

The global magazine for corrosion resistant alloy users, suppliers and fabricators

# WORLD STAINLESS STEEL

cover story

## The new global vision

What the Fine Tubes - Superior Tube alliance means to their customers

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- Titanium shines in super yacht industry
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Dr. Lars Rose of DuPont
- Corrosion risks with the high alloy stainless steels in seawater applications





# Fine Tubes & Superior Tube

## A bright future together a long history of excellence

In 2012 Fine Tubes in the UK and Superior Tube Company in the US were bought by the Watermill Group, a match with as perfect a fit as the precision products each company engineers. With both companies specializing in the manufacture of high quality, precision engineered tube products, the union has produced a synergy which is already providing a positive influence to their respective global markets. Stainless Steel World talked to key members from both sides of the Atlantic to learn how the alliance has progressed and what it means for the customers of these two auspicious producers.

*By Joanne McIntyre*

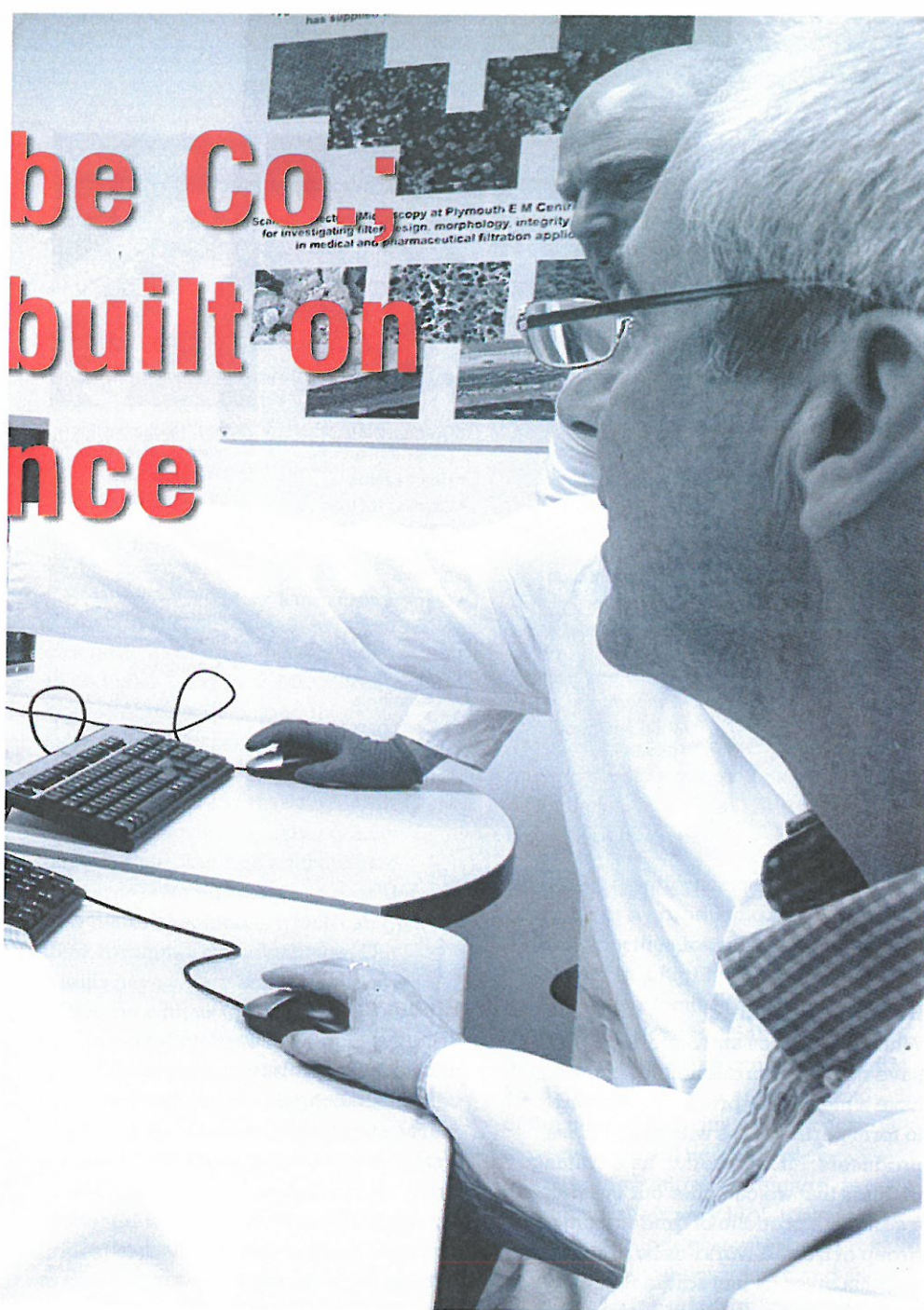
Since acquiring Fine Tubes and Superior Tube in 2012 Watermill has increased capital investment, helping both companies to align operations and drive cycle time reductions to improve overall customer experience levels. So far, this operational focus has yielded a 60% reduction in lead times for key products and created capacity for expansion.

