



## Products

### Static Mixer



Static Mixer

#### Finepac™ Static Mixers:

Mixing is an important unit operation in the process industry. It is always a task to achieve better mixing using minimum power consumption.

Static Mixing is a solution in most of the cases if properly employed. Mixing is carried out in line without involving moving parts as mixing aids.

After due consideration of various properties of the fluids to be mixed, the static mixing unit has to be derived to ensure maximum homogenization over entire cross section of the flow at the other end.

#### Principle:

The components to be mixed are pumped at the inlet of the mixing unit containing static mixing elements. Due to the construction of the mixing elements, the fluids are directed radically outwards and inwards while the forward flow continues. This movement is multiplied by introducing more number of mixing elements. The angle of this movement is also changed by subsequent elements. As a result, the mixing effect is achieved with the fluid emerging out at the other end.

#### Materials of Construction:

Stainless Steel, other Exotic metals and also PTFE and FRP available for mixing elements as well as the external housing.



Mixer Housing



Teflon Mixing Element



Housing with Elements

#### Advantages of Finepac™ Static Mixers:

- In-line mixing device without moving parts - No maintenance.
- Compact system involving only pumping systems - Low energy costs.
- Continuous process can be devised - as a result consistent quality of the output as against likely variation in the output as in the case of batch / stirred vessels.
- Comparable cost effectiveness in case of installation and running costs.
- Efficient mixing - An excellent device.

#### Some of the Applications are:

- Mixing of reactants in the plug flow reactors.
- Neutralization process.
- Blending of Additives.
- Mixing of components of wide viscosity / density difference.
- Better dispersion of poor mixing liquids - Smaller droplet size.



## Products

### Static Mixer



Static Mixer - PTFE

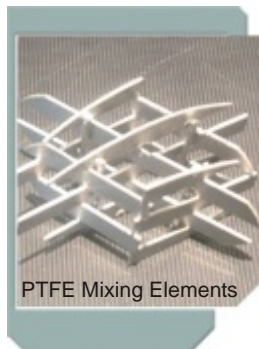
#### Typical Mixing Examples:

- Mixing of reactants in case of Nitration plant.
- Neutralization process in case of Sugar refinery plants.
- Homogenization of heat transfer coefficient in oil heat exchangers.
- Air / Ammonia gas mixing in case of Nitric Acid manufacturing plant.
- Chemical and Petrochemical Industries.
- Drug formation unit : mixing of ingredients.
- Sugar Industries.
- Lube Oil Blending Unit.
- Waste Water treatment plants.

We at FINEPAC™ study the mixing application and accordingly design an efficient devise and fabricate the static mixer for your plant. We can also offer a system on turnkey basis.



Jacketted Mixer



PTFE Mixing Elements



Teflon Lined Mixer