

**Manufacturing Capacities**

- Structured Packings 25 Ton/Month
- Column Internals & Fabrication 20 T/Month
- Centrifuges 3 nos./month

**Major Machinery**

- Lathe Machines
- Milling Machines
- Drilling Machines
- Surface Grinders
- Bench Grinders
- Press Machines
- TIG/Arc/Spot Welding Machine
- "W"Grooving Machine
- Wheel Cutting Machine
- Packing Assembly Machine
- Decoiler
- Pneumatic feeder
- Press Machines
- CNC Turret Punch Press
- Shearing Machines
- Plazma Cutting Machines
- Press Brake
- Rolling Machine
- Pickling
- Material Handling Equipments

**Financials**

Year	Turnover (USD)	Exports (USD)	R & D Expe. (USD)
2002-2003	811435		
2003-2004	965064		
2004-2005	2,023547		

**Export Country**

**Testing Facilities**

**A) Liquid Distributor Testing :**

Finepac design support offers a state of art facility for testing of liquid distributors ranging from 100mm diameter of 170 mm diameter , for flow rates ranging from m3/hr to 10 m3/her.

**The testing facility includes**

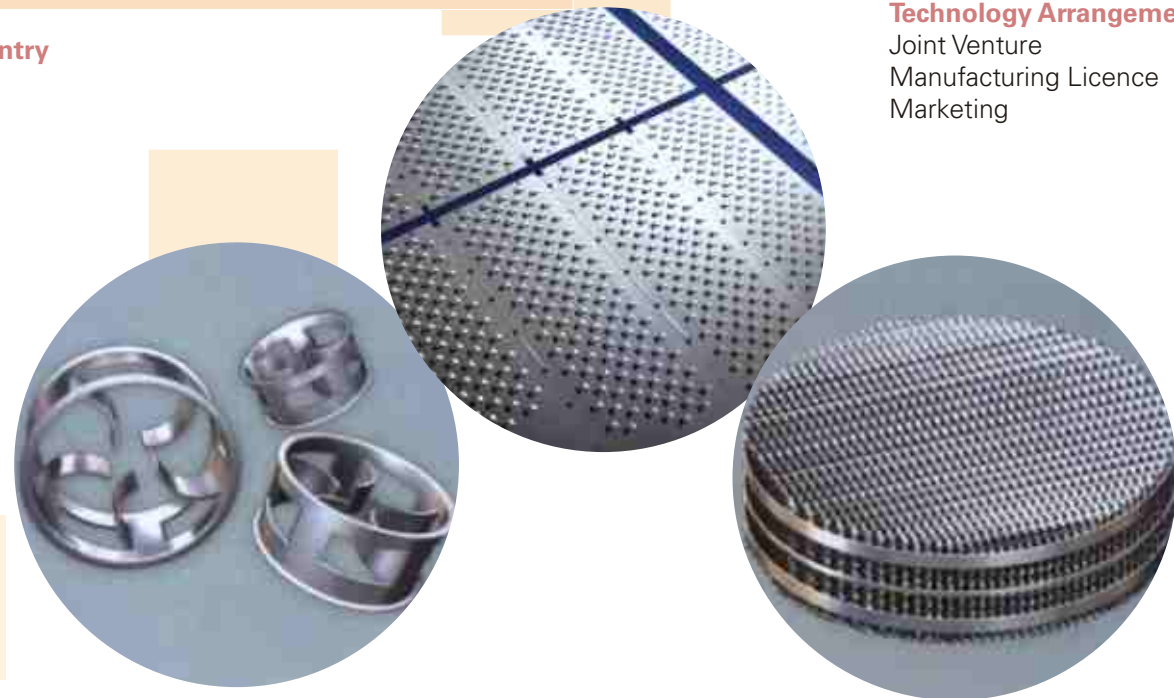
- 50,000 Liters water tank
- Centrifugal Pump of capacity 10 m3/hr, 15 meter head.
- Glass tube rotameters for flow control
- Hangers for holding the distributor and Level instrument for leveling of distributor.

