FRICO

AGS5000

Air curtain for doors in industrial and large premises, with intelligent control

- Recommended installation height 5 m*

- Horizontal mounting

- Lengths: 1,5, 2, 2,5 and 3 m

❅ Ambient, no heat

💧 Water heat WL

THERMOZONE TECHNOLOGY
Optimized airflow with
Thermozone technology.

Application
AGS5000 is a powerful air curtain intended for industrial doors but it can also be used for entryways in other large premises such as shopping malls.

With its many clever, energy saving functions, the air curtain gives effective protection, specially adapted for your door.
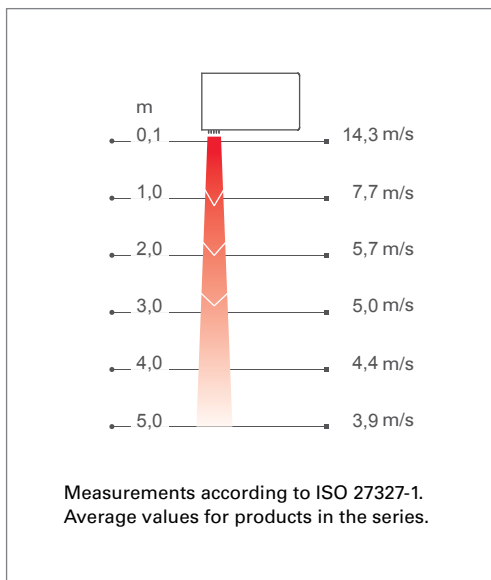
Design
AGS5000 has a timeless, clean design. The air curtain is intended for horizontal installation, models for vertical and recessed installation are available for special order.

Air velocity profile

m	
0,1	14,3 m/s
1,0	7,7 m/s
2,0	5,7 m/s
3,0	5,0 m/s
4,0	4,4 m/s
5,0	3,9 m/s

Measurements according to ISO 27327-1.
Average values for products in the series.

Product specifications

- Prepared for the SIRe control system whose pre-programmed default settings and many features make it easy to install and use the air curtain. Read more about the SIRe controls package in the "Controls" section.

- The following models are available for special order:
  - with electrical heating
  - with water coil WH for high water temperatures
  - with alternative water connections
  - for vertical installation
  - for recessed installation in suspended ceilings

- Intake grilles that can be opened make it easy to access the water coil. The grille is easy to clean from the outside.

- Adjustable outlet grille makes it possible to direct the air for optimum air curtain effect.

- Corrosion proof housing made of hot zinc-plate and powder enamelled steel panels. Colour: white, RAL 9016, NCS S 0500-N.Colour grille: grey, RAL 7046.

*) Recommended installation height varies depending on the relevant premises.

Technical specifications

❀ Ambient, no heat - AGS5000 A

Type	Output	Airflow*1	Sound level*2	Voltage motor	Amperage motor	Length	Weight
	[kW]	[m³/h]	[dB(A)]	[V]	[A]	[mm]	[kg]
AGS5015A	0	2650/5300	48/67	230V~	5,4	1515	100
AGS5020A	0	3800/7600	50/69	230V~	8,1	2010	130
AGS5025A	0	5100/10200	52/71	230V~	10,8	2520	165
AGS5030A	0	6000/12000	53/72	230V~	13,3	3030	195

♦ Water heat - AGS5000 WL, coil for low water temperature (≤80 °C)

Type	Output*4	Airflow*1	Δt*3,4	Water volume	Sound level*2	Voltage motor	Amperage motor	Length	Weight
	[kW]	[m³/h]	[°C]	[l]	[dB(A)]	[V]	[A]	[mm]	[kg]
AGS5015WL	25,0	2400/4800	20/16	4,0	47/66	230V~	5,2	1515	120
AGS5020WL	41,4	3500/7000	22/18	8,1	49/68	230V~	7,8	2010	155
AGS5025WL	53,7	4700/9400	21/17	9,2	50/69	230V~	10,4	2520	195
AGS5030WL	64,6	5800/11600	21/17	11,0	52/71	230V~	12,8	3030	235

*1) Lowest/highest airflow of totally 5 fan steps.

