PRESSION

SYSTEM'O®

ONE SINGLE SYSTEM FOR DIFFERENT NETWORKS

Domestic Hot and Cold Water Services

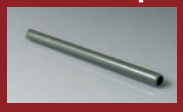
GIRPI

safety for your pipeworks

SYSTEM'O®

One complete system
for domestic hot and cold water services

- **HTA® Pipe** The solution for domestic hot water systems



- **HTA®-F** Pipe The solution for domestic cold water systems

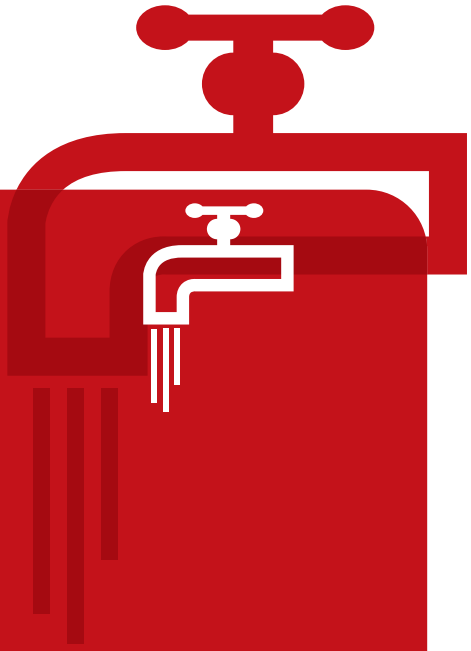
- **One single range of fittings**

- **One single welding polymer**

SYSTEM'O®

NO RISK OF CONFUSION ON SITE

SIMPLIFIED SOURCING



NETWORK DESIGN, MATERIALS SELECTION AND MAINTENANCE:

Safety of pipeworks goes through good design, wise materials selection and thorough maintenance of systems.

Experts recommend 3 fundamental lines of action to effectively restrict bacteria development in water pipeworks
(sources: French Technical Water Guide for Public Health Buildings, The Design and Construction Guide of the Centre Scientifique et Technique du Bâtiment (Scientific and Building Methods Centre), the notice of the Conseil Supérieur d'Hygiène Publique de France (French Superior Public Health Council), the DHOS/E4/DGS/SD7A N°2005-417 circular dated 9 September 2005 of the French Ministry of Health and Social Solidarity):

- **Avoid stagnation and provide effective water circulation.**
- **Fight against scaling and corrosion with design and maintenance appropriate for water quality and the specifications of the system.**
- **Keep the water in the pipeworks at a high temperature or be able to raise the temperature punctually.**

Treatment for domestic water systems may be used in addition to these measures: chlorine shock, continuous chlorination, temperature elevation (70° for 1/2 hour).

SYSTEM'O® is compatible with all these lines of action, making them easy to carry out.

Effective prevention of biofilm development

SYSTEM'O®

Biofilm is a bactery colony that adheres to the internal surfaces of pipes. The interface between the water and the pipe material is an ideal spot for bacteria cells, organic matter and bacteria to build up and develop.

Many tests have been conducted in Europe by official laboratories (e.g: KIWA for The Netherlands, CRECEP for France, etc.) in order to evaluate the effect of biofilm formation on various types of materials.

Studies show that C-PVC (of which HTA is composed) is one of the materials which contribute least to biofilm expansion.
They also demonstrate that no material can prevent the formation of biofilm.
Biofilm formation can be efficiently restricted by adequate system design, and by selecting materials which help limitate corrosion and scaling.

The selected material must also be able to withstand chemical treatment (continuous chlorination or chlorinated shock) and punctual temperature increases to optimise the results: SYSTEM'O® perfectly meets these constraints.

Scale and corrosion help the formation of bacteria and restrict the effectiveness of preventive and curative treatments.

SYSTEM'O® helps prevent these aggravating factors.

BACTERIA DEVELOPMENT:

A PROBLEM IN DOMESTIC HOT AND COLD WATER NETWORKS

Maintaining water quality in supply systems is an absolute priority. A requirement that applies to all public buildings, housing etc., as well as to all healthcare buildings.

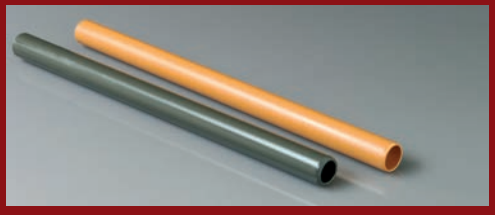
From now on water quality must be ensured for water supplied through supply mains right up to the user's tap for cold water as well as hot water.

