

THIS BOOKLET CONTAINS:

Insulation Installation For:

- 1. Chiller water pipes.
- 2. Condensate water pipes.
- 3. Refrigerant pipes.
- 4. Air conditioning drain pipes.
- 5. Valves & fittings.

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STT revision	NGÀY HC date of revision	NỘI DUNG HC revision details	Dsg	Drn	Chk	App
HIỆU CHỈNH REVISION			KÝ HIỆU initials			

General:

Items: - The Method Statement For Air Conditioning Pipe Insulation Works

Aim:

The aim of works is to describe mechanical works associated with insulation of Chiller pipe, A/C drain pipe & Refrigerant pipe (copper pipe) to ensure compliance with contract requirements approved shop drawings, materials, specification and quality control.

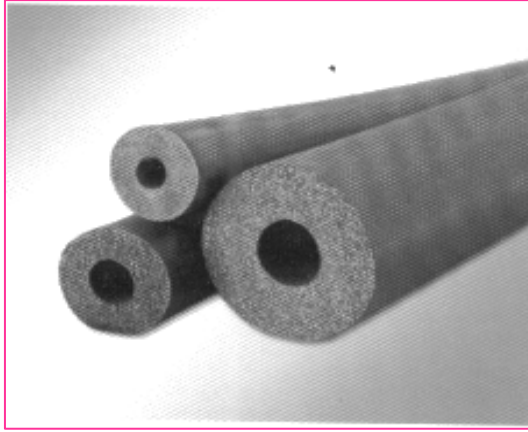
Scope of Works:

This method statement covers work related to HVAC pipe of the **SAIGON M&C TOWER Project**

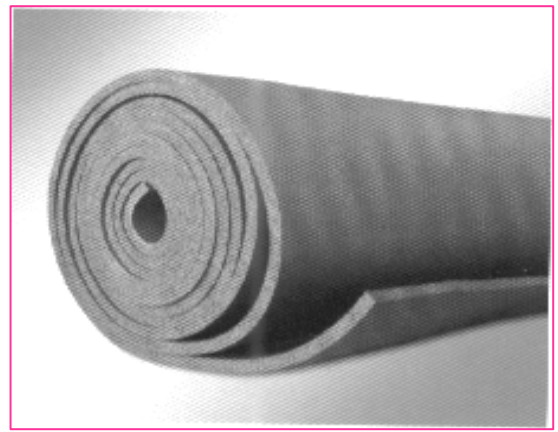
Installation works:

Table 1: Thickness & Type Insulation Schedule of Air Conditioning pipe

Air conditioning pipe system	Insulated Specification	Nomal pipe size			
		20A ~ 50A	65A ~125A	150A ~ 500A	Over 500A
Chiller water pipe	Thickness (mm)	32	38	50	50
	Type	Std Tube	Std Tube	Pre-Cut sheet	Pre-Cut sheet
Condensate water pipe	Thickness (mm)	19	19	-	-
	Type	Std Tube	Std Tube	-	-
Refrigerant pipe	Thickness (mm)	19	19	-	-
	Type	Std Tube	Std Tube	-	-



Insulation Tube



Pre-Cut Sheet Insulation



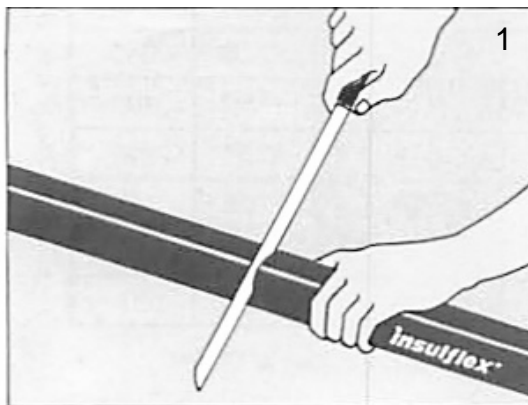
Adhesive tape 25 x 0.6mm thk



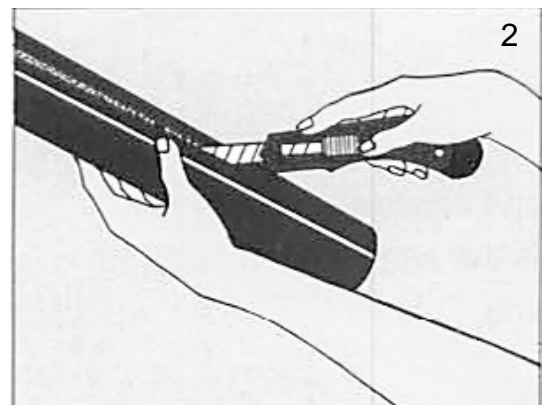
Adhesive

1. Chiller water pipes:

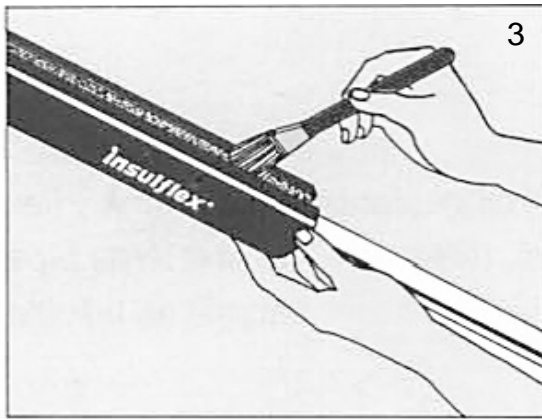
a. For pipe size smaller than 150A: Use insulation tube.



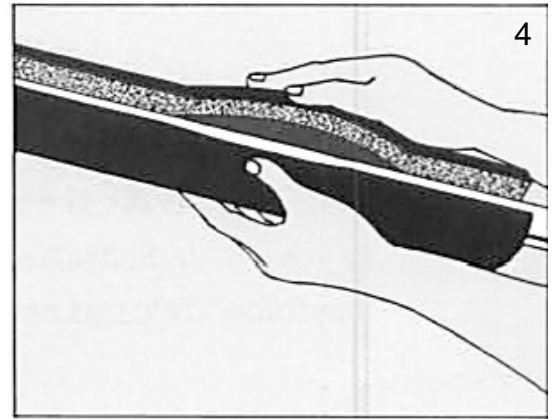
Measure & cut the length
insulation tube



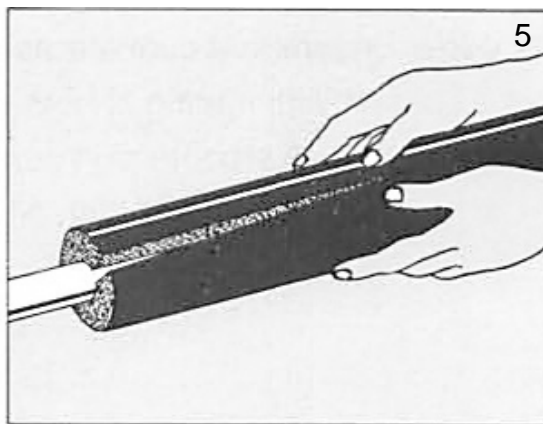
Cut the insulation tube according
to the lengthwise



