



XTUBE® Boxer

Personalized Solution
for you industry

Description

The Xtube Boxer® heat exchangers are a new design of Scraped Surface heat exchanger which is being patented by XLG.

The heat exchanger incorporates a tube bundle with heating or cooling fluid passing through the interior of the tubes (the Service fluid) with the fluid to be processed (the Product) passing over the external surfaces of the tube bundle.

The heat exchangers are fitted with an electric motor and gearbox which drive a rotor attached to a series of scraping elements. Movement of the rotor displaces the scraping elements along the length of the tube bundle, which results in the outer surfaces of the tubes being cleaned of any fouling deposit while the Product fluid is agitated and mixed. The movement maintains the outer tube surfaces clean and improves the rate of heat transfer into or out of the Product

Various types of scraping elements are available, chosen to enhance the rate of heat transfer with highly viscous fluids or to provide efficient cleaning of the outer tube surfaces for highly fouling fluids.

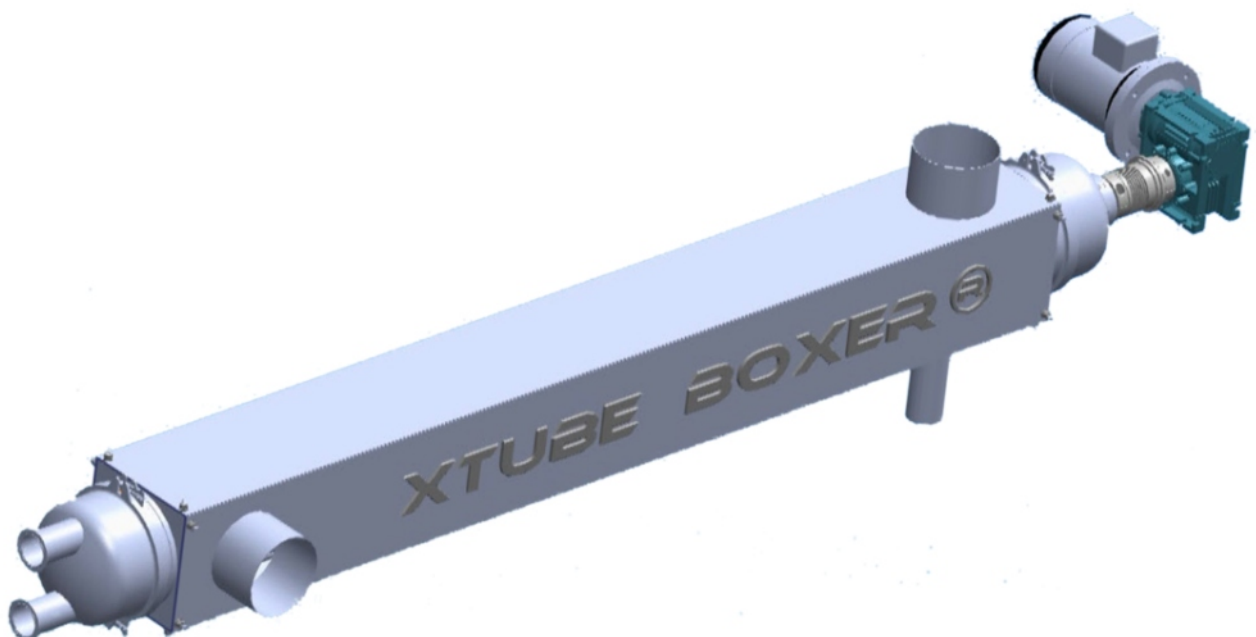
The range includes units with various tube sizes and tube counts which can be adapted to match the different flow rates and fluids encountered in service.

All of the heat exchangers comply with the requirements of the European Pressure Equipment Directive 97/23/EC, the Electromagnetic Compatibility Directive 2004/108/EC, the Low Voltage Regulations 2006/95/EC and the Machinery Directive 98/37/EC.

The units are CE marked as required by the various Directives.

Applications

- Condensation of vapours contaminated with fouling deposits
- Heat recovery from mixtures of gases and vapours contaminated with fouling deposits
- Heating and cooling high viscosity products in industrial, non-hygienic, applications
- Evaporation/concentration of liquids and liquid mixtures containing fouling deposits





XTUBE® Boxer

Personalized Solution
for you industry

Connections

To facilitate ease and flexibility of installation the Xtube Boxer® heat exchangers use ISO standard clamps on all connections.

If required we can include the ferrules, seals and pressure rated clamps in our supply to allow the installer to match to his fluid pipework to and from the heat exchanger.

Materials of construction

The tubes and all other product wetted surfaces, with the exception of the scraping elements, are manufactured from AISI 316L Austenitic Stainless Steel. The scraping elements are manufactured from different combinations of stainless steel, copper nickel and plastic materials (PEEK amongst others) according to the application. When highly corrosive fluids are being processed various grades of Super Austenitic (Duplex) stainless steel tubes can be used

Non-wetted parts of the heat exchanger are manufactured from AISI 304 stainless steel, proprietary motor drives and gearboxes are purchased from leading specialists in their field.

Design Conditions

Subject to the specific requirements of any particular application or requirement to use a specific Design Code, our standard conditions of design for the Xtube Boxer® heat exchangers are as follows:

- Minimum/maximum temperature permitted $-40^{\circ}\text{C}/+400^{\circ}\text{C}$
- Minimum/maximum allowed pressures: Full vacuum/10 Bar(g)

Higher temperatures and pressures are also possible subject to specific design checks

Standard dimensions

The Xtube Boxer® heat exchangers can be delivered in various lengths, the standard units using tubes of either 3000 mm or 6000 mm.

The various models in the standard range have heat transfer surfaces varying from 10 up to 60 m².

The heat exchangers can work mounted either horizontally or vertically depending on the requirements of the process and the installation.

