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Make in India



- "CE" conformity and USFDA compliance products.
- An ISO 9001-2008 TUV Certified Company.
- Presents in more than 65 countries worldwide.
- Qualification documentation and Validation supports.
- Scales up to large batch size for R&D, Pilot and Production.
- Advance Instrumented with PLC Controls and Integrated process line.
- Wide range of process equipments for Powder, Liquid & Semi Solid.
- SCADA as per GMP 4 & 21 CFR Part 11 Compliant capable.

Prism Pharma Machinery®

An ISO 9001 - 2015 Certified Company

Mixing, Blending & Kneading Technik



High Shear Mixer Granulator - RMG

The High Shear Mixer & Granulator are multipurpose process equally suitable for high speed dispersion of dry powder, aqueous or solvent granulations, and effervescent production and melt pelletization.

- Available model 2 liter to 1200 liter working capacity.
- High shear mixing and granulation in single bowl with Short Batch Time, Problem free Cleaning and Residue Free Discharge.
- Unique design with four arm mixing impeller with Chopper blade to cuts lumps and makes granules.
- Optional features: VFD for mixing & granulating, Inline Milling, Bowl jacket for heat & cool, Vacuumize process, Binder spray system, Explosion proof motor & PLC controls.

Ribbon Mixer Blender

The Ribbon Mixer blender are used for uniformly dry & wet mixing and blending application in the foods, chemicals, pharmaceuticals, cosmetics, confectionery, detergents and pesticides industries.

- Available model 10 liter to 20000 liter working capacity.
- "U" shape container shape with ribbon blade stirrer gives sufficient axial movement to materials to mixes.
- Inner & outer ribbon blade with double or triple action blending.
- Suitable for mixing of ingredients and coating with spray system.
- Optional features: VFD, Binder spray system, FLP & PLC controls.



Paddle Mixer Blender

The Paddle Mixer blender are used for uniformly , effectively optimum dry & wet mixing and blending application in the foods, chemicals, pharmaceuticals, cosmetics, confectionery, detergents and pesticides industries.

- Available model 10 liter to 10000 liter working capacity.
- Special designed inner & outer paddles have special mixing effect with axial and fluidization movements of materials to homogeneous mixing independents of large range of particles size, shape or density.
- Able to mix in approximately in 60 second for dry application.
- Minimum heat generated and high particles movements.
- Fast, even liquid & ingredients addition and coating with spray system.
- Optional features: VFD, Liquid spray system, FLP & PLC controls.



Sigma Mixer- Kneader / Sigma Mixer Extruder

The Sigma "Z" blade Mixer are used for mixing & kneading of high viscous mass, sticky & dough likes paste, gum, rubber, Adhesive application in the Confectionery, foods, pharmaceuticals, adhesive, plastic and pesticides industries.

- Available model 10 liter to 1500 liter working capacity.
- "W" shape container with double "Z" blade with different speed for kneading, combined action of bulk movement, stretching folding, dividing & recombining of high viscous materials.
- Optional features: Jacket for heating & cooling, Bottom screw extruder discharge, VFD, Dual gear motor drive, Vacuumize, FLP & PLC controls.



Blending & Mixing Technik

Octagonal/ Double cone/"V" shape Blender



Blenders are used for mixing, lubricating and blending in Pharmaceuticals, Nutraceutical, Foods, Chemicals, cosmetics, ceramics, pesticide, plastics and other Allied industries.

- Available model 2 liter to 5000 liter working capacity with different shape of container.
- Octagonal/ Double Cone/ "V" Shape /Bin Shape product container for Ideal dry mixer for lubrication of granules and homogenization mixing of multiple batches in to single batch.
- Optional Features: Closed Loading & Unloading, VFD, PLC Controls, FLP & Intensifier with VFD.



