



Manufacturing

# Manufacturing



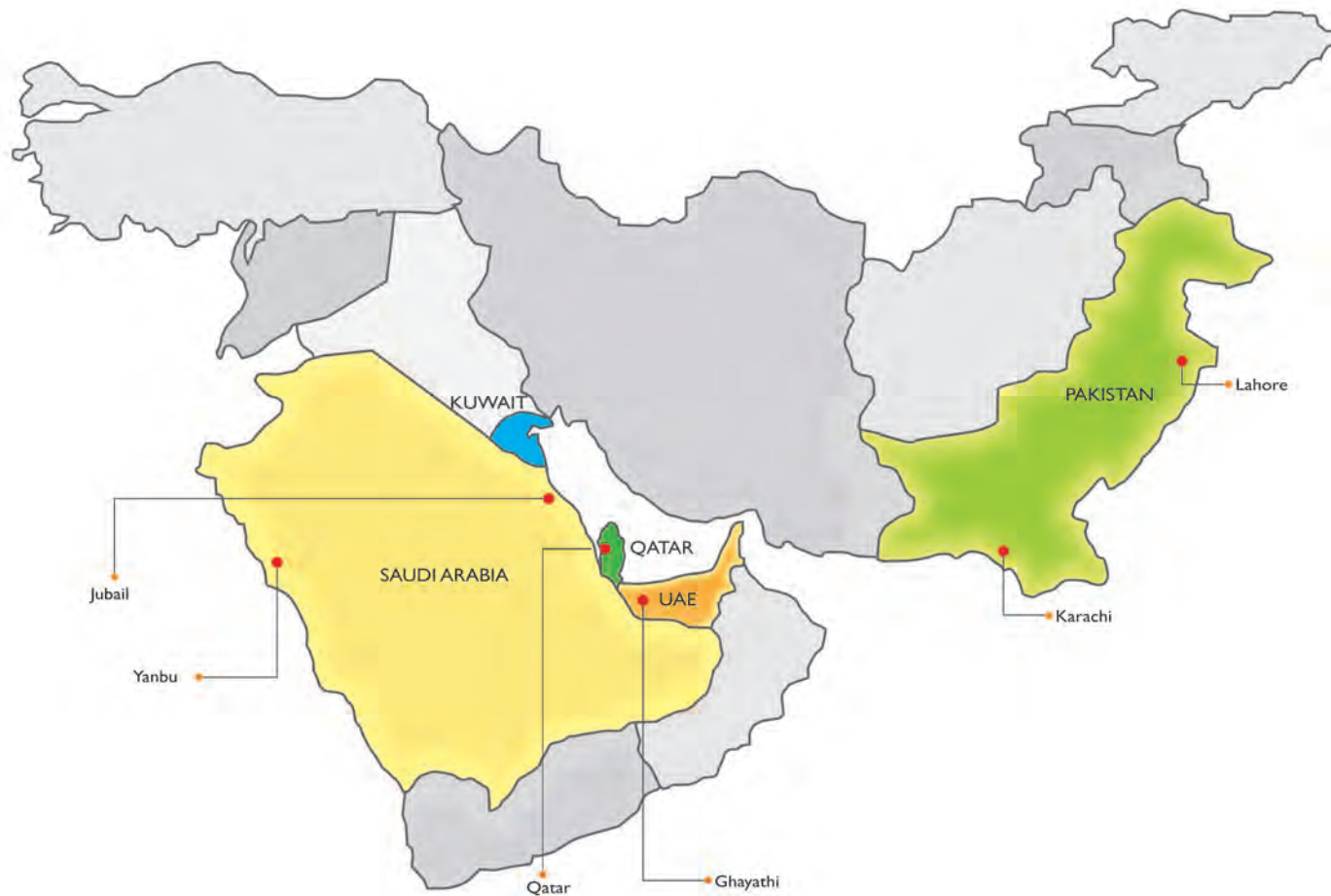
## Our Value Proposition

With over 30 years of engineering, procurement, construction, manufacturing and project management experience, alliances with the world's leading process equipment technology developers and multiple state-of-the-art fabrication facilities, Descon delivers high quality process equipment solutions at the most competitive prices.





## Manufacturing Facilities



Our strategically located workshops give us an opportunity to serve our customers with cost effective and on time solutions.



## Descon Engineering

Since its inception in 1977, Descon Engineering Limited has evolved into a leading engineering company serving various industrial sectors in the Middle East and Southeast Asia. With major operations in Pakistan, Qatar, Kuwait, Saudi Arabia, and the United Arab Emirates, a workforce of over 38,000, extensive equipment resources, and a history of executing large-scale construction and manufacturing projects, Descon is widely recognized as one of the most trusted names in the engineering industry in the region.

Basic and detailed engineering, manufacturing of process equipment, construction, plant maintenance, turnkey engineering, procurement, and

construction (EPC) are the areas which we cover.

Over the years, we have often adapted to changes in macroeconomic conditions, business trends, and the engineering industry's transformation to maintain our leadership and continue delivering sustainable value in our core competencies.

What has never changed, is our passion to deliver solutions through excellence in engineering.







