

Automatic Rotary Vacuumatic Dry Syrup Filling Machine PRPF- 200



Automatic Dry Syrup Powder Filling Machine is compact machine used for filling of the Dry Syrup in the bottles and is most ideal for wide application in PHARMA INDUSTRIES. It is built on strong and robust powder coated M.S. Angle frame Pipe Structure encompassed with S.S. coverings with matt-finish. The dry syrup filling line has the capacity of attending up to 12000 containers per hour. It comprises a total of 24 head for filling and has an accuracy of $\pm 2\%$. The dry syrup filling and capping machine performs both the operation of filling and capping it as well in order to protect the container from falling out or any interaction with the contaminants. It is compatible with glass & HDPE bottles having round shape. The fill size that can be achieved by the dry syrup filling line is 3 gms to 50 gms with the help of change parts. The no bottle no fill system enables the dry syrup filling & capping to prevent wastage of costly powder.

Dry Syrup Filling Line Operation:

The dried, sterilized and siliconised containers are fed through the Infeed Turn Table on to Infeed Delrin slat conveyor belt at required speed to the feed work for correct spacing between two bottles and get enter into the infeed starwheel. The infeed starwheel transfer the container below the funnel. The funnel plate with 16 nos. funnel mounted on it and the powder wheel is mounted on the centre pipe, which allows flexibility to adjust position of wheel as required and occupies less space on the dry syrup filling machine. The dry powder filling line has a lifter assembly on the base bottom of the plate. When the container comes below the funnel, the bottom platform lifts the bottle whereby the bottle gets inserted tight fit inside the funnel. The powder stored into the powder hopper is agitated by pair of mechanical agitators for maintain consistency and uniform bulk density, powder wheel rotates at the pre-set speed below the powder hopper with no clearance. Powder wheel consist of piston in each port and behind the powder wheel vacuum plate is

provided and there is no clearance between powder wheel and vacuum plate due to back spring pressure. Precise volume of powder is sucked into the port of powder wheel during vacuum according to the piston length. The different fill volume can be achieved. The excess powder is doctored off by a doctor blade and now doctor blades can be adjusted from outside without removing power hopper. When powder wheel indexes further and remain in the pot due to the vacuum till it reaches just in vertical position, the time dose of compressed air, sterilized low pressure air or nitrogen gas sequentially flushes out powder from the port of powder wheel into the funnel. Funnel equipped with square rod to break solid slug of powder and power will start to fill inside the bottle which is moving along with funnel. The bottle is getting filled in around 5 to 6 seconds. The bottles further move with funnel and reaches to exit starwheel. After filling operation, filling head moves upward with help of cam and bottle enters into exit star wheel and move further on conveyor for next operation.

Technical Specification:

Model		PRPF- 200
Output/Hour*		8000-12000 containers
Number of head		24 Head For Filling
Fill Size***		3 Gms to 50 Gms (with the help of Change parts)
Accuracy		± 2 %
Electrical Specifications**	Main Machine and Conveyor	3 HP / 415Volts / 50 Hz.
	Vacuum Pump	3 HP / 415Volts / 50 Hz
Pneumatic Air		Filtered, oil free, sterile low pressure Air at 4 kg/cm ² (4/6 bar)
Vacuum Line		20 HG
Dry Syrup Filling Machine Dimensions**		2500 mm (L) x 1250 mm (W) x 2150 mm (H)
Case Dimensions		2700 mm (L) x 1450 mm (W) x 2350 mm (H)
Net Weight		1500 KG Appro.
Gross Weight		1800 KG Appro.