APEX MAXTECH PVT.LTD.



OINTMENT/ CREAM SECTION









GRANULATION SECTION











LIQUID SECTION

Pharma Process Equipments

Pharma Process Equipment Manufacturer & Exporter

High Shear Mixer (HSMG)



Apex High Shear Mixer Granulator specifically designed for efficient mixing for wet granulation of powder providing consistency quality this equipment offers a wide rang of features for raw material of binding charging, variants for setting up, cleaning and automation control a part from direct connection to the weight mill down stream processes such as Fluid Bed Dryer. Meeting the highest cGP Standards. The High Shear Mixer Granulator is the result of the deep knowledge of the specific requirement of solid dosage processing pharmaceutical industries.

- Mixing of substances uniformly and homogeneously
- With special design Mixer & Chopper blades.
- Electro-Pneumatic Operated Discharge.
- Easy to clean machine.

MODEL	AMRMG 25	AMRMG 50	AMRMG 100	AMRMG 150	AMRMG 250	AMRMG 400	AMRMG 600	AMRMG 800	AMRMG 1000	AMRMG 1200
Gross Volume Liter	25	50	100	150	250	400	600	800	1000	1200
Working Volume Liter	20	40	80	120	200	320	480	640	800	960
Mixer Motor (HP)	3/5	5/7.5	7.5/10	10/15	22.5/30	30/40	40/50	50/60	60/75	70/100
Chopper Motor (HP)	1.4/2	2/3	2/3	3/5	3/5	5/7.5	7.5/10	10/15	15/25	25/30
Compressed Air Pressure	6 (Bar)									
Total Power(KW)	5	7.90	9.70	15	26	35.40	44.7	56.3	74.5	96.85
Electrical Supply**	415 ±10%, AC, 3Ø, 50 Hz.									

Fluid Bed Dryer (FBD)



Apex Fluid Bed System are highly versatile and can be use for various processes; Batch drying for granulates, batch granulation agglomeration of powder products as well as spray coating of pellets. Design specifically for pharmaceutical industries, the FBS is capable of granulation and drying in the same unit. The system is easily disassembled for cleaning and conform to cGMP standard. Each are Preparation unit is carefully configured, based on the process, locational and regularly. These process are totally modular in construction. Every control system tailored to specific process need. Various option for simple PLC control to the most complex industrial PC and control are possible. Due to fluidization each particle gets surrounded by hot air, which leads quick & uniform heating and drying. Filter bags provided at the top prevent escaping of particles from the machine.

- Uniform Drying with reducing Drying time.
- Online Sampling Device.
- The blower motor of higher capacity will be required in machine if supplied with HEPA, Scrubber & ducting length above 5 meters.

MODEL	AMFBD 10	AMFBD 30	AMFBD 60	AMFBD 120	AMFBD 150	AMFBD 200	AMFBD 250	AMFBD 300
Gross Volume Liter	35	110	200	425	500	625	780	925
Working Volume Liter	10 - 15	30 – 40	60 – 75	120 – 175	150 – 250	200 – 290	250 - 300	300 - 350
Heating Loading: KW For Electrical Heating	6	18	36	64	*	*	*	*
Steam Consumption KGS / HR"	15	25	50	100	130	170	200	250
Drying Temp C	50 - 80	50 - 80	50 - 80	50 - 80	50 – 80	50 – 80	50 – 80	50 – 80
Blower Motor H.P	2	5	10	15	20	20	25	30
Compressed Air Kg/cm2	4	4	4	4	4	4	4	4
C.F.M.	1500	2000	2500	3000	5100	6000	6000	6000

Octagonal Blender



Apex Octagonal Blender, the unique octagonal shape is designed to process larger volume of material for efficient angular momentum of the powder to achieve blend uniformity. It is ideal for gentle blending of dry granules or for powder mixing and has wide applications range across many Industries.