## Manufacturing Heritage

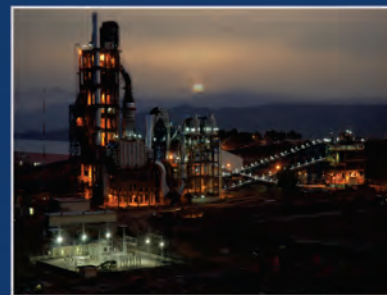


Descon's manufacturing heritage dates back to the early 1980s when a medium-sized fabrication facility was set up in Pakistan to cater to the growing domestic industrialization. Today, Descon has established itself as a leading supplier of process equipment to operating companies, global EPC contractors and original equipment manufacturers (OEMs) worldwide.

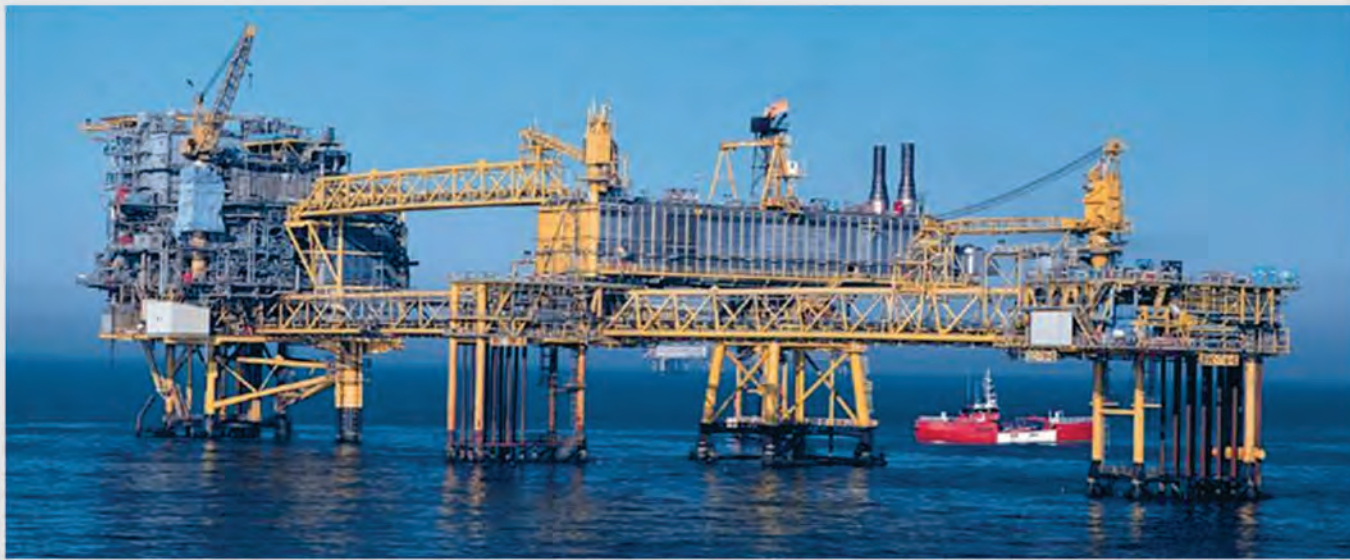
- We have a highly distinguished client list that includes the world's largest operating companies and EPC firms in the Middle East, Far East, and Europe
- We have delivered over 200,000 tons of high quality process equipment on projects in the oil and gas, chemical, petrochemical, power, fertilizer, textile, paper, cement, and food industries
- We have increased our production capacity to approximately 25,000 tons per year.

- We have established multiple manufacturing facilities in Pakistan, UAE, Saudi Arabia and Qatar.
- We have implemented universally accepted quality management systems and HSE standards such as OSHA 18000:14000 and ASME accreditations (A, PP, R, S, U, U2), PED.
- We have formed strategic alliances with some of the world's leading OEMs and technology licensors to offer our clients the most advanced process equipment solutions at most competitive prices.
- We have developed a well integrated project management approach which ensures that each manufacturing job is executed in accordance with best practices in planning, engineering, procurement, QHSE, and logistics.









## Products

### Pressure Vessels

- Columns
- Separators
- Knock-out Drums
- Slug Catchers
- Filters

### Heat Exchangers

- Shell and Tube
- Air Fin Coolers

### Boilers & Ancillaries

- Heat Recovery Steam Generators (HRSG)
- Once Through Steam Generators (OTSG)
- Direct Fired
- Solid Fuel Fired
- Economizers
- Deaerators, preheaters and super heaters

### Pre-engineered Skid Packages

- Amine / TEG Units
- Dew Point Control Units
- Glycol Dehydration Units
- Separator Package
- Filter Skids
- Dehydration Skids

### LPG Road Tankers

- Rigid Bobtail Delivery Truck
- Articulated

### Flare Stacks

### Steel Structures

### Piping Spools

### Heaters

### Cement Plants

### Water heaters/Oil heaters





## Abu Dhabi Manufacturing Works Ghayathi, UAE



### WORKSHOP AREA

Total area	159,900 Sq.m
Shop area	98,375 Sq.m
Bays	02 Nos.

