

Line Branch Models: E-102SN4, E-162SN4, E-242SN3, E-302SN3

NOTE

Hand over this installation manual to the next installation work personnel.

1 APPLICABLE OUTDOOR UNITS

These multiple pipe connecting kits can be applied to the R410A SET-FREE series.

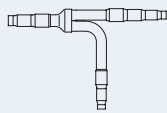
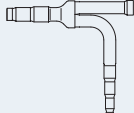
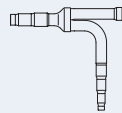
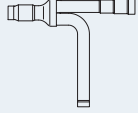
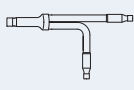
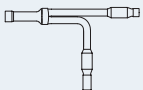
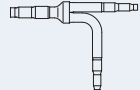
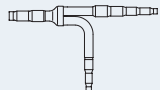
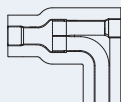
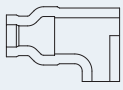
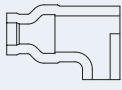
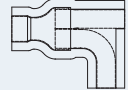
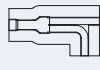
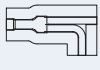
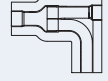
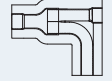
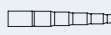
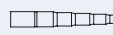
2 TRANSPORTATION

Transport the product as close to the installation location as practical before unpacking.

3 BEFORE INSTALLATION

Confirm the number of the following parts by referring to the model printed on the package before unpacking.

Do NOT put any foreign material into the parts. Check to confirm that no foreign materials are inside the parts before installation.

Name of parts		E-102SN4	E-162SN4	E-242SN3	E-302SN3
		Q'ty	Q'ty	Q'ty	Q'ty
Branch pipe for high/low pressure gas line		 1	 1	 1	 1
Branch pipe for liquid line		 1	 1	 1	 1
Accessory	Insulation for high/low pressure gas line	 1	 1	 1	 1
	Insulation for liquid line	 1	 1	 1	 1
	Reducer for high/low pressure gas line connection (For end of Multi-Kit connection)	 1	 1	 1	 1
		— None	— None	— None	 1
		— None	— None	— None	 1
	Reducer for liquid line connection (For unit piping connection)	 1 2	 1 1 1	 1	 1
Tape		 2	 2	 2	 2

NOTE

If any of these parts is not contained, please contact your distributor.

4 INSTALLATION WORK

4.1 PIPING CONNECTION SIZE

The ends of the multi-kits are finished as shown in the following figures. Cut the end of the pipe to meet with the pipe size.

⚠ CAUTION

Piping shall be supported with adequate space. Bent pipes and bypass piping (horizontal loop) shall also be installed in order to absorb piping elasticity caused by temperature changes.

Model	High/low pressure gas line	Liquid line
E-102SN4		
E-162SN4		

Model	High/low pressure gas line	Liquid line
E-242SN3		
E-302SN3		

Unit: mm, ID: Inner Diameter, OD: Outer Diameter

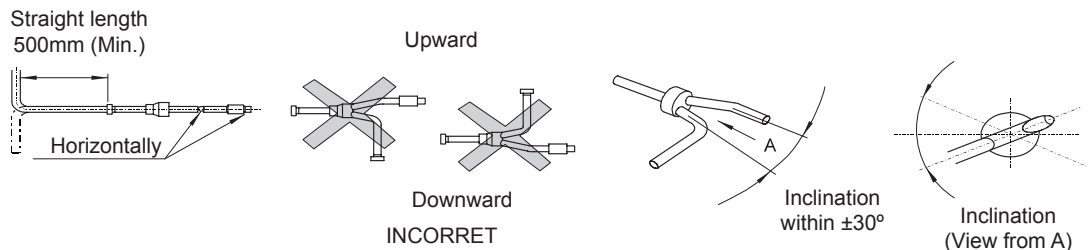
A	To indoor unit
B	To outdoor unit
C	To main piping

4.2 INSTALLATION POSITION

1 Horizontal Installation

Locate the branch pipes to become the caution label uppermost on the same horizontal plane. (Inclination within $\pm 30^\circ$)

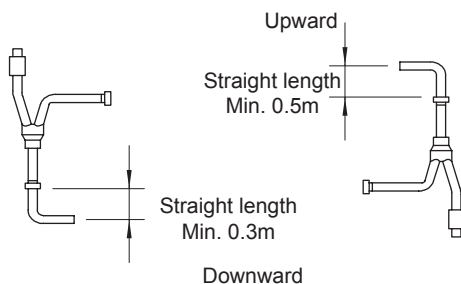
Make the straight length a minimum of 500mm after the vertical bend.



2 Vertical Installation

Straight length of the pipe connection on the outdoor unit side is made as follows:

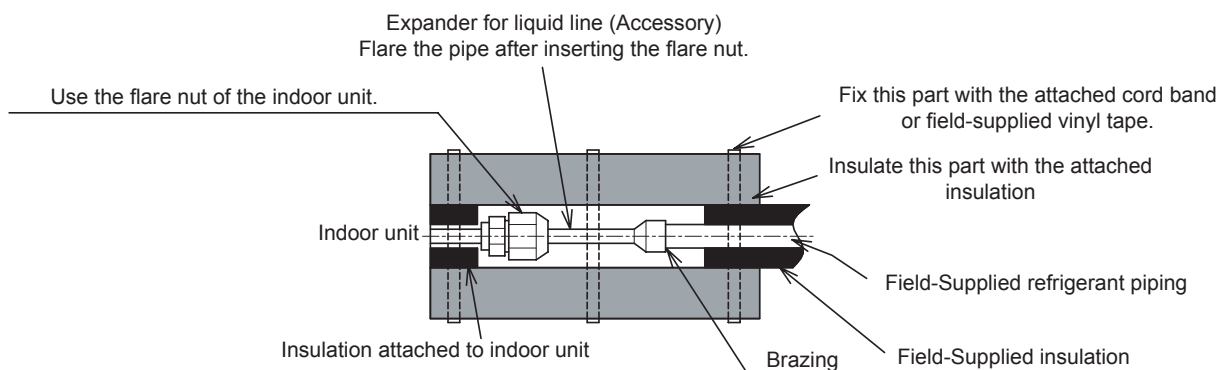
- The collective pipe connection part is installed upward, the straight length must be min. 0.5m
- The collective pipe connection part is installed downward, the straight length must be min. 0.3m.



4.3 CONNECTION PROCEDURE FOR PIPING JOINT

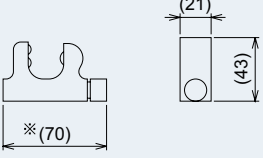
When connecting liquid piping for the unit with a capacity 2.0HP or smaller, and with the length of piping is 15 meters or longer, apply the piping size of $\phi 9.52\text{mm}$. Fix the connecting pipe as shown in the below figure.

Use the insulation attached to the indoor unit. Example: 36HP (The combination of 3 outdoor units)

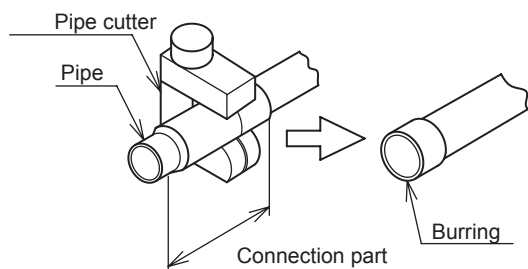


4.4 PIPING CONNECTION

- 1 When the branched pipe size is smaller than 22.2mm of inner diameter, a mini pipe cutter (field-supplied) as follow is required.

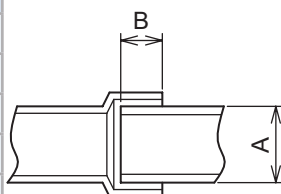
(mm)		
Recommended mini pipe cutter	Cleavable size	Rotating radius
	Ø 5 - 28	(50)

- 2 Use clean copper pipes without any moisture or foreign materials on inner surface of pipes. When connecting refrigerant pipe, cut the copper pipes with a pipe cutter as shown below. Also blow the pipes with nitrogen or air to remain no dust inside the pipe. Do NOT use a saw, a grindstone or others which causes a large amount of cutting powder.



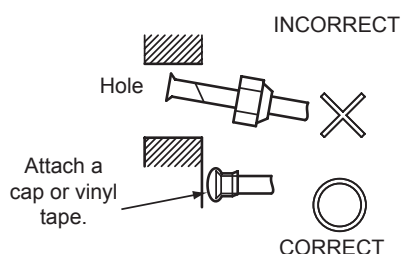
- 3 When cutting the pipe, secure the adequate depth for brazing as shown in the following table.

(mm)	
A: Outer diameter	B: Minimum depth
Over 5, Below 8	6
Over 8, Below 12	7
Over 12, Below 16	8
Over 16, Below 25	10
Over 25, Below 35	12
Over 35, Below 45	14

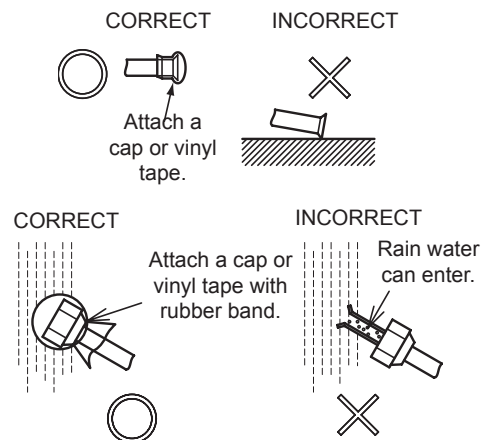


- Caution for Refrigerant Piping

When installing pipe through the wall, secure a cap at the end of the pipe.



Do NOT place the pipe directly on the ground.



- 4 Make sure that all stop valves of the outdoor unit are closed completely.
- 5 Blow the inside of the pipes with nitrogen gas when brazing.

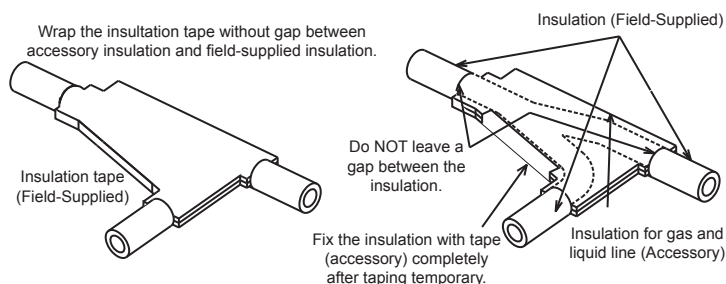
⚠ DANGER

Make sure that the refrigerant leakage test should be performed. Refrigerant (Fluorocarbon) for the indoor unit is non-flammable, non-toxic and odorless. However, if the refrigerant is leaked and is contacted with fire, toxic gas will generate. Also, because the fluorocarbon is heavier than air, the floor surface will be filled with it, which could cause suffocation.

- 6 The air tight test pressure of this product is 4.15MPa.
- 7 Apply the insulation supplied with this multi-kits to each branch (liquid side and gas side) with a tape. Also apply the field-supplied insulation to the field-supplied pipes.

i NOTE

When polyethylene foam is applied, a thickness of 10mm for liquid piping and 15mm to 20mm for gas piping is recommended. (Use the insulation with heat resistance of 100°C for gas piping.)



⚠ CAUTION

- Perform the insulation work when the pipe surface temperature decreases to the room temperature. If insulation work is performed immediately after brazing, insulation may melt.
- If the ends of pipe are open to the atmosphere for a while after performing piping work, securely put caps or plastic bags over the pipe ends for avoiding moisture or dust.

After installation, it is recommended to keep this manual by a customer.

Modelos de distribuidor en línea: E-102SN4, E-162SN4, E-242SN3, E-302SN3

NOTA

Facilite este manual al personal encargado de realizar la instalación.

1 UNIDADES EXTERIORES APLICABLES

Estos kits de conexiones múltiples pueden emplearse con la serie SET-FREE R410A.

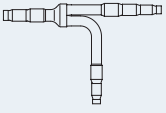
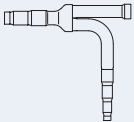
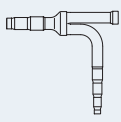
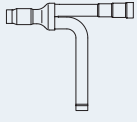
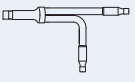
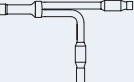
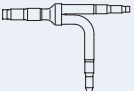
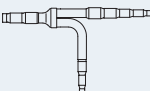
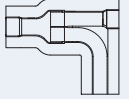
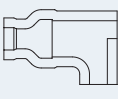
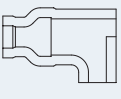
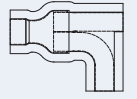
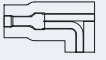
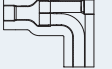
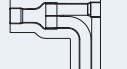
2 TRANSPORTE

Llevar el producto lo más cerca posible del lugar de instalación antes de desembalarlo.

3 ANTES DE LA INSTALACIÓN

Antes de desembalar confirme las siguientes cantidades de piezas consultando el modelo impreso en la caja.

NO coloque ningún material extraño en las piezas. Asegúrese de que no hay ningún material extraño dentro de las piezas.

Nombre de las piezas		E-102SN4		E-162SN4		E-242SN3		E-302SN3	
		Cant		Cant		Cant		Cant	
Tubería de bifurcación para línea de gas de alta/baja presión									
		1		1		1		1	
Tubería de bifurcación para línea de líquido									
		1		1		1		1	
Accesorio	Aislamiento para línea de gas de alta/baja presión								
		1		1		1		1	
	Aislamiento para línea de líquido								
		1		1		1		1	
	Reductor para la conexión de línea de gas de alta/baja presión (para el extremo de la conexión del multi-kit)								
		1		1		1		1	
	Reductor para la conexión de la línea de líquido (para la conexión de las tuberías de la unidad)	—		—		—			
		Ninguno		Ninguno		Ninguno		1	
		—		—		—			
		Ninguno		Ninguno		Ninguno		1	
									
		1	2	1	1	1	1	1	1
Cinta									
		2		2		2		2	

NOTA

Si falta cualquiera de estas piezas, póngase en contacto con su distribuidor.

4 INSTALACIÓN

4.1 TAMAÑO DE LA CONEXIÓN DE LAS TUBERÍAS

Los extremos de los kits de conexiones múltiples se muestran en las figuras siguientes. Corte el extremo de la tubería de acuerdo con el tamaño de la misma.

⚠ PRECAUCIÓN

Las tuberías deben tener suficiente espacio. Deben instalarse también tuberías curvadas y de bifurcación (bucle horizontal) para absorber la elasticidad causada por los cambios de temperatura.

Modelo	Línea de gas de alta/baja presión	Línea de líquido
E-102SN4	Diagram showing the gas line connection for model E-102SN4. The main assembly has a total width of 301 and a height of 168. The right side has a height of 179. The bottom connection has a width of 177 and a height of 60. Part numbers include ID15.88, ID19.05, ID22.2, ID12.7, and OD15.88.	Diagram showing the liquid line connection for model E-102SN4. The main assembly has a total width of 178 and a height of 80. The right side has a height of 86. The bottom connection has a width of 113 and a height of 55. Part numbers include ID9.52, ID6.35, and OD6.35.
E-162SN4	Diagram showing the gas line connection for model E-162SN4. The main assembly has a total width of 268 and a height of 217. The right side has a height of 231. The bottom connection has a width of 218 and a height of 194. Part numbers include ID22.22, ID25.4, ID28.58, ID12.7, ID19.05, ID15.88, and OD28.58.	Diagram showing the liquid line connection for model E-162SN4. The main assembly has a total width of 184 and a height of 116. The right side has a height of 122. The bottom connection has a width of 113 and a height of 60. Part numbers include ID9.52, ID12.7, ID6.35, and OD9.52.

Modelo	Línea de gas de alta/baja presión	Línea de líquido
E-242SN3		
E-302SN3		

Unidad: mm, ID: diámetro interior, OD: diámetro exterior

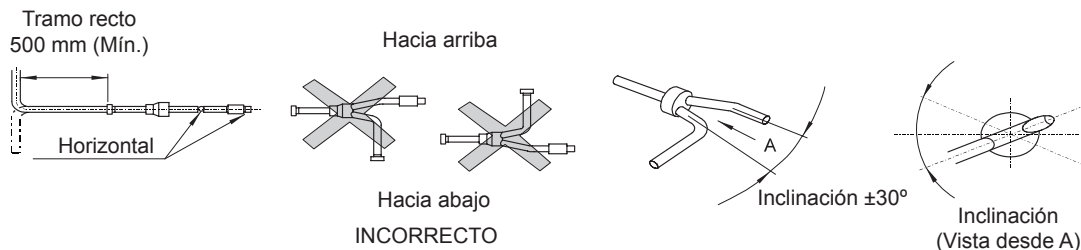
A	A la unidad interior
B	A la unidad exterior
C	A la tubería principal

4.2 POSICIÓN DE LA INSTALACIÓN

1 Instalación horizontal

Identifique la tubería de bifurcación donde irá la etiqueta de advertencia en el mismo plano horizontal. (Pendiente +30o)

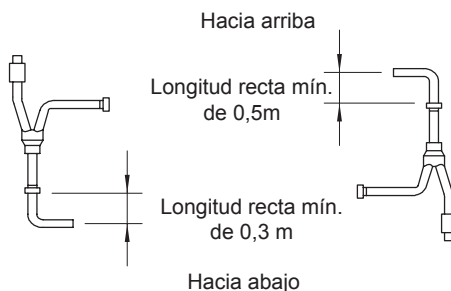
Asegúrese de que la tubería está totalmente recta por lo menos durante 500 mm después de cada codo.



2 Instalación vertical

El tramo recto de la conexión de la tubería del lateral de la unidad exterior se realiza como se indica a continuación:

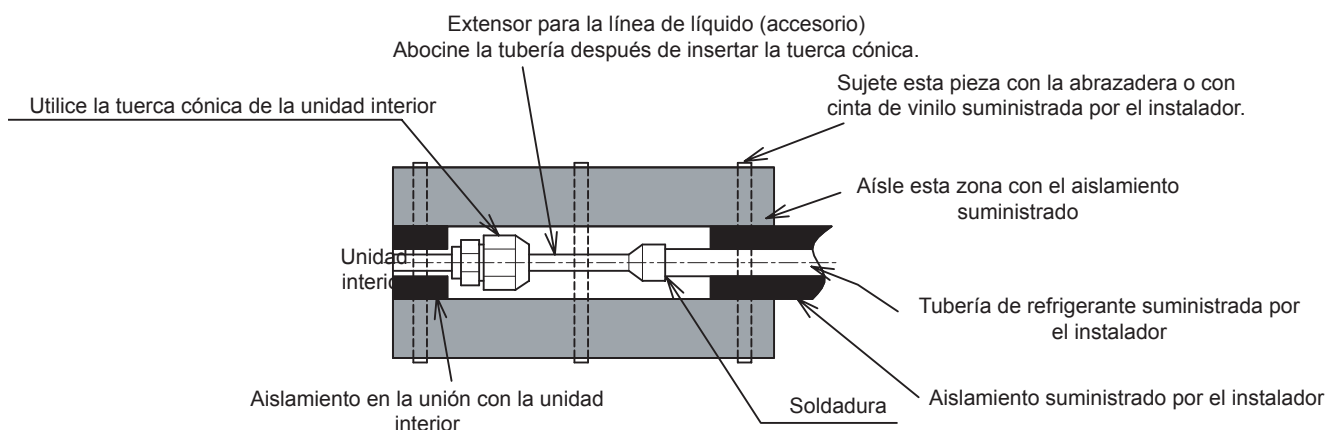
- La pieza de conexión de la tubería colectiva se instala hacia arriba; el tramo recto debe tener un mínimo de 0,5 m.
- La pieza de conexión de la tubería colectiva se instala hacia abajo; el tramo recto debe tener un mínimo de 0,3 m.



4.3 PROCEDIMIENTO PARA LA CONEXIÓN DE LA JUNTA DE LA TUBERÍA

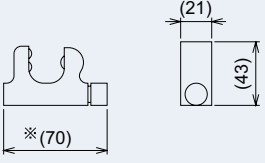
Al conectar tuberías de líquido de unidades de 2 CV o menos y de una longitud de 15 metros o más, utilice tuberías de $\phi 9,52$ mm de diámetro. Fije la tubería de conexión como se muestra a continuación.

