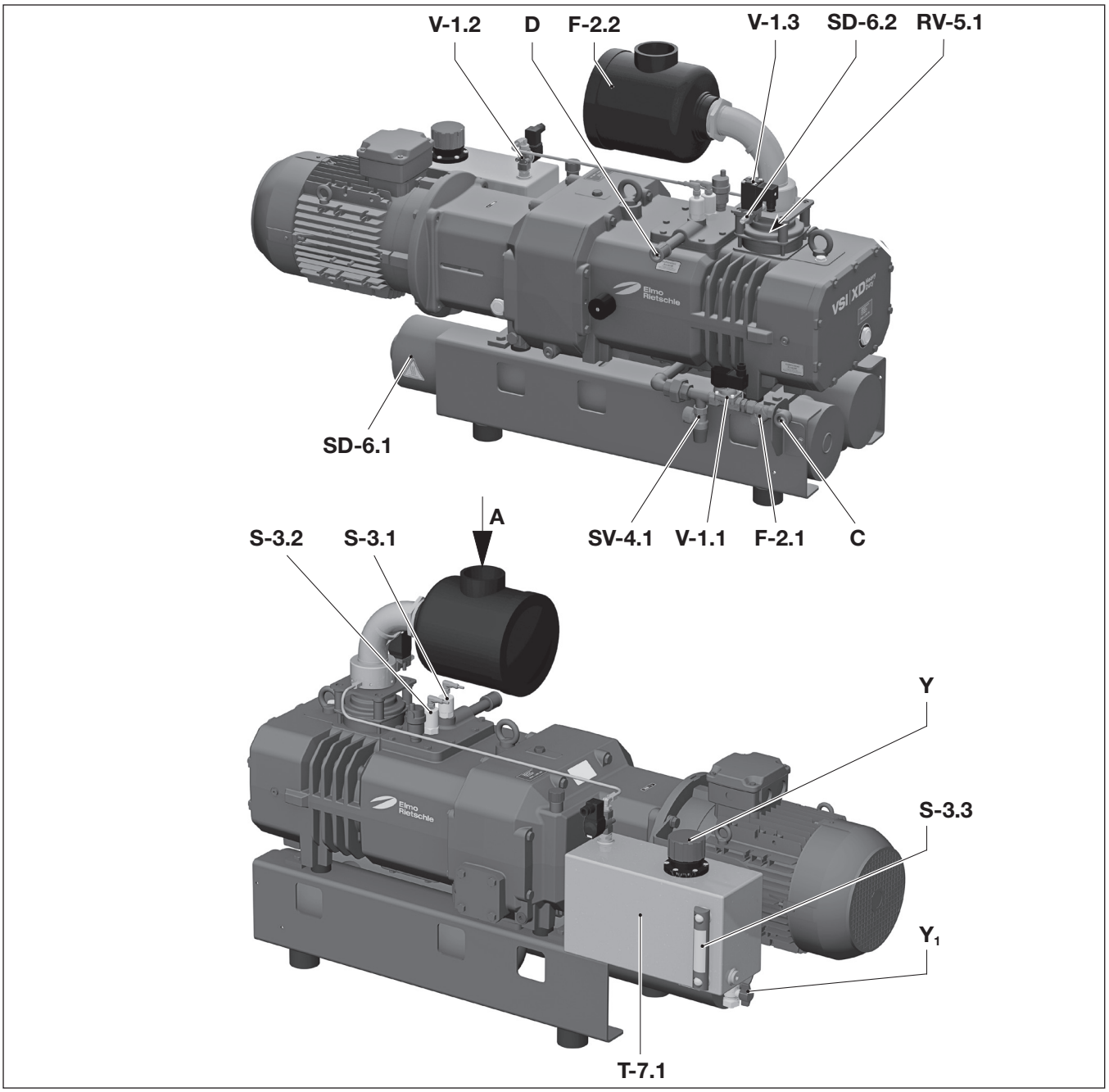
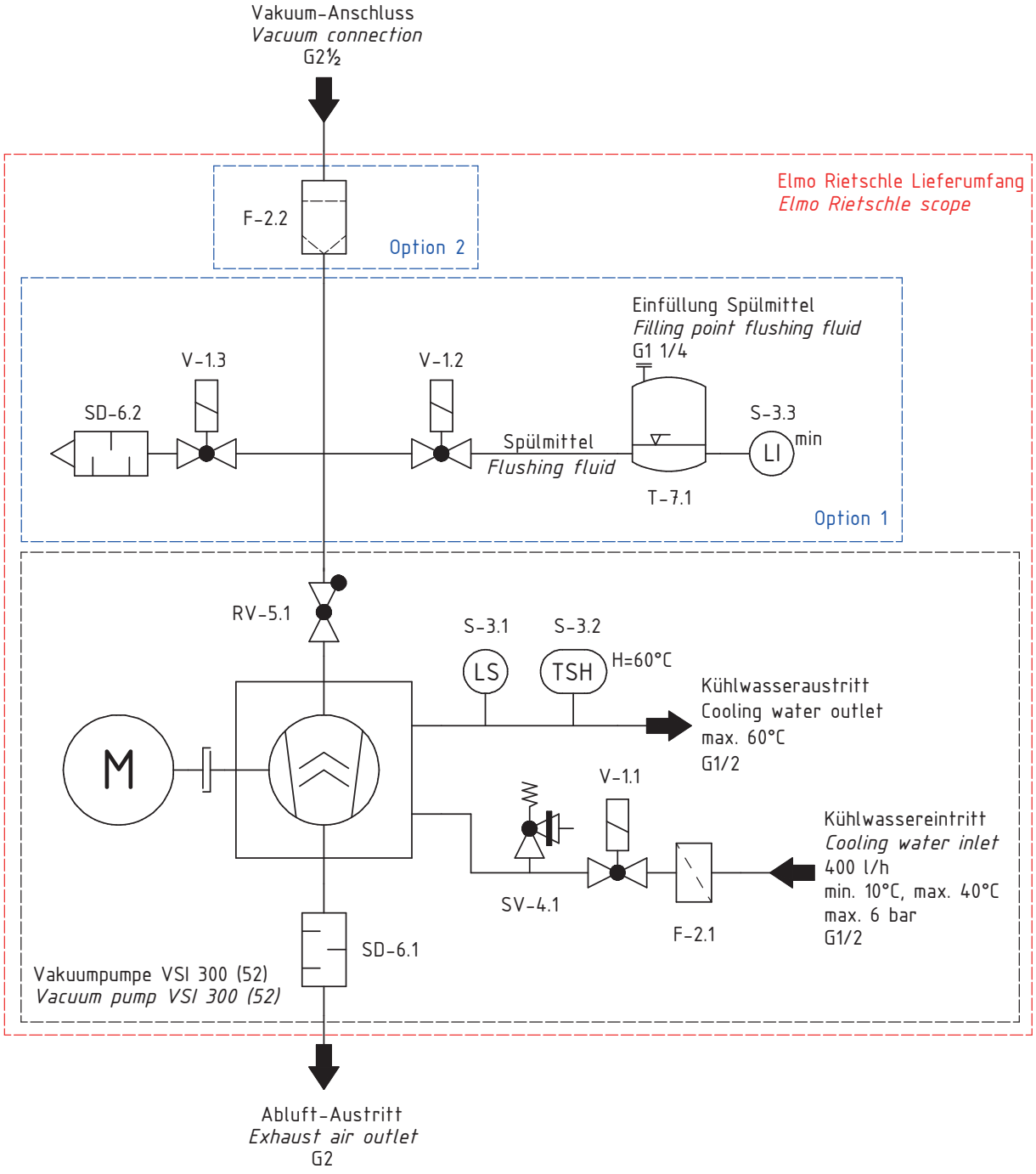
Screw vacuum pumps S-VSI 300 (52) with continuous flow cooling



