

4.4 Installing The Outdoor Unit

- As shown in Fig. 4-4, leave an interval of 100mm between the outdoor units.

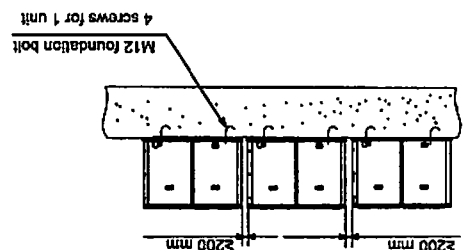


Fig. 4-4

The distance of the foundation bolt is shown in Fig. 4-5.

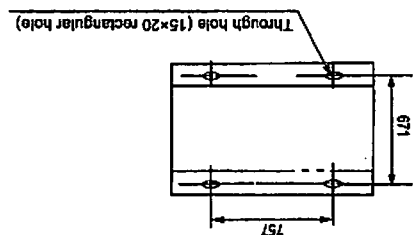


Fig. 4-5

- Snow protection facilities must be installed in the snowfall areas. (See the right figure) (In case the snow protection facilities are incomplete, faults may occur). In order to prevent influence caused by snow, set up raised pavilion, and install snow protection sheds at the air inlet and air outlet.

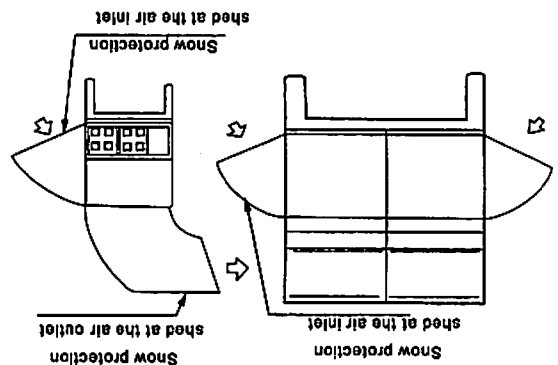


Fig. 4-6

4.5 Refrigerant Pipe

- The refrigerant pipe adapter is located inside the outdoor unit. So remove the right front board first (three M5 screw).
- When the pipe is connected from the front side, the pipe can be led out through the right front board.
- As shown in Fig. 4-7, when brazing the indoor and outdoor connective lines, pad a sheet metal under the valve avoids the flame burning the chassis.

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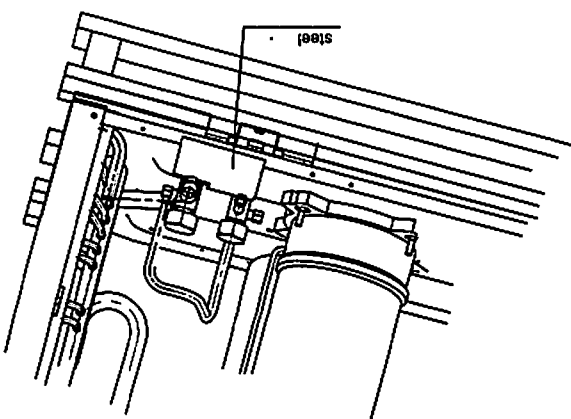


Fig. 4-7

NOTE

When welding the refrigerant pipe, in order to prevent internal oxidation of the pipe, nitrogen must be filled in. Otherwise, the oxidized chips may block refrigerating circulatory system.

