



11+
YEARS OF
EXPERIENCE

INNOVATIVE | INTEGRATED | IMPACTFUL

EVERY PROJECT STARTS WITH A **VISION** WE TURN
THAT **VISION INTO ENGINEERING REALITY**

ABOUT US

At ChemDesign Services Pvt. Ltd. (CDS), we turn ideas into efficient, real-world engineering solutions.

Founded in 2014, CDS began its journey with a few ambitious projects and one clear vision to deliver innovative design, precise execution, and dependable results.

Over the years, we've partnered with clients across diverse industries, helping them overcome challenges in project establishment, process optimization, capacity enhancement, and automation.

Our team of skilled engineers and designers combines technical expertise with creativity, ensuring every project moves smoothly from concept to commercialization.

With a growing list of satisfied clients and repeat collaborations, we continue to build on our founding values commitment, quality, and excellence in everything we do.



OUR MISSION

“Leading Through Innovation, Growing Together.”

To become a trusted global name in engineering design by continuously fostering innovation, excellence, and lasting client partnerships.

OUR VISION

“Designing Solutions, Delivering Excellence.”

We aim to provide innovative, precise, and reliable engineering solutions that empower our clients' growth. Every project is built on our promise of quality, customer satisfaction, and sustainable practices.

OUR CORE VALUES

Our values guide every project we undertake. We strive for excellence by delivering quality beyond expectations and uphold integrity in everything we do. With a strong client focus, we design solutions around your needs, driven by innovation that blends creativity with technology. Through teamwork and commitment, we ensure every project is executed with passion, precision, and purpose.

DIRECTOR



At ChemDesign Services Pvt. Ltd., we take pride in contributing to India's industrial growth through innovative, precise, and sustainable engineering solutions. Our mission is to empower clients with designs that ensure safety, efficiency, and reliability in every project.

We believe in going beyond design building long-term partnerships based on trust, quality, and performance. Together with our clients and team, we continue to shape a smarter and more sustainable future for industry.

What truly defines us is our commitment that goes beyond design it's about building trust, lasting partnerships, and creating real impact.

– **Jignesh A. Patel**

Director, ChemDesign Services Pvt. Ltd.

WHY CHOOSE US

▶ Expertise That Delivers

Our experienced engineers and CAD professionals turn complex concepts into precise, high-quality designs delivering results that work in the real world.

▶ Innovation at the Core

By embracing the latest technologies and creative thinking, we provide efficient, future-ready engineering solutions that stand out.

▶ Tailored Solutions

We understand that every project is unique. Our approach is fully customized to your goals and challenges, ensuring maximum value and impact.

▶ Commitment You Can Trust

From consultation to completion, we're dedicated to excellence, transparency, and on-time delivery building long-term trust with every client.

