



## FOR IMMEDIATE RELEASE

### **5ME<sup>®</sup> acquires cryogenic machining technology patents** **5ME secures rights to innovative cryogenic machining technology from development partner Creare.**

AUGUST 2016 – 5ME recently acquired fifty-one patents in four patent families from Creare, an innovator in cryogenic systems and fluid dynamics. The acquisition gives 5ME control of the intellectual property related to cryogenic machining – specifically, the process of transmitting liquid nitrogen at -321°F through the spindle/turret and tool body, directly to a cutting tool’s edge. Each patent procured is related to cryogenic machining and aids in making it simpler for customers to adapt to this technology, regardless of process or brand of machine.

The breakthrough technology enables higher cutting speeds for increased material removal rates and longer tool life. “The empirical knowledge gained through exhaustive testing and combined efforts of 5ME and Creare has proven that cryogenic machining is a viable method in manufacturing today,” said Bill Horwarth, President, 5ME. “The acquisition of this intellectual property puts all of the cryogenic machining technology and knowledge under one roof, allowing us to continue development of this revolutionary manufacturing technology as well as provide excellent customer service.”

In 2003, Creare, along with the U.S. Navy, Navair, and Bell Helicopter, led the R&D for cryogenic machining and tooling in test environments through a Small Business Innovation Research project. 5ME then evolved the technology through extensive trials at their Technology Center located in Warren, Michigan, and eventually arranged beta tests in practical applications with aerospace OEMs, heavy equipment manufacturers and others. “We applied what we learned working with Creare in controlled environments and gave it ‘real-world’ exposure in the field and the results were excellent,” added Horwarth. “We’re seeing cryogenic machining gain wide acceptance, especially in aerospace and heavy equipment applications.”

In a recent case study involving a titanium aerostructure component, 5ME’s Cryogenic Machining Technology reduced the cycle time from 44 hours to 21 – an improvement of 52%. Other benefits included better surface integrity and part quality, reduced white layer, lower energy consumption, and improved worker health & safety through the elimination of traditional coolants. “5ME’s mission is to get customers’ machines running leaner, cleaner, and greener, and the technologies and methods we persistently develop and advance at our Technology Center will allow 5ME to continue to move cryogenic machining into the mainstream,” added Horwarth.

For more information on cryogenic machining or 5ME's production management software, go to <http://5me.com/>.

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