

## *Double Cone Mixer DCM-series*



**PMS DOUBLE MIXER®** is a tumbling mixer suitable for gentle blending of dense powder and granules. It has been recognized as an economical tumbler with its durability and minimum maintenance requirement. Our product series range from 150 to 1,600 liter in working volume.

### **Theory of Operation**

PMS DOUBLE MIXER® is a tumbling mixer in which motion is imparted to the powders by rotating the vessel containing the powder about an axis. With each rotation, the powder mass is alternately divided and recombined, thereby providing an efficient intermeshing effect. Blending action can be sustained more thoroughly throughout all parts of the powder bed. In addition, an agglomerate breaking bar, located in the blender rotational axis, helps improving agitation of powder bed.

All contact parts, including Double Cone chamber, agglomerate breaking device and inlet port covers, are made of stainless steel SUS 304 and mirror polished. Product contact parts are completely separated from technical components, assuring oil and grease free in the operating chamber. Secured inlet port covers and outlet port butterfly valve ensure dust tight operation.

The raw material is fed through top inlet ports by simply unclamp the inlet port cover. Once the material is properly mixed, unload finish product through bottom discharge port into product container. For process reproducibility, mixing time can be set to determine process end-point. Process could not be started unless safety guard is firmly closed.

### **Application:**

- Pharmaceuticals: Powder, Granules, Pellets, Herbal Medicine
- Cosmetics: Face powder, Body powder
- Food: Seasoning, Health food, Flavor, Additives, Confectionery, Spices, Sugar, Salt, Starch
- Agricultural: Animal Feed, Premix, Pesticides, Fertilizers
- Chemical: Plastic powder, Polyester chips, Pigments and Color concentrates, Dyes, Resins
- Other: Metal powders, Paints, Detergents, Minerals

**Benefit:**

- cGMP Compliance
- Reproducible of Product quality
- Low Power Consumption
- Durable machine components
- Easy to Operate, Clean and Maintenance
- Safe and Clean working environment

**Technical Data:**

	<b>DCM 150</b>	<b>DCM 300</b>	<b>DCM 600</b>	<b>DCM 800</b>	<b>DCM 1600</b>	
Total Volume (liter)	265	580	1,04	1,41	2,7	
Working Capacity (liter)	160	350	620	846	1,6	
Approx. Capacity (Kg)	80-120	150-250	300-450	400-600	800-1,000	
Driving Unit (KW)	1.5	2.2	5.5	7.5	11.0	
Speed (RPM)	23	20	18	15	12	
Include Platform	YES	YES	NO	NO	NO	
Overall Dimension with Platform (mm)	W	1,32	1,9	2,4	2,45	3,55
	L	1,76	2,2	3,63	3,75	4,7
	H	1,67	2,15	2,55	2,65	3,3

**Standard:**

- All contact parts made of stainless steel SUS 304
- One set of agglomerate breaking device, made of stainless steel SUS 304
- Single Speed, non-explosion proof geared motor
- Discharging port with manual butterfly valve
- Electrical control box with semi-automatic control system and safety devices
- Safety guard located in front of the machine
- Machine stand, Platform and ladder, made of Enamel-painted Carbon steel, dressed with Stainless Steel 304

**Option:**

- All contact parts made of stainless steel SUS 316
- Variable Speed Drive
- Explosion proof motors and Explosion proof control unit
- Special design for loading system, i.e. Vacuum transfer unit or in-line operation
- Discharge height and Feature to suite specific discharge requirements or in-line operation
- Validation Document: Installation Qualification (IQ)/ Operational Qualification (OQ)