

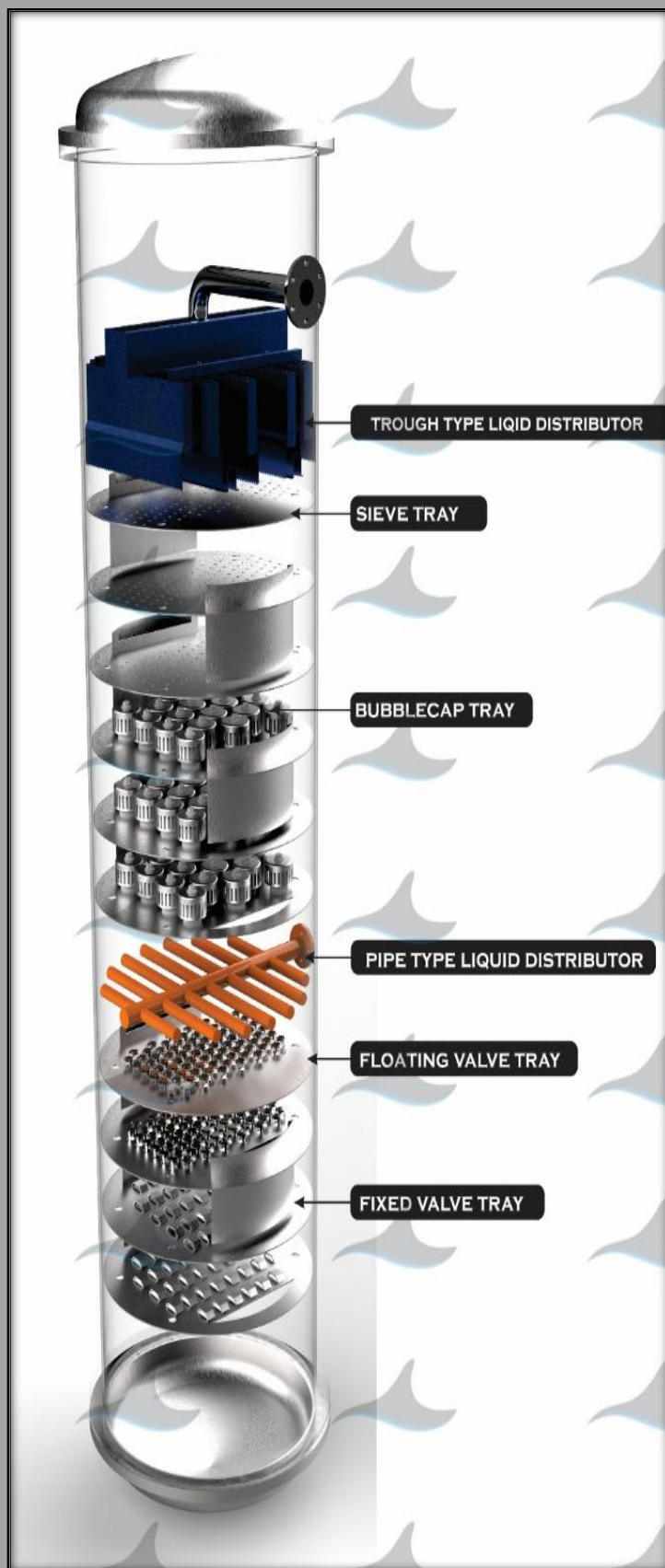
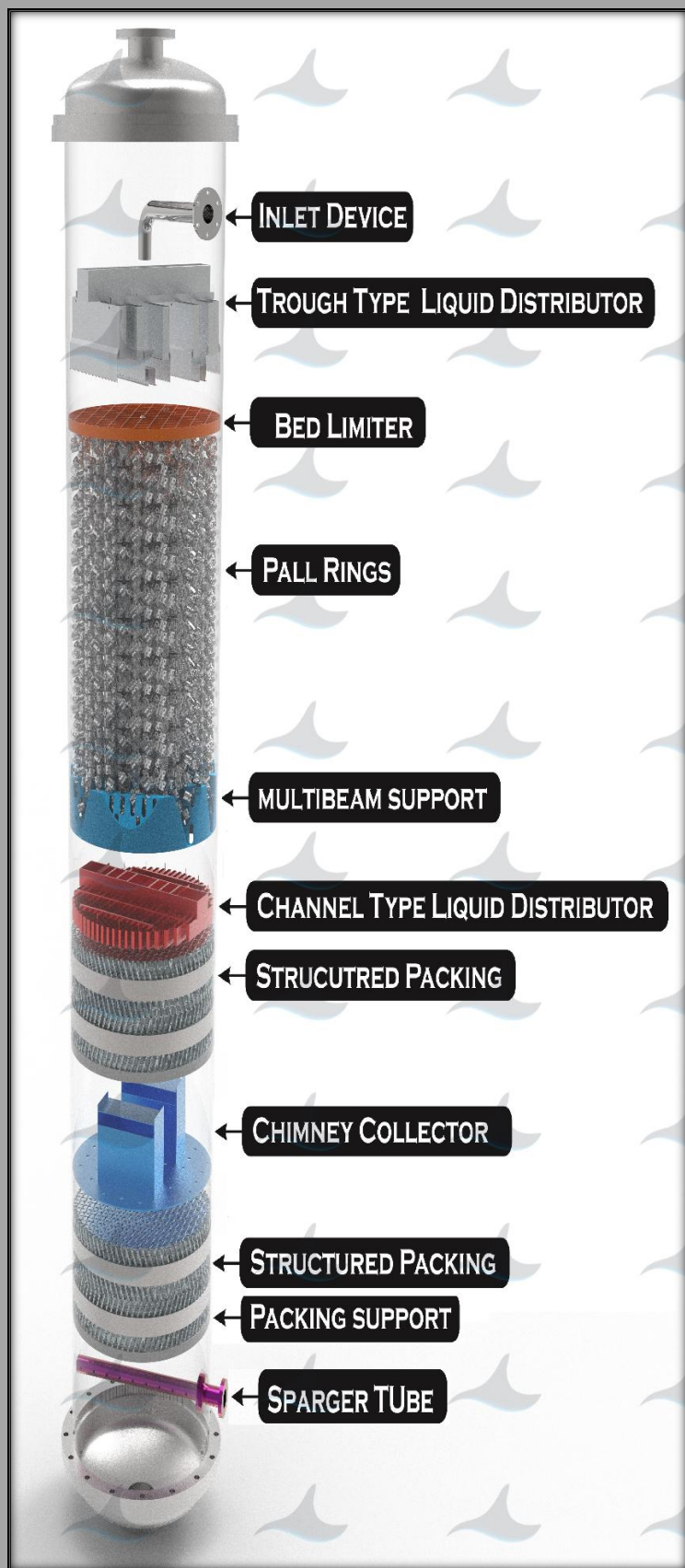
ORCINUS PROCESS TECHNOLOGIES PRIVATE LIMITED

