



# Process Equipment

Specialised and Critical Shell & Tube Heat Exchangers  
for Refineries, Fertilisers, Petrochemicals & Power Plants

*Cycle Gas Cooler  
for a Petrochemical Project, USA*



ENGINEERING FOR EXCELLENCE





Isgec Heavy Engineering Ltd., is a multi-product, multi-location public company that has been providing engineering solutions to customers located in 90+ countries across 6 continents, over the past 85+ years.



Joint Venture with Hitachi Zosen Corp., Japan for the manufacture of Specialised & Critical Process Equipment for Refineries, Fertiliser, Petrochemical & GTL Industries, across the world. The plant is located at Dahej, Gujarat, India.



Joint venture with TITAN Metal Fabricators, Camarillo, CA USA to manufacture corrosion-resistant process equipment and provide the next generation of reactive alloy equipment to global customers in the Chemical, Petrochemical, Refinery, Fertiliser, Mining, Power, Pharmaceutical, and Steel Industries.

## PRODUCT RANGE

### For Process Plants

(Refinery, Petrochemical, Fertiliser, Renewable Energy)

- Process Gas Waste Heat Boiler including Steam Drum and Auxiliaries
- Breech-Lock Type High Pressure Heat Exchangers
- High Pressure Shell & Tube Heat Exchangers in:

- |                                |                    |
|--------------------------------|--------------------|
| - Low Alloy Steel              | - Stainless Steels |
| - Duplex & Super Duplex Steels | - Cupro Nickel     |
| - Inconel                      | - Brass            |

- Helix Heat Exchangers

- Ammonia Synthesis Loop High Pressure Shell & Tube Heat Exchangers

### For Power Plants

- HP Feedwater Heaters
- LP Feedwater Heaters
- Water Cooled Surface Condensers
- Boiler Drums

- Site Fabricated Equipment

- Insitu modification & repair of Critical Equipment at site (Packinox Heat Exchanger, Breech Lock overhauling etc.)

Breech Lock Closure Type Heat Exchanger for a Refinery in India



M P Decomposer for a Fertiliser Plant, India



Process Gas Waste Heat Boiler for NPL, India





## STRATEGIC PARTNERSHIPS

- **Amec Foster Wheeler (part of Wood Group):** Licensing Agreement for manufacturing of HP & LP Feedwater Heaters & Condensers.
- **TEi (formerly Struthers Wells, USA):** Licensing Agreement for manufacturing of Breech Lock Closure Type Heat Exchangers, Waste Heat Recovery Boilers, Sulphur Condensers, Solar Thermal Heat Exchangers.
- **CB&I Technology Inc., USA:** Technology backup for Helix Heat Exchangers.

## ACCREDITATIONS

- ASME 'S' 'U' & 'U-2' Stamps
- National Board, USA 'R' Symbol
- National Board, USA 'NB' Mark
- ISO 9001 : 2015
- ISO 14001 : 2015
- ISO 45001 : 2015
- OHSAS 18001 : 2009
- CE Marking
- Chief Inspector of Boiler (IBR)
- GOST

## INFRASTRUCTURE

- Cold Rolling Capacity: 250 MM
- Grit Blasting and Painting Room
- Deep Hole Gun Drill Machine (up to 1000 mm depth)
- Water Jet Cutting Machine
- Automatic Tube Bundle Inserter
- ESSC Strip Cladding
- PWHT Furnace
- Intermediate Tube to Tube Sheet joints Expansion
- Single Piece Equipment handling Capacity: 400 MT
- Inner Bore Welding
- Automatic Tube to Tube Sheet joints Welding

## APPROVALS

- |                        |                |
|------------------------|----------------|
| • Haldor Topsoe        | • IOCL         |
| • KBR                  | • McDermott    |
| • Toyo                 | • Saipem       |
| • Casale               | • Exxon Mobil  |
| • Engineers India Ltd. | • BP           |
| • Shell                | • ThyssenKrupp |

Helix Heat Exchanger Tube Bundle



High Pressure Ammonia Synthesis Loop Heat Exchanger for a Fertilizer Plant, India



