

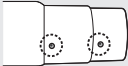
# INSTALLATION MANUAL

Please read 'Safety Precautions' described in the installation manual of the air conditioner.

- Check the following parts in the package.
- For further information of the piping material and size of the refrigerant pipes, refer to the installation manual of the air conditioner.

## Requirement

- Condensate may occur on the heat insulation surface according to the atmosphere inside of the ceiling.
- If the inside of the ceiling has high temperature or humidity rate is more than 80%, please add proper insulation to prevent water drops.
- The stopper area of the pipe or socket should be spread with a welding material. EX)

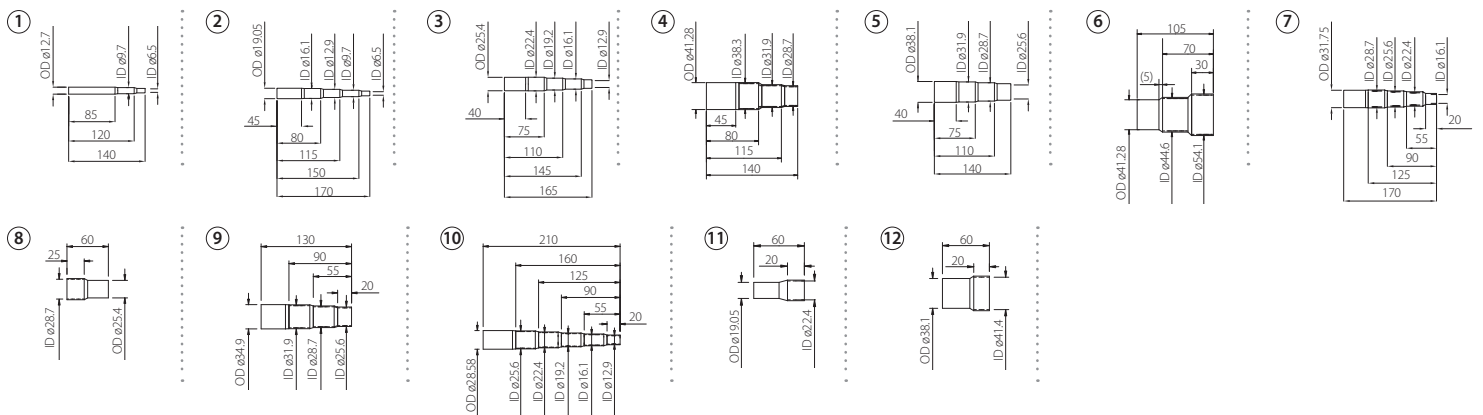


## Branch joints

### Y-joint

| Name        | Model | MXJ-YA1509M | MXJ-YA2512M          | MXJ-YA2812M          | MXJ-YA2815M          | MXJ-YA3419M                      | MXJ-YA4119M                                  | MXJ-YA4422M                                  |
|-------------|-------|-------------|----------------------|----------------------|----------------------|----------------------------------|----------------------------------------------|----------------------------------------------|
| Liquid side |       |             |                      |                      |                      |                                  |                                              |                                              |
|             |       | ① x 2 EA    | ① x 2 EA             | ① x 2 EA             | ② x 2 EA             | ② x 2 EA<br>⑪ x 2 EA             | ② x 2 EA<br>⑪ x 2 EA                         | ① x 1 EA<br>③ x 2 EA                         |
| Gas side    |       |             |                      |                      |                      |                                  |                                              |                                              |
|             |       | ② x 2 EA    | ③ x 2 EA<br>⑧ x 2 EA | ③ x 1 EA<br>⑦ x 1 EA | ③ x 1 EA<br>⑦ x 1 EA | ⑨ x 1 EA<br>⑩ x 1 EA<br>⑫ x 1 EA | ③ x 1 EA<br>⑤ x 1 EA<br>⑨ x 1 EA<br>⑫ x 1 EA | ③ x 1 EA<br>④ x 1 EA<br>⑤ x 1 EA<br>⑥ x 1 EA |