Kevin Heaphy, Global Director Product Management & Commercial Systems based with Superior Tube Co. in the US, and Brian Mercer, Global Director Sales and Marketing based with Fine Tubes in the UK, explained the other benefits the alliance continues to produce. "This is the first time in history that either company has had new owners,"

explains Mr. Mercer. "We're excited that Watermill is taking a strategic approach to developing our business whilst also being very supportive of our management team. We're particularly pleased about the skills, knowledge, and sense of team play they have built in, whilst creating a single global organization."



# be Co. built on nce



Mr. Heaphy continues: "Being bought by the Watermill Group in 2012 was a unique experience as we'd been a family-owned business for over 78 years. However joining with Fine Tubes was a great decision which has resulted in a fantastic partnership. Watermill was very



**Kevin Heaphy:** "The change of ownership injected a new sense of energy into our business".

keen to invest in and grow our business in new areas while supporting growth in our traditional markets. The change of ownership injected a new sense of energy into our business

that we haven't seen in many years, both in the office and on the shop floor."

"This year we've focused on improving operational efficiency, for example by reconfiguring our drawing mill. This was moved to achieve a better flow and reduce the indirect time associated with the manufacturing process. It was a significant investment from Watermill which is already paying dividends by helping us increase capacity and reduce cost."

## Importance of history

"It's important to remember that both Fine Tubes and Superior Tube have been around for a very long time," explains Mr. Mercer. "Fine Tubes recently celebrated 70 years of continuous tube manufacturing whilst Superior is celebrating 80 years this autumn; that's 150 years of joint expertise in precision tube engineering! We live in an evolving

world but the essence of our experience and our pedigree remain constant. We can apply that core skill to both existing, mature markets such as the nuclear industry, or we can apply it to cutting edge applications in new markets."

Mr. Heaphy continues: "Having such

long history is a great foundation for a business; it proves what we are capable of achieving and demonstrates our potential as we move into new markets. One of the greatest assets within our company is the relationships we have with our customers, and those relationships are based on the trust and credibility of working together for many years. Many of our customers have been with us since the 1950s and even earlier. Working together with clients for over 60 years builds an enormous amount of trust."

Both companies have been active in the energy (nuclear, solar & wind, conventional power), aerospace, and medical markets for many years. However, Fine Tubes is also a well-established authority in the oil and gas industry and is now supporting its sister company's expansion into this arena.

"Superior Tube has traditionally focused on the energy and aerospace markets," explains Mr. Heaphy: "Oil and gas is a very large market and our integration with the Fine Tubes team presents a significant opportunity that we're keen to take advantage of. There are actually many parallels between the oil and gas, energy and aerospace markets; many of the products are similar so our main focus will be building relationships with oil and gas customers."