Utilice el aislamiento en la unión con la unidad interior. Ejemplo: 36 CV (combinación de 3 unidades exteriores)

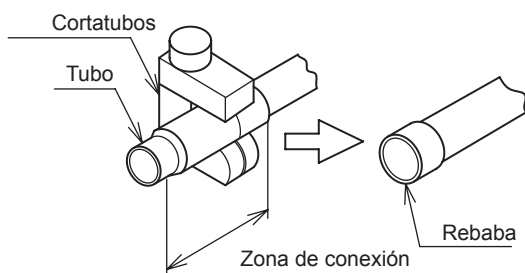


4.4 CONEXIÓN DE LAS TUBERÍAS

- 1 Cuando la tubería de bifurcación sea de menos de 22,2 mm de diámetro interior será necesario un cortador de tubos (suministrado por el instalador).

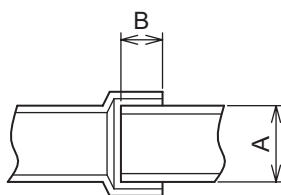
(mm)		
Cortatubos recomendado	Rango de diámetros	Radio de rotación
 ※ Inferior a 70 mm	Ø 5 - 28	(50)

- 2 Utilice tuberías de cobre limpias sin humedad ni partículas extrañas en su interior. Cuando conecte tuberías de refrigerante, corte las tuberías de cobre con cortatubos como se muestra a continuación. Sopla las tuberías con nitrógeno o aire para eliminar el polvo de su interior. NO utilice sierras, muelas desfibradoras ni otras herramientas que puedan producir grandes cantidades de polvo al cortar.



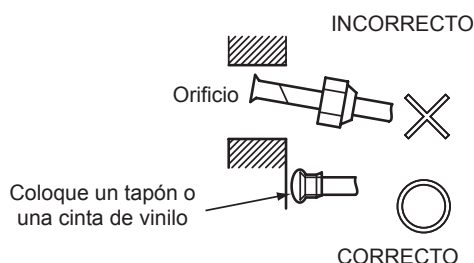
- 3 Cuando corte las tuberías, asegúrese de que queda el espesor necesario para la soldadura (consulte la siguiente tabla).

(mm)	
A: Diámetro exterior	B: Espesor mínimo
Más de 5, menos de 8	6
Más de 8, menos de 12	7
Más de 12, menos de 16	8
Más de 16, menos de 25	10
Más de 25, menos de 35	12
Más de 35, menos de 45	14

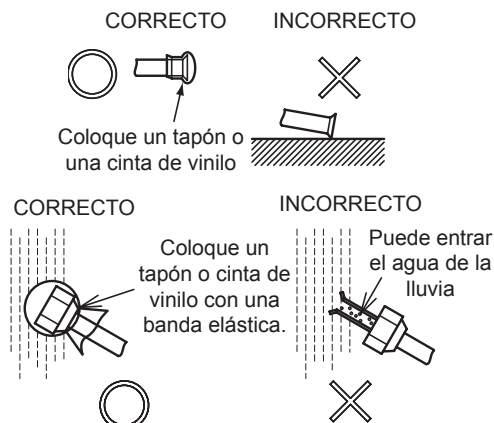


- Precauciones con la tubería de refrigerante

Cuando pase una tubería a través de la pared, tape el extremo de la misma.



NO coloque la tubería directamente en el suelo.



- 4 Asegúrese de que todas las válvulas de servicio de la unidad exterior están completamente cerradas.
- 5 Sopla el interior las tuberías con gas nitrógeno cuando suelde.

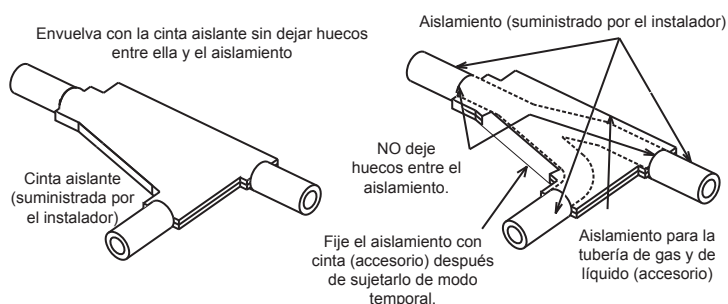
! PELIGRO

Compruebe que se realiza la prueba de fugas de refrigerante. El refrigerante (fluorocarbono) de la unidad interior es incombustible, no tóxico e inoloro. No obstante, si hubiera alguna fuga y entrara en contacto con fuego, se generaría un gas tóxico. El fluorocarbono quedaría en el suelo ya que es más pesado que el aire y podría provocar asfixia.

- 6 La presión para la prueba de hermeticidad es de 4,15 MPa.
- 7 Coloque el aislamiento suministrado a cada una de las bifurcaciones (del líquido y del gas) con cinta. Colóquelo también en las tuberías.

i NOTA

Al utilizar espuma de polietileno, se recomienda un grosor de 10 mm para la tubería de líquido y entre 15 y 20 mm para la de gas. (Use aislamiento con una resistencia térmica de 100°C para tuberías de gas).



! PRECAUCIÓN

- Coloque el aislamiento cuando la temperatura de la tubería sea inferior a la temperatura de la habitación. Si lo hace inmediatamente después de soldar, puede derretirse.
- Asegúrese de colocar tapones o bolsas de plástico en los extremos de la tubería para evitar la entrada de humedad o de polvo.

Es recomendable conservar este manual después de la instalación.

Leitungsabzeichnungsmodelle: E-102SN4, E-162SN4, E-242SN3, E-302SN3

HINWEIS

Geben Sie dieses Installationshandbuch dem nächsten Mitarbeiter für Installationsarbeiten.

1 GEEIGNETE AUSSENGERÄTE

Diese Sätze für den Anschluss mehrerer Rohre wurden für die Baureihe R410A SET-FREE konzipiert.

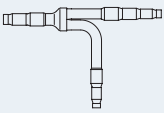
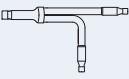
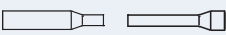
2 TRANSPORT

Das Produkt vor dem Auspacken so nahe wie möglich zur Aufstellungsstelle transportieren.

3 VOR DER INSTALLATION

Vergewissern Sie sich vor dem Auspacken über die Anzahl der folgenden Teile, die unter dem auf der Packung abgedruckten Modell zu finden sind.

Bitte legen Sie keine Fremdkörper in die Teile. Vergewissern Sie sich vor der Installation, dass sich keine Fremdkörper in den Teilen befinden.

Teilebezeichnungen		E-102SN4		E-162SN4		E-242SN3		E-302SN3	
		Mge		Mge		Mge		Mge	
Verteilerrohr für HD /ND Gasleitung		1		1		1		1	
Verteilerrohr für Flüssigkeitsleitung		1		1		1		1	
Zubehör	Isolierung für HD / ND Gasleitung	1		1		1		1	
	Isolierung für Flüssigkeitsleitung	1		1		1		1	
	Reduzierstück für HD / ND Gasleitungsanschluss (Für Endstück des Multi-Kitanschlusses)	1		1		1		1	
		Keine		Keine		Keine		1	
Reduzierstück für Flüssigkeitsleitungsanschluss (Für Geräteleitungs-Anschluss)		1	2	1	1	1		1	
Band		2		2		2		2	

HINWEIS

Sollte eines dieser Teile fehlen, setzen Sie sich bitte mit Ihrem Händler in Verbindung.

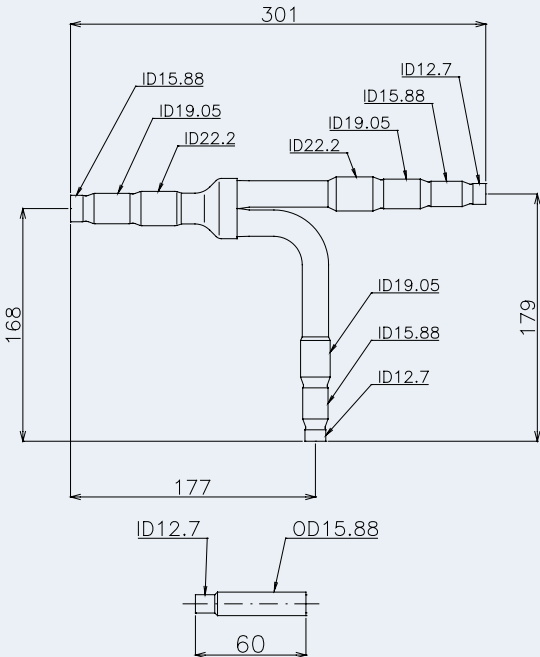
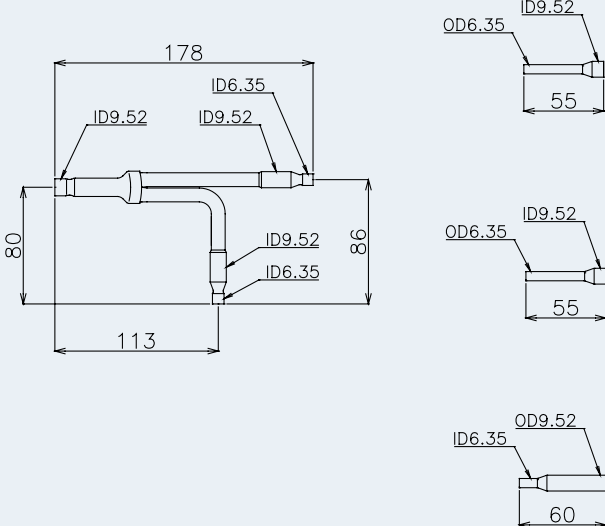
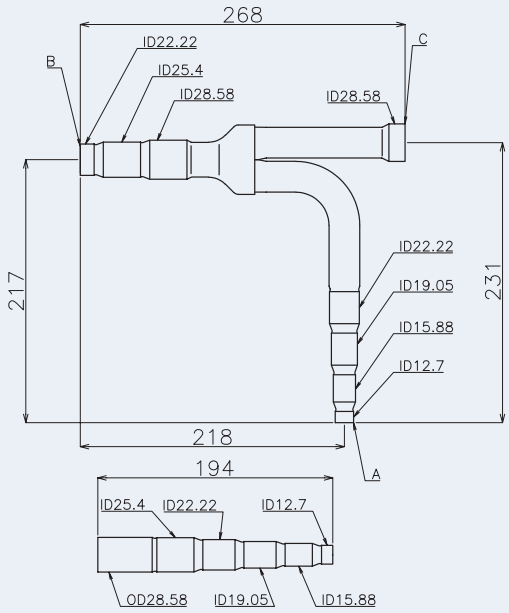
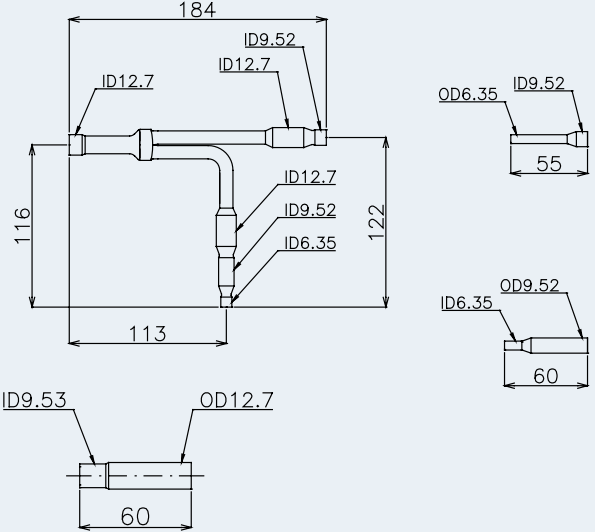
4 INSTALLATION

4.1 ROHRLEITUNGSANSCHLUSSGRÖSSE

Die Endstücke der Multi-Kits sind entsprechend den folgenden Abbildungen ausgelegt. Durchtrennen Sie das Ende der Rohrleitung so, dass es der gewünschten Rohrstärke entspricht.

VORSICHT

Die Rohre müssen so befestigt werden, dass ausreichend Freiraum bleibt. Gebogene Rohre und Umgehungsrohre (waagerechte Leitungsschleifen) müssen ebenfalls installiert werden, um die durch Temperaturschwankungen auftretende Dehnung der Rohre auszugleichen.

Modell	HD/ND Gasleitung	Flüssigkeitsleitung
E-102SN4		
E-162SN4		

Modell	HD/ND Gasleitung	Flüssigkeitsleitung
E-242SN3		
E-302SN3		

Gerät: mm, ID: Innendurchmesser, OD: Außendurchmesser

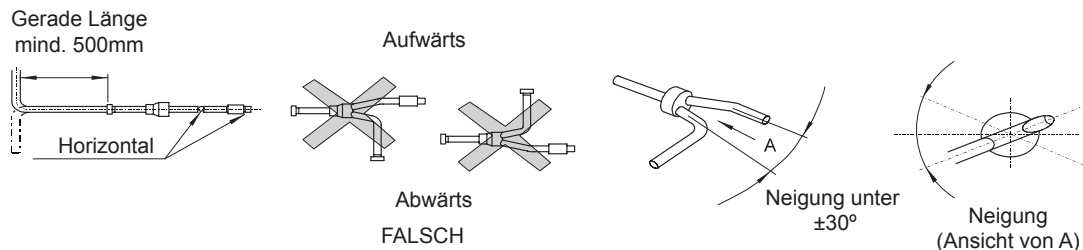
A	zum Innengerät
B	zum Außengerät
C	zur Hauptleitung

4.2 INSTALLATIONSPOSITION

1 Horizontale Installation

Platzieren Sie die Verteilerrohre so, dass sich der Warnaufkleber auf gleicher Höhe befindet. (Neigung unter +30°)

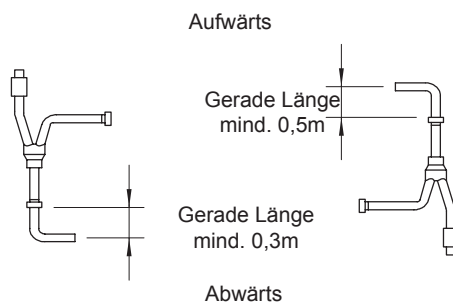
Lassen Sie nach der Vertikalabzweigung mindestens ein 500 mm langes gerades Stück.



2 Vertikale Installation

Das gerade Stück des Rohranschlusses an der Außengeräteseite sieht folgendermaßen aus:

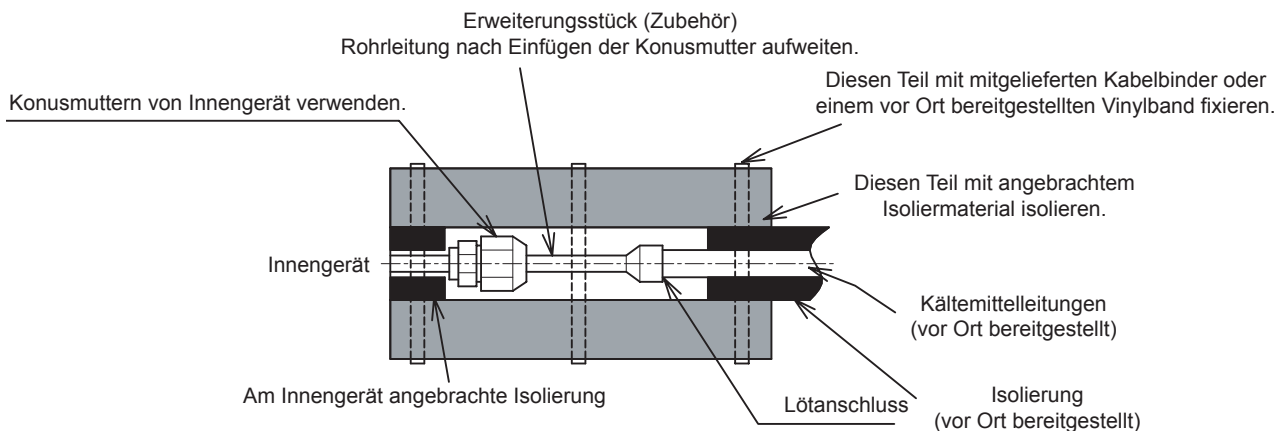
- Der gemeinsame Rohranschluss wird nach oben zeigend installiert. Das gerade Rohrstück muss eine Länge von mind. 0,5 m besitzen.
- Der gemeinsame Rohranschluss wird nach unten zeigend installiert. Das gerade Rohrstück muss eine Länge von mind. 0,3 m besitzen.



4.3 ANSCHLUSS VON ROHRVERBINDUNGEN

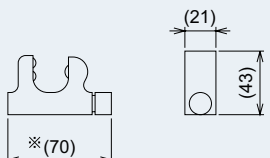
Verwenden Sie beim Anschließen von mindestens 15 m langen Flüssigkeitsleitungen für ein Gerät mit einer maximalen Leistung von 2,0 PS einen Durchmesser von $\varnothing 9,52$ mm. Befestigen Sie das Anschlussrohr gemäß der nachstehenden Abbildung.

Verwenden Sie die Isolierung, die am Innengerät angebracht ist. Beispiel: 36PS (Die Kombination von 3 Außengeräten)

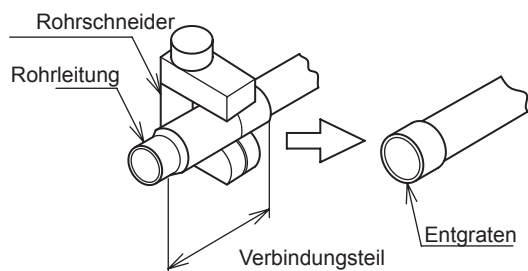


4.4 ROHRLEITUNGSANSCHLÜSSE

- 1 Wenn der Innendurchmesser des Verteilerrohrs kleiner als 22,2 mm ist, ist ein Mini-Rohrschneider (vor Ort bereit gestellt), wie folgt, erforderlich.

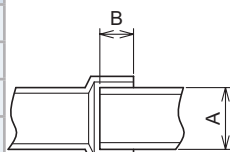
(mm)		
Empfohlener Mini-Rohrschneider	Durchmesser-Bereich	Rotations-radius
 ※ Weniger als 70 mm	Ø 5 - 28	(50)

- 2 Verwenden Sie saubere, vollkommen trockene und im Innern vollständig von Fremdkörpern befreite Kupferrohre. Kürzen Sie die Kupferrohre beim Verlegen der Kältemittelleitungen gemäß nachstehender Abbildung mit einem Rohrschneider. Befreien Sie die Rohre von eventuellem Staub, indem Sie Stickstoff oder Luft hindurchblasen. Verwenden Sie KEINE Sägen, Schleifsteine oder andere Werkzeuge, durch die beim Kürzen Pulver entsteht.

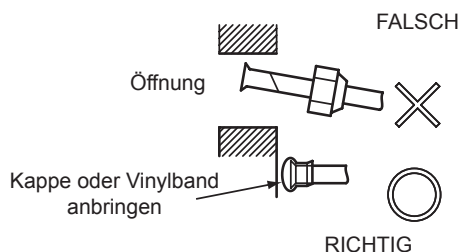


- 3 Sorgen Sie beim Schneiden der Rohre für einen ausreichend breiten Streifen zum Lötén (siehe nachstehende Tabelle).

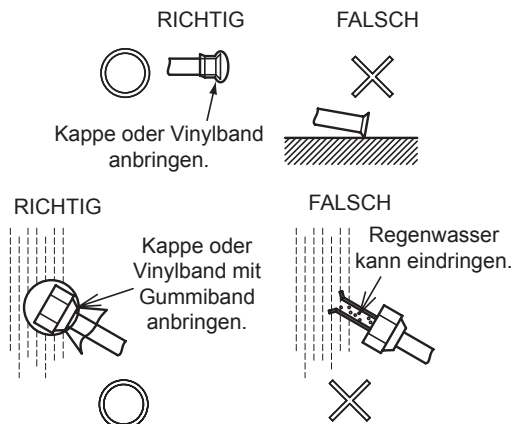
(mm)	
A: Außendurchmesser	B : Mindestdtiefe
Über 5, unter 8	6
Über 8, unter 12	7
Über 12, unter 16	8
Über 16, unter 25	10
Über 25, unter 35	12
Über 35, unter 45	14



- Vorsicht beim Verlegen von Kältemittelleitungen. Verwenden Sie bei Wanddurchführungen Schutzkappen am Rohrende.



