

# DVC

VARIZON® Displacement unit with adjustable spread pattern



## Quick facts

- ▶ Adjustable spread pattern and affected zone
- ▶ Suitable for all types of rooms
- ▶ Air volume measuring point
- ▶ Cleanable
- ▶ Concealed fastening
- ▶ Available in alternative colors

## Quick guide

AIR FLOW – SOUND LEVEL			
DVC	Cubic Feet per Minute		
	25 NC	30 NC	35 NC
125	120	140	165
160	190	215	250
200	290	340	400
250	390	440	500
315	660	760	890
400	950	1100	1250

Data for the DVC with regulator REG are shown in a separate table.

## Technical Description

### Design

The DVC is a complete, quadrant shaped displacement unit for corner installation. The body consists of a rear section with top and bottom plates and an air distribution plate equipped with a number of adjustable air deflectors. The top plate has a circular inlet socket. The distribution plate has an access hatch for access to the duct system. The perforated front plate is fastened to the unit with concealed screws, behind the removeable aluminum side strips. The airflow measuring point is placed behind one of the side strips.

### Materials and surface treatment

The displacement unit is manufactured in galvanized sheet steel and aluminum profiles. It is powder coated with our pure white standard paint, RAL 9010. The unit is also available in other standard colors; Dusty grey RAL 7037, white aluminum RAL 9006, jet black RAL 9005, grey aluminum RAL 9007 and signal white RAL 9003 (NCS 0500).

### Customization

In addition to the standard sizes, these displacement units are available in special dimensions, with reinforced front plates, etc. The duct covers, regulator units and bases can also be supplied in different dimensions. Please contact your nearest sales representative for further information.

### Accessories:

#### Regulator:

REG. Combination unit with damper and sound attenuator.

#### Duct cover

DVCT 1. For installation of the regulator unit and the connecting circular duct.

#### Base:

DVCT 2. For installation of the displacement unit on a floor.

#### Decorative top:

DVCT 3. Removable top board in different materials and dimensions. Can be used when duct cover is not utilized. Please contact your nearest sales representative for further information.

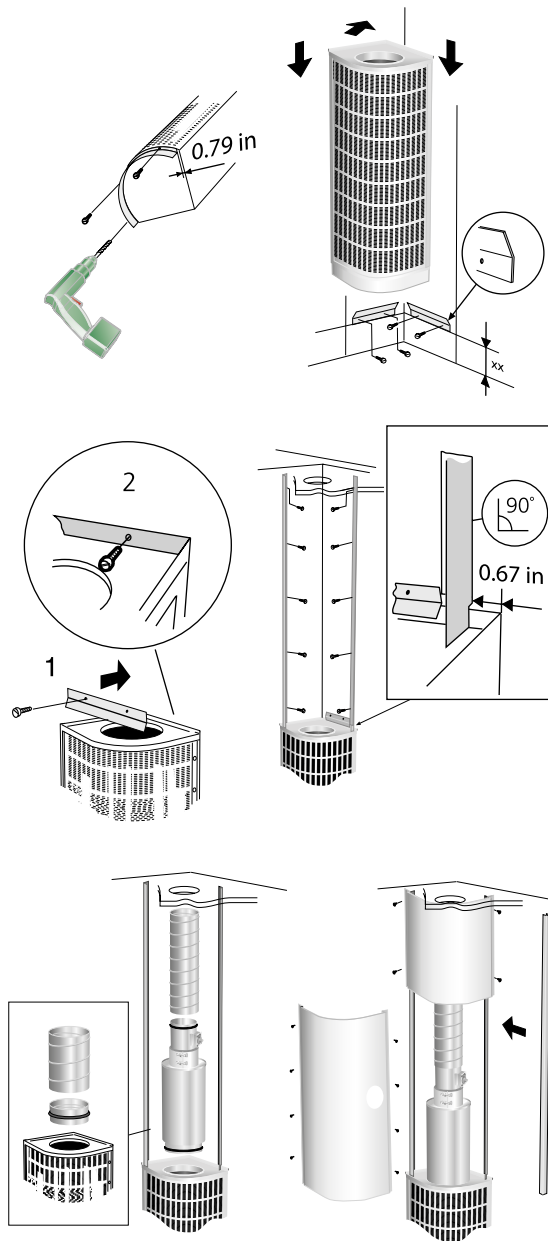


### Planning

It is possible to modify the affected area by adjusting the deflectors behind the perforated front plate. This does not affect the air flow, pressure drop or sound level. This flexibility simplifies any future changes in the furnishing of the room, etc.