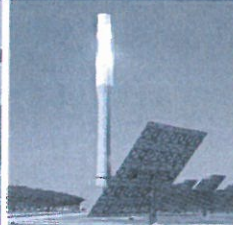


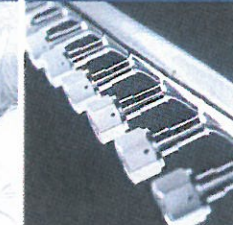
## Main products and grades

Fine Tubes and Superior Tube both manufacture high specification stainless, nickel and titanium tubes and, to a lesser extent, zirconium tubes in seamless and welded form. Mr. Mercer: "All of the welded tubes we produce are reworked or reprocessed to higher specification products. These can either be straight or in long coil form. The material scope ranges from standard



**Brian Mercer:** "Combining the assets of both companies allows us to broaden our knowledge and offer a whole portfolio of products".

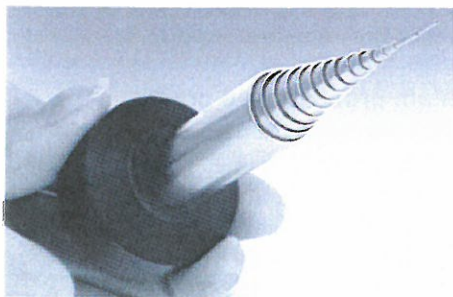


Oil and Gas	Aerospace	Energy	Chemical Process	Medical	High Performance
 <ul style="list-style-type: none"> <li>• Downhole, hydraulic and chemical injection control lines</li> <li>• Control lines in subsea umbilicals</li> <li>• Flowline control line tubing for pipe-in-pipe bundles</li> <li>• Downhole gauge cables</li> <li>• Control and instrumentation</li> <li>• Pressure housings</li> <li>• Hydraulic tubing for control measuring devices and pumps</li> </ul>	 <ul style="list-style-type: none"> <li>• Hydraulic and pneumatic control systems</li> <li>• Heat exchangers</li> <li>• Transmission tubes</li> <li>• Convoluting / seals</li> <li>• Ducting systems</li> <li>• Landing gear</li> <li>• Pitot tubes</li> <li>• Engine / fuel lines</li> </ul>	 <ul style="list-style-type: none"> <li>• Fuel rods / cans</li> <li>• Tie bars</li> <li>• In-core heat exchangers</li> <li>• Wear sleeves</li> <li>• Guide tubes</li> <li>• Grid lock inserts</li> <li>• O-rings and seals</li> <li>• Flux thimble components</li> <li>• Instrumentation tubing</li> <li>• Poison tubes</li> </ul>	 <ul style="list-style-type: none"> <li>• Shell and tube heat exchangers</li> <li>• Condensers</li> <li>• Hydraulic and pneumatic systems</li> <li>• Control and instrumentation</li> <li>• Flow meters</li> <li>• Measurement systems</li> <li>• Acetic acid plants</li> <li>• Evaporators</li> <li>• Pulp and paper plants</li> </ul>	 <ul style="list-style-type: none"> <li>• Coronary and peripheral stents</li> <li>• Heart valves</li> <li>• Cardiac rhythm management</li> <li>• Trauma nails and screws</li> <li>• Surgical instruments</li> <li>• Spinal cages</li> <li>• Lag screws</li> <li>• Endoscopy instruments</li> <li>• Biopsy needles</li> <li>• Angioplasty and embolism catheters</li> </ul>	 <ul style="list-style-type: none"> <li>• HPLC columns for chemistry and biochemistry</li> <li>• Chromatography</li> <li>• UHP tubes for semiconductor wafer processing</li> <li>• Pharmaceutical instrumentation</li> <li>• Sports</li> <li>• Automotive</li> </ul>

## Applications for Fine Tubes & Superior Tube Co. products.

stainless steels through to the complete range of duplex and super duplex alloys, and we also produce in the full range of nickel alloys, titanium and zirconium alloys."

Mr. Heaphy continues: "About 90% of the products manufactured in the Superior Tube plant are nickel and stainless steel; the remaining 10% is titanium and zirconium products. Obviously this dovetails perfectly with what our Fine Tubes colleagues produce. Titanium is generally used in medical and aerospace applications and these are certainly growing markets. In the US we're known as a specialty zirconium supplier for nuclear applications and we also foresee growth opportunities in that industry."



