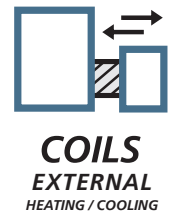





GB

# DX cooling/heating coil for VEX100, VEX200, VEX300



-  Product information..... Chapter 1 + 4
-  Mechanical assembly..... Chapter 2
-  Maintenance..... Chapter 3

Original instructions



## 1. Product information

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## 1. Product information

### 1.1 Description

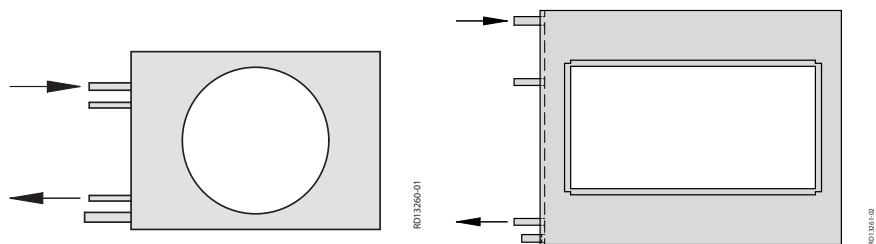
#### 1.1.1 Application

The EXHAUSTO DX coil can be used for cooling or heating the supply air in VRV units. The DX coil is an accessory for the EXHAUSTO VEX100, VEX200 and VEX300 ranges and connects directly to the duct after the VEX unit.

#### 1.1.2 Design of DX coil

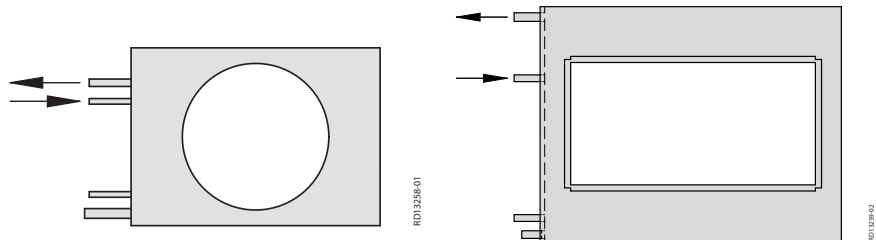
##### Condenser

When the DX coil is used as a condenser, the input and output should be established as shown below:



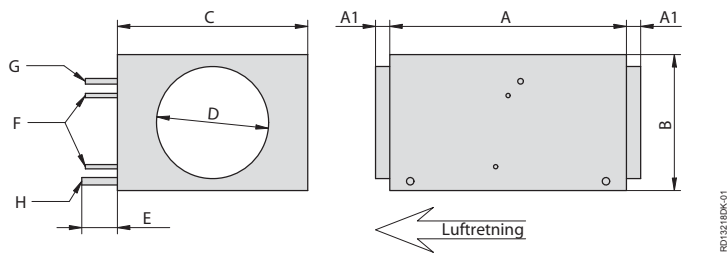
##### Evaporator

When the DX coil is used as an evaporator, the input and output should be established as shown below:



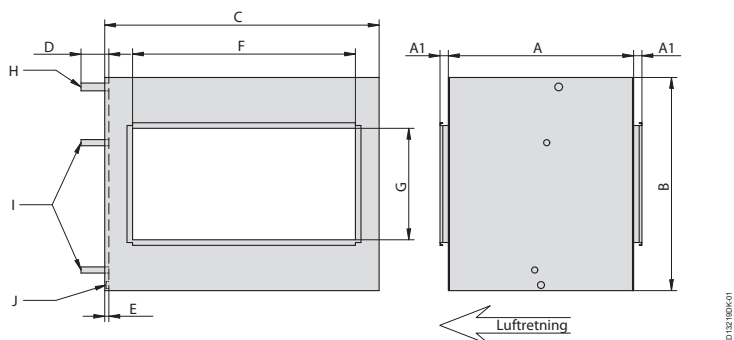
## 1.2 Principal dimensions

### 1.2.1 DX coil with round duct connection



	A [mm]	A1 [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]
DX315 Small (L/R)	665	50	382	535	315	100	12	16	DN15 (½")
DX315 Medium (L/R)	665	50	382	635	315	100	12	16	DN15 (½")
DX315 Large (L/R)	665	50	532	685	315	100	16	22	DN15 (½")
DX400 (L/R)	665	50	632	885	400	100	22	28	DN15 (½")
DX500 (L/R)	665	50	732	985	500	100	20	28	DN15 (½")

