

WE OFFER PERFECT MIXING TECHNOLOGIES



www.permixtec.com www.permixmixers.com





PRESENT & PROSPECT

PRODUCT RANGE

PerMix not only offers single mixers with modern

appearance and advanced technology, but also to offer the full line system mixers to save your time, which is one of our strong points. With our engineers' decades of experience in this area, PerMix is capable to offer the most suitable solution for any industry that has a demand for mixing.

CUSTOMIZED SOLUTIONS

Despite a wide range of PerMix's standard mixing & processing equipment, we offer more options available, and PerMix designs its equipment according to the specific requirements of our customers. PerMix engineers evaluate the customer's mixing and processing problems in order to translate process parameters into soundly engineered and dependable mechanical equipment. PerMix welcomes the opportunity to discuss individual conditions and invites customers to compare and determine for themselves which equipment is best suited for their needs.

CUSTOMERS & APPLICATIONS

PerMix has been building a good reputation in both local and export markets over the years. No matter the customer is well-known or newly set up, PerMix serves them with full care. Our products are widely used to serve a variety of industries such as food, beverage, cosmetics, pharmaceuticals, biology, fine chemicals, specialty chemicals, animal feeds, agriculture, painting, ink, petrochemicals, nano materials, paper, adhesive, plastic, electronics, batteries, waste treatment, etc.

POWDER BLENDERS & DRYERS



PTP PADDLE MIXER

PerMix PTP series Paddle Mixers are an innovative design derived from the well-known Plow Mixers (or Ploughshare Mixers, Plough Mixers). The Paddle, in many cases, provides the same mixing performance as a Plow but requires much less power consumption; due to the less rotation speed of the paddles, the wearing of the mixing element for the Paddle is also less than the Plow. Paddle Mixers also have a better performance dealing with fragile and/or heat sensitive materials.

Compared with the conventional Ribbon Blenders, Paddle Mixers are superior because they are able to mix the material in a more aggressive way while keeping the similar power consumption, due to the fact that the uniquely designed paddles are more pitched than ribbons in a Ribbon Blender and move more materials in a single turn.

PerMix Paddle Mixers are **'aggressive mixers'** that are well qualified for high mixture ratio processes up to 1:1,000,000, which means the single sample of 1 ppm of a batch volume can still have the right mixture of ingredients.



PTS PLOW MIXER

PerMix PTS series Plow Mixer is one of our two types of Turbulent Mixer, which are originally designed by our Israeli engineers. The other one is PTP series Paddle Mixer.

PTS Plow Mixer is so versatile that it can handle nearly all types of materials including dry powders, granular materials, short fibered substances, moist solids with liquids, pasty materials and highly viscous masses.

PerMix PTS series Plow Mixers can be used for numerous processing, including compounding, fine mixing, dispersing, suspending, emulsifying, deaerating, tempering, accelerating chemical or physical reactions, granulating, breaking down agglomerates, etc. It is particularly suited for such difficult processes as mixing trace elements in proportions of 1 in 100,000 to 1 in 1,000,000 parts.



PRB RIBBON MIXER

PerMix PRB series Ribbon Mixer is an efficient and versatile blending machine for mixing of dry powders, granules and viscous pastes homogeneously. It is able to give a satisfying **"homogeneity grade"** for mixing jobs due to the special design of a mixing agitator with dual ribbons inside of a U-shaped working trough.

PerMix designs our PRB Ribbon Blenders which are able to achieve a maximum "mixing ratio" of 1:500,000, which means you can get the desired mixture proportion of components in as small as 1 gram with a batch of 500kg.



PVR VERTICAL RIBBON MIXER

The PerMix PVR series Vertical Ribbon Mixer has a similar appearance with the PRB series Ribbon Blender, but stands vertically, same as our PNA series Conical Screw Mixer. PVR Vertical Ribbon Mixers are efficient and versatile blending machines for batch mixing of free-flowing powders, granules and pellets.

