

Tightfit Compatible REFNET Joint INSTALLATION MANUAL

BHRG25A33T • 72T • 73T (FOR R410A • R32)

■ THIS KIT INCLUDES THE FOLLOWING PARTS.

Kit name	Indoor unit capacity index	Shape			
		Suction gas side joint	HP/LP gas side joint	Liquid side joint	Insulation
BHRG25A33T	<290				Body 3 Pcs. Top 3 Pcs.
BHRG25A72T	290≤X<640				Body 3 Pcs. Top 3 Pcs.
BHRG25A73T	≥640				Body 3 Pcs. Top 3 Pcs.

INTRODUCTION

This kit is designed as a refrigerant branching kit for HEAT RECOVERY unit for installation in buildings.

- Between outdoor unit and BS unit (upstream of BS unit), use 3 piping.
- Between BS unit and indoor unit (downstream of BS unit) and between REFNET joint and cooling-only indoor unit, use 2 piping.

3 piping	2 piping
Upstream of BS unit	Downstream of BS unit
Suction gas side piping HP/LP gas side piping Liquid side piping	Gas side piping Liquid side piping

SELECTION PROCEDURE

For select REFNET joint, refer indoor unit capacity index.
Unless otherwise specified, see as outdoor installation manual.

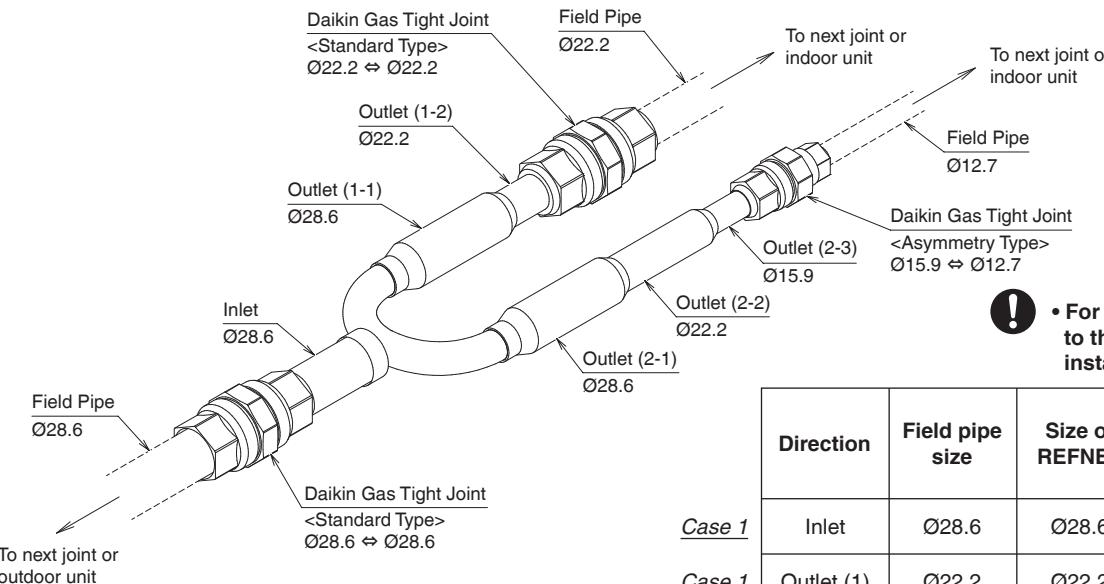
INSTALLATION PROCEDURE

1 The pipe size of each parts are shown below.

Kit name	Suction gas side joint	HP/LP gas side joint	Liquid side joint
BHRG25A33T			
BHRG25A72T			
BHRG25A73T			

2 According to SELECTION PROCEDURE, cut the pipe with a Pipe cutter for use.

- (Ex.) For BHRG25A72T (SUCTION GAS SIDE JOINT)



! • For field pipe specifications, refer to the Daikin Gas Tight Joint (DGT) installation manual.

