



New Multifunction Machine "TITAN-MIX" model

Concentration of the Production Process in a Single Multifunction Machine

Application Fields: Cosmetics - Pharmaceutical

Optimal process of **dispersion - grinding - homogenization**,
in one solution

- Stainless steel machines
- Accurate temperature control
- Total tightness during the process
- Vacuum process / possible overpressure for nitrogen use
- Absence of harmful gas emissions during processing
- Circuit for warming or cooling both in the utensils chamber that in the cavity of the tank containing the product being processed
- Easy replication of production batches
- Narrow distribution of the grading curve
- Backup of data
- Ability to view and store process parameters remotely
- Development of the fully automatic machining cycle
- Storage of recipes for all possible repetitions
- **Production test in the plant of Pero (MI)**



Advantages and Features

The machine is designed **to concentrate into a single working procedure the phases of the Dispersion, of granulometric micronization and the homogenization of the product**, normally performed with two or more different separate and dedicated process machines. Therefore with a single machine, starting from **the simple introduction of raw materials in the tank**, the phases are realized and obtained in a single solution, today performed on multiple machines, with a drastic reduction of working time and process costs; in addition to optimizing workspaces, elimination of double tanks and vehicles for the handling of the same and exponential increase of the parameter of productivity.

Functional Description and Process

The production application passes through the use of only one equipped machine with a central working group that operating with a single process head allows to realized both the **Dispersion** phase that the **Lamination and Stretching** one of the product (without the use of spheres) simultaneously and in a single phase for all the products simply starting from the introduction into the tank of raw materials (liquid and solid).

The working head, realize in a compact way and suitably sized in according to the capacity of the tank, it consists of a **Double Vertical Sequential Stadium**, which operates in line, with both a primary Dispersant Action that with a subsequent Laminating and Straightening action through a forced passage of the product flow that **Self Regenerates** in the same working tank.

The head has a cavity on the entire perimeter, fed by a double channel (Entry/Exit) for the circulation of cooling fluid (water or dedicated mixture) free or in a closed circuit.

The relationship between the construction dimension of both the head and the tank, and between the utensils that make up the work head itself are suitably calibrated for allow a perfect working action and also an equally optimal flow distribution product in order to obtain perfect distribution in the tank.

Without prejudice to the basic and unique principle of operation of the Titan-Mix Head, each machine is studied, designed and realized specially tailored to the specific characteristics of the product to be processed and the same specific needs of the user customer.

CONSTRUCTION CONFIGURATIONS

The machine is therefore available and feasible in the following configurations:

Tank in both mobile and fixed version.

Geometric capacity of tank from 5 to 6000 liters

Installed power from 1.1 to 200 Kw



Electrical part execution for CVE or ATEX environment

Speed parameter managed by dedicated INVERTER

Possibility of machine with cover for working under vacuum

Dedicated work tank with lateral cooling interspace

Lifting of the machine structure column by means of a pneumatic cylinder in the simplest versions or of a dedicated oleodynamic cylinder, equipped with specific separate control unit, in more complex versions.

Possibility of temperature control through a PT 100 digital reading probe

Possibility of machine version with **Motorized Rotary Scraper** by means the adoption of an innovative construction solution that allows you to operate the scraper independently from the central working head group.

It is an innovative production and configuration procedural.

CONTROL DASHBOARD ON THE MACHINE **COMPLETE WITH TOUCH-SCREEN OPERATOR PANEL**

The operation of the mixer is managed by a PLC and all parameters are manageable by means of a color touch-screen panel positioned on the machine. There is the function of storing / recalling the parameters for standard processing cycles and the ability to store and download, for each production batch, the cycle sequence and the value of the parameters used.

WASHING OF THE TANK AND UTENSILS AT THE END OF THE PROCESSING BATCH.

The cleaning phase, by washing the utensils take place with the lid closed like normal processing by introducing your detergents in use, is extremely simple and quick. The significant pumping effect of the head generates a flow similar to dispersion at high speed and therefore the washing liquid is completely saturated with product residues if the washing cycle is repeated with new detergent to obtain an optimal degree of cleaning. The cleaning cycle is resolved in about 10 minutes. This cycle can be memorized by means of a special code and will be recalled at every occasions.

Some examples of machines used for the production of gloss, syrups, creams, shampoos, etc.

