Micro additive manufacturing of medical grippers using the print-as-one process

We present a manufacturing concept for medical grippers based on a special printas-one design that is produced using the additive printing process Micro Laser Sintering (MLS). The novel design approach, in combination with the high-precision MLS printing process, enables the production of fully functional metal micro grippers in a single manufacturing step.

Challenge

One component instead of six assembled individual parts plus additional fasteners and, if necessary, several suppliers

Solution

Single part production without assembly

Made of medical grade stainless steel 1.4542 (17-4PH)

• With printed and fully articulated joints

Different sizes

diameter	length
3.0 mm	30 mm
1.7 mm	20 mm
1.2 mm	10 mm
0.8 mm	6 mm

presented on:



