

TUBE IN TUBE HEAT EXCHANGERS



- BY DOLPHIN GROUP

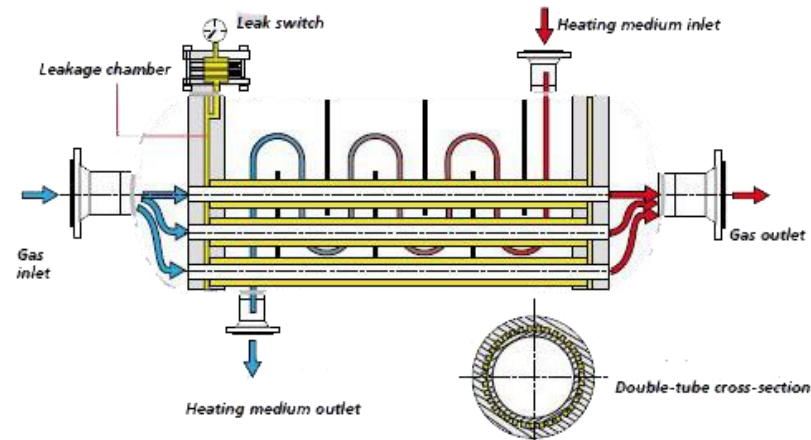
OVERVIEW

- **Tube in Tube Heat Exchangers are used in critical applications**
- **Economic efficiency and safety of products, equipment and the environment are central tasks of process engineering.**
- **The tube in tube technology satisfies both demands: it optimizes heat exchangers in economic and ecological terms.**
- **Tube in Tube heat exchangers are suitable for operating pressures ranging from vacuum to 300 bar high pressure applications and for temperatures ranging from -150°C to more than 350°C .**
- **The headers are generally bolted type to facilitate removal of the covers and access tubes for cleaning.**



WORKING PRINCIPLE

- The cooler is generally installed within the generator and is used to remove the heat of the stator or rotor with air.
- The hot air is then circulated over the fins of the cooler and the heat is transferred from the air to the fin and then from the fin to the water circulating in the tubes.
- The double tube construction ensures that any leakage of water in the inner tube is securely collected in the grooves of the outer tube and channeled to the gap between the two tube sheets.
- The sensors mounted in the void between the two tube sheets will detect any moisture and give indication or alarm in the control panel thus ensuring isolation of the cooler as soon as any leak is detected without the water getting carried into the air.
- Thus catastrophic failures of motors, generators and similar equipment are avoided by the Tube-In-Tube Coolers.



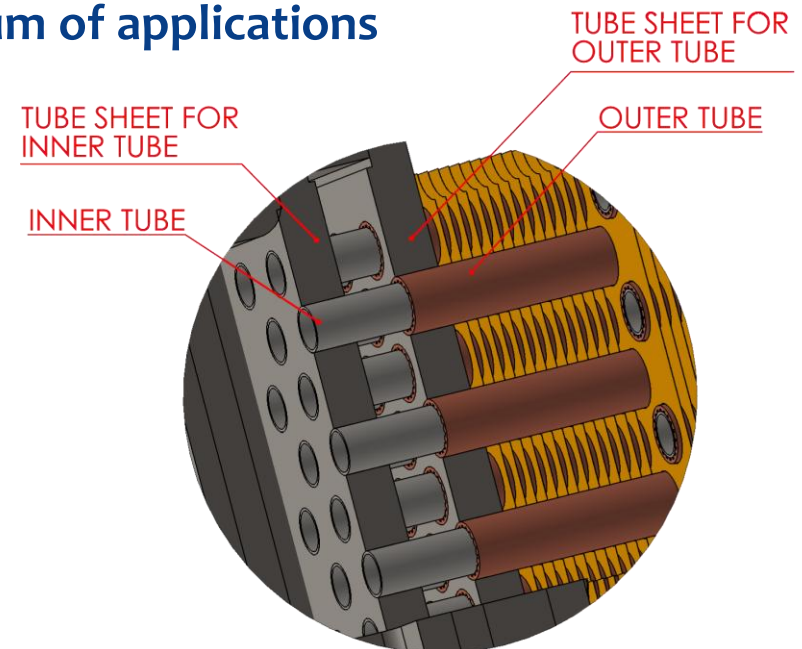
APPLICATIONS



- ✓ TRANSFORMERS
- ✓ POWER STATIONS
- ✓ SHIP ENGINES
- ✓ GENERATORS
- ✓ TURBINES

FEATURES

- Double Wall Leak Detector Tubes
- Flexibility in materials of construction from carbon steel to special alloys
- Wide Pressure range for a large spectrum of applications
- Robust
- Easy Maintenance
- Meets TEMA standards
- ASME U, U2 certified



