



memry
a saes getters company™
nitinol +



Where will your next great idea take you?

To a medical miracle? Or industrial innovation?

Wherever you're going, Memry speeds you to your destination.

More easily. With more imagination and can-do built in.

from melt to market

all the nitinol capabilities you need under one company roof.

Memry provides nitinol melting and materials, a complete range of nitinol fabrication and finishing, and engineer-to-engineer support in both prototyping and production phases. With “melt to market” capabilities under one company roof, our customers benefit from precise control, predictability, transparency, a streamlined production process, and a platform for collaborative innovation.

Melting

With our custom melting of nitinol alloys, **no-limits innovation meets complete control.**

Utilizing vacuum induction melting (VIM), vacuum arc remelting (VAR), and 25+ years of experience, our foundry team creates consistent, low-inclusion alloys and superalloys to precisely meet customers' needs.

Material

Starting with our custom nitinol and superalloy ingots, **we build precision and traceability into all of our products.**

Our material expertise shines in our mill products (billet, slab, bar, coil, hot rolled sheet, redraw wire) and our semi-finished forms: tube, wire, sheet, strip.

Prototyping

What's your next great idea? Enthusiastic engineer-to-engineer partnerships = **go to market smart.**

With a concentrated focus on design assistance, we manufacture at production quality during the prototype stage for predictability in product pricing and regulatory compliance down the road.

Production

All the nitinol manufacturing processes your product needs, under one company roof. **Coordinated for customer care.**

Customized shape-setting and heat treatment, wire EDM, laser cutting, custom grinding, joining and welding, coiling, surface finishing, coatings and platings.



That's a



Memry combines the former SAES Memry, SAES Smart Materials and Memry GmbH companies, and continues to tap the expertise of parent company SAES Getters. As we have fine-tuned the unique properties of nitinol over many years, we have evolved into a true knowledge company, developing solutions in active collaboration with customers. Innovation is in our DNA.

What's the + your great idea needs?
plus@memry.com or call 866 Go Memry



the melt

We are the most highly specialized of the world's large nitinol melters, able to create precisely controlled alloys—binary, ternary, quaternary and beyond. Our low-inclusion ingots (30 - 4,000 pounds) result from decades of proprietary developments in VIM and VAR melting. Our superalloys encompass a broad chemistry population—pure Co, Fe, Al, modified 718 (NiCr alloy), Fe-based alloys, Ni7V, FeNi, 702 (Ni-Cr), CoNi, UMCO 50 (Co-based), Vicalloy and others.



mill products

From our custom ingots, we produce a full menu of mill products: billet, slab, bar stock, coil, hot rolled sheet and redraw wire. Memry melts several hundred thousand pounds of nitinol each year, with the large volume enabling economies of scale.



tube

Memry's superelastic tubing provides optimal flexibility, kink-resistance, a low permanent set and high loading/unloading plateau stresses. Over two decades, we have steadily increased the subtlety with which we can draw and process nitinol to accommodate the most demanding applications.

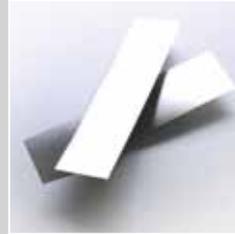
start here





wire

By fine-tuning our nitinol chemical composition and thermal processing, we achieve a wire product with the flexibility and kink-resistance central to medical device applications and other complex components. We can design wire ready for use at -100°C or $+100^{\circ}\text{C}$ usage, for both superelastic and thermal control applications.



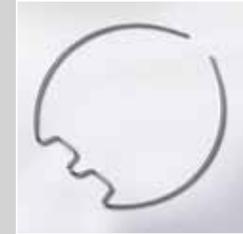
sheet

Memry manufactures nitinol in sheet form to deliver increased design opportunities for complex geometries. In addition to standard forms, we offer a wide range of custom sheet alloy types, thermomechanical conditions, surfaces, loading plateaus and tensile strengths.



strip

Our continuous length strip is available in cold worked or fully superelastic condition. Our strip has all the properties and capabilities of nitinol wire, and is particularly suitable for high volumes, a distinct advantage for certain applications.



shape setting and heat treatment

Wire, tube, sheet or strip take on complex geometries and superelastic or shape memory properties with our shape setting and heat treatment processes. We will help you choose from molten salt bath, fluidized bed, air furnace, heated die, RF induction, resistance, and forced heated air.

