## *Pressure test for sanitary installations (DIN 1988)*


- Use pressure gauges which can measure a pressure difference of 0.1 bar.
- The pressure gauge must be fitted at the lowest point of the installation.
- The installation must not yet be concealed.
- The pipes are filled with filtered water without air.

Two tests are to be conducted, an introductory test and a main test.

***The introductory test***

- The pressure test takes place at a pressure of 15 bar, i.e. the maximum permitted working pressure of 10 bar, plus 5 bar extra.
- The installation must be put under this pressure twice for 30 minutes, with an interval of 10 minutes.
- Then follows another 30-minute test in which the pressure must not drop by more than 0.6 bar (0.1 bar per 5 minutes) and the installation must remain watertight.

***The main test***

- The main test must take place immediately after the introductory test.
- This test must last for 2 hours.
- The pressure measured in the introductory test must not have dropped by more than 0.2 bar after these 2 hours.
- The installation must remain 100% watertight.

## *Pressure test for radiator installation (DIN 18380)*

- The installer must check the sealing of the water pipes before these are concealed with cement, plaster or other materials.
- Use pressure gauges which can measure a pressure difference of 0.1 bar.
- The pressure gauge must be fitted at the lowest point of the installation.
- The heating installation must be put under water pressure and de-aerated (if necessary protected against frost).
- The heating pipe must undergo a pressure test at a pressure 1.3 times greater than the total pressure of the installation (static pressure), with at least 1 bar over-pressure at each point of the installation.
- The pressure test must take place over 24 hours.
- The pressure must not drop by more than 0.2 bar.
- The installation must remain watertight.
- Once the water has cooled down check whether all the pipes and fittings have remained watertight.

## *Pressure tests with AIR*

If there is a risk freezing, the test may not be made with water. In these exceptional cases the test may be made with air with the help of a manual pump by respecting the following directives.

- Pressure test will be 110mbar (max. 200 mbar).
- The volume of the pipe must not exceed 100l (approximately 300m, d25mm). If higher is advisable to test by phases of each 100l.

Hita
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Plastic

# ***PRESSURE TEST INSTRUCTIONS***

## *Fan Coils Installations*

Since there are no specific standards for testing chilled water pipe systems the pressure testing follows the guidelines of standard DIN 18380 or ÖNORM B 8131 for pressure testing of radiator systems.

Location: _____

Project: _____

Operating pressure: _____

**TEST**

The testing pressure for the pipe system should be equal to 1,3 times the operating pressure and should also be a minimum of 1 bar above the operating pressure at each of the points in the system being tested. The manometer should be capable of reading changes in pressure of 0,1 bar and should be placed, if possible, at the lowest point of the section of piping being tested.

After the testing pressure has been obtained time must be allowed for temperature equalization. Afterwards the pressure must be returned to the testing pressure to compensate for any drop in pressure which has occurred in the meantime.

All equipment and faucets which are not suited for the testing pressure should be removed from the system before testing. The system is filled with filtered water and the air completely removed. During the test there should be a visual check of each pipe joint.

The testing pressure must be maintained for 2 hours and should not drop by more than 0,2 bar. There should be no leakages.

**Calculated test pressure:** _____ **bar**

**Testing time:** _____ **hours**

☐ **During the time of the test there was never a drop in pressure ≥ 0,2 bar.**

The system contains the following anti-freeze agent: _____

☐ For safety reasons the system was therefore emptied completely.

**Confirmation**

Person in charge: _____

Date: _____ Time: from _____ to _____

Customer: _____

***Signature / stamp***

## ***Warranty***

**For HTPpush & HTPpush3.2 fittings**

Limited Warranty: HITA TECHNOLOGY OF PLASTIC SYSTEMS s.l. warrants by means of its Liability Insurance Policy to the property owners and succeeding owners that the Products above mentioned shall be free from defects in material and workmanship, under normal conditions of use and for the applications stated in the respective manufacturing regulations.

This limited warranty shall expire in: **Ten (10) years.**

HTP shall grant the above mentioned warranty to the installation contractor in the event that the owner of the building asserts any claim against the installation contractor. This warranty shall be valid only if completed in full, signed and countersigned by HTP, and a warranty number is assigned by the HTP sales office. The warranty must be returned to HTP for confirmation within three months of the date of the system being put into operation.

Hita Technology of Plastic Systems s.l. must receive written notification of a believed failure within the applicable warranty period, and within thirty (30) days of the believed breach.

Emergency repairs may be carried out by the Property Owners and / or respective installer without notification. Should this occur, HTP, does not acknowledges any responsibility in relation to what might have originated the mentioned emergency repairs. Documentation on failures and likely causes must be provided to HTP including components and acceptable length of pipe claimed to be defective. In the case of pipes, provided samples shall show all original marking on the pipe surface. In the case of fittings, protective bags will be provided if possible. HTP will repair or replace any pipe or fittings, which are proven to be defective.

Also, HTP shall pay, for consequential damages proved to be caused by any defective product of the ones listed above, up to a maximum of One million Euro (€ 1,000,000) per incident. This limited warranty applies only as per stated in this document and if the articles sold hereunder:

(a) are not exposed to temperatures, pressures or temperatures and pressures that exceed the limitations printed on the pipe, or limitations stated in the manufacturers specification or limitations stated in the product regulations,
(b) remain in their originally installed location,
(c) show no evidence of mishandling, or accidental damage as a result of water freezing in the pipes, or use of chemicals other than those acceptable for potable use or listed by HTP.
(d) are installed in accordance with HTP's instructions or its technical manuals or technical literature.
(e) are installed and a valid, fully filled in and signed in Pressure Test Record form is provided.
(f) the Limited Warranty Declaration jointly with the valid Pressure Test Record Form are submitted to HTP via fax ( **+34 958 571 141** ) or via e-mail ( **info@htp-systems.com** ).
This must have occurred before the date specified on the installer's own installation report / form / bulletin.

This warranty does not extend to parts, materials or equipment not manufactured by Hita Technology of Plastic Systems s.l.

| | |
|---|---|
| Building Owner : | |
| Building Project : | |
| Installation Contractor : | |
| Consulting Engineer : | |
| Installer company : | |
| Installation completed on : | |
| System put into operation on : | |

Type HTP fittings ☐ HTPpush ☐ HTPpush 3.2

*This portion is completed by HTP.*

*Certificate Nº*
*Date of Issue*

*Signature & Stamp HTP headoffice*