BENEFITS

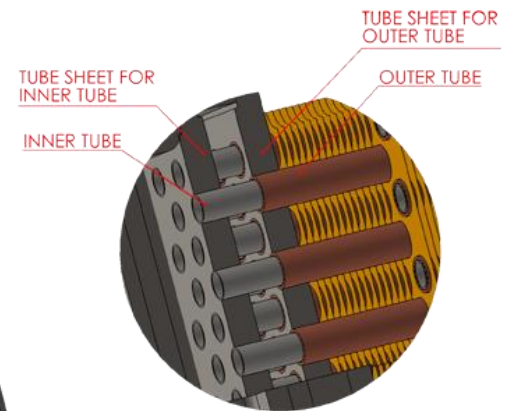
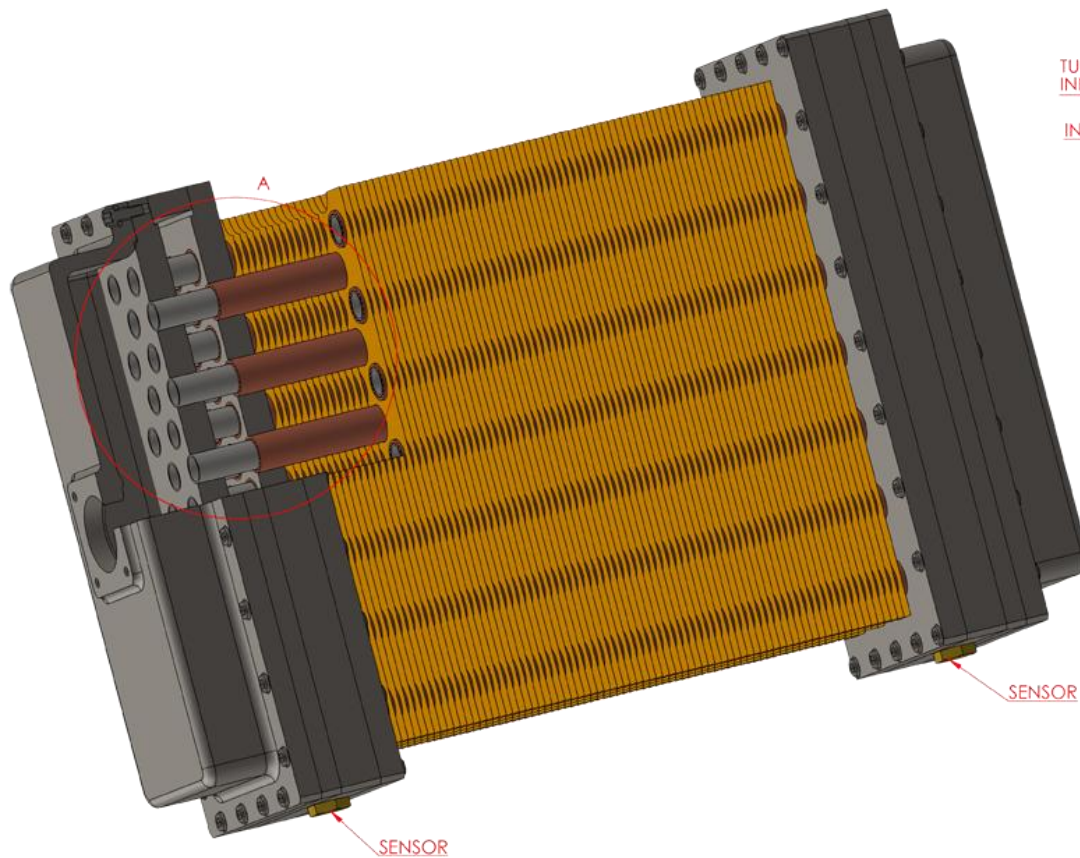
- * *Lowers capital expenditure costs for new plant and equipment*
- * *Simplifies processes and monitoring and reduces load on existing systems*
- * *Reduces operating costs*
- * *Helps achieve savings in energy and input materials*
- * *Technical and constructional improvements have greatly extended the range of potential applications of tube in tube heat exchangers.*
- * *The flexible technology can be used in constructions of different sizes and lengths.*

WHY DOLPHIN ?

- ✓ Latest manufacturing practices and stringent quality control
- ✓ We ensure a high quality product that delivers performance and durability and resulting in trouble free plant operations
- ✓ The coolers can be manufactured with or without ASME Certification (“U” Stamp)
- ✓ Wide Pressure range for a large spectrum of applications
- ✓ Flexibility in materials of construction from carbon steel to special alloys
- ✓ State of the art heat exchanger manufacturing facility
- ✓ The coolers are designed with AHRI Certified Software
- ✓ The performance of these units can be verified with the Wind Tunnel facility available in-house



3D MODEL

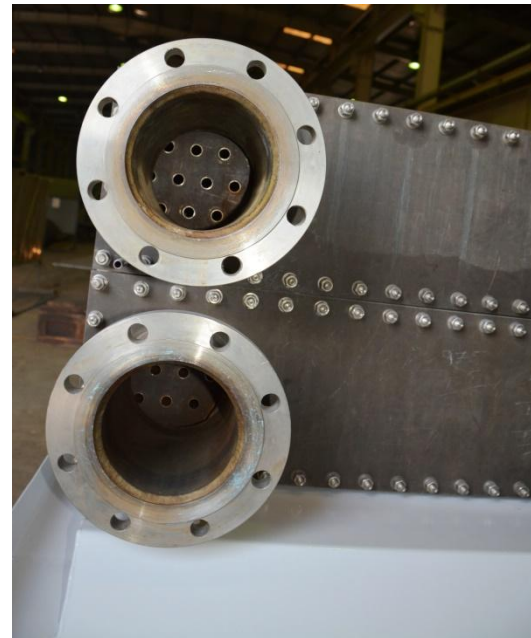


DETAIL A



TUBE IN TUBE

Product Photo



THANK YOU



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Group Website
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