Conta - Bin / Container Tumbler Blender

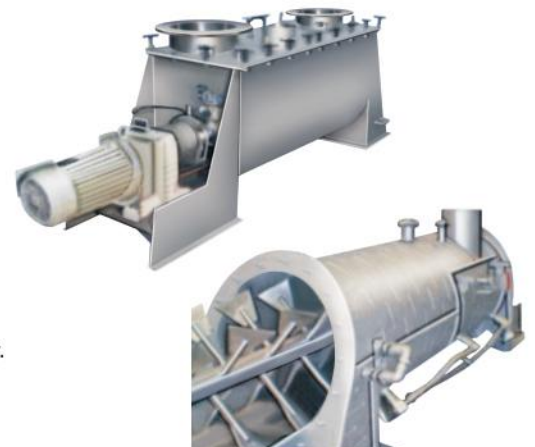
Bin Blenders or container tumblers are used mainly for blending of dry powder for tablet production and capsule, which facility better flow for tablets and capsules.

- Available model 5 liter to 1000 liter working capacity with different size of container.
- Bin Shape product container for Ideal dry mixer for lubrication of granules and homogenization mixing of multiple batches in to single batch.
- Interchangeable bin with deferent capacity.
- Closed and contained system for blending, storage and transfer.
- Hydraulic system for lifting of product container for mixing.
- Optional Features: PLC Controls & FLP.

Continuous Mixer

The Single Shaft Continuous Paddle Mixer Blender is designed for uniformly wet & dry mixing and blending technology provides the ideal environment for effectively optimum mixing a wide distribution of particle size and bulk densities without segregation of powder, granules, short fibered, moist solids and liquids together with pasty substances up to and including highly viscous masses in the chemical, herbal, cosmetic, food, pesticides, detergents, and plastics industries. The Mixer produces high quality intermediate and end product with homogeneity.

- Available model 2 ton to 12 ton per hour working capacity.
- Special designed paddles have special mixing effect with axial and fluidization movements of materials to homogeneous mixing independents of large range of particles size, shape or density.
- Minimum heat generated and high particles movements.
- Fast, even liquid & ingredients addition and coating with spray system.
- Optional features: VFD, Liquid spray system, FLP & PLC controls.



Drying & Vacuumize

Drying Technik



Fluid Bed Dryer - FBD

The Fluid Bed Drying involves fast drying, cooling and agglomeration of particulate wet materials. It is ideal for heat sensitive and non heat sensitive products.

- Available model 2 liter to 1200 liter working capacity.
- Batch type drying of bed of solid particles which are fluidized by passing a stream of clean & hot air upward in closed chamber.
- Single piece construction with Integrated retarding expansion chamber cum filter bag housing, built in Explosion vents and isolation valve protect equipment.
- Option Features: Double scan Inlet air AHU, HEPA Filtration, Steam, Gas or Electric heating, Solid flow detection, Silencer, Scrubber, PLC Controls & Explosion proof elec.

Tray Dryer

The Tray Drying Ovens are used for drying of pharmaceutical powders, granules, Pigments, Foods, Bakery & Chemical in an effective and economical way by hot air re-circulation.

- Available model 6,12,24,48, 96 &192 nos. Trays loading capacity.
- Wetted products dries by hot air circulation in closed insulated chamber.
- Machine structure inside & outside are made from S.S.304 with insulation.
- Provided air filter &, damper at inlet & exhaust.
- Optional features: Explosion proof motor & PLC controls.



Roto Cone Vacuum Dryer -RCVD

The Rota Cone Vacuum Dryer is suitable for drying the material which cannot operate at high temperature, easily oxidized, poisonous in nature.

- Available model 10 liter to 2000 liter working capacity.
- Double cone shape & jacketed container is rotate on slow speed to gently tumbling of products with under the state of vacuum inside the shell, pass heating media in to jacket for heating and dries products inside the container on desire temperatures and vaporized steam exhaust from container through vacuum.
- Vacuumize closed system with condenser, Receiver for solvent recovery.
- Option features: Solvent receiver system, Lumps breaker, PLC Controls, FLP.