4.6 Size Of Outdoor Unit Pipes And Piping Methods

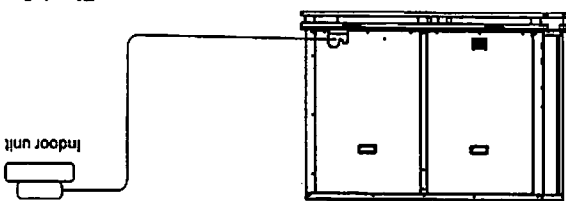


Fig. 4-8

Size of outdoor unit pipes and piping methods

Model	Gas side	Liquid side
MTA-78H(C)R MFA-78H(C)R MTA-160R MFA-160R	φ22.0	φ25.0 (pipe length L≤30m)
MTA-98H(C)R MFA-98H(C)R	φ25.0	φ28.0 (pipe length L≤30m)
MTA-120H(C)R MFA-120H(C)R	φ28.6	φ32 (pipe length L≤30m)
MTA-160H(C)R MFA-160H(C)R MTA-78H(C)R MFA-78H(C)R MTA-98H(C)R MFA-98H(C)R MTA-120G(R)R MFA-120G(R)R	φ22.0	φ9.52
MTA-98H(C)R MFA-98H(C)R	φ25.0	φ9.52
MTA-120G(R)R MFA-120G(R)R	φ28.6	φ12.7
MTA-160H(C)R MFA-160H(C)R	φ32 (pipe length L≤30m)	φ16
MTA-78H(C)R MFA-78H(C)R MTA-98H(C)R MFA-98H(C)R MTA-120G(R)R MFA-120G(R)R	φ22.0	φ12.7
MTA-98H(C)R MFA-98H(C)R	φ25.0	φ12.7
MTA-120G(R)R MFA-120G(R)R	φ28.6	φ12.7
MTA-160H(C)R MFA-160H(C)R	φ32 (pipe length L≤30m)	φ12.7

Table 4-1

4 INSTALLATING OUTDOOR UNIT

4.1 Important: Construction Checkpoints

- **Installation**
Check the model and name to avoid mistaken installation.
- **Refrigerant pipe**
 - The refrigerant pipes must have the specified diameter.
 - Nitrogen of a certain pressure must be filled into the refrigerant pipe before welding.
 - The refrigerant pipe must undergo heat insulation treatment.
 - After the refrigerant pipe is installed completely, the indoor unit cannot be powered on before performing the airtight test and creating a vacuum.
- **Refrigerant pipe**
The refrigerant pipe must undergo the airtight test [with 2.94MPa (30kgf/cm²G) nitrogen].
- **Creating a vacuum**
Be sure to use the vacuum pump to create a vacuum of the connective pipe at both air side and liquid side concurrently.
- **Refrigerant replenishment**
 - If the pipe is longer than the reference pipe, the refrigerant replenishment quantity for each outdoor unit should be calculated through the formula obtained according to the actual length of the pipe.
 - Record the refrigerant replenishment quantity, actual length of pipe and the height difference of the indoor & outdoor units onto the operation confirmation table (on the electric control box) of the outdoor unit in advance for future reference.
- **Electric wiring**
 - Select the power supply capacity and wire size according to the design manual. The power wire size of the air conditioner should be greater than that of ordinary motors.
 - In order to prevent misoperation of the air conditioner, do not interleave or entwine the power cable (380V-415V 3N~ 50Hz) with the connection wires (low-voltage wires) of the indoor/outdoor unit.
 - Power on the indoor unit after performing the airtight test and making a vacuum.
- **Trial run**
Perform the trial run only after the outdoor unit has been powered on for over 12 hours.

4.2 Installation Space

- When installing the unit, leave a space for maintenance shown in the following figure. Install the power supply at the side of the outdoor unit. For installation procedure, see the relevant installation manual.

