## Pressure testing

According to the **SVGW** and **DVGW,** all potable water systems must be subjected to a pressure test while still visible.

The test pressure must be equal 1 ½ times the operating pressure, or at least 15 bar.

For accurate testing, the installation must be filled slowly and be fully ventilated. Calibrated measurement devices, which show pressure changes in steps of 0.1 bar, should be used for the test.

It should be noted that a temperature change of 10°C causes a pressure change of up to 2 bar, depending on the size of the system.

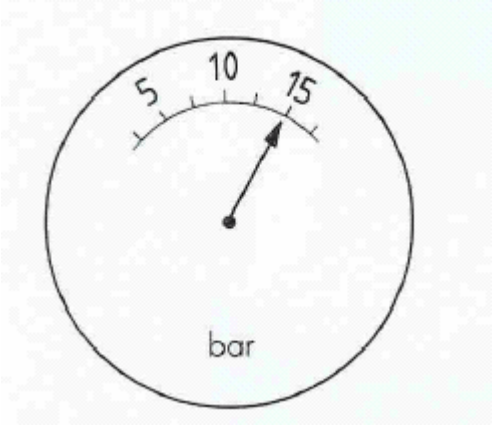
The pressure test should be carried out in two stages:

- **a preliminary test**

and

- **a main test**

## Pressure test




- Testing may take place for compression jointing **immediately** after the last joint has been made.
- For fusion jointing no earlier than **1 hour** after the last fusion joint has been made.

## Preliminary test

The duration of the preliminary test depends on the size of the system, but usually requires about 1 hour and includes the following activities:

- Measurement devices should be installed at the lowest point of the piping system, if possible
- The piping system should be filled with potable water, thoroughly ventilated and separated from the main supply

- Increase pressure with a pressure pump to **15 bar (a)** and repeat over the next 30 minutes (b) and at an interval of 10 minutes 2 more times, pumping back up to 15 bar. After a testing period of another 30 minutes, the testing pressure may not have decreased by more than **0.6 bar (c)**.

The preliminary test is considered successfully completed when there are no leaks and the pressure drop in the last half hour of the preliminary test does not exceed **0.6 bar**.

**Main test**

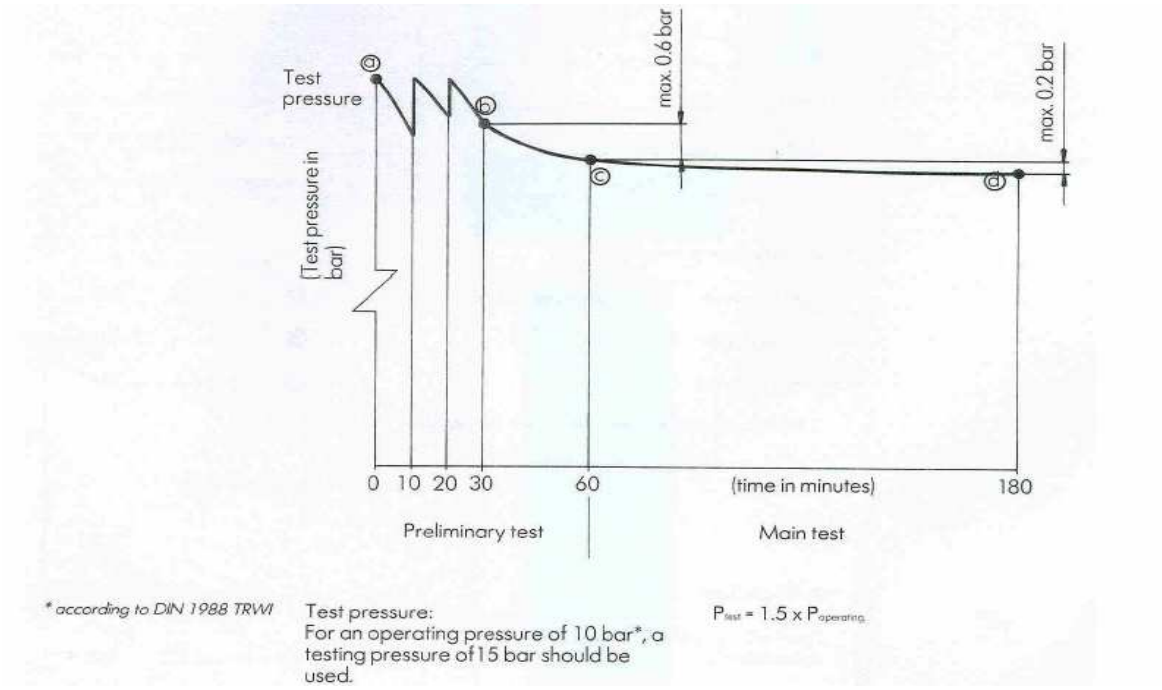
The main test should be carried out immediately following the preliminary test. Its duration is **2 hours**. The test pressure after the preliminary test at point (c) should be recorded.

The main test is considered successfully completed if the test pressure does not sink more than **0.2 bar** (d) from the beginning of the main test and if no leakage is detected.

If the pressure drop is more that **0.2 bar** during the main test, then the whole test must be repeated. There **must not** be any leakage in the system.

**The results of the pressure test should be recorded on a log sheet (see below).**

**Pressure Test Diagram**



**Pressure Test Log Sheet**

For AQUASYSTEM water services installations

Object: _____

_____

_____

**I. Preliminary test**

Test begin at _____ (at least 15 bar) (a) _____bar

Pressure after 30 minutes (b) _____bar

Pressure after 60 minutes (c) _____bar*[1]

*[1] Maximum 0.6 bar less than after 30 minutes

Leakage ☐ yes ☐ no

**II. Main Test**

Start after preliminary test completed a _____ (c) _____bar

Pressure after 120 minutes (d) _____bar*[2]

*[2] Maximum 0.2 bar less than at start

Leakage ☐ yes ☐ no

Installer/ Company

Date _____ Completed by _____