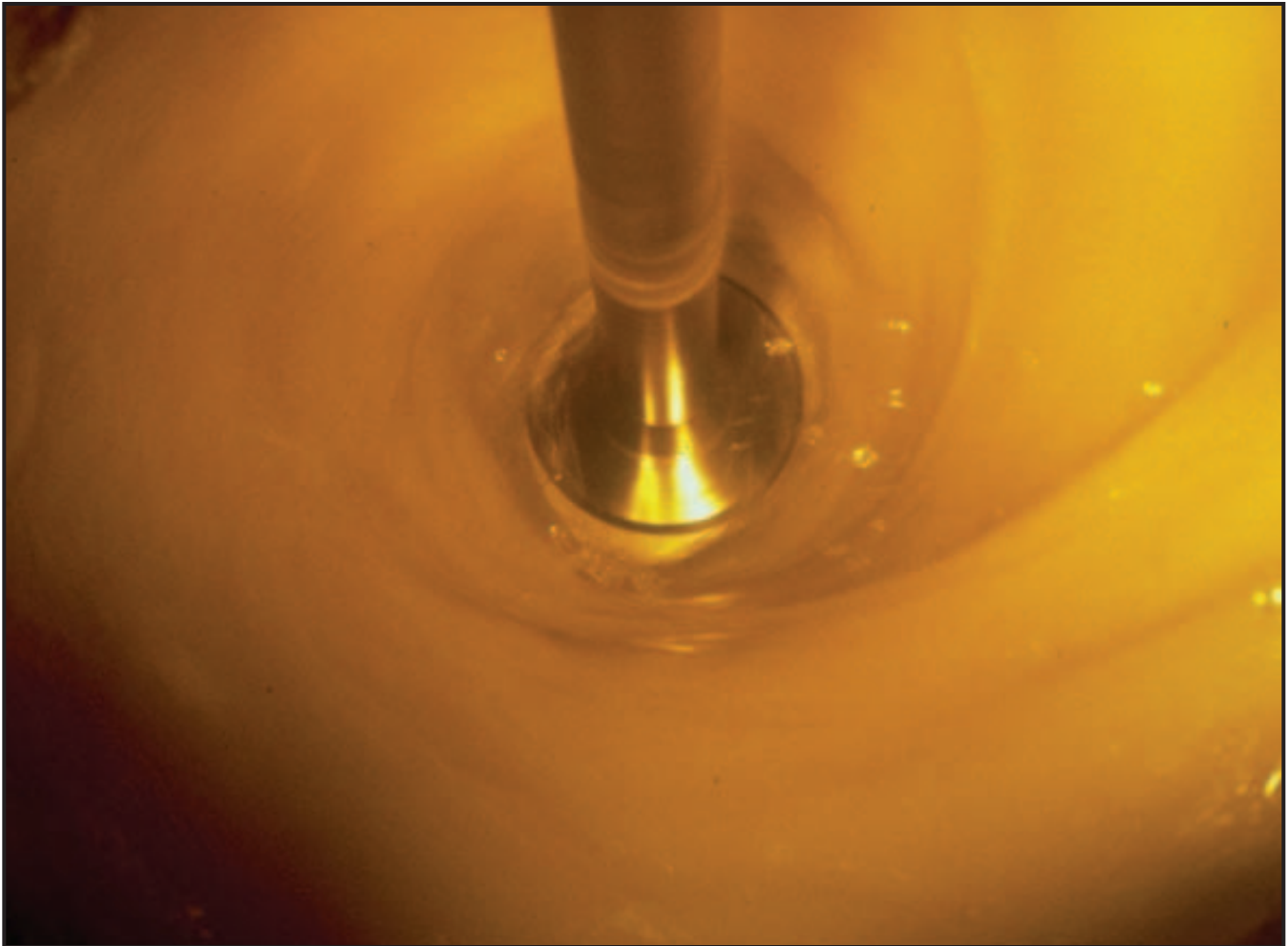


Corrugating Machinery VortX Tornado Mixers



Features:

- Small batch concept ensures the freshest possible adhesive is delivered to the corrugator.
- Exclusive 10-step mixing process promotes simplicity, reliability, and repeatability.
- VortX™ mixing creates a homogeneous mix that approaches a true solution.
- Bulk starch storage and transfer systems are custom engineered.
- On-demand resin dosing systems are easily integrated into your existing process.
- On-staff starch chemist and dedicated engineers support all installations.

