verti-crete

By Anmaree Osmond

Who would have thought concrete could be so hard? Well, when it came to building a concrete wall panel with the look of real stone on both sides, precasters everywhere were stumped. It has become simple to get a stone-like finish on one side of a wall, but to precast one with that look on both sides seemed an impossible task. Fortunately, Brent Baker and Dave Balls, the founders of O Well Precast got gravity to work in their favor and came up with a very innovative system to make this highly-sought-after wall.

From this innovation and the desire of other precasters to be able to use O Well's new system, Verti-Crete (www.verti-crete.com) was established in 2002. In 2004, Mike Sharp — with his eight years of experience in investment banking, a BA from BYU and a MBA from Utah State — joined the company as an investor and Vice President of Business Development. Mike revamped some of the business operations and marketing strategies, giving the company a new look and propelling it to a new level. Today Verti-Crete is a well-known name in the precasting industry, and both national and international precasters are seeing the incredible value of this new system.

It all started in 1991 when Brent Baker and Dave Balls opened a ready-mix concrete plant in Salt Lake City. In 1993, they purchased a bankrupt sand and gravel pit just south of Salt Lake in Bluffdale. With hopes of breathing new life into the struggling gravel pit, they relocated the ready-mix business to the Bluffdale location. As the combined companies became more stable, they began exploring different opportunities for growth in precasting.

Prompted initially by an effort to find a productive use for their "returned concrete" (the residual amount of concrete that often comes back in each ready-mix truck after a delivery), they developed a mold for window wells. After they put a polyurethane liner in the mold to produce a stone pattern on the window wells, sales took off. "We loved the concept of producing standard-sized concrete window wells, but had no idea if the market would accept them," said Brent. Undaunted, the partners pressed forward, calling the new company "O Well Precast" declaring their motto to be, "If you don't like our window wells, oh well!"

In the end, returned concrete didn't prove viable as part of their window well production, but it launched a successful product and, more importantly, set them on the path of precasting. The decorative window wells were such a success that they decided to apply the same molded stone pattern to a flat panel for use as a concrete fencing or sound wall product.

"Customers seemed to love the walls but kept asking us to put a pattern on the other side as well," said Dave. Getting one side to look like real stone was easy, but doing something with the other side was the challenge. O Well was producing panels the same way everyone else was, in a broad array of steel beds that

were labor intensive to prepare and maintain and were spread out in a large area. Placing a polyurethane liner in the bottom of the steel bed made it easy to get a masonry-true appearance on the bottom side of that panel, but the top was screeded off and troweled flat. Many precasters were trying to roll or stamp some type of pattern on the backside, but they simply could not produce a texture that looked as real as the side that was poured directly onto the mold. So, the dilemma persisted: when putting up a wall between two homes, which neighbor gets the side with the beautiful rock finish?

Dave, Brent and Dave's brother Dan Balls, who later became a partner, realized that the only way to get the same molded finish on both sides would be to stand the form up and pour it vertically. So, they set out to come up with an effective way to do just that. But it wasn't as easy as it sounds. They had to come up with a system that could not only handle the weight and pressure of 40,000 to 80,000 lbs. of concrete but could also keep it water tight. After going through several iterations of the system in research and development, they finally got it right. They came up with a full-size gang form called a "Panel Stacker System," which stacks panels vertically and back to back in a steel frame structure. Each wall is separated by a steel and polyurethane divider sheet that gives each wall a quality molded stone pattern on both sides.

To go along with the new panel system, the company developed a Post Stacker System on a similar premise. If it worked for the walls, why not stand the posts up too? Pouring a precast post in a vertical mold would allow for a similar stone pattern on all sides of the post. The company, however, went one step further. They developed a proprietary method of wrapping the polyurethane liner all the way around the corners, creating a column that looked and felt like real stone on all sides. Gone were the days of sinking tall concrete I-beams into the ground, pouring concrete around them and hoping no one pushed them over while temporary bracing held them in place overnight. The new precast columns were installed on top of preformed footings and secured by rebar. Not only was the new method more stable and forgiving, it made the walls three times as fast to install. A crew of three people could now install over 350 lineal feet per day.

O Well Precast's primary purpose had been to find a way to make a double-sided wall. While they were successful in doing so, they had unknowingly done much more. The system they developed not only produced the coveted double-sided wall but also decreased labor costs, consumed less floor space and opened the doors to an amazing business model.

Labor costs were reduced by over 50 percent using the new system. No more running around fields of steel beds preparing, cleaning and finishing each individually. In the time it used to take four men to finish one panel using a horizontal steel bed, a crew of three could finish 8 - 10 panels using the new system. The key lies in the system's unique design. Mike explains, "The form is self-supporting, with the strength coming from the heavy-duty steel frame around the perimeter. The steel and polyurethane divider sheets provide the molded stone pattern — the sides and bottom gaskets provide a watertight seal. The panels are poured at the same time allowing the bulk of the force to be handled by the outside frame. This does away with any need for tie rods — common in foundation walls — that leave unsightly holes that would need to be patched afterwards. When stripping the mold, simply slide the first divider sheet away, lift the panel straight up and out of the form; slide the next divider away, lift the next panel out, and so on. The double-sided pattern is what we really wanted, but it's the system's efficiency that knocks this one out of the park."

The entire process takes about 30 minutes, and when it's over, there are 8 - 10 double-sided walls. So the labor costs decreased dramatically with the new system.

Not only does this method save labor costs, it also saves a great deal of space. As Mike puts it, "What used to take a football field full of steel beds can now be produced in a 10' x 14' area." The space savings alone can mean the difference in being competitive for many precasters around the country where production space is at a premium.

O Well's Verti-Crete wall sales went through the roof, and precasters from all over the country began to take note. Calls started coming in making requests to purchase the System for use in their area. To capitalize on this new opportunity Verti-Crete, LLC — named from this idea of pouring the concrete vertically — was formed in 2002 to manufacture and license the use of this remarkable new mold and form system.

Today Verti-Crete has one patent and several other patents pending. The company is licensing its technology to various precasters who use the system in their respective areas. There are currently 15 Verti-Crete licensed producers, 13 in the US, plus one in Ireland and one in Italy. Many others are in the works including locations such as Puerto Rico, Algeria and England, and they project that by the end of the year they will have over 25 licensees. Verti-Crete makes money on the sale of the equipment and enjoys a recurring revenue stream from the licensing fees. Not a bad business model. And, with a patented and proprietary system, nothing in the industry compares to the Verti-Crete system.

With its own custom mold shop, Verti-Crete offers designs in a wide variety of stone or stucco patterns and can custom-make designs to match any theme. The dividers and post liners can also be changed easily to enable each producer the flexibility of offering multiple designs. For coloring, customers can choose from a broad scope of specially-designed concrete stains that add depth to the wall and create the final illusion of real stone. Moreover, colors can be matched to fit the theme of any project.

Much success has come out of the once-struggling sand and gravel pit at the point of the mountain that Brent and Dave purchased back in 1993. Verti-Crete is proof that even the smallest ideas can turn into huge business opportunities. Doubtless, this piece of innovation has precasters everywhere wishing they had thought of it first. Oh well!