*Fine Tubes & Superior Tube Co. combined have 150 years of continuous commitment to precision tube manufacturing.*

## Not a melt shop

While Fine Tubes and Superior Tube have many resources neither of them have a melt shop, preferring instead to form partnerships with world-class producers. Mr. Mercer: "The advantage of this is that we can offer our customers a complete portfolio of grades from a group of trusted world-class producers and this gives us incredible flexibility. It actually gives us a huge advantage over integrated producers who are generally limited to selling their own product. Because we are producing high specification, mission critical products, being able to offer the full range of materials from a large, trusted supply base provides extra flexibility and is attractive to our customers."

"Indeed, over the years we have built strong relationships with our supply chain to find the best alloys and the best suppliers to provide value to our customers," adds Mr. Heaphy. "We carry out a lot of R&D in conjunction with the supply team and the melters, and we also sit down with customers and suppliers in a very close, collaborative relationship. If you consider that the process of developing new products can take up to 3 years, this relies on a commitment from all 3 parties. Customers value our ability to offer a complete portfolio of alloys and product sizes."

## Global organization

Bringing together two companies under one organization presents certain challenges, and changes in the management structure have ensured a smooth transition period. US-based Brian Malloy joined the team as Chief Strategy Officer to oversee the top level strategic drive of the organization. "The focus of the manufacturing organization is the responsibility of Fine Tubes Managing Director Ronen Day," continues Mr. Mercer. "He is also the Global Operations Director, which has ensured we adopt a very integrated approach towards aligning our manufacturing capabilities. The focus has been on improving our capabilities whilst finding better solutions to help customers gain competitive advantage. In the background we've also been looking at how we align the capabilities of both teams to ensure we maximize efficiency and productivity."

"On the operations side, we have Ben Huber in the US who works closely with Ronen Day to focus on any areas that need improvement and to utilize capital expenditures with Watermill in a focused way."

"Superior Tube and Fine Tubes have operated in parallel since the 1950s and the key now is to integrate and share the best practices of both from an operational

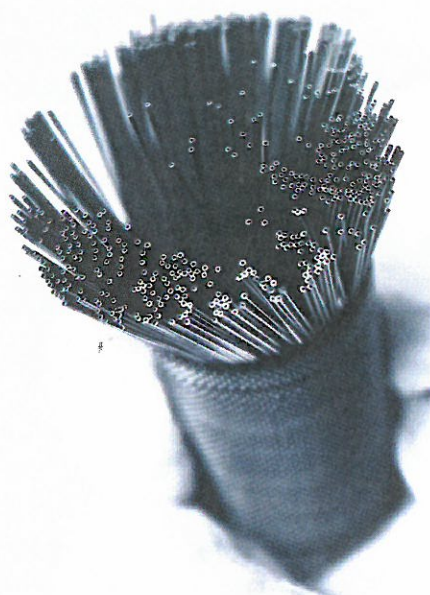


standpoint, as well as from a market knowledge and strategic perspective. Combining the assets of both companies allows us to broaden our knowledge and offer a whole portfolio of products to customers globally," explains Mr. Mercer. "We are already very integrated internally, and are now extending our global reach with increased sales coverage in the US and Europe, a strong organization in the Middle East, and an increasing presence in Asia."

### Meeting customer needs

"The technical requirements of customers continue to evolve in the demanding applications that the companies service, and this looks likely to continue", explains Mr. Mercer.

"We specialize in making mission-critical products, and for our customers maintaining competitive advantage is essential. We are witnessing a trend not only towards increasing quality expectations, but also an increased willingness for customers to consider new material solutions which can give them a commercial advantage. Our clients have a very active appetite for engaging with us technically to make sure we deliver something which will give them a very real advantage. This is an evolving trend which follows the very clear expectations surrounding our products. There is an acute and increasing market awareness of the true cost of the failure of products. In those critical end applications tubing needs to satisfy the 'fit & forget' demand with



*The critical nature of the products produced demands the highest levels of quality, considering the final applications; in airplanes, in nuclear reactors or inside the human body.*

zero-failure performance. That's where we come in by producing some of the highest specification tubes in the world."

