INSTALLATION AND MAINTENANCE INSTRUCTIONS
SI115 STEAM INJECTORS

GENERAL

- These instructions must be carefully read before any work involving products supplied by VALSTEAM ADCA ENGINEERING S.A. is undertaken.

- The installation procedure is a critical stage in a life of a steam injector and care should be taken to avoid damage to the equipment.

Warning!
- At start up, the presence of small particles in the water (dirt, scale, weld splatters, etc) may cause an imperfect closure of the orifices. If this occurs, proceed to an accurate cleaning.
- Do not touch the equipment without appropriate protection during working operation because it may conduct heat if the used fluid is at high temperature.
- Before starting maintenance be sure that the equipment is not pressurized or hot.
- The equipments must be used within the working temperature and pressure limits laid down for them, otherwise they may fail (refer to nameplate and/or IS- Information Sheet).
- Do not remove the nameplate attached to the equipment. Serial number and other useful information is stamped on it.

INSTALLATION

ATTENTION

- Before to install remove plastic covers placed on flanges or connection ends. The equipment has an arrow or Inlet/Outlet designations. Be sure that it will be installed on the appropriate direction.
- The SI steam injector should be fitted as low as possible in the tank and always below the level of the thermostat controller. A minimum depth of water must be allowed below the injector as shown on Fig.1 and 2.
- The distance between the injector and the tank wall must be as great as possible. The dimensions mentioned on Fig.1 to 3 are the minimum recommended.
- A stiffener plate should be welded to the tank wall to carry the bulkhead fitting (Fig.4). A vacuum breaker (VB21) must be fitted between the injector and the control valve. Where steam supply pipe is below the level of the liquid in the tank (Fig. 1), a non return valve is recommended between the injector and the control valve to prevent the contents of the tank flowing back through the valve and up the steam supply pipe when the steam supply is turned off. A stop valve should also be fitted between the injector and the non return valve to enable maintenance work to be done on both the control valve and non return valve.

Produced in accordance with Article 3, paragraph 3 of the PED - European Pressure Equipment Directive - 97/23/EC. **IMI 9.405 E 07.02**

TYPICAL INSTALLATION

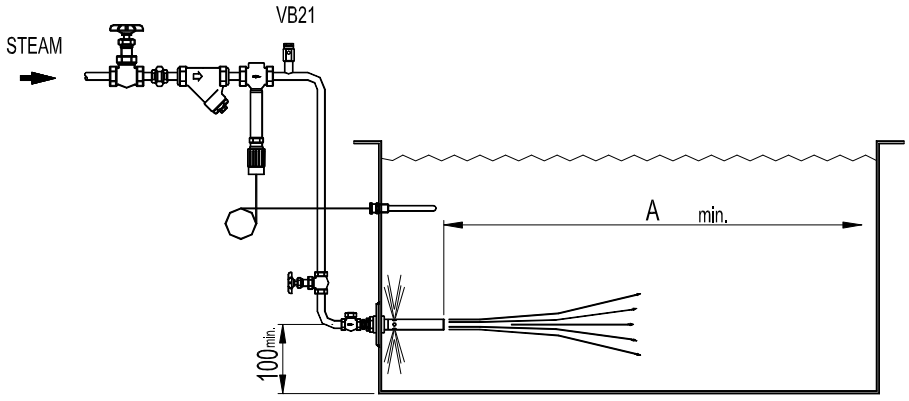


Fig.1

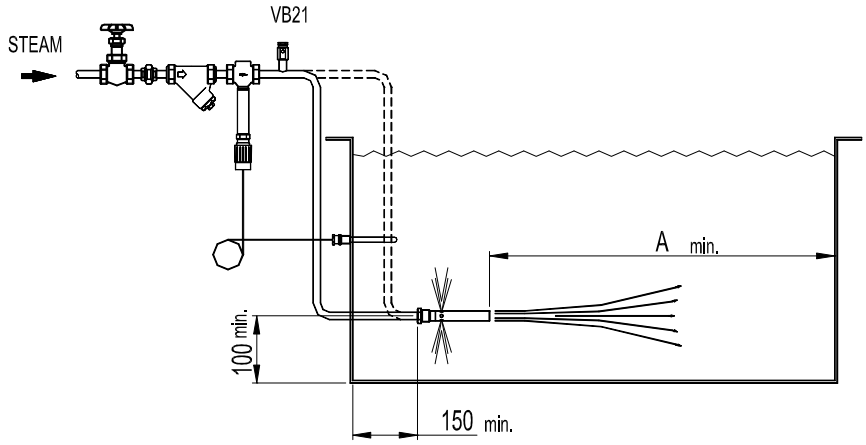


Fig.2

Operating Pressure [bar]	A [mm]
2 - 4	250
4 - 8	300
8 - 10	350
10 - 14	400
14 - 17	350

