ATOMIZATION PILOT

REFERENCE : MP314

Non contractual photo

SERVICE : WATER: 3 BAR COMPRESSED AIR DRY: 3 NM3 / H AT 6 BAR 15 KW - 380 V -50 HZ - THREE-PHASE
DIMENSIONS : 1800 X 1500 X 2100 MM

Atomization pilot with two modes of injection :

1. In counterflow and with bi-fluid fountain nozzle fed with pressurized liquid and pressurized air.
2. In co-current with electric rotary nozzle

The powder produced is harvested at the base of the cone and in the cyclone in glass recipes
Production of a powder from a solution
Influence of operating parameters
Determination of thermal balances and water balance.
Exploitation of the Mollier diagram

Technical specifications :

- Atomization chamber. Insulation cylindrical and conical part. With glass powder collector. Room mounted on feet with wheels.
- A trapdoor equipped with an illuminating porthole for cleaning.
- A side hatch for easy access to the nozzle.
- A cleaning ball
- A pressurized feed tank.
- All piping is 316L stainless steel easily removable by SMS connection for easy cleaning.
- A bi-fluid fountain nozzle
- An air heater resistor battery with a power of 12KW with overheating thermostat. Heater body protected by a grid.
- A fan
- A cyclone with powder collector
- 2 Pt100 temperature probes, one at the inlet of the atomizer chamber for temperature regulation. One at the exit of the atomization chamber.
- 2 humidity and temperature probes, one at the heater inlet and the other at the exit of the cyclone.
- An overpressure safety with 0.5 bar pressure measuring probe cutting off the compressed air supply
- A hot wire airflow sensor at the heater inlet.
- Two glass float flowmeters: one for the liquid and one for the inlet air of the injection nozzles.
- Electrical box including:
- A regulator For regulating the inlet temperature of the atomizing chamber.
- Fan control and protection
- Air temperature regulator at the entrance of the atomization chamber.
- Temperature and humidity displays
- Emergency stop button, disconnector, circuit breakers, power-on indicator.

OPTIONS :

Option1: 40l stainless steel 316 pressure vessel, pressure, with

pneumatic motor agitator. Option 2: Acquisition of data: Visualization of the data (temperatures, flow rates, humidities) on the touch screen of 10 ". Electronic flow meters on liquid flow rates and air flow rates to replace float flow meters. Controls the functions of the machine from the screen. Access to the regulator parameters. Storage of data in the screen memory and output on USB. Communication with a PC. Option 3: Rotating Electric Nozzle Rotating at 22,000 RPM, with Peristaltic Feed Pump