

# 1 APPLIANCE POSITIONING

## 1.1 WARNINGS

### Aggressive substances in air

Halogenated hydrocarbons containing chlorine and fluorine compounds cause corrosion. The air of the installation site must be free of aggressive substances.

### Environmental or operational heavy conditions

In especially heavy-duty environmental or use conditions (e.g. intensive use of the equipment, brackish environment etc.) increase the frequency of the unit maintenance and cleaning operations.

## 1.2 AEROTHERMAL APPLIANCES

### Do not install aerothermal appliances indoors

Aerothermal appliances, fitted with finned coil and fan, are approved for outdoor installation, with the exception of the GAHP A Indoor unit alone, which is approved for indoor installation.

- ▶ Do not install aerothermal appliances inside a room, not even if it has openings.
- ▶ In no event start an aerothermal appliance inside a room.

### Special notes for the GAHP A Indoor

The GAHP A Indoor unit is approved for installation in a machine room. Refer to Paragraph 1.3 p. 1.

### Ventilation of aerothermal appliances

- ▶ Aerothermal appliances require a large space, ventilated and free from obstacles, to enable smooth flow of air to the finned coils and free air outlet above the mouth of the fan, with no air recirculation.
- ▶ Incorrect ventilation may affect efficiency and cause damage to the appliance.
- ▶ The manufacturer shall not be liable for any incorrect choices of the place and setting of installation

## 1.3 APPLIANCES SUITABLE FOR INSTALLATION IN A TECHNICAL ROOM

### 1.3.1 GAHP A Indoor

The installation premises must meet all requirements set forth by laws, standards and regulations of the Country and place of installation concerning gas appliances and cooling appliances

### Do not install inside a room that has no aeration openings.

### GAHP A Indoor unit ventilation

- ▶ The aerothermal appliance requires a ventilated room to assure regular air flow to the finned coil.
- ▶ The air outlet above the fan mouth must be ducted outside

in order to prevent air recirculation towards the ventilation openings.

- ▶ Incorrect ventilation may affect efficiency and cause damage to the appliance.
- ▶ The manufacturer shall not be liable for any incorrect choices of the premises and setting of installation.

### Other appliances

Any other gas appliances in the room must necessarily be type C.

### Features of the installation premises

- ▶ The premise must be provided with permanent and sufficiently wide ventilation openings to permit even air flow to the finned coil (11000 m<sup>3</sup>/h)
- ▶ The appliance flue gas exhaust must be ducted to the outside.
- ▶ The appliance's flue must not be immediately close to openings or air intakes of buildings, and must comply with environmental regulations.
- ▶ Combustion air intake must be ducted from the outside (type C installation).

### 1.3.2 GAHP GS/WS units (indoor version) and AY00-120 boilers

#### Features of the installation premises

The hydrothermal and geothermal preassembled groups (made up with GAHP GS/WS modules) and boilers AY00-120 may be installed either indoors or outdoors.

In the event of indoor installation, the installation premises must comply with the applicable local standards.

### Do not install in a room that has no aeration openings.

- ▶ The premises must be provided with permanent and sufficiently wide ventilation openings to permit even air flow for aeration and possibly for combustion (if type B installation).
- ▶ The appliance flue gas exhaust must be ducted to the outside.
- ▶ The appliance's flue must not be immediately close to openings or air intakes of buildings, and must comply with environmental regulations.
- ▶ Combustion air intake may be ducted from the outside (type C installation).

## 1.4 WHERE TO INSTALL THE APPLIANCE

In general, the appliances:

- ▶ May be installed at ground level, on a terrace or on a roof, compatibly with their size and weight.
- ▶ May be only installed out of the dripping line of rain gutters or the like. Do not require protection from weathering.
- ▶ No obstruction or overhanging structure (e.g. protruding roofs, canopies, balconies, ledges, trees, ...) must interfere with the exhaust flue gas.
- ▶ The appliances flue gas exhaust must not be immediately close to openings or air intakes of buildings, and must comply with environmental regulations.

In particular, aerothermal appliances:

- ▶ They must be installed outside buildings, in an area of natural air circulation.
- ▶ No obstruction or overhanging structure (e.g. protruding

roofs, canopies, balconies, ledges, trees) must interfere with the air flowing out from the top of the appliances fitted with fans.

- ▶ They must not be installed near the exhaust of flues, chimneys or hot polluted air. In order to work correctly, aerothermal appliances require clean air.

