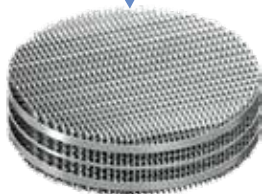




Structured Packing



Sheet Metal
Wiremesh
Lab Packing
Grid Packing

Internals For Structured Packing



Liquid Distributors
Packing Supports
Liquid Collectors

Random Packing



Metal Packings
Plastic Packings
Ceramic Packings

Internals For Random Packing



Liquid Distributors
Liquid Re-distributors
Packing Supports
Bed Limiters

Distillation trays



Bubble Cap Trays
Siege Trays
Fixed Valve Trays
Floating Valve Trays
Cartridge Trays

Falling Film Reboilers / Reactor Internals



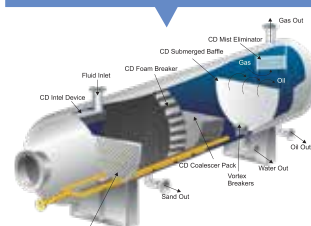
Tube Inserts
Inlet Diffuser
Radial Flow Baskets
Gas/liq Spargers
Reactor Sieve Trays

Mist Eliminators



Wire Mesh
High Efficiency Pads
Vane Packs

Oil & Gas Internals



3-phase Internals
2-phase Internals
Horizontal Separator
Vertical Separator

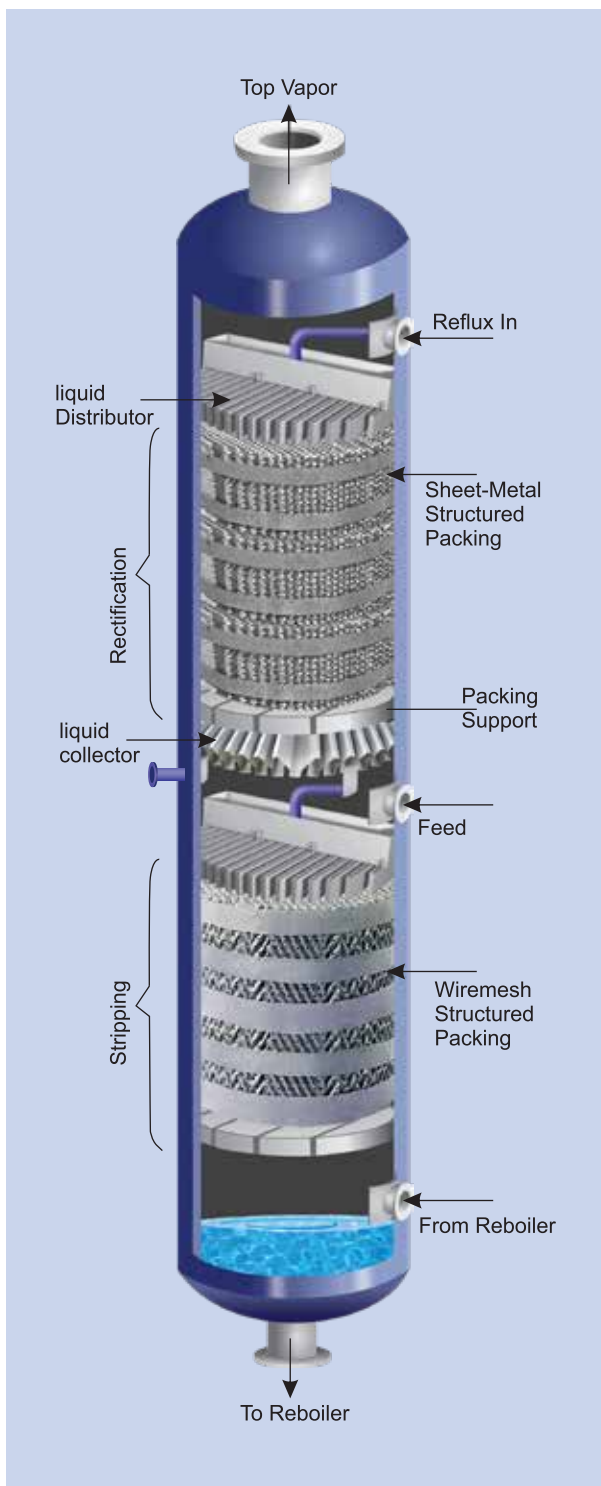
CHEMDIST offers complete range of structured packing which is designed to help clients to achieve higher capacity, higher efficiency and lower pressure drop. While selecting efficient CDPack Structured packings we suggest our clients about increase in the performance of the equipment/system considering crimp height, crimp inclination angle, element height, surface treatment, fouling tendency, system properties and service. A high surface area will only provide efficient mass transfer if it is effectively used to increase vapour-liquid contact and therefore a variety of surface enhancements are employed to promote liquid spreading over the packing surface.

