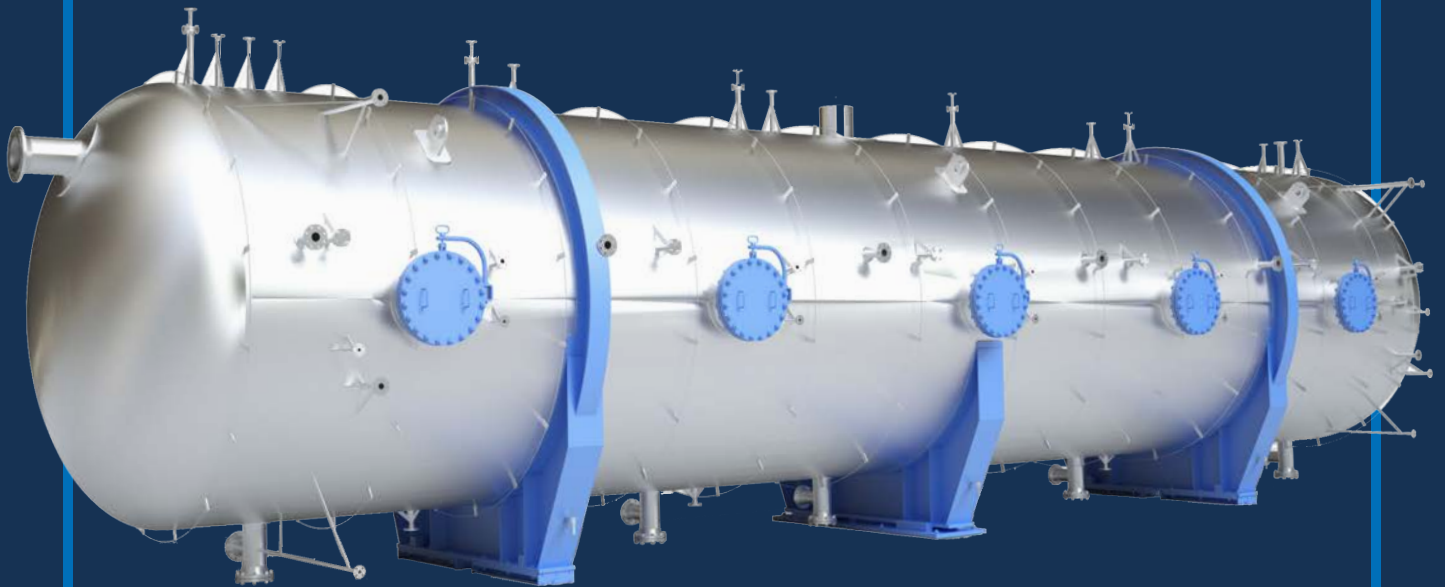


Heat Exchangers & Pressure Vessels



EQUILLOY

— Alloy Process Equipment

We are the leading supplier of various types of pressure vessels built for the chemical processing industries. We supply the petrochemical industry, oil & gas refineries, specialty chemicals, polymers, fats & oils, nutraceuticals, renewable energy, green chemistries, fertilizers, and other specialized chemical process industries. We also serve the biotech industry with fermenters, upstream and downstream equipment, and systems.

The EQUILLOY brand covers a wide range of alloy process equipment such as: reactors, columns, heat exchangers, evaporators, Wiped Film Evaporators, and other pressure vessels.

PRODUCTS & EQUIPMENT

Heat Exchangers

Agitated Reactors

Columns

Pressure Vessels

Special Purpose Equipment

Design Standards

ASME Sec. VIII Div. 1
ASME Sec. VIII Div. 2
ASME Sec. I
API 650 / 660
TEMA
JIS
IBR
AD Merkblätter 2000
EN 13445
PED – (Directive 2014/68/EU)
ATEX – (Directive 94/9/EC)
PD 5500

Software Solutions

Design Software:

HTRI 9.1
(Thermal Design)
PVELite 2025
Compress 2023
Built 8300
DIMY

CAD, FEM & CFD Software

Autodesk Inventor
(3D Drafting)
AutoCAD
Autodesk CFD

Process Software:

Ansys
Nozzle Pro
MiST

Fatigue Analysis

FEA Analysis

Vibration Analysis

Accreditations

DIN EN ISO 3834-2
ISO 9001 : 2015
ISO 14001 : 2018
ISO 45001 : 2018
U-Stamp
U2-Stamp
S-Stamp
NB - Stamp
R-Stamp
PED
AD 2000 – Merkblatt HPO
SELO
Korean Stamp

Metallurgies

Stainless Steel
(304/316/316Ti/321/
347/410S/904L)

Duplex and Super Duplex Stainless Steel
(UNS S32205,
UNS S32950)

Hastelloy
(C22/C276/B3),
Alloy 59, AL6XN, 6MO

Titanium

Monel 400

Incolloy (600/800/825)

Reactive Metals
(Tantalum, Zirconium,
Niobium)

Clad Steels

Carbon Steel
(CS/ LTCS)

Low Alloy Steels
(Chrome - Moly Steels)

Copper Alloys
(Cupro-Nickel/Brass/
Bronze)

Manufacturing Capabilities

GMM Pfaudler has a dedicated alloy manufacturing facility located in Vatva, Ahmedabad. Combining our technological experience and fabrication setup, we manufacture to the most challenging specifications/requirements given for Heat Exchangers, Reactors, Pressure Vessels, Columns, Dish Ends and Proprietary equipment.

Manufacturing shop details:

- Total Complex Area: 11.9 acres
- Covered Area (under the hook): 23,617 sq.m
- 7 manufacturing bays with under the hook lifting capacity of 200 MT
- Thermal and mechanical design capability with all latest codes, standards and software for designing/drafting
- 2 CNC gas and plasma profile cutting machine for accurate marking and cutting
- Plate bending machine (Davi-Promau Srl, Italy make) with capacity to Cold roll 110 mm thick plate to a width of 3000 mm
- Spiral fining Machine (McElroy make) for making finned tubes. (L, KL, LL, G type)
- 2 Deep Hole CNC drilling machine capable of maximum drilling length of 1000 mm thick and max. tube sheet dia. of 4.0mtrs
- Radiographic pit (Including Cobalt Radiography) and 4 cameras
- Column -Boom type SAW machines and tractor type portable SAW machines
- Welding Rotators (30 MT to 240 MT, more than 60 Sets) of higher tonnage for handling heavy equipment under fabrication
- 5 ("Pick-n-Carry") Hydra mobile cranes (10, 12 and 14 MT) for easy material movement

- 3 Orbital tube to tube-sheet joint machine (Polysoude and Heuheng) to enhance quality of tube to tube sheet welding
- Clean room facility to handle exotic metallurgy
- Shot Blasting Booth & Painting Booth to give international class finish to equipment fabricated in our shop

Capabilities

- **Shop area: 11.9 acres**
- **Covered area (under the hook): 23,617 sq.m**
- **Max. diameter: 6 mtrs**
- **Length: 100 mtrs**
- **Weight: Up to 350 MT single piece equipment**
- **110 mm thickness (Cold Bending)**
- **Tube sheet Deep Hole Drilling capacity up to 1000 mm thick**
- **Own inhouse testing laboratory**
- **Clean Room facility 23 x 13 x 15 mtrs**

Welding Capabilities

GMM Pfaudler's welding engineering team has over 1800 qualified procedures in all critical metallurgies. Our welders are capable of welding in all welding positions. This welding team is qualified under various inspection agencies.

Processes:

- Orbital Welding-Tube to Tube sheet
- Narrow Gap Welding
- Long Seam Welding
- Nozzle Welding
- Internal Bore Overlay
- ESSC

