

NITI COMPONENTS

UNLOCK THE FULL
POTENTIAL OF NITI

PRECISION IS OUR PROFESSION

MeKo has been a pioneer in stent manufacturing. Today, because of our profound expertise and our technological leadership, we are one of the main suppliers for NiTi components like stents and valves worldwide.

Our high-precision laser cutting combined with a reliable shape setting process ensures perfect geometry and consistent mechanical properties for the manufacturing of your NiTi devices.

MeKo is your specialist for NiTi components:

- Perfect geometry
- Highest surface quality
- Superior corrosion resistance
- 100 % visual inspection

Nickel titanium (NiTi - also known as Nitinol) is an ideal alloy for many medical components due to its superelasticity, shape memory, strength and corrosion resistance.

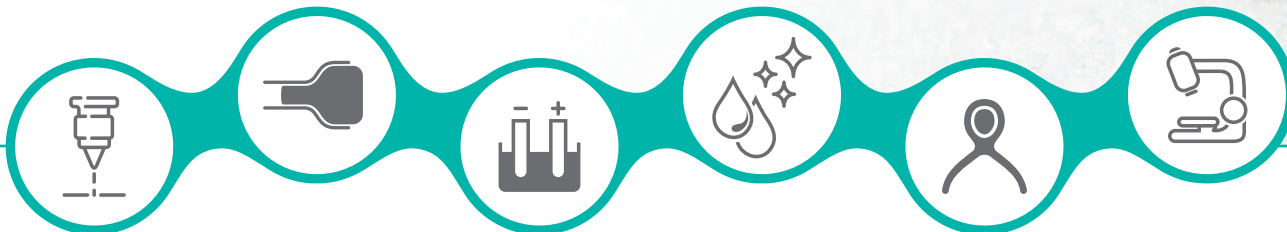
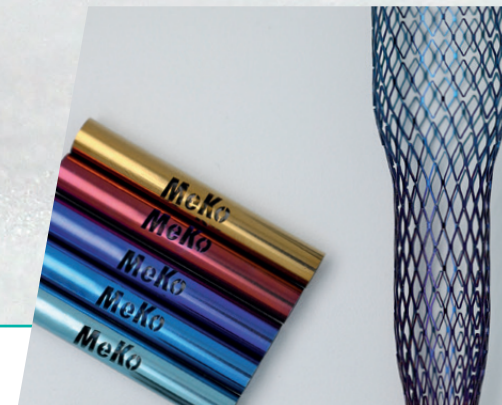
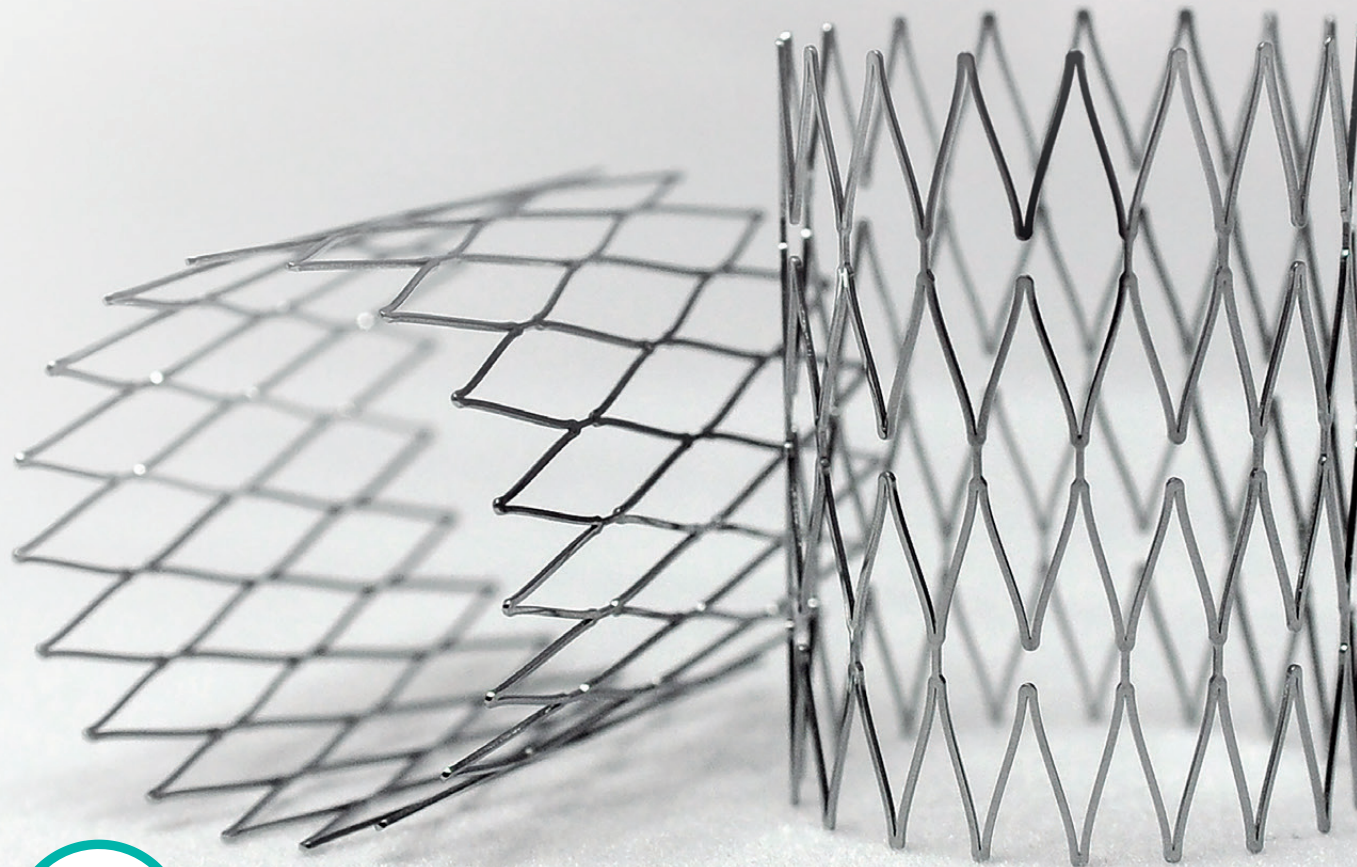
Find out more: www.meko.de/niti

