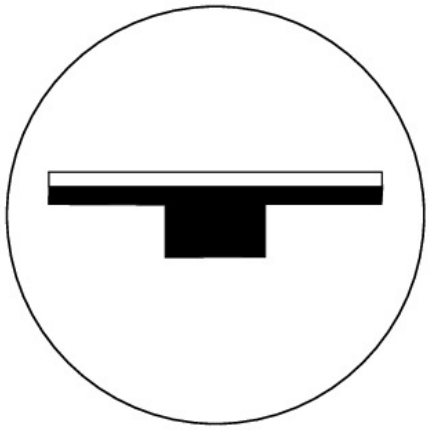
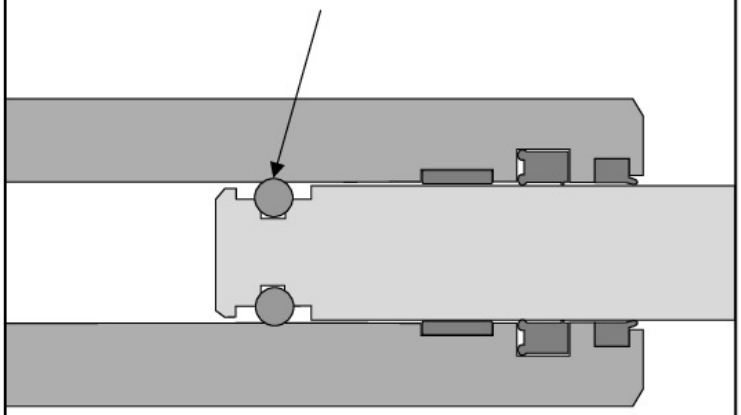
Slide ring type HF 460 is ideally suited for so called plunger cylinders.

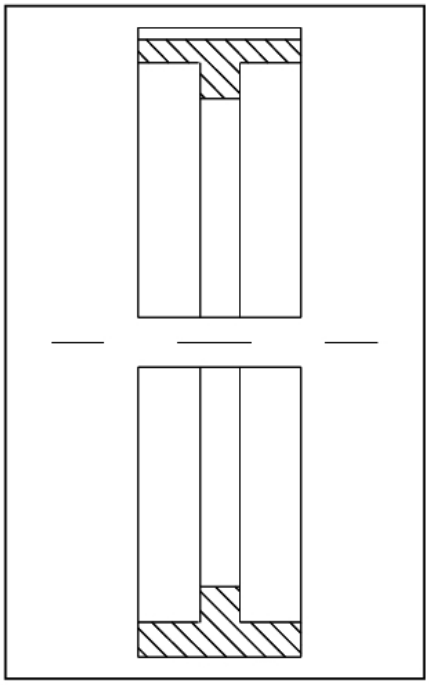
Special Features:

- Highly wear resistant material
- Easy snap assembly through slanted slotting
- Smooth flow over of hydraulic medium through multiple channels is guaranteed
- Rod stop at inner diameter.



Material	:	polyacetal
Velocity	:	reciprocating to 0.8 m/s
Temperature	:	-40 to +110 °C





Slide Ring

Slide ring has a rectangular cross-section and multiple oil grooves on the dynamic interface to simplify the return flow of the pressure medium. The internal diameter is provided with a retaining flange. This also makes a "chambered" assembly possible and therefore a larger slit size between cylinders wall and piston.

These sliding rings are fundamentally produced as preformed rings.

Materials Overview

The material polyacetal excels in wear resistance and high load bearing capacity over the entire temperature range of application. Good media compatibility and low frictional coefficient of the material make it suitable for both hydraulics and pneumatics (oiled compressed air).

Material Data

Max. compression strength static	[N/mm²]	5
Max. compression strength dynamic	[N/mm²]	2.5

Calculation

Dimensioning and sizing of slide ring for dynamic application is dependent to a large extent on the radial force and the associated deformation of the slide ring, slide gap and service temperature. The value of dynamic compressive strength is to be considered, taking the above factors into account. In practise, it is advantageous to include a factor of safety.

