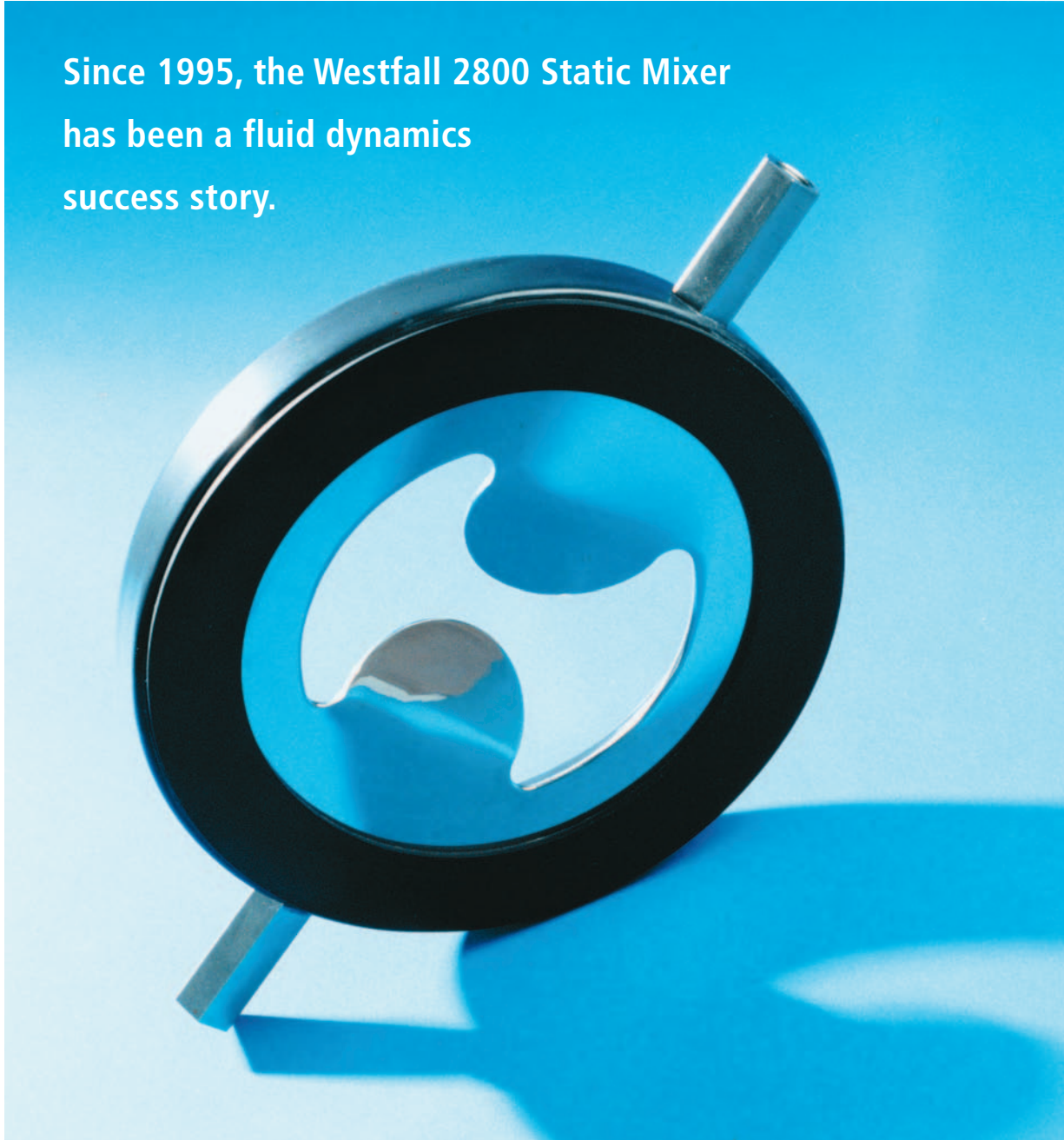


WESTFALL

Model 2800

Wafer Style Static Mixer

Since 1995, the Westfall 2800 Static Mixer has been a fluid dynamics success story.



