

Installation and maintenance manual
Manuel d'installation et de maintenance
Installations- und Wartungshandbuch
Manuale di installazione e di manutenzione
Manual de instalación y de mantenimiento



English

Français

Deutsch

Italiano

Español

140 litre buffer tank
Ballon tampon de 140l
140 l Pufferspeicher
Palla tampone da 140 l
Acumulador intermedio de 140 l

IOM PAC 02-N-3ALL

Part number / Code / Teil Nummer / Codice / Código : **3990559**
Supersedes / Annule et remplace / Annulliert und ersetzt /
Annulla e sostituisce / Anula y sustituye : **IOM PAC 02-N-2ALL**



INSTALLATION INSTRUCTION

NOTICE D'INSTALLATION

INSTALLATIONSHANDBUCH

ISTRUZIONI INSTALLAZIONE

INSTRUCCIONES DE INSTALACIÓN

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GENERAL RECOMMENDATIONS

Please read the following safety precautions very carefully before installing the unit.

SAFETY DIRECTIONS

Follow the safety rules in forces when you are working on your appliance.

The installation, commissioning and maintenance of these units should be performed by qualified personnel having a good knowledge of standards and local regulations, as well as experience of this type of equipment.

The unit should be handled using lifting and handling equipment appropriate to the unit's size and weight.

WARNING

When making the hydraulic connections, ensure that no impurities are introduced into the pipe work.

The manufacturer declines any responsibility and the warranty becomes void if these instructions are not respected.

If you meet a problem, please call the Technical Department of your area.

In order to become fully familiar with the appliance, we suggest to read also our Technical Instructions.

The information contained in these Instructions are subject to modification without advance notice.

INSPECTION AND STORAGE

At the time of receiving the equipment carefully cross check all the elements against the shipping documents in order to ensure that all the crates and boxes have been received. Inspect all the units for any visible or hidden damage.

In the event of shipping damage, write precise details of the damage on the shipper's delivery note and send immediately a registered letter to the shipper within 48 hours, clearly stating the damage caused. Forward a copy of this letter to the manufacturer or his representative.

Never store or transport the unit upside down. It must be stored indoors, completely protected from rain, snow etc. The unit must not be damaged by changes in the weather (high and low temperatures). Excessively high temperatures (above 60 °C) can harm certain plastic materials and cause permanent damage.

WARRANTY

Any modification to the units without the manufacturer's prior approval, shall automatically render the warranty null and void.

The following conditions must be respected in order to maintain the validity of the warranty:

- Commissioning shall be performed by specialised technicians from technical services approved by the manufacturer.
- Maintenance shall be performed by technicians trained for this purpose.
- Only Original Equipment spare parts shall be used.
- All the operations listed in the present manual shall be performed within the prescribed SCHEDULE.



THE WARRANTY SHALL BE NULL AND VOID IN THE EVENT OF NON-COMPLIANCE WITH ANY OF THE ABOVE CONDITIONS.