The following formula provides the requisite width of slide:

$$B_{min} \geq \frac{F_R \cdot S}{\sigma_{zul.\ dyn.} \cdot D_n} \quad [mm]$$

Where:

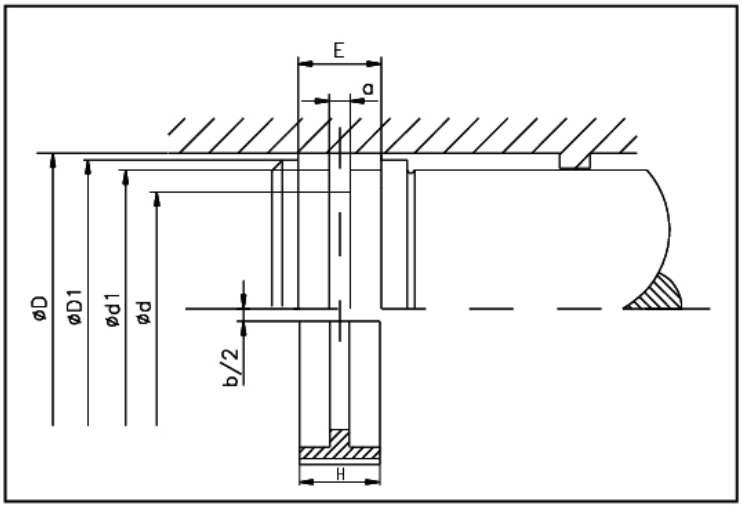
B_{min} = min. width of slide ring [mm]
F_R = max. radial load [N]
$\sigma_{zul.dyn}$ = permissible dynamic compression Strength [N/mm²]
S = safety factor

Example:

$$B_{min} \geq \frac{1000 \cdot 2}{2{,}5 \cdot 63} \approx 12{,}7$$

Rod diameter	D_n	=	63 mm
Max. radial load	F_R	=	4 kN
dyn. compress. strength	$\sigma_{zul.dyn}$	=	15 N/mm²
Safety factor	S	=	2

For taking up of larger transverse forces, please use our plunger slide rings Hf455.



Limitations on Use

Velocity	: reciprocating to 0.8 m/s
Temperature	: -40 to +110 °C
Compress. strength, dyn.	: up to 2,5 N/mm²
Compress. strength, stat.	: up to 5 N/mm²

Media for Use

Mineral oil based pressure fluids, flame resistant fluids (HFA, HFB, HFC), non-polluting pressure fluids (Bio Oils), water, air and other media.

Media for Use

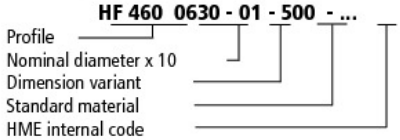
Surfaces	Rz	Ra
Faces	2,0 µm	0,4 µm
Groove root	10,0 µm	3,2 µm
Groove flanks	10,0 µm	3,2 µm

