

Furon® Static Mixer Technology Overview

What is a Static Mixer?

A static mixer is a device that uses elements within a cylindrical housing (or pipe) to efficiently mix two or more liquids with no moving parts. As the liquids flow through the device, the mixing elements cut the flow of the liquids, forcing them to blend together.



What are the benefits of a Static Mixer?

- **Cost Effective:** In many cases, a static mixer may be used as a replacement for dynamic mixers such as agitators. Dynamic mixers typically require power to operate and require frequent maintenance. Static mixers have no moving parts and therefore require no power to operate.
- **Small Package Size:** Static mixers are compact as compared to most other mixing devices. Their inline design allows them to be inserted directly into existing plumbing.
- **Little or No Maintenance Requirements:** Because Static Mixers have no moving parts, they rarely or never require maintenance.
- **Quick, Efficient Mixing:** Because of their compact size and inline design, the liquids pass through a Static Mixer relatively quickly. Achieving a comparable mix using an agitator or other dynamic solution requires considerably longer process times.
- **Enhanced Heat Transfer:** The design of a Static Mixer is in some ways similar to that of a counterflow heat exchanger. Therefore, Static Mixers offer some degree of cooling as the liquids pass through them. Dynamic mixers, in contrast, often add heat through agitation.

What are the typical applications for a Furon® Static Mixer?

Furon® Static Mixers can be used in any application requiring two or more liquid media to be mixed or blended. Furon® Static Mixers feature 100% high purity fluoropolymer construction, making them suitable for use in harsh or aggressive media as well as applications involving ultra pure liquids. Some common applications include:

- Blending of abrasive slurries in the Semiconductor and Optics industries
- Mixing of wet ingredients in chemical processing and manufacturing operations
- Blending catalysts and reactants
- Dilution of solvents and aggressive chemicals
- pH control

Selecting a Static Mixer:

Our experienced technical team would be glad to assist you in selecting an appropriate Furon® Static Mixer for your application. Please complete the following Application Checklist and return it to your local Saint-Gobain salesperson or authorized distributor. We will contact you to discuss your application as soon as possible.

Furon® Static Mixer Application Checklist

Company:	Location:
Name:	Phone:
Date:	Email:

Media / Process Information:

	Chemical #1	Chemical #2
Chemical Name:		
Chemical Concentration %:		
Viscosity (if known):		
Specific Gravity (if known):		

Desired end connection type and size: _____

Target mixing ratio (if applicable) – Chemical #1 to Chemical #2: _____

Target flow rate through mixer (if applicable): _____

Maximum pressure drop across mixer (if applicable): _____

Other process considerations:

What are you currently using for mixing in your application? (e.g. agitator, blender, or other type of static mixing device)?
