



BHARAT

Process Equipment



Industrial Mixers | Industrial Filters & Sieves | Industrial Reactors
Pulverizer | Industrial Dryers | Industrial Blenders | Heat Exchanger
Incline Homogenizer | Material Handling Equipment | Storage Tanks
Spice Mixing / Grinding plants | Cooking Kettles | Centrifuge Machine



www.bharatprocess.com

About Us

Bharat Process Equipment, is a respectable name in the industry with the areas of interest lying in the field of engineering and manufacturing. Bharat Process Equipment is a firm backed by the professionals in this field who are dynamic & committed to the cause with the blend of technology and experience in the process industry.

Bharat Process Equipment is having design engineers who work closely with users to find right solutions to their problems and deliver the custom made products exactly meeting their requirements and specification in most effective manner.

We have a team of expert engineers to attend customers emergency service call.



Vision



To transform our company from a small equipments manufacturer into one of the best diversified high technology company

To make a technical contribution in developing innovative products that benefit process efficiency, thereby adding value & improving life.

Mission



- Integrity & Honesty at par
- Innovation at its best
- Hardwork & Self Improvement
- Service to the Customer above all Encouraging Individual Productivity

Values



PLOUGH SHEAR MIXER

Plough Shear Mixer consists of a horizontal cylindrical container with multiple plough shaped shovels mounted on the main shaft. Bharat Process Equipment (BPE) offers a wide range of capacities from 5 liters to 20000 liters in all material grades.



ATMOSPHERIC TRAY DRYER

Atmospheric Tray Dryer is fabricated out of rigid angle iron frame with double walled panels insulated with best quality compressed fibre glass and with a rigid door fitted with strong hinges and best chosen locking arrangement. A control panel is fixed in front of the oven to facilitate the operation easily. It has a large working space and is available, manufacturing from mild steel & in good finishing outside with synthetic enamel colour & inside painted with heat resistant paint to resist temperature up to 300 degree, in Standard Model.



VACCUM TRAY DRYER

Vacuum Tray Dryer is suitable for drying of thermally 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. Static vacuum dryer eliminates the configuration damage of the drying materials, therefore widely used in pharmaceutical, chemicals and foodstuff etc.





BATCH HOMOGENIZER MIXER

Batch Homogenizer Mixer performance and uniform fineness through intensive shearing action of the rotor-stator impeller, featuring an external pinned ring rotor.



DOUBLE CONE BLENDER

Double Cone Blender are most often used for the intimate dry blending of free flowing solids. The solids being blended in these units can vary in bulk density and in percentage of the total mixture. Materials being blended are constantly being intermixed as the Double Cone rotates. Normal cycle times are typically in the range of 10 minutes, however they can be less depending on the difficulty of blending. Bharat Process Equipment (BPE) offers a wide range of capacities from 5 liters to 20000 liters in all grades of material.



BALL MILL

A Ball Mill is a type of grinder used to grind materials into extremely fine powder for use in mineral dressing processes, paints, pyrotechnics, ceramics and selective laser sintering. A ball mill works on the principle of impact: size reduction is done by impact as the balls drop from near the top of the shell. A ball mill consists of a hollow cylindrical shell rotating about its axis. The axis of the shell may be either horizontal or at a small angle to the horizontal. It is partially filled with balls. The grinding media is the balls, which may be made of steel (chrome steel), stainless steel or rubber.

RIBBON BLENDER

Ribbon Blender comprises of a U- shaped horizontal trough and a specially designed Double Helical Ribbon Agitator rotating within. Ribbon Blenders based on a proven agitator construction that provides a triple mixing action ensuring fast, efficient blending. The dimensions and configuration of the ribbons are carefully balanced to provide movement of material within the container that avoids dead spots and gives rapid products discharge available in the range of 5 liters to 25000 liters in all grades of stainless steel. Carbon steel & special alloy steel.



