

VASCO

A man in a white shirt is leaning against a white wall, looking out a large window. A woman in a white shirt is sitting on a ledge in front of the window, looking towards the camera. The window shows a view of green trees and a blue sky with white clouds.

silent ventilation

NETHERLANDS 07/2014

COMFORTABLE VENTILATION FOR
RESIDENTIAL CONSTRUCTION

choosing Vasco ventilation

a healthy living environment by optimal and low-noise ventilation

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VASCO

The importance of ventilation is obvious. Ventilation systems greatly improve the air quality of a house. The energy-efficient Vasco ventilation systems, with and without heat recovery, contribute to a healthy living environment. Moreover, they score highly in terms of ease of installation, sound comfort and EPC reduction.

WHISPER-QUIET VENTILATION

Vasco developed its ventilation systems to ventilate as silently as possible.

The units are among the quietest in the market. The low-noise fans are cleverly incorporated into the unit.

In addition, each unit is finished with high-quality acoustic insulation.

In order to achieve maximum efficiency and allow occupants to enjoy a healthy indoor climate in peace, the unit is best combined with the unique Easy Flow duct system.

HIGH EPC REDUCTION

New building projects have to meet increasingly strict requirements on energy performance. In ventilation systems, the performance of the fans plays a crucial role in the EPC reduction.

Vasco fans have a limited power consumption and are therefore among the most energy-efficient in the market.

Thus, the EPC reductions as calculated in EPC software are excellent. For an AGENTSCHAP NL reference townhouse, the reduction can be as high as 0.156.

EASY INSTALLATION

Vasco ventilation systems are particularly easy to maintain and install.

By omitting superfluous parts, the system is quite compact and can be installed without any problems.

The unique Vasco Easy Flow duct system makes use of flexible parts, allowing the installer to make bends easily. The unique telescopic system makes gluing, screwing and sawing unnecessary. Thanks to the Vasco Smiley adjustment valve, adjustment of the installation is very easy.

MAINTENANCE ARM

Vasco Ventilation systems quietly do their work for their entire life cycle.

For maximum performance, only the filters need to be changed at regular intervals. This can easily be done by the resident himself.



system

D II

NEW!

- MORE OPTIONS
- OPTIONAL CO₂ AND RH (MOISTURE) CONTROL
- CONNECTION TO HOME AUTOMATION POSSIBLE WITH CONTACTS OR 0-10 V SIGNAL

The Vasco **D units**, with their capacity of 300 to 500 m³/h the ideal domestic ventilation unit with heat recovery for the smaller to medium-sized house. The continuous supply of fresh air in combination with the exhaust and recuperation of heated air ensures a healthy indoor climate. It is operated via wireless switches from each required space.

A nice bonus: the direct-current fan is wonderfully quiet and extremely economical. As a result, your energy consumption goes down inside your home.

Moreover, our units are among the quietest in the market. The low-noise fans are cleverly incorporated into the unit. Finally, each unit is finished with high-quality acoustic insulation.

In addition, the D400EP II ventilation system has passive house certification.

mechanical ventilation with heat recovery



SYSTEM D

The type D ventilation units were developed for use of ventilation in combination with heat recovery. The different versions provide for an extraction in the

so-called "wet" areas such as bathroom, toilet, laundry room, storage room and kitchen. At the same time, fresh air is supplied to the living room and bedrooms. Heat is transferred between the extract and supply air, making the house very energy efficient.

ADVANTAGES

WHISPER-QUIET VENTILATION IN COMBINATION WITH AN INNOVATIVE DUCT SYSTEM

MAXIMUM ENERGY SAVINGS THROUGH THE USE OF HEAT RECOVERY

LOW CONSUMPTION DUE TO ENERGY-SAVING FANS

FAST AND FLEXIBLE INSTALLATION

SIGNIFICANT EPC REDUCTION

PASSIVE HOUSE CERTIFICATE (D400EP II)

APPLICATIONS

- Ideal for new builds
- Ideally suited for replacing outdated heat recovery units

TYPES AND PROPERTIES

D300E II / D400 II / D400EP II / D500 II / D500E II

- Low consumption thanks to the heat exchanger
- Significant epc reduction up to 0.176*
- Quality declaration based on NEN 5138 by ISSO
- Economical EC direct current fan
- Plastic counterflow heat exchanger with an efficiency > 90%.
- Easy to clean
- Healthy indoor climate thanks to the particulate and pollen filter
- Standard with wireless switches
- Spill protection by periodic imbalance
- Valves in wet and dry areas
- Full by-pass ensures free cooling and is ideal for summer night ventilation
- Passive house certificate on D400EP II version
- Set flow rate is automatically controlled, regardless of the resistance of the air ducts and contamination of the filter
- Ideal for refurbishment and replacement: the unique constant control allows the right air volume to be selected in an existing and unknown channel system

* Study is based on example detached house Agentschap NL and systems on 8 May 2012 included in Uniec 2.0 software.