*2) Conditions: Distance to the unit 5 metres. Directional factor: 2. Equivalent absorption area: 200 m². At lowest/highest airflow.

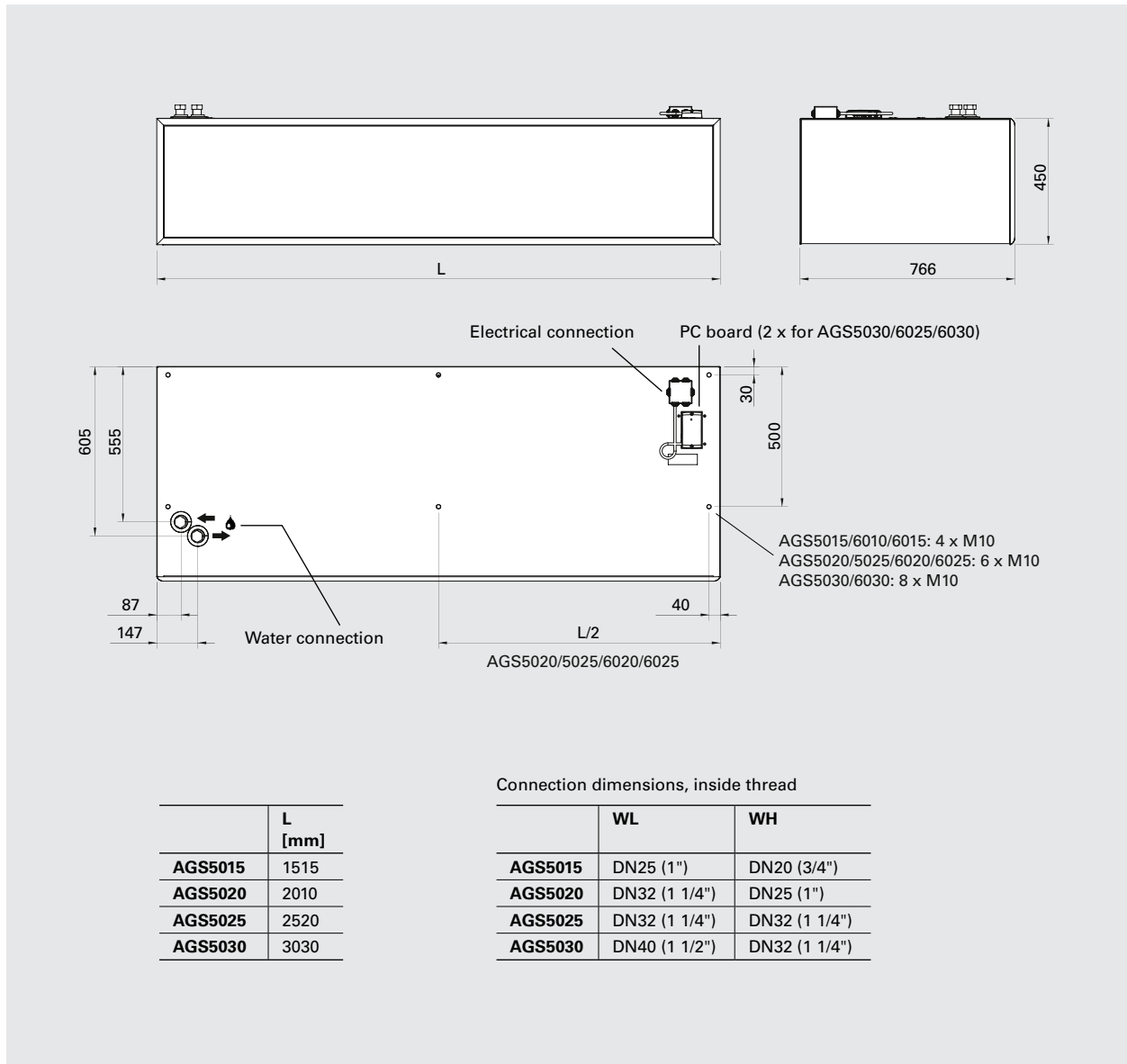*3) Δt = temperature rise of passing air at maximum heat output and lowest/highest airflow.