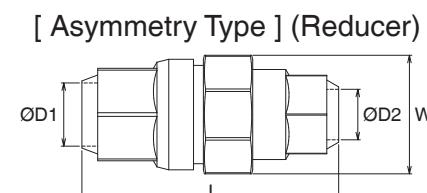
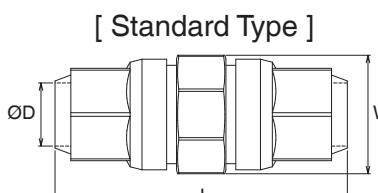
Direction	Field pipe size	Size of REFNET	Selection of Daikin Gas Tight Joint	
			Type	Model name
Case 1	Ø28.6	Ø28.6	Standard	SDGTB28
Case 1	Ø22.2	Ø22.2	Standard	SDGTB22
Case 2	Ø12.7	Ø15.9*	Asymmetry	SDGTB1512

*If the REFNET joint end pipe size is the same as the field pipe size, unnecessary to cut the pipe.

Case 1 : If the pipe of the REFNET joint has the same size as the field pipe, cut it at the same size and connect it to the field pipe with the standard type of Daikin Gas Tight Joint.

Case 2 : If the pipe of the REFNET joint has not the same size as the field pipe, use the Asymmetry (Reducer) type of Daikin Gas Tight Joint and connect it to the field pipe and matching the cutting size of the REFNET to the size of the selected Asymmetry (Reducer) joint.

Daikin Gas Tight Joint (DGT)



Connecting the same size diameter

: Use DGT sizes as listed in the below table 1.1

Table 1.1

Model Name	Size (mm/inch)	ØD (mm)	W (mm)	L (mm)
SDGTB06	Ø6.4 (1/4")	6.35	15.0	50.4
SDGTB09	Ø9.5 (3/8")	9.52	19.9	55.5
SDGTB12	Ø12.7 (1/2")	12.7	23.5	59.0
SDGTB15	Ø15.9 (5/8")	15.88	30.0	74.0
SDGTB19	Ø19.1 (3/4")	19.05	34.6	76.8
SDGTB22	Ø22.2 (7/8")	22.22	40.2	83.4
KMJ25A	Ø25.4 (1")	25.4	43.5	85.4
SDGTB28	Ø28.6 (11/8")	28.58	46.7	88.0
KMJ31A	Ø31.8 (11/4")	31.75	48.4	98.4
BDGTA34	Ø34.9 (13/8")	34.92	51.1	101.5
KMJ38A	Ø38.1 (11/2")	38.1	54.7	102.4
BDGTA41	Ø41.3 (15/8")	41.28	58.3	103.5

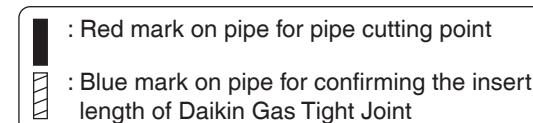
Connecting different size diameter

: Use DGT sizes as listed in the below table 1.2

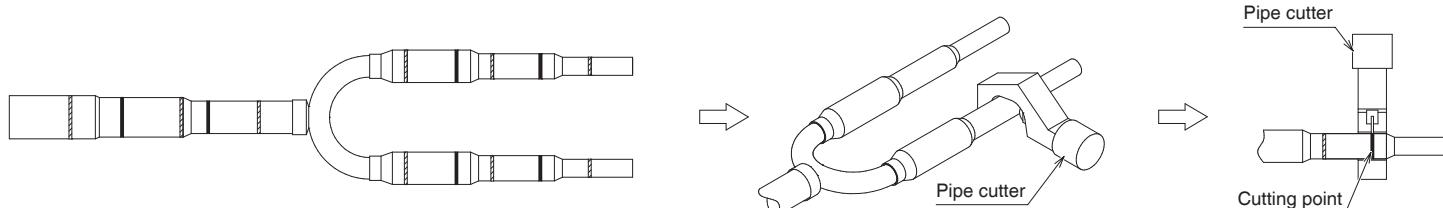
Table 1.2

Model Name	Size (mm/inch)	ØD1 (mm)	ØD2 (mm)	W (mm)	L (mm)
SDGTB0906	Ø9.5 (3/8") ↔ Ø6.4 (1/4")	9.52	6.35	19.9	52.7
SDGTB1209	Ø12.7 (1/2") ↔ Ø9.5 (3/8")	12.7	9.52	23.5	57.5
SDGTB1512	Ø15.9 (5/8") ↔ Ø12.7 (1/2")	15.88	12.7	30.0	65.0
SDGTB1915	Ø19.1 (3/4") ↔ Ø15.9 (5/8")	19.05	15.88	30.0	76.8
SDGTB2219	Ø22.2 (7/8") ↔ Ø19.1 (3/4")	22.2	19.05	40.2	81.5
SDGTB2522	Ø25.4 (1") ↔ Ø22.2 (7/8")	25.4	22.22	43.5	85.8
SDGTB2825	Ø28.6 (11/8") ↔ Ø25.4 (1")	28.58	25.4	46.7	88.1
KMJ3128A	Ø31.8 (11/4") ↔ Ø28.6 (11/8")	31.75	28.58	48.4	93.5
SDGTB3428	Ø34.9 (13/8") ↔ Ø28.6 (11/8")	34.92	28.58	51.1	95.7

