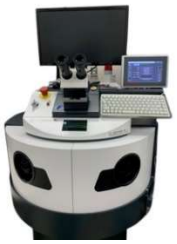
FUTA-Q Imagination & Innovation

Technical Information

Vol. 76

Precision Laser Processing Technology for the Medical Field

1. Presidion laser processing for medical devices

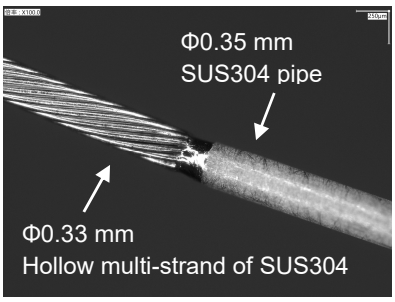


Precision components used in cutting-edge medical devices are often obtained by combining multiple processing technologies. We are honing various precision processing techniques related to those precision components. This issue features the laser processing techniques among them and introduces processed examples.

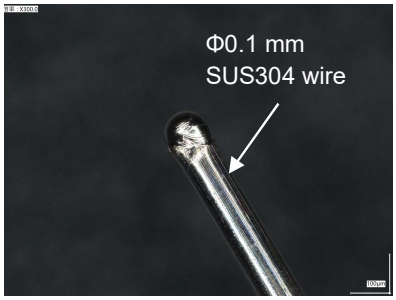
2. Precision welding and end processing of ultra-fine wire

The components of medical devices such as stents, which are made of extremely high-performance fine metal wires with diameters of 0.1mm or less, must be properly joined and have their terminals processed appropriately. We utilize the optimal laser processing equipment to meet such diverse requirements.

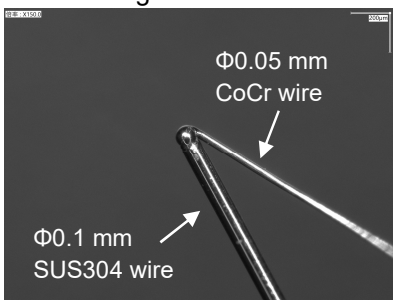
Welding of heterogeneous-form ultra-fine parts



End treatment of ultra-fine wire



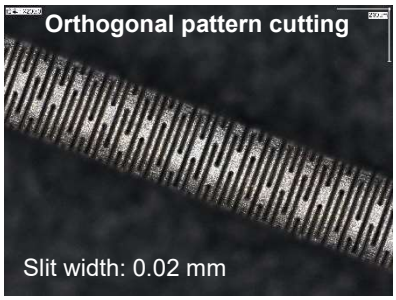
Welding of ultra-fine wires with different diameters and of heterogeneous materials

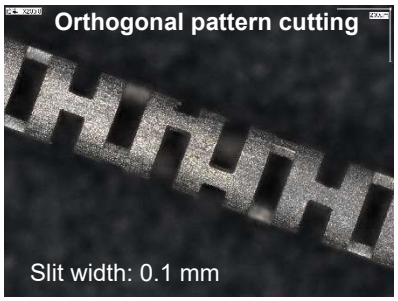


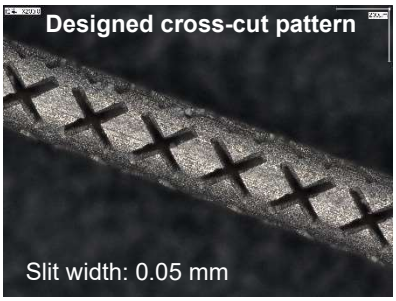
3. Precision slit pattern processing of ultra-fine pipe components

Hypodermic tubes used in low-invasive medical procedures require extremely thin, high-performance metal pipes with an outer diameter of 0.5mm or less to be carefully processed so as to have precise slit patterns. Using an ultra-short pulse laser processing machine enables to make such precise slit patterns with a slit-width of 0.02mm or more, while suppressing material degradation caused by heat effects from the processing.

Precision slit pattern formed on NiTi pipes with 0.3 mm of OD and 0.2mm of ID







FUTA-Q Co., Ltd.

URL https://futaku.co.jp E-mail futaku-info@futaku.co.jp

[Headquarters]
33-3 Karahashi-keiden-cho, Minami-ku, Kyoto City, Kyoto Pref. 601-8454
Tel: +81-75-661-2931

[Tokyo Office]
Mitaka-myojo-palace 3F,
1-1-3,Kamirenjaku Mitaka-shi,
Tokyo 181-0012,Japan
Tel: +81-422-27-7629