Dimensions: 827x754x582 (HxWxD)
Weight: 54 kg
Air ducts (indoor/outdoor): 6xØ180 mm

system D

OPERATION

- Wireless or wired control
- Timer function
- Controllable from anywhere in the house with additional switches

Demand-driven regulation

- Moisture control: with eco and comfort modes that react quickly to changing moisture levels in your home
- CO₂ control: with eco and comfort mode that regulate the CO₂ content in the house.
- Can be extended to up to 20 sensors allowing room-by-room control.
- Battery: 2 x 1.5 v AA for RH switch Power supply: 1x 230 v for CO₂ switch

FEATURES

Housing

- The sheet steel casing keeps noise levels to a minimum.
- The inside is made of sound-absorbing and fire-resistant material.
- Air ducts for supply and return to the living area can be connected either from above or below.
- The ventilation unit is easy to convert from a right-hand to a left-hand residential connection, so that the installation always runs smoothly.

Heat exchanger

- Plastic counterflow exchanger with an efficiency of > 90%.
- Low air resistance
- Low noise and energy consumption
- Automatic frost protection during cold winter months

Full bypass

- A fully automatic by-pass for summer night ventilation

Fans

- Smooth start-up and dosed increase in speed
- Extra-quiet operation
- A constant volume control in combination with the Vasco control
- Guaranteed air volumes
- The large blades are virtually insensitive to contamination

Constant volume control

- The set flow rate is automatically adjusted, regardless of the resistance of the air ducts and contamination of the filter.
- 3 settings that are easy to adjust

Filters

- Replacement via filter drawer (front of unit)
- Electrostatic and anti-bacterial
- Coarse and fine dust and pollen filters
- Equivalent to filter class F6
- Filter service life approx. 12 to 18 months depending on the air volumes ventilated
- Filter message when the switch is operated

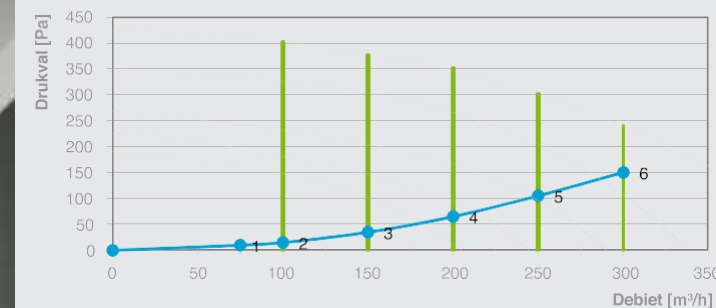
AIR VALVES

- Very easy to mount on regulating valve (without tools)
- Finish: lacquer RAL 9016
- External dimensions = 230 mm
- The adjustment valve is supplied separately with the design air valve as standard.



D300E II

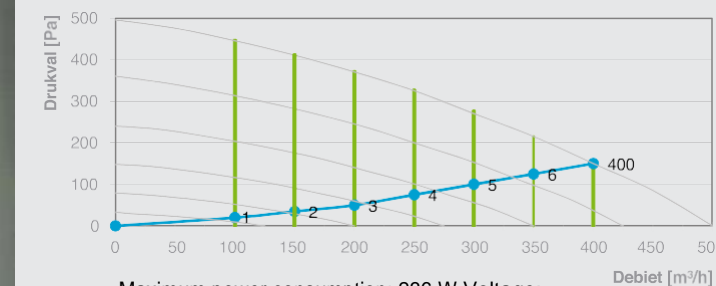
	1	2	3	4	5	6
Capacity m ³ /h	75	100	150	200	250	300
Pressure Pa	10	15	35	65	105	150
Power W	2	4	15	36	69	120
Current A	0,02	0,04	0,15	0,35	0,65	1,02
Voltage V	230	230	230	230	230	230



