

Merkel Guide Ring EKF

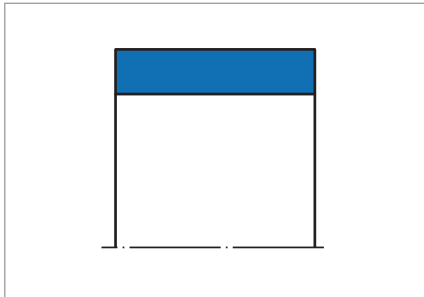


Fig. 1 Merkel Guide Ring EKF

Product description

Slit, non-metallic Merkel Guide Ring EKF.

Product advantages

Non-metallic guide element for pistons.

Application

Standard cylinders, mobile hydraulics, injection moulding machines.

Material

Material	Code
Polyamide	PA 4201

Operating conditions

Material	PA 4201
	Temperature range in °C
Hydraulic oils HL, HLP	-30 ... +100
HFA fluids	+5 ... +50
HFB fluids	+5 ... +50
HFC fluids	-30 ... +50
HFD fluids	-
Water	+5 ... +50
HETG (rapeseed oil)	-30 ... +60
HEES (synthetic ester)	-30 ... +80
HEPG (glycol)	-30 ... +50
Mineral greases	-30 ... +100
Running speed v in m/s	1
Loading (permitted specific surface pressure*)	≤25 N/mm ² at 20 °C ≤15 N/mm ² at 100 °C

* For the simple determination of the loading, a constant surface pressure is calculated using the projected area (D x H). The actual surface pressure is clearly greater in the centre of the surface than the calculated surface pressure. This is taken into account in the value for the permissible specific surface pressure.

Surface quality

Surface roughness	R _a	R _{max}
Sliding surface	0,05 ... 0,3 µm	≤2,5 µm
Groove base	≤2 µm	≤10,0 µm
Groove flanks	≤3 µm	≤15,0 µm

Percentage contact area M_r >50% to max. 90% at cutting depth c = Rz/2 and reference line C ref = 0%.

Design notes

Please observe our general design notes in → Technical Manual.

Tolerance recommendation

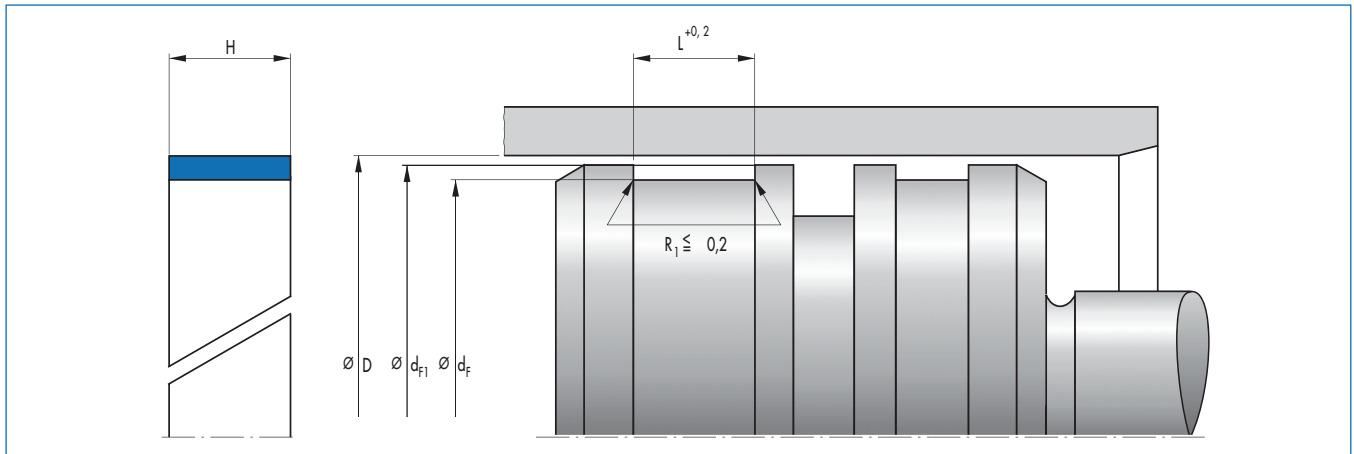
D_1	d_f	d_{F1}
H8	h8	h9

The tolerances given are recommended values. The usage of the guide and tolerance definition are to be considered in connection with the seal employed. The diameter d_{F1} given in the table of dimensions is to be considered exclusively in relation to the guide ring. The corresponding diameter for the adjacent seal housing is to be matched to the sealing component. → Technical Manual.

Fitting & installation

Merkel Guide Ring EKF can be easily snapped into the housing groove. Careful fitting is a prerequisite for correct function. → Technical Manual.

Article list



D	d _F	L	H	d _{F1}	Material	Article No.	
20	16	8,2	8	19,4	PA 4201	94215	●
25	21	8,2	8	24,4	PA 4201	99664	●
30	26	8,2	8	29,4	PA 4201	99665	●
32	28	8,2	8	31,4	PA 4201	94044	●
35	31	8,2	8	34,4	PA 4201	1264	●
40	36	8,2	8	39,4	PA 4201	99422	●
45	41	10,2	10	44,4	PA 4201	94191	●
50	46	10,2	10	49,4	PA 4201	99423	●
55	51	10,2	10	54,4	PA 4201	99424	●
58	54	10,2	10	57,4	PA 4201	95290	○
60	56	10,2	10	59,4	PA 4201	99375	●
63	59	10,2	10	62,4	PA 4201	99861	●
65	61	10,2	10	64,4	PA 4201	99368	●
70	66	10,2	10	69,4	PA 4201	99739	●
75	71	15,2	15	74,4	PA 4201	94192	●
80	76	15,2	15	79,4	PA 4201	34024	●
85	81	15,2	15	84,4	PA 4201	99331	○
90	86	15,2	15	89,4	PA 4201	99426	●
95	91	15,2	15	94,4	PA 4201	94193	○
100	96	15,2	15	99,4	PA 4201	99376	●
105	101	20,3	20	104,4	PA 4201	27257	○
110	106	20,3	20	109,4	PA 4201	99864	●
115	111	20,3	20	114,4	PA 4201	94194	○
120	116	20,3	20	119,4	PA 4201	99740	●
125	121	20,3	20	124,4	PA 4201	99172	●
130	126	20,3	20	129,4	PA 4201	99863	●
135	131	20,3	20	134,4	PA 4201	34301	○
140	136	20,3	20	139,4	PA 4201	99425	●
150	146	25,4	25	149,4	PA 4201	94201	●
160	156	25,4	25	159,4	PA 4201	99862	●
180	176	25,4	25	179,4	PA 4201	94204	●
200	196	25,4	25	199,4	PA 4201	99963	●
220	216	30,5	30	219,4	PA 4201	95594	○
250	246	30,5	30	249,4	PA 4201	94323	●

● Available from stock ○ On request: Tool is available, delivery at short notice