Mass Transfer Products



PROCESS DESIGN, ENGINEERING AND MANUFACTURING OF THE PROCESS

EQUIPMENTS IN CHEMICALS, PETROCHEMICALS AND PHARMACEUTICAL INDUSTRIES

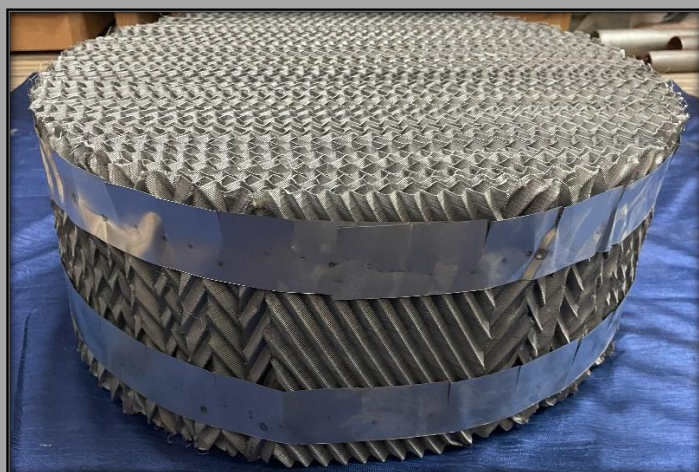
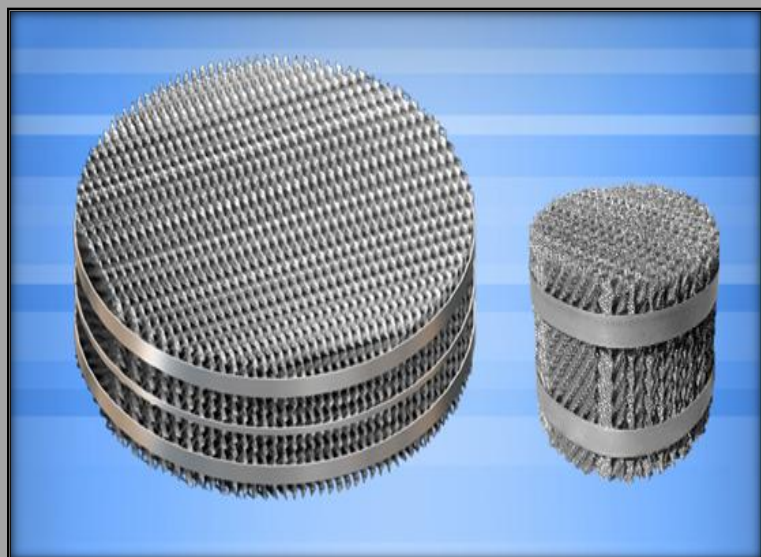


STRUCTURED PACKING

Structured packings typically consist of thin corrugated metal plates or gauzes arranged in a way that force fluids to take complicated paths through the column, thereby creating a large surface area for contact between different phases.

SHEET METAL & WIREMESH

Structured packing is formed from corrugated sheets of perforated embossed metal, plastic (including PTFE) or wire gauze. The result is a very open honeycomb structure with inclined flow channels giving a relatively high surface area but with very low resistance to gas flow. The surface enhancements have been chosen to maximize liquid spreading.



LAB PACKING

For small laboratory column diameter (25 to 150 mm size) we can offer you specially design packing type for the separation multi component solvent. They offer you highest no of theoretical stage (10-20 NTSM) within minimum pressure drop.



Laboratory Lab Wiremesh Packing Equivalent to Sulzer Lab Packing



Laboratory Lab Wiremesh Packing Equivalent to Goodloe Packing

RANDOM PACKING

The primary purpose of Random Packing is to create surface area for vapor/liquid contact so that Mother Nature (and Father Thermodynamics) can produce chemical separation. Chemical separation includes Distillation, Absorption and Stripping. Random packings are an inexpensive packing alternative to increase a tower's capacity and efficiency. With our designed random packings, capacity increases can be achieved without sacrificing efficiency. Various type of Random packing used for the above application depending upon their efficiency i.e. Pall Rings, Saddle Rings (IMTP), Raschig Rings, Cascade Mini Rings and High-Performance Rings.

PALL RINGS



Size	Nos. / Cu.m. Approx	Surface m ² / m ³	Voidage	Packing Factor F
13 mm	4,00,000	430	90	73
16 mm	2,10,000	345	93.1	71
19 mm	1,00,000	250	94	63
25 mm	51,000	208	94.5	48
38 mm	13,500	131	95	28
50 mm	6,500	98	96	20
75 mm	1,820	71	96	18
90 mm	1,150	65	97	14

SADDLE RINGS



Size	Nos. / Cu.m. Approx	Surface m ² / m ³	Voidage	Packing Factor F
Saddle No. 15	3,47,500	290	95	51
Saddle No. 25	1,36,500	226	96.2	41
Saddle No. 40	50,000	150	97.3	24
Saddle No. 50	14,750	99	98	18
Saddle No. 70	4,625	59	98	12

CASCADE MINI RINGS (C RINGS)



Dimension (mm)	Thickness (mm)	Number per m ³	Bulk density (kg/m ³)	Surface area (m ² /m ³)	Free volume (%)
17×6	0.25	530000	347	420	96
25×8	0.3	150000	247	238	96.9
34×11	0.35	61000	208	164	97.4
43×14	0.35	33000	203	160	97.5
51×17	0.4	15700	159	105	98
66×21	0.4	10140	165	108	97.9
86×28	0.4	4310	120	78	98.5

