



Inlet Purge Kit

EDS200, EDS300 and EDS480 Pumps

INSTRUCTION MANUAL

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Product warranty and limit of liability are dealt with in our standard terms and conditions of sale or negotiated contract under which this document is supplied.

You must use this product as described in this manual. Read the manual before you install, operate, or maintain the product.

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1. Safety and compliance

1.1 Definition of Warnings and Cautions

NOTICE:



For safe operation from the start, read these instructions carefully before you install or commission the equipment and keep them safe for future use.

Read all the safety instructions in this section and the rest of this manual carefully and make sure that you obey these instructions. The equipment must only be operated and maintained by trained personnel in the proper condition and as described in this instruction manual.

Obey local and state requirements and regulations. If you have any questions about safety, operation or maintenance of the device, please contact our nearest subsidiary.

Important safety information is highlighted as warning and caution instructions. Obey these instructions.



WARNING:

If you do not obey a warning, there is a risk of injury or death. Different symbols are used according to the type of hazard.



CAUTION:

If you do not obey a caution, there is a risk of minor injury, damage to equipment, related equipment or process.



NOTICE:

Information about properties or instructions for an action which, if ignored, will cause damage to the pump or the system.






We reserve the right to change the design and the stated data. The illustrations are not binding.

Keep the instructions for future use.

1.2 Safety symbols

The safety symbols on the products show the areas where care and attention is necessary.

The safety symbols that follow are used on the product or in the product documentation.

	<p>Warning/Caution An appropriate safety instruction must be followed or caution to a potential hazard exists.</p>
	<p>Warning - Dangerous voltage Identifies possible hazards from dangerous voltages.</p>
	<p>Warning - Hot surfaces Identifies a potential hazard from a hot surface.</p>
	<p>Warning - Pressurised The equipment contains pressurised gases/liquids.</p>
	<p>Warning - Use protective equipment Use appropriate protective equipment for the task.</p>

2. Introduction

The inlet purge kit has been designed for safe and efficient operation when used properly and in accordance with these operating instructions. It is the responsibility of the user to carefully read and strictly observe all safety precautions described in this manual.

The function of the inlet purge kit is to supply pressurised gas in the inlet of the vacuum pump.

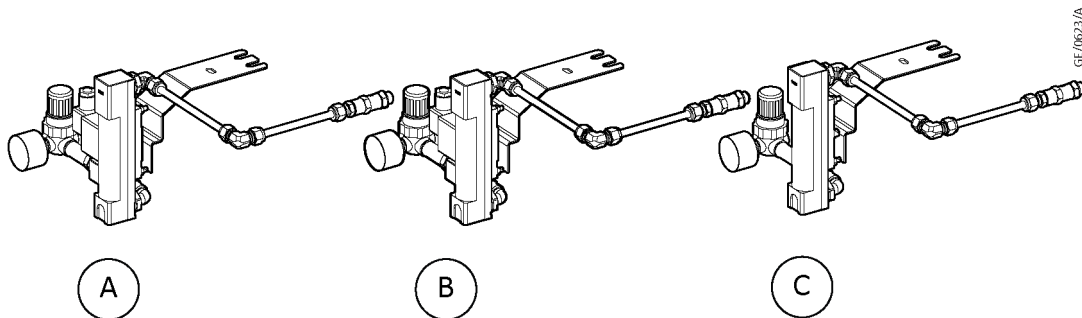
The inlet purge kit consists of:

- Pressure regulator
- Solenoid valve or solenoid valve ATEX or manual valve
- Visual flowmeter
- Non-return valve.

The inlet purge kit can be used to:

- increase the inlet pressure of the pump during a solvent flushing sequence to have superior solvent flushing performance
- purge process gases out of the pump during shut down
- dry the pump after a solvent flush
- increase the inlet pressure during the warm-up procedure of the pump to decrease the time for priming the pump
- increase the inlet pressure of the pump during the process
- dilute pumped media to prevent the mixture from entering the flammable range.