### Installation

The terminal is attached to the wall using angle brackets and screws. The base is screwed into place on the underside of the unit. The telescopic duct cover is attached to the wall using the wall brackets, the screws being concealed by the side strips. The regulator, which has a circular connection spigot with a rubber seal, is pressed into the inlet socket of the unit.



Figur 1. Installation.

### Commissioning

The measuring point is positioned on the side of the displacement unit behind the aluminum profile. The k-factor of the unit is stated next to the measurement outlet. The k-factor can also be found at [www.swegon.com](http://www.swegon.com) in the relevant k-factor guide. It is recommended that the REG regulator is used to regulate the air flow. See figure 2.

### Maintenance

The displacement unit can be cleaned when necessary using luke warm water with added detergent. The duct system is accessed by removing the perforated front plate and the access hatch. See figure 2.

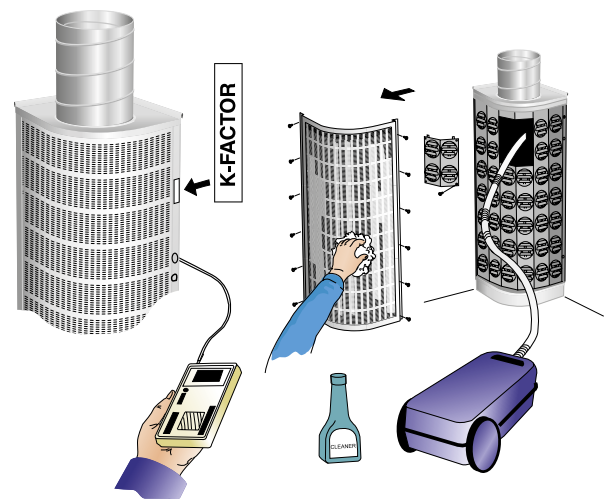


Figure 2. Commissioning, maintenance.

## Technical data

- Sound level NC applies to a room attenuation of 4 dB.
- Maximum recommended temperature difference is -10 °F.
- To calculate the width of the spread pattern, air velocities in the zone of occupation or sound levels in rooms with other dimensions, please refer to our calculation software, ProAir web, available for download from [www.swegon.com](http://www.swegon.com).

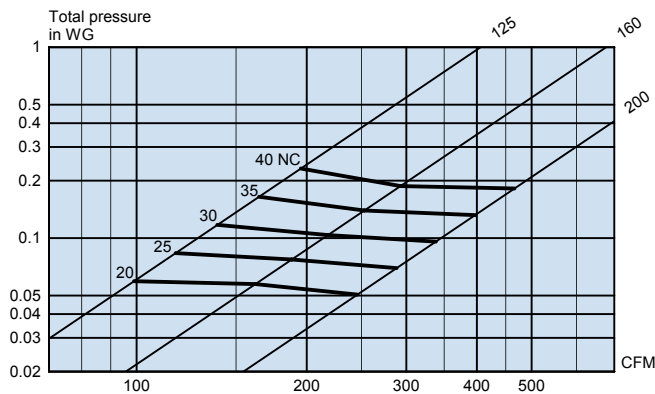
## Engineering graphs

### DVC

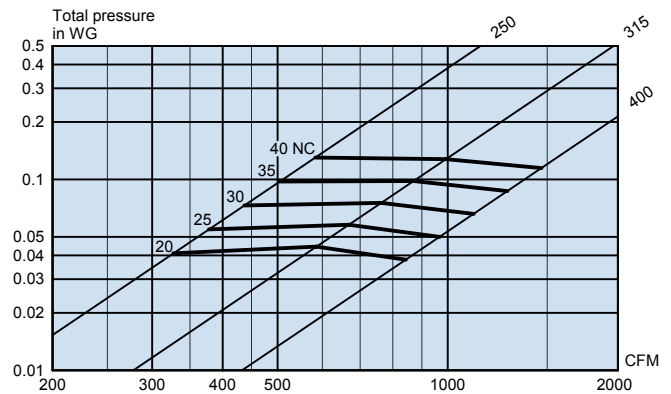
#### Air flow – Pressure drop – Sound level – Affected area

- The graphs are not to be used for commissioning.
- The data concerning the affected area, see the graph for DVC + REG combination.