### Reducer

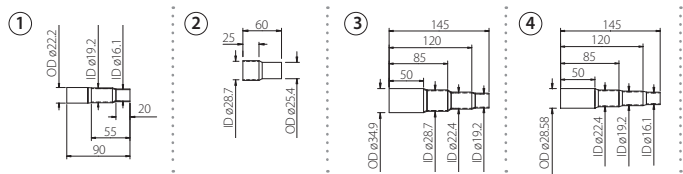


| Model name  | Total indoor unit's capacities             |
|-------------|--------------------------------------------|
| MXJ-YA1509M | 15.0 kW (51 MBH) and below                 |
| MXJ-YA2512M | Over 15.0~40.0 kW (51~136 MBH) and below   |
| MXJ-YA2812M | Over 40.0~45.0 kW (136~154 MBH) and below  |
| MXJ-YA2815M | Over 45.0~70.3 kW (154~240 MBH) and below  |
| MXJ-YA3419M | Over 70.3~98.4 kW (240~336 MBH) and below  |
| MXJ-YA4119M | Over 98.4~135.2 kW (336~461 MBH) and below |
| MXJ-YA4422M | Over 135.2 kW (461 MBH)                    |

### Y-joint for HR (High pressure gas)

| Model | MXJ-YA1500M | MXJ-YA2500M          | MXJ-YA3100M          | MXJ-YA3800M |
|-------|-------------|----------------------|----------------------|-------------|
|       |             |                      |                      |             |
|       |             | ① x 2 EA<br>② x 1 EA | ③ x 1 EA<br>④ x 1 EA | ③ x 2 EA    |

### Reducer

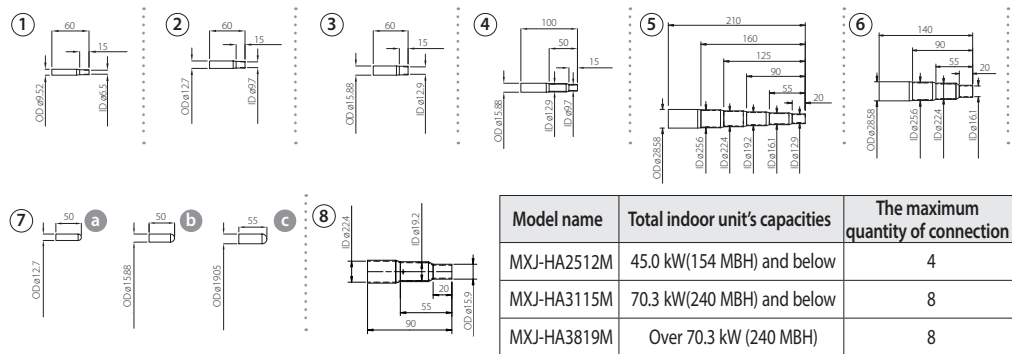


| Model name  | Total indoor unit's capacities             |
|-------------|--------------------------------------------|
| MXJ-YA1500M | 22.4 kW (76 MBH) and below                 |
| MXJ-YA2500M | Over 22.4~70.3 kW (76~240 MBH) and below   |
| MXJ-YA3100M | Over 70.3~135.2 kW (240~461 MBH) and below |
| MXJ-YA3800M | Over 135.2 kW (461 MBH)                    |

### Header joint

| Name        | Model | MXJ-HA2512M                | MXJ-HA3115M                | MXJ-HA3819M       |
|-------------|-------|----------------------------|----------------------------|-------------------|
| Liquid side |       |                            |                            |                   |
|             |       | ① x 4 EA ② x 1 EA ⑦ x 1 EA | ① x 8 EA ④ x 1 EA ⑦ x 1 EA | ① x 8 EA ⑦ x 1 EA |
| Gas side    |       |                            |                            |                   |
|             |       | ③ x 4 EA ⑤ x 1 EA ⑧ x 1 EA | ③ x 8 EA ⑥ x 1 EA ⑧ x 2 EA | ③ x 8 EA ⑧ x 2 EA |

