WORKING PARAMETERS
The operator can define all dosing parameters by the menu on the touch screen display. Atomix verifies the correctness of set up and starts the program.

The dosing parameters are the following:
- Maximum expected treated fluid flow;
- Dosed fluid concentration required;
- Alarm and alert conditions to be considered in addition to those already included by the machine vendor;
- Mode of signaling abnormal condition (external communication such as phone calls, SMS, e-mail are available options).

OBJECTIVE
Dosing a treatment fluid such as DMDC in-line in the most accurate and safest way.
Atomix is designed to dose a fluid in line for Wine & Beverages for concentrations defined by the operator at the beginning of the work. The concentrations can range from 0 to 300 ppm (200 ppm of DMDC typical for wine applications). These limits can be changed by the user but they are pre-set by the factory in order to assure that the allowed values are never exceeded. Atomix is built according to current European standards. Sirens, visual alarms and monitor notices are included for safety and maintenance reasons.

The measured fluid is made to flow towards an inner storage tank and stops when the maximum level sensor is activated. There is a recirculation in the dosing pump in order to assure air removal from piping. The injection nozzle is kept at a constant temperature and a thermostat automatically sets the cabinet temperature.

The dosing system requires a minimum air interchange with the external environment, this exchange takes place through special filters placed inside, so the cabinet can be considered an isolated and safe apparatus also in the case of dosing dangerous fluids (like DMDC).

A balance allows the electronic system controller the real time monitoring of dosing accuracy. When the beverage is circulating, a flow meter will measure the passing volume and the dosage will start according to the measured liters. Despite other similar machines, quantity and frequency are adjusted simultaneously and automatically by the reading in the product flow meter; this property allows Atomix to be able to treat a very large range of fluids. The automatization is made with a special nozzle, designed and made for Atomix. This nozzle joins the best physical knowledge to a very high technical expertise to ensure the best mixing efficiency over a wide of delivered fluids.

Atomix can also verify and display the density of the fluid, information that in many cases changes if the product is spoiled or expired.

SPECIFICATION
Type: Atomix 150
Application: Wine and Beverage Industry
Delivered Product: DMDC
Dimension (L/H/D): 94/180/70 (cm)
Weight: 175 kg
Maximum Beverage Flow: 150 hl/h
Smallest Beverage Flow: 10 hl/h (discontinuous mode)
Dosing Rate: 0-300 ppm
Beverage Flow Meter: Siemens Mag 1100 food + Mag 5000
Beverage Tube Connections: DN11851 DN50
Allowable Beverage Tube Pressure: 20 bar
Allowable Beverage Tube Temperature: up to 135°C
Allowable Ambient Temperature: 4 to 35°C
Main Connection Voltage: 230 Vac 50Hz (single phase)
Protective System: IP65
Power Consumption (maximum/normal): 1200/500 W
Dosing pump: OBL - XLA15A70
Active Carbon Air Filtering: A/B/F
Compressed Air: Not needed
Safety Anti- Leaking System
Double Control Dosing Process
Injection Nozzle Heating Control
No Drip Injection Safety System (Patent Pending)
Embedded Electronic Proprietary HW & SW
All piping in contact with dosed fluid is food compatible. Atomix is connected only with the bottling system and the electrical grid, air compressed connection is not required. All inner dosing product paths are forced by pumps and no flow is leaved to gravity or Venturi effect. This allow the electronic control to check and manage all the process. The dosed product is placed in flasks inside the cabinet and the operator can select to use a single or a couple of product flasks or he can let Automix choose automatically. Once the dosed fluid in one flask is finished, the control starts to use the other one, in this way the user can substitute the empty one.