

DVAC

DUCT VENTILATION AIR CONDITIONING Co. (W.L.L.)

Jacketing Catalogue



Jacketing of Chilled Water Pipes & Rectangular Ducts

Materials: Aluminum Stucco Embossed or Plain Metal,
Stainless Steel 316 or 304 & Galvanized



Jacketing of Chilled Water Pipes

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Jacketing of Rectangular Ducts

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DVAC, One Of The Premium Workshops Specialized in Duct Fabrication has Executed Several Kind of Projects (Residential, Commercial, Industrial, Institutional, Governmental, Stadiums & Metro Stations).

DESCRIPTION

Aluminum Jacketing products are used intensively in Mechanical Insulation Pipes, Rectangular Ducts and Tank Coverings as a protective membrane for the insulation against weather, corrosion & mechanical abuse. Aluminum Jacketing is manufactured using Alloy that complies with ASTM B209, Alloy 3003, 3005, 3105, or 5005, Temper H14. Thicknesses used for the Jacketing are of 0.5mm, 0.6mm, 0.8mm, 1.0mm and 1.2mm.



STUCCO EMBOSSED FINISH

The Stucco-like surface texture hides small scratches and imperfections, caused by physical damage during or after installation. This finish also reduces reflectivity while still looking very professional. The use of stucco embossed finish provides a small increase to the rigidity and strength of the Aluminum Jacketing.

DVAC recommends the use of Aluminum Stucco Embossed for the Jacketing of Chilled Water Pipes.



SMOOTH (Plain Mill) FINISH

The Plain finish is very popular for the many end-users who prefer the clean look of this finish. This finish sheds rain water the best. This smooth surface readily shows damage such as from hail or any physical abuse. It also shows the dust/dirt more than the other finishes due to its smoothness.

The plain finish is highly reflective of sunlight specially when located near roadways; some end-users see this reflection as a possible safety hazard.

POLYKRAFT MOISTURE BARRIER

Polykraft consists of one layer of one mil polyethylene film with a protective layer of 40# virgin kraft paper.

Moisture barrier is factory applied by attaching the jacketing by continuous lamination to the full width of the metal.

Moisture barrier is used to prevent moisture and corrosives in the insulation from coming into direct contact with the metal jacketing surface and causing galvanic or chemical corrosion.



* Materials Used for Jacketing:

- Aluminum Stucco Embossed Or Plain Metal: (Standard) Complying with ASTM B209, Alloy 3003, 3005, 3105, or 5005, Temper H14.
- Galvanized Steel: (Optional) L.F.Q. Complying with ASTM A653 & Having G90 Coating Designation.
- Stainless Steel: (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.

METHOD OF STATEMENT

Jacketing Procedures:

A- Chilled Water Pipes

1. First site visit is to take dimensions of Insulated Chilled Water Pipes.
2. Fabrication of Jacketing sheets for Chilled Water Pipes shall be at DVAC Factory by Cut-line machine, then rolling and bending.
3. Fixation on site (seam by self-screw).
4. Second site visit is to take dimensions of Fittings between straights.
5. Fabrication of Jacketing sheets for fittings shall be at DVAC Factory using CNC Plasma Cutting machine, then rolling and bending.
6. Fixation on Site (seam by self-screw except the valves to be fixed by Slash Lock)

B- Rectangular Ducts

1. First site visit is to take dimensions of Straight Rectangular Ducts.
2. Fabrication of Jacketing sheets for Straight Rectangular Ducts shall be at DVAC Factory by Coil Line machine then to the bending.
3. Fixation on Site (Pittsburgh Lock Seam).
4. Second site visit is to take dimensions of Fittings between straights.
5. Fabrication of Jacketing Sheets for Fittings shall be at DVAC Factory by CNC Plasma Cutting machine then to the bending.
6. Fixation on Site (Pittsburgh Lock Seam)

C- Checking quality of executed work and removing residual on site.

D- Ready for Inspection.