**B) Trials for Pusher centrifuge machine:**

Finepac caters to the needs of chemical process industries for solid liquid separation system, and offers a dedicated trial machine for conducting trials at sites. The trials are conducted by our technical experts and based on the results; conclusions are drawn regarding the operability/compatibility of machine for a given separation

**Technology Arrangement**

Joint Venture  
Manufacturing Licence  
Marketing



**Technology Export Development Organisation**

A project of Confederation of Indian Industry (CII) & DSIR, Govt. of India

Plot No. 249 F, Sector 18, Udyog Vihar, Phase-IV  
Gurgaon - 122015 (Haryana), INDIA

Tel. : 91-124-4101044 (D), 4014060-67, Fax : 91-124-4014080

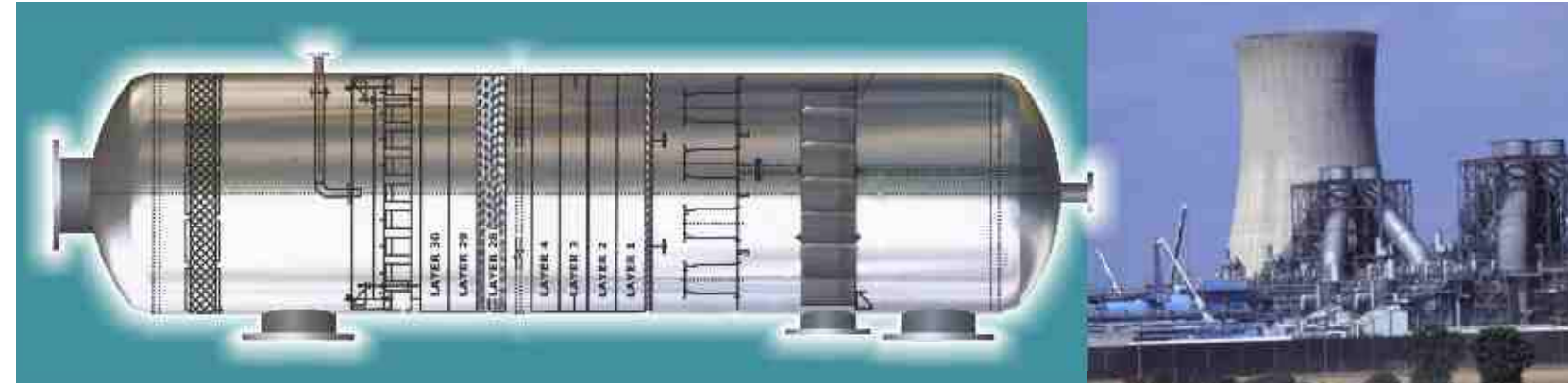
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# Finepac Structures Pvt. Limited.

Estd. : 1993

ISO : 9001-2000



## Product & Services

**Structured Packing**

Structured Packing available in specific mass transfer surface areas (Sq.m/cu.m) of 60, 125,250,350,500 &750.

**Materials of Construction:** SS304, SS304L, SS316, SS316L, 254 SMO,904L ,etc.

**Advantages**

- High efficiency of FINEPAC structured Packing enables better separation in smaller column heights.
- Lower liquid hold-up & low pressure drop across the bed lead to lower bottom temperatures. This reduces chances of degradation of heat sensitive products. Also this reduces heat load requirement, resulting into energy savings as well as cost saving by the way of smaller re-boilers.

**Finepac High Efficiency Wire-Mesh Structured Packings**

- Ultra high efficiency column packing
- Suitable for separation of chemicals with very low relative volatilities requiring very high number of theoretical stages of distillation.
- Extremely advantageous in laboratory distillation systems.
- Exhibit all the features & advantages of the FINEPAC sheet-metal packings.
- MOC: SS316, SS316L & others on request.

**Application**

- Ranging from laboratory columns to large scale process systems.
- Close boiling components distillation
- High vacuum process columns.
- Solvent recovery
- Azeotropic distillation

- Suitable for both batch & continuous distillation systems.

**Column Internals – Random Packing**

- Trough Distributors
- Orifice Distributors
- Redistributors /Chimney Tray Redistributors
- Support Grids
- Liquid Distributor a) Channel Type b) Antenna Type C) With Pre-Distribution Type
- Liquid Collectors a) Flange Type b) Vane Type
- Multi Beam Support Grid
- Liquid Distributor/Redistributors a) Gravity Type b) Orifice Type c) rough Type , weir Riser Type special Design
- Chimney Tray /Gas Distributors a) Riser Collector b) Tray Type c) vapor Distributor.
- Bed Limiter a) Grating Type b) Expanded Metal c) Screen Type d) Any combination.

