

Aquatherm Technical Bulletin

201302A -AQTTB

Updated Pressure Test Procedure

Date Issued: 25 April 2013

As a reminder, the Aquatherm product warranty covers material failures from manufacturer's defects for property damage, personal injury, and financial loss. In the event of failure from a manufacturer's defect, the property damage portion covers the costs of replacing the pipe, as well as other parts of the building that were damaged due to the failure. The personal injury portion covers medical liability in the event that a person was injured due to manufacturer's defect. The financial loss portion covers lost revenue due to inoperation caused by the covered failure and the time needed to repair it. Event-specific coverage amounts are handled by Zurich Insurance in the event of failure due to manufacturer's defect.

Fused connections should be visually inspected upon completion, as described in the Aquatherm Installer Manual. A proper connection will have two even rings or beads of melted PP-R, touching or nearly so, and a visible depth mark to ensure proper insertion. If the beads are uneven, it may be indicative of an error in the fusion. Alternatively, the beads may appear as a flat, smooth surface around the fitting face, with two tick marks 180° apart, indicating the use of a cold ring and chamfer tools.

While still accessible, all pipelines must be pressure tested using water, air, or a combination of the two.

For SDR 17.6 piping compressed air should only be used up to 25 psi max. for preliminary leak testing prior to doing the full hydrostatic testing. Never test SDR 17.6 with air alone. Testing shall be done hydrostatically.

For SDR 7.4, SDR 9 and SDR 11 pipe, the final test pressure must be 1.5 times the operating pressure or 150 psi, whichever is higher. Aquatherm recommends using a hydrostatic test (water only), or filling the piping with water and then using compressed air to achieve the required pressure (air over water). When testing with compressed air, follow all safety precautions and the guidelines specified in Aquatherm Technical Bulletins: 201705A – AQTTB – Aquatherm Piping for Compressed Gases, 201306A – AQTTB – Pressure Testing with Compressed Air.

If the system is comprised either partially or fully of SDR 17.6 pipe, the required minimum pressure can be reduced to 100 psi or 1.5 times the operating pressure, whichever is higher. Again, test only hydrostatically. Do not use compressed air alone.

If the system is a compressed air system, the system must be tested using compressed air alone. The test pressure shall be 150 psi or 1.5 times the intended working pressure. Extreme care should be taken when testing a compressed air system. See guidelines issued in the following Aquatherm Technical Bulletins: 201705A – AQTTB – Aquatherm Piping for Compressed Gases, 201306A – AQTTB – Pressure Testing With Compressed Air.



The pressure test helps find pipe that is defective, connections that are improperly fused, or cracks that have occurred from mishandling. From a cost and convenience standpoint, it is best to find these potential leaks before the system goes into operation, when they are easy to find and repair. Aquatherm requires that the pressure and leak test be completed in order to reduce the risk of leaks and to qualify for the warranty. But it is in the best interest of the installer to perform the test to verify the integrity of his or her work. The requirement for a minimum test pressure further protects the installer by helping to identify and locate any mistakes in the assembly/joining process while still on the jobsite.

The Aquatherm warranty will continue to cover manufacturer's defects on all systems that have been installed by Aquatherm-trained installers and properly pressure tested, including systems that were tested under the old standard.

1. Revised 5 August 2013
2. Revised 25 June 2017