Maximum power consumption: 165 W Voltage: 230 VAC
Maximum current: 1.3 A

D400(EP) II

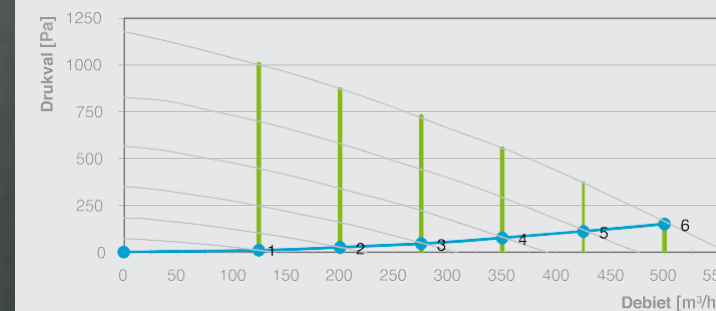
	1	2	3	4	5	6	7
Capacity m ³ /h	100	150	200	250	300	350	400
Pressure Pa	20	35	50	75	100	125	150
Power W	17	31	51	81	120	174	236
Current A	0,14	0,26	0,43	0,66	0,95	1,35	1,80
Voltage V	230	230	230	230	230	230	230



Maximum power consumption: 236 W Voltage: 230 VAC
Maximum current: 1.3 A

D500(E) II

	1	2	3	4	5	6
Capacity m ³ /h	125	200	275	350	425	500
Pressure Pa	10	25	45	75	110	150
Power W	5	21	55	114	205	333
Current A	0,04	0,18	0,45	0,90	1,54	2,41
Voltage V	230	230	230	230	230	230



Maximum power consumption: 333 W Voltage: 230 VAC
Maximum current: 2.63 A

The following tables show the capacity and power consumption of the unit D II as a function of air flow rate and pressure loss in the canal system

new D275 II

The Vasco ventilation unit **D275 II**, with its adjustable capacity of 185 to 275 m³/h, is the ventilation solution for flats and more compact housing developments. Its innovative design allows it to be installed either on the wall or on the ceiling. The built-in heat exchanger ensures efficient heat recovery, making the house particularly energy efficient.

Thanks to the electrostatic and anti-bacterial filters, the freshest and cleanest air enters your home or flat inside. No more pollen and dust! Weighing in at 23kg, the D275 II is an absolute lightweight in its class. This makes it easy to install. by 1 person.

The D275 II has an ultra-quiet and economical DC fan that keeps noise to an absolute minimum.

Ventilation

for compact homes



SYSTEM D275 II

This compact ventilation unit with heat recovery provides extraction in the so-called wet areas such as the bathroom, toilet, laundry room, storage room and kitchen. At the same time, fresh air is supplied to the living room and bedrooms. Heat is transferred between the extracted and supplied air, which makes the house very energy efficient.

ADVANTAGES

COMPACT DIMENSIONS AND WITH 23 KG AN ABSOLUTE LIGHTWEIGHT

WHISPER-QUIET VENTILATION IN COMBINATION WITH AN INNOVATIVE DUCT SYSTEM

ENERGY-SAVING FANS

EPC REDUCTION

IDEAL FOR RENOVATIONS DUE TO UNIQUE CONSTANT VOLUME CONTROL

EASY ADJUSTMENT OF THE SYSTEM WITH SMILEY ADJUSTMENT VALVE

APPLICATIONS

- Ideal for flat and more compact housing.
- Ideally suited for both new construction and renovation projects.

FEATURES

D275 II - D275EP II

- Maximum setting from 185 to 275 m³/h.
- EPC reduction, data included in ISSO database
- Supplied as standard with wireless control with 3 settings and a timer function.
- Can be installed as a wall or ceiling model without a casing.
- Can be built into wall cupboards thanks to handy 592 mm width.
- Casing made of EPP (expanded polypropylene).
- Low-noise EC direct current fan.
- Plastic counterflow exchanger with an efficiency > 90%.
- Easy to clean.
- Healthy indoor climate thanks to fine dust and pollen filter.
- Frost protection through periodic imbalance.
- Set flow rate is automatically controlled, regardless of the resistance of the air ducts and contamination of the filter
- Full by-pass is ideal for summer night ventilation
- Passive house certificate for D275EP II



Dimensions: 1183 x 592 x 300 (h x w x d)
Weight: 23 kg
Air ducts (inside/outside): Ø150 mm

System D275 II

OPERATION

- Wireless or wired control
- Timer function
- Controllable from anywhere in the house with additional switches