### PRODUCTS

- Piping
- Furnaces
- Pressure Vessels
- Storage Tanks
- Heat Exchangers

### RESOURCES

- Mechanical Flame & Plasma Cutting Facility
- Plate Bending & Rolling
- Pipe & Tube Bending
- Manual and Automatic Welding (SMAW/SAW,TIG, MIG etc.)
- Machining & Presswork
- Post Weld Heat Treatment (Furnace 40 x 4.5 x 4.5 meters)
- Sand Blasting & Painting
- Shipment & Site Delivery
- Radiography examination
- Ultrasonic Test
- Thickness Test
- Hydro Test
- Sheet metal shearing, using both motor operated and manual shears.
- Metal turning, shaping, milling, drilling & threading using simple machine tool, for making metal parts and simple jigs, fixtures, tools & dies.
- Testing of incoming components / materials, intermediate sub-assemblies and finished products.
- Hot Dip Galvanizing





## Lahore Manufacturing Works Pakistan



### WORKSHOP AREA

<b>Total area</b>	<b>190,000 Sq.m</b>
<b>Shop area</b>	<b>11,300 Sq.m</b>
<b>Storage area</b>	<b>28,000 Sq.m</b>
<b>Bays</b>	<b>05 Nos.</b>

### PRODUCTS

- Heat Exchangers
- Pressure Vessels
- Boilers / HRSG's
- Pre-engineered Skid Packages
- Piping pre-fabrication
- Air Cooled Heat Exchanger
- Heaters

### RESOURCES

- 100 mm of Plate Rolling Capacity
- Boiler Shop
- Machine / Heat Exchanger Shop
- Piping Fabrication Shop
- Stainless Steel Shop
- Electronic / Electrical Products Assembly Shop
- Welding / Post Weld Heat Treatment Shop
- Combine Shearing and Punching Machine
- Heavy /Light Plate Rolling Machine
- Column & Boom Welding Machines Rotators
- Machining & Mechanical Press Works
- Section Rolling Machines
- Pipe Bending Machine
- Central Lathe Machine Break Press
- Structural Cambering Machines
- Effluent Treatment Plant
- Tube Expanders
- Vertical Lathe Machine
- Post Weld Heat Treatment Equipment Furnace/Portable
- Hot Dip Galvanizing
- Expansion Machines
- PMI
- SAW Welding Overlay Machines







# Karachi Manufacturing Works Pakistan



## WORKSHOP AREA

Total area	81,500 Sq.m
Covered area	10,800 Sq.m
Bays	03 Nos.

## PRODUCTS

- Pressure Vessels
- Boilers / HRSG's
- Pre-fabricated Piping Spools
- Retrofit Jobs
- Steel Structure
- Wind Towers
- Heat Exchangers
- Air Cooled Heat Exchanger

- Heaters
- Dam / Barrage Gates

## RESOURCES

- Overhead and mobile cranes
- Mechanical, Flame, and Plasma Cutting
- Heavy Plate Rolling Machine (150 mm thickness)
- CNC Plate Cutting Machine
- Shearing Machine
- Rotators
- Section Rolling Machine
- Positive Material Identification (PMI)
- Radial Drilling Machines
- Tube Bending Machines

- Manual and Automatic Welding (SMAW, SAW, GMAW, GTAW, TIG, MIG etc.)
- Internal Cladding / Weld Overlay
- Machining and Press Works
- Stress Relieving Furnace
- Grid & Sand Blasting / Painting





## Olayan Descon Manufacturing Works Jubail, Saudi Arabia



### WORKSHOP AREA

Total area	52,900 Sq.m
Covered area	8,750 Sq.m
Bays	09 Nos

### PRODUCTS

- Pressure Vessels & Drums
- Shell & Tube Heat Exchangers
- Columns
- Electrical & Instrumentation
- Air Fin Coolers

### RESOURCES

- 12 Overhead and mobile cranes
- Mechanical, Flame, and Plasma Cutting
- Heavy Plate Rolling Machine
- Radial Drilling Machines
- Tube Bending Machines
- Manual and Automatic Welding (SMAW, SAW, GMAW, GTAW, TIG, MIG etc.)
- Internal Cladding / Weld Overlay
- Machining and Press Works
- Stress Relieving Furnace
- Sand Blasting
- Painting







## Olayan Descon Manufacturing Works Yanbu, Saudi Arabia



### WORKSHOP AREA

Total area	44,200 Sq.m
Covered area	4,300 Sq.m
Bays	04 Nos

### PRODUCTS

- Heat Exchangers
- Columns
- Repair & Refurbishment
- Electrical & Instrumentation

### RESOURCES

- Overhead and mobile cranes
- Mechanical, Flame, and Plasma Cutting
- Heavy Plate Rolling Machine
- Radial Drilling Machines
- Tube Bending Machines
- Manual and Automatic Welding (SMAW, SAW, GMAW, GTAW, TIG, MIG)
- Internal Cladding / Weld Overlay
- Machining and Press Works
- Stress Relieving Furnace
- Sand Blasting
- Painting





