

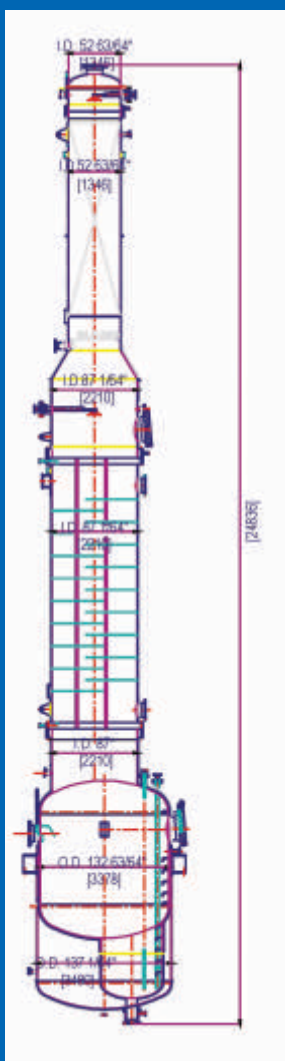
Your Partner in Sustainability



*Critical Process
Equipment & Skids*



Critical Process Equipment & Systems



About Us

What started off as an entrepreneurial venture three decades ago, is today India's most successful company in the field of bio-based technologies and engineering with presence all over the world. The zeal of working towards making the world a better place has stayed with us till today and will continue to do so.

Headquartered in Pune, India and has spread its presence across the globe with more than 750 reference in more than 75 countries.

Critical Process Equipment and Skids

Praj established a dedicated business unit in 2008 to offer Critical Process Equipment and Skids (CPES) to various process industries such as Oil & Gas, Refineries, Petrochemicals, Fertilizers, Power, Chemicals, Food, Pharma and BioTech.

With our extended engineering capabilities, we are end to end solution provider for modular process systems and skids as per the stringent requirements of hydrocarbon and chemical processing industries.

Having three decades of experience and expertise of serving various process industries, Praj has demonstrated capabilities in engineering, integration, complex fabrication and assembly of modular process packages for various domestic and global clients.



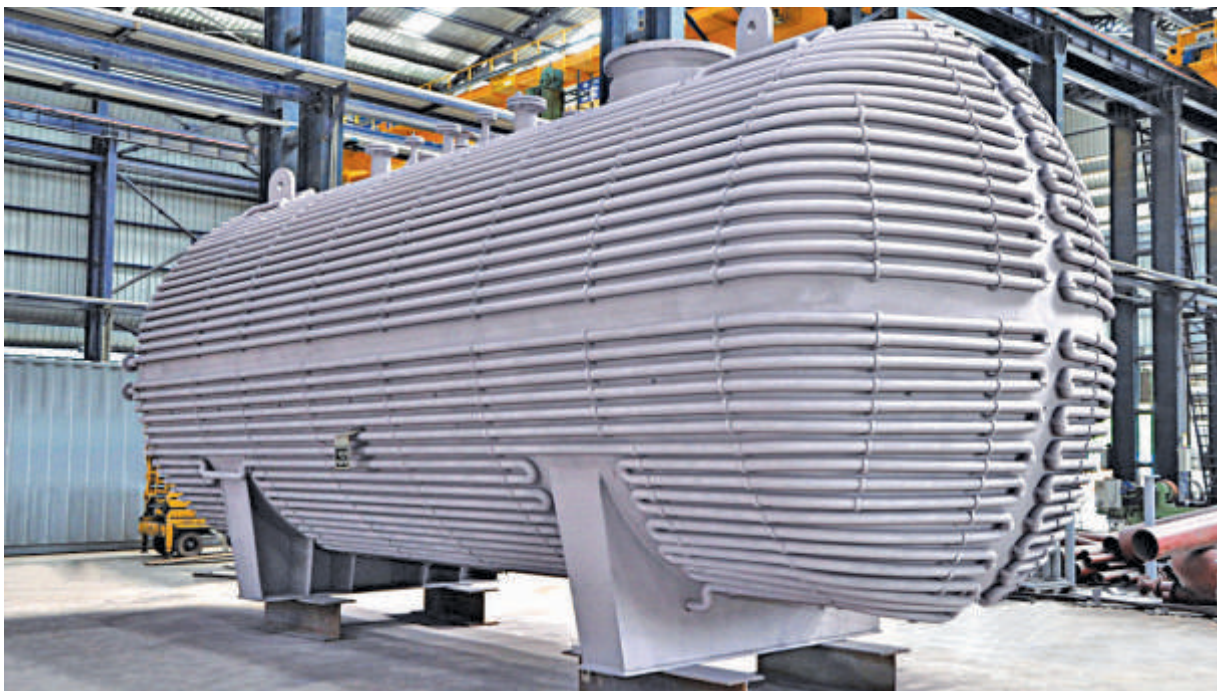
Praj Offerings

Process Modules

- Phase separators (2/3 Phase)
- Gas dehydration - glycol/ molecular sieve
- Gas sweetening - H_2S / CO_2 removal
- Gas conditioning Dew point adjustment
- Mercury removal unit
- Membrane systems
- Chemical process units & production plants
- Industrial gas modules
- Modularization of plants