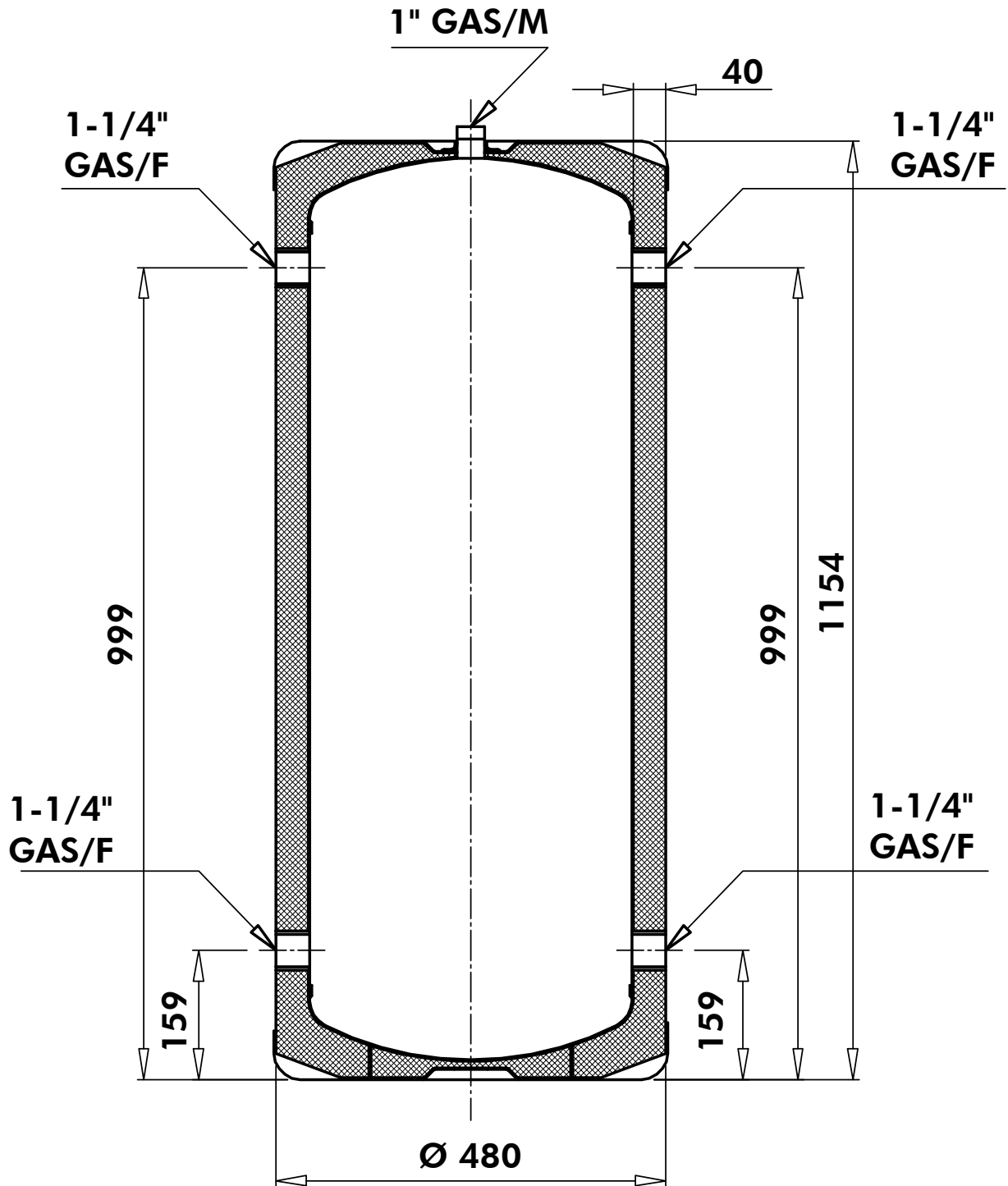
PRODUCT PRESENTATION

The buffer tank is required when the volume of water in the installation is insufficient for correct system operation. It protects the PAC from the effects of short-cycling that would harm the compressors service life. It also improves operation during de-icing phases.

This tank can be used as a mixing tank. In this case, the actual volume of water used in the installation is only 70 litres.

This tank is insulated with CFC-free polyurethane foam and is equipped with 4 water circuit connection points (1"1/4) and a drain outlet (1"). The tank is intended only for floor-standing installation.