Jacketing Thickness for Chilled Water Pipes

Jacketing Diameter (mm)	Materials Thickness (mm)		
	Aluminum	SS304, 316	Galvanized
60 - 350	0.6	0.5	0.5
355 - 500	0.8	0.6	0.6
505 - 1500	0.8	0.8	0.8
1505 - 2400	1.0	1.0	1.0

Jacketing Thickness for Rectangular Ducts

Jacketing Dimension (mm)	Materials Thickness (mm)		
	Aluminum	SS304, 316	Galvanized
150 - 400	0.6	0.5	0.5
405 - 900	0.8	0.6	0.6
905 - 1500	0.8	0.8	0.8
1505 - 2400	1.0	1.0	1.0
2405 - 3000	1.2	1.0	1.0

Indoor : - Jacketing around perimeter of the duct, lapped and strapped.

Outdoor : - Jacketing around perimeter of the duct, lapped and strapped.
All joints sealed or flashed to prevent water infiltration.

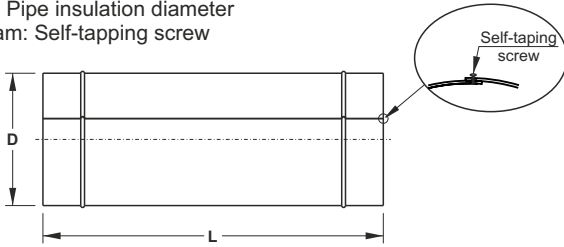
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- Stainless Steel: (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.

STRAIGHT & FITTINGS

Pipe Jacketing

- PJ
- L: Standard Length: 1220mm
- D = Pipe insulation diameter
- Seam: Self-tapping screw



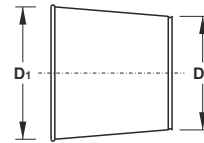
Ordering example:
AL S PJ 200

Material _____
Type or Grade _____
Code _____
Dimension D _____

A

Reducer Jacketing

- RJ
- D = Pipe insulation diameter



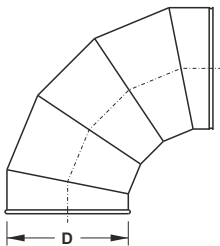
Ordering example:
AL S RJ 200 150

Material _____
Type or Grade _____
Code _____
Dimension D1 _____
Dimension D2 _____

B

Bend 90° Jacketing

- B90°J
- D = Pipe insulation diameter
- Minimum 5-Gore (Number of Gore Depends on Inner Radius)
- Male Female Beading Connection between segments



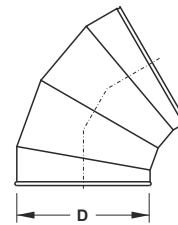
Ordering example:
AL S B90°J 200

Material _____
Type or Grade _____
Code _____
Dimension D _____

C

Bend 60° Jacketing

- B60°J
- D = Pipe insulation diameter
- Minimum 4-Gore (Number of Gore Depends on Inner Radius)
- Male Female Beading Connection between segments



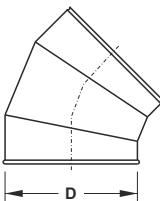
Ordering example:
AL S B60°J 200

Material _____
Type or Grade _____
Code _____
Dimension D _____

D

Bend 45° Jacketing

- B45°J
- D = Pipe insulation diameter
- Minimum 3-Gore (Number of Gore Depends on Inner Radius)
- Male Female Beading Connection between segments



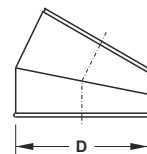
Ordering example:
AL S B45°J 200

Material _____
Type or Grade _____
Code _____
Dimension D _____

E

Bend 30° Jacketing

- B30°J
- D = Pipe insulation diameter
- Minimum 2-Gore (Number of Gore Depends on Inner Radius)
- Male Female Beading Connection between segments



Ordering example:
AL S B30°J 200

Material _____
Type or Grade _____
Code _____
Dimension D _____

F

* Materials Used for Jacketing:

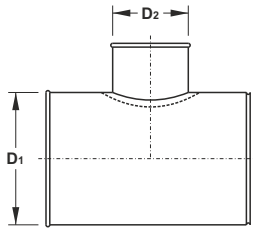
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- Galvanized Steel: (Optional) L.F.Q. Complying with ASTM A653 & Having G90 Coating Designation.
- Stainless Steel: (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.

