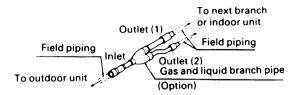
REFNET Pipe System EDUS301518-N

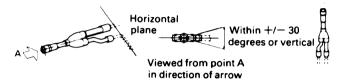
4.2 REFNET Joints and Headers

4.2.1 REFNET Joints

For gas and liquid branch pipes



■ Make sure that all branch pipes are fitted such that they branch either horizontally or vertically.



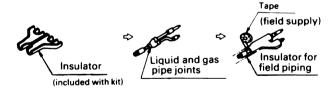
■ When the size of the selected field piping is different from that of branch pipe then the connecting section should be cut with a pipe cutter as shown in the figure below.



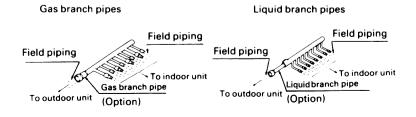
When you are cutting an inlet or outlet pipe with a pipe cutter make sure that you make the cut in the center of the connection area.



■ Branch pipes must be insulated in accordance with the handbook which comes with each kit.

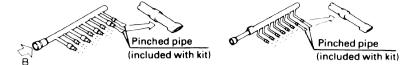


4.2.2 REFNET Headers



EDUS301518-N REFNET Pipe System

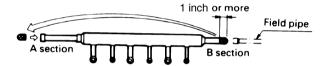
■ When the number of indoor units to be connected to the branch pipes is less than the number of branch pipes available for connection then cap pipes should be fitted to the surplus branches.



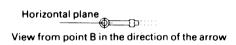
When the size of the selected field piping is different from that of branch pipe then the connecting section should be cut with a pipe cutter as shown in the figure below.



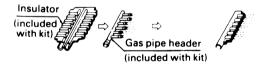
- When field piping is connected to the B section of the inlet/outlet pipe on the outside unit side of the liquid pipe header.
- Cut the B section with a pipe cutter as shown below and connect it to the A section.
- Connect the flared section of the field pipe to the B section.



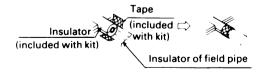
■ Fit the branch pipe so that the branch lies in a horizontal plane.



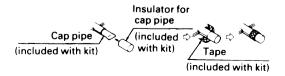
- The branch pipe must be insulated in accordance with the instruction manual which comes with each kit.
- 1. Use the insulator included in the kit to insulate the header.



2. Joints between insulators included in the kit and those already applied to the field piping should be sealed with the tape which is also included in each kit.



3. Any cap pipes should also be insulated using the insulator provided with each kit and then taped as described above.

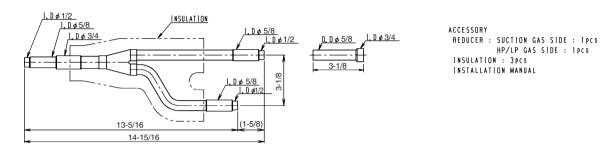


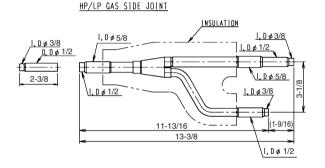
5. REFNET Joint and Header

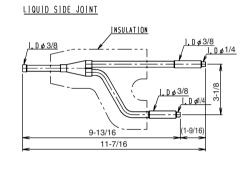
5.1 REFNET Joint (Branch Kit)

KHRP25A22T9 Unit: in.

SUCTION GAS SIDE JOINT



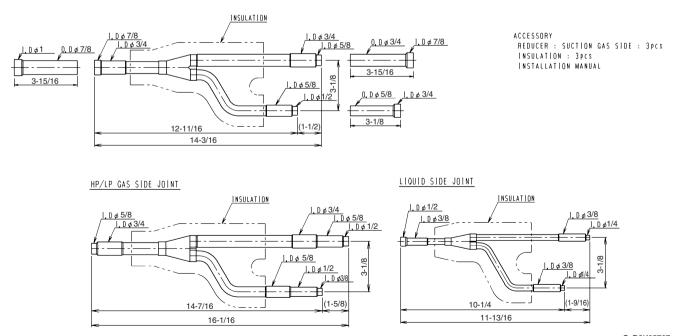




C: D3K05706

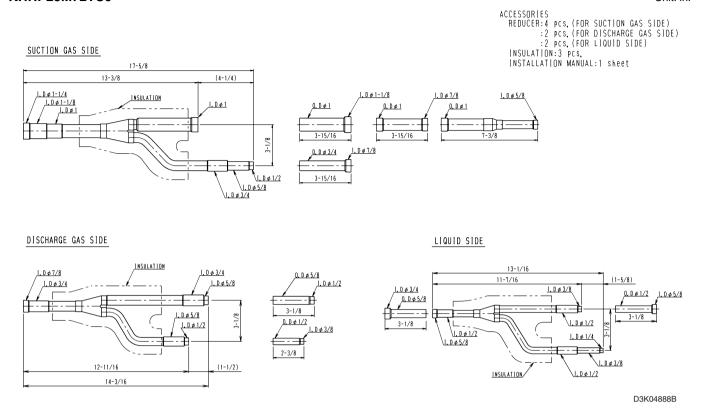
KHRP25A33T9 Unit: in.

