

# DHC

VARIZON® Displacement unit with adjustable spread pattern



## Quick facts

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

## Quick guide

AIR FLOW – SOUND LEVEL			
DHC	Cubic Feet per Minute		
	25 NC	30 NC	35 NC
125	130	155	180
160	200	240	275
200	290	340	400
250	400	475	550
315	650	760	900
400	960	1100	1300
500	1400	1600	1800
630	1800	2200	2500
800	3400	3900	4500

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

## Technical description

### Design

The DHC is a complete, semi-circular displacement unit for wall installation. The body consists of a rear section with top and bottom plates and an air diffusion plate equipped with a number of adjustable discs. The top plate has a circular inlet socket. The diffusion plate has an access hatch for accessing the duct system. The perforated front plate is fastened to the terminal with concealed screws, behind the removable aluminium side strips. The measuring point is placed behind one of the side strips.

### Materials and surface treatments

The displacement unit is manufactured in galvanized sheet steel and aluminium profiles. It is powder coated with our pure white standard paint, RAL 9010. The unit is also available in other standard colours: Dusty grey 7037, white aluminium RAL 9006, jet black RAL 9005, grey aluminium 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:

DHCT 1 - for the aesthetic installation of the regulator unit and the connecting circular duct.

#### Base:

DHCT 2 - for the aesthetic installation of the displacement unit on the floor.

#### Decorative top:

DHCT 3. Removable top board either in varnished beech blockboard or white painted medium-density fiberboard (MDF). Can be used when duct cover is not utilized.



### Planning

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



## Technical data

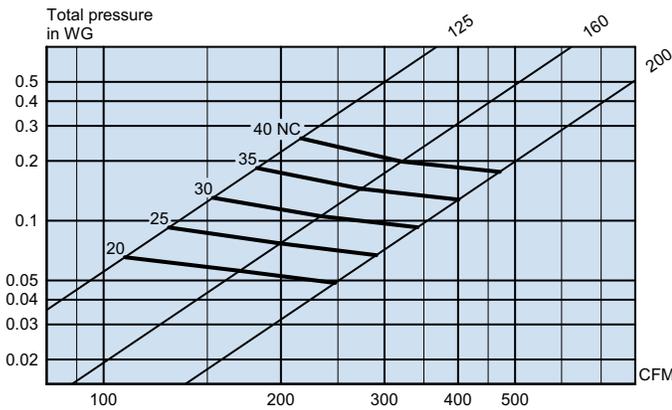
- Sound level NC applies to a room attenuation of 4 dB.
- Maximum recommended temperature difference is -10 °F.
- To calculate the width of the spread pattern, air velocities in the zone of occupation or sound levels in rooms with other dimensions, please refer to our calculation software, ProAir web,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

## Engineering graphs

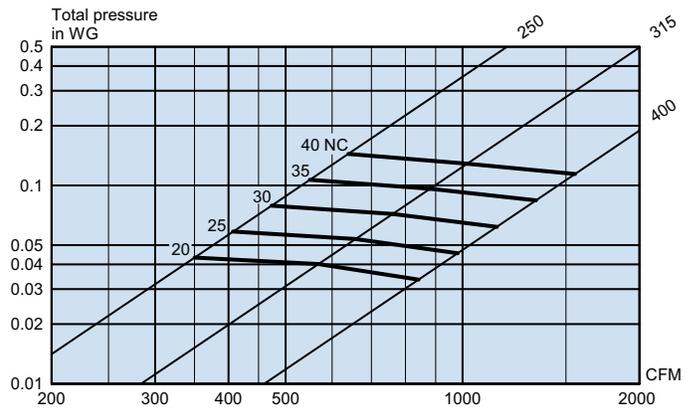
### Air flow – Pressure drop – Sound level – Affected area