The inlet purge kit is available in three variants:



- A. Inlet purge / Solenoid valve ATEX
- B. Inlet purge / Solenoid valve
- C. Inlet purge / Manual valve

3. Technical data

Table 1 Technical data

Feature	Solenoid valve ATEX	Solenoid valve
ATEX rating	II 2G Ex mb IIC T4 Gb II 2D Ex tb IIIC T130 °C Db	NA
Valve		
▪ Pressure range	0 to 2.45 bar	0 to 3.5 bar
▪ Power	10.1 W	18 W
▪ Voltage	24 V d.c.	
▪ Insulation class	H 180 °C	
▪ IP rating	IP65	
▪ Connection	DIN 43650A	
Supplied cable length	3 m	NA
Materials		
Materials in contact with the solvent	Stainless Steel Borosilicate glass Viton PTFE	

4. Installation

WARNING: DANGEROUS VOLTAGE



Risk of electric shock. Installation of the inlet purge kit requires proper installation and proper operation of the vacuum pump. Disconnect the mains power supply before you work on the vacuum pump. Tag out/Lock out to protect against inadvertently switching on the power supply. The electrical connections must only be provided by a trained electrician.

In case of using an ATEX solenoid valve all electrical installation must be done in conformance with EN60079-14 and other local regulations applicable when working in a potentially explosive atmosphere.

WARNING: HOT SURFACE



Risk of burns. During operation the pump is hot and some surfaces can reach a temperature higher than 70 °C. If you install the inlet purge kit under such conditions then there exists the risk of suffering burns. Before you install the inlet purge kit, let the vacuum pump cool down.

WARNING: USE PROTECTIVE EQUIPMENT



Risk of injury. Take a note of the danger symbols on the pump and wear the required personal protection equipment. Note the safety information given in the operating instructions for the vacuum pump. If the pump has been pumping hazardous substances, then the type of hazard must be determined and suitable protection measures must be taken.

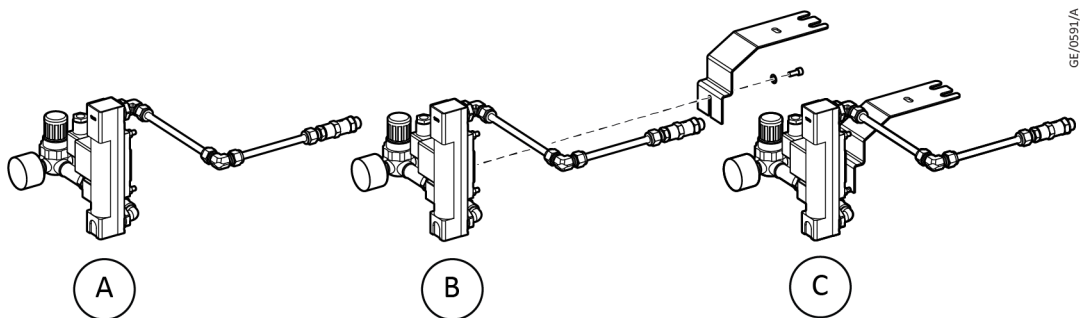
Note:

The illustrations in this manual show the installation of Inlet purge / Solenoid valve. The same procedure is applicable for the remaining two variants.

4.1 Installation on the pump without canopy

Follow these steps to install the Inlet purge / Solenoid valve on your pump:

1. Prepare the Inlet purge / Solenoid valve for installation.



A. Inlet purge / Solenoid valve

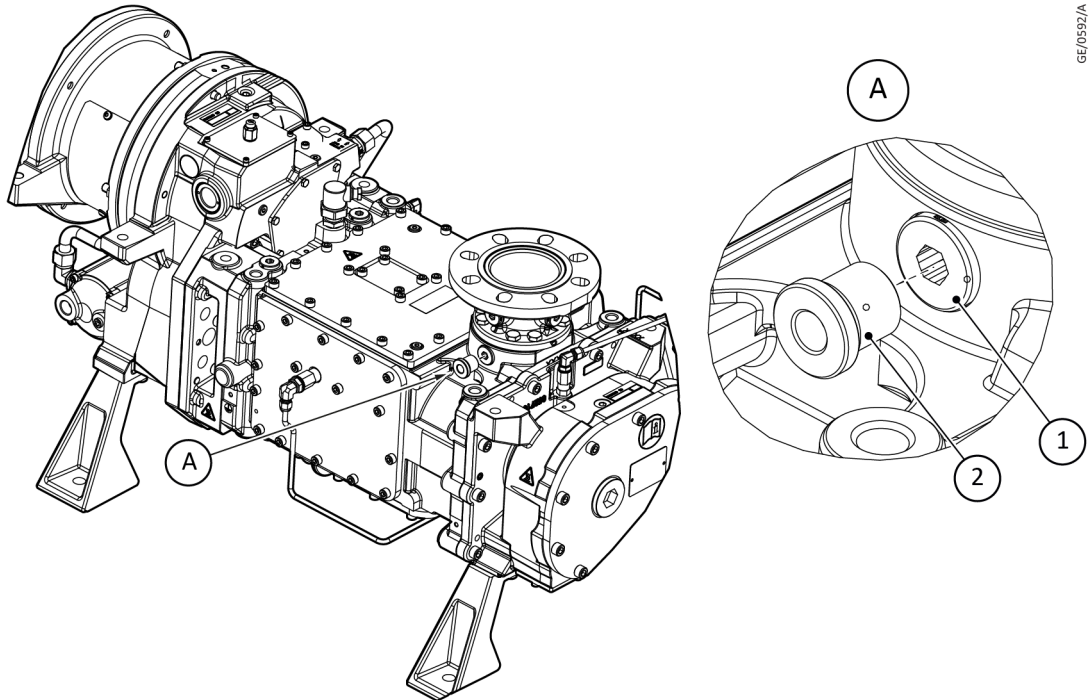
GE/0591/A

- B. Attach the bracket to the Inlet purge / Solenoid valve with the hex head cap screw
- C. Inlet purge / Solenoid valve with bracket

 **Note:**

Do not fully tighten the hex head cap screw, so that the bracket position can be adjusted.

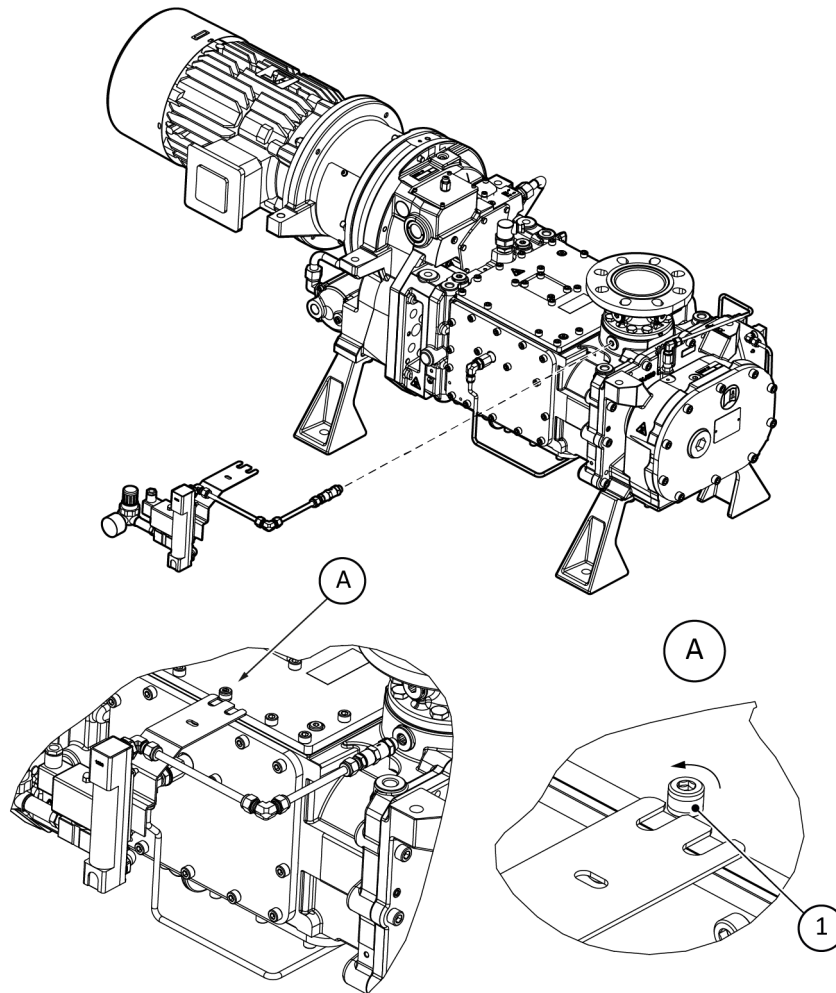
- 2. Replace the plug screw with the adapter.
 - Replace the plug screw adjacent to the pump inlet with the supplied adapter.