- ChemDist CDPack Structured packing provides a lower pressure drop per theoretical stage and increased capacity compared to trays and conventional random packings.
- Increases Product Yields
- Reduces Liquid Hold Up
- Reduces Reflux Ratios
- Increases Heat Transfer

CDPack Type 'C' structured packing uses the industry standard corrugated perforated and embossed sheet metal design to provide efficient vapour-liquid contact. The style of the embossed surface has been optimised to provide maximum wettability and numerous perforations enhance cross mixing of the process fluids. ChemDist structured packing is available in a variety of corrugation crimp sizes, each at two inclination angles. The "C" designated packings have a nominal inclination angle of 45° from the horizontal, and are the most widely used. The "D" packings have a nominal inclination angle of 60° from horizontal and are used where high capacity and low pressure drop are the overwhelming requirements for a specific application. The benefit of the "D" packings is that they provide a lower pressure drop per theoretical stage for the same surface area.



STRUCTURED PACKING



CHEM DIST SHEET METAL STRUCTURED PACKING				
Packing Type	Surface Area m ² /m ³	Inclintion Angle	F-Factor	NTSM
CDPack-100 C/D	100	45/60	3.8	0.8
CDPack-125 C/D	125	45/60	3.5	1
CDPack-170 C/D	170	45/60	3	1.5
CDPack-200 C/D	200	45/60	2.7	2
CDPack-250 C/D	250	45/60	2.2	2.3
CDPack-350 C/D	350	45/60	1.8	2.8
CDPack-500 C/D	500	45/60	1.5	3.8
CDPack-750 C/D	750	45/60	1.2	4.5
This is for standard organic system				

CHEM DIST WIRE MESH STRUCTURED PACKING				
Packing Type	Surface Area m ² /m ³	Inclintion Angle	F-Factor	NTSM
CDPack-WG-500D	500	60	2.2	6
CDPack-WG-750C	750	45	1.5	9

CD HIHG CAPACITY STRUCTURED PACKING	
Packing Type	Surface Area m ² /m ³
CDPack-252H	250
CDPack-352H	300
CDPack-452H	350
CDPack-422H	420
CDPack-752H	500

CD LIQUID LIQUID EXTRACTION PACKING	
Packing Type	
CDPack-LLE 200	
CDPack-LLE 250	
CDPack-LLE 350	

CHEMDIST GRID PACKINGS	
Packing Type	Surface Area m ² /m ³
CDPack 40C	45
CDPack 64C	65
CDPack 64D	65
CDPack 90D	90

CD-WIRE MESH LAB PACKING	
Packing Type	
CDPackLab-1000	
CDPackLab-2000	

MOC : SS410S, SS304L, SS316L, SS904L, Duplex, , Titanium, Hastelloy, Aluminum etc.



Structured Packing



WireMesh Structured Packing



Extractive Packing



CD-Grid Packing



Lab Packings



Packing Support Grid (CDINT-PSG)
CDPS-PS-1000
CD-PS-2000

It is used for structured packing support pressure drop of packing support is almost negligible. A wide range of openings are available to prevent packing from falling through the support beams.. Based on the Diameter, Height & Weight of packing Chemdist suggests suitable type of packing support.



