



**FOURESS ENGINEERING (INDIA) PVT. LTD.** is the flagship company of the **FOURESS GROUP** of companies and commenced operations in 1962 with the manufacture of carbon steel industrial valves at Thane. In order to enhance its know-how base, the company in 1973 signed what was to be the first of its Foreign Collaboration Agreements with M/s. Boving & Co Ltd, London U.K. for the manufacture of Butterfly Valves. Growing markets, shifts in production and the demand for a vast range of products and the latest technology has further led to the setting up of 8 other plants within India namely at Bangalore, Aurangabad, Chennai and Baroda.



Chairman's Office



Thane Plant

The reorganization of individual strategic business units, supported with solid technological upgradation and a vast experience of over 40 years has today equipped the Fouress Group to take on future market challenges.



Bangalore Plant

Today the **FOURESS GROUP** in India represents a major strength in Fluid Isolation & Control, Power Generation & Propulsion Systems together with mechanical, electrical, pneumatic and hydraulic devices of actuation and motion transmission applicable to fluid power machinery, thus placing us among the leaders **"IN THE BUSINESS OF FLOW"**



Aurangabad Plant



B Fouress Plant

**FOURESS** made a humble beginning with the manufacture of carbon steel industrial valves, over four decades ago. Today, Fouress Group in India has developed its capabilities in the diverse field of Fluid Engineering to position ourselves deservingly in the **"Business of Flow"**.

**Fouress Engineering (India) Pvt. Ltd. (FEIPL)** contributes its major strength in the field of Industrial Valves of various types and sizes; all the way from plain fresh water service at low pressure to extreme duties of hydro-carbon processing, from superheated steam and hot blast gases at 1300°C in steel plants to cryogenic temperatures, in the size range of a 3mm needle valve to mammoth 4000mm hydro-electric turbine inlet valves and even larger gas line valves up to 6 mtrs., square duct dimensions; from plain hand lever drive to operation. By complex electro-hydraulic multi point control drives or state of the art profibus communication protocol through electric and pneumatic actuators and PLC based computer commands.

In short, the **Fouress Industrial Valves** range covers every conceivable duty of fluid isolation, regulation and control.

For over 15 years now, **FEIPL** in collaboration with Rolls-Royce manufactures propulsion system with controllable pitch and fixed pitch propellers for naval and merchant marine ocean going vessels. These systems are complete with electro- hydraulic and pneumatic / electronic control systems.



## Our Strength

Today, FOURESS is a confluence of specialist technologies in the field of flow. It has developed diversified technical strengths in the vast arena of flow sciences. It is believed that no other company has such comprehensive and heterogeneous range of custom designed product capabilities. Consequently the multi-disciplinary engineering capability is an invaluable asset of the Fouress group. Intertwining the technologies of global leaders, many license agreements have resulted into joint ventures, co-production agreements for global markets and joint marketing agreements with erstwhile and current overseas technology partners.

### Engineering & Capability :

**Design - Research & Development - Application Engineering - Manufacture - Quality Management - Field Service - Project Management - Refurbishment**

At the core of Fouress lies its capability in assimilating and adapting technology. Building on early technology partnerships with world leaders, and later carefully intertwining eastern and western strengths, Fouress Group has put in place, a sound engineering base. This has resulted in independent development of any and every product or system in the field of fluid isolation control, regulation, propulsion, power generation and lately, noise and heat regulation in fluid paths. Flow model testing and simulation techniques are routinely applied for product development, custom-made, high-value jobs such as large gas turbine diverters, Hydraulic research lab, and life cycle testing facilities to validate the basic designs have contributed to brand nomination of Fouress products for intensive capital projects. The design center at Bangalore plant have now been accredited as recognized R&D center by the Department of science and Technology, Govt. of India. Specialized software and modelling for seismic analysis of equipment for Nuclear Power Stations, Rotary Air locks for material handling industry, Fire safety qualification for helicopter's Fuel Rig valves for Indian Navy, are some of the land mark achievements of Fouress R&D.

### Engineering & Capability :

- Assimilation of technology through innovative marketing, engineering developments and unique manufacturing processes.
- Over 40 years of experience has resulted in independent development of custom engineered products in the field of Fluid Isolation, Control, Regulation, Propulsion, Power Generation and lately the Noise Abatement and Heat Retention in flow path.
- Flow model testing and simulation techniques using advance design tools, are routinely applied for products development and proof design.
- Use of hydraulic research laboratory, life cycle testing, finite element analysis, modeling techniques et al., are the means to validate basic design

### Comprehensive Production Facilities :

- Manufactured in 7 manufacturing plants owned by the group in the country.
- Modern manufacturing equipment supported with 1200 men for production activities.

### Manufacturing Capabilities :

We manufacture our products in three major plants at different locations in India. The production activities are supported by over 1000 men and modern manufacturing facilities at Mumbai, Bangalore and Aurangabad. Three more subsidiary plants are in Baroda, Chennai and Bangalore. For better control on quality and delivery, the emphasis has always been on substantial manufacture, in-house. Eight production centers of the Fouress Group in various parts of India have been equipped with extensive manufacturing, material handling and surface treatment capabilities, to create a high-end but complementary production infrastructure.

- Emphasis on substantial manufacture in-house, ensuring better control on quality and delivery.
- All the 7 plants in the Group are equipped with extensive manufacturing, material handling, super finishing equipment for cylindrical and flat surfaces, CNC Gas and Plasma cutting, CNC drilling, surface treatment capabilities and full back-up DG captive power to create a high end but complimentary production infrastructure.

### Quality Assurance and Management :

- ISO 9001 accredited quality management system with dedicated teams in each plant who are equipped with state-of-the-art facilities.
- Traceability of materials used in every product backed by documentation control to provide comprehensive product guarantee matching the needs of international standards.

### Field Services and Spares Support/Refurbishment /Reconstruction/ Reclamation :

- Product support, right from delivery and commissioning up to guarantee and beyond, by timely and reliable spares and service back-up for custom made / engineered products.
- Dedicated team in each product center for erection and commissioning services.
- Qualified and trained engineers specialized in electro-mechanical systems, drives, controls, communication protocol software and interfacing our equipment with the rest of the plant by offering our services, world over.
- Building on our experience in reducing replacement costs of new acquisition, specialized capabilities are developed by offering refurbishment, renovation and reclamation of our range of products of any origin, adding contemporary design inputs for life extension services and enhanced performance through our unit at Vadodara (FMIPL).
- Automation of exiting facilities and drives, incorporating modern electro-hydraulic systems for existing blast furnaces and other process plants in major integrated steel mills.

### Some of the high points :

- 60-ton single piece handling facility
- Vertical turning/boring capacity up to 6000mm
- Shaft turning up to 15000mm between centers
- Hollow boring up to 7500mm
- 250 ton press brake and shearing, 300 ton forming press
- TIG/MIG/MMA and submerged arc welding up to 200mm
- Full Penetration butt weld (Automatic and semiautomatic)
- Super finishing equipment for cylindrical and surface
- 100,000 sq.ft.under crane.
- 3-dimensional profile checking for propellers and turbine blades
- Instruments and gauge calibration facilities related to national standards.
- CNC Gas & Plasma Cutting for CS&SS plates
- CNC Drilling
- Full Back-up DG captive power