### Reducer

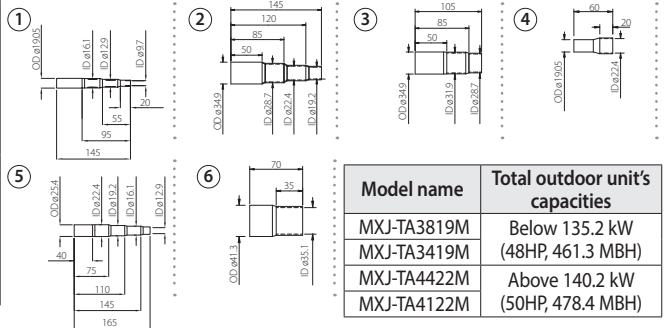


| Model name  | Total indoor unit's capacities | The maximum quantity of connection |
|-------------|--------------------------------|------------------------------------|
| MXJ-HA2512M | 45.0 kW(154 MBH) and below     | 4                                  |
| MXJ-HA3115M | 70.3 kW(240 MBH) and below     | 8                                  |
| MXJ-HA3819M | Over 70.3 kW (240 MBH)         | 8                                  |

### Outdoor joint

| Name        | Model | MXJ-TA3819M          | MXJ-TA3419M          | MXJ-TA4422M | MXJ-TA4122M |
|-------------|-------|----------------------|----------------------|-------------|-------------|
| Liquid side |       |                      |                      |             |             |
|             |       | ① x 2 EA<br>④ x 1 EA | ① x 2 EA<br>④ x 1 EA | ⑤ x 2 EA    | ⑤ x 2 EA    |
| Gas side    |       |                      |                      |             |             |
|             |       | ② x 1 EA<br>③ x 1 EA | ② x 1 EA<br>③ x 1 EA | ⑥ x 1 EA    | ⑥ x 1 EA    |

### Reducer

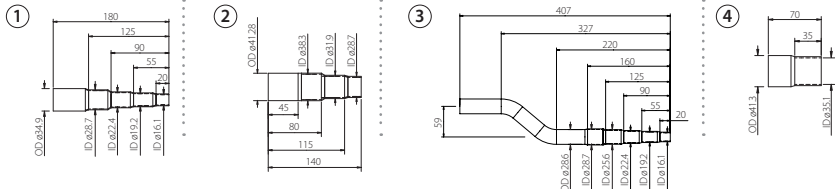


| Model name  | Total outdoor unit's capacities  |
|-------------|----------------------------------|
| MXJ-TA3819M | Below 135.2 kW (48HP, 461.3 MBH) |
| MXJ-TA3419M | Below 135.2 kW (48HP, 461.3 MBH) |
| MXJ-TA4422M | Above 140.2 kW (50HP, 478.4 MBH) |
| MXJ-TA4122M | Above 140.2 kW (50HP, 478.4 MBH) |

### Outdoor joint for HR (High pressure gas)

| Model | MXJ-TA3100M          | MXJ-TA3800M                      |
|-------|----------------------|----------------------------------|
|       |                      |                                  |
|       | ① x 1 EA<br>③ x 1 EA | ② x 1 EA<br>③ x 1 EA<br>④ x 2 EA |

### Reducer



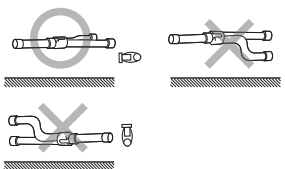
| Model name  | Total outdoor unit's capacities |
|-------------|---------------------------------|
| MXJ-TA3100M | Below 135.2 kW(48HP, 461.3MBH)  |
| MXJ-TA3800M | Above 140.2 kW(50HP, 478.4 MBH) |

# Connecting Method

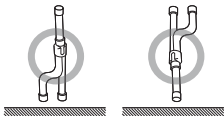
## Installing the Y-joint

Install the Y-joint 'horizontally' or 'vertically'.

### <Install horizontally>



### <Install vertically>



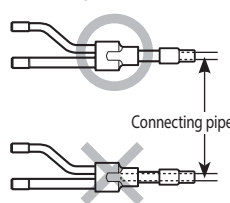
### <Using reducer>

- Use connection part of Y-joint or provided reducer by cutting them in accordance with diameter of connecting pipe.
- Make certain 10~15mm or more for reducer which connected with pipe.
- Remove burr on cut part of reducer. It is impossible to connect reducer with pipe, if pipe is deformed or reducer is untrimmed.