Ribbon/Paddle Vacuum Mixer Dryer

The Ribbon/Paddle Vacuum Mixer Dryer is suitable for mixing and drying the material which cannot operate at high Temperature easily oxidized, poisonous in nature. It operates at low Temperature under vacuum & used for drying and mixing powder.

- Available model 10 liter to 10000 liter working capacity.
- "U" shape jacketed & vacuumize container is available with ribbon or paddle stirrer.
- Uniform mixing & drying process under vacuumize at low temperature.
- Vacuumize closed system with condenser, Receiver for solvent recovery.
- Optional features: VFD, Liquid spray system, Material charging system, FLP & PLC Controls.



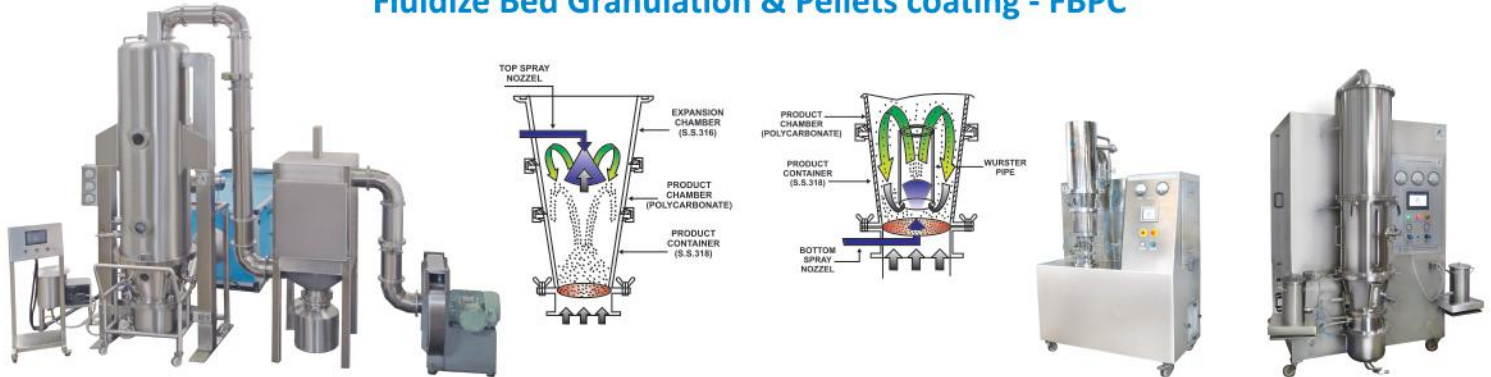
Vacuum Shelf Tray Dryer - VTD

The Vacuum Tray Dryers are used to heat and dry material under vacuum, where difficulties in drying materials due to high toxic contents, hygroscopic in nature, heat sensitive.

- Available model 6,12,24,36 & 48 nos. Trays loading capacity.
- Vacuumize shelves drying on low temperature system for high toxic. Hygroscopic & heat sensitive materials.
- Vacuumize closed system with condenser, Receiver for solvent recovery.
- Very low value of final moisture even at low drying temperatures.
- Optional features: Hot water circulation system & PLC controls.

Spray Granulation, Pellets Coating & Integrated Granulation Technik

Fluidize Bed Granulation & Pellets coating - FBPC



Prism Fluid Bed Processing involves drying, cooling, agglomeration, granulation and pellets coating of particulate materials. It is ideal for heat sensitive and non heat sensitive products in Pharmaceuticals, Biotech, Nutraceuticals, Chemicals, Foods, Dairy, Confectionery, Agrochemicals, Herbals & Detergents Industries.

- Available model 2 liter to 1200 liter working capacity.
- Single Pot Technology for mixing, granulating, drying & Pellets Coating.
- Easy mechanism to change from process of granulation to coating.
- **Top Spraying** system for Granulation.
- **Wurster Coater**-Bottom Spraying system for Pellets and Granules Coating.
- Precise flow rate Spray system with atomized spray gun and peristaltic pump.
- Sophisticated PLC controls with HMI Touch screen.

