

SRMG-TABLE TOP-PLC-RAPID MIXER GRANULATOR – GMP



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

CONSTRUCTION

Basically it consists on main structure which is made from mild steel square tube and is covered from SS-304 guard. All main drive related assemblies are covered in to main structure.

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.

As the guarantee for optimum system available in strict compliance with the stipulation of cGMP.

INSTRUMENTATIONS

- Basic machine with PLC and graphical operator interface.
- Colour touch screen as a optional.
- Password protected PLC system.
- Power consumption data on HMI
- HMI – PLC system provide features like
- Touch Panel function for hassle free operation.
- Recipe Management covers following information.
- Recipe number (Automatic Generation in sequence)
- Recipe code
- Material Parameters like
- Product Name

- Product Code
- Product Size
- Machine Parameter like
- Impeller Speed RPM
- Chopper Speed RPM
- Batch Management cover additional parameters like
- Operator Code
- Batch Start Time
- Batch Size in Nos
- On demand Report generation Management for
- Batch
- Recipe
- Alarms

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.

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 Stainless Steel.
 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.

Technical Specifications:

MODEL	SRMG TABLE TOP PLC
Max Working volume	5 Liter (3 Kg)
Min Working	100 grams
PLC - Touch screen	Schneider Make
AC Drive For Chopper Motor	Schneider Make or Equivalent
AC Drive For Main Motor	Schneider Make or Equivalent
Main Gear Motor	0.5 HP, Bonfinglioli Make
Chopper Motor	0.5 HP, 2800 RPM Rotomotive Make
Granulation-Main Blade RPM	15 RPM to 150 RPM
Chopper Blade RPM	150 to 2800 RPM
Main Impeller Granulator RPM	10 to 150 RPM Maximum – Variable.
Chopper Impeller RPM	Maximum 2800 RPM- variable.
Dimensions	330 x 310 x 442 mm Aprox.
Net Weight (Approx)	70 Kg