Without heat
Electrical heat 15-36 kW
Water heat

Lengths: 1,5, 2 and 2,5 metres

CE

Thermozone® AGV 4000 A/E/W

Vertical air curtain for doorways with widths of up to 4 metres

The AGV4000 is our new air curtain for floor-standing mounting in larger entrances and doors. It is mounted on floor consoles by the side of the opening. With a clean, stylish and simple design it is suitable for shop entrances as well as for smaller industrial doors.

Several units can be mounted on top of each other to cover openings of different heights.

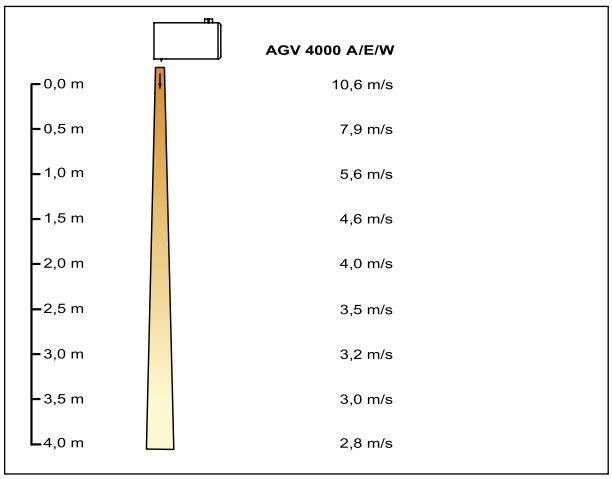
The AGV4000 creates an air barrier that effectively prevents cold draughts and provides a comfortable climate inside the door that allows you to utilise the floor space in front of the entrance. Large savings are made by the elimination of energy losses through openings. An adjustable air blower grille allows you to control the air flow to achieve an optimal air curtain effect.

In addition to preventing cold draughts, the AGV4000 prevents odours, exhaust gases and insects from penetrating the opening. The AGV4000 with heat contributes to heating the building and can also be used for drying in front of the door where a lot of snow and water enters. An AGV4000 without heat allows you to reduce energy losses through openings to cold rooms or to air conditioned areas.

- Timeless and stylish design with concealed screws and rivets.
- Corrosion proof welded housing made of hot zinc-plate steel panels. Painted with two-pack enamel. Colour: RAL 9016.
- Sound reduced construction.
- Mounting on accompanying floor consoles.
- The design of the intake air grilles makes separate dust filters superfluous.
- Air intake grille that can be opened makes access to the heater battery simple.
- An adjustable air blower grille allows you to direct the airflow for an optimal air curtain effect.

CE compliant.

Air velocity profile



Technical specifications | Thermozone AGV 4000 A without heat

Type	Airflow [m³/h]	Sound level*¹ [dB(A)]	Voltage [V]	Amperage [A]	Length [mm]	Weight [kg]
AGV4015A	1900/2850/3800	48/59/66	230V~	4,4	1500	42
AGV4020A	2700/4050/5400	50/61/67	230V~	6,4	2000	60
AGV4025A	3150/4730/6300	51/62/69	230V~	7,5	2500	71

*¹) Conditions: Distance to the unit: 5 metres. Directional factor: 2. Equivalent absorption area: 200 m².

Protection class AGV4000A without heat: (IP23).

Technical specifications | Thermozone AGV 4000 E with electrical heat

Type	Output stages [kW]	Airflow [m³/h]	Δt*¹ [°C]	Sound level*² [dB(A)]	Voltage [V] Amperage [A] (control)	Voltage [V] Amperage [A] (heat)	Length [mm]	Weight [kg]
AGV4015E	0/✲/15/22,5	1800/2700/3600	37/25/19	48/59/66	230V~/4,4A	400V3~/32,5A	1500	53
AGV4020E	0/✲/20/30	2600/3900/5200	34/23/17	50/61/67	230V~/6,4A	400V3~/43,5A	2000	76
AGV4025E	0/✲/24/36	3050/4580/6100	35/23/18	51/62/69	230V~/7,5A	400V3~/52A	2500	90

*¹) Δt = temperature rise of passing air at maximum heat output and low/medium/high airflow.
*²) Conditions: Distance to the unit: 5 metres. Directional factor: 2. Equivalent absorption area: 200 m².

