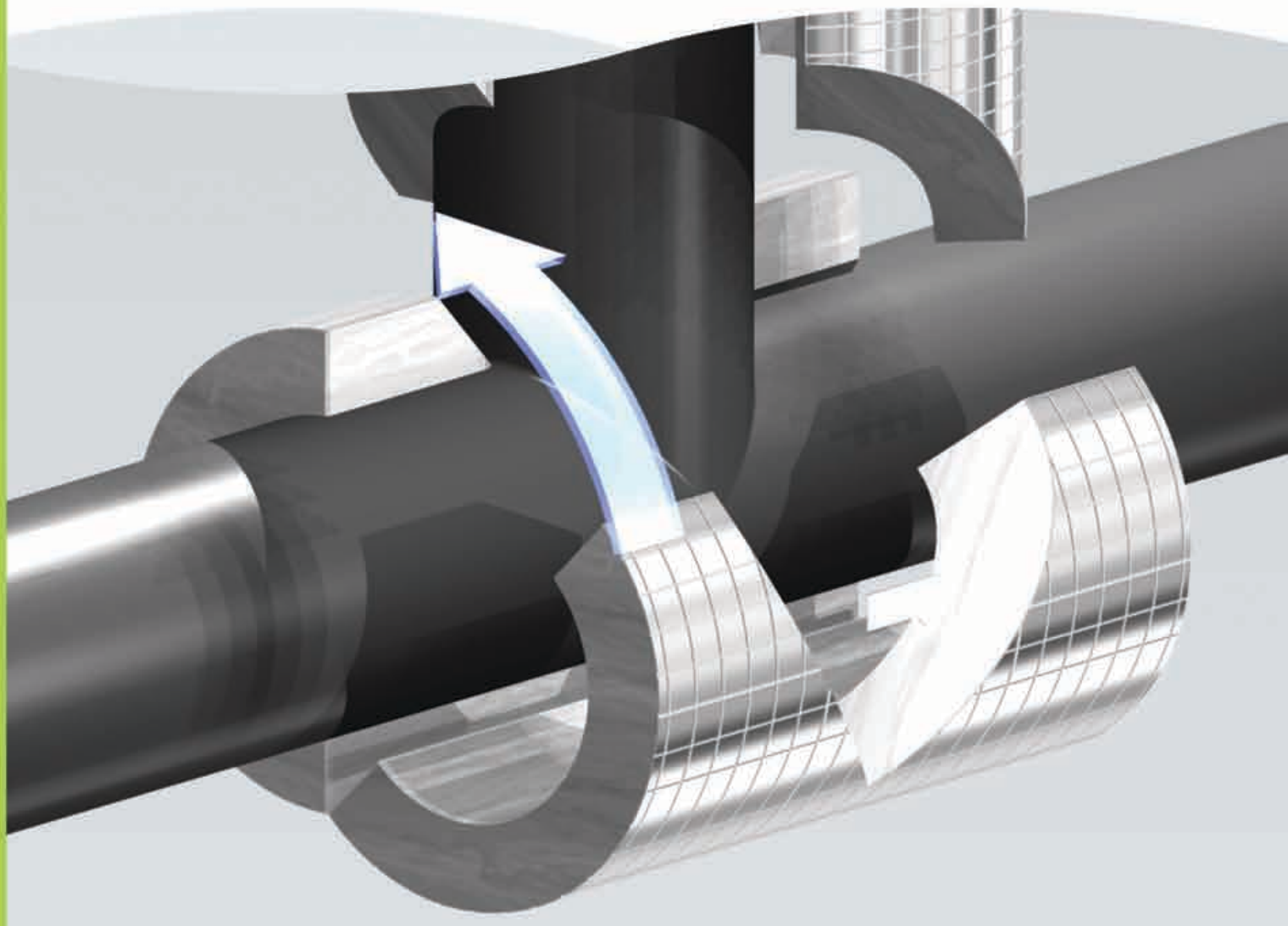
KingspanTarec®

HIGH PERFORMANCE INSULATION

Kooltherm®

Installation Guide

HVAC & Building Services Pipe Insulation




Kooltherm
KingspanTarec

Installation Guide

This installation guide is an extract from the Kooltherm Pipe Insulation Project Specification brochure for building services and HVAC applications.

Kingspan Tarec recommend that Kooltherm Pipe Insulation is installed as a complete system including Kooltherm Insulated Pipe Support Inserts (Appendix B2 and A2).

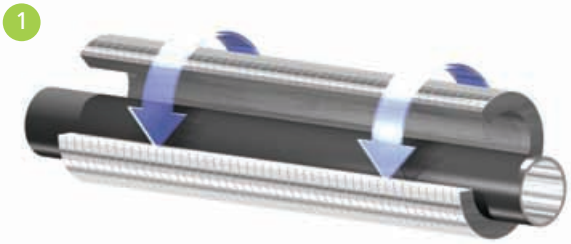
The following guide should be used in conjunction with an appropriate Kooltherm Pipe Insulation Specification.

Appendix A - Application Instructions

A1 Pipework Insulation

a) Straight Pipework

1



Kooltherm® Pipe Insulation sections should be positioned onto the pipe so that the longitudinal joints are facing sideways.

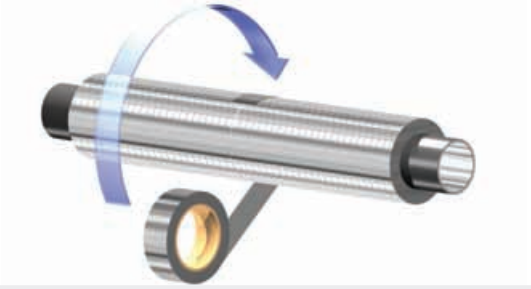
2

Longitudinal joints shall be fully vapour sealed with self-adhesive aluminium foil vapour barrier tape.

3

To ensure maximum adhesion and without crushing the insulation, gently pull the self-adhesive aluminium foil vapour barrier tape tight to seal all joints, and with a flexible plastic spatula / felt squeegee gently exert the necessary amount of pressure.

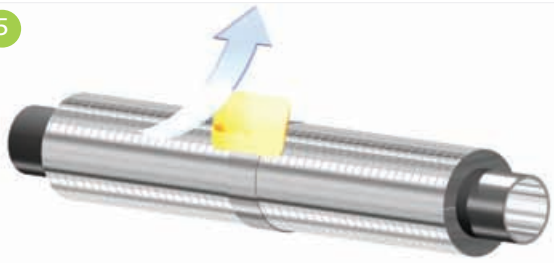
4



Self-adhesive aluminium foil vapour barrier tape shall be applied centrally at all circumferential butt joints of adjoining Kooltherm® Pipe Insulation sections to provide a secure and vapour tight seal.

Longitudinal joints shall be supported by two evenly spaced circumferential bands of self-adhesive aluminium vapour barrier tape.

5



Circumferential seals shall be thoroughly yet gently rubbed with a flexible squeegee to ensure a secure, vapour tight and long-lasting adhesion between the self-adhesive aluminium foil vapour barrier tape and the aluminum foil vapour barrier jacket.

b) Tees

i) Onsite-fabricated - Equal Tees

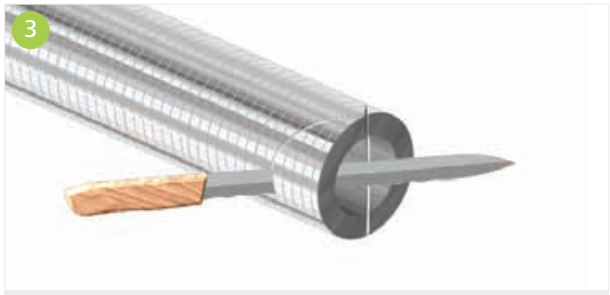
1

With the longitudinal joint positioned upwards, 2 clean 45° angled cuts shall be made with an initial distance equal to the outer diameter of the Kooltherm® Pipe Insulation section to ensure a proper fit of the branch. When the branch pipe diameter is unequal to the main pipe diameter, refer to the instructions for unequal tees in the next section.

2

The length of the main part shall extend at least 50 mm on each side of the branch to facilitate a vapour sealed joint. A clean vertical cut shall be made.

