

## **Sulzer Polyol Mixer** for high quality polyurethane foams



Sulzer polyol mixer DN 25 with Ermeto screwed joint

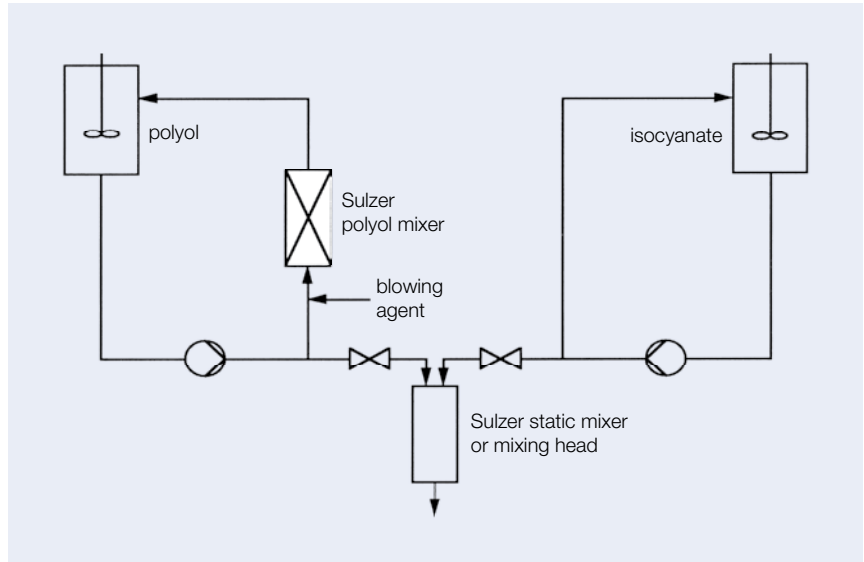
- Enhanced thermal properties of insulation foams provided through uniform structure of thin walled cells
- Savings provided by low foam density at high mechanical stability
- Savings in polyol and isocyanate
- Good reproducibility of foam structure
- Gentle treatment of the product flow owing to uniform shear rate and low heat generation during the mixing and dispersion operation
- Maintenance-free operation
- High operability of the processing plant
- Compact low weight mixer

## Applications

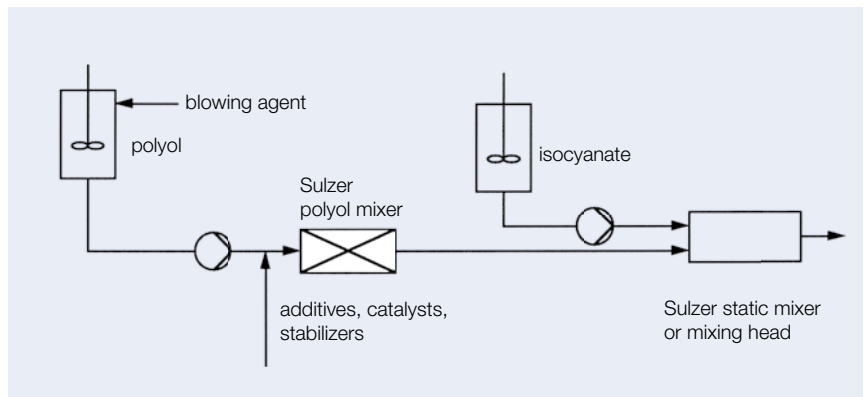
The Sulzer polyol mixer is used for mixing, dissolving and dispersing liquid or gaseous blowing agents in polyols and isocyanates. The loading of the base components with a blowing agent can be accomplished in a single pass through the mixer or in a loop system. Upgrading of existing dynamic systems by incorporating the Sulzer polyol mixer leads to material savings and improved product quality.

