KRYOCLIM®

A complete solution for chilled fluids
Secondary refrigeration and comfort cooling

GIRPI

safety for your pipeworks

an Aliaxis company

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Secondary refrigeration and comfort cooling

KRYOCLIM®

The KRYOCLIM® pipework system was designed to carry out all secondary (indirect) refrigeration and comfort cooling installations between -30°C and +40°C

Centralised comfort cooling in residential and commercial buildings

- comfort cooling alone
- comfort cooling combined with electrical heating (2 pipes, 2 electrical wires):
  - connection with chilled water generator, chilled water cooled floors
  - distribution through chilled water beams
  - fan-coil units
  - chilled water cooled ceilings
  - centralised air conditioning and treatment

Industrial applications

- machine cooling (for process units & production lines)
- air conditioning in production workshops, storage warehouses

Food industry

- refrigeration in storage warehouses, centralised kitchens, supermarkets...
- food processing industry

The KRYOCLIM® pipework system must never be used to convey primary cooling circuit fluids such as HFC, HCFC and CFC (direct cooling).
The KRYOCLIM® pipework system is compatible with most secondary cooling circuit fluids available on the market for indirect cooling (e.g. water + brine, water + glycol).
For more information, please consult our technical documentation.
Phenolic foams can provoke stress corrosion cracking phenomena on brass components. Please contact foam manufacturers for instructions.

Made from HPF®, a state of the art synthetic material designed to offer excellent physical and chemical properties at very low temperatures, the KRYOCLIM® pipework system features many advantages for secondary / indirect refrigeration and comfort cooling applications between –30°C and +40°C.

The KRYOCLIM® pipework system offers many advantages to meet the requirements of chilled water networks

- Respect of legal obligations where applicable (e.g. in France: CH25, CH35)
- Corrosion free
- Low thermal losses
- Easy to install on both new build and renovation projects
- Ease of installation on occupied sites
- Reduced maintenance
- Pipeworks easy to extend

- **TARGETS OF THE "HIGH ENVIRONMENTAL QUALITY" (H.E.Q. / H.Q.E.) EUROPEAN INITIATIVE, LAUNCHED TO DISTINGUISH ENVIRONMENTALLY FRIENDLY BUILDINGS:**
- **CONTROL IMPACTS ON THE EXTERNAL ENVIRONMENT**
- **ENVIRONMENTAL CONSTRUCTION**
  1. Relation between buildings and their immediate environment
  2. Integrated choice of building techniques and materials
  3. Reduce nuisances on building sites
- **ENVIRONMENTAL MANAGEMENT**
  4. Energy management
  5. Water management
  6. Building scrap management
  7. Maintenance management
- **CREATE A SATISFACTORY INTERNAL ENVIRONMENT**
- **COMFORT**
  8. Hygrothermal comfort
  9. Acoustic comfort
  10. Visual comfort
  11. Olfactive comfort
- **HEALTH**
  12. Space quality
  13. Air quality
  14. Water quality

The KRYOCLIM® pipework system can help you meet most of those demands – see last page.

KRYOCLIM®

The 15 main assets of the KRYOCLIM® pi

1. A COMPLETE SYSTEM FOR CHILLED WATER SERVICES
Pipes, fittings and accessories from Ø20 to Ø200.

2. NO CORROSION
Being non corrodable by nature, KRYOCLIM® does not require film forming protective treatments inside, and corrosion protective paint outside. Your corrosion-free pipeworks thus remain durable and watertight.

3. FIRE CLASSIFICATION
KRYOCLIM® is Bs2d0 rated (Euroclasses classification), an excellent fire reaction for a synthetic material. KRYOCLIM® meets the requirements of CH25 and CH35 regulations.

4. INSTALLATION TIME UNDER CONTROL
The KRYOCLIM® solution facilitates installation even on occupied sites. Lightweight pipes, easy to handle (6 times lighter than steel), a simple set of tools, no fire permit required, no noisy operations, no dust on site, no pollution of other pipeworks, no need for electricity supply.
Technical assistance available.

5. SAFE JOINTS


Easy visual seal quality check, specific application tools, high performance joints.

6. REDUCED MAINTENANCE

7. EASILY IDENTIFIABLE PIPEWORKS

8. EASY TO EXTEND
No risk to deteriorate neighbouring networks (e.g. electric or IT cables).

9. HIGH IMPACT RESISTANCE
Even at very low temperatures.

10. LIMITED CONDENSATION
Thanks to its higher pipe surface temperature as compared to metals, KRYOCLIM® limits temperature drops below dew point, an ideal asset for air conditioning applications (chilled beams).



pework system

11. ENERGY SAVINGS

With its low thermal conductivity (lambda coefficient = 0,17 W/mK), KRYOCLIM® reduces heat losses up to 30% as compared to non insulated steel.

12. REDUCED PRESSURE LOSSES & FRICTIONAL LOSSES

13. NON PERMEABLE

KRYOCLIM® is non permeable to oxygen, which prevents the formation of sludge deposits.

