

Mixing technology with proven benefits

Statiflo is a world leader in motionless mixing technology. We are constantly expanding the limits of motionless mixing technology to create innovative products including the most efficient static mixers currently available.

Statiflo motionless mixing offers many key benefits for combining liquids, gases and powders. It is efficient, economical, and delivers precise, pre-determined results in a wide range of process operations, including mixing, blending, dispersion, emulsion

formation, laminar-flow heat exchange, mass transfer, and as a 'plug-flow' inline chemical reactor.

Our motionless mixers are tried, tested and trusted in many different industries, from potable water to oil & gas, from the food industry to man-made fibres.

Statiflo Motionless Mixers use a series of precisely configured mixing elements

to process the components. The elements are made in various designs to suit different applications, and are available fitted into

a range of housings, from high pressure, to open-channel – making them ideal for all kinds

of industrial environments. The mixers themselves are custom manufactured in a wide range of materials, including carbon steel,

stainless steel, exotic alloys, GRP, uPVC, cPVC, PTFE, etc.

The elements are fixed or removable, to comply, for example, with stringent regulations in the food and pharmaceutical industries.

Whatever the application – in any industry, Statiflo Motionless Mixers deliver common benefits: they eliminate the need for tanks, agitators, moving parts and direct motive power.

Maintenance is minimal – if not eliminated entirely.

Set-up and operating expenses are also cut to a minimum.

As well as direct operating savings, Statiflo Motionless Mixers deliver a high level of mixing efficiency, therefore the consumption of dosed chemicals and formation of byproducts can be dramatically reduced. Inline sampling can be performed immediately after the mixer – allowing any necessary adjustments to be made as quickly as possible – minimising potential product wastage.

Statiflo Motionless Mixers are installed in thousands of process plants worldwide, providing the highest standards of mixing efficiency, reliability and economy.

The key benefits of Statiflo Motionless Mixers

- Highly-efficient mixing
- No moving parts for maintenance free operation
- Energy-saving, no direct motive power required
- No need for tanks in most cases
- Ease of installation
- Minimal space requirement
- Available in all sizes
- Available in a wide range of materials
- Custom designed
- Available worldwide

Statiflo Motionless Mixers are available in a standard range of formats to suit many different applications.

All the standard units are also available custom designed and engineered with any combination of injector/sparger connections, sample points and heating/cooling jackets.

Industry	Application	Process
Food	Pasteurisation of raw cocoa mass	Steam/pulp plug-flow mixing
Petrochemical	Methanol stripping of gas condensate	Immiscible liquid solvent extraction
Oil and gas	Glycol gas drying	Liquid/gas mixing
Pulp and paper	Consistency control	Water/stock mixing

Series 100/150

General purpose designs in steel/exotic alloys, with fixed or removable elements with standard commercial finish, available with heating/cooling jackets and injectors/bosses.

Industry	Application	Process
Food	Yogurt/fruit blending	Solid/gel mixing
Brewing	Aeration of wort	Gas/liquid mixing
Pharmaceutical	pH control of fermentation broth	Liquid/pulp mixing
Soft drinks	Carbonation of drinks	Gas dispersion

Series 200

Sanitary designs in polished stainless steel with removable elements in food/pharmaceutical finish. Designed for CIP, available with IDF, RJT, DIN and ferrule end connectors. Injectors, heating/cooling jackets also available.

Industry	Application	Process
CPI	Corrosive high temperature loop reactors	Gas/liquid mixing
Water treatment	Concentrated acid dilution	Liquid/liquid mixing
Petrochemical	Acid solvent stripping	Immiscible liquid mixing
Chemical	Acid mixer reactors	Miscible liquid mixing

Series 300

Corrosion resistant designs with removable elements in solid PTFE, carbon/stainless steel housing, fully PTFE lined, available with PTFE/PFA injectors and heating/cooling jackets.

Industry	Application	Process
Water treatment	Coagulation/flocculation	High/low viscosity liquid mixing
Waste water	pH control/flocculation	High viscosity sludge mixing
Swimming pool	Ozonation/disinfection	Gas/liquid mixing
CPI	Acidic pH control duties	Low viscosity liquid mixing

Series 400

uPVC, PP and HDPE designs for cost-effective corrosion resistant duties, fixed elements in housings available with flanged or threaded ends complete with injectors/samplers.

Industry	Application	Process
Desalination	Recycle blending/pH control	Liquid/liquid mixing
Waste water	Flocculation/coagulation	High/low viscosity mixing
Water treatment	Fluoridation of drinking water	Liquid/liquid mixing
CPI	Hydrochloric acid dilution	Liquid/liquid mixing

Series 500/550

Large diameter (>250mm) designs in corrosion resistant GRP fixed elements, flanged designs available with injectors/samplers.

Industry	Application	Process
Water treatment	Disinfection control	Liquid/liquid mixing
Waste water	pH control/flocculation	High/low viscosity mixing
Desalination	Recarbonation/chlorination	Gas/liquid mixing
CPI	Water/steam heating	Liquid/liquid mixing
Water treatment	Ozonation/oxidation	Gas/liquid mixing

Series 600/650

Large diameter (250-3000mm) general purpose designs in epoxy coated carbon steel/stainless steel, fixed elements, flanged/plain ended with injector spargers/samplers.

Industry	Application	Process
Man-made fibres	Thermal homogenisation Polymer modifiers	Viscous mixing
Polymer manufacturing	ABS/SAN/LLDPE reaction	Viscous laminar flow mixing
Food industry	Solids addition/starch cooking	Viscous plug-flow mixing

Series 700

Precision machined mixers with high surface finish, edge sealed elements, or elements only, for high temperatures and pressures, polymer processing, thermal homogenising, and melt extrusion.

Industry	Application	Process
Oil and gas	Steam desuperheating	Liquid/gas mixing
Petrochemical	Direct steam acid heating	Gas/liquid mixing
CPI	Water/steam heating	Gas/liquid mixing
Food/ pharmaceutical	Live steam pasteurisation	Gas/liquid mixing

Series 800/850

Direct steam heater mixers in steel/exotic alloys, commercial finish, with fixed elements, flanged.

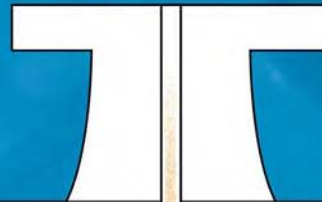
Element Design	Series											
	100	150	200	300	400	500	550	600	650	700	800	850
STT	/	/	/	/	/	/	/	/	/	/	/	/
STS	/	/	/	/	/	/	/	/	/	/	/	/
STL	/	/	/	/	/	/	/	/	/	/	/	/
STM	/	/	/	/	/	/	/	/	/	/	/	/

Statiflo has developed a range of mixing element designs to suit a wide variety of duties in all kinds of industries. As a world leader in motionless mixing technology, Statiflo is constantly researching to improve efficiency and economy – engineering for optimum solutions.

Statiflo also custom designs and manufactures:-

- STX laminar flow heat exchangers
- STMC Open channel mixers
- In-bend mixers
- Gas tee mixers
- GDS gas dispersion systems
- Square/rectangular duct mixers
- Spray mixers

– all of which deliver the benefits of our expertise in motionless mixing technology.



Motionless mixing for efficiency and economy



← shortest length + lowest pressure drop = highest mixing efficiency →

unmixed

completely mixed