

PRB - Ribbon Mixer

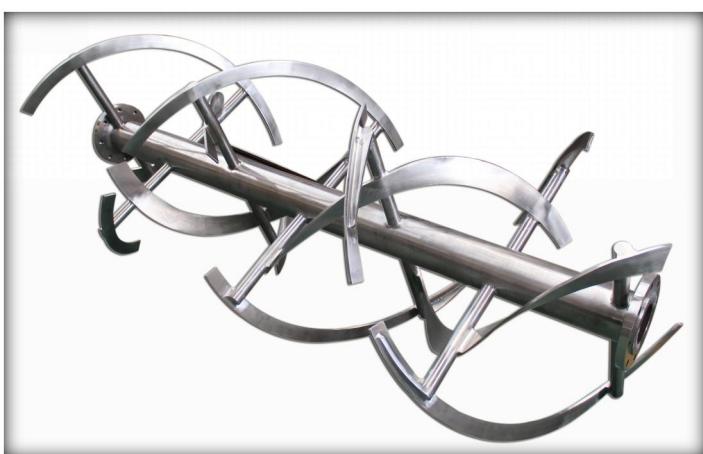
Introduction:



The 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 perfect result for mixing due to the innovative design of spiral agitator inside of its U-shape chamber.

PerMix designs our PRB Ribbon Blender which is able to achieve a maximum mixture 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.

Basic Construction:



The unit consists of one electrical motor, one reduction gear, coupling, and shaft with spiral agitator. The shaft is sealed with bush & PTFE gland housing at both ends. Materials are loaded from top side,

and the discharge is located at the bottom side in the center. The discharge height can be adjusted as per requirement, so that material gets discharged into the container below it without floating dust.

In a PerMix PRB series Ribbon Mixer, the powder or paste moves from center to the end of container and also from end to the center. In such a three-dimensional way, the total powder or paste is mixed within the chamber. It asks for a short mixing time and relatively low power consumption.

Special Design of Motorized Tilting:



PerMix has designed a special feature for food application (salad mixing) with motorized tilting for discharge. The machine is built in full stainless steel construction for wash cleaning, a top lid with counterweight for easy manual opening.

Optional Features:

- Ribbon (3 types available)

We offer several types of spiral ribbon for different sizes and applications. Standard ribbon is used to provide general blending purpose, with center discharge; Interrupted ribbon is applied for viscous material; Continuous ribbon is used for continuous operation with one side feeding and the other side discharging.

- Construction material

We are able to offer Ribbon 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 Ribbon Mixers all by stainless steel in order to meet the high hygienic requirement.



- Customized feeding & discharging

A variety of feeding & discharging methods can be selected by the customers. They can be prepared to fit into any existing production line easily. Safety grid can be installed to prevent the possible injury to the worker. Pneumatic discharge valve is used for fast and easy operation of unloading.

- Drive system

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

- Heating/Cooling jacket

Jacketed trough for heating/cooling operation

- Vacuum drying & deaerating

The mixer can be designed for vacuum drying & deaerating for special applications.