Protection class AGV4000E with electrical heat: (IP23).

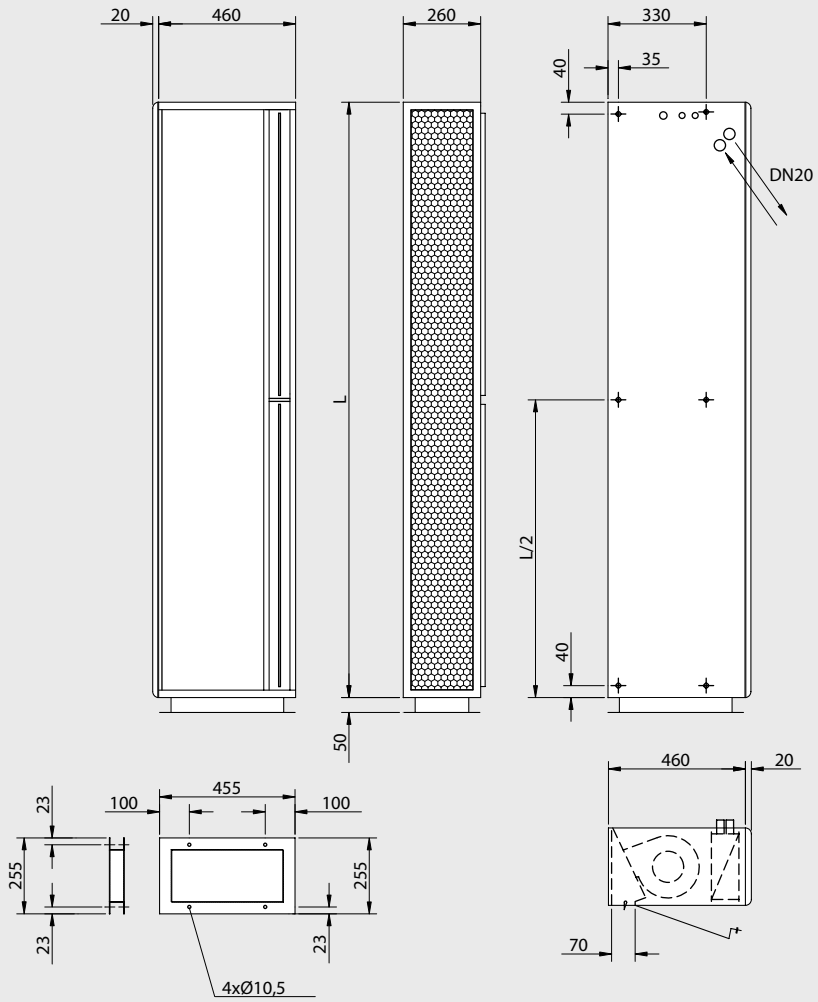
Technical specifications | Thermozone AGV 4000 W with water heat

Type	Output stages*¹ [kW]	Airflow [m³/h]	Δt*² [°C]	Water volume [l]	Sound level*³ [dB(A)]	Voltage [V]	Amperage [A]	Length [mm]	Weight [kg]
AGV4015WL	19/25/31	1750/2630/3500	32/29/26	3,2	48/59/66	230V~	4,3	1500	56
AGV4020WL	29/38/47	2550/3830/5100	34/30/27	4,4	50/61/67	230V~	6,1	2000	80
AGV4025WL	32/43/52	3000/4500/6000	32/28/26	5,5	51/62/69	230V~	7,2	2500	95
AGV4015WH	15/19/23	1750/2630/3500	25/22/19	2,2	48/59/66	230V~	4,3	1500	56
AGV4020WH	23/30/35	2550/3830/5100	27/23/21	3,1	50/61/67	230V~	6,1	2000	80
AGV4025WH	27/35/41	3000/4500/6000	26/23/20	3,8	51/62/69	230V~	7,2	2500	95

*¹) Applicable at water temperature 80/60°C, air temperature +15°C.
*²) Δt = temperature rise of passing air at low/medium/high airflow.
*³) Conditions: Distance to the unit: 5 metres. Directional factor: 2. Equivalent absorption area: 200 m².