OCTAGONAL BLENDER

The Octagonal Blender is an efficient and versatile blending machine for mixing and lubrication process of dry granules homogeneously. Two third of the volume of the Cone Blender is filled to ensure proper mixing. The Octagonal Blender gives best result for granules due to very slow speed and octagon shape of container. It can be used for Pharmaceutical, Food, Chemical and Cosmetic products etc. Bharat Process Equipment (BPE) offers a wide range of capacities from 5 liters to 20000 liters in all grades of material.



SIGMA MIXER

The sigma mixer is one of the most popular used for mixing and kneading high viscosity materials. It belongs to the family of double arm kneader mixers. Sigma Blade Mixers are engineered specifically for kneading, mixing, and homogenizing wet, pasty, and highly viscous products. The two Sigma shaped blades, which sit horizontally and parallel at the bottom of the mixing trough, provide thorough mixing. Kneader mixer has two mixing blades rotate towards each other at differential speeds inside a W-shaped trough. Each blade moves the material in opposite direction thereby providing excellent cross mixing of all raw materials. This mixer is most suitable for highly viscous material and dough like masses.





VIBRO SHIFTER

Vibro Shifter are circular unitary gyratory screens used to separate mass composition of solids from solids, liquid from solid and for gradation of materials as per particle size, having a very wide range applications.



VACUUM NUTSCHE FILTER

Vacuum Nutsche filters are most suited to the filtration in batches of liquids with a high solid content, in particular ambitious subsequent treatment of the solids is intended. Here the liquid is separated mechanically using a permeable layer (filter medium) and either using a vacuum by exploiting the atmospheric pressure or with the help of pressure and/or a combination of vacuum and pressure.



TUBE HEAT EXCHANGER

A Tube Heat Exchanger is a class of heat exchanger designs. It is the most common type of heat exchanger in oil refineries and other large chemical processes, and is suited for higher-pressure applications. As its name implies, this type of heat exchanger consists of a shell (a large pressure vessel) with a bundle of tubes inside it. One fluid runs through the tubes, and another fluid flows over the tubes (through the shell) to transfer heat between the two fluids.

INLINE HIGH SHEAR MIXER

The High Shear Mixer design consists of a single, dual or four stage rotor that turns at high speed within a stationary stator. As the rotating blades pass the stator, they mechanically shear the contents. The Inline model is a good choice for process lines that require frequent changeover from one product to another. A simple valve can divert finished product downstream or switch instantly from one vessel to another. Interchangeable rotor-stator combinations provide unlimited flexibility to adopt to a variety of product formulations.



V CONE / Y BLENDER

V Cone Blender Similar in working principle to double cone blender. V - Cone blenders are also used for dry blending of free flowing solids with the advantages of two feeding port & elimination of internal baffles due to its Y - shaped body which enhances the blending efficiency.



PADDLE MIXER

Paddle Mixer comprises of a U- shaped horizontal trough and a specially designed Double Helical Paddle Agitator rotating within. Paddle Blenders based on a proven agitator construction that provides a triple mixing action ensuring fast, efficient blending. The dimensions and configuration of the paddles are carefully balanced to provide movement of material within the container that avoids dead spots and gives rapid products discharge available in the range of 5 liters to 25000 liters in all grades of stainless steel. Carbon steel & special alloy steel.





CENTRIFUGE

A **Centrifuge Machine** is a unique energy efficient machine that works by spinning a vessel containing the material to be separated at high speed. Used widely in pharmaceuticals & chemical industries. Centrifugal force generated in the centrifuge machine generates a force that can be 2000 times more powerful than gravity itself.



STATIC MIXER

Two basic - No Moving Parts - Motionless Mixer designs are offered for use in turbulent & laminar flow mixing applications. The mixing operation is based on the splitting & diverting of input streams.



PULVERIZER MACHINE

Pulverizers are machines, which break, crush and grind the material and are used in various industrial applications for crushing and pulverizing materials like brick, shale coal minerals and other materials. Soil pulverizers are used in landscape construction and agriculture. They break and smooth soil for seeding. Application of pulverizers are used in the industrial areas of food, pharmaceutical and chemicals.

