

# AIR CURTAINS

Since 1997

COMFORT AND SAVINGS





# DISTRIBUTORS IN 45 COUNTRIES AROUND THE WORLD

- A leading European manufacturer of Air Curtains, Air Handling and Heat Recovery Units and wide range of HVAC products
- Creating efficient solutions since 1995
- Innovative, specialized, focused
- In-house R&D
- European quality
- Worldwide presence



# 2VV AIR CURTAINS – COMFORT AND SAVINGS

Air Curtains keep the inside conditions in and the outside conditions out so you can keep your door open...

#### **AIR CURTAINS EFFECTS**

- Comfortable indoor environment
- Limit heat losses in winter
- · Limit conditioned air leakage in summer
- Significant energy saving

2VV Air Curtains are suitable for many environments such as restaurants, administrative and commercial centers, airports, manufacturing facilities, warehouses and logistic centers.

# DATA MEASUREMENT STANDARDS

Key parameters of 2VV Air Curtains - air volume, air flow reach and sound power level are measured exclusively according to ISO 27327.

The data measured according to ISO 27327 are included in the 2VV technical leaflets and are available to download in the Product Catalog section.

# STRAW SYSTEM TECHNOLOGY

Special nozzle system providing the best performance...

# **STRAW** SYSTEM

- Laminar and compact airflow
- · Steady and even airstream
- Low noise level

# ZIG-ZAG TECHNOLOGY

Effective electric heating solution with higher safety

- Special wire heaters
- Instant start-up / instant stop of heating
- Increased safety each with its own working thermostat







# EC TECHNOLOGY

#### **2VV Air Curtains continuously** innovative and focused...

- Low energy consumption
- High level of controllability
- Maximized efficiency, minimized operating cost



# DUAL AIRSTREAM SYSTEM

#### Interior comfort, minimized heat losses, reduced heating demand...

- Non-heated and water heated airstream both with the same air velocity
- Limited heat losses and reduced heating demand
- Excellent comfort in screened area





	BASIC	ENTRESSE	ESSENSSE NEO	STANDESSE	FINESSE	STANDESSE XP	VENESSE	INDESSE	INDESSE INOX	INDESSE GP
Applications	Fast-food facilities, drive-thru restau- rants, petrol stations, receptions	Shops, restaurants, cafes, bars, petrol stations	Shops, shopping centres, restaurants, administrative buildings	Banks, luxury shops, shopping centres, administrative buildings, airports	Banks, administrative buildings, shopping centres, airports	Airports, shopping centres, administrative buildings, other public premises	Banks, offi ces, restaurants, hotels, shopping centres	Manufacturing facilities, warehouses, distribution centres	Manufacturing facilities, warehouses, distribution centres	Manufacturing facilities, warehouses, distribution centres
Airflow	up to 345 m³/h	1,250-2,640 m³/h	1,500-6,100 m³/h	1,550-6,400 m³/h	1,700-6,600 m³/h	6,000-12,000 m³/h	up to 4,700 m³/h	10,300-19,000 m³/h	10,300-19,000 m³/h	10,500-17,500 m³/h
Fan type	AC FANS	AC FANS	AC FANS EC FANS	AC FANS EC FANS	AC FANS FANS	<b>EC</b> FANS	AC FANS	AC FANS EC FANS	AC FANS FANS	EC
Installation	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal Recessed	Horizontal	Vertical	Horizontal / Vertical	Horizontal / Vertical	Horizontal / Vertical
Door height / width	Recommended height up to <b>0,8 m</b>	Recommended height up to <b>2,5 m</b>	Recommended height up to <b>4 m</b>	Recommended height up to <b>5 m</b>	Recommended height up to <b>5 m</b>	Recommended height up to <b>6 m</b>	Recommended width up to <b>4 m</b>	Recommended height/width up to <b>8 m</b>	Recommended height/width up to <b>8 m</b>	Recommended height/width up to <b>7,5 m</b>
Length	0.6 and 0.9 m	1 m; 1.5 m; 2 m	1 m; 1.5 m; 2 m; 2.5 m	1 m; 1.5 m; 2 m; 2.5 m	1 m; 1.5 m; 2 m; 2.5 m	1,5 m; 2 m; 2,5 m; 3 m	Height 2.5 m	1.65 m; 2.20 m; 2.75 m	1.65 m; 2.20 m; 2.75 m	1.65 m; 2.20 m; 2.75 m
Heating	<u></u>	<u> </u>	<u>\$\$\$</u> \$\$0 巫	<u>\$\$\$</u> \$\$0 巫	<u>\$\$\$</u>	<u>\$\$0</u> B	<u>\$\$\$</u>	<u>\$\$\$</u>	<u>\$\$0</u> B	550
Control	RF control	IR control	SUPERIOR SUPERIOR COMFORT BASIC AirGENIO control	SUPERIOR COMFORT BASIC AirGENIO control	SUPERIOR SUPERIOR BASIC AirGENIO control	AirGENIO SUPERIOR control	SUPERIOR SUPERIOR COMFORT AirGENIO control	AirGENIO Basic	AirGENIO Basic	AirGENIO Basic
Technologies	FACE 2in1 WIRE HEATER	STRAW SYSTEM HEATER	STRAW SYSTEM HEATER MODULAR CONTROL	FACE 2in1 MODULAR CONTROL	FACE 2in1 WIRE HEATER MODULAR CONTROL	STRAW SYSTEM NOISE	STRAW SYSTEM NOISE	STRAW SYSTEM HEATER	SYSTEM C4 CLASS	STRAW SYSTEM DUAL AIRSTREAM

