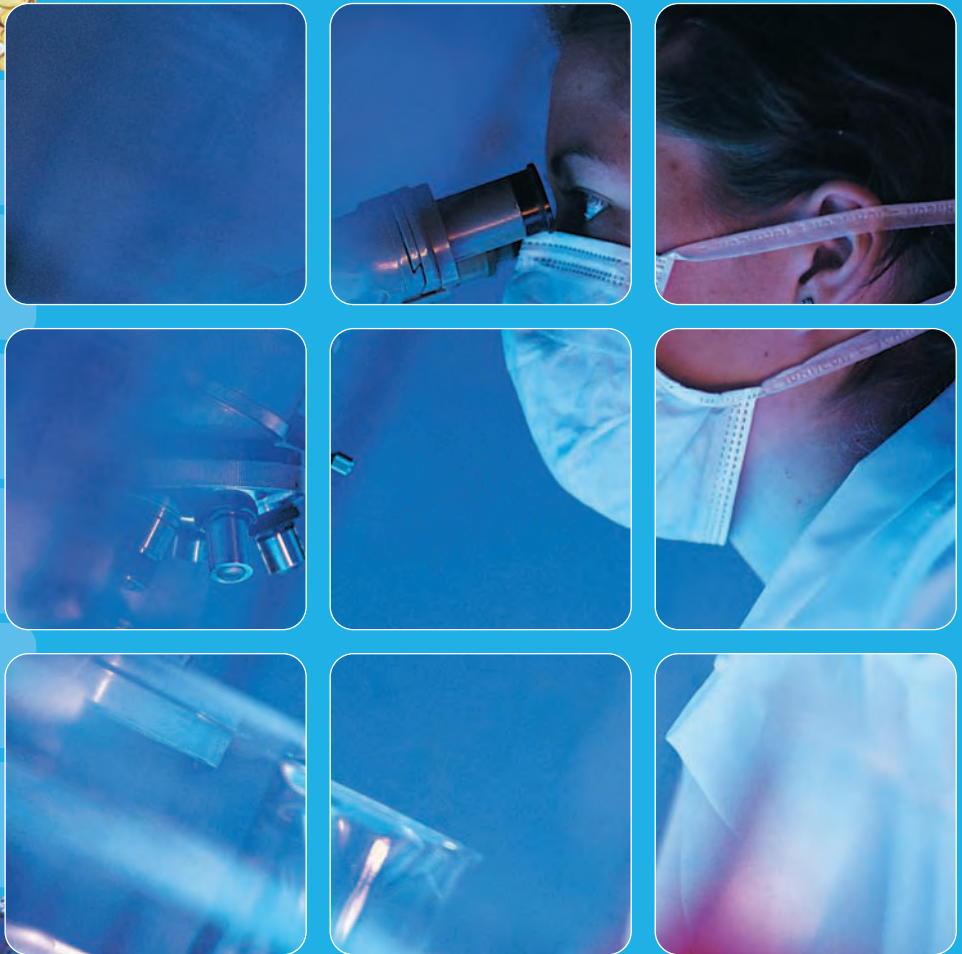
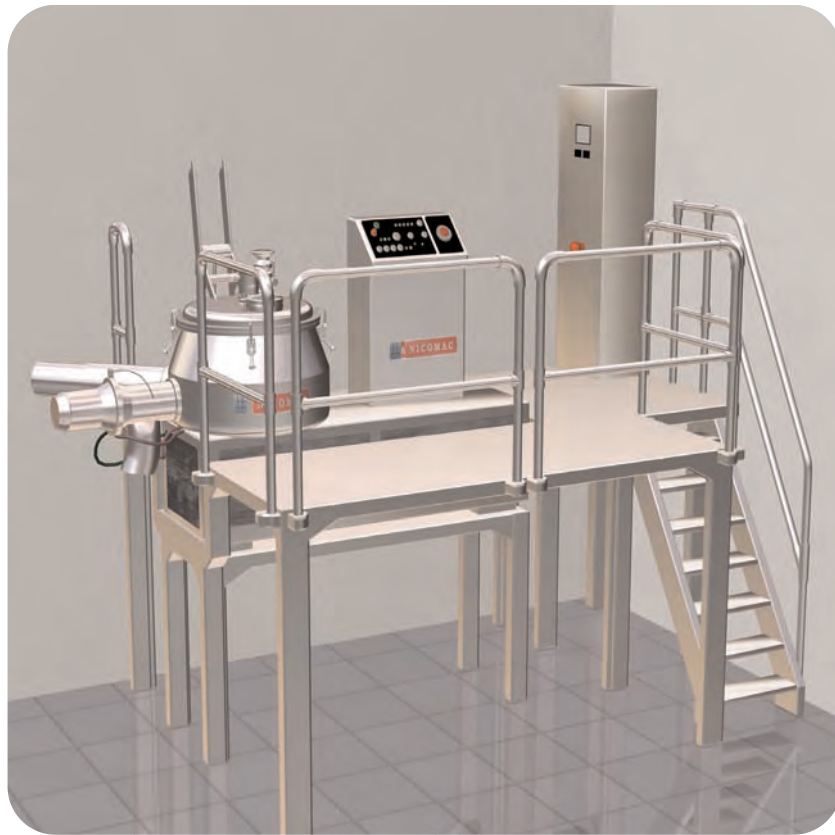




HSM Nicomixer
Technology and innovation

HIGH SHEAR MIXER





• NICOMIXER

Dry mixing, wet mixing, and granulation can be processed with high performances. Nicomixer, a unique design for perfect granulation and versatility, the best for Pharma today's ever-evolving processing field. Our system has achieved success due to high technology, high performance and care of details thanks to following features:

- No mechanical friction to the product
- Full size mixing
- No dead point
- Dust free
- High free flowing dosing properties
- High uniformity of granule size

• VERSATILITY

We can provide equipment from 5 to 600kg. All Equipment are designed to perform mixing operation for pharmaceutical granules & powders specially used in solid dosage form. Very tight tolerances, high technology and high quality of materials for high reliable machines.





