

AMETEK Specialty Metal Products: Metallurgical expertise and technical depth



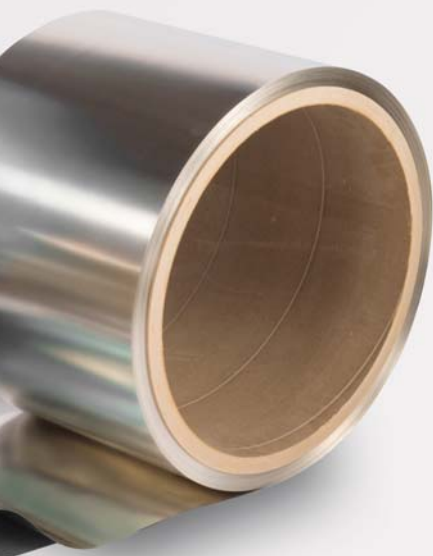
AMETEK's Specialty Metal Products (SMP) Division is a leading manufacturer of multiple forms of high performance products, including precision metal tube and strip, foil, high purity powders, and master alloys. Those products are manufactured at six operating facilities in the United States and the United Kingdom and are provided around the world, every day. AMETEK SMP encompasses four of the best-known brands in the industry: Reading Alloys, Hamilton Precision Metals, Superior Tube, and Fine Tubes. Stainless Steel World met with three senior members of the management team to learn more about their growing business: Tom Matway (VP, Sales & Marketing), Brian Mercer (Director, Tube Products and SMP International Sales & Marketing) and Graham Walker (VP, Powder Product Management).

By Joanne McIntyre

"AMETEK Specialty Metal Products and its long-established brands - Reading Alloys, Hamilton Precision Metals, Superior Tube and Fine Tubes - have been around for several decades. Its businesses are all

proven experts in their fields," begins Brian Mercer. "Each has decades of experience in supplying specialty metals for the most critical applications. As the AMETEK SMP team, we aim to provide

singular accountability and representation to the market place as a strategic source for advanced metallurgical products, and we partner with our customers to solve technical challenges."



Precision metal strip, wire and foil as well as specialty metal powders and precision tubes manufactured by AMETEK SMP's businesses

“AMETEK SMP is a division of AMETEK Inc, a leading global manufacturer of electronic instruments and electromechanical devices with annual sales of \$4.3 billion,” Tom Matway explains. “As the Specialty Metal Products Division, we provide our technical expertise and customer service to bring value to our end-user customers. “Each of our Regional Sales Managers now represents the entire SMP product range from precision tubing, strip and foil to high-purity master alloys and powders. For example: our India office now offers the entire portfolio of products and a far higher level of customer service. This same model is in place around the world for all our product lines.”



Brian Mercer – Director, Tube Products and SMP International Sales and Marketing.

Benefits of integration

“We recognised that aligning separate commercial groups into one team benefits the customer, explains Tom Matway. “In this instance, the transition went smoothly as SMP’s product lines complement each other well. Regardless of whether we look at aerospace, medical, or energy markets, high performance specialty metal powder, tube, and strip are in demand. Representing a broader product portfolio also helps adding value across the wide range of product forms. Where, for example, a customer team previously was focussed on discussing demand for tubes, it now is able to offer the entire range of powder and strip as well. This supports our customers by simplifying

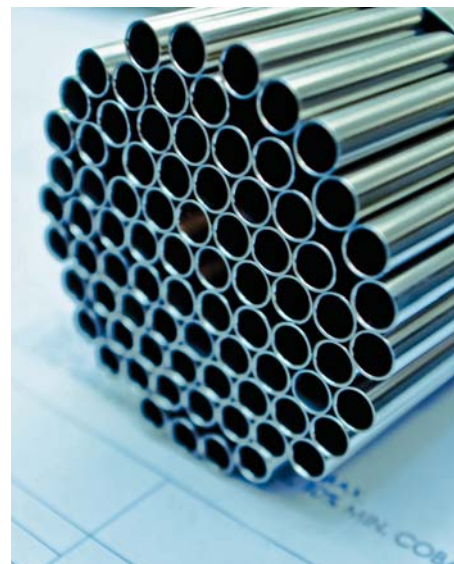


Tom Matway – Vice President, Sales and Marketing SMP.



