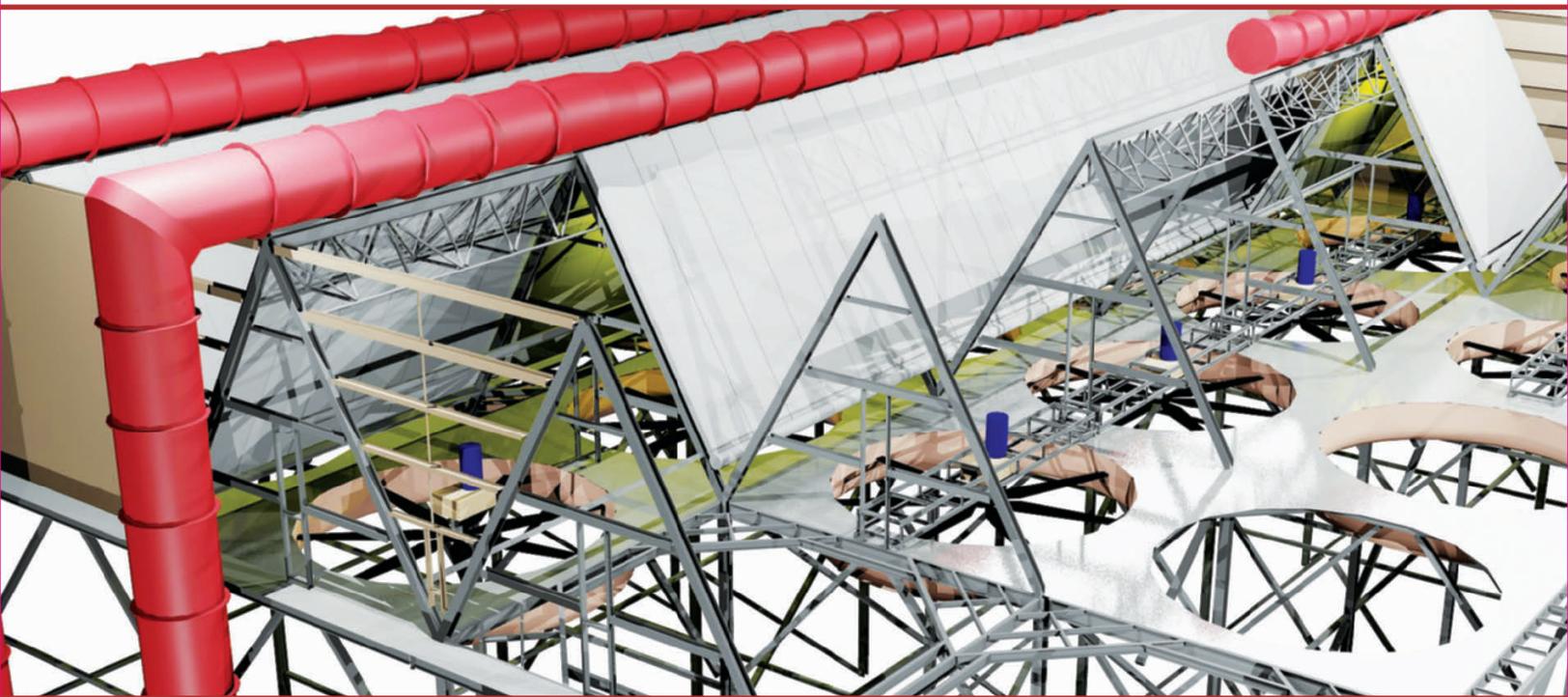




Holtec's Air Cooled Condensers

Heat Transfer Solutions Customized for Your Needs

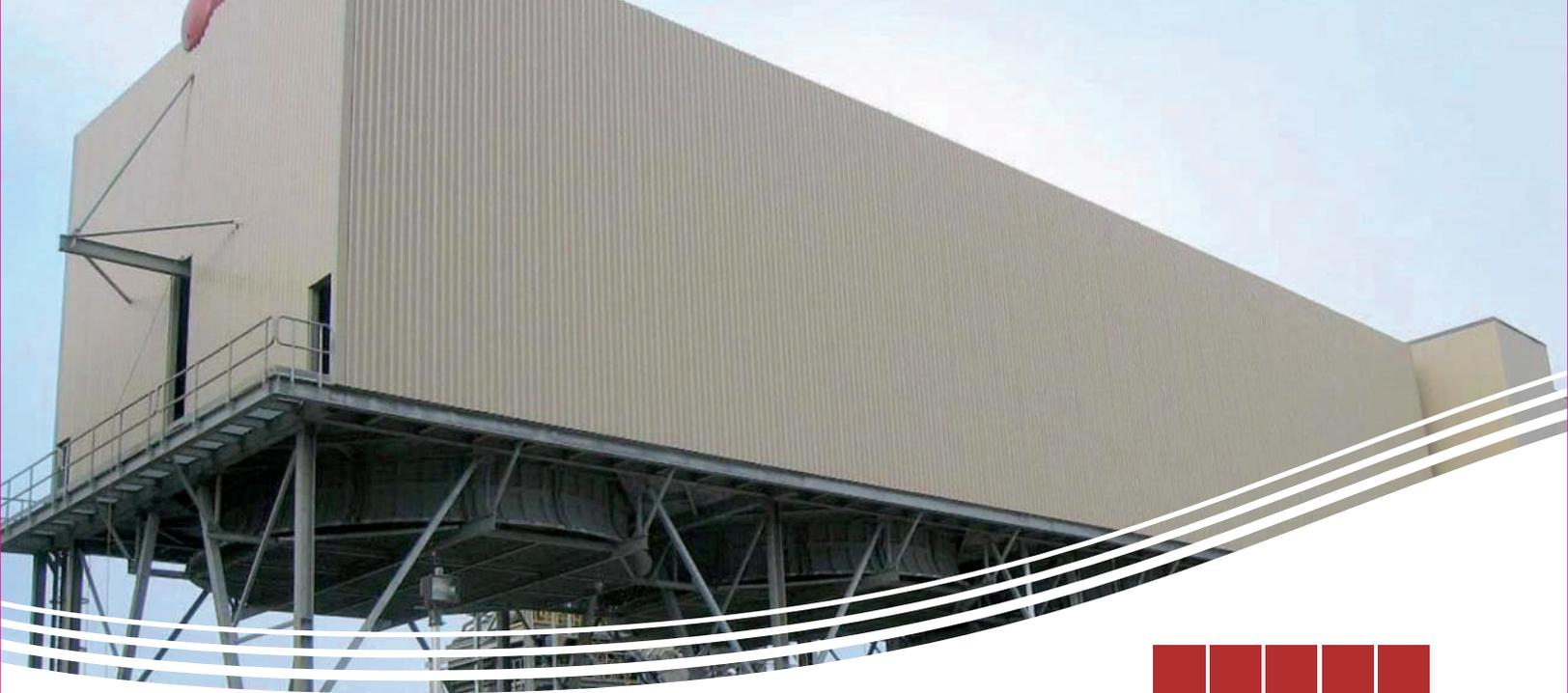


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A GENERATION AHEAD BY DESIGN

Serving the Energy Industry with

Advanced Power Generation Technologies since 1986



Holtec's Air Cooled Condenser product line is designed and fabricated by our innovative team of engineers, who possess an average of 15+ years of experience designing specialized components. – No job is too small, too large, too cold, or too hot for Holtec's engineers; we have successfully done it all.

Worldwide Expertise

Behind any project are the people responsible for the successful implementation and performance of technology.

Holtec's Air Cooled Condenser Group's engineers have successfully designed and deployed over 80 Air Cooled Condenser installations worldwide.

Our engineers have applied dry cooled technology to power plants over a range of outputs up to 1,000 megawatts, from the bitter cold of Alaska to the searing heat of Saudi Arabia.

Culture of Quality

Holtec's strong presence in the nuclear power industry has paved the way for a culture of highest quality, unlike any other Air Cooled Condenser supplier. This nuclear pedigree permeates Holtec's entire organization, ensuring that every construction issue is addressed in the shop, and that in-field fixes are minimized, thereby keeping our clients' projects on-schedule while ensuring optimal system performance.

Standardization

The custom engineering of components is usually the most time consuming part of any Air Cooled Condenser project.

Holtec minimizes this time by pre-engineering the entire Air Cooled Condenser cell, which are designed to accommodate any site erection strategy—from completely stick built to fully modularized construction.