Cutting of the pipe

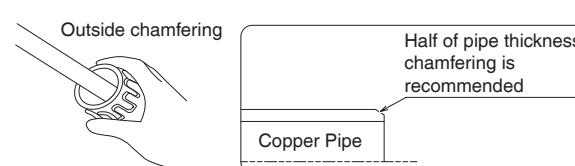


- Cut pipe by pipe cutter at the cutting point (red mark).
- Pipe is cut at right angle.
- Cut the pipe slowly to prevent deformation of the pipe.
- Use a suitable size pipe cutter for the cutting portion.
- If the pipe cutter is damaged or dirty, clean it before use.



Chamfering of the pipe

- 1) Outside chamfering : Chamfer about 0.5 C
- 2) Inside chamfering : Deburr the inner part

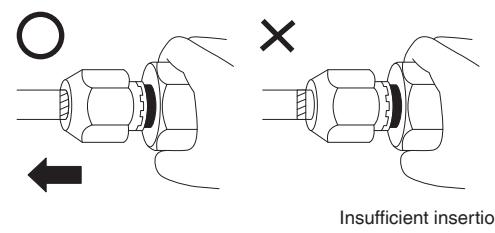


- If no chamfering of the outside of the pipe is performed, the O-ring would be damaged and cause leakage.
- Carry out chamfering with the pipe pointing downward, in order to prevent foreign objects from entering the pipe.

③ Connecting Daikin Gas Tight Joint.

Plug in the DGT

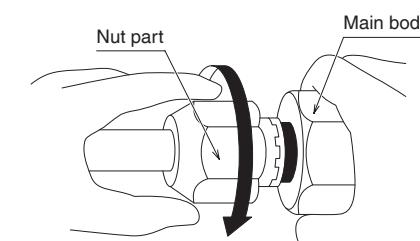
- 1) Insert pipe by hand until the DGT stops.
- 2) Make sure that the pipe is inserted until the insertion standard line (blue mark) is contacted with DGT.



- Insert the pipe straight.
- Do not tighten the nut before pipe insertion.
- When inserting the pipe, do not apply excessive force. The O-ring will be damaged.

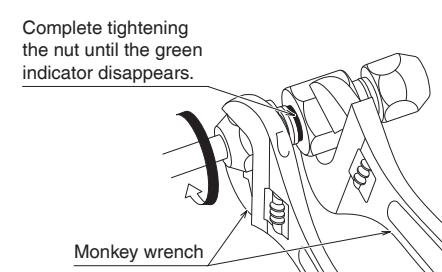
Manual tightening of nut

Hold the main body and tighten the nut in the direction of the arrow by hand until it will not turn anymore.



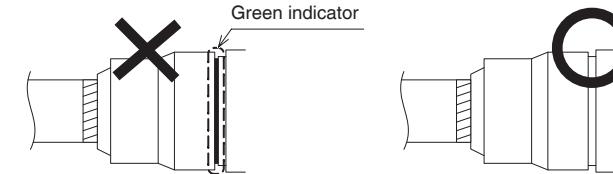
Tightening of nut

Hold the main body and tighten the nut with a monkey wrench to the direction of arrow until the green indicator disappears and the nut comes into contact with the flat face of the body.

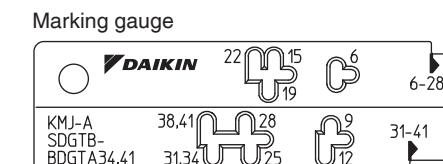
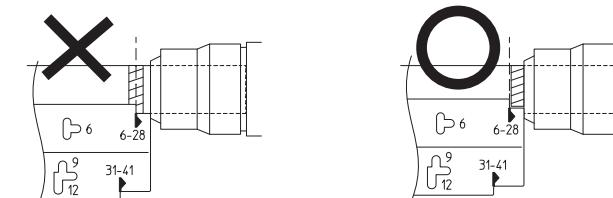


Checking

- 1) Green indicator should be hidden.