3

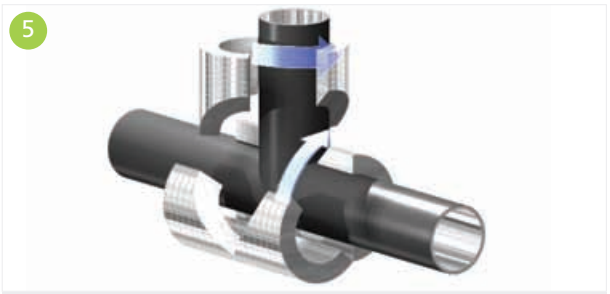


The branch of the tee shall be made by two clean vertical 45° angled cuts.

4

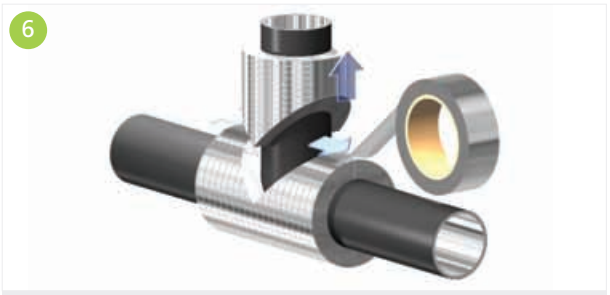
The length of the branch shall extend at least 50 mm to facilitate a vapour sealed joint. A clean vertical cut shall be made.

5



Both parts shall be fitted on the tube with special attention to a closed fit of the coinciding joints.

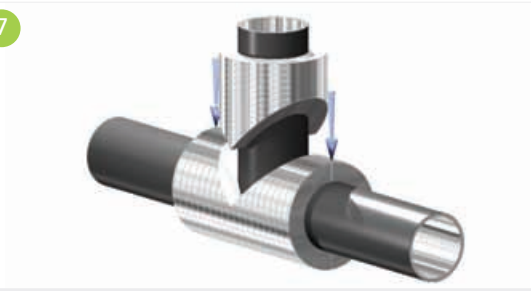
6



The longitudinal joints of both parts shall individually be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

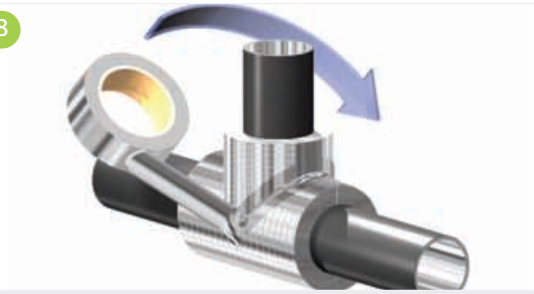
Appendix A - Application Instructions

7



The branch part of the tee shall be slid into position with special attention to a properly closed fit of the joints.

8

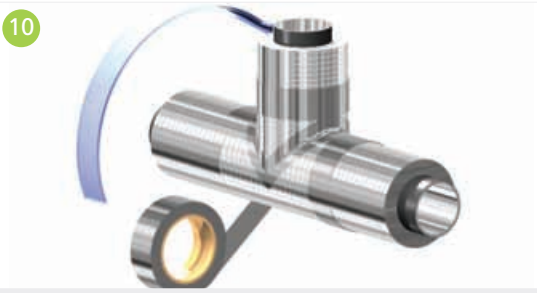


The joints of both parts shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

9

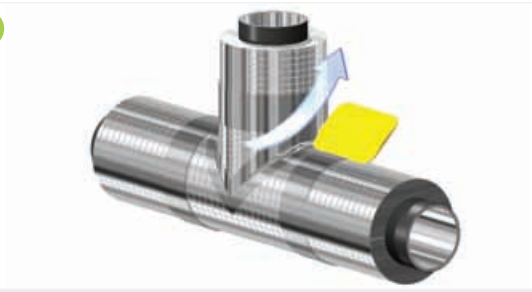
All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

10



When the adjoining Kooltherm® Pipe Insulation sections are fitted and installed, the circumferential joints shall be vapour sealed with appropriate self-adhesive aluminium foil vapour barrier tape.

11



All circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

ii) Onsite-fabricated - Unequal Tees

1

With the longitudinal joint positioned upwards a hole equal to the diameter of the pipe branch shall be made.

2

The length of the main insulation part shall extend at least 50 mm on each side of the insulated branch to facilitate a vapour sealed joint. A clean vertical cut shall be made.

3

A curved cut is made identical to the outer surface of the insulation on the main pipe.

4

The length of the branch insulation part shall extend at least 50 mm to facilitate a vapour sealed joint. A clean vertical cut shall be made.

5

Both parts shall be fitted on the tube with special attention to a closed fit of the coinciding joints.

6

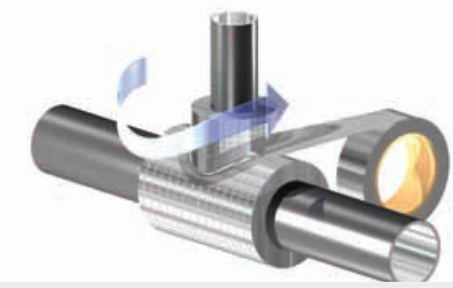
The longitudinal joints of both parts shall individually be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

Appendix A - Application Instructions

7

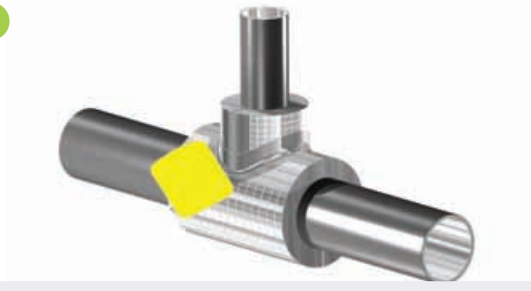
The branch part of the tee shall be slid into position with special attention to a closed fit of the joints.

8



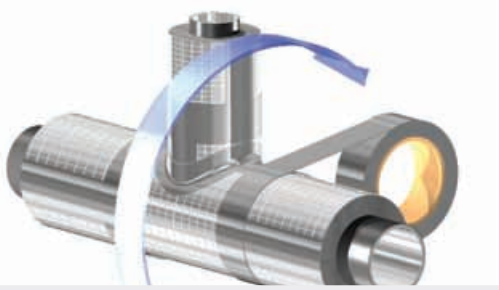
The coinciding joint shall be vapour sealed with an appropriate self-adhesive vapour barrier tape. Enough pressure shall be used to ensure full contact between the insulation parts.

9



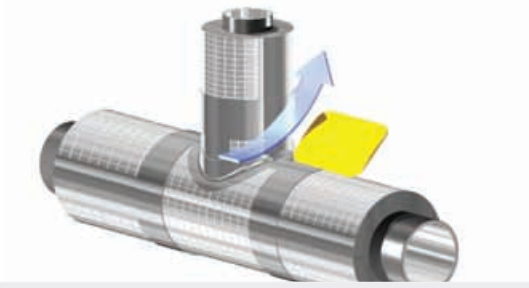
All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

10



WWhen the adjoining Kooltherm® Pipe Insulation sections are fitted and installed, the circumferential joints shall be vapour sealed with appropriate self-adhesive aluminium foil vapour barrier tape.

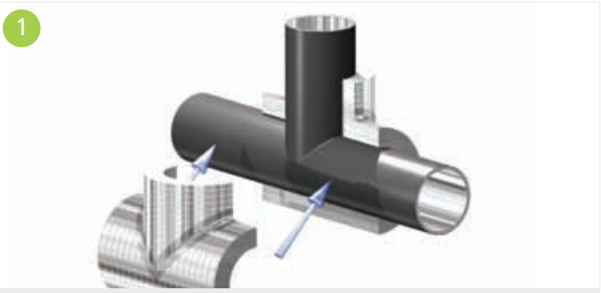
11



All circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

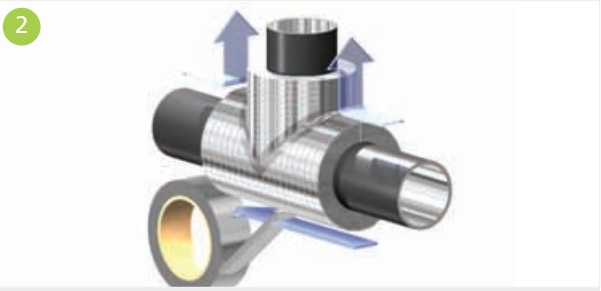
iii) Pre-fabricated

1



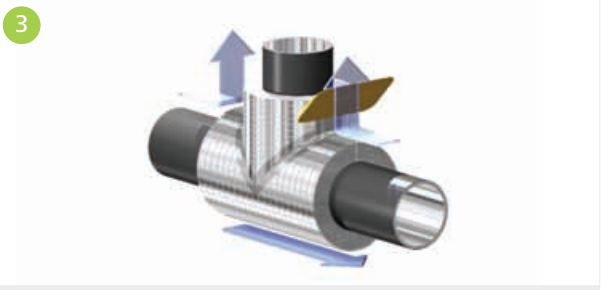
The milled pre-fabricated Kooltherm® tee, made in two halves shall be positioned onto the pipe. Care shall be taken that no gaps arise and a closed fit is ensured.

