



# Static Mixers

## What are Static Mixers?

Static mixers involve a series of geometric mixing elements fixed within a pipe, which use the energy of the flow stream to create mixing between two or more fluids. Using our pool of mass transfer and separation know-how, HAT has optimised the design of our static mixers to achieve the greatest amount of mixing with the lowest pressure drop possible. For applications involving low to high viscosity fluids we have a static mixer design available from our **AlphaPLUS SMV and SMX** ranges.

HAT produces a complete line of flanged static mixers in sizes ranging from 2"-36" diameter. Our flanged static mixers are custom designed for each application. Standard materials include carbon steel and 304L/316L stainless steel. Other materials are available upon request.

### Applications

- Chemical blending
- Water treatment
- Crude oil blending
- Crude desalting
- Additive injection

### Element Options

- Turbulent flow design SMV
- Laminar flow design SMX
- Removable elements
- Flow straightening vanes

### Housing Options

- Housing by client
- Pipe schedule (10, 40, 80, XXS, etc.)
- Flange classes (150 lb., 300 lb., etc.)
- Flange types (slip on, weld neck, etc.)
- Injection ports (NPT, flanged, etc.)

### Mixer Options

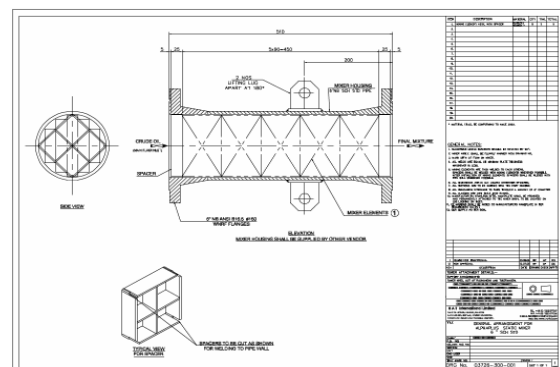
- Epoxy linings
- High performance exterior coatings
- NDE
- Exotic alloys and plastics



SMV Element



SMX Elements



Typical housing detail



Housing with injection point