

EDITION 2020



INSTALLATION MANUAL



AEROCCELL

Aflex-ECO

AEROFLEX

Table of Contents

General Instruction	
AAIPL Insulation Products	Pg. 3
Using products and accessories	Pg. 4
Tools	Pg. 6
Practical tips	Pg. 6
Thermal insulating	Pg. 8

INSULATING PIPING UP TO 125 mm Ø WITH A-flex//Aerocell/Aeroflex

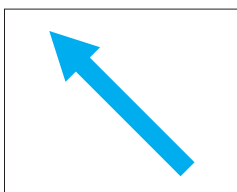
Pipes to be fitted	Pg. 10
Fitted pipes	Pg. 11
90° elbow fittings	Pg. 12
T-fittings	Pg. 16
Stopcocks	Pg. 19
Special applications	Pg. 20
Self-adhesive insulating tubing (SSPT/SST)	Pg. 24

INSULATING PIPING OVER 125 mm IN DIAMETER WITH A-flex/Aerocell/Aeroflex Sheets

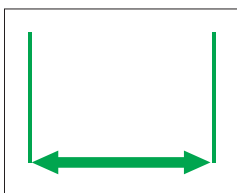
Straight pipes	Pg. 25
Insulating straight pipes with linear sheet	Pg. 25
Multi layer insulation	Pg. 28
Bends	Pg. 31
T-fitting	Pg. 33
Collars	Pg. 34
Flanges	Pg. 35
Stopcocks	Pg. 37
Angled stopcocks	Pg. 41
Tanks	Pg. 43
Bends	Pg. 44
Ductings	Pg. 45
Practical Tips	Pg. 48
Cladding	Pg. 49
Box	Pg. 50



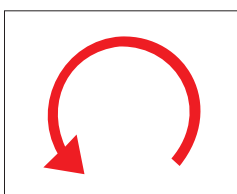
Insulating the piping of cooling, heating or air-conditioning systems, requires a methodical and thorough, approach, as well as the right tools to do the job properly. **A-flex** products are backed up by a comprehensive range of accessories specifically designed to help. This manual contains a wealth of information and practical tips, along with clear, step-by-step illustrated instructions to ensure you get the best result quickly and easily.



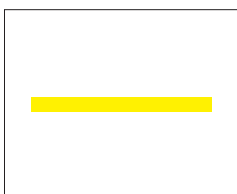
A blue arrow indicates parts or sections to be glued.



Green lines and arrow indicate a dimension to be measured.



A red line with an arrow indicates the direction for measuring or fitting.



A yellow line represents a measurement and its positions on a sheet to be cut of size.

GUIDE TO SYMBOLS

ALP AEROFLEX INSULATING PRODUCTS



Aflex-Eco / NBR Class 1



Aerocell - NBR Class 0



Aeroflex - EPDM Class A



Self-Adhesive Sheet & Tube



Glass Cloth Laminated Sheet & Tubes



Aluminium foil Laminated Sheet & Tube

AAIPL offers a complete range of insulation products and accessories. This includes closed cell elastomeric **Nitrile & EPDM** rubber sheets, tubes in various length, thicknesses and dimensions, special products like Accosound, Accofoam, Antimicrobial, High strength, High temperature, Self sealing pre-slit tubes for customized applications. The accessories range includes Flexible ducts, Aluminum Tapes, Foam tapes, Cork tapes, Pipe support systems Adhesives, Paints etc. The provision of Aluminum foil lamination, Glass cloth lamination adhesive coating offer limitless options to meet the requirement of HVAC& R and Construction Industry. (for more details please refer catalogues)

With large diameter pipes or conduits, lagging is carried out using elastomeric form sheeting which can be cut to size. For technical information on ALP Aeroflex products and details of sizes available, please refer to the individual specification sheets which are available from AAIPL. **ALP Aeroflex** recommends that fitting be carried out to the highest possible standards to optimize the insulating effectiveness.

AEROSTICK ACCESSORIES



Aerostick

Aerostick glue is specifically designed for use with **NBR/EPDM** products and provides secure bonding. The glue hardens on drying and is thus resistant to ageing and is weatherproof.

ALP AEROFLEX ACCESSORIES



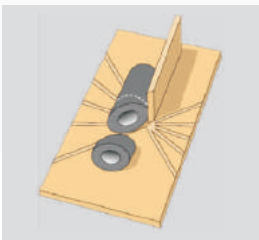
Eco tube/ Aerotape Adhesive Insulating Tape

Special, 3mm-thick self-adhesive, 5-cm wide insulating tape for covering gaps or sealing insulated sections.



ALP Aeroflex Cutter

It features a special, anatomic grip, and makes accurate longitudinal cuts easy in insulation tubing so that they can be installed of fitted pipes.



ALP Aeroflex Cutting Board

This Practical accessory enables you to cut tubing/ sheets at angles precisely and easily..

USING PRODUCTS AND ACCESSORIES

CLEANING SURFACE The surfaces to be glued must be perfectly clean and free of grease (use thinner). Ensure that the surface of the insulating material is also clean, otherwise it will not stick properly.

COATED SURFACES Where surface have previously been painted, ensure that the adhesive glue is compatible and will adhere to the paint. Do not use the glue on surfaces that have been treated with products containing asphalt, bitumen or linseed oil. Use only chrome-zinc rust inhibitors and removers.

USING THE ADHESIVE PREPARATION AND STORAGE. Before use, stir the **Aerostick adhesive** thoroughly. To store the glue, close the lid tightly to prevent the solvents evaporating. If the adhesive should become too hard (eg. when stored in contact with the air or in extreme temperature), dilute with thinner.

Method of application. When using a large quantity, pour a small amount out into a separate container and top up when necessary. When applying Aflex/Aerocell / Aeroflex insulation to metallic or other surface, the Aerostick adhesive must first be applied to the insulating material, and then to the corresponding surface.

Conditions for use. Do not apply to systems that are in use. Do not use in sunlight. The insulation should be left to dry for 36 hours before turning the systems back on. The ideal working temperature

USING PRODUCTS AND ACCESSORIES

of the glue is +20° C. Do not use the glue at temperatures below +5° C as drying times are excessive. At temperatures above +30° C, the glue dries very rapidly.

HARDENING TIME	: 36 hours
STORAGE	: in cool conditions, away from cold and heat
SHELF LIFE	: five year or more if stored properly.
QUANTITIES USED	: with insulation sheets, from 0.2 to 0.3 liters per m².

CHOOSING ALP Aeroflex INSULATING MATERIALS

Before starting, choose the right type of ALP Aeroflex insulation for the parts to be lagged. Use the thicknesses and sizes which are most suitable for the individual parts of the installation. Don't forget – you're **ALP Aeroflex** dealer can give expert advice.

CHOOSING ALP Aeroflex INSULATING MATERIALS

Insulating tubing that is oval or flattened (eg. the larger cross- sections) should be cut along the flattened surface.

REFRIGERATION PLANTS AND AIR- CONDITIONING SYSTEMS

- Treat steel surface with rust inhibitor prior to applying insulation. The paint should be left for a minimum of 24 hours to dry.
- Take special care over gluing critical areas such as curved sections, flanging and support brackets. Ensure that the ends of the insulating material are always firmly attached to the piping.
- Do not apply insulating where parts are too close together, as this will result in the insulating becoming squashed and losing some of its properties.

When carrying out particularly complicated installations on nickel steel, refer to our technical office.

TOOLS

A Selection of good tools is essential for carrying out jobs to the highest standards.



RIGID AND FLEXIBLE TAPE MEASURE

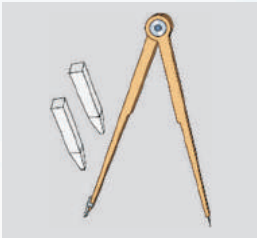
for measuring and tracing
lines to cut.



SCISSORS

to facilitate cutting
insulating material.

TOOLS



CHALK AND COMPASS

to draw reference lines for measurement and cuts.



METAL BAND

to help cut insulating sheets at the end of large diameter pipes.



CUTTER AND KNIVES

use both long and short bladed knives, with spare blades.



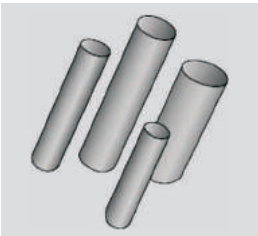
BRUSH (VARIOUS) AND FLEXIBLE SPATULA

for spreading glue and painting.



CALLIPER

for measuring the external diameter of surface to be insulated.



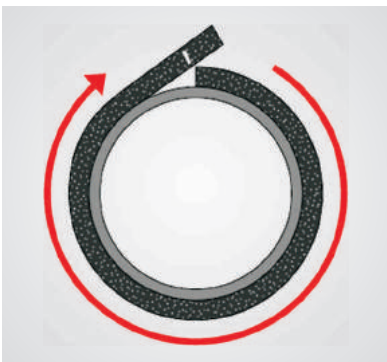
CIRCULAR PUNCHES

with a cutting edge to hole insulation in a range of sizes.

PRACTICAL TIPS

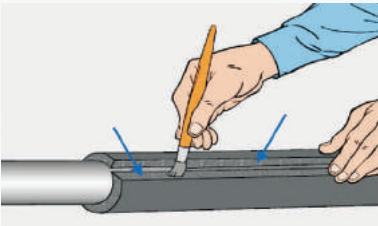
Many tasks encountered when insulating a systems are repetitive. We have attempted to provide examples which can help bring optimum result straight away, saving time and effort.

MEASURING A CIRCUMFERENCE



The measurement is obtained by using a strip of **Aerocell/A-flex/Aeroflex** of the same thickness to be use as the insulation. This gives you the measurement of the circumference, including the thickness of the insulating material itself. Do not stretch the strip when encircling the pipe, as this will alter the measurement. Mark the strip with chalk where the two edges overlap.

GLUEING THE EDGES OF A TUBE CUT ALONG ITS LENGTH



To glue the edges, wrap the tube around a larger diameter pipe so that the edges do not overlap and apply the glue. Then slide the tubing over the pipe to be insulated lacing care to avoid the edges sticking before the tube is in place.

overlapp and apply the glue. Then slide the tubing over the pipe to be insulated lacing care to avoid the edges sticking before the tube is in place.

If the tube is not very long, or is not very thick, it can be rolled up and glued. This way the tube can be quickly and easily applied to the pipe.



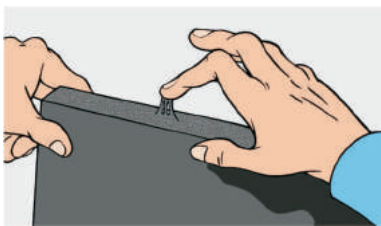
GLUEING THE EDGES OF AEROCCELL/ AEROFLEX SHEET



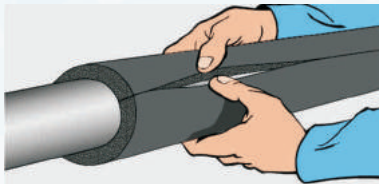
When insulating large diameter pipes, sheeting should be cut to fit and both edges glued. For the best results, a thin, even layer of **Aerostick** adhesive should be applied using a brush with short, hand bristles.

After spreading the glue, ensure that it has dried properly before attempting to stick the edges together the best test is by touching the surface with your finger, if **Aerostick** adhesive no longer sticks to your finger forming threads, it is ready to be positioned.

After spreading the glue, ensure that it has dried properly before attempting to stick the edges together the best test is by touching the surface with your finger, if **Aerostick** adhesive no longer sticks to your finger forming threads, it is ready to be positioned.



together the best test is by touching the surface with your finger, if **Aerostick** adhesive no longer sticks to your finger forming threads, it is ready to be positioned.



When attaching the two surfaces, press them together firmly with your fingers, starting at the far ends then the centre and lastly along the intermediate points to avoid an irregular joint.

starting at the far ends then the centre and lastly along the intermediate points to avoid an irregular joint.

Use a straight-edged spatula to spread the glue over larger areas. If the whole of the surface is to be insulated, first apply the glue to the **Aerocell/Aeroflex/Aflex** sheet, then to the surface it is to be stuck to. When the glue has dried sufficiently, apply the sheet to the surface.



PAINTING INSULATION FITTED OUTDOORS

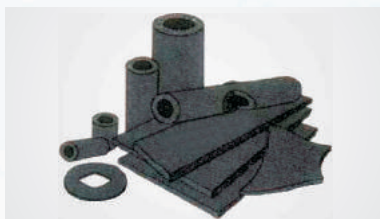
We recommend painting insulation outdoors with appropriate finish to protect it from the weather and form UV rays.



To complete the protection, apply two layers of top coat. Allow at least 36 hours (or a maximum of five days) between the first and second coats. An extra layer of paint should be applied every two years.

allow at least 36 hours (or a maximum of five days) between the first and second coats. An extra layer of paint should be applied every two years.

USING OFF-CUTS



Off-cuts from **ALP Aeroflex** tubes and sheets can be re-used when

filling in gaps, or where smaller quantities of material are required.

1. Straight pipes
2. Bends
3. 90° elbow fitting
4. T-fitting
5. Stopcocks
6. Support brackets
7. End pipes
8. Angled sections.

THERMAL INSULATION

Aerocell/Aeroflex/Aflex can be used to lag heating, air-conditioning, hot water and refrigeration systems. The objective of insulation is to save energy, and it also protects householders from scalding hot pipes.

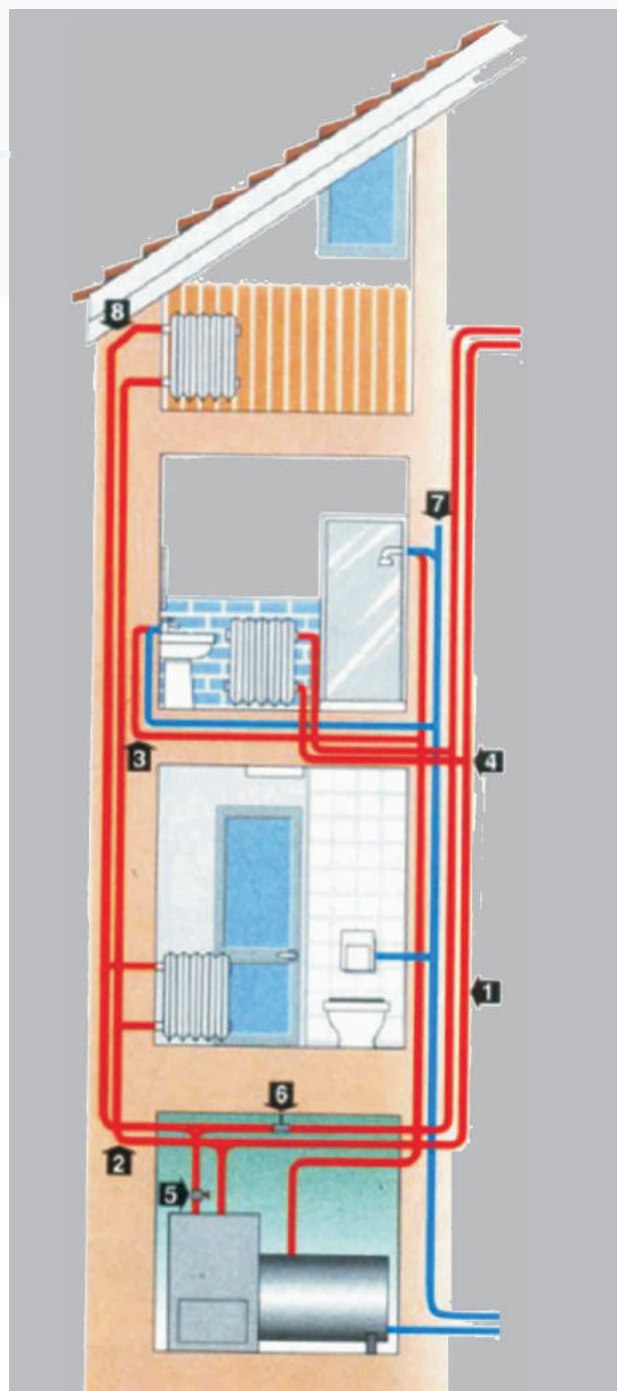
The size of piping makes a big difference to the amount of energy lost. Similarly, increasing the thickness of the insulating material employed reduces energy loss.

Many international building codes lay down the guidelines for procedures regarding technical regulations, designs constraints, calculation and installation requirement, indicating the thicknesses required. In compliance with these requirements, A-flex provides a range of thickness ratings in each type of insulation.

Pictured here are three areas where **ALP Aeroflex** products are typically employed.

Hydro-thermal-sanitary installations

The methods of insulating the individual sections are amply illustrated in the first section of the manual.



THERMAL INSULATION

Ventilation Systems

Diagram of a simple extraction ventilation system in high-rise building. The internal and external piping can be insulated using **Aerocell/Aeroflex/Aflex** sheets (See Lagging of pipes over 125 mm in diameter.)