### 1.2.2 DX coil with rectangular duct connection



	A [mm]	A1 [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	J [mm]
DX040x080 (L/R)	665	30	765	985	100	50	800	400	28	22	DN25 (1")
DX050x080 (L/R)	665	30	765	985	100	50	800	500	28	22	DN25 (1")
DX050x060 (L/R)	665	30	965	1285	100	50	600	500	35	28	DN25 (1")
DX050x100 (L/R)	665	30	965	1285	100	50	1000	500	35	28	DN25 (1")
DX060x140, Small (L/R)	665	30	965	1885	100	50	1400	600	42	35	DN25 (1")
DX060x140, Large (L/R)	665	30	1165	2085	100	50	1400	600	42	35	DN25 (1")
DX080x120 (L/R)	665	30	1165	1485	100	50	1200	800	35	28	DN25 (1")



## 2. Mechanical assembly

### 2.1 Supplied components and weight

#### Supplied components

The following components are supplied:

- DX cooling/heating coil

#### 2.1.1 Weight

DX coil	kg
DX315, Small (L/R)	19,0
DX315, Medium (L/R)	21,0
DX315, Large (L/R)	21,0
DX400 (L/R)	21,0
DX500 (L/R)	21,0
DX040x080 (L/R)	43,0
DX050x080 (L/R)	43,0
DX050x060 (L/R)	53,0
DX050x100 (L/R)	53,0
DX060x140, Small (L/R)	63,0
DX060x140, Large (L/R)	81,5
DX080x120 (L/R)	58,0

### 2.2 Position in relation to VEX

#### 2.2.1 Installation

Position the DX coil on the supply air duct.

#### Prior to installation



**The coil is filled at the factory with nitrogen at a pressure of 1 bar. (Not DX315)**

- Check the pressure
- Only install the coil if the pressure is correct. Too low a pressure indicates leakage.

#### Correct installation



**The DX coil must always be supported - even during fitting. The fixture for this is not part of the EXHAUSTO delivery.**



**Always position the DX coil so that**

- air passes horizontally across the whole surface of the fins
- the coil tubes are horizontal, allowing condensation to be led down a fall towards the discharge pipe



