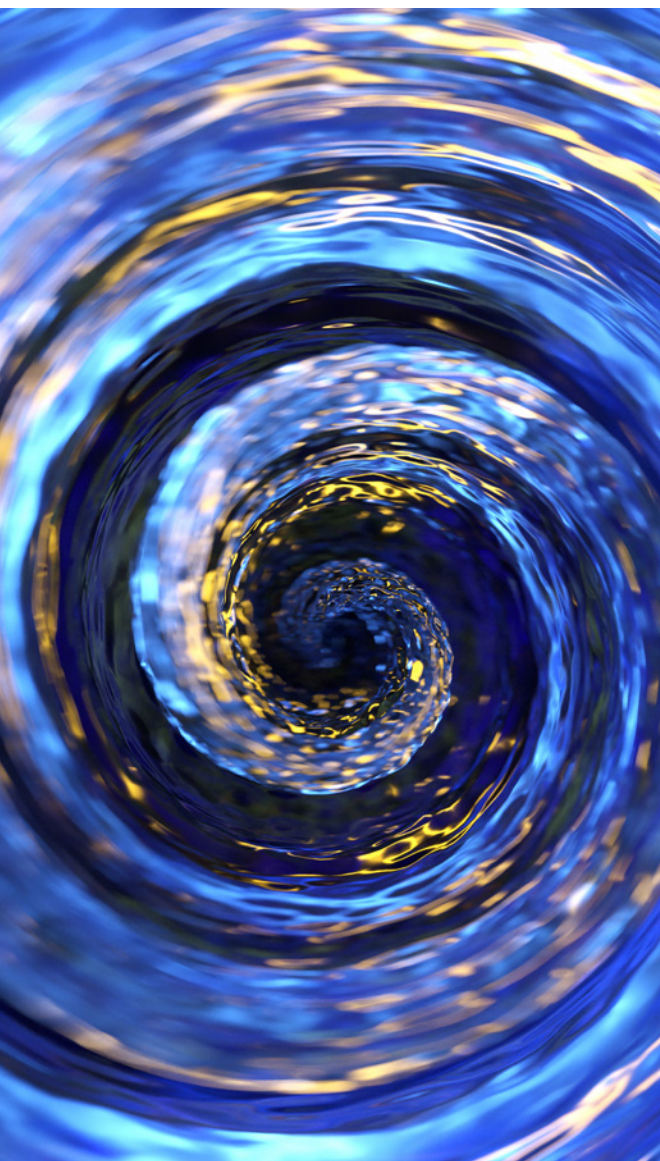


SULZER

High mixing efficiencies at short mixing & installation length

CompaX™ The space saving solution



Sulzer CompaX™ advantages

Sulzer CompaX is the name for the space-saving and efficient solution to your mixing problems in the turbulent flow regime. In comparison to conventional static mixer configurations, the Sulzer CompaX has an amazingly reduced overall length. This greatly improves your operational flexibility and reduces installation costs. Furthermore, additives can be admixed in an easy and reliable way.

1. Low pressure drop

- Typically 10-100 mbar
- Excellent price/performance ratio

2. Very short mixing distance

- Independent of mixing ratio, a homogenous mixture is achieved only in 3 pipe diameters downstream of mixer

3. Extremely short overall installation length

- Easy to fit, low installation costs
- Simple dosing of additive: no multipoint dosing system necessary
- No clogging (both in the main flow and in additive stream)
- Robust construction, no moving parts
- Easy to clean

Applications

- Concentration and temperature equalization of low viscosity liquids and gases
- Mixing of additives such as the small additive dosing required in desalination industry
- Dilution of concentrates
- Water and wastewater treatment (adjustment of pH value, mixing of flocculation agents, neutralization processes using acids or caustic solutions)
- Concentration- and flow equalization for an accurate and representative sampling from a single point downstream of mixer



> CompaX mixers are available in sizes from DN10 (3/8") up to and beyond DN2600 (104") for the listed applications

Functional description

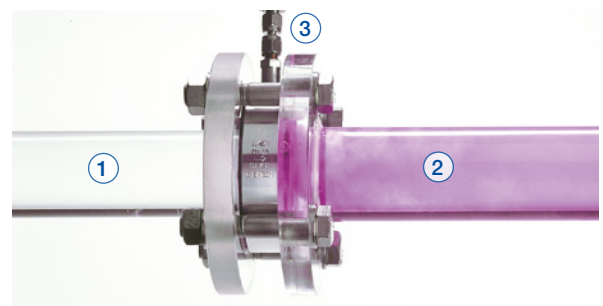
The patented Sulzer CompaX design consists of a highly efficient mixing device with an integrated dosing inlet point. The additive is fed into the zone where strong turbulent flow prevails (see right).