SUCTION GAS SIDE JOINT

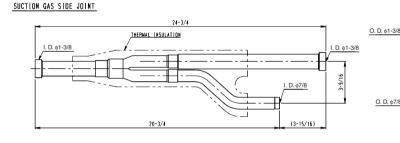


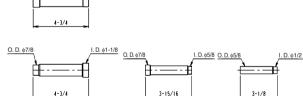
C: D3K05707

KHRP25M72TU9 Unit: in.

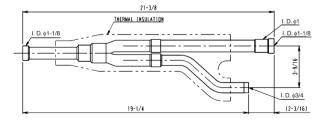


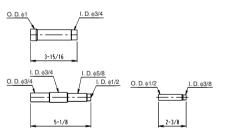
KHRP25M73TU9 Unit: in.



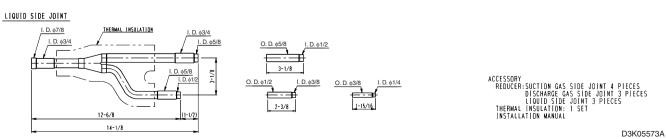


DISCHARGE GAS SIDE JOINT



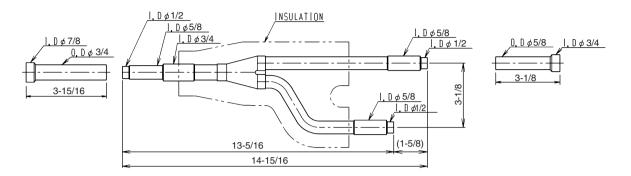


I. D. φ1-1/8

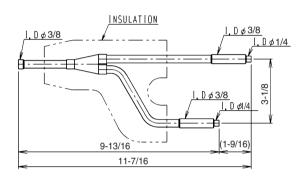


KHRP26A22T9 Unit: in.

GAS SIDE JOINT



LIQUID SIDE JOINT

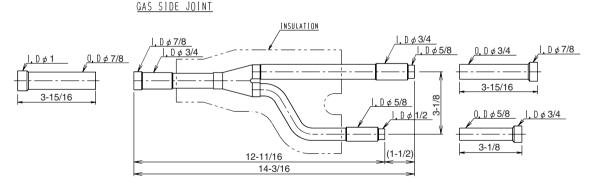


ACCESSORY

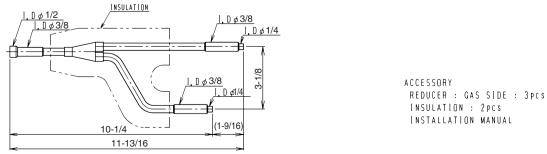
REDUCER: GAS SIDE: 2pcs INSULATION: 2pcs INSTALLATION MANUAL

C: D3K05234A

KHRP26A33T9 Unit: in.



LIQUID SIDE JOINT



C: D3K05235B

KHRP26M72TU9 Unit: in.

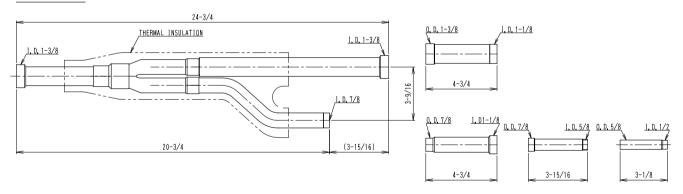
ACCESSORIES

D3K04887A

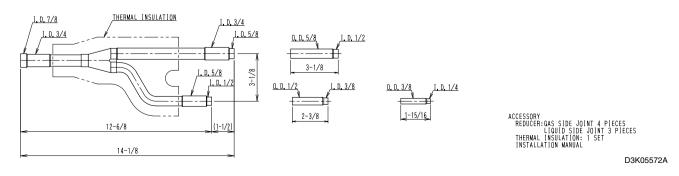
REDUCER:4 pcs. (FOR GAS SIDE) :2 pcs. (FOR LIQUID SIDE) INSULATION:2 pcs. INSTALLATION MANUAL:1 sheet GAS SIDE 13-3/8 (4-1/4) 0. D ø 1 1. D ø 7/8 1. D \u03c4 5/8 INSULATION l. D ø 1−1/8 <u>0. D ø 1</u> 0. D ø 1 7-3/8 3-15/16 3-15/16 \L.Dø1 <u>l. D ø 1</u> 0. D \phi 3/4 <u>l.D ¢ 7/8</u> \l. D ø 1-1/8 \l. D ø 1-1/4 \I. D \sigma 5/8 LIQUID SIDE 13-1/16 11-7/16 (1-5/8) 0. D ø 1/2 I. D ø 3/4 INSULATION l. D ø 5/8 0. D \u03c4 5/8 \l. D ø 1/2 3-1/8 I. D ø 1/2 \<u>1. D ø 5/8</u> l. D ø 1/4 \<u>l.Dø3/8</u> \I.D \phi 1/2

KHRP26M73TU9 Unit: in.

GAS SIDE JOINT



LIQUID SIDE JOINT



KHRP25A22T9 / KHRP25A33T9

REFNET JOINT INSTALLATION MANUAL (Except for JAPAN)

KHRP25A22T • 33T • 72T • 73T (FOR R410A)

■ THIS KIT INCLUDES THE FOLLOWING PARTS.