A	Vacuum connection	**F-2.2**	Intake filter
C	Cooling water inlet	**S-3.1**	Liquid level monitor (U_4*)
D	Cooling water outlet	**S-3.2**	Temperature monitor (U_2*)
Y	Filling point rinsing agent	**S-3.3**	Fill level monitor - rinsing agent
Y_1	Rinsing agent-discharge	**S-4.1**	Safety valve (U_3*)
V-1.1	Ball valve filling (W_4*)	**RV-5.1**	Non-return valve
V-1.2	Rinsing valve	**SD-6.1**	Silencer pump (Z*)
V-1.3	Sniff valve	**SD-6.2**	Intake silencer
F-2.1	Dirt trap (U_6*)	**T-7.1**	Rinsing agent container

* Designation in operating instructions

P+I scheme S-VSI 300 (52)



Technical data S-VSI 300 (52)

S-VSI 300 (52)	
Weight	kg*
Length	1453 mm
Width	505 mm*
Height	843 mm*
Vacuum connection	Without filter G 2 / with filter G 2½
Filling point rinsing agent	G 1 ¼ (vent screw)

* Dimensions and weight vary depending on the accessories attached and the installation position of the accessories

Installation and commissioning

The screw vacuum pump S-VSI 300 (52) with XD accessories attached must be connected by a qualified specialist.
Observe the applicable accident prevention regulations during installation and operation.

Please read the operating instructions BA 832-42 first and observe chapter "Installation, commissioning and maintenance".
Observe the safety instructions described in chapter “Safety instructions for installation, commissioning and maintenance” during all work.

Rinsing agent unit

The rinsing agent unit includes all components required for the rinsing of the screw vacuum pump VSI 300 (52).

Rinsing is done by a suitable rinsing agent that is determined by the customer and has to be filled into the attached rinsing agent tank (T-7.1). During the rinsing process, a controlled rinsing valve (V-1.2) gets the rinsing agent from the rinsing agent tank (T-7.1). An optical filling level indicator (S-3.3) is attached to the rinsing agent tank for monitoring its filling level. Check the filling level regularly and if necessary refill rinsing agent.

Caution: The pump is only allowed to be rinsed at 50 Hz or 60 Hz because too much moisture accumulates in the pump at low frequencies and the pump can be damaged.

When selecting a suitable rinsing agent, consider the material compatibility of the individual components.

Description of the rinsing process

Recommendation: First, the screw vacuum pump VSI 300 (52) should only be rinsed in the post run.
The control of the rinsing process should be integrated in the customer’s control system.

1. The screw vacuum pump VSI 300 (52)runs for **5 minutes** in post-run in post run mode with the suction valve closed (not shown in the P+I scheme) and open sniff valve (V-1.3).
   Note: During the whole rinsing process, the sniff valve (V-1.3) remains closed and the suction valve is closed.
2. After 5 minutes, the rinsing valve (V-1.2) opens for **30 seconds** (1st rinsing passage).
3. Then, close the rinsing valve (V-1.2) for **3 minutes** (rinsing pause).
4. After that, open the rinsing valve (V-1.2) again for another **30 seconds** (2nd rinsing passage).
5. For removing the residual moisture in the screw vacuum pump, the pump should be operated for another **15 minutes** after the 2nd rinsing passage - as described in item 1.

The above described rinsing process is only recommended. Optimize the rinsing process referring its duration and frequency depending on the experiences made and determine and specify it on site. For this purpose we recommend testing the rinsing result under production conditions especially within the starting phase.

Danger of death from touching live parts!
Before starting any maintenance work, disconnect the machine by pressing the main switch or unplugging it and ensure that it cannot be turned on again.