2



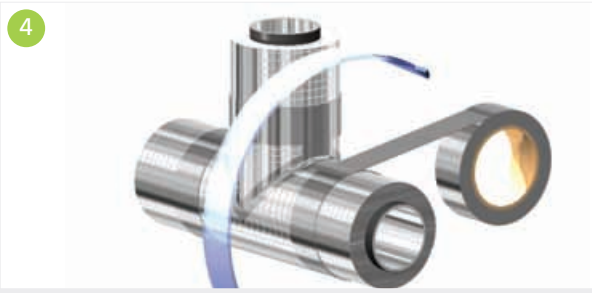
All longitudinal joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

3



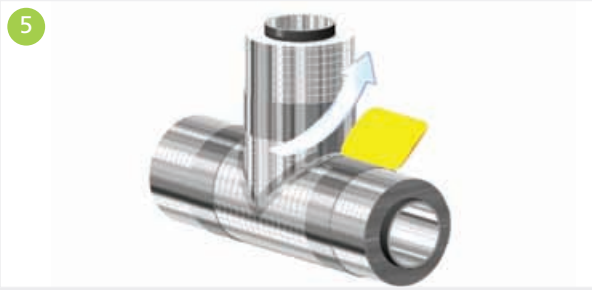
The longitudinal seals shall be thoroughly rubbed with a flexible squeegee to ensure a vapour tight adhesion between the tape and the aluminium foil vapour barrier jacket.

4



When the adjoining Kooltherm® Pipe Insulation sections are fitted and installed, the coinciding circumferential joints shall be vapour sealed with an appropriate self-adhesive vapour barrier tape.

5



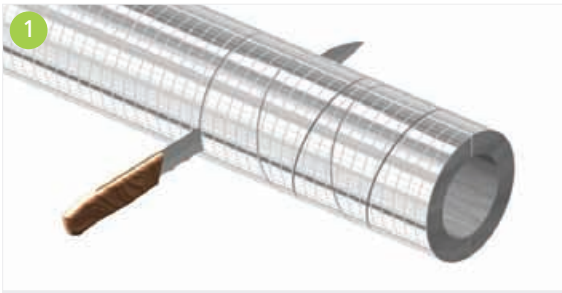
All circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

Appendix A - Application Instructions

c) Bends

i) Onsite-fabricated

1



A Kooltherm® Pipe Insulation section shall be cut into mitred segments. The width of the mitres shall be determined in order to ensure a good contact with the pipe surface. See the design details of Appendix B for more information. The first and last mitre should have one straight side to match the adjoining straight pipe covers and should have a width of at least 50 mm.

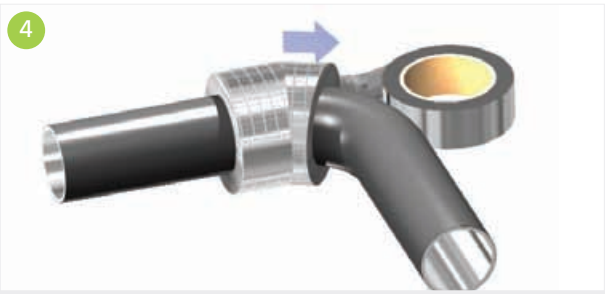
2

The longitudinal joint of each mitre shall individually be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

3

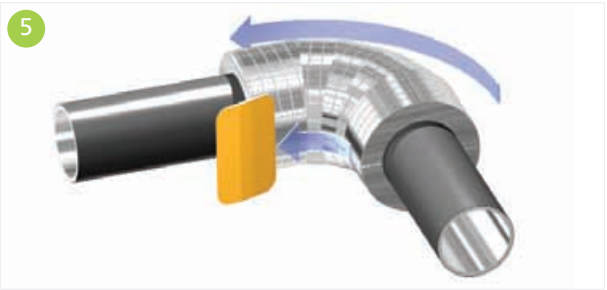
When positioning the next tapered insulation element, care shall be taken that a proper fit is made and no gaps arise in the joints.

4



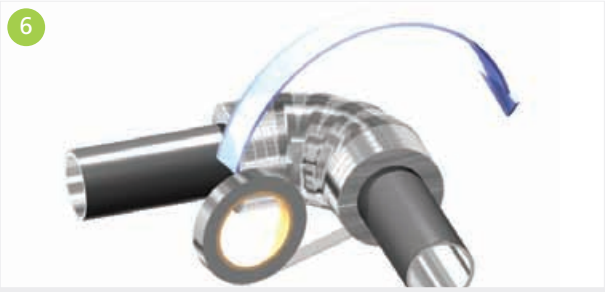
The procedure shall be repeated until the full angle of the elbow is achieved and all longitudinal joints are taped.

5



All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

6

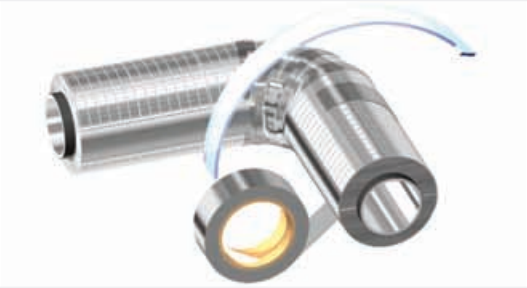


All circumferential joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape. Enough pressure shall be used on the mitred parts to properly close the circumferential joints.

7

All seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

8



When the adjoining Kooltherm® Pipe Insulation sections are fitted and installed, the circumferential joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

9

The connecting circumferential seal shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

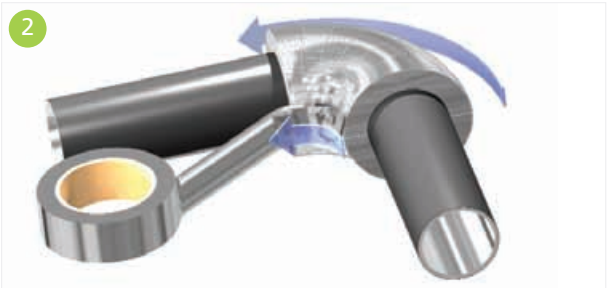
Appendix A - Application Instructions

ii) Pre-fabricated

1

The milled Kooltherm® pre-fabricated elbow shall be placed into position. Care shall be taken that no gaps arise and a close fit is made.

2



Tall longitudinal joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

3

The longitudinal seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

4

When the adjoining Kooltherm® Pipe Insulation sections are fitted and installed, the coinciding circumferential joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

5

The circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

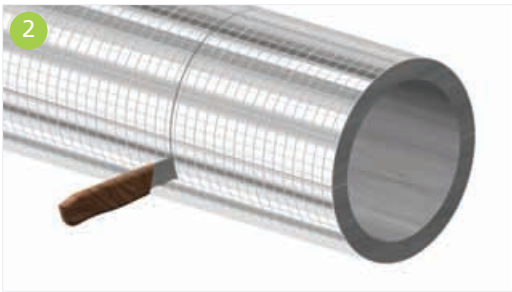
d) Flange boxes

i) Onsite-fabricated

1

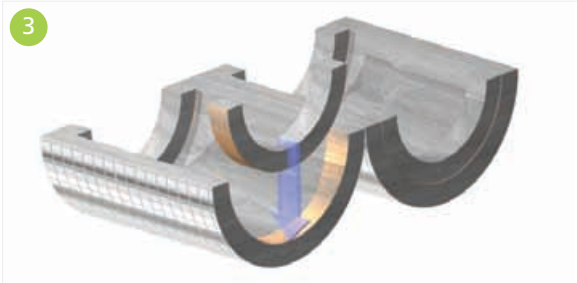
Two filling rings shall be cut with a minimum length equal to the insulation thickness of the adjoining insulated pipe.
A clean vertical cut shall be made. The inner diameter of the filling ring shall be equal to the outer diameter of the insulated line. The outer diameter of the filling ring shall be at least equal to the flange diameter.