Barry-Wehmiller

Corrugating Machinery

VortX Tornado Mixers

The Revolutionary VortX Mixing Process

The VortX mixing process breaks new ground in adhesive quality, consistency, flexibility, and reliability. Using a powerfully driven single mixing blade in a single stainless steel tank, VortX is capable of handling the extremely high viscosity of the borated carrier, creating true high shear mixing throughout the entire batch. This extreme agitation caused by the blade design and tank geometry optimizes mixing efficiency, for a totally homogeneous mix.

To assure quality, every step of the VortX process is precisely controlled by the computer. Water and starch are weighed by electronic load cells on the mixing vessel, caustic soda is measured independently for added accuracy, borax is added by the VortX loss-in-weight microfeeder system, ideal ingredient temperatures are maintained, and mixing times are precisely controlled. Batches can be produced on demand with systems sized from 650 to 1,100 gallons per hour.

A New Method of Storage & Distribution

Aging problems can threaten the quality of even the most homogeneously mixed adhesives, but not with the VortX. Our engineers have developed a minimal storage, “no-return” distribution system that ensures maximum flexibility and constant freshness of the adhesive.

With this system, batches as small as 100 gallons are prepared and transferred to small storage tanks. Then small use tanks located at each station of the corrugator are used for temporary storage. Thus, only a very small quantity of adhesive circulates between the storage tanks and glue pans. Adhesive freshness is assured because “old” is not mixed with “fresh.”

Through this innovation, the system approaches the flexibility of a true, continuous process, allowing easy formula changes for optimal performance with every major grade of board. Use tanks are available in a variety of sizes, configurations, and materials to meet your plant’s needs, including jacketed tanks for heating and cooling the adhesive to maintain optimal operating viscosities.

On-Demand Resin Dosing

The ultimate stage in the VortX mixing process is the unique on-demand resin dosing system. Water resistant adhesives are commonly known to have a limited pot life due to the chemical reactivity of the resin. The VortX dosing system adds this resin to the finished adhesive via precision pumps, at or near the time of use, assuring absolutely fresh, “zero pot life” adhesives that perform superbly on even the most demanding “waterproof” grades of board.

Bulk Starch and Caustic Soda

VortX offers bulk starch silos and bulk storage for liquid caustic soda. The caustic system is “hard piped” to prevent dan-



gerous spills or leakage, and a spring return valve prevents spills in the event of a power failure. Caustic soda is measured by a reliable, dedicated subsystem with an accuracy of +/- 0.1 lb.

Wastewater Recycling

In many plants, wastewater left over from corrugator and printing processes has become a costly obstacle. For this reason, our designers developed a cost-effective, environmentally friendly system to collect, preserve, and recycle wastewater. By controlling the solids content and bacterial growth in the water, VortX’s process offers an effective alternative to chemical treatment, filtration, and solid disposal, eliminating common problems with viscosity variation and poor bonding.

The Versatile Adhesives

VortX offers exceptionally uniform, homogeneous adhesives, chosen from numerous customized formulas. In addition to increased corrugator speed, improved board quality, and reduced downtime, VortX adhesives offer:

- Advanced flow properties
- Stable viscosity
- Superior water holding capability

VortX Line

In order to best meet the demands of any corrugator plant, we offer a wide range of mixing systems. Our flexible, modular designs allow upgrades from simple mixers to state-of-the-art systems as the needs of your plant change. The line consists of the following:

- Tornado FM Manual Mixer
- Tornado F1 Semi-automatic Mixer
- Tornado F3 Fully Automatic Mixer
- Tornado F5 Enhanced Fully Automatic Mixer

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