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

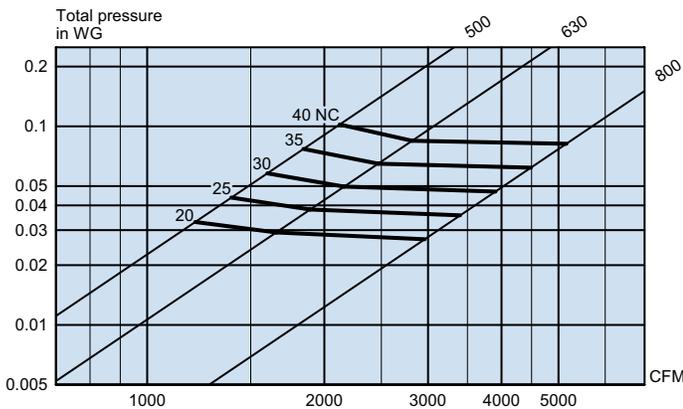
#### DHC 125 to 250



#### DHC 250 to 400



#### DHC 500 to 800



**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 graphs 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.

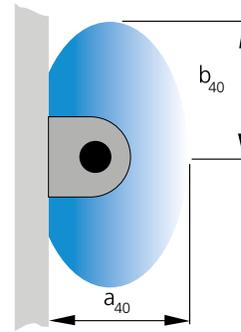
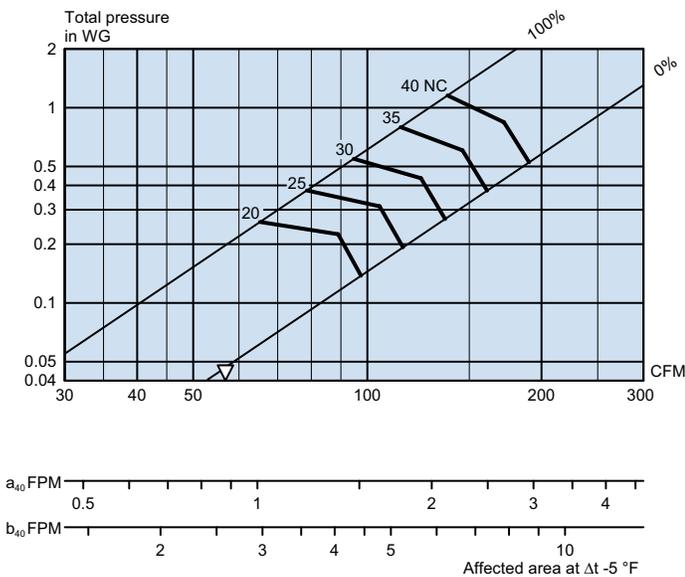
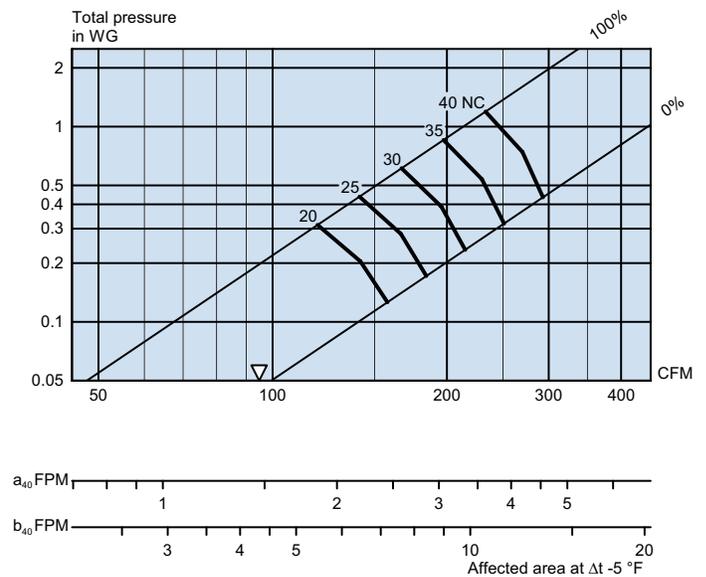


Figure 3. Affected area.

