RESONETICS®

NITINOL AND STAINLESS STEEL

Material for MedTech

Resonetics® provides high-quality nitinol and stainless steel materials and components for life-saving medical devices.

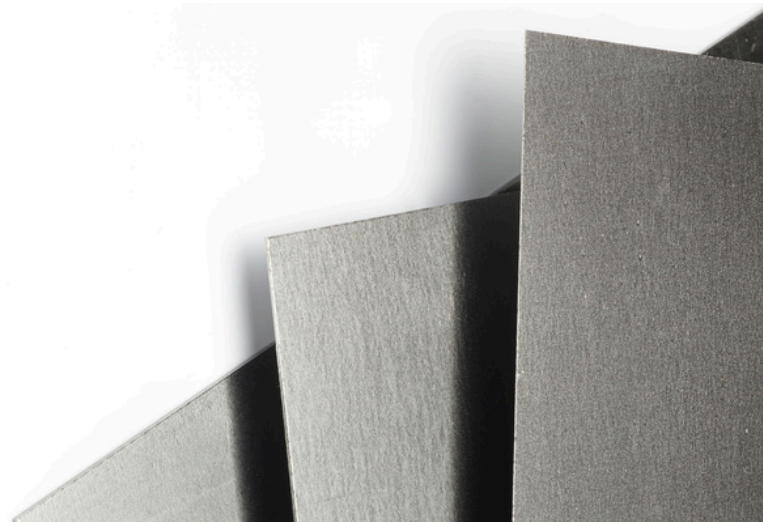
We engineer high-quality nitinol and stainless steel materials into precision components for life-saving medical devices. From metallurgy expertise to precision manufacturing, we control every step to ensure superior quality and consistency.

Critical medical devices and implants require the highest quality raw materials. We manufacture nitinol tubing, sheet, and wire in-house and use this material, along with stainless steel, to create high-performance components that meet the strictest medical device standards.

We produce all our raw materials to have high material quality, precise tolerances, and excellent surface finishes. We can produce our material to the exact specifications needed for your application and stock a wide range of standard sizes and grades.

Why Nitinol & Stainless Steel?

- Essential materials for advanced medical technology
- Known for their mechanical properties such as strength, flexibility, and biocompatibility
- Used in life-saving implants, surgical tools, and minimally invasive devices
- Demonstrated reliable precision and performance in critical applications



Nitinol and Stainless Steel Capabilities

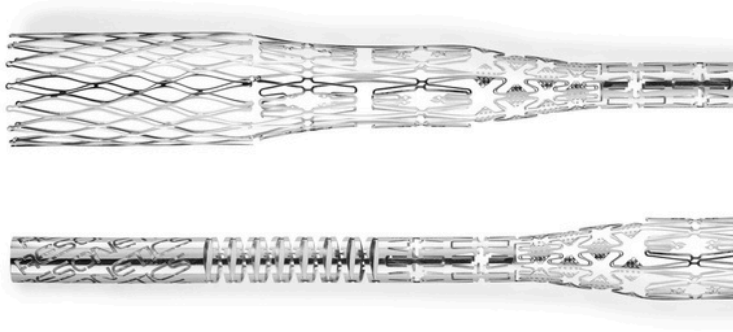
Resonetics offers industry-leading manufacturing expertise in nitinol and stainless steel to support the development of next-generation MedTech devices. With cutting-edge techniques and decades of experience, we enable the creation of intricate, high-precision components tailored to the demanding requirements of the medical industry. Our capabilities include:

- Laser Processing – Enables intricate, high-precision components
- Shape Setting – Optimizes nitinol's shape-memory and superelastic properties
- Electropolishing – Enhances surface finish, fatigue, and biocompatibility for medical applications
- Braiding – Creates flexible, high-strength nitinol structures for advanced medical devices
- Electrical Discharge Machining (EDM) – Produces complex nitinol components with extreme accuracy
- Photochemical Machining – Creates highly detailed, complex features with chemical etching
- CNC Machining – Produces complex stainless steel components with exceptional precision
- Laser Welding – Joins components with precision and strength
- Crimping – Forms strong, permanent connections without heat

Learn More
Resonetics.com

Nitinol at Resonetics

- Engineered for medical devices requiring shape-memory and superelasticity
- Manufactured into tubing, wire, and sheet with precise material properties
- Material melted in-house to ensure performance, consistency, and quality
- Meticulously customized to exhibit precise thermo-mechanical responses



Stainless Steel at Resonetics

- Cold drawn to size, resulting in smooth surface finishes on the inside diameter (ID) and outside diameter (OD)
- Produced as thin-wall tubing with tight tolerances for consistent performance and reliability
- Available in a variety of stainless steel alloys and CoCr to meet specific strength, flexibility, and biocompatibility requirements