Instructions for Use, Installation and Maintenance

DOS 25 V4V and DOS 40 V4V Descaling Circulation Pumps

EN
v. 1.2

Regulus

DOS 25 V4V and DOS 40 V4V DESCALING CIRCULATION PUMPS

TECHNICAL DATA		
	DOS 25 4V4	DOS 40 4V4
tank volume	20 l	30 l
flow rate	56 l/min	70 l/min
head	10 m	10 m
connection	1/2”	3/4”
motor	230 V/50 Hz	230 V/50 Hz
power input	0.165 kW	0.29 kW
IP rating	IP55	IP55
dimensions HxWxD	500×350×350 mm	630×350×350 mm
weight	8.5 kg	11.0 kg
max. work. temp.	50 °C	50 °C

DESCRIPTION

DOS 25 V4V and DOS 40 V4V Descaling Circulation Pumps (“Pumps” further in text) are designed to remove calcareous sediments from heating circuits, storage water heaters, DHW heat exchangers, boilers etc. The Pumps are fitted with a flow diverter valve permitting to change the flow direction of the descaling solution.

CHEMICALS

Only chemicals recommended by Regulus shall be used for descaling; the use of other products may have a negative impact on the pump service life and also on acknowledging the warranty.

Detex - is intended for cleaning copper and steel systems. 1 part shall be diluted in 6-10 parts of water, the optimum pH value is about 1 for the best performance.

Mantex SP - for cleaning stainless-steel, brass, copper and tin systems. The solution shall be prepared by diluting 1 kg Mantex in 6 liters of water.

Mantex SNO - is especially suitable for heating systems, heat exchangers, cooling circuits and cooling towers that contain components made of light alloys or aluminum. This is a non-corrosive and non-fumigating descaling solution containing special moisturizing, anti-foam and anti-corrosion substances. One part shall be diluted in 6-10 parts of water.

N105 - neutralization salt against the risk of residual acidity. 2% solution shall be prepared that can be added during flushing. When the neutralization process is finished, the optimum pH value of the descaling solution is 7-7.5.

Note: Prior to using any of the above mentioned chemicals, read the information in the respective Instruction Manual.

SAFETY RULES

Never leave the pump unattended during its operation. Use protective means during work (goggles, rubber gloves and an apron), do not eat, do not use open flame and ensure the room is sufficiently ventilated. In case of a contact with skin, flush the spot with plenty of water, in case of a contact with eyes wash with plenty of water and seek medical advice. Make sure the hoses are connected properly and the solution cannot spill out during connecting or disconnecting. Should a leak occur anyway, use the N-105 neutralization salt to treat the spill.
The solution temperature shall not exceed 50 °C permanently.

INSTRUCTIONS FOR USE

First check the composition of the descaling agent to be sure it cannot damage the component to be descaled, then start descaling.

Note: Use only chemical agents recommended by Regulus. Pipes, heat exchangers or systems to be cleaned **must permit the solution to flow through.**

1. Make sure the power supply cable is disconnected from the 230 V el. socket and the main switch (Pos. 2) is off.
2. Unscrew the lid (Pos. 1) with the motor completely and lay it aside carefully. Pour in the chemical agent diluted in water in the recommended ratio (the concentration is shown on the label). The level of the descaling solution in the tank must not sink below one half. Finally screw the lid back and tighten slightly.

3. Disconnect and empty entirely the section of the system to be descaled. Connect and properly tighten the hoses (Pos. 4) to the device (e.g. a heat exchanger) to be descaled. The flow direction does not matter since the pump features a flow diverter (Pos. 8) enabling to change the flow direction.
4. Release the air vent lid (Pos. 7) in order to vent the fumes produced during cleaning (carbon dioxide, CO2). Plug the power supply cord into a 230 V socket, turn on the main switch and observe the fluid in the hoses.

Warning: The maximum uninterrupted running time of the pump is 2 hours. It is necessary to wait for at least 30 minutes before starting again. Failure to respect these limitations may result in a serious damage to the descaling pump.