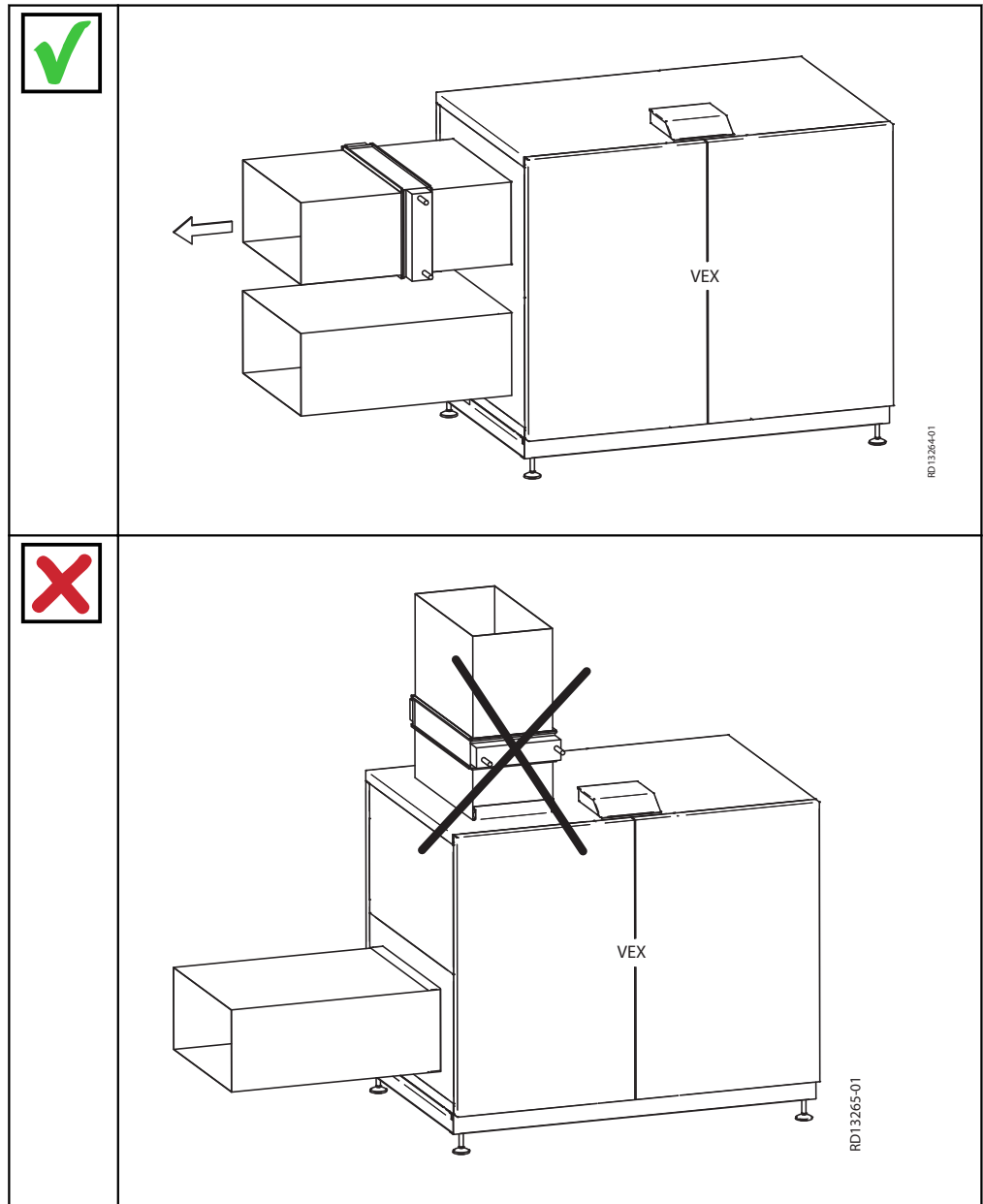
**Always avoid**

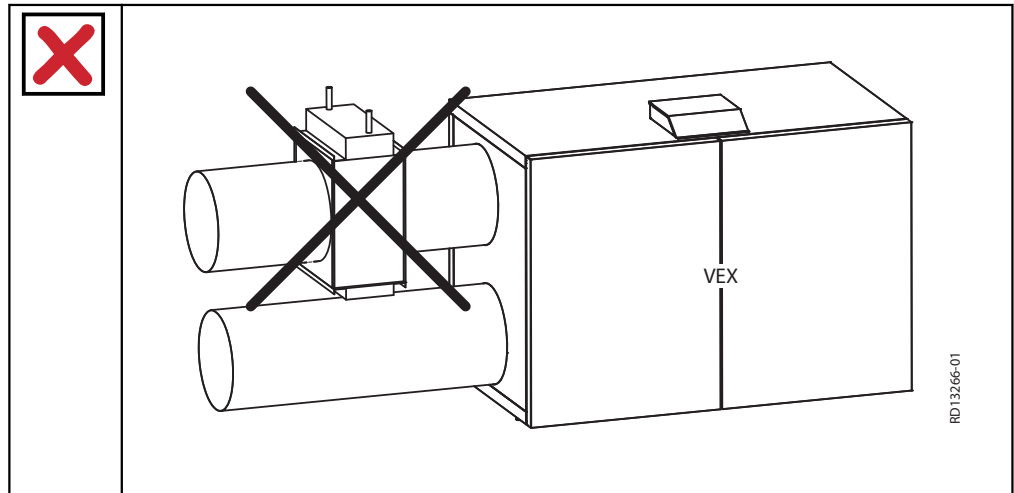
- positioning the coil directly after constrictions or sharp bends in the air duct
- damaging the internal tubes in the DX coil during installation and fixing

DX coils may be installed with a condensation tray with a 2-chamber system. Follow the instructions in section 2.2.3 for mounting the water trap.

### 2.2.2 Correct installation on the duct system

Position the DX coil on the supply air duct or directly on the ventilation unit supply air spigot.

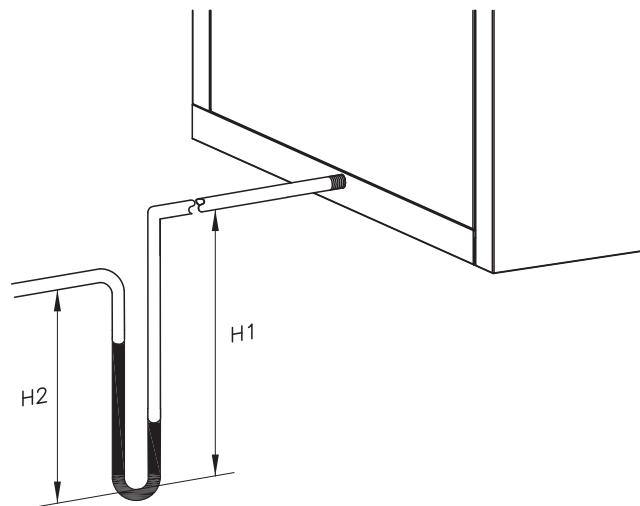




**2.2.3 Condensation outlet**

If	Then
the coil has a round duct connection	it will have 2 condensation outlets, both of which must be used. See dimensions of condensation outlets below.
the coil has a rectangular duct connection	it will have 1 condensation outlet, which must be used. See dimensions of condensation outlet below.