*4) Applicable at water temperature 60/40 °C, air temperature, in +18 °C.

Protection class: IP23.
CE compliant.

Design and specifications are subject to change without notice.

AGS5000

Dimensions

Electrical connection

PC board (2 x for AGS5030/6025/6030)

AGS5015/6010/6015: 4 x M10
AGS5020/5025/6020/6025: 6 x M10
AGS5030/6030: 8 x M10

Water connection

AGS5020/5025/6020/6025

450

766

30

500

605

555

87

147

L/2

40

L

	L [mm]
AGS5015	1515
AGS5020	2010
AGS5025	2520
AGS5030	3030

Connection dimensions, inside thread

	WL	WH
AGS5015	DN25 (1")	DN20 (3/4")
AGS5020	DN32 (1 1/4")	DN25 (1")
AGS5025	DN32 (1 1/4")	DN32 (1 1/4")
AGS5030	DN40 (1 1/2")	DN32 (1 1/4")

Mounting and connection

Mounting
The air curtain is installed horizontally with the supply air grille facing downwards as close to the door as possible. A variety of installation options are available; brackets for wall mounting or threaded bars for ceiling mounting.

Design package for an installation with concealed mountings, cables and pipes is available as an option.

For the protection of wider doorways, several units can be mounted next to each other.

Connection
The PC board SIRe is built into the air curtain on delivery and is equipped with modular connectors for easy connection of external components. Read more about the SIRe control system in the "Controls" section.
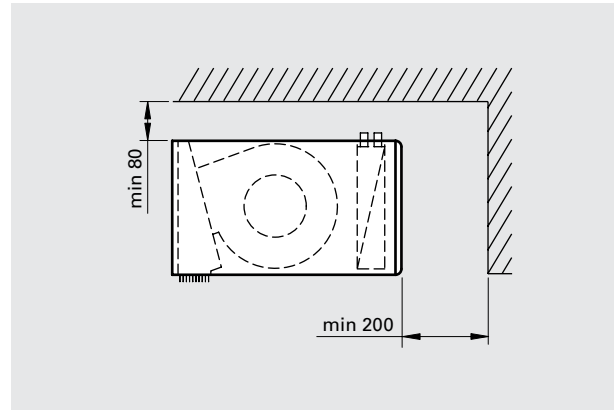
Unit without heating
Operation (230V~) is connected to terminal block in the junction box on top of the unit.

Unit with water heating
Operation (230V~) is connected to terminal block in the junction box on top of the unit.
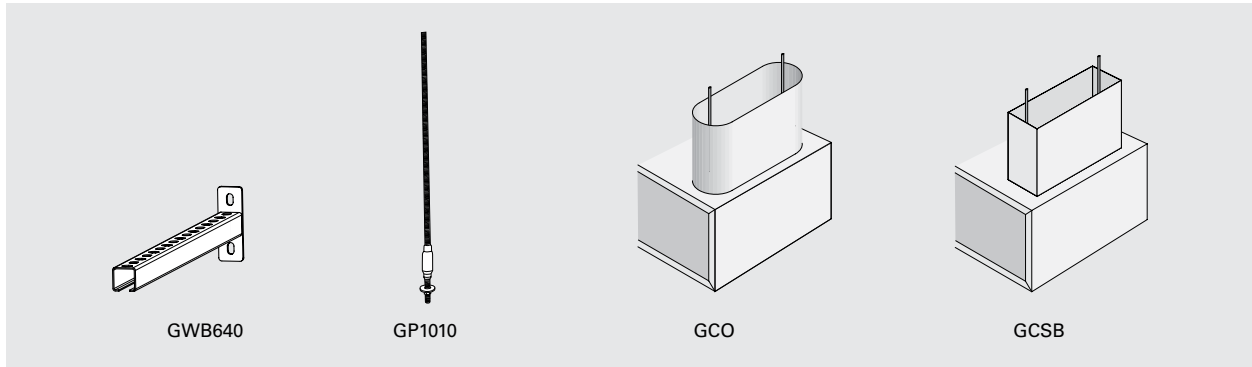
The water coil is connected via connections with dimensions as given in the table (see diagram) on top of the unit.

min 80

min 200

Minimum distances

AGS5000

Accessories

GWB640   GP1010   GCO   GCSB

GWB640, wall bracket
Brackets for installing unit horizontally on a wall. Two are required for 1 and 1.5 metre units, while 2 and 2.5 metre units need three and 3 metre units need four.