2



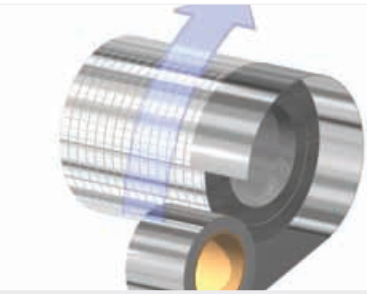
The oversized Kooltherm® Pipe Insulation section shall be cut to length. A clean vertical cut shall be made.

3



The filler rings shall be glued into the oversized ring with appropriate contact glue.

4

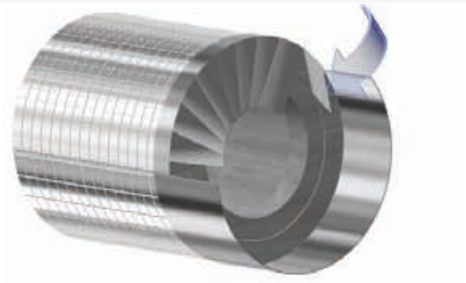


Self-adhesive vapour barrier tape shall be applied at both ends of the flange. The width of the tape shall be selected to facilitate full sealing of the ends.

5

A snap-off blade knife shall be used to divide the self-adhesive aluminium foil vapour barrier tape into small tabs.

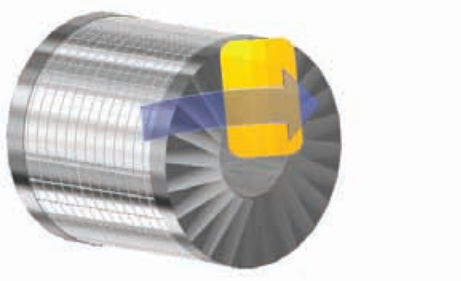
6



Each tab shall be carefully folded over the end side of the flange box.

Appendix A - Application Instructions

7

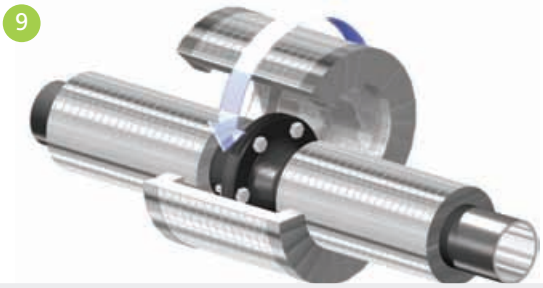


A flexible squeegee shall be used to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

8

A snap-off blade shall be used to remove the excessive tape.

9



The flange box can be placed on to the pipe. Flanges on horizontal lines are to be insulated with the longitudinal joints facing sideways. Joints should never be facing upwards or downwards.

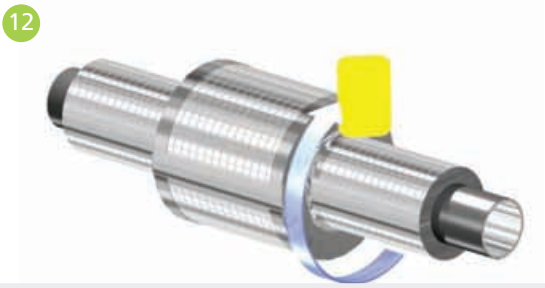
10

The longitudinal joints shall be individually vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

11

The circumferential joints on both sides shall be individually vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

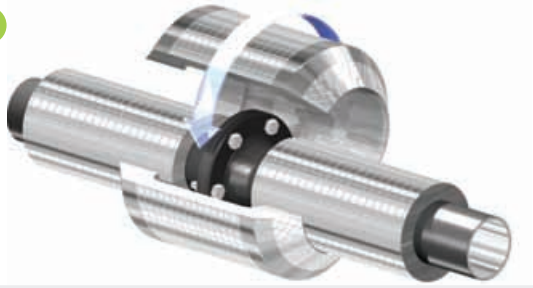
12



All longitudinal and circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

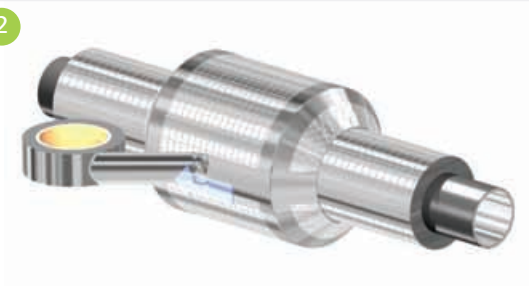
ii) Pre-fabricated

1



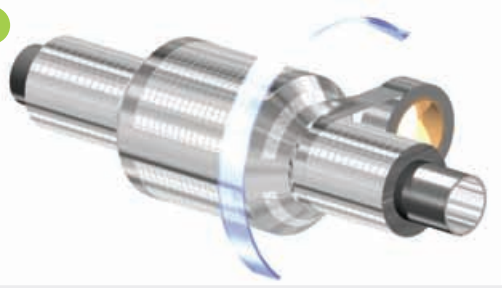
The Kooltherm® pre-fabricated flange box shall be placed on the pipe. Flanges on horizontal lines are to be insulated with the longitudinal joints sideways to prevent penetration of moisture.

2



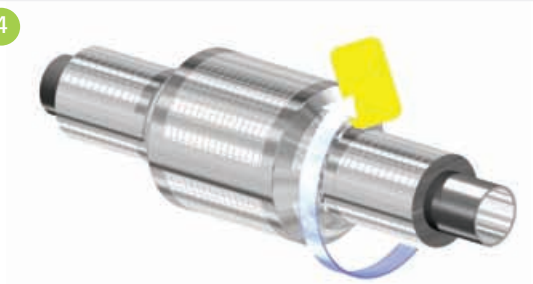
The longitudinal joint shall be individually vapour sealed with an appropriate self-adhesive vapour barrier tape.

3



The circumferential joints on both sides shall be individually vapour sealed with an appropriate self-adhesive vapour barrier tape.

4



All longitudinal and circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

Appendix A - Application Instructions

e) Reductions

i) Onsite-fabricated

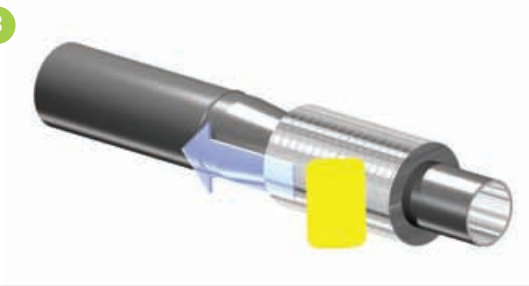
1

The Kooltherm® Pipe Insulation section is placed on the small diameter pipe. Horizontal lines are to be insulated with the longitudinal joints facing sideways to prevent penetration of moisture.

2

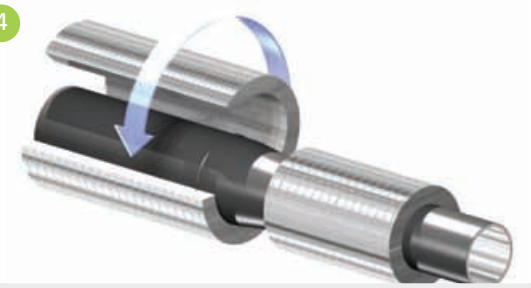
The longitudinal joint shall be vapour sealed with an appropriate self-adhesive vapour barrier tape.

3



The longitudinal seal shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

4



The Kooltherm® Pipe Insulation section is temporarily fitted over the large diameter pipe and slid against the small diameter Kooltherm® Pipe Insulation section.

5

A circumferential marking of the small diameter insulation shall be made on the large diameter front side.

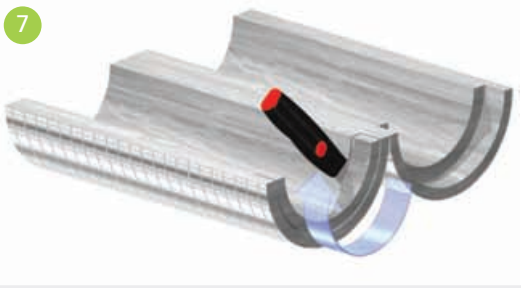
When the outer diameter of the small diameter is smaller than the inner diameter of the large diameter insulation, a filler ring shall be used.