* Seam: Self Tapping Screw

FITTINGS

Tee Jacketing

- TJ
- D₁ = Pipe insulation diameter
- D₂ = Branch insulation diameter

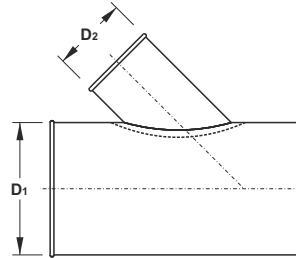


Ordering example:
AL S TJ 200 150
 Material _____
 Type or Grade _____
 Code _____
 Dimension D₁ _____
 Dimension D₂ _____

G

Tee 45° Jacketing

- TJ 45°
- D₁ = Pipe insulation diameter
- D₂ = Branch insulation diameter

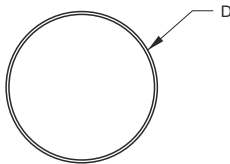


Ordering example:
AL S TJ45° 200 150
 Material _____
 Type or Grade _____
 Code _____
 Dimension D₁ _____
 Dimension D₂ _____

H

End Cap Jacketing

- ECJ
- D = Pipe insulation diameter

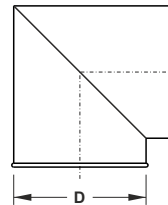


Ordering example:
AL S ECJ 200
 Material _____
 Type or Grade _____
 Code _____
 Dimension D _____

I

Bend 90° Segment Jacketing

- B90°2SJ
- D = Pipe insulation diameter
- Male Female Beading Connection between segments

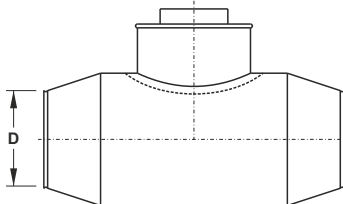


Ordering example:
AL S B90°2SJ 200
 Material _____
 Type or Grade _____
 Code _____
 Dimension D _____

J

Valve Box Jacketing

- VBJ
- D = Pipe insulation diameter
- Seam: Slash Lock



Seam Slash Lock

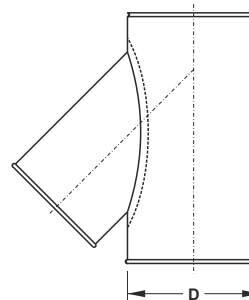


Ordering example:
AL S VBJ 200
 Material _____
 Type or Grade _____
 Code _____
 Dimension D _____

K

Strainer Box Jacketing

- SBJ
- D = Pipe insulation diameter



Ordering example:
AL S SBJ 200
 Material _____
 Type or Grade _____
 Code _____
 Dimension D _____

L

* Materials Used for Jacketing:

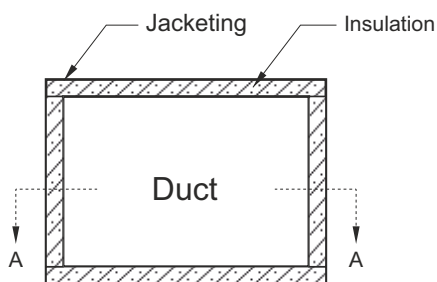
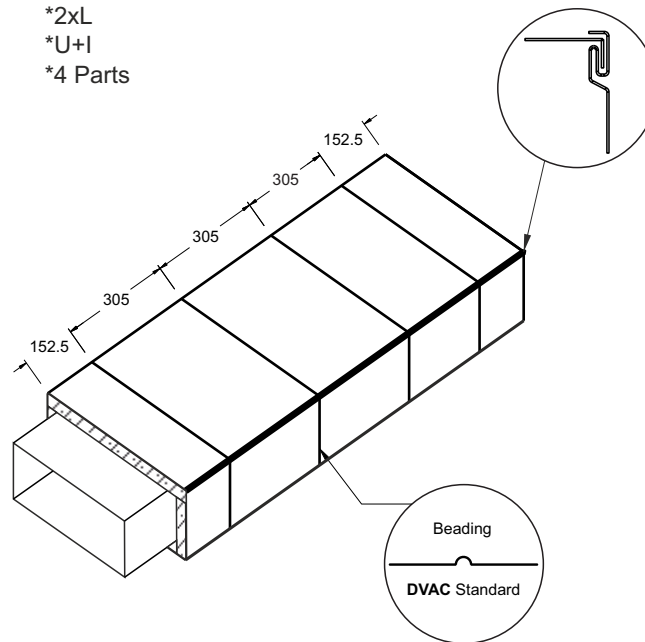
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- Stainless Steel: (Optional) Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.

