



**GENERAL INFORMATION**

Process line equipment in accordance with European pressure equipment directive 97/23/CE paragraph 3.3.  
 The saturator is stamped with a SERVINOX self adhesive and marked with the manufacture serial number.  
 This manual corresponds to the instructions for use of the saturator.

**OPERATION**

The AED saturator enables a gas to be injected into a liquid or a viscous product. The liquid circulates in the AED saturator in the direction shown above (see diagram). The gas enters the saturator through a side inlet and is diffused into the liquid through an injection ring with calibrated holes. The specific profile of this saturator optimizes dissolution of the gas and minimizes expansion of the liquid on outlet.  
 The liquid outlets of the saturator are male end connections. The gas inlet connection is DIN 20 or SMS 25 according to requested standard. A sampling valve welded to the lower part of the injection chamber enables CIP liquid to be drained off after a sanitation operation.

**CAUTION FOR USE**

The saturator must be used for clear liquid products from group 2 (see article 9 of European directive no. 97/23/CE). The maximum working pressure is 6 bars and the maximum working temperature is 120°C.  
 When use at high fluid temperature, high temperature can be reached on the surface of the body: risk of severe burning.  
 A non-return valve and a drain cock should be installed on the gas pipe in order to ensure the CIP of this part of the system.

**TECHNICAL DATA**

**Materials**

Product wetted steel parts ..... : Inox 1.4404(316L)  
 Other steel parts ..... : Inox 1.4301(304)  
 Product wetted seals ..... : EPDM

**Data**

Product pressure ..... : 6 bar maxi  
 Product temperature ..... : +10°C to 120° C

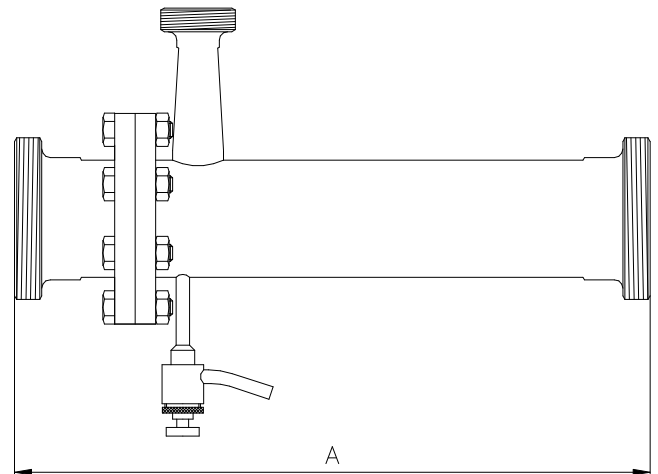
**DIMENSIONS**

**Sizes**

The saturator is available in the following sizes :

- DN6 and DN10.
- SMS : 38 mm (1.1/2"), 51 mm (2"), 63.5mm (2.1/2"), 76 mm (3"), 104 mm (4").
- DIN 11851 : DN25, DN32, DN40, DN50, DN65, DN80 and DN100.

**Dimensions**



**Saturator SMS (mm)**

Sizes	38mm	51mm	63.5mm	76.1mm	104mm
A	204	245	380	474	764

**Saturator DIN (mm)**

Sizes	DN40	DN50	DN65	DN80	DN100
A	200	260	374	510	760

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## STORAGE CONDITIONS

The saturator must be kept in a clean and dry storage under non-corrosive atmospheric conditions.

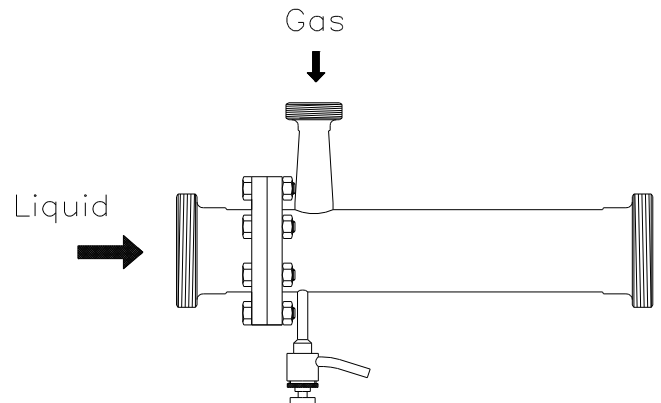
## INSTALLATION

The saturator must be carefully handled when being unpacked. Nothing shall remain in the valve.