DIMENSIONS



35kg (dry weight)

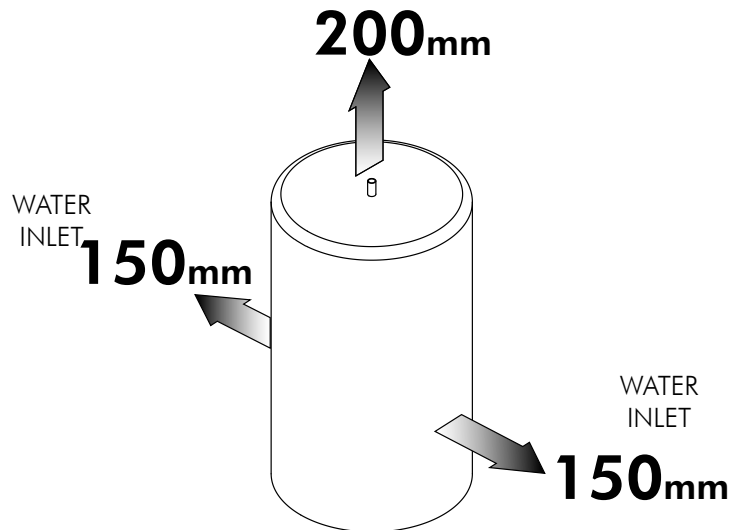
Tank capacity: 140l

INSTALLATION



The buffer tank is not designed to withstand weights or stresses from adjacent equipment, pipe work or constructions. Any foreign weight or stress on the unit structure could lead to a malfunction or a collapse with dangerous consequences for personnel and property. In such an event, the warranty shall be null and void.

CLEARANCE



When installing the system take care to leave sufficient free space all around the tank for servicing operations. The indicated minimum free distances must be respected to ensure an easy access.

FITTING



The tank support must be installed as indicated in this manual. Unsuitable installation may cause risks of personal injury.

The buffer tank must be installed on a stable and level foundation with sufficient strength to support its weight when full. It has to be installed on its base without any other fixation.

HYDRAULIC LINKS TO THE CENTRAL HEATING LOOP

MINIMUM HEATED WATER VOLUME REQUIREMENTS

To ensure that the system operates correctly you must use suitably sized and properly routed pipes for the hydraulic links between the Heat pump and the mains network.

The volume of water flowing through the installation must be sufficient to avoid compressor "short-cycling" and ensure adequate running times to guarantee its long service life. To ensure the **PAC** functions efficiently, available installation water volume must be:



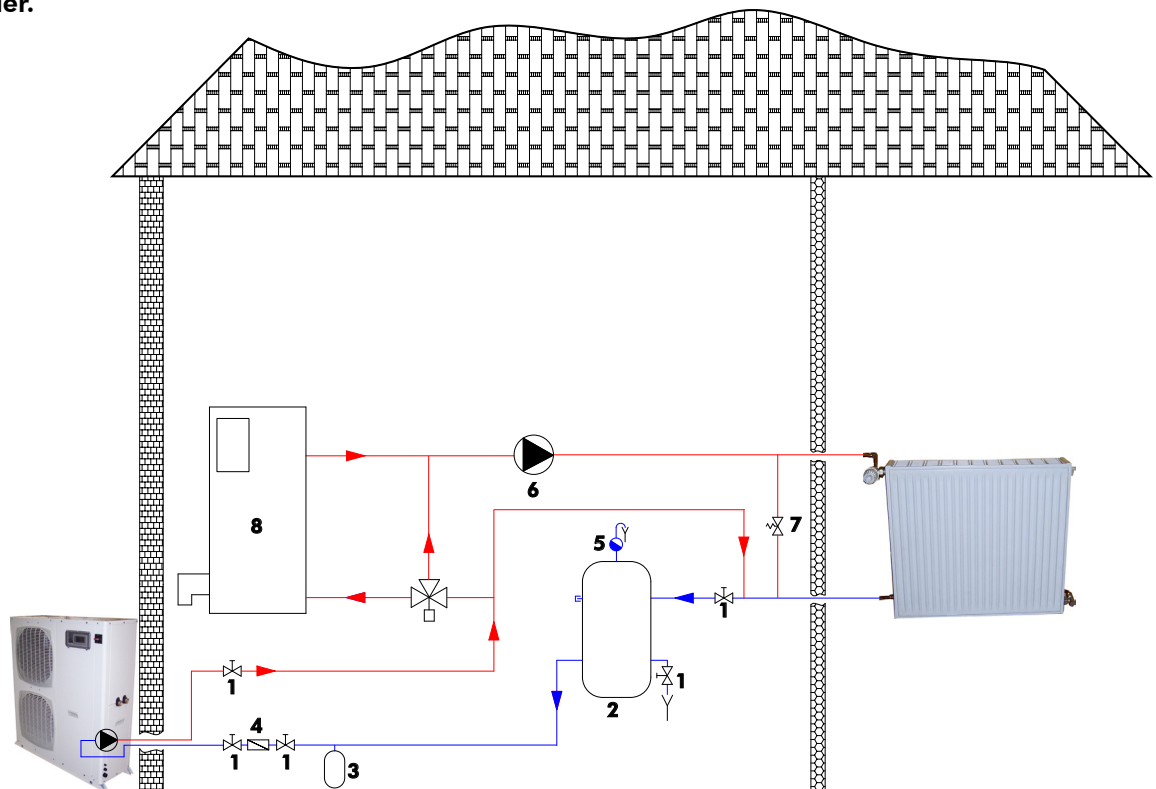
200l < available water volume < 250l

When water circulation through heat emitters can be interrupted (thermostatic radiator valves closed) or the heating supply halted, you must ensure that:

- The Heat Pump maintains its nominal water flow.
- The heat pump operates in a loop with a minimum available volume of 200 litres.

The use of a 3-speed circulation pump enables water flow through the appliance to be adapted to pressure losses in the system.

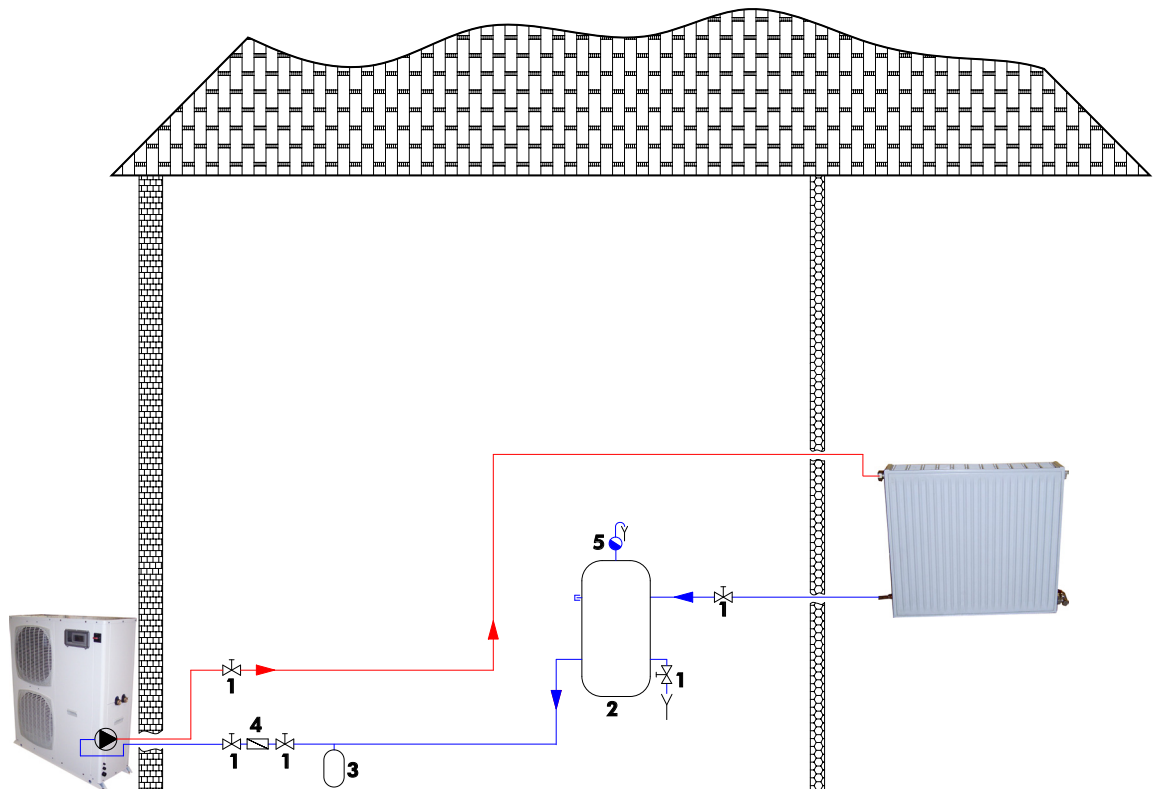
Recommended hydraulic layout for installing a PAC as a back-up replacement for a hot water boiler.