Protection class AGV4000W with water heat: (IP23).

Dimensions



Positioning, mounting and installation

Mounting

The floor-standing AGV unit is mounted on the accompanying bracket that is bolted to the floor. Several units can be mounted directly on top of each other using bolts. The AGV unit should be secured to the ceiling or wall for this type of mounting. When ordering it must be stated whether the air curtain is to be mounted on the left side or the right side of the opening, seen from inside the building.

Regulation kits

Ambient

Level 1
Airflow is regulated manually.
Complete regulation kit:
- CB30N, control box, controls the airflow in 3 stages

Level 2
Desired airflow is set manually and the unit starts automatically, according to the setting, when the door opens. When the door closes the fan will continue to run for the desired time (1–10 min.) set on MDCT3.
Complete regulation kit:
- CB30N, control box, controls the airflow in 3 stages
- MDCT3, door contact with time delay

Electric

Level 1
Airflow is regulated manually. Room thermostat controls the heat output in 2 stages.
Complete regulation kit:
- CB32N, control box, controls the airflow in 3 stages and heat output in 2 stages
- RTI2, 2-stage room thermostat (option KRT2800)

Level 2
Airflow and heat output are controlled automatically based on the opening of the door and the room temperature.

When the door is open the fan runs on high speed, when the door closes the fan will continue to run for the desired time (1–10 min.) set on MDCT3. When the door is closed the fan runs on low speed if there is a need for heating, if not the fan is switched off.

The room thermostat controls the heat output. E.g. the thermostat is set on 23°C and the difference between the stages 4°C. The thermostat will activate below 19°C when the door is closed. When the door opens, the thermostat will activate below 23°C and normally the heat is switched on.
Complete regulation kit:
- CB32N, control box, controls the airflow in 3 stages and heat output in 2 stages
- MDCT3, magnetic door contact with time delay
- RTI2, 2-stage room thermostat (option KRT2800)

Level 3
Airflow and heat output are controlled automatically based on the opening of the door, outdoor temperature and the room temperature.

The system is based on an advanced microprocessing regulator in an attractive design.

All parameters are pre-programmed for easy and quick installation.
Complete regulation kit:
- ADEA, regulator (complete with outdoor sensor, built-in room sensor and door contact)
- ADEAEB, control board, for external mounting.

Read more about operation and usage of ADEA in chapter on Regulators and accessories.

See also chapter on Regulators and accessories or contact Frico for more options.

Water

Level 1
Airflow is regulated manually. Room thermostat controls the heat output via actuator/valve.
Complete regulation kit:
- CB30N, control box, controls the airflow in 3 stages
- RTE102, room thermostat IP30 (option KRT1900, IP55)
- VR20/25, set of valves (option only actuator/valve SD20/TVV20 or TVV25)

Level 2
Airflow and heat output are controlled automatically based on the opening of the door and the room temperature. When the door is open the fan runs on high speed, when the door closes the fan will continue to run for the desired time (1–10 min.) set on the MDCT3. When the door is closed the fan runs on low speed if there is a need for heating, if not the fan is switched off.

The room thermostat controls the heat output. E.g. the thermostat is set on 23°C and the difference between the stages 4°C. The thermostat will activate below 19°C when the door is closed. When the door opens, the thermostat will activate below 23°C and normally the heat is switched on.
Complete regulation kit:
- CB30N, control box, controls the airflow in 3 stages
- MDCT3, magnetic door contact with time delay
- RTI2, 2-stage room thermostat (option KRT2800)
- VR20/25, set of valves (option only actuator/valve SD20/TVV20 or TVV25)

Level 3
Airflow and heat output are controlled automatically based on the opening of the door, outdoor temperature and the room temperature.