KIT NAME		SHAPE		
KII NAME	SUCTION GAS SIDE JOINT	HP/LP GAS SIDE JOINT	LIQUID SIDE JOINT	INSULATION
KHRP25A 22T		*	*	
	REDUCER \$\phi 3/4\$	φ 3/8		3 pcs.
KHRP25A 33T				
	REDUCER			3 pcs.
KHRP25A				
	REDUCER # 7/8 #1-1/8×2 pcs.	ø 1 / 7/8 ø 3/4	φ 5/8 φ 3/4	3 pcs.
KHRP25A				
	REDUCER # D D D D D D D D D D D D D D D D D D	\$1-1/4 / 1-1/8 \$1 / 7/8 \$7/8 \$3/8	φ 1/4 φ 3/4 φ 7/8	3 pcs.

☀…Make sure suction gas side joint, HP/LP gas side and liquid side joint are for R410A (Label for R410A is attached on each part,)

(INTRODUCTION)

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

- Between outdoor unit and Branch Selector unit (upstream of Branch Selector unit), use 3 pipings. Use this kit for such branching application.
- ●Between Branch Selector unit and indoor unit (downstream of Branch Selector unit) and between REFNET JOINT and cooling-only indoor unit, use 2 pipings.

3 pipings	2 pipings		
Upstream of Branch Selector unit	Downstream of Branch Selector unit	To cooling-only indoor unit	
Suction gas side piping HP/LP gas side piping Liquid side piping	Gas side piping Liquid side piping	Suction gas side piping Liquid side piping	

(SELECTION PROCEDURE)

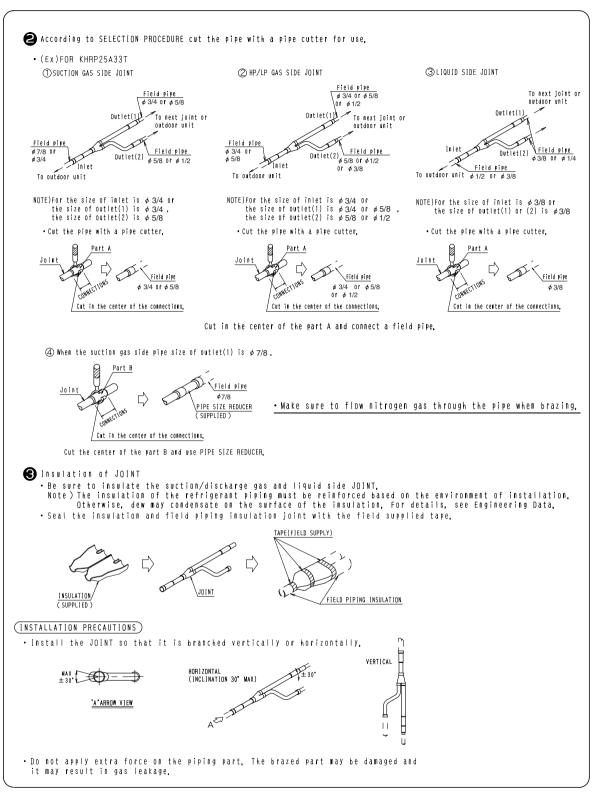
According to the INSTALLATION MANUAL of outdoor unit.

(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
KHRP25A 22T	1.0 ± 1/2 1.0 ± 5/8 1.0 ± 5/8 1.0 ± 5/8 1.0 ± 5/8 1.0 ± 1/2	D#1/2 D#3/8 D#3/2 D#3/2 D#3/2 D#3/2 D#3/2 D#3/8 D#3/2 D#3/2 D#3/2 D#3/2 D#3/2 D#3/2 D#3/2 D#3/8 D#3/2 D#3/	I. D 6 3/8 J. D 6 3/8 Outlet J. D 6 3/8 J. D 6 3/8 J. D 6 3/8 J. D 6 1/4 J. D
KHRP25A 33T	D #7/8	D.65/8 D	D 6 1/2 D 6 1/4 D 6 3/8 D 6
KHRP25A 72T	D d 1-1/4	D 6 1	D 6 5/8
KHRP25A 73T	Det Det	D \$1-1/4	D 45/8

C: 3P203737-1



C: 3P203737-1

KHRP26A22T9 / KHRP26A33T9

REFNET JOINT INSTALLATION MANUAL (Except for JAPAN)
KHRP26A22T • 33T • 72T • 73T (FOR R410A)

THIS KIT INCLUDES THE FOLLOWING PARTS.

