

## PRB - Ribbon Mixer

### Introduction:

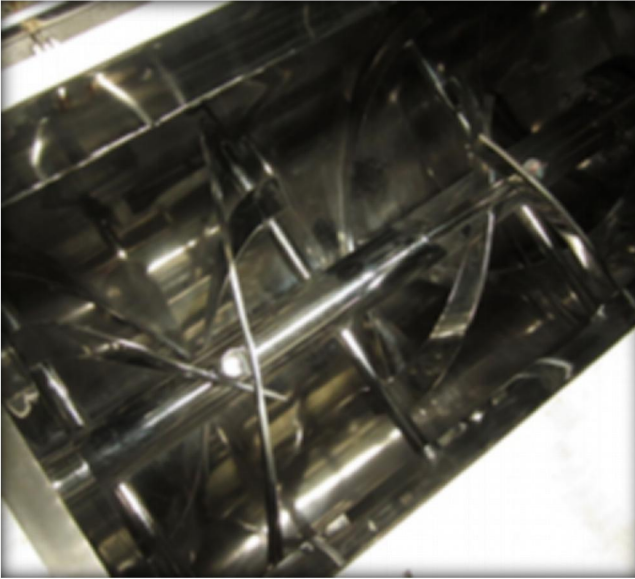


The PerMix PRB series Ribbon Mixer is an efficient and versatile blending machine for mixing of dry powders, granules and viscous pastes homogeneously. It is able to give perfect result for mixing due to the innovative design of spiral agitator inside of its U-shape chamber.

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.

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.

## **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.



**- 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.

## 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](http://www.permix-mixing.com)

Internal View of PRB Ribbon Mixer



[www.permix-mixing.com](http://www.permix-mixing.com)

PRB-2000 Ribbon Blender with Loading Grid



[www.permix-mixing.com](http://www.permix-mixing.com)

30 Cubic Meters Ribbon Mixer



[www.permix-mixing.com](http://www.permix-mixing.com)

Ribbon Mixer with Screw Conveyor



[www.permix-mixing.com](http://www.permix-mixing.com)

Standard Drive of PRB Ribbon Blender



[www.permix-mixing.com](http://www.permix-mixing.com)

PRB-2000 Mixer with Pneumatic Discharge