



Stone Fabricator ASSI Achieves 100% Recycling of Wastewater

When American Synthetic Surfaces, Inc. of Beltsville, Maryland, decided to expand operations from a solid surface supplier – primarily Corian countertop products – to offering products fabricated of natural stone as well, the company knew from the outset that they were dealing with a whole different animal.

For one, ASSI would need more space, which fortunately became available for occupancy in late 2004 immediately next door to their existing facility. For another, while they could adopt and integrate the fabricating methods easily enough, there would be significantly different equipment requirements. Finally, though ASSI felt strongly that the growth in stone products was real and there was a need to offer their customers more choices, there would be a need for accompanying stone sales and marketing efforts.

All were manageable, however. But one new challenge would take some thought, research, and realistic long-range planning in an area where the company had little experience: what to do about the untold gallons of wastewater ASSI would be generating in the stone fabrication process, particularly as a firm that prides itself on its environmentally responsible corporate identity. Growth projections weighed in as well, and by January, 2005, the decision was made to work with Beckart Environmental, Inc. of Kenosha, WI, for installation of a Hy-Pack® Filter Press system.

“Right away,” says ASSI’s owner Bob Hazlett, “we were interested in a filtration method that would provide for recycling and reusing that water somehow, which is what we’re achieving with the system that Beckart has installed. In fact, we are recycling 100% of our water. I don’t know how expensive our water is relative to other parts of the country, but I do think water as a resource is something we all have to be careful with. We’re a watershed for the Chesapeake Bay, so our restrictions are fairly tight. But personally and professionally, I strongly believe we must do whatever possible to minimize pollution.”

Among the approaches that ASSI considered initially were gravity feed and bag collection, in addition to recessed plate filtration of the sort used by Beckart filter presses. So by the time Beckart and ASSI became acquainted with each other in 2004, Hazlett’s questions and concerns were well-informed.

“We had already come to the conclusion that it would be best to focus on the lower costs over the long term that the filter press methods offer,” Hazlett said. He cited reduced maintenance costs, low operating costs, durability and high reliability (or minimal downtime) as chief among those long-term considerations.



“As we were looking into various systems that were recommended to us,” he said, “we were actually considering a similar system from another company, but what I was consistently hearing was that the systems they had specified were often undersized within about a year. During our meetings with Beckart, it became obvious to me pretty quickly – by the overall approach, by the questions they asked about our new process equipment, what our plans were for down the line, and so forth – that they had dealt with these kinds of issues before.”

Beckart recommended a 630mm filter press, one of their most popular models for use in the stone fabricating industry. The system offers a 10 cu. ft. initial capacity, easily and affordably expandable to 15 cu. ft. as the customer’s requirements increase. ASSI also elected to outfit their system with a Beckart automation kit that includes a programmable logic controller (PLC) panel that allows for hands-free operation throughout practically the entire process, including system start-up, precoat introduction and automated pressure regulation. The primary operator requirement on ASSI’s part is to empty the press of accumulated, compacted solids at appropriate intervals.

“Once you commit to a system like this,” Hazlett said, “the additional costs of automation and expandability are negligible, and I’d recommend those features strongly. It’s also important to work with a filter press supplier that will provide good support after the sale, and on that count, I’ve been very happy with Beckart. The bottom line is to let the system take care of processing your water, so that you and your employees can pay attention to the fabrication side of the business. The last thing you want is downtime that puts your entire business at a standstill.”