HP Feedwater Heater for a 660 MW Power Plant, India







Heli Tower



Steam Drum

### SOME OF OUR PRESTIGIOUS CLIENTS

Air Liquide, USA	Gujarat State Fertilizers & Chemicals Ltd., India	PDO, Oman
Air Products Thai Oil, Thailand	Hindustan Petroleum Corp. Ltd., India	Qatar Petroleum, Qatar
Bharat Petroleum Corp. Ltd., India	HMEL, India	Rashtriya Chemicals & Fertilizers Ltd., India
Brahmaputra Fertilizer, India	Indian Oil Corporation Ltd., India	Reliance Industries Ltd., India
Braskem Idesa Servicios, Mexico	IFFCO Ltd., India	Shell
Burrup Fertilizer, Australia	JGC, Japan	Samsung, Korea
British Petroleum	KBR, USA	Saipem, Italy
Casale, Switzerland	Kribhco Ltd., India	Siemens Ltd., India
Canada Natural Resources, Canada	Linde, Germany	SABIC, Saudi Arabia
Chambal Fertilizers & Chemicals Ltd., India	Lurgi, Germany	Toyo, Japan
Chennai Petroleum Corp. Ltd., India	Maire Tecnimont, Italy	Technip Energies, Abu Dhabi, UAE
Daelim, Korea	McDermott (CB & I)	ThyssenKrupp Uhde, India
ExxonMobil, Thailand	National Fertilizers Ltd., India	Tecnicas Reunidas, Spain
Engineers India Ltd., India	Nuclear Power Corporation of India Ltd., India	Total, France
Fluor	NTPC, India	Toshiba India Pvt. Ltd., India
GE	PDIL, India	Wood, USA
GNFC Ltd., India	Petrofac, UAE	

HP Heat Exchanger for a Refinery in India



HP Synloop Heat Exchanger



350 MT, Heat Exchanger for a Indian Refinery





## Site Fabricated Columns



*Site Fabricated Reactors*



*Site Fabricated Purge Bin*

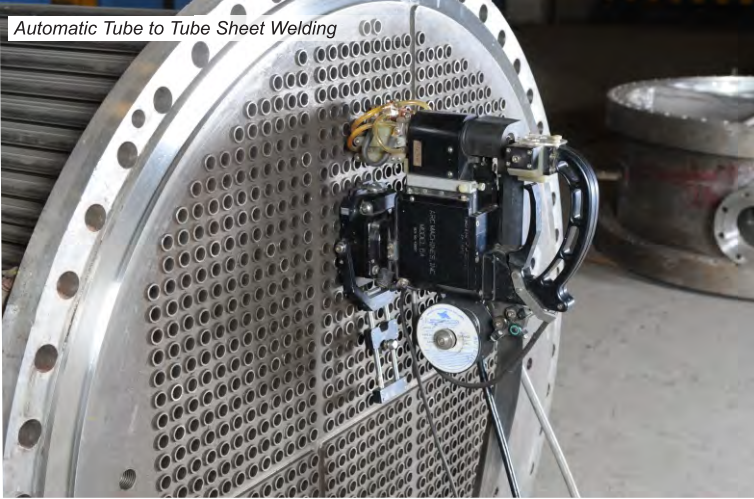
*Site Fabricated fully dressed Column  
for an Indian Refinery*





## TESTING FACILITIES

- Radiography
- Helium Leak Testing
- PAUT / TOFD
- Positive Material Identification (PMI)
- Impact Testing down to -196°C (-321°F)
- Tensile Testing
- Hydro Test Pressure up to 650 Kg/Cm<sup>2</sup>
- NABL Approved Lab
- IGC Testing
- Hardness Testing
- Magnetic Particle Testing
- Dye Penetrant Testing
- Ferritoscope
- Tube to Tube Sheet Joints RT & UT



## OTHER ISGEC OFFERINGS

EPC Projects • Boilers • Sugar Plants & Distilleries • Air Pollution Control Equipment  
Presses • Castings • Bulk Material Handling • Contract Manufacturing



ISGEC HEAVY  
ENGINEERING LTD.

Marketing

E-mail: [pedsales@isgec.com](mailto:pedsales@isgec.com) [www.isgec.com](http://www.isgec.com)

Works

Radaur Road, Yamunanagar (Haryana) India - 135 001