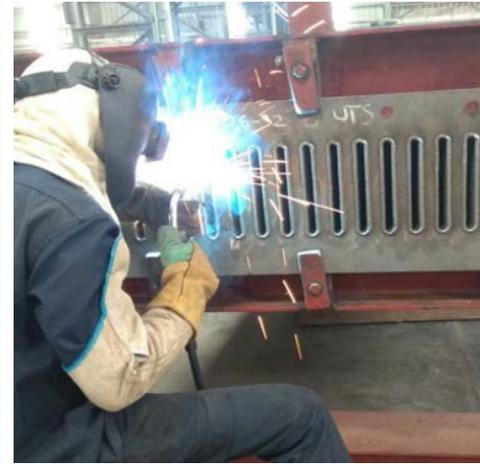




HOLTECASIA



Delivering Turnkey Equipment and Innovative
Technology Solutions to the MENA Region and Beyond
www.holtecasia.com

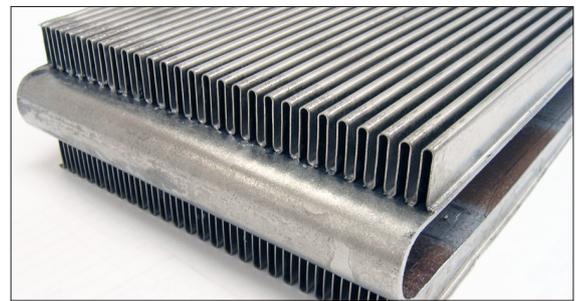
Holtec Asia was established in 2010 as a wholly-owned subsidiary of Holtec International. Holtec Asia is a vertically-integrated company of engineers and manufacturing experts that provides state-of-the-art technologies to the solar, petrochemical, geothermal and fossil power industries. Incorporated under the laws of the Republic of India, Holtec Asia's engineering facility in Pune, Maharashtra was initially established to support the efforts of its US-based parent company.

Supporting the "Make in India" initiative, our operational center of excellence serves the Asia, Middle East and North Africa regions and beyond. Due to the exponential demand for innovative heat transfer solutions in the Middle East and North Africa region, Holtec Asia quickly grew into an engineering and manufacturing powerhouse.

Holtec Asia's Precision Fabrication Systems manufacturing plant in Dahej opened in 2017. This facility fabricates state-of-the-art technologies, including Holtec's Air-Cooled Condensers and other Heat Transfer equipment to support the solar, petrochemical, geothermal and fossil power industries worldwide. Holtec Asia's engineers specialize in the areas of Mechanical Design, Applied Mechanics, Fluid Mechanics, Heat Transfer and more.

Air-Cooled Condensers

Holtec's Air-Cooled Condenser systems (ACCs) feature transformative air-cooling technology that ends reliance on large quantities of cooling water by rejecting waste heat. Featuring space-saving modular components, these proven technologies reduce construction and maintenance costs, and root out operational problems typically present in cyclical, load-following power plants.



Holtec's engineers utilize Computational Fluid Dynamics to predict thermal-hydraulic performance, Finite Element Analysis to study fatigue effects, and Dynamic Structural Analysis to define the effects of wind loading and earthquakes on ACCs. These computer models predict the system's performance under extremely hot and extremely cold ambient conditions with high reliability.



HI-MAX

Holtec's HI-MAX (Holtec International MAXimum reliability) features finned metallic obround tubes integrated into a fully modularized structure for ease of erection. Its strength-bonded aluminum fins achieve maximum service life and condensate purity. The thickness, height and spacing of the fins have been optimized using state-of-the-art computational fluid dynamics codes to provide maximum fin efficiency for air flow parameters.

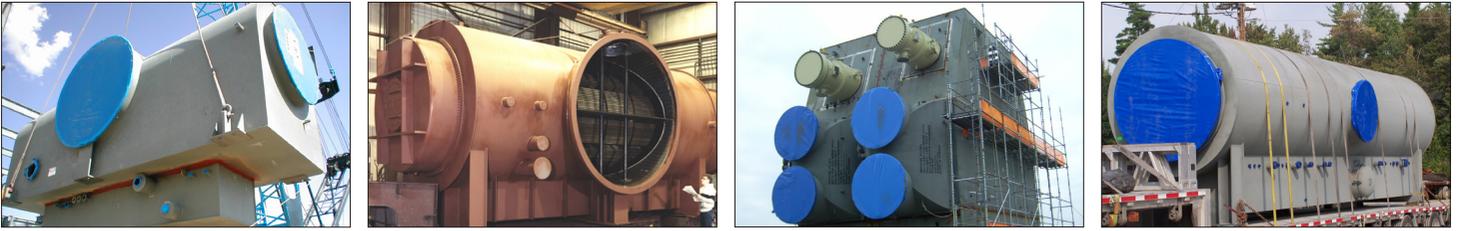


HI-KOOL

HI-KOOL, available in carbon-steel or stainless-steel, represents a transformative shift in the technology to reject waste heat to ambient air. The coolant ambient air is pulled across the obround finned tubes by the overhead blower, extracting the latent heat from the low-pressure steam flowing inside the tubes. HI-KOOL incorporates numerous design enhancements that allow for ease of construction, reducing assembly times. Additionally, it has a relatively low profile; it is least 30 feet shorter in elevation than a typical "forced draft" air-cooled condenser.



