PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China
Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

PTP - Paddle Mixer

Introduction:

PerMix PTP series Paddle Mixers are an innovative design derived from the well-known Plow Mixers (or Ploughshare Mixers, Plough Mixers). The Paddle 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 Plows. Besides, PerMix Paddle Mixers have a better performance dealing with the viscous/sticky materials, such as slurries, which is because the plough-shaped mixing elements tend to be wrapped by the viscous materials while the paddles don't.

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.

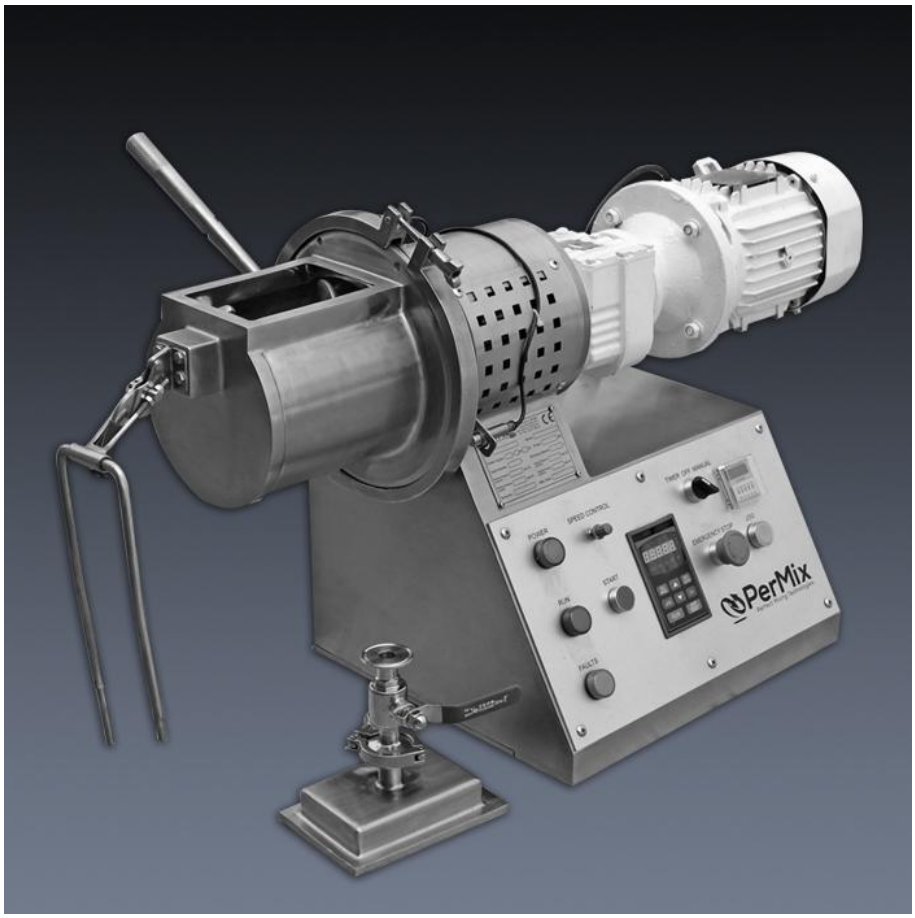
The main difference between our PTP Paddle Mixer and PTS Plow Mixer is the mixing element: PTS Mixer uses the plough-shaped element, while PTP Mixer uses the paddle element. PerMix PTP Paddle Mixers can be used wherever the Plow Mixers are used, including but not limited to compounding, fine mixing, dispersing, suspending, emulsifying, deaerating, tempering, accelerating

PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China
Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

chemical or physical reactions, granulating, breaking down agglomerates, etc.

Both Paddle and Plow 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.

