



DESCRIPTION

Split guide ring for plunger cylinder

MATERIAL

Type: Acetal resin with glass fibre

Designation: BEARITE

MAIN FEATURES

The guide rings type FSP have been realized to substitute traditional bronze guide in hydraulic cylinders.

They guide the rod of a plunger cylinder where, thanks to the big longitudinal grooves on the outside surface, an overflow of the fluid is continuously assured.

The compound used for these guides is a medium viscosity acetal resin glass fibre reinforced 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
- Low friction
- Good resistance to loads
- Good mechanical stability at high temperature
- Easy installation without expensive auxiliaries

FIELD OF APPLICATION

Speed	≤ 0.8 m/s
Temperature	-40°C ÷ +110°C
Fluids	Hydraulic oils (mineral oil based). <i>For other fluids contact our technical department</i>

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:

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

where

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

- Before assembly a good cleanness and guides lubrication are recommended.

Part.	D H8	d -0.05	L +0.5
FSP 25 16 12	25	16	13.0
FSP 30 20 12	30	20	13.0
FSP 33.5 24.5 12	33.5	24.5	13.0
FSP 35 25 12	35	25	13.0
FSP 40 30 12	40	30	13.0
FSP 42 32 12	42	32	13.0
FSP 45 35 12	45	35	13.0
FSP 49 41 8	49	41	9.0
FSP 49.9 40.92 11.7	49.9	40.92	12.7
FSP 50 40 15	50	40	16.0
FSP 54.5 45 19	54.5	45	20.0
FSP 55 45 15	55	45	16.0
FSP 60 45 15	60	45	16.0
FSP 60 50 15	60	50	16.0
FSP 65 55 15	65	55	16.0
FSP 65 57 8	65	57	9.0
FSP 75 65 12	75	65	13.0
FSP 75 65 15	75	65	16.0
FSP 80 71 10	80	71	11.0
FSP 85 75 15	85	75	16.0
FSP 95 86 10	95	86	11.0