



## DEC CONNECTOR

FIXING & SEALING

The flexible connection **DEC CONNECTOR** has been manufactured out of an already existing steel-to-fabric-to-steel connection, which enables a fast and simple connection between two (rigid) ducts. Once the galvanized steel overlap has been bent into the correct shape it can be fastened with DEC International *self-drilling screws* or pop rivets. Another possibility is spot welding. The result is a solid flexible connection which can be mounted simply and quickly. It meets the constructional demands.

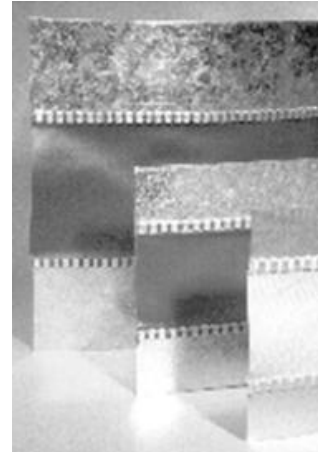
The standard fabric in the DEC CONNECTOR is **VINYL, NEOPRENE, POLYURETHANE** and **SILICONE** are available on request. Each type of fabric has its own quality and specific application. (See product specific information). All fabrics are airtight and waterproof.

All DEC CONNECTOR's meet the British specifications for sheet metal ductwork DW/142 and DW/144. A great advantage of the DEC CONNECTOR is e.g. the large range of widths of material. Standard sizes are:

Steel	Fabric	Steel
35 mm	60 mm	35 mm
45 mm	60 mm	45 mm
45 mm	75 mm	45 mm
70 mm	100 mm	70 mm

Beside the standard widths it is possible to produce, on request, the DEC CONNECTOR in various other widths.

For further information contact our sales department, because there are restrictions.



### STANDARD PRODUCTION LENGTH

The standard production length of the DEC CONNECTOR is 25 m (82 feet). Other lengths on request. If you are interested please contact our sales team.

### SPECIFICATIONS

#### DEC CONNECTOR type VINYL (HCV\*\*)

*Fabric: copolymer coated polyester (PES)*

Fabric made of Polyester cloth, coated on both sides with PVC, used in this type of DEC CONNECTOR, is suitable for applications with high requirements to the moisture resistance and less or no mechanical requirements. This connector is appropriate for round, oval and rectangular air ducts. It can be shaped easily with a minimal percentage of waste.  
**Excellent mechanical resistance. High abrasion resistance. All purpose fabric.**

#### DEC CONNECTOR type SILICONE (HCS\*\*)

*Fabric: silicone coated glass fibre*

Fabric made of Fiberglass cloth, coated on both sides with a silicone coating, used in this type of DEC CONNECTOR, is suitable for applications with high mechanical demands to the material. This connector is appropriate for round, oval and rectangular air ducts. It can be shaped easily with a minimal percentage of waste.  
**Excellent temp.resistance. Low smoke emission. Very good chemical resistance.**

#### DEC CONNECTOR type POLYURETHANE (HCP\*\*)

*Fabric: polyurethane coating glass fibre*

Fabric made of Fiberglass cloth, coated on both side with Polyurethane, used in this type of DEC CONNECTOR, is suitable for applications where a high chemical resistance is required. This connector is appropriate for round, oval and rectangular air ducts. It can be shaped easily with a minimal percentage of waste.  
**Very good temp. resistance. M0-400°C/2h classified**

#### DEC CONNECTOR type NEOPRENE (HCN\*\*)

*Fabric: neoprene coated glass fibre*

Fabric made of Fiberglass cloth, coated on both sides with Polychloroprene (Neoprene), used in this type of DEC CONNECTOR, is suitable for applications where a high chemical resistance is required. This connector is appropriate for round, oval and rectangular air ducts. It can be shaped easily with a minimal percentage of waste.  
**Excellent mechanical resistance. General purpose fabric. Very good chemical resistance.**

#### LIABILITY:

The information contained in this brochure was current on the publication date. DEC INTERNATIONAL reserves the right to make changes in details at any time without prior notice. In order to avoid misunderstandings, any interested party is advised to contact DEC INTERNATIONAL checking for any changes in materials and/or information after this brochure was published.

#### PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

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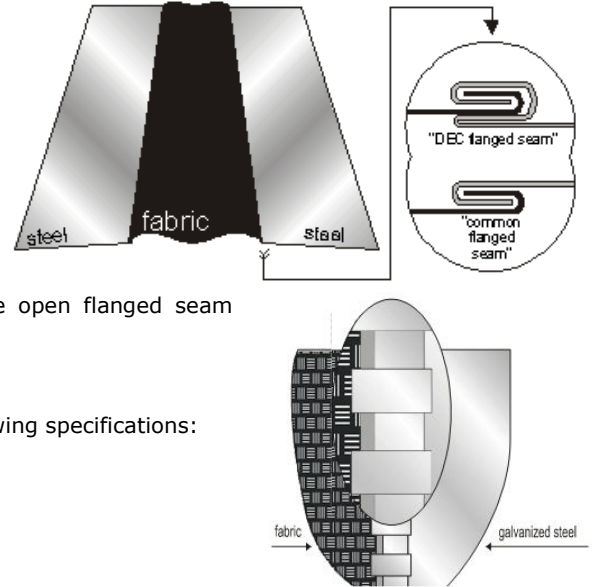
### FLANGED SEAM

In the DEC CONNECTOR, particularly developed, various unique properties have been used, e.g. the modern flanged seam technology. Mostly a simple flanged seam has been used in similar products.

The DEC CONNECTOR has been produced with a flanged seam with 4 layers. The double flanged seam gives an exceptional power to the connection between steel and fabric.

The double flanged seam is used in each type of DEC CONNECTOR.

Another advantage is the extraordinary protection the double flanged seam is giving to the fabric. It can be shaped easily by bending and the open flanged seam prevents the damaging of the fabric.



### GALVANIZED STEEL

The galvanized steel in the DEC CONNECTOR meets the demands of the following specifications:

- ▶ Thickness of plate : 400 microns
- ▶ Thickness tolerance : -50/+50 microns
- ▶ Sinking weight : 275 gr/m<sup>2</sup>
- ▶ Quality : STO22275
- ▶ Chromatic Reagenz : NA Quality IIA (fewer lead, so fewer pollution)

### CHEMICAL RESISTANCE (GALVANIZED STEEL)

This table indicates the chemical resistance of galvanized steel in relation to different chemicals. It is just a restricted summary. For more information about the resistance to, not mentioned chemicals, please contact our sales team.

Explanation:

- 1 = excellent
- 2 = good
- 3 = moderated
- x = poor/not recommended

Chemicals	x	3	2	1
Acetone				✓
Acetylene				✓
Ammonia	✓			
Benzene				✓
Bromide	✓			
Butane				✓
Chlorine	✓			
Ethane				✓
Phenol	✓			
Phosphoric acid	✓			
Helium				✓
Carbon dioxide			✓	
Carbon dioxide (liquid)	✓			
Methane	✓			
Methanol				✓
Toluene				✓
Neon				✓
Ozone	✓			
Nitric acid (diluted)	✓			
Nitrogen				✓
Water			✓	
Water vapour				✓
Hydrogen				✓
Hydrochloric 37% cold	✓			
Hydrochloric 37% warm	✓			
Sulphur				✓
Sulphuric acid, diluted				✓
Sulphurous acid				✓

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To select the appropriate **DEC CONNECTOR** products consult the table below

