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TECHNIC PHARMA

Manufacturer & Exporter of Pharmaceutical & Chemical Machinery



TECHNIC PHARMA

FLUID BED DRYERS cGMP MODEL



TECHNIC

Fluid Bed Dryers are most suitable for drying granular, crystalline, coarse or similar materials in pharmaceuticals, fine chemicals, dyes, food & allied industries. It is also possible to dry fine crystals or coarse materials in fluid bed dryers.

BATCH SIZE

Batch size indicates weight of wet product (inclusive of moisture). Our model TR-30 can take batch size of 30 to 40 Kgs. of weight material. Similarly model TR-200 can process about 200 to 225 Kgs. of wet material to be loaded per batch depends upon the bulk density of wet material.

OPERATION

The wet material is introduced into the dryer as a batch of material in a product container which is provided with air distributor plate & Dutch weave. Induced draught is created by blower & fresh air is sucked into the unit. After filtration, clean air passes through heating elements. This hot air then passes through the product container, creating

turbulence in the product and hence the product moves up & down in the product container. Due to this the heat transfer is quick & the product is dried fast without appreciable loss of heat. Filter bags prevent particles escaping from the dryer.



HEATING

Fluid Bed Dryers can be supplied in electric heating, steam heating or hot water/coil circulation system. Electrically heated dryers are provided with electric heating elements & are suitable to raise temperature by about 70 d. C. (i.e. from 30 d.C. to 100 d.C.). Similarly steam operated dryers are provided with steam radiator suitable to raise air temperature by about 60 d.C. to 70 d.C. depending upon pressure of steam. Generally dryers bigger than TR-60 are incorporated with steam heating system, as steam heating is more economical.



DRYING TIME

The drying time depends upon various factors such as physical properties of material, moisture content, type of moisture (free moisture or water of crystallization), drying temperature etc. The crystalline products can be dried faster than amorphous product containing same percentage of moisture at the same temperature. Generally pharmaceutical granules or crystals containing free moisture of about 20% to 25% can be easily dried in about 40 to 50 minutes at a temperature of about 80 d.C.

IMPORTANT

In case the product contains solvents or inflammable substances it is essential that the dryer is steam operated & provided with flameproof motor.

TECHNICAL SPECIFICATIONS

FBD (capacity in Kgs.)	10	30	60	120	150	200	250
Capacity of container in litres	35	100	215	430	650	780	950
Motor H.P.	1.5	5	10	15	20	20	25
Heating capacity KW	6	18	36	60*	*	*	*
Steam consumption kg/hr. at 3kg.cm ² pressure	14	25	50	120	150	175	200
Approx. Dimension :	length (in mm)	650	1400	1600	1900	2100	2250
	Width (in mm)	750	1025	1200	1600	1800	1900
	Height (in mm)	1550	2200	2650	3200	3400	3500
* Electrical Heating is not advisable.							



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Tray dryer



TECHNIC Tray Dryers are used for the best drying results in conventional process.

It is a double walled cabinet with one or two doors. The gap between two walls is filled with high density fibre glass wool insulation material to avoid heat transfer.

Doors are provided with gaskets.

Stainless steel trays are placed on the movable trolleys.

Dynamically balanced axial flow type blower fans are provided for uniform air circulation in the drying chamber during process.

Machine is provided with control panel board with Process timer, Digital temperature controller cum indicator etc.

Capacity : 6, 12, 24,48,96 & 192 Trays.

Standard & GMP models available with ss 304/316, MS internal & externals.

TECHNIC Mass mixer is used for mixing dry or dump materials and used for tablet granulation.

Consisting of 'U' trough of suitable dimensions. Construction of S.S. and side plates duly M.S. stiffened from outside and from inside with S.S. Paddle type blades welded to the main shaft provide for efficient mixing of thick heavy material. PTFE gland mechanism provided at shaft ends prevents ingress of external powder into the trough and prevents leakage.

From the top charging can be done through a hinge able lid, hopper or Nozzle can be provided for additional spraying of additives. Bottom discharge slide Iris or Butterfly valve of suitable diameter, for regulated discharge. Consisting of suitable H.P. TEFC 3 phase ac 415v / 50 cycles motor coupled to suitable worm gear, with driving shafts.

Model from 50kg to 500kg



Mass Mixer



Ribbon Blender

TECHNIC Ribbon Blender is used for uniform and homogenous mixing of powder, granules etc

Consisting of 'U' shaped trough of suitable dimensions with side plates. Shell of SS304 contact parts and side plate duly M.S stiffened from outside and from inside with S. S.