PATENT NO. 5,839,828



Certified for 316, SS,
CPVC, Hastelloy, and PVC

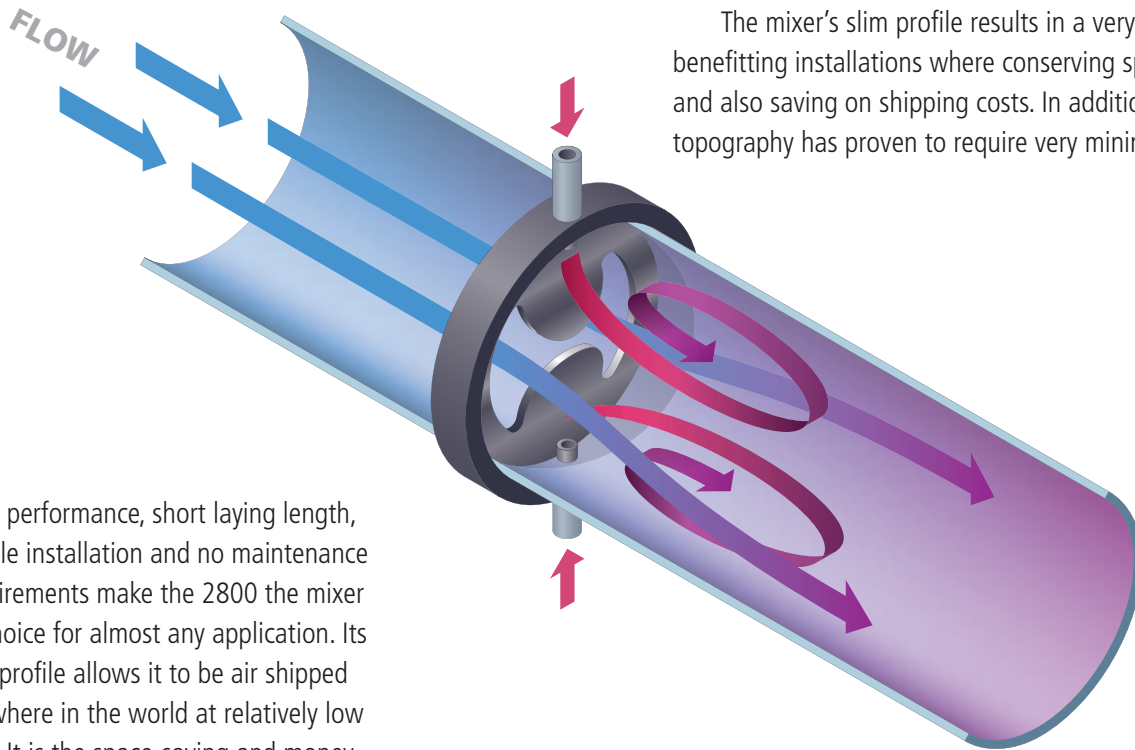
When Westfall's Bob Glanville developed this mixer, inspiration came from watching water flowing over rock formations while whitewater rafting.

The efficient mixing solution he sought was made possible by computer generated geometry. Conventional mixers at the time, and even today, use brute force turbulence via complicated structures. Instead, the 2800 mixer develops turbulence via the shape of the opening and the tab angles.

Space Saving Mixer Offers Superior Mixing & Low Headloss

The 2800's orifice and the precise angle of the bend in the tabs were arrived at through extensive computerized fluid dynamics simulations and testing. The result? Superior mixing with minimal headloss.

The mixer's slim profile results in a very short laying length, benefitting installations where conserving space is crucial, and also saving on shipping costs. In addition, its simple topography has proven to require very minimal maintenance.



High performance, short laying length, simple installation and no maintenance requirements make the 2800 the mixer of choice for almost any application. Its thin profile allows it to be air shipped anywhere in the world at relatively low cost. It is the space-saving and money-saving solution for any installation.

Advantages



- Excellent Mixing
- Low Cost
- Short Laying Length
- Integral Injection Fittings
- Low Headloss
- Easy Installation
- Long Service Life
- No Maintenance Requirements
- No Moving Parts
- Available in pipe diameters up to 120"
- Available in Any Material:
PVC, FRP, 316 Stainless Steel,
Titanium, Kynar, Teflon, etc.