BOWL

The container is mirror polished with Tri-clover connection for in feed of different materials. Bowl is designed to allow a free flowing mixing avoiding dead points and perfect cleaning. 3-Blades Impeller Design for efficient and fast mixing. Nicomac can also provide 4-blades design as option. Chopper can be supplied with different design according to specific product requirements. No seals in direct contact with the product. Air



purging seal for chopper and impeller to avoid any cross-contamination. A jacketed bowl can be provided as option for very sticky product. Flush unloading valve designed for a fast and free flowing discharge of the powder. The top lid can be manually closed with spring or automatically closed by pneumatic system.



• NICOMAC CONTROL SYSTEM

A user-friendly HMI Color Touch screen Siemens SIMATIC is provided. Siemens SIMATIC is provided.

Many recipes can be



memorized, setting speed for impeller, chopper, timing, spray time. WIP System automatic program is also available. Batch No., Product code, Expiry date, Mfg Date, Operator Name, and all Process Parameters



can be recorded and printed. Real time batch data's monitoring and records. A RS-232 communication port is provided.

Three password levels for: Operator control, supervisor control, Maintenance control. Batch report and printer. AC frequency control provides an accurate control of the impeller and chopper rpm. A temperature probe immersed in the product will adjust the jacketed bowl.



- **PROCESS CONTROL**

End point control of wet mass by torque value to achieve better repeatability and accuracy of the process integrated with PLC program.

- **DOSING SYSTEM**

Manual or automatic loading of powder and dosing of the binder solution. Fast dispersion of the binder agent with automatic peristaltic pump IP54.



Nicomac experience in coating system allows us to design a high performance and complete spray system tank with agitator, peristaltic pump mounted on a top shelf of a roll-around cart, neoprene housing, flow rate from 200 to 3000 ml/min. Loss in weight controller, flow meter as option can be provided.

Semiautomatic or completely automatic Integrated PLC system.



- **CLEANING**

An integrated, fast and effective CIP WIP process is easily achieved as the clean inspections. A universal skid can be supplied with a top spray ball able to reach any point over the entire surface. An efficient high pressure washing pump



guarantees a high performance cleaning process, very fast and efficient. Automatic washing cycle can be memorized in the PLC. As option, the impeller cleaning is ensured by impeller lifting arrangements instead of dismantling the whole impeller.

Pneumatically actuated with check proxy sensor for raising and lowering of impeller.



- **HIGH CONTAINMENT**

When a potent product is handled NicoMixer is designed to provide a HIGH CONTAINMENT to protect the operator and the environment. For this reason Nicomac designed NicoMixer HIGHCO technically designed to operate in a complete close system. Our model protects the operator and the environment against potential hazards. Split valve can be supplied.



- **INNOVATION**

Here at Nicomac, we are constantly working hard to stay "one step ahead" of the competition. Our commitment is evidenced by release of different Patent designs in the last past as well as several new innovative devices.

- **QUALIFICATION AND VALIDATION**

DQ (Design Qualification), IQ (Installation Qualification), OQ (Operational Qualification), SQ (Software Qualification), calibration, and documentation are available for complete validation of the equipment.



- **CUSTOMER SERVICE**

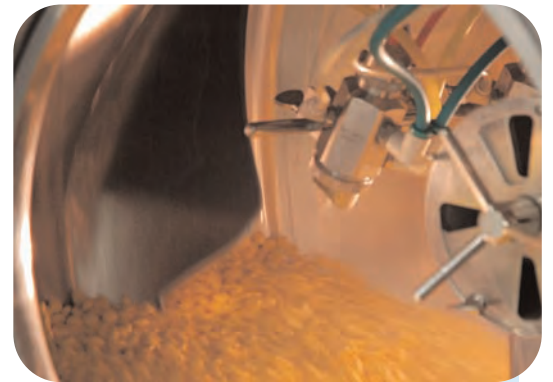
Our qualified, experienced coating specialists are available to supply process training service on-site or in-house trials. We can supply trials, research, development, formulation optimization and small- scale production and production batch. Nicomac world wide offices provide spare parts and service for its entire line of equipment and can dispatch in very short time sales or service engineers as needed. Nicomac Srl. maintains a technical support hotline and is available for “on site” or “on line” technical assistance in the usual prompt Nicomac way.

**NICOMAC DESIGNED AND INSTALLED AT ITS FACTORY A MODERN
PHARMACEUTICAL LABORATORY: NICOMAC CLEAN ROOM WITH HIGH TECH
NICOMAC MACHINERY AND PROFESSIONAL SPECIALISTS.
250 M² OF A VALIDATED SOLID FORM PHARMACEUTICAL DEPARTMENT**

**ASK ABOUT TRIAL TESTING!
YOU CHALLENGE US, NICOMAC WILL AMAZE YOU!**



FROM POWDER TO COATED TABLETS



QUALITY WITHOUT COMPROMISE

Nicomac reserve the right to change the submitted technical data. Data in this catalogue is not binding.



NICOMAC



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