Ribbon arms welded to the main shaft and ribbon blades of dual pitch interrupted type PTFE gland mechanism provided a shaft ends prevents ingress of external powder into the trough and prevents leakage. From the top charging can be done through a hinge able lid (1/3rd hinged and 2/3 rd fixed hopper or Nozzle can be provided for additional spraying of additives. By bottom discharge slide, iris or Butterfly valve of suitable diameter, for regulated discharge.

Consisting of suitable H.P. TEFC 3 phase AC 415 V 50 cycles motor coupled to suitable worm gear, with driving shafts.

Model from 200ltrs to 5000ltrs



TECHNIC PHARMA

RAPID MIXER GRANULATOR cGMP MODEL



TECHNIC RAPID MIXER GRANULATOR has been designed and manufactured to achieve optimal solution for wet mixing and granulation.

WORKING PRINCIPAL

TECHNIC RMG working principle is based on two decisive factors essential for mixing systems.

- 1) Spinning close to the bottom of the mixing bowl.
- 2) The impeller sets the entire mixture in a whirling-rising tumbling motion ensuring a quick and even distribution of all dry components which leads to an even wetting of every granule. The large lumps occurred during wet mixing are broken up, by the strategically located chopping tool



rotating at 1440/2880 RPM. The mix can be discharged with the impeller running through outlet located on the side of the mixing bowl flush to the bottom.

MIXING BOWL

Precision engineering to minimise clearance between bowl and main impeller. The impeller has 3 blades and rotates in the bottom of the bowl. The powder is swept into a controlled vortex flow pattern to maximise mixing effect. Two speed chopper to ensure outstanding mixing of various type of materials.



CONTROL PANEL

Control Panel is with special feature DISPLAY SYSTEM and MICROPROCESSOR with membrane keys. Display system consisting of indication lamps for compressed air supply, main motor, chopper motor, bowl lid limit switch and for closed /open status of discharge valve. Limit switch is provided on main bowl lid, and discharge valve, which will de-energies the system when the lid is open.

OPTIONALS

* FLP electrical * PLC * A.C. Variact * Lifter * Jacketed Vessel * CIP

TECHNICAL SPECIFICATIONS

MODEL	RMG 10	RMG 25	RMG 50	RMG 100	RMG 150	RMG 250	RMG 400	RMG 600	RMG 1000
Gross Volume in Ltrs	10 L	25 L	50 L	100 L	150 L	250 L	400 L	600 L	1000 L
Working Volume in Ltrs	8 L	20 L	40 L	80 L	120 L	200 L	320 L	480 L	800 L
Main Motor HP & RPM Dual Speed	2/3 HP/3ph/ 750 / 1500	3/5 HP/3ph/ 750 / 1500	3/5 HP/3ph/ 750 / 1500	7.5/10 HP/3ph/ 750 / 1500	10/15 HP/3ph/ 750 / 1500	20/30 HP/3ph/ 750 / 1500	30/40 HP/3ph/ 750 / 1500	40/50 HP/3ph/ 750 / 1500	63/85 HP/3ph/ 750 / 1500
Mixing Speed RPM	75 / 150	75 / 150	75 / 150	75 / 150	75 / 150	75 / 150	60 / 120	60 / 120	60 / 120
Chopper Motor HP & RPM Dual Speed	1/1.5 HP/3ph/ 1440 / 2880	1/2 HP/3ph/ 1440 / 2880	2/3 HP/3ph/ 1440 / 2880	2/3 HP/3ph/ 1440 / 2880	3/5 HP/3ph/ 1440 / 2880	3/5 HP/3ph/ 1440 / 2880	5/7.5 HP/3ph/ 1440 / 2880	5/7.5 HP/3ph/ 1440 / 2880	10/15 HP/3ph/ 1440 / 2880
Output Speed RPM	1440 / 2880	1440 / 2880	1440 / 2880	1440 / 2880	1440 / 2880	1440 / 2880	1440 / 2880	1440 / 2880	1440 / 2880
Wt. in Kg. (Approx.)	200 KG.	900 KG.	1000 KG.	1400 KG.	1500 KG.	1800 KG.	2000 KG.	2500 KG.	3500 KG.
Overall Dimensions									
L	1450	1450	1700	2350	2550	2550	2880	3100	3300
W	600	1000	750	1100	1430	2350	2450	2690	3150
H	950	1310	1400	1750	2185	2275	2275	2510	3035
H-1	1060	1345	1600	1900	2280	2585	2960	3250	3765



MULTI MILL



TECHNIC Multi Mill is widely used for wet & dry granulation, pulverisation etc. Of Pharmaceutical, Chemical, Bulk drug, Cosmetic, Food products etc.

