

# engineered components

Focused on added-value product offerings and capabilities, SAES Memry's Engineered Component platform represents some of our most innovative applications and services, providing design options that enhance the overall performance and effectiveness of finished medical devices.

Globally recognized as a pioneer in the field of Shape Memory Alloy Technologies, the scope of our product development portfolio ensures that SAES Memry will not limit its consideration of any Nitinol based application. Our materials and technologies have enhanced the performance of products in a variety of medical applications, including, but not limited to:

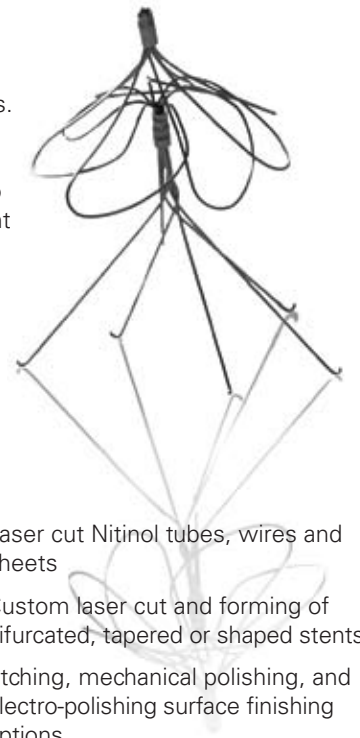
- **Interventional Cardiology**
- **Orthodontics and Endodontics**
- **Neurology**
- **Vascular Surgery**
- **Guidewires**
- **Endo-Surgery**
- **Laparoscopy**
- **Orthopaedics**



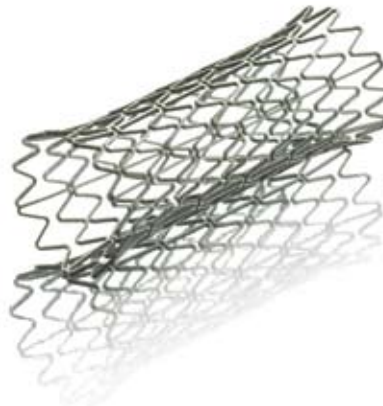
- "Micro to the Max" is a dedicated capability segment focused on medical devices requiring minute scale components
- Micro laser drilling with hole diameters as small as .0006" (0.01524mm)
- Micro wire forming sizes as small as .001" (0.0254mm)
- Micro atraumatic end treatments with minute radius and chamfering

- SAES Memry has an unparalleled history of converting and combining Nitinol components into a variety of medical device sub-assemblies. Our ability to handle all facets, from alloy specification to final assembly, provides our customers with the confidence and security to focus on other aspects of product development that will successfully take their finished device to market.

Specialized assembly work in clean rooms is performed in our ISO 13485:2003 and ISO 9001:2000 certified facilities.



- Laser cut Nitinol tubes, wires and sheets
- Custom laser cut and forming of bifurcated, tapered or shaped stents
- Etching, mechanical polishing, and electro-polishing surface finishing options



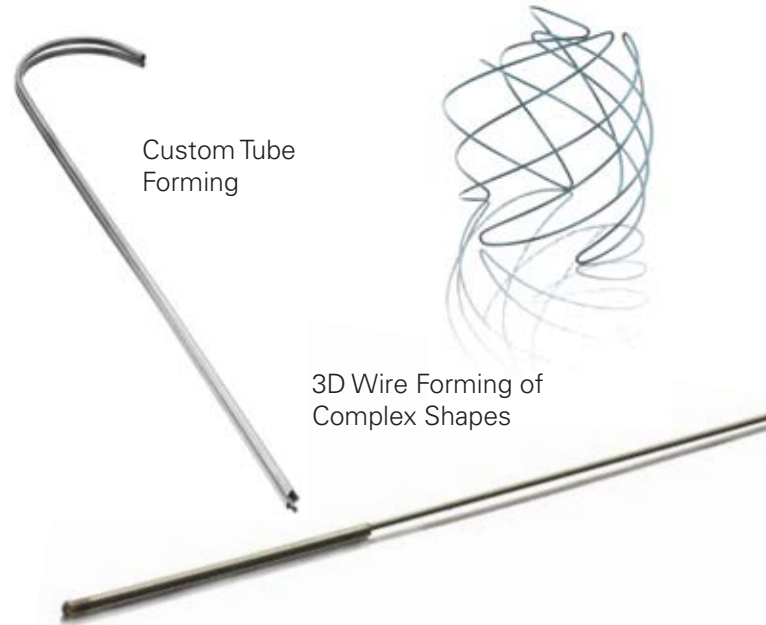
highly flexible kink-resistant nickel titanium

## Engineered Components for Medical Devices

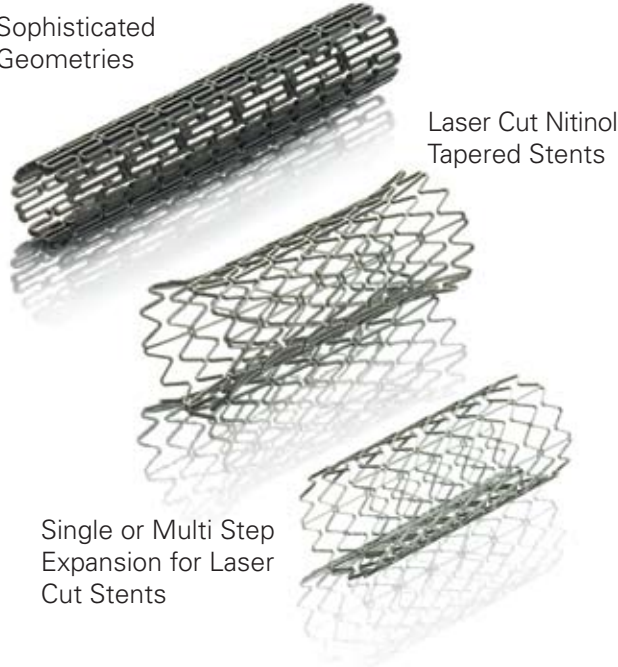
With more than twenty-five years of experience in leveraging the superelastic properties of Nitinol into implantable, surgical and diagnostic medical devices, SAES Memry has a complete range of technologies and manufacturing capabilities for developing new Nitinol specialized components, in addition to our production and assembly capabilities.

## Capabilities for Nitinol Wire, Tube, Strip and Sheet Based Engineered Components

- 3-dimensional forming of complex shapes
- Automated wire winding and forming
- Joining and bonding, including of dissimilar materials
- Custom grinding of wires, tubes and strips for specific applications
- Optimization of thermo-mechanical characteristics
- EDM cutting
- Etching, mechanical polishing, electro-polishing of surfaces
- Video inspection of critical dimensions
- 100% visual inspection for workmanship upon request



Sophisticated Geometries



## Capabilities for Laser Micro Machining of Complex Nitinol Structures

- Laser cut Nitinol tube, wire and sheet
- Single or multi-step expansion
- Custom forming of bifurcated, tapered or shaped stents
- Heat treatment adjustment and tuning of active transformation temperatures
- Optimization thermo-mechanical characteristics
- Radial force testing
- Etching, mechanical polishing and electro-polishing of surfaces
- Automated video inspection of critical stent dimensions
- SEM analysis
- 100% visual inspection for workmanship upon request

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