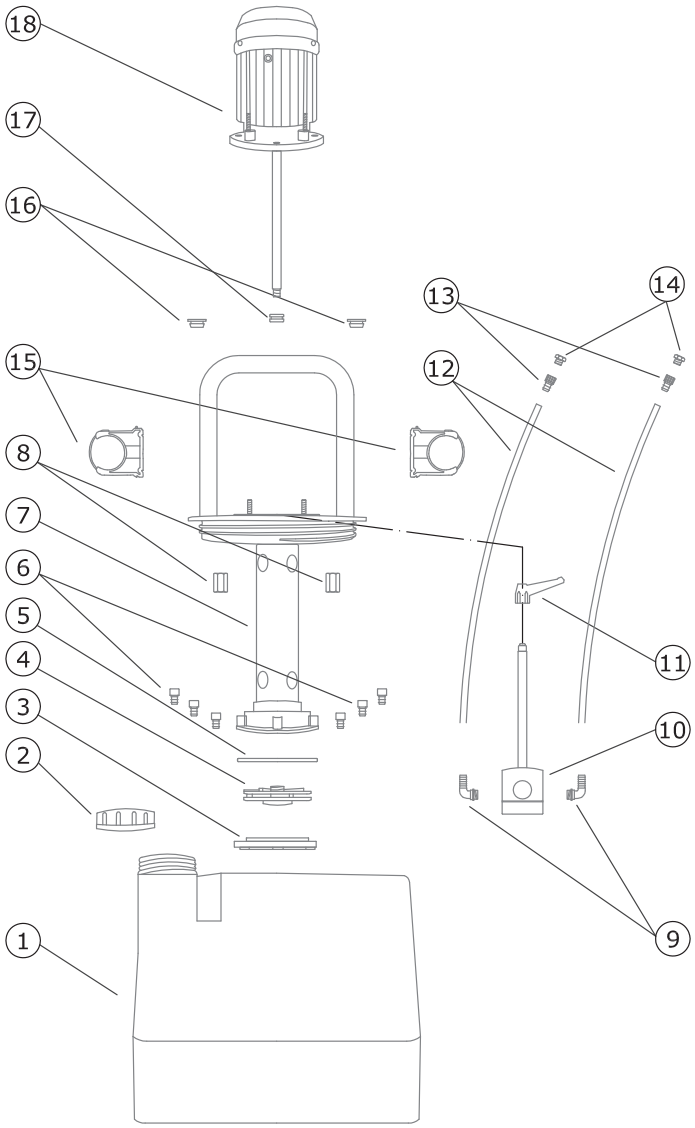
5. The descaling progress can be followed by the solution color visible in the hoses and by bubbles present in the hoses. As soon as bubbles stop appearing, the descaling process is finished. If too much foam is formed in the hoses, stop the pump for about 10 minutes and dilute the solution with water. Descaling will be quicker if you change the flow direction with the flow diverter from time to time.

Note: Heat is released by a chemical reaction during descaling, **make sure the solution temperature does not exceed 50 °C permanently.**

6. The descaling procedure may be considered finished when bubbles stop appearing in the hoses while the solution is still acid (pH about 1). After cleaning is finished, turn off the pump using the main switch (Pos. 2) and disconnect it from the power supply. Then tighten the air vent lid (Pos. 7) and disconnect the hoses. Connect both the hose ends together using the adapter so that no fluid can spill out.
7. If the descaling solution is still efficient, pour it into a properly marked and safely closeable container. The pump shall be thoroughly flushed at the end using a water solution of the N-105 neutralization salt. If the descaled device (e.g. a heat exchanger) is not to be connected to its place in an e.g. heating circuit immediately after descaling, it is recommended to re-connect it to the pump and flush it with the neutralization solution as well.

Warning: Under no circumstances leave the acid solution in the pump's tank – its vapors may cause serious damage to the motor assembly.

The descaling solution may be poured back to the tank of the descaling pump, however only under the condition that the optional blind lid (offered by Regulus) is used instead of the lid with the motor assembly.



Pos.	Code DOS25	Code DOS40	Name
1	1048		PE tank
2	6805	6805	Tank lid
3	1901		Lid with strainer
4	9003	8916	Impeller
4	1445		Impeller with pipe
5	1902		O-ring ø98×3.53, for lid with strainer
6	1903	1903	M6x20 plastic bolt for lid with strainer
7	3709		Pump lid with suction part and handle
7	1195		Opening-free lid for tank t ransport only!
8	1445		M12 plastic nut for lid handle
9			Elbow for 4-way valve
10	11801		4-way valve
11	115		4-way valve lever handle
12			Hose
13			Nipple
14			Nipple plug
15			Hose clamp
16			Hose grommet
17			4-way valve grommet
18			Motor
13+14	1194		1/2" nipple - set
13+14		2857	3/4" nipple - set
9+10+11	3248		4-way valve - complete

WARRANTY CERTIFICATE

DOS 25 V4V and DOS 40 V4V
Descaling Circulation Pumps

WARRANTY CONDITIONS

1. The warranty period is 24 months from the date of purchase.
2. When claiming warranty, this Warranty Certificate must be submitted together with the purchase receipt.
3. The warranty is valid only when the technical conditions set by the Manufacturer, installation manual and instructions in the documentation and on the product itself are maintained.
4. The warranty does not cover defects caused by external conditions or improper operation conditions, defects caused by usual wear and tear, further when the product is not used in compliance with its purpose and when the defect was caused by mechanical damage, improper handling, tampering by a third person, improper installation, improper stocking, natural disaster etc.
5. Warranty conditions are considered violated also in cases when:
   - a not recommended cleaning agent was used
   - excessive concentration of a cleaning agent was used
   - the time of uninterrupted operation was exceeded or a pause was not observed
   - the pump was not flushed with a neutralization solution after finishing the cleaning process

Date of Purchase:.....

Rubber stamp print and signature of the seller:

11/2014

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