## Qatar Manufacturing Works

### Ras Laffan - Qatar



#### WORKSHOP AREA

<b>Total area</b>	<b>18,500 Sq.m</b>
<b>Covered area</b>	<b>10,500 Sq.m</b>
<b>Bays</b>	<b>03 Nos.</b>

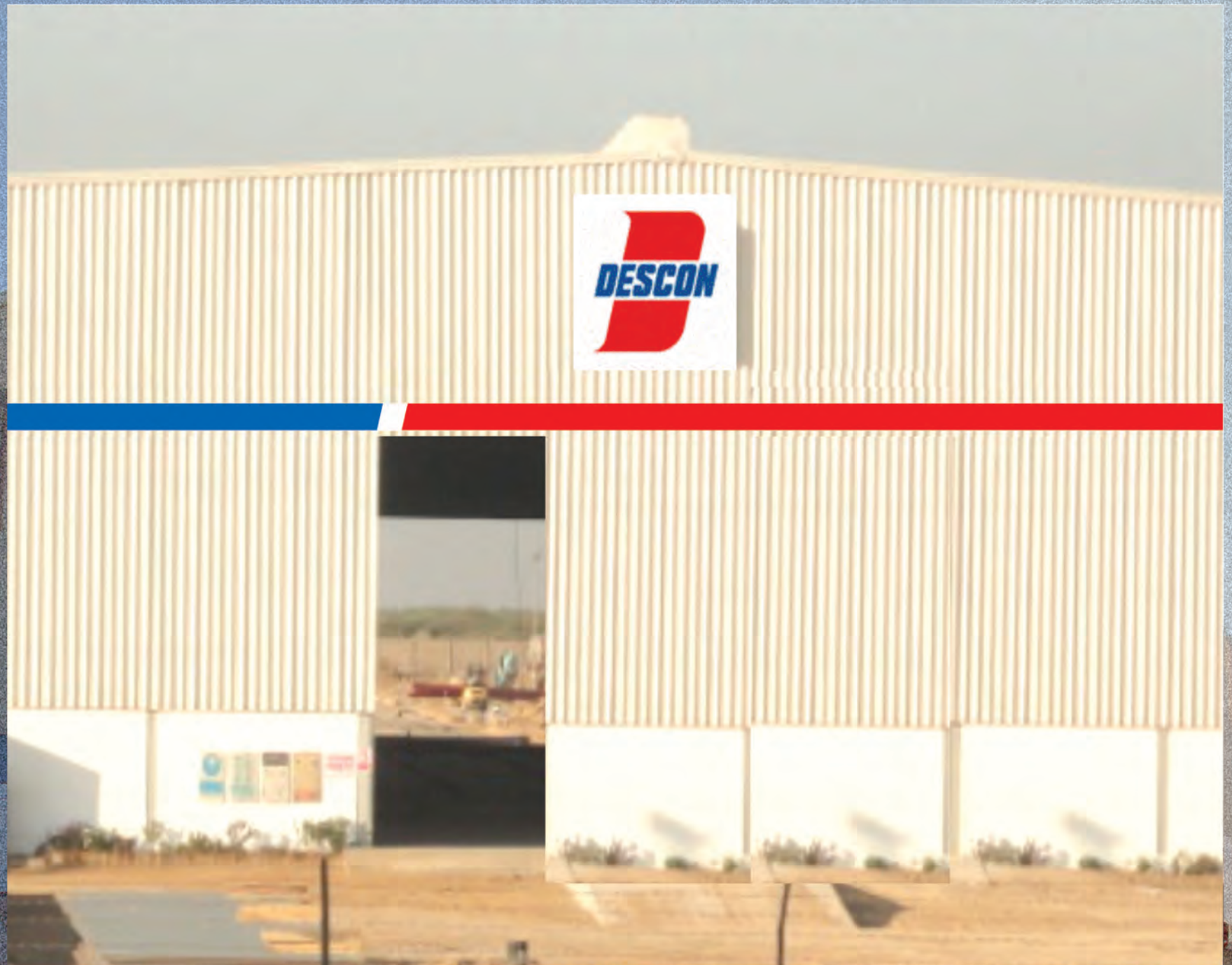
#### PRODUCTS

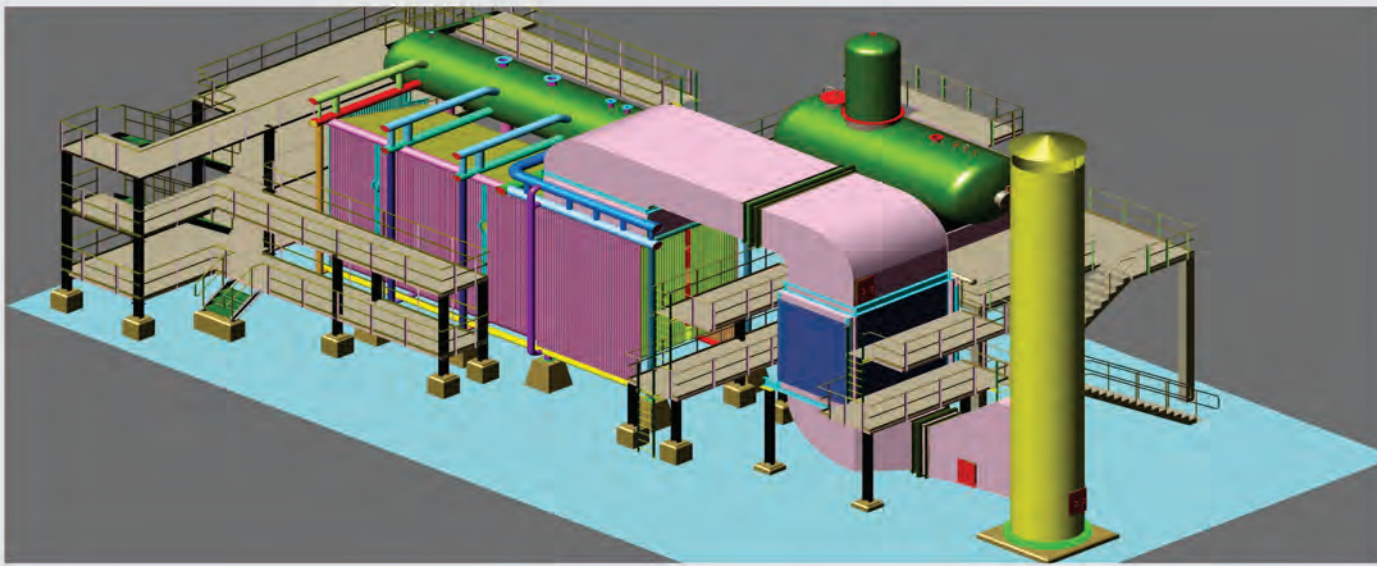
- Pressure Vessels
- Boilers / HRSG's
- Pre-fabricated Piping Spools
- Air Fin Coolers Assembly
- Retrofit Jobs
- Steel Structural

#### RESOURCES

- SMAW, SAW, GMAW, GTAW, TIG, MIG & Pipe welding
- Mechanical, Flame and Plasma Cutting
- Plate Bending and Rolling
- Hydraulic Pressing
- Pipe and Tube Bending
- Machining
- Automatic and Manual Welding
- Internal Cladding (Weld Overlay)
- Non-destructive Testing
- Post Weld Heat Treatment
- Surface Preparation, sand blasting & Painting
- Overhead Cranes
- Valves Repair & Testing







## Design and Engineering

A strong in-house design and engineering capability exists to support proposal generation and project execution. The design and engineering team has extensive experience of working to international industry codes, standards, software and best practices. We have in-house capability to perform the following:

- Basic engineering.
- Detailed engineering.
- Preparation of equipment specification and data sheets.
- Preparation of operation and maintenance manuals.

### Design Codes and Standards:

- ASME
- EN
- API
- TEMA
- ASTM
- ANS
- AISC
- AWS
- ADR
- TRD

### Software:

#### Civil

- STAAD Pro
- STAAD Foundation
- SAP-2000

#### Process

- Chempro
- PRO II
- FLARENET
- HYSIS
- PIPESIM
- HTRI
- ASPEN Plus / ASPEN ZYQAD
- Tray 2000
- Best Pipe
- Paula
- ASPEN (HTFS)
- ESTPRO

#### Piping

- CADPipe
- CAESAR II

#### Mechanical

- TANK
- ASPEN B-JAC
- DISASU

#### Electrical

- ETAP
- LUXICON
- Smart Plant

- Electrical

### 3D Plant Design

- Plant Design System
- Microstation
- Smart Plant Review
- NavisWorks
- ISOGEN
- OrthoGEN

