

KalkMax 800

Decalcification pump with change-over valve



SANIT-CHEMIE
Reinigungsmittel
und -geräte GmbH
Dieselstraße 38
74211 Leingarten

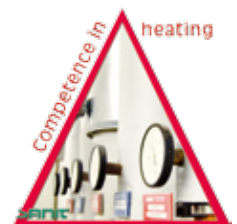
Phone: +49 7131 90210-0
Fax: +49 7131 404360

E-Mail: info@sanit-chemie.de
Internet: www.sanit-chemie.de



Operating Instructions / Safety information

Made by professionals
for professionals





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Use:

SANIT KalkMax cleaning pumps are used for the removal of lime and other residues in boilers, water heaters or heat exchangers.

Function:

The motorised circulating pump of the **SANIT KalkMax 800** pumps the solvent into the circuit by the device to be decalcified (e.g. boiler) and thereby removes lime and rust residues.

System structure:

The **SANIT KalkMax 800** is comprised of the following components:

- Acid-proof plastic container with filling opening and lid. Capacity 20 litres.
- Power cable 2,5 m with plug switch.
- Contact protection, pump chamber cover.
- 2 fabric-reinforced ½" hose lines, each 2 m long, with elbow unions and ¾" union nuts made of brass as a flow and return flow hose.
- Magnetically coupled centrifugal pump (gasket-free) for aggressive fluids.
- Pump design for a continuous operation.

Outer measurements (approx. W x D x H): 54 x 22 x 42 cm

The **SANIT KalkMax 800** is delivered completely ready for connection.

Technical data:		
SANIT KalkMax 800		20-SU
Delivery head max.	mWS	8,0
Flow rate max.	ltr./Min.	30
Container capacity	ltr.	20
Temperature resistance up to	°C	40
Block measurements: Width	mm	540
Block measurements: Depth	mm	220
Block measurements: Height	mm	420
Hose connection	R	3/4"
Speed	rpm	2800
Motor power and protection class		230V/50Hz/60W/IP55



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Safety information:

General

These operating instructions contain fundamental information, which must be observed for operation and maintenance.

Therefore, they must be read prior to commissioning by the engineer and responsible qualified personnel/operators.

They must be constantly available at the operating site of the system. Not only the general safety instructions listed under this section „Safety Instructions“ must be observed, but also the special safety instructions inserted under the other sections.

Marking of information

The safety instructions contained in these installation and operating instructions, the non-observance of which may result in danger to persons, are specially marked with the general danger symbol „Safety symbol DIN 4844-W9“.



Caution: You will find this symbol in the safety instructions, the non-observance of which can cause dangers for the machine and its functions.

Note: Here you will find advice or hints that make working easier and ensure safe operation.

The instructions attached to the **SANIT KalkMax 800** must be observed and kept in a fully legible condition.

Hazards in the event of non-observance of the safety information

The non-observance of the safety information may result in a hazard for persons, as well as for the environment and the system.

Non-observance of the safety instructions can lead to the loss of any claims for damages.

Working with safety-awareness

The safety instructions given in these assembly and operating instructions, the existing accident prevention regulations and any internal work, operating and safety regulations of the company must be observed.

Unauthorised conversion and spare parts production

Modification or alteration of the **SANIT KalkMax 800** are not permitted. Original spare parts and accessories authorised by the manufacturer ensure safety. The use of other parts may void the liability for the resulting consequences.

Inadmissible modes of operation

The operational safety of the system supplied is only guaranteed if it is used as intended. The limit values specified in the technical data must not be exceeded under any circumstances.

The pump must be secured on site and should be connected to an external switch/controller.



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Electrical connection:

The electrical connection must be installed by a qualified expert in accordance with the local Regulations of the EVU or VDE.

Caution: Before commissioning, the pump must be filled with the pumped medium. The pump must be secured on site and should be connected to an external switch/ controller. Ensure that the electrical data on the nameplate corresponds to the existing power supply.

Operation:

Prior to each commissioning, all parts of the pipes must be continuous and connection lines must be checked for damage.

1. Disconnect the device to be decalcified from the water system and drain it, if necessary. Connect the flow hose of the pump firmly to the inlet and the return hose firmly to the outlet of the system. Use of RNK adapters made of plastic.
2. Connect power plug to AC 230V/50Hz.
3. Fill the pump container with mains water, switch on the pump. If water flows back via the return flow, fill container 1/3 to 1/2, then add suitable solvent (note product information and processing example for solvent).
4. The decalcification process can be seen by the formation of bubbles in the return flow hose. As soon as the bubble formation subsides, the deposit is dissolved or the solvents used are used up. The consumption of solvents can be checked using pH paper test strips (see technical data sheets of the solvents used and the corresponding safety data sheets).
5. Switch of the pump after decalcification. After switching off, the used acid will flow back into the tank. Disconnect the hose from the return flow, the remaining solvent will flow into the pump container. The cleaning solution may not be discharged into the sewer system.
Before this, the pH value of the solution must be determined with a pH paper test strip. The solution should have a pH value of 6.5 (see technical data sheets of the solvents used and the corresponding safety data sheets). If the pH value of approx. 6.5 is not reached, the solvent must be neutralized. The neutralized liquid can be poured into the sewer system.



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6. Rinse the empty **SANIT KalkMax 800** thoroughly with water. Afterwards, carry out the passivation.

Passivation of the decalcified device:

- Passivation of cleaned metal surfaces reduces the tendency to corrosion and should be carried out with the appropriate solution according to the manufacturer's description.
 - Check the pH value with indicator paper. If the pH value is between 6.5 and 10, the passivating agent can be disposed of. If the pH value is above 10, lime solvent must be added until the pH value is below 10.
 - Pour the neutralised fluid into the sewer system.
 - Unscrew connection hoses from the device.
7. **SANIT KalkMax 800**-Empty solvent container and rinse thoroughly with water. After finishing work, close the fittings on the free hose ends with the supplied sealing plugs (to prevent liquid leakage).
8. The pump body must also be rinsed with fresh water. It must under no circumstances remain in the acid cleaning solution, otherwise an attack on the metal parts cannot be ruled out.

IMPORTANT NOTE:

Do not operate devices in a dry run!

- During the cleaning process, the filling supports on the container must be open.
- Do not use any open flames
- Do not smoke, ventilate rooms well
- The pump body must not be laid on its side or placed upside-down
- The relevant regulations of the UVV for handling corrosive substances must be observed (bulletin of the Employer's Liability Insurance Association of the Chemical Industry).
- If skin and/or clothing are sprayed, rinse immediately with water, or if necessary, use a 5% sodium carbonate solution.
- Observe the local wastewater regulations when discharging the work solution!

Cleaning solution

The engine power of the KALKMAX decalcification pumps is designed for the viscosity of the tested products. The use of uninhibited and untested acids can cause damage to the pumps.