The proliferation of bacteria in water mains can become a health risk, especially for the most vulnerable people.

Here are some of the best known bacteria:
Legionella bacteria develop in water pipeworks where the temperature varies between 25 and 45°C. Sludge, corrosion or scale in pipes are aggravating factors in the formation of these bacteria.

Pseudomonas bacteria develop in domestic cold water pipeworks and are the cause of 10 to 20% of nosocomial infections.
Raising the water temperature is the only effective way to eradicate them.

Cold water and **hot water**
both systems must be able to withstand:
- Chemical treatment
- Heat treatment



SYSTEM'O®

16 strong assets

1. A COMPLETE SYSTEM FOR DOMESTIC HOT AND COLD WATER SERVICES

2. A COST EFFECTIVE SOLUTION

3. NO RISK OF CONFUSION

- 2 pipes
- 1 single range of fittings
- 1 single welding polymer

4. FIRE CLASSIFICATION

SYSTEM'O® is Bs1d0 rated (Euroclasses) non flammable, no smoke, no flaming drops.

5. NO CORROSION

SYSTEM'O® is not susceptible to corrosion thus guaranteeing that your systems are sustainable and waterproof.

6. LIMITS SCALING

One of the aggravating factors in bacteria formation.

7. MAKES THE FIGHT AGAINST BACTERIA EASIER

8. MATERIAL WITH ONE OF THE POOREST BIOFILM DEVELOPMENT POTENTIALS

9. SUITABLE FOR CHEMICAL AND HEAT TREATMENT FOR BOTH HOT AND COLD WATER

10. OPTIMAL WATER FLOW

The smooth internal surface of SYSTEM'O® reduces frictional losses, prevents furring and scaling.

11. INSTALLATION TIME UNDER CONTROL

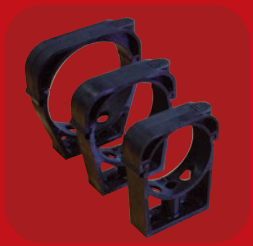
A professional solution enabling easy installation works even on occupied sites

- Lightweight pipes.
- Simple tools.
- No fire permit required for installation.

12. SAFE JOINTS:

- Easy visual seal quality check
- Specific application tools
- High performance joints

13. DEDICATED BRACKETING:



A wide range of Monoklip pipe brackets (ø 16 to 160 mm), fully appropriate for supporting SYSTEM'O®.

14. LOW NOISE SYSTEM'O PIPES

15. RECYCLING FRIENDLY SYSTEM'O®

is over 98% recyclable.

16. DURABILITY/WATERTIGHTNESS

Designed for a 50 year working life according to ISO 10508.

Consult our SYSTEM'O® technical documentation available on our website

www.girpi.com

CHOOSE SAFETY

FRENCH AND EUROPEAN CERTIFICATES

- **Certificate of Health Conformity (ACS): French drinking water certification**
- **ATEC N° 14/13-1924: French Technical Evaluation**
  ATEC covers the whole system: pipes, fittings and welding polymer.
- **UBATC: Belgium**
- **WRC: Great Britain**
- **Germanischer Lloyd: Germany**
- **RINA: Italy**
- **AENOR: Spain**
- **ITC: Czech Republic**
- **Fire rating:**
  Bs1d0 (Euroclasses)
- **EPD:**
  Environmental Performance Declaration

SYSTEM'O®

The safety

For your Domestic Hot & Cold Water Services

System safety

Mechanical strength
Proven reliability
Leakproof
Corrosion free
Optimized hydraulics
Designed to last 50 years
Performance certified by ATEC (Technical Evaluations) and CSTBat (French certification from Centre Scientifique et Technique du Bâtiment – Scientific and Building Methods Centre)

Fire safety

Bs1d0 (Euroclasses)
B: non flammable
s1: no smoke
d0: no flaming drops
Performance certified by the LNE (Laboratoire National d'Essai – French National Testing Laboratory)

Water safety

Limitates aggravating factors in bacteria formation (scale, corrosion)
Adapted to chemical treatment
Adapted to heat treatment
Water quality maintained
Certificate of Health Conformity (ACS): French drinking water certification

Environmental safety

Recycling: SYSTEM'O® is over 98% recyclable
Meets High Environmental Quality Requirements
GIRPI is ISO 14001 certified

Visit our website **www.girpi.com**

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