



Metal Technology

VAN'S AIRCRAFT LEVERAGES PARTNERSHIP WITH METAL TECHNOLOGY (MTI)

Van's New RV-14 Model



MTI, based in Albany, Oregon, is a dependable manufacturing company utilizing innovative techniques and specialty metals and processes to provide unique solutions for the world's most demanding applications.

Two long-term, business success stories located on opposite ends of Oregon's Willamette Valley in Western Oregon have developed a "win-win" partnership. Both Metal Technology (MTI) and Van's Aircraft were started in the early 1970's by innovative, pioneering founders that carved lasting niches into their respective industries.

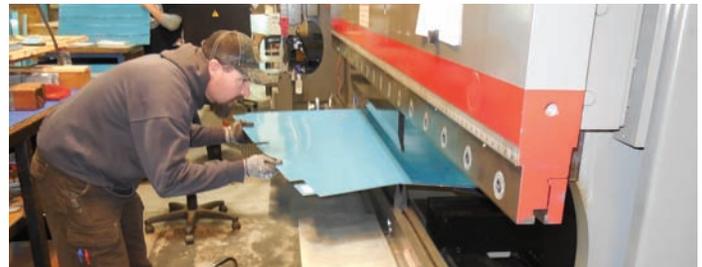
MTI houses a precision fabrication facility that specializes in machining and deep draw forming of reactive and refractory metals. MTI primarily works with Tantalum, Niobium, Molybdenum, Zirconium, Titanium, Vanadium and other materials that are difficult to work with. MTI's current capabilities include deep draw forming, forging, CNC turning and milling, CNC EDM, waterjet cutting, chemical etching, stamping, rubber-pad forming and additive manufacturing (3D Printing) using metal powder.

Van's Aircraft, based in Aurora, Oregon, is the world's leading producer of Experimental Aircraft. The kits that Van's Aircraft distribute support flight around the world. The Van's models are surprisingly fast yet able to land on shorter airstrips than other, similar aircraft models. By the end of 2014, about 8,900 Vans experimental aircraft kits

had been constructed and flown in at least 45 different countries. The Van's models have garnered a worldwide following, not because of flashy marketing and advertising, but because the aircraft performs so well, consistently providing pilots great flying experiences.

In mid-2014 Van's Aircraft was struggling to finish completion of their new model RV-14 aircraft kits. Some of the parts required for the new aircraft model were beyond their in-house or current vendors capabilities. MTI came into the picture when Gary Cosmer, Metal Technology's CEO, was introduced to members of the Van's team. The meeting opened discussions about what MTI could do to help.

Van's expansive operation employs a highly skilled, dedicated workforce that uses a variety of CNC machines to cut, bend, and form much of its aluminum and stainless steel parts. However, Van's does outsource some operations, such as rubber-pad forming, but in order to fully form some of their larger, more intricate parts, Van's utilized costly secondary processes. What became clear in discussions was that MTI's press capabilities would provide Van's with the tonnage and 'size-envelope' to gain efficiencies.



Working with Van's existing tooling, MTI began to pursue reductions in time and cost. MTI then built a fixture to expand the capabilities of the press to include rubber pad forming. Rubber pad forming forces a thick rubber pad to fully encase a mold using extreme pressures to shape material around the mold form.



In April 2014 MTI commissioned its 1200-ton hydraulic Press, brought to Albany on five tractor-trailers from the Detroit, MI area. The press enables MTI to create large diameter, seamless tubes to about 65 inches in length. The press also increases MTI's press-footprint when using a forging or a mold set-up.

MTI engineered the design with input from Van's team so that the press operation would support forming large and more complex geometry than Van's had been using before.

The development doesn't stop there. Working with Metal Technology, Van's engineering staff is considering how they might reduce

the number of parts shipped in a single kit by leveraging MTI's capabilities – by joining smaller pieces into one-piece designs.

Additionally, MTI and Van's are working on the design of an even larger rubber pad forming solution that will process much larger parts. These "target parts" currently require significant manual fabrication to achieve final geometry. Van's models include versatility of speed, aerobatics,



comfort, landing minimums, and long-flight capability. Learn more about Van's lineup at: www.vansaircraft.com MTI continues to work with companies like Van's Aircraft to expand its market presence and customer base. Metal forming is just one example of how the company, while focused on the world's most demanding applications, is also dedicated to innovation for a growing customer base.

In 2014 MTI expects to exceed 15% top-line, sales growth, far outpacing market fundamentals for Metal Fabrication.

"In today's market you have to be agile, forward thinking, and adaptable," said Steve Smith, MTI's Director of Sales & Marketing. "When we invest in tooling and equipment, it's reassuring to have a partner like Van's Aircraft that not only buys into the solution-set, understanding the long-term payoff, but also follows through from testing and evaluation to finished product implementation."

MTI has adopted additive manufacturing, rubber forming, and larger capacity press operations to its capabilities inventory in 2014. "At MTI we are looking forward to 2015 as a year where we are able to see growth in our legacy, target markets but also from the new markets we've begun working with this year," said Gary Cosmer, MTI's Chief Executive Officer. "It's been a rewarding experience working with great customers like Van's"



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This coming July 20 – 26, 2015, MTI will display its capabilities to attendees of EAA AirVenture in Oshkosh, Wisconsin. Over the past 60 years EAA AirVenture has evolved from a small gathering of aircraft and aviators into a grand, weeklong celebration known as The World's Greatest Aviation Celebration. Van's new RV-14 model (pictured above) is home to MTI produced parts and will be on hand in Oshkosh as well.

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