PerMix Vertical Ribbon Mixers are able to give perfect result of mixing due to the design of an outer spiral type mixing element with an inner screw, rotating together in a conical shape trough, which provides a multidimensional movement of the materials, and a complete discharge of all the mixed material without any residue. The Vertical Ribbon Mixers are also featured with no contamination to the product, due to the fact that the shaft sealing is above the working area, thus no contact with the product.



POWDER BLENDERS & DRYERS



PNA CONICAL SCREW MIXER

PerMix PNA series Conical Screw Mixer is a batch mixing equipment used widely in mixing applications that require gentle mixing with minimal product distortion, minimal heat generation, and very accurate mixing homogeneity. Since it was first developed, it has been recognized as a good solution for the products which is delicate, heat sensitive or tending to segregate.

Due to the reason that PerMix Conical Screw Mixer uses the gravity to generate the significant downward massflow, it saves energy compared with a horizontal mixer. These mixers are also featured with no contamination to the product due to the fact that the shaft sealing & bearing is above the working area, thus no contact with the product.



PFB FLUIDIZED ZONE MIXER

PerMix PFB series Twin-shaft Paddle Mixer is a fast mixer with high efficiency, which is also known as Fluidizing Mixer, Fluidized Zone Mixer, or Zero-gravity Mixer.

These mixers are applied to prepare a homogeneous mixture despite of particle size, shape and density. When the small amount of powder additives or liquid is required to be added into the bulk material, PFB Mixers are able to achieve fast and precision mixing with high capacity.

Due to its high efficiency and reliable performance, PerMix Twin-shaft Paddle Mixers are widely applied in many industries, including but not limited to: Building materials, Fly ash conditioning, Animal feeds, Mineral premixes, Instant drinks, Milk powders, Vitamin mixes, etc.



PFBS FLUIDIZED ZONE MIXER

PerMix PFBS series Single Shaft Fluidized Mixers are an innovative design derived from the conventional Ribbon Mixers but with the additional feature & advantage of PerMix PFB series Twin Shaft Paddle Mixers which provide fast, complete and thorough mixing performance by mechanical fluidizing despite the density, particle size and shape of different solid ingredients to be mixed. PFBS mixers can achieve homogeneous mix within typical 30-60 seconds but product dependent.

Compared with the Ribbon Blenders, Single Shaft Fluidized Mixers are superior because they are able to mix the material in a more aggressive way with higher tip speed and Froud number while keeping the similar power consumption, due to the special design of multiple pitched paddles.



PAM VERTICAL MIXER

The PerMix PAM series Vertical Mixer is a super innovation that combines all the advantages of precise mixing homogenity, highly hygienic design, complete discharge with minimum residue, wide range of loading volume, robust design with long duty life and many others.

PAM Vertical Mixers are efficient and versatile blending machines for batch mixing of free-flowing powders, granules and pellets. They have been used widely in food, enzyme, cosmetics, fine chemicals, pharma, etc.



PDI HIGH SPEED GRANULATOR MIXER

The PerMix PDI series High Speed Mixer, also called **Mixer Granulator**, Wet Granulator, or High Shear Mixer Granulator, is an efficient and versatile blending machine for mixing of dry powders, or granulating with the addition of liquid binder, within a very short time and with excellent cleaning abilities. It is able to give perfect result for mixing due to the innovative design of a central Impeller type mixer with a side high speed Chopper.

The proven mixing action of the PerMix PDI series High Speed Mixer ensures effective mixing in may applications. Optimal performance is assured with dedicated designs of optional feeding, discharging and installation.

PerMix Perfect Mixing Technologies

POWDER BLENDERS & DRYERS

PDC DOUBLE CONE MIXER

The PerMix PDC series Double Cone Mixers are one type of the **well-known Tumbler Mixers**, which perform the mixing by turning the vessel around the shaft. They are unique mixers suitable for rapid and uniform mixing of free flowing dry powders, granules and crystals. With the simplest structure among all mixers, they are featured for low investment, easy operation, discharging without residual, quick cleaning, and simple maintenance.