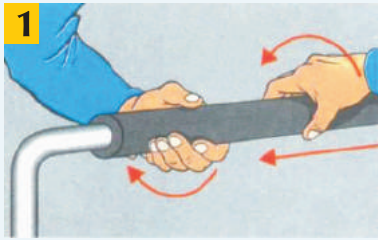
The existing ventilation ducting (A and B) in this edifice has been transformed into an air-conditioning system. The walls of the ducting can be insulated using self- adhesive **Aerocell/Aeroflex/Aflex** sheeting (See relevant chapter).

LAGGING PIPES UP TO 125 mm IN DIAMETER WITH A-flex/Aerocell/ Aeroflex TUBING

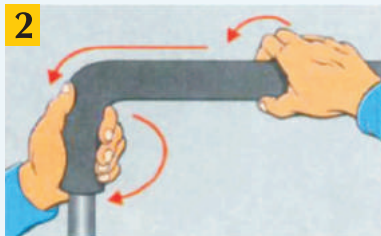
Around 80% of piping used in civilian buildings can be insulated before fitting. This simplifies the task and saves time, taking advantage of the wide range of applications offered by an elastomeric product like **A-flex/Aerocell/Aeroflex**.

PIPES TO BE FITTED

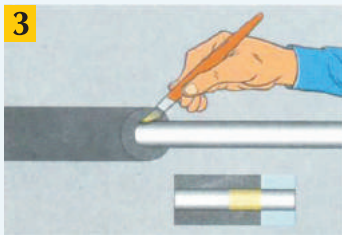
1. Slide the **A-flex/Aerocell/Aeroflex** tube directly over the pipe from one end.



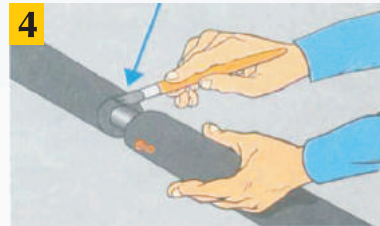
2. Do not force the tube while fitting as this will deform the material.



Instead push it smoothly without exercising undue pressure. This will ensure that it grips to the surface of the pipe naturally, especially around the all-important curved sections.

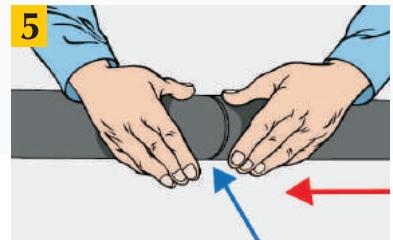


3. When a section of tubing has been positioned satisfactorily, stick at least one extremity to the pipe with **Aerostick** adhesive.

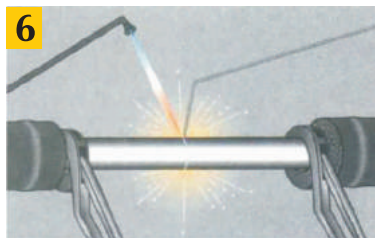


4. Apply adhesive to the edge of the tubing already in place and the edge of the next section of tubing to be positioned.

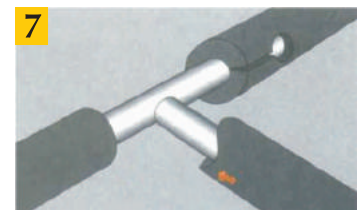
5. Bring the edges of the tubing to be glued together and press tightly.



6. If the underlying pipe has to be brazed, free an area 25/30 cm long between the part to be soldered and the edge of the tubing. Once the pipe has cooled, the insulation can be completed.

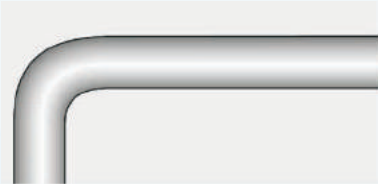


7. Test for strength around critical stress point in the pipes, such as elbow joints, branches or stopcocks, before proceeding to glue the tubing around them.



LAGGING PIPES UP TO 125 mm IN DIAMETER WITH A-flex/Aerocell/Aeroflex TUBING

FITTED PIPES



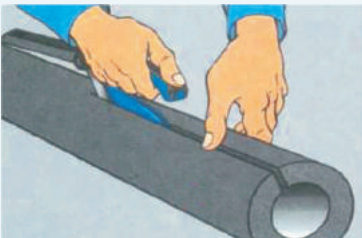
1. If the piping has already been installed, the **A-flex/Aerocell/Aeroflex** tubing must be cut along its length to fit it.



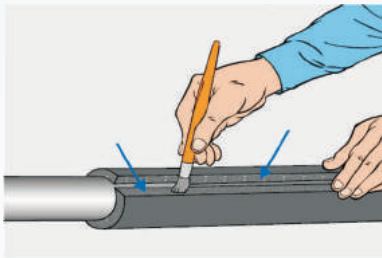
Use only the sharpest knife for cutting-this makes the subsequent gluing far easier, we recommend using the cutter which is ideal for longitudinal cuts.



The use of the cutter is illustrated in these two diagrams. Let the blade run along the

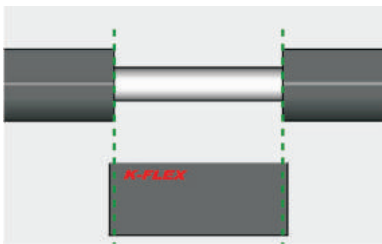
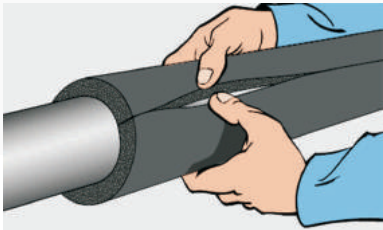


tube without the tool's surface touching it to get a neat, clean cut.



2. Positions the tube so that the edges are separated, and apply an even layer of Aerostick glue.

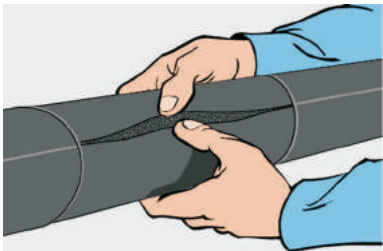
3. Once the glue has dried, reseal the tube, pressing the edges firmly together.



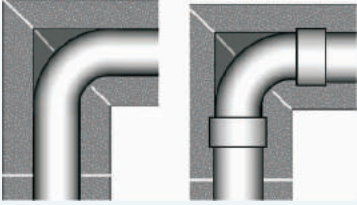
4. When making a joint between two lengths of tubing, cut the necessary (a couple of millimeters).

If the insert is not long enough, the insulating properties in that area will be reduced.

5. Cut the insert along its length and glue into place.



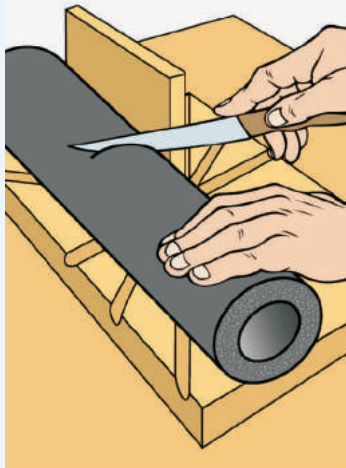
90° ELBOW FITTINGS



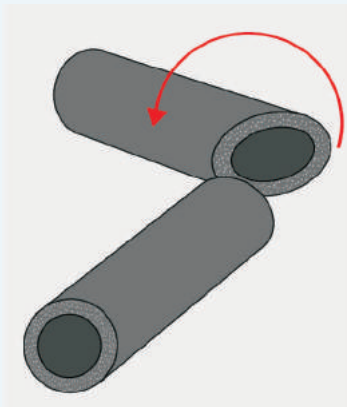
An elbow is pipe with a 90° bend, either curved or fitted. The attachment points themselves may present a different

diameter to the pipes either side. There are thus two solutions to insulating them: a right-angled section, or a segmented section.

1. INSULATING AN ELBOW FITTING with tubing of the same diameter cut a **A-flex / Aerocell/ Aeroflex** tube to the right length to cover the below. Cut it in the middle at an angle of 45°.



Use the **ALP Aeroflex** cutting board as a template for the angle of the cut. A long-bladed knife is required.

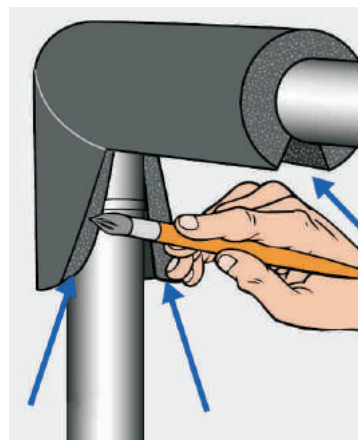
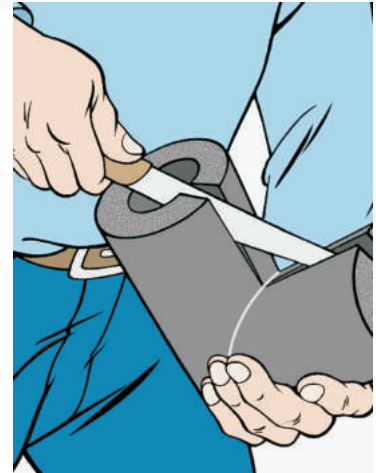


2. Twist one of the pieces of tube until you form a right angle..



3. Then glue the two sections with **Aerostick** adhesive.

4. After letting the glue dry, cut the right-angled sections along its length on the inside.



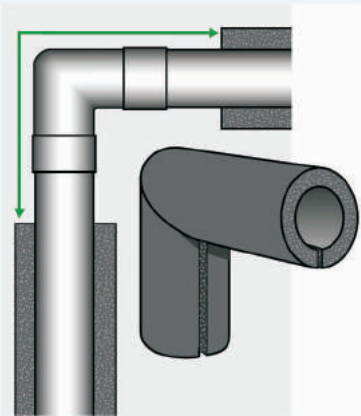
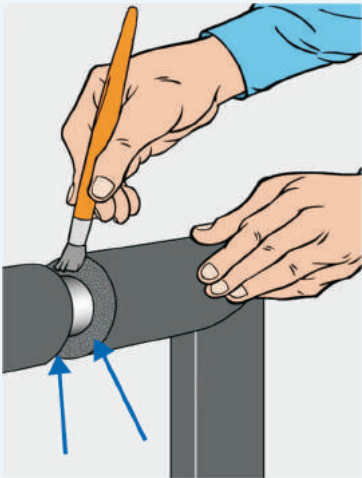
5. Position it on the pipe and glue the two edges.

90° ELBOW FITTINGS



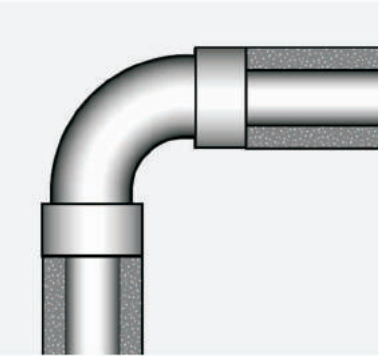
6. Press the edges together to seal.

7. Carefully glue the edges of the elbow section to the straight tube to be positioned either side.



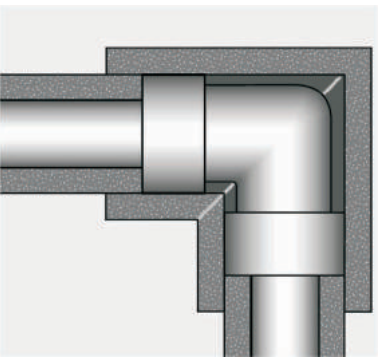
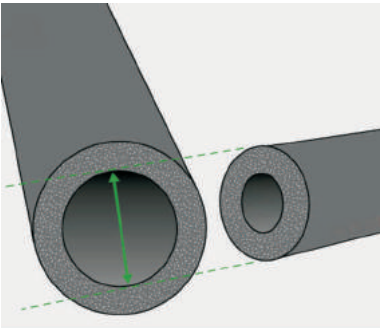
If the straight sections have already been glued into place, the right-angled section will have to be accurately measured to fit.

INSULATING AN ELBOW WITH TUBING OF DIFFERENT DIAMETERS



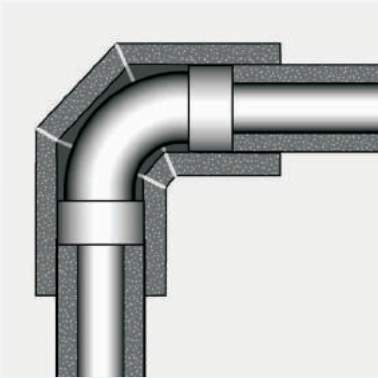
Should the elbow fitting be substantially different in size to the pipes either side, the latter should be insulated first.

Then find a section of tubing with an internal diameter that is the same as the external diameter of the smaller ones either side



...and cut the right-angled joint so that it overlaps the ends. (see illustration). The Steps are identical to those on pages 16,17 and 18.

90° ELBOW FITTINGS

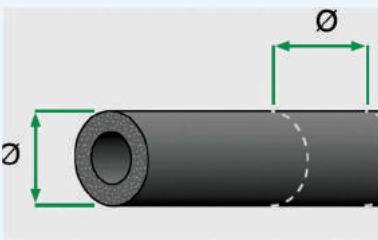
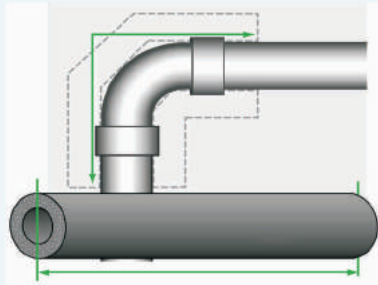


SEGMENTED INSULATION OF AN ELBOW FITTING with tubing of different diameters.

An elbow can also be insulated using jointed

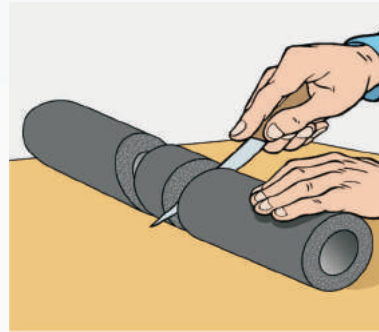
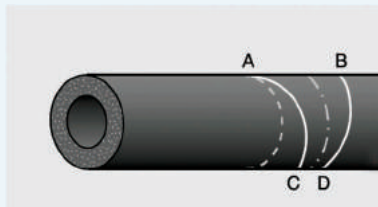
sections of tubing. This requires two angled cuts to be made.

1. Cut a piece of A-flex/ Aerocell/ Aeroflex tubing to the right length to cover the elbow.



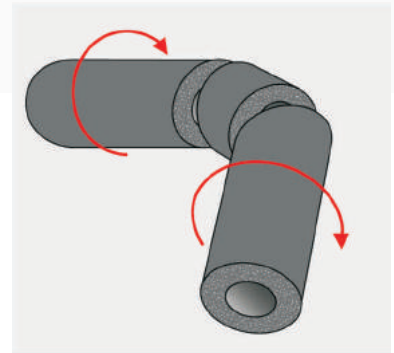
2. Calculate the tube's external diameter and trace two parallel lines this far apart in the middle.

3. Draw a line between the two to mark the centre line. Then make two marks (C and D) either side of the centre line one centimeter from it, and draw two lines running A to C, and B to D (see diagram).



4. Cut along lines AC and BD.

5. Rotate the two ends to obtain a right-angled section.



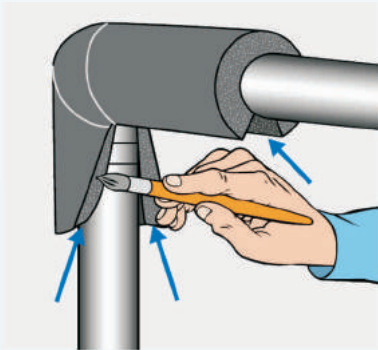
6. Glue the three sections together.



7. Cut the segmented elbow section along its length on the inside surface only.

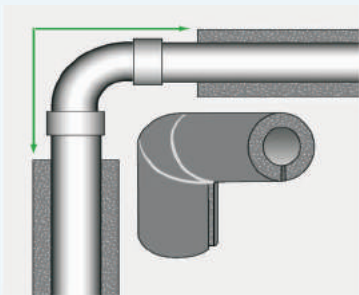
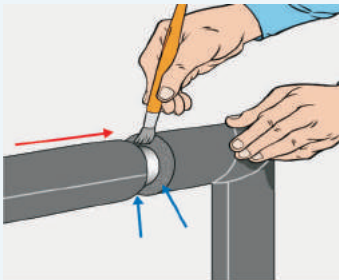


90° ELBOW FITTINGS



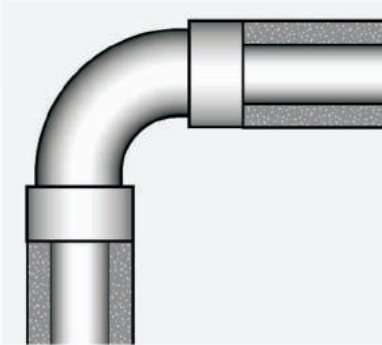
8. Slide the elbow section over the pipe and carefully glue the edges together.