- | | | | |
|---|--|---|-----------------------|
| 1 | Stop cocks | 5 | Separator drain-valve |
| 2 | Buffer tank | 6 | Circulation pump |
| 3 | Expansion tank (depending on PAC equipment) | 7 | Relief valve |
| 4 | Filter or sludge trap | 8 | Boiler |

The buffer tank is connected in series on the **PAC** return (inlet) circuit to guarantee the presence of a minimum volume of water and ensure that the **PAC** operates without "short-cycling".

Recommended hydraulic layout for installing a PAC as a stand-alone system on a water network without thermostatic radiator valves.

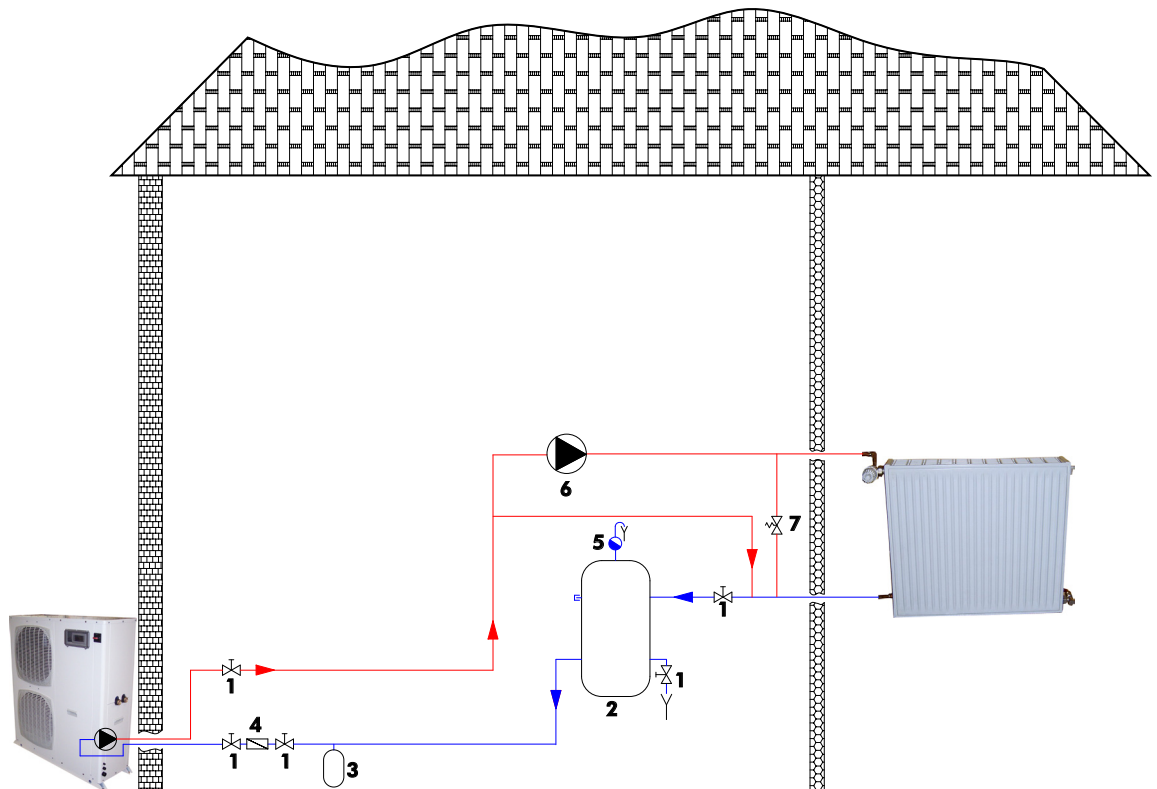


- | | | | |
|---|--|---|-----------------------|
| 1 | Stop cocks | 4 | Filter or sludge trap |
