



SHREE SHAKTI ENGINEERING WORKS

Design & Mfg. of Process Plant Equipment



About Us

Shree Shakti Engineering Works is a leading name in the design, engineering, and manufacturing of chemical process equipment with over 15 years of domain excellence. From custom-built Equipment to turnkey installations, we deliver high-performance solutions backed by engineering depth and uncompromising quality. With two well-equipped manufacturing units at Sarigam (Valsad) and Saykha (Bharuch), Gujarat, our production capabilities are supported by design facility, skilled manpower, and state-of-the-art machinery across 55,000+ sq. ft. of infrastructure.

We specialize in transforming specifications into solutions – delivering customized, code-compliant, and performance-verified equipment that meets the evolving needs of pharmaceutical, chemical, agrochemical, and specialty process industries. We combine deep domain expertise with advanced design tools to deliver efficient, compliant, and customized engineering solutions.



Our Vision

To become a globally recognized engineering company, delivering innovative and reliable chemical process equipment, while expanding our footprint across diverse industries and international markets.

Our Certifications



Certifications / Approvals Under Progress:

- ▶ ASME U-Stamp
- ▶ IBR
- ▶ PESO

Design & Engineering

Our engineering strength lies in delivering code-compliant, performance-driven equipment designs tailored to your process, plant layout, and site conditions. From pressure vessels to skid-mounted systems, every solution is custom-engineered for safety, reliability, and operational efficiency.

In-House Software Tools:

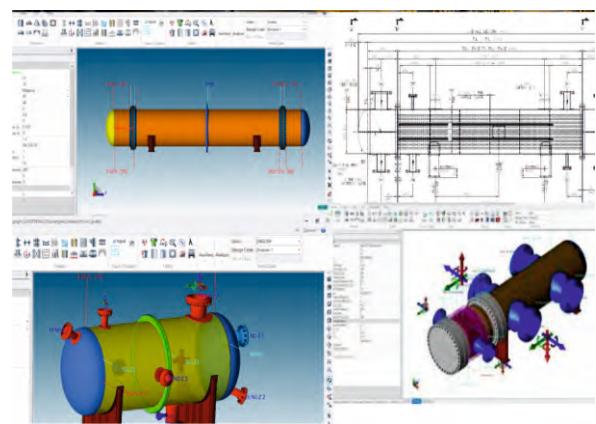
PV Elite® | AutoCAD® | Inbuilt Mechanical Design Spreadsheets

Design Collaborations with Associates:

NozzlePRO™ (FEA) | HTRI® (Thermal) | SolidWorks® / Inventor® (3D Modeling)

Design Standards Followed:

- ▶ ASME PBVC Section VIII, Div. 1 - Pressure Vessel Design
- ▶ TEMA - Shell & Tube Heat Exchangers
- ▶ API 650 / IS 803 - Aboveground Storage Tanks
- ▶ IS 10987 - Underground Storage Tanks
- ▶ IS 2825 / IBR - Non-Boiler & Boiler Pressure Vessels
- ▶ IS 875 (Part 3) - Wind Load Analysis
- ▶ IS 1893 - Seismic Load Design
- ▶ Client-specific and international codes (PED / ASME / EN)



All equipment designs are validated for pressure, temperature, mechanical stresses, seismic and wind loads.

Manufacturing Facilities

With over 55,000 sq. ft. of production area across Sarigam (Valsad) and Saykha (Bharuch), our manufacturing facilities are equipped to deliver quality fabricated equipment of varying size and complexity.

► Existing Inhouse Facilities Include:

- Plate Rolling (up to 30 mm)
- Lifting Capacity (up to 15 MT)
- Turning Capacity of 1000 mm OD x 6 m Length
- Drilling upto 60 mm Dia x 200 mm Deep
- Hydraulic Press (up to 500 MT)
- TIG, MIG, SAW, ARC Welding Machines
- Dished End Forming, Pickling & Passivation Bays

For requirements exceeding these capacities, we have approved sub-vendors.

► Execution Capabilities:

- Shop fabrication up to 100 kL / 20 MT
- On-site fabrication for tanks, chimneys, structural system with storage tanks capacity upto 1000kL
- Skid Modules for utility & pilot systems



Welding & Metallurgy

We are equipped with highly skilled welders qualified according to ASME Section IX (WPQ) & our welding procedures (WPS/PQR) are qualified under inspection of leading TPIA.

► Metals Handled

- Austenitic Stainless Steels (304, 316, 321 etc.)
- Carbon Steel (SA516 Gr.70, IS 2062, LTCS)
- Exotic Alloys: Hastelloy C-22 / C-276, Inconel, Duplex 2205, Super Duplex 2207 etc.
- Cladded Plates

► Processes:

- GTAW, GMAW, FCAW, SMAW, Overlay Welding, Tube-to-Tubesheet Joints

► Lining & Coating:

- Lead, FRP, Rubber, Epoxy, PTFE, SS / Hastelloy Spray Coating (via approved sub-vendors)



Quality Control & Inspections

We implement a stage-wise, traceable ITP / QAP supported by qualified engineers and third-party inspection agencies.

