

FUTA-Q is the All-round Player on Micro Laser Processing

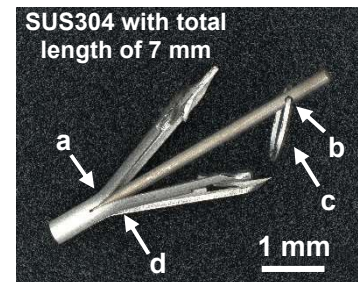
Laser processing can be useful when precision processing is required on delicate materials that are ultrafine, minuscule, ultrathin, easily bent, or easily chipped. This process is one of a fields in which FUTA-Q excels, especially by utilizing micro laser processing including ultra-short pulsed lasers and laser welding. We can also provide products fabricated through combined processes including machining, assembling, and surface treatment.



1. Processed examples through combined laser processing

The image on the right shows a processed product of SUS304 with a total length of 7 mm. Applied laser processes are as follows.

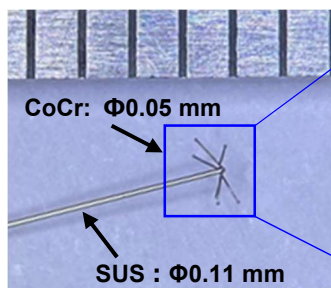
- Pattern cutting on a SUS pipe of $\Phi 0.51$ mm O.D.
- Drilling on a SUS wire of $\Phi 0.26$ mm O.D.
- Processing a 0.1mm-thick SUS plate into a circular shape
- Applying bending and welding processes on the parts above



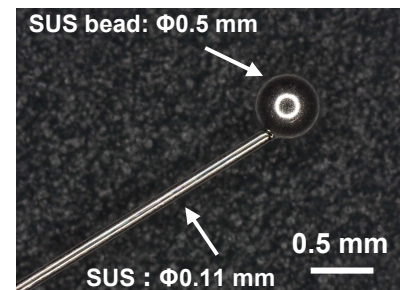
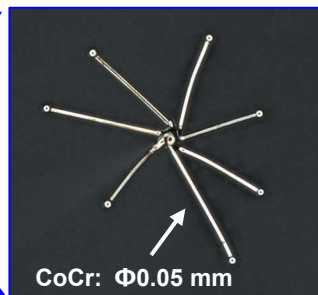
Composite processing example

2. Processed examples of laser welding and beading

The images below show processed samples when we studied the processing methods and conditions for welding and beading on a single material or dissimilar materials using $\Phi 0.11$ mm SUS wire and $\Phi 0.05$ mm CoCr wire. We conduct the unceasing study on optimal laser sources and powers, work methods, and jigs, for future products.



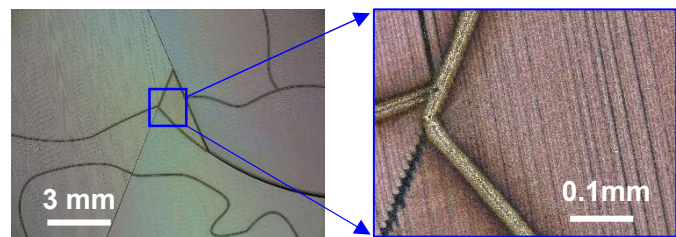
Welded example of dissimilar materials



Product example of beading

3. Example of ultrashort-pulse laser processing

By using a femtosecond or picosecond ultrashort-pulse laser, microfabrication can be performed with minimal thermal effects on the material. The image on the right shows a processed example of a SUS304 plate on which surface periodic microstructures are made.



Periodic micro-structure processing example

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