

STATIC MIXERS

Also known as In-line mixers, these mixers rely on 2 processes.

Turbulent flow to mix.
Striations to shear.





Two different styles of material is available in many different sizes.

A hole in Holey Y Twisty[®] allows for bolting segments together. The mixer can then be taken apart for cleaning if necessary.

Otherwise, Y Twisty[®] can be used for the manufacture of traditional, welded segments.

Both styles of segments are available in both Left and Right hand twists.

Having three edges provides more Striations per segment resulting in quicker, more efficient mixing

HIGH EFFICIENCY STATIC MIXER ELEMENTS

Due to demand for efficient static mixing, we have developed a new ranges of products which mix fluids (gases and liquids) with reduced back pressure. The reduced head losses are achieved by mixing elements that produce a turbulent flow as well as having very many more striations. These elements however, have less frontal area opposing the fluid flow, which is the primary reason for the lower back pressure.



CORRUGATED TUBE

Australian Twisted Steel P/L can convert standard tube and pipe into Corrugated Heat Exchanger tubes. Our Heat Exchanger Twisty[®] products range from 3/8" (9.53mm) tube up to 6" tube (152.4mm) over a length of 6.000m.

Depending upon flow rates, viscosities and heat transfer rates of the fluids, Corrugated Heat Exchanger tubes have far greater heat transfer coefficients over plain, smooth tubes, and even though frictional losses within the Corrugated tubes are somewhat higher, the overall efficiency of the tube is generally much better than that of standard unprocessed tubes. Some studies suggest that this figure can be as high as 60%. Because of this increase in efficiencies, heat exchangers that use this type of product can usually be made using less material, giving rise to a more compact unit. The on going advantages of using Corrugated heat exchanger tubes is that of lower energy requirements, thus saving money and the environment. Lower Carbon footprint emissions cannot be ignored when there is a possibility of a future Carbon tax.

Heat Exchanger Twisty[®] material can be supplied with the helical pattern stopping short of the ends. The plain ends can be used for the fitment of bends, tees, elbows or for swaging into the end plates if desired.

The material can be used in either of the two ways shown graphically below:



The Heat Exchanger Twisty[®] range comes in both Left and Right hands. So the inner tubes can either be the same or opposite hand to that of the outer tube.

Turbulence is the main factor in a heat exchanger for the thermal transfer to take place.







The major advantages can be summarised as follows:

Reduction in heat exchanger size Reduction in product hold up volume Reduction in processing time Reduction in fouling potential Tube wall temperature closer to tubeside fluid Increased cleaning potential More efficient processing of viscous fluids

Available in most materials up to 152.4mm in diameter.

OTHER PRODUCTS

















Australian Twisted Steel P/L ACN 128041958

17A Elma Road Cheltenham Victoria 3192 Ph/Fax (03) 9532 0007 Mob 0447 TWISTY 0447894789 E-mail andrew@austwistedsteel.com PO Box 507 Moorabbin Victoria 3189

www.austwistedsteel.com