The system is based on an advanced microprocessing regulator in an attractive design.

All parameters are pre-programmed for easy and quick installation.
Complete regulation kit:
- ADEA, regulator (complete with outdoor sensor, built-in room sensor and door contact)
- ADEAEB, control board, for external mounting
- VR20/25, set of valves (option only actuator/valve SD20/TVV20 or TVV25)

Read more about operation and usage of ADEA in chapter on Regulators and accessories.

See also chapter on Regulators and accessories or contact Frico for more options.

Output charts water

AGV4000WH

Incoming / outgoing water temperature 130/70°C

			Incoming air temp.= +15°C			Incoming air temp. = +20°C		
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**
AGV4015WH	max	3500	32,7	43	0,13	30,4	46	0,12
	min	1750	21,5	52	0,09	20,0	54	0,08
AGV4020WH	max	5100	50,0	44	0,20	46,5	47	0,19
	min	2550	32,8	53	0,13	30,5	56	0,12
AGV4025WH	max	6000	58,9	44	0,23	54,8	47	0,22
	min	3000	38,5	53	0,15	35,8	56	0,14

Incoming / outgoing water temperature 110/80°C

			Incoming air temp.= +15°C			Incoming air temp. = +20°C		
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**
AGV4015WH	max	3500	33,6	44	0,27	31,4	47	0,25
	min	1750	21,9	52	0,17	20,4	55	0,16
AGV4020WH	max	5100	52,1	45	0,42	48,7	48	0,39
	min	2550	33,7	54	0,27	31,5	57	0,25
AGV4025WH	max	6000	60,5	45	0,48	56,5	48	0,45
	min	3000	39,0	54	0,31	36,5	56	0,29

Incoming / outgoing water temperature 90/70°C

			Incoming air temp.= +15°C			Incoming air temp. = +20°C		
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**
AGV4015WH	max	3500	27,6	39	0,33	25,4	42	0,30
	min	1750	17,9	45	0,21	16,5	48	0,20
AGV4020WH	max	5100	42,8	40	0,51	39,3	43	0,47
	min	2550	27,6	47	0,33	25,5	50	0,30
AGV4025WH	max	6000	49,6	40	0,59	45,6	43	0,55
	min	3000	32,0	47	0,38	29,4	49	0,35

Incoming / outgoing water temperature 80/60°C

			Incoming air temp.= +15°C			Incoming air temp. = +20°C		
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**
AGV4015WH	max	3500	22,9	34	0,27	20,6	38	0,25
	min	1750	14,9	40	0,18	13,4	43	0,16
AGV4020WH	max	5100	35,4	36	0,42	32,0	39	0,38
	min	2550	22,9	42	0,27	20,7	44	0,25
AGV4025WH	max	6000	41,2	35	0,49	37,2	39	0,45
	min	3000	26,6	41	0,32	24,1	44	0,29

Output charts water

AGV4000WL

			Incoming / outgoing water temperature 80/60°C					
			Incoming air temp.= +15°C			Incoming air temp. = +20°C		
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**
AGV4015WL	max	3500	30,6	41	0,37	27,7	44	0,33
	min	1750	18,9	47	0,23	17,2	49	0,21
AGV4020WL	max	5100	46,8	42	0,56	42,4	45	0,51
	min	2550	28,8	49	0,35	26,1	51	0,31
AGV4025WL	max	6000	51,6	41	0,62	46,5	43	0,56
	min	3000	32,0	47	0,38	28,9	49	0,35