This design secures homogeneous mixing over a very short distance with the use of only one mixing element and with only one additive dosing point.

The Sulzer CompaX is patented technology.

Field of application

The Sulzer CompaX is widely used for the inline mixing of liquids, gases and suspensions in the turbulent flow regime.



① Main flow

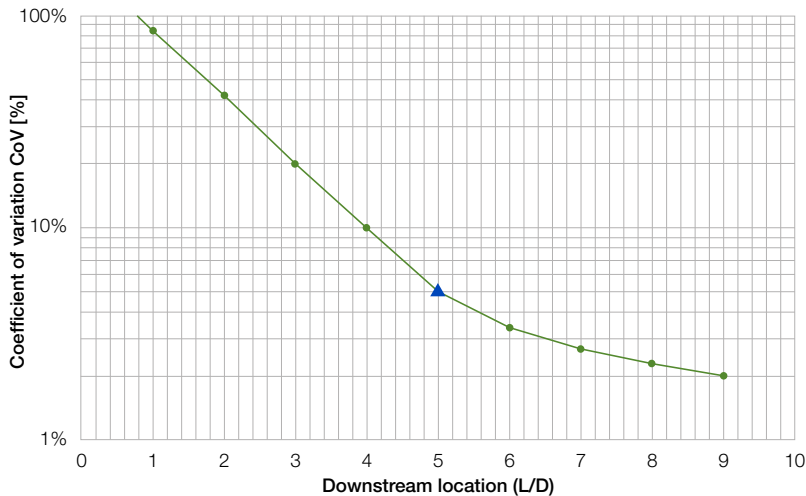
② Turbulent mixing zone

③ Additive

Specifications

Homogeneity data

Homogeneity curve valid for different mixing ratios is shown below.



Pressure drop (Δp)

The pressure drop can be calculated as follows:

- $\Delta p = 0.014 \rho v^2$
- Δp = pressure drop (mbar)
- ρ = density (kg/m^3)
- v = velocity (m/s)

CoV: Coefficient of variation describing the average local deviation of a concentration from a mean value in the pipe cross section downstream the mixer

Design features

The Sulzer CompaX consists of a mixer with an integrated dosing point. The dosing point is designed for the mixing of an additive into a primary stream at ratios from 1 to 3 and higher.

The mixer is installed in the pipe, mounted between two flanges (DIN2633 or ANSI B16.5). The overall installation length is equivalent to less than half of the actual pipe diameter.

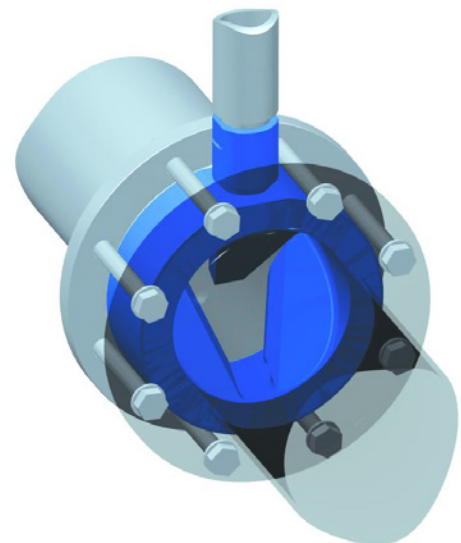
Sulzer CompaX is available in the following materials:

- Stainless steel
- Polypropylene (PP)
- FRP for diameter > DN250
- Following other materials on request: Nickel alloys, PVC, PTFE, SS-ETFE coated etc.

For mixing ratios > 1 to 3 and nominal diameters DN > 100 mm flanged versions are available.

Standard pressure rating:

- Stainless steel = 16 bar @ 120 °C
- PP = 10 bar @ 20 °C



The mixer is installed in the pipe, mounted between two flanges

The Chemtech division is the global market leader in innovative mass transfer, static mixing and polymer solutions for petrochemicals, refining and LNG.

Chemtech is also leading the way in ecological solutions such as biopolymers as well as textile and plastic recycling, contributing to a circular economy. Our product offering ranges from technology licensing to process components all the way to complete separation process plants. Customer support ranges from engineering and field services to tray and packing installation, tower maintenance, welding and plant turnaround projects – ensuring minimal downtime.

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