Typical Applications

If you operate any of the following processes, you could benefit from installing Westfall Model 2900 Variable Flow Static Mixers:

- ◆ Water Treatment
- ◆ Chemical Blending
- ◆ Dissolving Gases
- ◆ Polymer Blending
- ◆ Flocculant Blending
- ◆ pH Control
- ◆ Potable Water
- ◆ Waste Water
- ◆ Chlorination
- ◆ De-Chlorination



Westfall Model 2800 Static Mixer in-line at Sebago Lake Water Treatment Facility.

Clean Water Plant Conversion Project In Maine

The Portland Water District needed to convert a major chlorine gas feed system to liquid sodium hypochlorite to eliminate hazards and enhance chlorine residual throughout the distribution system. Problems included limited available head in the main between the ozone contactor and the clearwell, low velocities and limited laying length and mixing zone. Engineering company Wright-Pierce Civil and Environmental Engineering Services selected a Westfall Model 2800 60-inch mixer for the application.

Upon commissioning of the new mixer, the treatment staff noticed an immediate and significant improvement in chlorine residuals. Wright-Pierce's Senior Project manager, Robert J. Williamson, says, "The Westfall mixer stabilized chlorine residual levels in the clearwell over the full range of plant flows. As a result the District has seen an increase and stabilization in residuals further out into the distribution system." Even in spring, when in the past the plant typically dealt with its worst oscillations in pH and chlorine residual, personnel reported "rock steady residual numbers".



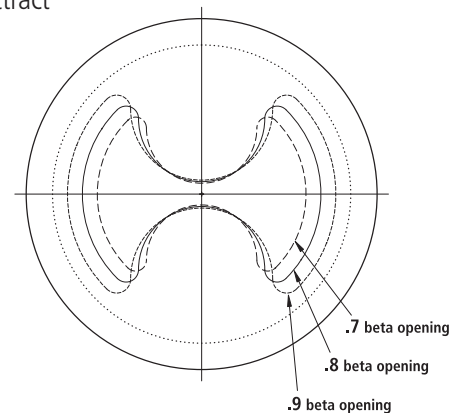
The thin profile of the Westfall Model 2800 mixer makes it feasible to air ship anywhere in the world. The short laying length is a fraction of traditional mixers, making it less costly to produce, ship, install and maintain.



72" diameter Westfall Model 2800 mixer, shipped with integral gasket and pre-drilled flange, requiring less heavy equipment for installation.

Simple, Elegant Design Does the Job Efficiently

The Westfall Model 2800 Static Mixer features a uniquely shaped orifice with two bent tabs. The orifice and the angle of the tabs were computer designed and tested to arrive at the optimal shape for mixing with minimal headloss. There are no moving parts to service or attract residue. Suitable for a wide range of applications, the 2800 is highly effective, compact and economical.



Florida Facility Needed Compact Performer

A municipal water treatment facility in Florida needed a mixer that could do the job where space was at a premium. The budget was tight and quality specifications had to be met. The Westfall Model 2800 provided the answer.



The mixer arrived with pre-applied gasket and pre-drilled flange for easy installation.

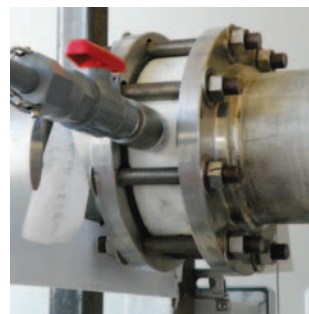
Arizona Treatment Plant Installs Model 2800 Mixers in Special Materials

When Currier Construction Inc. built a water treatment plant West of Tucson, they required mixers that could hold their own against the caustic chemicals – Chlorine Sodium Hypochlorite, Sulfuric Acid and Sodium Hydroxide – used to correct pH, chlorinate, disinfect and oxidate.

They installed two 8" and two 6" Westfall Model 2800 Mixers, one made of PVC, with CPVC corp-stop and a PVC solution tube diffuser, and the others made of 25% Glass filled PTFE (Teflon®) with corp-stops and solution tube diffusers made of PVDF (Kynar®). The gaskets are all EPDM.

Chuck Reading of REACO Associates LLC says, "Westfall supplied the corp-stops and solution tube diffusers, fitting them and trimming the tubes to the precise spot at the center of the tab of the mixer," to facilitate optimal mixing.

Four Westfall Model 2800 Mixers are integral to the system that pre-treats the raw water before it is fed into the filtration tanks for arsenic treatment.