"We work in a highly specialized tubing market so our focus is on technically demanding, very specialized products, that require bespoke processes," adds Mr. Heaphy. "We are at the top end of the market in terms of customer expectations and needs, and see this as a competitive advantage. In addition to their very high technical expectations, our customers also demand a competitive price and shorter lead times. Consider for a moment the critical nature of our products and where they end up; in airplanes, in nuclear reactors or inside your body and in extreme environments ranging from outer space to 3000m below sea level. Hence the level of quality demanded in these applications is only going to increase. This works to our advantage since we are so technically strong.

Focusing on further improving our technical expertise and adding value for our customers will result in increased growth and demand for our products."

### What customers value most

Asked about what they believe customers value most in their business, both men believe it has to do with the core values of quality and trust.

"Customers value our ability to produce consistent, high quality products," says Mr. Mercer. "They value our integrity, and that we always give open and honest feedback to our customers. Sometimes it's not easy to have these conversations because things don't always go perfectly, but we know honesty will gain their respect and build trust: it really is key to our business.

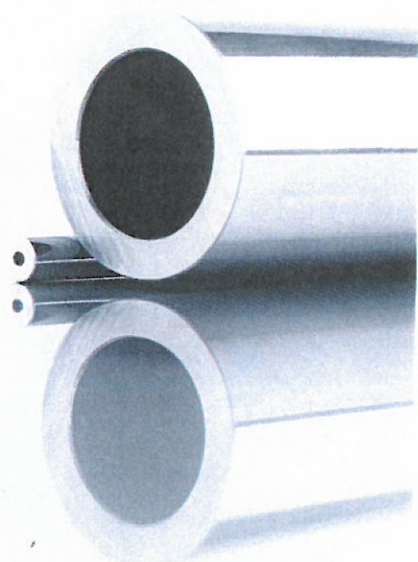
We live in a world where we have to do things right the first time, and where open communication is essential."

Mr. Heaphy adds: "Customers value the relationship they have built up with us over the past 80 years. We have built trust and credibility and our customers can depend on us. They know the quality of products will be exceptional. Our customers are accustomed to expecting this and they know that they can count on us to deliver."

"Our own people are also crucial to our success," continues Mr. Heaphy.

"Our team has a tremendous amount of pride in our customers and the products we provide to them. I've never seen a business where the people involved are so passionate about providing service to customers. This pride, in combination with our history and the expectations of our customers is really a great formula for success."

"I've never been more excited about the potential for the business and the opportunities we are seeing. Our teams on both sides of the Atlantic are looking forward to taking advantage of that and building the business to provide value to the customers in the long-term."



*From small diameter thin wall tubing to heavy wall large diameter tubing. Both companies cover a size range up to 38.1mm (1½") OD in seam-welded and 50.8mm (2") OD in seamless tubes.*

### Facts & Figures

Name:	Fine Tubes Ltd   Superior Tube Company Inc.
Owner:	Watermill Group
Headquarters:	Fine Tubes – Plymouth, UK   Superior Tube Co. – Pennsylvania, USA
Products:	Welded, seamless and seam-integrated precision tubing
Materials:	Stainless Steels, Duplex and Super Duplex Stainless Steels, as well as Titanium, Nickel and Zirconium alloys
Key markets:	Aerospace, Oil & Gas, Nuclear, Energy, Chemical processing, Medical, High performance applications
No. employees:	Fine Tubes - 360   Superior Tube - 250
Turnover 2013:	Fine Tubes - GBP 42.7m   Superior Tube - GBP 26.7





# A fusion of excellence



**O**ur vision is to develop a thriving global industry leader that can scale its production and grow alongside its customers worldwide.

Greater product choice, increased global service and reduced lead times are just three key benefits our customers already enjoy.

It's an alliance built on strength, quality and expertise, formed to satisfy the global demand for high specification metal tubing.

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