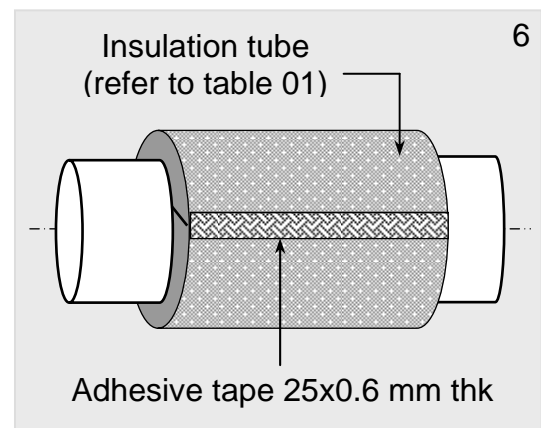
Apply a thin layer of adhesive on both joining surface evenly



Hold the two surface of seams while the adhesive dries

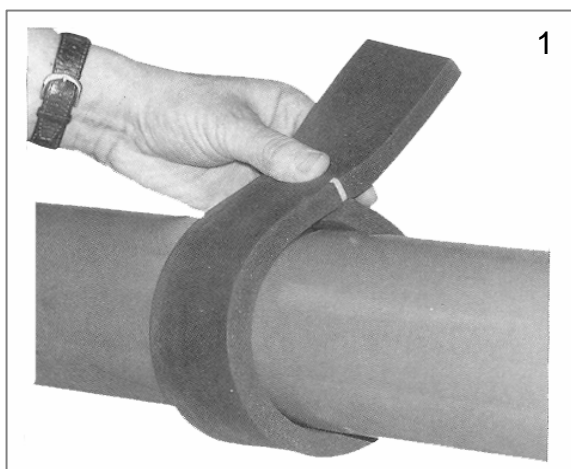


Press together two surface firmly of seam

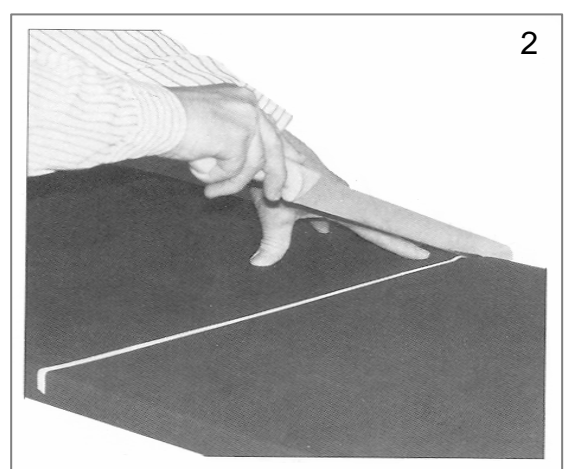


Add adhesive tape at the connection joint

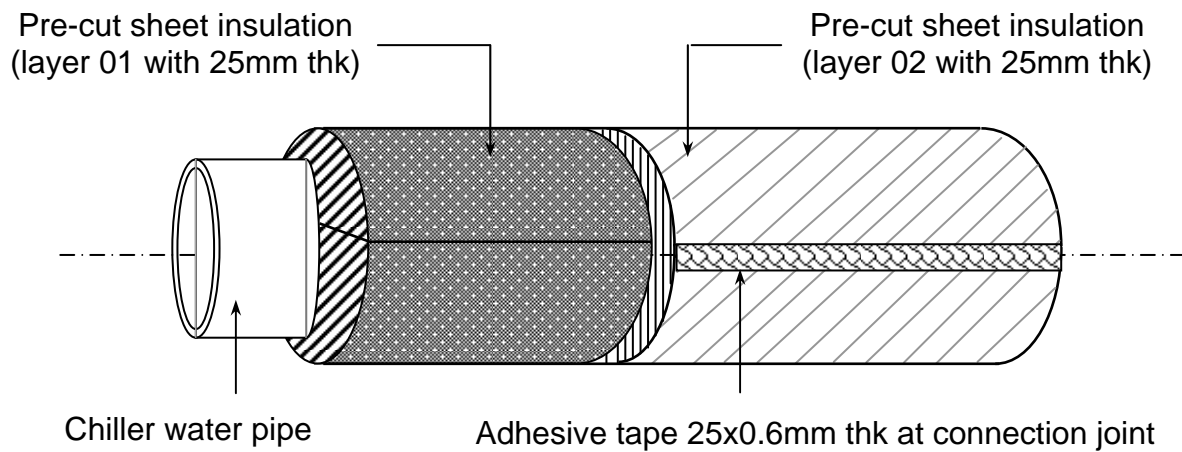
b. For pipe size 150A and over: Use Pre-Cut sheet insulation



Measure the circumference with an insulflex strip



Cut the pre-cut sheet insulation with a knife or blade

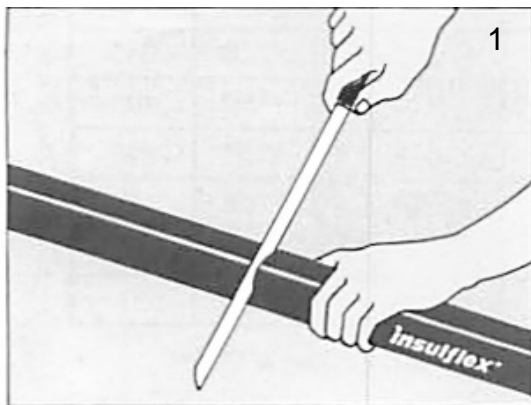


Detail of Chiller water pipe insulation using Pre-Cut sheet insulation

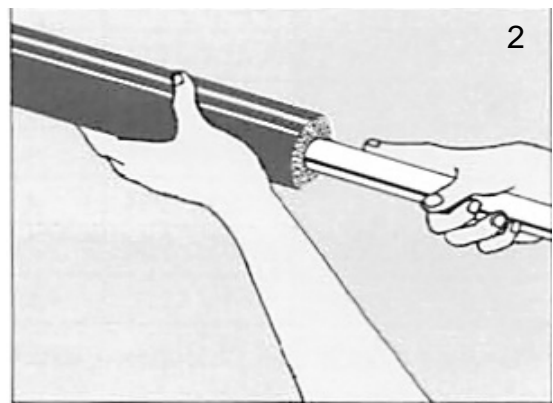
2. Condensate water pipe: (Insulated installation similar to chiller water pipe)

- a. For pipe size 150A & less than 150A: Use insulation tube
- b. For pipe size over 150A: Use Pre-Cut sheet insulation

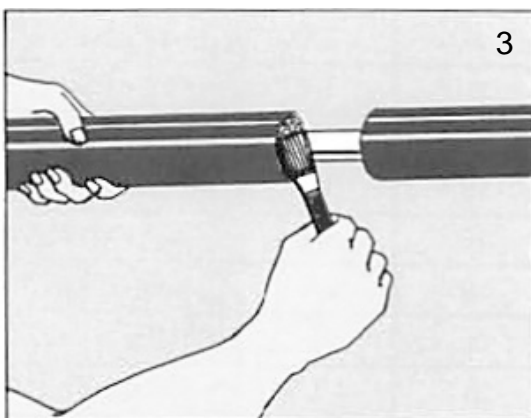
3. Refrigerant pipe insulation: Use insulation tube