Graham Walker – Vice President, Powder Product Management.

their supply chain across a broader range of specialty metal products.” Other synergies include an increase in global reach. “Because we have skilled people all around the world, the creation of a single team has given us a much stronger presence along with the ability to serve our customers more locally, adds Brian. “When you combine that with the fact that AMETEK is a large, multinational company with service centres around the globe, we have a great structure in place. In China and India, for example, we’ve been able to utilise these facilities to support our efforts in those countries. As a result, we have a stronger global presence with local teams on the doorstep of our customers and greater access to new opportunities, wherever they may be.”



Seamless titanium tubes for critical aerospace applications.

AMETEK Specialty Metal Products

Reading Alloys

Specialty powders and master alloys

- High-purity metal powders
- Master alloys for aerospace
- Master alloys for superalloys
- Specialty alloys
- Aerospace coating alloys

Hamilton Precision Metals

Precision strip, foil and wire

- Titanium, stainless steel
- Nickel and high nickel alloys
- Nickel-based superalloys
- Cobalt-based superalloys
- Precision resistor and strain gage alloys
- Controlled expansion alloy
- Copper and copper-based alloys
- Thickness from 1.5 mm (0.060") down to 1.5 microns (0.000060")

Fine Tubes

Precision engineered metal tubing

- Precision metal tubing (specialty grades of stainless steel, nickel, titanium)
- Seamless, welded and welded and redrawn
- Straight lengths and coils
- OD's from 1 mm (0.04 in.) up to 45 mm (1 5/8 in.)

Superior Tube

Small diameter precision tubing

- Precision metal tubing (specialty grades of stainless steel, nickel, titanium, zirconium)
- Seamless, rolled, welded and redrawn (weldrawn®)
- Straight lengths and coils
- OD's from 1/4 mm (0.010 in.) up to 1.5 in. (38.1 mm)

Market expansion

Aerospace is SMP's largest end-user market, while the medical, nuclear, defence, automotive, electronics, oil and gas industries also are strategic markets. Graham Walker gives some insights into SMP's ongoing expansion in these markets.

"Our core products have traditionally been targeted towards Western



Water atomized powder for thermal spray coating applications manufactured in Eighty Four, USA.

markets," he notes. We have expanded our global sales reach. We have extended our network in Asia and developed new business in China and Korea. We also have an extended range of applications in which we are involved. We've had success in the Asian automotive market, and, in China, our powder metals have proven popular in aerospace and medical markets. Our unique ability to customise specialty alloy powders to the highest purity levels in small batch sizes offers our customers a range of benefits to further progress their new product developments."

Innovation and mega-trends

AMETEK SMP and its products are recognized for high quality in the most demanding applications for the end-user markets it serves. There are several focus areas for innovation at present.

"One of the global mega-trends that we are focusing on is quality of life", explains Tom. "People are living longer and desire to maintain their quality of life. Consequently, there is a strong and increasing demand for heart valves, stents, hip implants, hearing aids and implantable medical devices and products that enable us to live longer and stay active. Our powder, tube, and strip products are key components in



Small diameter tubes produced by Superior Tube.

a growing number of these medical applications."

"A good example of medical industry innovation is the range of titanium-based thermal spray coatings for orthopaedic implants. These coatings provide surface conditions that enhance a process known as osseointegration, in which the bone grows into and anchors the implant. Our high-purity powders are preferred throughout the world", comments Graham.