KIT NAME			S H A	P E						
KII NAME	GAS SIDE JOINT	LIQUID SIDE JOINT	INSULATION	REI	OUCER (FOR	GAS PI	PE)	REDUCER	FOR LIQU	ID PIPE)
KHRP26A 22T	*	***	2 pcs.	□	- φ7/8				/	
KHRP26A 33T			2 pcs.	□ \$\phi 3/4	- φ7/8		ф1			
KHRP26A 72T			2 pcs.	φ7/8	φ1/φ7/8	φ1-1/	82 PCS.	- φ5/8	[ф3] 5/4
KHRP26A 73T			2 pcs.	φ1/2	φ7/8 φ1-1	/8 ¢1-1/4	φ1-1/2	ф1/4	[]	

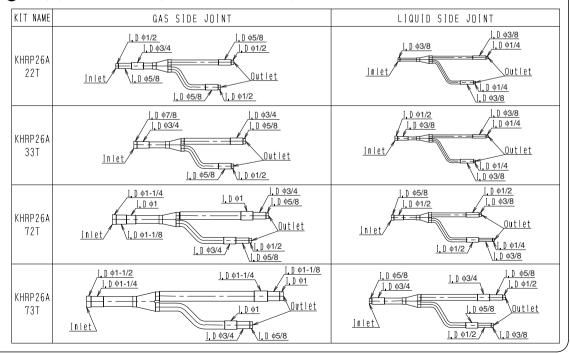
…Make sure gas side joint and liquid side joint are for R410A. (Label for R410A is attached on each part.)

SELECTION PROCEDURE

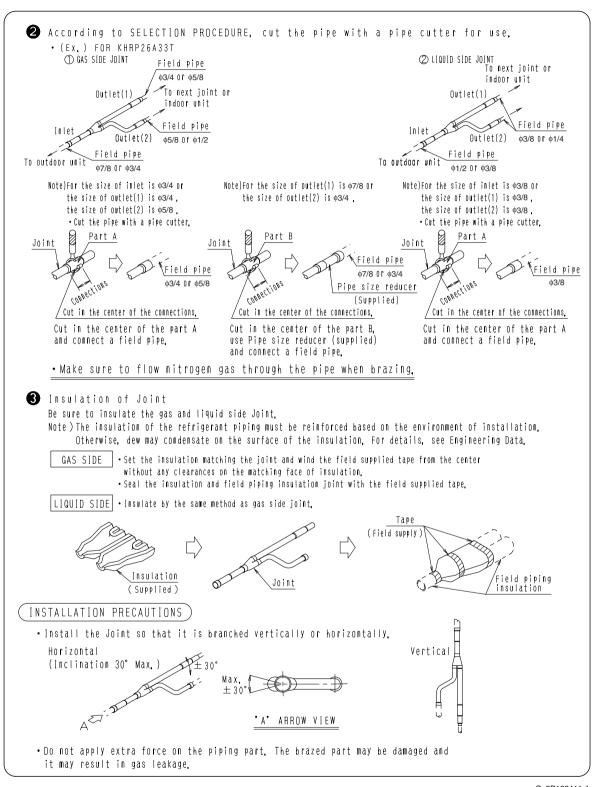
According to the INSTALLATION MANUAL of outdoor unit.

INSTALLATION PROCEDURE

The pipe size of each parts are shown below.



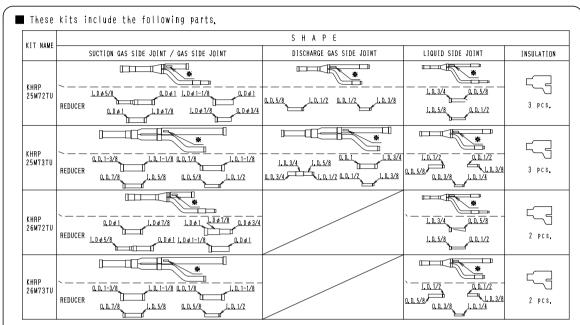
C: 2P182411-1



C: 2P182411-1

KHRP25M72TU9 / KHRP25M73TU9 / KHRP26M72TU9 / KHRP26M73TU9

REFNET JOINT INSTALLATION MANUAL KHRP25M72TU • 73TU, KHRP26M72TU • 73TU(FOR R-410A)



₩...Make sure all of the joints are for R410A, (The label for R410A is attached on each joint,)

(APPLICATION)

• Choose between the two kits according to the system and the location.

SYSTEM	HEAT PUMP	HEAT RECOVERY				
KIT NAME	KHRP26M72TU – 73TU(2 pipings)	KHRP25M72TU • 73TU(3 pipings) KHRP26M72TU • 73TU(2 pipings)				
LOCATION	Outdoor unit~indoor units	Upstream of Branch Selector units	Downstream of Branch Selector units	To cooling-only indoor unit		
REFRIGERANT PIPING	Gas side piping Liquid side piping	Suction gas side piping Discharge gas side piping Liquid side piping	Gas side piping Liquid side piping	Suction gas side piping Liquid side piping		

(SELECTION PROCEDURE)

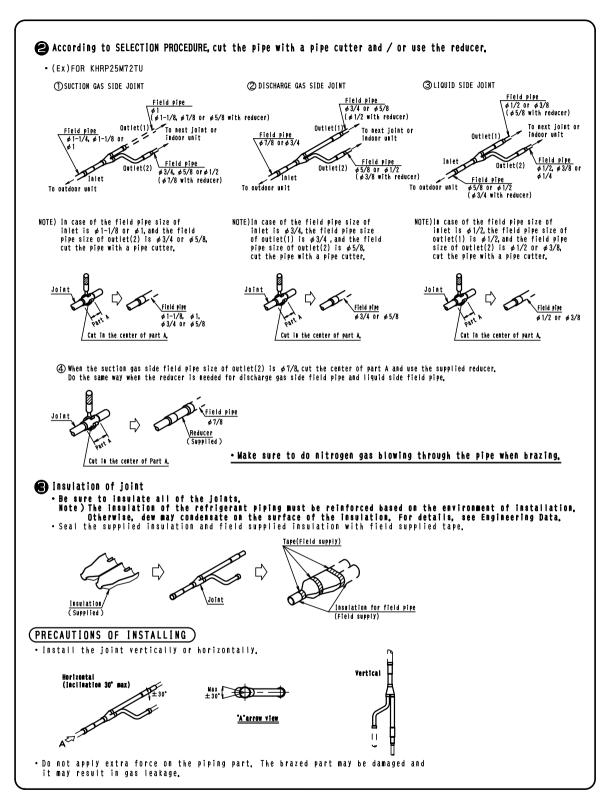
• Refer to the installation manual of outdoor unit.

