



## *Rapid Mixer Granulator*



Boson Machinery mixer is designed to meet special needs of tablet manufacturing technology. This is achieved by reducing processing time, more homogenous mixing, uniformity of Granule size and above all maintaining improved hygienic standards within the highest cGMP norms.

**cGMP:** Mixer is designed to achieve all the requirements of cGMP – Current Good Manufacturing Practices. The components are easily dismountable, can be cleaned thoroughly and assembled in quick time. The shaft seals are very effective to check any leakages and cross contamination due to adherants. The bowl and all the components are of highly polished Stainless Steel and without sharp corners or crevices.

### **Scope Of Supped:**

#### **Main Body:**

Fabricated out of rigid square pipe welded frame and covered all 4 sides with SS 304 material and Aluminum checkered plate on top.

#### **Mixing Bowl:**

SS-316 quality material bowl with welded flat bottom. All joints are fusion free argon arc welded. Flange type bowl, openable lid made of SS-316 material with silicon gasket and safety interlock to drive.

- Dome shaped processing bowl that directs loose particles into whirling motion with help of impeller.
- Impeller consists of two full & two half Solid mixing blades.
- An inclination of the mixing blades accelerates rising and tumbling motion of the product in the bowl.
- Specially designed chopper blades driven at high-speed gives fast and even granulation throughout the whole mass in the product bowl.
- For the easy accessibility in cleaning the side discharge assembly is provided with hinges.

### **Main Drive Mechanism:**

Main drive mechanism through 40/50 HP, 720/1440 RPM TEFC motor coupled to worm reduction gear box and 'V' belt pulley mechanism to drive mixing blades consisting of 2 nos. full and 2 nos. half blades designed for intense and uniform mixing.

### **Chopper Mechanism:**

Chopper mechanism drive through a flange mounted 5.0 /7.5 HP, 1440/2880 RPM TEFC motor granulating unit with 4 nos. specially designed blades for faster granulation of products.

Manual operating top dish with weight balanced unit for easy operation. Pneumatically operated bottom discharge valve and safety interlock.

Pneumatic pressure switch and air spray nozzle on bottom of bowl for fluidization of product.

### **Panel Board:**

Panel board is fabricated with SS 304 material. This unit mounted on the machine platform for easy operability. Panel consisting of switch gear fuses, relays, motor, starter, indicating lamp, push buttons, control for discharge valves, amp meters for main motor and granulating motors, pressure gauge solenoid valve control & isolator etc. Panel with DISPLAY SYSTEM, PLC CONTROL can be provided optionally.

### **Pneumatic Circuit:**

Pneumatic circuit would consist of high-pressure line 4 to 5 kg/cm<sup>2</sup> with filter cum regulator. All internal and external surfaces of SS 304 parts are ground and polished to mirror finish.

All M.S. parts are machined and smooth surface are painted. Machine can be cleaned thoroughly by water.

Teflon seal provided for main blade whereas gland packing and air seal provided for granulating blade.

### **Technical Specifications**

Model	BRMG-150	BRMG-250	BRMG-400	BRMG-600
Capacity In Litres	150Ltr.	250Ltr.	400Ltr.	600Ltr.
Overflow Vol. Ltr.	150Ltr.	250Ltr.	400Ltr.	600Ltr.
Working Vol. Ltr.	120Ltr.	200Ltr.	320Ltr.	480Ltr.
Capacity of Wet Gran	60-65Kgs	100-110Kgs	160-180Kgs	200-220Kgs
Main Motor Std. make / 3 Phase	10 / 15 HP	25 / 30 HP	30 / 40 HP	40 / 50 HP
Main Motor RPM through ( ACVFD )	750-1500	750-1500	750-1500	750-1500

Chopper Motor Std. make / 3 Phase	2 / 3 HP	5 / 7.5 HP	5 / 7.5 HP	7.5/10 HP
Chopper Motor RPM through (ACVFD )	1500-3000	1500-3000	1500-3000	1500-3000
Material on Contact parts	S.S.316	S.S.316	S.S.316	S.S.316
Material on Non Contact parts	S.S.304	S.S.304	S.S.304	S.S.304
Overall Dimensions : Length (mm)	2450mm	2700mm	2850mm	2950mm
Width (mm)	2000mm	2150mm	2400mm	2500mm
Height (mm)	2050mm	2100mm	2100mm	2200mm
Appox Net Wt. in Kgs	1500Kgs	1800Kgs	2000Kgs	3000Kgs