Integrated Wet Granulation Line



Prism Integrated granulation lines as per current Good Manufacturing Practices requirements that product is fully contained during processing to protect operators and environment. Also improved productivity through closed materials transfer, automation, increased yields and efficient cleaning procedures.

- An Integrated granulation line for solid dosages available from 2 liter to 1200 liter working capacity.
- Closed process technology for grading, mixing, granulating, drying, milling, blending & tableting.
- Reduced need of cGMP space.
- Reduced amount of transfer operation.
- Reduced need of operations and operation cost.
- Higher yield.
- Better containment for highly potent materials.
- Materials transfer by vacuum transfer system.
- Sophisticated PLC controls with HMI Touch screen.

Dry Granulation & Pellets Technik



Dry Granulation - Roller Compactor

The Roll Compactor machine is used for increased bulk density, making granules, dust free processing and reducing particle size of pharmaceutical ingredients in pharmaceuticals, API, Foods & chemical industry for densification and granulation of powder.

- Available model 1 kg to 500 kg/hr. working capacity.
- The material in form of powder passes through the two counter rotating rolls of roller compactor under very high pressure.
- In line dry granulation with powder loading system, Roll compactor, Granulator and grading machine.
- Uniform force distribution granulation with hydraulic pressure.
- Water cooling system for rolls and hopper.
- Vacuum deairation and pre compression.

Axial Extruder / Basket Extruder for Powder

Extruder is used to convert wetted powder / Dough material into uniform size extrudes / granules with addition of binders. Applications are mainly pharmaceuticals, chemicals, Agro Chemicals, foods, Confectionery Industries etc.

- Available model 1 Kg to 5000 Kg capacity.
- Forming pharmaceutical extrudates prior to Spheronization for controlled release applications.
- Production of water dispersible and water soluble granules of agriculture chemicals.
- Densification of organic chemicals.
- Formation of free-flowing vulcanization compounds.
- Different models in extruders such as Single Screw Axial, Double Screw Axial, Radial extruder & Basket extruder.
- Change of extrusion diameter/ Pellet size by changing die & sieve.



Spheronizer

Spheronizer is particularly designed for make spheres pellets from extruded materials and enables uniform coating of Pellets for accurate free flow filling into capsules drug applications within the pharmaceutical industry require consistent smooth surface particles, with a narrow size distribution. Feed extruded material to the Spheronizer falls onto the high speed rotating chequered plate within cylinder shell and small sharply edged pyramids which cut the feed granulates to length than centrifugal and gravitational forces create a fluidized ring of these particles with these impacts, they are reformed into spheres with a slight surface densification.

- Available model 0.2 kg to 100 kg. Batch capacity.
- Limit dusting and fines generation.
- Produce pellet/granule with a smooth surface.
- Densify the surface for stability.
- Minimize coating material necessary.
- Increase flow ability.



Milling, Size Reduction & Grading Technik



Cone Mill

Cone mill is used for achieving de-lumping, dispersion, De agglomeration, fine grinding, dry and wet milling uniform size reduction, sieving and mixing in the pharmaceuticals, foods, fine chemicals, confectionery & cosmetics industries.

- Available model 5 kg to 1000kg/hr working capacity.
- High speed milling, granulating and size reduction by rubbing process.
- Uniform size reduction of wet material with Cone blade with cone type sieve for size reduction.
- Option Features: Inline Milling & Explosion proof electrical.

Multi Mill

Multi Mill is used for wet and dry granulation, pulverization, milling, shredding, chopping, size reduction in Pharmaceuticals, Chemicals, Cosmetics, Ceramics, Dyestuff, Foods, nutraceuticals industries etc.

- High speed milling, granulating, pulverizing, mixing and size reduction of wet & dry material.
- Output capacity 5 Kg to 250 Kg per hour.
- Variable forces by swing beater having knife & impact edges are rotating within cylindrical screen.
- Option Features: VFD, Inline milling with HSMG, Sifter & FBD Bowl with IBC Bin & FLP.



