

PTP - Paddle Mixer

Introduction:



The PerMix PTP series Paddle Mixer is an innovative design of the conventional Ploughshare Mixer, but it generates gentler mixing (for turbulence sensitive particles) and requires less power consumption.

Besides, the PerMix PTP series Paddle Mixer has a better performance when the materials are with liquid and viscous, for example, slurries, this is because the conventional plough mixing element tends to be stick and wrapped by the viscous materials while the new paddle agitator doesn't.

The main difference between our PTP Mixer and PTS Mixer is the mixing element: PTS Mixer uses the plough shaped element, while PTP Mixer uses the paddle element.

The PerMix PTP series Paddle Mixer can be used wherever the Ploughshare Mixer is used, including but not limited to compounding, fine mixing, dispersing, suspending, emulsifying, deaerating, tempering, accelerating chemical or physical reactions, granulating, breaking down agglomerates, etc. It is suited for such difficult processes as mixing trace elements in proportions of up to 1 in 1,000,000 parts.

Lab & Pilot Models:



PerMix designs the full range of paddle mixer including the lab size & pilot size 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.

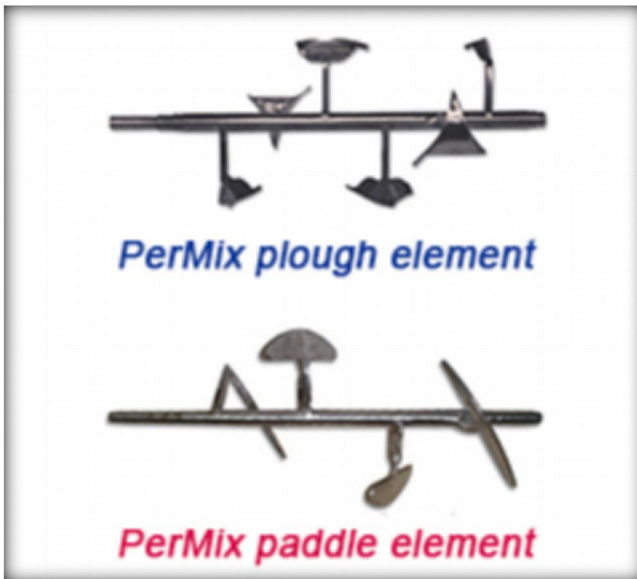
Special Design with Choppers:



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 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 can easily penetrate through the dense and thick powder or paste materials, while the paddle element can cover an even wider range of viscosity.



- Continuous operation

We can supply machines 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.



- Heating/Cooling jacket

Jacketed trough for heating/cooling operation by steam, thermal oil, or water.

- Drive system

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

- 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 inspection & maintenance.

- 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 us.

- Extended height bases

Height of our mixers can be defined according to customer' s condition.

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

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	0-600	180	800	500	-	-
PTP-10L	20	15	1.1	0-600	200	900	500	-	-
PTP-45L	45	30	0.55	60	480	900	550	450	950
PTP-70	70	45	0.75	60	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	55	890	1,400	730	500	1,180
PTP-300	300	210	2.2	55	970	1,550	850	500	1,300
PTP-500	500	350	4	42	1,250	2,000	950	500	1,400
PTP-750	750	500	5.5	42	1,500	2,250	1,100	600	1,600
PTP-1000	1,000	700	7.5	32	1,900	2,600	1,150	600	1,800
PTP-1500	1,500	1,000	11	27	2,110	3,200	1,200	600	2,000
PTP-2000	2,000	1,400	15	23	2,110	3,500	1,350	600	2,200
PTP-3000	3,000	2,100	22	18	3,000	4,100	1,500	800	2,400
PTP-4000	4,000	2,800	30	15	3,000	4,200	1,550	800	2,600
PTP-5000	5,000	3,500	37	15	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.

Gallery:



www.permix-mixing.com

PTP-2000 with Heating Jacket



www.permix-mixing.com

PTP-45 Lab-size Mixer



www.permix-mixing.com

PerMix PTP series Mixers



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PTP-750 Mixer in All Stainless Steel



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Internal View of PTP Mixer



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PTP-100 in All Stainless Steel



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PTP-2000 with Loading Port and Safety Grid



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PTP-500 with Viscous Liquid Adding System