Demand-driven regulation

- Moisture control: with eco and comfort modes that react quickly to changing moisture levels in your home
- CO₂ control: with eco and comfort mode that regulate the CO₂ content in the house.
- Can be extended to up to 20 sensors allowing room-by-room control.
- Battery: 2 x 1.5 v AA for RH switch Power supply: 1x 230 v for CO₂ switch

FEATURES

Fans

- Smooth start-up and dosed increase in speed
- Extra-quiet operation
- A constant volume control
- Guaranteed air volumes
- The large blades are virtually insensitive to contamination

Filters

- Replacement via front filter drawer
- Electrostatic and anti-bacterial
- Coarse and fine dust and pollen filters
- Equivalent to filter class F6
- Filter service life approx. 12 to 18 months depending on the air volumes ventilated

AIR VALVES

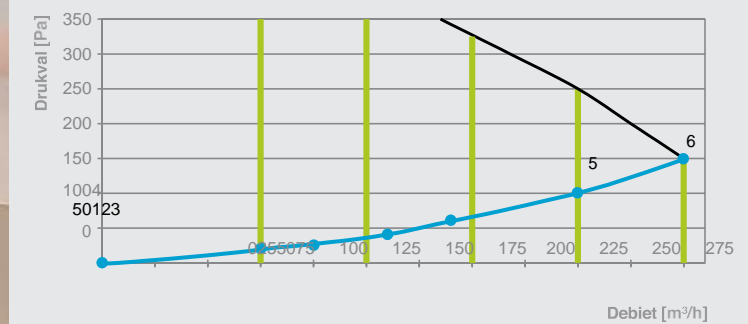
- Very easy to mount on regulating valve
- Finish: lacquer RAL 9016
- outer dimensions = 230 mm
- the adjustment valve is supplied separately with the design air valve as standard



The following table shows the capacity and power consumption of the unit D275 II - D275EP II depending on the air flow rate and Pressure loss in the duct system

D275 II / D275EP II

	1	23456				
Capacity m ³ /h	75	100	135	165	225	275
Pressure Pa	20	25	40	60	100	150
Power W	15	20	33	51	95	160
Stroom A	0,15	0,20	0,32	0,48	0,84	1,34
Voltage V	230	230	230	230	230	230



System C

Vasco C400, with its maximum adjustable capacity of 250 to 400 m³/h

The ideal domestic ventilator and suitable for every type of

Vasco C400 is available in various versions: with **standard or Perilex plug** and optional **3 position switch**, with **wireless control** or with **demand-controlled**



mechanical ventilation

SYSTEM C

The C400 provides extraction in the so-called 'wet' areas such as bathroom, toilet, laundry room, storage room and kitchen. Fresh air enters via air vents above the windows in the dry rooms.

Through the flow-through openings between the different rooms, an optimal air circulation and quality is achieved in the entire house.

ADVANTAGES

ACTIVE NOISE INSULATION ENSURES WHISPER-QUIET VENTILATION

PARTICULARLY EASY TO CLEAN

BEAUTIFUL FINISH WITH UNIQUE DESIGN GRIDS

EXTENSION POSSIBLE WITH DEMAND CONTROL

C400 RF IDEAL FOR RENOVATION AND REPLACEMENT

C400 RF HAS UNIQUE CONSTANT VOLUME CONTROL

APPLICATIONS

- Ideal for renovation projects and replacement of existing ventilation units.
- Ideally suited for new construction projects with strict EpC requirements.



Dimensions: 470x460x311 (hwxwd)
Weight: 5.5 kg
Air ducts (outside): 1xØ150 mm Air ducts (inside): 1xØ150 / 3xØ125mm

TYPES AND PROPERTIES

C400 PERILEX

with Perilex plug and optional 3-position switch

- EPC reduction: 0.103*
- Valves in wet areas
- Economical EC direct current fan
- Easy to clean

C400 RF

Perilex or Basic version and radio frequency control (RF)

- EPC reduction: 0.142*
- Economical EC direct current fan
- Easy to clean
- Also wired connection with 3 position switch
- **Demand control possible through expansion with CO₂ and/or humidity sensors**
- Available in version with or without RF switch
- Extension possible up to 20 RF switches and/or CO₂ sensors and/or humidity sensors
- Ideal for refurbishment and replacement: the unique constant control allows the right air volume to be selected in an existing and unknown duct system

* Study is based on example of detached house Agentschap NL and systems on 8 May 2012 included in Uniec 2.0 software.