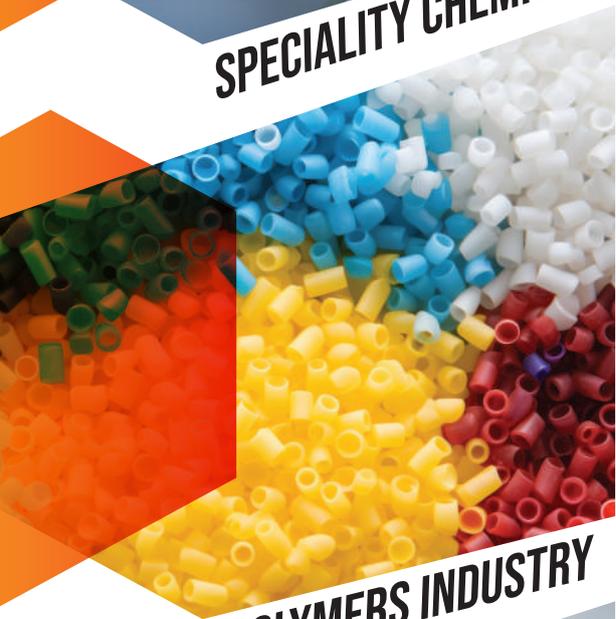


INDUSTRY WE SERVE

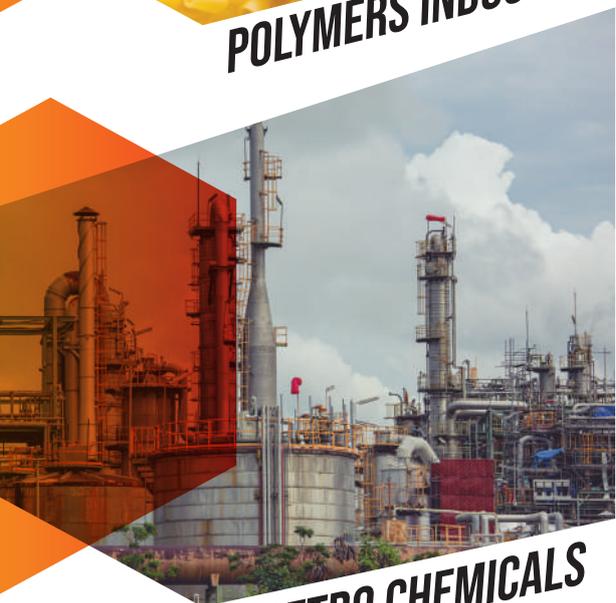
At ChemDesign Services Pvt. Ltd., we cater to a wide range of industries with customized engineering solutions. Our expertise ensures every sector we work with benefits from innovation, precision, and reliability.



SPECIALITY CHEMICALS



POLYMERS INDUSTRY



PETRO CHEMICALS



PHARMA INDUSTRY



WATER TREATMENT



FOOD & BEVERAGES

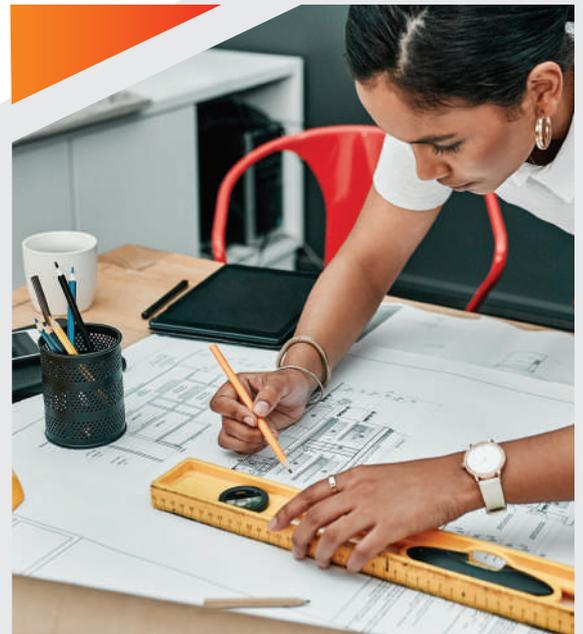
WHAT WE DO

BASIC ENGINEERING

Our Basic Engineering services lay the foundation for every successful project. We develop precise process designs, detailed specifications, and conceptual layouts that ensure efficiency and reliability from the very start.

Key Services Include:

- ▶ Process Flow Diagrams (PFDs)
- ▶ Material & Energy Balance
- ▶ Conceptual Layouts and P&IDs
- ▶ Equipment & Instrument Specifications
- ▶ Relieving Systems and Flare Network Design
- ▶ Feasibility Studies and Cost Estimation
- ▶ Payback, ROI & Financial Analysis



DETAIL ENGINEERING

Our Detail Engineering services ensure seamless execution through precise designs, accurate documentation, and complete technical support. We translate concepts into practical, build-ready solutions that meet quality, safety, and performance standards.