**Column Internals Structured Packings**

A mass transfer tower also requires other internal equipments besides the packing or trays Distributors. Disperser plates and feed pipes spread the liquid and vapour within the tower. Collector plates capture liquid for removal from the tower. Packing support plates and bed limiters are used to physically support and retain packings inside the tower. Finepac manufacturers tower internals in a variety of metals for use in virtually all mass transfer processes.

**Static Mixer**

- Mixing is an important unit operation in the process industry .it is always a task to achieve better mixing using minimum power consumption.

Product & Services

- After due consideration of various properties of the fluids to be mixed, the static mixing unit has to be derived to ensure maximum homogenization over entire cross section of the flow at the other end.

#### Materials of Construction

Stainless steel, other Exotic metals and also PTFE and FRP available for mixing elements as well as the external housing.

#### Advantages of Fine Pac Static Mixers

- In line mixing device without moving parts No maintenance
- Compact system involving only pumping systems Low energy costs
- Continuous process can be devised as result consistent quality of the output as against likely variation in the output as in the case of batch/stirred vessels.
- Comparable cost effectiveness in case of installation and running costs.
- Efficient mixing

#### Some of Applications

- Mixing reactants in the plug flow reactors
- Neutralization process
- Blending of Additives
- Mixing of components of wide viscosity/Density difference
- Better dispersion of poor mixing liquids smaller droplet size.

#### Distillation Trays

Column Trays Finepac offers following different types of trays: Finepac are able to design and manufacture all types of conventional counterflow trays (with the exception of certain proprietary types) for any column size and from any metallic material that can be worked using punching and bending processes. The scope of work undertaken by Finepac can vary to suit the individual project or maintenance requirement of custom fabrication of trays or tray parts as per customer design and specifications to complete installation.

#### Tray Types

Value Trays have perforated tray decks fitted with moveable discs (valves) to vary the tray open area with changing vapour load. There are numerous proprietary value types which may either have legs fitted to the valve disc to restrict upwards movement or alternatively the valve disc movement is restricted by a "cage" fitted to the tray deck.

- Wide range of efficient turndown. (10 : 1)
- Mixed weight valves for stable operation.
- Wide range of efficient turndown.
- Anti fouling across the tray deck and walls of the vessel.
- Up to 3 times stronger decks.
- Higher Jet flood characteristics.
- Steady liquid movement across the tray deck.
- Non moving or separate parts.
- Low Cost.
- Easy tray retrofits.

#### Bubble Cap Trays

Consists of bell shaped caps fixed to cylindrical risers through which the vapour passes the tray deck. The major advantage of using Bubble Caps is that because they form a positive liquid seal, they will function effectively over a very wide turndown range without weeping.

Features Include:

- High operation turn down.
- Low liquid/Vapour flow rates.

#### Sieve Trays

Sieve Trays have tray deck areas uniformly perforated with round holes. Tray designs with perforations as small as 6mm or as large as 25mm are common with 13mm (or 0.5") being the most commonly used. Sieve Trays are inexpensive to manufacture and are therefore usually the most economic device where turndown range is not required.

- 2:1 Turndown.
- Good overall efficiency in clean services.
- Tried and tested performance.
- Low cost.

#### Random Packings

Finepac offers an array of conventional and customized random packings that enable organizations to choose the best possible option for maximum outputs. Metal random packings have lesser probability of breakage as compared to ceramic packings and are thus a priority for deep beds. Also, it synergises with the packing geometries and sustains higher temperatures with better wetting ability, thereby generating higher yields than the ceramic or plastic packings.

#### Finepac's range includes

- Finalox (Finepac Metal Saddle Rings)
- Pall Rings
- C-Rings
- Cylindrical Rings

This range is available in CS & all types of Stainless Steel and any other metal as per process requirements.

#### Salient features

- Greater efficiency than fractional trays and other random packings.
- Ideal in a wide range of mass transfer services.
- Liquid residual time reduced by 30%.
- Ideal for deep vacuum towers where low-pressure drop is critical.
- Available in various sizes as per requirement.