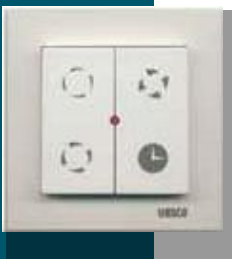
System C

OPERATION



Standard 3 position switch

- Familiar operation for the C400 Perilex and C400 RF
- Wiring between switch and unit
- Also suitable for installation
- Surface-mounted box included



RF wireless control

- LED indication that the signal has been received
- Timer function
- Controllable from anywhere in the house with additional switches
- Ideal for the renovation market
- Battery life of at least 15 years under normal use



Demand-controlled drainage

- Moisture control: with eco and comfort modes that react quickly to changing moisture levels in your home
- CO₂ control: with eco and comfort mode that regulate the CO₂ content in the house.
- Can be extended to up to 20 sensors allowing room-by-room control.
- Battery: 2 x 1.5 v AA for RH switch Power supply: 1x 230 v for CO₂ switch

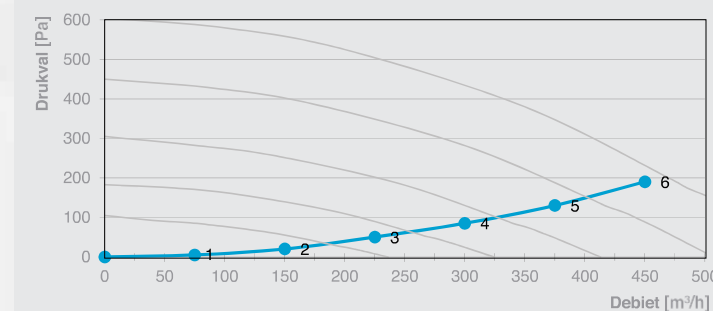
AIR VALVES

- Very easy to mount on regulating valve
- Finish: lacquer RAL 9016
- External dimensions = 230 mm
- The adjustment valve is supplied separately with the design air valve as standard.



C400 PERILEX

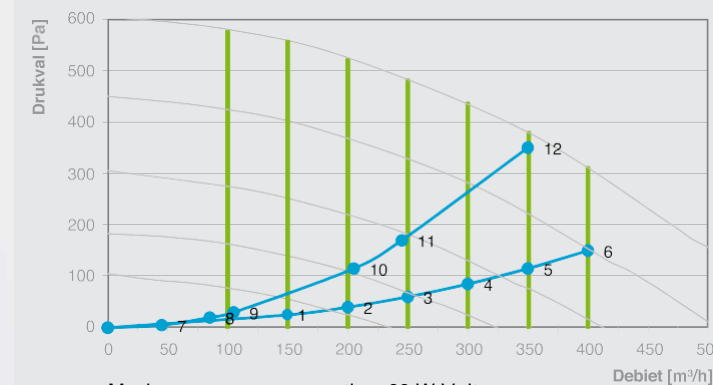
	1	2	3	4	5	6
Capacity m ³ /h	75	150	225	300	375	450
Pressure Pa	5	20	50	85	130	190
Power W	1	3	9	21	41	71
Current A	0,01	0,03	0,09	0,20	0,39	0,64
Voltage V	230	230	230	230	230	230



Maximum power consumption: 83 W Voltage: 230 VAC
Maximum current: 0.75 A

C400 RF

	1	2	3	4	5	6
Capacity m ³ /h	150	200	250	300	350	400
Pressure Pa	25	40	60	85	115	150
Power W	3,5	9	18	24	33	44
Current A	5	5	5	5	5	5
Voltage V	230	230	230	230	230	230
	7	8	9	10	11	12
Capacity m ³ /h	45	85	105	205	245	350
Pressure Pa	5	20	30	115	170	350
Power W	3,5	4,5	6,4	18	30	81,4
Current A	5	5	5	5	5	5
Voltage V	230	230	230	230	230	230



Maximum power consumption: 83 W Voltage: 230 VAC
Maximum current: 5 A

The following tables show the capacity and power consumption of the unit C as a function of air flow rate and pressure loss in the canal system

EASYFLOW air duct system

The **Vasco Easy Flow air duct system** is a unique concept to simplify the installation of ventilation. A limited number of components and an ingenious logistics concept ensure easy and worry-free installation.

Assembly is fast, easy and particularly flexible. The limited number of different components is so adaptable that the installer can adjust it at will.

The unique telescopic system makes gluing, screwing and sawing work unnecessary.



Flat and oval system

The Vasco Easy Flow air duct system is suitable for installation in suspended ceilings, insulation layers, light infill layers and cement screeds. Vasco recommends that Easy Flow air ducts should not be used in in situ concrete layers.