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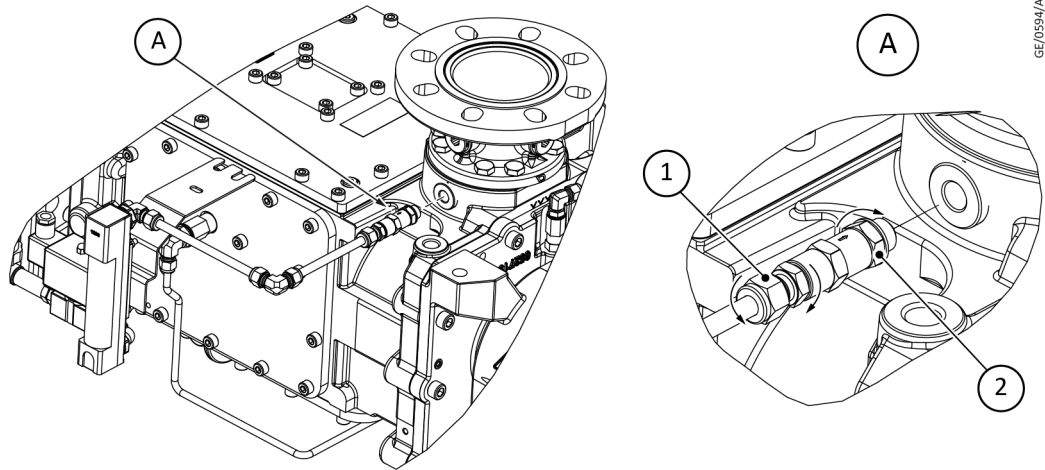
- 1. Plug screw
- 2. Adapter

3. Install the Inlet purge / Solenoid valve on the pump.
 - Loosen the hex head cap screw by 4 mm to 5 mm on the top cover of the pump.
 - Slide the bracket in between the top cover of the pump and the hex head cap screw.



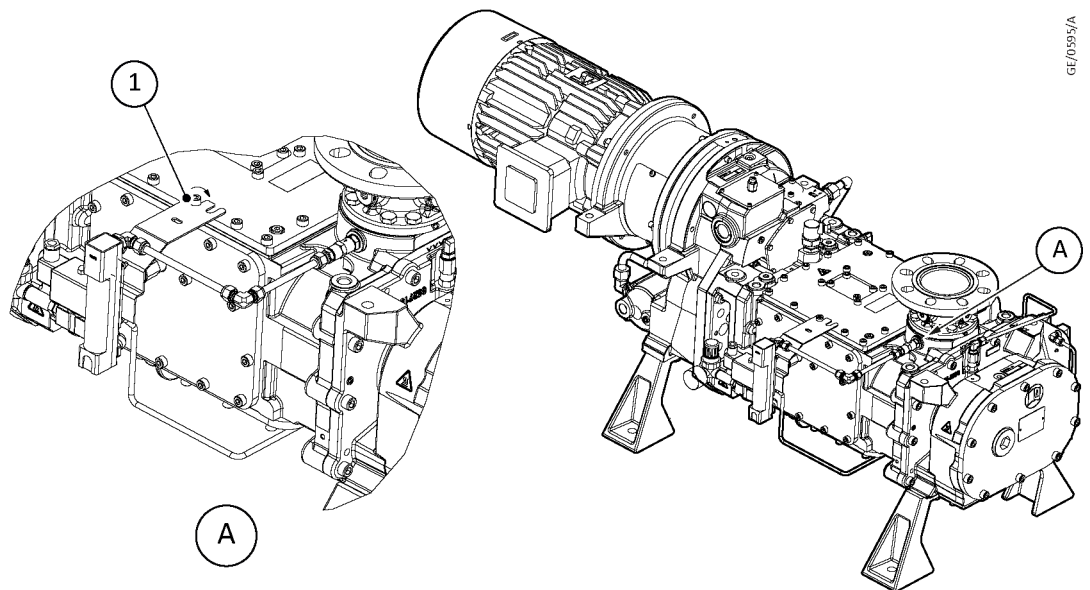
1. Hex head cap screw

4. Fit the Non-Return Valve (NRV) to the pump.
 - Loosen the nut of the NRV so that the NRV fitting can rotate freely on the pipe. Make sure that the nut is not completely removed.
 - Fit the NRV into the adapter.
 - Tighten the nut.