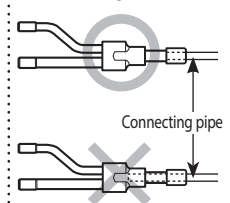
**CAUTION**  
◆ Keep a minimum distance of 500mm or more before connecting a branch joint.

### <Insertion depth of the connecting pipe>

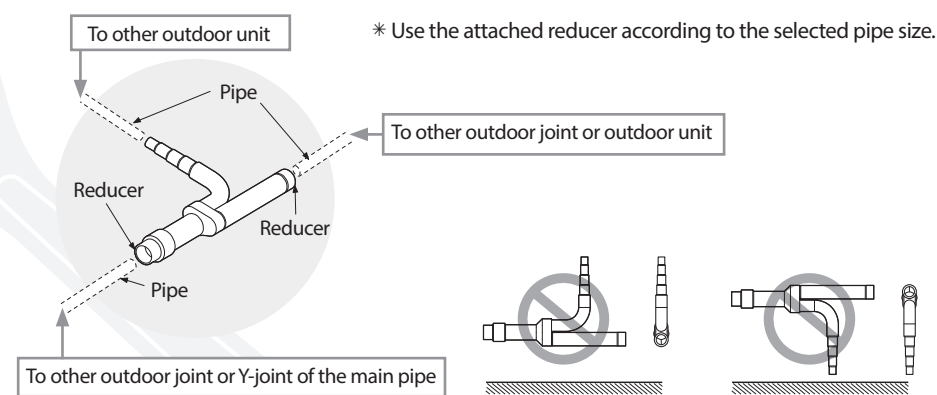
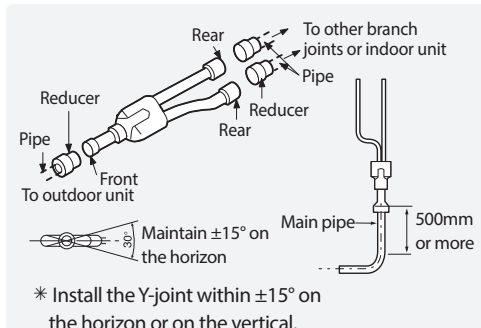
\* Basic specification