2VV AirGENIO is the exceptional control system loaded with smart features that minimize energy consumption while providing maximal comfort in the interior.

# INTUITIVE

INNOVATIVE

# INTELLIGENT

# INTUITIVE

Instructive and easy to understand menu together with the modern look of the control panel makes the AirGENIO intuitive and easy-to-operate control system. This starts with a clear icons in User's menu and well-organized and clearly set up Service menu.

- Clear icons
- Coloured touch-screen display
- Systematic Service Menu

#### INNOVATIVE

Commission, control and service the 2VV device remotely with the AirGENIO control system. Choose your way for remote control:

- Building Management System (network protocols Modbus RTU/TCP, BACnet)
- AirGENIO application
- Service Software



# INTELLIGENT

Complex and refined algorithms, smart functionalities and supplementary modes work together to make AirGENIO highly intelligent control system.

In the automatic mode it continuously senses and evaluates measured data and subsequently, thanks to the programmed logic, operates the air curtain in the best possible way. With the help of smart functionalities designed particularly for heating equipment it keeps maximal comfort in the interior and prolongs the equipment longevity.

#### Smart functionalities:

#### Auto-speed control

AirGENIO control together with integrated temperature sensors ensures the air curtain operation at maximum comfort and the lowest operating cost

#### Self-learning mode

Eliminates useless start-ups at frequent door openings – saves operating cost and prolongs air curtain lifetime

#### Summer heating

During pre-set (summer) time period the air curtain heats up only if the outside/inside temperature difference exceeds the pre-set scale

#### Nigh mode

For pre-set time period the air curtain is automatically switched OFF or heats up for minimal requested room temperature

Furthermore the control system takes into account the geographical differentiation and various advance settings can be done.

# AirGENIO control system



# AirGENIO control system SOLUTIONS

AirGENIO control provides various solutions from high-tech to basic level allowing the client to customize their controls. Thanks to one platform of the control system you will intuitively know how to set it up and control it.