Comminuting Mill

Comminuting mill is used for the down sizing, milling, pulverization and dispersion of wet and dry products in pharmaceuticals, chemicals, foods, confectionery, fertilizers industry etc.

- Available mode 5 kg to 2000 kg/hr working capacity.
- High speed milling, granulating, pulverizing, mixing and size reduction of wet & dry material.
- Milling force by beater having knife & impact edges are rotating within half round screen
- Option Features: Jacket for cooling, VFD, FLP, fixed or swing beater and uniform feeding system.

Oscillating Granulator

Oscillating granulator is used for gentle homogenization, size reduction, grading and sieving of dry, sensitive powders and granules in pharmaceuticals, chemicals and foods industries.

- Available model 5 kg to 500 kg/hr working capacity.
- Uniformly granulation & fewer fines of wet material and dry materials.
- Oscillating motion of rotor with "U" shape perforated sieve.
- Option Features: Inline granulation with Roll compactor & FLP.



Vibro Sifter

Vibro Sifter is used for screening, sieving, grading for solid-liquid separation, process to separate the desired elements and the undesired elements from the combination of solid to solid.

- Available model 12", 20", 30" 36", 48" & 60" diameter size sieve.
- Machine working capacity 1 kg to 1000 kg/hr working capacity.
- Powerful vibration by gyratory motion by special Vibro motor.
- Option Features: Double or Triple deck, Inline sifting with blender, IBC & Milling machine.



Single Sided High Speed Tablet Press-TabXpress-PTX Model

TabXpress-PTX Tablet Press Machine is used for production of simple and precise tablets. It is a high speed single sided, central drive, Pre compression Rotary Tablet Press suitable for medium batch size production. TabXpress-PTX designed in an effort to exceed the highest cGMP requirement and to ensure the most economical and efficient tablet production.

- Available in different 3 model Tooling 26 Stn "D" Type, 32 Stn "B" Type & 40 Stn "BB" Type with output 15,600 to 168,000 tablet /hr.
- Single sided rotary compression press with higher output.
- Pre-Compression System to improve compressibility and tablet Quality.
- Central drives for turret through gear box, electromagnetic clutch with Variable speed by VFD.
- Force feeder system with bottom drives with variable speed by VFD.
- Hydraulic power pack system for pressure loads and released.
- Optional features: PLC controls, powder level sensor, start-stop rejection & sampling.

Double Sided High Speed Tablet Press-TabXpress-IV Model

Prism TabXpress-IV is a High Speed Double Sided Rotary Tablet Compression Press with pre compression station suitable for millennium batch size production. TabXpress-IV designed in an effort to exceed the highest cGMP requirement and to ensure the most economical and efficient tablet production. The TabXpress -IV features a unique ergonomic design for EASY to Operate, EASY to Fast Changeover, EASY to Clean with minimum down time.

- Available in different 4 model Tooling 45 Stn "D" Type, 55 Stn "B" Type 69 Stn "BB" & 75 Stn "BB" Type with output 65,000 to 540,000 tablet /hr.
- Double sided rotary compression press with higher output.
- Pre-Compression System to improve compressibility and tablet Quality.
- Central drives for turret through gear box, electromagnetic clutch with Variable speed by VFD.
- Force feeder system with bottom drives with variable speed by VFD.
- Hydraulic power pack system for pressure loads and released.
- Optional features: PLC controls, powder level sensor, start-stop rejection & sampling.



Tablet Deduster

De-Duster is pharmaceutical processing equipment that removes the fine surface dust from tablets through using vibratory effect. This machine can be linked directly to any type of tablet press. In Elevating Deduster there is vibrated uphill type sieves. The tablets enter bottom inlet of perforated sieve from directly Tablet Press then they are gently vibrated and the tablet to move forward, upward, turning and rotating along the spiral uphill path of perforated plate to outer at top of the sieve.