### 1.5 DEFROSTING WATER DRAINAGE



**In winter, it is normal for frost to form on the finned coil and for the appliance to perform defrosting cycles.**

- To prevent overflowing and damage provide for a

drainage system.

### 1.6 ACOUSTIC ISSUES

- ▶ Pre-emptively assess the appliance's sound effect in connection to the site, taking into account that building corners, enclosed courtyards, restricted spaces may amplify the acoustic impact due to the reverberation phenomenon.
- ▶ In case of appliances suitable for installation in utility room, assess beforehand the appliances' sound effect inside the room and to the adjacent rooms and outside.
- ▶ Section C1.15 sets out additional indications for acoustic design.

## 2 MINIMUM CLEARANCE DISTANCES

### 2.1 DISTANCES FROM COMBUSTIBLE OR FLAMMABLE MATERIALS

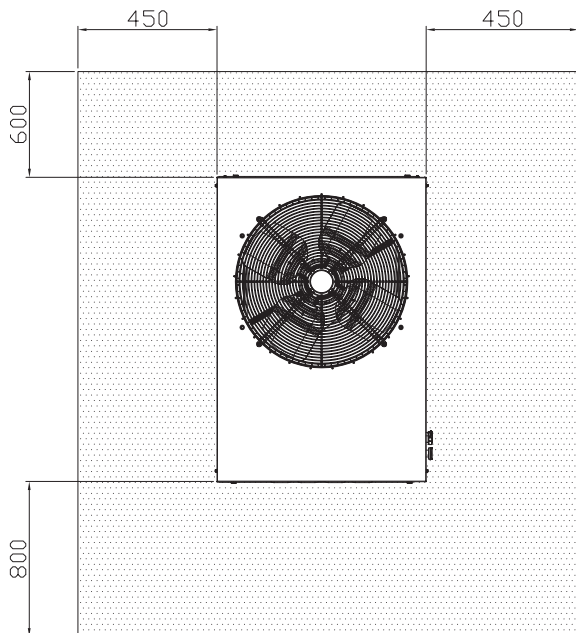
- ▶ Keep the appliance away from combustible or flammable materials or components, in compliance with applicable regulations.

### 2.2 CLEARANCES AROUND THE APPLIANCE

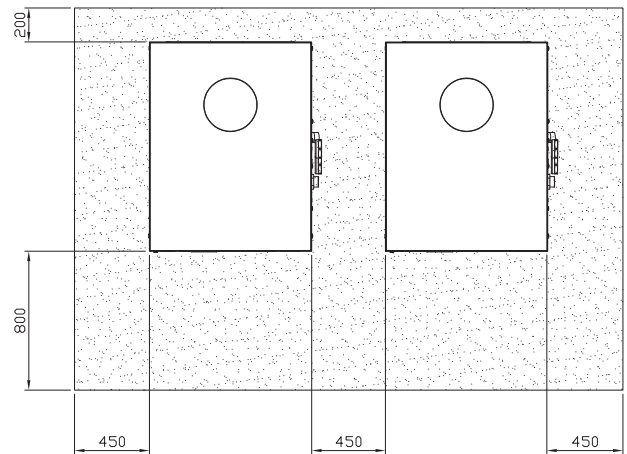
The minimum clearance distances shown in the following Figures (barring any stricter regulations) are required for safety, operation and maintenance.

- ▶ For GAHP and GA ACF units and for preassembled groups, see Figure 2.1 p. 2
- ▶ for AY00-120 units see Figure 2.2 p. 2

**Figure 2.1** GAHP and GA ACF clearance distances



**Figure 2.2** Clearances



## 3 MOUNTING BASE

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### 3.1 MOUNTING BASE CONSTRUCTIVE FEATURES

- ▶ Place the appliance on a levelled flat surface made of fire-proof material and able to withstand its weight.

### 3.2 INSTALLATION AT GROUND LEVEL

- ▶ Failing a horizontal supporting base, make a flat and levelled concrete base, at least 150 mm larger than the appliance size per side.

### 3.3 INSTALLATION ON TERRACE OR ROOF

- ▶ The structure of the building must support the total weight of the appliance and the supporting base.
- ▶ If necessary, provide a maintenance walkway around the appliance.

### 3.4 ANTI VIBRATION MOUNTINGS

Although the appliance's vibrations are minimal, resonance phenomena might occur in roof or terrace installations.

- ▶ Use anti-vibration mountings.
- ▶ Also provide anti-vibration joints between the appliance and water and gas pipes.