MIXERS NEUTRONE

Worldwide Leader In
Mixing Fluids Technology

NEUTRONE® IN-LINER STATIC MXIER

Principles of Operation

All Neutrone® NMS/NMSR Series Static Mixers, were helical mixing element directs the flow of material radially toward the pipe walls and back to the center. Additional velocity reversal and flow division results from combining alternating right- and left-hand elements, thus increasing mixing efficiency. All material is continuously and completely mixed, eliminating radial gradients in temperature, velocity and material composition

Numerous independent studies have shown that Neutrone® NMS/NMSR Static Mixers maximize mixing efficiency without the wasted energy and material blockage typically found in more restrictive motionless mixers.

Mixing Applications

Turbulent Flow

The Neutrone® Static Mixer produces rapid mixing by inducing circular patterns that reverse direction at each element intersection

Laminar Flow

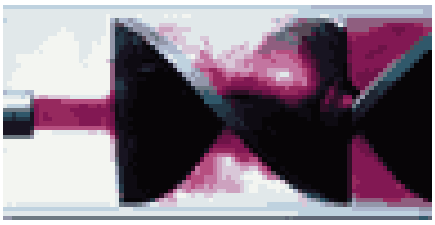
The alternating helical elements of the Neutrone® Static Mixer continually divide, stretch and reorient the flow stream to produce complete mixing with minimum pressure drop

Liquid/Liquid Dispersion

The uniform turbulent shear field of the Neutrone® Static Mixer quickly disperses immiscible liquids and produces a narrow drop size distribution

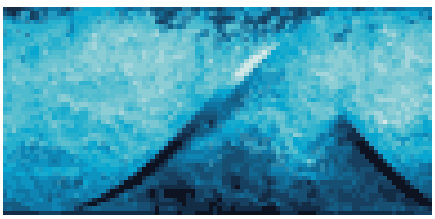
Gas Liquid Dispersion

Gases can be incorporated into turbulent liquids using the Neutrone® Static Mixer. Mass transfer rates are dramatically enhanced to maximize absorption or reaction.

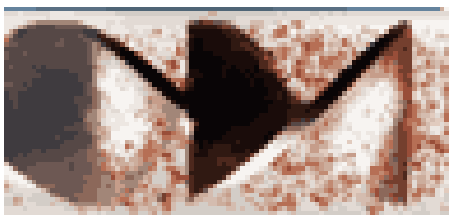


TURBULENT FLOW

LAMINAR FLOW



GAS LIQUID DISPERSION



LIQUID/LIQUID DISPERSION

Neutrone® Static Mixer, NMS & NMSR Series

Neutrone® offer various type static mixer based on customer requirement in order to achieve a specific mixing profile.

Removable Element – NMSR Series

- Used for laminar, transitional, and turbulent flow applications where periodic cleaning or inspection is required; suitable for most blending or dispersion problems involving liquids for gases.
- Mixing elements are easily removed from housing for easy cleaning & maintenance

Fixed Element – NMS Series

- Used for laminar, transitional, and turbulent flow applications; suitable for most blending or dispersion problems involving liquids or gases
- Mixing elements are attached to the housing wall

Element Only – NMSE Series

- Used for laminar, transitional, and turbulent flow applications; suitable for most blending or dispersion problems involving liquids or gases
- Mixing elements are attached to the customer housing wall

Feature of NMS/NMSR/NMSE Series

- Sizes: 3/16" to 120"
- Material: Mild Steel, Carbon steel, SS304, SS304L, SS316L, SS316, FRP and other materials or coating to meet customer requirements.
- Element types: Welded, removable, etc
- Flange styles include raised face slip-ons, weld neck, lap joint and ring joint in all standard pressure ratings, DIN or ANSI standard.

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