| 2 | Buffer tank | 5 | Separator drain-valve |
| 3 | Expansion tank (depending on PAC equipment) | | |

This layout is recommended when the **PAC** water flow is continuous and close to the nominal value (no radiator thermostatic valves).

The buffer tank (2) provides extra circulating water volume to maintain the minimum volume.

Recommended hydraulic layout for installing a PAC as a stand-alone system on a water network with thermostatic radiator valves.



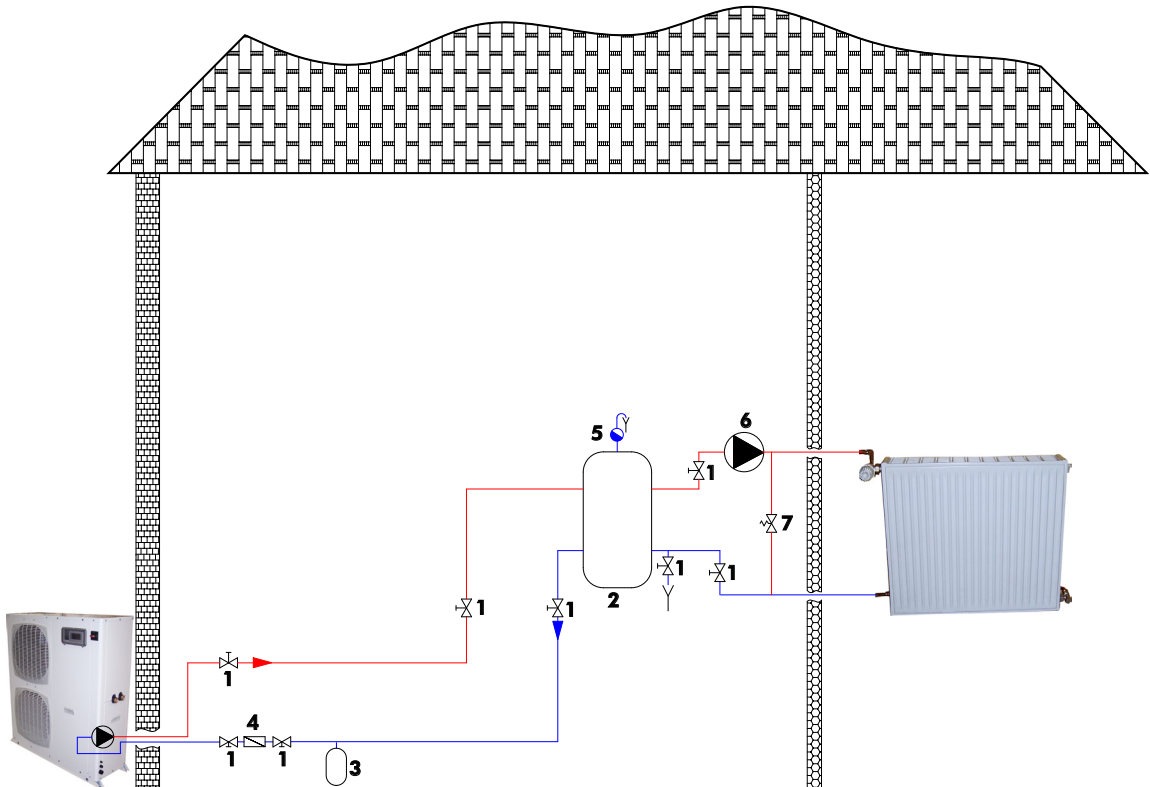
- | | | | |
|----------|--|----------|-----------------------|
| 1 | Stop cocks | 4 | Filter or sludge trap |
| 2 | Buffer tank | 5 | Separator drain-valve |
| 3 | Expansion tank (depending on PAC equipment) | 6 | Circulation pump |
| | | 7 | Relief valve |