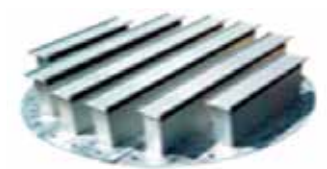
Liquid Distributor
CDINT-LD-1000
CDINT-LRD-1000

Dual Element – Arm & Main Channel Dual Element.
It is used for large diameters.



Liquid Distributor
CDINT-LD-2000
CDINT-LRD-2000

ChemDist Splash plate distributor is suitable for > 800 mm diameter. Liquid Load 0.5 to 30 m³/m² hr. It is mostly used distributor. Fewer lateral holes, due to the spreading effect of the splash-plate. Anti-plugging, due to large holes and the lateral discharge of liquid.



Liquid Distributor
CDINT-LD-3000
CDINT-LRD-3000

ChemDist Chimney Type Distributor is suitable for high Liquid & Gas flowrates. This can be used as liquid collector as well as liquid collector cum distributor.



Liquid Distributor
CDINT-LD-4000
CDINT-LRD-4000

ChemDist Channel Type Distributor is used for up to 1500 mm column diameters. Supplied in both segmented form and as one piece. Channel Type Distributors without tubes can also be manufactured. The liquid is fed into a large center channel, which equally distribute liquid over the packing. It's more suitable for Fouling liquid.



Liquid Distributor
CDINT-LD-5000
CDINT-LRD-5000

ChemDist LD -5000 is suitable for less than 2000 mm diameter of column The liquid is fed into main central channel & it gets distributed bottom arm channels.

- PS - Packing Support
- LD - Liquid Distributor
- LRD - Liquid Redistributor



**Vane Type Liquid Collector
CDPS-LC-1000**

This collector requires a ring channel welded to the column wall. Pressure drop is almost negligible .



**Liquid Collector
CDINT-LC-2000**

Flange type collector is used for small column diameters and which is sandwiched between body flange.



**Liquid Collector
CDINT-LC-3000**

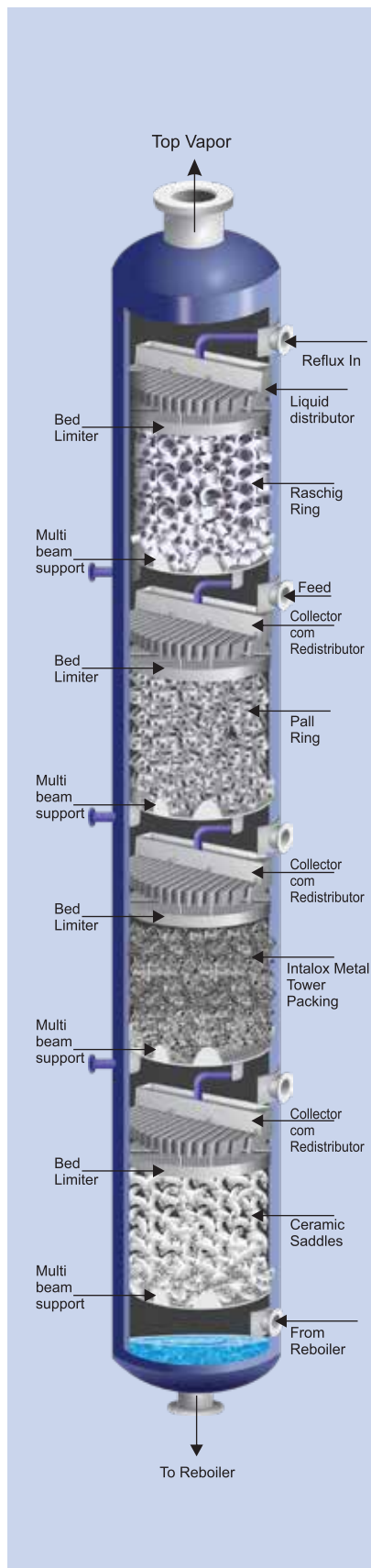
It is generally used in large diameter columns with high liquid loads. Pressure drop is a function of the type and configuration of the chimneys. It is available in bolted & welded Structure.