(INSTALLATION PROCEDURE)

1 Inlet and outlet sizes of the joints

KIT NAME	(SUCTION) GAS SIDE JOINT	DISCHARGE GAS SIDE JOINT	LIQUID SIDE JOINT
KHRP 25M72TU	L.D.1-1/8 L.D.1 Dutlet L.D.1-1/4 L.D.3/4 L.D.3/4 L.D.3/8	1. D. 3/4 1. D. 5/8 1. D. 1/2	1. D. 1/2 1. D. 3/8
KHRP 25M73TU	In it is in	Inlet Inlet	1. D. 3/4 1. D. 5/8 1. D. 7/8 1. D. 5/8 1. D. 1/2
KHRP 26M72TU	L.D. 1-1/8 L.D. 1 Dut let L.D. 1-1/4 L.D. 1/2 L.D. 1/2 L.D. 1/2 L.D. 5/8		i.D. 1/2 i.D. 3/8 inist i.D. 5/8 Dutlet i.D. 5/8
KHRP 26M73TU	J. D. 1-3/8 J. D. 1-3/8 Outlet		1.0.3/4 1.0.5/8 101et

C: 3P161697-1D

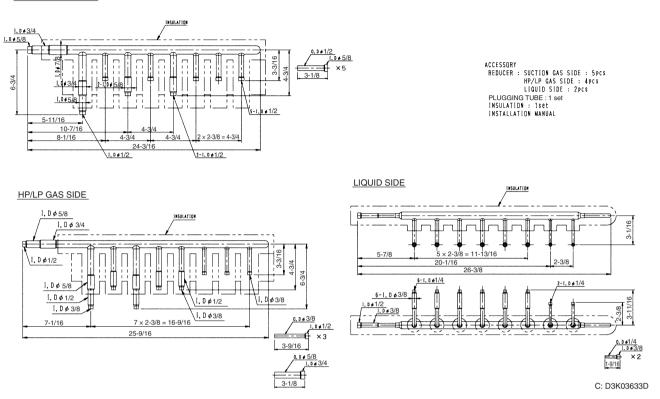


3P161697-1D

5.2 **REFNET Header (Branch Kit)**

KHRP25M33H9 Unit: in.

SUCTION GAS SIDE



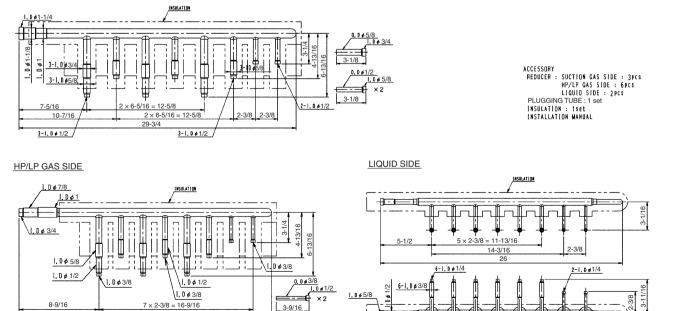
KHRP25M72H9 Unit: in.



8-9/16

7 × 2-3/8 = 16-9/16

27-1/16



44 Installation of Outside Units

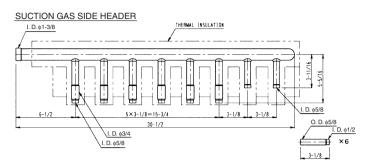
C: D3K03634D

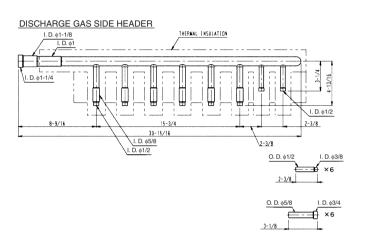
3-9/16

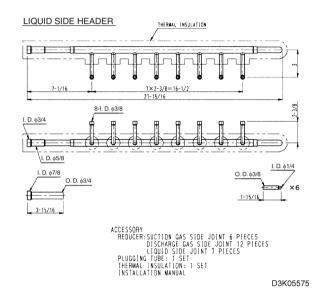
3-1/8

0, 0 ø 1/2

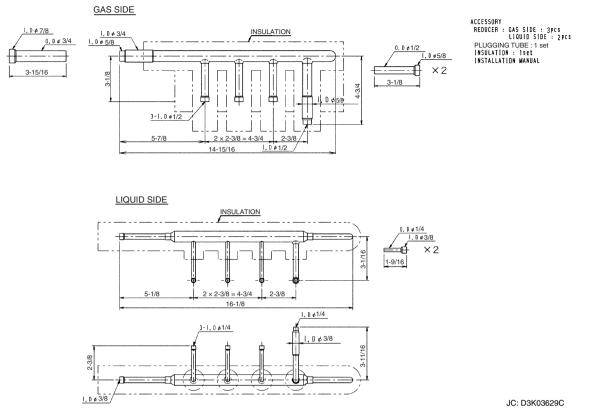
KHRP25M73HU9 Unit: in.