Material compatibility of components

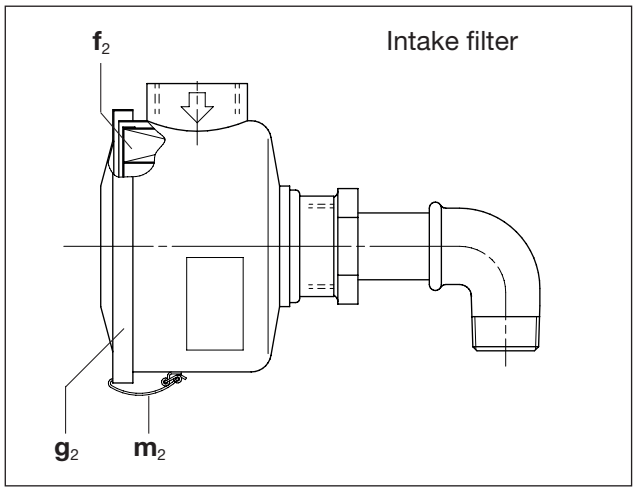
List of materials of the individual components and their resistivity

Resistivity against		PA 6	PP	PA-T	FPM	NBR
Oil, grease		+	+	+	+	+
Solvent:	Tri	+	o	+	+	o
	Per	+	o	+	+	o
Acids:	weak	o	+	-	+	o
	strong	-	+	-	+	o
Leaches:	weak	+	+	+	+	+
	strong	o	+	+	+	+
Petrol		+	+	+	+	+
Alcohol		+	+	-	+	+
Hot water		o	+	-	+	+
UV light and weather-resistance		o	o	o	+	-

+ resistant, o conditionally resistant, – not resistant

Maintenance and cleaning

Air filtering

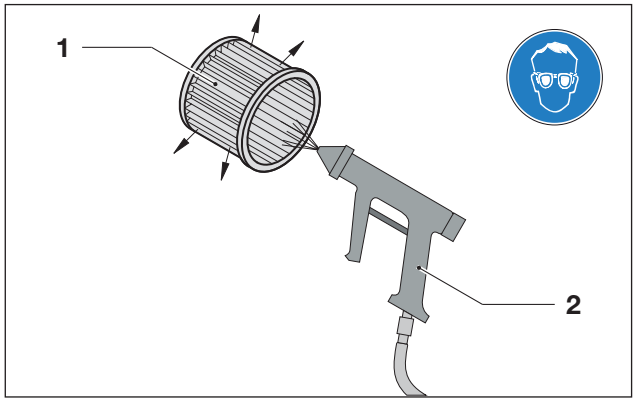


Note: Insufficient maintenance of the air filter reduces the performance of the machine and damages can result on the machine.

Clean the filter cartridge (f_2) of the suction filter every month or more often, depending on pollution, by blowing off from the inside to the outside. In spite of cleaning the filter its separation efficiency will continue to deteriorate. Therefore the filter should be replaced every six months. The filter cartridge (f_2) can be removed after releasing the brackets (m_2) on the filter cover (g_2).

Note: Do not damage the filter cartridges when cleaning them.

Danger of injury when dealing with compressed air!
When blowing through with compressed air, solid particles may be carried along or powder dust swirling around may cause injury to the eyes.
Therefore, always wear goggles and a dust mask when cleaning with compressed air.



Blow off the filter cartridge (1) using compressed air (2).

