



New Compounding Line from TPEI is Designed for Quick Cleanup and Concentrate Change

LEHIGHTON, PA, USA - When Breen Color Concentrates, a major supplier of custom color concentrates to the plastics industry, wanted additional capacity, it chose the new state-of-the-art Quick Clean Color Change compounding line from Technical Process and Engineering, Inc. (TPEI).

“In order for our customers to produce high quality attractive plastic products, they need high quality plastic pellets,” said Howard DeMonte, President at Breen Color Concentrates. “And, when they require a fast color match, we pride ourselves on our 24-hour color matching capability. We chose TPEI because they could customize their compounding line to provide the kind of rapid order turnaround our customers expect while maintaining our exacting quality requirements.”

TPEI designed and fabricated the compounding line for quick changeover and cleanup of small lot runs of concentrates. “It allows for quick cleanup and concentrate change in as little as thirty minutes,” said Harold Schafer, CEO at TPEI.

The line was shipped as a turnkey system and included the mezzanine, feeders, pre-mixer, interconnecting wiring and pelletizing system permitting the full integration of space, features and footprint all focused on Breen’s quality service. Because it was an all inclusive turnkey project, the line was in full production seven days from shipment.

- A number of design features unique to TPEI are incorporated into the line including:
- *Free-rotor design* for cleanability, durability, high power capability, quick change, and economical maintenance.

- *J-Block extruder feed throat* that assures smooth continual feed to the extruder by delivering a consistent flow for a uniform pellet.
- *Ubangi-flow screw to die channel design* that minimizes melt inventory, increases yield, and eliminates hot spots and hang-ups by delivering a uniform flow and heat history to each pellet.

“These configurations and design give superior process control, operations efficiency and inherently economical maintenance,” said Schafer.

Prior to choosing the free rotor mixer, Breen Color Concentrates considered a number of other avenues, such as twin screw extrusion,. “For our capacity expansion requirements we decided on a continuous mixer due to our familiarity with its capabilities as it relates to the specifications and requirements of our markets, customers and products,” explained DeMonte.

TPEI’s attention to detail and ergonomics produced custom hardware and controls by marrying the pre-blending and feeders to the free-rotor mixer, J-Block extruder and the Gala MB500* drying and pelletizing unit to produce one synchronous system. “The pelletizing system is designed to make the changeover in materials as quick and easy as possible. It’s a perfect mate for our free-rotor mixer,” said Schafer. “If Breen runs a batch of black, the whole system – from initial blender through the last shaker screen as well as the mezzanine stairs and floor - needs to be “Class A” clean before white. On other systems such clean-up could take up to three hours. With the free-rotor mixer and the MB500 pelletizing system it can be done in half an hour. Breen’s attention to individual customer service means many runs may be thirty minutes or less, thus making high yield efficient small lot production a priority”

For over 29 years, TPEI has been in the forefront of innovation in the design and manufacture of state-of-the-art compounding equipment. Breen Color Concentrates found that TPEI’s knowledge, backed by their long standing commitment to service, were the deciding factors in selecting this compounding line. “We chose TPEI based on their technical knowledge of compounding and their service metrics,” added DeMonte. “TPEI has always ‘taken care’ of us; they stand behind their products and service.”

For more information about state-of-the-art customized compounding lines, please contact TPEI at 570-386-4777, or visit www.tpei.com.

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About Technical Process and Engineering, Inc. (TPEI)

Headquartered in Lehigh, Pennsylvania, TPEI is a major manufacturer of compounding equipment for the plastics and rubber processing industries. From compounding lines capable of processing a wide variety of thermal plastics and rubber polymers, to rotor repairs and restacking, machine alterations and rebuilds, and the design and fabrication of complete turnkey systems, TPEI is the single source supplier for processing facilities looking to keep their equipment running profitably.

About Breen Color Concentrates

Located in Lambertville, New Jersey, Breen Color Concentrates (www.breencolor.com) has been providing custom color and additive concentrates to the plastics industry for over 20 years. Since its inception in 1976, Breen has grown in size and capability and has established itself as one of the leading suppliers of plastic colorants to the blow molding, wire and cable and extrusion/injection molding markets.

* MB500 is a trademark of Gala