#### Structured Grid Packing FINAGRID

FINAGRID Structured grid packing from Finepac is an excellent choice for applications that have fouling, erosion, cooking and high solids content. Finagrid installed in rigid modules stacked in successive layers can be removed, cleaned and replaced quite easily.

Our uniquely designed packing minimizes the overall pressure

drop while simultaneously increasing the capacity/ efficiency of the tower.

Finagrid, constructed in modules, can be made to industry standard design in a wide range of steel and alloy materials.

#### Applications

- Atmospheric Crude Units
- Vacuum Towers
- Coker of Visbreaker Fractionators: Wash Section
- FCC Main Fractionator: Slurry pumparound section
- Gas Quench Towers
- Coker Scrubbers
- Edible Oil Deodorizers

#### Internals for Oil & Gas Industries

Finepac is a leading supplier of process systems for a wide range of products within the oil and gas industry.

Finepac custom builds all of its processing systems to meet both clients specifications and demands of onsite conditions. The scope of supply includes design of columns internals for fixed and floating production systems. Gas/liquid/solid separation equipment, gas conditioning and liquid processing equipment, computational fluid dynamic studies and heat exchanger equipment.

#### Finepac specializes in designing columns like

- Amine Contactors
- TEG Contactors
- H<sub>2</sub>S Strippers
- Separator Internals.etc.

#### Turnkey Systems

- Process Design
- Detailed Mechanical Design
- Instrumentation & Piping
- Equipments Supply

#### Application Area

Finepac structured Packing & Accessories are suitable for Distillation, Absorption, Desorption & Extraction Systems in the following industries.

- Oil & Gas
- Organic Chemicals
- Petrochemicals
- Drug Intermediates
- Bulk Drugs
- Pharmaceuticals
- Dye Intermediates
- Aromatics & Essential Oils
- Agrochemicals & Fertilizers
- Alcohol
- Consultancy
- Installed capacity of Major product



#### Major Customers

- Aurobindo Pharma
- Anupam Rasyan
- Hikal Chemical Industries Ltd.
- Mangalam Drugs & Organics
- Jubilant Organosys Ltd.
- Lupin Limited
- Asahi Songwon Colors Ltd.
- Nectar Lifesciences Ltd.
- Dr. Reddy's Lab.
- Aarti Industries Ltd.
- Ravi Dyeware Co. Ltd.
- Aarti Drugs Ltd.
- Navin Fluorine
- Shree Sidhanath Industries
- Anushakti Chemicals & Drugs Pvt.
- Krebs Biochemicals & Industries
- Ss Organics Limited.
- Ind-Swift Laboratories Limited
- Thermax Limited
- Excel Industries
- HPL Chemical
- Rishabh Intermediates
- Kutch Chemicals

#### Infrastructure

2 Manufacturing Locations in Pune  
Finepac Structures Pvt Ltd employs 51 Technical Manpower

#### Design

##### Process Design Capabilities

Finepac uses the following state of art Design Simulation software's for Better Performance of the system

- Aspen Engg Suite (Version Aspen One) From AspenTech USA
- Aspen HTFC (Version 2003) Suite For Heat Exchanger Design And Rating.
- Packol For Rating Of Packed Columns
- Designer Desktop For Mechanical Design Of Columns, Heat Exchangers, Pressure Vessels From Cadem.
- CAD/CAM Softwares Like Ideas (Version 9.0, Autocad 2000)

Rating Programme for distillation Trays Such as :

- Sieve Trays
- Valve Trays
- Bubble Cap Trays

Rating Programme for column Internals Such as :

- Mist Eliminator
- Liquid Coalescer
- Vane Pack

Rating Programme for inline Static Mixers.

#### Mechanical Design Capabilities

For satisfactory design of Distillation Column, Heat Exchangers and Pressure Vessels Finepac uses Designer Desktop for Mechanical Design. The design is usually done in accordance with standard Manufacturing codes like ASME, TEMA etc.

#### Mechanical Drafting Capabilities

For design of Process equipments including detailed engg. viz Fabrication Drawings, Process Flow Diagrams, and Instrumentation Diagrams, Finepac uses latest version of Design Softwares.

