



Process Equipment Division

Your Global Partner for Complex and Critical Process Equipment



The Isgec Advantage: Engineering Certainty

With a legacy spanning over 90 years, Isgec has established itself as a premier OEM for the world's most demanding energy and fertilizer manufacturers. We deliver Engineering Certainty through technical expertise and a proven track record of high-complexity fabrication that few in the world can execute.

From intricate metallurgy to massive, over-dimensional units, we ensure every complex design is engineered with absolute precision.

We understand the high stakes of critical infrastructure, ensuring delivery on time and to exact specifications.

At Isgec, we partner with you to power the future.



World-Class Manufacturing & Material Mastery

Capacity & Scale

200 exchangers (11,000 Tons) per annum capacity with specialized bays handling equipment weights up to 250 MT

Technical Compliance

Equipment designed and fabricated as per international codes and standards- ASME, EN, Gost, TEMA, HTRI, HEI, FEA and tested by most sophisticated techniques such as TOFD, PAUT, Radiography, Helium leak detection

Advanced Metallurgy

Mastery in fabricating a wide spectrum of metals including :

- Low alloy steels
- High Nickel alloys including Monel and Inconel
- Duplex & Super duplex Stainless steels
- Non-Ferrous material such as Cupronickel and Brass

Specialized Machinery

Water jet cutting and bundle Insertion machines, gun drills for drilling depth upto 40 inches, and an HBM (49 ft × 16 ft × 8 ft). Elaborate machining facility to complement fabrication and welding including major ones such as

- 06 CNC Drills. max thickness- 40 inches
- 19 CNC Horizontal Boring Machines up to 7 Axes
- 06 CNC Vertical Boring Machines
- 04 CNC Milling Machines
- 03 Plano Millers – up to 7 Axes
- 05 CNC Turning Lathes – 33 ft between centers × 4 ft swing
- Water Jet Cutting & Underwater Plasma Cutting



Heat Treatment

Equipped with several heat treatment furnaces including modular furnaces to handle large equipment

- Max Length 92 ft
- Max Temp 1922° F

Quality Control

Our well-equipped, ISO/IEC 17025 accredited lab uses sophisticated equipment for destructive, non-destructive testing and chemical testing of weld and parent metals managed by ISO 9712 and ASNT Level III/II experts. Facilities include laser scanning and remote inspection of equipment.



The Isgec Advantage



Advanced Welding Capability

- >2500 PQRs for wide spectrum of weld joints
- 300+ ASME & EN qualified welders
- Advanced welding processes such as
 - Internal Bore Welding
 - Orbital auto TIG Welding
 - Laser Welding
 - Mechanized TIG Welding
 - ESSC Weld Overlay



Engineering Capabilities

- Exchanger Design
 - Thermal Design
 - Mechanical Design
 - Vibration Analysis
- Pressure Vessel
 - Mechanical Design
 - Seismic Analysis
 - Structural Design
- Finite Element Analysis
- Codes & Standards
 - ASME
 - EN 13445
 - PD 5500
 - AD Merk Blatter
 - TEMA
 - GOST

Proprietary & Licensed Equipment



Our Technology Partners



Lummus Technology

Helix Exchanger®, Helitower®, and
Reactor Feed Effluent (IBW)
Exchangers



TEI, USA

Screw Plug Heat Exchangers



Amec FW

High-Pressure and Low-Pressure
Heaters

Product Portfolio

We engineer and manufacture a diverse range of shell & tube heat exchangers of TEMA class including special configurations such as Helix Baffle exchangers and high-pressure screw plug closure type heat exchangers, waste heat boilers, reactors, pressure vessels and steam drums.

Refinery & Petrochemical

- Screw Plug Closure type high pressure heat exchangers
- Reactor Feed/Effluent Heat Exchanger
- Cycle Gas Coolers and PVC Reactor Condenser
- Helix Exchangers
- All TEMA type Heat Exchangers include High-Pressure and Medium-Pressure units
- CCR Reactors, NHT Reactors, PVC Reactors
- Cold and Hot Separators

Breach Lock Closure Type Heat Exchanger



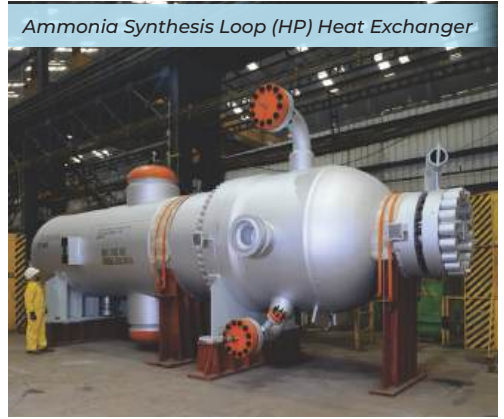
Fertilizer Sector

- Ammonia synloop heat exchangers (high pressure) units such as gas- gas exchangers, BFW Preheaters, water coolers and hot gas exchangers
- LP & MP Decomposers for Urea plants

MP Decomposer for a Fertilizer Plant



Ammonia Synthesis Loop (HP) Heat Exchanger



Hot Gas Exchanger



Reformed Gas Boiler



Power Sector

- High-Pressure and Low-Pressure Feed Water Heaters (AMEC FW design)
- Boiler Steam Drums

Boiler Steam Drum



HP Feedwater Heater for a 660 MW Power Plant



Global Reach

Delivered high-performance equipment globally



Major Customers



Major Projects



CCR Reactor



HP Heat Exchanger



Kettle Type Heat Exchanger

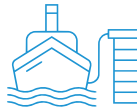
Global Reliability

Seamless Export Logistics



Inland to Ocean

Proven multimodal transport experience from our inland works to major ports



Coastal Gateway

Our Dahej facility features a Private Ro-Ro Jetty, eliminating inland transport constraints for Over-Dimensional Consignments



FOB/CIF Expertise

Experienced in international Incoterms with a track record of successful deliveries to major U.S. ports, including Houston and New Orleans

Project Management & Transparency



Time-Zone Coordination

Dedicated Project Managers aligned with North American work hours



Real-Time Reporting

Weekly progress updates and Non-Destructive Testing reports to keep your schedule on track



TPI Ready

Regularly working with Third-Party Inspection agencies including Lloyd's, BV, and SGS

Reactor Feed Effluent Heat Exchanger



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