* Seam: Self Tapping Screw

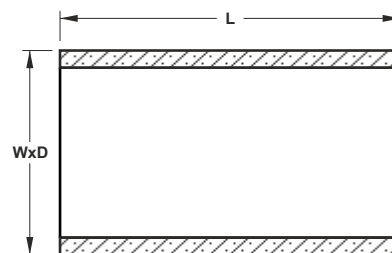
STRAIGHT RECTANGULAR JACKETING

- **RJ**
- Straight Jacketing shall be Beaded or Crossbroken
- L= Standard Length 1220mm - (Minus) Connector Type
- (WxD) = Duct Dimension + Thickness Insulation

- Pittsburgh Lock Seam
- Straight Type as per Dimension:
 - *1 Part Straight
 - *2xL
 - *U+I
 - *4 Parts



Front View



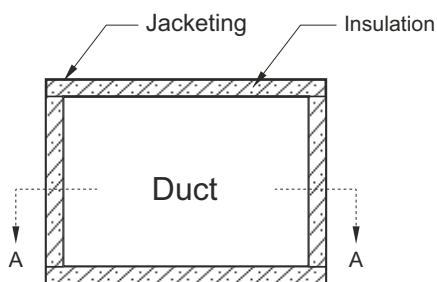
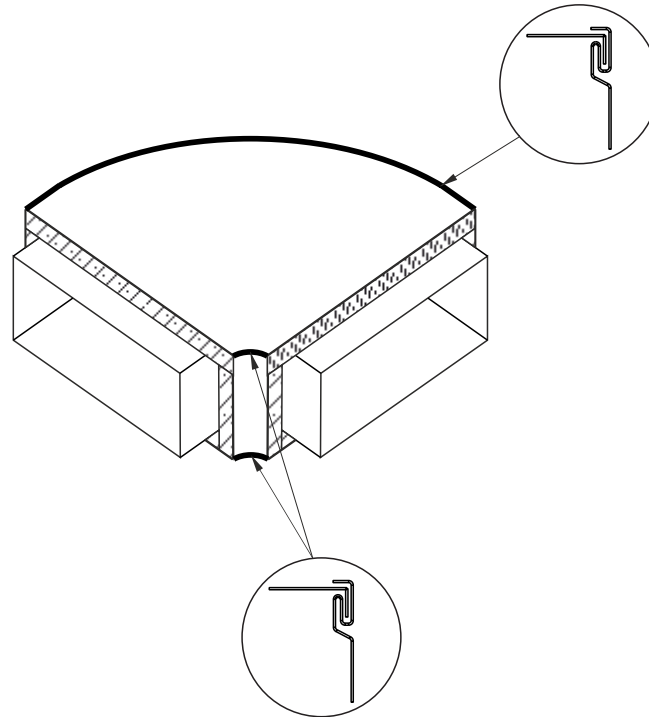
Section A-A

* Materials Used for Jacketing:

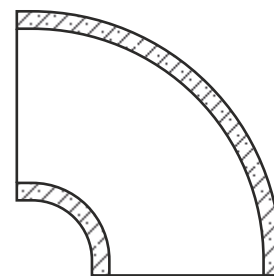
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FITTING RECTANGULAR JACKETING