FLUID BED DRYER

Fluid bed dryers work on the principle of fluidization, a process where a material is converted from a static solid-like state to a dynamic fluid-like state. In this process, hot gas or air is introduced through a perforated distribution plate into the area holding the material. This creates a state of fluidization where the particles are suspended in what appears to be a boiling bed of liquid. What once moved in a solid way can now flow like water. Each particle is in direct contact with, and surrounded by, the hot gas or air creating an efficient and uniform drying process.



KETTLE

The steam jacketed kettle or evaporating pan is an evaporator that can be used for the bulk evaporation of water from aqueous liquids. It is constructed in the form of a hemispherical shaped shell usually made of stainless steel that is comprised of an inner pan or 'kettle' and an outer pan or 'jacket'. Steam flows through the space between the outer and inner pans at a slightly elevated pressure. The hot steam causes heat to pass through the inner pan, by conduction, to the solution that is to be evaporated. As the temperature of the solution rises, so solvent molecules are evaporated.



HIGH SPEED DISPERSER

High Speed Disperser consist of a driven vertical shaft and a high shear disc type blade. The blade rotates upto 5000 rpm and creates a radial flow pattern within a stationary mix vessel. High speed dispersers are ideal for dispersions that are up to a maximum of approx. 50,000 centipoise.

High Speed Disperser Mixer is designed for intensive high speed, high shear mixing and dispersion of products from low to medium viscosity. The mixer typically consists of a single High Speed Shaft mounted in the center of the mixing vessel.





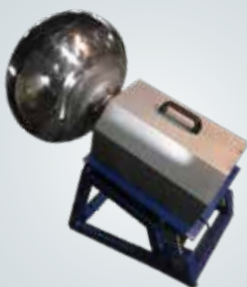
ATTRITOR MILL (Chocolate Ball Mill)

Attritor Milling is simple and effective. Feed material is placed in a stationary tank with the grinding media. A rotating shaft with arms or discs then agitates the material and media. Both impact and shearing action result in size reduction as well as homogenous particle dispersion with very little wear on the tank walls. These efficient forces must be present for the most effective grinding action.



CAGE MILLS

Cage Mills are a practical solution to applications that require one-step crushing to produce the final product. ... "The Disintegrator" was the original name the inventor gave the cage mill because the process repeatedly forces the materials to break into pieces through multiple stages.



COATING PAN

Coating Pan merely refers to equipment that you use to form an aqueous or organic film around any type of tablet or pellets. Coating pan. It is the device that is mostly used for coating tablets as well as other pharmaceutical products, and it is essential in numerous pharmacological applications.

STORAGE TANK

Storage tanks are containers that hold liquids, compressed gases pressure vessel which is not typically labeled or regulated as a storage tank or mediums used for the short- or long-term storage of heat or cold.[1] The term can be used for reservoirs, and for manufactured containers. Storage tanks are available in many shapes: vertical and horizontal cylindrical; open top and closed top; flat bottom, cone bottom, slope bottom and dish bottom. Large tanks tend to be vertical cylindrical, or to have rounded corners transition from vertical side wall to bottom profile, to easier withstand hydraulic hydrostatically induced pressure of contained liquid. Most container tanks for handling liquids during transportation are designed to handle varying degrees of pressure.



REACTORS

A chemical reactor is an enclosed volume in which a chemical reaction takes place. In chemical engineering, it is generally understood to be a process vessel used to carry out a chemical reaction, which is one of the classic unit operations in chemical process analysis. The design of a chemical reactor deals with multiple aspects of chemical engineering. Chemical engineers design reactors to maximize net present value for the given reaction.



MULTI MILL

High Speed Dispenser consist of a driven vertical shaft and a high shear disc type blade. The blade rotates upto 5000 rpm and creates a radial flow pattern within a stationary mix vessel. High speed dispersers are ideal for dispersions that are up to a maximum of approx. 50,000 centipoise.

High Speed Dispenser Mixer is designed for intensive high speed, high shear mixing and dispersion of products from low to medium viscosity. The mixer typically consists of a single High Speed Shaft mounted in the center of the mixing vessel.





PEPSI POUCH PACKING MACHINE

These **Pepsi Pouch Packing Machines** are available in several control features. With our immense domain expertise, we are engaged in manufacturing, exporting and supplying a wide range of Fully Automatic Pepsi Cola Machines. These are widely used for free flow liquid packing like Pepsi cola, lime juice, Rasna etc.