Legen Sie das Rohr nicht direkt auf den Boden.



- 4 Vergewissern Sie sich, dass alle Absperrventile des Außengeräts vollständig geschlossen sind.
- 5 Blasen Sie beim Lötén Nitrogeniumgas durch das Rohr.

! GEFAHR

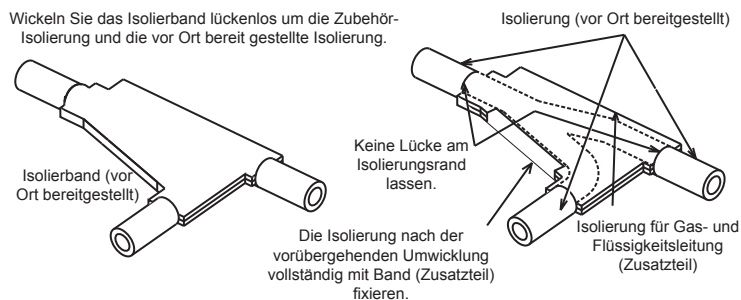
Stellen Sie sicher, dass der Kältemittellecktest durchgeführt wird. Kältemittel (Fluorkohlenstoff) für das Innengerät ist nicht entzündbar, ungiftig und geruchslos. Wenn das Kältemittel allerdings austritt und mit Feuer in Kontakt gerät, wird giftiges Gas erzeugt. Da der Fluorkohlenstoff auch schwerer als Luft ist, wird die Bodenoberfläche damit gefüllt, was zum Erstickten führen kann.

- 6 Der Druck des Luftdichtigkeitstests dieses Produkts beträgt 4,15 Mpa.
- 7 Befestigen Sie die Isolierung des Multi-Kit mit Klebeband an jeder Abzweigung (Flüssigkeits- und Gasseite). Versehen Sie die vor Ort bereitgestellten Leitungen mit einer vor Ort beschafften Isolierung.

i HINWEIS

Wenn Polyäthylenschaum verwendet wird, empfehlen wir 10 mm Dicke für die Flüssigkeitsleitung und 15 bis 20 mm für die Gasleitung. (Verwenden Sie Isoliermaterial mit einer Hitzebeständigkeit von 100°C für Gasrohre)

Wickeln Sie das Isolierband lückenlos um die Zubehörisolierung und die vor Ort bereit gestellte Isolierung.



! VORSICHT

- Führen Sie Isolierarbeiten dann aus, wenn die Oberflächentemperatur auf Raumtemperatur gesunken ist. Wenn die Isolierung direkt nach den Lötarbeiten durchgeführt wird, kann das Isoliermaterial schmelzen.
- Wenn die Rohrenden nach der Rohranschluss für eine Weile offen sind, verschließen Sie die Rohrenden sicherheitshalber mit Kappen oder Plastiktüten, damit keine Feuchtigkeit und kein Staub eindringen können.

Nach der Installation wird dem Kunden geraten, dieses Handbuch sorgfältig aufzubewahren.

Modèles de raccordement par distributeur : E-102SN4, E-162SN4, E-242SN3, E-302SN3

REMARQUE

Le présent manuel d'installation doit être remis au personnel chargé des travaux d'installation.

1 GROUPES EXTÉRIEURS CONCERNÉS

Ces kits de connexion de tuyauterie multiple sont compatibles avec les modèles R410A de la série SET-FREE.

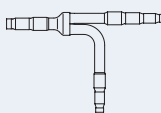
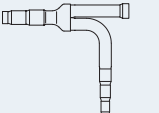
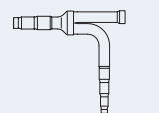
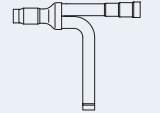
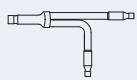
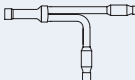
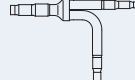
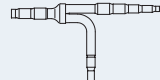
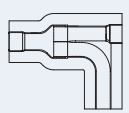
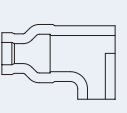
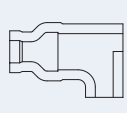
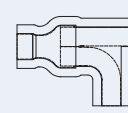
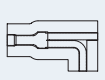
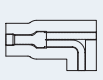
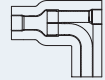
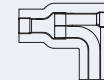
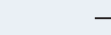
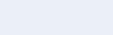
2 TRANSPORT

Transportez le produit le plus près possible de l'emplacement d'installation avant de le déballer.

3 AVANT L'INSTALLATION

Confirmez le nombre des pièces suivantes en consultant le modèle imprimé sur l'emballage avant de l'ouvrir.

N'introduisez aucun corps étranger dans les pièces. Vérifiez qu'aucun corps étranger n'est présent dans les pièces avant l'installation.

Nomenclature des pièces		E-102SN4		E-162SN4		E-242SN3		E-302SN3	
		Qté		Qté		Qté		Qté	
Embranchement pour conduite de gaz haute/basse pression									
		1		1		1		1	
Embranchement pour conduite de liquide									
		1		1		1		1	
Accessoire	Isolation pour conduite de gaz haute/basse pression								
		1		1		1		1	
	Isolation pour conduite de liquide								
		1		1		1		1	
	Réducteur pour raccordement de conduite de gaz haute/basse pression (pour extrémité de raccordement du multi-kit)								
		1		1		1		1	
	Réducteur pour raccordement de conduite de liquide (pour connexion des tuyauteries d'unité)								
		1		1		1		1	
		2		1		1		1	
	Ruban								
		2		2		2		2	

REMARQUE

S'il manque une des pièces, contactez votre distributeur.

4 INSTALLATION

4.1 DIMENSION DE LA CONNEXION DES TUYAUTERIES

Les extrémités des multi-kits sont indiquées sur les figures suivantes. Coupez l'extrémité du tuyau pour qu'elle coïncide avec le diamètre du tuyau.

⚠ ATTENTION

La tuyauterie doit être installée dans un espace adéquat. Des tuyaux coudés et une tuyauterie de dérivation (boucle horizontale) doivent également être installés afin d'absorber l'élasticité de la tuyauterie due aux changements de température.

Modèle	Conduite de gaz haute/basse pression	Conduite de liquide
E-102SN4	Diagram of E-102SN4 gas line connection. Dimensions: 301 (top horizontal), 168 (left vertical), 179 (right vertical), 177 (bottom horizontal), 60 (bottom connector width). Part numbers: ID15.88, ID19.05, ID22.2, ID12.7, OD15.88.	Diagram of E-102SN4 liquid line connection. Dimensions: 178 (top horizontal), 80 (left vertical), 86 (right vertical), 113 (bottom horizontal), 55 (top connector width), 55 (middle connector width), 60 (bottom connector width). Part numbers: ID9.52, ID6.35, OD6.35, OD9.52.
E-162SN4	Diagram of E-162SN4 gas line connection. Dimensions: 268 (top horizontal), 217 (left vertical), 231 (right vertical), 218 (bottom horizontal), 194 (bottom connector width), 60 (bottom connector width). Part numbers: ID22.22, ID25.4, ID28.58, ID12.7, ID19.05, ID15.88, OD28.58, OD19.05, OD15.88. Labels A, B, C indicate specific connection points.	Diagram of E-162SN4 liquid line connection. Dimensions: 184 (top horizontal), 116 (left vertical), 122 (right vertical), 113 (bottom horizontal), 55 (top connector width), 55 (middle connector width), 60 (bottom connector width). Part numbers: ID9.52, ID12.7, ID9.52, ID6.35, OD6.35, OD9.52, ID9.53, OD12.7.

Modèle	Conduite de gaz haute/basse pression	Conduite de liquide
E-242SN3	Diagram of E-242SN3 gas piping. Dimensions: 268 (top horizontal), 217 (left vertical), 231 (right vertical), 218 (bottom horizontal), 194 (bottom horizontal). Part numbers: ID22.22, ID25.4, ID28.58, ID28.58, ID22.22, ID19.05, ID15.88, ID12.7, ID25.4, ID22.22, ID12.7, OD28.58, ID19.05, ID15.88. Labels A, B, C.	Diagram of E-242SN3 liquid piping. Dimensions: 260 (top horizontal), 193 (left vertical), 204 (right vertical), 177 (bottom horizontal). Part numbers: ID15.88, ID19.05, ID22.22, ID12.7, ID15.88, ID9.52, OD6.35, ID9.52, ID15.88, ID12.7, ID9.52, ID6.35. Labels A, B, C.
E-302SN3	Diagram of E-302SN3 gas piping. Dimensions: 339 (top horizontal), 251 (left vertical), 268 (right vertical), 202 (bottom horizontal), 194 (bottom horizontal), 139 (bottom horizontal). Part numbers: ID31.75, ID38.1, ID34.92, ID31.75, ID38.1, OD38.1, ID34.92, ID28.58, ID25.4, ID22.22, ID12.7, OD28.58, ID19.05, ID15.88, ID28.58, ID25.4, OD31.75, ID22.22. Labels A, B, C.	Diagram of E-302SN3 liquid piping. Dimensions: 330 (top horizontal), 193 (left vertical), 204 (right vertical), 177 (bottom horizontal). Part numbers: ID15.88, ID19.05, ID22.22, ID22.22, ID19.05, ID15.88, ID12.7, ID9.52, ID6.35, OD6.35, ID9.52. Labels A, B, C.

Unité simple : mm, ID : Diamètre intérieur, OD : diamètre extérieur

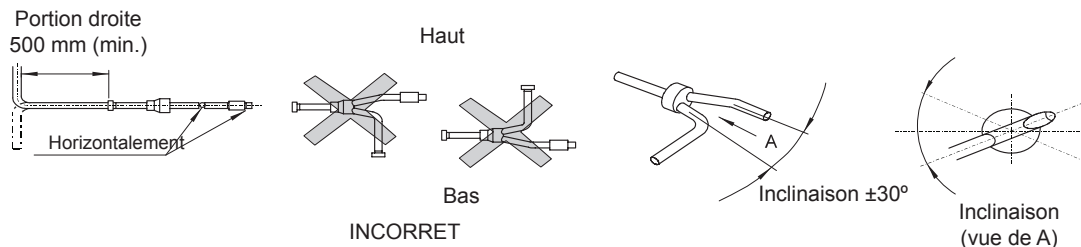
A	Vers l'unité int.
B	Vers le groupe ext.
C	Vers la tuyauterie principale

4.2 POSITION D'INSTALLATION

1 Installation horizontale

Identifiez les embranchements où ira l'étiquette d'avertissement le plus important sur le même plan horizontal. (Inclinaison +30°)

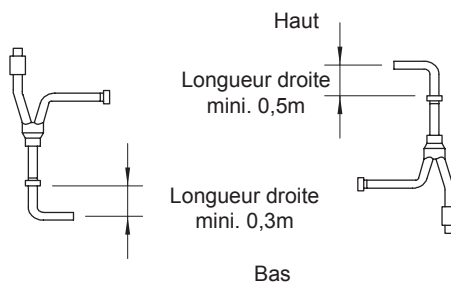
Veillez à ce que la tuyauterie ne soit pas pliée sur au moins 500 mm après chaque coude vertical.



2 Installation verticale

La portion droite du raccordement du tuyau du côté du groupe extérieur est réalisée comme suit :

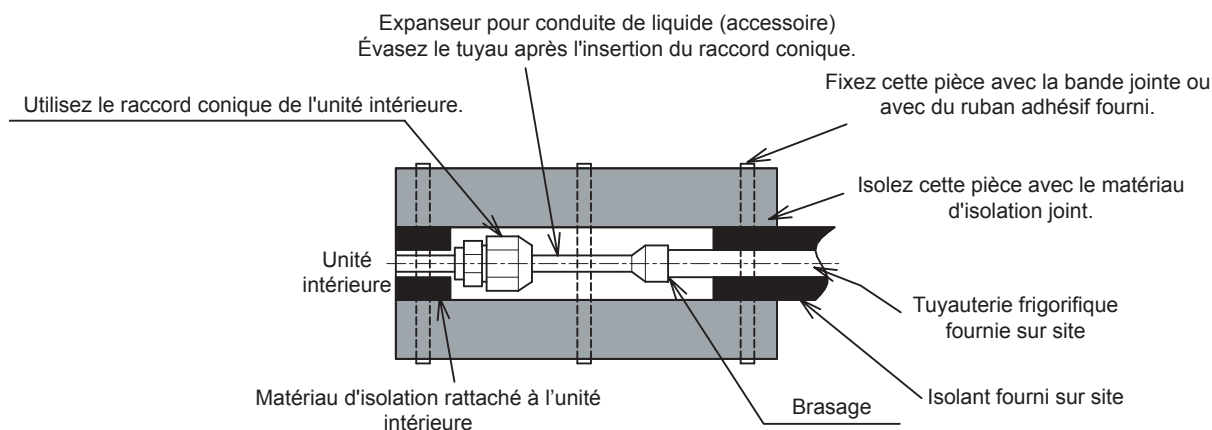
- a. Lorsque le raccordement de tuyau collectif est installé vers le haut, la portion droite doit être au moins de 0,5 m.
- b. Lorsque le raccordement de tuyau collectif est installé vers le bas, la portion droite doit être au moins de 0,3 m.



4.3 PROCÉDURE DE RACCORDEMENT POUR LES CONNEXIONS DE TUYAUTERIE

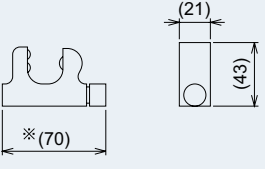
Lorsque vous raccordez une conduite de liquide d'une longueur supérieure à 15 m pour une unité de puissance inférieure ou égale à 2,0 CV, utilisez un diamètre de tuyau de 9,52 mm. Fixez le tuyau de raccord conformément à la figure ci-dessous.

Utilisez l'isolant rattaché à l'unité intérieure. Exemple : 36 CV (3 groupes extérieurs associés)

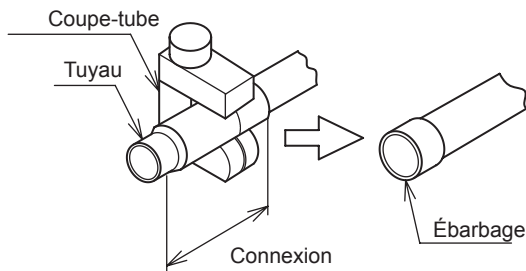


4.4 CONNEXION DES TUYAUTERIES

- 1 Quand le diamètre interne du tuyau raccordé est inférieur à 22,2 mm, un mini coupe-tube (fourni sur site) sera nécessaire.

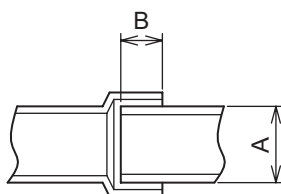
(mm)			
Mini coupe-tube recommandé	Diamètres	Rayon de rotation	
	Ø 5 - 28	(50)	

- 2 Utilisez des tuyaux en cuivre propres, dont l'intérieur est dépourvu de traces d'humidité ou d'autres corps étrangers. Lors du raccordement de la tuyauterie frigorifique, sectionnez les tuyaux de cuivre à l'aide d'un coupe-tube comme illustré ci-dessous. Soufflez ensuite de l'azote ou de l'air à l'intérieur de la tuyauterie afin d'éliminer la poussière. N'utilisez pas de scie, de meule ou d'autres outils susceptibles de produire une grande quantité de poudre de cuivre.



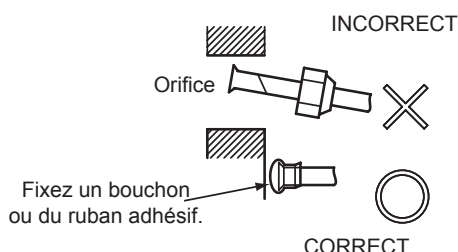
- 3 Lors de la découpe des tuyaux, veillez à conserver la profondeur adéquate pour le brasage, comme indiqué dans le tableau ci-dessous.

(mm)	
A : diamètre extérieur	B : Profondeur minimale
Sup. à 5, inf. à 8	6
Sup. à 8, inf. à 12	7
Sup. à 12, inf. à 16	8
Sup. à 16, inf. à 25	10
Sup. à 25, inf. à 35	12
Sup. à 35, inf. à 45	14

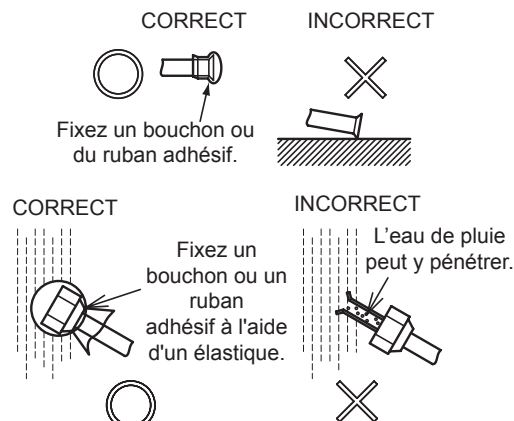


- Avertissement pour la tuyauterie frigorifique

Lors de l'installation du tuyau au travers du mur, fixez un bouchon à l'extrémité du tuyau.



Ne posez pas les tuyaux directement sur le sol.



- Vérifiez que toutes les soupapes d'arrêt des groupes extérieurs sont complètement fermées.
- Durant le brasage, soufflez de l'azote à l'intérieur des tuyauteries.

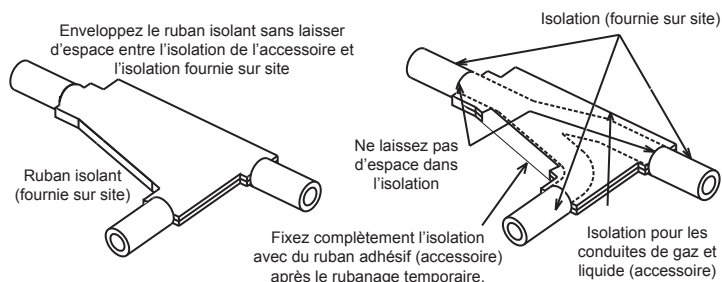
! DANGER

Assurez-vous que le test de fuite de frigorigène est effectué. Le frigorigène (fluorocarbène) pour l'unité intérieure est ininflammable, non toxique et inodore. Toutefois, si le frigorigène fuit et entre en contact avec des flammes, un gaz toxique se formera. De plus, le fluorocarbène est plus lourd que l'air, la surface au sol en sera donc rempli, ce qui pourrait provoquer un risque d'asphyxie.

- La pression pour le test d'étanchéité de ce produit est de 4,15 MPa.
- Appliquez le matériau d'isolation fourni avec ces multi-kits à chaque raccordement (côté liquide et côté gaz) avec du ruban adhésif. Appliquez également un matériau d'isolation à la tuyauterie à prévoir sur site.

i REMARQUE

Si vous utilisez de la mousse de polyéthylène, appliquez-en une épaisseur de 10 mm sur la tuyauterie de liquide et de 15 mm à 20 mm sur la tuyauterie de gaz. (Utilisez l'isolation résistante à la chaleur de 100 °C pour les tuyaux de gaz.)



! ATTENTION

- Ne procédez aux travaux d'isolation que lorsque la surface du tuyau redescend à la température ambiante. Si les travaux d'isolation ont lieu immédiatement après le brasage, l'isolant peut fondre.
- Si, une fois le travail terminé, les extrémités du système de tuyauteries restent exposées à l'air, fermez-les à l'aide de bouchons ou d'embouts de plastique pour éviter l'infiltration d'humidité et de poussière.

Après l'installation, il est recommandé au client de conserver ce manuel.

Modelli per raccordo di linea: E-102SN4, E-162SN4, E-242SN3, E-302SN3

NOTA

Consegnare il presente manuale al personale addetto all'installazione.

1 UNITÀ ESTERNE APPLICABILI

Questi kit di collegamento di più tubi possono essere utilizzati con la serie R410A SET-FREE.