The buffer tank connected in series on the **PAC** return (inlet) circuit guarantees the presence of a minimum volume of water and ensures that the **PAC** operates without "short-cycling", independently of the flow through the radiators.

Recommended hydraulic layout for installing PAC as a stand-alone system on a water network with a mixing tank.

This layout is recommended for heating installations with wide operating water flow variations (radiator thermostatic valves present in the system). Minimum system volume is guaranteed by a mixing tank (2). Take care when calculating the volume of water in the installation and only take account of 50% of the mixing tank's volume.

Example: For a useful volume of 70 litres the actual mixing tank volume will be 140 litres.



- | | | | |
|---|---|---|-----------------------|
| 1 | Stop cocks | 5 | Separator drain-valve |
| 2 | Mixing tank | 6 | Circulation pump |
| 3 | Expansion tank (depending on PAC equipment) | 7 | Relief valve |
| 4 | Filter or sludge trap | | |

EC Compliance declaration

Under our own responsibility, we declare that the product designated in this manual comply with the provisions of the EEC directives listed hereafter and with the national legislation into which these directives have been transposed.

Déclaration CE de conformité

Nous déclarons sous notre responsabilité que les produits désignés dans la présente notice sont conformes aux dispositions des directives CEE énoncées ci- après et aux législations nationales les transposant.

EG-Konformitätserklärung

Wir erklären in eigener Verantwortung, das die in der vorliegenden Beschreibung angegebenen Produkte den Bestimmungen der nachstehend erwähnten EG-Richtlinien und den nationalen Gesetzesvorschriften entsprechen, in denen diese Richtlinien umgesetzt sind.

Dichiarazione CE di conformità

Dichiariamo, assumendone la responsabilità, che i prodotti descritti nel presente manuale sono conformi alle disposizioni delle direttive CEE di cui sott e alle legislazioni nazionali che li recepiscono

Declaración CE de conformidad

Declaramos, bajo nuestra responsabilidad, que los productos designados en este manual son conformes a las disposiciones de las directivas CEE enunciadas a continuación, así como a las legislaciones nacionales que las contemplan.

Buffer tank
Ballon tampon
Pufferspeicher
Palla tampone
Acumulador intermedio

LOW VOLTAGE DIRECTIVE (DBT) 2006 / 95 / EEC

DIRECTIVE BASSE TENSION (DBT) 2006 / 95 / C.E.E.

RICHTLINIE NIEDERSPANNUNG (DBT) 2006 / 95 / EG

DIRETTIVA BASSA TENSIONE (DBT) 2006 / 95 / CEE

DIRETTIVA BAJA TENSION (DBT) 2006 / 95 / CEE

And that the following paragraphs of the harmonised standards have been applied.
Et que les paragraphes suivants les normes harmonisées ont été appliqués.
Und dass die folgenden Paragraphen der vereinheitlichten Normen angewandt wurden.
E che sono stati applicati i seguenti paragrafi delle norme armonizzate.
Y que se han aplicado los siguientes apartados de las normas armonizadas.

EN 60 335-1 + A1 + A11 + A12

EN 60 335-2-21 + A21


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