9. After completing this stage, fix the elbow section to the tubing either side with **Aerostick** Adhesive.



10. If the adjacent tubes are already in place, the length of the elbow section will have to be accurately measured. Cut the length of tube

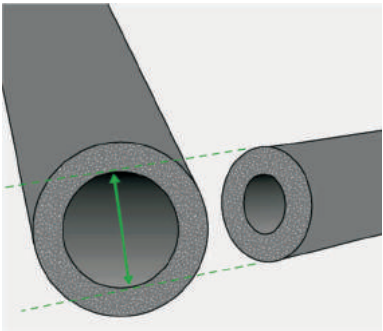
required a little longer than it should be and trim it if necessary.



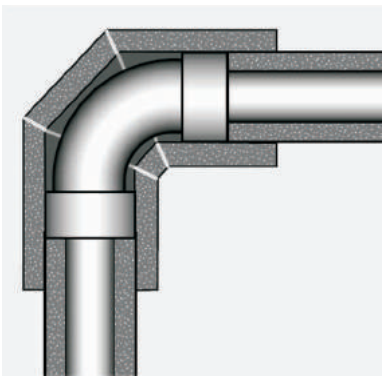
SEGMENTED INSULATION OF AN ELBOW FITTING with tubing of different diameters

If the pipes either side of the elbow are smaller in diameter, first insulate the straight pipe sections.

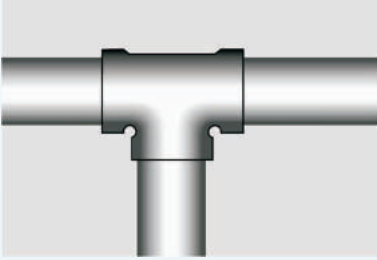
Then find a tube with an internal diameter the same as the external diameter of the neighboring insulation.



In this way, the segmented elbow section will overlap the edges of the insulation either side. See pages 20, 21 and 22 for further details.



T-FITTINGS



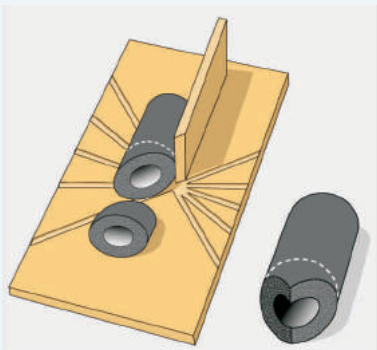
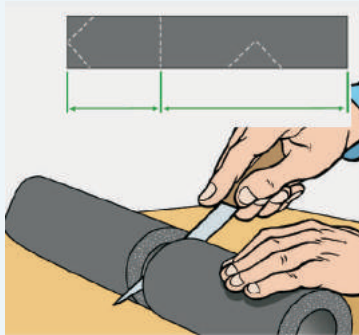
The T-fitting can be lagged with or without the tubing either side having been applied. The

latter is the simplest method, and is thus the one illustrated here.

There are two methods of insulating a T-fitting: by dovetailing two tubes with a 90° cut-out, or by punching a circular hole.

INSULATING A T-FITTING with a 90° cut-out

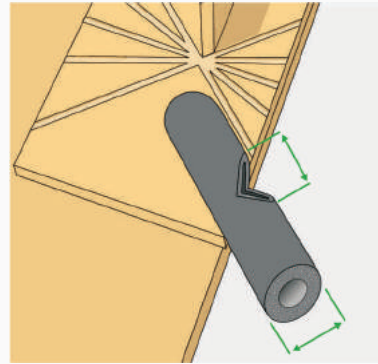
1. Cut a section of **A-flex** / **Aerocell** / **Aeroflex** tubing into a third and two-thirds of its original length respectively. The overall length should obviously be sufficient to cover the three pipes leading from the fitting.



2. Using the **ALP Aeroflex** cutting board, cut the end of the shorter tube twice at an angle of

45°.

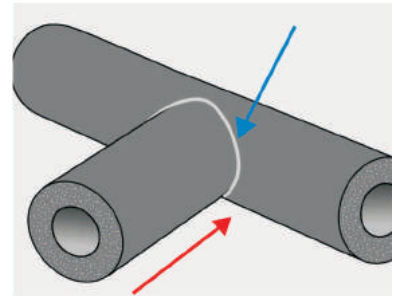
3. Taking the seconds, longer segment, make two 45° cuts in the middle. The



cut-away section should have the same cross-section as the outside of the tube so

that the two sections (see 2) dovetail perfectly.

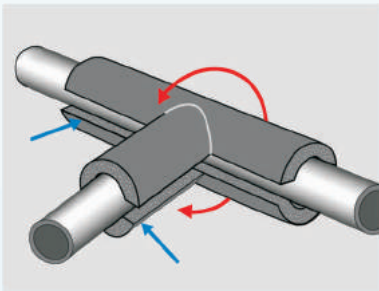
4. Glue the cut edges and stick them together in the shape of a "T".



5. Cut the lower half of the "T" along its entire length so that it fits snugly over

the T-junction. Then once more apply a layer of **Aerostick** adhesive to the edges.

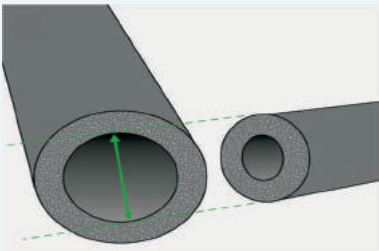
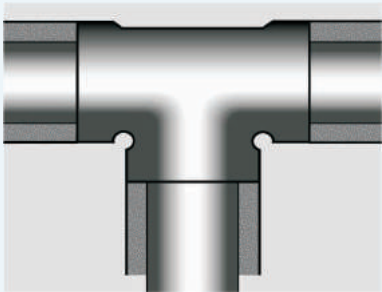
T-FITTINGS



6. Stick the insulation to the T-junction. Then the three straight tube sections can be attached and

glued together.

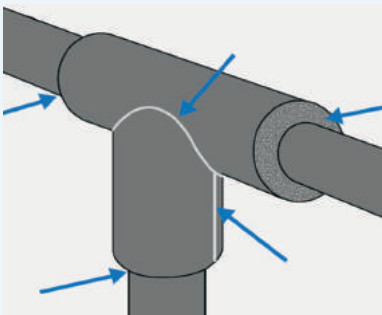
7. Where the adjacent pipes are small in diameter than the T-junction, these can be insulated before the T-junction itself.



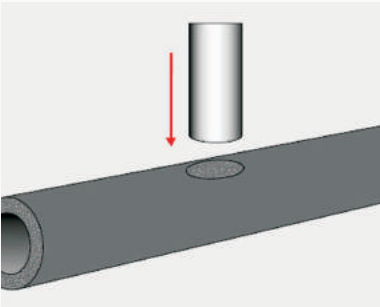
8. Make a T-section joint as before (see pages 24-25), using however, a tube with an internal cross-

section the same as the external diameter of the neighboring tubes.

9. Apply the joint which should overlap the edges of the other insulating tubes, carefully glue and stick



the edges and those surface in contact with the other tubes.

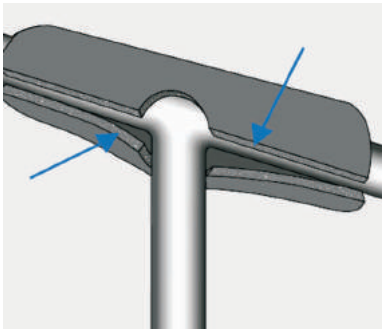


INSULATING A T-FITTING with a round insert

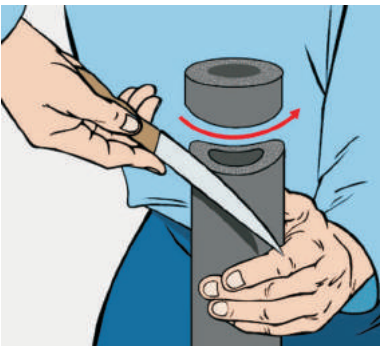
1. Using a punch or metal tube with a cutting edge of

the same diameter as the tubing, make a hole in the insulating tubing at the point where the "T" is to be formed.

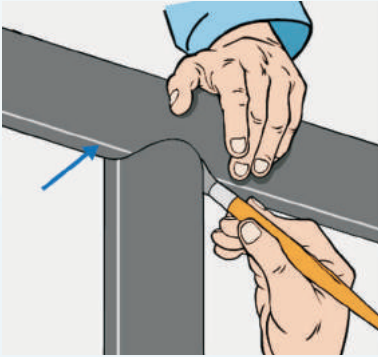
2. Cut the tube along its length and slide it onto the pipe so that the hole is positioned around the third pipe. Then stick the edges back together.



3. The joint for the lower branch is created by cutting a U-shaped section from a second piece of tubing.



T-FITTINGS



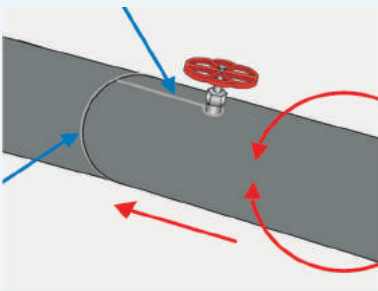
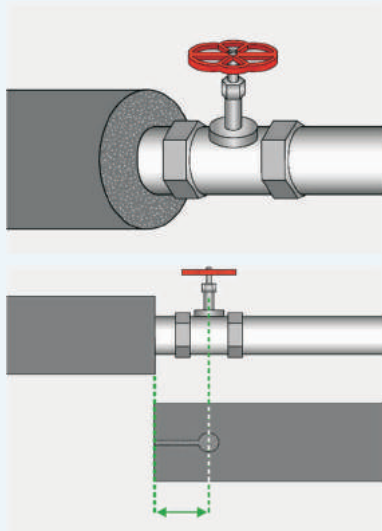
4. Align the lower tube so that it fits the hole in the upper section snugly and glue the whole together.

STOPCOCKS

These can be insulated in a number of ways, depending on the type of stopcock.

Small valve stem

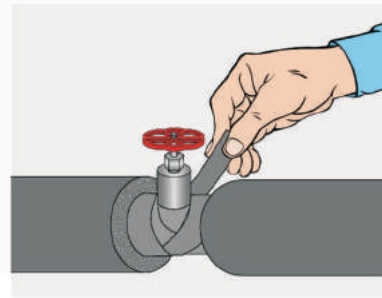
1. From the edge of the **A-flex / Aerocell / Aeroflex** make a cut long enough to house the stopcock and punch a hole to fit the stem.



2. Fit the tube snugly round the stopcock and glue the edges together with

Aerostick glue. Then attach the edges of the insulating tubing to the next section.

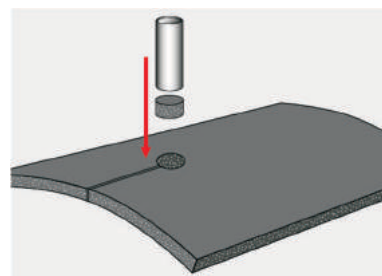
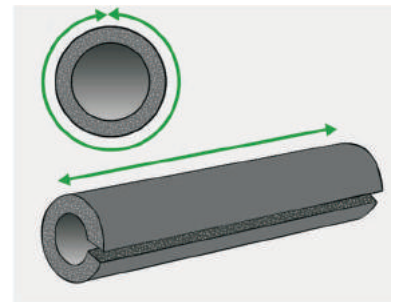
Large diameter valve stem



1. Insulate the pipe right up to the stopcock on both sides. Wrap **Ecotape / Aertape** self-adhesive insulating tape

around the base of the stopcock.

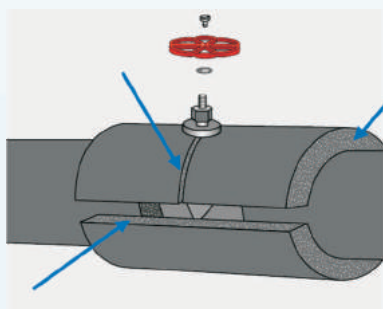
2. Cut a section of Aerocell / A-flex / Aeroflex tubing as long as the circumference of the tubing already in place, and cut it along its length.



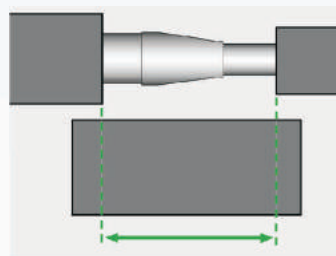
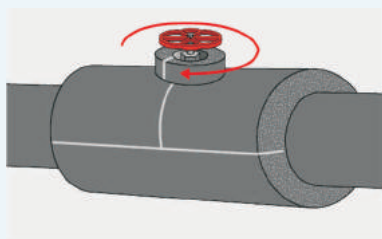
3. Flatten the tube out and make a longitudinal cut with a hole punched at its end to take the stopcock housing.

STOPCOCKS

4. Position this around the stopcock so that the sleeve overlaps the ends of the two underlying tubes. If necessary, remove the stopcock if this gets in the way.



5. Glue and stick the sleeve's edges. If necessary, the stem of the stopcock can also be insulated by applying a ring-shaped section from one of the off-cuts.



2. Take a piece of **A-flex / Aerocell / Aeroflex** the same diameter as the larger of the two pipes, and cut it slightly longer than the space left between the two sections of tubing already in place.

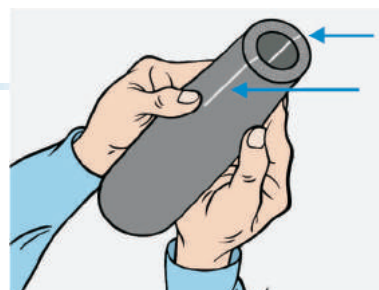
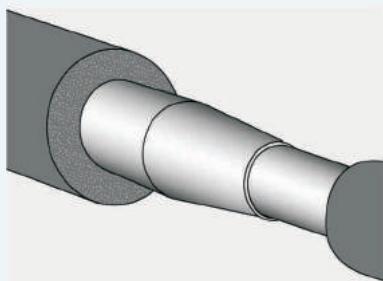
3. At one end, cut out two equally sized wedges opposite each other to create a reduction in circumference that will fit the smaller tube.



SPECIAL APPLICATIONS

INSULATING A COLLAR

1. When insulating a collar that connects two pipes of different diameter, leave sufficient space between the sections of insulating tubing either side of it.

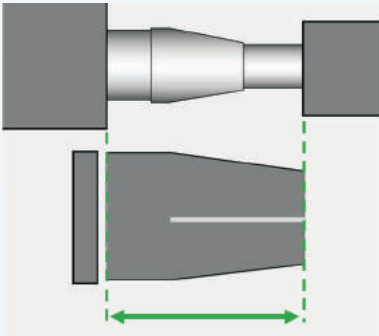


4. Glue the edges of the cut-outs together so that the diameter of the tubing reduces.

5. Trim the smaller end to the length at which its diameter matches that of the smaller tube.



SPECIAL APPLICATIONS

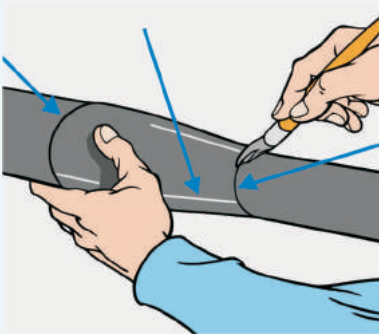


6. Shorter the other end too, so that the coupling can be inserted neatly into the space left between the two existing sections.

7. Cut the coupling along its length to install it to the pipe.

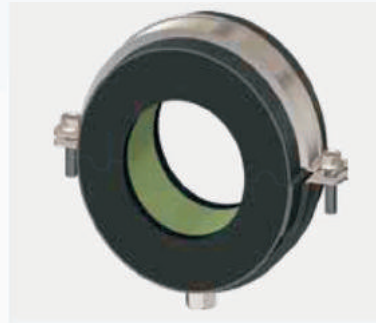


8. After positioning it on the pipes, glue the edges of the lengthwise cut with **Aerostick** adhesive and bond the edges of the sleeving to the other two sections of tubing.



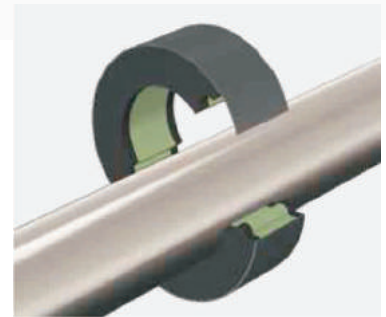
INSULATION FOR PIPE SUPPORTS

To grant perfect insulation continuity through areas interested by suspension devices **ALP Aeroflex** suggest to install the use of a specific support designed for the function with a wide range of diameter in



order to allow easy and efficient installation.

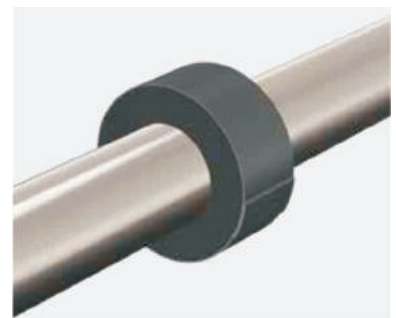
1. Open the two halves of the support and place it around the pipe in correspondence with the suspension point.



2. Glue Support edges with **Aerostick** glue and join

the two halves on the pipes.