For further maintenance works refer to the operating instructions **BA 832-42**

Elmo Rietschle is a brand of Gardner Denver

Gardner Denver

Your Ultimate Source for Vacuum and Pressure

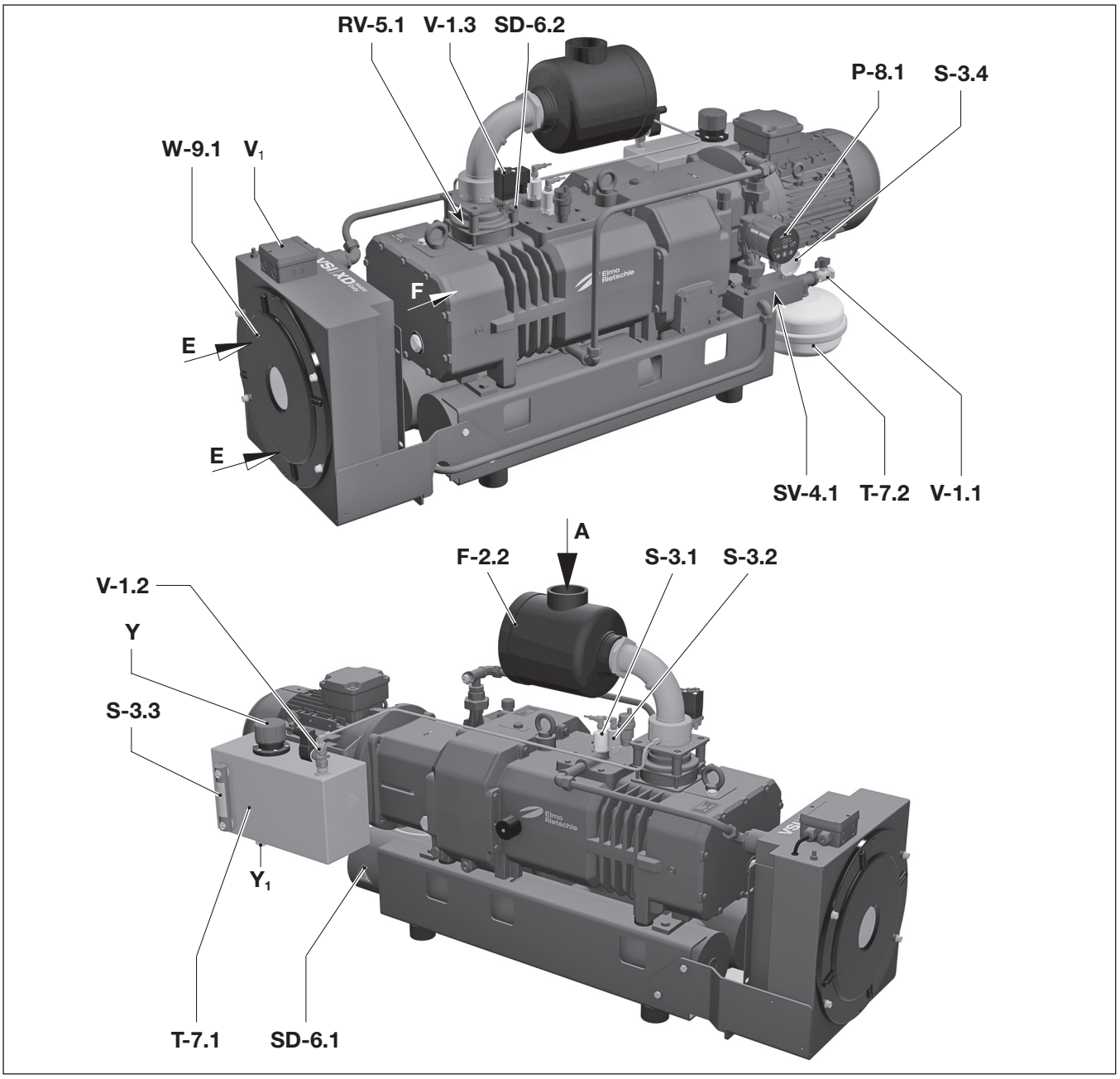
Gardner Denver Schopfheim GmbH
Postfach 1260
79642 SCHOPFHEIM / GERMANY
Fon +49 7622 392-0
Fax +49 7622 392-300