### Inhouse Developed

- Project Control System
- Resource Management
- MTO Work
- JDLMS
- JPMS

### I&C

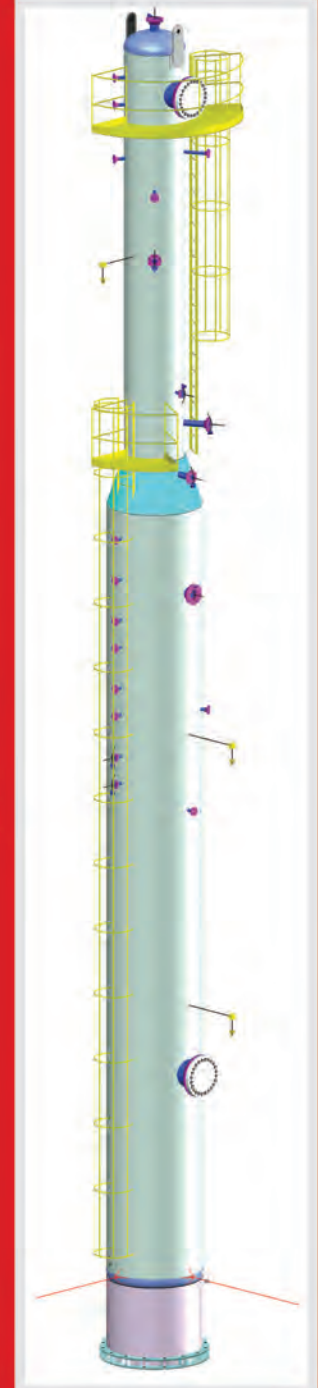
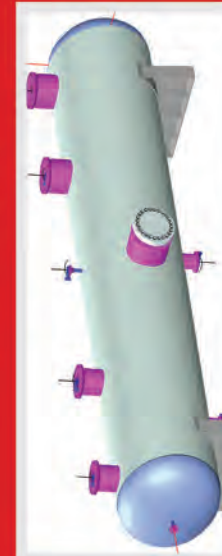
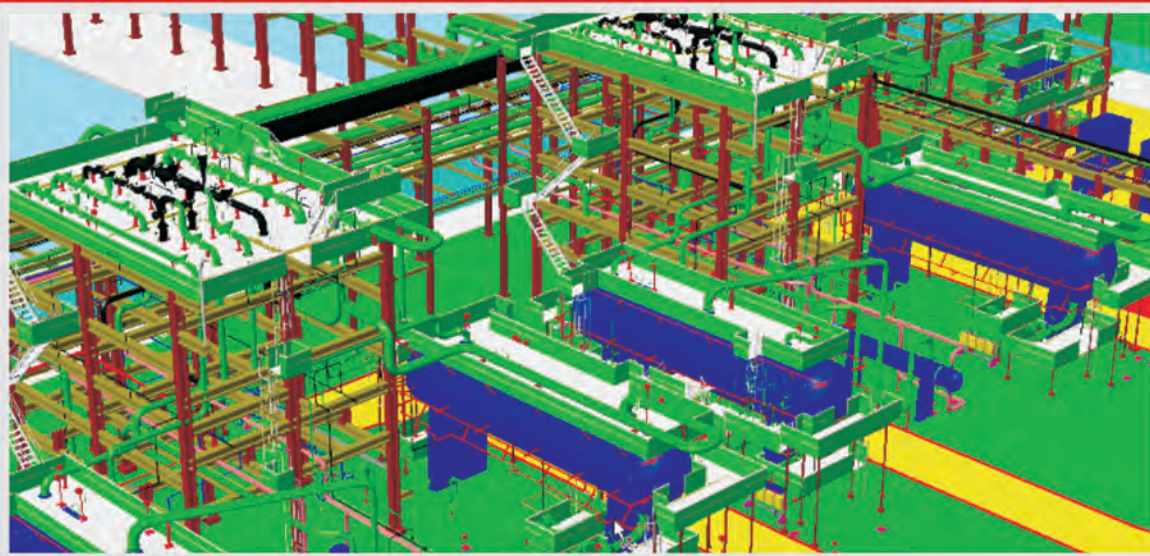
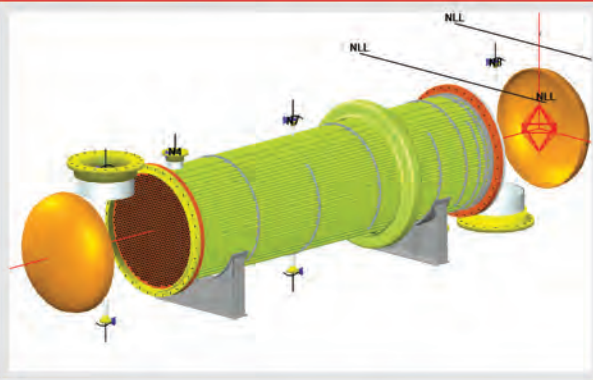
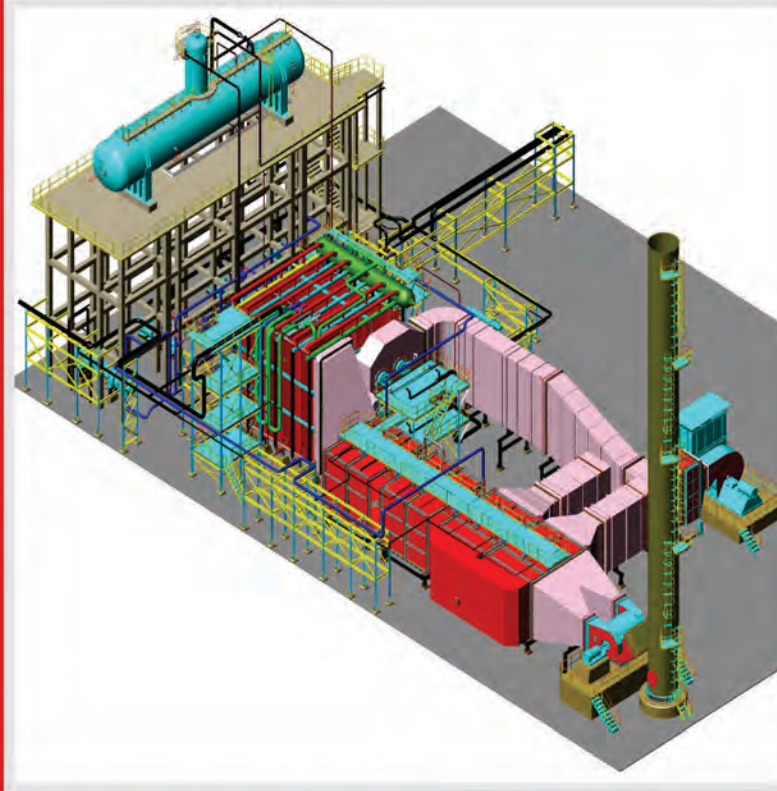
- INTOOLS
- Smart Plant P&ID