#### DVC 125 - 200



#### DVC 250 - 400



### DVC + REG

#### Air flow – Pressure drop – Sound level – Affected area

- The affected area refers to the distance to the isovel limit of 40 FPM at  $\Delta t$  -5 °F. In this case,  $\Delta t$  signifies the difference between the room air temperature and the supply air temperature, measured at 4 ft above floor level. It does not refer to the difference between the extract air and the supply air temperatures.
- The diagrams illustrate data for the displacement unit with the regulator installed.
- The graphs are not to be used for commissioning.
- $\nabla$  = min air flow to obtain sufficient commissioning pressure.

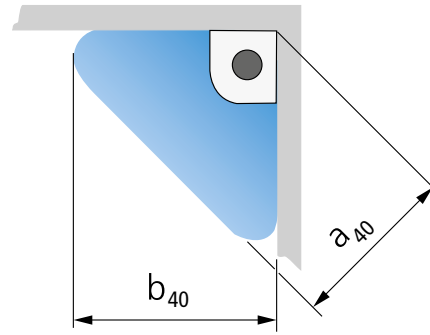
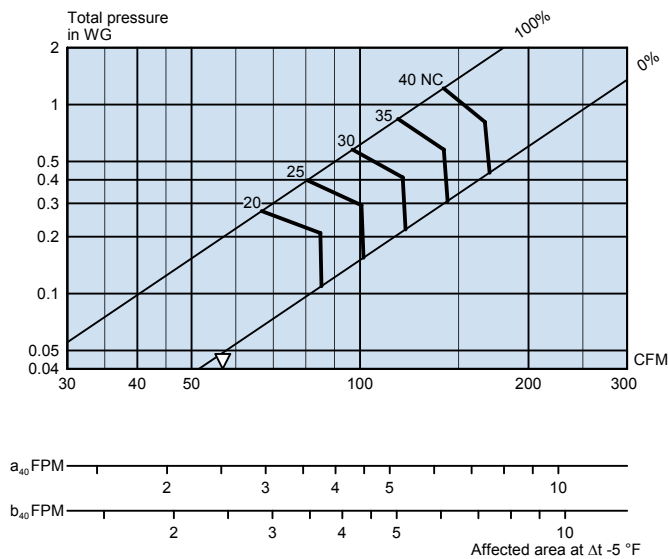
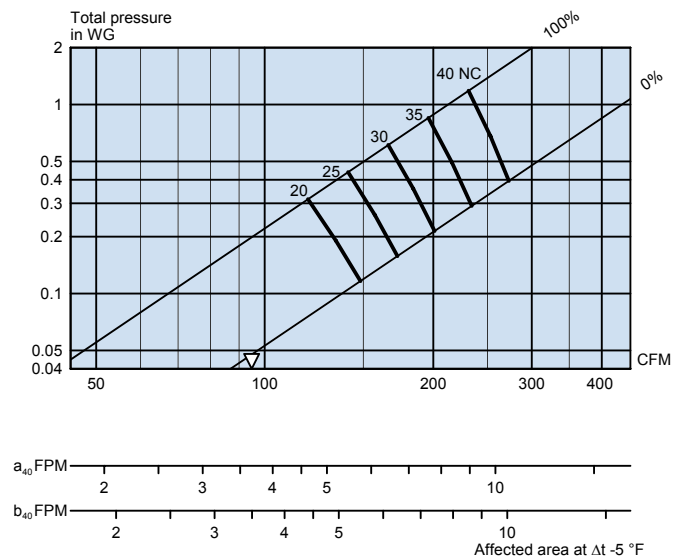


Figure 3. Affected area.