Welding Processes – SMAW, SAW, GTAW, GMAW, FCAW, Plasma Arc Welding

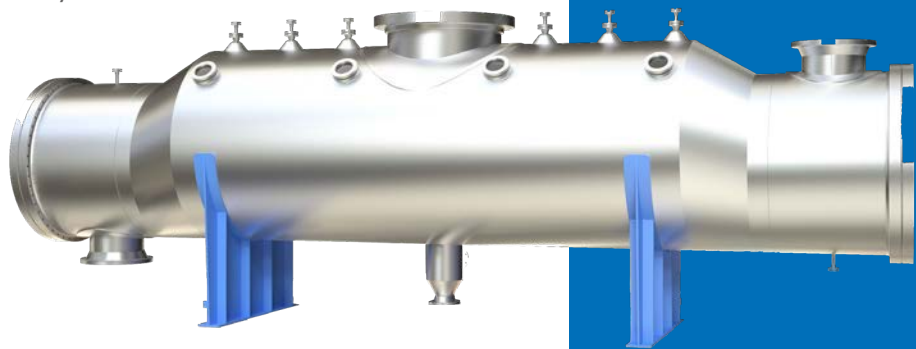
Inspection & Testing Facilities

- TOFD (Time of Flight Diffraction-Automated Ultrasonic Testing System)
- PAUT (Phased Array Ultrasonic Testing System)
- Helium Leak Detection Unit with Mass Spectrometer and Boroscope for Internal Inspection
- Ferrite Testing Machine
- PMI Alloy Analyzer
- Heat Treatment Furnace 20 x 6 x 6 mtrs
- Surface preparation enclosure 12 x 7 x 6 mtrs
- Digital Portable Hardness Tester
- Well-equipped CNC machine shop
- Fully equipped radiography facility with two enclosures, Ir192 as well as Co60 facility and trained in-house manpower.

Product Range

Heat Exchangers

- Max pressure 155 kg/cm²
- Dimensional capacity 5,000 mm diameter x 18,000 mm length
- Tube sheet thickness 800 mm
- Weight handling capacity- 250 MT



Agitated Reactors

Various Metallurgies:

- Max pressure 155 kg/cm²
- Motor Rating (Kw) 0.25 – 315
- Agitator Shaft Diameter (mm) 20 – 350

Agitator Types:

- Top Entry Agitator
- Hydrogenators
- Co-Axial Drives
- Bottom Entry Agitator
- High Speed Dispersers



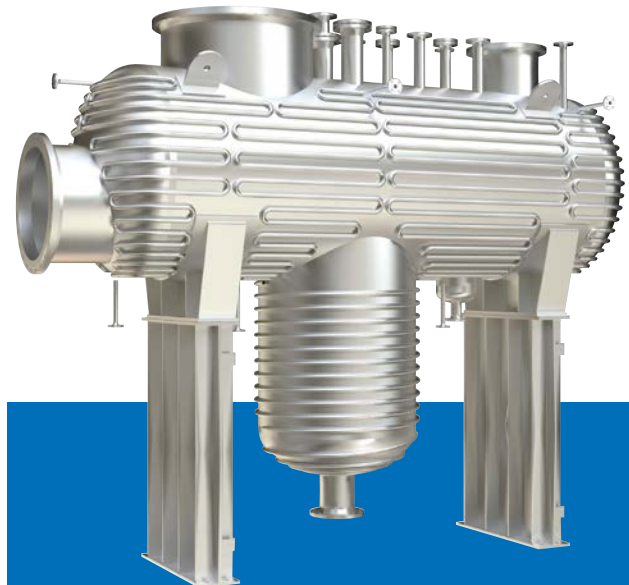
Columns

- Max pressure up to 155 kg/cm²
- Dimensional capacity 6,000 mm diameter x 40,000 mm length
- Thickness 100 mm
- Weight handling capacity- 250 MT



Pressure Vessels

- Max pressure up to 155 kg/cm²
- Dimensional capacity 6,000 mm diameter x 40,000 mm length
- Thickness 100 mm
- Weight handling capacity- 250 MT



Worldwide Presence



GMM Pfaudler is a global leader in corrosion-resistant technologies, systems, and services for the chemical, pharmaceutical, food and energy industry.

Our Branded Product Lines that include PFAUDLER, NORMAG, MAVAG, MIXION, INTERSEAL, EQUILLOY, EDLON and HYDROAIR showcase our strength as a group, our capabilities, and our pursuit for constant innovation. With an end-to-end solutions-oriented approach, a global footprint, and a perfectly integrated offering system we are able to meet complex industry demands worldwide.

GMM Pfaudler is driven by 1800+ individuals across 4 continents and 15 global manufacturing facilities around the world. The Group's targeted investments in strategic markets, innovation and competitiveness paves the way forward for GMM Pfaudler's continued legacy.

80+
Countries

1800+
Employees

04
Continents

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