

**XTUBE BOXER®**

## NEW SCRAPED SURFACE HEAT EXCHANGER

XTube Boxer® Scraped Surface Heat Exchanger specially suitable for high viscosity fluids and/or high fouling applications.

**Sanitary and Industrial**  
A smart approach to high viscosity products and high fouling applications

Inside moving scrapers driven by an electric motor stir the product generating high turbulence to boost heat transfer, and at the same time cleans the heat exchange area eliminating all fouling, enabling a continuous operation of the exchanger.

### Advantages

- Very large heat exchange area per unit length compared to traditional rotating scraped surface units that are usually not longer than 1m/3'.
- Very high overall heat transfer coefficient (K or U value) as it provokes crossflow and continuously wipes out the boundary layer.
- It can be customized changing the number of tubes of the tubebundle and shell diameter, as well as the length that can reach up to 6m/20'.
- Tube clearance are adapted to the particles size, if any inside the product.
- Scraping speed is variable, so the same unit can process products of different viscosity and shear sensitivity.
- It can be operated in horizontal and vertical.



### Sanitary applications

Scraping plates that move, stir-up the product and scrape the surface to eliminate fouling are made out of PEEK or in stainless steel with PEEK rings to avoid metal-to-metal contact.



### Customizable design

XTube Boxer® packs a large heat transfer area in its tubebundle that can be 6m/20' long, and with a extendable number of tubes, to suit any duty in a single unit.

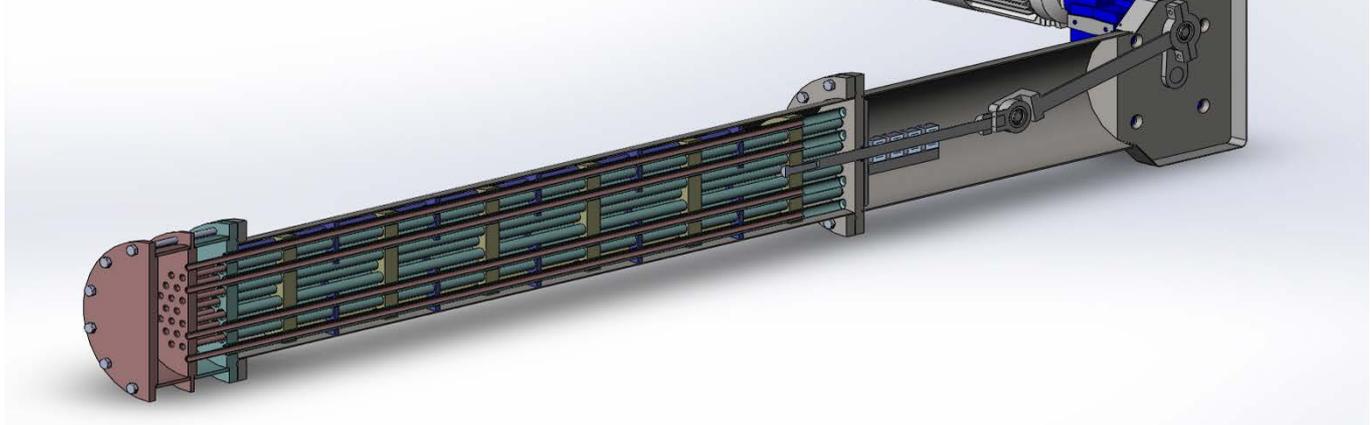


### Industrial applications

Scraping plates are made out of bronze (other materials available on request), which scrape the tubebundle made in stainless steel.

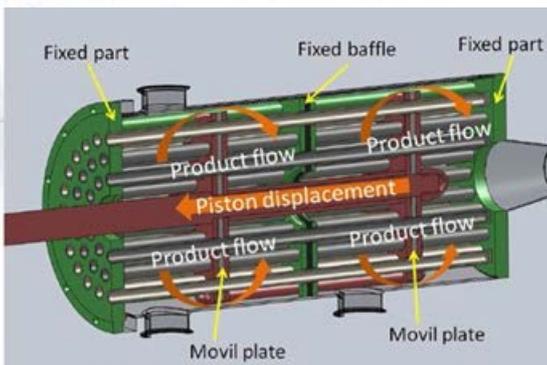
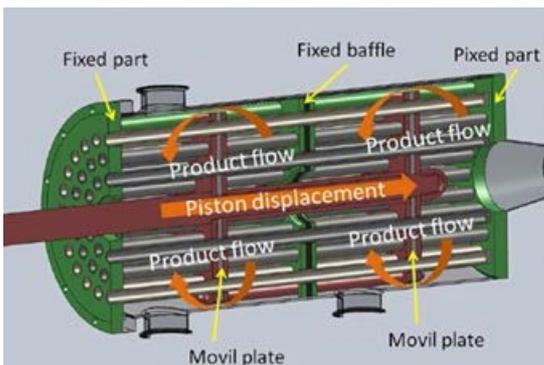
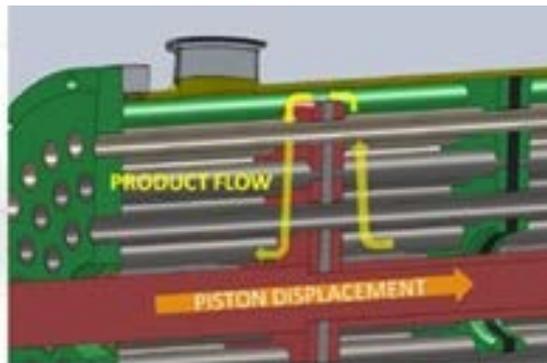
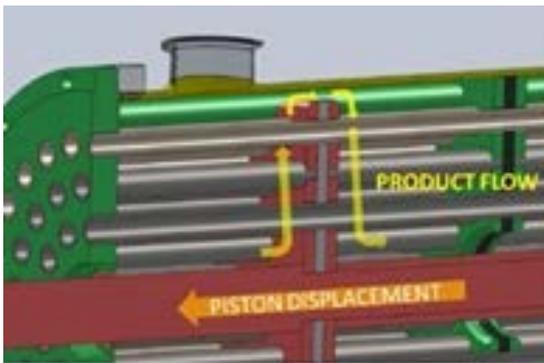


# XTube Boxer® How it works



The heat exchanger is formed by a tubebundle inside a shell. Product flows inside the shell and over the tubebundle; while the heating or cooling media runs inside the tube bundle.

A piston moves back and forth and moves scraping plates that stir-up the product increasing the heat transfer coefficient. Moving plates scrape the outer surface of the tube-bundle thus eliminating all fouling.



### Materials

AISI-316L/316.

Duplex and other materials are also available on request.

### Design conditions

- Temperature: min -40°C(40°F) / max +315°C (+600°F)
  - Pressure: min full vacuum/max 25 bar(365 Psi)
- Higher temperature and pressure ratings are available subject to a revision of components.

XLG reserves the right to amend any of the above technical data without prior notice subject to project conditions.

**In North America Please Contact Southgate Process Equipment for all INQUIRIES**