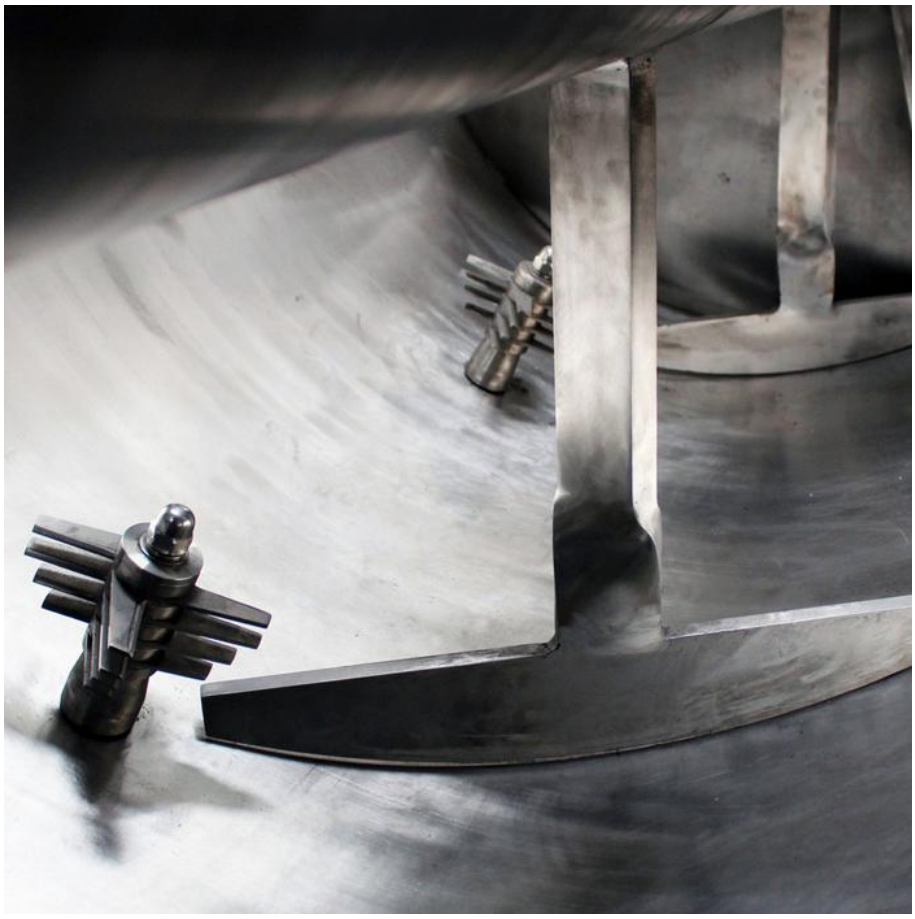
Lab & Pilot Models:



PerMix designs the full range of paddle mixers, including the lab size (5L full) & pilot size (up to 45L full) models for Research & Development purpose. The small size machine is very helpful for customers when the ingredients for R&D are expensive, thus helping our customer to save their limited budget at the first stage. With the good performance of the lab & pilot mixer, it is easy to scale up for a medium size or even bigger one.

PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China
Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

Design with Multi-choppers:



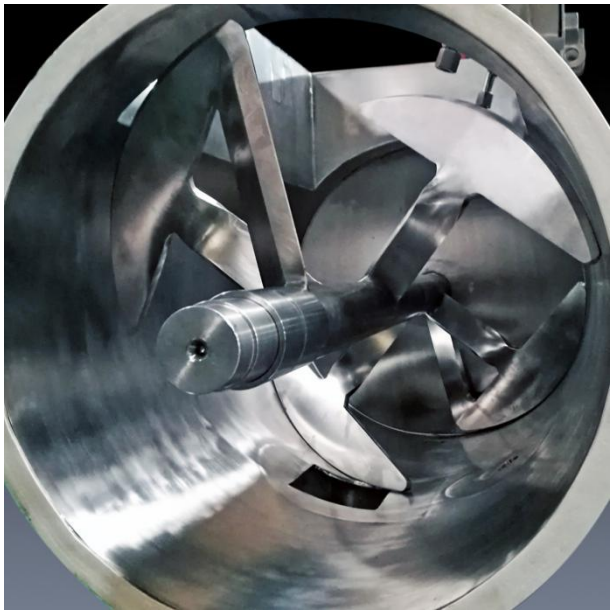
The installation of PerMix Multi-chopper in the basic PTP powder mixer enables the breaking down of agglomerates during the mixing process.

Together with the mixing element, the PerMix Multi-chopper removes lumps in the initial product, chops pasty adhesives and hinders the formation of agglomeration during the moisturizing of

PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China
Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

powdered substances. The PerMix Multi-chopper is operated independently by its own motor.

