framatome

HEAT EXCHANGERS TUBES

Unique tube designs for different types of heat exchanger

Challenge

Aside Framatome Montbard's core business manufacturing bent tubes for steam generators, our factory also fabricates straight and bent tubes for nuclear reactors heat exchangers as well as for defense applications.

Solution

The safety injection system (RIS)

The RIS is a backup circuit, whose primary role is to inject cold water into the primary circuit to cool the nuclear core in the event of a leak usually named loss-of-coolant accident (LOCA). It pumps water from a reservoir of boron water and, via a network of pipes, pumps and accumulators.
Thanks to an alloy of 304L stainless steel and 825 alloy, these super-strong tubes retain their superior quality over time. Dimensions range over ext. 14mm and thickness over 1mm.They range in length from 12.1m to 13.6m and are available in straight or U-bent shapes.

Coolant storage and treatment (TEP)

The TEP is a coolant in a nuclear reactor used to remove heat from the nuclear reactor core and transfer it to electrical generators and the environment. Frequently, a chain of two coolant loops are used because the primary coolant loop takes on short-term radioactivity from the reactor.
Thanks to an alloy of 316L stainless steel, these super-strong tubes retain their superior quality over time. Dimensions range from ext. 13.5mm to ext. 21.3mm, and thickness over 1.6mm. They range in length from 2.1m to 4.7m and are available in straight or U-bent shapes.

Customer benefits

- Very low level of residual impurities coming from our separation process
- Complete traceability

Your performance
is **our** everyday **commitment**

Solution

Chemical and volumetric control system (RCV)

The RCV is the primary circuit volumetric and chemical control system directly connected to the primary circuit, mainly via its two charge lines and its discharge line.
This connection enables it to control the water inventory in the primary circuit as well as its pressure, temperature and other conditions.
Thanks to an alloy of 304L / 316L stainless steel, these super-strong tubes retain their superior quality over time. Dimensions range from ext. 10mm to ext. 13.5mm, and thickness from 1.2mm to 2.5mm.They range in length from 3.7m to 12.8m and are available in straight or U-bent shapes.

Liquid waste treatment (TEU)

The TEU is a system that manage radioactive wasted generated during nuclear fuel cycle operation.
Thanks to an alloy of 316L stainless steel, these super-strong tubes retain their superior quality over time. Dimensions range over ext. 48.3mm, and thickness over 1.6mm. They range in length over 5.1m, and are available in straight or U-bent shapes.

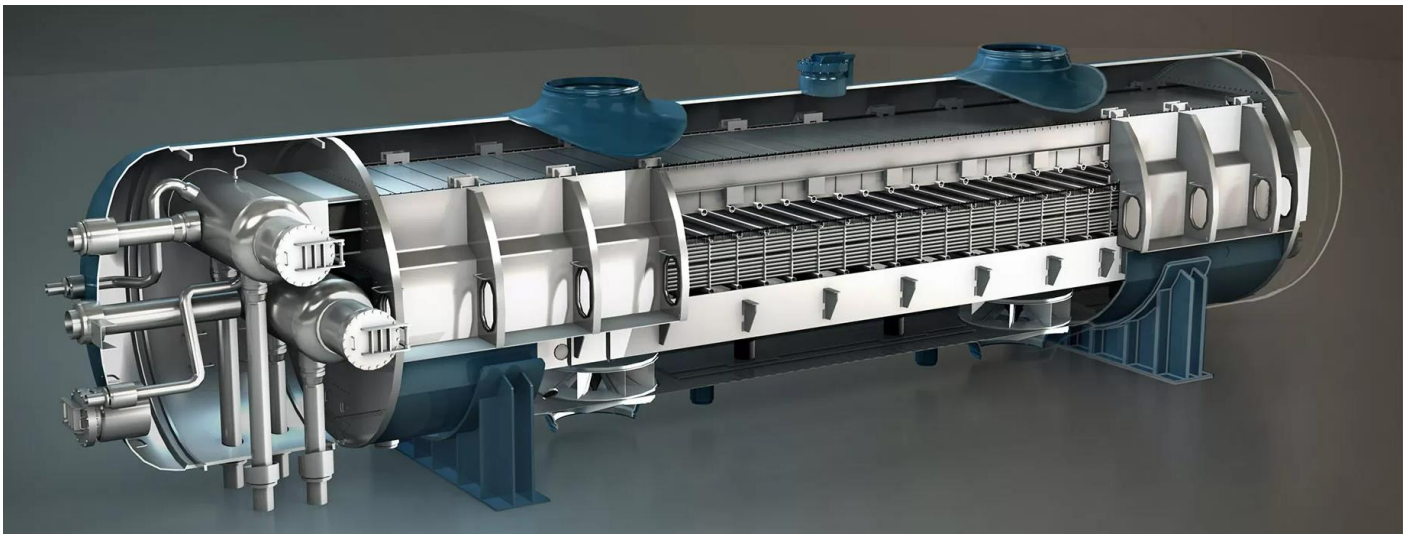
And the others

Thanks to an alloy of 304L / 316L stainless steel and 800 to 825 alloy, these super-strong tubes retain their superior quality over time. Dimensions range from ext. 8.1mm to ext. 19.05mm, and thickness from 1mm to 1.65mm. They range in length from 1.7m to 16.3m and are available in straight or U-bent shapes.

Key figures

3 different types of alloy

Framatome Montbard is the reference supplier for over **30** years



Contact : sales-fuel@framatome.com
www.framatome.com

framatome