PVM V-BLENDER MIXER

The PerMix PVM series V shaped Mixer (or V Cone Mixer), sometimes also called Y shaped Mixer, is one type of the **well-known Tumbler Mixers** (the other type is the PerMix PDC series Double Cone Mixer), which are very popular for the intimate blending of free flowing dry powders, granules, and crystals. It is featured by the very simple design and easy to clean construction.



PTPD VACUUM MIXER DRYER

PerMix PTPD series Vacuum Mixer & Dryer is a batch mixing equipment used widely in mixing applications that require gentle mixing & drying with minimal product distortion, minimal heat generation, and very accurate mixing homogeneity. Since it was first developed, it has been recognized as a good solution for the products which is delicate, heat sensitive or tending to segregate.

Due to the reason that PerMix Vacuum Mixers & Dryers use the vacuum and heat transfer of the jacket to optimize energy compared with a standard jacketed mixer. These mixers are also feature vapor recovery systems, full PLC/HMI controls, and more. They come in size ranges from 5 liters to 30,000 liters.



PDR & PDRS DRUM HOOP MIXER

The PerMix PDR & PDRS series Drum Hoop Mixer has been developed to meet increasing demands for a low batch mixer for mixing, blending, homogenizing, dyeing of dry powders and granules particularly in smaller industries or when frequent product changes as required.

PerMix Drum Hoop Mixers comprise a drive unit with roll-on / roll-off ramp, and it is used in mixing, homogenizing and dyeing of powdery or granulated components in the plastics industry, chemical industry, drug and dye works, food industry as well as textile and leather industry.

Drum capacity of PDR Mixer is usually 200L, but also available with 50 and 100 liters. Usually the drum is available as standard product in the market; however customized drums are also accepted, and the hoop then needs to be adapted to the drum size.



PTU 3D MIXER

The PerMix PTU series 3D Mixer or Multi Direction Powder Mixer is used for homogeneous mixing of powdery substances with different specific weights and particle sizes. Producing dry-to-wet and wet-to-wet mixtures is also possible. The production process is hygienic and dust-free because the product is mixed in independent containers of variable sizes.

During the mixing process the powder moves in a random direction from center to the end of the trough and at the same time from top to the bottom. In such a multi-dimensional way, the PerMix PTU series 3D Mixer needs only short mixing time and relatively low power consumption.

The mixer's "Gentle" mixing action is good for final products that are sensitive to high shear of the mixer and tend to break or to reduce their particles size, or are highly abrasives.



PASTE KNEADERS & MIXERS

PSG SIGMA MIXER

The PerMix PSG series Sigma Mixer, which is also known as the Double Sigma Mixer, or Double Z Blade Mixer, is used for the mixing-kneading of materials with very high viscosity (over 500,000 cps).



With its unique design of Z-shaped mixing tools installed in two semi-cylinders, the PerMix PSG series Sigma Mixer is able to provide a combined functions of compressing, stretching, folding, kneading & mixing, which makes it widely used in the chemical, food, sealing compound and paint industries, among others. If a screw extruder is applied for discharging, the mixer is also called Sigma Mixer Extruder, or Mixtruder.

PDP DOUBLE PLANETARY MIXER

The PerMix PDP series Double Planetary Mixer is also called double planetary kneader, because it can be used to handle very viscous materials up to 1,500,000 cPs. Usually the PerMix PDP series Double Planetary Mixer has two vertically mounted mixing tools which are driven by one gear to move around the central axe of the tank as well as their own axis.



The PerMix PDP series Double Planetary Mixer is so versatile that it can be used to mix, knead, stir and deaerate all types of material, including highly viscous pastes, even to granulate wet powders. Industrial pastes produced by the PerMix PDP series Double Planetary Mixer include concentrated paints and varnishes, printing inks, fillers, silicone and thiocole pastes, plastisoles, plastic coatings, synthetic lubricating greases and many other materials.

