

Laboratory Scale Rapid Mixer Granulator R&D Model SRMG-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.

THE COMPLETE RELIABILITY OF THE PROCESS TECHNOLOGY FOR THE STEPS

- Mixing
- Homogenizing
- Humidifying
- Granulating

As the result on intensive up to date development.

RAPID MIXER GRANULATION PROVIDES:

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

As the result on intensive up to date development

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.
- 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.
- Variable Speed Drive for main impeller and chopper motor.
- Easy to dismantle seal and chopper bearing.
- Complete automatic advanced PLC Controls with touch Screen. [optional]
- Easy move ability with the help of trolley. [optional]

Technical Specifications:

MODEL	SRMG-25
Gross Capacity	25 Liters.
Batch size - Wet mass (Depends on Formulation)	7 to 12 Kgs
Minimum working Volume	2-3 Kgs.
Mixer motor	3 hp/1440 rpm, 415V Ac,50 Hz, 3ph
Granulator-Main /Chopper Motor	1.5 hp/ 2880 rpm, 415V ,50 Hz, 3ph
Main Impeller Granulator RPM	10 to 150 RPM Maximum – Variable.
Chopper Impeller RPM	Maximum 2800 RPM- variable.
AC Drive	3 hp for Mixer motor CG Make
	1.5 hp for chopper motor CG Make
Gear Box Ratio	5:01
Pneumatic cylinder for Discharge	50 bore x 200 mm stroke, Double acting type
Pneumatic cylinder for Top Lid	40 bore x 250 mm stroke, Double acting type
Open / close	
Utilities Requirement:	
Electrical Supply	5.5 KW, 3 phases, 415V AC, 50 Hz.
Compressed Air	Filtered, dry air at 6 bar pressure.
Net Machine weight (kgs)	258 kg.