6

A snap-off blade knife shall be used to modify the inner diameter of the large diameter pipe cover, with a depth equal to the insulation thickness.

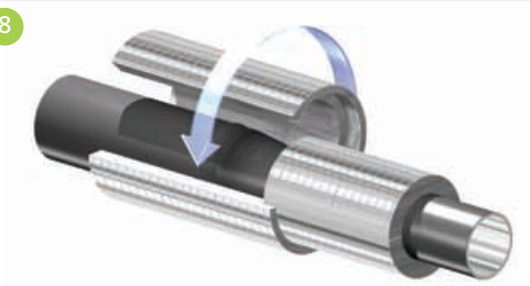
ii) Pre-fabricated

7



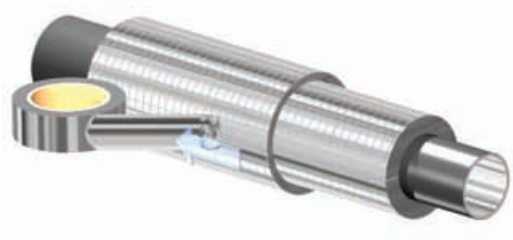
A snap-off blade knife shall be used to modify the inner diameter of the large diameter pipe cover, with a depth equal to the insulation thickness.

8



The Kooltherm® Pipe Insulation section is permanently fitted over the large diameter pipe with an overlap on the smaller diameter Kooltherm® Pipe Insulation section. Care shall be taken that a closed fit is made.

9

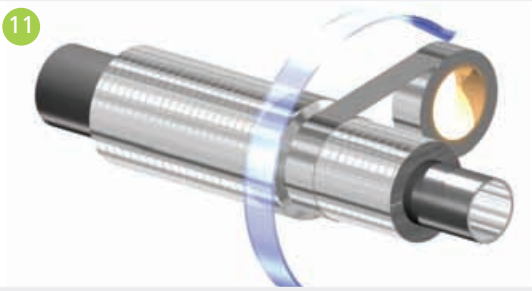


The longitudinal joint shall be vapour sealed with an appropriate self-adhesive vapour barrier tape.

10

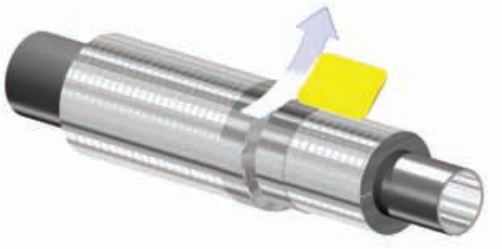
An appropriate self-adhesive vapour barrier tape shall be applied over the coinciding circumferential joint. Width of the tape shall be selected to facilitate a minimum 25 mm cover on both sides of the circumferential joint.

11



The bridging self-adhesive vapour barrier tape shall be secured with an additional seal onto the small diameter Kooltherm® Pipe Insulation section.

12

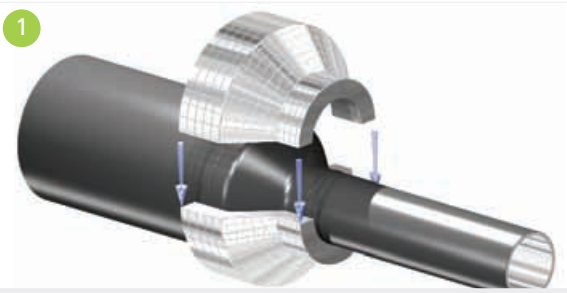


All longitudinal and circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

Appendix A - Application Instructions

ii) Pre-fabricated

1

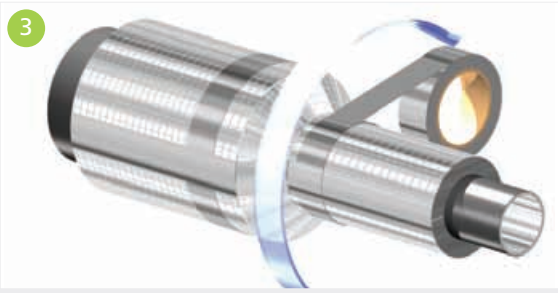


The factory pre-fabricated Kooltherm® milled eccentric or concentric reducer, made in two halves, shall be positioned onto the pipe. Care shall be taken that no gaps arise and a close fit is made.

2

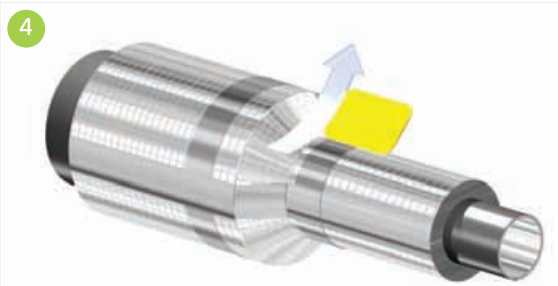
All longitudinal joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

3



The circumferential joints on both sides shall be individually vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape. Kooltherm® milled fittings have 50 mm extended ends to facilitate a proper fit to the adjoining pipe covers.

4



All longitudinal and circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper, vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

A2 Insulated Pipe Support Inserts

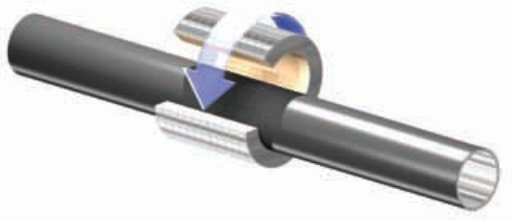
1

For cold applications, the inner surface of the Kooltherm® Insulated Pipe Support Inserts shall be fully coated with an appropriate joint sealant.

2

The longitudinal joints of the Kooltherm® Insulated Pipe Support Inserts shall also be fully coated with the joint sealant.

3

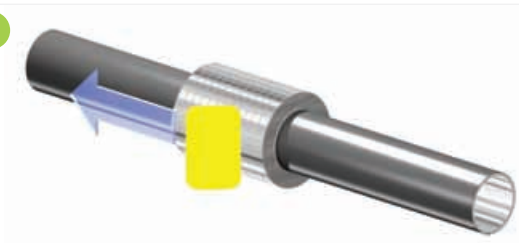


The Kooltherm® Insulated Pipe Support Inserts are placed on the pipe. Support inserts on horizontal lines are to be insulated with the longitudinal joints facing sideways.

4

The longitudinal joints shall be fully vapour sealed with self-adhesive aluminium foil vapour barrier tape.

5



A flexible squeegee is used to ensure a vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

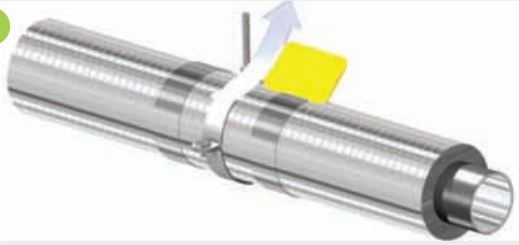
6

When the clamp is installed, care must be taken that the aluminium foil vapour barrier jacket of the Kooltherm® Insulated Pipe Support Inserts is not damaged in any way.

7

When the adjoining Kooltherm® Pipe Insulation sections are in place, the coinciding circumferential joints shall be vapour sealed with an appropriate self-adhesive aluminium foil vapour barrier tape.