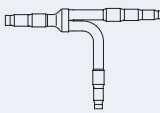
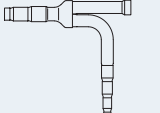
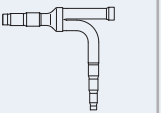
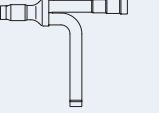
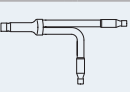
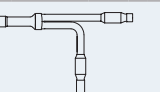
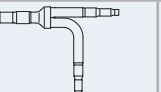
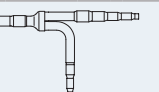
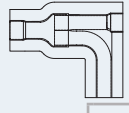
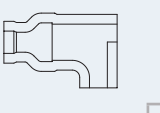
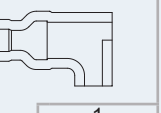
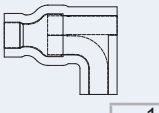
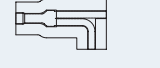
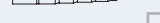
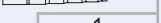
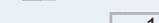
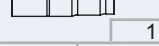
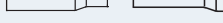
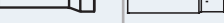
2 TRASPORTO

Prima di disimballare il prodotto, trasportarlo il più vicino possibile al luogo in cui verrà installato.

3 PRIMA DELL'INSTALLAZIONE

Prima di procedere al disimballaggio, verificare il numero dei seguenti componenti facendo riferimento al modello stampato sulla confezione.

NON inserire oggetti estranei nei componenti. Prima di iniziare l'installazione, verificare che non vi siano oggetti estranei all'interno dei componenti.

Nomenclatura dei componenti		E-102SN4		E-162SN4		E-242SN3		E-302SN3	
		Qtà		Qtà		Qtà		Qtà	
Tubo di raccordo della linea del gas ad alta/bassa pressione									
		1		1		1		1	
Tubo di raccordo della linea del liquido									
		1		1		1		1	
Accessorio	Isolante della linea del gas ad alta/bassa pressione								
		1		1		1		1	
	Isolante della linea del liquido								
		1		1		1		1	
	Riduttore del collegamento della linea del gas ad alta/bassa pressione (per l'estremità del collegamento del multi-kit)								
		1		1		1		1	
		—		—		—			
		Nessuno		Nessuno(e)		Nessuno		1	
		—		—		—			
		Nessuno		Nessuno		Nessuno		1	
	Riduttore del collegamento della linea del liquido (per il collegamento della linea dell'unità)								
		1	2	1	1	1	1	1	
	Nastro								
		2		2		2		2	

NOTA

Qualora mancassero alcuni dei componenti, contattare il proprio distributore.

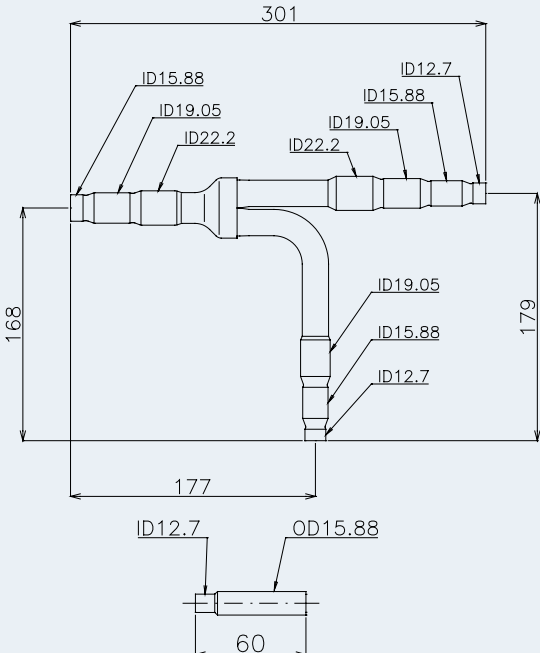
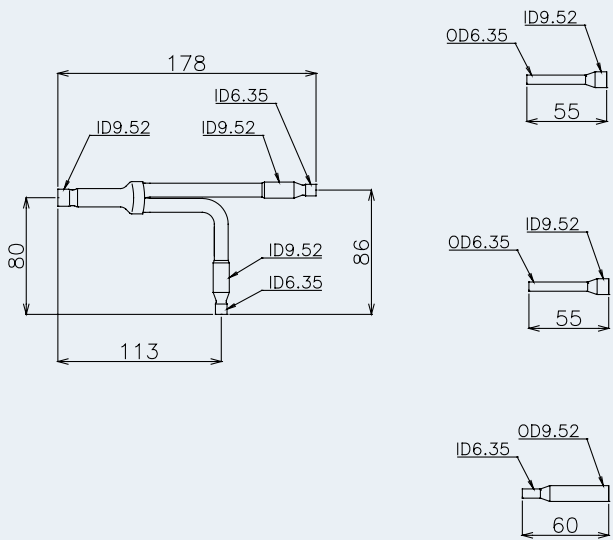
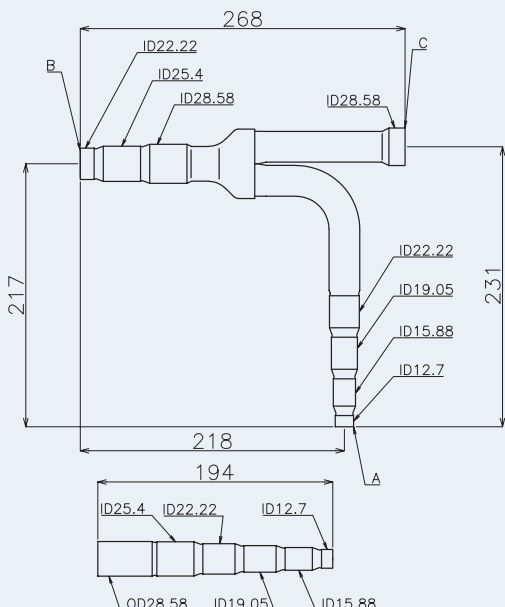
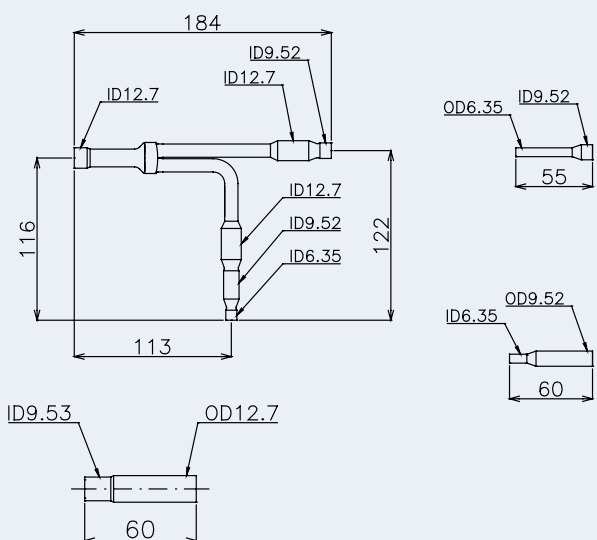
4 INSTALLAZIONE

4.1 DIAMETRO DEL COLLEGAMENTO DELLA LINEA

Le estremità dei multi-kit sono modellate come illustrato nelle figure seguenti. Tagliare l'estremità del tubo per ottenere la sezione del tubo corretta.

AVVERTENZA

Le tubature dovranno disporre dello spazio adeguato. Sarà inoltre necessario installare tubi ricurvi e tubi con bypass (ad avvolgimento orizzontale) per assorbire l'elasticità dei tubi causata dai cambi di temperatura.

Modello	Linea del gas ad alta/bassa pressione	Linea del liquido
E-102SN4	 Diagram showing the gas line assembly for model E-102SN4. Dimensions include 301, 168, 179, 177, and 60. Part numbers include ID15.88, ID19.05, ID22.2, ID12.7, and OD15.88.	 Diagram showing the liquid line assembly for model E-102SN4. Dimensions include 178, 80, 113, 86, and 55. Part numbers include ID9.52, ID6.35, and OD9.52.
E-162SN4	 Diagram showing the gas line assembly for model E-162SN4. Dimensions include 268, 217, 231, 218, 194, and 60. Part numbers include ID22.22, ID25.4, ID28.58, ID19.05, ID15.88, ID12.7, and OD28.58.	 Diagram showing the liquid line assembly for model E-162SN4. Dimensions include 184, 116, 113, 122, and 60. Part numbers include ID12.7, ID9.52, ID6.35, and OD12.7.

Modello	Linea del gas ad alta/bassa pressione	Linea del liquido
E-242SN3		
E-302SN3		

Unità: mm, ID: Diametro interno, OD: Diametro esterno

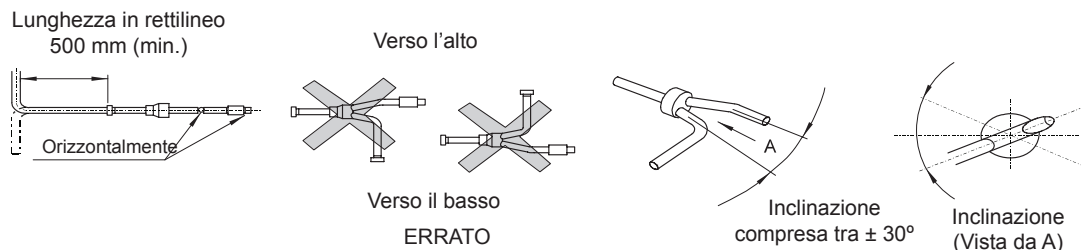
A	all'unità interna
B	all'unità esterna
C	alla linea principale

4.2 POSIZIONE DI INSTALLAZIONE

1 Installazione orizzontale

Individuare i tubi di raccordo dove sarà collocata l'etichetta di avvertenza sullo stesso piano orizzontale. (Inclinazione compresa tra +30°)

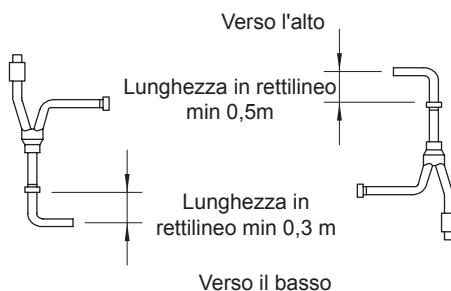
Creare una lunghezza in rettilineo di almeno 500 mm dopo la curvatura verticale.



2 Installazione verticale

La lunghezza in rettilineo del collegamento del tubo nell'unità esterna deve essere effettuata in base alle indicazioni seguenti:

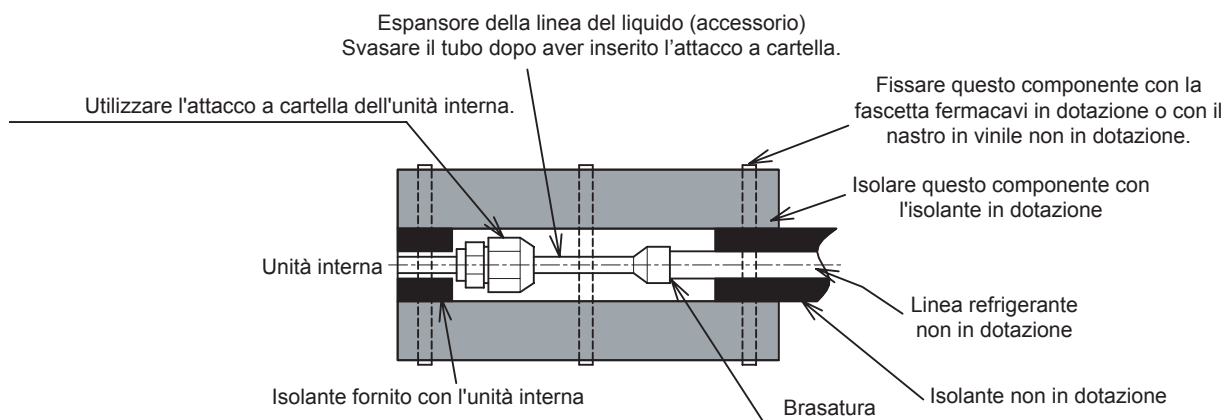
- Se la parte del collegamento del tubo collettivo è installata verso l'alto, la lunghezza in rettilineo deve essere di almeno 0,5 m.
- Se la parte del collegamento del tubo collettivo è installata verso il basso, la lunghezza in rettilineo deve essere di almeno 0,3 m.



4.3 PROCEDURA DI COLLEGAMENTO DEL GIUNTO DELLA LINEA

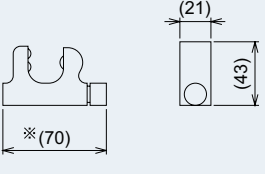
Nel collegare linee del liquido dell'unità dalla capacità di 2,0 HP o inferiore, e dalla lunghezza della linea di 15 metri o più, la linea deve presentare una sezione di 9,53 mm. Fissare il tubo di collegamento come illustrato nella figura seguente.

Utilizzare l'isolante in dotazione con l'unità interna. Esempio: 36 HP (combinazione di 3 unità esterne)

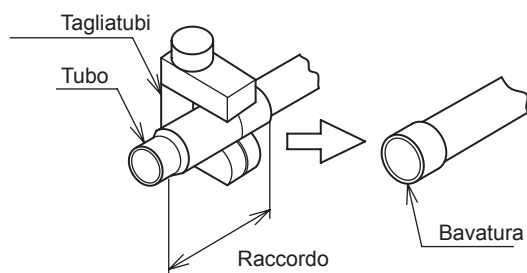


4.4 COLLEGAMENTO DELLA LINEA

- 1 Se la sezione della linea di raccordo è inferiore a 22,2 mm di diametro interno, è necessario un mini tagliatubi (non in dotazione) come indicato in seguito.

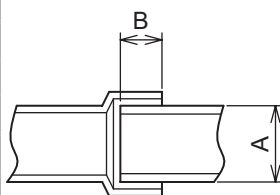
(mm)		
Mini tagliatubi consigliato	Intervallo di diametri	Raggio rotante
	Ø 5 - 28	(50)

- 2 Utilizzare tubi in rame puliti, privi di umidità o corpi estranei nella superficie interna. Per il collegamento della linea refrigerante, tagliare i tubi in rame con un tagliatubi come mostrato in seguito. Soffiare, inoltre, azoto o aria all'interno dei tubi per eliminare la polvere rimanente all'interno. NON utilizzare seghe, mole o altri strumenti che possano produrre grandi quantità di polvere.



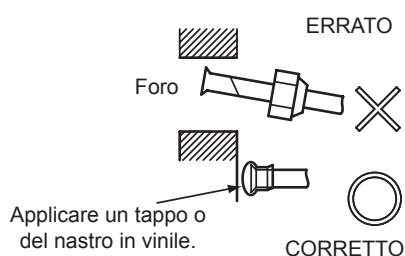
- 3 Nel tagliare il tubo, selezionare la parte corretta da brasare, come indicato nella tabella seguente.

(mm)	
A: Diametro esterno	B: Profondità minima
Più di 5, meno di 8	6
Più di 8, meno di 12	7
Più di 12, meno di 16	8
Più di 16, meno di 25	10
Più di 25, meno di 35	12
Più di 35, meno di 45	14

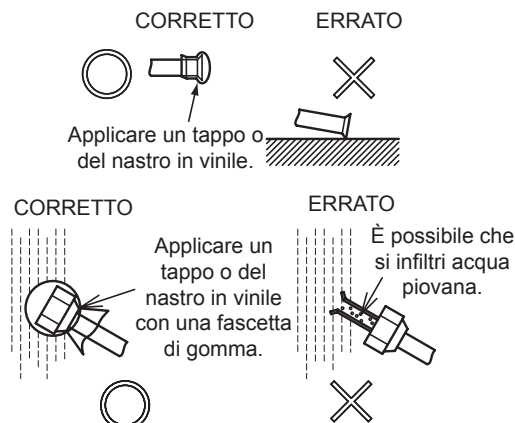


- Precauzioni riguardanti la linea refrigerante

Prima di effettuare l'installazione del tubo nella parete, tapparne l'estremità.



NON appoggiare il tubo direttamente a terra.



- 4 Accertarsi che tutte le valvole di arresto dell'unità esterna siano completamente chiuse.

- 5 Introdurre azoto nelle tubature durante la brasatura.



PERICOLO

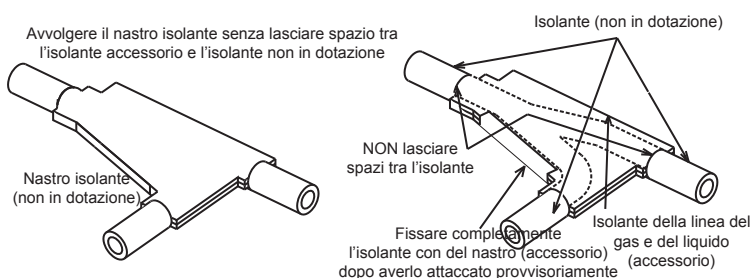
Accertarsi che sia stata svolta la prova di tenuta idraulica del refrigerante. Il refrigerante (fluorocarburo) dell'unità interna è incombustibile, atossico e inodore. Tuttavia, se sono presenti perdite di refrigerante e questo entra in contatto con fuoco, si genererà gas tossico. Anche perché il fluorocarburo è più pesante dell'aria, la superficie del pavimento si riempirebbe di esso, e ciò potrebbe provocare soffocamento.

- 6 La pressione della prova di tenuta ermetica di questo prodotto è 4,15 MPa.
- 7 Applicare l'isolante fornito con i multi-kit a ogni raccordo (dal lato del liquido e dal lato del gas) con del nastro. Applicare anche l'isolante non in dotazione ai tubi non in dotazione.



NOTA

Nell'applicare la schiuma di polietilene, si consiglia uno spessore di 10 mm per la linea del liquido e uno spessore compreso tra 15 mm e 20 mm per la linea del gas. (utilizzare un isolante con resistenza al calore di 100°C per la linea del gas.)



AVVERTENZA

- Applicare il materiale isolante quando la temperatura della superficie del tubo sarà scesa fino a raggiungere la temperatura ambiente. Se il materiale isolante viene applicato subito dopo la brasatura, questo si potrebbe sciogliere.
- Se le estremità del tubo rimangono esposte all'atmosfera per un certo periodo di tempo in seguito alla posa della linea, apporre tappi o sacchetti di plastica su di esse per evitare la formazione di umidità o l'ingresso di polvere.

Una volta completata l'installazione, è consigliabile che il cliente conservi il presente manuale.

Modelos de distribuidor em linha: E-102SN4, E-162SN4, E-242SN3, E-302SN3

NOTA

Entregue este manual de instalação ao pessoal de instalação da máquina.

1 UNIDADES EXTERIORES APLICÁVEIS

Estes kits de ligação de vários diâmetros de tubagem podem ser aplicados à série SET-FREE R410A.

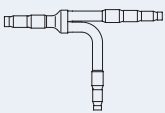
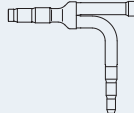
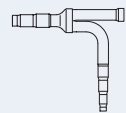
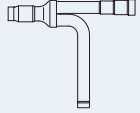
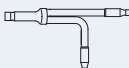
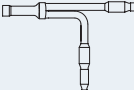
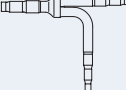
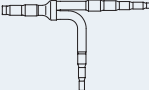
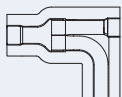
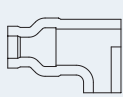
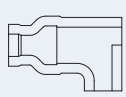
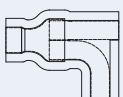
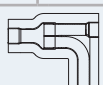
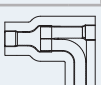
2 TRANSPORTE

Transporte o produto até o mais perto possível do local de instalação antes de o desembalar.

3 ANTES DA INSTALAÇÃO

Confirme o número das seguintes peças, consultando a referência do modelo impressa na embalagem, antes de desembalar.

Evite o contacto das peças com materiais estranhos. Verifique que não existem materiais estranhos dentro das peças, antes de iniciar a instalação.

Nome das peças		E-102SN4		E-162SN4		E-242SN3		E-302SN3	
		Qtd		Qtd		Qtd		Qtd	
Tubo de ramificação para linha de gás de alta/baixa pressão									
		1		1		1		1	
Tubo de ramificação para linha de líquido									
		1		1		1		1	
Acessório	Isolamento para linha de gás de alta/baixa pressão								
		1		1		1		1	
	Isolamento para linha de líquido								
		1		1		1		1	
	Redutor para ligação de linha de gás de alta/baixa pressão (para o término da ligação do multi-kit)								
		1		1		1		1	
Nenhum		Nenhum		Nenhum		1			
Redutor para ligação da linha de líquido (para ligação da tubagem da unidade)		 		 		 		 	
		1 2		1 1 1		1		1	
Fita									
		2		2		2		2	

NOTA

Se qualquer destas peças não se encontrar na embalagem, entre em contacto com o seu distribuidor.