### Manufacturing

- Codeware(R) Compress(TM)
- PVElite
- CADWorx(R) PnID Professional
- CADWorx (R) Plant Professional
- Bentley(R) AutoPipe
- StaadPro
- Plate & Sheet Metal
- KED PPSPD.
- StackDES
- X-Steel











## Fabrication

Our fabrication capabilities comprise of seven manufacturing facilities located in Pakistan, UAE, Saudi Arabia and Qatar. We have been in business of boilers manufacturing process equipment involving various materials of construction for more than 45 years. Our recommendations for our customers is to take a cross-functional systems approach to fabricate new plant accessories. We have got all the required resources and our highly trained and experienced manpower keep its commitment with the client.

### Fabrication resources include:

- Overhead & Mobile cranes
- Fork Lifters
- Mechanical, Flame, and Plasma Cutting
- Shearing Machine
- Pug Machine with Beveling Facility
- Heavy Plate Rolling Machine (150 mm)
- CNC Plate Cutting Machines
- Material Handling System

- Radial Drilling
- Magnetic Base Drill Machine
- Tube Bending
- Manual and Automatic Welding (SMAW, SAW, GMAW, GTAW, TIG, MIG, etc.)
- Column and Boom Welding Machines
- Internal Cladding / Weld-Overlay
- Post Weld Heat Treatment Equipment Furnace/Portable
- Machining and Press Works
- Stress Relieving Furnace (750 °C, 4.5 m x 4.5 m x 20 m)
- Power Hack Saw
- Combine Shearing and Punching Machine
- Section Rolling Machines
- Pipe Bending Machine
- Central Lathe Machine
- Vertical Lathe Machine
- Tube Expanders
- Hot Dip Galvanizing plants
- Sand Blasting and Painting

### Materials we can handle:

- Carbon Steel (CS)
- Stainless Steel (SS)
- Duplex
- Low/High Alloy Steels
- Non-Ferrous Materials











## Aftersale Services Portfolio

Descon carries the best of its Descon carries the best of its Aftersales services under one umbrella while maintaining the highest levels of Quality, Health, Safety, and Environment. Our experienced and qualified team of professionals bring with them their unwavering commitment to offer the best of Services & procedures to our valued customers.

Today, Descon has established itself as a leading manufacturer and service provider of Process Equipment & Boilers to Oil & Gas, Power, Chemical, Cement and FMCG Industry, along with EPC contractors and original equipment manufacturers (OEMs). We are a multinational company with more than 45 years' experience in UAE and Gulf, renowned in the region for its quality, safety and on-time delivery of projects and products and services.

### Services Portfolio

#### 1. Boiler Revamp Services

- Design Services
- Boiler Rectification

- Re-Tubing of Boilers
- R & A/S Stamping & Commissioning
- AMC & Emergency Shutdown Services
- Certified Technical Team & ASME Welders
- Capacity Enhancement
- Efficiency Enhancement
- Burner Tuning and Spare Parts supply
- Long terms Maintenance

#### 2. Column Modifications / Installation

- R stamp and NIBC Code Services
- Equipment Coils / internals/ Headers Modification & installation
- Shell Repair and replacement
- Welding quality / NDT inspection of pressure parts

#### 3. Re-Tubing of Heat Exchangers

- Design, Spares & retrofiting
- R-Stamp & NBIC Code Services
- Qualified Technical Team Service

#### 4. Piping, Design & Spares services

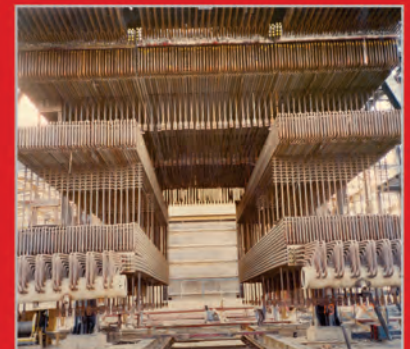
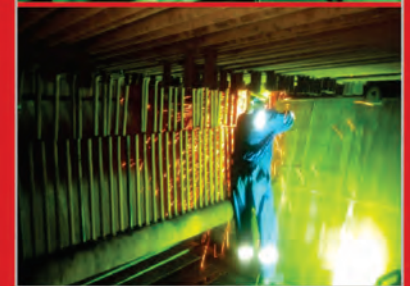
- Piping modifications
- Emergency Response Team
- Engineering & Procurement Services

#### 5. E & I Installation and Commissioning

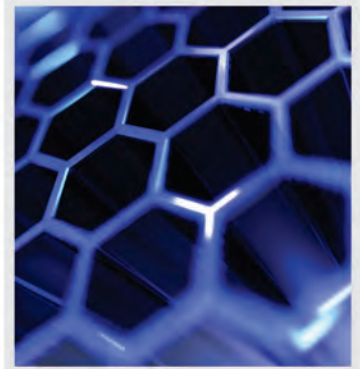
- Development of new Tie in points as per piping standard
- Installation of instrumentation
- Cable Conduit and Cable Tray Laying
- Termination & Continuity
- Configuration & Commissioning











## Quality Assurance and Control

A strong commitment to quality assurance and quality control (QA/QC) is inherent throughout the manufacturing business process and is governed by a comprehensive ISO 9001:2000 Quality Management System.