8

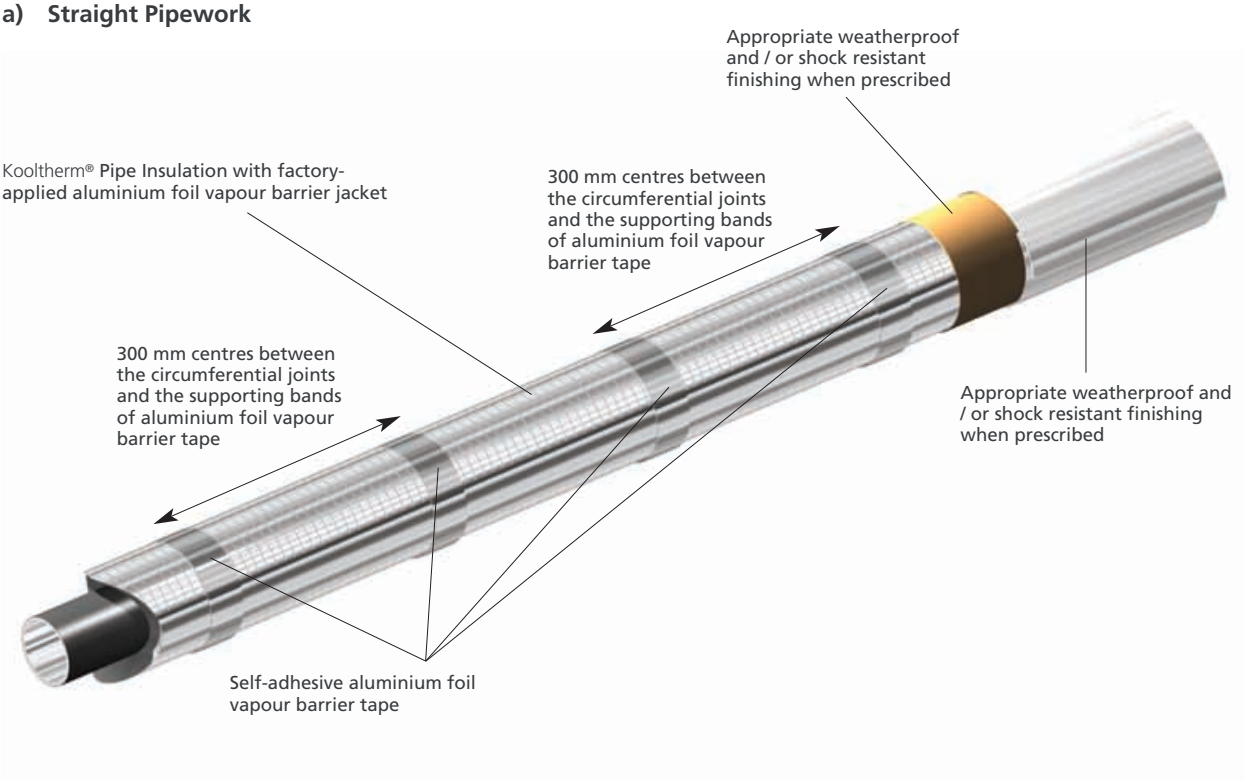


All circumferential seals shall be thoroughly rubbed with a flexible squeegee to ensure a proper vapour tight and lasting adhesion between the tape and the aluminium foil vapour barrier jacket.

Appendix B - Design Details

B1 Pipework Insulation

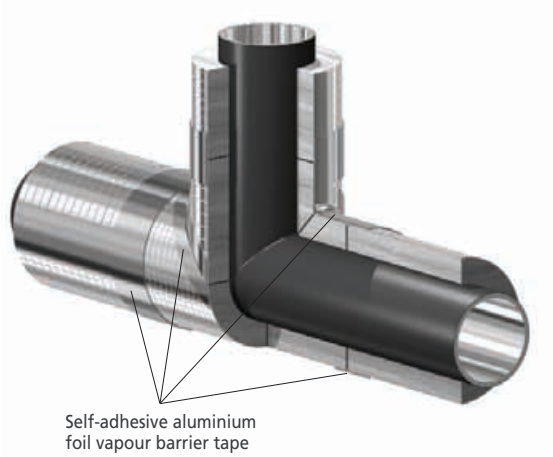
a) Straight Pipework

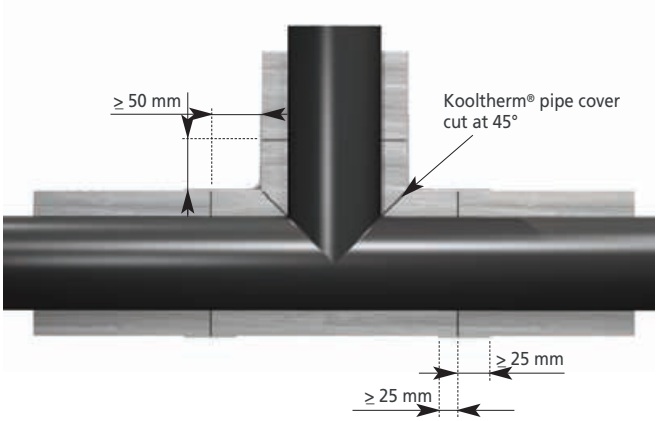


Acceptable foils, paints, protective finishes and weatherproofing.
Refer to Section 2.7 of the Project Specification of the project specification for more details

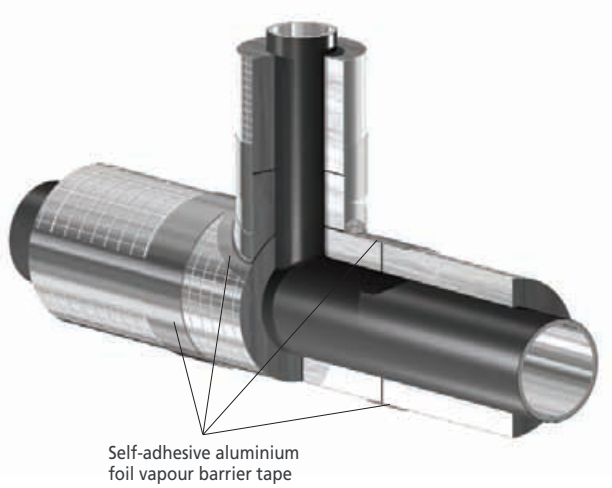
Purpose	Occurrence	Solution
Protection against the ingress of moisture and water vapour	The Kooltherm® Pipe Insulation System should always be faced with a fully sealed vapour barrier.	When the aggravating circumstances as described in the Project Specification, do not apply, the factory-applied aluminium vapour barrier foil will provide sufficient protection under standard circumstances. In all cases, the vapour barrier must be fully vapour sealed as described in the instructions.
Condensation control	When ambient circumstances are such that a high risk of condensation may occur, e.g. tropical areas or humid environments.	The external surface shall be finished with a matte and preferably dark grey or black paint or mastic in accordance with the project specification.
Decorative finish	When pipework is installed in areas that are visible.	The external surface shall be finished with a paint or coating that is compatible with the vapour barrier material and is in accordance with the project specification.
Mechanical protection	When pipework is installed in areas where the risk of damage to the vapour barrier is high.	The surface shall be finished with : 1. Metal cladding, applied in accordance with the project specification; 2. Glass cloth reinforced vapour barrier mastic applied in accordance with the project specification ; 3. Heavy duty vapour barrier foil applied in accordance with the project specification.
Weatherproofing	When pipework is installed externally.	The surface shall be finished with : 1. Weatherproof, watertight metal cladding, applied in accordance with the project specification ; 2. Glass cloth reinforced weatherproof vapour barrier mastic applied in accordance with the project specification ; 3. Weatherproof, watertight aluminium / butyl vapour barrier foil applied in accordance with the project specification.