Tablet / Capsule- Metal Detector

The metal detector is designed for the detection and removal of minute pieces of ferrous & nonferrous contaminations in tablet. Such particles sometimes enter the product stream from deteriorating processing equipment components such as worm sieve wires or splintered dies. This metal detector removes metallic contaminants automatically and without production interruption from a stream of tablets or capsules.



Tablet Coating & Materials Conveying Technik



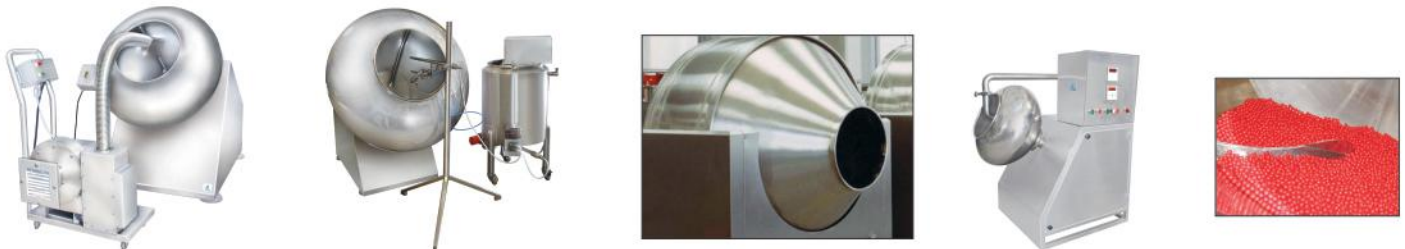
Automatic Tablet coating - Autocoater



The Prism's advanced high efficiency automated tablet coating machine is mainly used in pharmaceutical and confectionery industries. Featuring mechatronics and conforming to the requirement of cGMP. It is a high efficiency, energy saving, safe and clean equipment for film and sugar coating of tablets, Pills, Pellet and candies with Aqueous, Non aqueous, Enteric, Non Enteric film coating and Sugar coating.

- Available model 12" to 66" pans size for 1 kg to 500 kg batch size.
- Tablet film & sugar Coating with Aqueous, Non aqueous, Enteric, Non Enteric.
- Perforated Pan or solid pan with variable speed drive through VFD.
- Advanced PLC Controls with HMI Touch screen.
- Atomize Spray systems with Peristaltic pump, spray Gun & solution tank.
- Inlet Air handler is with Pre filter, blower, dehumidify coil, heat exchanger, Final filter & HEPA.
- Exhaust air blower with scrubber for treats air pollution free.
- Tablet discharging through special diverter assembly.
- Inbuilt with CIP/WIP System.

Conventional Coating Pan / Pellegrini type Coating pan



Conventional coating machine are used to sugar coat tablets, pellets, pills, candy etc. in for a variety of industries such as Pharmaceuticals, Confectionery, Foods and others. They are also used for rolling and heating beans and edible nuts or seeds.

- Available model 12" to 72" pan size for 1 kg to 500 kg batch size.
- Solid Pan with 30° mounted with drive unit.
- Hot air blower system with temperature controls.
- Available pellegrini type coating pan for 300 kg batch size.
- Available mobile type Atomize spray system with peristaltic pump, solution tank & spraying nozzle.
- Available polishing canvas pan.

Materials conveying system



- The Tippler-Lifting and tipping device is a hydraulic device which is having an arm used for lifting and turning FBD bowl by 180. Thus it is used to unload bowl of fluid bed dryer trough milling to IBC Bin.
- The IPC Bin loader is used for transferring and discharging the material dust free and without human touch in pharmaceutical industries for Load powder in to HSMG, tablet press, blender & blister pack .
- The IPC Bin is use for handles, stores, transfers and mixes the material dust free and without human touch in pharmaceuticals, foods & chemicals.
- The Pneumatic /Vacuum transfer system is unique dry material transfer system for dust free and avoid to human touch.

