



Complementary instructions for ED diaphragm pumps (according to EC directive 94/9)




DESCRIPTION

CAREFULLY READ THE INSTRUCTIONS AND WARNINGS BEFORE STARTING TO OPERATE THE EQUIPMENT

Pumps with the mark  can be used in potentially explosive atmospheres according with 94/9/CE European Directive. This mark  assures that it is safe to operate the pump within the limitations described in this manual. A (ED) pump without the mark on it must never be used in a potentially explosive atmosphere. ED pumps with the Ex mark on them have certain differences with other ED pumps for complying with the requirements of the European Directive 94/9/CE. This instruction manual must be used together with the general instructions manual for other ED pumps.

ATEX MARKING

The pump with this documentation must have a label as the one shown above. This label includes the following information (this information is only valid if the pump includes the label shown, if the label on the pump is different, the following information does not apply):

 PATENTED WORLDWIDE	
PUMP TYPE:	 
PART No.:	0163
YEAR: 2010	SERIAL No.:
MAX AIR / FLUID PRESSURE: 7 bar / 100 psi	
I/2 GD I/IB/IIC 95°C	
FLUID IN/OUT:	
LOM 10ATEX0105X	

CE 0163
I/2 GD I/IB/IIC 95 °C
Tech ref: LOM 10ATEX0105X

Ex: Means that the pump can be used in a potentially explosive atmosphere. II: Means the equipment group, for use above ground (non-mining products).

2: Means product category.

GD: Means that the pump can be used in a potentially explosive atmosphere due to gas, mist or vapors (G) or dust (D).

I/IB/IIC: Means the type of gas present in the potential explosive atmosphere for which the pump is suitable. (IIB gas includes IIA gas).

95 °C: Is the maximum working temperature for use with IIA and IIB gas. Since the pump will never reach this temperature in normal working conditions, this temperature represents the maximum fluid temperature for a safe use with IIA and IIB gas. It is also the maximum temperature on the pump or any other component surface. The pump surface maximum temperature will always be the fluid temperature if it is higher than 30 °C.

Tech Ref: is the technical documentation reference and the notified body that keeps it.

X: Means that there are special instructions conditions for the safe use of the product mentioned in this manual (see chapter "Use in potentially explosive atmospheres special instructions").

ATEX ZONES DEFINITION APPROVED FOR THE USE OF DF ATEX PUMPS

G zones: Gas, Mist or Vapors.

• **Zone 1:** An atmosphere where a mixture of air and flammable substances in the form of gas, vapor or mist is likely to occur in normal operation occasionally.

• **Zone 2:** An atmosphere where a mixture of air and flammable substances in the form of gas, vapor or mist is not likely to occur in normal operation but, if it does occur, will persist for only a short period.

D zones: Dusts.

• **Zone 21:** An atmosphere where a cloud of combustible dust in the air is likely to occur in normal operation occasionally.

• **Zone 22:** An atmosphere where a cloud of combustible dust in the air is not likely to occur in normal operation but, if it does occur, will persist for only a short period.

USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES SPECIAL INSTRUCTIONS

WARNING: FOLLOW THE INSTRUCTIONS MENTIONED IN THIS CHAPTER TO AVOID RISKS OF SERIOUS INJURIES OR DEATH AND DAMAGE OF THE EQUIPMENT AND ITS ENVIRONMENT.

- The information in this chapter is a complement to the information provided in the pump manual. This chapter reoffers only to the special cautions and procedures that shall be followed when working in a potentially explosive atmosphere. Read always both manuals before starting to use the pump.
- Always respect the working conditions for the pump mentioned in its instructions manual.
- Pump installation, piping, commissioning, maintenance and repair must be done by qualified personnel.
- Be sure that the pump is used following its marking and in approved zones.
- Be sure that the pump is well primed before start pumping flammable or explosive fluids.
- Do not close the suction line and do not adjust pump speed or operation acting on it.
- Check regularly for pump leaks.
- Always connect a ground wire, which must be attached to the pump.
- Never use the pump with non conductive fluids in atmospheres with IIC gas.
- Maximum working temperature must always be observed. In normal working conditions, the highest temperature on the pump surfaces will correspond to the temperature of the pumped fluid marked up with a safety factor to cover a spot temperature rise. The pump follows norm EN 12463-1 for your safety. This norm limits temperature for the gas present the potentially explosive atmosphere.
- Pump surface temperature will always be the fluid temperature whenever it is higher than 30 °C.

- Clean the pump regularly and remove all dust accumulation on its surface when working in a potential explosive atmosphere.
- Be sure all elements are well connected before running the pump. Always use flexible connecting elements and install pump on silent blocks to avoid vibrations.
- Be sure valves at the pump inlet and outlet are open before running the pump.
- Avoid the pump to run dry. Install a detection system like a low level detector in the fluid storage tank.
- Maintain and inspect the pump regularly. Make sure the pump is serviced according to the service instructions by a qualified repair station. Use only original SAMOA parts for servicing. Use of non original parts will make the Ex approval invalid.
- Make sure that pump is placed in a safe location, with no risk of parts or materials falling on it.
- The explosion protection certification marking on the pump refers exclusively to the pump. All other assembled equipment should have separate certification of at least the same or higher level of protection as the pump.
- If a diaphragm beaks, the environment where the pump is installed could become a potentially explosive atmosphere. If it occurs, stop immediately the pump.

ATEX MANUAL

PART NO 11755, 11751, 11765

DECLARATION OF CONFORMITY

Declares that the following products meet all requirements set forth in EC directives 2006/42/CE and 94/9/CE.

If the product is modified without our written permission, or if the safety instructions in this manual are not followed, this declaration will become invalid.

Notified body:

(1063) Laboratorio Oficial José María de Madariaga (LOM)
Calle Alenza 1-2, 28003 Madrid (Spain)

Tech ref.: **LOM 10ATEX0105X**

The norms used for conformity of this product with safety and health requirements applicable are:

EN-809:1999+A1

EN 13463-1

EN 1127-1

Marking: the marking includes the Ex symbol and the technical file reference.

Special instructions for safe use are specified in this manual.

Mikael Theorin,

Product director (Authorized representative for Eurolube Equipment / Alentec & Orion AB and responsible for technical documentation).