3. Seal the support by overlapping the self adhesive band.

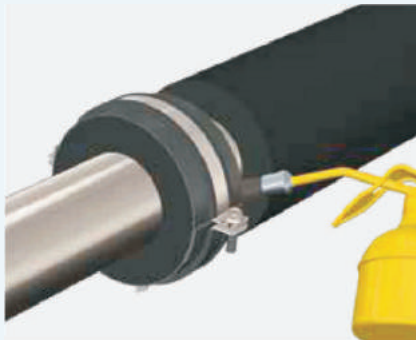


SPECIAL APPLICATIONS

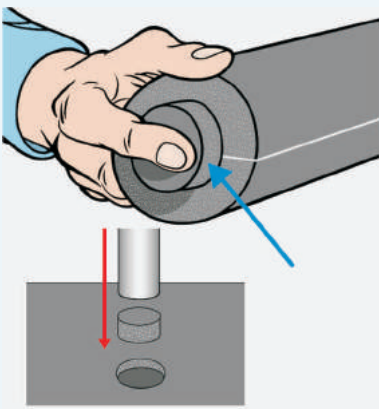


4. Fix clamp to suspension system.

5. Join after gluing with **Aerostick** the edges of insulation pipes with the support



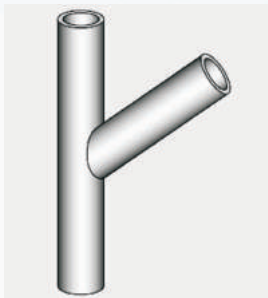
BLOCKING OFF ENDS OF PIPES



insulating tube.

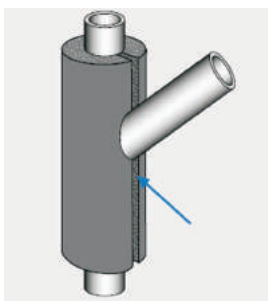
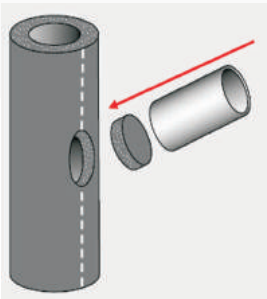
Using the correct size punch, make a plug from a spare piece of *Insulation* sheeting. Glue all the facing surfaces and insert in the open end of the

INSULATING "Y" BRANCHES



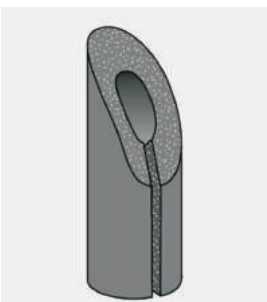
a) Cut a section of A-flex tubing to the right length.

b) Use a punch to pierce a hole at the angle required.

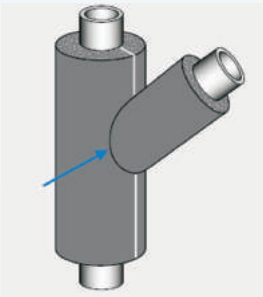


c) Cut the tube along its length position it on the "Y" branch and glue the edges together with **Aerostick**.

d) Using a second piece of tubing, cut out a U-shaped indent at the correct angle and cut the tube along one side to attach it to the branch.



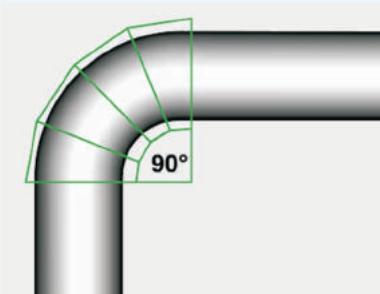
SPECIAL APPLICATIONS



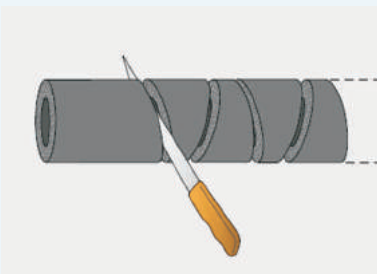
e) Fit the tubing on the Y branch and glue it in place with **Aerostick**.

SEGMENTED CURVES

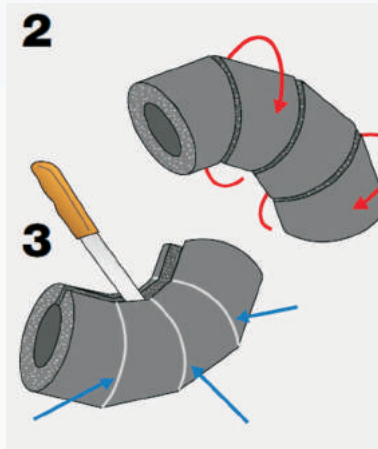
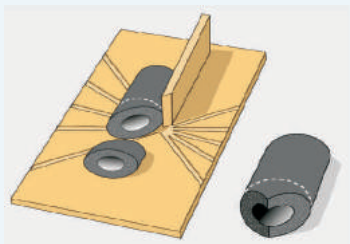
When it is not possible to slide the tubing around bends in the piping, a segmented curve can be made.



1. Take a section of tubing of the correct diameter and cut it either three or five times at the same angle at 90° to each other.



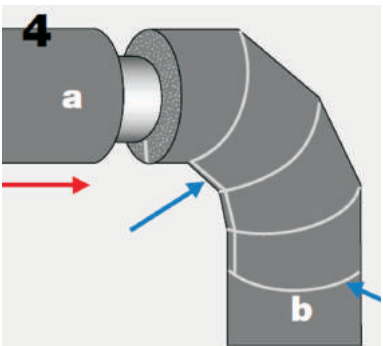
Use the **ALP Aeroflex** cutting board to ensure accurate results.



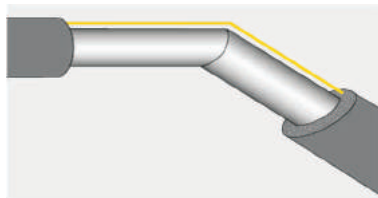
2. Twist every other segment thus obtained through 180° and assemble them together to get a curved section.

3. After sticking all the sections together with **Aerostick** glue to complete the bend, make a lengthwise cut in the lower half so that it can be fixed onto the piping.

4. Position the insulating tubing over the bend in the pipe and bond the edges of the lengthwise cut with insulation **Aerostick** glue. The side sections (a-b) must be positioned so that they match the extremities of the tubing on either side.



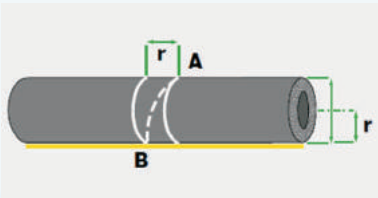
ELBOW FITTING (over 90°)



This is joint created by welding two sections of pipe at an

angle over 90°.

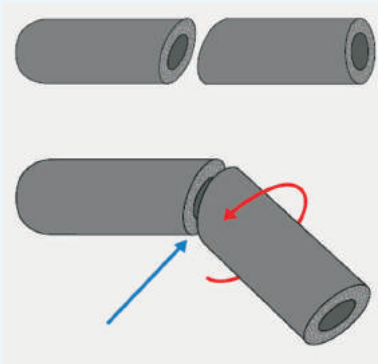
SPECIAL APPLICATIONS



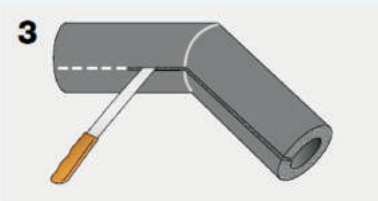
1.The adjacent tubes would normally be in place when calculating the

length of tubing necessary to complete the insulation to the joint. We recommend cutting the central section slightly longer the strictly necessary so that it can be trimmed down to size when fitting. Measure the radius of the external circumference and draw two parallel lines that far apart in the middle. Draw a line at an angle between points A and B.

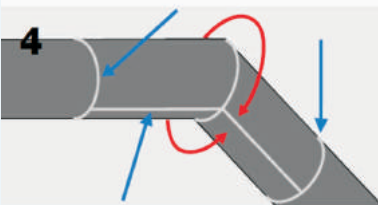
2. Cut along this line and rotate one of the sections until the required angle is obtained. Glue the two parts together with **Aerostick**.



3.Cut along the



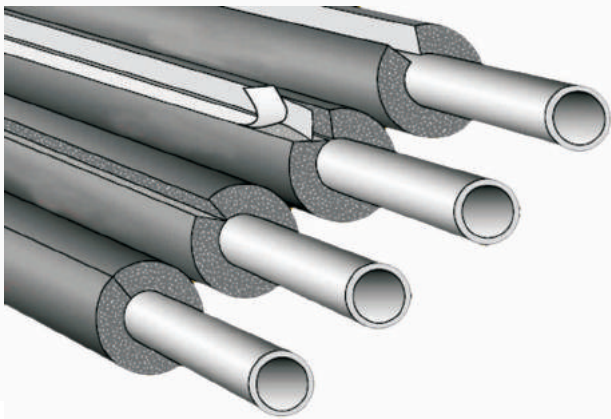
inner surface of the joint.



4.Trim the joint to fit between the two adjacent tubes and the glue all the edges together.

F l e x i b l e

Aerocell/Aeroflex tubing for insulating fitted pipes.



Aerocell/Aeroflex/Aflex self-adhesive insulation is particularly useful in situations where the piping is already in place. Its advantage is its extreme ease of use which increase the speed of installation. **Aerocell/Aeroflex/Aflex** self-adhesive tubing can even be attached to bends in pipes with little effort. Carefully

SELF ADHESIVE INSULATING TUBING (SSPT/SST)

read the installation suggestions the follow.



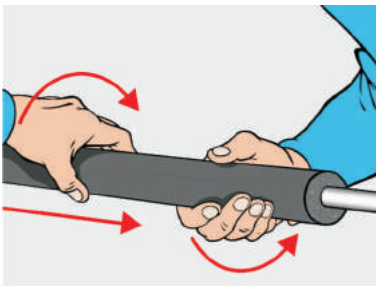
cleaning with
diner.

1. Make sure that the surfaces to be insulated are perfectly clean grease-free and dry. For the best results, we recommend



2. The pre-cut tubes allow them to be

positioned easily.



3. Line the edges up and straighten the tubing.



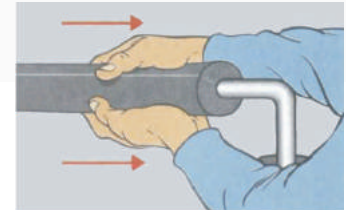
4. Using both hands, carefully lift the backing strips that

cover the self-adhesive edges.



5. Slowly pull the backing strips away from the tubing, ensuring that the two sticky surfaces match up properly.

surfaces match up properly.

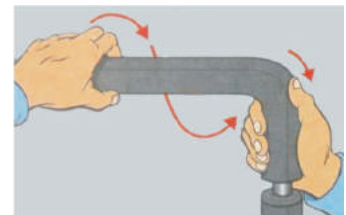


6. Lightly press the

two edges together, first from the far ends, then at the center so as to form a near seal without puckering.



7. To avoid the insulating tube becoming deformed whilst pushing it along the piping, position it without

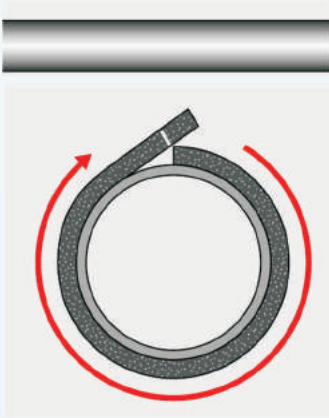


forcing.



8. Be particularly careful when maneuvering the tubing around bends in pipes.

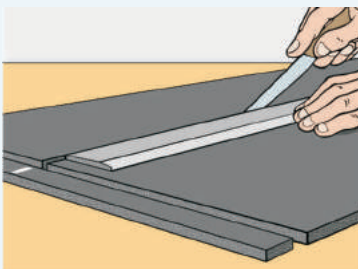
INSULATING PIPING OVER 125 MM IN DIAMETER WITH A-FLEX sHEET



9. Once the tubing is in place, attach it to the neighboring section of insulation tubing using **Aerostick** adhesive.

INSULATING A STRAIGHT PIPE

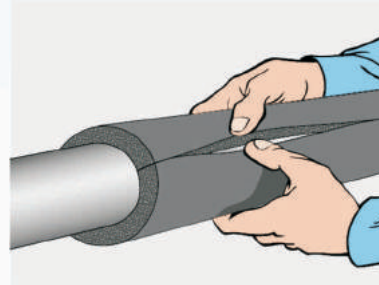
1. Wrap a strip of A-flex of the same thickness as that to be used around the pipe to be insulated and measure the exact length required.



2. Make out the length required on a **Aerocell/Aeroflex** sheet.

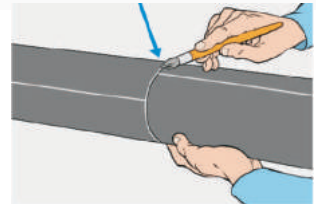
3. Cut carefully along the line.

To ensure accurate results, use a metal ruler.



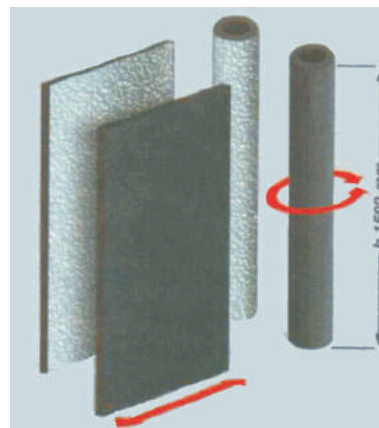
4. Apply an even layer of **Aerostick** adhesive along each edge and allow to dry.

5. Wrap the insulation sheet around the pipe and press the glued edges together starting at the ends, then the center and then working along the rest of the length.



6. Glue the insulating sheeting to the subsequent sections along the length of the pipe.

If the tubing thus created is not correctly lined up, push one against the other slipping the brush in the gap and twist until they are aligned.



INSULATING STRAIGHT PIPING WITH LINEAR SHEET

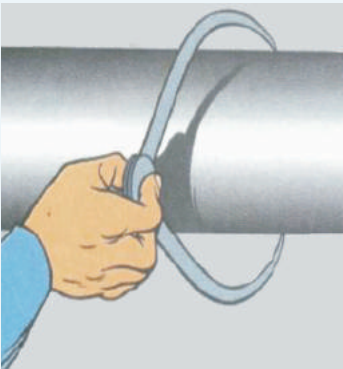
AAIPL supplies a new solution to facilitate insulation of medium and large diameter pipes: LINEAR sheeting is

large diameter pipes: LINEAR sheeting is

INSULATING PIPING OVER 125 MM IN DIAMETER WITH ALP AEROFLEX SHEET

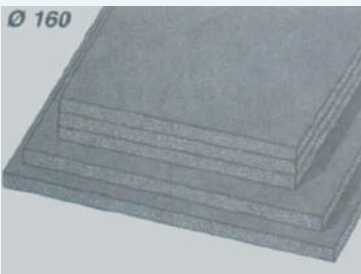
already cut of the size of the surface to be covered.

At the client's request, Aerocell/Aeroflex sheet get the supplied with Aluminum foil, glass cloth laminated finish. By choosing this sheeting, the client will also see its functional and practical advantages when insulating layered pipes.



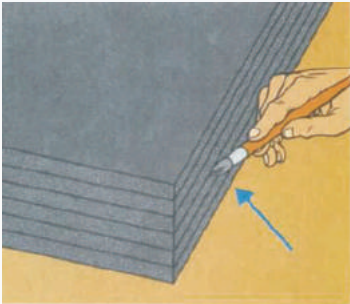
1.Its application is considerably simplified. Measure the diameter, or the various diameter, of the pipe to be insulated.

2.Choose the corresponding Linear sheeting at the retailer's



Some example of product correspondence.

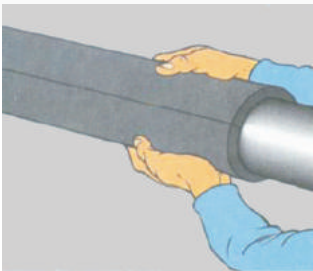
φ	Thickness 19	Thickness 25
80mm	19 x 89	25 x 89
100mm	19 x 114	25 x 114



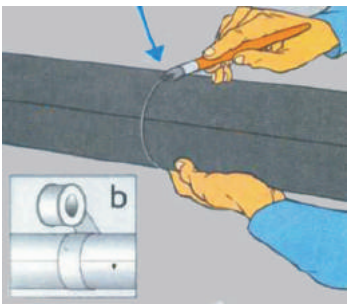
3. Glue the lengthwise edges with **Aerostick** adhesive. If necessary more than one sheet can be aligned so that their edges

can be glued simultaneously.

4. Position the sheeting on the pipes and match the edges accurately.



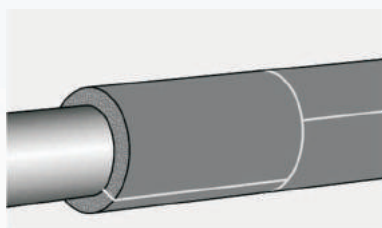
5.Position the next section of A-flex on the pipes and bond it to the previous section.