GP1010, threaded bar
Threaded bar for mounting in ceilings. Length 1 m. M10. Four are required for 1 and 1.5 metre units, while 2 and 2.5 metre units need six and 3 metre units need eight.

GCO, oval design kit
Used to conceal mountings, cables and pipes. Special order to required dimension.

GCSB, square design kit
Used to conceal mountings, cables and pipes. Special order to required dimension.

Type	Description	Quantity included	Length
GWB640	Wall bracket	1 pc	400 mm
GP1010	Threaded bar	1 pc	1 m
GCO	Oval design kit		
GCSB	Square design kit		

Controls

Advanced

Competent

Basic

Manual operation
Automatic mode
Flexible mode
Open mode
Calendar function
Filter alarm
Simple BMS-system
Eco mode
Comfort mode
Proactive regulation
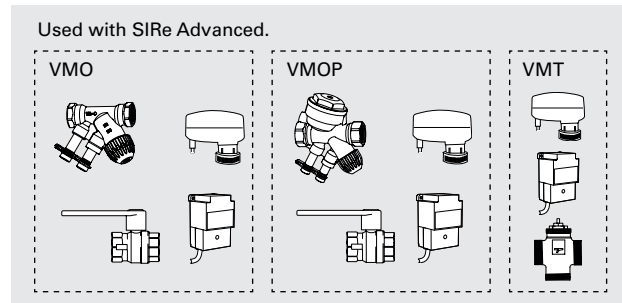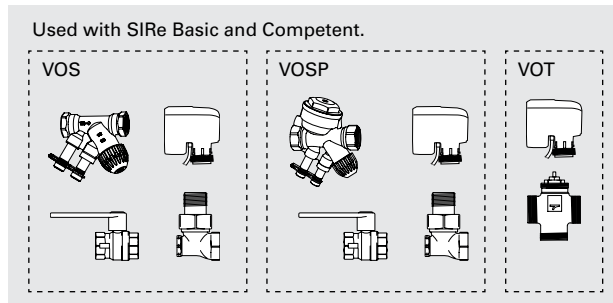Max limit for return water temperature
Advanced BMS-system
Ready for gateway BMS

This air curtain is supplied with an intregrated PC board SIRe. There are three different levels with different functionality to choose from, Basic, Competent or Advanced. Read more about the SIRe control system in the "Controls" section.

Type	Description
SIReB	Control system SIRe Basic
SIReAC	Control system SIRe Competent
SIReAA	Control system SIRe Advanced

Water control

Used with SIRe Basic and Competent.

VOS   VOSP   VOT

Used with SIRe Advanced.

VMO   VMOP   VMT

Valve kit VOS(P), VOT, VMO(P) or VMT is used to control the water flow. For more information see the "Controls" section.

Type	Description
VOS15LF	Valve kit on/off, low flow, DN15
VOS15NF	Valve kit on/off, DN15
VOS20	Valve kit on/off, DN20
VOS25	Valve kit on/off, DN25
VOSP15LF	Pressure independent valve kit, low flow, DN15
VOSP15NF	Pressure independent valve kit, DN15
VOSP20	Pressure independent valve kit, DN20
VOSP25	Pressure independent valve kit, DN25
VOT15	Three way control valve and actuator on/off, DN15
VOT20	Three way control valve and actuator on/off, DN20
VOT25	Three way control valve and actuator on/off, DN25