## Installation examples

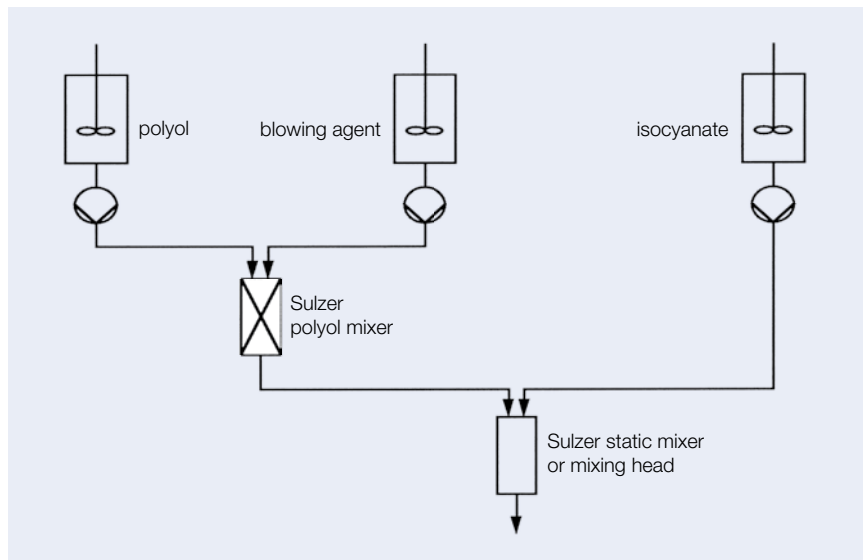
### Loop loading



### Post-dispersing



### Direct loading



### Mixer features

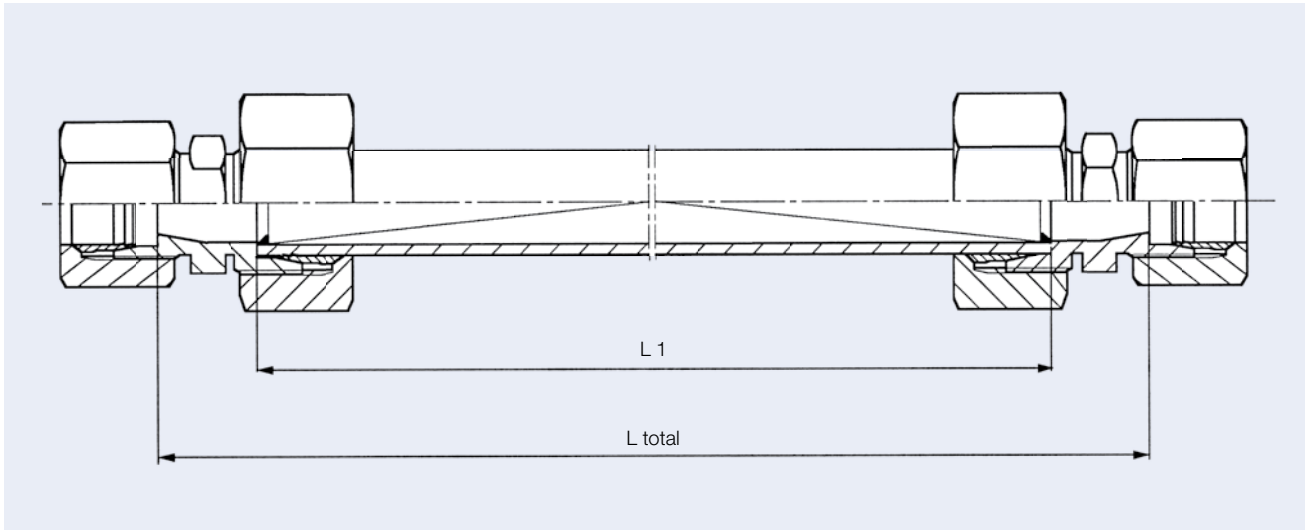
The Sulzer polyol mixer is characterised by a high and uniform shear rate. This property ensures the efficient mixing and dissolution of the blowing agent. Dispersion with very small droplet size and a narrow distribution range is achieved when using insoluble or partly soluble blowing agents.

The foamed PUR is outstanding due to its uniform thin-walled cellular structure.

