



The activity of our company is focused on the development and introduction to the market new high-effective technology which helps to rise the power and capacity of heat exchanger, filter, recovery boiler, reflux condenser of ammonia vapors and other equipment. We have designed a heat exchange intensifier - a tube with a transverse ring knurling and that is the uniqueness of our technology. We apply the solution in shell & tube heat exchangers - GreenTube-STX-R instead of the traditional smooth tube. Replacing a traditional heat exchanger with the one based on ReinnolC's technology our customers receive the increase of the heat transfer coefficient up to 70% both with the 2 times decrease of the equipment dimensions and weight.



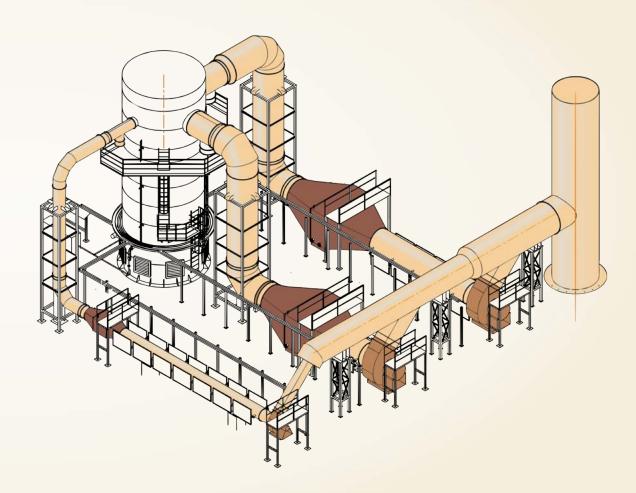
The technologies developed by ReinnolC allow to choose the most effective solution for the customer and at the same time to keep within the setted budget.





# The transverse ring knurling can be used in the following processes:

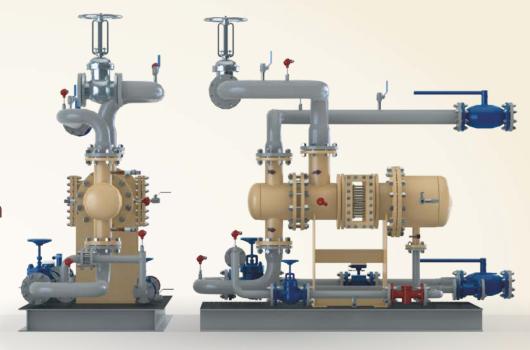
- utilization of thermal emissions of heat-supply boilers and CHP plants;
- heat utilization of associated gas flaring at oil and gas production facilities;
- combustion products utilization of gas turbine engine of gas pumping units disposed at the unified gas supply system of a country.





High-effective shell & tube heat exchanger GreenTube™ STX-R is designed for steam condensation heat transfer to various processing mediums.

GreenTube™ STX-R can be applied in technical processes in oil, chemical, gas, food, metallurgical, power industries as well as in housing and utilities sector.





Steam-water heaters (of heating systems, DHW and technology)



Steam condensers from gases (reflux condenser, vapour condensers etc.)



Processing mediums heating units (heavy oil, oil, benzol)



Condensers (water, acetone, petrol etc.)



Refrigerating appliances (coolant condensation)



Condensers for power plants (TPP, CPP, SDPP etc.)

#### **Features:**

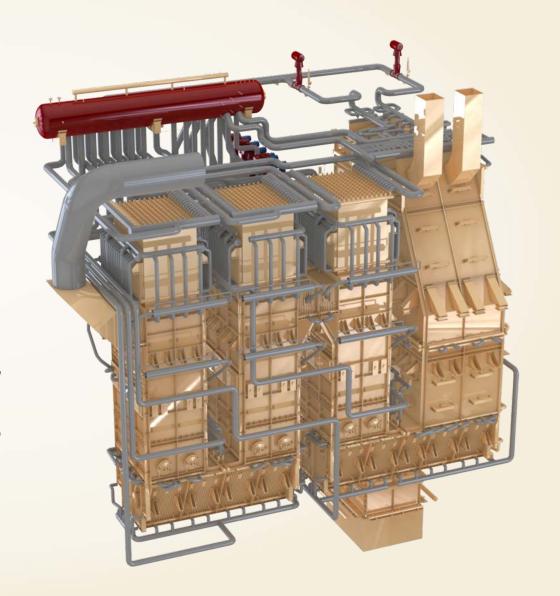
- Special transverse ring knurling of heat-exchange tubes
- Differential position of separating walls
- 2 times reduction of the deposits in the tubes compared with the classical apparatus
- Low cost ownership
- Small size
- High energy efficiency



Waste heat boilers are designed for the production of steam and hot water by cooling aggressive or neutral process gases.

#### **Features:**

- Use of a knurling tube to intensify heat transfer
- The overall dimensions are selected from the point of view of optimal flow passage and binding to existing constructions
- Flow aerodynamics calculation with taking into account the resistance of gas-air channels





The purpose of such reflux condenser is the partial condensation of water vapor from the vapor mixture that leaving the ammonia still to increase the concentration to the established standard.

The operating principle of the ammonia still reflux condenser is based on difference of condensation temperatures of water and ammonia vapors; and on the negligible solubility of ammonia in water at high temperatures.

#### **Features:**

- Use of a knurling tube to intensify heat transfer
- Possibility of clearing the circulating water surfaces
- Easy cleaning of the heat exchanger





Evaporating and distilling apparatus is widely used for solutions concentrating in various industries (chemical, food, metallurgical, etc.) and for the thermal desalination of water with the production of high-quality distillate. The importance of evaporating apparatus is important in light of the problems of environmental protection from pollution by industrial wastewater. The unit operation principle is based on evaporation of the salt water with following steam condensation.

#### Areas of use:

- Desalinization
- Preparation of feed water for boilers
- Concentration of mineralized technological solutions
- Recycling of secondary energy resources



## **Contacts:**

Pavel Blokhin
CEO
blokhin@reinnolc.com
+7 922 102 26 31
www.reinnolc.com
Russia, Yekaterinburg,
Konstruktorov st.
5 - 436