

Technical Information

Vol. 60

Micro-fabrication of High-performance Metal Wires and Small-diameter Pipes

1. Micro-fabrication of high-performance metal wires and small-diameter pipes

Using wires and small-diameter pipes made of high-performance metals including remelted stainless steel, titanium alloys, and cobalt alloys, FUTA-Q achieves the functions and characteristics required by our clients by applying various kinds of microfabrication processes or through combining these processes. This issue introduces these high-performance metal materials and examples of their processes.

2. Major high-performance metals that FUTA-Q has been processed

Products	High-performance metals	Typical material diameter
Wires	Re-melted stainless steel Shape memory alloy (NiTi) β-titanium alloy Tungsten Platinum alloy	*Ф0.1 - 3.0 mm
Small-diameter pipes	Stainless steel (SUS316L) Shape memory alloy (NiTi) β-titanium alloy Cobalt alloy (MP35N,L605)	*Depends on the material. Please contact us for details.

3. Processing examples

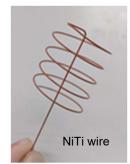
In order to achieve the performance and functionality requested, we are constantly working to develop new processing technologies and to introduce and improve the processing equipment.



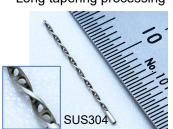
Long tapering processing



Needle tip processing

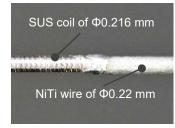


PTFE coating





Ultra-short pulse laser (femto-second or pico-second) processing



Soldering

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