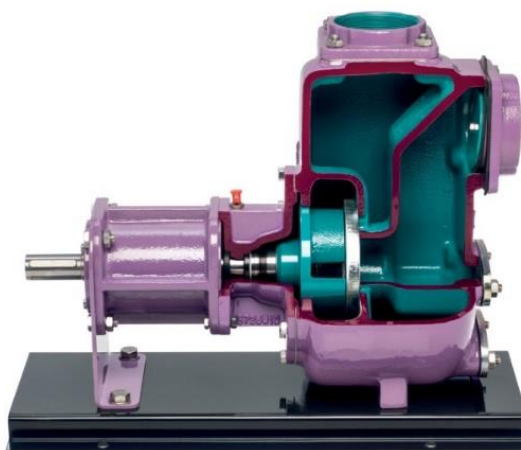


Info for ATEX - S Self-priming pumps



To avoid risk of explosions in an Ex-Zone, when you mount a **S** self-priming centrifugal pump you have to check the following information:

1. Ex-zone

1.1 The **S** self-priming centrifugal pumps can be used in the zones and categories signed in bold:

with code + 2A for equipment of category

Ex II 2G Ex h IIB T4...T1 Gb

with code +2AC for equipment of category

Ex II 2G Ex h IIC T4...T1 Gb

with code +3A for equipment of category

Ex II 3G Ex h IIB T4...T1 Gc

with code +3AC for equipment of category

Ex II 3G Ex h IIC T4...T1 Gc



1.2 Group:

⇒ II: non-mining use

1.3 Category:

⇒ 2G = high gas safety

⇒ 3G = normal gas safety

1.4 Protection:

⇒ Ex h = construction protection

1.5 Class of gas explosion:

⇒ IIB = IIA and IIB permitted gases

⇒ IIC = IIA, IIB and IIC permitted gases

1.6 Temperature class:

⇒ T4 ... T1 = All temperature classes are allowed from T4 (up to 135°C), T3 (up to 200°C), T2 (up to 300°C) and T1 (up to 450°C)

1.7 EPL "Equipment Protection Level" classification according to EN ISO 80079-36:

⇒ Gb = Monitoring of potential ignition sources during normal operation and expected failures (Zone 1)

⇒ Gc = Monitoring of potential ignition sources during normal operation. (Zone 2)

Info for ATEX - S Self-priming pumps**2. ATEX requirements**

- 2.1 The pump has a mechanical seal that might leak. If the pumped fluid is flammable, the area next to the pump must be declared as Zone 1 (category 2). (Not for pumps with magnetic coupling)
- 2.2 In pumps in use in Zone 1 (+2A and +2AC), with mechanical seals of type .31., .331., .38., .57. and .14 the automatic grease lubricator (+P, +PK, +PS, +PSP) of the mechanical seal must be present, installed and activated. The cartridge must be replaced annually.
- 2.3 If the pump is used with IIC vapor explosion class, there is a danger of electrostatic charging if the coating thickness of the equipment is greater than 0.2 mm, or greater than 2 mm if used in class IIB.
- 2.4 The pump may get blocked due to the presence of solid bodies. It is therefore necessary to use a motor protection switch (PTC if with inverter).
- 2.5 Use the pump only within the parameters indicated in the performance curves, in the technical data sheet and in the instructions. The product must never be pumped to the limits of vaporization, crystallization, polymerization and solidification. If the pump is to be used for purposes other than that requested at the time of ordering (and for which the pump has been produced), please check its compatibility and ask the pump manufacturer for authorization for new use.
- 2.6 The pump must be connected to earth. As an option, grounding is available on the base plate already connected to the motor and the pump. Therefore, grounding on the base plate is sufficient as the sole grounding.
- 2.7 If the pump has a bare shaft select a coupling, coupling cover and the ATEX standard motor adapted to the performance of the pump, install them according to the instructions of the various manufacturers.
- 2.8 The pump material must be compatible with the pumped liquid. The pump manufacturer is not responsible for the inappropriate use of the pumped liquid.
- 2.9 The operating temperature of the pump must not exceed the following values:

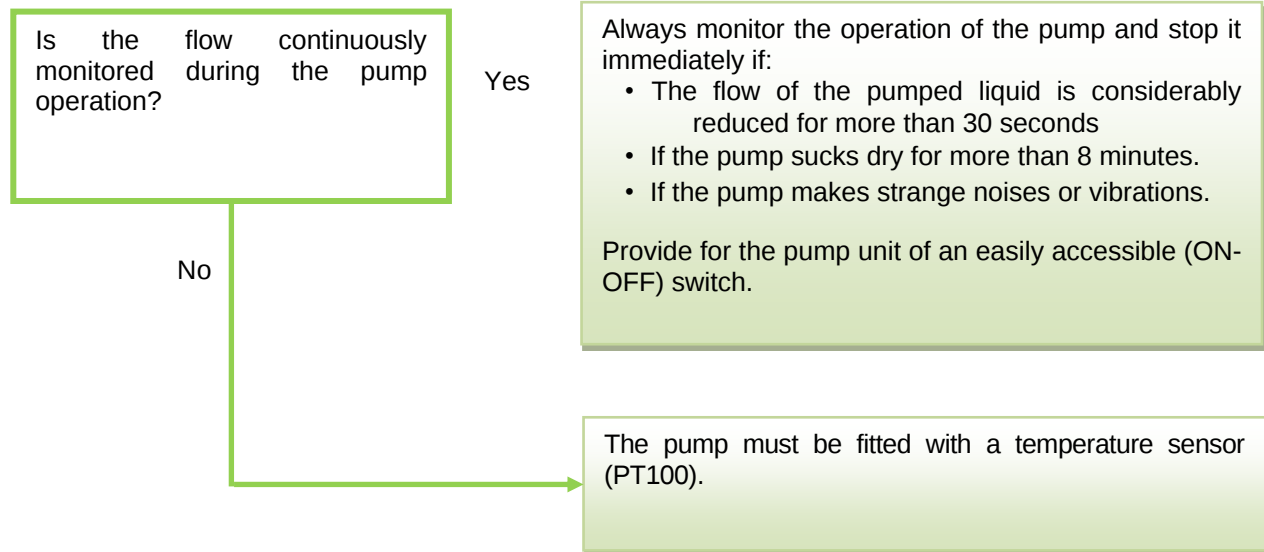
Type of mechanical seal	Temperature class			
	T4	T3	T2	T1
.17., .31., .331., .38., .14., .57.	90°C			
.10., .30., .35., .55.	75°C		90°C	
.36., .362.:	75°C		110°C	
Magnetic drive	100°C		130°C	

In the event that the liquid to be pumped can reach this temperature, it is not permitted to operate the pump. If necessary, use a temperature sensor.

- 2.10 The use of the pump with closed suction and/or discharge pipes/hoses is prohibited. The owner of the pump must take all necessary precautions to prevent this from happening.
- 2.11 There is no zone inside the pump because there is always product in the pump casing to allow self-priming.
- 2.12 For pumps that are used in Zone 1 (+2A and +2AC) following instruction is mandatory. For pumps that are used in Zone 2, it is not mandatory but we recommend it as well. To avoid running dry or with blocked pipes/hoses, proceed as follows:



Info for ATEX - S Self-priming pumps



3. Temperature sensor PT100

- 3.1 The sensor monitors the temperature increases of the pumped fluid. This means that a problem in the delivery pipe or abnormal wear can be controlled by increasing the temperature. When the temperature limit is exceeded, the sensor disconnects the supply of energy to the pump which then stops working.
- 3.2 The shut-off device and the relative electrical connections are not included in the supply of the pump, and must be carried out by a qualified technician, according to the EN ISO 80079-37, b1-type system standard.
- 3.3 The pump manufacturer supplies the sensor (PT100) with a built-in transmitter. The transmitter is set according to the following parameters:

Temperature range	Output signal	Current
0-150°C	4 - 20 mA, linear	8 - 30 VDC

- 3.4 The sensor assembly must be set to automatically switch the pump off within 5 seconds of exceeding the limit temperature.