ro
220,0	214,0	19,2	› 5	HES 2200 2140 192 Ro
230,0	224,0	19,2	› 5	HES 2300 2240 192 Ro
240,0	234,0	19,2	› 5	HES 2400 2340 192 Ro
250,0	244,0	19,2	› 5	HES 2500 2440 192 Ro

Nota: altre dimensioni non a catalogo a richiesta. Consultare il nostro ufficio tecnico.

Remark: please contact our technical dept. for further dimensions not included in the catalogue.