Ensure enough space for installation and maintenance.(see Fig.4-1 and Fig.4-2)

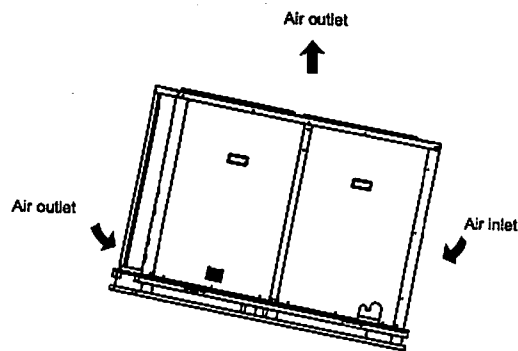
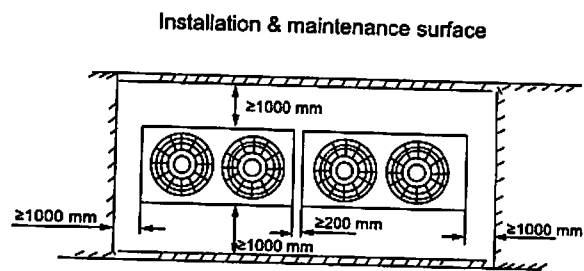


Fig.4-1



Top view of the outdoor unit (multiple units installed)

Fig.4-2

NOTE

- In case any obstacles exist above the outdoor unit, such obstacles must be 2000mm above the outdoor unit.
- If miscellaneous articles are piled around the outdoor unit, such articles must be 400mm below the top of the outdoor unit.

4.3 Convey Outdoor Unit

- Use 4 steel ropes of a 16mm or bigger size to hoist the outdoor unit and convey it into the room.
- In order to prevent scratch and deformity the outdoor unit, apply a guard board to the surface of contact between the steel wire and the air conditioner.
- Remove the cushion for use in the transport after finishing the transport.

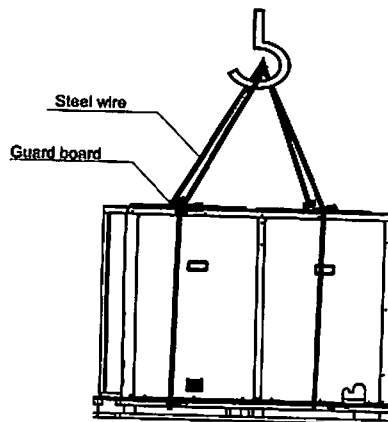


Fig.4-3

3.2 Floor type

■ Outline of the unit

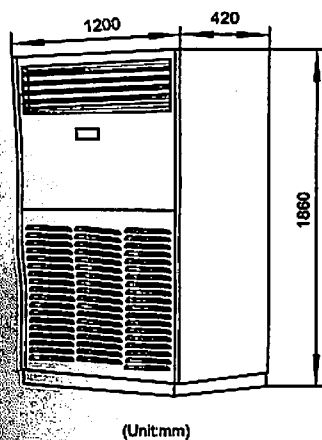


Fig.3-20

■ Installation

For ensure the proper installation
Select the enough solid and level site.
Ensure enough space required for installation and maintenance.

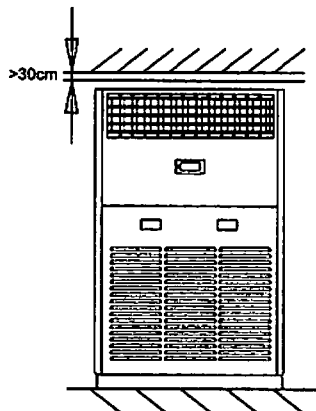


Fig.3-21

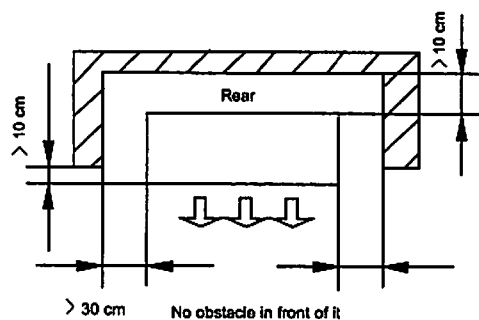


Fig.3-22

■ For anti-fall down, please conduct the follow measures:

- See Fig.3-23 to fix the feet on the floor after select a proper place for installation, since the height of this unit casing is very high.
- The right and left sides as well as rear can be fixed, please select the unit fixed measure as per to your actual installing ambient.