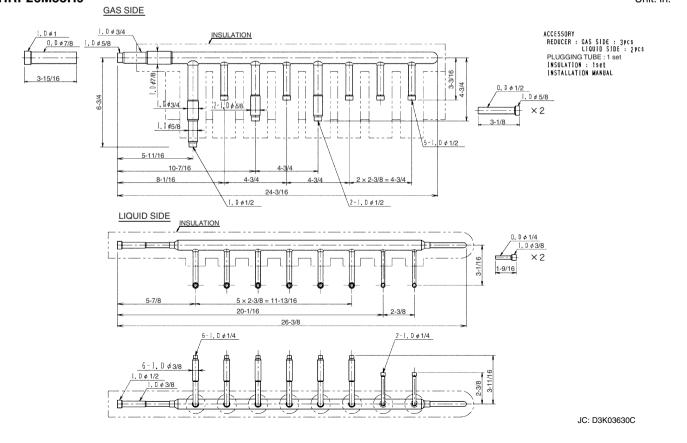




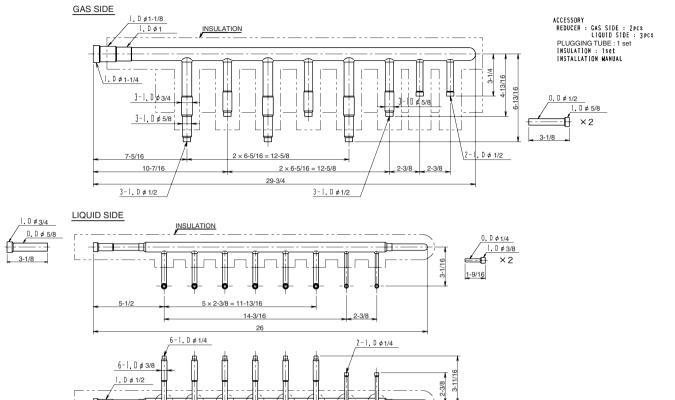
KHRP26M22H9 Unit: in.



KHRP26M33H9 Unit: in.

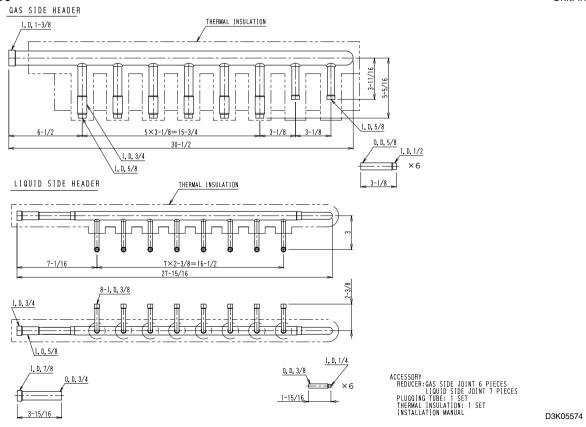


KHRP26M72H9 Unit: in.



KHRP26M73HU9 Unit: in.

\l. D ø 5/8



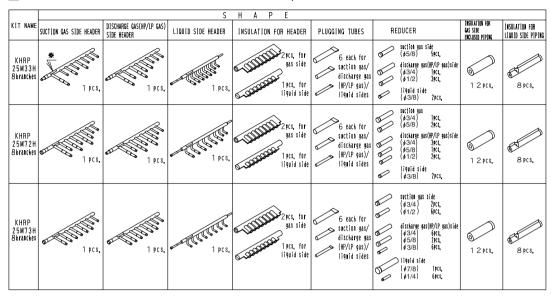
JC: D3K03631C

KHRP25M33H9 / KHRP25M72H9

REFNET HEADER INSTALLATION MANUAL (Except for JAPAN)

KHRP25M33H • 72H • 73H (FOR R410A)

THIS KIT INCLUDES THE FOLLOWING PARTS.



★…Make sure suction gas side header, discharge gas(HP/LP gas) side and liquid side header are for R410A, (Label for R410A is attached on each part,)

[INTRODUCTION]

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

- Between outdoor unit and Branch Selector unit (upstream of Branch Selector unit), use 3 pipings. Use this kit for such branching application.
- Between Branch Selector unit and indoor unit (downstream of Branch Selector unit) and between REFNET HEADER and cooling-only indoor unit, use 2 pipings

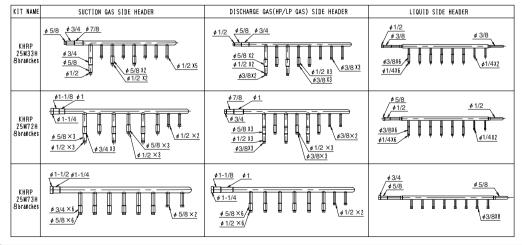
	3 pipings	2 pip	ings	
	Upstream of Branch Selector unit	Downstream of Branch Selector unit	To cooling-only indoor unit	
s.	Suction gas side piping Discharge gas(HP/LP gas) side piping Liquid side piping	Gas side piping Liquid side piping	Suction gas side piping Liquid side piping	