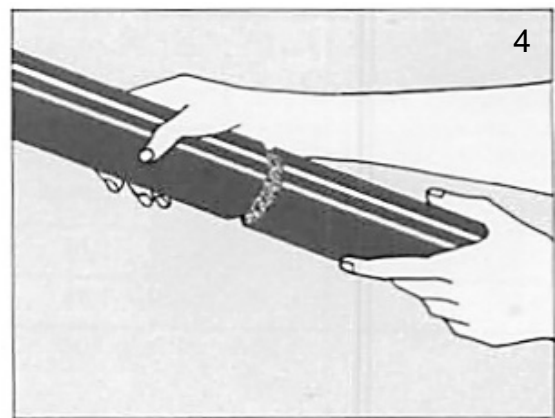
Measure & cut the length
insulation tube



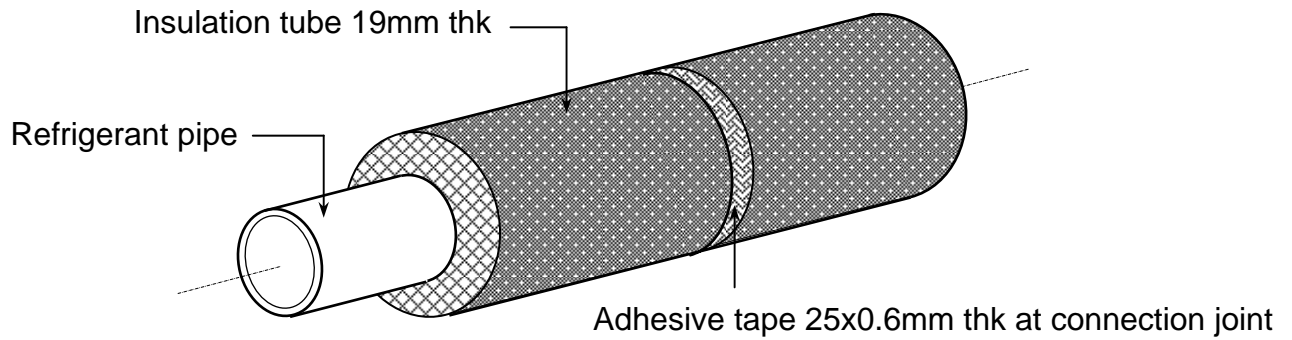
Slip full length of insulation tube



Apply a thin layer of adhesive at
the connection joint

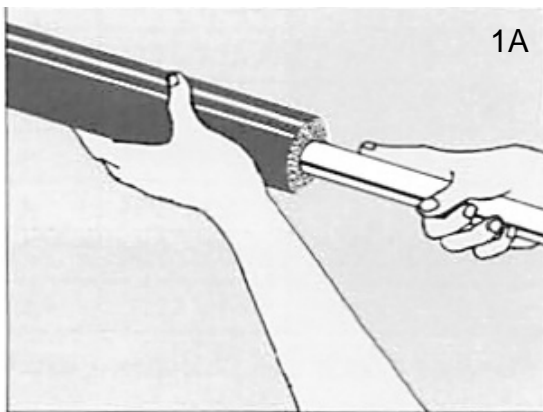


Press together two surface firmly
of joint

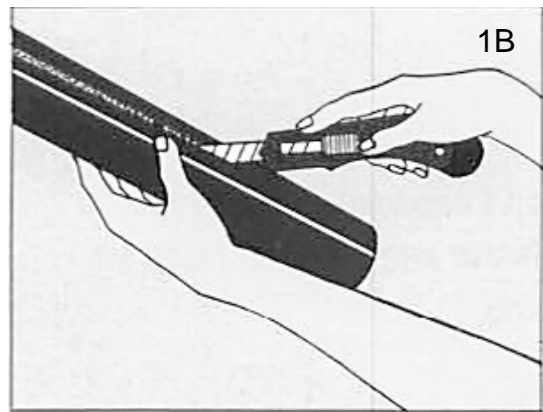


Detail of Refrigerant pipe insulation using insulation tube

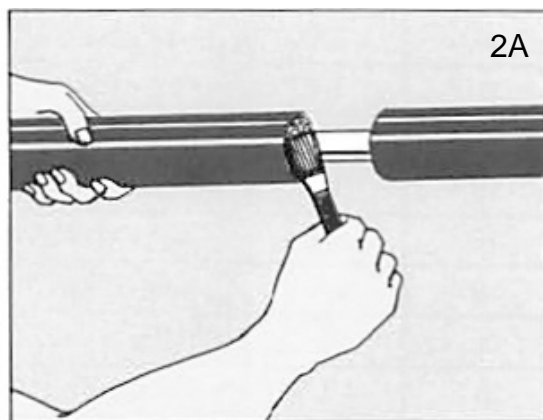
4. Air conditioning drain pipe insulation: Use insulation tube



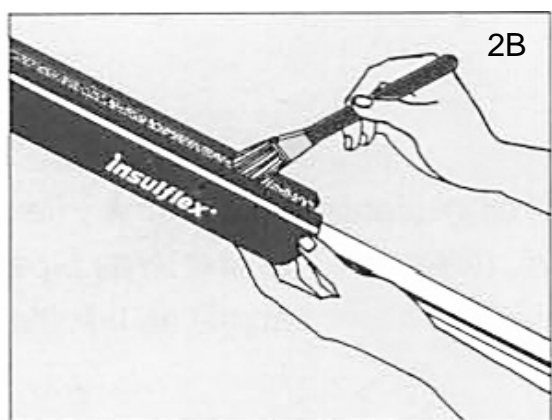
Slip full length of insulation tube
(for small size pipe)



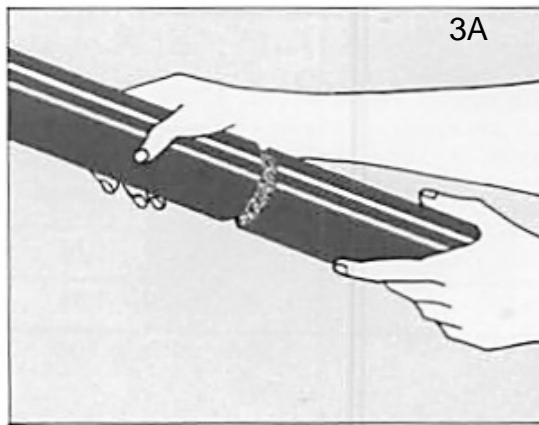
Cut the insulation tube according to
the lengthwise (for big size pipe)