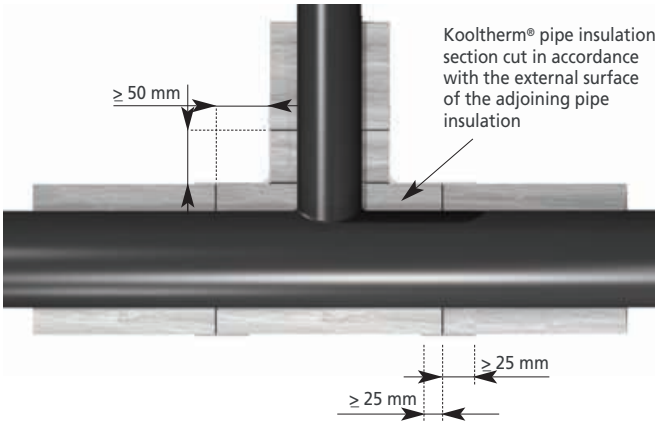
b) Equal Tees





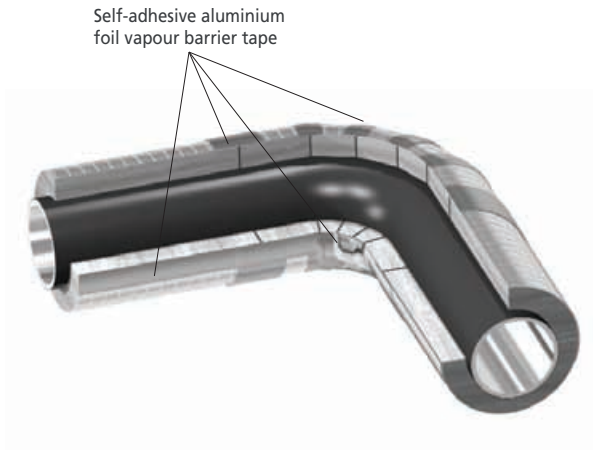
c) Unequal Tees

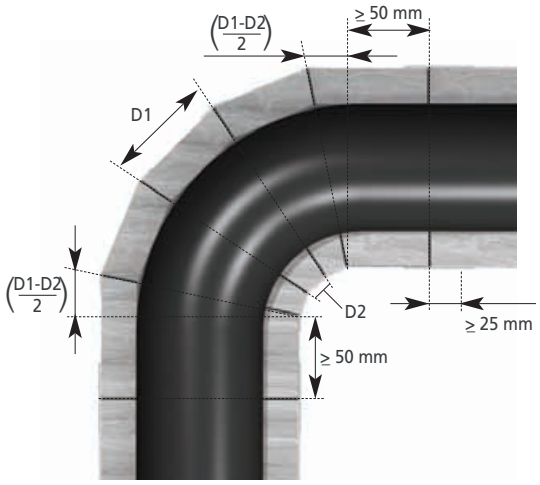




Appendix B - Design Details

d) Bends (3S / 1.5D)



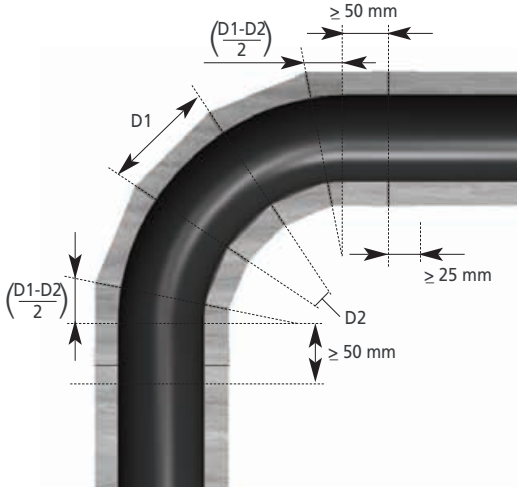


Width D1 & D2 of Mitred Elbow Segments

Diameter	Radius	Nr. of mitres / elbow		Width D1 & D2 of mitred elbow segments (mm)													
				Thickness 15 mm		Thickness 20 mm		Thickness 25 mm		Thickness 30 mm		Thickness 35 mm		Thickness 40 mm		Thickness 50 mm	
(mm)	(mm)	90°	45°	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
17	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	48	1	0	70	10	74	6	78	2	-	-	-	-	-	-	-	-
48	57	1	0	80	15	84	11	88	7	92	3	96	0	-	-	-	-
60	76	4	2	48	12	49	10	51	8	53	6	55	4	57	2	-	-
76	95	4	2	58	16	60	15	62	13	64	11	66	9	68	7	72	3
89	115	4	2	69	22	70	20	72	18	74	16	76	14	78	12	82	8
102	134	4	2	79	27	81	25	82	23	84	21	86	19	88	17	92	13
108	143	4	2	83	29	85	27	87	25	89	23	91	21	93	19	97	15
114	153	4	2	88	32	90	30	92	28	94	26	96	24	98	22	102	18
127	175	6	3	66	25	68	24	69	23	70	21	72	20	73	19	76	16
133	181	6	3	69	26	70	25	71	23	73	22	74	21	75	20	78	17
140	191	6	3	72	28	74	26	75	25	76	24	77	23	79	21	81	19
159	216	6	3	81	32	83	30	84	29	85	28	87	27	88	25	90	23
168	229	6	3	86	34	87	33	88	31	90	30	91	29	92	27	95	25
178	229	6	3	87	33	88	31	90	30	91	29	92	27	94	26	96	24
194	270	6	3	100	41	101	40	103	39	104	37	105	36	107	35	109	32
219	305	6	3	112	47	114	46	115	45	116	43	118	42	119	41	122	38
245	340	8	4	94	40	95	39	96	38	97	37	98	36	99	35	101	33
268	378	8	4	103	45	104	44	105	43	106	42	107	41	108	40	110	38
273	381	8	4	105	45	106	44	107	43	108	42	108	41	109	40	111	38
324	457	8	4	124	55	125	54	126	53	127	52	128	51	129	50	131	48
356	534	8	4	143	67	144	66	145	65	146	64	147	63	148	62	150	60
368	534	8	4	144	66	145	65	146	64	147	63	148	62	149	61	151	59

• = *No mitred bend required. 45° cut elbow shall be used.*

e) Bends (5S / 2.5D)



Width D1 & D2 of Mitred Elbow Segments

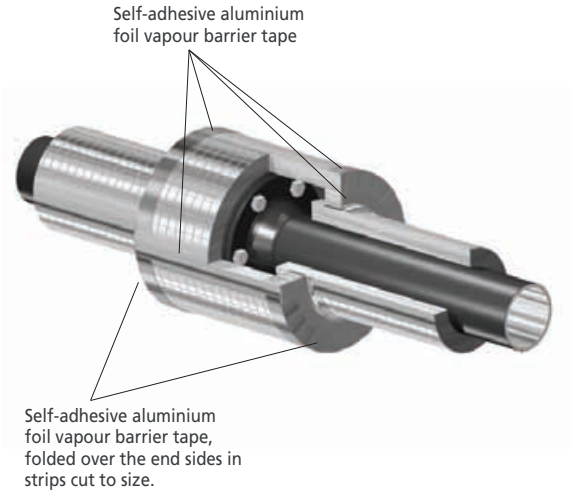
Diameter	Radius	Nr. of mitres / elbow		Width D1 & D2 of mitred elbow segments (mm)													
				Thickness 15 mm		Thickness 20 mm		Thickness 25 mm		Thickness 30 mm		Thickness 35 mm		Thickness 40 mm		Thickness 50 mm	
(mm)	(mm)	90°	45°	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2	D1	D2
21	43	1	0	57	15	61	10	-	-	-	-	-	-	-	-	-	-
27	58	1	0	72	24	76	20	80	16	84	12	88	8	92	4	-	-
34	73	1	0	87	34	91	30	95	26	99	22	104	18	108	13	116	5
42	93	4	2	51	22	53	20	55	18	57	16	59	15	60	13	64	9
48	108	4	2	58	27	60	25	62	23	64	21	66	19	68	17	71	13
60	135	4	2	71	35	73	33	75	31	77	29	79	27	81	26	84	22
76	175	4	2	90	48	91	46	93	44	95	42	97	40	99	38	103	34
89	205	4	2	104	57	106	55	108	53	110	51	112	49	114	47	118	43
102	238	4	2	119	68	121	66	123	64	125	62	127	60	129	58	133	54
108	250	4	2	125	71	127	69	129	67	131	65	133	63	135	61	139	57
114	270	4	2	134	78	136	76	138	74	140	72	142	70	144	68	148	64
127	300	6	3	99	58	100	57	102	55	103	54	104	53	106	51	108	49
133	313	6	3	103	61	105	59	106	58	107	57	109	55	110	54	112	51
140	330	6	3	109	64	110	63	111	62	113	60	114	59	115	58	118	55
159	375	6	3	123	73	124	72	126	71	127	70	128	68	129	67	132	64
168	390	6	3	128	76	129	75	131	74	132	72	133	71	135	70	137	67
178	390	6	3	129	75	131	74	132	72	133	71	135	70	136	68	138	66
194	455	6	3	148	90	150	88	151	87	152	86	154	85	155	83	158	81
219	510	6	3	166	101	167	100	169	98	170	97	171	96	173	94	175	92
245	580	8	4	141	87	142	86	143	85	144	84	145	83	146	82	148	80
268	635	8	4	154	95	155	94	156	93	157	92	158	91	159	91	161	89
273	650	8	4	157	98	158	97	159	96	160	95	161	94	162	93	164	91
324	775	8	4	187	117	188	116	189	115	190	114	191	113	192	113	194	111
356	850	8	4	205	129	206	128	207	127	208	126	209	125	210	124	212	122
368	880	8	4	212	134	213	133	214	132	215	131	216	130	217	129	219	127