- 2) Place the marking gauge on the end face of the nut and make sure that the "blue" mark falls completely within the notch in the marking gauge. The marking gauge contains one notch for measuring the insertion of pipe of 28 or less, and another notch for measuring the insertion of pipe of 31 or more. Be sure you are using the correct notch when measuring.

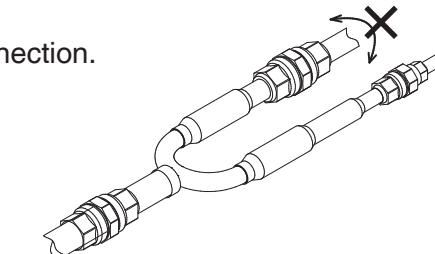


Cautions after construction

Do not apply excessive twisting forces to the GAS TIGHT JOINT after connection.

Example of work that requires cautions

- If connecting REFNET joints:
First, connect the GAS TIGHT JOINT to the REFNET, and then carry out connection to the field pipe.
- After tightening, do not rotate the joint excessively.
- If connection of the joint is carried out after connection with the field pipe, when the GAS TIGHT JOINT is tightened, the joint will turn along with it, so it may be difficult to construct on a horizontal plane.



*Install the joint so that it branched on a horizontal plane.

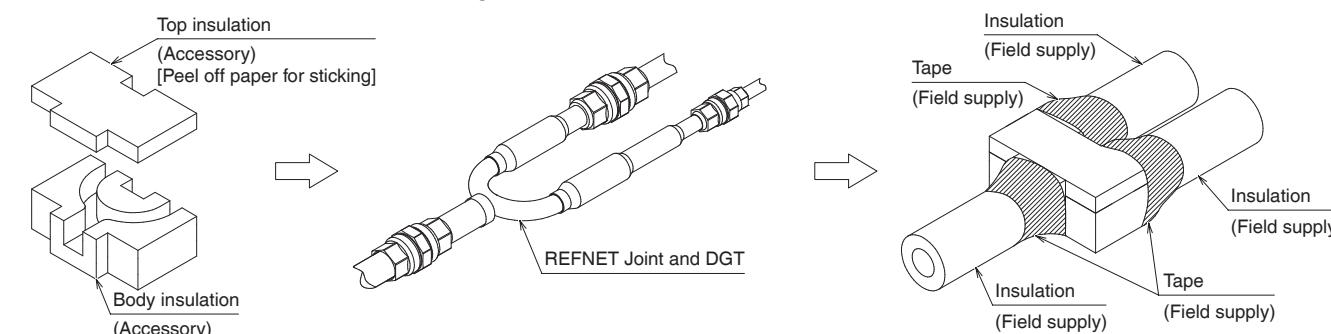
④ Insulation of Joint.

Be sure to insulate the gas and liquid side joint.

Note: The insulation of the refrigerant piping must be reinforced based on the environment of installation. Otherwise, dew may condense on the surface of insulation.

Step 1 : Set the insulation matching the joint and peel off paper of top insulation for sticking with body insulation and then wind the field supplied tape from the center without any clearances on the matching face of insulation.

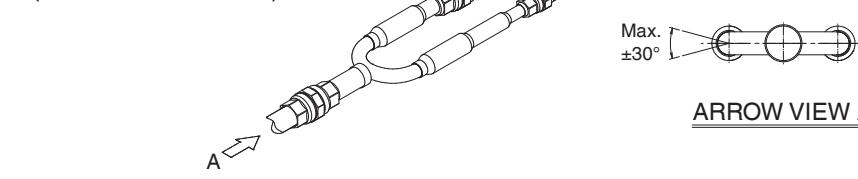
Step 2 : Seal the insulation and field piping insulation joint with the field supplied tape.



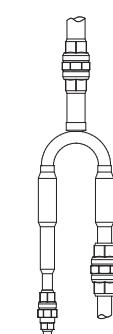
INSTALLATION PRECAUTIONS

Install the Joint so that it is branched vertically or horizontally.

Horizontal
(inclination 30° Max.)



Vertical



ARROW VIEW A

- Daikin Gas Tight Joint (DGT) is a non-brazed connection for refrigerant piping. Pipes can be joined easily and quickly without brazing or using any special tools.
- Do follow the installation manual to ensure its stringent requirement in terms of safety and leak tightness.