

HEAT EXCHANGERS & COOLERS FOR NUCLEAR POWER APPLICATIONS

Coiltech[®] industrial
heat transfer



A05



HEAT EXCHANGERS & COOLERS FOR NUCLEAR POWER APPLICATIONS

The nuclear power industry is one of the most complex in terms of the technologies used and the quality and administrative requirements it must meet. For these reasons, choosing the right supplier is just as important.

KNOW-HOW AND EXPERIENCE

Modine has extensive knowledge in delivering heat exchangers and coolers for many different industrial applications. This includes products specifically designed for the nuclear power industry. Nuclear power plant (NPP) deliveries require special care to ensure the product meets necessary quality and administrative requirements that go along with the industry.

As a supplier with nuclear industry know-how and experience, we can create the exact heat exchanger package, including all documentation and corresponding sub-suppliers, to meet even the most unique nuclear application needs.

PROJECT MANAGEMENT

Nuclear deliveries are complex, therefore each Modine nuclear project has a dedicated project manager. The project manager coordinates the complex details with sales, engineering and purchasing and also works closely with Modine's quality department to ensure delivery goes as planned.

QUOTATION

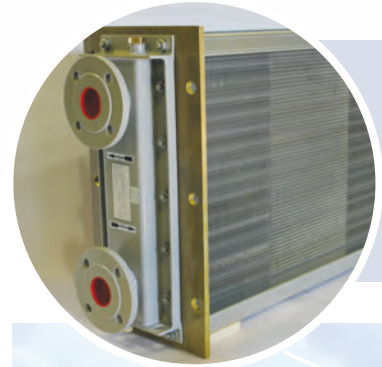
The quotation process for the nuclear industry often involves an extensive review of the requirements and specifications. To facilitate the process, each customer will receive C&Ds, document lists, dimension drawings, data sheets and an inspection and test plan (ITP), so they know exactly what is specified and included in offer.

ENGINEERING

The product's design is customized according to the site specific requirements and conditions. Modine, together with its partners, can validate the products strength calculations in accordance with EN and ASME standards, as well as performing shake tests depending on suitability of the product's design. More extensive load evaluations, for example combined load cases of seismic, wind and snow loads, can also be performed. Project specific calculation reports can be issued according to ASME, EN or any country specific norm.

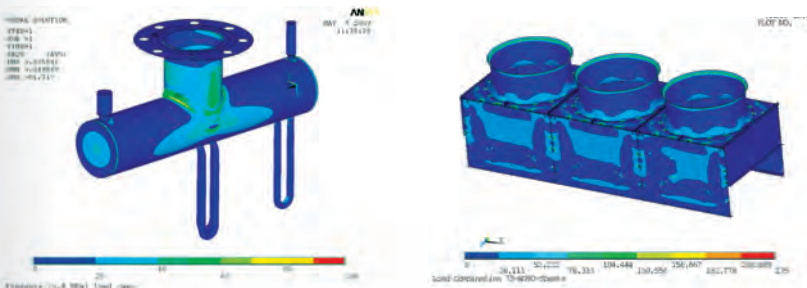
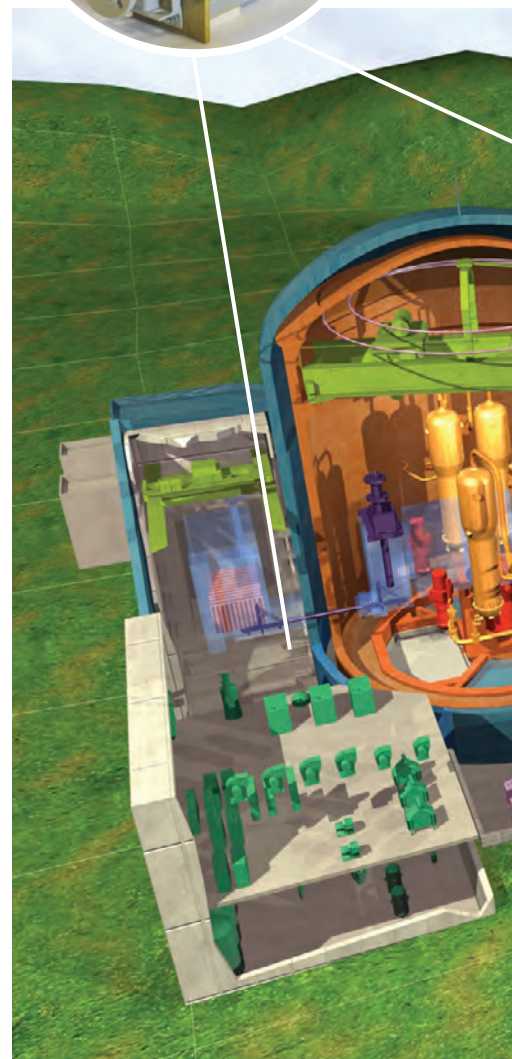
QUALITY ASSURANCE