If using sheeting finished in embossed sheet aluminum (b), bond the joint with *Aluminum foil* self adhesive tape.

If it is necessary to apply more than one

MULTI-LAYER INSULATION



layer of **Aerocell/Aeroflex/Aflex**, one sheet can be stuck on top of

another. To install the first refer to page 40

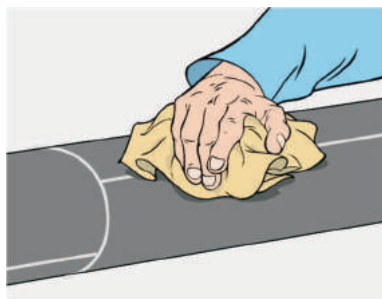


edges of the sheet to be fitted.

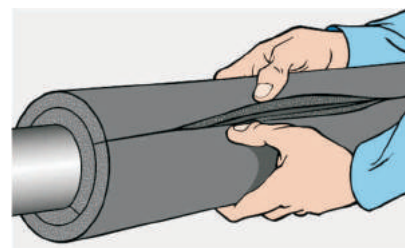
Do not stick the two layers together, as the individual sheets may be subject to different degree of expansion or contraction when the plant is operational.

Contact our Technical office if you have to insulate piping transporting fluids below -40°C .

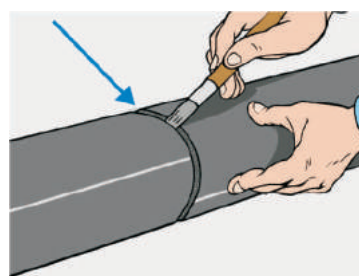
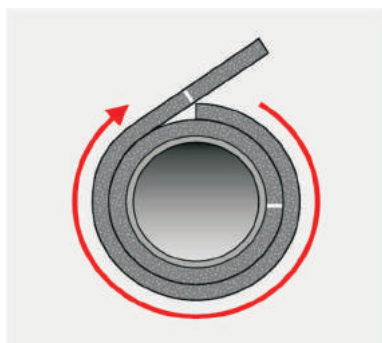
1. Clean the surface of the first layer of insulation.



5. Wrap the insulation sheet around the tubing, ensuring that the seam does not overlap that of the underlying insulation.



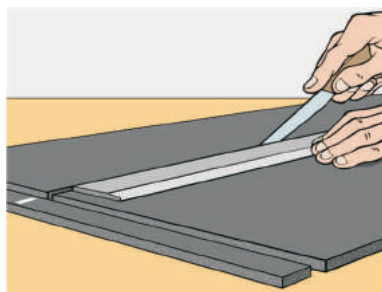
2. Measure the overall diameter with the first sheet in place.



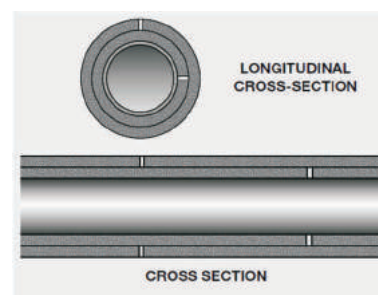
6. Adjacent sections of insulation should be glued at their respective ends.

3. Cut out the second sheet to the size required.

4. Glue the



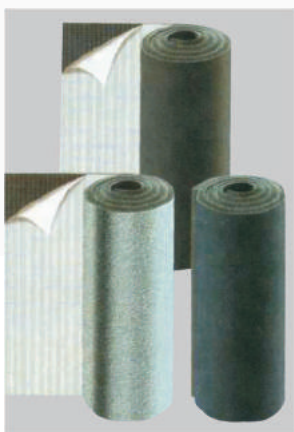
7. When installing the second layer, make sure that the seams do not overlap those underneath (see diagram). This ensures that,



MULTI-LAYER INSULATION

when the plant is operational, maximum insulating properties are maintained as the materials expands or contract.

INSULATING PIPES WITH ALP AEROFLEX SHEET



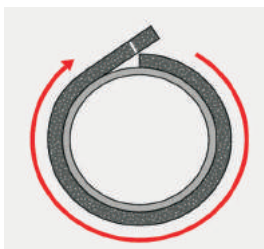
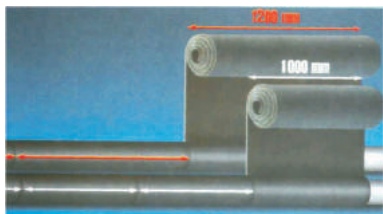
AAIPL proposes sheeting, which allow faster application times on straight pipe with large diameters.

Aeroflex sheeting can be supplied in thicknesses of 6-9-13-19-28 & 32 mm and in the various versions, standards, or self-

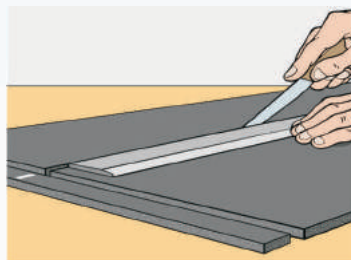
adhesive with lamination such as aluminum foil, Glass cloth, Silver clad, UPVC clad etc.

With a wider covering surface than the 1000 mm sheeting, the 1200 mm sheeting has the advantage of requiring fewer segments and, as a result, faster application on long straight sections.

1. Measure the surface of the piping to be covered.

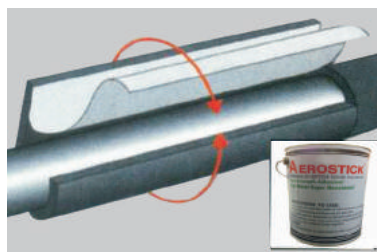
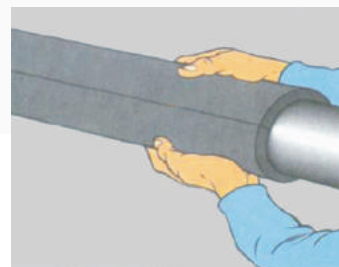


2. Cut the corresponding section of sheeting.



3. Apply the sheeting one the pipe, after gluing the joining edges, and bond the two parts, taking care to position them correctly.

4. If self-adhesive sheeting is used, simply remove the protective film while pressing the insulating sheeting against the surface to be lagged.

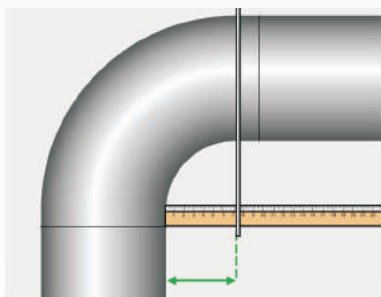


Before starting this operation, the surface of the piping must be thoroughly cleaned, using A-flex detergent.

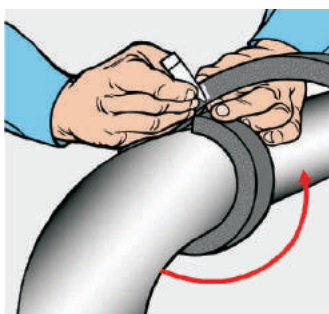
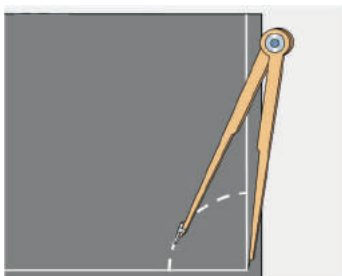
BENDS

To insulate a bends in a large-diameter pipe, calculate its radius and mark it out on a **Aerocell/Aeroflex/Aflex Eco** sheet.

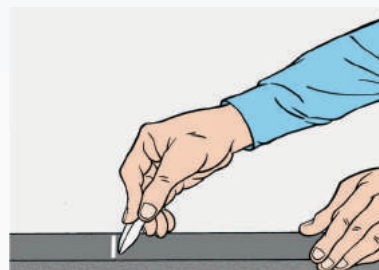
1. First of all, measure the internal radius of the curve using a ruler and a rule lying perpendicular to it, as shown in the diagram.



2. Using a compass, mark the out-line of the internal radius on the **Aerocell/Aeroflex/Aflex** sheeting, using the corner of the square marked out on the insulating material as the axis.

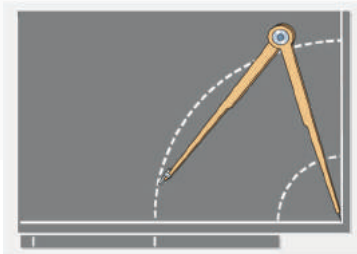


3. Measure the exact circumference of the pipe using a strip of **Aerocell/Aeroflex/Aflex** of the correct thickness (do not stretch the strip).



4. Divide the circumference by two, and mark the middle of the strip accordingly.

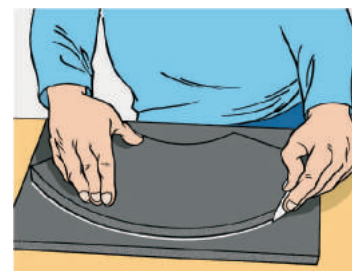
5. Add the outer radius to the measurement of the inner radius and, using the same axis, draw a semicircle onto the sheet with the compass.



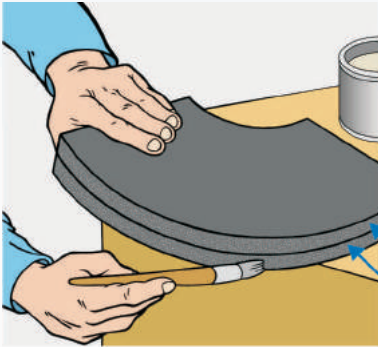
6. Cut the sheeting accurately along the arc of the circle.

If imperfections are found along the cut edges, smooth them slightly to assure a more precise match.

7. Place the section obtained on the reverse side of another sheet and use it as a template to cut out a second, mirror image section.



BENDS



8. Holding the two sections together with the smooth surface on the outside, apply glue to the outer edges.

9. Allow the glue to dry and stick the edges together, starting from the two extremities.



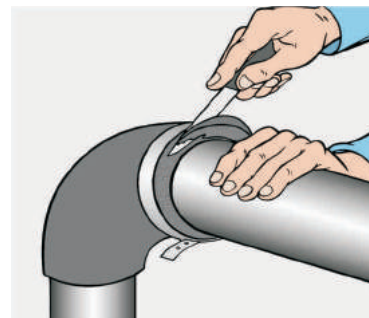
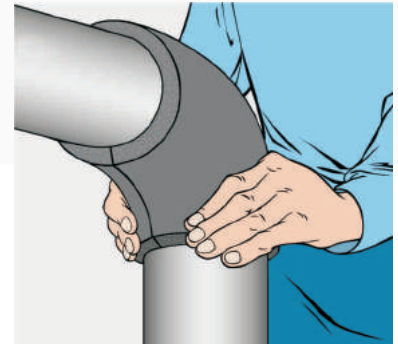
10. Apply pressure in the centre too.

11. Make sure that the two sections have bonded securely on the inside as well, pressing with your fingers along the joint.



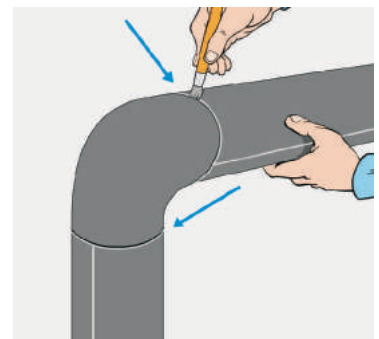
12. Next spread the glue along this inside edges and leave to dry.

13. Wrap the A-flex insulation around the pipe and press the edges tightly together.

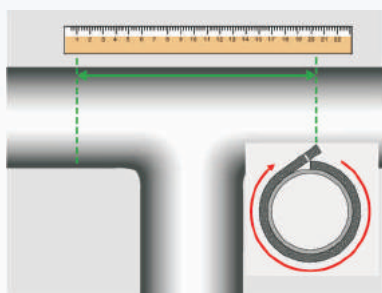


14. Use the metal band as a guide to trim the extremities..

15. So that they butt precisely up against the tubing to be fitted either side.

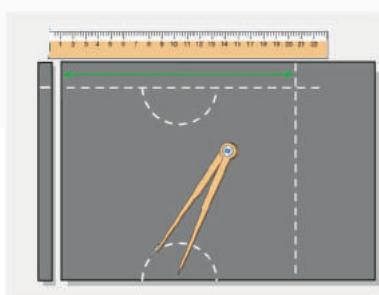


T-FITTINGS



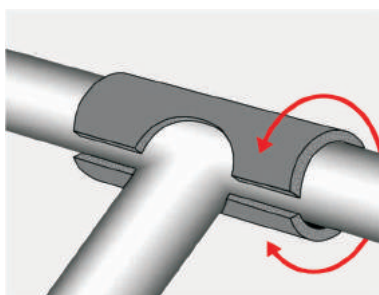
1. Take the measurements for the shape of the T-fitting.

2. Mark the measurement on the sheet and trace the shape of the through-section. The radius of the semi-circle corresponds to that on the piping.



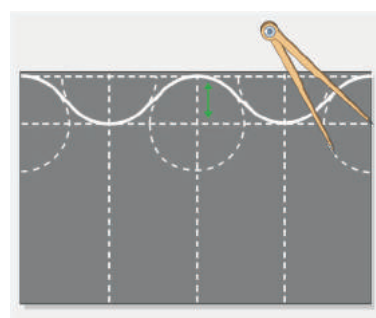
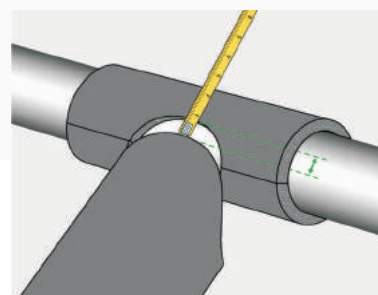
3. Cut along the outline and glue the matching edges.

4. Position the through-section shape on the piping and join the glued edges.



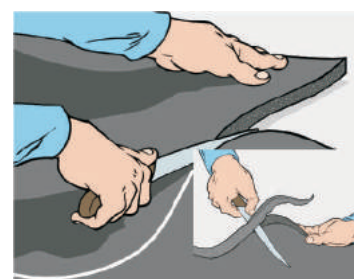
5. On another section of sheeting, trace the shape of the coupling arm, leaving enough overlap for the next section (a).

6. Take the measurements of the coupling arm section by resting the cut sheeting on it as a basis for measuring.

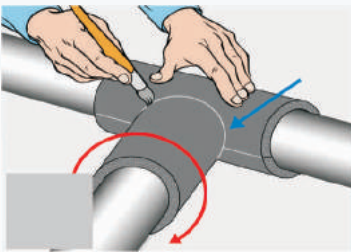


7. Mark the measurement of the section on the overlap of the previous tracing and draw the circles which define the section's curve.

8. Cut along the final outline and glue the matching edges. Chamfer the edges of the upper, convex curves, towards the **Aeroflex/Aerocell/Aflex** inner surface.



COLLARS



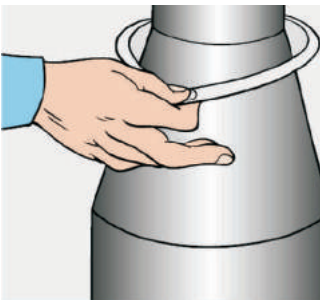
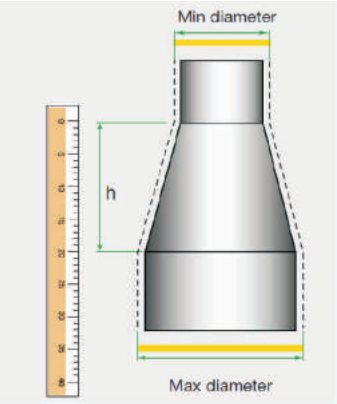
9. Position the prepared section on the coupling arm joining the parts of the T-fitting. Glue the chamfered curves

to the through-section.

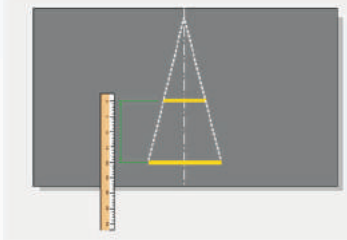
*To insulate a collar section that connects pipes of different diameters, take measurement and mark them out on a **Aerocell/Aeroflex/A-flex** sheet.*

1. Measure the height of the collar section, including the welded joints.

2. Use the caliper to measure the maximum and minimum pipe cross-section and add twice the thickness of the **Aerocell/Aeroflex/A-flex** to each measurement (see figure 1)

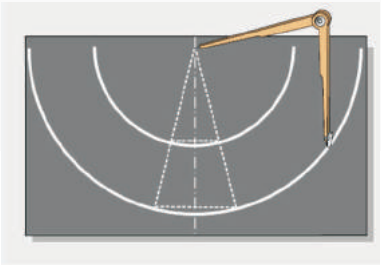


3. Carry over all the measurement (maximum diameter, minimum diameter, height) onto the sheet. Draw two lines from the ends of the measurement until they converge on a centre point.