4 TRABALHO DE INSTALAÇÃO

4.1 DIMENSÕES DA LIGAÇÃO DE TUBAGEM

As extremidades dos multi-kits têm os acabamentos mostrados nas figuras seguintes. Corte a extremidade da tubagem conforme adequado.

⚠ CUIDADO

As tubagens devem ser suportadas adequadamente. As tubagens dobradas e as tubagens de derivação (ciclo horizontal) também devem ser instaladas de modo a absorver as variações de dimensões das tubagens, provocadas por alterações de temperatura.

Modelo	Linha de gás de alta/baixa pressão	Linha de líquido
E-102SN4	Diagram showing the gas line connection for model E-102SN4. The main horizontal pipe has a total length of 301. The vertical section on the right has a height of 179. The horizontal section on the left has a width of 168. The vertical section on the left has a height of 177. The pipe IDs are: ID15.88, ID19.05, ID22.2, ID19.05, ID15.88, ID12.7, ID19.05, ID15.88, ID12.7, ID12.7, and OD15.88. The bottom connection has a width of 60.	Diagram showing the liquid line connection for model E-102SN4. The main horizontal pipe has a total length of 178. The vertical section on the right has a height of 86. The horizontal section on the left has a width of 80. The vertical section on the left has a height of 113. The pipe IDs are: ID9.52, ID6.35, ID9.52, ID9.52, ID6.35, ID9.52, ID6.35, and ID6.35. The bottom connection has a width of 55.
E-162SN4	Diagram showing the gas line connection for model E-162SN4. The main horizontal pipe has a total length of 268. The vertical section on the right has a height of 231. The horizontal section on the left has a width of 217. The vertical section on the left has a height of 218. The pipe IDs are: ID22.22, ID25.4, ID28.58, ID28.58, ID22.22, ID19.05, ID15.88, ID12.7, ID22.22, ID19.05, ID15.88, ID12.7, ID25.4, ID22.22, ID12.7, ID28.58, ID19.05, and ID15.88. The bottom connection has a width of 194.	Diagram showing the liquid line connection for model E-162SN4. The main horizontal pipe has a total length of 184. The vertical section on the right has a height of 122. The horizontal section on the left has a width of 116. The vertical section on the left has a height of 113. The pipe IDs are: ID12.7, ID9.52, ID12.7, ID12.7, ID9.52, ID6.35, ID9.52, ID6.35, ID9.52, ID6.35, and OD12.7. The bottom connection has a width of 60.

Modelo	Linha de gás de alta/baixa pressão	Linha de líquido
E-242SN3		
E-302SN3		

Unidade: mm, ID: Diâmetro Interior, OD: Diâmetro Exterior

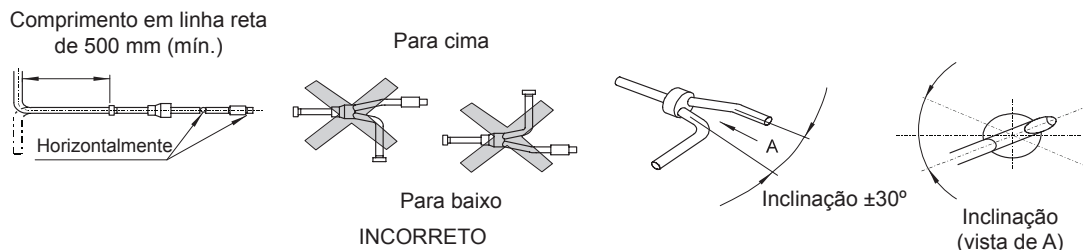
A	Para a unidade int.
B	Para a unidade ext.
C	Para a tubagem principal

4.2 POSIÇÃO DE INSTALAÇÃO

1 Instalação horizontal

Coloque os tubos de ramificação de forma a que sejam as etiquetas de cuidado de nível superior, num mesmo plano horizontal. (Inclinação +30o)

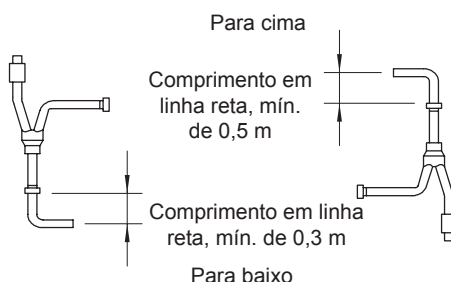
O comprimento reto mínimo, após a curvatura vertical, é de 500mm.



2 Instalação vertical

O comprimento reto da ligação de tubagem no lado da unidade exterior deve cumprir os seguintes requisitos:

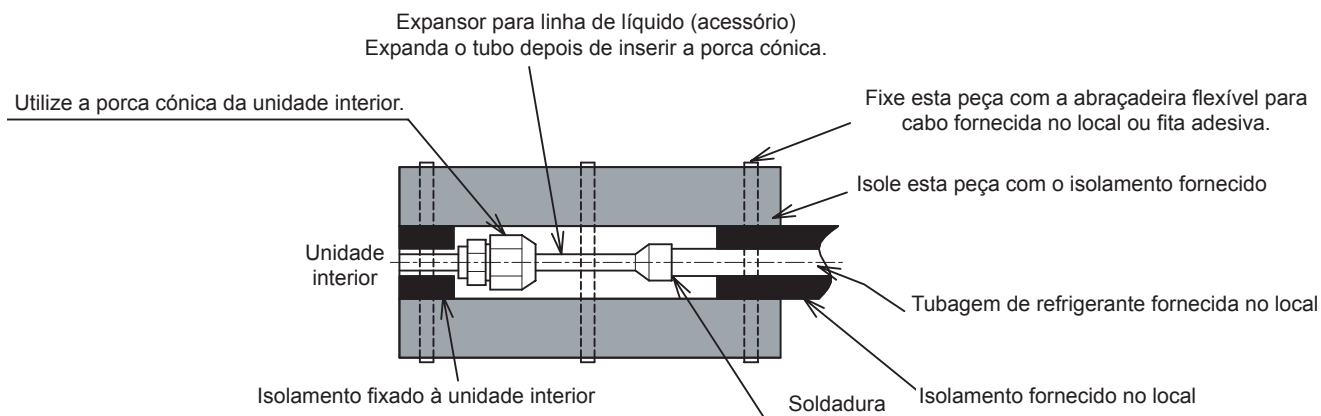
- Se a peça de derivação de ligação da tubagem for instalada virada para cima; o comprimento reto deve ser, no mínimo, de 0,5 m
- Se a peça de derivação de ligação da tubagem for instalada virada para baixo, o comprimento reto deve ser, no mínimo, 0,3 m.



4.3 PROCEDIMENTO DE LIGAÇÃO PARA A UNIÃO DE TUBAGENS

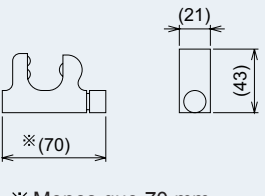
Ao ligar a tubagem de líquido de uma unidade com uma potência de 2,0 HP ou inferior e um comprimento de tubagem maior ou igual a 15 metros, utilize tubagem com $\phi 9,52$ mm. Fixe a tubagem de ligação como se mostra na figura abaixo.

Utilize o isolamento fixado à unidade interior. Exemplo: 36HP (A combinação de 3 unidades exteriores)

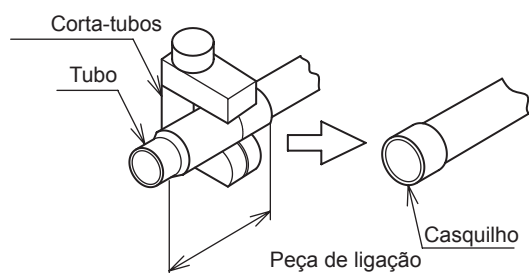


4.4 LIGAÇÃO DA TUBAGEM

- 1 Quando o tamanho do tubo de ramificação é inferior a 22,2 mm de diâmetro interior, é necessário um mini corta-tubos (fornecido no local) conforme se indica de seguida.

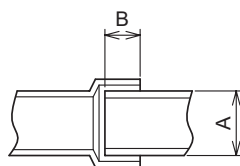
(mm)		
Mini corta-tubos recomendado	Intervalo de diâmetros	Raio de rotação
	Ø 5 - 28	(50)

- 2 Utilize tubagens de cobre limpas sem nenhuma humidade ou materiais estranhos na superfície interna das tubagens. Ao efetuar o trabalho de instalação da tubagem de refrigerante corte as tubagens de cobre com um corta-tubos, como se mostra abaixo. As tubagens devem ser sopradas com azoto ou ar, de modo a eliminar quaisquer resíduos de poeira do interior das tubagens. Não utilize serras, nem discos de corte, nem quaisquer outras ferramentas cuja utilização provoque limalha de corte.



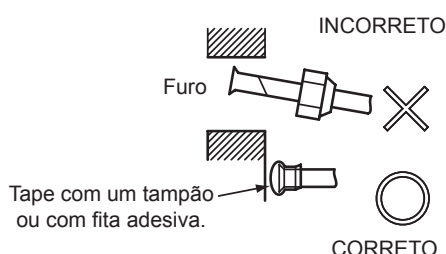
- 3 Ao cortar as tubagens, fixe as peças com profundidade adequada para soldar, como se mostra na tabela seguinte.

A: Diâmetro exterior	B: profundidade mínima
Maior que 5, menor que 8	6
Maior que 8, menor que 12	7
Maior que 12, menor que 16	8
Maior que 16, menor que 25	10
Maior que 25, menor que 35	12
Maior que 35, menor que 45	14

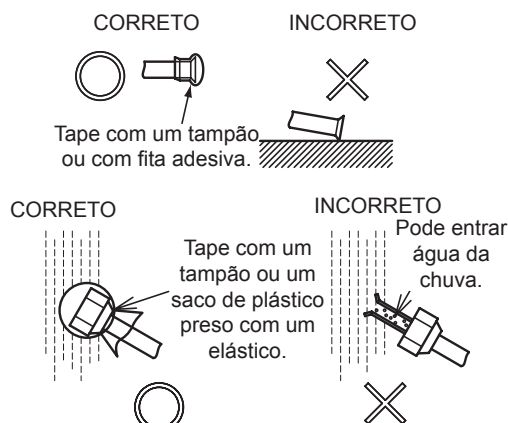


- Cuidados a ter com a tubagem de refrigerante

Ao passar uma tubagem através de uma parede, tape a extremidade da tubagem com um tampão.



Não coloque as tubagens diretamente no chão.



- 4 Certifique-se de que todas as válvulas de retenção da unidade exterior estão completamente fechadas.
- 5 Sopre o interior das tubagens com azoto gasoso durante os trabalhos de soldagem.

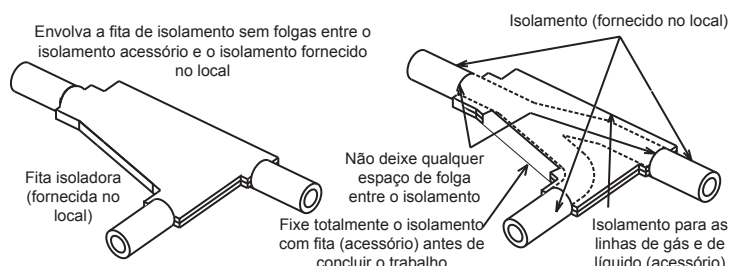
PERIGO

Certifique-se de que o teste de fuga de refrigerante é realizado. O refrigerante (fluorocarbono) da unidade interior é incombustível, inodoro e não tóxico. Contudo, se houver uma fuga de refrigerante e se este se encontrar em contacto com fogo, irá produzir-se um gás tóxico. Pelo motivo de o fluorocarbono ser mais pesado do que o ar, este poderá provocar sufocamento se estiver derramado no chão.

- 6 A prova de estanqueidade para este produto deve ser efetuada com 4,15 MPa.
- 7 Aplique o isolamento fornecido com estes multi-kits em todas as ramificações (lado de líquido e lado de gás) com fita. Aplique também isolamento fornecido no local nas tubagens fornecidas no local.

NOTA

Quando for aplicada espuma de polietileno, recomenda-se uma espessura de 10 mm para a tubagem de líquido e de 15 a 20 mm para a tubagem de gás. (Utilize o isolamento com uma resistência ao calor de 100°C para a tubagem de gás.)



CUIDADO

- Realize o trabalho de isolamento quando a temperatura da superfície do tubo tiver descido até à temperatura ambiente. Se os trabalhos de isolamento forem efetuados logo após a soldagem, o isolamento pode derreter.
- Se as extremidades do tubo estiverem abertas e expostas à atmosfera durante um tempo depois de feito o trabalho relativo à tubagem, aplique firmemente tampões ou sacos de plásticos nessas extremidades, de forma a evitar humidade ou poeira.

Após a instalação, recomenda-se que o cliente conserve este manual.

Ledningsforgreningsmodeller: E-102SN4, E-162SN4, E-242SN3, E-302SN3

BEMÆRK

Denne installationsvejledning skal videregives til den person, der fortsætter installationen.

1 UDENDØRSENHEDER HVORTIL SÆTTENE KAN ANVENDES

Disse sæt til tilslutning af flere rør kan anvendes til R410A-modellerne i SET-FREE-serien.

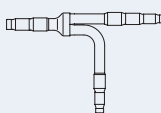
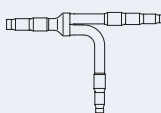
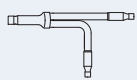
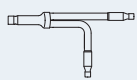
2 TRANSPORT

Transporter produktet så tæt på monteringsstedet som praktisk muligt inden udpakning.

3 FØR INSTALLATION

Tjek numrene på følgende dele ved at se på den model, der er vist på pakken, inden udpakning.

LÆG IKKE andre materialer ind i delene. Kontrollér, at der ikke er andre materialer inden i delene, før installationen påbegyndes.

Navn på dele		E-102SN4	E-162SN4	E-242SN3	E-302SN3
		Antal		Antal	
Forgreningsrør til høj-/lavtryksgasledning		1		1	
		1		1	
Forgreningsrør til væskeledning		1		1	
		1		1	
Tilbehør	Isolering til høj-/lavtryksgasledning	1		1	
	Isolering til væskeledning	1		1	
	Reduktionsenhed til høj-/lavtryksgaslednings-tilslutningen (til enden af multisættilslutningen)	1		1	
		Ingen		Ingen	
		Ingen		Ingen	
		Ingen		Ingen	
Reduktionsenhed til væskelednings-tilslutning (til enhedens rørtilslutning)		1	2	1	1
		1	1	1	1
Tape		2		2	
		2		2	

BEMÆRK

Hvis nogen af disse dele mangler, skal du kontakte forhandleren.

4 INSTALLATIONSARBEJDE

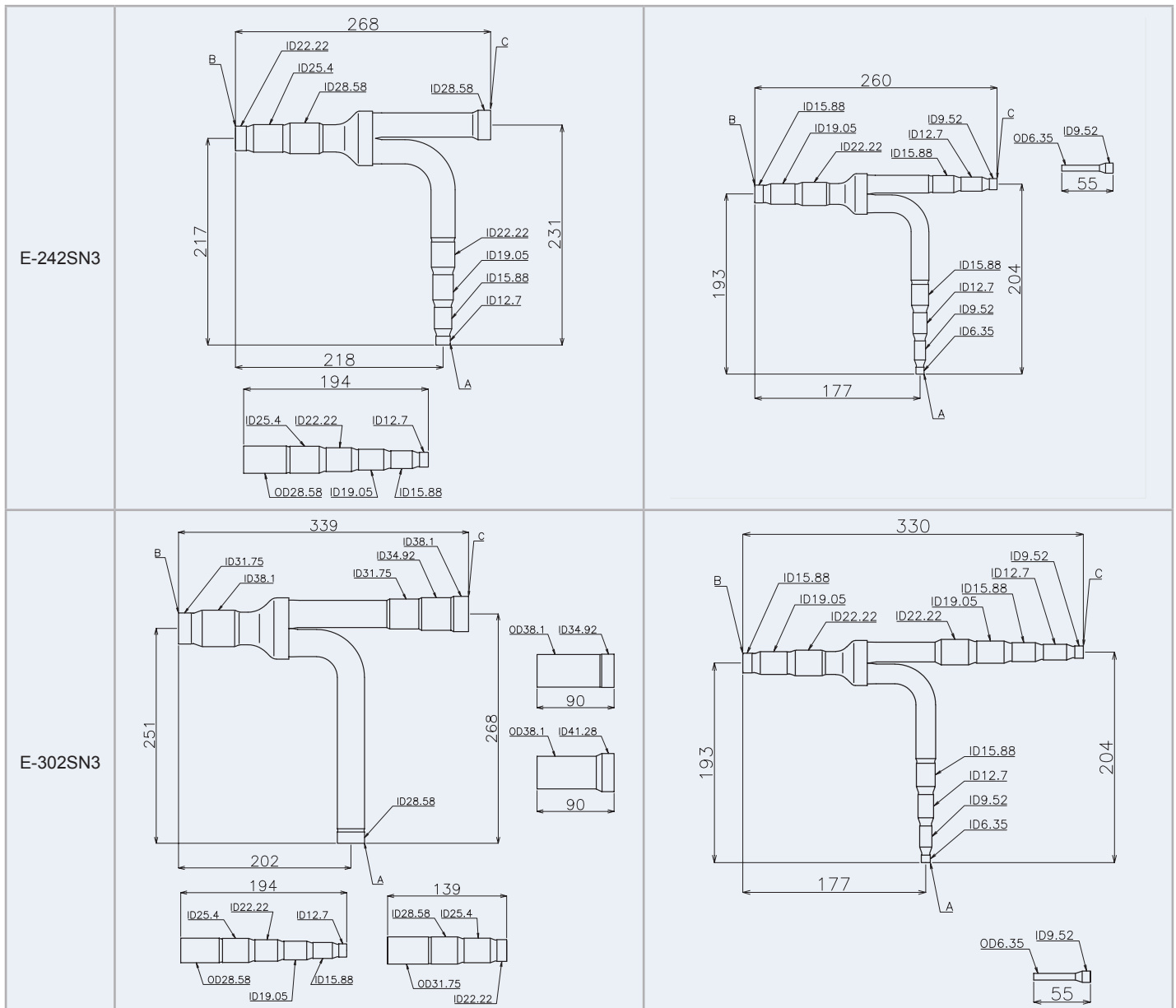
4.1 RØRTILSLUTNINGSDIAMETER

Enderne på multisættene afsluttes som vist på de følgende tegninger. Skær rørenden til, så den passer med rørdiameteren.

⚠ FORSIGTIG

Rørene skal understøttes med passende mellemrum. Rørbøjninger og bypass-rør (vandret løkke) skal også installeres, således at rørudvidelser, der forårsages af temperaturændringer, absorberes.

Model	Høj-/lavtryksgasledning	Væskeledning
E-102SN4		
E-162SN4		



Enhed: mm, ID: Indre Diameter, OD: Udvendig Diameter

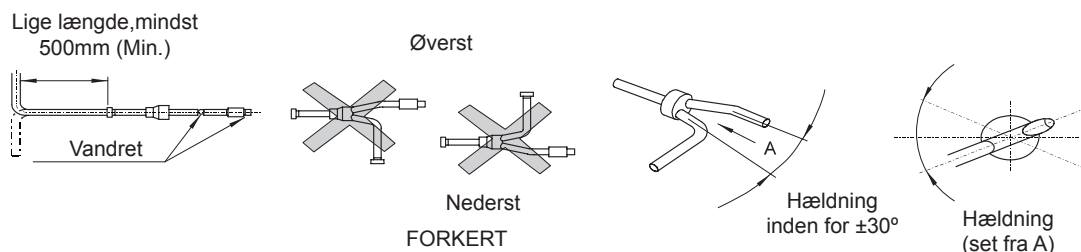
A	Til indendørsenhed
B	Til udendørsenhed
C	Til hovedrør

4.2 PLACERING VED INSTALLATION

1 Vandret installation

Anbring forgreningsrørene således, at mærket med påskriften "caution" øverst kommer på samme vandrette plan. (Hældning inden for +30°)

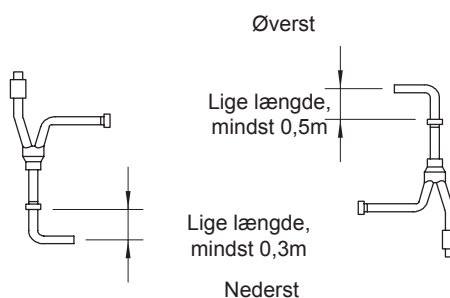
Sørg for, at den lige længde er mindst 500mm efter den lodrette rørbukning.