DESCRIPTION

TECHNIC Multi mill comprises of S.S. 304/316 charging hopper, beater assembly, drive assembly with speed step pulley and suitable screen. It is mounted on fiber castor wheels for easy movement. GMP model available.

OPERATION

Beater rotates in process chamber with selected speed to get required output through screen. Material fed in the charging hopper travels to the chamber where it gets chopped and by centrifugal force it is thrown out of the screen and the processed material is collected in the container.

MODEL TPMM

OUTPUT	50 to 200Kgs/ hr
ROTOR SPEED	750/1500/2300/3000
SCREEN DIA	ID 260 mm x HT 135mm
MOTOR	3 HP

TECHNIC Oscillating Granulator, plays an important part in the process of granulation in tablet making as quality of tablet is determined by the virtue of the granules used for its compression. Oscillating granulator can be used for wet and dry aspect of the granulation process.

FEATURES

All contact parts are in stainless steel Mounted on a base Adjustment, cleaning and operation are simple Sturdy, durable, better productivity Unique oscillatory rotor action ensures high outputs and a predictable product with minimum of fines

MODELS	TPOG- 8"	TPOG- 12"
MAX. OUTPUT	200Kgs/hr	400Kgs/hr
MOTOR	1 HP	2 HP



Oscillating Granulator

TECHNIC Vibro sifter are widely used in chemical, food processing and other Industries, for continuous gradation. These equipments are based on the principle of systematic Gyrotory movements of the particles on vibrating screens. The structuring of the machine has been designed in order to achieve the multiple plane vibration by suitable assembly of the specially designed Vibratory motor (constructed for this purpose) having eccentric weight at the top and bottom ends of the motor shaft. The motor is mounted vertically at the centre of the screening assembly, on a circular base by means of springs which allow the Unit to vibrate freely. The springs absorb the vibrations and prevent them to be transmitted on the floor.

FEATURES

- Stainless steel GMP or standard
- All contact parts and screens in stainless steel
- Portable but with a high output
- Double and triple deck screens with outlet
- Hopper for bottom deck
- Easy to dismantle to clean screens
- Noiseless, maintenance free and high speed
- Flame - proof electrical motor

MODEL	TPVS 20"	TPVS 30"
OUTPUT	20 to 200Kgs/hr	30 to 300Kgs/hr
SCREEN DIA	510mm	750mm
MOTOR	0.25 HP	0.5 HP



Vibro Sifter



Octogonal Blender



TECHNIC Octogonal Blender is very useful machine for pharma industry wherein gentle blending of dry granules or powder is to be done.

Consist of SS polygon shaped Body with Rectangular central Portion and top and bottom polygonal frustum The shell is provided with a rectangular opening at one end and a circular opening at the other. The Circular opening is provided with a SS butterfly valve and a conical adapter to facilitate clamping of the charging drum to to the blender The valve can be operated from the ground level with the charging drum in the raised position with the help of a mechanical remotely operated arrangement.

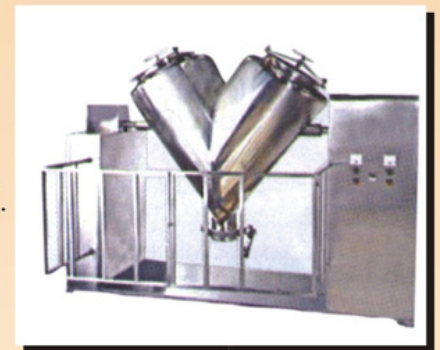
One No adjustable and removable baffle fitted diagonally inside the shell for faster and efficient blending. Drive mechanism consists of suitable HP, 3 phase 440 V 50 cycles 1440 RPM TEFC electric motor coupled with suitable gearbox and chain drive to give final RPM as required.

SS pipe railing is provided with limit switch arrangement to prevent unit from starting when Operator is working on the machine and when the railing is not position.