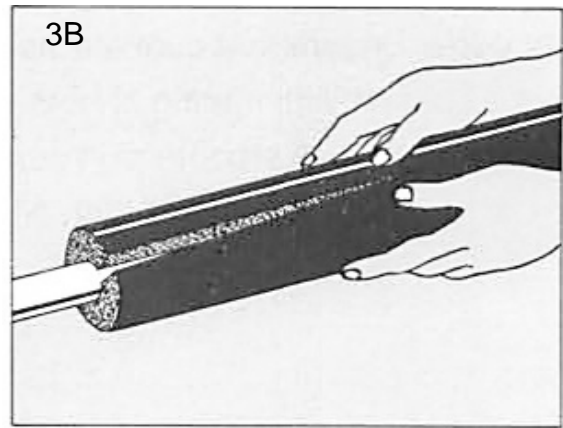
Apply a thin layer of adhesive at
the connection joint



Apply a thin layer of adhesive on
both joining surface evenly



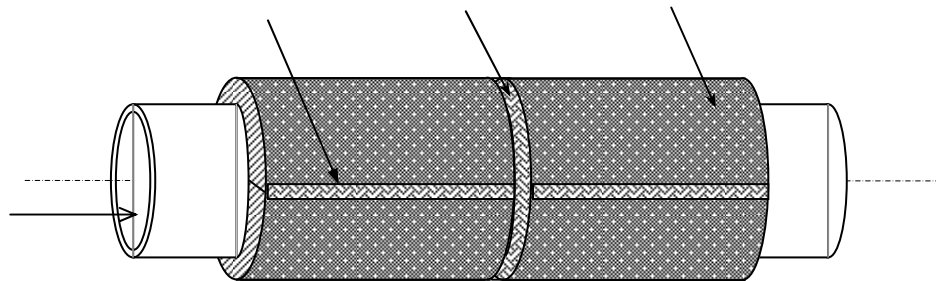
Press together two surface firmly of joint



Press together two surface firmly of seam

Adhesive tape 25x0.6mm thk at connection joint

Insulation tube 19mm thk

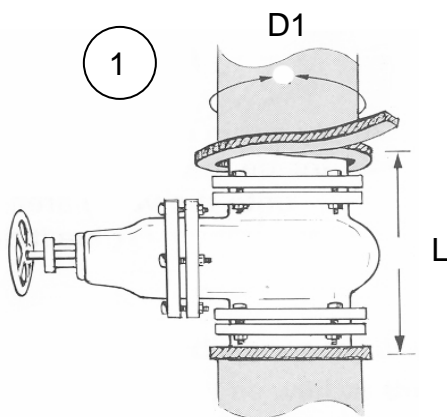


Detail of Drain pipe insulation using insulation tube

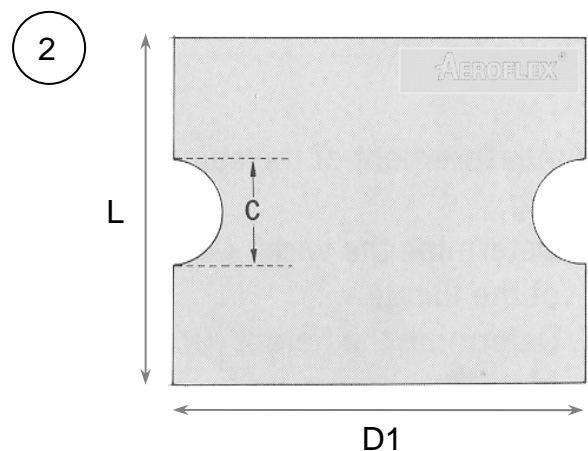
5. Valve & fitting insulation: Use Pre-Cut sheet insulation

5.1 Valve insulation:

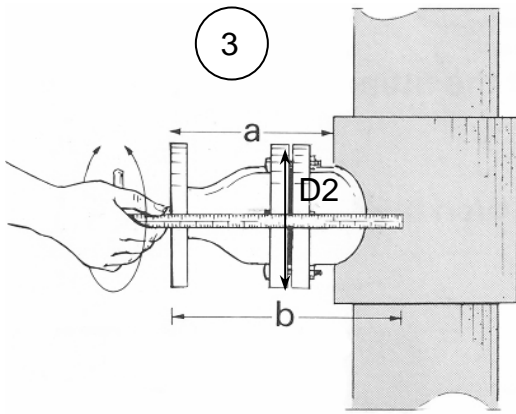
5.1.1) Gate valve:



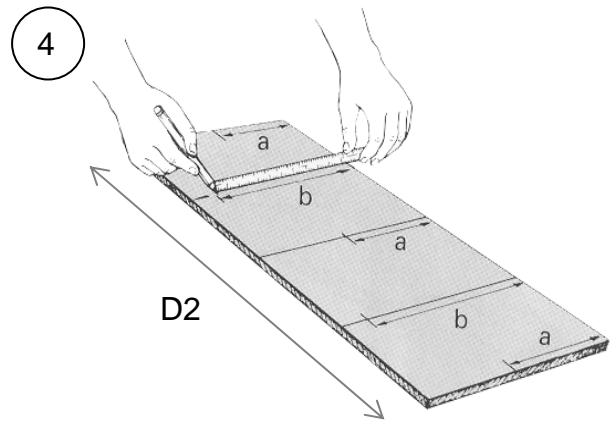
Measure the circumference of flange connection with an sheet strip



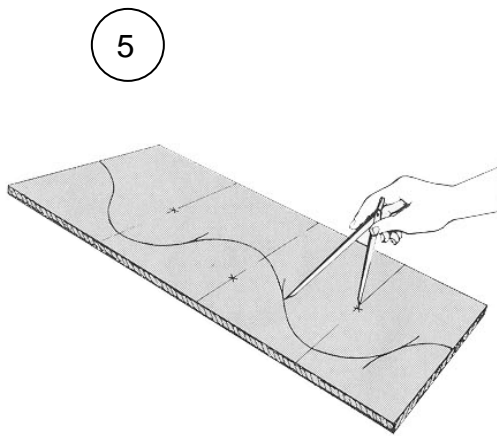
Transfer dimension of circumference & distance between two flange connection



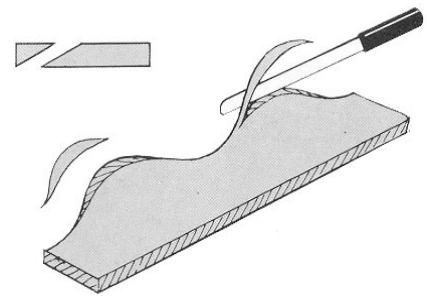
Measure the circumference of valve handle & the height of valve body



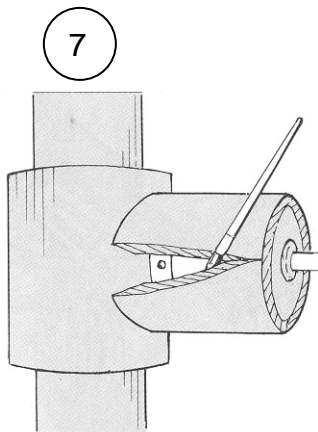
Transfer dimension of circumference of valve handle & height of valve body