2 Lodret montering

Den lige længde på rørforbindelsen på udendørsenhedens side udføres på følgende måde:

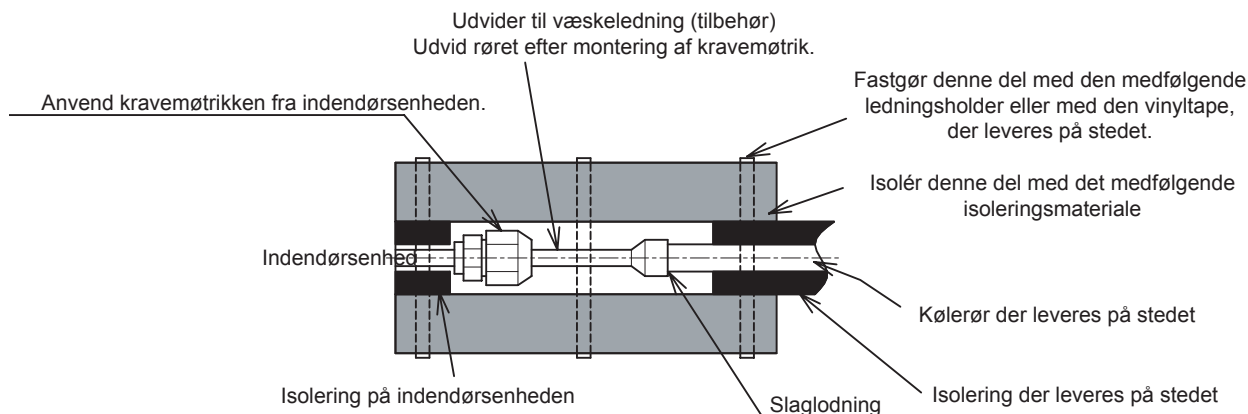
- Hvis forbindelsesdelen på samlerøret installeres i opadgående retning, skal den lige længde være på min. 0,5 m.
- Hvis forbindelsesdelen på samlerøret installeres i nedadgående retning, skal den lige længde være på min. 0,3 m.



4.3 PROCEDURE FOR TILSLUTNING AF RØRFORBINDELSE

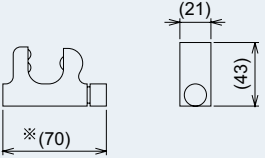
Hvis det væskerør, der tilsluttes enheden, har en kapacitet på 2,0HP eller mindre, og hvis rørlængden er 15 meter eller længere, skal du anvende en rørdiameter på 9,52mm. Tilslut forbindelsesrøret som vist på tegningen nedenfor.

Benyt den isolering, der er sat fast på indendørsenheden. For eksempel: 36HP (Kombination af 3 udendørsenheder)

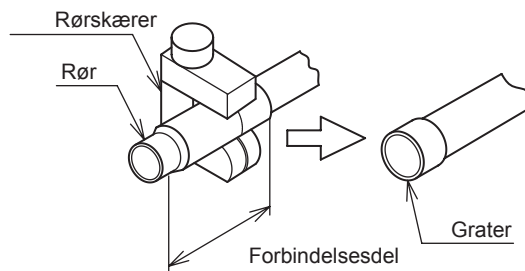


4.4 RØRTILSLUTNING

- 1 Når den forgrenede rørstørrelse er under 22,2 mm i indvendig diameter, skal røret overskæres med en rørskærer (medfølger ikke) som vist herunder.

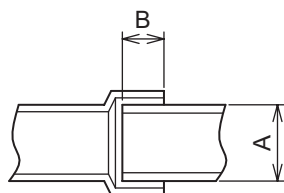
(mm)		
Anbefalet mini rørskærer	Diameterinterval	Drejeradius
 ※ Under 70 mm	Ø 5 - 28	(50)

- 2 Anvend rene kobberør, der hverken har fugt eller fremmedlegemer på indersiden af rørene. Ved tilslutning af kølerør, skæres kobberørene over med en rørskærer som vist nedenfor. Sørg også for at blæse rørene igennem med nitrogen eller luft så eventuelt støv inden i røret fjernes. Anvend IKKE sav, slibesten eller andre værktøjer, der producerer store mængdersavsmuld.



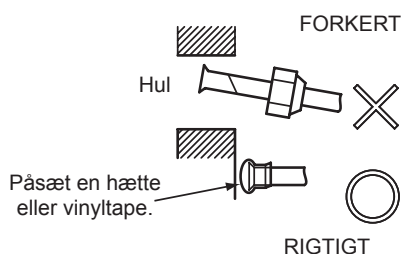
- 3 Sørg for, at der er tilstrækkelig dybde til slaglodning, når røret skæres over, som vist i følgende tabel.

(mm)	
A: Udvendig diameter	B: Minimum dybde
Over 5, under 8	6
Over 8, under 12	7
Over 12, under 16	8
Over 16, under 25	10
Over 25, under 35	12
Over 35, under 45	14

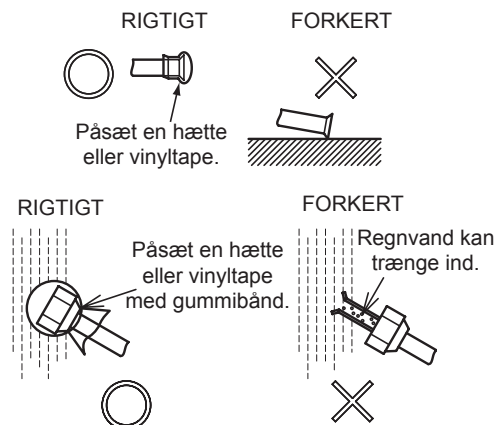


- Advarsel vedr. kølemiddelrør

Ved installation af rør igennem væggen skal der sættes en hætte på rørets ende.



Læg IKKE røret direkte på jorden.



- 4 Sørg for, at stopventilerne til udendørsenheden er helt lukkede.
- 5 Blæs indersiden af rørene med nitrogengas under slaglodning.

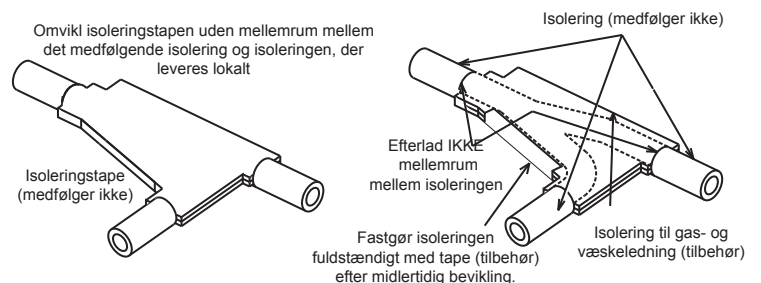
FARE

Sørg for, at der udføres en test for udsivning af kølemiddel. Kølemidlet (Fluorcarbon) til indendørsenheden er ikke-brændbart, ugiftigt og lugtfrit. Men hvis kølemidlet lækker og kommer i kontakt med ild, kan der dannes giftige gasser. Og fordi fluorcarbon er tungere end luft, vil gulvets overflade blive fyldt med væsken, hvilket kan forårsage kvælning.

- 6 En lufttæthedstest af dette produkt viser 4,15 MPa.
- 7 Fastgør isoleringsmaterialet, der følger med disse multisæt, til samtlige forgreninger (gas- og væskesiden) med tape. Fastgør ligeledes den isolering, der leveres på stedet, til de rør, der leveres på stedet.

BEMÆRK

Ved brug af polyætylenskum anbefales en tykkelse på 10 mm for væskerør og på 15-20 mm for gasrør. (Brug isoleringen med en varmestand på 100°C for gasrør.)



FORSIGTIG

- Udfør isoleringsarbejde når rørenes overfladetemperatur falder til rumtemperaturen. Hvis isoleringsarbejdet udføres umiddelbart efter slaglodning, kan isoleringen smelte.
- Hvis systemets rørender ikke lukkes til umiddelbart, efter at rørbearbejdet er blevet afsluttet, skal enderne beskyttes forsvarligt med hætter eller plasticposer, så man undgår indtrængen af fugt eller støv.

Efter installation anbefales det at opbevare denne vejledning hos en kunde.

Leidingvertakkingsmodellen: E-102SN4, E-162SN4, E-242SN3, E-302SN3

OPMERKING

Geef deze installatiehandleiding aan de volgende installatiemedewerkers.

1 GESCHIKTE BUITENUNITS

Deze aansluitkits met meerdere leidingen kunnen voor de R410A-modellen van de SET-FREE-serie worden gebruikt.

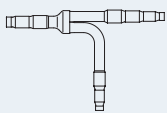
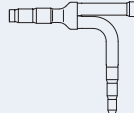
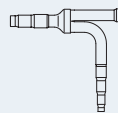
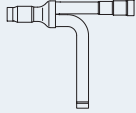
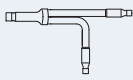
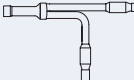
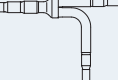
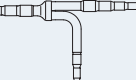
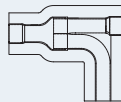
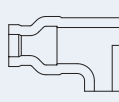
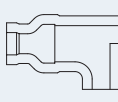
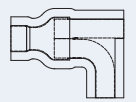
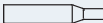
2 TRANSPORT

Zet het product zo dicht mogelijk bij de plaats van installatie voordat het wordt uitgepakt.

3 VÓÓR INSTALLATIE

Controleer voordat u de kit uitpakt het aantal van de onderdelen naargelang het op de verpakking vermelde model.

Steek GEEN vreemde voorwerpen in de onderdelen. Controleer voordat u met de installatie begint of de onderdelen geen vreemde voorwerpen bevatten.

Naam onderdelen		E-102SN4		E-162SN4		E-242SN3		E-302SN3	
		Aantal		Aantal		Aantal		Aantal	
Vertakkingsleiding voor hoge-/lagedrukgasleiding									
		1		1		1		1	
Vertakkingsleiding voor vloeistofleiding									
		1		1		1		1	
Meegeleverd	Isolatie voor hoge-/lagedrukgasleiding								
		1		1		1		1	
	Isolatie voor vloeistofleiding								
		1		1		1		1	
	Verloopstuk voor aansluiting hoge-/lagedrukgasleiding (voor kant van multikit-aansluiting)								
		1		1		1		1	
		—		—		—			
		Ingen		Ingen		Ingen		1	
		—		—		—			
		Ingen		Ingen		Ingen		1	
								1	
		1		1		1		1	
Verloopstuk voor aansluiting van vloeistofleiding (voor aansluiting van leidingen van unit)									
		1		1		1		1	
Tape									
		2		2		2		2	

OPMERKING

Neem contact op met de distributeur als een van deze onderdelen ontbreekt.

4 INSTALLATIEWERKZAAMHEDEN

4.1 DIAMETER VAN LEIDINGAANSLUITING

De uiteinden van de multi-kits zijn afgewerkt zoals getoond in de volgende afbeeldingen. Snijd het uiteinde van de leiding op maat.

⚠ LET OP

Leidingen dienen te worden ondersteund met voldoende ruimte. Ook moeten gebogen en omloopleidingen (horizontale lus) worden geïnstalleerd om de elasticiteit van de leidingen als gevolg van temperatuurwisselingen te absorberen.

Model	Hoge-/lagedrukgasleiding	Vloeistofleiding
E-102SN4		
E-162SN4		

Model	Hoge-/lagedrukgasleiding	Vloeistofleiding
E-242SN3		
E-302SN3		

Unit: mm, ID: Binnendiameter, OD: Buitendiameter

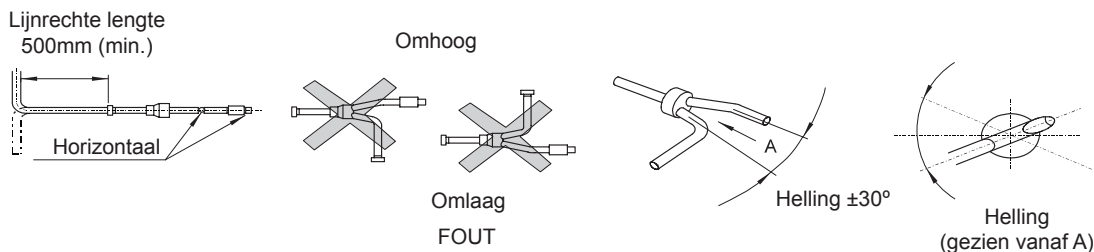
A	naar binnenunit
B	naar buitenunit
C	naar hoofdleiding

4.2 DE LEIDINGEN POSITIONEREN

1 Horizontale installatie

Plaats de vertakkingsleidingen zo, dat het waarschuwingslabel bovenop ligt en de leidingen horizontaal op dezelfde hoogte liggen (helling +30°).

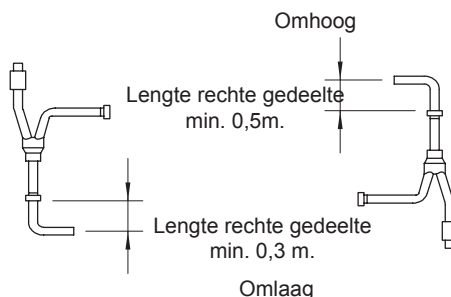
Zorg ervoor dat de lengte van het rechte gedeelte na de verticale bocht minimaal 500 mm is.



2 Verticale installatie

De rechte lengte van de leidingaansluiting op de buitenunitzijde wordt als volgt gemaakt:

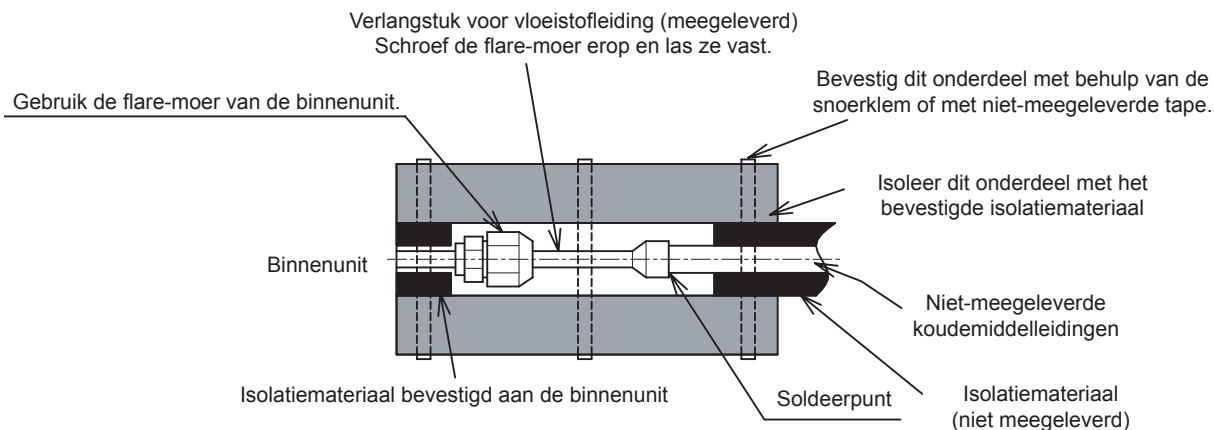
- De groepsaansluiting van de leiding wordt naar boven geïnstalleerd. De rechte lengte moet minimaal 0,5 m bedragen.
- De groepsaansluiting van de leiding wordt omlaag geïnstalleerd. De rechte lengte moet minimaal 0,3 m bedragen.



4.3 AANSLUITINGSPROCEDURE VOOR LEIDINGKOPPELING

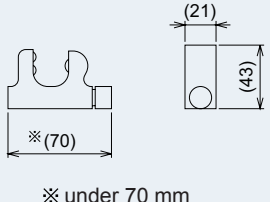
Als u de vloeistofleidingen voor een unit met een capaciteit van 2,0 HP of minder en met een leidinglengte van 15 meter of langer aansluit, gebruik dan een leidingdiameter van 9,52 mm. Sluit de leiding aan zoals hieronder afgebeeld.

Gebruik de isolatie die is bevestigd op de binnenunit. Voorbeeld: 36HP (combinatie van 3 buitenunits)

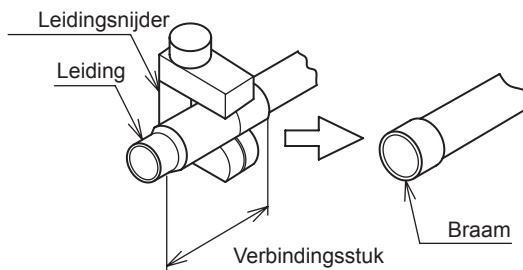


4.4 LEIDINGVERBINDINGEN

- 1 Wanneer de vertakkingsleiding kleiner is dan 22,2 cm binnendiameter, is een kleine leidingsnijder (niet-meegeleverd) nodig.

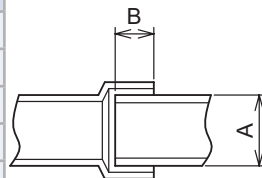
(mm)		
Aanbevolen kleine leidingsnijder	Snijdbare diameter	Rotatieradius
	Ø 5 - 28	(50)

- 2 Gebruik schone koperen leidingen die vrij zijn van vocht of vreemde voorwerpen op de binnenwanden van de leidingen. Wanneer u de koudemiddelleiding aansluit, snijd dan de koperen leidingen met een leidingsnijder zoals hieronder afgebeeld. Blaas de leidingen ook schoon met stikstof of lucht, om stof uit de leidingen te verwijderen. Gebruik GEEN zaag, slijpsteen of ander gereedschap dat een grote hoeveelheid slijpsel kan veroorzaken.



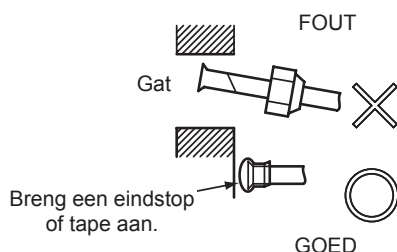
- 3 Zorg bij het snijden van de leiding voor een juiste diepte voor soldeerwerkzaamheden, raadpleeg daarvoor de volgende tabel.

(mm)	
A: Buitendiameter	B: Minimale diepte
Meer dan 5, minder dan 8	6
Meer dan 8, minder dan 12	7
Meer dan 12, minder dan 16	8
Meer dan 16, minder dan 25	10
Meer dan 25, minder dan 35	12
Meer dan 35, minder dan 45	14

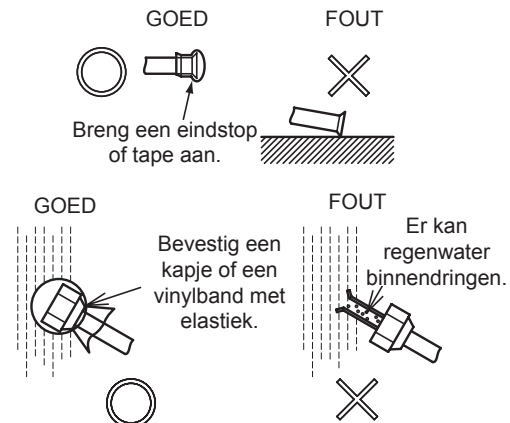


- Voorzichtig met koudemiddelleidingen

Plaats een eindstop op het uiteinde van de leiding als u deze installeert door een muur.



Leg de leiding NIET onbeschermd op de vloer.



- 4 Controleer of alle afsluiters van de buitenunit volledig dicht zijn.
- 5 Blaas tijdens het solderen de leidingen schoon met stikstofgas.