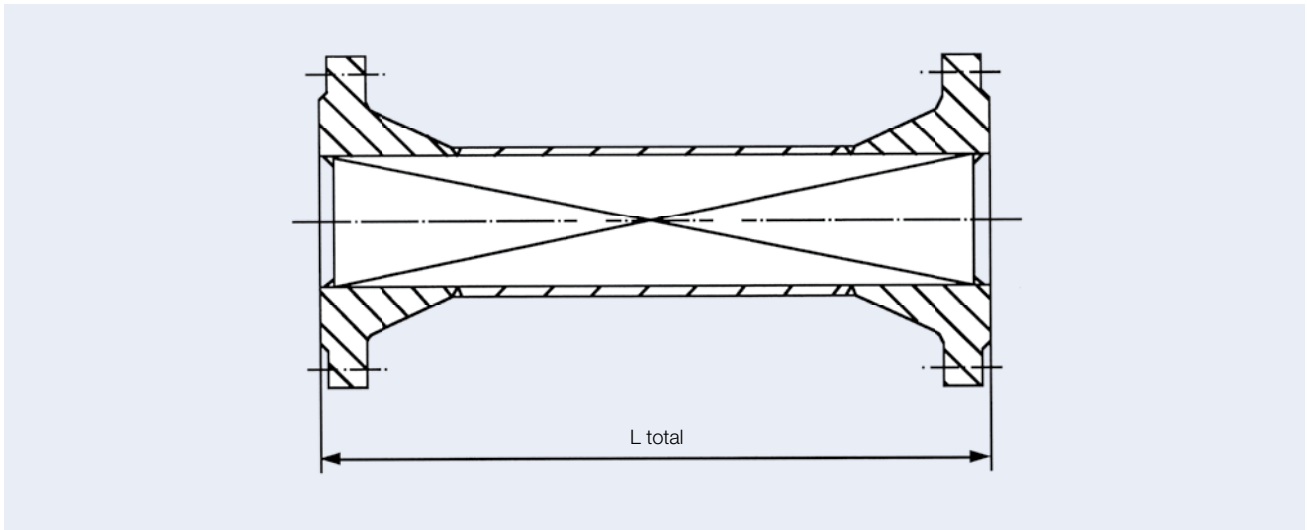
### Construction

The Sulzer polyol mixer consists of specially arranged SMX mixing elements fixed-mounted into a pipe. The compact mixer is for nominal diameters of DN15 to DN32 fitted with Ermeto screwed joints, larger diameter versions being equipped with welding neck flanges.

The mixer dimensions are designed to match the flow rates and to individual requirements.



Nominal diameters DN15 to DN32 with Ermeto screwed joints are specially suitable for production plants.



The versions DN50 and DN65 with flanges are preferred by the manufacturers of polyol and isocyanate

## Ratings and dimensions

Designation	Nom. pressure	Pressure drop	Mixing pipe length	Overall length	Standard connection	Mixer weight
Polyol mixer	PN	permiss.	L1	L tot		
	bar	bar	mm	mm		kg
DN15	280	70	240	ca. 285 Ermeto	G20-PS	0.6
DN20	280	80	300	ca. 350	G25-PS Ermeto	1.2
DN25	160	30	355	ca. 400 Ermeto	G35-PL	2.3
DN30	200	120	380	ca. 440 Ermeto	G38-PS	2.7
DN32	160	25	470	ca. 515 Ermeto	G42-PL	3.2
DN50	40	25		ca. 670 DN50 DIN 2635	flange	11
DN65	40	25		ca. 885 DN65 DIN 2635	flange	18

Other diameters or nominal pressures on request

## Material specification

DN15 to DN32		DN50 and DN 65	
Component	Material	Component	Material
Mixing element	AISI 316 Ti	Mixing element	AISI 316 Ti
Mixing pipe	A 53 Gr. A	Mixing pipe	AISI 316 Ti
Ermeto union	A 53 Gr. A	Ermeto connection	AISI 316 Ti

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