1. Nut
2. NRV

5. Tighten the screw on the top cover to hold the bracket firmly.

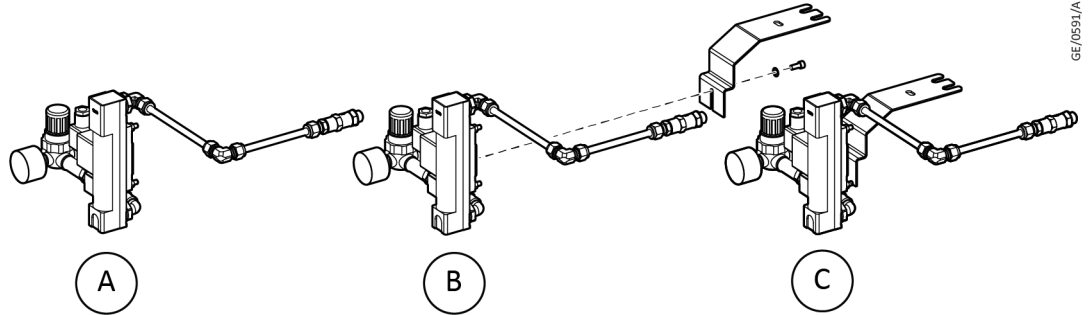


1. Screw

4.2 Installation on the pump with canopy (for EDS200 and EDS300 pumps)

Follow these steps to install the Inlet purge / Solenoid valve on your pump:

1. Prepare the Inlet purge / Solenoid valve for installation.

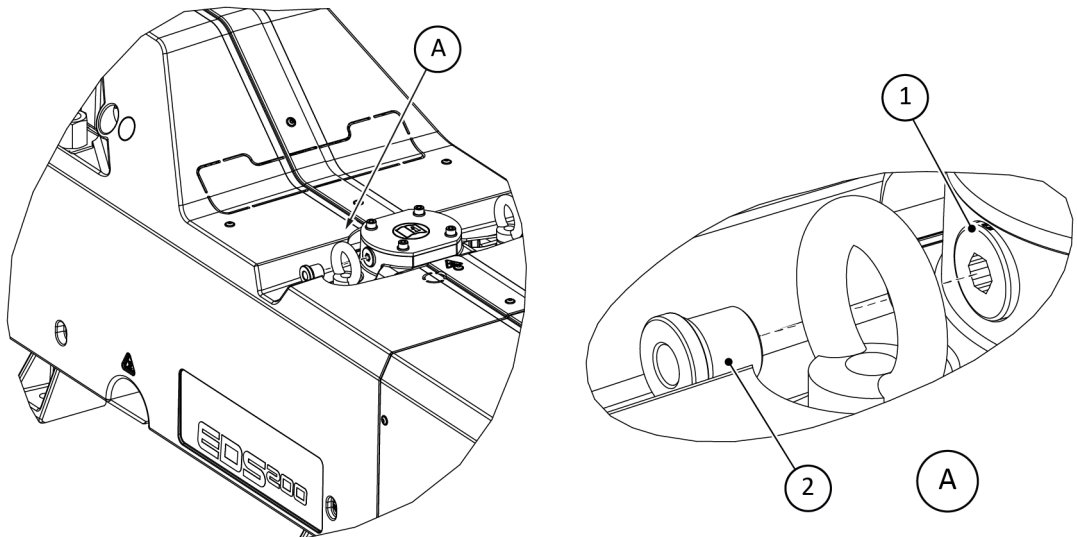


- A. Inlet purge / Solenoid valve
- B. Attach the bracket to the Inlet purge / Solenoid valve with hex head cap screw
- C. Inlet purge / Solenoid valve with bracket

Note:

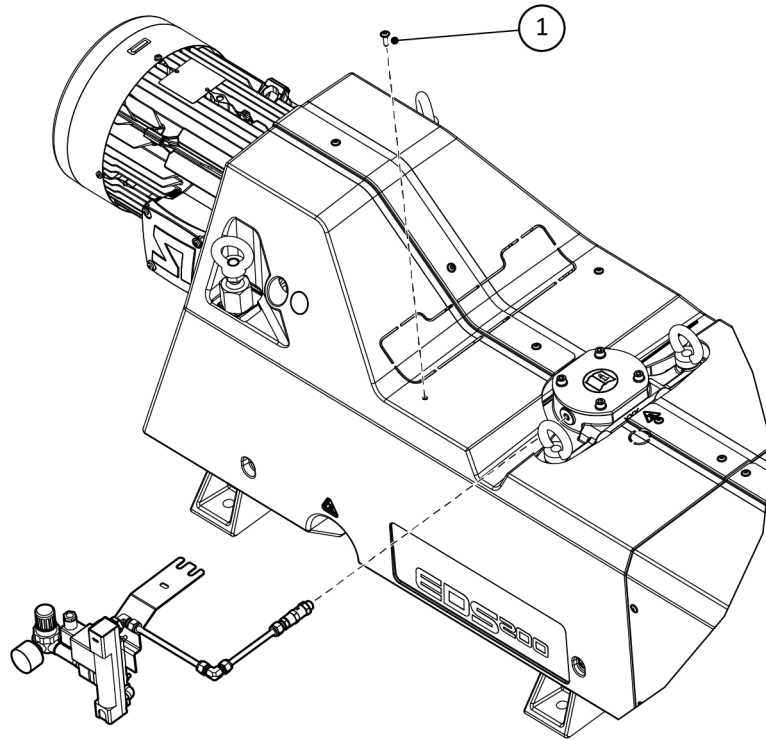
Do not fully tighten the hex head cap screw, so that the bracket position can be adjusted.

2. Replace the plug screw with the adapter.
 - Replace the plug screw adjacent to the pump inlet with the supplied adapter.



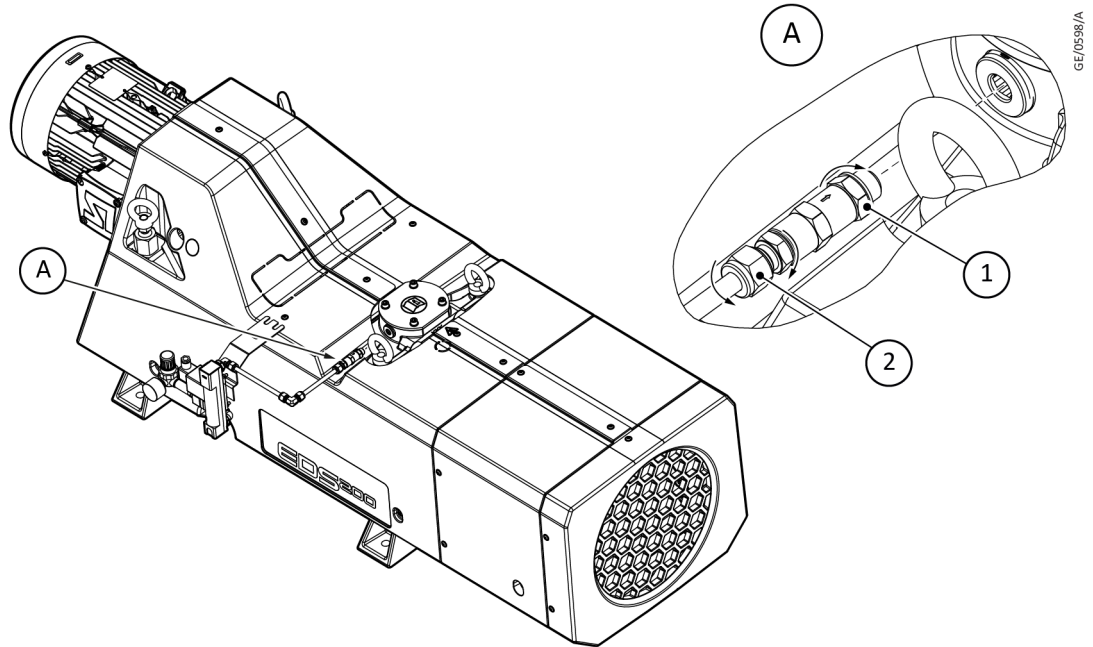
1. Plug screw
2. Adapter

3. Install the Inlet purge / Solenoid valve on the pump.
 - Remove the screw from the canopy.
 - Place the Inlet purge / Solenoid valve on the pump and make sure it is levelled, by sliding it up and down the slot of the bracket.
 - Tighten the hex head cap screw to fix the position.