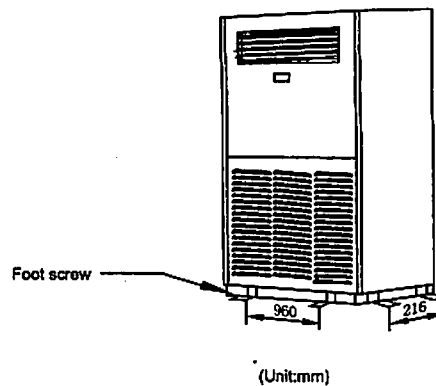


Fig.3-23

- Put down the air intake panel, before electric connection, see Fig.3-6:
- Uncover the screw-cap in the air intake panel, and then loosen the screws.
- Take off the air intake panel, ensure which place secure enough will not make risk to the other people.

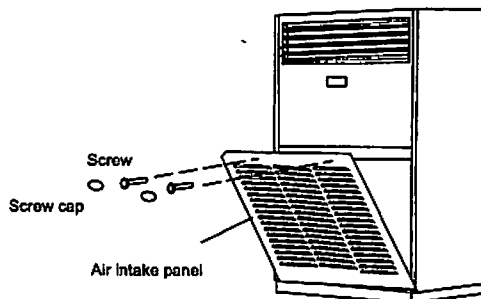


Fig.3-24



NOTE

- Please beware of the foot screw, which may be hurt for the pass-by people, make sure enough security of that, prevent accident occur.

3.5 Install the drainpipe

(1) Install the indoor unit drainpipe

Install a drain stream trap in the drainpipe to prevent water from overflowing. (The drainpipe absorbs the odor. When the outside static pressure is high (especially the air inlet), it is difficult to drain the

Drainage should be natural. When constructing, the outside pipe of outdoor unit should be inclined (1/50~1/100).

The bending part of drainpipe should be fewer than 2. Furthermore, to reduce the depositing dust, avoid bending the pipe as possible as you can.

Make sure there is no dust or rubbish falling into indoor unit drain elbow and drainpipe.

After installation, remove the checking panel, pour some water in the drain elbow to see whether it drains smoothly.

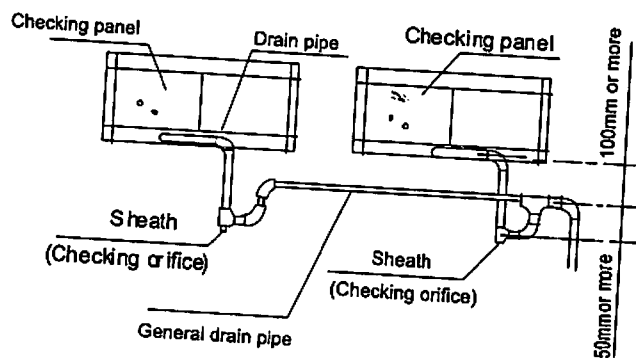


Fig.3-12

CAUTION

Rubbish is easy to accumulate at drain stream trap. Make sure to install a plug or other things which is easy to clean.

(2) Test draining

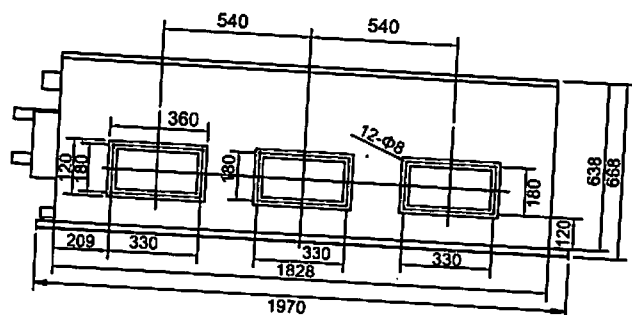
Open the clapboard of indoor unit, pour the water in to see whether it drain smoothly and whether there is water leakage.

