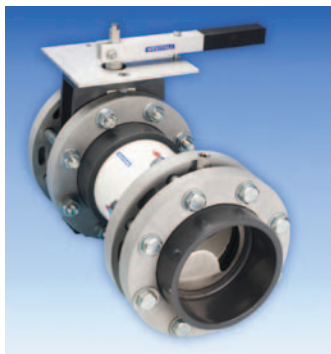


## Pharmaceutical Science & Technology Innovations



**Variable head-loss static mixer**  
(Westfall Manufacturing Company)

### Variable Mixer Combines Two Models

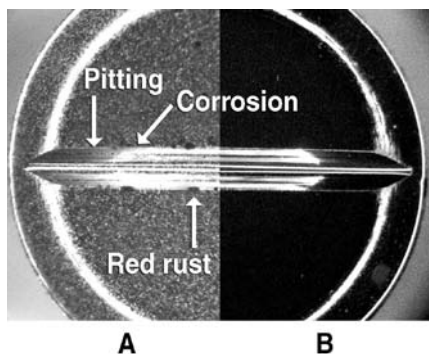
Westfall Manufacturing (Bristol, RI, [www.westfallmfg.com](http://www.westfallmfg.com)) has launched a variable head for static mixing.

Traditional static mixers use pieces of metal inside a long, heavy pipe to mix substances flowing through the pipe. The Westfall mixer works by combining vortex shedding and high-shear zone turbulence inside the pipeline. "Our model is vastly shorter, lighter, and more economical than a traditional static mixer," says Robert Glanville, director of engineering at Westfall.

The variable head consists of two inline static mixers situated in a row. The first has a fixed plate and the other pivots to turn itself on and off. "It works like a butterfly valve, except that it has the mixer orifice shape in the middle," Glanville explains. "When you're running at a high flow rate, you open up the variable, upstream head. As the flow rate slows down, you gradually close the movable mixer."

Plate designs are offered in 0.7–0.9-Beta ratios and can be made in a variety of materials such as stainless steel, titanium, and polyvinyl chloride. The mixers are available with manual and automatic controls.

**Circle/eINFO 90**



**Pharmalloy-CrN (plate without [A] and with [B] coating after 35 million tablets)**  
(Beamalloy Technologies)

### New Alternative to Chrome Plating

Beamalloy Technologies' (Plain City, OH, [www.beamalloy.net](http://www.beamalloy.net)) "Pharmalloy-CrN" chromium nitride surface treatment for tableting equipment is designed to replace traditional chrome plating methods.

The nanocrystalline material provides a hard, pit- and scratch-free surface that resists abrasion and corrosion. The Beamalloy coating reduces sticking and picking by masking microscopic scratches caused by tool polishing. According to Dave Merrick, executive vice-president of sales and marketing, "Traditional coating methods such as plating or physical vapor deposition (PVD) present different, but equally challenging problems to the precision tablet maker. Both methods have inherently pitted surfaces at a microscopic level." Plating requires polishing that jeopardizes the integrity of tooling detail, and PVD requires high temperatures that can lessen the tool's hardness. Says Merrick, "Pharmalloy-CrN does not share any of these drawbacks."

The chromium nitride coating is suitable for use on equipment such as tablet punches and dies, spray nozzles, grinding wheels, and gears.

**Circle/eINFO 91**



**Vu-Stat Y-20**  
(CYRO Industries)

### Antistatic Compound for Inhalers

The "Vu-Stat Y-20" static-dissipative, acrylic multipolymer from CYRO Industries (Rockaway, NJ, [www.cyro.com](http://www.cyro.com)) provides permanent antistatic protection for inhalation devices.

Most device manufacturers use standard plastic resin or antistatic coatings on their plastic parts, which wear over time and require certain moisture levels to be functional. Says Stephen W. Magaziner, marketing manager of modified acrylic polymers at CYRO, "We came up with an inherently static dissipative product that doesn't ever lose its antistatic properties. And, you don't have to worry about scratches or wear."

Because static electricity causes drug to stick to the walls of spacers and mouthpieces, companies use a larger dosage than needed to compensate for lost drug. "If you have a more effective way for the drug to get to the patient without having to worry about drug sticking to the side wall, you won't need to use as much drug," Magaziner explains. CYRO anticipates this will translate into cost savings.

**Circle/eINFO 92**

### New Product Announcements

may be sent to New Products Editor, *Pharmaceutical Technology*, 485 Route One South, Building F, First Floor, Iselin, NJ 08830, fax 732.596.0005, [ptpress@advanstar.com](mailto:ptpress@advanstar.com)