**Liquid Collector
Cum Support Grid
CDINT-LC-4000**

It is collector cum support grid for Structured Packings.





PALL RINGS



RASCHING RINGS

Thickness : 0.3mm - 0.6mm

NTSM : 1.8-2.2

MOC : S.S. 316 L / 304, Hastelloy Alloy
Inconel, MS, Copper, Aluminium
Poly Propylene, PVDF, HDPE, Poly Propylene
LTH, PFA / FEP, PVC, CPVC & PTFE Chemical
grade high porcelain

CDPack PR Rings	Rasching Rings	Size in MM	Nos./m3	Voidage	Surface Area m2/m3	Packing Factor
CDPack-PR16	CDPack-MRR16	16	210000	93.1	345	71
CDPack-PR19	CDPack-MRR19	19	100000	94	250	63
CDPack-PR25	CDPack-MRR25	25	51000	94.5	208	48
CDPack-PR38	CDPack-MRR38	38	13500	95	131	28
CDPack-PR50	CDPack-MRR50	50	6500	96	98	20
CDPack-PR75	CDPack-MRR75	75	1820	96	71	18

NTSM : 2.2-2.5

Thickness :
0.3mm - 0.8mm



CHEMDIST METAL TOWER PACKING

Packing Type	Nos./m3	Voidage	Surface Area	Packing Factor
CDPack-MTP 15	347500	95	290	51
CDPack-MTP 25	136500	96.2	226	41
CDPack-MTP 40	50000	97.3	150	24
CDPack-MTP 50	14750	98	99	18
CDPack-MTP 75	4625	98	59	12



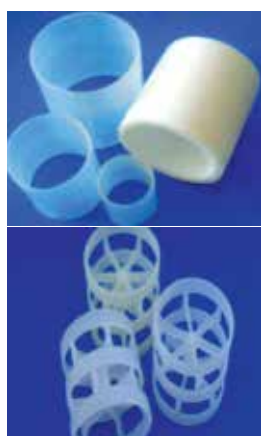
CHEMDIST CERAMIC RASCHIG RINGS

SR. NO.	Size	Density Kgm3	Surface Area m2/m3	Voidage in %
CDPack-CRR-15	15	700	310	70
CDPack-CRR-25	25	600	195	73
CDPack-CRR-38	38	570	140	76
CDPack-CRR-50	50	555	100	77
CDPack-CRR-80	80	535	60	77
CDPack-CRR-100	100	500	44	81

RANDOM PACKINGS



ChemDist Ceramic Saddles				
SR. NO.	Size	Density Kgm3	Surface Area m2/m3	Voidage in %
CDPack-CSR-12	12	700	522	73
CDPack-CSR-20	20	660	390	74
CDPack-CSR-25	25	630	255	74
CDPack-CSR-38	38	620	166	75
CDPack-CSR-50	50	580	120	77
CDPack-CSR-90	90	580	85	79



ChemDist Plastic Pall rings			
Pall Rings	Raschig Rings	Surface Area	Voidage in %
CDPack-PPR-16	CDPack PRR-16	354	87
CDPack-PPR-25	CDPack PRR-25	207	92
CDPack-PPR-38	CDPack PRR-38	128	91
CDPack-PPR-50	CDPack PRR-50	102	93
CDPack-PPR-90	CDPack PRR-90	72	95



ChemDist Plastic Berl Saddles			
Type	Nos./m3	Surface Area m2/m3	Voidage in %
CDPack-BS-25	57500	199	90
CDPack-BS-50	6400	105	93
CDPack-BS-75	1450	89	64





**CDRP-INT-BED
LIMITER**

Bed Limiter installed between random packings & Distributor. The main function of bed limiter is to prevent random packings from being lifted into the liquid distributor, which would reduce its performance.