Key Services Include:

- ▶ Mechanical Engineering
- ▶ Piping Engineering
- ▶ Civil & Structural Engineering
- ▶ Electrical Engineering
- ▶ Instrumentation Engineering
- ▶ Safety & Fire Protection
- ▶ Procurement Engineering
- ▶ Project Management & Consultancy (PMC) Services

WHAT WE DO

MECHANICAL ENGINEERING

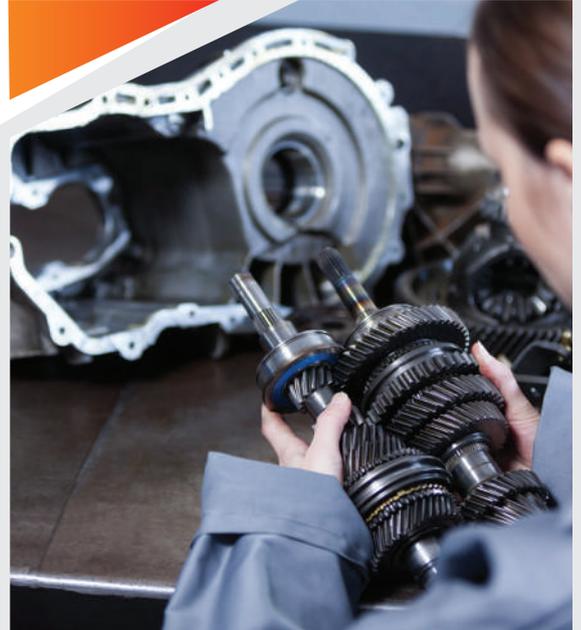
Our Mechanical Engineering team delivers robust and reliable design solutions that ensure performance, safety, and efficiency across every project. From concept to fabrication, we handle detailed mechanical design and documentation with precision and adherence to international standards.

Key Services Include:

- ▶ Equipment Data Sheets
- ▶ Design of Static & Rotating Equipment
- ▶ Design Validation
- ▶ Load Calculations (WRC 107/537) for Equipment Nozzles
- ▶ Nozzle Orientation & Equipment GA Drawings
- ▶ Layouts, Detailed & Fabrication Drawings
- ▶ Pipe Support Clip & Assembly Drawings
- ▶ MTO / BOM Preparation

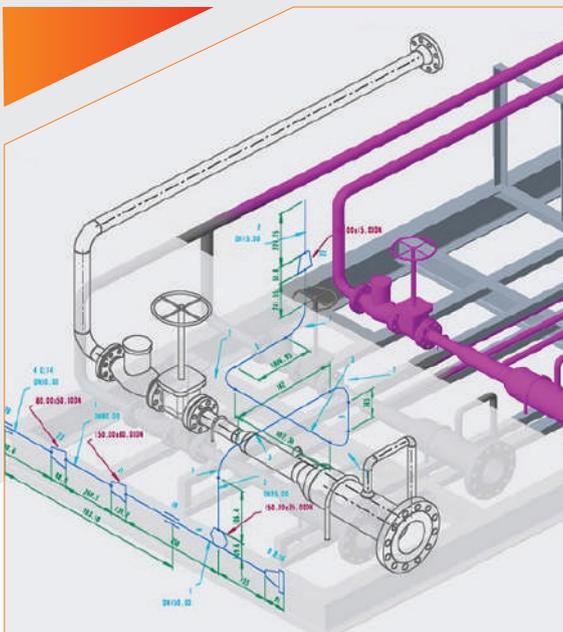
Design Codes & Standards Followed:

API 650, API 579, API 620, API 653, ASME Boiler & Pressure Vessel Code (Section VIII, Div. 1 & 2), PD 5500, and TEMA.



PIPING ENGINEERING

Our Piping Engineering services ensure smooth, efficient, and safe plant operation through precise design, analysis, and 3D modeling. We focus on functionality, safety, and maintainability while meeting all industry standards.