AirGENIO COMFORT AirGENIO SUPERIOR **AirGENIO** 10-0

	BASIC	COMFORT	SUPERIOR	IC-C
Control panel	Manual	Touch-screen	Touch-screen	Touch-screen
Mode	Manual	Auto / Manual	Auto / Manual	Auto / Manual
Airflow control	3 speeds	3 speeds	3 speeds (AC) 15-100% (EC)	5 speeds (AC) 15-100% (EC)
Electric heater control	2 steps	2 steps	Fluent (PWM)	Fluent (PWM) or 2 steps
Water heater control	ON/OFF	ON/OFF (AC) 0-10V or ON/OFF (EC)	0-10V	0-10V or ON/OFF
Anti-freeze protection	×	✓	✓	✓
Timer	×	✓	✓	✓
Door contact	(230V)	(12V, 230V)	(12V, 230V)	(12V, 230V)
Room thermostat	(230V)	✓	✓	✓
External control	×	✓	✓	✓
Error contact	×	✓	✓	✓
Temperature measurement	×	(NTC)	(NTC)	(NTC)
Chaining	×	✓ - max 10+1 pcs	✓ - max 10+1 pcs	✓ - max 10+1 pcs
BMS connection	×	✓ – Modbus RTU	<ul> <li>Modbus RTU/TCP or BACnet</li> </ul>	<ul> <li>Modbus RTU/TCP or BACnet</li> </ul>
Service Software	×	×	✓	✓
Auto-speed control	×	✓	✓	✓
Self-learning mode	×	✓	✓	✓
Summer besting	••	✓	<b>v</b>	<b>√</b>
Summer heating	×	•	_	_

# MagiCAD - 3D MODELS

#### Building design with 2VV has never been easier...

#### **2VV BIM DATABASE**

MagiCAD offers designers, engineers and architects access to over 1 million intelligent 3D product models including the complete 2VV's range of Air Curtains and Air Heaters. MagiCAD can be used with either AutoCAD or Revit.

## **CFD** Simulations

#### A picture is worth a 1000 words and a CFD is worth so much more...

- CFD (Computational Fluid Dynamics) simulates behaviour of air movement in specific conditions
- Get CFD simulation for 2VV air curtains and let the pictures tell the story
- Erase client doubts by CFD

CFD simulation could be the difference between winning the project or not.

## 2VV SELECTION SOFTWARE ChooseGO

#### Essential product selecting tool for project design...

- Precise and reliable data
- Right product selection from 2VV wide range









- Final result and one-click into PDF
- Supplementary documents available (technical catalogue, 2D drawings, schemes...)

# 2VV SERVICE SOFTWARE

#### Commissioning has never been easier...

Do the 2VV device settings and testing comfortably on your computer.

- Easy and quick commissioning
- Error log error display and identification
- Easy service (device status loading/ reset to backup setting)
- Fast FW update
- OFFLINE version



# 2VV AirGENIO APPLICATION

- 2VV product fully under your control and right at your hands...
- Product control on your smartphone
- Info about operation status
- Notifications request for service, filter exchange, error status, etc.

Download the 2VV AirGENIO application and have it under your control!





# It is that easy...

- Connect your PC and the 2VV device
- Open the 2VV Service software
- ...and start the setting up process

# REFERENCES

#### INDESSE

Manufacturing facility ŠKODA Mladá Boleslav, Czech Republic



#### INDESSE Living hall – LIKO-Vo Slavkov u Brna, Czech Republic



**STANDESSE** Swimming arena BAKU Baku, Azerbaijan



**FINESSE, STANDESSE** Administrative and residential complex BARCODE Oslo, Norway



#### VENESSE

Shopping centre PALÁC PARDUBICE Pardubice, Czech Republic



#### VENESSE Shopping centre AVIAPARK



#### ESSENSSE

Shopping centre SCALO MILANO Milan, Italy



#### INDESSE

University hospital NEW KAROLINSKA SOLNA Stockholm, Sweden





2VV s.r.o. Fáblovka 568 533 52 Pardubice Staré Hradiště Czech Republic www.2vv.cz, 2vv@2vv.cz

