

AUTOMATIC PREMIX, MOD. MIXMATIC

Premix is a machine of connection between syrup room, and bottling line.

Its functions are the following: taking off air from water, dosing in changeable parts water with syrups of various fruit and flavours and to inject CO₂ in the mix.

The machine can be divided in four different operations:

- 1) AIR REMOVAL COLUMN
- 2) DOSAGE
- 3) SATURATION
- 4) STABILIZATION



Note. Photos are indicative and not binding

System located on a base fully made of stainless steel AISI 304

Electric cabinet Completely following the EC electric and electronic Regulations.

PLC + HMI control panel

AIR REMOVAL COLUMN

It consists of taking off the air contained in the water at inlet. This operation is effected by using vacuum pump.

DOSAGE

It consists of water mixing with syrup. It is made up of two tanks (water and syrup) and a dosing pump. Water tank feeding is effected by a centrifugal pump which sucks air from de-aerator.

Syrup tank feeding is effected by pump in syrup room.

The dosing pump, sucks the two products, water and syrup, in order to send them to the mixer.

SATURATION

The operation of introducing gas in the product is obtained by a CO₂ injection in the piping between dosing pump and the stabilization tank.

This injection is executed by an high pressure and an adjustable CO₂ quantity according to quantity of gas in the product.

These pipings are subject to a 1 bar pressure superior to filling pressure.

This difference is caused by a spring charge in the differential valve at the inlet of the tank.

STABILIZATION

It is carried out by the product decompression and its stationing in the soft-drink tank.

When the products enters in the tank through the differential valve, it is decompressed from the saturation pressure to filling pressure.

In this way, CO₂ that was not steady and well blended in the product sets it free from the liquid during inlet phases, and stay in the tank.

AUXILIARY COOLING HEAT EXCHANGER

heat exchanger for to cool down water and syrup

-complete of 3 way modulating valve for ice water of exchanger with automatic control from PLC

-pneumatic recirculation valve in case of uncorrected temperature

AUTOMATIC PREMIX UNIT MOD. MIXMATIC - 10.000LT/H

Composed of:

Deaeration

- Nr. 01 Deaeration tank, with CO2 injection, made of stainless steel AISI 304;
- Level probe,
- Ball valve;
- Pressure reducer for CO2;

Vacuu

- Vacuum pump, with liquid ring for O2 extraction made of cast iron;
- No return valves;
- Manual valve for vacuum regulation;
- Pressure gauge for checking the internal pressure of the deaerator;
- Solenoid valve for vacuum pump flushing;
- Pressure switch for flushing water control;
- Pump vacuum temperature control probe;

Water dosing

- Butterfly manual valves, in AISI 304;
- Centrifugal feeding pump in AISI 304;
- Magnetic flow meter accuracy 0,20%, (error indicated by the flow meter manufacturer);

Syrup dosing

- Syrup buffer tank in Aisi 304;
- Automatic butterfly valve for tank loading;
- Automatic tank breather valve;
- Level probe;
- Sanitary Centrifugal pump in AISI 304;
- Magnetic flow meter with accuracy 0.15% (error indicated by the flow meter manufacturer);

Carbonication

- valve DN 15 for CO2 dosage control;
- Venturi injector for product carbonation;
- Tank for product stabilization,in Aisi 304;
- Level probe;
- Temperature probe;
- Non-return valve on CO2 inlet;
- Manual valve on CO2 inlet;
- Pneumatic valves for loading and unloading CO2 to regulate pressure in the stabilization tank;

Utilities consumption

-Electricity	15 kW
-Air compressed	150 NI/min 6 BAR
-Service water	2 Liter/min 2 BAR
-Refrigeration Power	210.000 Fri/hour