- Rectangular opening Lid with Removable Baffle mounted inside
- **Optional in built in Vacuum design with no external PTS required**

MODEL	AMOCB 100	AMOCB 200	AMOCB 300	AMOCB 400	AMOCB 500	AMRMG 650	AMOCB 850	AMOCB 950	AMOCB 1200
Gross Volume Liter	375	725	950	1300	1700	2200	2700	3500	4000
Working Volume Liter	300	600	850	1200	1500	2000	2500	2800	3400
Motor (HP)	1.5	2	5	5	5	7.5	7.5	10	10
Gear Box size	22	30	50	40	50	60	60	60	60
Discharge Valve	150	200	250	250	250	300	300	300	300



Conta Blender

Apex Conta Blender conforms to cGMP norms and gives better mixing efficiency as compared to conventional blenders. The rotation of bunker in a diagonally eccentric plane ensures efficient blending.

- Inching arrangement to bring the bunker back to rest at initial position.
- Ideal for dry blending and lubrication of granules I powder.
- Variable Frequency Drive provided for speed control.
- Tumbling principle in partial void enables homogenous mixing of active ingredients, additives and raw materials.

MODEL	AMCB 50	AMCB 75	AMCB 100	AMCB 150	AMCB 200	AMCB 350	AMCB 450	AMCB 600	AMCB 800	AMCB 1000
Gross Volume Liter	50	75	100	150	200	350	450	600	800	1000
Working Capacity kg	25	38	50	75	100	175	225	300	400	500
Motor (HP)	1	1	2	3	3	5	5	5	10	10
RMP	20	20	20	20	20	2 - 10	2 - 10	2 - 10	2 - 10	2 - 10

Double Cone Blender



Apex Double Cone Blender is an efficient and versatile machine for mixing dry powder and granules homogeneously. The SLANT double cone design eliminates dead sports, which occasionally occur in conventional double cone mixer.

- The conical shape at both ends enable uniform mixing and easy discharge
- The cone is statically balanced to avoid any excessive load on the gear box and motor
- While the powder can be loaded into the cone through a wider opening, it can be discharged through a butterfly or slide valve

MODEL	AMDCB 100	AMDCB 200	AMDCB 300	AMDCB 400	AMDCB 500	AMDCB 650	AMDCB 850	AMDCB 950	AMDCB 1200
Gross Volume Liter	375	725	950	1300	1700	2200	2700	3500	4000
Working Volume Liter	300	600	850	1200	1500	2000	2500	2800	3400
Motor (HP)	1.5	2	5	5	5	7.5	7.5	10	10
Gear Box size	22	30	50	40	50	60	60	60	60
Discharge Valve	150	200	250	250	250	300	300	300	300

Multi Mill



Apex Multi Mill is widely used for wet and dry granulation, pulverization etc., in Pharmaceuticals, Chemicals, Cosmetics, colors, Dyestuff, Food product etc. it also finds application in Pesticides, Spices, Detergents, I
- Machine Portable on Castor wheels.
- High output with Process uniformity.
- Direction of the Blade rotation can be changed using a Reversing switch for -
- Hammer or Knife operation.
- Multiple combinations of Screens / Speeds / Number of Blades .

Resins Industries

Model	AMMM- 3HP
Output Reduction	50 Kg to 200 Kg per hour depending on the product and size required
Beater	12 nos. with knife and impact edges & 2 scraper blades
Motor	3 hp, 2800 RPM, 415 V, 50Hz, 3 PH, AC
Screen Area (mm)	495 x 135 (66825 sq. mm)
Screen size:	(I) Perforated 0.5 to 25 mm (II) Wire mesh 4 to 100 mesh
Rotor Speed	750, 1500, 2300, 3000 RPM
Dimensions (mm)	1230 (L) x 760 (W) x 1700 (H1)
Rotor Assy. Dia	250 mm
Net Weight (Kg)	250 Kg

Co-Mill



Apex Co- Mill is used for Dry and Wet Milling/Size reduction of wide range of products. It's suitable for standalone as well as online milling. Low speed design allowing for inherently gentle action on the product resulting in optimum particle granularity, low heat, low noise, minimal fines and consistent , high quality end product can be used on heat sensitive products, high capacities, fully customizable to many different application and process stream.

