

Standard Parts

**Agathon centering for machine
and apparatus engineering**



Backlash-free guide and centering

AGATHON

Range of applications

Agathon rolling guides are backlash-free and durable, thanks to a precise preload. The efficiency of injection molding tools can be significantly increased due to the various tribological advantages of a rolling guide against sliding guides.

The integrated cage retaining system allows to exit the preload. Made of hardened, wear resistant bearing steel, the Agathon centerings reach a high range of applications.

Static applications

- Backlash-free pin connection: the insertion holes for the centering installation remain precise at all times, unlike friction style pins and/or flat locating units that are prone to excessive wear
- Quickly interchangeable and backlash-free plug in connections: for example clamping devices for machining or pluggable drive units
- Maximum alignment offset of up to 0.15 mm can be centered

Dynamic applications

- In short stroke applications, the centering unit does not exit the preload
- Depending on alignment offset and tool acceleration, up to 400 cycles/min can be achieved, frequency limits on feedback of the centering application
- For dynamic centering tasks and with an expectation of several million cycles of service life, the alignment offset to be centered should be < 0.05 mm

The outstanding advantages of rolling centering systems

Performance features

- High initial load capacity and radial load absorption
- Backlash-free, high rigidity
- Highest repeatability within $< 1\mu\text{m}$
- Cage retaining and positioning system is built-in
- No stick-slip, abrasion free
- Long, backlash-free centered stroke

Ease of use

- No tilting of the plates, simple tool handling
- Process reliability
- Customized solutions on request
- Free download of CAD data in all formats
- Simple calculation scheme with regard to the size and number of centering units needed

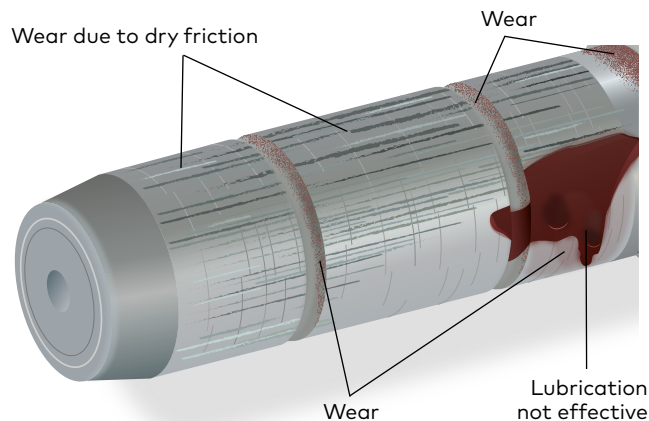
Installation

- Bushes can be fixed with provided fasteners or clamped between plates
- Fittings sized to js4/JS4/H5 tolerances

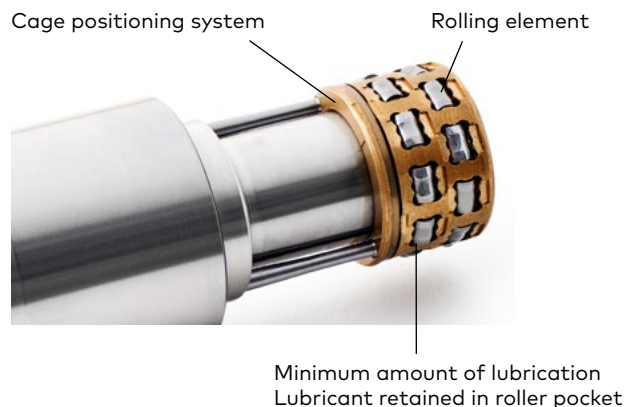
Design features

- Small, compact centering unit
- Standardized
- The centering units can be removed from the front of the tool
- On request, the individual components, even over several units, e.g. different number of bushes, can be matched as a paired batch
- Freedom of design: the centering units can be placed in any location on the tool, they do not need to be symmetrical
- In short stroke, non-disengaging applications, a constructional stop must be provided for the cage

Conventional design



Agathon design



Agathon centerings



The Universal – 7990

- For general precise centering tasks
- 3 sizes available from stock



For smaller applications – 7992

- Extremely compact and space saving in length and diameter
- The bush is attached directly with the screw heads



For the highest demands – 7993

- Long guided centering stroke for precise entry and exit of the application
- High temperature applications
- Ideal for high cleanroom demands
- No restrictions regarding cleaning methods



STRIVE FOR THE BEST.