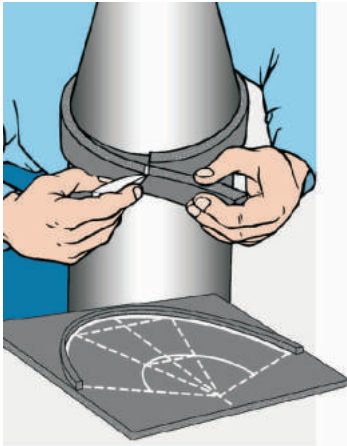
4. Using the compass, measure the distance between the point of intersection and the two diameters and draw two arcs.

5. Measure the circumference of the widest pipe using a strip of **Aerocell/Aeroflex/A-flex** of the same thickness as the sheet.



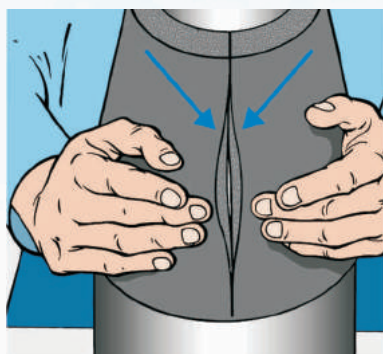
6. Mark the center of the circumference on the strip, and line it up on the larger of the two arcs.

Draw two lines from the ends of the strip to the center of convergence.



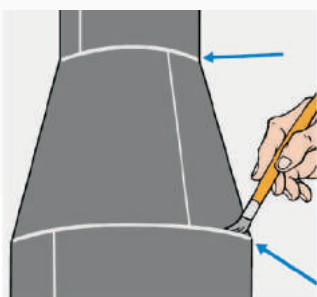
7. Carefully cut out.



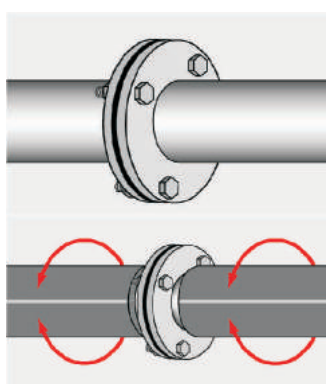


8. Glue the edges and after they have dried, fit the insulating to the collar. Press the two edges together starting at the far ends.

9. Glue the upper and lower edges and attach the other sheet sections.

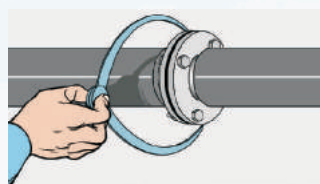
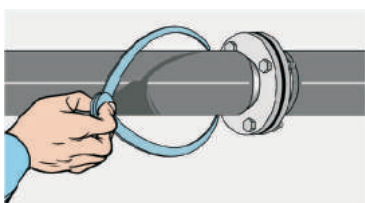


FLANGES



Insulating a flange is reasonable simple, but requires the Aeroflex sheeting to be accurately cut into two rings.

1. Firstly, insulate the pipes as far as the flange on either side.

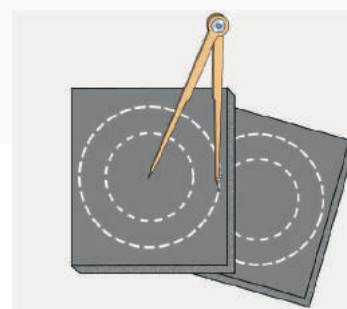


2. Measure the pipes' circumference with the **Aerocell/Aeroflex/A-flex** around it..

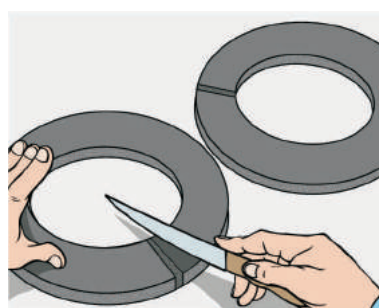
3. Along with that of the flange

Use the measurement of the two diameters to calculate the respective inner and outer radii.

4. After calculating the two radii, draw the inner and outer circumference of the rings on two separate squares of **Aerocell/Aeroflex/A-flex**

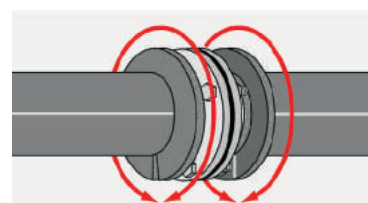


Attaching a sharp blade to the tip of the compass allows the first incision to be made so that a knife can then be used to cut out the ring. However, a knife alone can give acceptable results.

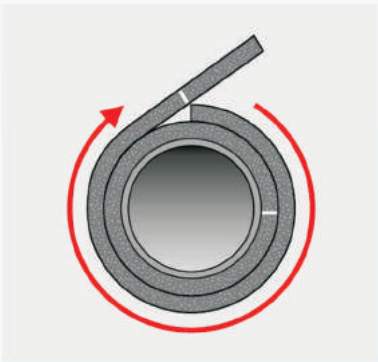


5. Cut the rings out and make an opening on one side to attach them around the pipes.

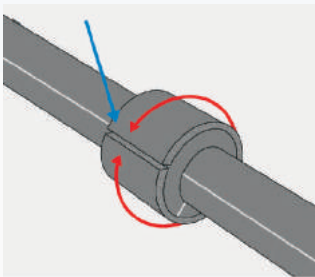
6. Position the rings around the ends of the insulating tube and glue the opening with **Aerocell/Aeroflex/A-flex**



FLANGES

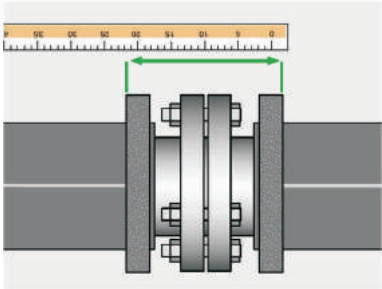


7. Use a strip of A-flex of the same thickness to measure the circumference of the insulating rings.

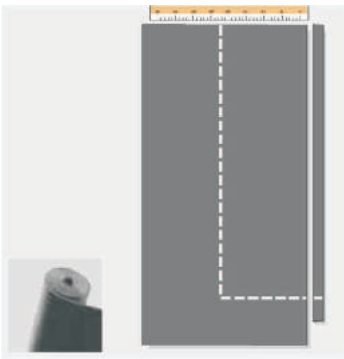
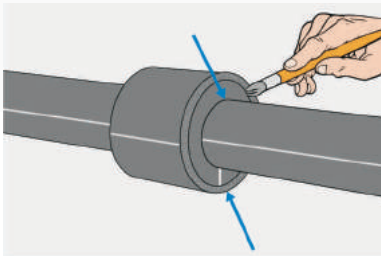


11. Mount it around the rings and glue the edges.

8. Measure the distance between the two rings, including the thickness of the insulating material itself.

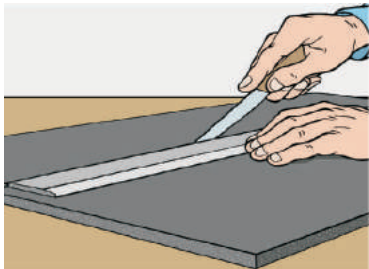


12. Stick the sleeve section to the outer edges of the rings, then stick the inner surface of the rings to the ends of the adjacent tubing.

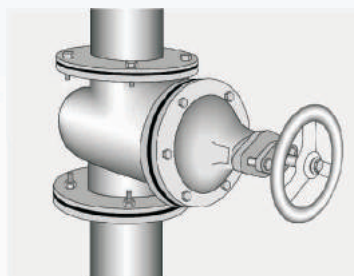


9. Draw the measurements out onto a A-flex sheet to get the outline of the sleeve that will complete the flange's insulating.

10. Cut the sleeve section out.



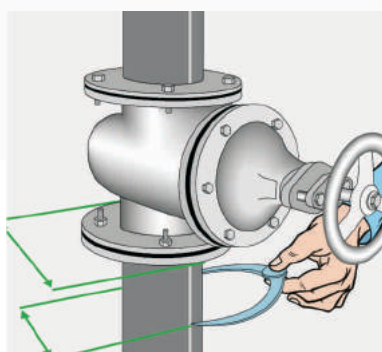
STOPCOCKS



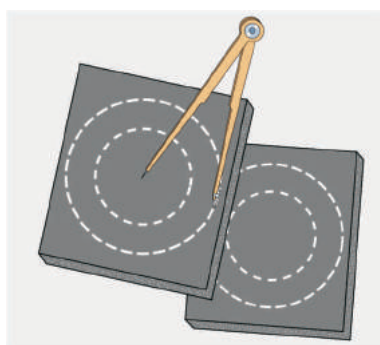
Before starting to insulate the stopcock housing, first fit tubing to the pipes either side of it.

1. Measurement the diameter of the insulated pipes and the flanges.

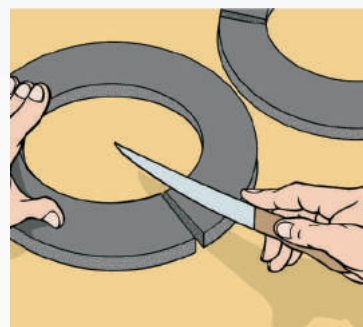
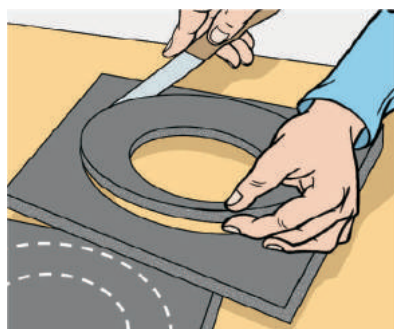
Use these measurements to calculate the relevant radii.



2. After calculating the radii, mark out the respective inner and outer circumference on two separate squares of **Aerocell/Aeroflex/A-flex** of the same thickness.



3. Carefully cut out the rings.

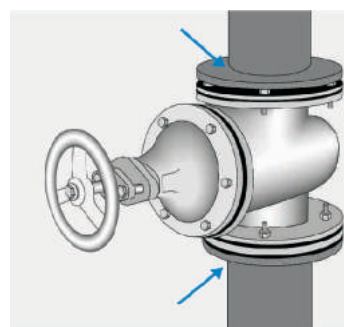


4. Make an opening so that they can be fitted over the pipes.

5. Put a ring on the outside of each flange and glue their edges together with **Aerocell/Aeroflex/A-flex** adhesive.



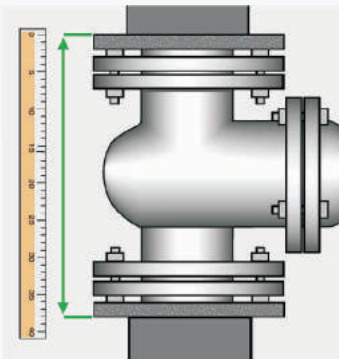
6. Stick the inner surfaces of the rings to the ends of the insulating tubing covering the pipes.



7. Using a strip of insulation of the same thickness, measure the circumference of the rings.

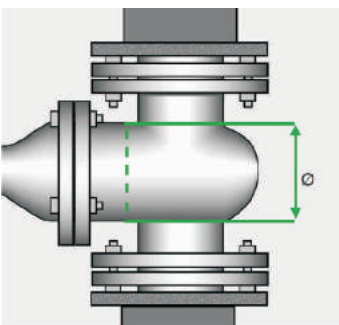
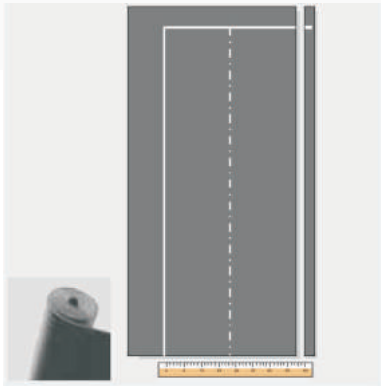


STOPCOCKS



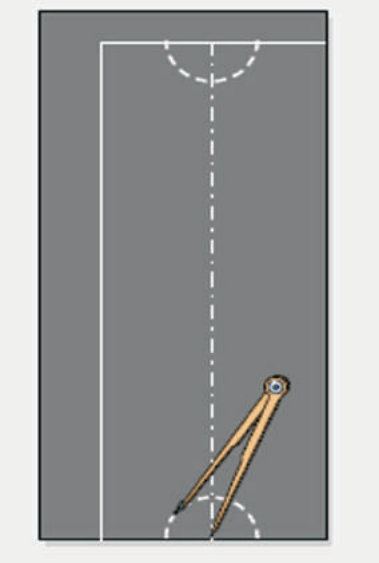
8. Measure the distance between the rings, including the thickness of the ring themselves.

9. Draw the outline of the sleeve section measurement onto a sheet of **Aerocell/Aeroflex/A-flex** and draw a line down the middle.

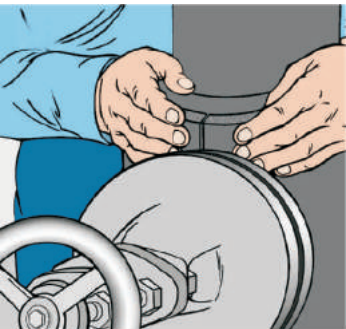
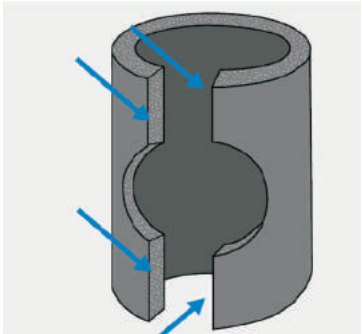


10. Measure the diameter of the stopcock housing.

11. Divide the diameter by two to get the radius. Place the compass at the end of the sleeve's center line and draw a semicircle at each end.



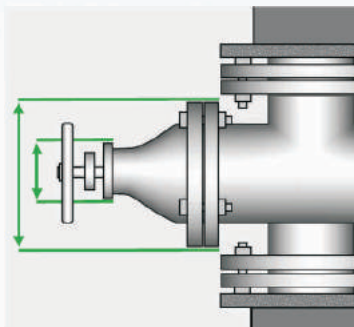
12. If there are any imperfections along the cut edges, smooth them slightly so that they bond precisely.



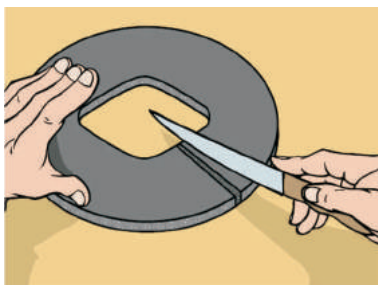
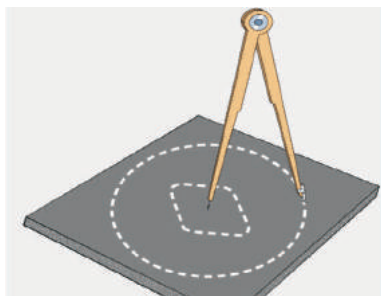
13. Once the glue is dry, fir the sheeting around the rings and stick the edges together.

STOPCOCKS

14. Next, calculate the shape of the disc for the front flange. Measure the circumference of the supporting flange and the form of the face plate around which the disc must fit.

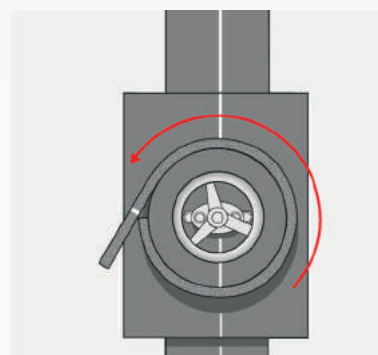
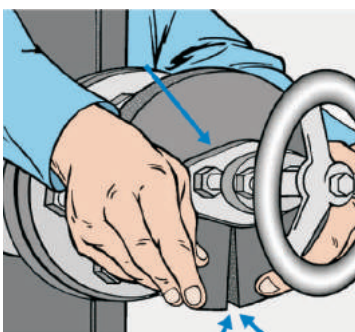


15. Mark out the measurement on a piece of **Aerocell/Aeroflex/A-flex** and cut the disc out.



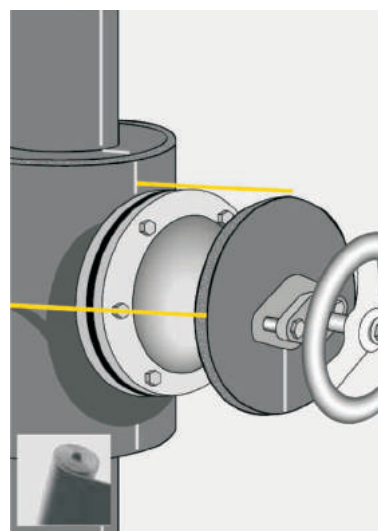
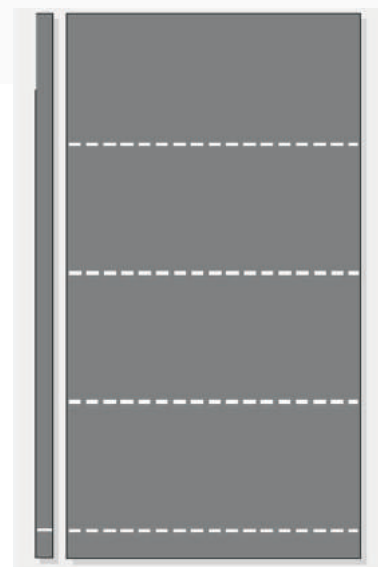
16. Mark an opening so that the disc can be fitted over the face plate.