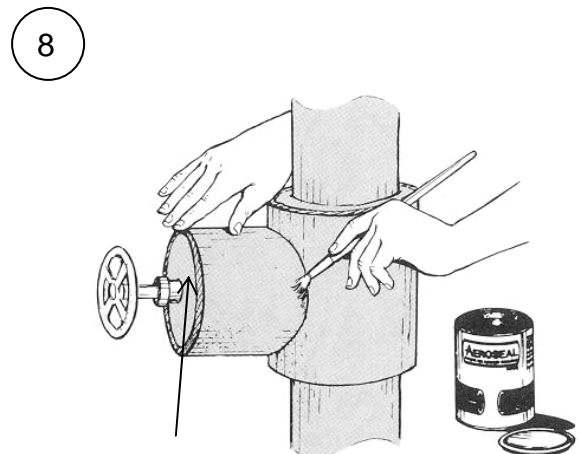
Mark-up curve with radius for 5 points and connect them with a through line



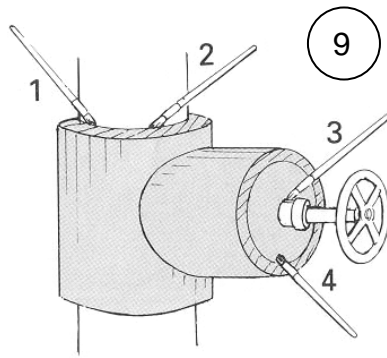
Cut off pre-cut sheet out follow 5 points to be marked



Apply adhesive on both joining surface evenly & around valve body

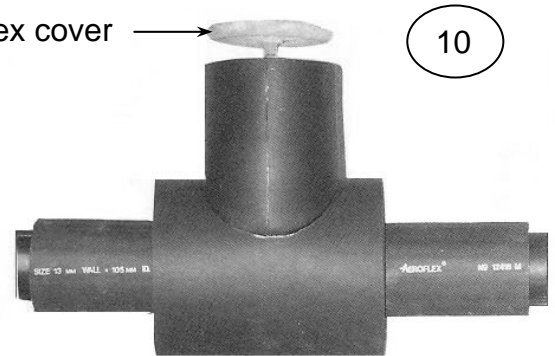


Apply adhesive on both fitting covers tightly together



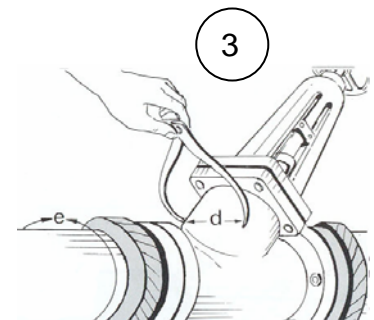
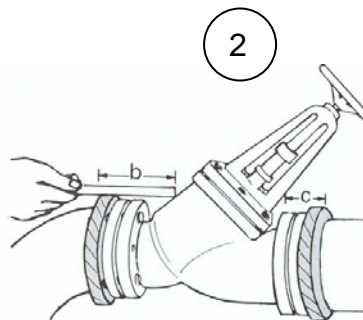
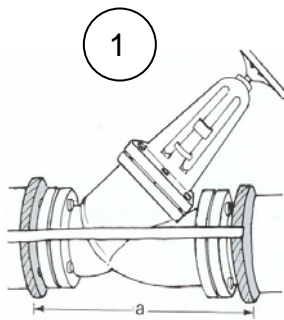
Pre-cut sheet insulation shall be to fixed by adhesive

Add insuflex cover

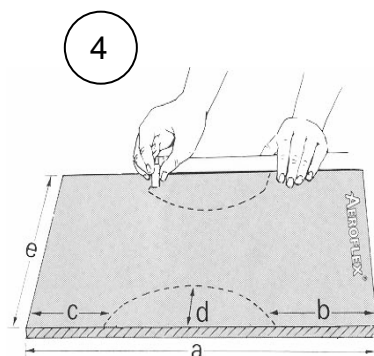


Add insuflex cover for valve handle

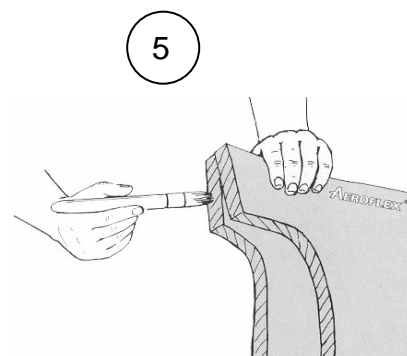
5.1.2) Balancing valve:



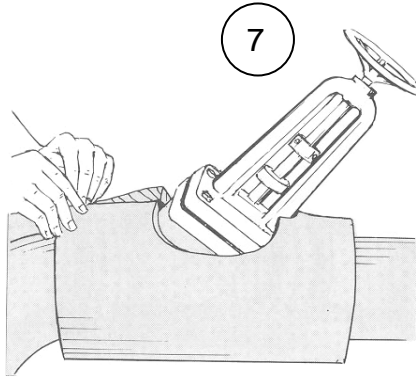
Measure the circumference of flange connection (e), between two flange connection (a), two distance between flange connection & valve body (b & c) and diameter of valve spindle (d)



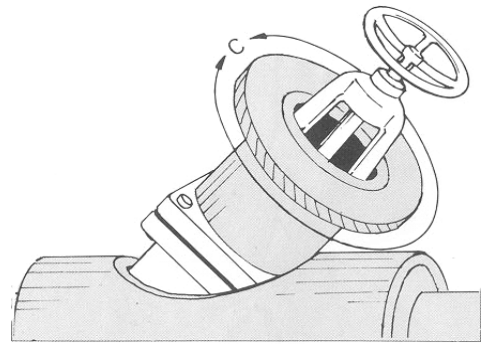
Transfer dimension a, b, c, d, e onto pre-cut sheet



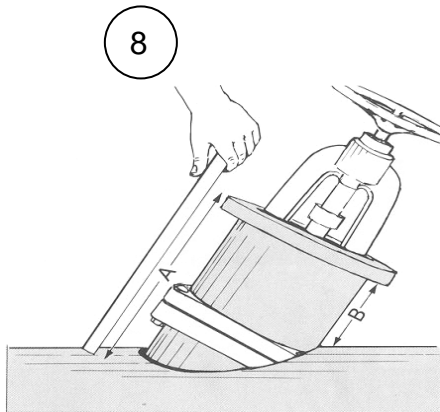
Apply a thin coat of adhesive on the lengthwise surfaces



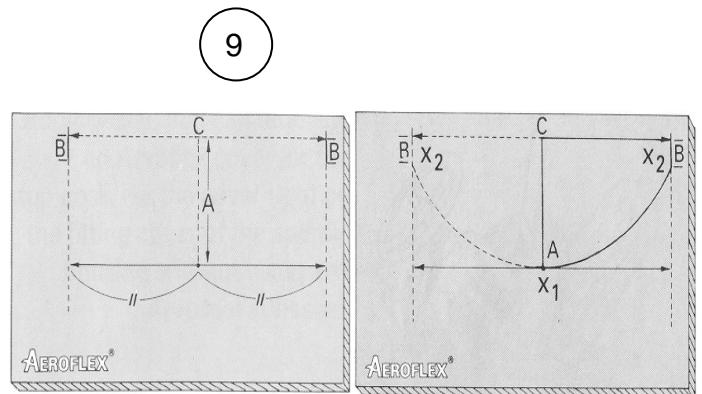
Apply adhesive on both joining surface evenly & around valve body