Model from 200ltrs to 1500ltrs

TECHNIC V Blenders are used for mixing of solid-solid or solid with liquid in powder or granulated form. The mixer has a V shaped body held by two horizontal half shafts hold in bearing blocks & mounted on a sturdy structure. The vessel has opening at two ends with covers and outlet butterfly valve for discharge. The vessel is driven with the help of a worm reduction gear box coupled to an electric motor. All contact parts are made of S.S 304/316 quality. Stand can be of MS or SS clad for GMP model. The unit is provided with a control panel with safety railing.

Model from 50ltrs to 2000ltrs principle of systematic Gyrotory movements of the particles on vibrating screens.



V. Blenders



Double Cone Blender

TECHNIC Double cone blender is an efficient and versatile machine for mixing dry powder and granules homogeneously. Two third of the volume of the cone blender is fill to ensure proper mixing. It can be used for Pharmaceutical, Food, Chemical and cosmetic products etc.

S.S. Double cone blender with central cylindrical section and two conical frustums at the top and bottoms with dimensions to suit the required capacities. Cone having two opening at the top and bottom of suitable diameters. Charging opening

provided with S.S. Hinge able lid with wing nuts for bolting and 'c' rubber ring. Discharge opening provided with butterfly / Iris valve with suitable dead plate. Drive consisting of suitable HP TEFC 3 Phase 440 V, 1440 RPM motor, suitable worm gear and belt drive assembly.

All joints argon Arc welded and all SS Parts Polished to suitable finished, required of pharmaceutical equipment. MS parts painted to smooth finish.

Model from 100ltrs to 1000ltrs



Filter Press



FILTER PRESS

The "TECHNIC" range of stainless steel Horizontal Plate Type Filter Presses are made to special modular design that guarantees precisely the right filtration requirements for each application. Available in a wide range of output capacities, with different number and height of filter plates, as well as a choice of flow pumps, the "TECHNIC" Filter Presses meet customer's exact need.

The typical "TECHNIC" Filter Press consists of a sturdy 304/316 quality stainless steel shell with a top cover held in place with tightening bolts, a filter cartridge assembly consisting of several horizontally arranged disc type filter plates with perforated supporting screens. Filter media and interlocking cups. The entire assembly, complete with pump and piping connections, is mounted on a suitable stand fitted with castors for easy movement.

Model 8"/14"/18"/24"/33" dia

TECHNIC RBW suitable for washing of different sizes of glass/plastic/metal bottles from inside and outside

It is a completely GMP model with all contact parts in SS 304 and works on Geneva Mechanism. It consists of a rotary platform with specially designed cups to accommodate any size of bottles from 50ml to 500ml. Bottles are washed internally and externally at four different stations. The unit is provided with gear box, Motor, SS pumps & SS tanks. Output can be between 75 to 100 bottles per minute with the help of variable speed pulley. Manual loading and unloading of the bottles.



Rotary Bottle Washing Machine



Volumetric Liquid Filling Machine

VOLUMETRIC LIQUID FILLING

MACHINE TECHNIC Volumetric liquid filling machine is two head, table top, fully GMP model used to fill variety of liquids. It can be used for different types of Glass, Plastic, Metal containers.

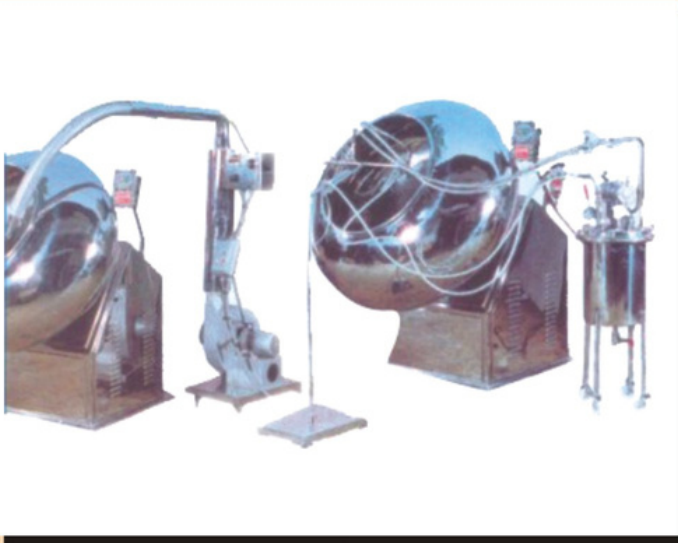
The machine works on volumetric principle and is fitted with two syringes on the sides. The motor and gear box are covered in a SS cabinet. The desired volume can be adjusted by increasing or decreasing the eccentricity. Bottles are kept below the nozzles manually.