The manufacturing process is monitored according to the project specific inspection and test plan (ITP) with the option for additional witness and hold points. A pneumatic pressure test is performed on all products. A wide range of NDT and functional checks are also available for other specified qualifications.



MOTOR/GE

- Welding an according
- Coolers can approved f
- Case speci withstand



Advanced FEM-analysis are used for structural verification and risk assessment.

Nuclear power plant overview with examples of Modine delivery

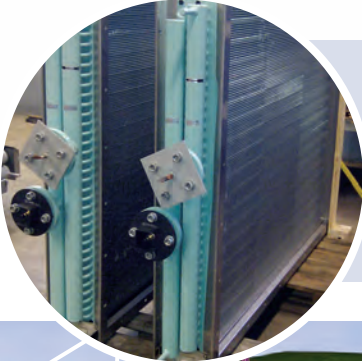
Process flow:

1. Inquiry
2. Review of specifications
3. Quotation
4. Order
5. Pre-approval documentation



GENERATOR COOLERS

and brazing is certified to EN 3834-2. Can be fitted with gaskets for applicable radiation level. Specific reinforcement to nozzle loads.



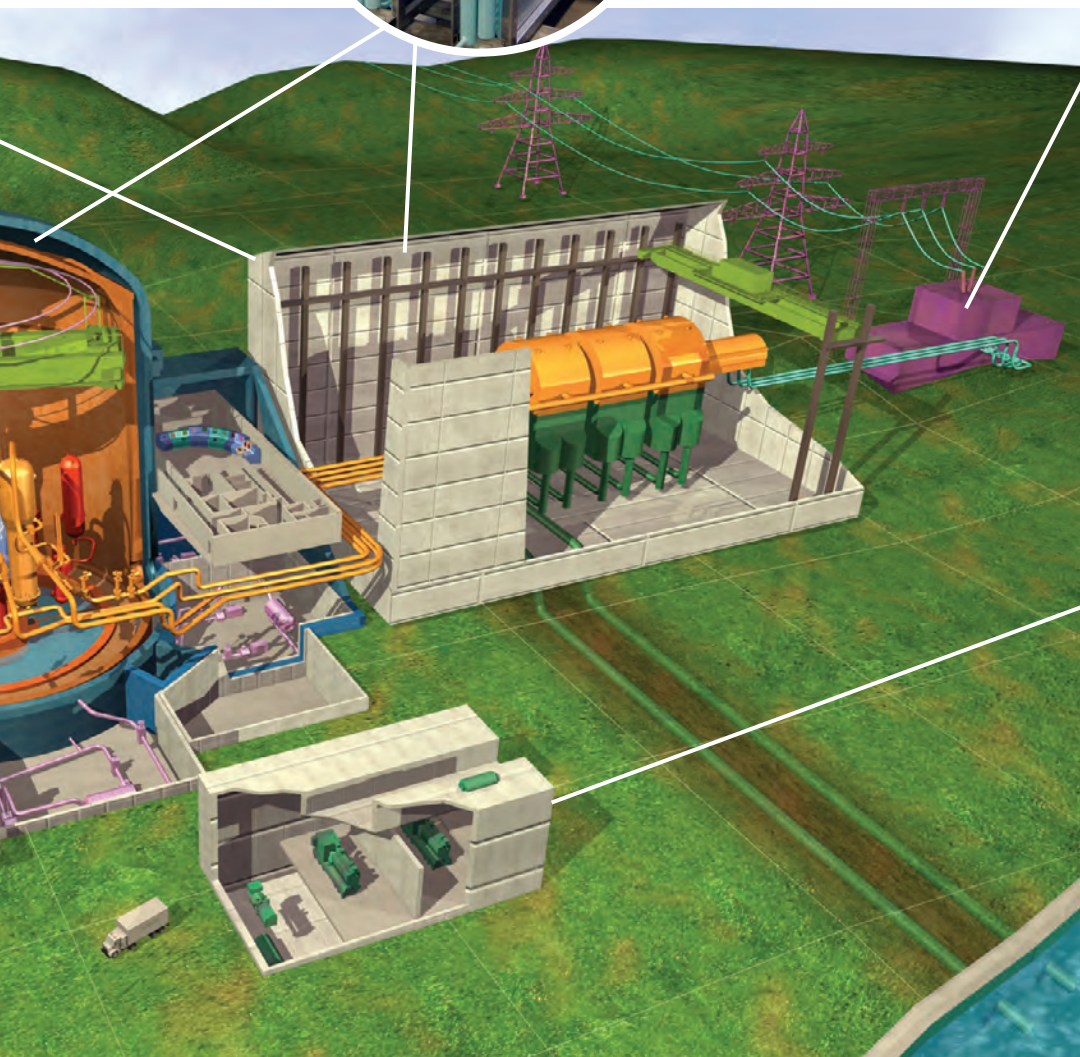
VENTILATION APPLICATIONS

- Can be delivered with 3-rd party approved MT, PT, RT, PM testing etc.
- Nitrogen filling for protection prior to commissioning is standard.
- Wide range of material selection.
- Can be equipped with fan units.



TRANSFORMER OIL COOLERS

- Type BETA & CETA are high performance transformer oil coolers with 1 to 4 fan units.
- Vertical/horizontal mounting.
- Several motor options.
- Special corrosion protection options.
- Carefully cleaned from particles on the inside.



RADIATORS/ AIR BLAST COOLERS

- Wide range of standard sizes: 1200x1200 to 2800x14000 mm (width x length).
Fan: Ø800-Ø1500 mm.
Motor: 50Hz or 60Hz.
- Casing and structural components are reinforced acc. case specific loads.

eries.