PVC VACUUM EMULSIFYING MIXER

Vacuum I Heat & Chill I Mix & Blend I Homogenize, Emulsify, Puree & more...

The PerMix PVC series Vacuum Emulsifying Mixers are especially designed and

used extensively in production of Mayonnaise, Ketchup, Dressings, Chocolate Fillings, Chocolate Frostings, Sauces, etc; but can also be applied in the food, cosmetic, chemical and pharmaceutical industries.

PerMix Vacuum Emulsifying Mixers are more than a single emulsifying mixer, but a vacuum mixing, dispersing and emulsifying system that is used whenever a high quality and absolutely air-free product is required as with the PerMix PMS series Multi-shaft Mixer, but at a lower cost.

PerMix PVC Vacuum Emulsifying Mixers cater to various work processes which normally require more machinery in one system. In the PVC Vacuum Emulsifying Mixer, base materials can be mixed in liquids, dispersed and homogenized while at the same time all air is removed. This produces stable emulsions with a long shelf life in storage.



PSG-X SIGMA MIXTRUDER

PerMix PSG-X Sigma Mixer Extruder (or Mixtruder) is designed with an extrusion screw

located in a cylindrical barrel in the middle and below the two mixing arms.

The extrusion screw is used to discharge the product, but can also runs in reversed direction during mixing cycle, lifting materials up to the reach of mixing arms, thus assuring a thorough kneading and accelerating the mixing process. The screw has its own separate drive.

PMS MULTI-SHAFT VACUUM MIXER

The PerMix PMS series Multi-shaft Vacuum Mixer is a revolutionary universal multi-processing mixer which is designed to serve a wide variety of industries in many different processes. It provides a unique three-way mixing action by combining slowly running elements with a rapidly running element.



PerMix PMS Multi-shaft Vacuum Mixer therefore is not limited to the simple production of emulsions, suspensions and other homogenous products, but covers the entire manufacturing process - from feeding the components, to the well-deaerated and ready-for-packaging product.

PD HIGH SPEED DISPERSER

The PerMix PD series High Speed Disperser (or Dissolver) is ideally designed to meet the demands of a broad spectrum of industrial applications for dispersing purpose of solid or liquid materials into liquid body.



PerMix PD High Speed Disperser works with the powerful high speed rotation of the saw disc impeller. Liquid or solid materials are subject to the high shear force at the periphery of the saw disc when the impeller is rotating at high speed, and they are dispersed quickly and efficiently into the liquid body, after short time, homogeneous dispersion is produced.

The ease of operation and high efficiency of PerMix High Speed Dispersers reduce cost and operation time, and have proven themselves by providing the most economical solutions to a variety of dispersing problems.



LIQUID MIXERS

TANKS, REACTORS, & VESSELS

PerMix engineers the most innovative tanks, vessels, & reactors available today. From 1 to 50,000 liters, we have the combination needed to ensure success of mixing liquids & powders, liquids & liquids, and even solids & liquids. From standard mixing to shearing, emulsifying, & homogenizing, we do it all.





INLINE MIXERS, SHEAR PUMPS, & INDUCTION MIXERS & MORE

PerMix manufactures a wide range of inline mixers, shear pumps, homogenizers, emulsifiers, & more. PerMix has a model range that will meet the demands of any production rate required, from big to small, we do

UNIVERSAL VACUUM EMULSIFIER

PerMix PVC Universal Vacuum Processor / Vacuum Mixer includes a mixing tank (with or without jacket), an internal slow running anchor mixer, and an external inline high shear mixer. The inline mixer has several inlet ports, and the main inlet is connected with the bottom discharge of the tank, with other two inlets connected with other liquid and powder tanks. The inline mixer's outlet goes back to the top section of the mixing tank.