Type	Description
VMO15LF	Modulating valve kit, low flow, DN15
VMO15NF	Modulating valve kit, DN15
VMO20	Modulating valve kit, DN20
VMO25	Modulating valve kit, DN25
VMOP15LF	Pressure independent and modulating valve kit, low flow, DN15
VMOP15NF	Pressure independent and modulating valve kit, DN15
VMOP20	Pressure independent and modulating valve kit, DN20
VMOP25	Pressure independent and modulating valve kit, DN25
VMT15	Three way control valve and modulating actuator, DN15
VMT20	Three way control valve and modulating actuator, DN20
VMT25	Three way control valve and modulating actuator, DN25

AGS5000

Output charts water

Type	Fan position	Airflow [m³/h]	Supply water temperature: 80 °C, Room temperature: +18 °C, Outlet air temperature: +35 °C[1]				Water temperature: 80/60 °C, Room temperature: +18 °C			
			Output [kW]	Return water temp. [°C]	Water flow [l/s]	Pressure drop [kPA]	Output[2] [kW]	Outlet air temp. [°C]	Water flow [l/s]	Pressure drop [kPA]
AGS5015WL	max	4800	27,4	36,6	0,15	1,0	43,6	45,0	0,53	6,6
	min	2400	13,8	34,6	0,08	0,3	27,5	52,0	0,34	3,7
AGS5020WL	max	7000	40,1	30,6	0,19	1,6	70,2	47,8	0,86	20,8
	min	3500	20,1	28,6	0,09	0,5	43,5	54,9	0,53	8,8
AGS5025WL	max	9400	53,8	31,5	0,27	3,2	90,5	46,6	1,11	37,3
	min	4700	26,8	26,0	0,12	0,8	56,6	53,8	0,69	16,1
AGS5030WL	max	11600	66,4	32,8	0,34	2,6	110,1	46,2	1,34	30,5
	min	5800	33,2	29,0	0,16	0,7	68,9	53,3	0,84	12,8

Type	Fan position	Airflow [m³/h]	Supply water temperature: 70 °C, Room temperature: +18 °C, Outlet air temperature: +35 °C[1]				Water temperature: 70/50 °C, Room temperature: +18 °C			
			Output [kW]	Return water temp. [°C]	Water flow [l/s]	Pressure drop [kPA]	Output[2] [kW]	Outlet air temp. [°C]	Water flow [l/s]	Pressure drop [kPA]
AGS5015WL	max	4800	27,4	39,7	0,22	1,8	34,4	39,3	0,42	5,7
	min	2400	13,7	34,6	0,09	0,4	21,8	44,9	0,26	2,5
AGS5020WL	max	7000	40,1	34,0	0,27	2,9	55,9	41,7	0,68	14,2
	min	3500	20,1	29,0	0,12	0,7	34,8	47,6	0,43	6,1
AGS5025WL	max	9400	53,7	35,2	0,38	5,8	72,4	40,9	0,88	25,6
	min	4700	26,8	27,2	0,15	1,2	45,4	46,7	0,55	11,2
AGS5030WL	max	11600	66,4	36,3	0,48	4,7	87,4	40,4	1,06	20,2
	min	5800	33,2	29,5	0,20	1,0	54,8	46,1	0,67	8,6

Type	Fan position	Airflow [m³/h]	Supply water temperature: 60 °C, Room temperature: +18 °C, Outlet air temperature: +35 °C[1]				Water temperature: 60/40 °C, Room temperature: +18 °C			
			Output [kW]	Return water temp. [°C]	Water flow [l/s]	Pressure drop [kPA]	Output[2] [kW]	Outlet air temp. [°C]	Water flow [l/s]	Pressure drop [kPA]
AGS5015WL	max	4800	27,4	43,7	0,41	5,7	25,0	33,5	0,30	3,3
	min	2400	13,7	34,6	0,13	0,8	16,1	37,9	0,19	1,5
AGS5020WL	max	7000	40,1	38,5	0,45	7,2	41,4	35,6	0,50	8,6
	min	3500	20,1	30,0	0,16	1,2	26,0	40,0	0,31	3,8
AGS5025WL	max	9400	53,8	40,0	0,65	15,6	53,7	35,0	0,65	15,6
	min	4700	26,8	30,6	0,22	2,4	33,8	39,4	0,41	6,9
AGS5030WL	max	11600	66,4	41,1	0,85	13,8	64,6	34,5	0,78	11,8
	min	5800	33,2	31,7	0,28	1,9	41,0	39,0	0,50	5,2