- The output of co mill is near to the size of sieve used approx. 80%90%, whereas in multi mill it is 1/3 of the sieve used.
- The fines generated are on a lower side as compare to other mills.
- Motor: 5 HP.
- Capacity: 200 to 250kg per hr (depend upon material & mesh size)

Vibro Sifter



Apex Vibro sifters are circular gyratory screens used for separating mass composition of solids, liquid from solid and for gradation of materials as per particle sizes. These machines feature robust construction, smooth operation and low maintenance cost.

- Design is cGMP - Current Good Manufacturing Practices compliance.
- All contact parts AISI 316 & non contact parts AISI 304.
- Powerful vibration by gyratory motion by special Vibro motor.
- Side outlet & fines discharge.

Model	AMVS20"	AMVS30"
Screens	Stainless steel 304, 316 quality & of different mesh size as per requirement	
Screen Dia	500 mm	760 mm
Charging Height	730 mm	730 mm
Discharging Height	520 mm	520 mm
Electrical Motor	0.25 HP, 415 V, 3 Phase, 50 Hz	0.5 HP, 415 V. 3 phase, 50 Hz
Overall Dimensions in mm	600 (w) x 600 (d) x 800 (h)	770 (w) x 770 (d) x 800 (h)
Net Weight	125 Kg	175 Kg
Capacity /Hour"	20 to 200 Kg	30 to 300 Kg

Ointment/Cream/Toothpaste Manufacturing Plant

Apex Ointment manufacturing plant is an ideal tools for the pharma & cosmetic industries for the production of Ointment, Cream, Lotions, Tooth Paste & other emulsions & homogenization. It is specially designed to take care of two critical factors which directly affects the quality of the Ointment / Creams.
Minimum man handling of Ointment.
Negligible vacuum drop during mixing & bending.
Needless to say, it also provides the benefits of the effective manpower utilization.



- All material transfers are done by vacuum or by transfer pumps.
- All the vessels are CGMP (paint free construction).
- Ointment manufacturing plant gaskets used are of silicon (food grade).
- All contact parts are of S.S. 304 quality material (SS316 provided on demand) & finished to class 4B (Mirror) finish and are crevice free.
- The entry of all agitators are from top & High Speed Emulsifier from bottom or In-line Emulsifier (as per customer choice).
- All pipes, pipe fittings and valves are of SS304 / SS316 (as per customer requirement) seamless quality, internally

MODEL	AMOMP 50	AMOMP 100	AMOMP 200	AMOMP 250	AMOMP 300	AMOMP 500	AMOMP 1000
WAX PHASE VESSEL LTRS.	35	70	140	175	210	350	700
WATER PHASE VESSEL LTRS.	35	70	140	175	210	350	700
MANUFACTURING VESSEL LTRS.	70	140	280	348	420	700	1400
STORAGE VESSEL LTRS.	78	156	312	388	468	780	1560
ANCHOR MOTOR	1	2	3	5	5	7.5	10
HOMOGENIZER MOTOR	2	3	5	7.5	7.5	10	20
APP. LENGTH IN MM	3500	4100	4580	5050	5050	5550	6070
APP. WIDTH IN MM	1200	1300	1400	1550	1550	1750	2000
APP. HEIGHT IN MM	2100	2200	2255	2755	2850	3200	3600

Paste Kettle

Apex kettle is in the shape of a bowl with a sprout. It is provided with a electric / steam jacket . The bowl is provided with a manual tilting arrangement for removing the material from the bowl. The complete unit it mounted on a suitable S.S. Tubular stand. The kettle is provided with a suitable slow speed stirrer with geared motor mounted on the top. It is available from 50 Ltrs to 500 Ltrs. Capacity



- The starch paste kettle is a specially designed unit for preparation of binder material.
- It is a hemispherical kettle with jacket mounted on trunnion supports with the help of shaft.
- The kettle has a small cylindrical top shell with a spout for pouring out binder mass.
- The kettle is provided with Anchor type beater for paste mixing with dual speed option.
- Jacket is provided with steam accessories i.e pressure guage . Safety valve and vent cock.
- The Kettle is also provided with a lever with hand wheel to accomplish titling manually.
- The kettle is provided with 16 swg thick SS 304 losses lid.