D H9	**H**	**D1** h11	**d** -0,4	**d1** f8	**E** +0,2	**a**	**b**	**Part N°.**
20,00	7,80	19,65	14,00	17,20	8,50	3,00 +0,1	2,00	HF460 0200-01-500
22,00	7,80	21,65	16,00	19,20	8,50	3,00 +0,1	2,00	HF460 0220-01-500
25,00	7,80	24,65	19,00	22,20	8,50	3,00 +0,1	2,00	HF460 0250-01-500
28,00	7,80	27,65	22,00	25,20	8,50	3,00 +0,1	2,00	HF460 0280-01-500
30,00	7,80	29,65	24,00	27,20	8,50	3,00 +0,1	2,00	HF460 0300-01-500
32,00	7,80	31,65	26,00	29,20	8,50	3,00 +0,1	2,00	HF460 0320-01-500
35,00	7,80	34,65	29,00	32,20	8,50	3,00 +0,1	2,00	HF460 0350-01-500
36,00	7,80	35,65	30,00	33,20	8,50	3,00 +0,1	2,00	HF460 0360-01-500
40,00	9,80	39,60	32,50	36,80	10,50	3,50 +0,1	3,00	HF460 0400-01-500
42,00	9,80	41,60	34,50	38,80	10,50	3,50 +0,1	3,00	HF460 0420-01-500
45,00	9,80	44,60	37,50	41,80	10,50	3,50 +0,1	3,00	HF460 0450-01-500
50,00	9,80	49,60	42,50	46,80	10,50	3,50 +0,1	3,00	HF460 0500-01-500
55,00	9,80	54,60	47,50	51,90	10,50	3,50 +0,1	4,00	HF460 0550-01-500
56,00	9,80	55,60	48,50	52,90	10,50	3,50 +0,1	4,00	HF460 0560-01-500
58,00	9,80	57,60	50,50	54,90	10,50	3,50 +0,1	4,00	HF460 0580-01-500
60,00	9,80	59,60	52,50	56,90	10,50	3,50 +0,1	4,00	HF460 0600-01-500
63,00	14,30	62,50	54,00	59,50	15,00	5,00 -0,1	5,00	HF460 0630-01-500
65,00	14,30	64,50	56,00	61,50	15,00	5,00 -0,1	5,00	HF460 0650-01-500
70,00	14,30	69,50	61,00	66,50	15,00	5,00 -0,1	5,00	HF460 0700-01-500
75,00,	14,30	74,50	66,00	71,50	15,00	5,00 -0,1	5,00	HF460 0750-01-500
80,00	14,30	79,50	71,00	76,50	15,00	5,00 -0,1	5,00	HF460 0800-01-500
85,00	14,30	84,50	76,00	81,50	15,00	5,00 -0,1	5,00	HF460 0850-01-500
90,00	14,30	89,50	81,00	86,50	15,00	5,00 -0,1	5,00	HF460 0900-01-500
95,00	14,30	94,40	86,00	91,50	15,00	5,00 -0,1	8,00	HF460 0950-01-500
100,00	14,30	99,40	91,00	96,50	15,00	5,00 -0,1	8,00	HF460 1000-01-500
105,00	14,30	104,40	96,00	101,50	15,00	5,00 -0,1	8,00	HF460 1050-01-500
110,00	14,30	109,40	101,00	106,50	15,00	5,00 -0,1	8,00	HF460 1100-01-500
115,00	14,30	114,40	106,00	111,50	15,00	5,00 -0,1	8,00	HF460 1150-01-500
120,00	14,30	119,40	111,00	116,50	15,00	5,00 -0,1	8,00	HF460 1200-01-500
125,00	14,30	124,40	116,00	121,50	15,00	5,00 -0,1	8,00	HF460 1250-01-500
130,00	14,30	129,40	121,00	126,50	15,00	5,00 -0,1	8,00	HF460 1300-01-500
135,00	14,50	134,40	126,00	131,50	15,00	5,00 -0,1	8,00	HF460 1350-01-500
140,00	14,30	139,40	131,00	136,50	15,00	5,00 -0,1	8,00	HF460 1400-01-500
150,00	14,30	149,40	141,00	146,50	15,00	5,00 -0,1	8,00	HF460 1500-01-500
160,00	19,80	159,30	144,00	152,90	20,30	8,00 -0,1	10,00	HF460 1600-01-500
170,00	19,80	169,30	154,00	162,90	20,30	8,00 -0,1	10,00	HF460 1700-01-500
180,00	19,80	179,30	164,00	172,90	20,30	8,00 -0,1	10,00	HF460 1800-01-500
190,00	19,80	189,30	174,00	182,90	20,30	8,00 -0,1	10,00	HF460 1900-01-500
200,00	19,80	199,30	184,00	192,90	20,30	8,00 -0,1	10,00	HF460 2000-01-500
210,00	24,50	209,20	193,00	202,50	25,00	8,00 +0,1	12,00	HF460 2100-01-500

D H9	**H**	**D1** h11	**d** -0,4	**d1** f8	**E** +0,2	**a**	**b**	**Part N°.**
220,00	24,50	219,20	203,00	212,50	25,00	8,00 +0,1	12,00	HF460 2200-01-500
225,00	24,50	224,20	208,00	217,50	25,00	8,00 +0,1	12,00	HF460 2250-01-500
230,00	24,50	229,20	213,00	222,50	25,00	8,00 +0,1	12,00	HF460 2300-01-500
240,00	24,50	239,20	223,00	232,50	25,00	8,00 +0,1	12,00	HF460 2400-01-500
250,00	24,50	249,20	233,00	242,50	25,00	8,00 +0,1	12,00	HF460 2500-01-500
255,00	24,50	254,20	238,00	247,50	25,00	8,00 +0,1	12,00	HF460 2550-01-500

Further sizes available on request.

Example for placing an order:



Issue
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