"Another mega-trend is economic growth among the middle classes in China, India, and across Asia, in general, which has led to a demand for higher standards of living," adds Tom. That, in turn, has led to increased air travel, which subsequently supports commercial aircraft and engine build rates. The aerospace industry continues to grow and, with it, a strong demand for titanium products, such as master alloys for titanium alloy production, as well as specialised titanium tubing for a multiple of airframe and engine applications. "We are well positioned in aerospace. Our Reading Alloys is among the largest suppliers of master alloys for titanium production as well as specialty powders, and Fine Tubes is one of the few qualified suppliers able to produce high-pressure titanium tubes for the Airbus A350 and A380 hydraulic systems for example," adds Brian.



Specialty shaped wire manufactured in Wallingford, USA.



Fine Tubes	Superior Tube	Hamilton Precision Metals	AMETEK Wallingford	Reading Alloys	AMETEK Eighty Four
Products	Products	Products	Products	Products	Products
Precision engineered metal tubing Up to 45mm (1 5/8") OD	Small diameter precision tubing Up to 1.5" (38.1mm) OD	Precision strip and foil Thickness down to 0.000060" (1.5 microns)	High purity metal strip, engineered shaped components, heat sinks and wire Strip from 0.001" (0.025mm) to 0.080" (2mm) thickness	Titanium powders and master alloys	Water atomized powders, stainless steel flake and clad metals

Operational Excellence

“With regards to our operational excellence efforts, we have invested in programmes to continually improve throughput, on-time delivery and customer service” Tom explains, “with the drive for zero safety incidents being at the top of our agenda.” “We try continually to reduce overall costs for our customers,” adds Graham. “With innovative technologies, such as additive manufacturing

“There are also interesting opportunities for us in new electronic applications, such as smart phones and small electronic devices. We supply products used to manufacture the high-quality screens for these hand-held devices, as well as their batteries. Our strip facility in Wallingford, CT, for example, is one of the few businesses in the world that can manufacture nickel strip to 99.98% purity levels, which delivers far greater power transmission than other competing materials in the battery market,” continues Tom. “Looking at other markets, such as the oil & gas industry, with Brent Crude well over USD 70 a barrel, we are seeing reinvestment in exploration as well as plant and equipment.”

Ongoing investments

“As AMETEK SMP consolidated its commercial efforts, there is further

focus on leveraging our talented people to help our customers grow their business. We took the opportunity with our technical and commercial teams to establish a market and product development group to bring new products to the market more quickly,” explains Tom. “We continue to invest in high quality sales talent, particularly in Asia and Europe, and to complete our team in North America,” adds Brian. “It’s worth mentioning that AMETEK supported and accelerated strategic investment at Fine Tubes. The focus is titanium products for the aerospace industry, primarily associated with seamless titanium for aircraft hydraulics. Since Fine Tubes’ acquisition by AMETEK two and a half years ago, investment has been tested, challenged and accelerated which has put the business in a very strong place in the aerospace industry going forward.”

you can reduce the buy weight of a component, substantially lowering the cost of the finished part.” “Life cycle costs also are more of an issue today across most of our markets,” adds Brian. “For example, within the oil and gas sectors, our customers are coming out of a difficult market condition, so their behaviour is changing. They look more at total acquired costs. There always is pressure to lower costs, but, when customers look at the overall value of a supplier, they look at innovation, quality, flexibility, and communication.” “At AMETEK SMP,” concludes Tom, “we strive every day to strengthen our already solid relationships with our customers. In particular, our technical and commercial teams continue to focus on value-added solutions across the full range of our Specialty Metal Products’ portfolio, so we can satisfy our customers’ needs today and in the future.”



Master alloys and specialty powders from Reading Alloys.

Facts & Figures

Parent company: AMETEK Inc.

Headquarters: Berwyn, Pennsylvania, USA.

Revenue: USD 4.3 billion

AMETEK Specialty Metal Products: Reading Alloys; Hamilton Precision Metals; Superior Tube; Fine Tubes

Products: Specialty metal powders; Master alloys; Precision metal strip; Metal foil, ultra-thin foil; Specialty shaped wire; Precision metal tubes

Website: www.ametekmetals.com