(SELECTION PROCEDURE)

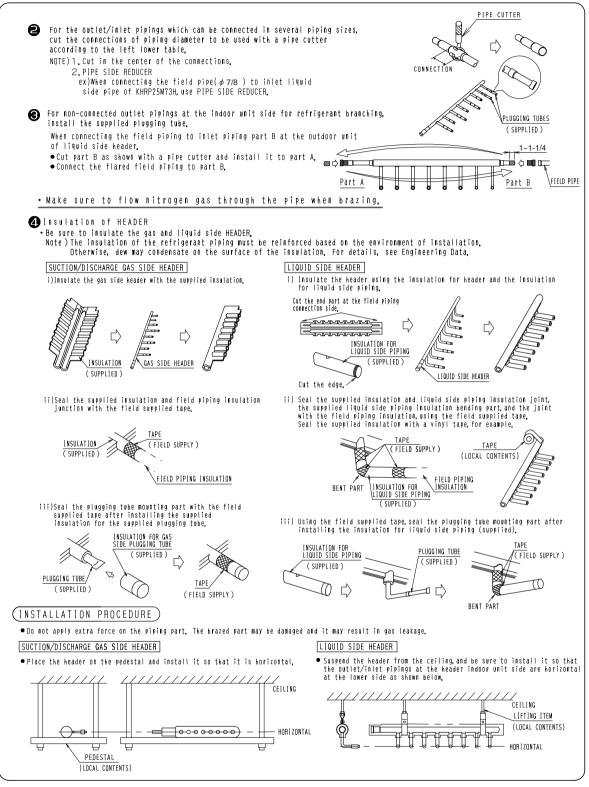
According to the INSTALLATION MANUAL of outdoor unit.

(INSTALLATION PROCEDURE)

1 The pipe size of each parts are shown below.



C: 3P113623-1D



C: 3P113623-1D

KHRP26M22H9 / KHRP26M33H9 / KHRP26M72H9

REFNET HEADER INSTALLATION MANUAL (Except for JAPAN) KHRP26M22H • 33H • 72H • 73H(FOR R410A)

■ THIS KIT INCLUDES THE FOLLOWING PARTS.

			S	H A P E			
KIT NAME	GAS SIDE HEADER	LIQUID SIDE HEADER	PLUGGING TUBES	REDUCER	INSULATION FOR HEADER	INSULATION FOR GAS SIDE ENCLOSED PIPING	INSULATION FOR Liquid side piping
KHRP 26M22H 4branches	* 1 PCS.	1 PCS.	2 each for gas/liquid sides	for liquid sides	1 each for gas/liquid sides	2 pcs.	4 pcs.
KHRP 26M33H 8branches	1 PCS.	1 PCS.	6 each for gas/liquid sides	for liquid sides	1 each for gas/liquid sides	6 pcs.	8 pcs.
KHRP 26M72H 8branches	1 pcs.	1 pcs.	6 each for gas/liquid sides	for gas sides (\phi5/8) 2pcs. for liquid sides	1 each for gas/liquid sides	6 pc s.	8 pcs.
KHRP 26M73H 8 branches	1 pcs.	1 pcs.	6 each for gas/liquid sides	6 pcs, for gas sides(\phi1/2) for liquid sides (\phi1/4)6pcs, (\phi7/8)1pcs,	1 each for gas/liquid sides	6 pcs.	8 pcs.

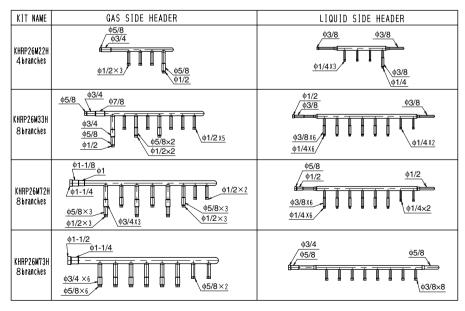
₩...Make sure gas side header and liquid side header are for R-410A (Label for R-410A is attached on each part,)

(SELECTION PROCEDURE)

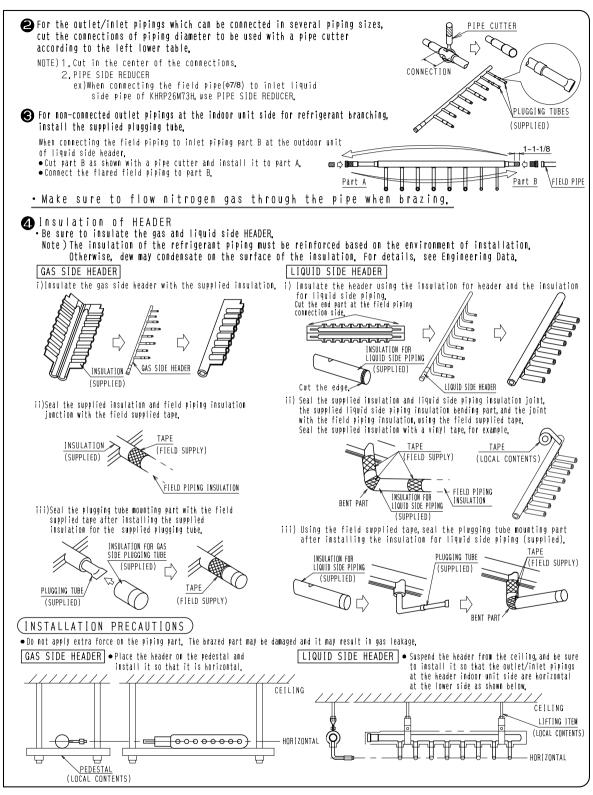
According to the INSTALLATION MANUAL of outdoor unit.

