



AGATHON

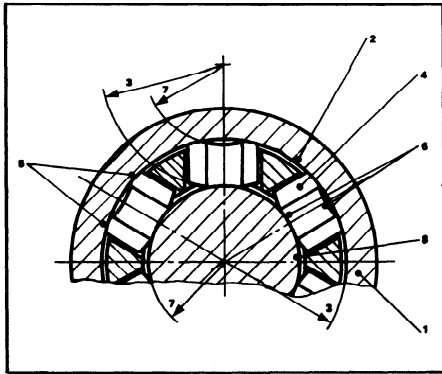
ROLLER BEARINGS METRIC GUIDE PINS AND BUSHINGS

FEATURES

- High-load carrying capacity
- Long life
- High bearing accuracy
- Very low frictions
- Insensitive to low dirt accumulations
- Pre-load
- High stiffness
- No heating
- Minimum maintenance

ROLLER BEARINGS ARE FORMED AS FOLLOWS:

The bearing elements (4) roll on the concave surface (2) of the steel bushing (1) with radius (3). The outer roller surfaces (5) also have the radius (3). Rollers (4) are formed which have an inner running surface (6) with radius (7). These rollers (4) run on the convex surface (8) of the guide pillar.



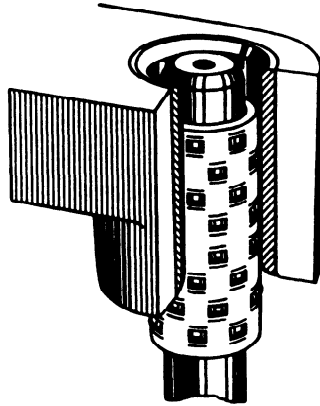
Due to line contact with both the outer steel bush and the inner guide pillar, a much higher load carrying capacity for the linear bearing is achieved. This is particularly true when compared to similar units with ball-shaped elements. Because of the line contact, the pre-load can be kept to a minimum, resulting in low-surface loading between the formed rollers and the running tracks. The bearing can be heavily loaded, but will remain rigid and accurate.

PRE-LOAD

The pre-load (approx. 0–.00015") is the difference between the distance over two diametrically opposed rollers in contact with the pillar d and the bore of the guide bushing D .

MINIMUM MAINTENANCE

- A thin lubricating film is sufficient for most applications to insure continuous process.
- Superfinished surfaces and dimensional accuracy in reference to roundness and cylindricity add to longevity.



The guide pillar and the steel bushing are assembled by sliding the parts together. Taking into account that the ball bearing will travel only half the distance of the other elements, undue force should be avoided. The patented retaining ring will prevent the ball cage from sliding to a large extent.

TECHNICAL DETAILS

HARDNESS:	63–65 HRc
STEEL:	Special bearing steel
SPEED LIMIT:	3150"/min (80m/min)
LIFETIME:	Approx. 20 million strokes, with recommended lubrication
RETAINER MATERIAL:	Norm 762: Aluminum, Avional