Output 8/16/24 bottles per minute depending on type liquid and fill size with the help of three speed pulley arrangement.

Four head machine can also be provided.



COATING PAN



TECHNIC Coating Pan is used for sugar and film coating of Tablets, Pallets, Granules etc. semi ellipsoidal size pan with a circular mouth for charging & discharging of tablets. Pan mounted at an inclination of 45 degrees to the horizontal. Consists of a suitable HP 3 Phase, 440 V, 1440 RPM TEFC motor with suitable worm reduction gear box and cone pulley arrangement to give three speed output.

The unit is provided with a hot air blower consisting of suitable HP 3 Phase 440 V, 2880 RPM TEFC electric motor & centrifugal blower with damper delivering required CFM. The air is heated by means of suitable electric heater to give air at 30 to 90 degrees. Heater with thermostat control and flexible hose pipe.

The motor and gear box is mounted inside sturdy MS frame and the pan mounted on the Gearing housing fitted in the stand. Blower mounted by the side of the stand or placed in remote location if required.

SPRAY COATING MACHINE

Model 12" / 24" / 36" / 42" / 48" / 60" / 72" dia of pan

Spray coating machine is an attachment to the existing coating pan and most suitable for the rapid and uniform coating of tablets, granules & pallets. The system consists of a SS 316 quality Pressure vessel provided with SS jacket with electric heaters and thermostat control & provided with safety valve, pneumatic motor with stirrer fitted on the top of the vessel.

Two Nos. Spray guns are mounted on portable SS stand. The spray nozzles are operated with the help of a pneumatic cylinder connected with digital timer and solenoid valves programmed for a sequential spray. The guns can be tilted at any desired angle.

The vessel is filled with the coating solution and pressurized with oil/moisture free compressed air to get uniform atomized conicle spray over the tablet bed inside the coating pan.

Model 10ltrs to 150 ltrs

TECHNIC Colloid Mill is suitable for Homogenising, Emulsifying, Dispersing, Mixing, Comminuting of liquids to highly viscous products. It is based on rotor-stator principle. It is available in plain as well as Water Jacketted model which is suitable for heat sensitive products. Flame proof electricals can be supplied on demand at extra cost.

Operation

Product is fed to the operating area of rotor, having a speed of 3000 rpm by specially designed feed device. The product is processed by high shear, pressures & friction between the stator & rotor, & is also subjected to intensive vibration which exert their force on it by means of pressing & releasing actions. due to the slightly deviating tapering of the milling surfaces of stator & rotor, the angular gap becomes narrower towards the discharge section. This processed product continuously leaves the mill through the drain pipe, if required, it can be recirculated.