- RJ
- (WxD) = Duct Dimension + Thickness Insulation
- Pittsburgh Lock Seam



Front View

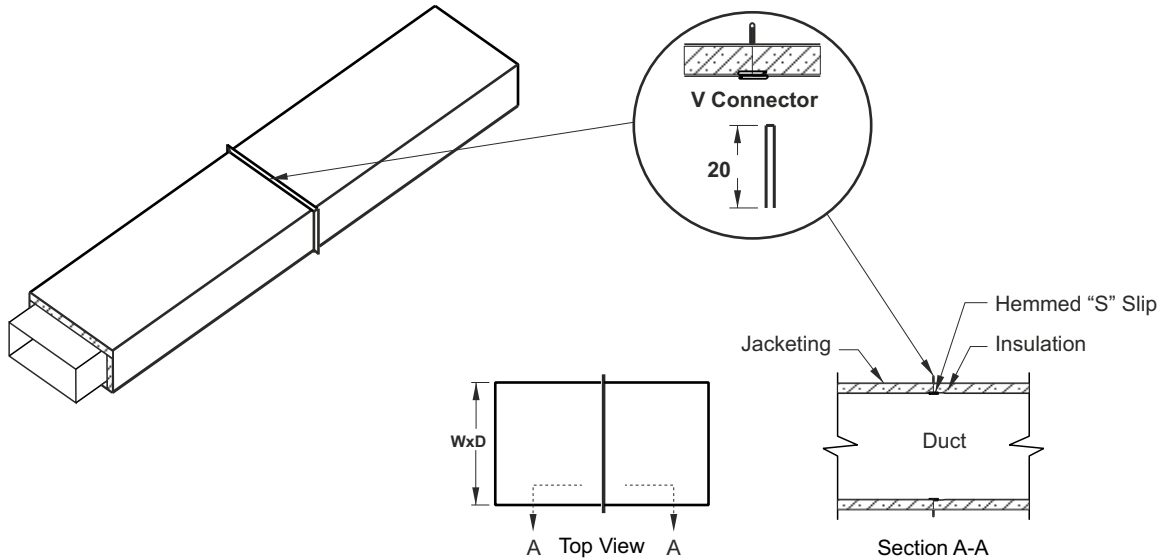


Section A-A

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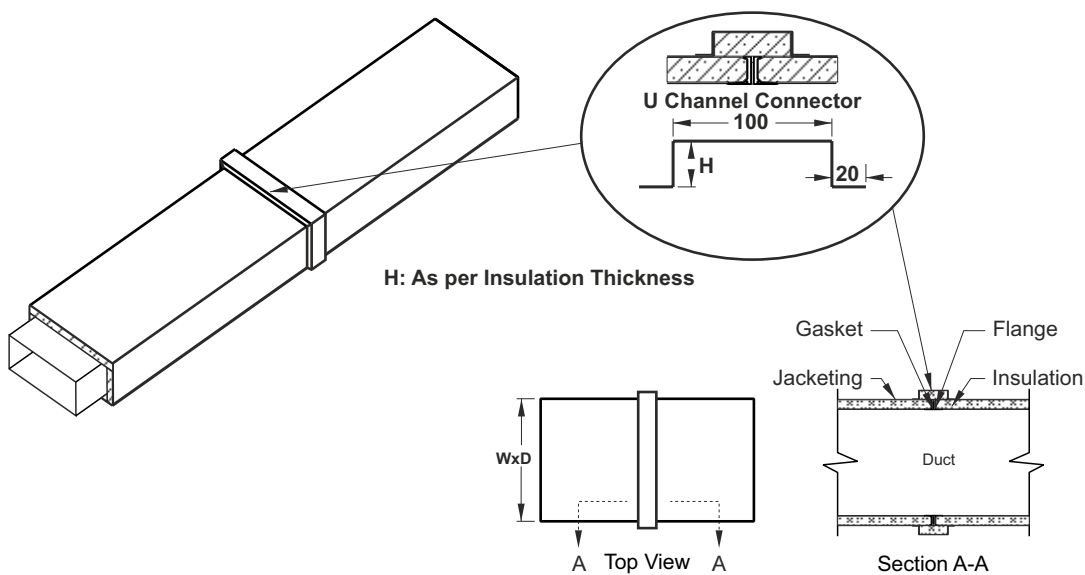
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V CONNECTOR



• V Connector is Used when Ducts are joined by **Hemmed "S" Slip**

U-CHANNEL CONNECTOR



H: As per Insulation Thickness

• U-Channel Connector is Used when Ducts are joined by **Slide-on Flange or Companion Angle**

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