Liquid/Syrup Manufacturing Plant

Apex Syrup Manufacturers Plant are ideal tools for the pharmaceutical industry for the production of Oral Liquids. It is specially designed to take care of two critical factors which directly affects the quality of the Liquids i.e. Minimum man handling of Liquid. Effective cleanness during manufacturing

- Sugar Syrup Manufacturing Plant is designed to be operated only by one operator & one helper.

- Sugar Syrup Manufacturing Plant is designed to be operated only by one operator & one helper.
- All material transfers are done by vacuum or transfer pump (optional).
- All the vessels are cGMP (paint free construction). The gaskets used are of silicon (food grade)
- All pipes, pipe fittings and valves are of SS 316, internally electro polished, with tri-clover ended joints.
- Liquid syrup and manufacturing vessels are provided with limpet coils for heating and cooling, designed for internal vacuum to facilitate transfer of sugar directly from stores to sugar syrup vessel.
- The entire liquid syrup mfg is equipped with CIP & SIP connection.
- All values of temperature & time of the plant are indicated digitally on the control panel.



Filter Press

Apex Filter Press direction of flow of liquid is exactly opposite to the flow in standard filter i.e. The impure liquid to be filtered enters the filter from the bottom into the center channel & goes to the top of each plate. The clear filtrate flows out from openings on side of plates to the shell & then to the outlet. This flow ensure almost 100% filtration of the liquid which is not so with the standard flow type.

• The cake, filteraid & solids remain totally enclosed allowing filtration of toxic, hazardous & explosive liquids.
• No contamination of internal surface of shell.



Inline Homogenizer

Apex High shear inline homogenizer is to be designed for a high degree of mixing and replaces the simple agitator which is ineffective in mixing. It is applied where the requirement of high speed and pressure for the complicated process of mixing. It perform a different type of operations like emulsification, dissolution, high shear mixing, etc.
It has a self-pumping quality such that provides a centrifugal pumping action without any need of an external pump. The stator are easily changed as per particle required size for the mixing process.



Homogenizer / Emulsifier

Apex homogenizer intend and fabricate a wide product of agitators for liquid and Paste for all process in the pharmaceutical, chemical, food, cosmetics and similar industries. Agitators are provide with dissimilar types of agitation mechanism for process such as blending, digestion , dispersion, viscous material , reaction, oxidation, mixing, and emulsification of liquid, dissolution ,paste, ointment, solution, homogenization, fermentation and solid-liquid. All product contact parts would be SS 316 & non contact parts SS 304. Capacity obtainable volume would be 5 liters to 10,000 liters.



Colloid Mill



Apex Colloid mill is a machine used in the disintegration of solid particles or droplet size of a liquid present in suspension or emulsion. The machine consists of an inlet (which is subjected to a tremendous shearing action that effects a time dispersion of uniform size) and an outlet. To reduce wear, the rotor and stator are constructed using toughened steel or corundum. The rotor of a colloid mill can differ from one machine to another but the operating principle is the same for all.

- Homogenization intensity and duration
- Viscosity of the continuous phase.
- Shear force within the gap between the spinning rotor and the stationary stator.
- Clearance rate between the rotor and the stator.



Vacuum Tray Dryer

Apex Vacuum Dryer is suitable for drying of thermal sensitive materials easily resolved, polymerized or deteriorated under higher temperature. Sterilization can be conducted prior to the drying process, during which no matter is allowed to enter the product.

- Suitable Size Condenser & Receiver in SS 316/304 to Condensate Collection.
- Specially Designed Locking System is Provided Easy Tighting of the Door.
- View Glass is Provided on the Receiver to see Condenser Level.
- Vacuum and Temperature Gauges are Provided.

