

WE OFFER  
PERFECT  
MIXING  
TECHNOLOGIES



PHARMACEUTICAL



NUTRACEUTICAL



FOOD



CHEMICAL



BIO



HEALTH & BEAUTY

**PTU 3D MIXER**

## PTU 3D MIXER



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 very hygienic and dust-free because the product is mixed in independent containers of variable sizes (for small sizes up to PTU-50).

During the mixing process, the powder moves in a random direction from center to the end of the container and at the same time from top to the bottom. In such a multi-dimensional way, the PerMix 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.

## HOW IT WORKS

PerMix 3D Mixer consists of a mixing drum which is rotated by two arms, and one arm (the drive arm) is driven by a motor & gearbox. The slave arm is driven to not only rotate, but also move horizontally. During the mixing operation, the product inside the drum moves in random directions from center to the end and meanwhile from top to the bottom, creating a 3D way.



## ADVANTAGES & OPTIONS

PerMix PTU series 3D Mixer has the following advantages over conventional solutions:

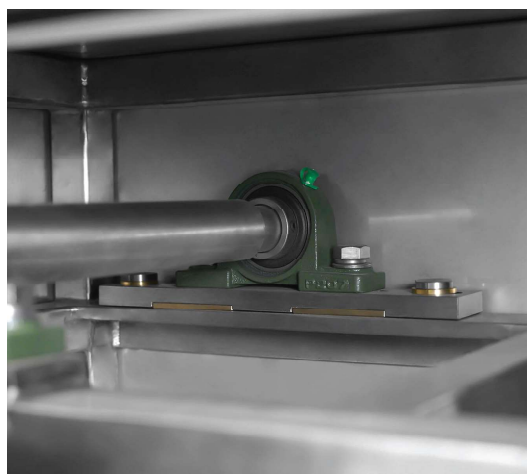
- Free of cross contamination due to the independent drums for different batches when highly hygienic processing is required (for size PTU-50 and smaller)
- Interchangeable drums & fast changing of drums (for size PTU-50 and smaller)
- Complete discharge and easy cleaning
- Excellent homogeneity of mixing with no dead points
- Sizes from 5 to 300 lit. total volume
- Safety enclosure to prevent human injury
- Drums to be built in a broad variety of materials, e.g. SS304, SS316/316L, Titanium, Duplex S/S, Hastelloy, etc. Internal and external finish according to customer's needs

## DESIGN WITH INTERCHANGEABLE DRUMS



For the machine size of PTU-5, PTU-15, and PTU-50, PerMix offers the option for the 3D mixer to work with interchangeable drums. A drum holder is designed to hold the drum with fast assembly. When the mixer rotates, the drum and drum holder are rotated together by the two arms.

Moreover, drums of different sizes can be fit into the same drum holder with necessary adaptor; for example, PTU-5 can work with drum sizes of 1L, 2L up to 5L.



## APPLICATIONS

### ● Foods

Breakfast Cereals, Enzymes, Flavours, Herbs, Minerals, Nutraceuticals, Seasonings, Spices, Tea Mixes, Tobacco, Vitamin Mixes

### ● Chemicals

Agrochemicals, Ceramic Powders, Detergents, Drugs, Dyestuffs, Leather Auxiliaries, Metal Powders, Pigments, Plastic Granules, Plastic Pellets, Plastic Powders, Textile Assistants



### ● Pharmaceuticals

Active Agents, Biological Solids, Carcinogenic Substances, Concentrated Active Ingredients, Generics, Intermediate Products, Sterile Products, Toxic Substances

## SPECIFICATIONS

Model	Total volume (liter)	Operation Volume, Liter	Power (*) (kW)	Speed (*) rpm	Length, mm	Width, mm	Height, mm	Weight, kg
PTU-5	5	2.5	0.25	28	1,000	700	900	200
PTU-15	15	7.5	0.37	20	1,000	700	1,000	250
PTU-50	50	25	1.5	15	1,330	1,120	1,220	500
PTU-100	100	50	2.2	12	1,550	1,370	1,430	700
PTU-300	300	150	4	8	2,400	2,000	2,100	1,600

- kW/rpm are product dependent and might vary.
- All specifications are as accurate as is reasonably possible, but they are not binding.
- PerMix reserves the right to modify the design without notice.

PerMix Tec Co., Ltd.  
Adi 17940, Israel

Contact: Mr. Arie Srugo  
Tel: +972-54-908-0144  
Email: srugoa@permixtec.com  
www.permixtec.com

#### PerMix in China

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

#### PerMix North America

Chicago, Illinois,  
60601, USA  
Contact: Mr. John Paul  
Tel: +1 630-649-1357  
Email: John.paul@permixtec.com

#### South America office

Buenos Aires, Argentina  
Contact: Mr. Gonzalo Villagra  
Tel: +54-9-11-35374801  
Email: gonzalo.villagra@permixtec.com

#### UK office

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

#### South Africa office

South Africa  
Email: saf@permixtec.com

#### Russia office

Russia  
Email: ru@permixtec.com

#### Ukraine office

Contact: Mr. Viacheslav Pishyi  
Tel: +38 067 45 44 694  
Email: ua@permixtec.com

#### India office

Plot No. 78 to 90,  
Sec 2A, Airoli, Navi  
Mumbai -400 708, India  
Contact: Mr. Anant Wagh  
Tel: +91 99304 69228  
Email: india@permixtec.com

Besides, PerMix have been building a network of agents located in Europe (Germany, Denmark, UK, Belgium, France, Spain, Poland, etc), Asia (South Korea, Indonesia, Thailand, Malaysia, Singapore), and several other countries.

