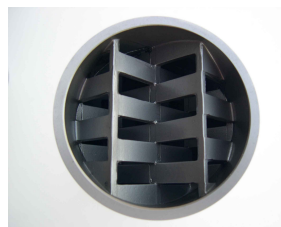


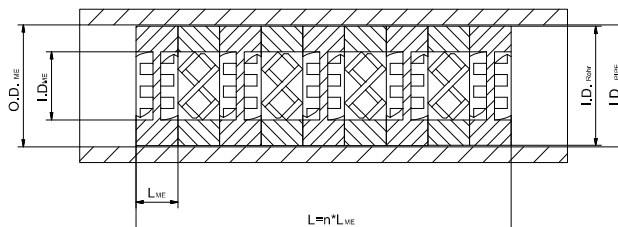
StaMixCo Mixer LMXR for Adhesives and High Viscous Fluids



Mixing element LMXR
(licensee of BAYER AG)



Mixing of epoxy resins in an empty pipe and in an mixer LMXR



Cross-Section of LMXR Mixer

Applications

- Mixing/dispersing of high viscosity 2-component adhesives such as poly sulfide, silicone, epoxy resin
- For general laminar flow mixing/dispersing of viscous liquids with liquids of similar or very different viscosity or with gases

Mixer characteristics

The LMXR mixing unit is used for mixing adhesives and other high viscosity fluids. It consists of LMXR static mixing elements mounted inside a housing. Each mixing element (see top-left photo) is made of crossing bars cast to the body of a ring and to each other which results in a monolithic structure that is virtually indestructible. The inlet and outlet of each mixing element comes to a point (edges have a shape like the ridge of a roof) to achieve streamlined flow conditions (no dead spots). This mixing structure is excellent for mixing/dispersing liquids of similar or very different viscosity.

Design of the mixer for a specific application is based on customer requirements. These include degree of mixing required, component volumetric flow ratio, viscosity ratio, system pressure, allowable pressure drop, maximum allowed length, etc. The below table specifies the LMXR mixing unit's dimensions as well as the number of mixing elements required for a specific application.

The LMXR mixing elements are removable from the housing. Because the mixing elements are virtually indestructible, they can be pressed out of the housing, cleaned and reinstalled.

Number of LMXR mixing elements required for laminar flow

Volumetric Ratio Component A : B	Viscosity Ratio Component A : B	Coarse mixing (80% of Perfect Mix) (CoV = 0.2)	Good Mixing (95% of Perfect Mix) (CoV = 0.05)	Excellent Mix (99% of Perfect Mix) (CoV = 0.01)
1 : 1	1 - 100	7	13	20
9 : 1	1 - 100	12	18	25
99 : 1	1 - 100	17	23	30

CoV = variation coefficient of mixed material

* The number of mixing elements required is approximate. They can vary depending on the viscosity behaviour of the fluids to be mixed. The above recommendations are valid only for fluids that are soluble in each other in every ratio throughout the operating range.

If the viscosity ratio of Component A : B is larger than 100 : 1, the number of mixing elements noted in the above table must be increased as follows:

Viscosity Ratio A : B	>100 - 300	>300 - 1'000	>1'000 - 3'000	>3'000 - 10'000
Additional mixing elements LMXR required	5	6	7	8