- Spray nozzle

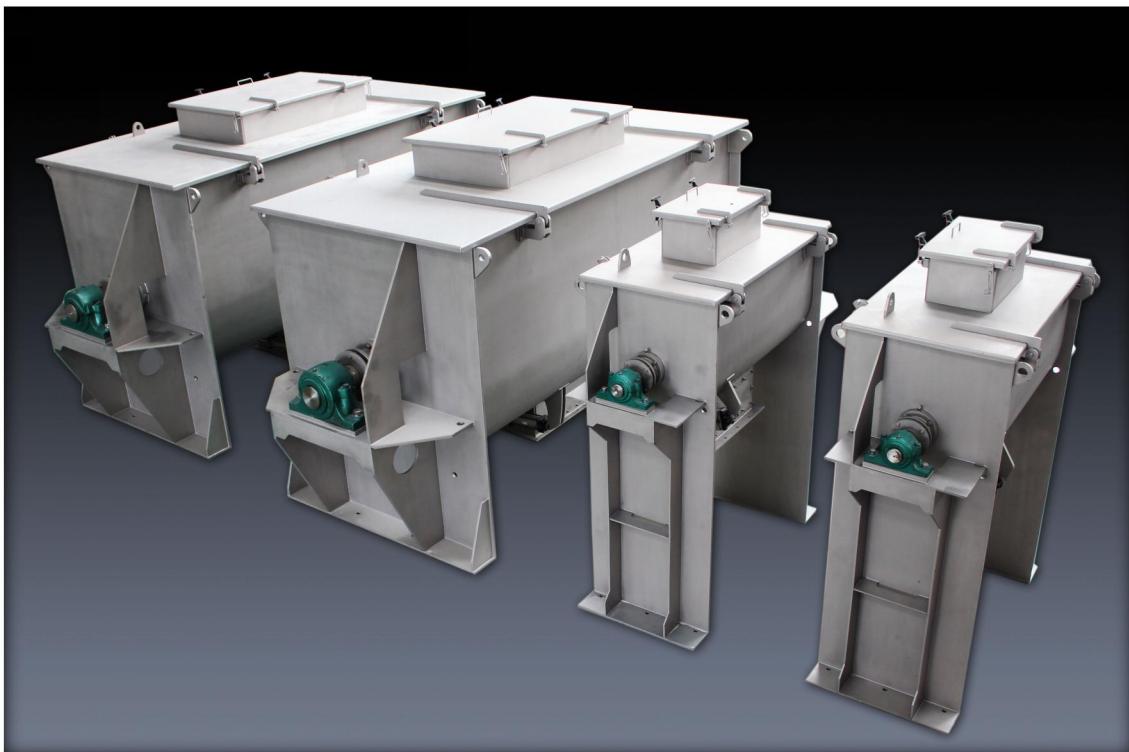
Liquid can be added into the powder by spray nozzles on the top.

- Extended height bases

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

- Continuous operation

We can supply machines for continuous work when a large capacity per hour is needed for the same material.



- External body by bead blasted finish

For full stainless steel mixers, external parts can be bead blasted.

Specifications:

Model	Total capacity (liter)	Useful capacity (liter)	Power (*) (kW)	RPM	L (mm)	W (mm)	H (mm)	Outlet (**) (mm)	Weight (kg)
PRB-100	100	40-60	2.2-3	76	1,250	840	613	Φ100	250
PRB-300	300	120-180	4-5.5	66	1,630	1,005	1,015	250x80	600
PRB-500	500	200-300	5.5-7.5	63	2,030	1,175	1,140	360x120	850
PRB-1000	1,000	400-600	11-15	41	2,460	1,455	1,375	360x120	1,300
PRB-2000	2,000	800-1,200	18.5-22	33	3,050	1,710	1,545	360x120	2,300
PRB-3000	3,000	1,200-1,800	22-30	29	3,500	1,865	1,680	360x120	3,300
PRB-4000	4,000	1,600-2,400	22-30	29	3,870	1,985	1,821	500x120	3,600
PRB-5000	5,000	2,000-3,000	30-37	29	4,090	2,062	1,945	500x120	4,620
PRB-6000	6,000	2,400-3,600	37-45	26	4,250	1,802	2,380	500x120	5,300
PRB-8000	8,000	3,200-4,800	45-55	26	4,590	1,956	2,504	700x140	6,800
PRB-10000	10,000	4,000-6,000	55-75	19	5,050	2,016	2,800	700x140	8,900
PRB-12000	12,000	4,800-7,200	55-75	19	5,500	2,160	2,753	700x140	9,520
PRB-15000	15,000	6,000-9,000	75-90	17	5,900	2,170	2,910	700x140	9,950
PRB-20000	20,000	8,000-12,000	75-90	16	7,180	2,690	2,830	700x140	13,500
PRB-25000	25,000	10,000-15,000	90-110	16	7,990	2,730	3,100	700x140	17,500
PRB-30000	30,000	12,000-18,000	110-132	11	8,450	2,860	3,300	700x140	19,500

1. (*) (**): Changes are available according to the customer's request.

2. All specifications and illustrations are as accurate as is reasonably possible, but they are not binding.

3. PerMix reserves the right to modify the design without notice.

Gallery:



www.permix-mixing.com

Internal View of PRB Ribbon Mixer



www.permix-mixing.com

Ribbons in bead blasting



www.permix-mixing.com

Ribbon Mixer with motorized tilting



www.permix-mixing.com

PRB-2000 Blender with Loading Grid



www.permix-mixing.com

30 Cubic Meters Ribbon Mixer



www.permix-mixing.com

Ribbon Mixer with Screw Conveyor