

WEAR RINGS

BECA

006 Piston



DESCRIPTION

The BECA 006 Piston profile is a machined guide ring with a 30° angle cut as standard, made from filled PTFE.

ADVANTAGES

- Substantial and improved lubrication conditions through the tear structures
- Very good friction coefficient; no stick-slip effect
- Good wear resistance; very long life
- Increased absorption of foreign particles
- Good vibration absorption

APPLICATIONS

- Aerospace
- Aerospace
- Military

MATERIALS

- Bronze-filled PTFE
- Carbon-filled PTFE
- Carbon graphite-filled PTFE

TECHNICAL DATA

Temperature	-60°C / +200°C
Speed	15 m/s
Media	Mineral hydraulic oils Fire-resistant liquids Biocompatible fluids Water Others (contact our experts)
Max. compression resistance	30 to 35 N/mm ²
Radial loads in dynamic applications	15 N/mm ² at 25°C 12 N/mm ² at 80°C 8 N/mm ² at 120°C

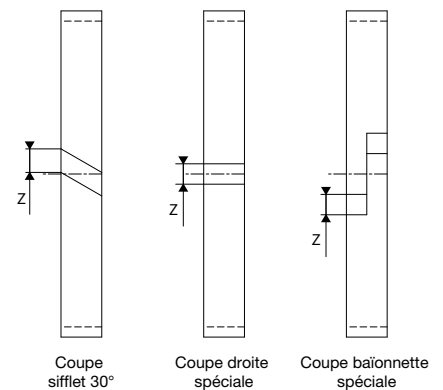
The figures above indicate the maximum values and may not be cumulated. They may be developed, depending on the materials used.

WEAR RING HEIGHT DIMENSIONING

$$H = (F \times f) / (\text{ØD1} \times Cr)$$

- where:
- H = Min. height of guide (mm)
 - F = Max. radial force (N)
 - f = Safety coefficient (we recommend 2)
 - ØD1 = Bore diameter (mm)
 - Cr = Permissible radial load in dynamic applications (N/mm²)

TYPES OF CUT

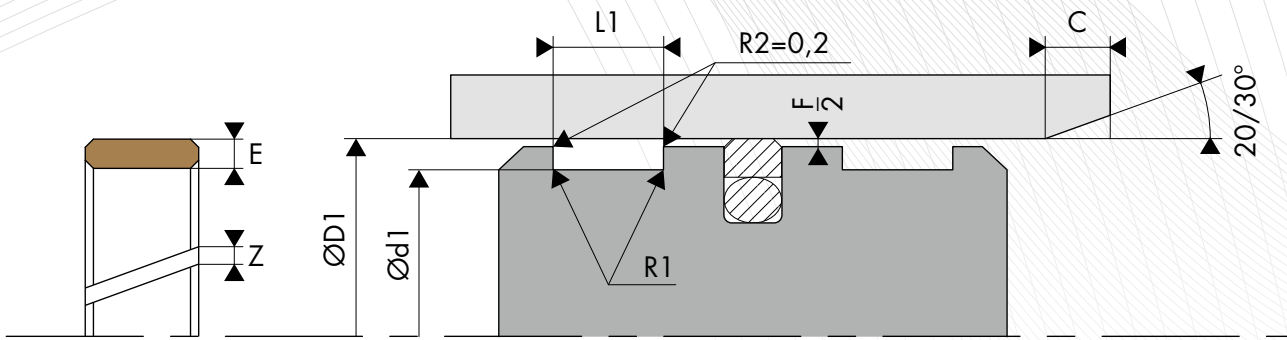


SURFACE ROUGHNESS

Roughness	Dynamic surface area	Static surface area	Groove flanks
Ra	0.05 - 0.2 µm	≤1.6 µm	≤3.2 µm
Rz	0.4 - 1.6 µm	≤6.3 µm	≤10.0 µm
Rmax	0.63 - 2.5 µm	≤10.0 µm	≤16.0 µm

RECOMMENDED RADIUS OF THE GROOVE DIAMETER

Bore diameter ØD1	Radius R1 max
≤ 250.00	0.20
> 250.00	0.40



○ INSTALLATION DIMENSIONS

Bore diameter ØD1 H10	Groove diameter Ød1 h8	Groove width L1 0/+0.25	Extrusion gaps F/2 max
5.97 - 37.87	D1 - 1.63	3.43	0.18
5.97 - 37.87	D1 - 1.63	6.60	0.18
5.97 - 37.87	D1 - 1.63	9.78	0.18
5.97 - 37.87	D1 - 1.63	12.95	0.18
13.97 - 113.49	D1 - 3.20	3.43	0.23
13.97 - 113.49	D1 - 3.20	6.60	0.23
13.97 - 113.49	D1 - 3.20	9.78	0.23
13.97 - 113.49	D1 - 3.20	12.95	0.23
76.02 - 266.04	D1 - 4.78	3.43	0.28
76.02 - 266.04	D1 - 4.78	6.60	0.28
76.02 - 266.04	D1 - 4.78	9.78	0.28
76.02 - 266.04	D1 - 4.78	12.95	0.28