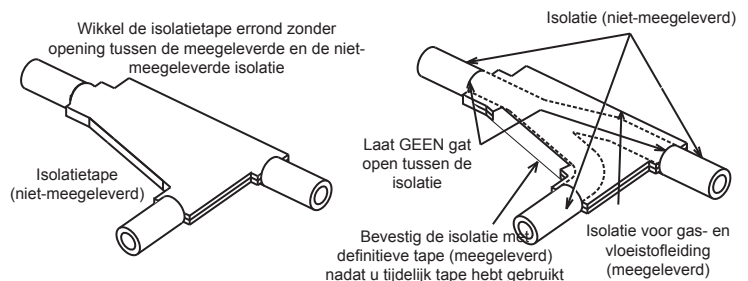
⚠ GEVAAR

Zorg ervoor dat een lekkagetest van het koudemiddelcircuit wordt uitgevoerd. Het koudemiddel (fluorkoolwaterstof) van de binnenuit is niet-ontvlambaar, niet-giftig en geurloos. Als het koudemiddel echter lekt en in aanraking komt met vuur, dan komen giftige gasen vrij. Omdat fluorkoolwaterstof zwaarder is dan lucht, vult het de kamer van onderen op, wat verstikking kan veroorzaken.

- 6 De luchtdichtheidsdruk voor dit product is 4,15MPa.
- 7 Bevestig het isolatiemateriaal dat bij dit multi-kit is geleverd op elke vertakking (vloeistofzijde en gaszijde) met tape. Gebruik ook niet-meegeleverd isolatiemateriaal op de niet-meegeleverde leidingen.

i OPMERKING

Bij gebruik van polyethyleenschuim raden wij een dikte aan van 10 mm voor de vloeistofleidingen en 15 tot 20 mm voor de gasleidingen (gebruik voor de gasleidingen isolatiemateriaal met een hittebestendigheid van 100°C).



⚠ LET OP

- Wacht tot de temperatuur van het leidingsooppervlak tot kamertemperatuur is gezakt voordat u de isolatiewerken uitvoert. Als u isolatie direct na het solderen aanbrengt, kan het isolatiemateriaal smelten.
- Als de uiteinden van de leiding tijdens de aansluitingswerken een tijd zullen worden blootgesteld aan de atmosfeer, plaats dan eindstoppen of plastic zakken over de uiteinden om de leiding te beschermen tegen vocht en vuil.

Wij raden u aan deze handleiding na het installatiewerk in bewaring te geven aan de klant.

Modeller med linjeförgreningar: E-102SN4, E-162SN4, E-242SN3, E-302SN3

**OBS!**

Överlämna denna installationshandbok till nästa person som arbetar med installation.

1 APPLICERBARA UTOMHUSENHETER

Dessa satser för anslutning av flera rör kan användas på enheter i R410A SET-FREE-serien.

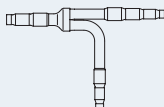
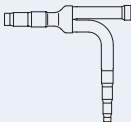
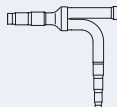
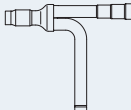
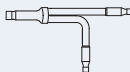
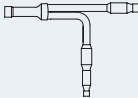
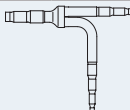
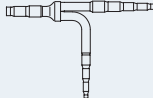
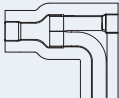
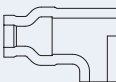
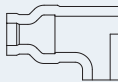
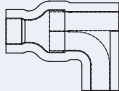
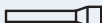
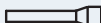
2 TRANSPORT

Packa upp produkten så nära installationsplatsen som möjligt.

3 FÖRE INSTALLATION

Bekräfta delarnas nummer genom att titta på modellen på baksidan av paketet innan delarna packas upp.

Lägg INTE några främmande föremål bland delarna. Kontrollera att inga främmande föremål finns inuti delarna innan installationen.

Delarnas namn		E-102SN4		E-162SN4		E-242SN3		E-302SN3	
		Antal		Antal		Antal		Antal	
Grenrör för hög-/lågtrycksgasledning									
		1		1		1		1	
Grenrör för vätskeledning									
		1		1		1		1	
Tillbehör	Isolering för hög-/lågtrycksgasledning								
		1		1		1		1	
	Isolering för vätskeledning								
		1		1		1		1	
	Reducer för hög-/lågtrycksgasledningens anslutning (för Multi-kitets anslutningsände)								
		1		1		1		1	
		— Ingen		— Ingen		— Ingen		 1	
	— Ingen		— Ingen		— Ingen		 1		
	Reducer för vätskeledningens anslutning (för enhetens röranslutning)	 		  					
		1 2		1 1 1		1		1	
Tejp									
		2		2		2		2	

**OBS!**

Kontakta distributören om någon av de här delarna saknas.

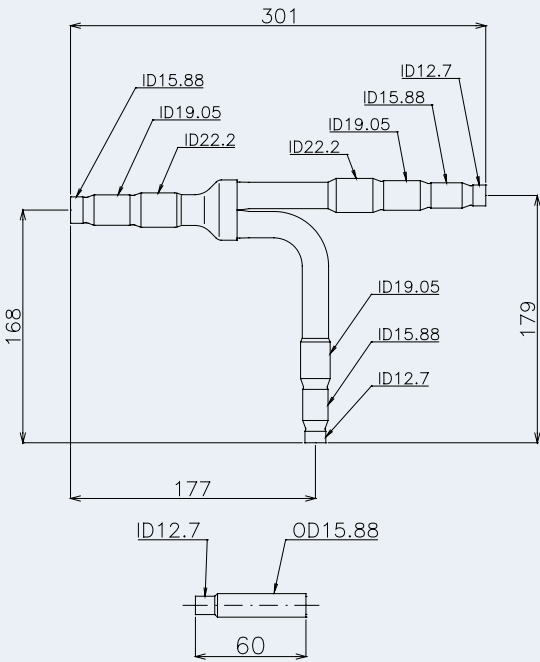
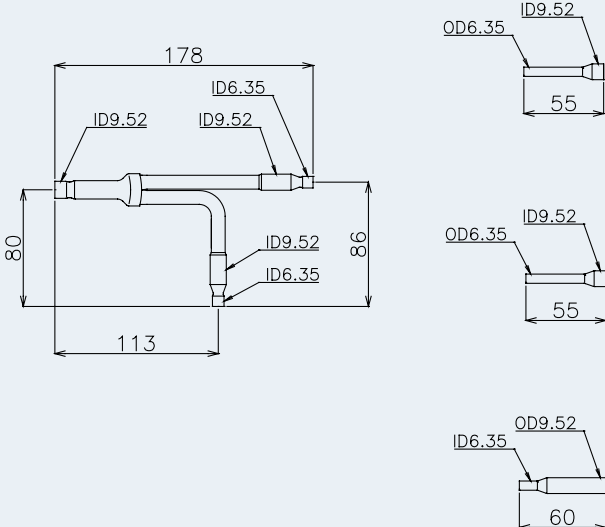
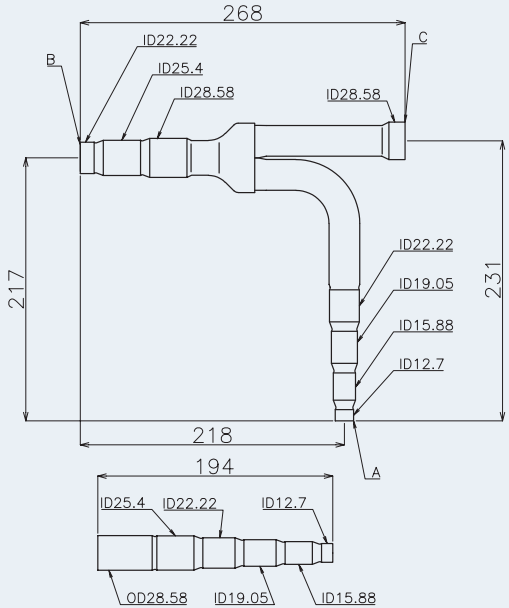
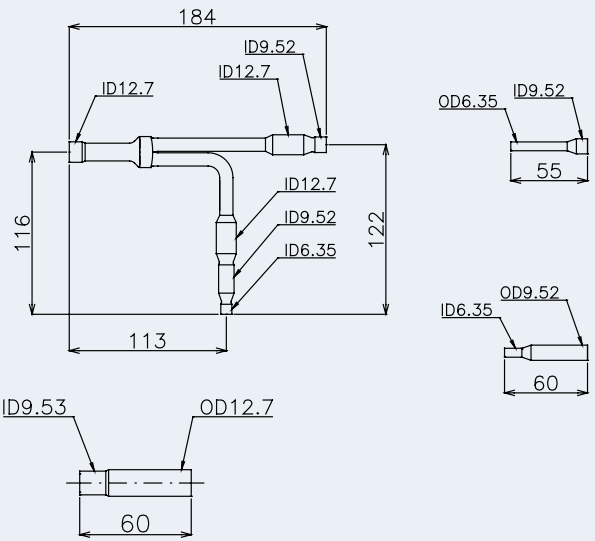
4 INSTALLATIONSARBETE

4.1 STORLEK PÅ RÖRANSLUTNING

Ändarna på varje multi-kit är avslutade enligt följande figurer. Skär av röränden så att det passar rörets storlek.

VARNING

Det ska finnas tillräckligt med utrymme för röret. Böjda rör och förbiledningsrör (horisontal slinga) ska också installeras för att absorbera när rör tänjer sig på grund av temperaturförändringar.

Modell	Hög-/lågtrycksgasledning	Vätskeledning
E-102SN4		
E-162SN4		

Modell	Hög-/lågtrycksgasledning	Vätskeledning
E-242SN3		
E-302SN3		

Enhet: mm, ID: Innerdiameter, OD: Ytterdiameter

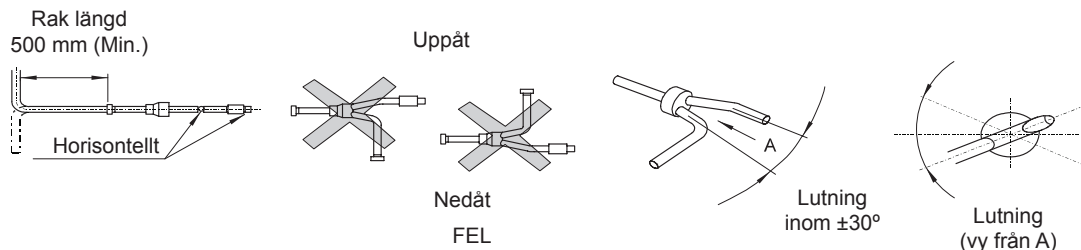
A	Till inomhusenhet
B	Till utomhusenhet
C	Till huvudrör

4.2 INSTALLATIONSPOSITION

1 Horisontell installation

Placera grenrören så att varningsetiketten pekar uppåt på det horisontella planet. (Lutning inom +30o)

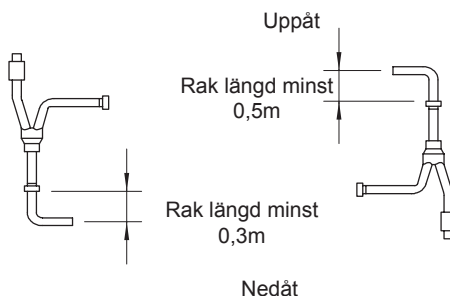
Gör den raka längden till minst 500 mm efter den vertikala böjen.



2 Vertikal installation

Rak längd för röranslutningen på utomhusenheten görs på följande sätt:

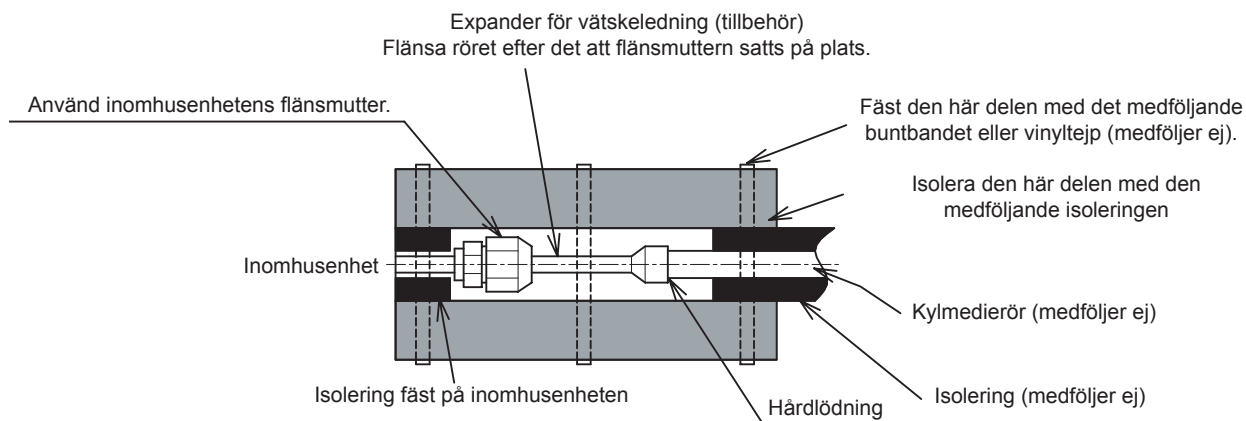
- Den kollektiva röranslutningsdelen installeras uppåt och den raka längden måste vara minst 0,5 m.
- Den kollektiva röranslutningsdelen installeras nedåt och den raka längden måste vara minst 0,3 m.



4.3 ANSLUTNINGSMETOD FÖR RÖRFOGAR

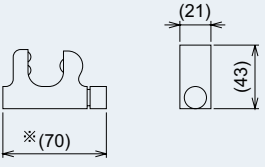
När vätskerör med en kapacitet på 2,0 HP eller mindre ansluts till enheten och rörlängden är 15 meter eller mer ska rör med en diameter 9,52 mm användas. Fäst anslutningsröret enligt bilden nedan.

Använd isoleringen som är fäst på inomhusenheten. Exempel: 36 HP (kombinationen av 3 utomhusenheter)

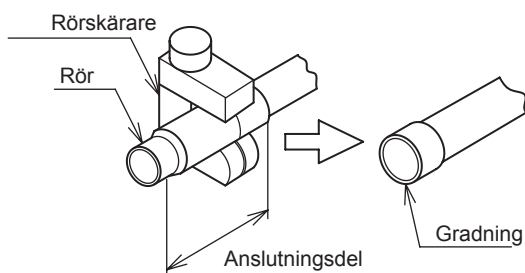


4.4 RÖRANSLUTNING

- 1 När ett storleken på grenrörets innerdiameter är mindre än 22,2 mm så behöver man en minirörskärare (medföljer ej).

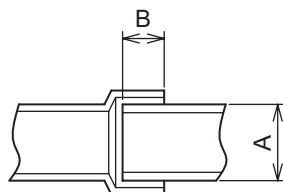
(mm)		
Rekommenderad minirörskärare	Diameter-område	Roterande radie
	Ø 5 - 28	(50)

- 2 Använd rena kopparrör utan fukt eller främmande material på rörens innersidor. Skär kopparrören med en röravskärare som visas nedan när kylvätskerören ansluts. Blås rent rörens insida med kvävgas eller luft för att avlägsna allt damm. Använd INTE en såg, slipsten eller något annat som bildar stora mängder skärsnån.



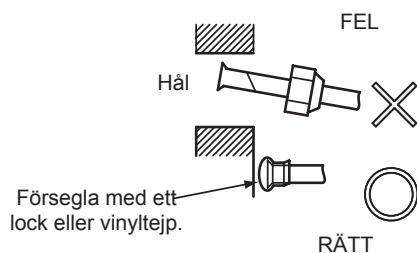
- 3 Kontrollera rätt djup för hårdlödningen enligt följande tabell när röret skärs av.

(mm)	
A: Ytterdiameter	B: Minimidjup
Över 5, under 8	6
Över 8, under 12	7
Över 12, under 16	8
Över 16, under 25	10
Över 25, under 35	12
Över 35, under 45	14

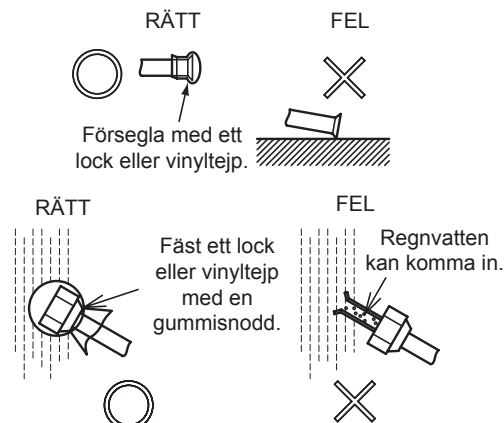


- Att tänka på för kylvätskerör

Vid installation av rör genom väggen ska man fästa ett lock i rörets ände.



Lägg INTE röret direkt på marken.



- 4 Försäkra att alla stoppventiler på utomhusenheten är ordentligt stängda.
- 5 Blås rent rörens insidor med kvävgas vid hårdlödning.

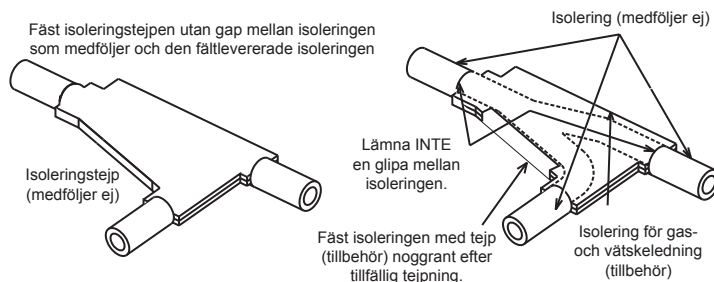
⚠ FARA!

Försäkra att ett läckagetest av kylmedium utförs. Kylmedium (flourkolgas) för inomhusenheten är brandsäkert, luktfritt och giftfritt. Om kylmedium läcker ut och kommer i kontakt med eld så kommer emellertid giftig gas att bildas. Då flourkolgas är tyngre än luft fyller den golvytan, vilket kan leda till kvävning.

- 6 Enheten ska lufttättestas vid 4,15 MPa.
- 7 Fäst den isolering som medföljer dessa multi-kits för varje förgrening (vätskesida och gassida) med tejp. Fäst även isoleringen (medföljer ej) på rören (medföljer ej).

i OBS!

När polyteylenskum används så rekommenderas en tjocklek på 10 mm för vätskerören och mellan 15 och 20 mm för gasledningarna. (Använd isolering med en värmebeständighet på 100°C för gasrör.)



⚠ VARNING

- Utför isoleringsarbetet när rörens ytemperatur sjunkit till rumstemperatur. Om isoleringen utförs omedelbart efter hårdlödningen kan isoleringen smälta.
- Om rörändarna är öppna till atmosfären ett tag efter rörarbete utförts ska man placera lock eller plastpåsar över ändarna för att undvika fukt och damm.

Det rekommenderas att kunden behåller denna handbok efter installationen.

Μοντέλα διακλάδωσης γραμμών: E-102SN4, E-162SN4, E-242SN3, E-302SN3

ΣΗΜΕΙΩΣΗ

Το παρόν εγχειρίδιο πρέπει να παραδοθεί στο προσωπικό που θα κάνει τις επόμενες εργασίες εγκατάστασης.

1 ΕΞΩΤΕΡΙΚΕΣ ΜΟΝΑΔΕΣ ΓΙΑ ΤΙΣ ΟΠΟΙΕΣ ΙΣΧΥΟΥΝ ΟΙ ΟΔΗΓΙΕΣ

Αυτά τα κιτ σύνδεσης πολλαπλών σωλήνων μπορούν να χρησιμοποιηθούν για τη σειρά R410A SET-FREE.

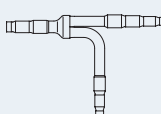
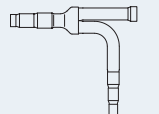
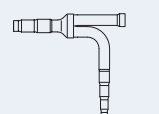
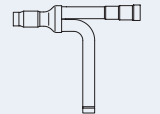
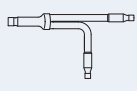
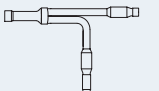
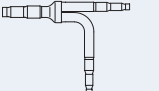
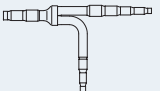
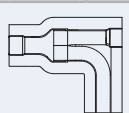
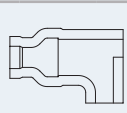
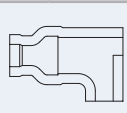
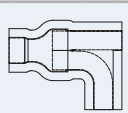
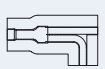
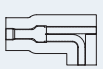
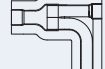
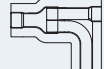
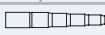
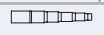
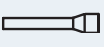
2 ΜΕΤΑΦΟΡΑ

Πριν βγάλετε το προϊόν από τη συσκευασία, μεταφέρετέ το όσο χρειάζεται κοντά στη θέση εγκατάστασης.