The six- and eight-inch diameter Westfall 2800 mixers used in this plant in Ajo, Arizona, have laying lengths between 2.678" and 3", depending on the corp-stop being used.

FIXED
K
VALUES

.7 Beta: K = 32.59

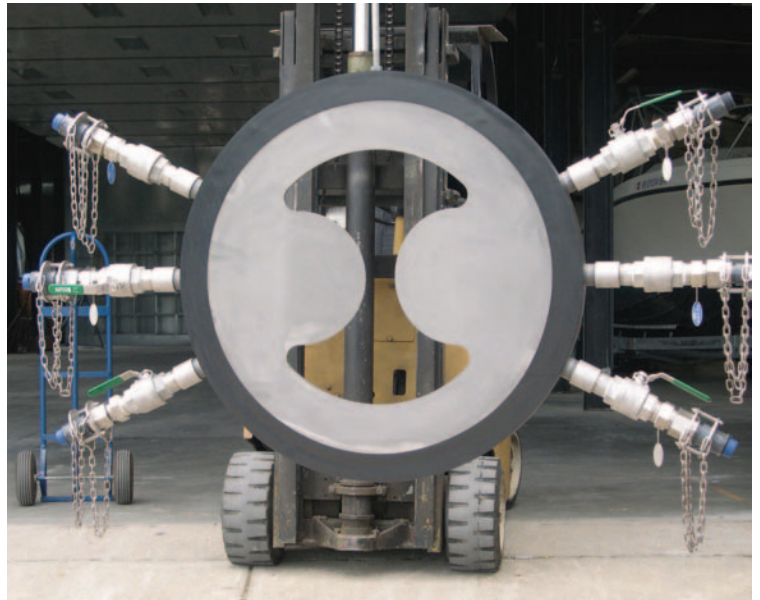
.8 Beta: K = 13.63

.9 Beta: K = 6.78

Facilitating Water Purification in Saudi Arabia

Clean drinking water is produced at a treatment facility on the coast in Saudi Arabia with help from this Model 2800 Mixer. Water is desalinated, then disinfected before distribution to a large industrial city.

A ready supply of dilute hypochlorite solution led the planners to specify a mixer employing multiple corp-stops. The 2800 mixer's proven performance, with a CoV of .009 as well as low headloss, was crucial. The project engineer also liked the fact that the Westfall Model 2800 was thin enough to ship easily and fit into a tight layout, and sturdy enough to stand the test of time in a harsh environment.



Dilute hypochlorite solution is introduced through six corp-stops integral to this 1000mm Model 2800 Mixer now installed in a water treatment plant in Saudi Arabia.

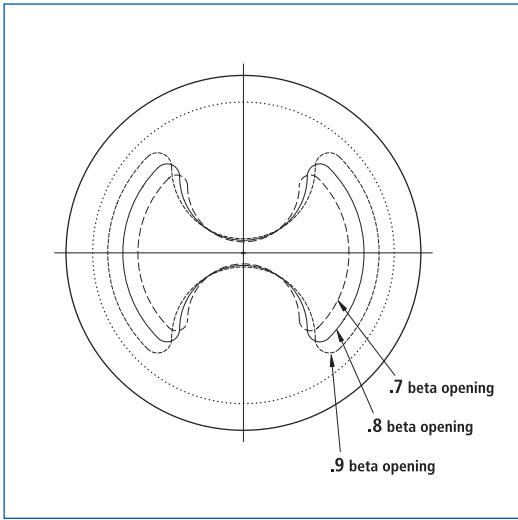


The Westfall 2800 Static Mixer is NSF Certified for 316, SS, CPVC, Hastelloy, and PVC.