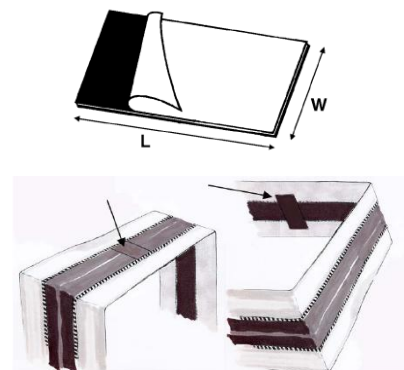
	Vinyl	Polyurethane	Silicone	Neoprene
<b>Mechanical data</b>				
Weight (gr/m <sup>2</sup> ) (backing+coating)	600	460	520	720
Temperature range (°C)	-20 - +70	-20 - +120	-40 - +280	-20 - +100
Max. temperature (°C)	-	(-50/+200 short intervals) +400 - <b>2h*</b>	-	-
<b>Fire class</b>				
France (CSTB)	x	*M0	-	-
Colour	Grey	Grey	Grey	Black
<b>Chemical Resistance</b>				
Acetone	••	▪	••	••
Acetylene	••	x	••	••
Ammonia	•	x	•	x
Benzene	••	••	▪	•
Butane	•	•	▪	•
Chlorine	•••	▪	▪	•••
Chlorine gas	▪	▪	x	▪
Ethane	••	•••	▪	••
Phenol	▪	▪	▪	▪
Phosphoric acid	••	•	▪	••
Helium	•	•	•	•
Carbon dioxide	•	x	••	••
Carbon dioxide (liquid)	▪	▪	▪	▪
Methane	••	•	▪	••
Methanol	•	▪	•	•
Toluene	▪	▪	▪	x
Neon	•	•	•	•
Ozone	•••	•	•	•••
Nitric acid (diluted)	•	•••	••	•
Nitrogen	•	•	•	•
Water	•	•	•	•
Water vapour	▪	▪	▪	▪
Hydrogen	••	x	▪	••
Hydrochloric 37% (cold)	••	▪	••	••
Hydrochloric 37% (warm)	▪	▪	▪	▪
Sulphur	•	x	•	•
Sulphuric acid (diluted)	••	•••	▪	••
Sulphurous acid	••	▪	▪	••

x = not been tested      • = excellent      •• = good      ••• = moderate      ▪ = poor/not recommended

### Self-Adhesive Fabric Pads

The easy patch for our DEC Connector. Seals the place of connection tight.

Code	Fabric Type	Dimensions W x L	Packaging
HCPA106	<b>RO-Robust (PVC-Vinyl)</b>	50x60mm	100 pcs / box
HCPA 110		50x100mm	100 pcs / box
HCPA 114		50x140mm	100 pcs / box
HCPA 206	<b>EO-Neoprene</b>	50x60mm	100 pcs / box
HCPA 210		50x100mm	100 pcs / box
HCPA 214		50x140mm	100 pcs / box
HCPA 001	<b>Double sided adhesive only</b>	Rolls 50mm x 50m	



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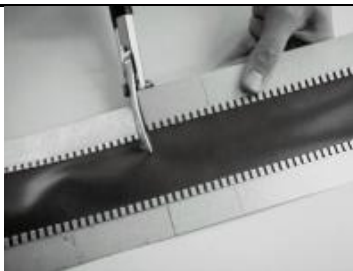
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### Mounting instructions



Make sure that the notched side faces outward and provide the positioning of the joint in the middle of a side rather than in a corner.



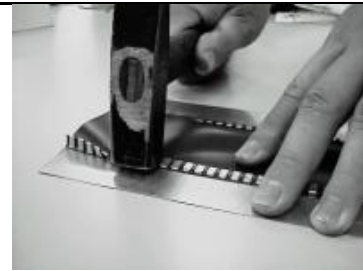
At a notch, cut a length equivalent to the perimeter increased by 5 to 6 cm.



Lift the seam outwards to a right angle.



Make a cut at the edge of the lifted seam section.



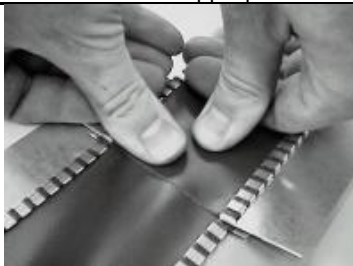
Bend down the seam whilst ensuring that the cloth remains fastened.



Coat the cloth with its appropriate adhesive.



Join both sides.



Press together firmly.



Spotweld the steel.

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