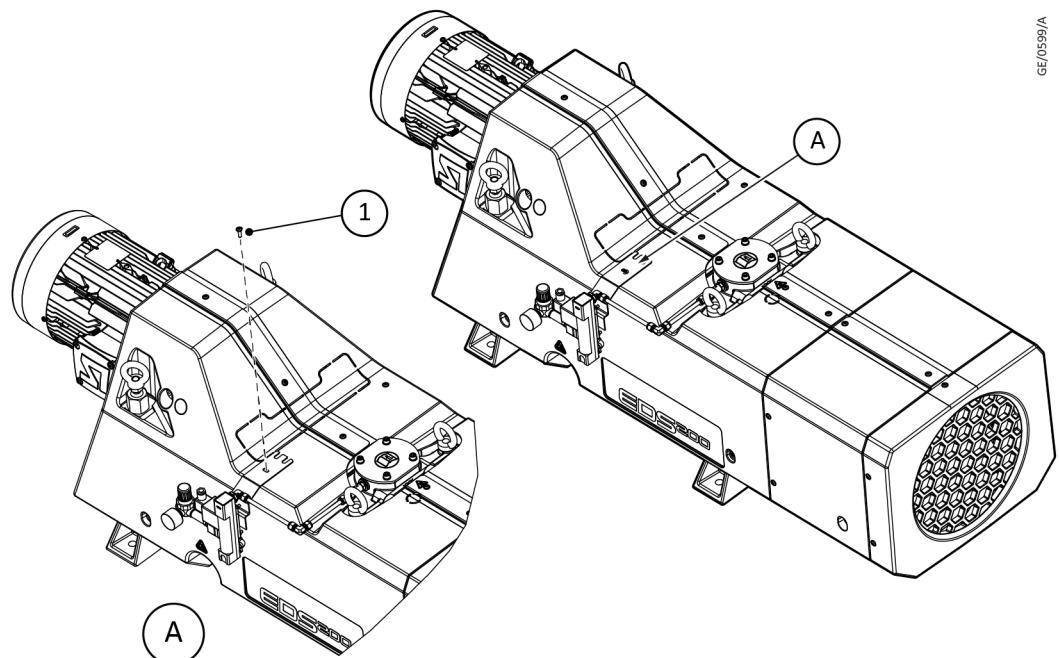
1. Screw

4. Fit the Non-Return Valve (NRV) to the pump.
 - Loosen the nut of the NRV so that the NRV fitting can rotate freely on the pipe. Make sure that the nut is not completely removed.
 - Fit the NRV into the adapter.
 - Tighten the nut.



1. Nut
2. NRV

5. Tighten the screw on the canopy to hold the bracket firmly.



1. Screw

5. Commissioning



WARNING: PRESSURISED GAS

Risk of pressure rise. When the pump is switched off, the continuous supply of pressurised gas to the inlet purge kit will cause the pressure to rise inside the pump. The pressure rise will be up to the regulated pressure of the inlet purge supply gas if the pump inlet and exhaust are closed.



WARNING: HOT SURFACE

Risk of burns. When you manually operate the solenoid valve, there exists the risk of suffering burns. Wear protective gloves.

Connect the pressurised gas supply (2 - 10 bar) to the G1/4" port at the pressure regulator of the inlet purge kit. Use the pressure regulator of the inlet purge kit to adjust the gas flow and to change the pressure at the inlet of the pump.

When you use the inlet purge kit during the solvent flush of the pump, set the pressure regulator to the maximum for maximum gas flow to the inlet of the pump.

We recommend you to set the inlet purge kit (if installed) to full throttle during the solvent flush, to get a pressure of around 50 to 60 mbar (for EDS200 and EDS300) or 30 to 60 mbar (for EDS480) at the inlet of the pump.

6. Accessories

The inlet purge kit can be ordered as an accessory for the vacuum pump or it can be supplied (already installed) as a part of the vacuum pumping system.

If the inlet purge kit is ordered as an accessory, refer [Installation](#) on page 8 to install the inlet purge kit on the pump.

Table 2 Accessories

Description	Part number
Inlet purge / Solenoid valve ATEX	A41891003
Inlet purge / Solenoid valve	A41891004
Inlet purge / Manual valve	A41891002

7. Disposal

Dispose of the inlet purge kit in accordance with all local and national safety and environmental requirements.