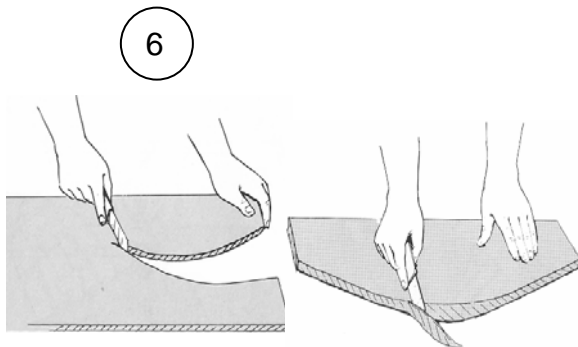
Measure the circumference (C) of valve handle



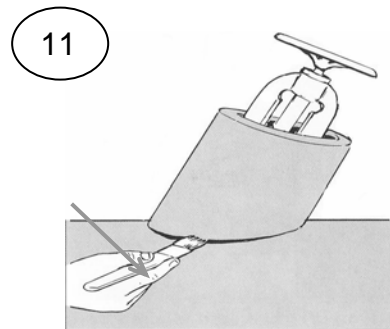
Measure the height (A, B) of valve handle



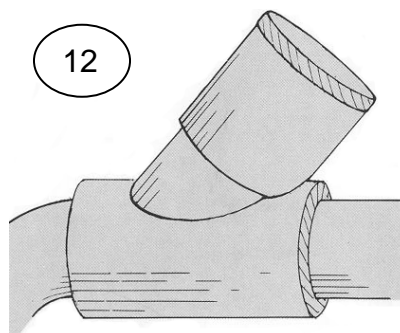
Transfer dimension of circumference (C) & height (A & B) onto pre-cut sheet



Measure the height (A, B) of valve handle



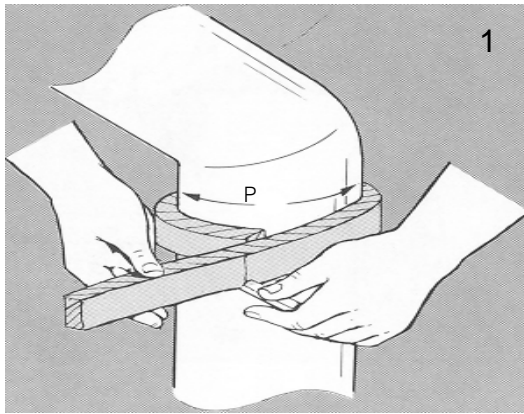
Apply adhesive on both fitting covers tightly together



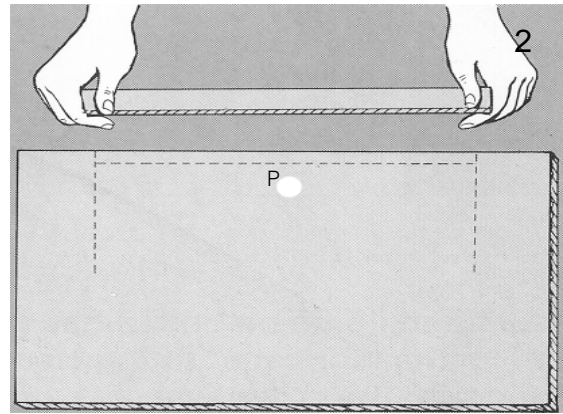
Add insuflex cover for handle valve

5.2 Fitting insulation:

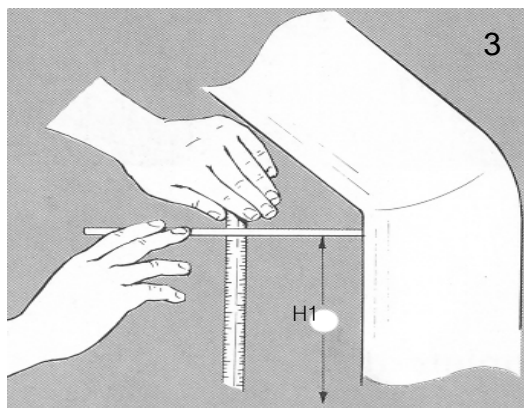
a) Elbow:



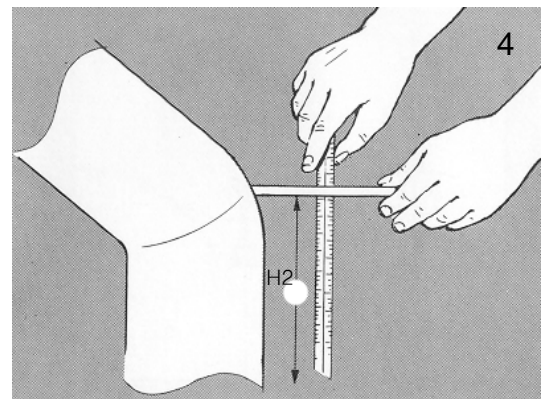
Measure the circumference of pipe with an sheet strip



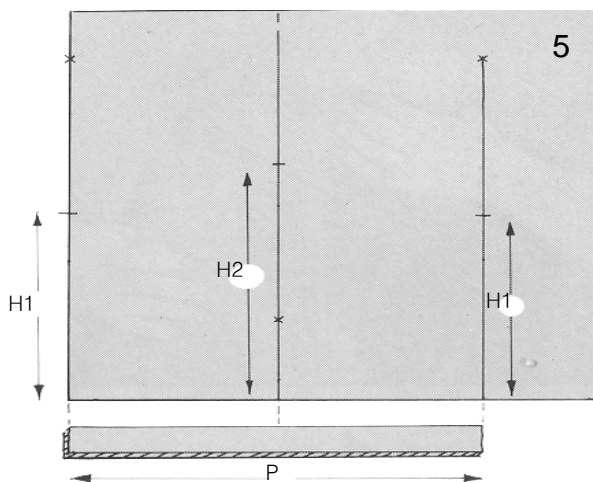
Transfer dimension of circumference onto pre-cut sheet