Gardner Denver Deutschland GmbH
Industriestraße 26
97616 BAD NEUSTADT / GERMANY
Fon +49 9771 6888-0
Fax +49 9771 6888-4000

er.de@gardnerdenver.com • www.gd-elmorietschle.com

Edition: 1.0 · 19.7.2017 · M 33-EN

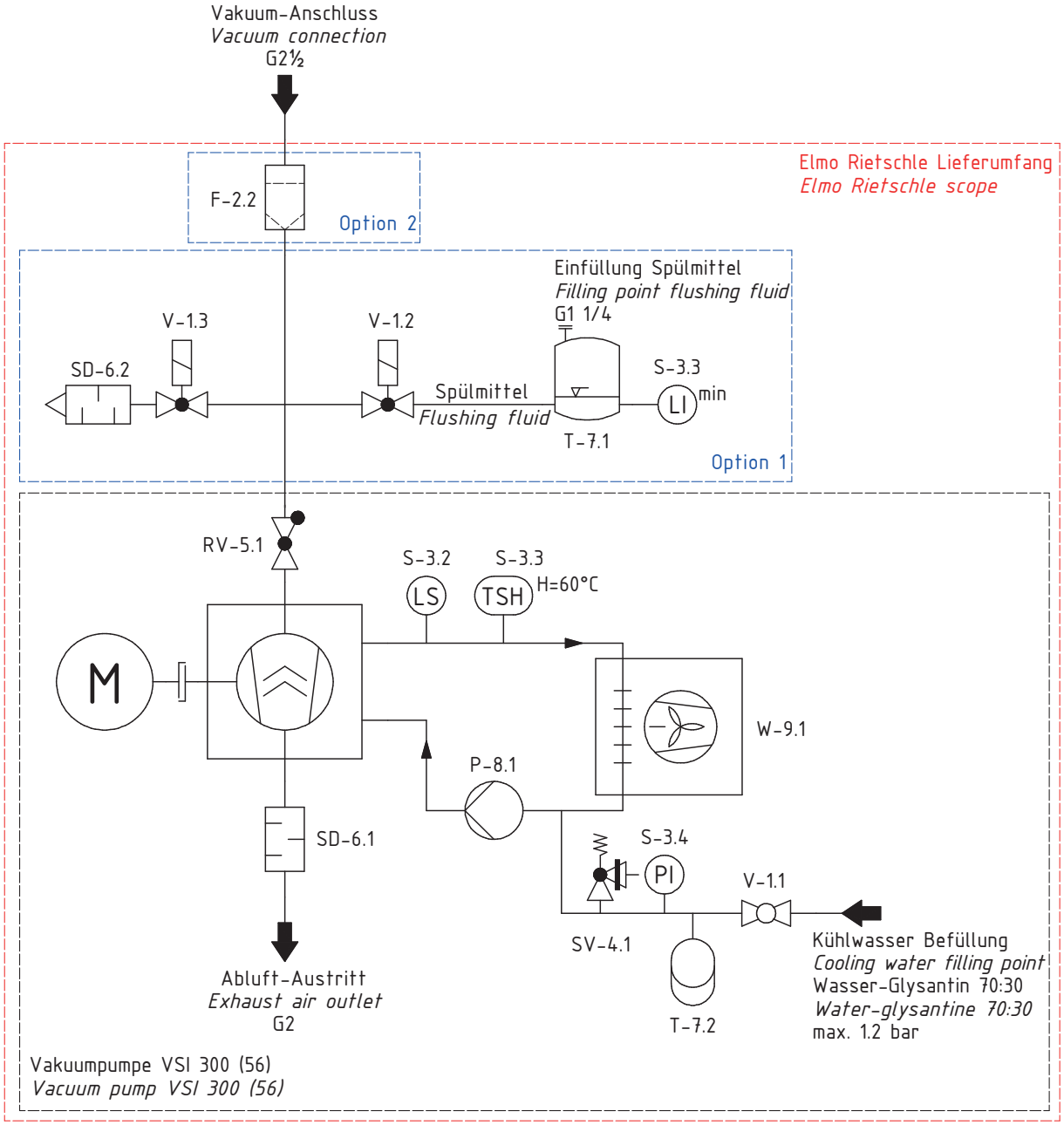
Screw vacuum pump S-VSI 300 (56) with water / air heat exchanger