NAUTA MIXER

The Nauta conical screw mixer is a batch mixer, specially designed for segregative, free-flowing powders and pastes. It is a pioneer in mixing technology, The Nauta mixer is famous for its low-intensity mixing. It is especially suited for delicate products and processes where very accurate results are required and is synonymous with gentle mixing of large volumes of up to 100,000 litres. The Nauta conical screw mixer is a convective mixer with high mixing efficiency. It is gentle and guarantees the highest level of mixing accuracy without product distortion. The screw has an average speed of 70 rpm whilst the arm rotates at 1 to 2 rpm. The tip speed of the screw can fluctuate between 0.5 and 2 m/s, making it suitable for all ATEX zones. The rotating cantilevered (free hanging) mixing screw conveys the product from bottom of the vessel to the product surface. The mixing screw is suspended from an orbital arm, which rotates the mixing screw along the conical inner vessel wall causing convective mixing of particles and shear. The speed of particles in the downward massflow when recirculated by gravity in a conical vessel increases as the vessel diameter decreases. The result of these simultaneous actions is a fast and intensive mixing with low consumption of power together with high standards of mixing accuracy.

FERMENTER

A **fermenter** is an enclosed and sterilised vessel that maintains optimal conditions for the growth of a micro-organism. The microorganism undergoes fermentation to produce large quantities of a desired metabolite for commercial use. Product can be collected from a fermenter after a fixed amount of time (batch cultivation) or ongoing (continuous cultivation)



ROTARY VACUUM DRYER

Rotary Vacuum Dryer offers clean, simple and effective method of drying filtered/centrifuged wet cakes, wet powders and slurries. Operating under vacuum, the dryer effectively dries heat sensitive materials to very low LOD levels. Solvents are condensed and recovered. Operation is batch and drying time depends on material being dried, amount of solvent or water to be removed, desired LOD level, permissible jacket temperature, etc. Larger sizes available on request. Optionals Shaft sealing by mechanical seal, Dust filter Standard bag type, Self cleaning pulse jet type, Internal polishing, Pneumatically operated bottom discharge valve or actuated ball valve



PELLET MILL

Pellet Mill has a robust and easy-to-maintain design for high performance and low operating costs and is especially made for the very demanding biomass tasks. The BioMax is sturdy and designed for pelleting materials that require a very high pelleting force. It has been designed to handle high-volume materials that traditional pellet mills cannot handle.



SCREW CONVEYOR

A screw conveyor or auger conveyor is a mechanism that uses a rotating helical screw blade, called a "flighting", usually within a tube, to move liquid or granular materials. They are used in many bulk handling industries. Screw conveyors in modern industry are often used horizontally or at a slight incline as an efficient way to move semi-solid materials, including food waste, wood chips, aggregates, cereal grains, animal feed, boiler ash, meat, and bone meal, municipal solid waste, and many others. The first type of screw conveyor was the Archimedes' screw, used since ancient times to pump irrigation water.

They usually consist of a trough or tube containing either a spiral blade coiled around a shaft, driven at one end and held at the other, or a "shaftless spiral", driven at one end and free at the other. The rate of volume transfer is proportional to the rotation rate of the shaft. In industrial control applications, the device is often used as a variable rate feeder by varying the rotation rate of the shaft to deliver a measured rate or quantity of material into a process.

Screw conveyors can be operated with the flow of material inclined upward. When space allows, this is a very economical method of elevating and conveying. As the angle of inclination increases, the capacity of a given unit rapidly decreases.

SPARKLE FILTER

The Sparkler Filter is the most versatile filtration system for solid – liquid separation. It can also be used apart from filtration, with the help of filter aids for giving a sparkling effect to the liquids filtered. The filters are most suited for the filtration of products for the pharmaceutical, chemical, distillery, beverage, ink, oil and other allied industries. It is available in different output capacities with a variety of pumps to suit individual requirements.





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Quality Is Our Goal,
Excellence Is Our Passion !



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