**CDRP-INT-
PIPE TYPE
LIQUID
DISTRIBUTOR**

Pipe Type Liquid Distributor is generally used for Random Packings. Better for batch columns where liquid holdup is minimum. i.e. $< 5\text{m}^3/\text{m}^2\text{h}$



**CDRP-INT-
MULTI
BEAM
SUPPORT**

For large diameter and heavy duty distillation columns, the static weight of packed bed combined with the liquid column is quite high. Strong construction of packing support is necessary.



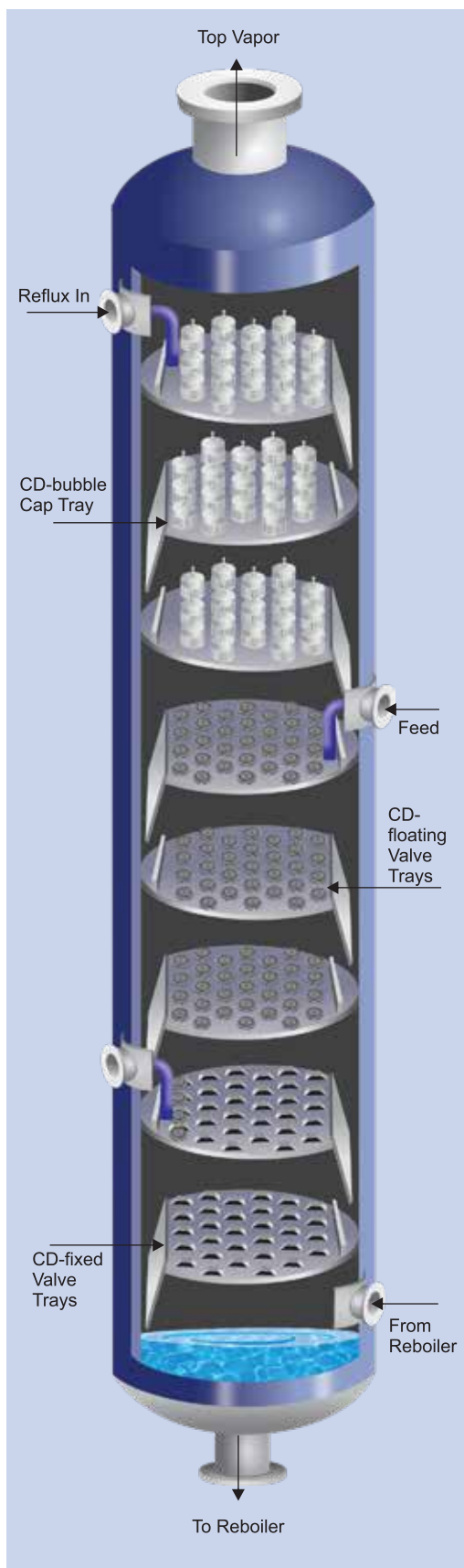
**CDRP-INT-
SPRAY TYPE
LIQUID
DISTRIBUTOR**

Major pipe connected to minor pipes & spray nozzles connected to arm pipes. The selection of spray nozzles depends on flowrate.



**CDRP-INT-
PAN TYPE
DISTRIBUTOR**

Pan type distributors are intended for use in columns with diameters from 150mm to 1200mm. The distributor consists of a pan with discharge holes for the liquid and gas risers for the rising gas. Pan type distributor is supported by a support ring or by suitable brackets.



CD-BUBBLE CAP TRAY

Bubble Cap Tray has risers and fixed caps through which vapours flow and contacts the liquid on the tray. It can highly used at minimum Turn Down .



CD-FLOATING VALVE TRAYS

Floating valve tray has been the workhorse of the petroleum and petrochemical industry. Floating valve trays are used in applications where higher turndown ratios are required. Exiting Vapours horizontally reduces dead spot, where solid can settle Round Valve, Rectangular valve, Cage Valve tray.



CD-SIEVE TRAYS

Sieve trays are made from a flat perforated plate which allows the passage of vapour through the liquid. The desired contacting between vapour and liquid occurs as the vapour, flowing upwards through the perforations, comes into contact with the liquid flowing downwards through the downcomers.