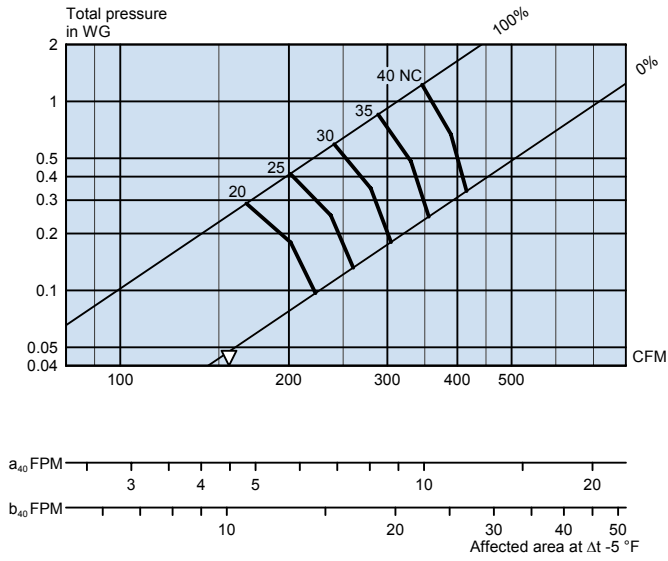
### DVC 125 + REG



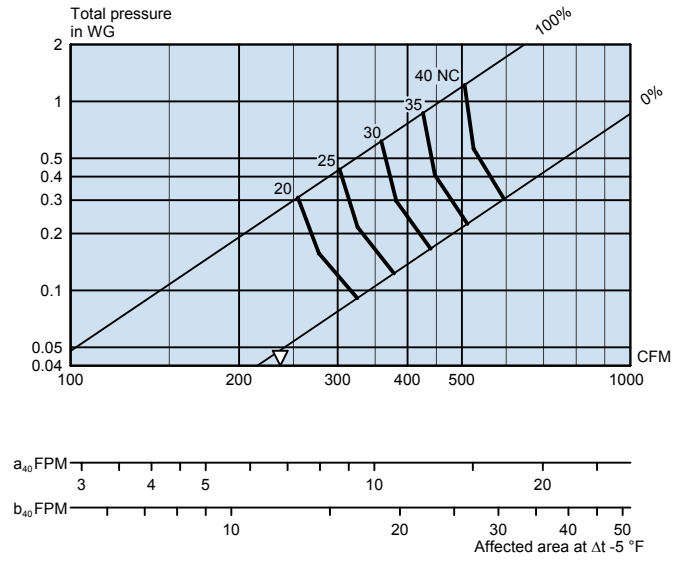
### DVC 160 + REG



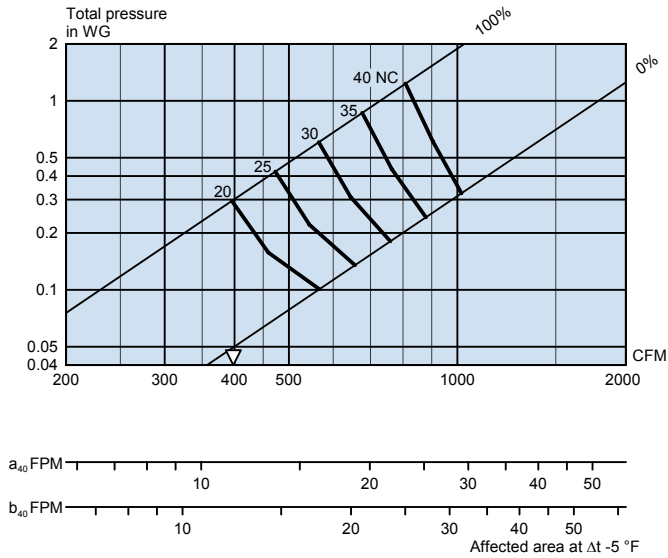
**DVC 200 + REG**



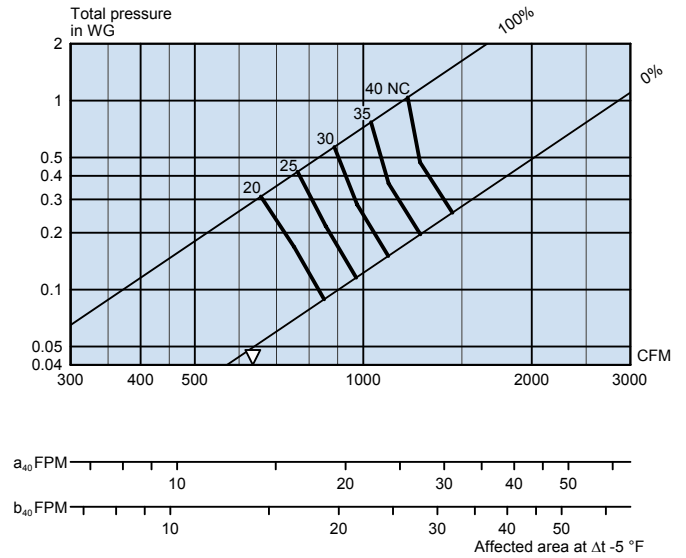
**DVC 250 + REG**



**DVC 315 + REG**



**DVC 400 + REG**



# Dimensions and weight

## DVC

Size	Dimensions (in)				Weight (lbs)
	A	B	ØD	G	
125	9.65	24.53	4.92	4.84	11.0
160	11.02	24.53	6.30	5.51	15.4
200	12.60	36.34	7.87	6.30	30.8
250	14.57	36.34	9.84	7.28	39.6
315	17.13	59.96	12.40	8.58	50.6
400	20.47	78.86	15.75	10.24	68.2