► In-House Tests:

- Visual & Dimensional Inspection
- NDT - DPT, UT, MPT, Helium Leak Testing, PMI
- Hydrostatic & Pneumatic Pressure Testing

► Equipment / Instruments:

- Ultrasonic Gauges, Calipers, Micrometers, Tachometers, Weld Gauges, XRF Analyzer etc.

► Tests via NABL Lab / Sub-vendors:

- Radiography, Eddy Current Testing, PMI, Destructive Testing - Chemical, Physical, Micro, Macro etc.



Some of the TPIAs we work with:



Products & Services

Reactors & Agitators

Shree Shakti Engineering Works manufactures custom-engineered chemical reactors that precisely meet process-specific demands such as required mixing, utility, pressure, and vacuum operations. Built for reliability and efficiency, these reactors are suitable for pharma, agrochemical, petrochemical, specialty chemical, and allied industries.

► Technical Specifications:

- Capacity Range: 50 L to 50,000 L
- Reactor Types: Jacketed, Limpet Coil, Internal Coil, Dual Utility (Combined Jacket + Limpet), Pressure/Vacuum Reactors, Pilot & Modular Reactors
- Operating Conditions: Full vacuum up to 40 bar pressure; temperatures from -20°C to 400°C
- Materials: Stainless Steels (SS304, SS316L), Duplex, Super Duplex, Hastelloy, Inconel, Cladded Steel.

► Agitators & Impellers:

- Axial Flow: Marine Propeller (low viscosity), Pitched Blade Turbine (blending & suspension), Hydrofoil (high-efficiency, energy-saving)
- Radial Flow: Rushton Turbine (gas-liquid dispersion), Disc & Straight Blade Turbines (shear mixing & reactions)
- Tangential/Mixed Flow: Anchor & Gate (viscous mixing, wall scraping), Helical Ribbon (homogeneous viscous blending), Screw Impellers (vertical gentle mixing)
- High-Shear Impellers: Sawtooth (emulsification), Rotor-Stator (intense dispersion & particle size reduction)

Codes & Standards: ASME Sec VIII Div.1, EN 13445, PED 2014/68/EU, IBR, IS 2825, GMP/cGMP



Pressure Vessels & Receivers

Our pressure vessels and receivers are expertly engineered to safely store and handle pressurized fluids, gases, and vapors. They offer unmatched safety, durability, and compliance across diverse industries.

► Technical Specifications:

- Capacity Range: 50 L to 100,000 L
- Vessel Types: Vertical/Horizontal Receivers, Buffer Tanks, Knockout Drums, Degassers, Surge Tanks, Nitrogen Receivers, Air Receivers, Steam Receivers, Day Tank, Separator etc.
- Operating Conditions: Full vacuum up to 40 bar, temperatures up to 400°C
- Materials: SS304, SS316L, Carbon Steel - SA516 Gr.70, LTCS, Duplex 2205/2207, Hastelloy C-22/276, Cladded Steels.
- Custom Features: Jackets, Internal Coils, External Insulation & Cladding, Instrumentation, Safety Valves, Rupture Discs.

Codes & Standards: ASME Sec VIII Div.1, EN 13445, PED 2014/68/EU, IBR, IS 2825, GMP/cGMP



Heat Exchangers

Shree Shakti designs high-performance heat exchangers customized for superior thermal management in chemical, pharmaceutical, petrochemical, and allied industries, delivering optimal efficiency and cost savings.

► Technical Specifications:

- Types: Fixed Tube Sheet, U-Tube, Floating Head, Double Pipe Exchangers
- Heat Transfer Area: Up to 1000 m²,
- Tube Styles: Plain, Corrugated, Finned Tubes for enhanced thermal efficiency
- Operating Conditions: Vacuum to 40 bar pressure; temperature -20°C to 400°C
- Materials: Stainless Steel, Duplex, Hastelloy, Alloy Steel, Carbon Steel & Cladded materials.

Codes & Standards: ASME Sec VIII Div.1, TEMA, API 660 (as applicable), EN 13445, PED, GMP/cGMP.



Distillation Columns & Systems

Precision-engineered process columns designed to deliver superior performance in complex separation, purification, and mass transfer processes.

► Technical Specifications:

- Column Types: Tray Columns (Bubble Cap, Valve, Sieve), Packed Columns, Stripper Columns
- Column Internals: Demister Pads, Structured & Random Packing, Liquid Distributors, Custom-designed trays
- Dimensions: Diameter from 200 mm to 3000 mm; Height up to 30 meters
- Materials: SS304, SS316L, Duplex Steel, Carbon Steel, Hastelloy, Alloy Steels.

Codes & Standards: ASME Sec VIII Div.1, PED, IS 2825, EN 13445.