Straight cuts ensure minimal pressure loss

The air ducts are equipped with straight pieces, which may or may not be flexible. This minimises pressure loss and makes it super-easy to make bends.

No cutting or sawing

The Vasco Easy Flow air duct system consists of air ducts of over 1 meter. These slide into each other, making the total length from the plenum to the valve connection piece flexible. No sawing or cutting is required during installation.

Airtight connections

The connections between the components are especially airtight due to the use of pre-assembled rubber seals.

Mounting brackets included as standard

The mounting brackets are included as standard for easy mounting. This makes installation and assembly particularly stable and precise.

Particularly easy cleaning

Each air valve has one air duct, so no more parallel air ducts, which makes cleaning easier.



POSSIBILITIES

PLENUM

- The plenum has 4-6 connections where the air ducts of the Easy Flow ventilation system can be connected to it. Easy to mount thanks to the flexible mounting tabs.



AIR CHANNEL

- The air duct has a flexible segment with which bends can easily be made. One end has a rubber seal, the other end has a searching edge.
- This way, two air ducts are simply connected and a particularly good airtightness is ensured. The unique telescopic system makes sawing almost unnecessary.



VERTICAL BEND 90°

- The vertical bend 90° is a specific attachment intended to provide a vertical bend in the Easy Flow air duct system.
- In combination with the valve connection piece, a wall valve can easily be connected.
- The vertical elbow is equipped with a rubber seal and is supplied with 1 mounting bracket as standard.



VALVE CONNECTION PIECE SQUARE AND STRAIGHT

- The valve connection piece, like the air duct, has a rubber seal that ensures an airtight connection with the air duct. A drain valve of Ø 125 mm can be connected to the valve connection piece.



TRANSITION

- The transition piece is, like the air duct, provided with a rubber seal that ensures an airtight connection with the air duct. This transition piece can be connected directly to the C400(RF) 125 mm connection.



ADJUSTMENT VALVE

- Designed for both inlet and outlet valve Ø 125 mm
- Easy manual adjustment of the required air flow rate in relation to the calculated air flow rate
- Infinitely adjustable with a scale between 1 and 8, or between 11 and 18 (by removing central section)



AIR VALVES

- Exclusively designed for the regulating valve of the Easy Flow system.
- Easy to remove for cleaning with a quarter turn. The adjustment valve thus stays neatly in the ceiling and is not disturbed.

Vasco ventilation and EPC

SUSTAINABILITY

The well-known EPG software packages, **ENORM, UNIEC 2.0 AND BINK** leave no doubt: Vasco ventilation is at the top of the EPC reduction league.

Below you will find calculations for AGENTSCHAP EN reference houses. If you have a Uniec 2.0 file. If you have any information about a project, you can send it via our website for a no-obligation recalculation of the EPC with a Vasco ventilation system.

TAILOR-MADE ADVICE FOR RESIDENTIAL CONSTRUCTION

At Vasco we strive for the best possible end result for each house building project.

The correct duct plan is very important in order to perfectly match the air flow with the length of the duct system.

In this way, we can be sure that the maximum yield is always obtained from our quality products. Please contact us for customised advice for your project.

MAINTENANCE

To get the most out of Vasco ventilation units, it is advisable to have the ventilation system serviced once a year by a specialist ventilation installer.

EPC SOFTWARE AND ISSO DATABASE

Vasco ventilation systems are included in the ENORM, UNIEC 2.0 AND BINK software package, so that a specific EPC calculation can be made for each project.

In addition, all D units are included in the ISSO database for the Energy Performance Method for renovation and new construction.

MORE THAN VENTILATION

Vasco has long been a leading European player in the field of decorative radiators. But that is not all. We have built up 30 years of experience in the field of underfloor heating and are now a well-known supplier of silent ventilation systems with and without heat recovery.

DOCUMENTATION AND ASSEMBLY INSTRUCTIONS

The most up-to-date documentation is always available on our updated website www.vasco.nl.

An easily usable source of information.

	SY TEAM C			SYSTEM D			
	C400	C400 RF (1)	C400 RF (2)	D300E II	D400 II	D400(EP) II	D500(E) II
INTERMEDIATE	0,103	0,142	0,156	0,176	0,153	0,153	N/A
DETACHED HOUSE	0,078	0,096	0,103	0,095	0,084	0,084	0,080

- (1) C400 RF + 1x CO₂ sensor in kitchen
- (2) C400 RF + 1x CO₂ sensor in each living space