MANUFACTURING OF NITI COMPONENTS

Our manufacturing processes are adapted to applications like heart valve frames, coronary, neurovascular, peripheral and biliary stents, baskets, ...

MeKo's [in-house inspection](#) and [measuring instruments](#) for material properties guarantee highest material quality. For the development of your device, we support you with modeling, simulation and design improvement.

When time is at a premium: Thanks to the 24/7 manufacturing and our [rapid prototyping](#), orders can be processed within short time. We ship your components worldwide.



Laser Cutting

Our laser machines enable cutting and drilling with a precision of up to $\pm 2 \mu\text{m}$.

- Highest cutting quality with lowest heat impact to the material.
- Nearly no limitations in cutting length and tube diameter.
- Cutting stents in the expanded shape (thin wall tubing with large diameters).
- Extremely precise measuring techniques.
- Proprietary cleaning processes.

Shape Setting

Most demanding geometries are realized with our advanced shape setting tools.

- Accurately controlled heating cycles ensure reliable transformation temperature (Af) settings and precise shape settings.
- Af temperature testing with differential scanning calorimetry (DSC), tensile and radial force resistance measurements.
- Bend and free recovery (BFR) test is a non-destructive, computer-assisted way to accurately measure the active Af temperature of sensitive geometries.

Electropolishing

Homogeneous and constant material removal through our optimized electropolishing processes.

- Widely adjustable range of material removal.
- No contact marks.
- Round strut edges on the inner and the outer side of the device.

Passivation

Surface passivation enhances biocompatibility. Results meet and exceed the corrosion resistance requirements of ASTM 2129.

Marker Crimping

Radiopaque markers enable X-ray visibility of the devices. We offer highly precise pressing and welding for materials like Ta, Au, Pt, Pt-Ir.

Superior Inspection

100% visual inspection ensures perfect quality. We offer manual and automated dimensional and topography inspections with stereo and telecentric microscopes, scanning electron microscopes (SEM), CLSM etc.



MEKO MEDTECH

MeKo is a global supplier specialized in the manufacture of stents, heart valve frames and other medical products. Our quality management is **ISO certified** and passed **FDA inspections**. All medical branches use our services, e.g. cardiology, radiology, neurology, ophtalmology and urology.

We have more than 30 years of experience in laser cutting, laser drilling and laser welding. With our precise laser systems, we process flat and tubular materials such as **stainless steel, nickel titanium** and new bioresorbable materials like **magnesium** and **polymers**. More than 2,000 tube sizes are available in stock.

MeKo also offers a variety of secondary processes like heat treatment, electropolishing and mechanical processing. More than **100,000 different components** have already been manufactured.



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