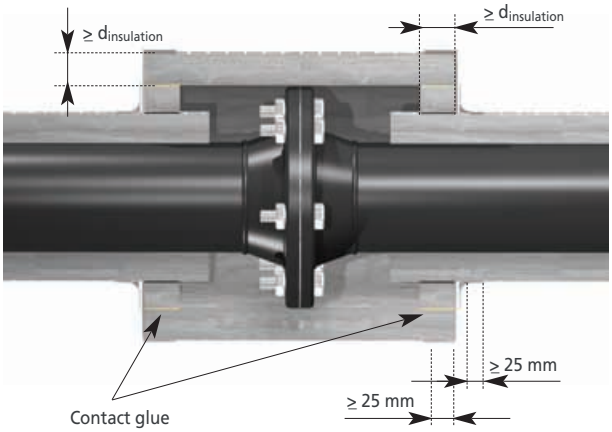
• - = *No mitred bend required. 45° cut elbow shall be used.*

Appendix B - Design Details

f) Valve & Flange Boxes

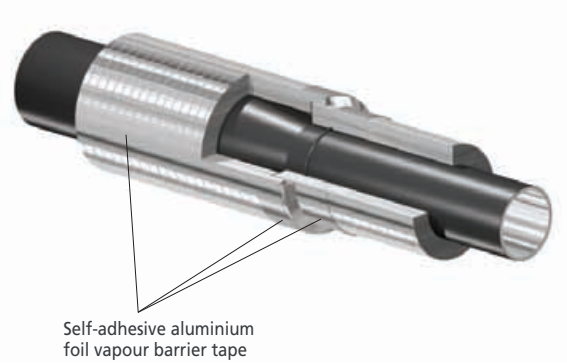
i) Assembled Box Method

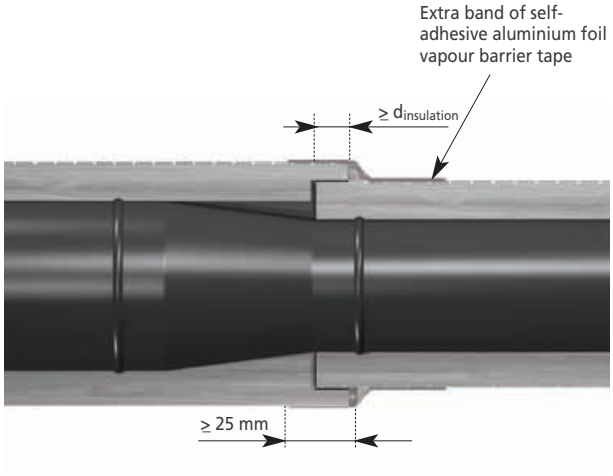




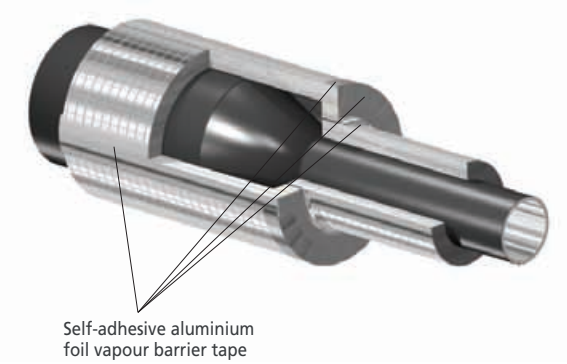
g) Reducers

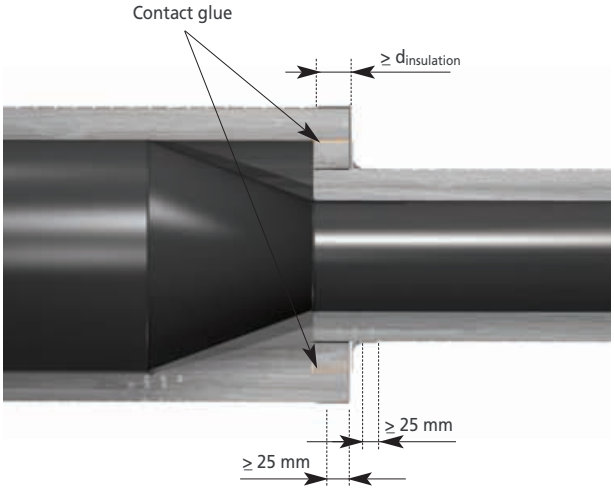
i) Overlap Method





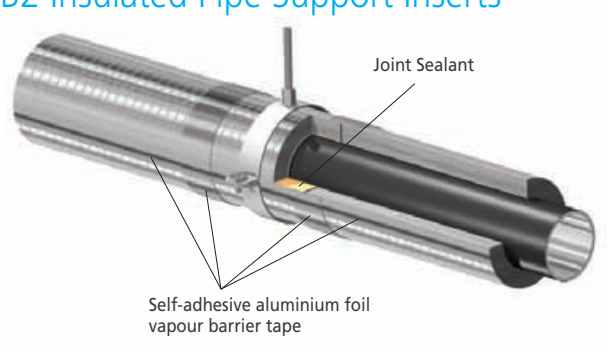
ii) Assembled Box Method

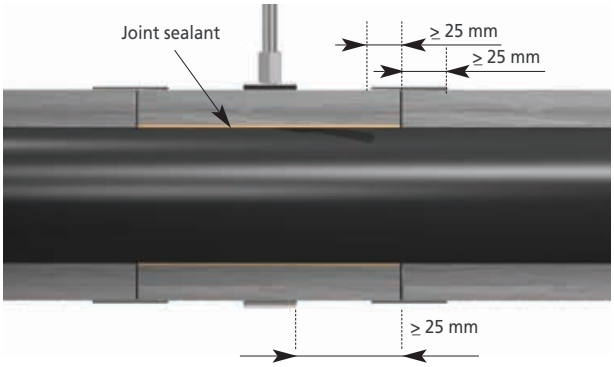




Appendix B - Design Details

B2 Insulated Pipe Support Inserts





Kooltherm® Insulated Pipe Support Inserts are available to suit a full range of pipe diameters and in a full range of insulation thicknesses as shown in the following table; however, special sizes are available on request.

Load bearing calculations for the standard range of Kooltherm® Insulated Pipe Support Inserts are based upon the minimum compressive strength of the relevant density and include a safety factor of five. They are designed to support the maximum static compressive loads imposed by horizontal water filled mild steel and copper pipework with hanger supports spaced at the maximum centres shown below. Kooltherm® Insulated Pipe Support Inserts are not designed to accommodate pipe anchor loads and stresses.

Steel Pipe

Steel Pipe Size			Kooltherm® Insulated Pipe Support Inserts				
DN (in)	DN (mm)	OD (mm)	Length (mm)	Max. Pressure (kg)	Max. Pressure (N)	Support Distance (m)	Density (kg/m³)
½	15	21.3	75	12	117.7	3	80
¾	20	26.9	75	15	147.2	3	80
1	25	33.7	75	19	186.4	3	80
1¼	32	42.4	75	23	225.6	3	80
1½	40	48.3	75	27	264.9	4	80
2	50	60.3	75	33	323.7	4	80
2½	65	76.1	100	62	608.2	4	80
3	80	88.9	100	73	716.1	4	80
4	100	114.3	100	94	922.1	4	80
5	125	139.7	100	115	1128.2	6	80
6	150	168.3	125	410	4022.1	6	120
8	200	219.1	125	534	5238.5	6	120
10	250	273.0	125	666	6533.5	6	120
12	300	323.9	200	1265	12409.7	6	120
14	350	355.6	200	1389	13626.1	6	120
16	400	406.4	200	1585	15548.9	6	120
18	450	457.0	200	1784	17501.0	6	120

Values given are based upon Kooltherm® insulated pipe support inserts with an integral spreader plate.

Copper Pipe

Steel Pipe Size			Kooltherm® Insulated Pipe Support Inserts				
DN (in)	DN (mm)	OD (mm)	Length (mm)	Max. Pressure (kg)	Max. Pressure (N)	Support Distance (m)	Density (kg/m³)
-	-	15	75	9	88.3	3	80
-	-	22	75	12	117.7	3	80
-	-	28	75	15	147.2	3	80
-	-	35	75	19	186.4	3	80
-	-	42	75	23	225.6	3	80
-	-	54	75	30	294.3	4	80
-	-	76	100	45	441.5	4	80
-	-	108	100	62	608.2	4	80

Values given are based upon Kooltherm® insulated pipe support inserts with an integral spreader plate.

KingspanTarec®

HIGH PERFORMANCE INSULATION

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