14. DEDICATED BRACKETING

GIRPI offers a wide range of MONOKLIP® pipe brackets and thermal insulation rings, fully appropriate for supporting KRYOCLIM®.

15. RECYCLING FRIENDLY

KRYOCLIM® is made from HPF®, a completely recyclable material.

Choose safety

A FULLY CERTIFIED SYSTEM

- ATEC N° 14/09-1443 Technical Evaluation Certificate for the whole system's performances: pipes, fittings and welding polymer
- Bs2d0 fire rated (Euroclasses classification)
- A system that meets the demands of the High Environmental Quality scheme (HQE)

KRYOCLIM®

A complete range in diameters from 20 to 200mm. Whether for new buildings or renovation works, KRYOCLIM® features a wide range of articles to choose from in order to meet your requirements and allow for optimal installation works. KRYOCLIM® was developped to convey fluids such as water-glycol solutions, water-brine solutions, chilled water, etc...

DESCRIPTION	Ref.	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø75	Ø90	Ø110	Ø160	Ø200
Pipes chamferred at both ends in 4 meter lengths 	*TUBF*	■	■	■	■	■	■	■	■	■	■	■
Elbows 90° 	*F4M*	■	■	■	■	■	■	■	■	■	■	■
Elbows 45° 	*F8M*	■	■	■	■	■	■	■	■	■	■	■
Couplings 	*FMA*	■	■	■	■	■	■	■	■	■	■	■
Equal tees 90° 	*FTE*	■	■	■	■	■	■	■	■	■	■	■
Caps 	*FBO*	■	■	■	■	■	■	■	■	■	■	■
Plain nipples 	*FMC*	■	■									
Serrated stub flanges 	*FCS*	■	■	■	■	■	■	■	■	■	■	■
Tees reduced 90° 	*FTR*		20	20 25	20 25 32	20 25 32 40	20 25 32 40 50	20 25 32 40 50 63	25 32 40 50 63 75	25 32 40 50 63 75 90		
Reducing tee with male threaded brass insert 1/2" 	*FTFRL*			■	■	■	■					
Reducing tee with male threaded brass insert 3/4" 	*FTFRL*			■	■	■	■					
Reducing bushes short pattern 	*FRS*		20	25	32	40	50	63	75	90		160
Reducing bushes long pattern 	*FRD*			20	20 25	32	25 32 40	40 50	40 50 63	50 63 75	75 90 110	
3 piece unions 	*F3P*	■	■	■	■	■						

DESCRIPTION	Ref.	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø75	Ø90	Ø110	Ø160	Ø200
3 piece unions KRYOCLIM®-brass												
SOC. x female brass thread	*F3G/L*	■	■	■	■	■	■					
SOC. x male brass thread	*F3F/L*	■	■	■	■	■	■					
Threaded fittings Female adaptor (brass thread)	*FMML*	■	■	■	■	■	■	■	■			
Threaded fittings Male adaptor (brass thread)	*FEAL*	■	■	■	■	■	■	■	■			
Condensate recovery coupling	*APC*			■	■							
Adaptors For measuring accessories with1/2" thread	*FMIL*									■	■	
For measuring accessories with 3/4" thread	*FMIL*									■	■	
Ball valves Application: for air conditioning >5°C	*VFCEP*	■	■	■	■	■	■					
Ball valves Application: air conditioning >5°C	*VFFEP*							■	■	■		
PVDF Ball valves from -30°C to +5°C	*VFP*	■	■	■	■	■	■					
Monoklip® brackets	*HCK*	■	■	■	■	■	■	■	■	■	■	
Insulating sleeves Ø16 to Ø110 – 45 mm wide (rigid internal layer)	*FB*	■	■	■	■	■	■	■	■	■		
Welding polymer 250 ml tin + applicator or 1 l can + applicator	*HPFIX*	■	■	■	■	■	■	■	■	■	■	■

Caution!

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Complete system Reliable pipeworks

- Corrosion free
- High impact resistance
- Safe joints
- Long design life
- Bs2d0 fire rated (Euroclasses classification)
- Limited sludge formation
- Non permeable to oxygen

A system that meets the demands of the High Environmental Quality scheme (HQE)

- Limited condensation > meets objective N°3 of HQE
- Reduced nuisance on site > meets objective N°3 of HQE
- Reduced pressure losses > meets objective N°4 of HQE
- Reduced thermal losses > meets objective N°4 of HQE
- Recycling friendly: KRYOCLIM® is made from HPF® , a completely recyclable material > meets objective N°6 of HQE
- Recycling partners available. To obtain a list of collection points, please consult: http://recovinyl.com/certified_recyclers > meets objective N°6 of HQE
- Reduced maintenance > meets objective N°7 of HQE
- Limited condensation > meets objective N°10 of HQE

Technical advantages

- Reduced maintenance
- Installation times under control
- Technical Assistance
- No environmental damage during installation: no external pollution (no melting metal projection, no dust), no internal pollution (no carbon deposits, no filings)

RCS LE HAVRE B 719 803 249 - FDVALA - 01/10 - 3 000 exemplaires

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GIRPI
safety for your pipeworks
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