

Beckwood Press Company and Triform Sheet Hydroforming

www.beckwoodpress.com | www.triformpress.com | 889 Horan Drive | Fenton, MO 63026 | 636.343.4100

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Press Release:

Triform to Showcase Digital Manufacturing Advancements at RAPID Conference & Exhibition

St. Louis, MO –Beckwood Press Company, a leading manufacturer of custom hydraulic presses and the Triform line of sheet hydroforming presses, will showcase advancements in digital manufacturing technology at the RAPID Conference and Exposition in Detroit, Michigan from June 9-12, 2014. The demonstration will take place in SME's "3D Playground," booth 1132, and will feature digital forming simulations, 3D printing and Triform sheet hydroforming, with specific emphasis on the complimentary nature of those individual technologies. Visitors to the exhibit will witness, firsthand, how modern manufacturing organizations can digitally develop a forming process, 3d print a tool and form a net shape part using the printed tool within a Triform sheet hydroforming press.

"The three technologies we will spotlight at RAPID are revolutionizing forming operations," said Beckwood President, Jeffrey Debus. "Companies outfitted with these systems can go from a part drawing to a finished, net shape part in less than 24 hours, and at a fraction of the cost of traditional forming methods," Debus continued.

RAPID attendees will be taken on a tour which showcases the rapid development of a part, starting with ESI's Pam-Stamp 2G Simulation Software. Pam-Stamp can be used to accurately simulate the forming process, allowing users to determine, among other things, the optimal form block and blank design required for net shape part production. All of this can be done on the computer, without the need for a physical tool, blank material or a press. Valuable process data, including material thickening & thinning, strain and the material's distance from the tool all facilitate rapid process development.

Once visitors have experienced the benefits of ESI's Pam-Stamp Simulation Software, they will be directed to the second leg of the tour: 3D Printing. After the forming process has been simulated, and the tool and blank design refined, the tool geometry can be sent to a 3D printer for the creation of the form block via additive manufacturing. Modern materials, such as Stratasys' ULTEM or polycarbonate thermoplastics are engineered to withstand the intense forming pressures associated with the Triform sheet hydroforming process, for up to hundreds of cycles.

Visitors having witnessed the form block's printing via the second leg of the tour, will then be directed to a Triform Sheet Hydroforming press, in which the simulated components will be placed for the actual part forming. The blank design and printed form block (both verified in Pam-Stamp) will come together to produce the final, net shape part in a cycle time of approximately 10 seconds. The uniform forming pressure of the Triform diaphragm acts to wrap the material around the printed form block, or into a printed female cavity, resulting in precision-formed parts without the need for matched, male/female die sets.

“What we’re demonstrating at RAPID is the future of manufacturing,” said Debus. “It requires a fundamental shift in thinking, away from a bygone era that included complex tooling, days, if not weeks of process development time and an overall part development cost that handicapped many projects. From an idea to a finished part – in a matter of hours. That’s the future,” he concluded.

The [Beckwood Press Company](#) is a leading hydraulic press and automated systems supplier, located in St. Louis, MO. They offer quality, custom hydraulic presses for virtually every industry & application. New hot forming press technology, on-board PM features and integrated barcode scanning capability will help you work smarter & more efficiently. Beckwood also produces the [Triform line of Sheet Hydroforming Presses](#). Get the latest news from Beckwood at <http://www.beckwoodpress.com/news>.

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Contact: Rebecca Fields
800-737-0111 (ext. 120)
info@beckwoodpress.com