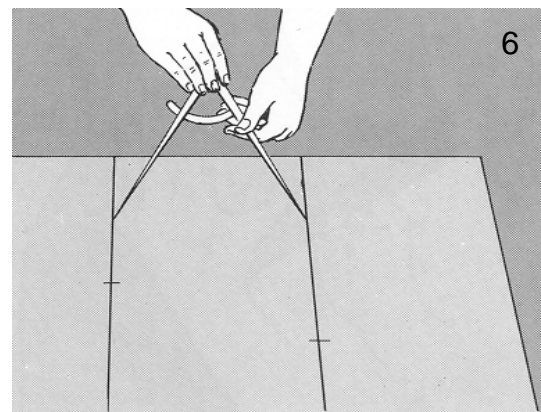
Measured the inner height of the elbow



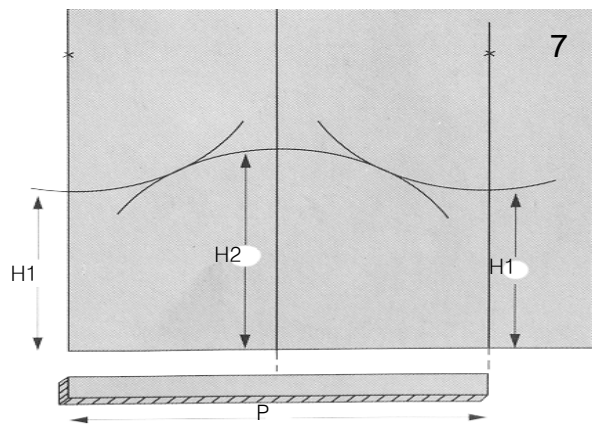
Measured the outer height of the elbow



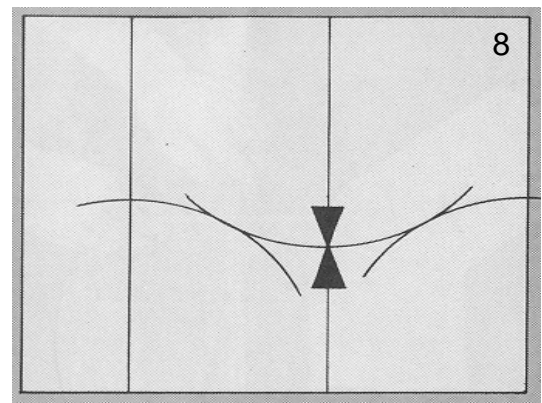
Transfer dimension onto pre-cut sheet



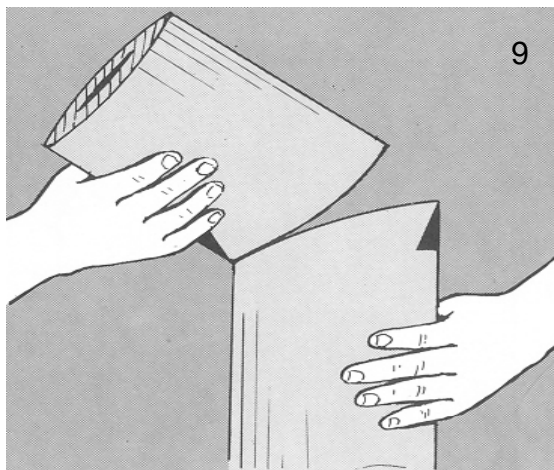
Mark up half of the perimeter



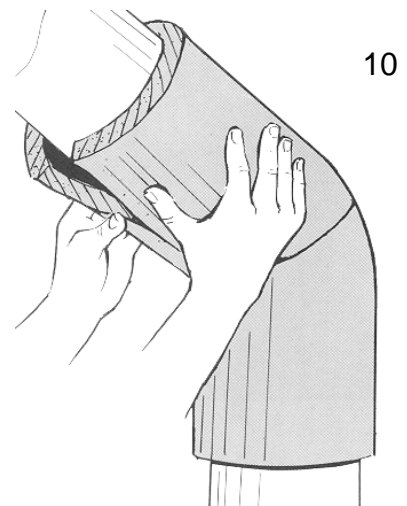
Make three elbow



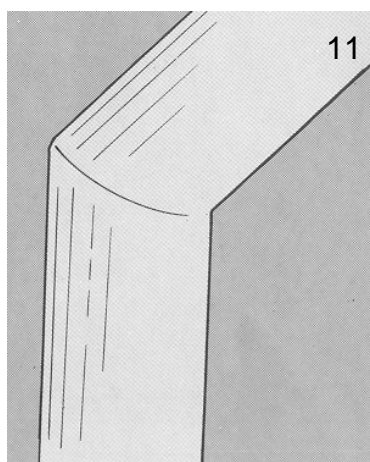
Connect the lines and cut the fitting cover out



Join two surface firmly together

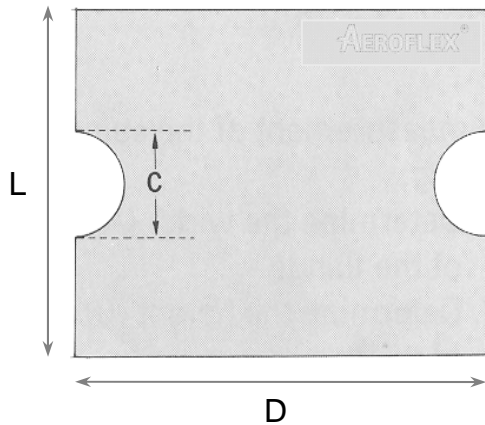


Join two surface firmly together

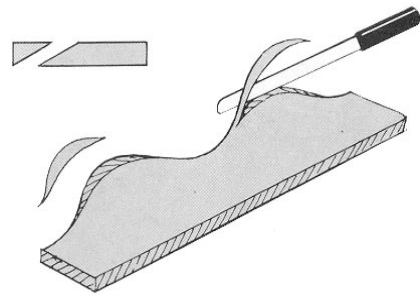


Completed

b) Tee:



Measure and transfer dimension of tee



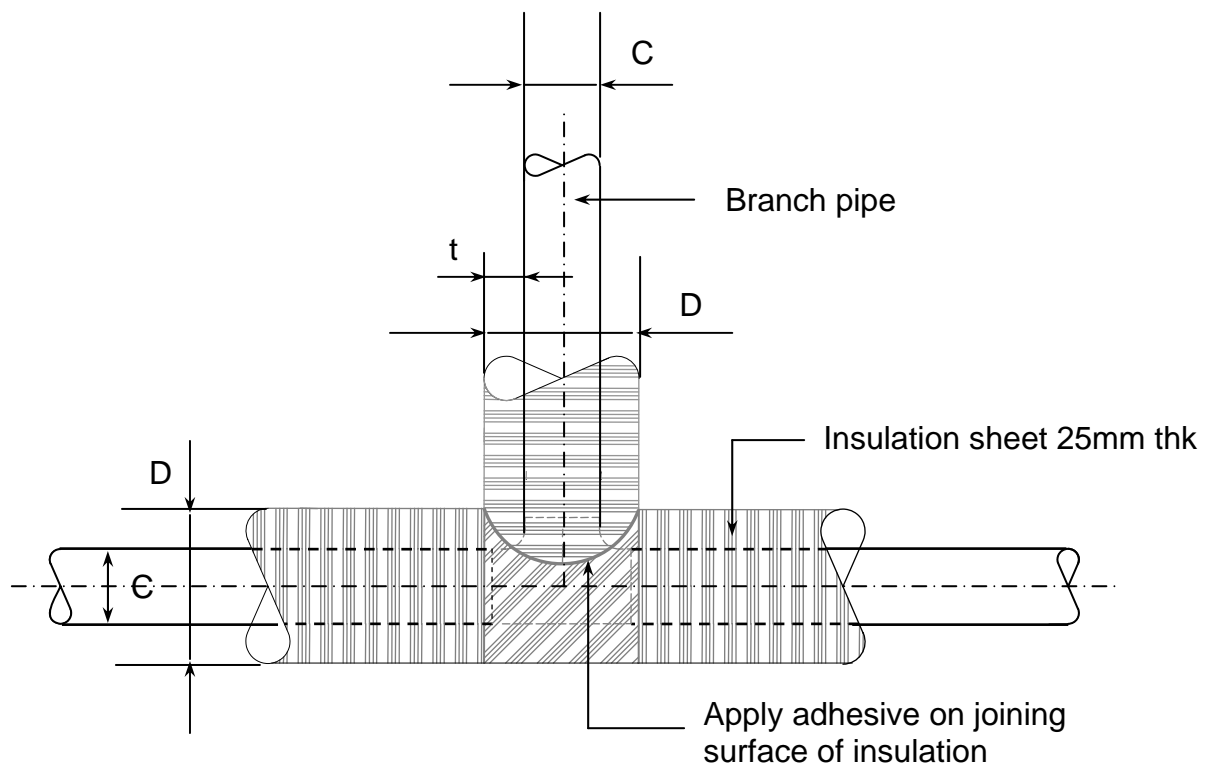
Cut off pre-cut sheet out at highest point to be marked