Water-Cooled Steam Surface Condenser



Holtec fabricates water-cooled steam surface condensers that are custom-designed for a variety of configurations. This includes cylindrical, inverted “U,” rectangular, axial exhaust, down exhaust, single or multiple pressure, single or multiple shell, divided or non-divided waterbox. These reliable and high-performing condensers feature proper steam distribution, optimized steam lanes in the tube layout, efficient collection of non-condensable gases in an optimally sized and located air-cooling zone, stripping of the dripping condensate to minimize oxygen content in the hotwell, leak-tight tubesheet joints and modular construction to minimize field erection. Holtec’s water-cooled steam surface condensers can also be used in parallel with our air-cooled condensers.

Feedwater Heaters

Holtec’s custom feedwater heater solutions are offered in a wide variety of configurations, such as horizontal, vertical, channel up, channel down, one zone, two zone, three zone or duplex. High pressure heater channel closures can be cup forged with bolted covers, pressure seals, breech locks or hemi-head/manways. Holtec’s custom software, based on operational performance experience, has the capability to analyze each zone to ensure an optimum performance configuration.

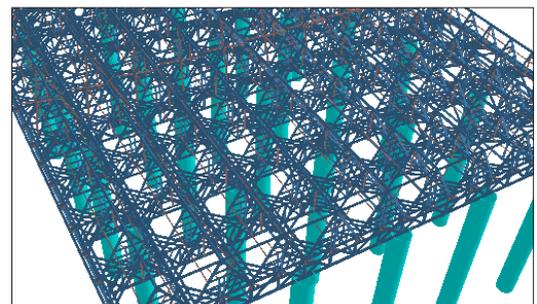


Heat Exchangers

Holtec’s auxiliary heat exchangers are designed to eliminate flow induced vibration, minimize shellside and tubeside the risk of pressure drop, fit in the allocated space and render expected performance at all operating scenarios. Types of heat exchangers offered by Holtec include regenerative, letdown reheat, moderating, seal water cooler, fuel pool cooler, control rod drive cooler, residual heat removal, containment spray, component cooling and more.

Engineering and Consulting

Holtec Asia’s engineers specialize in Mechanical Design, Applied Mechanics, Fluid Mechanics, Heat Transfer, and more. Our engineering experts collaborate with Holtec’s worldwide subsidiaries to develop new, cutting-edge technologies. Holtec’s extensive experience as a leading engineering services company uniquely positions us to provide the best and most cost-effective solution through innovative engineering, design, and consulting services.



Our Mission

- To support the “Make in India” initiative by providing innovative technology solutions to the regions of Asia, Middle East, North Africa and beyond.
- To develop technologies that protect public health and safety, and provide the utmost protection to the workers who use our structures, systems and components.
- To maintain our corporate focus on developing technologies that help protect the environment by producing pollution-free energy.
- To continue to treat every project as a solemn undertaking in which on-time performance and superb quality of goods and services are non-negotiable requirements.
- To expect unimpeachable integrity from our associates in all of their dealings with clients, vendors and regulatory agencies.
- To foster a stimulating work environment wherein every 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.

Key Facts

- Holtec is a vertically-integrated organization possessing in-house capabilities to design, engineer, analyze, license, fabricate and perform on-site construction.
- Holtec has a global presence with operation centers located in 10 countries around the world.
- Holtec’s engineers helped develop the modern ASME Code, HEI and TEMA standards for design and construction parameters for shell and tube heat exchangers, water-cooled and air-cooled condensers.
- Holtec has four manufacturing facilities (one in India and three in the U.S.) covering nearly 1.5 million square feet of manufacturing floor space.
- Since its founding in 1986, Holtec has maintained a solid record of consistent profitability. Today, Holtec has a bonding capacity of \$100 million and a platinum credit rating.
- Holtec has been granted over 100 patents in areas of equipment design, fabrication processes and materials.
- Holtec Manufacturing Division (HMD) is one of America’s largest exporters of capital equipment for the nuclear industry. It is also among the largest manufacturers of ASME Code components.



Culture of Quality

Holtec Asia operates under Holtec’s International’s Corporate Quality Assurance, Safety and Corporate Governance Programs. This ensures the high quality of deliverables, superb personnel safety metrics, and a clean and transparent corporate culture. The completeness and effectiveness of these programs have been approved by regulators and clients.

As Holtec Asia grows and expands its services, we look forward to revolutionizing technologies that provide client satisfaction and protect the environment.

For more information on Holtec Asia , please visit www.holtecasia.com.

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