17. Position the disc and stick the edges together with Aerostick adhesive. Make sure to stick the inside edges to the face plate, too.



18. Once it is in position, measure the circumference of the disc.

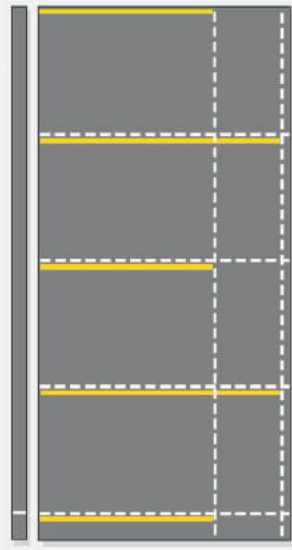
19. Mark the measurement out on a piece of **Aerocell/Aeroflex/A-flex** of the same thickness and divide its length into four equal parts.



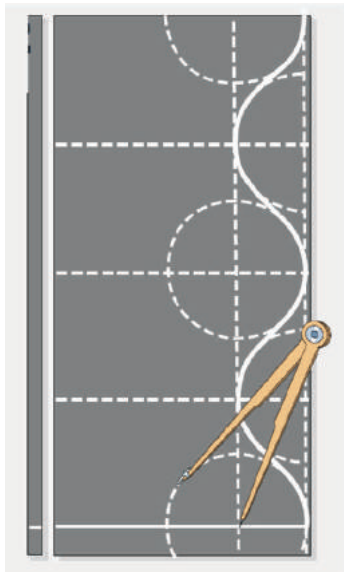
20. Measure the distance between the disc and the existing lagging at its nearest and further points.

STOPCOCKS

21. Mark the two different measurement on the dividing lines of the tracing, as illustrated then draw the intersecting lines from once extremity of the shape to the other,



22. Using the difference in the two lengths as a radius, draw circles around the ends of the lines. Using the arcs of the circles, draw a continuous line linking them up, as illustrated

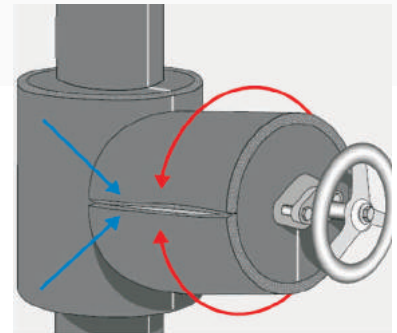


23. Carefully cut along the line.

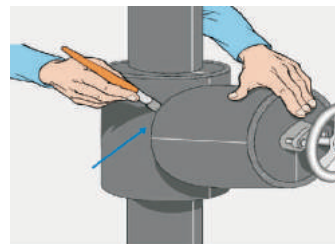


24. Chamfer the edges of the upper, convex curves towards the **Aerocell/Aeroflex/A-flex's** inner surface.

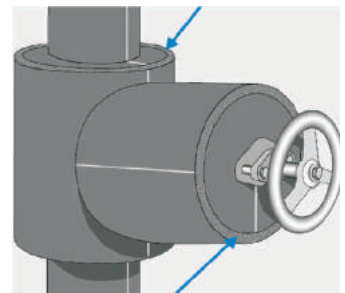
25. Glue the leading, straight edges, let them dry, then fir the resulting sleeve around the disc.

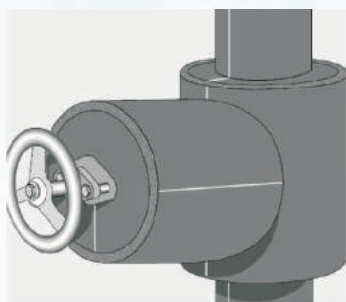


26. Stick the sleeve onto the insulation around the main stopcock housing using **Aerostick** adhesive.



27. Check the various parts which haven't been stuck together yet. Use a brush to insert glue between the surface to be stuck together and press them together.



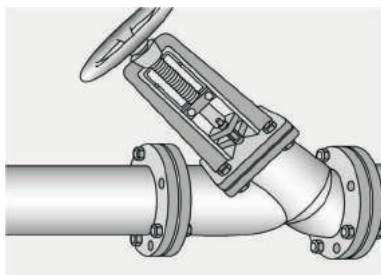


28. The stopcock is now completely sealed.

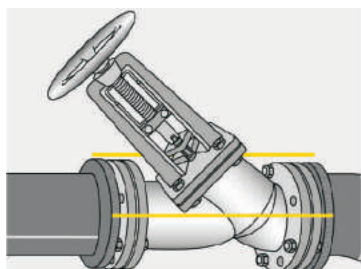
ANGLED STOPCOCK

Before insulating an angled stopcock, first lag the pipes either side of the flanges.

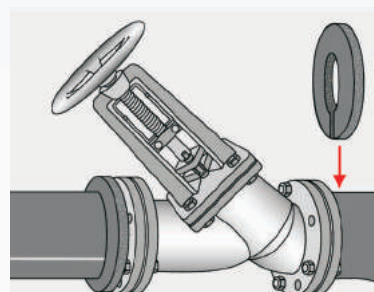
1. Following the same procedure as on page 57 (insulating flanges), make two rings of **Aerocell**/**Aeroflex**/**A-flex** and fit them over the tubing next to the flanges.



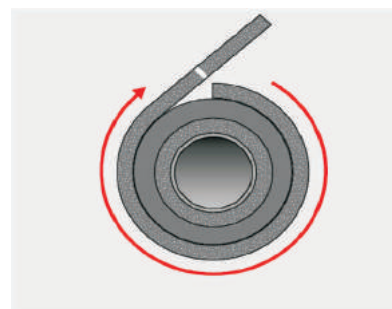
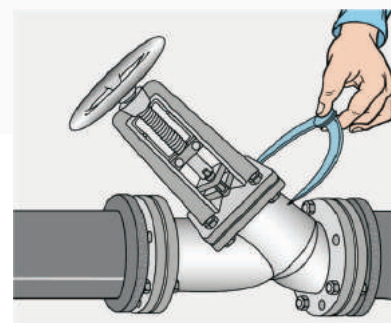
2. Measure the distance between the two **Aerocell**/**Aeroflex**/**A-flex** rings, including the material itself, and the distance between each ring and the stopcock housing.



3. Measure the diameter of the base of the stopcock housing. Use this to calculate the radius needed to draw the circumference in point 5.



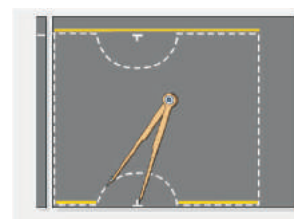
4. Measure the circumference of the rings.



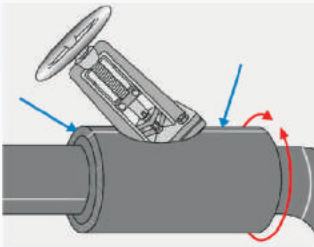
5. Mark the measurements of the ring's circumference out on a sheet of **Aerocell**/**Aeroflex**/**A-flex** (figure 4), along with the semicircle for

the base of the housing (figure 3) positioned along the length of the sleeve according to the measurement taken in figure 2.

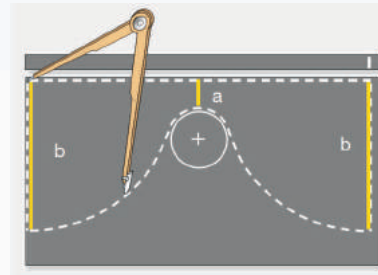
6. After cutting the piece out, wrap in around the rings to seal the central stopcock housing, then stick the edges together using **Aerostick** adhesive.



ANGLED STOPCOCK

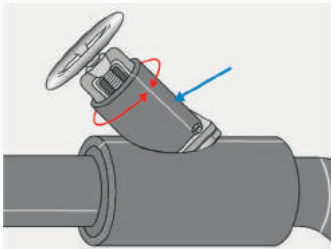


7. Cut out a second sleeve section to fit around the stopcock mechanism.

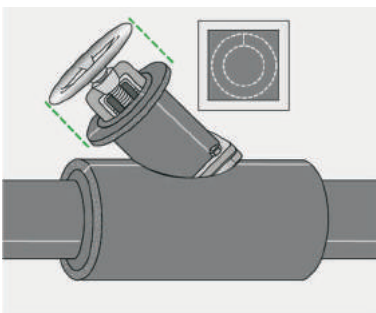


11. Join the two semicircles and cut along the line.

8. Cut out a ring of Aerocell/ Aeroflex/ **A-flex** the size of the stopcock wheel. The inner diameter should be the same as the outer circumference of the sleeve already attached.



12. Chamfer the curved edge towards the inner surface.

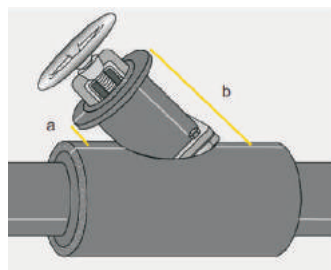


9. Measure the distance between the ring and main housing insulation at the two points, a and b.

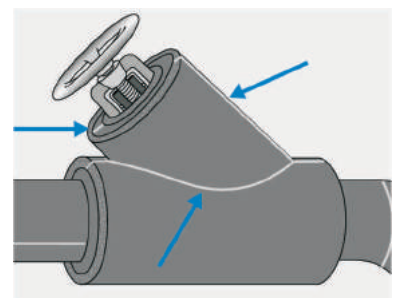


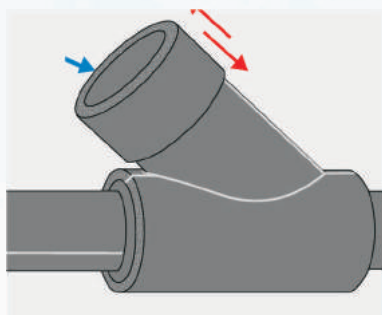
13. Attach the insulation material around the ring and glue all the surfaces it comes into contact with.

10. Draw the shape of the sleeve on a Aerocell/ Aeroflex/ A-flex sheet, using a compass and the measurement taken. The reference circle in the middle has a radius equivalent to a quarter of the diameter of the stopcock housing already insulated (see figure 6).



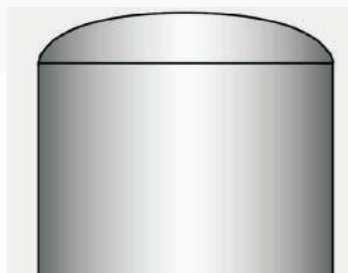
14. Make a cylindrical, removable cap with a strip of **Aerocell/ Aeroflex/ A-flex**. The dimensions to use are shown in the figure.





15. The cap should slide on and off easily. Once this is ensured, stick the edges together with **Aerostick** adhesive.

TANKS



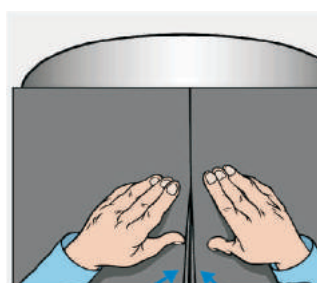
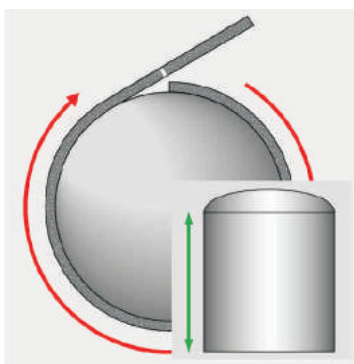
Before insulating, clean the whole surface carefully with inner.

sheeting with a flexible spatula and, with a brush, over the walls of the tank. Glue the edges of the sheet, then stick the insulation to the tank, joining the edges together.



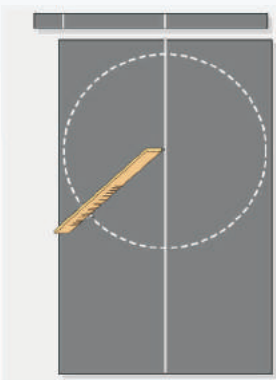
3. To insulate the domed surface, first measure its overall diameter with a strip of the same **Aerocell/Aeroflex/A-flex**.

1. First of all, lag the tank walls. Use the same method as with piping. Measure the circumference of the tank with a strip of **Aerocell/Aeroflex/A-flex**, and measure the height.



2. Mark the dimensions out on A-flex sheet and cut out. Spread A-flex Aerostick adhesive over the entire surface of the

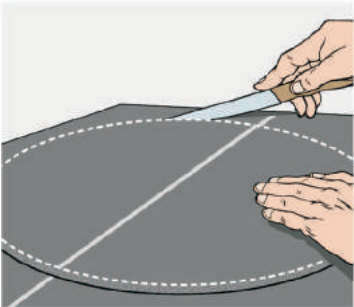
BENDS



As the area to cover is substantial, ensure you have enough insulating material and glue sheets together if necessary.

4. Use the diameter to calculate the radius and draw the complete circumference.

5. Cut the circle out accurately.



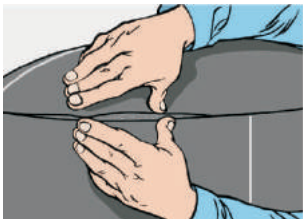
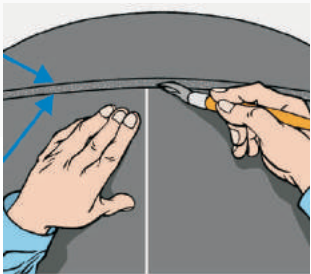
6. Coat the disc...

7. And the top of the tank with A-flex A-919 glue.



8. Place the sheet disc on the top of the tank and press it down firmly from the center outwards to avoid it moving.

9. When the sheet has stuck, glue the edges all the way round.

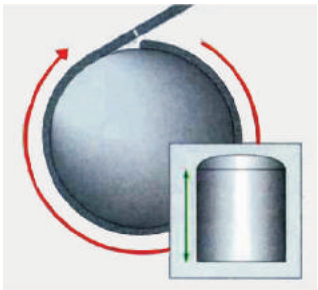


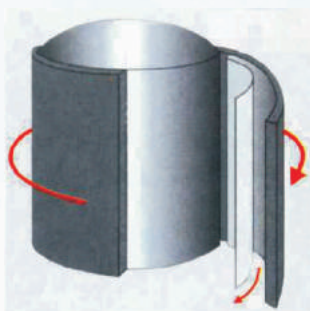
10. Leave to dry, then press firmly together.

Insulating Tanks With Self-adhesive Aerocell/ Aeroflex/ A-flex Sheeting

The fitter can choose appropriate size from A-flex self-adhesive sheeting, depending on the particular requirements.

1. Measure the height and circumference. After marking the dimensions on the self-adhesive sheeting. Cut out the portion needed to lag the tank.





2. Fix one end at the starting point and remove the backing paper, while gradually pressing the adhesive sheeting onto the cylindrical surface.

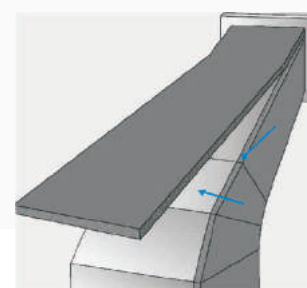


2. Mark the measurements of the surface to be lagged on the sheeting and cut the required size out of the roll.

3. When the cylindrical wall is completely covered, join the edges with Aerostick adhesive. The domed surface will be insulated following the indications for non self-adhesive sheeting (pages 65, 66). The only difference lies in removing the backing paper.



3. Apply Aerostick adhesive glue to the surface which has to adhere to the conduit surface.



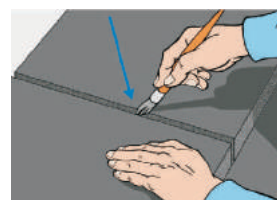
In the examples given, for the best result we recommend first lagging the lower surface of the conduit, then the side walls and lastly the top. This will prevent the penetration of humidity.

DUCTINGS



Insulating Ductings For Air-conditioning Systems With Aerocell/ Aeroflex/ A-flex Continues Sheetting

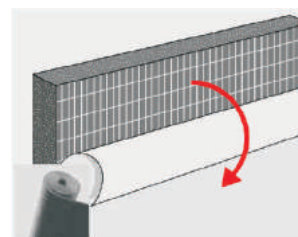
1. Clean the surface to be insulated thoroughly. Insulation is not recommended where there is incrustation or other flaws which could prevent the sheeting from sticking perfectly.



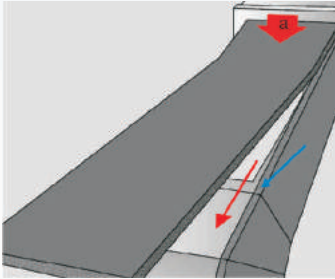
4. Use Aerostick adhesive to join the edges together.

Insulating Ducting With Self-adhesive Aerocell/ Aeroflex/ A-flex Sheetting

1. Using self-adhesive sheeting, carry out the same cleaning and cutting procedures as indicated for standard sheeting. The backing paper must be removed from the adhesive side before sticking it to the conduit surface.



