

## *Rapid Mixer Granulator - R&D Model RMG 25*



Pilot scale rapid mixer is mainly used in R&D or F&D facility for the wet mixing of the pilot batches. It consists of a Bowl, Impeller & Chopper assembly.

### **CONSTRUCTION:**

It consists on main structure, which is made from mild steel square tube and covered from SS-304 grade. All main drive related assemblies are covered in to main structure and castors provided for mobility.

### **THE COMPLETE RELIABILITY OF THE PROCESS TECHNOLOGY FOR THE STEPS:**

- Mixing
- Homogenizing
- Granulating

### **RAPID MIXER GRANULATION PROVIDES:**

- High Shear Mixing Precision.
- Short Batch Time.
- Trouble free Cleaning.
- Residue Free Discharge.

### **THE PROCESS:**

The RMG performs dry mixing & wet granulating by basic design of the special four arm of the mixing impeller and sequences of the mixing process in the cylindrical mixing drum with rounded connection to the base plate, achieve another special effect. The mixing process runs without varying pressure zone in the volume of mixing product. Separately driven multiple choppers can effectively intensify the mixing result in particular when liquid or paste components are added. During humidifying and granulating process of the products, the chopper controls and regulates the granular spectrum and structure of the granules according to the product, chopper shape and time. The RMG system requires only small quantities of granulating liquid or pastes to obtain the required granulate structure. This reduces the amount of drying energy required.

## SAFETY FEATURES:

- Total drive transmission system enclosed.
- Air pressure switch installed to ensure pressure is in limit. [if equipped]
- Limit switch installed in the top lid ensure lid is closed.

## SALIENT FEATURES:

- High Shear Mixing, Homogenizing, Humidifying and Granulating process.
- Offers reproducible mixing and granulation processes.
- Design as per stringent cGMP Model.
- Contact parts of SS 316 and non contact parts of SS 304.
- Easy to install, operate, clean, convenient & user friendly.
- Compact Table Top design.
- Easy to dismantle seal and chopper bearing.
- Easy move ability with the help of trolley.
- Variable Speed Drive for main impeller and chopper motor. [optional]
- Complete automatic advanced PLC Controls with touch Screen. [optional]

## SALIENT FEATURES:

- Auto Cycle / Manual mode
- Process Parameters (Motor Speed and Process Time Statistical Batch reporting.)
- Batch data
- Recipe Management (Recipe Parameters, Batch Code, Operator code, Product code, Batch parameters)
- Password Protected.
- USB port for Printing
- Auto Air Purging
- RPM Indicator for Impeller and Chopper

## Technical Specifications:

MODEL	RMG 25
Gross Capacity	For 25 Liters (12 Kg bowl)*
Max Working volume	14 to 25 Liter (7 to 12 Kg)*
Min Working volume	7 KG
Main Motor	3 HP, Non-Flame Proof
Chopper Motor	1.5 HP, 3000 RPM
ACVF Drive - Impeller	3 HP
ACVF Drive - Chopper	2 HP
Chopper Blade RPM	150 RPM to 3000 RPM
Granulation Blade RPM	15 RPM to 150 RPM MAX
Dimensions-(mm)	1740 x 620 x 1750 height
Net Weight	228 Kg
Gross Weight	257 Kg