The basis of this plan is the PerMix innovative inline mixer, which has a mixing, dispersing and emulsifying head with multi-working chambers. It can be supplied with mixing vanes, dispersion components or emulsifying tools. For each operation, these components can be interchanged or combined so that the mixer operates to suit every product possibility.

The pump action allows the product to circulate from the feed hoppers through the working hopper continuously. All the parts that come in contact with the product are stainless steel.



SPECIALTY EQUIPMENT

PDA VACUUM DEAERATOR

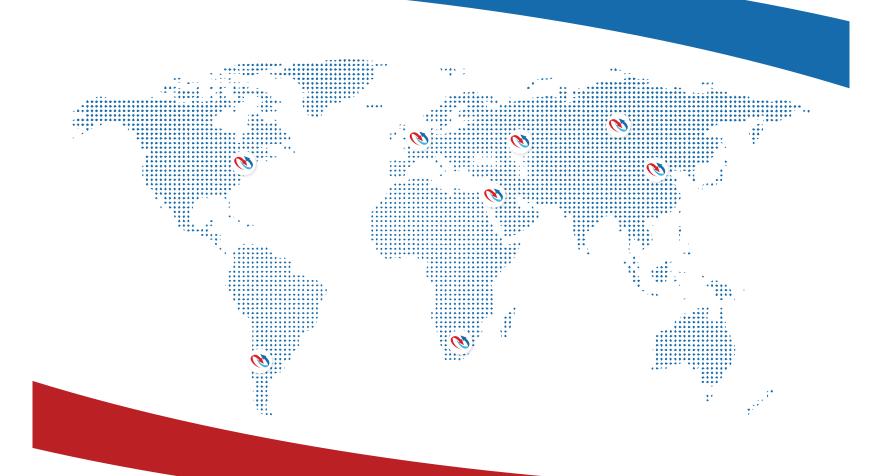
Processing of liquid products often incorporates air and unwanted gases into the product. These gases normally cause problems such as oxidation, discoloration, inconsistency, bad smell and filling difficulties. The PerMix PDA series Vacuum Deaerator, or Degasser, is a totally compact sanitary device designed for the continuous automatic removal of air or other occluded gases from any type of liquid or paste, by means of vacuum.

PerMix PDA Vacuum Deaerators can handle numerous processes including (but not limited to) the manufacturing of food products, cosmetics and chemicals, which requires to avoid air oxidation to ensure a correct preservation or application. End products can be sauces, fruit pulp, cosmetic creams, syrups, PVC dispersions, lubricants, car polish, shower gels, paraffin and penicillin emulsions, ice creams, adhesives, etc.









PerMix World Headquaters Adi 17940, Israel

Mr. Arie Srugo

+972-54-908-0144

srugoa@permixtec.com

www.permixtec.com www.permixmixers.com

Factory & Testing:PerMix North America

Chicago, Illinois, Contact: Mr. John Paul Tel: +1 630-649-1357 Email: John.paul@permixtec.com

Factory & Testing: PerMix Europe Eeklo, Belgium Contact: Dimitri Baet Tel: +32 495 27 75 10 Email:

dimitri.eu@permixtec.com

Factory: PerMix China Shanghai, 201821, China Contact: Mr. Aaron Huang Tel: +86 133 911 68218 Empile agrees b@ Email: aaron.h@permixtec.com

Office: PerMix UK Scotland, UK Contact: Mr. James Ryder Tel: +44 (0) 7554139667 Email: james.ryder@permixtec.com

Office: PerMix South America

Argentian Contact: Gonzalo Villagra Tel: +52 55 41927494 Email: gonzalo.villagra@permixtec.com

Office: PerMix India

Mumbai, India Contact: Mr. Anant Wagh Tel: +91 99304 69228 Email: india@permixtec.com

with our HQ, factories, and offices listed above, PerMix is to be a global company providing global sales & service egions. Please contact one of the above listed offices