A	Vacuum connection	**S-3.3**	Fill level monitor - rinsing agent
E	Cooling air inlet	**S-3.4**	Manometer filling pressure - cooling water (W_2*)
F	Cooling air outlet	**S-4.1**	Safety valve (U_3*)
Y	Filling point rinsing agent	**RV-5.1**	Non-return valve
Y_1	Rinsing agent-discharge	**SD-6.1**	Silencer pump (Z*)
V-1.1	Ball valve filling (W_4*)	**SD-6.2**	Intake silencer
V-1.2	Rinsing valve	**T-7.1**	Rinsing agent container
V-1.3	Sniff valve	**T-7.2**	Pressure compensation tank (W_3*)
F-2.2	Intake filter	**P-8.1**	Circulation pump (W_1*)
S-3.1	Liquid level monitor (U_4*)	**W-9.1**	heat exchanger with fan (R* + V_A*)
S-3.2	Temperature monitor (U_2*)		

* Designation in operating instructions

P+I scheme S-VSI 300 (56)



Technical data S-VSI 300 (56)

S-VSI 300 (56)	
Weight	kg*
Length	1588 mm
Width	635 mm*
Height	843 mm*
Vacuum connection	Without filter G 2 / with filter G 2 ½
Filling point rinsing agent	G 1 ¼ (vent screw)

* Dimensions and weight vary depending on the accessories attached and the installation position of the accessories

Installation and commissioning

The screw vacuum pump S-VSI 300 (56) with XD accessories attached must be connected by a qualified specialist.
Observe the applicable accident prevention regulations during installation and operation.

Please read the operating instructions BA 832-42 and M 30 first and observe chapter "Installation, commissioning and maintenance".
Observe the safety instructions described in chapter “Safety instructions for installation, commissioning and maintenance” during all work.

Rinsing agent unit

The rinsing agent unit includes all components required for the rinsing of the screw vacuum pump VSI 300 (56).

Rinsing is done by a suitable rinsing agent that is determined by the customer and has to be filled into the attached rinsing agent tank (T-7.1). During the rinsing process, a controlled rinsing valve (V-1.2) gets the rinsing agent from the rinsing agent tank (T-7.1). An optical filling level indicator (S-3.3) is attached to the rinsing agent tank for monitoring its filling level. Check the filling level regularly and if necessary refill rinsing agent.

Caution: The pump is only allowed to be rinsed at 50 Hz or 60 Hz because too much moisture accumulates in the pump at low frequencies and the pump can be damaged.
When selecting a suitable rinsing agent, consider the material compatibility of the individual components.

Description of the rinsing process

Recommendation: First, the screw vacuum pump VSI 300 (56) should only be rinsed in the post run.
The control of the rinsing process should be integrated in the customer’s control system.

1. The screw vacuum pump VSI 300 (56)runs for **5 minutes** in post-run in post run mode with the suction valve closed (not shown in the P+I scheme) and open sniff valve (V-1.3).
   Note: During the whole rinsing process, the sniff valve (V-1.3) remains closed and the suction valve is closed.
2. After 5 minutes, the rinsing valve (V-1.2) opens for **30 seconds** (1st rinsing passage).
3. Then, close the rinsing valve (V-1.2) for **3 minutes** (rinsing pause).
4. After that, open the rinsing valve (V-1.2) again for another **30 seconds** (2nd rinsing passage).
5. For removing the residual moisture in the screw vacuum pump, the pump should be operated for another **15 minutes** after the 2nd rinsing passage - as described in item 1.

The above described rinsing process is only recommended. Optimize the rinsing process referring its duration and frequency depending on the experiences made and determine and specify it on site. For this purpose we recommend testing the rinsing result under production conditions especially within the starting phase.

Danger of death from touching live parts!
Before starting any maintenance work, disconnect the machine by pressing the main switch or unplugging it and ensure that it cannot be turned on again.