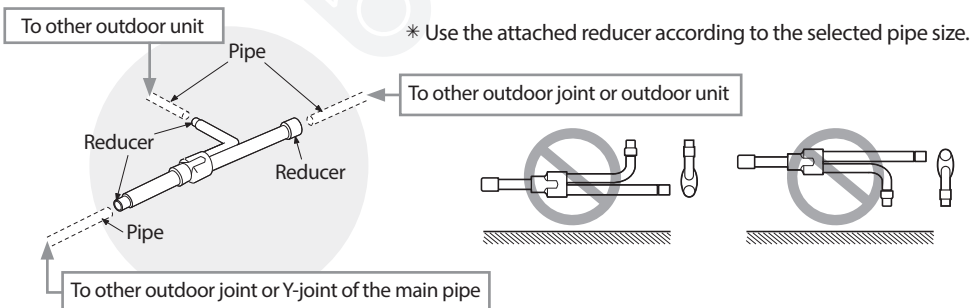
\* When cutting the connection part



**CAUTION**  
◆ Do not insert the pipe deeply into the Y-joint. (Do not insert more than 70mm.)

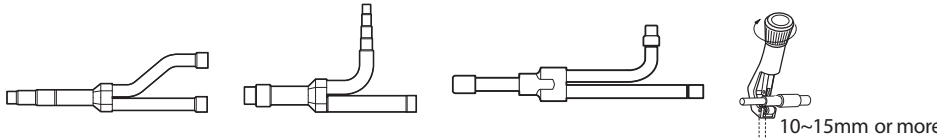


### <Gas side>



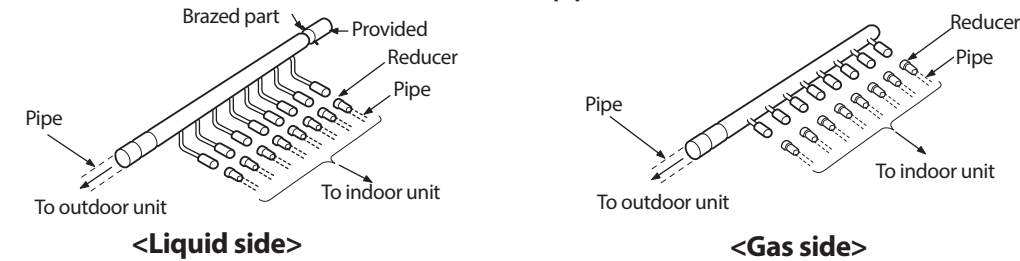
### <High pressure gas side>

**Note** Connect the Outdoor joint to the pipe by cutting the outlet of the Outdoor joint or provided reducer properly.

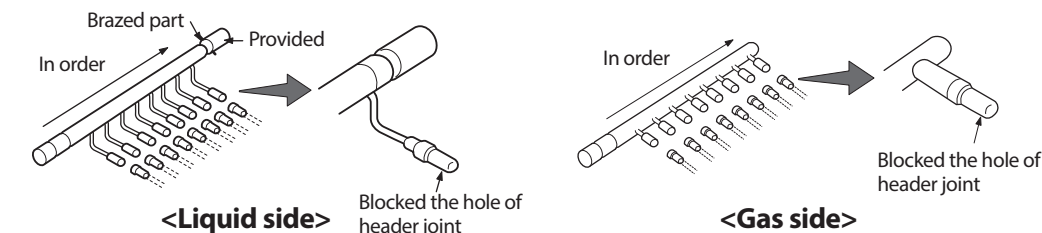


## Installing the Header joint

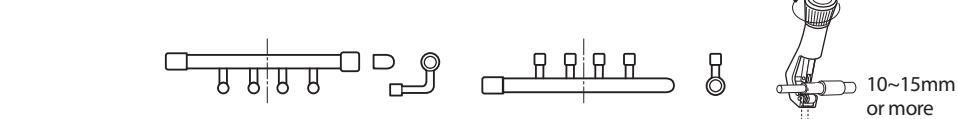
1. Select the reducer fitted on the diameter of the pipe.



2. Block the reducer that is not used by brazing the cap if the number of connected indoor unit is fewer than header joint holes.