(INSTALLATION PROCEDURE)

1 The pipe size of each parts are shown below.



C: 3P113151-1C

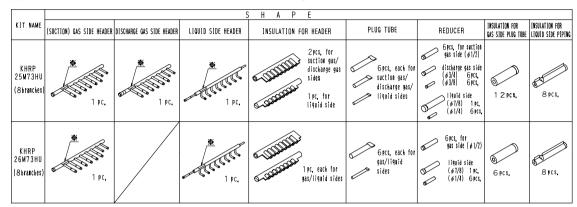


C: 3P113151-1C

KHRP25M73HU9 / KHRP26M73HU9

REFNET HEADER INSTALLATION MANUAL KHRP25M73HU • KHRP26M73HU(FOR R410A)

■ THESE KITS INCLUDE THE FOLLOWING PARTS.



₩...Make sure thses headers are for R410A (A label for R410A is sticked on them.)

(APPLICATION)

• Choose between the two kits according to the system and the location.

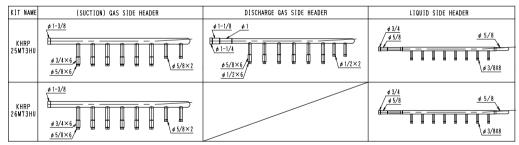
SYSTEM	HEAT PUMP	HEAT RECOVERY				
KIT NAME	KHRP26M73HU(2 pipings)	KHRP25M73HU(3 pipings) KHRP26M73HU(2 pipings)				
LOCATION	Outdoor unit~indoor units	Upstream of Branch Selector units	Downstream of Branch Selector units	To cooling-only indoor unit		
REFRIGERANT PIPING	Gas side piping Liquid side piping	Suction gas side piping Discharge gas side piping Liquid side piping	Gas side piping Liquid side piping	Suction gas side piping Liquid side piping		

(SELECTION PROCEDURE)

According to the installation manual of outdoor unit.

(INSTALLATION PROCEDURE)

1 Inlet and outlet sizes of the headers



For the outlet/inlet of headers which can be connected with several sizes of field piping, cut the connections of headers to be used with a pipe cutter according to the above table.

NOTE) 1. Cut the center of the connections.

2. Pipe size reducer

ex)When connecting a field pipe(ϕ 7/8) to the inlet of liquid side header, use the supplied pipe size reducer.

For non-connected outlet at the indoor unit side, install the supplied plug tubes.

When connecting a field piping to the inlet part B of liquid side header.

•Cut the part B as shown with a pipe cutter and install it to the part A.

• Connect a flared field piping to the part B.

· Make sure to flow nitrogen gas through piping when brazing.

FIELD PIPE Part B Part A

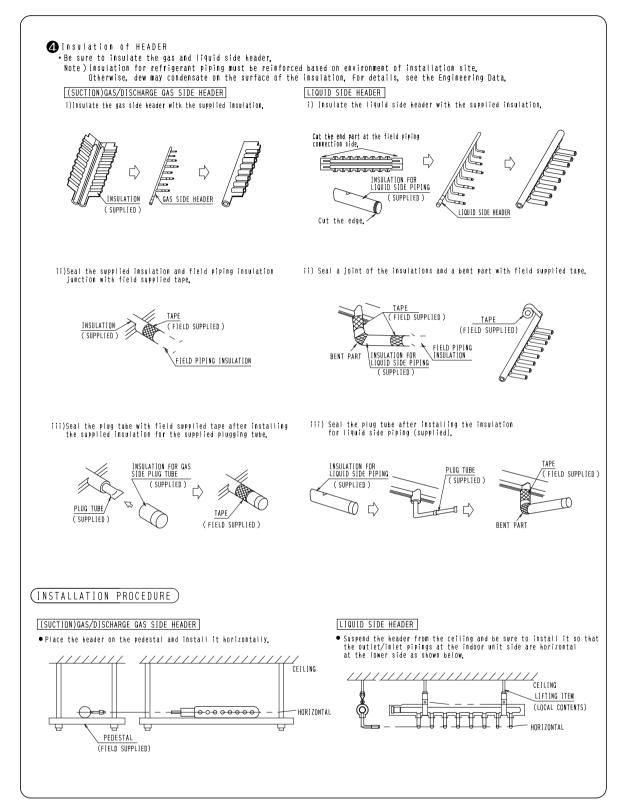
PIPE CUTTER

CONNECTION

C: 3P185500-1

PLUGGING TUBES

(SUPPLIED)



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