Material compatibility of components

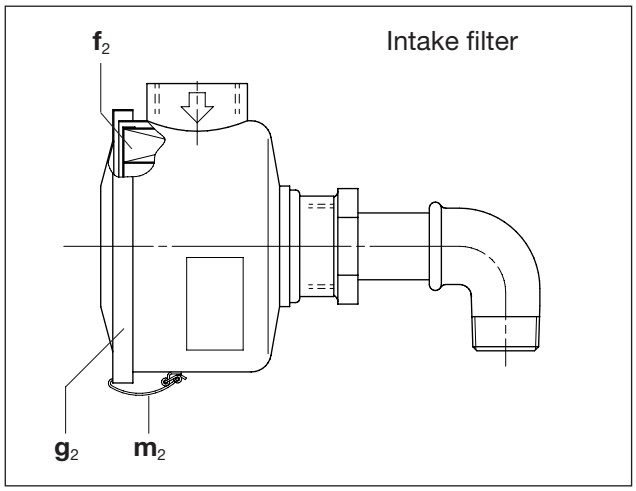
List of materials of the individual components and their resistivity

Resistivity against		PA 6	PP	PA-T	FPM	NBR
Oil, grease		+	+	+	+	+
Solvent:	Tri	+	o	+	+	o
	Per	+	o	+	+	o
Acids:	weak	o	+	-	+	o
	strong	-	+	-	+	o
Leaches:	weak	+	+	+	+	+
	strong	o	+	+	+	+
Petrol		+	+	+	+	+
Alcohol		+	+	-	+	+
Hot water		o	+	-	+	+
UV light and weather-resistance		o	o	o	+	-

+ resistant, o conditionally resistant, – not resistant

Maintenance and cleaning

Air filtering

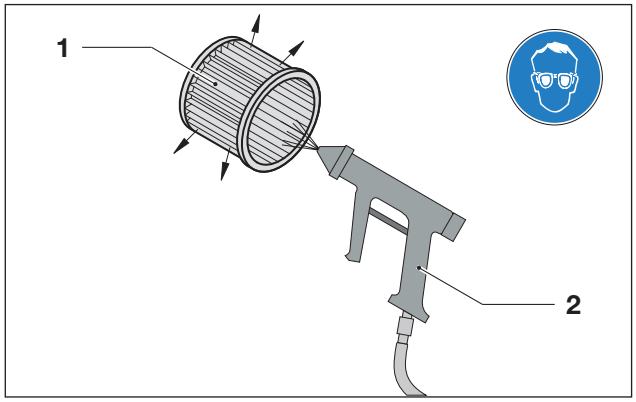


Note: Insufficient maintenance of the air filter reduces the performance of the machine and damages can result on the machine.

Clean the filter cartridge (f_2) of the suction filter every month or more often, depending on pollution, by blowing off from the inside to the outside. In spite of cleaning the filter its separation efficiency will continue to deteriorate. Therefore the filter should be replaced every six months. The filter cartridge (f_2) can be removed after releasing the brackets (m_2) on the filter cover (g_2).

Note: Do not damage the filter cartridges when cleaning them.

Danger of injury when dealing with compressed air!
When blowing through with compressed air, solid particles may be carried along or powder dust swirling around may cause injury to the eyes.
Therefore, always wear goggles and a dust mask when cleaning with compressed air.



Blow off the filter cartridge (1) using compressed air (2).

For further maintenance works refer to the operating instructions **BA 832-42 and M 30**.

Gardner Denver Schopfheim GmbH
Postfach 1260
79642 SCHOPFHEIM / GERMANY
Fon +49 7622 392-0
Fax +49 7622 392-300

Gardner Denver Deutschland GmbH
Industriestraße 26
97616 BAD NEUSTADT / GERMANY
Fon +49 9771 6888-0
Fax +49 9771 6888-4000

er.de@gardnerdenver.com • www.gd-elmorietschle.com

Edition: 1.0 · 19.7.2017 · M 33-EN