TOP VIEW

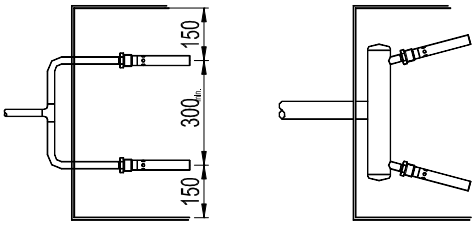


Fig.3

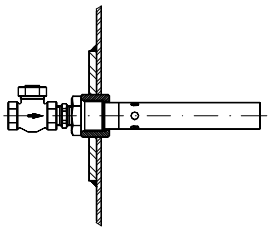


Fig.4

ATTENTION

- **LOSS OF WARRANTY: Total or partial disregard of above instructions involves loss of any right to warranty.**

STEAM INJECTORS
SI125 and SI140

DESCRIPTION

The ADCAMix SI125 and SI140 is a series of direct steam injectors designed for rapid heating of still or flowing mediums, inside basins and vessels. Steam enters through the inlet connection, passes along the center of the device and mixes with the cool medium, which is drawn in through radial holes.

MAIN FEATURES

Corrosion-resistant stainless steel construction.
No moving parts.

OPTIONS: Complete system including vacuum breaker and self acting temperature regulator.
Different capacities and designs available under request.

USE: Heating via direct steam injection.

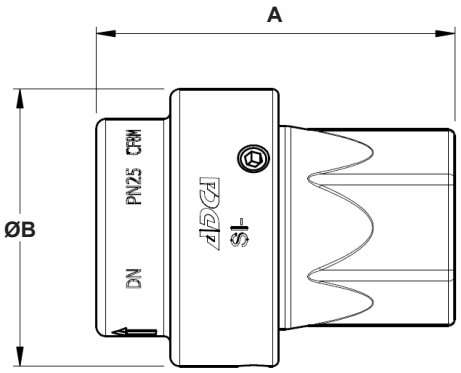
AVAILABLE MODELS: SI125 and SI140.

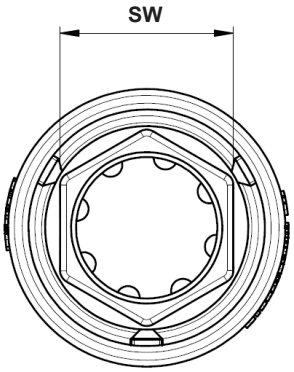
SIZES: 1" and 11/2".

CONNECTIONS: Female threaded ISO 7 Rp.

INSTALLATION: Horizontal installation.
See IMI – Installation and maintenance instructions.

MATERIAL: CF8M / 1.4408.





LIMITING CONDITIONS	
Body design conditions	PN 25
Maximum operating pressure	17 bar
Maximum operating temperature	95 ºC

DIMENSIONS (mm)				
SIZE	**A**	**ØB**	**SW**	**WGT. (kg)**
1"	88	73	40	0,97
11/2"	114	88	55	1,8

FLOW RATE CAPACITY (kg/h)																		
MODEL	**SIZE**	**INLET STEAM PRESSURE (bar)**																
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
SI125	**1"**	130	170	270	352	415	500	575	660	695	795	880	940	980	1040	1090	1150	1220
SI140	**11/2"**	395	570	800	970	1120	1290	1440	1625	1810	1940	2240	2360	2590	2700	2800	3050	3200

HOW TO SIZE

Example
Application requires injection of 3500 kg/h of saturated steam, which is readily available at a pressure of 8 bar. From the capacity table, a ADCAMix SI140 injector will process 1625 kg/h at 8 bar, and 3500 divided by 1625 equals 2,15. Two injectors will barely cope, so it is recommended to install three ADCAMix SI140 injectors, to safely meet the demand.