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OFFER FOR:

MR C02

GRANULES AGGLOMERATE PRODUCTION PLANT

INCLUDED OF:

Support plant structure
Dosing and pouring system for prepolymer
Activation system for adhesive with water
Mixer and granules quantity preparation

OPTION:

High capability transport belt





DESCRIPTION

Support plant structure

PLANT FRAME

The frame is a metal structure in heavy carpentry, carbon steel painted, on which is placed the mixer at a quote about 1 mt. from ground

At the level of mixer there is a platform on one sides for operations of maintenance by the plant operator; the access to the plant is permitted by a staircase. the frame of the plant is also mounted the hopper of preparation which has the points of fixing at load cells to control weight of granules.

The calculated height to the upper edge may vary according to a study more detail from mt. 2.50 to 3 mt..

Dosing and pouring system for prepolymer

METERING UNIT FOR THE BINDER

The system is mounted on a steel frame on which are installed the pumps for the resin.

The pump for the prepolymer (isocyanate) has an output calculation of 2400 g / min this percentage will work to 8-10% of the resin weight

A further variation of total output is possible by acting on the speed of the pump.

The metering pump works connected to drum or IBC

The ambient temperature must be at minimum 20 °C to permit to reach the correct low prepolymer viscosity.

If the temperature is low will also modify the parameters of polymerization that is the timing of the working cycle and the pressure in line of the pumping system.

CONTROL PANEL

The system record and manage the weight of the rubber granules, checked outside before the charging into the mixer: it is going to create "recipes" that will bring the quantities for binder according to the granules weight. The control of the quantitative of prepolymer will be made directly in-line through an encoder connected to the motor which work to send the info to the PLC.

While the mixer is working will be made the weighing to load a new batch of the rubber granules. In function of this quantity the system, as defined by recipe managed from the operator, will provide to discharge the glue.

The panel supports also the commands of the mixer, of the filling belts and all the other devices.

It is possible work with manual or automatic sequences managed by PLC.

LINE FOR BINDER: FEEDING AND DISPENSING

The prepolymer is pumped into recycling, then continue to move in the lines of flow and return in order to maintain a constant temperature and therefore the viscosity. The discharging into the mixer will be made by a three-way valve.

On the dosing system is installed a gauge for detecting the pressure of the component with a contact of security that switch-off the machine in the event of over-pressure.

To avoid possible blockages, the instrument has a membrane of stainless steel in contact with the product and a scale of 60 bar max.

The distribution of the adhesive is managed by a reciprocator with mobile chain for cables, hoses materials and air.

Activation binder with water

The plant consists of a plastic tank of 50 lt capacity, connected to a pneumatic double membrane pump which feeds the nebuliser of water.

The tank is equipped with a visual level, has inside a level of minimum to raise an alarm and avoid the work without water activation of the prepolymer.

The dispensers are mixed air and manage the quantity of water in function of the timing s of suppling at fixed pressure of the pump; another pressure regulation allows to spray the water more or less finely.

The spray tip is mounted on the reciprocator of the binder and is activated after the glue according to the recipe sequences

Mixer and granules quantity preparation

MIXER

The horizontal mixer in painted carbon steel, is constructed in high thickness to withstand the stresses during mixing and is provided with top cover.

The capacity of the mixer is lt 2000 for a maximum load of 500 kg considering a density of the rubber of 0.5. The valve to discharge the resined granules is pneumatic positioned on the bottom of the mixer.

MOTOR AND TRANSMISSION MIXER

The three phase electric motor has an installed power of 20 Hp-Kw.15.

It is coupling with a hydrodynamic soft start even to start at full load.

The electric controls are located on the control panel described above, near the mixer to facilitate the maintenance.

PREPARATION HOPPER.

The hopper is on the floor close to the mixer.

The hopper of preparation has a capacity of 1300 liters and can be provided with charging belt at high capacity with variable speed (option).

The hopper has a break bridge for the rapid discharge of the granules.

Simultaneously with the resin in the mixer, it will be possible to fill a new batch to be processed, after the detection of the weight of the granules by a dedicated scale (not supplied).

This operation allows to unload and reload the mixer as soon as possible.

Manuals - CE

Will be provided both paper and digital Manuals.

CE Mark.

Main technical specification

- Air supply : 6 bar minimum
- Max Power installed : 18 Kw 400 volt 3P+N+GND. Excluded transport belts
- Overall dimensions: will be available according the final lay out.

Mixer Capacity <i>Capacità mescolatore</i> <i>Capacité du mélangeur</i>	Max load <i>Carico massimo</i> <i>Chargement max</i>
3500 lt	1500 kg

High capability transport belt

Transfer system to charge the granules is composed by :

1 conveyor belt in metal section bar with following motor:

Length mt. 5,8

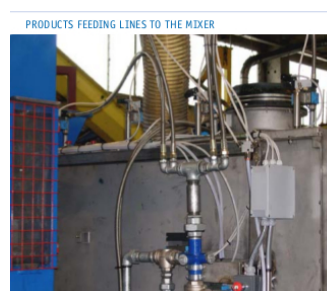
Width mt. 0,6

Height in material unloading position mt. 3 (rise angle 30°)

Belt has a motorized roll and one neutral on the other side, belt surface support, stainless steel lateral containment wall. The motor of the conveyor is controlled by an inverter to allow the continuous variation of the speed and quantity of granules charged or discharged.



PRODUCTS PUMPING GROUP



PRODUCTS FEEDING LINES TO THE MIXER