Generally speaking, the pressure and temperature of the liquid are key parameters that directly affect the pressure required in the saturator. This constraint must be taken into account in the dynamic equilibrium of the transfer line, in order to avoid any desaturation phenomenon in the saturator outlet.

## Mounting direction

During installation of the saturator, be careful of functioning directions, as follow :



## MAINTENANCE

The maintenance of the saturator needs to be done on a regular basis. The inspection frequencies shall depend on the conditions of use and shall be individually determined in each case.

We recommended periodically to supersede all the gaskets of the saturator.

## Dismantling of the valve

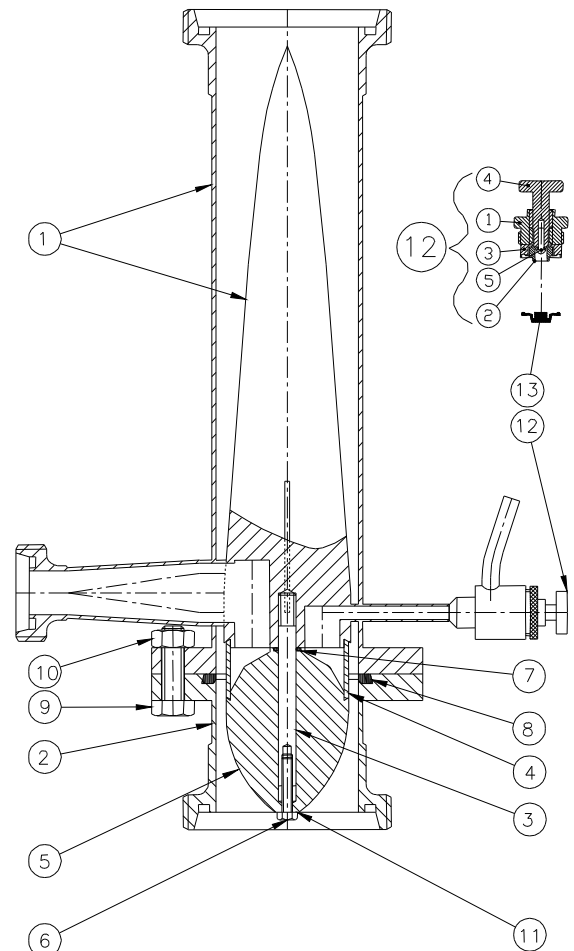
These instructions should be follow to dismantl the saturator :

- Disconnect the process inlet, the process outlet and the gas inlet.
- Dégager l'ensemble saturateur.
- Unscrew the screws (Ref. 9) and the nuts (Ref. 10) to separate the entry collar (Ref. 2) from the outlet body (Ref. 1).
- Remove the gasket (Ref. 8).
- Unscrew the screw (Ref. 6) and the washer (Ref. 11).
- Separate the entry cone (Ref. 5) from the body by pulling it through the spindle (Ref. 3).
- Remove the gasket (Ref. 7).
- Remove the injection sleeve (Ref. 4) to clean it.
- Remove the manual actuation (Ref. 12) from the sample valve (see PES2 instructions manual).

## Assembling of the saturator

These instructions should be follow to assemble the saturator :

- Replace the membrane (Ref.13) of the sample valve (see PES2 instructions manual).
- Replace the manual actuation (Ref. 12) of the sample valve.
- Replace the injection sleeve (Ref. 4).
- Replace the gasket (Ref. 7).
- Replace the entry cone (Ref. 5).
- Replace the washer (ref. 11) and tighten the screw (Ref. 6).
- Replace the gasket (Ref. 8).
- Replace the entry collar (Ref. 2).
- Tighten the screw (Ref. 9) with the nut (Ref. 10).



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