RASCHIG RINGS



Size	Nos. / Cu.m. Approx	Surface m ² / m ³	Voidage	Packing Factor F
13 mm	4,00,000	430	87	73
16 mm	2,10,000	345	90	71
19 mm	1,00,000	250	91	63
25 mm	51,000	208	92	137
38 mm	13,500	131	95	82
50 mm	6,500	98	96	57
75 mm	1,800	71	96	45

PLASTIC RANDOM PACKING (PP, PTFE, PVDF, PFA)



DISTILLATION COLUMN TRAYS

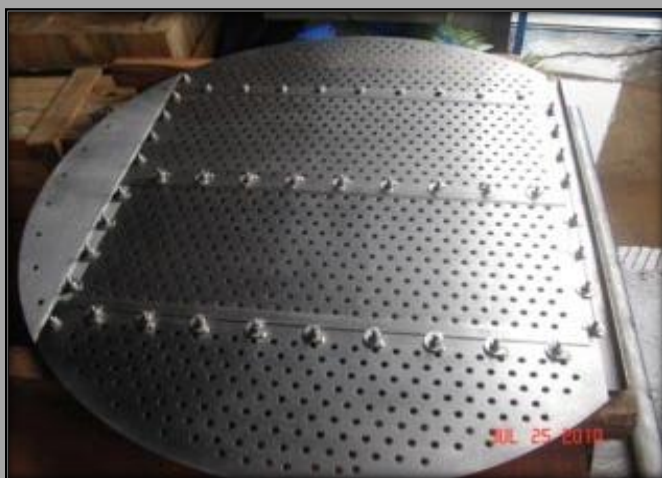
Tray columns are used for making contact between a gas phase and a liquid phase so as to bring them as close as possible to the equilibrium state. Tray columns are widely used in various types of mass transfer operations. All the simulation results, which predict a certain number of theoretical stages, can be converted to actual trays depending upon tray efficiency for a particular service. In any conventional tray vapor rises through the liquid pool on the tray deck and then disengages from the liquid in the space above the deck. Liquid enters the tray from a downcomer above and leaves via a downcomer below.



Bubble Cap Trays



Fixed Valve Trays



Sieve Trays



Round Valve Trays

CARTRIDGE TYPE DISTILLATION COLUMN TRAYS

Cartridge type Tray assembly will be used in distillation columns having smaller diameter and have a unique need for Trays. In that tray vapor rises through the liquid pool on the tray deck and then disengages from the liquid in the space above the deck. Liquid enters the tray from a downcomer above and leaves via a downcomer below.



COLUMN INTERNALS

Mass transfer performance as well as the hydraulic characteristics of Packed column & Tray Column are highly dependent on the quality of the Column Internals used.



Channel Type Liquid Distributor



Pipe Type Liquid Distributor



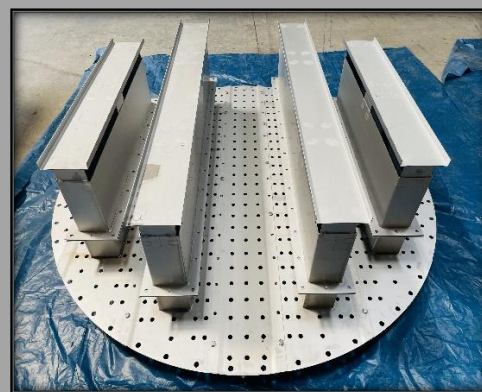
VEP Type Liquid Distributor



Pan Type Liquid Distributor



Vane Type Liquid Collector



Chimney Tray Type Liquid Distributor



Packing Support (Grid)



Multibeam Support



Bed Limiter

MIST ELIMINATOR

A Mist Eliminator is a device used for removing entrained mist from a gaseous or vapor stream by converting mist into big liquid droplets that are too heavy to carry by the gaseous or vapor stream. It usually works by coalescing smaller liquid droplets by obstructing their path. The obstruction in the path of liquid droplets can be achieved by a variety of geometries. Mist Eliminator may be a Mesh type, Vane pack or other Structure intended to aggregate the mist into droplets that are heavy enough to separate from the vapor stream. It is often fitted just below the top vapor outlet of a vapor liquid separator.



Demister Pad Type Mist Eliminator



Vane Pack Type Mist Eliminator



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