MODEL	AMVTD 3	AMVTD 6	AMVTD 12	AMVTD 24	AMVTD 36	AMVTD 48
No. of trays	3	6	12	24	36	48
Capacity in kg	03/05/12	12/18/12	25-35	50-75	75-100	100-150
no. o heating shelfs	4	7	7	9	13	17
trays on each shelf	1	1	2	3	3	3
Condenser	0.2 m2	0.5 m2	0.75 m2	1 m2	1.5 m2	2 m2
Receiver	10 ltrs	25 ltrs	50 ltrs	75 ltrs	100 ltrs	150 ltrs
vacuum pump capacity	1 hp	3 hp	3 hp	5 hp	5hp	7.5 hp
Distribution pipes	1.5 inch	1.5 inch	1.5 inch	1.5 inch	1.5 inch	1.5 inch
no if door bolts (40 mm dia)	4	8	10	10	12	12

Tray Dryer / Tray Oven



Apex Tray dryer are electrically heated, and Steam heated. Tray Dryer is the most conventional Dryer used very widely and still being used where the moisture content is more and where the product has to be dried at low temperature for long hours.

Inlet & Outlet: All dryers have a 5 micron pre filter r at the inlet and a manually infinite adjustable damper at the outlet. Door : Doors at provided at the front and / or rear side of the dryer. Door lips are lined with silicon rubber gasket to prevention leakages. Suitable locking is provided for the doors.

Model	AMTD-24	AMTD-48	AMTD-96	AMTD-192
No. Of Trays	24	48	96	192
Tray size	16 x 32 x 1.25	16 x 32 x 1.25	16 x 32 x 1.25	16 x 32 x 1.25
Heating load at				
100^0C	6 x1000 W	9 x 1000 W	15 x 1000 W	21x 1000 W
200^0C	9 x1000 W	15 x 1000 W	21 x 1000 W	27 x 1000 W
300^0C	12 x1000 W	18 x 1000 W	27 x 1000 W	33 x 1000 W

Pharma Process Equipments

Auto Coater

Apex Auto coater advanced high efficiency automated tablet coating machine is mainly used in pharmaceutical and food industries. Featuring mechatronis and confirming to the requirement of cGMP. It is a high efficiency, energy saving, safe and clean equipment for film and sugar coating of tablets, Pills and candies with organic film, aqueous coating and sugar film etc.
The tablet to be coated make continuous complicated orbital motion the closed rotating Drum under the action of a streamline of Baffles. During the motion coating medium automatically sprays according to the technological process and rational technological parameters, at the same time hot filtered air supplied under a negative pressure.



- Interchangeable Pan
- Solid Pan for confectionery products.
- Wet Scrubber
- Dry Dust Collector
- Dehumidifier
- Steam or Electric Heat Exchanger
- Tablets charging by bin loader
- SCADA Connectivity

Coating Pan

Apex Coating Pan range of tablet coating pans is extensively used for sugar and film coating of tablets, pallets and granules. The unit comprises of ellipsoidal shaped pan fabricated using stainless steel sheet and mounted on the gearbox shaft, which is driven by an electric motor. These tablet coating pan are available in standard and GMP model with SS 304 or 316 contact parts.



- The complete drive unit is enclosed in a sturdy cabinet
- Hot air blower with flexible SS Pipe heaters are provided with thermostat control for fast drying
- Heaters are interlocked with the blower motor therefore unless the blower is on, heater does not start

MODEL	AMCP-12	AMCP-24	AMCP-36	AMCP-42	AMCP-48	AMCP-60	AMCP-72
Loading Capacity in Kg	8	45	80	100	150	210	275
Motor H.P.	0.5	1	1	3	3	5	5
Rpm of Pan	10/30/09	10/30/09	10 to 30	10 to 25	10 to 25	10 & 12	8 & 10
Blower Motor H.P.	0.25	0.33	0.33	0.33	0.33	1	1
Blower Capacity (Max. CFM)	50/100	50/100	100/150	100/150	150/200	250/400	350/400
Heater Capacity in K.W.	0.5	1	1.5	3	3		

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