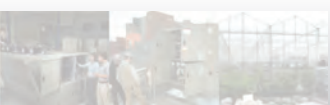
©Areva/Epr

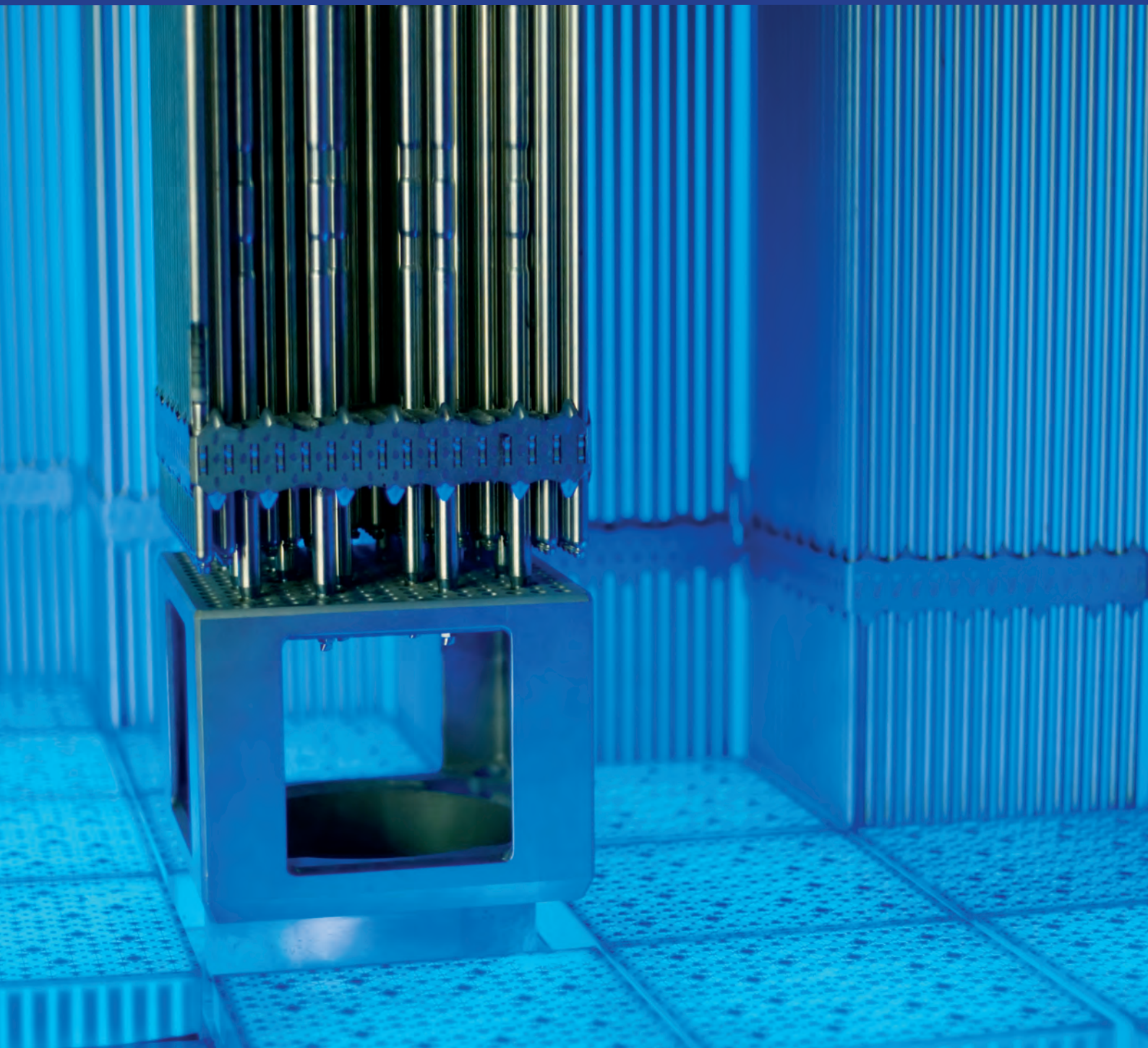
l
ion

6. Manufacturing following ITP

7. Final acceptance test

8. Final documentation





To learn more, visit
www.modine.com

 Follow us @ModineHVAC
 See us at [YouTube.com/ModineHVAC](https://www.youtube.com/ModineHVAC)

NPAC1803A05EP_U

©2018 Modine Manufacturing Co.

About Modine

Modine specializes in thermal management systems and components, bringing highly engineered heating and cooling components, original equipment products, and systems to diversified global markets through its three complementary business units: Vehicular Thermal Solutions (VTS); Commercial & Industrial Solutions (CIS); and Building HVAC Systems (BHVAC).

Modine is a global company headquartered in Racine, Wisconsin (USA), with operations in North America, South America, Europe, Asia and Africa.

Contacts:

Sweden

Industrigatan 2
SE-614 81 Söderköping, Sweden
Tel +46 121.191.00
inquiry-sodese@modine.com

Italy

Via Giulio Locatelli, 22
33050 Pocenia (UD), Italy
Tel +39 0432.772.001

Belgium

Poortakkerstraat 41
B - 9051 Sint-Denijs-Westrem - Belgium

PRC

No. 19 Xin Nan Zhong Road,
Mei Cun, Wuxi New District
Wuxi 214112 Jiangsu
Tel +86 510.8855.3982

USA

PO Box 1457, 1000 Heatcraft Dr.
Grenada, MS 38902
Tel +1 662.229.4116
Fax +1 662.229.2002