Optional Features:



- Various types of mixing element

PerMix provides mainly two types of mixing elements: plough (for PTS Mixer) and paddle (for PTP Mixer). Both have their advantages: the plough-shaped element shortens the mixing time, and can easily penetrate through the dense and thick powder or paste materials, while the paddle element requires less power consumption and can deal with viscous slurry materials.

- Continuous operation

PerMix supplies mixers for continuous work when a large capacity per hour is needed for the same material. Continuous paddle mixers differ from batch paddle mixers in that the mass flow of the product is from the inlet of the container to the discharge at the opposite end.

PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China
Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

- Heating/Cooling jacket

Jacketed trough for heating/cooling operation by steam, thermal oil, or water. ASME/PED certificate can be optional for high pressure operation.

- Feeding & Discharging

A variety of feeding & discharging methods can be selected by the customers. Discharging port can be by manual or pneumatic operation.

- Access door

Access doors can be designed for easy cleaning, inspection & maintenance.

- Construction material

We are able to offer mixers with contact part to be built by Carbon steel, SS304, SS316/316L, Titanium, Duplex stainless steel, Hastelloy, etc. For abrasive materials we offer hardened steel as the contact part, or the mixing elements to be coated with materials such as Tungsten Carbide or equivalent. Also

PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China
Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

we produce mixers all by stainless steel in order to meet the high hygienic requirement.

- Drive system

Drive system by geared motor, cycloidal reducer, worm reducer, belt or chain transmission, etc.

- Extended machine bases

Discharge clearance of PerMix mixers are available according to customer's requirement, with extended machine bases, tubular frames, platform, etc.

- Spray nozzle

Liquid can be added into the powder by spray nozzles on a pipe which is installed on the top of the mixing trough. The necessary pump and tank can also be provided by PerMix.

PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China
Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

Vacuum Mixer Dryer:

With some special modification, the PerMix PTP series Paddle Mixer can be used as a multi-stage process vessel eliminating the need for additional specialist equipment. It can be used as a mixer-dryer, mixer-granulator, de-aerator, reactor and cooler.

Contact us to find more information about the unique **PerMix PTPD series Vacuum Mixer Dryer.**

Specifications:

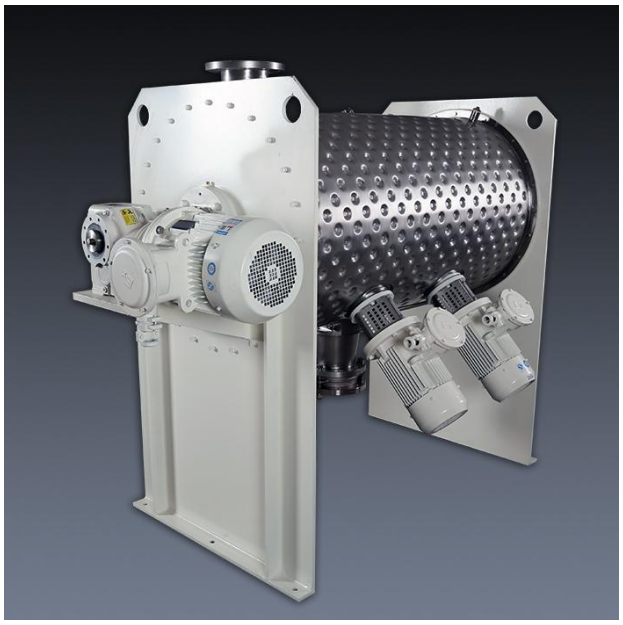
Model	Total capacity (liter)	Working capacity (liter)	Power (*) (kW)	Speed (rpm)	L1 (mm)	L (mm)	W (mm)	H1 (**) (mm)	H (***) (mm)
PTP-5L	5	3	1.1	0-582	180	800	500	-	-
PTP-10L	10	7	1.1	0-582	200	900	500	-	-
PTP-45	45	30	0.75	81	480	900	550	450	950
PTP-70	70	45	0.75	69	580	1,050	600	450	970
PTP-100	100	70	1.1	60	660	1,100	610	450	1,020
PTP-200	200	140	1.5	53	890	1,400	730	500	1,180
PTP-300	300	210	2.2	51	970	1,550	850	500	1,300
PTP-500	500	350	4	45	1,250	2,000	950	500	1,400
PTP-750	750	500	5.5	45	1,500	2,250	1,100	600	1,600
PTP-1000	1,000	700	7.5	33	1,900	2,600	1,150	600	1,800
PTP-1500	1,500	1,000	11	28	2,110	3,200	1,200	600	2,000
PTP-2000	2,000	1,400	15	25	2,110	3,500	1,350	600	2,200
PTP-3000	3,000	2,100	22	23	3,000	4,100	1,500	800	2,400
PTP-4000	4,000	2,800	30	17	3,000	4,200	1,550	800	2,600
PTP-5000	5,000	3,500	37	17	3,000	4,300	1,620	800	2,800