**Correct mounting**



RD13267-01

It is important to use the correct dimensions when mounting the condensation outlets.

Pressure P [Pa]	H1 [mm]	H2 [mm]
250	60	45
500	90	65
750	120	90
100	150	120

**2.3 Connection to cooling or heating system**

**2.3.1 Connection, round duct connection**

Connect the DX coil to the cooling unit as follows

	Evaporator	Condenser
<b>Illustration</b>	<p style="text-align: right; font-size: small;">RD13280-01</p>	<p style="text-align: right; font-size: small;">RD13282-01</p>
<b>In</b>	F1	G
<b>Out</b>	G	F2
<b>Shut-off</b>	F2	F1



### 2.3.2 Connection, rectangular duct connection

Connect the DX coil to the cooling unit as follows

	Evaporator	Condenser
<b>Illustration</b>		
<b>In</b>	I1	H
<b>Out</b>	H	I2
<b>Shut-off</b>	I2	I1

#### Connection to cooling/heating system

The DX coil must be connected in accordance with current legislation and regulations for work on cooling and heating pumps, and the work must only be carried out by trained personnel.  
Installation errors will reduce coil performance and may lead to malfunction of the unit.

#### NB

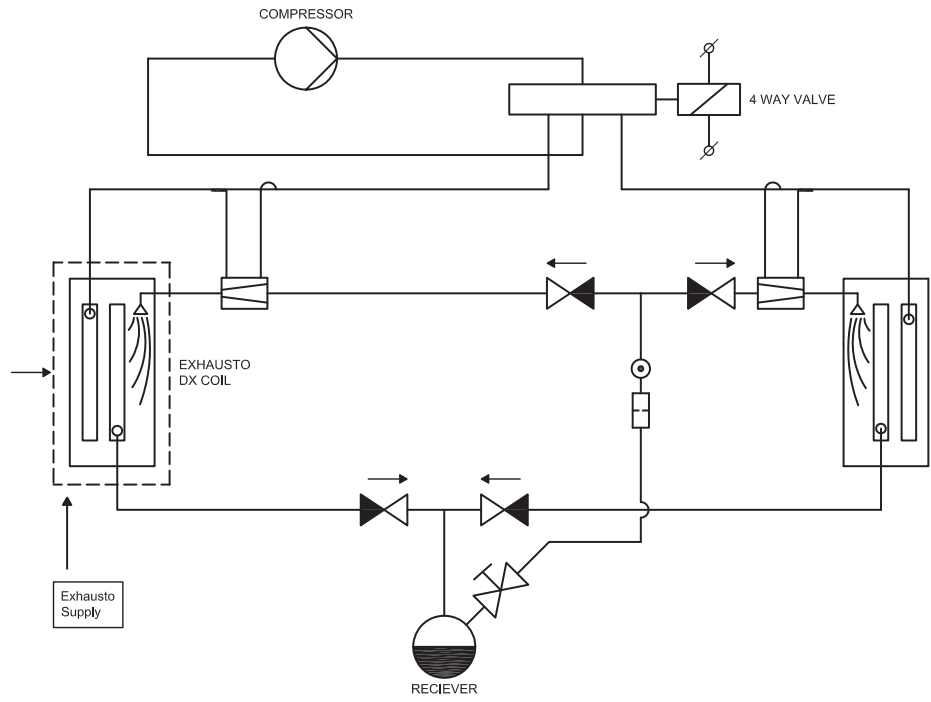
Note the following:

- Execute the connection to the pipe system such that no stresses, linear expansion/expansive forces or vibrations are transferred to the coil's tube system. These could damage the coil tubes.
- Ensure that the DX coil's tubular manifold is not weighed down by the self-weight of the battery.
- Avoid excessive use of heat during pipe connection, as this could damage soldered and welded joints.

### 2.3.3 Principles for connecting the DX-coil

#### Simplified diagram

Principle connection drawing of EXHAUSTO DX-coil, as evaporator and condenser:



RD13381-02



## 3. Operation and maintenance

### 3.1 Service

#### Checks



Check the coil regularly for:

- damage
- leaks
- malfunctions

In the case of damage:

- contact the installer
- never carry out a repair unless directed

#### Checks include

a thorough inspection of	NB
corrosion damage, leaks and dirt on the enclosure, tubes and fins.	Excessive dirt will result in reduced performance and airflow.
- drip tray - water trap - outlet	Avoid blockages
Dust on fins	The ventilation unit has a filter, but it is inevitable that some dust will pass through and settle on the fins. This will reduce the heat exchanger's performance.
Leaks	Water in the drip tray indicates faulty assembly or a blocked outlet.

