

PVR - Vertical Ribbon Mixer

Introduction:



The PerMix PVR series Vertical Ribbon Mixer has a similar appearance with the PRB series Ribbon Blender, but stands vertically, same as our PNA series Conical Screw Mixer. PVR Vertical Ribbon Mixers are efficient and versatile blending machines for batch mixing of free-flowing powders, granules and pellets.

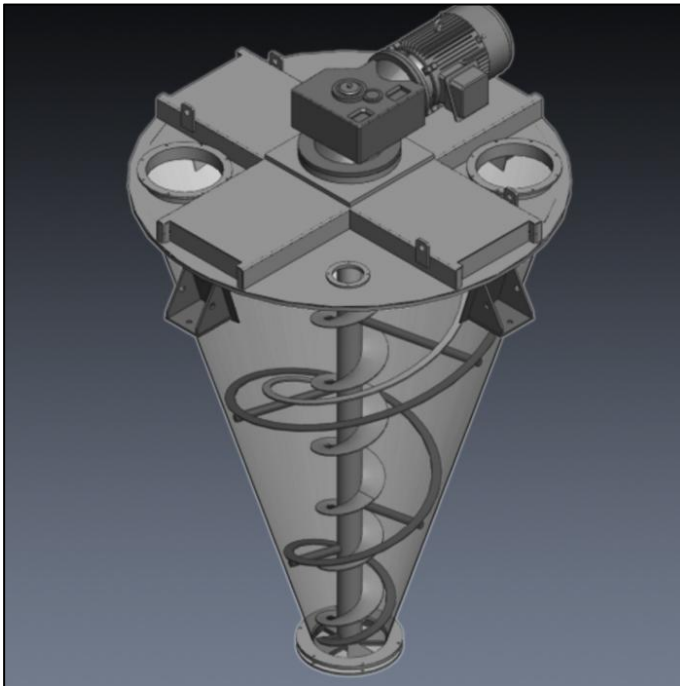
PVR series Vertical Ribbon Mixers are able to give perfect result of mixing due to the design of an outer spiral type mixing element with an inner screw, rotating together in a conical shape trough, which provides a multidimensional movement of the materials, and a complete discharge of all the mixed material without any residue. The Vertical Ribbon Mixers are also featured with no contamination to the product, due to the fact that the shaft sealing is above the working area, thus no contact with the product.

Advantages:

- High level of accuracy with minor component ratio to be 1:100,000

- Gentle mixing for sensitive materials without generation of heat
- No minimal quantity is required
- Full discharge with minimal residue
- Easy to clean in either dry or wet way
- High heat transfer rate, ideal for heating or cooling process of the powders
- Chopper can be installed for intensive mixing and lump breaking

How It Works:



The construction of PerMix PVR series Vertical Ribbon Mixer is very compact: it consists of a cone vessel with the drive unit on the top and discharge valve at the bottom. In the cone vessel, there are a central tapered ribbon with very small clearance between its edge and the wall, and additionally a screw mounted on the central shaft.

The ribbon and the screw move the materials upward from the bottom to the top, where the materials then drop by gravity into the center. During this continuous operation, material particles and heat are exchanged quickly which leads to a homogeneous product.

Besides, the material particles are mixed with minimal mechanical and thermal stress, which makes this type of mixer a good solution for fragile and heat sensitive product.

Options:

- Ribbon

We offer several types of spiral ribbon for different sizes and applications.

- Construction Material and Finish

Our mixers can be built in Carbon steel, SS304, SS316L, Titanium, Hastelloy, etc. Finish of stainless steel can be mirror polished or bead blasted.

- Feeding & Discharging

A variety of feeding & discharging methods can be selected by the customers.

- 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 PVR mixer can be designed for vacuum drying & deaerating or for inner pressure working for special applications.

- Spray nozzle

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

Specifications:

Model	Total capacity (liter)	Working capacity (liter)	Power (*) (kW)	Diameter (mm)	H, total height (**) (mm)	Inlet (***) (mm)	Outlet (****) (mm)	Weight (kg)
PVR-100	100	70	1.5-2.2	708	1420	140	150	180
PVR-300	300	210	2.2-5.5	990	1998	180	230	460
PVR-500	500	350	4-7.5	1156	2268	200	230	510
PVR-1000	1000	700	5.5-11	1600	2742	300	300	1020
PVR-1500	1500	1050	7.5-15	1780	2580	300	300	1100
PVR-2000	2000	1400	11-18.5	1948	2825	350	300	1270
PVR-2500	2500	1750	15-22	2062	3020	350	400	1530
PVR-3000	3000	2100	18.5-22	2175	3200	350	400	1780

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:



Mixer with Dome Cover for Vacuum Execution



PVR Mixer with Heating Jacket



PVR Mixer Built in All Stainless Steel



SS Ribbon of PVR Mixer



Loading Cover with Safety Mesh of PVR Mixer



Manway and Liquid Adding Nozzles