



About Us

Spectra Dynamics Limited (**Spectra**) is promoted by Paramount Limited which has been successfully serving the chemical process industry for past 40 years providing turnkey plants and systems to a very large satisfied customer base.

Spectra has been formed to provide process design and engineering consultancy services to the process industry. We have a team of highly experienced personnel with process design and engineering background. We are, therefore, confident of providing quality services within the agreed time schedule.

Process Design & Basic Engg. Services

Detail Engineering Services

Construction Management Services

Turnkey Solutions

Industries Served

- Oil & Gas Processing
- Petrochemical
- Refinery
- Speciality Chemicals
- Pharmaceutical
- Metal Processing
- Chemical Recovery from Effluent

Scope of Services

- Process Design & Basic Engineering
- Detail Engineering
- Project Management
- Software Solution
- Turnkey Plants & Systems



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Process Design & Basic Engineering

Plant Simulation

- Flowsheet Development with heat & mass balance
- Process optimization
- Equipment design optimization
- Physical & thermodynamic properties prediction

Process Design

- Conceptual design of the plant based on technology data from laboratory, pilot plant or operating plant
- Design of columns, heat exchangers, reactors etc.

Basic Engineering

- Basic Engineering Package preparation for process plants, utilities and offsites
- Development of P & IDs and instrumentation process design
- Conceptual plant layout development
- Preparation of operating manuals

Feasibility Studies

- Preliminary process design
- Project cost estimation & operating cost estimation
- Investment return calculations and sensitivity analysis

Plant Troubleshooting & Debottlenecking

- Capacity Enhancement
- Quality Enhancement
- Effluent Reduction
- Safety Improvement
- Energy Optimization

Plant Automation

- Process control & monitoring
- Quality & consistency enhancement



Detail Engineering Services

Piping

- Plot Plan Development
- Equipment Layout
- Piping Layout Plans
- Isometrics
- Material Take Off
- Stress Analysis
- Procurement Assistance
- Construction Supervision

Mechanical

- Fabricated Equipment Design
- Detail Engineering Datasheet Preparation
- Procurement Assistance
- Erection Supervision

Instrumentation

- Instrument Index
- Detailed Specifications
- Control System (DCS/PLC) Specifications
- Installation Drawings
- Cable sizing and cable-layout
- Bill of Material Development
- Procurement Assistance
- Installation Supervision

Electrical

- Single-line Diagram
- Specifications for PCC & MCC
- Earthing and Lighting Layouts
- Cable sizing and layout
- Procurement Assistance
- Installation Supervision

Civil / Structural

- Site Survey
- Foundation Design
- Steel Structure & Super Structure Design
- RCC Design
- Development of Bill of Quantities
- Procurement Assistance
- Construction Supervision

Project Co-ordination & Management

- Project Planning
- Activity Scheduling & Monitoring
- Co-ordination between Engineers & with Client
- Progress Reporting
- Project Cost Monitoring and Control

Client List

Oil & Gas / Refinery / Petrochemicals

- Oil & Natural Gas Corporation Ltd.
- Indian Oil Corporation Ltd.
- Chennai Petrochemicals & Corporation Ltd.
- Cochin Refinery Ltd.
- Mangalore Refinery & Petrochemicals Ltd.
- Essar Oil Ltd.
- Indian Petrochemicals Corporation Ltd.
- Reliance Industries Ltd.
- Hindustan Petroleum Corporation Ltd.
- Gas Authority of India Ltd.

Fertilizers

- Rashtriya Chemicals & Fertilizers Ltd.
- National Fertilizers Ltd.
- Gujarat State Fertilizers Corporation Ltd.
- Gujarat Narmada Valley Fertilizers Company Ltd.
- Indian Farmers Fertilizer Company Ltd.
- Shriram Fertilizers & Chemicals Ltd.

Chemical / Pharmaceutical / Agrochemical

- Ciba - CKD Ltd.
- Orchid Chemicals & Pharmaceuticals Ltd.
- Lupin Laboratories Ltd.
- Gujarat Apar Ltd.

Misc. Sectors

- Associated Cement Ltd.
- GE Plastic India Ltd.
- SWIL (Copper) Ltd.
- National Aluminum Company Ltd.