1. PTP-L: laboratory size
2. (*) (**) (***): Changes are available according to the customer's request.
3. All specifications and illustrations are as accurate as is reasonably possible, but they are not binding.
4. PerMix reserves the right to modify the design without notice.

PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China

Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

Gallery:



PTP-750 with Double Jacket

PTP-45 Pilot-size Mixer

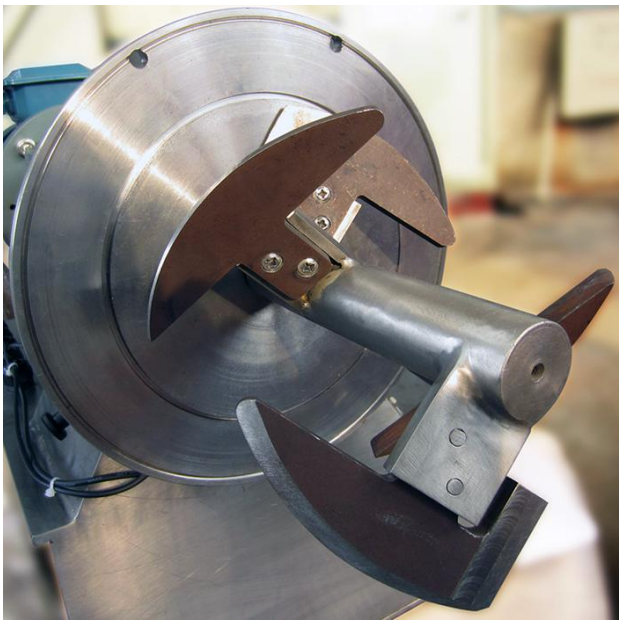
PTP Mixer with Shaft-mounted Gearbox

PTP-100 Paddle Mixer

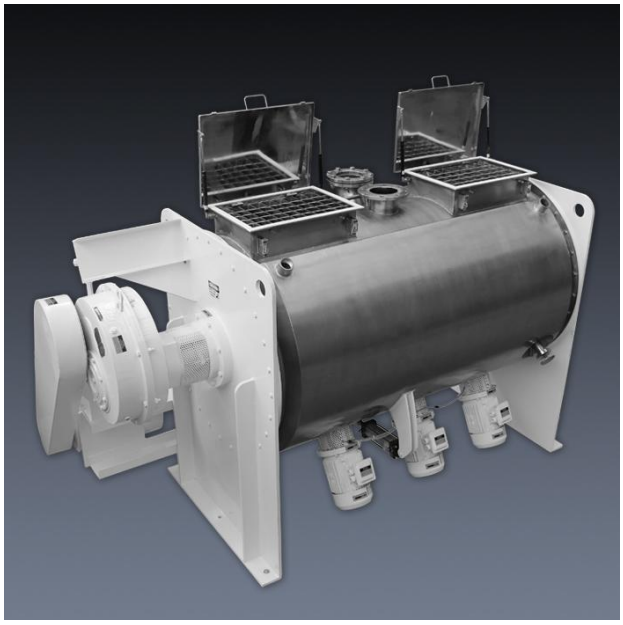
PerMix Tec Co., Ltd
Room 1-1214, No.1888,
N. Shengxin Rd, Jiading,
Shanghai, 201807, China

Tel: +86-133-9116-8218
Fax: +86-21-3375-8218
www.permixtec.com
www.permix-mixing.com

Internal View of PTP Mixer



PTP-5 Lab-size Mixer with Bolted Paddles



PTP-2000 with Loading Port and Safety Grid

PTP Paddle Mixer with Cinchseal