

## GUIDE RINGS

### Form and application

The function of guide rings is to achieve the fine guidance of moving connections in hydraulic and pneumatic cylinders, and prevent metallic contact between pistons and cylinders.

Profiles and dimensions are given in Fig. 1.

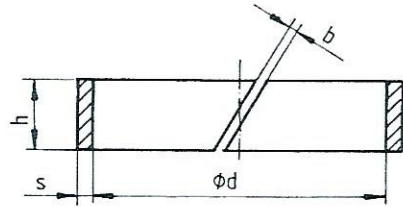


Figure 1

### Materijal

Guide rings are manufactured of thermoplastics: polytetrafluorethylene (PTFE), polyamide (PA) and polyacetal (POM).

Operating conditions of the above elements are given in Table 1.

If PTFE guide rings are required due to operating conditions, guide rings manufactured from PTFE filled with bronze are applied with steel cylinders, and guide rings manufactured from PTFE filled with graphite are used with light or non-ferrous cylinders.

Table 1.

Material designation	Applications		
	Temperature range °C	Velocity (m/sec)	Medium
PTFE	-200 up to +260	5	Air Water Mineral oils HFA (emulsion oil-water) HFB (emulsion water-oil) HFC (polyglycol-water) HFD (phosphorous esters) Brake fluids
PA	-40 up to +120	1	Air Mineral oils HFA (emulsion oil-water) HFB (emulsion water-oil) HFC (polyglycol-water)
POM	-40 up to +100	1	Air Mineral oils HFA (emulsion) HFB (emulsion water-oil) HFC (polyglycol-water)

### Installation

Guide rings are installed on to the piston and their function is to guide it, or in to the cylinder and their function is to guide the rod.

### Sizes and installation dimensions

Nominal and other relevant dimensions of guide rings used for guiding the piston rod, and required installation dimensions are given in Table 2.

The designation of this type of guide rings is 0484.

Nominal and other relevant dimensions of guide rings used for guiding the piston, and the required installation dimensions are given in Table 3.

The designation of this type of guide rings is 0485.

GUIDE RINGS 0484

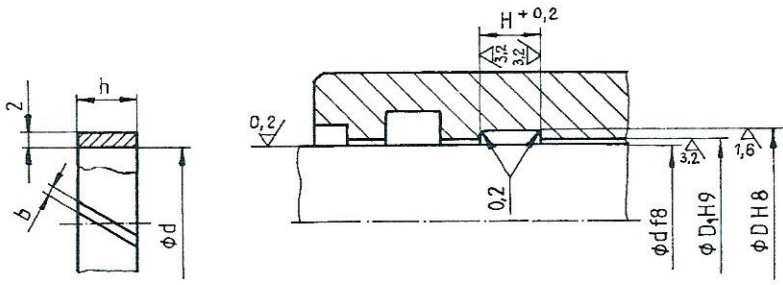


Table 2.

Nominal size	∅d	∅D	∅D <sub>1</sub>	b	h		H	
10	10	14	11	2-3	10		10,2	
12	12	16	13	2-3	10		10,2	
14	14	18	15	2-3	10		10,2	
16	16	20	17	2-3	10		10,2	
18	18	22	19	2-3	10		10,2	
20	20	24	21	2-3	10		10,2	
22	22	26	23	2-3	10		10,2	
25	25	29	26	2-3	10		10,2	
28	28	32	29	2-3	10		10,2	
30	30	34	31	2-3	10		10,2	
32	32	36	33	2-3	10		10,2	
36	36	40	37	2-3	10		10,2	
40	40	44	41	2-3	10		10,2	
45	45	49	46	2-3	10		10,2	
50	50	54	51	2-3	10	20	10,2	20,3
56	56	60	57	3-4	10	20	10,2	20,3
63	63	67	64	3-4	10	20	10,2	20,3
70	70	74	71	3-4	10	20	10,2	20,3
80	80	84	81	3-4	10	20	10,2	20,3
90	90	94	91	4-5	10	20	10,2	20,3
100	100	104	101	4-5	10	20	10,2	20,3
110	110	114	111	4-5	10	20	10,2	20,3
125	125	129	126	4-5	10	20	10,2	20,3
140	140	144	141	4-5		20 30		20,3 30,5
160	160	164	161	5-6		20 30		20,3 30,5
180	180	184	181	5-6		20 30		20,3 30,5
200	200	204	201	5-6		20 30		20,3 30,5
250	250	254	251	6-7		20 30		20,3 30,5
280	280	284	281	6-7		20 30		20,3 30,5
320	320	324	321	6-7		20 30		20,3 30,5
360	360	364	361	7-8		20 30		20,3 30,5

Order examples:

1. Guide rings 0484 12 × 10 90 POM
2. Guide rings 0484 360 × 30 30 PA
3. Guide rings 0484 100 × 20 20 PTFE