(3) Heat insulation

After confirming that drainage is smoothly and there is no leakage, wrap the drainpipe with insulation material, or there will be condensed water.

3.6 Dimension (Unit:mm)

- MTA-120H(C)R MTA-150CR
MTA-120H(C)RN1 MTA-150H(C)RN1



Front view (Air supply outlet)

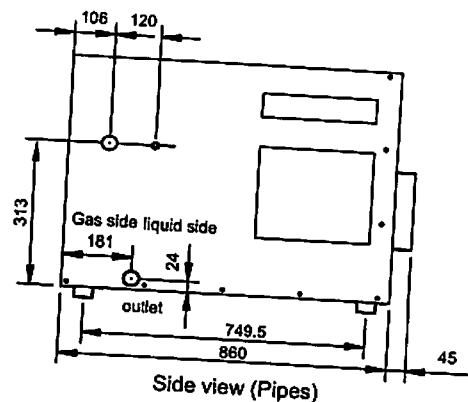


Fig.3-14

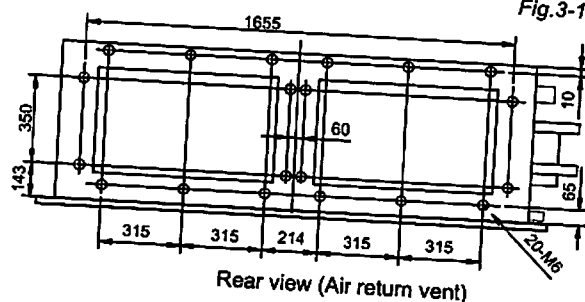
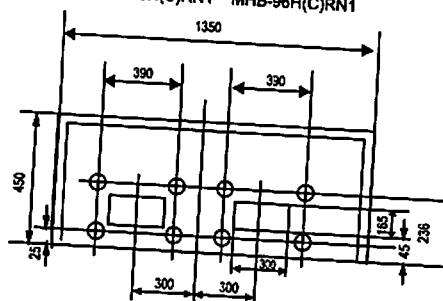


Fig.3-15

- MTA-76H(C)R MTA-76H(C)RN1 MHB-76H(C)RN1
MTA-96H(C)R MTA-96H(C)RN1 MHB-96H(C)RN1



Air outlet duct connection screw hole location diagram


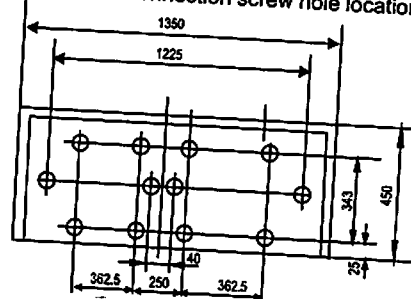


Fig.3-16



Return air duct rivet screw hole location diagram

BT-76H(C)RN1	MHBT-76H(C)RN1
BT-96H(C)RN1	MHBT-96H(C)RN1

Fig.3-1

- MTBT-76H(C)RN1 MHBT-76H(C)RN1
MTBT-96H(C)RN1 MHBT-96H(C)RN1

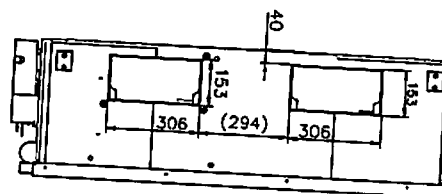
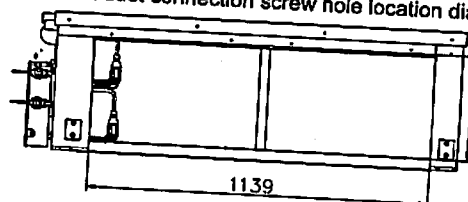


Fig.3-18

Air outlet duct connection screw hole location diagram



Return air duct rivet screw hole location diagram Fig.3-19