Model - TPCM * Output - 120 to 10000kgs/shift * Hopper 15ltrs * Motor 3hp

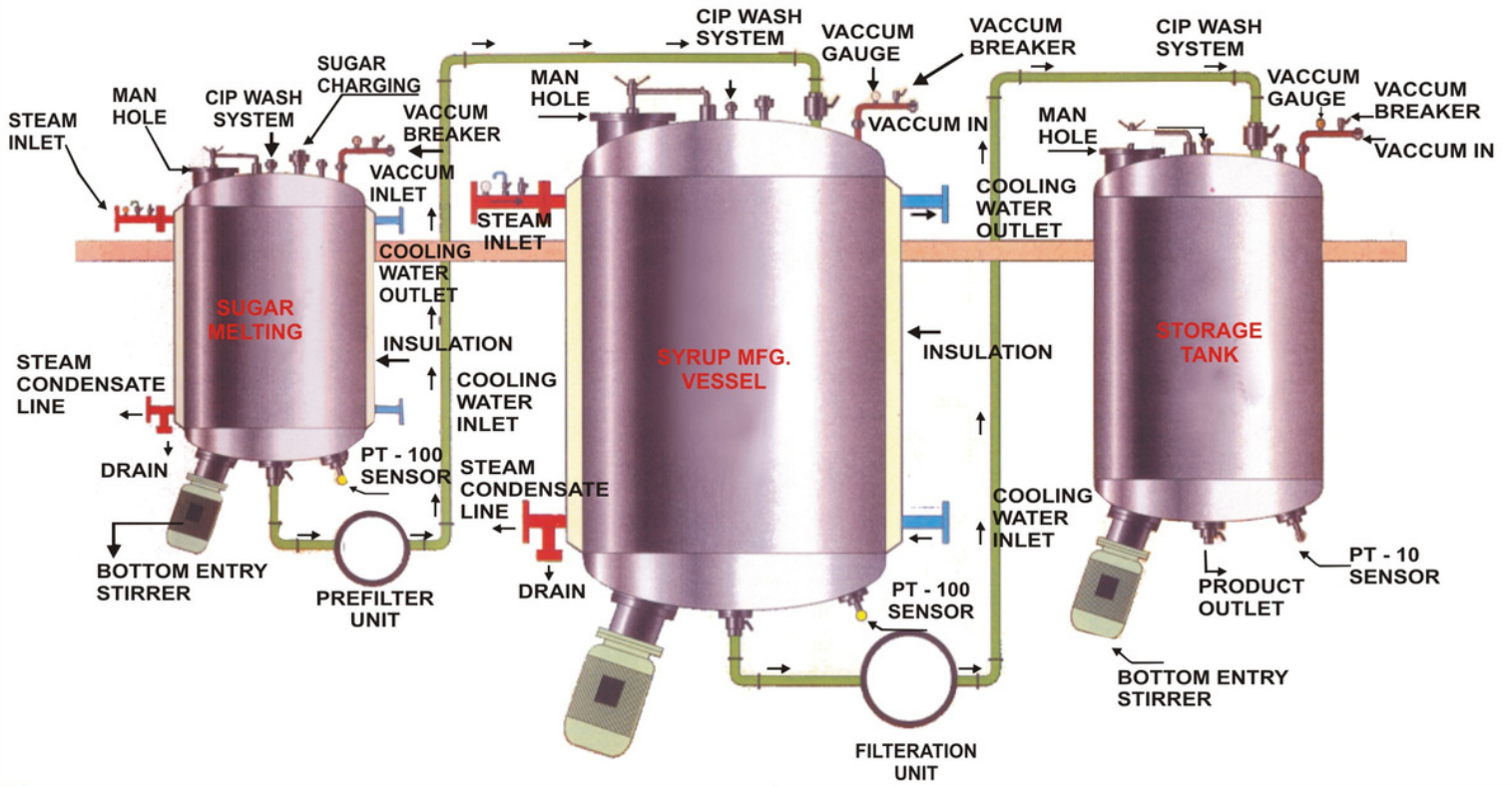


Colloid Mill



TECHNIC PHARMA

LIQUID ORAL PLANT



OINTMENT CREAM MANUFACTURING PLANT





TECHNIC PHARMA



Sterline Vessels



Membrane filter



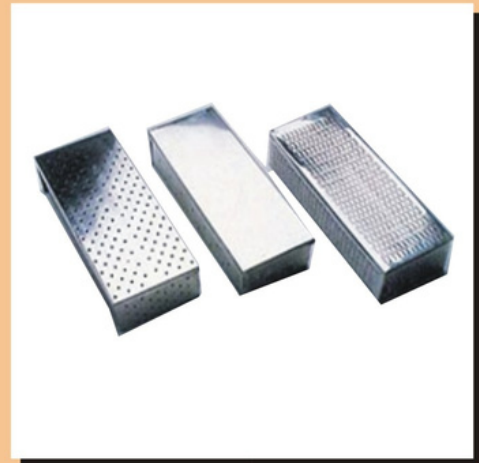
Scoop & Spatula



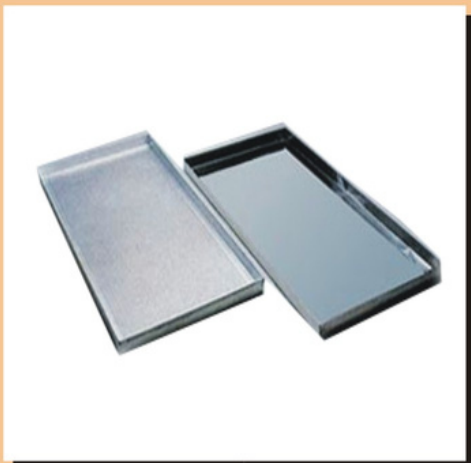
Pallets



Dustbins



Ampoule Boxes



S. S. Tray



S. S. Reactor



S. S. Reactor



TECHNIC PHARMA



Mixing Vessels



Square Loading bins



Tipper



Barrel



Storage Tank



I.P.C.



S. S. Table



S. S. Trolley



Trolley



TECHNIC PHARMA

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