



EURAPIPE K-FLO

Pre-insulated ABS Piping Systems



Condensate Water
Chilled Water
Sub Zero Fluids

K-FLO
Pre-insulated piping systems

EURAPIPE K-FLO

The market leader in HVAC pipe systems

Eurape K-FLO ABS pipe systems have forged market leadership in heating and ventilation (HVAC) markets by providing a unique suite of benefits and clearly superior performance.

- ✓ **Corrosion/Scale Resistant**
- ✓ **High Impact Strength**
- ✓ **50 Year Design Life**
- ✓ **Light Weight**
- ✓ **Low Thermal Conductivity**
- ✓ **Smooth Bore**
- ✓ **Low Maintenance**
- ✓ **Resilience to Water Hammer**
- ✓ **UV Resistant**
- ✓ **Ease of Installation**
- ✓ **Halogen Free**
- ✓ **Low Embodied Energy**

Product and Technical Support

Euratech Industries provides an unparalleled range of sizes and fittings coupled with innovation and high levels of engineering support throughout selection, design, installation and commissioning.

This level of support and dedication gives secure project delivery with peace of mind.

Successful projects delivered throughout the world are testimony to Euratech Industries's attention to all phases of a projects life.

Quality Assurance

Eurape K-FLO ABS pipes are manufactured in manufacturing facilities under the approval of ISO 9001: 2008 Quality Management Systems - Requirements.



Certificate Number:
SIRIM= PE000801



Certificate Number:
SMK02762



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Condenser Water Systems

The flow and return of condenser water between cooling towers and chiller units need to carry water at temperatures typically between 15° C and 40°C. This water is treated with chemicals to control the growth of Legionella and microbiologically induced corrosion (MIC).

When metallic pipes are nominated for this application, a scenario for corrosion and premature failure can be initiated.

Eurapipe K-FLO ABS offers a cost effective alternative to traditional metallic pipes for this application. ABS will not corrode and is unaffected by dosing chemicals typically used for the control of Legionella and MIC.

The extremely smooth bore of ABS pipes is maintained throughout the life of the system containing running cost and the efficiency of the building.

ABS is resistant to the effects of strong sunlight and retains its high ductility across a wide operating range.

The 'cut and shut' cold solvent cement welded joining system is quick and easy to install in new and existing buildings. It offers high security leak proof installation. Cold solvent cement welding requires no "hot ticket"

Installations using Eurapipe ABS include:

- ✓ Federation Square – Melbourne
- ✓ Fox Studios – Sydney
- ✓ Police Headquarters – Perth
- ✓ Crown Promenade Hotel – Melbourne
- ✓ Sharjah Mega Mall – Sharjah
- ✓ Al Murooj – Dubai UAE
- ✓ Century Tower – Dubai UAE
- ✓ International Terminal – Brisbane

Surface Roughness (Colebrook – White)

Pipe System	New	Old
ABS	0.003	0.003
Cast Iron	0.01	0.26
Steel	0.03	0.13
Stainless	0.003	0.015



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Chilled Water

From chiller units, chilled water is distributed to all points in the building where temperatures need to be controlled. These systems are usually sealed and are less vulnerable to corrosion and bacteria.

ABS is an ideal material for this application. Distributing chilled water throughout the building requires high integrity pipe work. ABS withstands low temperatures, retaining high impact strength. Solvent cement welding delivers high security to the system.

ABS has exceptional insulating properties. This will deliver savings in insulation of pipes, pipe supports and provide space savings in confined risers and ceiling spaces.

Thermal Conductivity (W/mK)

Materials	ABS	Cu	Steel	SS
Coefficient	0.250	365	64	16

The simplicity of the cold solvent cement weld joining system (low labour skills and minimal equipment) and the range of fittings contribute to rapid (3 times faster than steel), competitive installations.



Examples of ABS in Chilled Water applications

- ✓ Treasury Casino – Brisbane
- ✓ Domestic Terminal – Brisbane
- ✓ 54 Miller Street – Sydney
- ✓ National Stadium – Taipei
- ✓ Meridian Hotel – Dubai UAE
- ✓ Grand Hyatt – Jakarta
- ✓ Hilton Resort – Kuwait
- ✓ Al Dana Hotel – Bahrain
- ✓ Edith Cowan University – Perth



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Sub Zero/Secondary Refrigeration

Cold storage and low temperature industrial processes require the reticulation of liquid at sub zero temperatures. The energy efficient transfer requires a completed installation that will maintain the sub zero temperature without heat gain. The pipe work has to withstand the low temperatures without loss in mechanical performance maintaining ductility.

To achieve the low temperatures an anti freeze solution needs to be added and this must not chemically corrode or attack the pipe material.



Installations using Eurapipe K-FLO ABS in sub zero conditions include:

- ✓ **Weiss Foods – Brisbane**
- ✓ **Southcorp – Victoria**
- ✓ **De Bortoli Winery – Melbourne**
- ✓ **Yamasa Seafood – Melbourne**

Eurapipe K-FLO ABS exhibits properties that comply with these needs and provide advantages over other plastic and metallic pipes. The insulating properties allow insulation to be reduced or in some cases eliminated.

Eurapipe K-FLO ABS maintains a high level of ductility and integrity to temperatures as low as -30 degrees Celsius and is chemically resistant to most anti freeze solutions.



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K-FLO - Pre-Insulated Pipe

Originally conceived for district heating systems, pre-insulated pipes are now, as the need for an environmentally friendly method of cooling communities, being incorporated into district cooling systems around the world.

Whilst the initial cost of pre-insulated pipes is greater, the reduced installation cost, greater energy efficiency and maintenance free service life make the Eurapipe K-FLO System a world leader in pre-insulated plastic pipes for district cooling.

K-FLO incorporates an ABS carrier pipe able to convey water at low temperatures without jeopardising pipeline integrity.

The ABS carrier pipe is layered in a high quality closed cell polyurethane insulation and jacketed in with an ABS outer shell.

The system is joined using cold solvent welding, an easily mastered and quickly completed permanent weld. Cold solvent cement welding is the cornerstone to the high integrity that K-FLO exhibits to the system joint security.



Uniquely, when site joining is completed no post insulation is needed at joints. All pipes and matching fittings butt strongly together requiring only a quick and easily applied heat shrink sleeve. Clearly this approach in design brings about site savings and long lasting energy efficiency.

Because ABS has a very low heat transfer coefficient, insulation thicknesses can be reduced compared with metallic pipe system.

Installations utilising K-FLO include:

- ✓ **Waterfront – Kuwait**
- ✓ **Al Dana – Bahrain**
- ✓ **Green Community – Dubai UAE**
- ✓ **Aga Khan University – Pakistan**
- ✓ **Castle Hill Museum of Art – Sydney**
- ✓ **Liverpool STP– Sydney**
- ✓ **Al Murooj – Dubai**



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