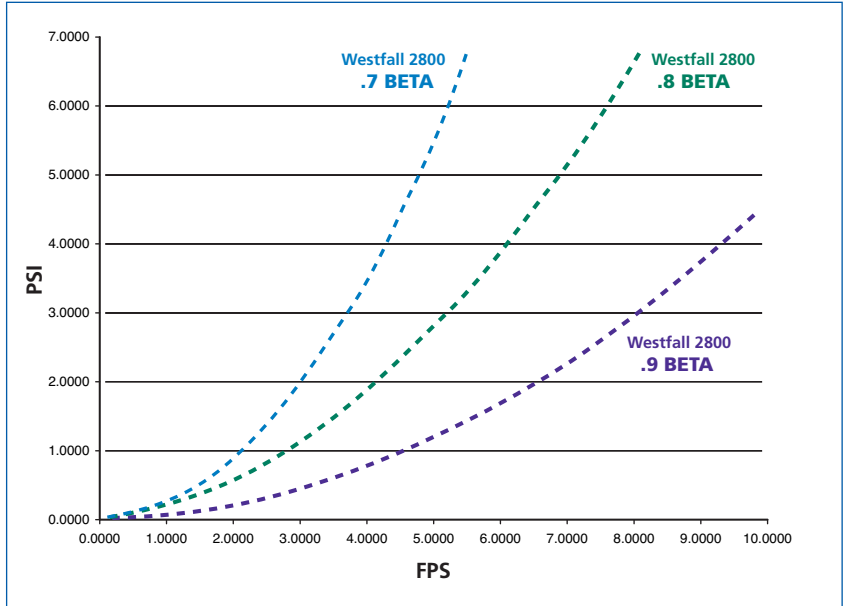
See Our Web Site for Our Complete Product Line, Including:

- **The Model 2850 Inline Static Mixer** was designed for applications requiring precision chemical blending. The 2850 consists of a Model 2800 Mixer plate built into a custom spool piece to fit any size laying length.
- **The Model 2900 Variable Flow Mixer** was designed to accommodate situations where flow rate fluctuates widely.

www.westfallmfg.com



Westfall 2800 Standard Mixer Sizes



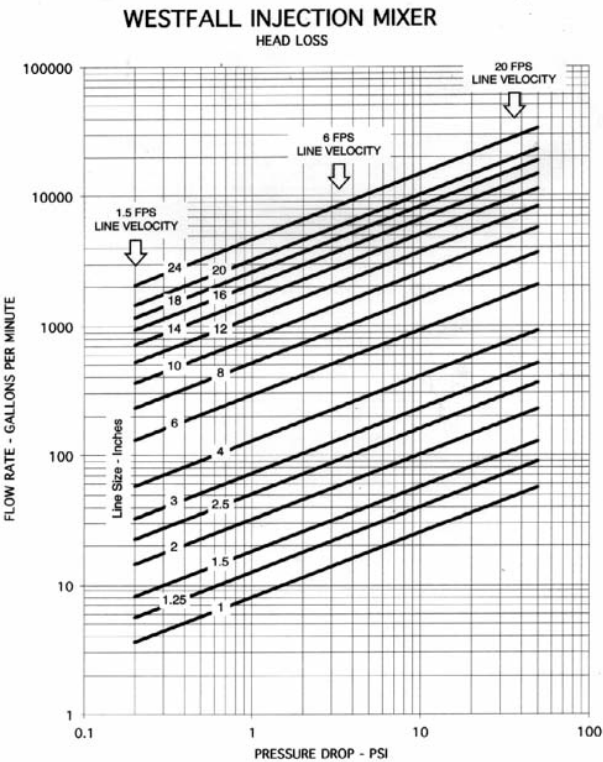
Mixer Plate Beta Openings

Alden laboratory CoV = .008 for .7 beta ratio with excellent mixing at 1-3 FPS
 Alden laboratory CoV = .009 for .8 beta ratio with excellent mixing at 3-8 FPS
 Alden laboratory CoV = .050 for .9 beta ratio with excellent mixing at 8-11 FPS
 CoV = standard deviation of the test data divided by the average of the test data

- Materials of Construction: PVC, FRP, 316 Stainless Steel, Titanium, etc.
- Custom materials and configurations are available.
- Mixer plates are offered in 0.7 – 0.9 -Beta ratios



Visit www.westfallmfg.com



White Papers

- Naval Undersea Warfare Center (NUWC) Hydrodynamics Evaluation
- Alden Research Laboratory, Inc. Mixing Tests of 6" Static Mixer



Westfall's Model 2800 Solving Pipe Line Mixing since 1995

Westfall Manufacturing Company
 15 Broad Common Road • Bristol, RI 02809-2733
 Voice: Toll Free: 888-928-3747 or 401-253-3799
 Fax: 401-253-6530 • E-mail: info@westfallmfg.net
www.westfallmfg.com

Westfall Innovates – Others Imitate