## REG

Size	Dimensions (in)			
	ØC	Ød	G	H
125	8.90	4.88	11.81	19.68
160	10.04	6.26	11.81	19.68
200	11.34	7.84	11.81	19.68
250	13.58	9.80	11.81	19.68
315	15.87	12.36	11.81	31.50
400	18.86	15.71	13.78	31.50

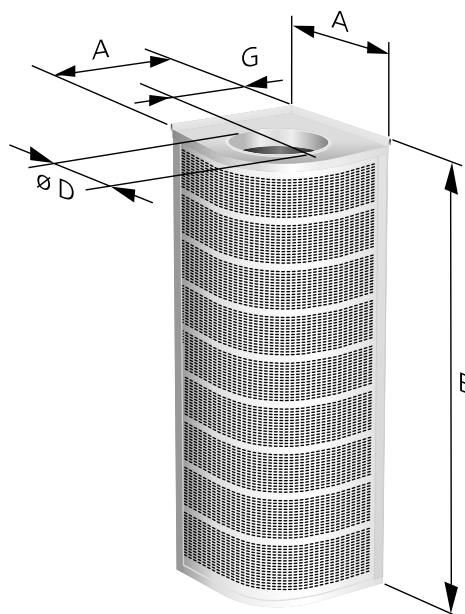


Figure 5. DVC.

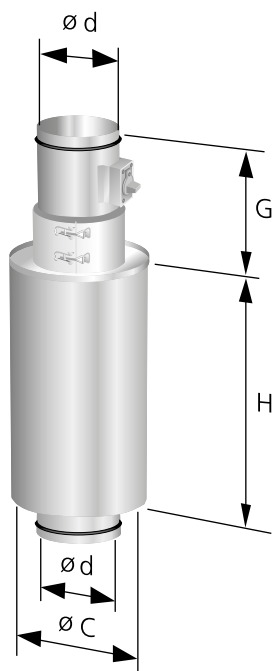


Figure 4. Regulator unit REG.

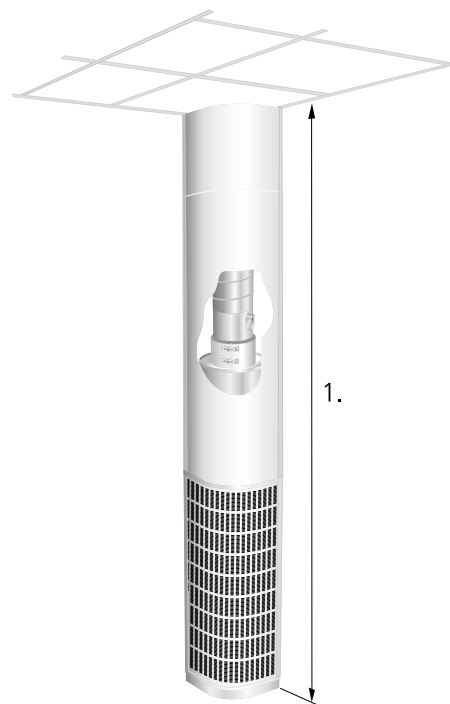


Figure 6. DVC with duct cover and base.  
 1: Size 125-315: 95 - 108 inches.  
 Size 400: 112 - 126 inches.

## Ordering key

### Product designation

Quadrant shaped displacement unit      DVC    e    -aaa

Version:

Size:

125, 160, 200

250, 315, 400

### Accessories

Cover      DVCT 1    d    -aaa

Version:

Size:

125, 160, 200

250, 315, 400

Specify special lengths, state the total room height.

Base      DVCT 2    a    -aaa    70

Version:

Size:

125, 160, 200

250, 315, 400

Specify special heights in bold text.

Decorative top      DVCT 3    a

Version:

Please contact your nearest sales representative for further help with the design of the product.

Regulator unit      REG    b    -aaa

Version:

Size:

125, 160, 200

250, 315, 400

## Specification example

Swegons VARIZON® quadrant shaped displacement unit of type DVC with regulator unit REG, with the following functions:

- Adjustable spread pattern and affected area
- Air volume measuring point
- Concealed fastening
- Cleanable
- Powder coated in white paint, RAL 9010

Size:      DVCe aaa      xx items

Accessories

Cover plate:      DVCT 1d aaa      xx items

Base:      DVCT 2a aaa      xx items

Regulator unit:      REGb aaa      xx items