D: diameter of pipe (including insulation)

C: diameter of pipe

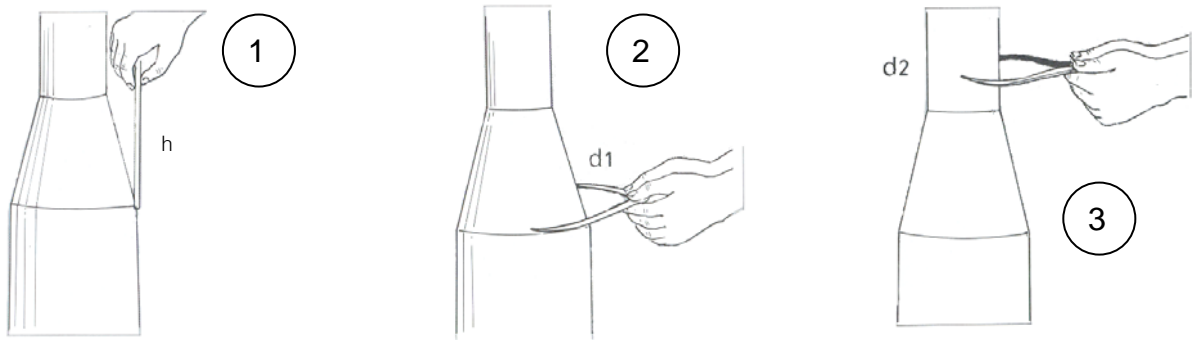
L : length of pre-cut sheet

t : thickness of insulation

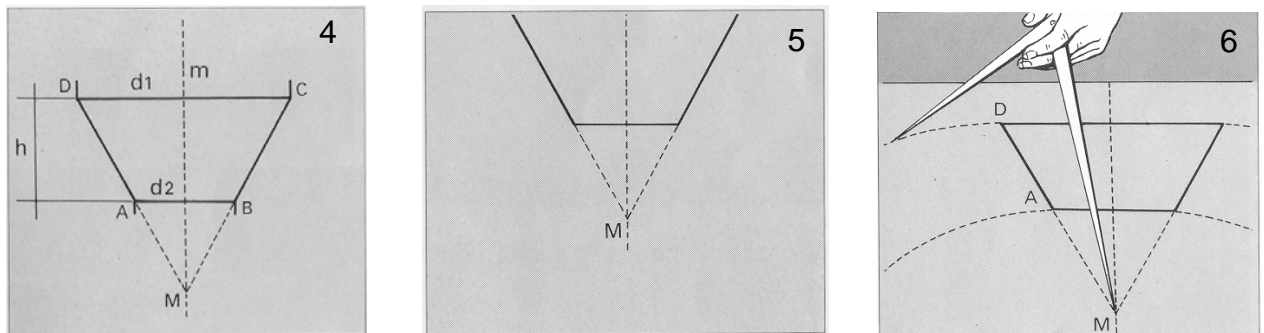


Detail of typical insulation for fitting tee

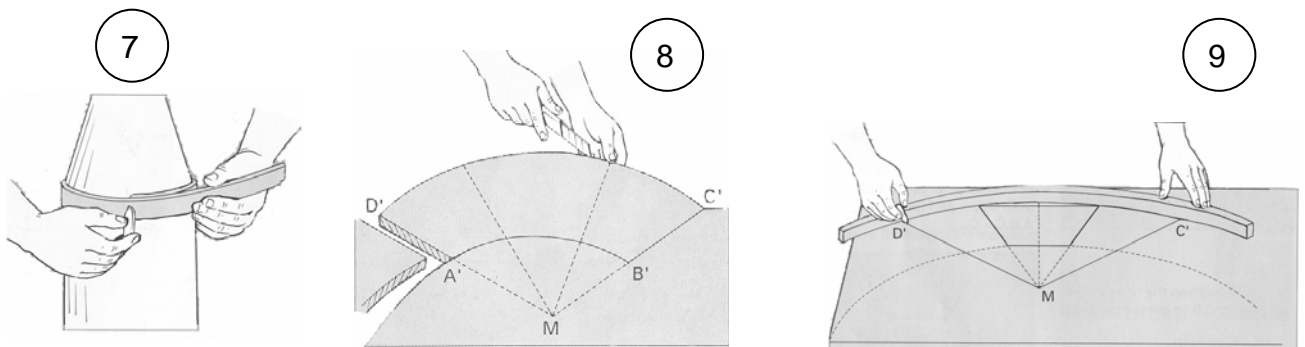
c) Reducing:



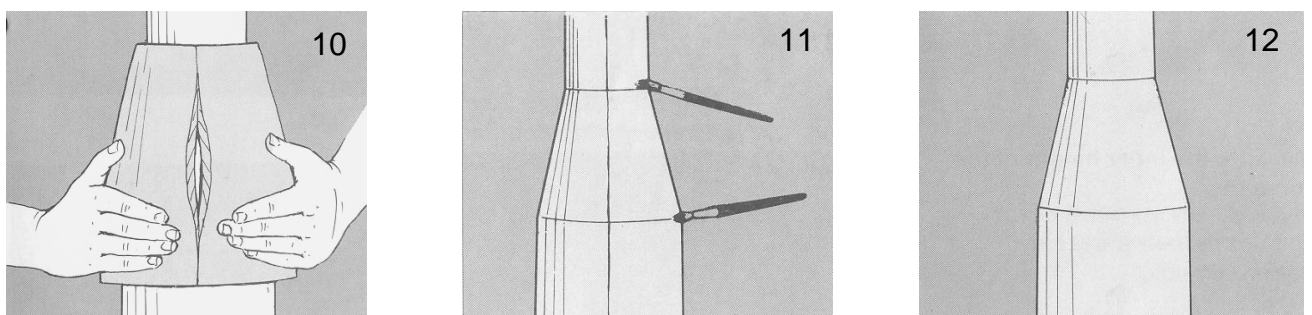
Measure the circumference & dimension of pipe



Making & transfer dimension onto pre-cut sheet



Measure, making & transfer dimension onto pre-cut sheet



Apply adhesive on joining surface of insulation