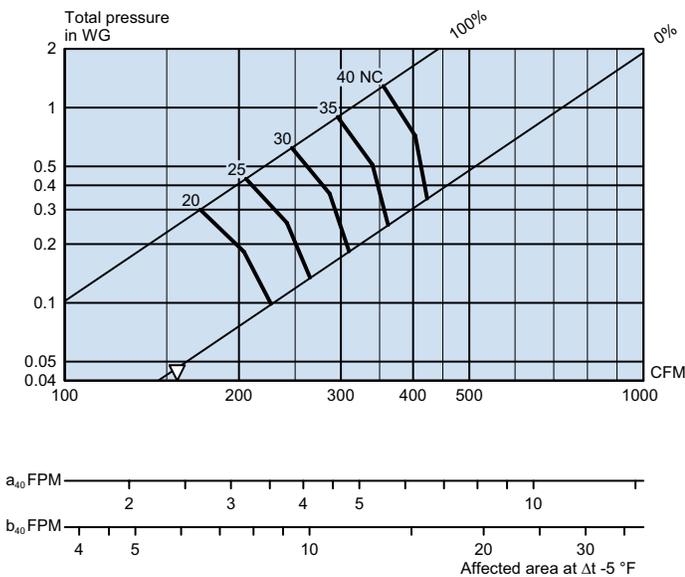
**DHC 125 + REG**



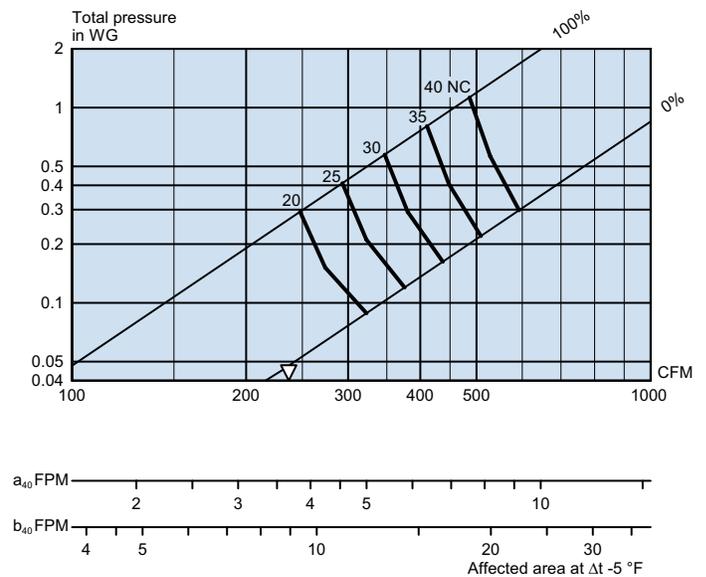
**DHC 160 + REG**



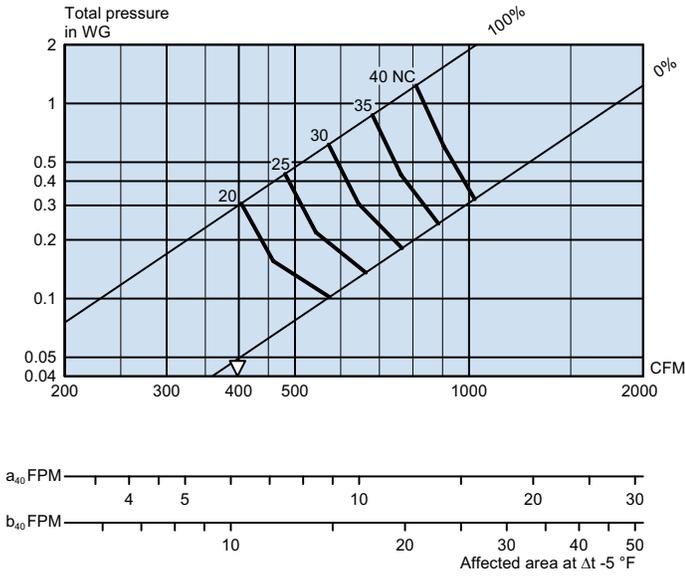
**DHC 200 + REG**



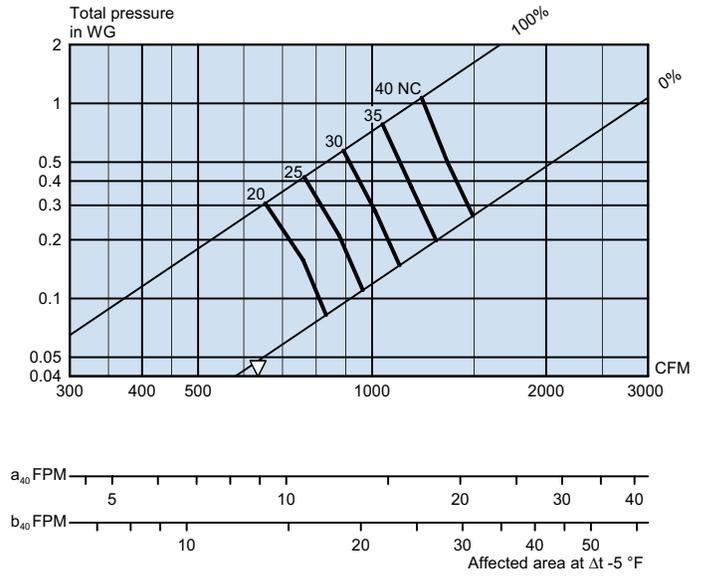
**DHC 250 + REG**



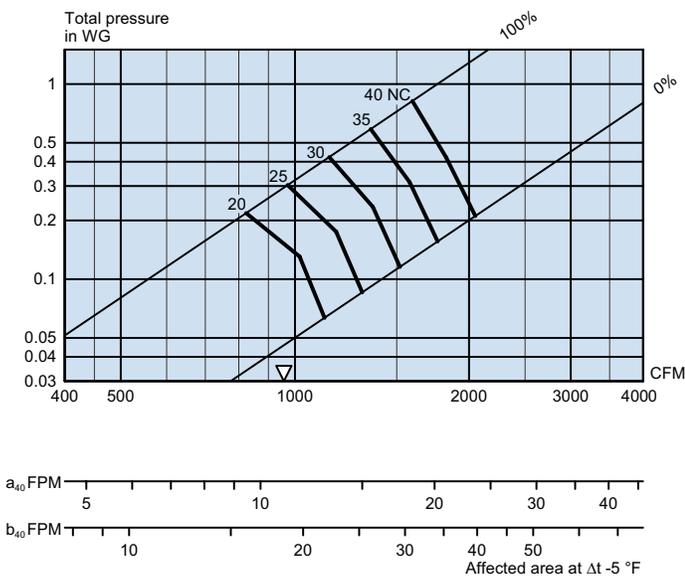
**DHC 315 + REG**



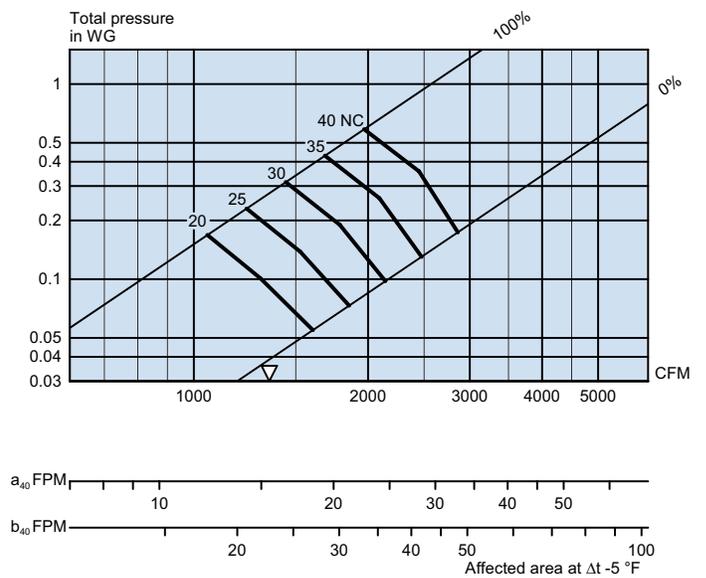
**DHC 400 + REG**



**DHC 500 + REG**



**DHC 630 + REG**



# Dimensions and weights

## DHC

Size	Dimensions (in)					Weight	
	A	B	C	ØD	G	kg	lbs
125	9.65	24.53	9.84	4.92	4.84	7	15.4
160	11.02	24.53	11.22	6.30	5.51	10	22.0
200	12.60	36.34	12.79	7.87	6.30	15	33.0
250	14.57	36.34	14.76	9.84	7.28	18	39.7
315	17.13	59.96	17.13	12.40	8.58	23	50.7
400	20.47	78.86	20.67	15.75	10.24	29	63.9
500	24.41	78.86	24.41	19.68	12.20	36	79.4
630	29.53	78.86	29.53	24.80	14.76	45	99.2
800	36.22	78.86	36.22	31.50	18.11	56	123.5