3 ΠΡΙΝ ΤΗΝ ΕΓΚΑΤΑΣΤΑΣΗ

Πριν βγάλετε τα παρακάτω εξαρτήματα από τη συσκευασία, ανατρέξτε στον αριθμό μοντέλου που αναγράφεται σε αυτήν για να βεβαιωθείτε ότι είναι σωστά.

ΜΗΝ τοποθετήσετε κανένα ξένο υλικό στα εξαρτήματα. Πριν την εγκατάσταση βεβαιωθείτε ότι δεν υπάρχει κανένα ξένο υλικό μέσα στα εξαρτήματα.

Ονόματα εξαρτημάτων		E-102SN4		E-162SN4		E-242SN3		E-302SN3	
		Ποσ		Ποσ		Ποσ		Ποσ	
Σωλήνας διακλάδωσης για γραμμή αερίου υψηλής/χαμηλής πίεσης									
		1		1		1		1	
Σωλήνας διακλάδωσης για γραμμή υγρού									
		1		1		1		1	
Εξάρτημα	Μόνωση για γραμμή αερίου υψηλής/χαμηλής πίεσης								
		1		1		1		1	
	Μόνωση για γραμμή υγρού								
		1		1		1		1	
	Μειωτήρας για σύνδεση γραμμής αερίου υψηλής/χαμηλής πίεσης (για άκρη της σύνδεσης Multi-Kit)								
		1		1		1		1	
	Μειωτήρας για σύνδεση γραμμής αερίου (Σύνδεση για σωλήνωση μονάδας)								
		1 2		1 1 1		1		1	
	Ταινία								
		2		2		2		2	

ΣΗΜΕΙΩΣΗ

Εάν κάποιο από αυτά τα εξαρτήματα δεν περιλαμβάνεται στη συσκευασία, επικοινωνήστε με τον αντιπρόσωπο.

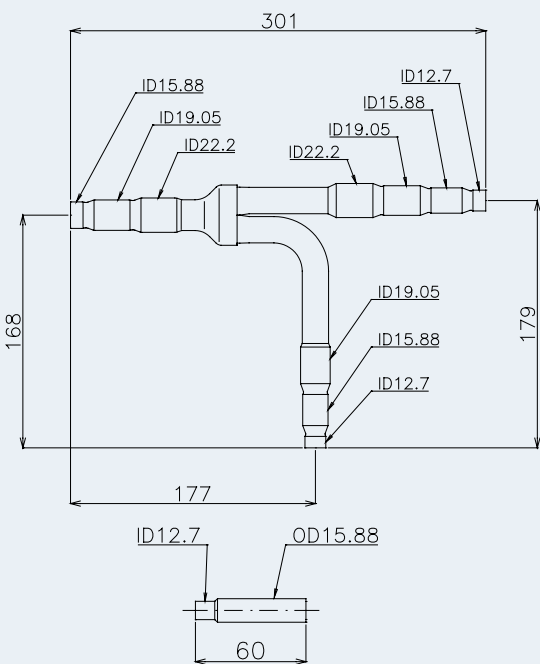
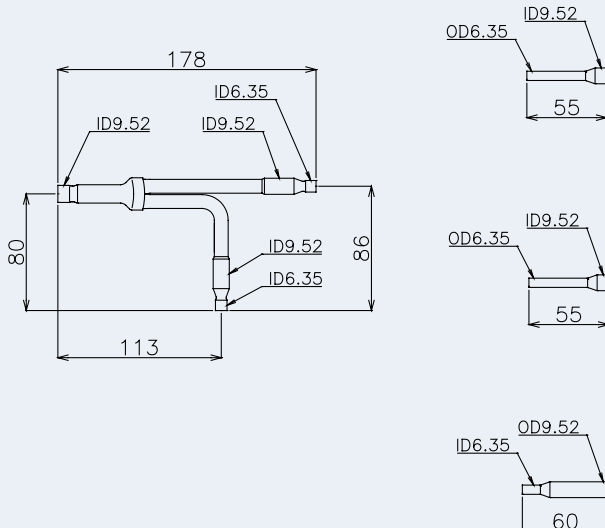
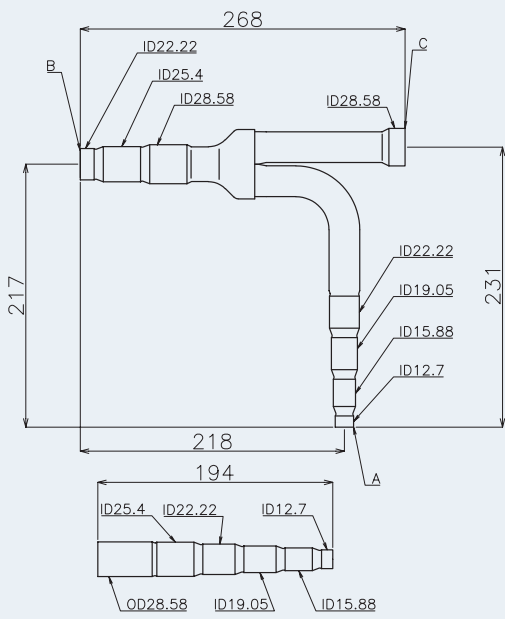
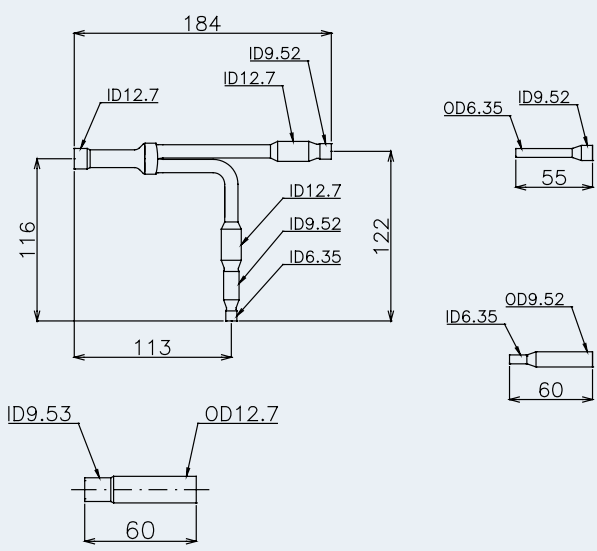
4 ΕΡΓΑΣΙΕΣ ΕΓΚΑΤΑΣΤΑΣΗΣ

4.1 ΜΕΓΕΘΟΣ ΣΥΝΔΕΣΗΣ ΣΩΛΗΝΩΣΕΩΝ

Τα άκρα των multi-kit έχουν ολοκληρωθεί όπως φαίνεται στις παρακάτω εικόνες. Κόψτε την άκρη του σωλήνα για να αποκτήσει το κατάλληλο μέγεθος.

ΠΡΟΣΟΧΗ

Θα πρέπει να υπάρχει αρκετός χώρος για την υποστήριξη των σωληνώσεων. Οι λυγισμένοι σωλήνες και η παράκαμψη των σωληνώσεων (κάθετος βρόχος) θα πρέπει επίσης να εγκατασταθούν για να απορροφήσουν την ελαστικότητα των σωληνώσεων που προκαλείται λόγω των αλλαγών στη θερμοκρασία.

Μοντέλο	Γραμμή αερίου υψηλής/χαμηλής πίεσης	Γραμμή υγρού
E-102SN4		
E-162SN4		

Μοντέλο	Γραμμή αερίου υψηλής/χαμηλής πίεσης	Γραμμή υγρού
E-242SN3		
E-302SN3		

Μονάδα: mm, ID: Εσωτερική διάμετρος, OD: Εξωτερική διάμετρος

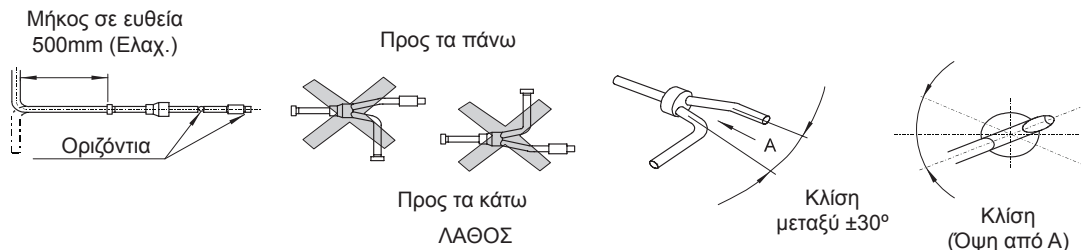
A	Σε εσωτερική μονάδα
B	Σε εξωτερική μονάδα
C	Σε κύρια σωλήνωση

4.2 ΘΕΣΗ ΕΓΚΑΤΑΣΤΑΣΗΣ

1 Επίπεδη εγκατάσταση

Εντοπίστε τους σωλήνες διακλάδωσης για να γίνει πλέον η ετικέτα προσοχής στο ίδιο οριζόντιο επίπεδο. (Κλίση μεταξύ +30ο)

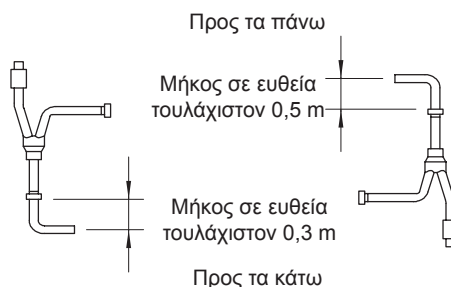
Φροντίστε το μήκος σε ευθεία να είναι τουλάχιστον 500 mm μετά την κατακόρυφη κλίση.



2 Κατακόρυφη εγκατάσταση

Το μήκος σε ευθεία της σύνδεσης των σωλήνων στην εξωτερική μονάδα πραγματοποιείται ως εξής:

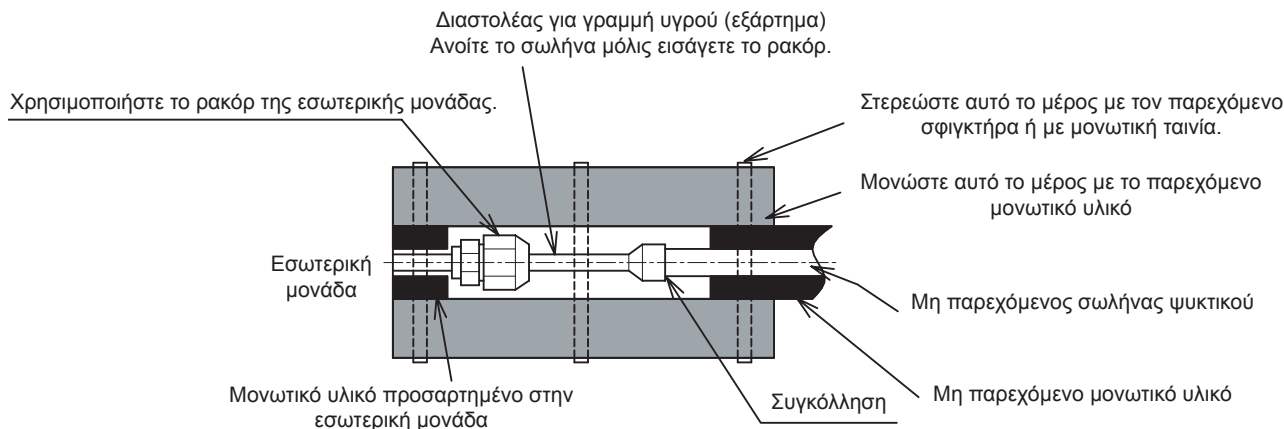
- Το κοινό εξάρτημα σύνδεσης σωλήνων τοποθετείται με φορά προς τα πάνω, το μήκος σε ευθεία πρέπει να είναι τουλάχιστον 0,5 m.
- Το κοινό εξάρτημα σύνδεσης σωλήνων τοποθετείται με φορά προς τα κάτω, το μήκος σε ευθεία πρέπει να είναι τουλάχιστον 0,3 m.



4.3 ΔΙΑΔΙΚΑΣΙΑ ΣΥΝΔΕΣΗΣ ΓΙΑ ΤΟΝ ΠΡΟΣΑΡΜΟΓΕΑ ΣΥΝΔΕΣΗΣ

Όταν συνδέετε σωληνώση υγρού με χωρητικότητα 2,0 HP ή μικρότερη και με σωληνώσεις μήκους 15 μέτρων ή μακρύτερες στη μονάδα, φροντίστε ώστε το μέγεθος των σωληνώσεων να είναι f9,52 χιλ. Στερεώστε το σωλήνα σύνδεσης όπως φαίνεται στην ακόλουθη εικόνα.

Χρησιμοποιήστε το μονωτικό υλικό που παρέχεται με την εσωτερική μονάδα. Παράδειγμα: 36 HP (Ο συνδυασμός 3 εξωτερικών μονάδων)



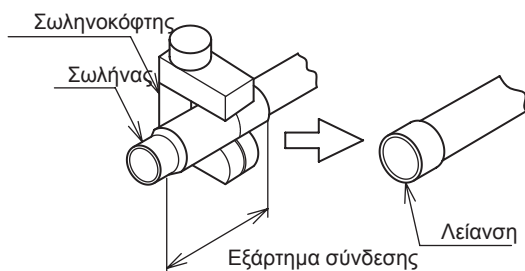
4.4 ΣΥΝΔΕΣΗ ΣΩΛΗΝΩΣΗΣ

- 1 Όταν το μέγεθος διακλάδωσης σωλήνα είναι μικρότερο από 22,2 mm στην εσωτερική διάμετρο, χρειάζεται ένας μίνι σωληνοκόφτης (μη παρεχόμενο) όπως παρακάτω.

(mm) χιλιοστά

Προτεινόμενος μίνι σωληνοκόφτης	Καθορισμός των διαμέτρων	Ακτίνα περιστροφής
	Ø 5 - 28	(50)

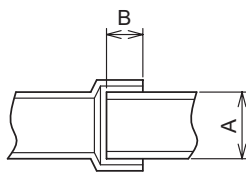
- 2 Στην εσωτερική επιφάνεια των σωλήνων χρησιμοποιήστε καθαρούς χαλκοσωλήνες, απαλλαγμένους από υγρασία ή ξένα υλικά. Όταν συνδέετε τον σωλήνα ψυκτικού κόψτε τους χαλκοσωλήνες με σωληνοκόφτη με τον τρόπο που φαίνεται παρακάτω. Επίσης, διοχετεύστε τους σωλήνες με άζωτο ή αέρα για να μην μείνει καθόλου σκόνη μέσα στο σωλήνα. ΜΗΝ χρησιμοποιείτε πριόνι, τροχό ακονίσματος ή άλλα εργαλεία που μπορούν να δημιουργήσουν μεγάλες ποσότητες ρινισμάτων χαλκού.



- 3 Όταν κόβετε το σωλήνα, διασφαλίστε αρκετό βάθος για τη χαλκοκόλληση όπως αναφέρεται στον παρακάτω πίνακα.

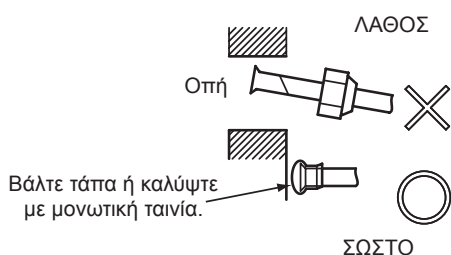
(mm) χιλιοστά

A: Εξωτερική διάμετρος	B: Ελάχιστο βάθος
Πάνω από 5, κάτω από 8	6
Πάνω από 8, κάτω από 12	7
Πάνω από 12, κάτω από 16	8
Πάνω από 16, κάτω από 25	10
Πάνω από 25, κάτω από 35	12
Πάνω από 35, κάτω από 45	14

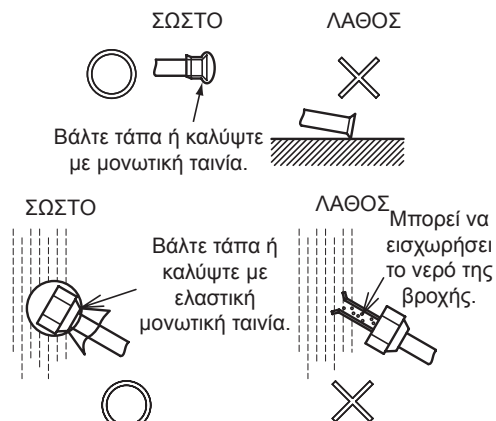


- Προφυλάξεις για τις Σωληνώσεις Ψυκτικού

Όταν περνάτε το σωλήνα μέσα από τοίχο, καλύψτε με τάπα το άκρο του.



ΜΗΝ αφήνετε το σωλήνα να έρθει σε επαφή με το έδαφος.



- 4 Βεβαιωθείτε ότι όλες οι βαλβίδες διακοπής της εξωτερικής μονάδας είναι πλήρως κλειστές.
- 5 Φυσήξτε με αέριο άζωτο το εσωτερικό των σωλήνων, στην περίπτωση συγκόλλησης.

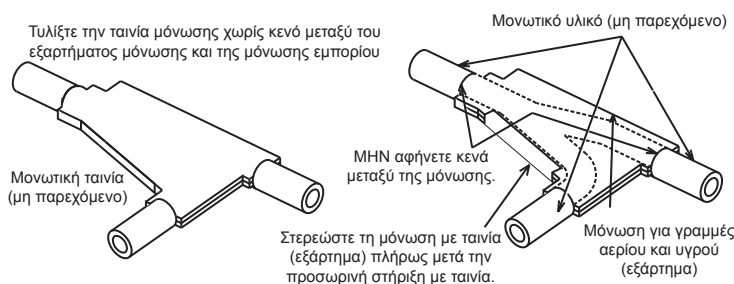
⚠ ΚΙΝΔΥΝΟΣ

Βεβαιωθείτε ότι έχετε εκτελέσει τον έλεγχο για διαρροή ψυκτικού. Το ψυκτικό (φθοράνθρακας) για την εσωτερική μονάδα είναι μη εύφλεκτο, μη τοξικό και άοσμο. Ωστόσο, αν γίνει διαρροή ψυκτικού και έρθει σε επαφή με φωτιά, θα παραχθεί τοξικό αέριο. Επίσης, επειδή ο φθοράνθρακας είναι πιο βαρύτες από τον αέρα, η επιφάνεια στο δάπεδο θα γεμίσει από αυτό, το οποίο μπορεί να προκαλέσει ασφυξία.

- 6 Η πίεση για τον έλεγχο στεγανότητας του προϊόντος είναι 4,15 MPa.
- 7 Τοποθετήστε τη μόνωση που παρέχεται με αυτό το multi-kit σε κάθε διακλάδωση (πλευρά υγρού και πλευρά αερίου) με μία ταινία. Επίσης, τοποθετήστε τη μόνωση εμπορίου στους σωλήνες εμπορίου.

i ΣΗΜΕΙΩΣΗ

Όταν τοποθετείτε αφρό πολυαιθυλενίου, συνιστάται πάχος 10 mm για σωληνώσεις υγρού και 15 mm έως 20 mm για σωληνώσεις αερίου. (Χρησιμοποιήστε μόνωση με αντίσταση στη θερμότητα 100°C για σωληνώσεις αερίου.)



⚠ ΠΡΟΣΟΧΗ

- Εκτελέστε την εργασία μόνωσης όταν η θερμοκρασία της επιφάνειας του σωλήνα μειωθεί στη θερμοκρασία δωματίου. Εάν οι εργασίες μόνωσης εκτελεστούν αμέσως μετά τη συγκόλληση, το μονωτικό μπορεί να λιώσει.
- Αν τα άκρα του σωλήνα είναι ανοιχτά στην ατμόσφαιρα για λίγη ώρα μετά την εκτέλεση των εργασιών σύνδεσης σωληνώσεων, τοποθετήστε με ασφάλεια τάπες ή πλαστικές σακούλες στο σωλήνα, για να αποτρέψετε την είσοδο υγρασίας και σκόνης.

Μετά την εγκατάσταση, συνιστάται η φύλαξη του παρών εγχειριδίου από τον πελάτη.

