



## Cooling water problems troubleshooting

If you are no longer able to cool down the appliance, during the execution of a test, the following troubleshooting might help:

Possible problem	Possible solution
1. <b>Clogged water filters</b>	<ul style="list-style-type: none"> <li>Ensure the water filter, fitted into the water pressure regulator of the cooling circuit (usually named "RF..."), is clean. Whenever too much dirt settles on the filter's net, the pressure regulator is no longer able to guarantee the necessary water flow rate on the cooling circuit. You should check and eventually clean it (read <a href="#">more</a>)</li> <li>Ensure the water filters of the primary circuit (if present) are clean. Remove the metal net from the body of the filter and eventually clean it (read <a href="#">more</a>).</li> </ul>
2. <b>Cooling water temperature too high</b>	<ul style="list-style-type: none"> <li>Check the temperature of the cooling water entering into the test bench. If this is too hot, the heat exchanger is no longer able to cool down the CH primary circuit. As a general rough indication, the cooling water should be at least 17-18°C lower than the return temperature. (Example: if you are working at 50-30°C on the primary circuit, the cooling water should not exceed 12-13°C).</li> </ul>
3. <b>Cooling water inlet pressure too low</b>	<ul style="list-style-type: none"> <li>Make sure that the cooling water inlet pressure is at least the one indicated in the installation requirements, both in static and dynamic conditions (check the pressure gauge of the water pressure regulator).</li> </ul>
4. <b>By-pass regulation</b>	<ul style="list-style-type: none"> <li>If the cooling circuit or the central heating circuit is fitted with a branch that bypasses the heat exchanger, partially close the manual gate valve of this branch to force the fluid to pass through the heat exchanger.</li> </ul>
5. <b>Pneumatic valve doesn't commute</b>	<ul style="list-style-type: none"> <li>Make sure the pneumatic valves are in a status (open or closed) coherent with the one shown on the screen; a mechanic problem with the pneumatic valves might happen so that they are in a different status the one we are convinced they are. Read <a href="#">Pneumatic valves troubleshooting</a>.</li> </ul>
6. <b>Proportional valve problem (when applicable)</b>	<ul style="list-style-type: none"> <li>Read <a href="#">Siemens MXG proportional valves troubleshooting</a></li> <li>Read <a href="#">Samson proportional vales troubleshooting</a></li> <li>Read <a href="#">How can I clean a Samson proportional valve?</a></li> <li>Contact <a href="#">Microplan Support</a></li> </ul>
7. <b>Obstructions due to limescale in the cooling circuit</b>	<ul style="list-style-type: none"> <li>With the time, and use of the test bench, it happens that limescale accumulates on the pipes' walls and on the heat exchanger. To troubleshoot this problem, execute a cleaning of the circuit using acids in a very low concentration.</li> </ul>
8. <b>Obstructions due to limescale in the primary circuit</b>	<ul style="list-style-type: none"> <li>With the time and use of the test bench it happens that the primary circuit is no longer able to produce the required water flowrate because of the deposit of scale in the pipes, in the heat exchanger or in the valves. As a consequence, the water flow rate in the circuit decreases and the water delta temperature increases. To troubleshoot this problem, execute a cleaning of the circuit. We know other customers clean Microplan test benches with acids in a very low concentration. To obtain a better result some components can be removed from the circuit and cleaned separately (read <a href="#">more</a>).</li> </ul>



Possible problem	Possible solution
<b>9. Ball valve or gate valve partially closed</b>	<ul style="list-style-type: none"><li>• Check manual ball and gate valves in the primary and cooling circuits; if a valve is partially closed, limiting the water flow rate, open it.</li></ul>