PerMix

Perfect Mixing Technologies

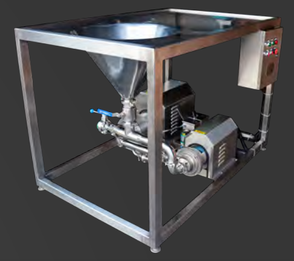
Comparison Table

10 GLOBAL OFFICES | **40** GLOBAL AGENTS | **10+** SYSTEMS INTEGRATORS

PerMix is one of the most disruptive brands in the industry





MODEL	PC	PCH	PT-C/Q-HS	PT-C/Q-LS	PT-C/Y	PT-C/F
Name	Inline Mixer	Shear Pump	Double Wall Design (High Shear Stator/Rotor)	Double Wall Design (Low Shear Stator/Rotor)	Special Stator Rotor	Two Pumps Design
Description	An inline mixer is a high shear mixer for inline or continuous operation. In the Inline process, the mixer is installed outside the tank. This makes it easy to be built into an existing production line with normal inlet/outlet connections.	PerMix PCH series Shear Pump combines the advan- tage of both a centrifugal pump and an inline high shear mixer. It achieves the balance of pumping efficiency and shearing energy.	The PerMix PT-C/Q powder liquid mixer is the most common type which is also called Tri-blender. It has two key parts, a casing pipe and a stator rotor system. The casing pipe is built vertically and coaxially into the stator rotor system inlet. This double-wall design prevents the powder going through the casing pipe contacting the liquid and forming lumps before they both arrive at the stator rotor system. As the rotor running at high speed during operation, liquid enters the chamber and a water ring is created.	The PerMix PT-C/Q powder liquid mixer is one of the most common type which is also called Tri-blender. It has two key parts, a casing pipe and a stator rotor system. The casing pipe is built vertically and coaxially into the stator rotor system inlet. This double-wall design prevents the powder going through the casing pipe contacting the liquid and forming lumps before they both arrive at the stator rotor system. As the rotor running at high speed during operation, liquid enters the chamber and a water ring is created.	PerMix PT-C/Y series Powder Induction Mixer has a very specially designed stator/rotor, which works by the principle of a water ring pump, that is able to produce relatively high vacuum; this vacuum makes the PT-C/Y Powder Induction Mixer able to suck the powder through a hand-held wand from a bag or other container at ground level. The powder can also be incorporated from a vertical hopper by gravity at a much higher powder sucking rate.	The PT-C/F Powder Liquid Mixing System is designed with the combination of a self-priming pump and an inline homogenizing mixer.
Feature & Option	• They are high shear mixers for inline or continuous operation. • They can be easily installed outside the tank, making them suitable for existing production lines. • They can function as a pump for low-viscosity liquids. • They offer efficient energy usage and can cut process times by up to 90%. • They have a stator/rotor system designed to enhance shearing performance. • They are available in single-stage up to three-stage.	• They have a compact and streamlined design. • They are built in stainless steel, with a stainless steel motor shroud. They are easy to assemble and disassemble. • They feature free flow powder induction, high efficiency, and • are free of lumps and fish-eyes.	• High shear mixers are equipped with a high-speed rotor that forces the mixture outward against a stator to generate shear. The greater the shear force, the better the materials can incorporate together, even mixtures with viscous liquids and solids. • It's designed for rapidly mixing powder into liquid. It provides various functions such as high-volume powder induction, dispersing of "difficult-to-wet" powder, handling fine dusty powders, homogenizing, and emulsifying.	• Low shear mixing is a gentle and less forceful process that is ideal for miscible materials that don't require a lot of energy or force to combine. It is also suitable for delicate materials. • It's designed for rapidly mixing powder into liquid in an efficient way. • It provides various functions such as high-volume powder induction, dispersing of "difficult-to-wet" powder, handling fine dusty powders, homogenizing, and emulsifying.	• It's designed for rapidly mixing powder into liquid in an efficient way. • It provides various functions such as high volume powder induction, dispersing of "difficult-to-wet" powder, handling fine dusty powders, homogenizing, and emulsifying. • The powder can also be incorporated from a vertical hopper by gravity at a much higher powder sucking rate.	• The self-priming pump draws the liquid from an external container, and when the liquid passes through a venturi pipe which is located at the bottom of a powder hopper, vacuum is generated there and sucks the powder from above. The powder/liquid mixture will first pass through the self-priming pump, and later get further sheared and dispersed at the inline homogenizing mixer.
Capacity	From 1.500 Lt/hr to 130.000Lt/hr	*Liquid - Powder* From 5.000 Lt/hr - 3 kg/min to 40.000 Lt/hr - 50 kg/min	*Liquid - Powder* From 1.500 Lt/hr - 5 kg/min to 110.000 Lt/hr - 500 kg/min	*Liquid - Powder* From 15.000 Lt/hr - 5~20 kg/min to 40.000 Lt/hr - 30~120 kg/min	*Liquid - Powder* From 10.000 Lt/hr - 1~3 kg/min * to 100.000 Lt/hr - 8~50 kg/min *	*Liquid - Powder* From 4.000 Lt/hr - 15 kg/min to 30.000 Lt/hr - 190 kg/min
Most Used Industry	Food, beverages, Pharmaceutical and Nutraceutical.	Food and Beverages, Pharmaceutical and Nutraceutical.	Food and Beverages, Dairy Care, Chemical, Pharmaceutical and Nutraceutical.	Food and Beverages, Dairy Care, Chemical, Pharmaceutical and Nutraceutical.	Food and beverages, Pharmaceutical and Nutraceutical.	Food and Beverages, Pharmaceutical and Nutraceutical.
Rotation speed	3.000-7.500 RPM	3.000 RPM	3.000 RPM	1.500-3.000 RPM	1.500-3.000 RPM	3000 RPM (Mixer) 1.500 RPM (Pump)
Power	4 - 132 kW	3 - 37 kW	1.5 - 132 kW	3 - 22 kW	7.5 - 160 kW	4 kW (Mixer) 1.5kW (Pump) 30 kW (Mixer) 7.5kW (Pump)
Comparative Model						
Power	2.2 kW/ 3 HP (PC-1/100k)	3-4 kW - 4 - 5.5 hp (PCH-100)	2.2 kW - 3 hp (PT-C/Q-100HS)	3 kW - 4 hp (PT-C/Q-LS1)	7.5 kW - 10 hp (PT-C/Y-120)	4 kW (Mixer) 1.5kW (Pump) (PT-C/F-120)
Capacity	3.000 lt/hr	5.000 lt/hr & 10 kg/min	3.000 lt/hr & 10 kg/min	15.000 lt/hr & 5~20 kg/min	10.000 lt/hr & 1~30 kg/min*	4.000 lt/hr & 15 kg/min

*Powder capacity with hand-held wand