our facilities



Memry's corporate offices are in Bethel, Connecticut where we also draw wire, manufacture strip, laser cut, grind, wire EDM, post process, and consolidate component manufacture and assembly. In Menlo Park, California, we concentrate on tube drawing. We focus on sheet manufacture, wire forming and shape setting, and post processing in Weil am Rhein, Germany. In our foundry in New Hartford, New York, we melt nitinol and produce mill products, coils and redraw wire.

our cleanrooms



We offer cleanroom facilities to accommodate the growing need for pollutant-controlled manufacturing environments. Our Class 7 cleanrooms are available for production and/or assembly of components and devices.

our testing & quality



We can meet even the most stringent of custom quality requirements for process documentation and contract testing/analysis. Our core analytical services include testing for mechanical and physical properties as well as transformation temperature, a full range of microscopy including optical, SEM and EDS; corrosion evaluation; biocompatibility; surface analysis; mechanical and functional testing; finite element analysis; and failure analysis. We hold ISO 9001 and ISO 13485 certifications.



wire EDM

Wire EDM is an excellent technique for machining nitinol because of its burr-free finish, minimal heat-affected zone, zero workpiece force and ability to process very thick workpieces. Memry's wire EDM production facility operates efficiently with the latest technologies.



laser cutting

We offer all standard and specialty laser cutting technologies, backed by our long experience with cutting nitinol components such as peripheral stents and vena cava filters. Both tubing and sheet can be processed with kerfs as low as .001 inch on our state-of-the-art equipment.



custom grinding

Facility investments at Memry have made it possible for our teams to grind virtually any configuration, using both conventional and cutting-edge equipment. Our work ranges from simple guidewire geometries to the machining of threads, flats, radiuses and points for drills, trocars or needles.



joining and welding

Memry provides a host of options for joining, from laser, plasma, TIG and resistance welding to pins and mechanical locking features as well as solder and adhesives. We are particularly skilled at crimping techniques.

our market-friendly collaboration



We make a continuous effort to view the world from your perspective, not just our own. It's why we've built a "melt to market" integration of capabilities, so that we can support our customers throughout the full product cycle. Speed to market,

the fewest possible design iterations, consistency from prototype to production, streamlined processes, the opportunity to work directly with our engineers—we've wrapped it all into our customer partnerships. And we're always eager to hear what more we might do.

our customer care



At Memry, we've crafted customer care on the same values that underlie our technical offerings: ensure an efficient, valuable interaction as you work with us. In addition to

relying on our customer service staff, Memry customers can use our web site to request quotes, upload files, download quality documents and make credit applications.



surface finishing

We offer chemical etch to remove oxide and recast layers; electropolish for a smoother surface that boosts corrosion resistance, mechanical polish to remove oxide or recast with fine-tuning for shine or surface changes; passivation for corrosion resistance via a titanium-rich oxide layer, slurry ID cleaning for a clean, smooth ID surface and microblasting to remove recast and/or create a matte surface to promote adhesion.



coatings and platings

Memry applies specialized finishes to achieve lubricity, radiopacity and other functionalities. Two of the most popular are new low-temperature cure PTFE and Parylene coatings that offer significant advantages when compared to previously available solutions. This revised PTFE formulation reduces unintended changes to the nitinol's thermomechanical properties, while Parylene can be applied to the tightest of spaces due to its vacuum deposition application.

end anywhere

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Memry delivers nitinol melting and materials, a complete range of nitinol fabrication and finishing, and engineer-to-engineer support in both prototyping and production phases for component and device designers. With “melt to market” capabilities under one company roof, medical device and industrial customers benefit from precise control, predictability, transparency, and a streamlined process for nitinol products and solutions. aMemry combines the former SAES Memry, SAES Smart Materials and Memry GmbH companies, and continues to tap the expertise of parent company SAES Getters. Memry maintains corporate offices as well as manufacturing facilities in Bethel, Connecticut, USA; its melting and mill products foundry in New Hartford, New York, USA; and manufacturing centers in Menlo Park, California, USA and Weil am Rhein, Germany.



Locations

Bethel, Connecticut | 3 Berkshire Boulevard | Bethel, CT 06801, USA | **P** 1.203.739.1100 | **F** 1.203.798.6606
Menlo Park, California | 4065 Campbell Avenue | Menlo Park, CA 94025, USA | **P** 1.650.395.6360 | **F** 1.650.395.6330
New Hartford, New York | 4355 Middle Settlement Road | New Hartford, NY 13413, USA | **P** 1.315.266.2026 | **F** 1.315.266.2027
Weil am Rhein, Germany | Am Kesselhaus 5 | 79576 Weil am Rhein, Germany | **P** 49.0.7621.799.121 | **F** 49.0.7621.799.244
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