The benefits of Holtec's standardization approach include:

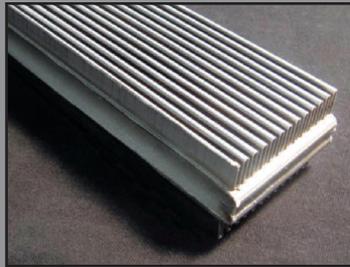
- Reduced lead-times.
- Flexibility in the field during construction.
- Shorter overall project schedules.
- Repetitive cell performance.

HI-MAX Technology

The heart of any Air Cooled Condenser is its heat transfer technology. Holtec developed and patented the next generation of this technology: HI-MAX. Unique to Holtec products, HI-MAX was developed in-house by our engineers, using their extensive technology expertise and knowledge of the industry.

The benefits of HI-MAX are significant:

- Higher steam side carrying capacity for improved performance.
- Smaller Air Cooled Condenser plot area saves valuable space.
- Ability to use carbon or stainless steel tubes for added reliability.



The geometry and materials of HI-MAX are selected based on extensive FEA analysis and an exhaustive array of tests, verified by CFD modeling.

Holtec's analytical capabilities are unmatched in the industry. The CFD guidelines used in the design verification of HI-MAX are the same used to meet the strict licensing requirements of the US Nuclear Regulatory Commission (USNRC) when evaluating Holtec's nuclear used fuel storage product line.

Manufacturing

Holtec's new manufacturing plant in India produces HI-MAX fin tubes, and assemble them into bundles using techniques that ensure quality, performance, and cost competitiveness. Holtec's manufacturing process is designed with the flexibility to produce HI-MAX heat transfer surface using either carbon steel or stainless steel core tubes, enabling Holtec to meet economic constraints and ensure reliability for any application.

Parallel Condensing

Holtec is one of few companies in the world able to design and supply Water Cooled Condensers as well as Air Cooled Condensers. As such, Holtec is in the ideal position to strategically combine both technologies into a single system: Holtec's Parallel Condensing System. This system is the optimum solution for sites challenged by a limited amount of cooling water. By operating water cooled and air cooled technologies in parallel, Holtec is able to design systems that optimize the use of what little water is available.

Benefits of Holtec's Parallel Condensing System include:

- Performance above that of an all dry system at high ambient conditions.
- Capital costs are significantly less than all dry systems.
- Significant water savings over an all wet system.
- Elimination of cooling tower plumes in winter months.

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*For more information on Holtec's Air Cooled Condensers,
contact Tom Tarnok, at +1 619 488 9160 or t.tarnok@holtec.com.*

Our Mission

To dedicate ourselves to developing technologies that protect public health and safety and provide the utmost protection to the workers who use the structures, systems, and components provided by us.

To maintain our corporate focus on developing technologies that help protect the environment by producing pollution free energy.

To treat every project as a solemn undertaking in which on-time performance and superb quality of goods and services are non-negotiable requirements. We will continue to build on our reputation for rock solid performance.

To expect unimpeachable integrity from our associates in all of our dealings with clients and the regulatory agencies governing our products and services.

To remain committed to fostering a stimulating work environment wherein every company associate has the opportunity to realize his or her professional potential to the maximum extent.

To remain a learning organization—forever striving for a higher plateau of excellence.



Holtec
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Key Facts

- Holtec designed and supplied components to more than 70% of the nuclear power plants worldwide.
- Holtec is a vertically integrated organization possessing in-house capabilities to design, engineer, analyze, license, fabricate, perform on-site construction, and deploy the products offered by the company. Included in this vertical integration is the capability to supply our own critical materials for fabrication (specifically Metamic® and Metamic-HT® neutron absorber material).
- Holtec has supplied over 100 condensers to clients worldwide since 1986.
- Holtec's Manufacturing Division (HMD) is one of the largest manufacturers of nuclear and American Society of Mechanical Engineering (ASME) code components in the USA. Additionally, HMD is among America's largest exporters of capital equipment for the nuclear industry.
- Holtec's core R&D team has secured more than 30 patents in key areas of power plant technology systems and solutions.
- 80% of the nuclear power plant spent fuel pools in the USA have been analyzed by Holtec's Technical Services Division (TSD).
- Holtec's Nanotec Metals Division (NMD) is an established supplier of the neutron absorber material Metamic® (Classic), and its nanotechnology-based high strength cousin Metamic-HT®, for the nuclear power industry. Metamic-HT® is the nuclear industry's first nanotechnology-based material licensed by the US Nuclear Regulatory Commission (USNRC).

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