## 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
500	23.62	19.65	13.78	35.43
630	28.74	24.76	13.78	35.43

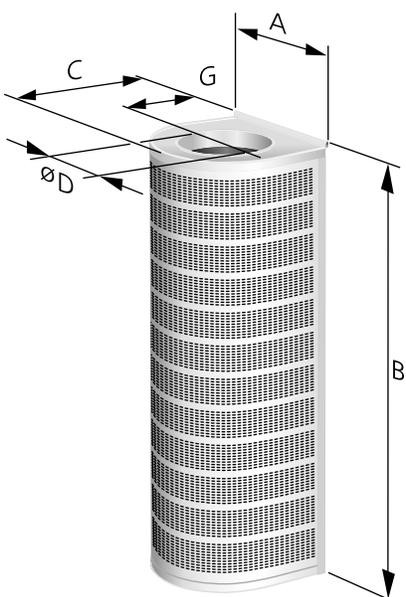


Figure 4. DHC

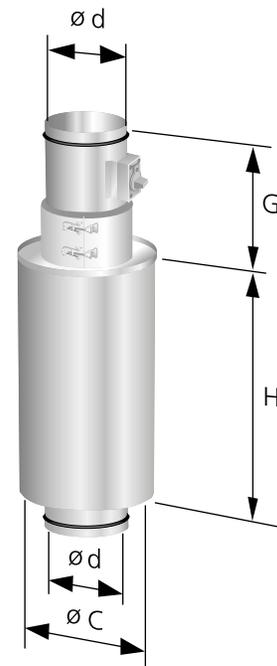


Figure 5. Regulator unit REG.

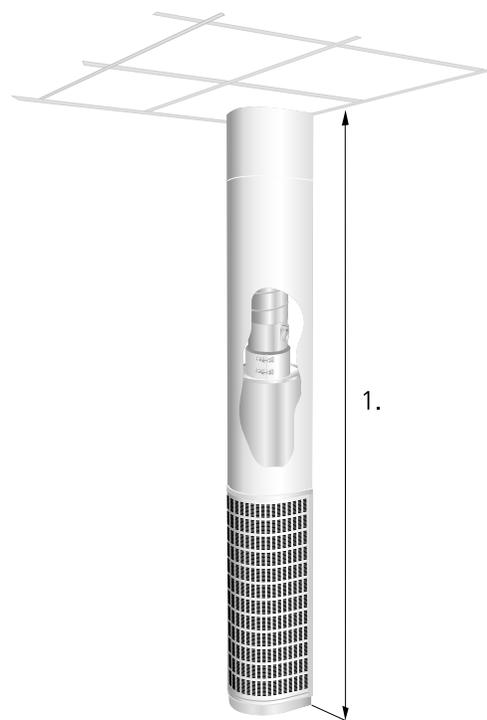


Figure 6. DHC with duct cover and base.

1: Size 125-315: 95 - 108 inches.  
 Size 400: 112 - 126 inches.  
 If other lengths are required always state the total room height.

## Ordering key

### Product

Semi-circular displacement unit                      DHC    e    -aaa

Version:

Size:

125, 160, 200, 250  
315, 400, 500, 630, 800

### Accessories

Duct cover    DHCT 1    d    -aaa

Version:

Size:

125, 160, 200, 250, 315, 400

Specify special dimensions. Always state the total room height.

Base    DHCT 2    a    -aaa    70

Version:

Size:

125, 160, 200, 250, 315, 400, 500, 630, 800

Height in mm. Specify special heights. Always state the total room height.

Regulator unit    REG    b    -aaa

Version:

Size:

125, 160, 200, 250, 315, 400, 500, 630

Decorative top    DHCT 3    a

Version:

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

## Specification example

SD XX

Swegons VARIZON® semi-circular displacement unit of type DHC, having the following functions:

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

Size:                                      DHCe aaa                                      xx items

Accessories

Duct cover:                              DHCT 1 aaa                                      xx items

Base:    DHCT 2 aaa - 70                                      xx items