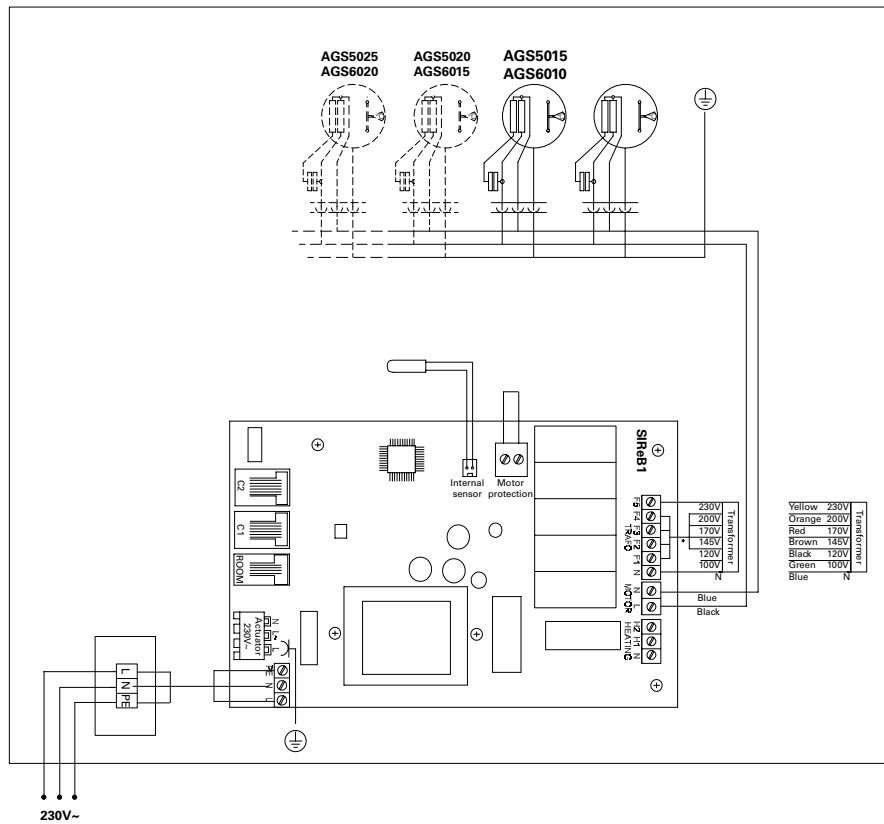| Type	Fan position	Airflow [m³/h]	Supply water temperature: 55 °C, Room temperature: +18 °C, Outlet air temperature: +35 °C[1]				Water temperature: 55/35 °C, Room temperature: +18 °C			
			Output [kW]	Return water temp. [°C]	Water flow [l/s]	Pressure drop [kPA]	Output[2] [kW]	Outlet air temp. [°C]	Water flow [l/s]	Pressure drop [kPA]
AGS5015WL	max	4800	27,4	46,0	0,74	16,6	20,2	30,5	0,24	2,3
	min	2400	13,7	36,4	0,18	1,3	13,1	34,2	0,16	1,1
AGS5020WL	max	7000	40,1	41,5	0,72	16,4	34,1	32,5	0,41	6,2
	min	3500	20,0	32,2	0,21	2,0	21,7	36,4	0,26	2,8
AGS5025WL	max	9400	53,7	43,3	1,11	40,5	44,2	32,0	0,53	11,2
	min	4700	26,8	33,1	0,30	4,0	28,3	35,9	0,34	5,1
AGS5030WL	max	11600	66,4	44,0	1,46	37,3	53,1	31,6	0,64	8,4
	min	5800	33,2	34,0	0,38	3,3	34,0	35,4	0,41	3,7

[1]) Recommended outlet air temperature for good comfort and optimized output.

[2]) Nominal output at given supply and return water temperature.

Wiring diagrams

Internal wiring diagram

AGS5015/5020/5025

AGS5030