CD-FIXED VALVE TRAYS

Provides better resistance to fouling compared to Sieve Trays



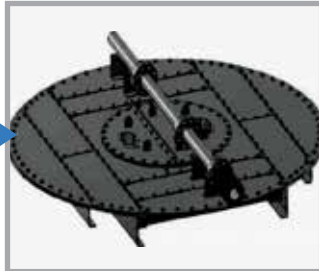
CD-CARTRIDGE TRAYS DISTILLATION

It is suitable for small diameter columns. It is Highly suitable for fouling and foaming applications and for systems which require frequent maintenance

ChemDist supplies a complete range of internals designed for gas/liquid/solid mixed phase reactors
In petrochemical applications such as:

- Adsorbers and Regenerators
- HDS & Hydrotreaters
- Polymerisation Units
- Ammonia Reactors
- Reformers

**CDRI-MIXING
TRAY**



**CDRI-LIQUID
DISTRIBUTOR**



**CDRI-LIQUID
COLLECTOR**



**CDRI-INLET
DIFFUSER**



**CDRI-CATALYST
SUPPORTER**

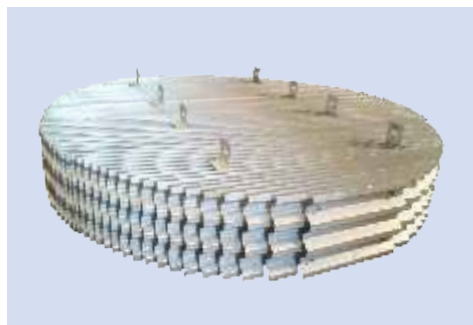


**CD-TUBE INSERTS
FOR FALLING
FILM REBOILERS**

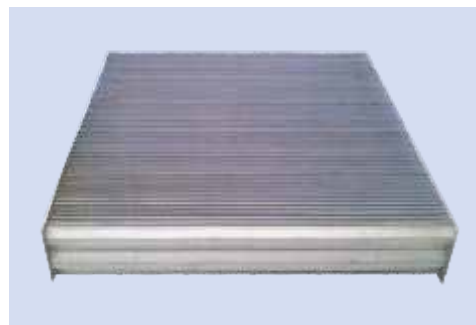




CDME-FPP



CDME-P₁VP



VANE PACK

ChemDist Mist eliminator can be sized, designed, and rated based on the given process data for up to 99% removal of liquid droplets 5 microns and larger.

SR. NO.	CHEMDIST TYPE	DENSITY Kg/m ³	VOIDAGE IN %	SURFACE AREA m ² /m ³
1	CDME-75	75	93	815
2	CDME-80	80	99	157
3	CDME-128	128	98.4	800
4	CDME-144	144	98.2	282
5	CDME-160	160	94	294
6	CDME-173	173	97.7	360
7	CDME-192	192	97.6	377
8	CDME-320	320	96	905
9	CDME-432	432	94.6	2000

APPLICATION	ADVANTAGES
Scrubbers	Good efficiency
Evaporators	Easy to install
Knockout drums	No moving parts
Steam drum	High turndown ratio
Distillation column	Low pressure drop
Vacuum tower	

**Demister pad will be made out of 32 SWG (0.27mm.) monofilament SS wire duly knitted and crimped. It will be in mattresses in section, suitably oversized for tight fit in the vessel.*



CDME-HVP



CDME-144



VANE PACK

COMPLETE MASS TRANSFER SOLUTIONS & PROCESS TECHNOLOGY ON TURNKEY BASIS

- Process Design •Engineering •Simulation
- Turn-key Supply •Commissioning •Distillation •Evaporation
- Upstream Oil & Gas •Chemical Process Solutions •Biodiesel
- Extraction •Environmental Technology •Mass Transfer Internals
- Column •Condensers •Reboilers
- Kettles •Reactors •Agitators
- Disperser •Static Mixers •Pressure Vessels



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