Storage Tanks

Robust and versatile storage tanks, engineered for reliable and safe storage of chemicals, solvents, fuels, and raw materials in varied industrial environments.

► Technical Specifications:

- Tank Types: Aboveground Tanks (Cone, Dome, Flat Roof), Underground Tanks
- Capacity: Up to 100 kL (Shop fabrication), 1000 kL (On-site fabrication)
- Features: Internal Heating coils, Insulation, Custom Instrumentation & Nozzles
- Materials: Stainless Steels, Duplex, Carbon Steel, Alloy Steel, Cladded materials.

Codes & Standards: API 650, API 620, IS 803, IS 10987, EN/PED.



Agitated Nutsche Filter Dryers (ANFD)

Specialized integrated equipment for filtration, washing, and drying—ideal for sensitive, high-value products in pharmaceuticals and specialty chemicals.

► Technical Specifications:

- Capacity: 50 L - 10,000 L
- Pressure & Temp: Vacuum to 6 bar; temp up to 180°C
- Construction: SS316L, Duplex Steel, Hastelloy, Alloy 20
- Automation: PLC-based control, automated operation, CIP/SIP compatibility
- Special Features: Hydraulic discharge, precise drying, minimized contamination risks.

Codes & Standards: ASME Sec VIII Div.1, GMP/cGMP, PED, FDA.



Air Pollution Control & Scrubber System

Customized air pollution control solutions ensuring environmental compliance and safe workplace conditions.

► Technical Specifications:

- Systems: Wet Scrubbers (Packed, Venturi, Multi-stage), Bag Filters, Dust Collectors, Cyclones, Silos, FRP Lined & SS Ducting, Chimneys & Stacks
- Materials: SS304, SS316L, Duplex, Lining of FRP, PP-FRP, PVC-FRP etc.
- Applications: Acidic gas removal, particulate control, dust/fume extraction, regulatory compliance

Codes & Standards: CPCB/SPCB, EPA (US), ASME (for structural/mech. components), OSHA (workplace safety), ISO 14001, NFPA 68/69



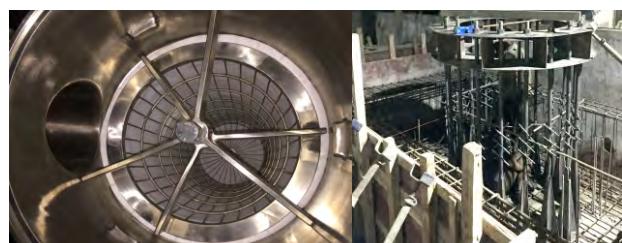
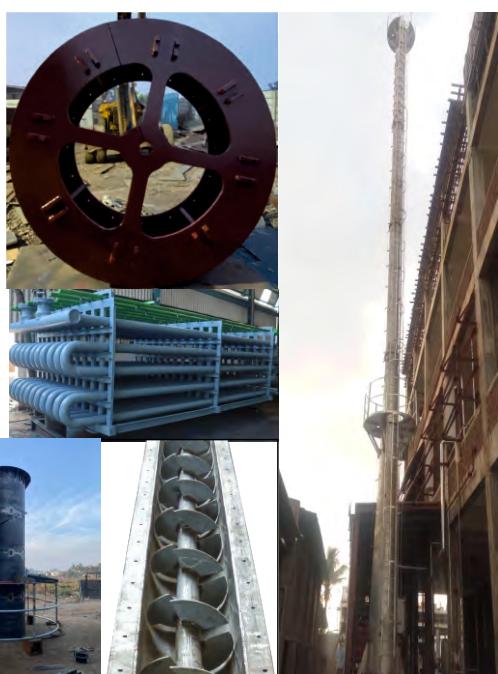
Custom-Built Equipment & Turnkey Solutions

We design and build equipment precisely tailored to client-specific requirements, offering fully integrated turnkey solutions and custom structures.

► Technical Specifications:

- Equipment: Screw Conveyors, Ribbon Blenders, Plough Shear Mixers, Drum Flakers, Coolers, Chimneys, Modular Skids, Customized Fabricated Systems.
- Turnkey Projects: Complete engineering, procurement, fabrication, site erection & commissioning.
- Materials Expertise: Exotic alloys (Duplex, Hastelloy, Inconel etc.), Stainless & Carbon Steels.

Codes & Standards: ASME, API, PED, IS, EN, and relevant GMP/OSHA standards, Custom Specifications

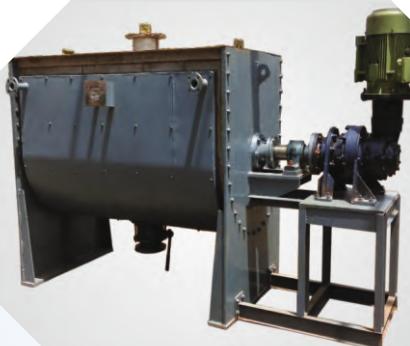


Our Valuable Clients:



& many more

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