

Technical Information

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Fine-finished mechanical parts of a size of a water flea or rice grain

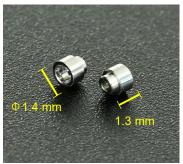
1. The processes and finishing for micro mechanical parts

FUTA-Q provides various kinds of mechanical parts as well as composite components comprising these parts, whose sizes are mainly from the size of a water flea or a rice grain to that of a palm. The below introduces sample products and the process methods of micro machining parts, as well as examples of observation of various surface conditions obtained by changing processing conditions.

2. Product samples of micro machining parts

The photos below show examples of water flea-sized and rice grain-sized parts, and the assembled component consisting of them. These parts are made of stainless steel (SUS304). Various processing methods and materials such as hard materials or flexible materials can be combined to meet customer needs.

Child part 1 (SUS304)



Child part 2 (SUS304)



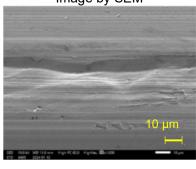
Combined component



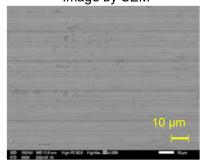
3. Differences in surface conditions due to processing methods and conditions

The photos below show differences in surface conditions obtained by different processing methods and conditions observed with an electron microscope. By adding polishing process, chemical treatment, etc., the desired surface condition can be obtained as the customer requirement.

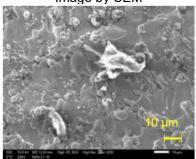
Turning and rough finishing (Ra18 µm) Image by SEM



Turning and precision finishing (Ra0.2 µm) Image by SEM



Wire-cut processing (Ra1.2 µm) Image by SEM



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