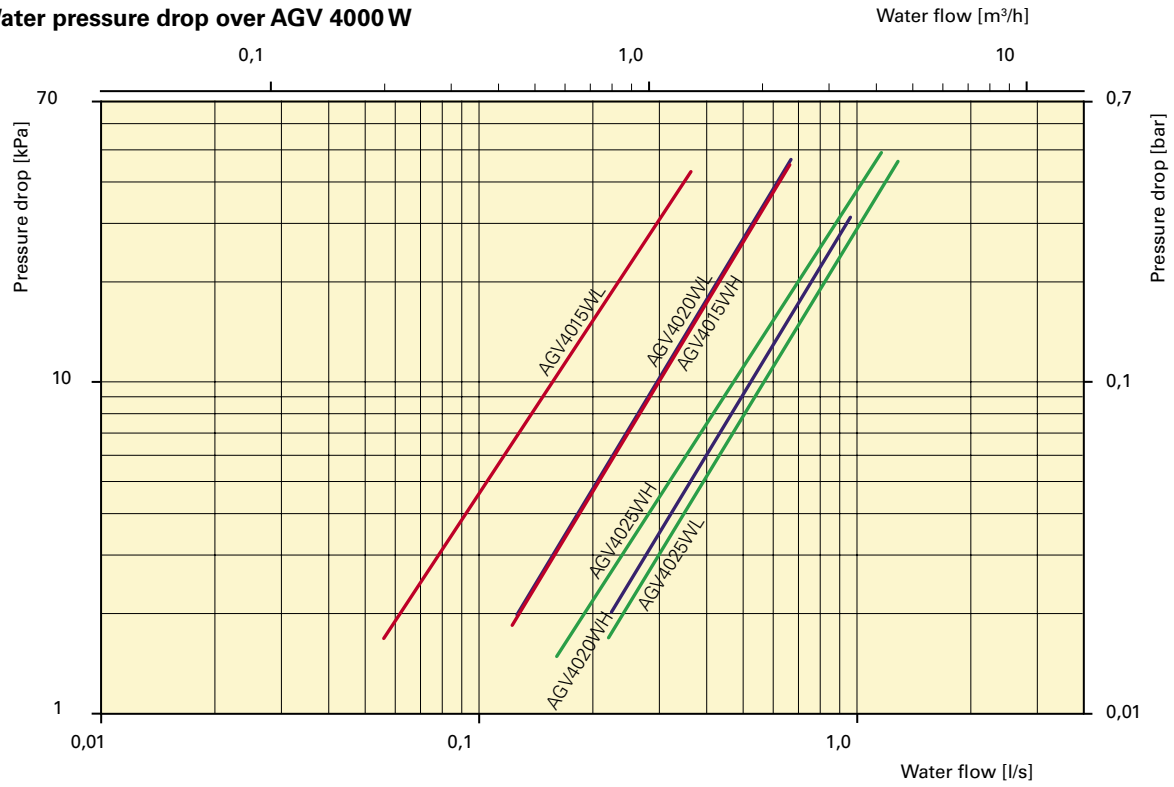
			Incoming / outgoing water temperature 60/50°C					
			Incoming air temp.= +15°C			Incoming air temp. = +20°C		
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**
AGV4015WL	max	3500	22,5	34	0,54	19,6	37	0,47
	min	1750	13,9	39	0,33	12,1	41	0,29
AGV4020WL	max	5100	34,5	35	0,83	30,0	38	0,72
	min	2550	21,2	40	0,51	18,5	42	0,44
AGV4025WL	max	6000	38,1	34	0,91	33,1	36	0,79
	min	3000	23,5	38	0,56	20,5	40	0,49

			Incoming / outgoing water temperature 60/40°C					
			Incoming air temp.= +15°C			Incoming air temp. = +20°C		
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**
AGV4015WL	max	3500	18,6	31	0,22	15,6	33	0,19
	min	1750	11,7	35	0,14	9,9	37	0,12
AGV4020WL	max	5100	28,1	31	0,34	23,6	34	0,28
	min	2550	17,5	35	0,21	14,8	37	0,18
AGV4025WL	max	6000	30,6	30	0,37	25,5	33	0,31
	min	3000	19,3	34	0,23	16,2	36	0,19