Key Services Include:

- ▶ 3D Model Development
- ▶ Equipment Layouts & Plot Plans
- ▶ Piping Plans and Isometric Drawings
- ▶ Stress Analysis
- ▶ Piping Support Design & Calculations
- ▶ MTO / BOM Preparation

Design Codes & Standards Followed:

ASME B31.1, B31.3, B31.4, B31.8, B31.11, BS EN 13480, BS EN 14364, and Shell DEP.

WHAT WE DO

ELECTRICAL & INSTRUMENTATION

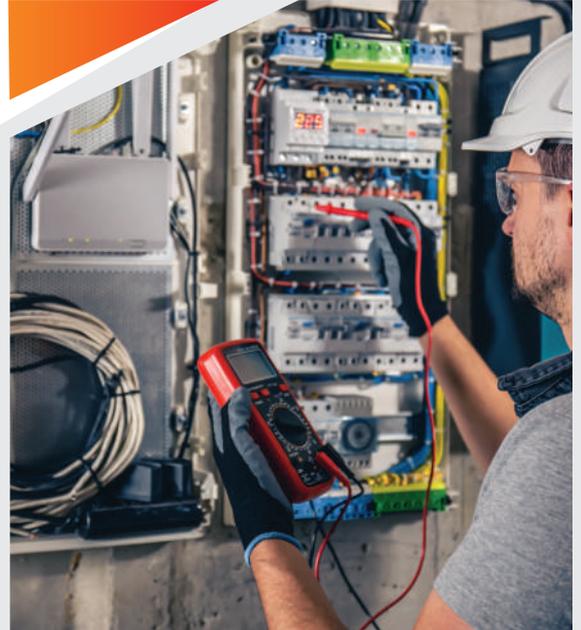
Our Electrical & Instrumentation Engineering services ensure safe, reliable, and efficient plant operations through precise design and integration of power and control systems. We deliver optimized layouts and documentation that enhance performance, safety, and maintainability.

Key Services Include:

- ▶ Specifications for Field Instruments & Control Panels
- ▶ Instrument Location Plans
- ▶ Cable Schedule & Cable Tray Layouts
- ▶ Load List & Single Line Diagrams
- ▶ Specifications for Transformer, PCC, MCC
- ▶ Earthing & Lighting Layouts, Cable Sizing & Routing
- ▶ Instrument Index with I/O List
- ▶ Cause & Effect Diagrams

Design Codes & Standards Followed:

IS, ISO, ISA, IEC, BS, API, ANSI, NFPA, NEMA, OISD, UL, IP NEC, CENELEC, IEEE, OSHA, and NACE.



CIVIL/ STRUCTURAL ENGINEERING

Our Civil and Structural Engineering team delivers safe, efficient, and cost-effective designs that form the backbone of every project. From foundations to process structures, we ensure durability, compliance, and seamless integration with plant operations.



Key Services Include:

- ▶ Site Preparation, Grading & Fencing Details
- ▶ Equipment Foundations — Static & Dynamic
- ▶ Foundation Layouts & Design Reports
- ▶ Design of Non-Plant Buildings (Admin, Utility, Canteen, etc.)
- ▶ Drainage, Road & Paving Layouts
- ▶ Process & Technological Structures, Pipe Racks, Platforms, Shelters, Crossovers & Sleepers
- ▶ Structure Stress Analysis & Structural Calculations
- ▶ Fabrication Drawings, MTO & BOM Preparation
- ▶ 3D Modeling, Procurement MTO & As-Built Drawings

Design Codes & Standards Followed:

AISI, AISC, UBS, IBC, ASCE, ACI, BS, and IS

WHAT WE DO

AUTOMATION & MECHANISATION

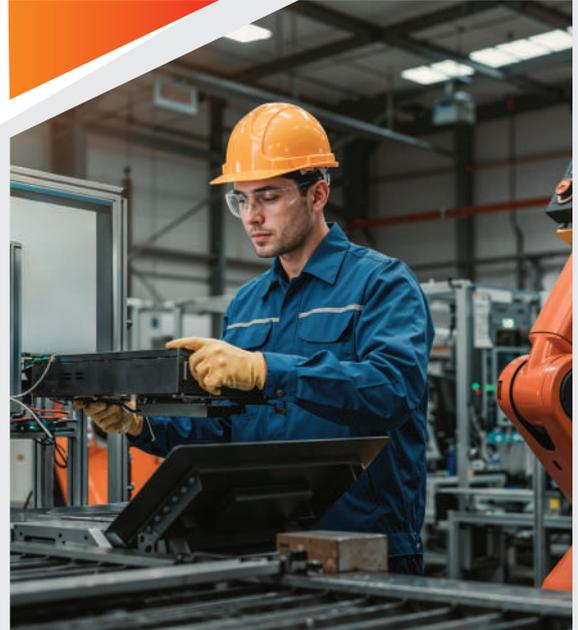
Our Automation and Mechanisation solutions bring intelligence, safety, and efficiency to industrial operations. By integrating advanced control systems with real-time monitoring, we help industries achieve higher productivity and safer performance.

Key Services Include:

- ▶ Enhanced plant and personnel safety by reducing breakdowns and incidents
- ▶ Minimized human error through reliable automated systems
- ▶ Increased production capacity and improved operational efficiency
- ▶ Optimized product quality, consistency, and yield
- ▶ Integrated automation and information management systems
- ▶ Safety interlocking systems connected to the control network
- ▶ Reliable and energy-efficient system design

Technologies We Use:

DCS (Distributed Control System), SCADA (Supervisory Control and Data Acquisition), PLC (Programmable Logic Control), HMI (Human Machine Interface)



PROJECT MANAGEMENT & CONSULTING

Our Project Management and Consulting services ensure smooth coordination, timely execution, and technical precision from concept to commissioning. We act as your strategic partner managing every stage of the project with clarity and control.



Our Expertise Includes:

- ▶ Establishing project coordination and design procedures
- ▶ Project planning, monitoring, and progress tracking
- ▶ Coordination with clients on technical, commercial, and timeline requirements
- ▶ Liaison with construction teams and site managers for seamless execution

Continued Technical Support:

Our responsibility doesn't end at project handover. We stay involved to ensure optimal plant performance, identify opportunities for improvement, and support long-term operational success.

PROCESS IMPROVEMENT

Our Process Improvement services focus on enhancing plant performance, productivity, and product quality through technical expertise and innovative engineering. We analyze existing systems, identify limitations, and implement effective solutions that deliver measurable results.

Key Services Include:

- ▶ Troubleshooting of existing processes
- ▶ Yield improvement and batch cycle reduction
- ▶ Quality enhancement and process optimization
- ▶ Process development and scale-up
- ▶ Heat exchanger performance evaluation
- ▶ Debottlenecking and capacity enhancement
- ▶ Implementation of process and unit operation modifications

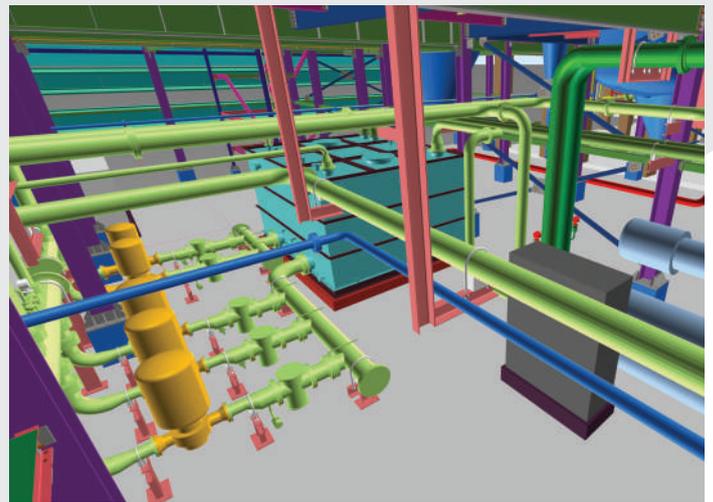
We ensure every improvement leads to higher efficiency, reduced downtime, and sustainable growth empowering industries to achieve more with existing resources.