Throughout project execution and subsequently after delivery, active feedback is solicited from our clients and various owners of the manufacturing process (from design to shipment) to continuously monitor and improve our QA/QC methodologies and procedures.

Salient functions of QA/QC include the following:

- Design verification
- Inspection of incoming materials
- Preparation and implementation of Inspection & Test Plans, Standard Operating Procedures, and Method Statements

- Stage inspections
- Non-destructive Examinations (radiography, Magnetic Particle Testing, Dye Penetrant Testing)
- Visual and dimensional examinations
- Pressure testing (hydro and pneumatic)
- Preparation of Inspection Data Manuals
- Liaising with third party inspection agencies

### Certifications:

- ISO 9001:2000
- Pressure Equipment Directive (Production Quality Assurance Modules D&D1)
- ASME Stamps  
A,S,PP,U,U2,R







## Health, Safety & Environment (HSE)

The organization Descon as a whole follows the best standards of health, safety and environment ensuring the wellbeing of its workers.

Our endeavours have resulted in getting us certified against the following standards

- ISO 9001:2000
- ISO 14001:2004
- OHSAS 18001:2007

The HSE management has already launched Descon Integrated Management System (DIMS), a program to ensure employees' safety at work.

At Descon, we believe in pre planning the ways to prevent catastrophic situations, keeping the risk rate minimum. Strategies are not merely made, but constant analysis is done to ensure that the international HSE standards are followed.

Adequate resources are provided for the implementation and maintenance of the Integrated Management System.

Following the best standards of health, environment and safety, Descon moves forward with a vision to reach the level of excellence.



**LAHORE - Pakistan****Descon Manufacturing Works**

2-KM Defense Road, 24-KM Multan Road,  
Mohnalwal, Lahore - 53700

**UAN:** 111 DESCON (337266)

**T:** +92 42 3596 6681 **F:** 90 42 3596 6688

**E:** [manufacturing@descon.com](mailto:manufacturing@descon.com)

**KARACHI - Pakistan**

Plot # A 35-36, Eastern  
Industrial Zone, Port Qasim  
Industrial Area, Karachi. Pakistan.

**T:** +92 21 3474 0031-6 **F:** +92 21 3474 0037

**E:** [kmw-info@descon.com](mailto:kmw-info@descon.com)

**ABU DHABI****Descon Engineering - UAE**

Floor # 3, Prestige Tower-17, Adjacent to Capital Mall,  
Muhammad Bin Zayed City,  
P.O. Box 46821, Abu Dhabi, UAE

**Phone:** +971 2 694 6000 **Fax:** +971 2 555 5784

**E:** [descon.uae@descon.com](mailto:descon.uae@descon.com)

**QATAR****Descon Engineering Qatar L.L.C**

2nd Floor, Al-Hitmi Village,  
Umm-Ghuwalina, P.O Box 23364, Doha, Qatar  
**Phone:** +974 4405 4777, **Fax:** +974 4405 4778  
**E:** [qba@descon.com](mailto:qba@descon.com)

**OMAN****Descon Engineering - Oman L.L.C**

Building # 389-390, Street 73.  
Sohar Industrial City, Phase 07, Sultanate of Oman.  
P.O Box - 115, Postal Code - 327.  
**Phone:** +968-99095008, **Fax:** +968-24128845  
**E:** [desconoman@descon.com](mailto:desconoman@descon.com)

**JUBAIL - Saudi Arabia**

Olayan Descon Industrial Company Ltd.  
Building # 4682 Road 128, Third Industrial Area  
Unit # 1, Al Jubail Industrial City ZIP Code 35729  
Additional # 7910 P.O.Box 10108,  
Kingdom of Saudi Arabia  
**T:** +966 3 341 0671 **F:** +966 3 341 0950  
**E:** [odico@olayandescon.com](mailto:odico@olayandescon.com)

**YANBU - Saudi Arabia**

Block No. 4, Street No. 6, Light Industrial Park,  
P.O.Box 31120, Yanbu Industrial City 41912,  
Kingdom of Saudi Arabia  
**T:** +966 4 321 0354 **F:** +966 4 321 0334  
**E:** [odico@olayandescon.com](mailto:odico@olayandescon.com)

Descon Headquarters - Lahore  
18 KM Ferozepur Road, Lahore, 54760, Pakistan  
**Tel:** (92 42) 35990034, 35805134, **UAN:** (92 42) 111-DES-CON  
**Fax:** (92 42) 35811005, 5811135, **Email:** [descon@descon.com](mailto:descon@descon.com)  
**www.descon.com**