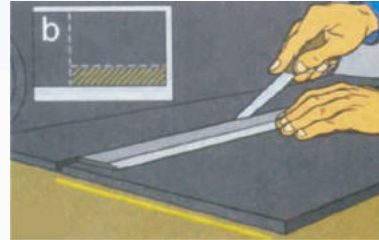
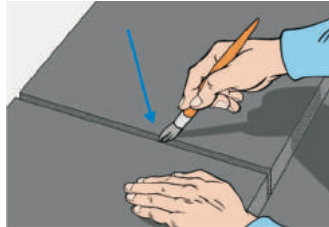
DUCTINGS



2. Position the uncovered edge at the starting point (a) Pull the backing paper off gradually, pressing the material down as you go. In the

examples given, for the best results we recommend first lagging the lower surface of the conduit, then the side walls and lastly the top. This will prevent the penetration of humidity.

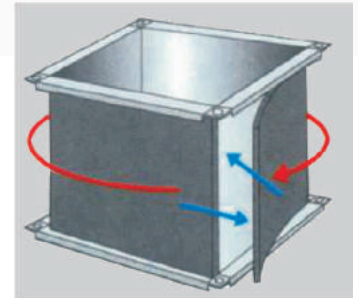
3. Use Aerostick adhesive glue to join the edges together.



2. Cut the corresponding portion out of the roll.

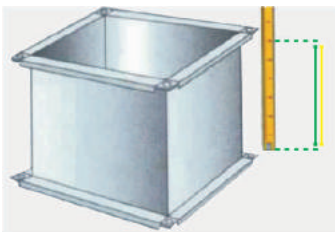
There is an obvious saving in material by cutting the sheeting along its height (a) rather than along the length of the 1000 mm sheeting (b)

3. Glue the side of the sheeting to be stuck to the conduit and glue the conduit surface, then apply the sheeting, keeping it taut at the corners.

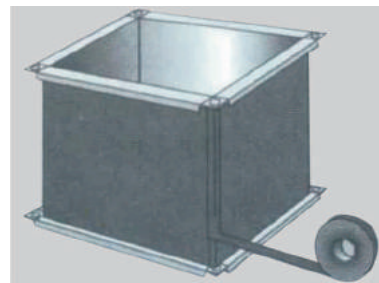


Insulating Ducting With 1000 Mm Sheeting

There are considerable advantage in using **Aerocell/ Aeroflex/ A-flex** sheeting for ducting, which has the same height as the sheeting.



1. Take the measurement of the ducting section to be lagged.



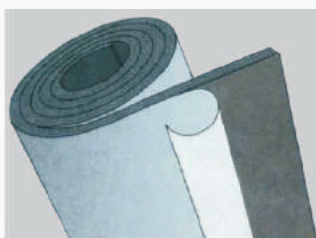
4. Cover the corner where the edges join with adhesive insulating tape.

Compared to a similar operation carried out with 1000 mm sheeting, as well as the saving in material, there has only been one cut in the application.

* For sheet thickness 6,9, 13 wrap around method is suggested

* For sheet thickness 16mm and above 4 part cut method is recommended.

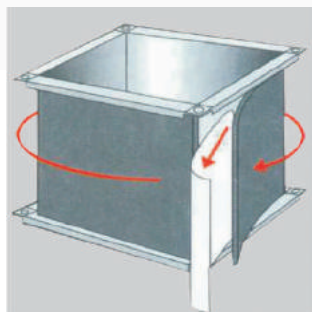
DUCTINGS



Insulating Ducting With Self-adhesive **Aerocell/ Aeroflex/ A-flex** Sheeting.

The use of A-flex sheeting is effectively labor- saving as there is no need to glue the surfaces.

After cutting out the corresponding portion, remove the backing paper from the sticky side while applying the sheeting to the conduit walls.



Precut portions of Sheets

Further time-saving can be obtained by using pre-cut portions of **A-flex/Aerocell/Aeroflex** sheeting, on the market through ducting manufactures, in a single package. These portions, which are prepared by computer methods, give a much more precise cut than can be achieved by hand.

* For sheet thickness 6,9, 13 wrap around method is suggested

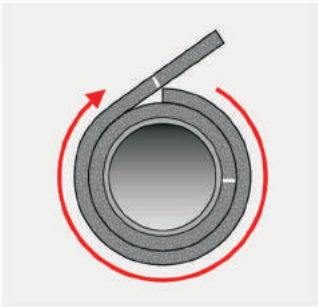
* For sheet thickness 16mm and above 4 part cut method is recommended.

PRACTICAL TIPS

Many tasks encountered when insulating a system are repetitive. We have attempted to provide examples which can help bring optimum result straight away, saving time and effort

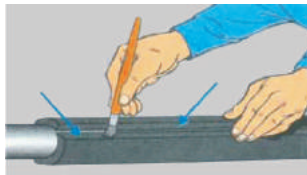
Measuring A Circumference

The measurement is obtained by using a strip of **AAIPL** material of the same thickness to be used as the insulation. This gives you the measurement of the circumference, including the thickness of the insulating material itself. Do not stretch the strip when encircling the pipe, as this will alter the measurement. Mark the strip with chalk where the two edges overlap.



Glueing The Edges of A Tube Cut Along Its Length

To glue the edges, wrap the tube around a larger diameter pipe so that the edges do not overlap and apply the glue. Then slide the tubing over the pipe to be insulated taking care to avoid the edges sticking before the tube is in place.



If the tube is not very long, or is not very thick, it can be rolled up and glued. This way, the tube can be quickly and easily applied

to the pipe.



Glueing The Edges of Aerostick adhesive

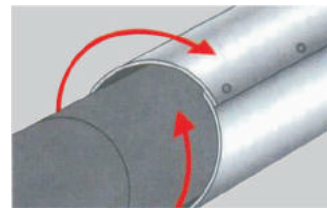
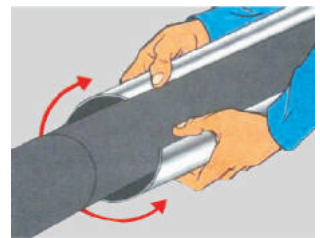
When insulating large diameter pipes, sheeting should be cut to fit and both

edges glued. For the best results, a thin, even layer of Aerostick adhesive should be applied using a brush with short, hand bristles.

PROTECTING INSULATING TUBING WITH METAL CLADDING SYSTEM

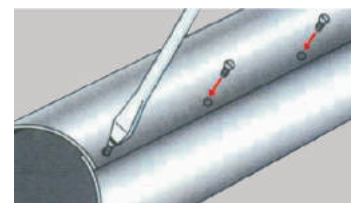
Prepare metal cladding covers of the required diameter and with the number of male/females necessary. The diameter of the cover should be slightly larger than the pipe so it can be easily fitted.

1. Open the cover lengthwise enough to fit it over the piping.

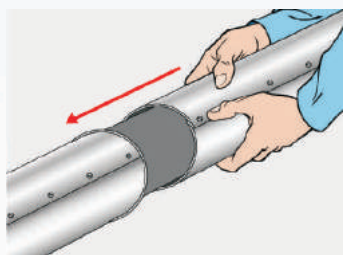


2. Release the cover so the edges close over the piping. The overlapping edges are for fixing.

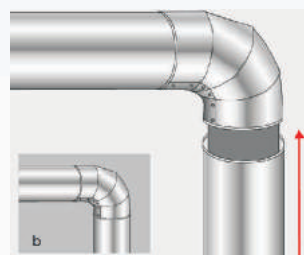
3. Close the edges with short screws in the ready-made holes.



DUCTINGS



4. Put the next section on and join to the previous section with the male/female edges.

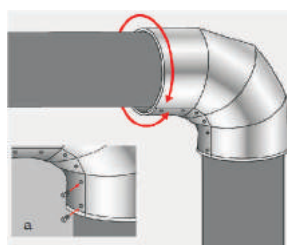
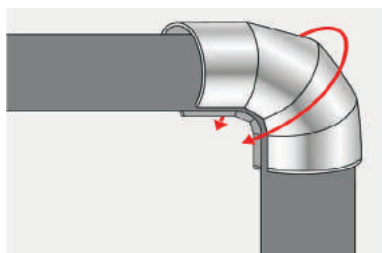


4. Repeat the same operation with the opposite section, completing protection of the bend (b).

CLADDING

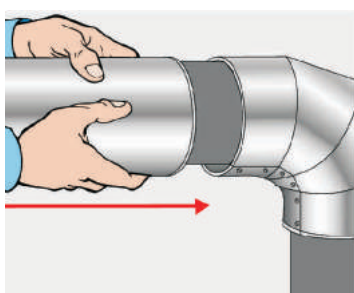
PROTECTING INSULATING BENDS WITH CLADDING

1. Open the bend lengthwise enough to fit it over the piping.



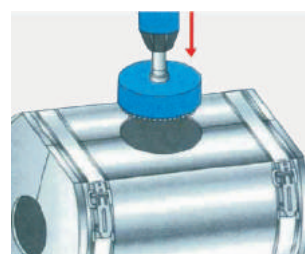
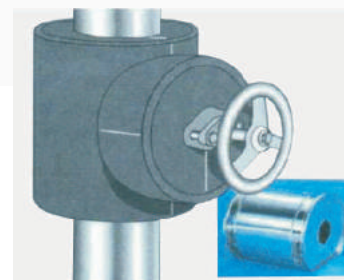
2. Release the bend so it closes over the piping. The overlapping edges are for fixing. Then close the edges with short screws in the ready-made holes (a).

3. Put the next section on and join to the previous section with the male/female edges.



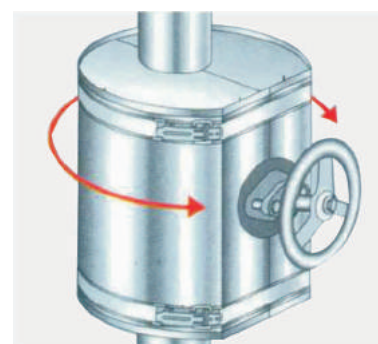
PROTECTING BOTH INSULATED AND PROTECTED FLANGES WITH CLADDING

1. Prepare the right size of metal box to contain cladding block which has already been insulated.



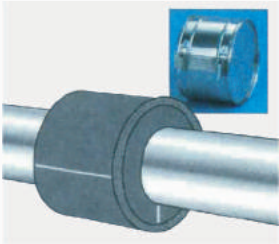
2. Make a hole in the centre of the two circular bases so the insulated piping can go through it.

3. Unhook the clamps and separate the metal box. Close the two parts around the flange block and re-hook the clamps.



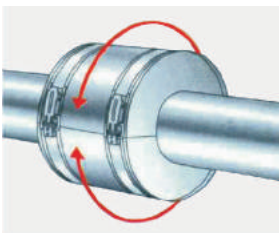
BOX

PROTECTING BOTH INSULATED AND PROTECTED FLANGES WITH CLADDING



1. Prepare the right size box to contain the flange block which has already been insulated.

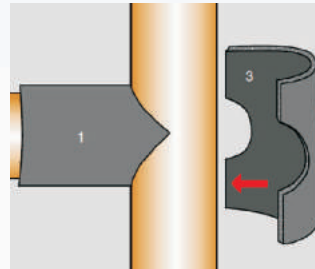
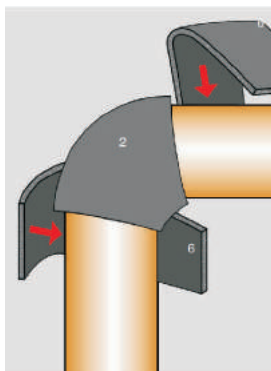
2. Make a hole in the centre of the two circular bases so the insulated piping can go through it.



3. Unhook the clamps and separate the two parts of the metal box. Close the two parts around the flange block and re-hook the clamps.

90° BEND

First, apply piece no 2 onto the bend. Then, place the two no 6 pieces with the chamfered sides towards the bend to complete the covering.

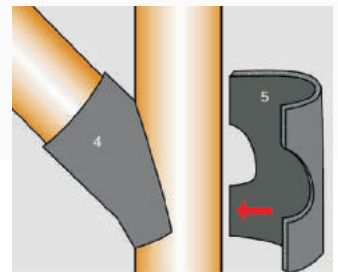


90° BRANCHES

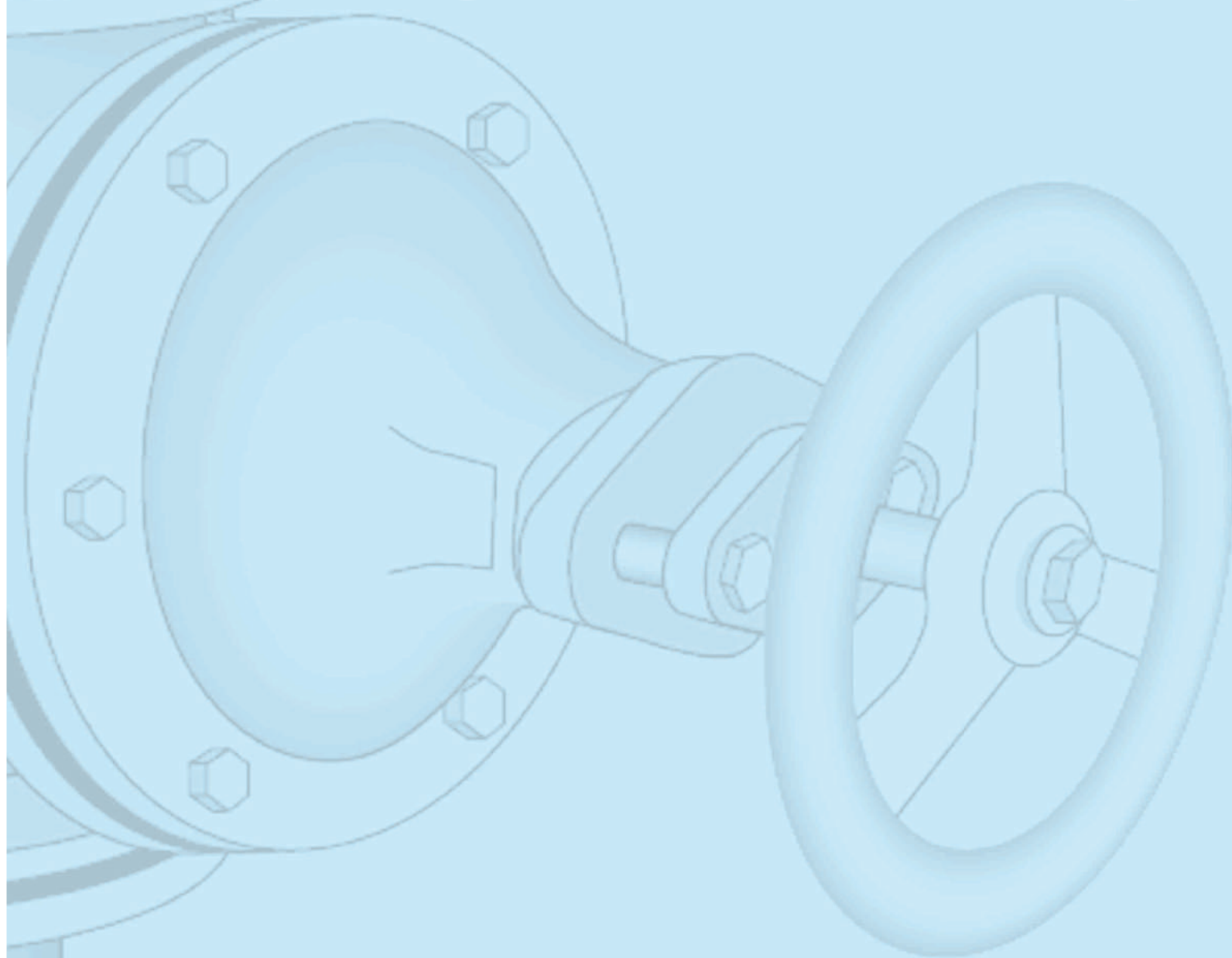
Piece no 1 is first applied onto the horizontal part of the piping; next, piece no 3 close over the branch.

45° BRANCHES

Piece no 4 is applied onto the oblique arm of the branch. Piece no 5 completes the lagging.



2020



Manufactured and Marketed by:

ALP AEROFLEX INDIA PVT. LTD.

Corporate Office: Plot No. 32, Sector-18 HUDA, Gurgaon, Haryana - 122015 (INDIA)

Telephone: +91-124-4731500 | **Fax:** +91-124-4731598, 4731599

E-mail: marketing@alpaeroflex.com | **Website:** www.alpaeroflex.com

Plant: Bilaspur Road, Opposite Govt. P.G. College, Rudrapur, Distt. Udham Singh Nagar, Uttarakhand - 244923 (INDIA)

Telephone: +91-5944-247869, 247870 | **Fax:** +91-5944-243813

Disclaimer: Although these values represent actual results achieved in tests, they should only be used as a guide. ALP Aeroflex cannot guarantee the performance of the product as all situations are different & should be treated separately. All statements & technical informations are based on results obtained under typical conditions. It is the responsibility of the recipient to verify with us that the informations are appropriate for specific use intended by the recipient.