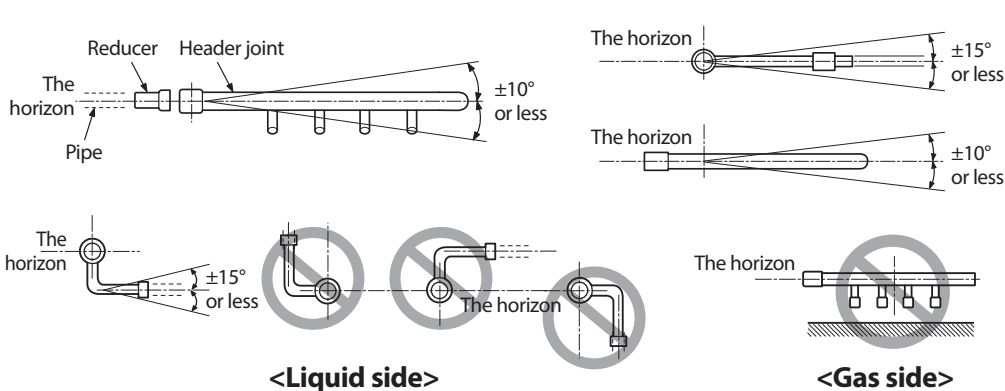


**Note** Connect the header joint to the pipe by cutting the provided reducer properly.

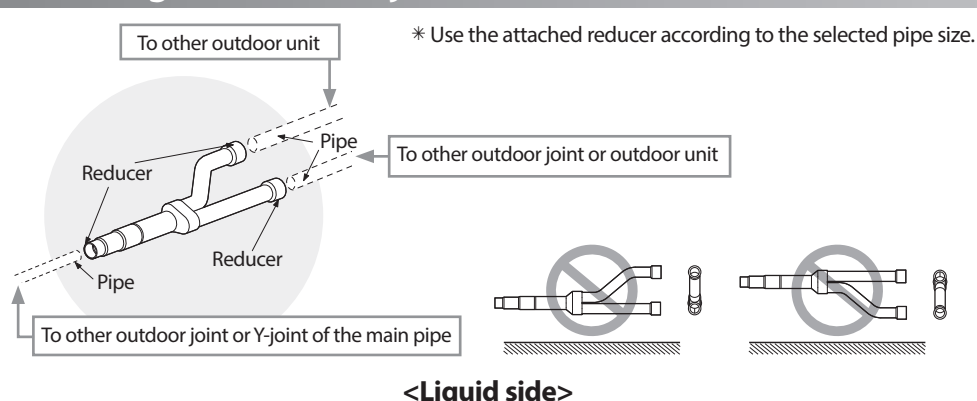


**CAUTION**  
◆ Connect the header joint in order respecting the number of the indoor unit.  
◆ Connect the indoor unit as the highest capacity comes first.

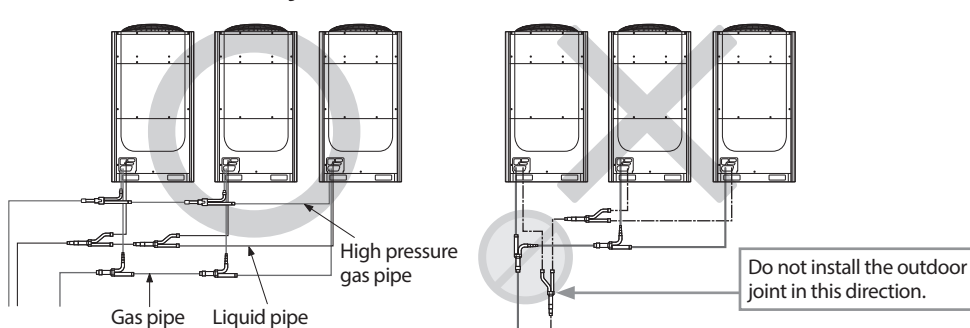
3. Install the header joint horizontally.



## Installing the Outdoor joint



## Installation of outdoor joints

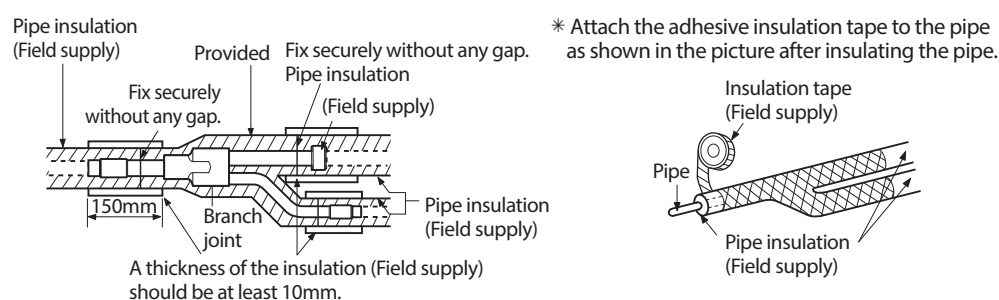


\* High pressure gas pipe only applies to the HR product.

# Insulating the branch joint

## Y-joint & liquid side & gas side of the outdoor unit

- ◆ Attach the insulation provided with a branch joint to the insulation supplied in the field without a gap. Wrap the connected part with an insulation (Field supply) of a thickness of at least 10mm.
- ◆ Use an insulation with the heat resisting temperature over 120°C. Wrap the branch joint with an insulation of a thickness of at least 10mm.
- ◆ When insulating in high humidity (higher than 30°C, 80%), wrap the supplied insulation with more than 10mm of extra insulation such as Polyethylene Foam or other similar material.
- ◆ Wrap the connected part between the Outdoor joint and the gas side of the outdoor unit to prevent it from defrosting. Wrap gas side pipe of the outdoor unit wholly to prevent it from dewing.



## Header joint

- ◆ Cover the connected part and fasten the header joint using a cable tie.
- ◆ Insulate the header joint and the brazed part and wrap the connected part with an adhesive insulation tape to prevent it from dewing.

