

Directions for use O8337-EN

Cleaning unit Clean-5

Purpose

Cleaning temperature control units

Precondition



NOTICE!

To clean temperature control units, the software version for the Clean-5 must be newer than SW51-1 1322.



NOTICE!

You must be familiar with the operating instructions for the temperatur control untis to clean it using the Clean-5.

Personal protective equipment

Personal protective equipment must be worn for all work:



Tight-fitting protective goggles

to protect the eyes from splashing of liquids.



Protective gloves

for protection of hands from abrasions, cuts or deeper wounds, as well as to prevent direct contact with hot surfaces, acids and alkalis when handing chemicals.

Procedure



WARNING! Chemical injury hazard!

Depending on the type and dilution, chemicals can cause corrosion, irritate the respiratory system and membranes and can be poisonous if swallowed.

Therefore:

- Only have work with chemicals done by trained personnel.
- Carefully observe general security information for handling chemicals as indicated in the Material Safety Data Sheets.
- Do not mix chemicals.

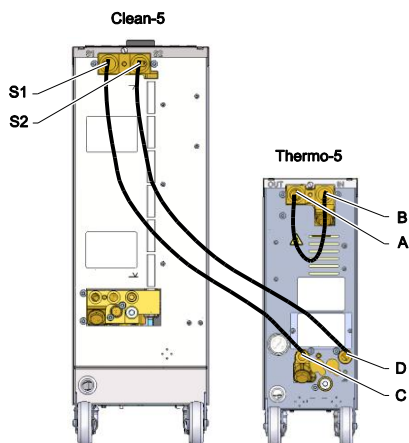


Figure 1: Sample hydraulic connection

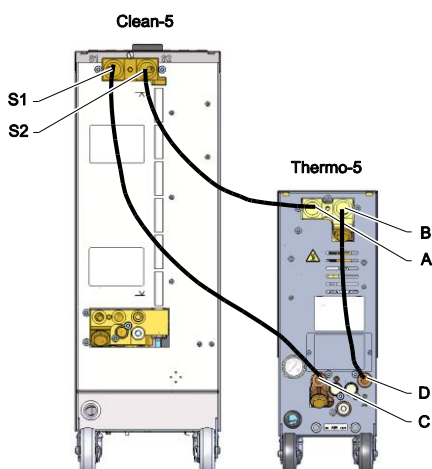


Figure 2: Sample hydraulic connection

1. Set up the heating unit to be cleaned. Remove any hydraulic connections already present.
2. For devices with **X** hydraulics for the Thermo-5 or **D** hydraulics for Series 5 (such as 100**X** or 100**D**):

Prepare hydraulic connections (→ Figure 1) as follows:

- Attach the S1 connection of the Clean-5 to the C connection of the Thermo-5 or Series 4 units.
- Attach the S2 connection of the Clean-5 to the D connection of the Thermo-5 or Series 4 units.
- Attach the A connection to the B connection of the Thermo-5 or Series 4 units.

3. For devices with hydraulics **Z** for the Thermo-5 or with **U** hydraulics for Series 4 units (such as 140**Z** or 140**U**) prepare hydraulic connections (→ Figure 2) as follows:

- Attach the S1 connection of the Clean-5 to the C connection of the Thermo-5 or Series 4 units.
- Attach the S2 connection of the Clean-5 to the A connection of the Thermo-5 or Series 4 units.
- Attach the B connection to the D connection of the Thermo-5 or Series 4 units.

4. Insert the plug for the Thermo-5/Series 4 and the Clean-5 and turn on the main switch.

5. Do a Clean-5 special setting:

- Set [Interval flow inversion](#) to "OFF" under [Setting / Cleaning](#)

| Setting ▶ Cleaning | |
|--------------------------------|------------|
| Cleaning time | 180 min |
| Time of tool rinsing | 10 min |
| Time preservation | 120 min |
| Number of rinses | 3 |
| Delay pressure meas. clean. | 20 s |
| Time of neutralisation | 10 min |
| Temperature max. clean | 60 °C |
| Interval flow inversion | OFF |
| 1 Filling vol. | 1.7 L |
| Pressure | 0.0 bar |
| Ready to operate | |

Fig. 3: Interval flow inversion

6. Do a Thermo-5 special setting:

- Set [Positioning KV 1](#) under [Service / Support](#) to "295" using User profile Support.

| Service ▶ Support | |
|--------------------------|------------|
| Actual value | ▶ |
| Reset custom parameter | |
| Reset system parameter | |
| Reset logbook alarms | |
| Positioning KV 1 | 295 |
| Positioning KV 2 | 0 |
| 1 Main line | 26.7 °C |
| Pressure | 0.0 bar |
| Ready to operate | |


Fig. 4: Positioning KV 1

7. Do a Series 4 unit special setting:

- Set [Offset step motor](#) to "+360" under [Setting / Service / Parameter / Controller](#) using user profile Support.

| Parameter Controller | |
|---|------------|
| D suppression (external) | 0.3 K |
| Filter external sensor | 15.0 s |
| Offset step motor | 360 |
| Ramp heating | OFF |
| ⏪ ⏩ ⏴ ⏵ | |

Fig. 5: Set offset step motor

8. For the Clean-5, start cleaning by pushing the  button.
 - Cleaning will start automatically. Follow the instructions on the Clean-5 screen.



NOTICE!

If the temperature control unit is not operated after cleaning, it is recommended that the unit be preserved using the Clean-5.

- After cleaning, the cleaning results are shown.
9. Turn off the main switch for the Thermo-5/Series 4 and the Clean-5.
 10. Remove the hydraulic connections.