#### 3.1.1 Cleaning

##### How to clean the DX coil fins

The fins may be cleaned mechanically by:

- blowing with air or steam
- flushing or rinsing with water.

Take care when pressure washing not to damage the fins.



## 4. Technical data

### 4.1 DX data

#### DX315

DX315 (L/R)				
		Small	Medium	Large
<b>Weight</b>	Weight [kg]	19,0	21,0	21,0
<b>Dimension</b>	Face area (h x b) [mm]	350 x 350	350 x 450	500 x 500
	Dimensions, condensation outlet	DN15 (½")	DN15 (½")	DN15 (½")
	Distance between fins [mm]	2,5	2,5	2,5
<b>Data</b>	Internal volume [litre]	1,2	1,5	2,5
	Rows of pipes [no.]	3	3	3
	Number of circuits [no.]	3	3	6

#### DX400

DX400 (L/R)		
<b>Weight</b>	Weight [kg]	21,0
<b>Dimension</b>	Face area (h x b) [mm]	600 x 700
	Dimensions, condensation outlet	DN15 (½")
	Distance between fins [mm]	2,5
<b>Data</b>	Internal volume [litre]	4,1
	Rows of pipes [no.]	3
	Number of circuits [no.]	8

#### DX500

DX500 (L/R)		
<b>Weight</b>	Weight [kg]	21,0
<b>Dimension</b>	Face area (h x b) [mm]	700 x 800
	Dimensions, condensation outlet	DN15 (½")
	Distance between fins [mm]	2,5
<b>Data</b>	Internal volume [litre]	5,4
	Rows of pipes [no.]	3
	Number of circuits [no.]	12

**DX040x080**

<b>DX040x080 (L/R)</b>		
<b>Weight</b>	Weight [kg]	43,0
<b>Dimension</b>	Face area (h x b) [mm]	700 x 800
	Dimensions, condensation outlet	DN25 (1")
	Distance between fins [mm]	2,5
<b>Data</b>	Internal volume [litre]	5,4
	Rows of pipes [no.]	3
	Number of circuits [no.]	12

**DX050x080**

<b>DX050x080 (L/R)</b>		
<b>Weight</b>	Weight [kg]	43,0
<b>Dimension</b>	Face area (h x b) [mm]	700 x 800
	Dimensions, condensation outlet	DN25 (1")
	Distance between fins [mm]	2,5
<b>Data</b>	Internal volume [litre]	5,4
	Rows of pipes [no.]	3
	Number of circuits [no.]	12

**DX050X060**

<b>DX050x060 (L/R)</b>		
<b>Weight</b>	Weight [kg]	53,0
<b>Dimension</b>	Face area (h x b) [mm]	900 X 1100
	Dimensions, condensation outlet	DN25 (1")
	Distance between fins [mm]	2,5
<b>Data</b>	Internal volume [litre]	9,7
	Rows of pipes [no.]	3
	Number of circuits [no.]	18

**DX050x100**

<b>DX050x100 (L/R)</b>		
<b>Weight</b>	Weight [kg]	53,0
<b>Dimension</b>	Face area (h x b) [mm]	900 X 1100
	Dimensions, condensation outlet	DN25 (1")
	Distance between fins [mm]	2,5
<b>Data</b>	Internal volume [litre]	9,7
	Rows of pipes [no.]	3
	Number of circuits [no.]	18

**DX060X140**

<b>DX060X140 (L/R)</b>			
		<b>Small</b>	<b>Large</b>
<b>Weight</b>	Weight [kg]	63,0	81,5
<b>Dimension</b>	Face area (h x b) [mm]	900 x 1700 mm	1100 x 1900 mm
	Dimensions, condensation outlet	DN25 (1")	DN25 (1")
	Distance between fins [mm]	2,5	2,5
<b>Data</b>	Internal volume [litre]	15,9	21,2
	Rows of pipes [no.]	3	3
	Number of circuits [no.]	27	36

**DX008x120**

<b>DX080x120 (L/R)</b>		
<b>Weight</b>	Weight [kg]	58,0
<b>Dimension</b>	Face area (h x b) [mm]	1100 X 1300
	Dimensions, condensation outlet	DN25 (1")
	Distance between fins [mm]	3,2
<b>Data</b>	Internal volume [litre]	8,7
	Rows of pipes [no.]	3
	Number of circuits [no.]	20



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