Static Equipment

- Pressure Vessels
- Reactors
- Separators
- Scrubbers
- Shell & tube heat exchangers
- Process columns / Towers
- Tanks
- Customized Fabricated Equipment





Engineering Services

- Design and Engineering of Static fabricated equipment
- Piping engineering from plot plan to isometrics
- Detail engineering : Boughtout/Packaging units
- Skid engineering
- Electrical, Instrumentation & Automation Engineering

Global Standards and Codes followed by Praj

- | | |
|----------------------------------|--------------------------------|
| • ASME Sec. VIII Div. I & Div II | • BS 5500 |
| • IS 2825 | • Pressure Equipment Directive |
| • Ad Merkblatter | • SMPV Rules |
| • PD 5500 | • DIN |
| • TEMA | • API 650 |

Softwares in use

- HTRI
- CodeCalc
- ChemCAD
- PVElite
- AutoCAD
- Plant 4D
- PDMS
- ProPipe
- Compress
- Bentley Autoplant
- Tekla
- Navisworks



Special Features

- Strong Quality Assurance Culture
- Quality Assurance Plan for each equipment, Raw material and boughtouts
- ASNT Level 3 certified Welding Inspector

Highly Trained Quality Assurance Team for

- Penetrant Testing (PT)
- Ultrasonic Testing (UT)
- Visual Testing (VT) & Magnetic Test (MT)
- Radiography (RT)
- Helium Leak Test
- Tube to Tubesheet Radiography





Manufacturing Facility

Praj has 3 manufacturing units which are well connected by highways and ports. All the facilities are well equipped with modern metalworking machines such as :

- 💧 CNC Plasma Cutting Machines
- 💧 High thick plate bending and Dish end Pressing
- 💧 CNC Drilling Machines & VTLs
- 💧 Column & Boom Automatic SAW and PAW
- 💧 Shot Blasting and Painting
- 💧 Automatic Polishing Machine
- 💧 Strip Cladding Machine

Types of Welding

- 💧 TIG
- 💧 SAW
- 💧 SMAW
- 💧 FCAW
- 💧 PAW
- 💧 Orbital Welding
- 💧 Tube to Tubesheet Welding

Manufacturing Capabilities

Particulars	Sanaswadi Pune	Kandla unit 1	Kandla unit 2
Open area	32000 Sq m	10000 Sq m	11250 Sq m
Covered area	12500 Sq m	20000 Sq m	9750 Sq m
Max. shell rolling THK	50 mm	35 mm	150 mm
Max. shell diameter	5 m	6.5 m	8.5 m
Max. shell length	20 m	65 m	72 m
Max. dishend THK	30 mm	30 mm	150 mm
Max. tonnage	100 MT	500 MT	500 MT
Max. dimension (LxWxH x Weight) (mtr)	72 x 10 x 10 x 500 MT	65 x 10 x 10 x 500 MT	72 x 10 x 10 x 500 MT

Stamps / Approvals U, U2, H, R, S, CE Marking, NB, IBR

Shop certifications ISO 9001 , ISO 14001(environment system), BS OHSAS 18001 (safety system)

Total Capacity 25000 MT/Annum (Expandable)

Manufacturing Capacity

- 💧 25000 T/year (Expandable)
- 💧 Maximum Dimensions possible :
Dia. 8.5m x Length 72m x Weight 500T



Reactors, Separators, Pressure Vessels & Tanks

Types

- High Thick Vessels I Cladded Vessels
- Three Phase/Two Phase Separators
- Scrubber and KODs I Reactor / Fermentor

Special Features

- Limpeted and Dimple Jacketed Reactors
- Separators with internals, High Pressure Vessels
- Large Storage Tanks, Vessels under CCOE
- Reactor / Fermenter with Agitator I Cladded High Thick Vessels

Material of Construction

- SS904, SS347, SS321, SS316Ti, SS316L, SS316, SS304L, SS304
- Duplex, Nickel, Hastelloy, Inconel, Monel, Titanium
- Carbon Steel (all grades)
- Low Alloy Steels

Heat Exchangers (Shell & Tube)

Types

- Floating Head, Fixed Tube Sheets
- Heat Exchangers with Expansion Bellow
- Twin Heat Exchangers, U-Tube, Finned Tube

Special Features

- Lethal Requirement
- Helium Leak Test
- T/TS Radiography
- Insitu Flange Machining

Material of Construction

- SS904L, SS321, SS316Ti, SS316L, SS316, SS304L, SS304
- DOW Copper
- Carbon Steel (all grades)
- LAS
- Cu-Ni
- Cladded Tubesheet



Process Columns

Types

- Distillation Column
- Column with Reboiler
- Column with Overhead Condensor

Material of Construction

- SS904, SS347, SS321, SS316Ti, SS316L, SS316, SS304L, SS304
- Duplex, Nickel, Hastelloy, Inconel, Monel, Titanium
- Carbon Steel (all grades)
- Low Alloy Steels

Special Features

- Packing and Trays
- Sandwiched Trays between BF
- Cladded Column





Praj Industries Limited

Praj Worldwide

India | Thailand | USA



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