Liquid Dosage Process Plant Technik

Oral Liquid Syrup Manufacturing Plant



Prism has been designed & manufacturing fully automatic Oral Liquid Syrup Manufacturing Plant consisting of Sugar Loading System, Sugar Melting Vessel, Basket Filter & Transfer Pump, Syrup Manufacturing Vessel, Inline Homogenizer, Zero Hold up Filter press, Storage Tank with stirrer, Interconnecting pipeline, Transfer Pumps, Integrated automatic control panel & Working Platform. Available capacity is 500 liter to 5000 liter per batch size.

Preparation Vessels, Storage Tank



Prism has been designed & manufacturing preparation vessels, Reactor and storage tank and has consolidated a process as customer needs.

- Design compliance with cGMP.
- Capacity up to 25,000 Liter with Vertical & Horizontal design.
- Atmospheric, Vacuum or Pressure Operation.
- Plain, Jacket for heating & cooling.
- Mechanicals or Electro polishing of internal surface.
- Integrated Cleaning in Place-CIP & Sterilizing In Place-SIP as an Option.
- Validation protocols & Instrumentation celebration.

Inline Homogenizer/ Dispohomo Reactor/ Stirrer/Colloid Mill



Prism has been designed & manufacturing different type of Inline Homogenizer, Dispohomo Reactor, Agitator, Stirrer & Colloid Mill and has consolidated a process as customer needs.

- Design compliance with cGMP.
- Capacity up to 5,000 Liter.

Ointment/Cream/Paste Process Plant Technik

Ointment/ Cream/ Paste/Gel Manufacturing Plant



Prism has been designed & manufacturing fully automatic Semi solid manufacturing Plants are ideal tools for the pharmaceutical & cosmetic industries for the production of Ointment, Cream, Lotion, Gel, Tooth Paste & emulsions & homogenization. Available model 50 Liter to 5000 Liter working Capacity.

The fully automatic Ointment, Cream, Tooth Paste , Gel manufacturing plant consisting of

- Pre determined water phase vessel.
- Pre determined oil, wax, and petroleum jelly phase vessel.
- Vacuum Homogenizer Mixer vessel.
- Vacuum Pump.
- Storage vessel.
- Interconnecting pipeline.
- Transfer Pumps (Bump Pump, Lobe Pump & Metering pumps)
- Integrated automatic control panel.
- Working Platform

Vacuum Homogenizer Mixer/Ultra Mixer



Vacuum Homogenizer Mixer is applicable for a wide variety of viscosity product, i.e. emulsions and semisolid. It integrates with pressure, heating, cooling and vacuum for Agitating, Mixing, Emulsion, Dispersion, Suspending, Homogenizing & agglomeration functions into single machine

- Design compliance with cGMP.
- Capacity 10 liter to 6,000 Liter batch size.
- Atmospheric, Vacuum or Pressure Operation.
- Bowl Plain, Jacket for heating & cooling and tilting for unloading.
- Agitator- Anchor, Contra mixer with inner and outer agitator.
- High shear & pressurization of the homogenizer.
- Motorized top lid for lifting & lowering.
- Water Ring Vacuum Pump.
- Integrated Cleaning in Place-CIP & Sterilizing In Place-SIP as an Option.
- PLC Controls with HMI Touch screen.
- Validation protocols & Instrumentation celebration.

Prism's Global Presence

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Prism Pharma Machinery, India

The Prism Pharma Machinery is one of the leading manufacturers and exporters of Pharmaceuticals & foods Machines in Ahmedabad, India established in 2004, Now more than 100 employs are in the team as well as company obtain ISO 9001-2008 certificate and European standard products. PPM has provide supports for test facility, technical knowhow process evaluation, project execution, designing, service, validation, training and cGMP, FDA and CE standard equipments for Mixing, Granulation, Pelletization, Drying, Milling, Tableting, Coating, for Powder, Liquid and semi Liquid products. PPM has committed for in time execution and after sales supports & service.



Prism Pharma Machinery®

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