

## Micro Joining Technology for Achieving High Functionality

### 1. FUTA-Q's micro joining technology achieves high functionality.

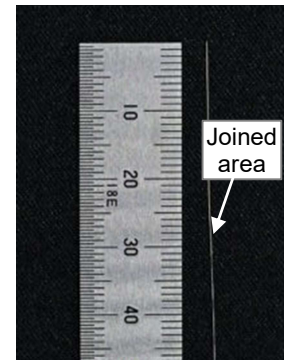
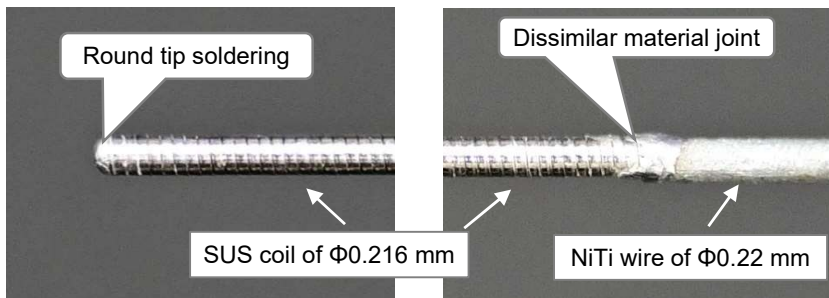
In order to achieve the functions and characteristics required, combining multiple small parts is sometimes required in forming a product. Various joining techniques must be used appropriately for making better products. This technical information introduces some of those FUTA-Q's typical joining techniques.

### 2. Joining techniques for ultra-fine diameter parts utilized in medical devices

In medical devices such as catheters and guidewires, some devices are composed of child components, such as ultrafine wires and spring coils, joined by soldering or brazing. The photo below shows an example made of dissimilar-materials, a 0.22 mm diameter NiTi wire and a 0.216 mm diameter SUS coil, joined with our soldering technique. The end tip of the SUS coil is rounded also with solder.



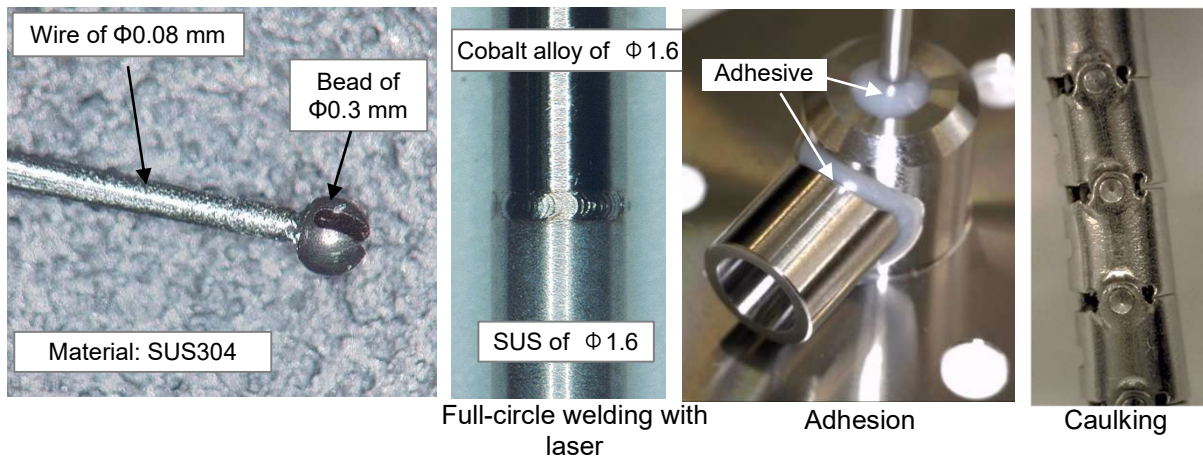
Brazing (Another pipe is brazed to the top of the main pipe)



Sample picture of ultra-fine diameter wire

### 3. Other joined examples

FUTA-Q can use a variety of joining techniques to meet your requirements.



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