



DISTILLATION PLANT

REACTOR

AGITATED REACTOR

HEAT EXCHANGER

SKID BASESYSTEM

EVAPORATION/ZLD

PROCESS ENGINEERING

A large industrial distillation plant with multiple tall, cylindrical stainless steel columns and a complex network of pipes and yellow safety railings. The plant is set against a clear blue sky. The image is framed by decorative blue and green diagonal lines in the corners and a grid of green dots on the right side.

**Your Reliable Partner for Customized
Chemical Process Equipment & Systems**

MEGA ENGINEERING is based at Pune, Engineering hub of India

We are working with wide Spectrum of Industrial Project for Solvent recovery, Reaction section along with batch & continuous reactors, Chemical and Pharmaceutical & Food Processing Industries.

Our exceptional Design ability & Project management enable us to develop & deliver wide range of tailor made process equipment as per Indian & International standards.

MEGA ENGINEERING offers best quality; time bound & cost efficient solutions utilizing our resources.

Our biggest asset is our team of Experienced Technologists & Engineers.

MEGA ENGINEERING is providing cutting edge technology to produce international quality with excellence in planning, engineering & project management.



One Stop Shop for all your needs in Chemical, Bio-Process Technology, Pharmaceutical & Food Processing Equipment & Systems.

Process Systems

- Distillation Plant
- Solvent Recovery Plant
- Absorption & Stripping System
- Solvent Extraction System
- Reaction & Separation System
- Evaporation System
- Turnkey Process System

Process Equipment

- Vessel:** We design & manufacture all types of high quality pressure vessels from small to large heavy vessels. Our custom designed & fabricated vessels/ separators comply with international standards like ASME, TEMA etc.
- Reactor:** We design Jacketed & limpet coil reactors along with agitators. These reactors can be used for batch & continuous processes.
- Tanks:** We design & fabricate storage tanks & processing vessels to your

- precise specifications for all process industries.
- Column & internals:** We design, customized process distillation columns for a wide range of applications. All types of conventional trays for any column size with various material of construction. We manufacture various types of trays like- Bubble Cap tray, Sieve Tray, Wall Tray, Structured packing & internals etc.
- Pilot/Skid mounted:** To achieve min. project execution time & site work, Mega Engineering also supplying modular skid mounted plants that allows you to bypass the challenges of onsite fabrication systems.
- Heat exchanger:** We manufacture almost all types of heat exchangers as per TEMA class R, C & B using HTRI.
- ATFD:** We have expertise in Design & supply of Agitated thin film evaporator (ATFD) for MEE & ZLD plants.





ENGINEERING SERVICES WE OFFER:

Conceptual Design

- ☞ Feasibility Reports.
- ☞ Payback period calculations & Commercial Technology Selection.
- ☞ Client/Third Party Technology Development.
- ☞ Process evaluation to assess economic viability & operational ease.
- ☞ Development of optimized process flow diagram & the heat and material balance for the facility.

Basic Engineering

- ☞ Mass & Energy balance
- ☞ Utility consumption & distribution
- ☞ Process flow diagram & its description
- ☞ Piping & instrumentation diagram
- ☞ Equipment sizing & specification preparation
- ☞ Process control description
- ☞ Equipment layout
- ☞ Instrument specification & control philosophy preparation
- ☞ Integration of new expansion plant into existing plant

Detail Engineering

- ☞ Piping & instrumentation diagram
- ☞ Equipment GA & fabrication drawing preparation
- ☞ Equipment list
- ☞ Process data sheet preparation
- ☞ Instrument data sheet preparation
- ☞ 3D modeling – PDMS
- ☞ Stress analysis
- ☞ Process & mechanical design of process equipment
- ☞ Vendor equipment & packages selection
- ☞ Valve data sheet preparation
- ☞ Start up, operating & commissioning manuals

Commissioning & Start-up Assistance

- ☞ Field inspection of equipment, pipes, instruments and relief valves
- ☞ Water flushing and hydro testing
- ☞ Air blowing and pneumatic pressure testing
- ☞ Testing of motor drives
- ☞ Testing of control loops
- ☞ Test runs of rotating equipment
- ☞ Commissioning & troubleshooting of process plant



Distillery
Evaporation
Dryer
ZLD

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