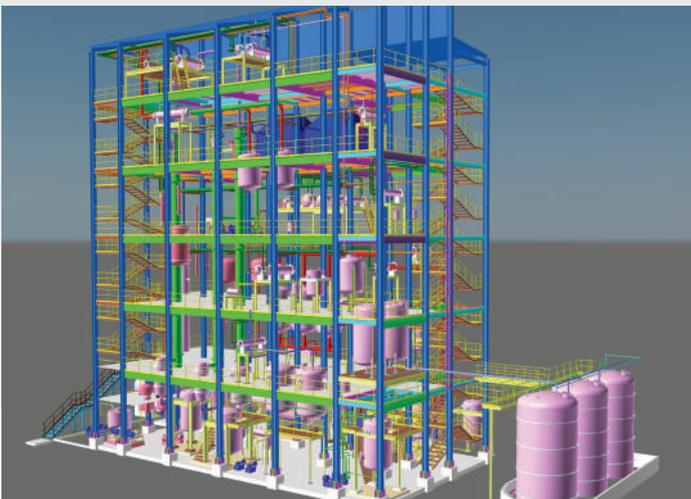
PROJECTS / CASE STUDIES



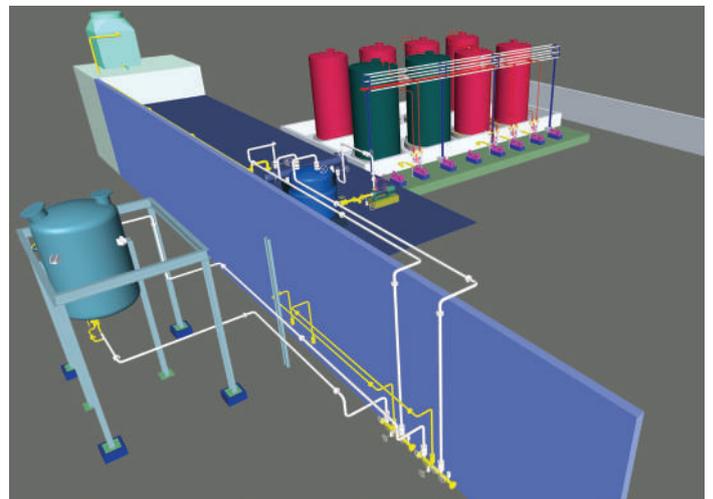
Brownfield Project- Detail Engineering



Greenfield Project-Utility Piping 3D Modelling



Greenfield Project -Basic & Detail Engineering



Brownfield Project-Piping Engineering

DESIGN SOFTWARES

At ChemDesign Services, we leverage advanced design and analysis software to deliver accuracy, efficiency, and innovation at every project stage. Our multi-disciplinary tools support 3D modelling, process engineering, mechanical design, and structural analysis, ensuring seamless project execution from concept to commissioning.

3D MODELLING



AVEVA
EVERYTHING3D™



A AUTODESK
AUTOCAD™



AUTODESK
NAVISWORKS

PROCESS ENGINEERING



aspentech



A+



HTRI



PIPENET®
LEADING THE WAY IN FLUID FLOW ANALYSIS



HTRI

MECHANICAL DESIGN & STRESS ANALYSIS



CAESAR II®
Pipe Stress Analysis



PV Elite®
PRESSURE VESSEL ANALYSIS



TK PV Tank
Storage Tank Design



cérebro

CIVIL & STRUCTURAL DESIGN

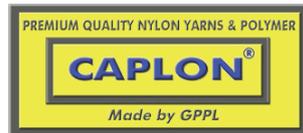


STAAD.Pro
CONNECT Edition



Tekla

OUR CLIENTS



YOUR PROCESS ENGINEER

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