

NAPIER REID

Inline Static Mixers

Napier Reid's Inline Static Mixer (ISM) is a static device for mixing (blending) two or more liquid materials. It does not consist of any moving parts. The fluids are stirred and mixed as they flow through the mixer.

The ISM consists of specially designed mixing elements, that are installed inside a cylindrical housing. As the fluids flow through the mixing elements, the elements cause turbulence. They rotate the fluid radically towards the wall of the housing or rotate it back towards the centre.

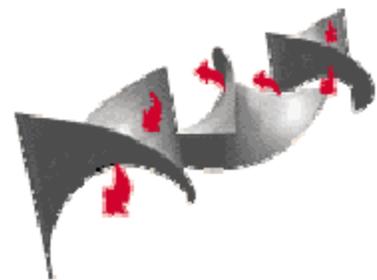
Also, the mixing elements change the direction of rotation of the fluid from right to left, or left to right. Due to the sudden change in direction of flow, turbulence is created.

The mixers convert the turbulence energy into efficient mixing.

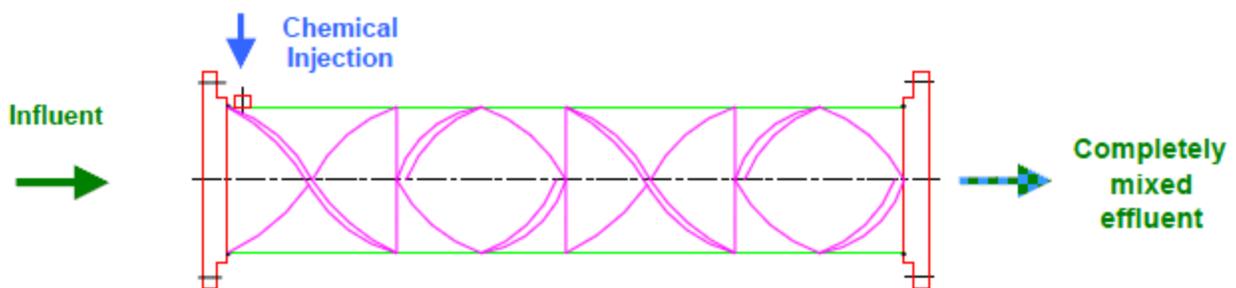
Napier-Reid manufactures a variety of mixing elements to meet different process requirements. However, the mixing principle of all elements is to generate turbulence energy by flow division, flow reversal and radial mixing, and to convert the turbulence energy into efficient mixing.



Inline Static Mixer



Spiral Mixing Element
(Left hand & Right hand)



ISM with Spiral Mixing Element

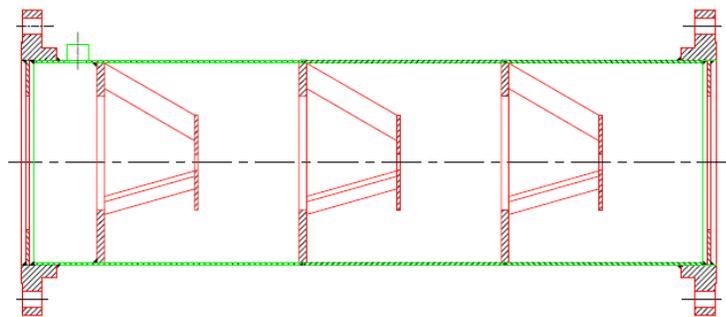
For proper selection of Napier Reid's inline static mixer, various factors are taken into consideration: flow rate, viscosity, characteristic of the fluid flowing through the mixer and fluid to be mixed, housing length, housing inner diameter, available head, allowable pressure drop, type of element and number of elements



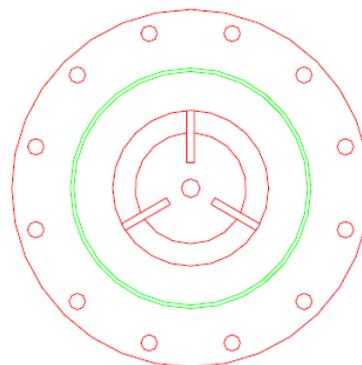
Advantage of Napier-Reid's

Static Mixers

- Efficient mixing at minimum pressure drop.
- Simple structure, no rotating or wearing parts.
- As there is no electric motor involved, the static mixer can be used in explosion proof area.
- Compact in size, resulting in space saving.
- Enclosed mixing, hence clean operation.
- Standard design is with flanged ends. Other options available.
- Available for wide range of flow, and pipe size: 1" to 16".
- Standard material of construction is stainless steel. However the mixer housing and elements can be manufactured and supplied in other material of construction also.
- Easy to clean and install.
- Maintenance free.



**Inline Static Mixer
with tri-spider arrangement**



**End-view of
above static-mixer**

About Napier - Reid

Over 60 years of excellence in water & wastewater treatment

Napier-Reid is located in the greater Toronto area in the Province of Ontario, Canada. We supply engineering services and process equipment for water and wastewater treatment.

We have the technology, resources and experience to design, manufacture and implement innovative water and wastewater treatment solutions worldwide. We have completed over 3000 projects since our inception in 1950. This stands as a testament of our ongoing commitment of providing the highest quality service, products and after sales support in the industry. Our capabilities include engineering, manufacturing, installation and field support. We have in-house personnel for complete mechanical, electrical and instrumentation process and control system design. As a manufacturer, our designs focus on cost-effective solutions, simplicity of installation and ease of maintenance.

Napier-Reid has developed an excellent team with many of years of experience. We have a well-deserved reputation for innovation, service and integrity. A significant portion of Napier-Reid's revenue comes from export to areas such as the Caribbean, Central America, South America, Middle East, Eastern Europe, Africa, and Asia. Some of these projects are financed by Canadian government or International financing institutes. As a Canadian manufacturer, we are eligible for Canadian governmental funding and EDC export credit. We have the capability to handle a large range of projects, from engineering, equipment supply, installation, start-up, to turnkey projects. Let Napier-Reid be your solution for water and wastewater treatment.



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