

INSTALLATION AND MAINTENANCE INSTRUCTIONS AS-AS/F CENTRIFUGAL AIR AND DIRT SEPARATORS

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 the life of equipment, so care should be taken to avoid any damage.
- The air and dirt present in hydronic heating, cooling and pumping systems must be eliminated in order to allow a correct operation of the line. The inside strainer will protect against any dirt and due to the screen position, it's removed from the water flow and is collected in the bottom reservoir, avoiding pressure drop increasing. They give their maximum performance only when the equipment associated with them is correctly sized and installed in accordance with our recommendations.

Note:

- Current regional safety regulations should be take in to account and followed, while doing the installation and maintenance work.
- Handling, installation and maintenance work must be carried out by trained personnel. A supervisor must follow and check all activities.
- For the problems that cannot be solved with the help of these instructions, please contact the supplier or the manufacturer.
- The manufacturer reserves the right to change the design and material of this product without notice.

CE MARKING - GROUP 2 LIQUIDS CATEGORIES								
RATING	SIZE	CAT.	RATING	SIZE	CAT.	RATING	SIZE	CAT.
PN16	DN32 to DN300	SEP	PN25	DN32 to DN250	SEP	PN40	DN32 to DN200	SEP
	-	-		DN300	1		DN250 to DN300	1

CE Marking: This product have been designed for use on water and other liquids which are in Group 2 of the European PED-Pressure Equipment Directive in use and it complies with those requirements. The product carries the CE mark when falling in category 1 and above.



ATTENTION

- If malfunction of any other equipment or system operation failure may result in a dangerous overpressure, over temperature or even vacuum condition, a safety device must be included in the system to prevent such situations.
- 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. Even if upstream and downstream isolating valves have been closed care should be taken since fluid under pressure may be trapped between them.
- 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).
- Manual handling of products may present a risk of injury. You are advised to assess the risks taking into account the task, the individual, the load and the working environment.
- Do not remove the nameplate attached to the equipment. Serial number and other useful information is stamped on it.
- If the optional top connection is not being used, it must be closed with an appropriate carbon steel plug.

- During the assembly work, apply protective measures against dirt.
- When connecting flanges, the bolts should be mounted from the counter flange side with the hexagon nuts from the separator side and it must exist a perfect match between the connection flanges.
- Tighten flange connection bolts uniformly in a diagonal sequence.
- Separators are designed to be applied in places protected from exposure to weather.
- We recommend special constructions or protective measures for applications on the outside or in adverse environments like corrosion-promoting conditions (sea water, chemical vapors, etc).
- Correct installation of the equipment is full responsibility of the contractor

TRANSPORT AND STORAGE



ATTENTION

- Handling and lifting of materials should be made with adequate equipments.
- Do not damage the paint job. It protects against corrosion during transportation and storage.
- The separators and equipments should be protected from impacts and forces during transportation and storage.
- The manufacturer doesn't assume the responsibility of damaged equipments due to inappropriate handling during the transportation and storage.

INSTALLATION



ATTENTION

- Account for over pressure conditions, according with the local laws or standards.
- Separators must not be used with other purpose than the one they were built for (e.g. climbing aids or as connecting points for lifting gear).
- For the problems that cannot be solved with the help of these instructions, please contact the supplier or the manufacturer.

Installation area requirements:

- The installation area should have easy access and provide enough space for maintenance and removing operations.
- The pipework before and after the separator, must be sized in order to avoid that the max flow speed recommended, for the fluid in question, is exceeded.
- In order to allow installation and maintenance work without emptying the system, stop valves should be installed upstream and downstream of the separator.
- **If the system cannot be stopped for maintenance it is recommended that isolating valves are installed upstream and downstream of the separator together with a by-pass manual regulating valve. The process can be then controlled manually during the separator maintenance/changing. The by-pass must be kept close during the normal operation.**

Procedure:

- Prior to install check that the product is suitable for the intended application: materials and pressure/temperature ratings.
- Before installing 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.

- Take care with jointing material to ensure that none may be permitted to block or enter the separator.
- The separator must be installed in horizontal position always with the drain discharge pointing downwards to ensure that the best results are obtained. A manual valve should be installed for the manual cleaning.
- External stresses that may be induced by the system due to pipe expansion, etc, can affect this product. The necessary precautions are recommended during the systems design and equipment assembly.
- The separator pipework should be properly supported and free from strain and it should not be subjected to undue surges of pressure. The start-up condition should be considered.

START UP



ATTENTION

- Current regional safety regulations should be take in to account and followed.
- Protective insulation and warning notice may be required.
- Until the start up of an existing or a new plant, the following must be checked:
 - All works are completed.
 - The separator is correctly installed.
 - All the necessary safety devices (if applicable) have been installed.

Procedure:

1. All stop valves should be closed.
2. Open slowly the stop valves, in order to avoid water hammer damaging, until the input pressure reaches its limit.
3. The separator is ready.
4. The drain valve should be operated in order to guarantee that initial dirt accumulated during the assembling process is removed.

Periodical checking:

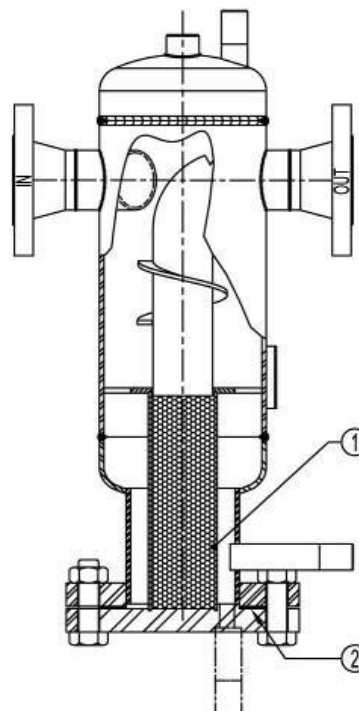
- 24 hours after the start up, it is recommended to check pipe connections for leaks and retightening flanges locknuts if necessary.

MAINTENANCE

- We recommend the separators to be serviced as necessary. The separator doesn't need any specific type of maintenance. Regular inspection may be recommended by local authorities according to specific or general pipe and/or vessels assembly procedures.
- The models with internal screen should be checked periodically (at least yearly) to clean the internal parts and screen.
- When reassembling make sure that all gasket faces are clean and always use a new gasket. Tighten flange connection bolts uniformly in a diagonal sequence.
- Estimated lifetime under satisfactory working conditions: 5 years; after this period we recommend the wall thickness examination using appropriated inspection equipment.

SPARE PARTS

PARTS	
POS.Nr.	DESIGNATION
1	Strainer screen
2	Gasket



PRODUCTS RETURNING



ATTENTION

- Information regarding any hazards and precautions to be considered because of contaminating fluids and residues or mechanical damage that may represent a health, safety or environmental risk, must be provided in writing by the distributors and costumers when returning products to Valsteam ADCA engineering.
- Health and safety data sheets regarding substances identified as hazardous or potentially hazardous must be provided with the information mention above.



ATTENTION

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