

# Instructions for the installation and maintenance of Agathon rolling guide elements

## Instructions for the installation and maintenance of Agathon rolling guide elements (see also Agathon catalog, chapter 2, Guide elements Basics)

### Installation

1. Unpack the guide elements and clean the parts with an environmentally safe industrial cleaning agent. The delivered guide elements are provided with a corrosion inhibitor. This agent is not suitable for lubrication and must be removed.

#### Notes:

Agathon guide elements with roller cages are paired. This applies to roller cages Agathon Standards 7660 and 7663 as well as to the Agathon fine centering units Standards 7990, 7992, 7993 and 7995. The elements must not be interchanged. Please label the elements that belong together with a consecutive number.

Before cleaning cages made of aluminum (Agathon Standards 7611, 7660, 7990, 7992 and 7995), please check that the industrial cleaner or cleaning method will not damage or destroy the aluminum cage. Do not use alkaline or similar detergent. Before you use an ultrasonic cleaning device, clarify the permissible cleaning parameters beforehand.

2. Lightly grease the cleaned cages with a grease which is suitable for the application. See Agathon catalog on page 2.37 for recommended lubricants and page 2.20 for maintenance and lubrication of rolling guides.

Greasing the cage



3. Installation of the guiding elements in the plate bores. Information regarding positioning accuracy of the guide bores, installation options as well as installation/removal can be found in the catalog on pages 2.28 to 2.35. This also applies to the recommended bore tolerances. These are listed under «Assembly advice» by the relevant article.

### Maintenance/Replacement

1. For extremely high loads and long periods of use, grease or oil can be supplied periodically as lubricant also during use.
2. When doing a periodic maintenance of the tool, the cages should be cleaned and greased again. Attention: we recommend to remove aluminum cages before cleaning the tool in an ultrasonic bath or with alkaline cleaning agents! (see «Installation» points 1 and 2).

3. The guide elements must be replaced when:
- there is no more preload (the cage can be moved easily, despite the use in the theoretically preloaded area, or falls down through the bush)
  - cages must be replaced in case of loss of rolling elements or when signs of wear are visible on the rolling elements (flattened areas)
  - pillars and bushings must be replaced when they show strong running tracks (wear) or eruptions on the surface due to overload. See the pictures below
  - the guides can also be replaced as a precaution on the basis of experience values

**Notes:**

Paired guide elements and centering elements must be replaced as complete unit. This applies to guide elements Standards 7660 and 7663 and centering elements Standards 7990, 7992, 7993 and 7995

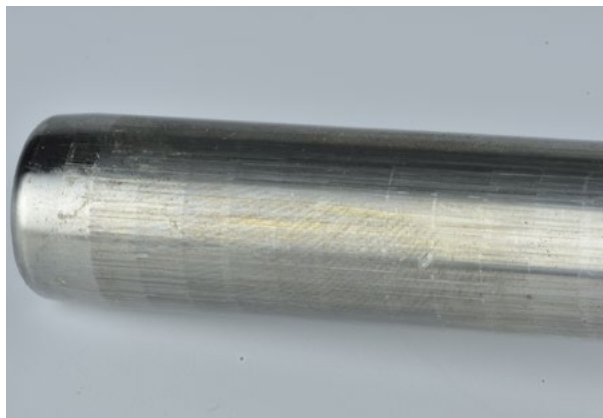
Ball guide units (Standards 7611 and 7631) can theoretically be replaced individually, i.e. either the pillar, cage or bushing. Usually the whole centering unit has to be replaced.

The mini fine centering (Standard 798x) can theoretically be replaced individually, i.e. either the pillar with cage or the bushing. Usually the whole centering unit has to be replaced.

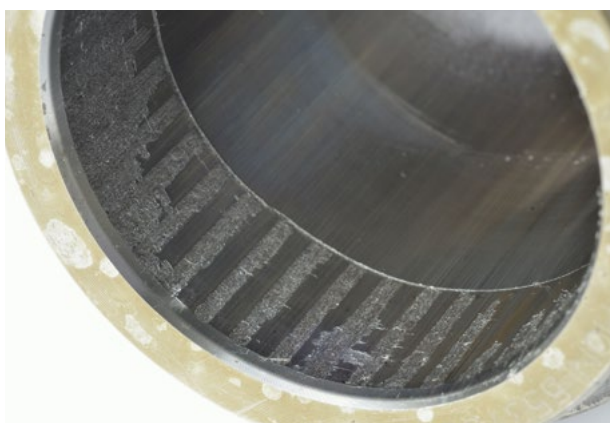
Images: Normal wear and defective



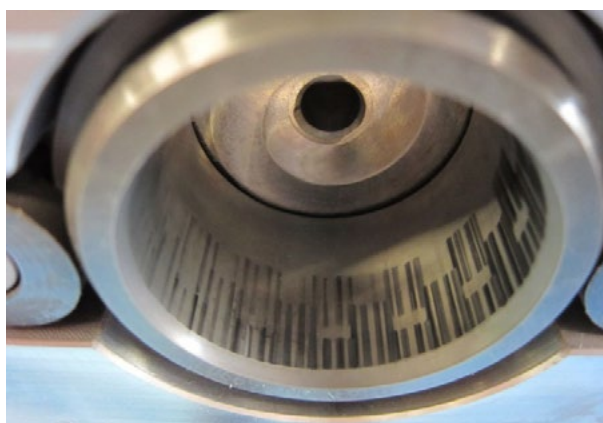
Normal wear, short stroke (example: guide plates)



Normal wear, long stroke



Defective, overloaded surface



Agathon fine centering unit, normal wear