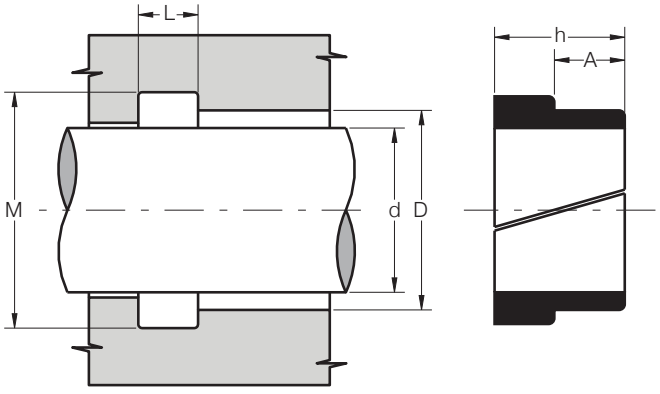
FIL "L" SHAPE SPLIT ROD GUIDE RING



DESCRIPTION

"L" shape split rod guide ring

MATERIAL

Type:	Acetal resin with glass fibre
Designation:	BEARITE

MAIN FEATURES

The FIL type guide rings have been developed to substitute traditional bronze guides in hydraulic cylinders. They guide the rod and prevent metallic contact with the cylinder head when radial forces act perpendicular to the direction of movement.

Chamfered edges prevent splintering of the material during assembly and make the installation into the groove easier.

The compound used for these guides is a medium viscosity glass fibre reinforced acetal resin characterized by high strength, rigidity, hardness, impact resistance, resilience and excellent stability to high and low temperature.

- Extended service life
- Excellent wear-resistance
- Simple design of groove and assembly
- Reduce vibrations
- Low friction
- Good resistance to loads
- Good mechanical stability at high temperature
- Easy installation without expensive auxiliaries

FIELD OF APPLICATION

Speed	≤ 1 m/s
Temperature	–40°C ÷ +110°C
Fluids	Hydraulic oils (mineral oil based).
	For other fluids contact our technical department

SURFACE ROUGHNESS

	Dynamic surface	Ra ≤ 0.3 µm	Rt ≤ 2.5 µm
	Static surface	Ra ≤ 2 µm	Rt ≤ 10 µm

CHOICE OF GUIDE RING WIDTH

A rough estimate of guide width can be calculated with the following formula:

$$h_{mm} \geq \frac{F_N \, x \, k}{p_{N/mm^2} \, x \, d_{mm}}$$

where

A_{mm}	• usable guide ring width in mm
F_N	• radial load in N
k	• safety factor (*generally 2*)
d_{mm}	• rod diameter in mm
$p_{N/mm2}$	• surface pressure N/mm²
	40 a 20 °C
	30 a 70 °C

• Before assembly good cleanliness and guide lubrication are recommended.

Part.	d f7	D +0.05	M +0.2	L +0.1	h	A
FIL 60 66 16	60	66	71	5.0	16	11
FIL 65 70 16	65	70	73	5.0	16	11
FIL 72 77 16	72	77	82.4	5.0	16	11
FIL 78 84 16	78	84	89	5.0	16	11
FIL 85 90 16	85	90	93	5.0	16	11
FIL 91 96 16	91	96	101.4	5.0	16	11
FIL 99 105 16	99	105	110	5.0	16	11
FIL 110 115 16	110	115	120.4	5.0	16	11
FIL 120 126 16	120	126	131	5.0	16	11
FIL 129 136 16	129	136	139.4	5.0	16	11
FIL 141 147 16	141	147	152	5.0	16	11
FIL 162 168 16	162	168	173	5.0	16	11
FIL 183 189 16	183	189	194	5.0	16	11
FIL 207 213 16	207	213	218	5.0	16	11