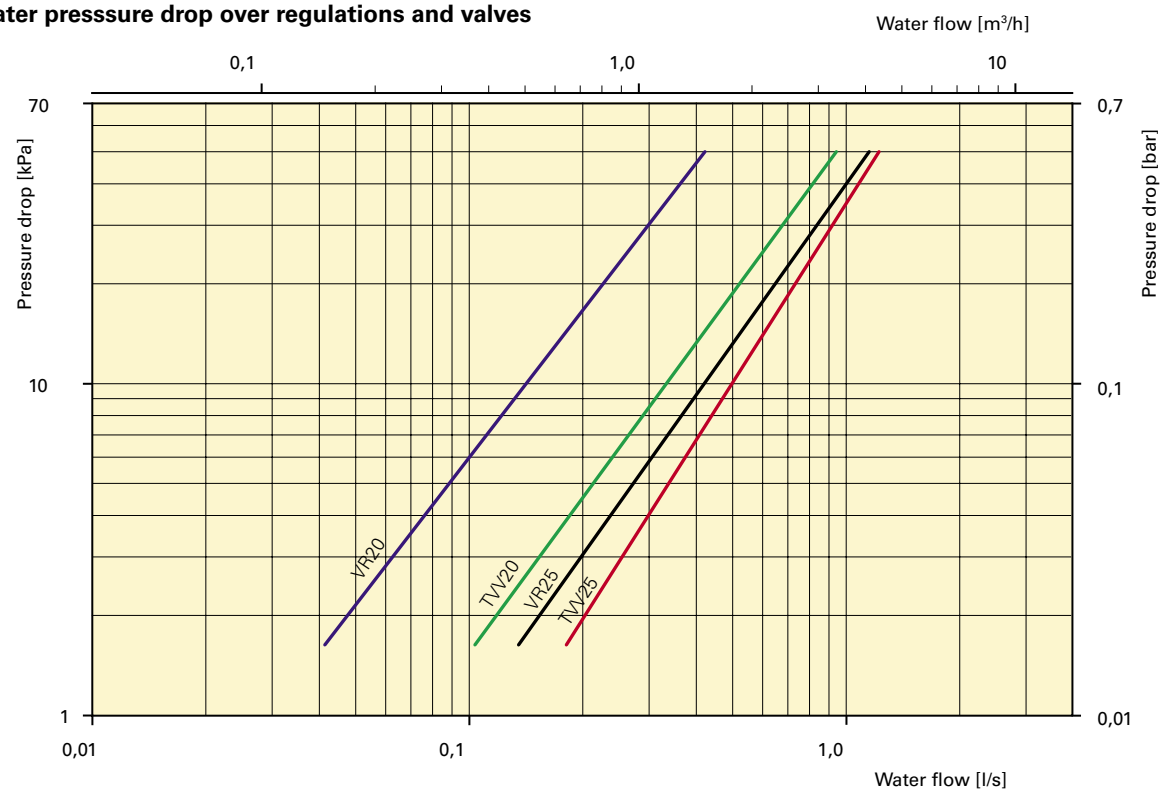
			Incoming / outgoing water temperature 60/30°C					
			Incoming air temp.= +15°C			Incoming air temp. = +20°C		
Type	**Fan position**	**Airflow [m³/h]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**	**Output [kW]**	**Outgoing air temp. [°C]**	**Water flow [l/s]**
AGV4015WL	max	3500	14,1	27	0,11	10,9	29	0,09
	min	1750	9,0	30	0,07	7,0	32	0,06
AGV4020WL	max	5100	20,9	27	0,17	16,0	29	0,13
	min	2550	13,4	31	0,11	8,8	30	0,07
AGV4025WL	max	6000	22,2	26	0,18	7,5	24	0,06
	min	3000	8,0	23	0,06	6,1	26	0,05

Pressure drop water

Water pressure drop over AGV 4000 W



Water presssure drop over regulations and valves



The pressure drop is calculated for an average temperature of 70°C (PVV 80/60).
For other water temperatures, the pressure drop is multiplied by the factor K.

Average temp. water °C	40	50	60	70	80	90
K	1.10	1.06	1.03	1.00	0.97	0.93