






-  Without heat
-  Electrical heat 22,5-36 kW
-  Water heat

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



Thermozone® AGV 4000 A/E/W

Vertical air curtain for doorways with heights of up to 5 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.

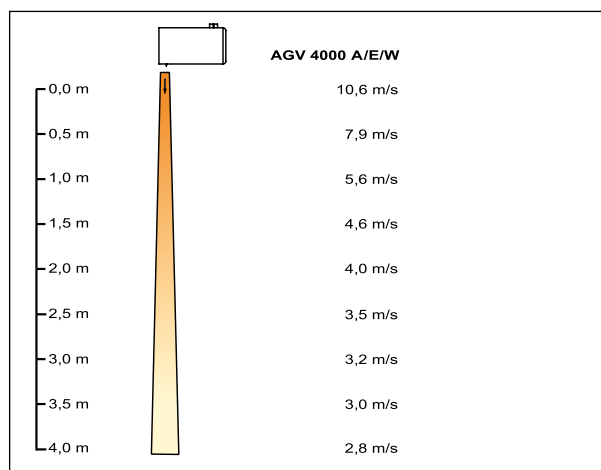
Several units can be mounted on top of each other to cover openings of different heights.


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 housing made of hot zinc-plated and powder coated steel panels. 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 outlet grille allows you to direct the airflow for an optimal air curtain effect.

Air velocity profile




Technical specifications | Thermozone AGV 4000 A without heat 


Type	Output [kW]	Airflow [m³/h]	Sound level*1 [dB(A)]	Voltage [V]	Amperage [A]	Height [mm]	Weight [kg]
AGV4015A	0	1900/3800	48/66	230V~	4,4	1500	42
AGV4020A	0	2700/5400	50/67	230V~	6,4	2000	60
AGV4025A	0	3150/6300	51/69	230V~	7,5	2500	71

Technical specifications | Thermozone AGV 4000 E with electrical heat 

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

Technical specifications | Thermozone AGV 4000 WL with water heat, heating coil for high tempered water <80/60 °C 

Type	Output*3 [kW]	Airflow [m³/h]	$\Delta t^{*2,3}$ [°C]	Water volume [l]	Sound level*1 [dB(A)]	Voltage [V]	Amperage [A]	Height [mm]	Weight [kg]
AGV4015WL	31	1750/3500	32/26	3,2	48/66	230V~	4,3	1500	56
AGV4020WL	47	2550/5100	34/27	4,4	50/67	230V~	6,1	2000	80
AGV4025WL	52	3000/6000	32/26	5,5	51/69	230V~	7,2	2500	95

Technical specifications | Thermozone AGV 4000 WH with water heat, heating coil for high tempered water ≥80/60 °C 

Type	Output*3 [kW]	Airflow [m³/h]	$\Delta t^{*2,3}$ [°C]	Water volume [l]	Sound level*1 [dB(A)]	Voltage [V]	Amperage [A]	Height [mm]	Weight [kg]
AGV4015WH	23	1750/3500	25/19	2,2	48/66	230V~	4,3	1500	56
AGV4020WH	35	2550/5100	27/21	3,1	50/67	230V~	6,1	2000	80
AGV4025WH	41	3000/6000	26/20	3,8	51/69	230V~	7,2	2500	95

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

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

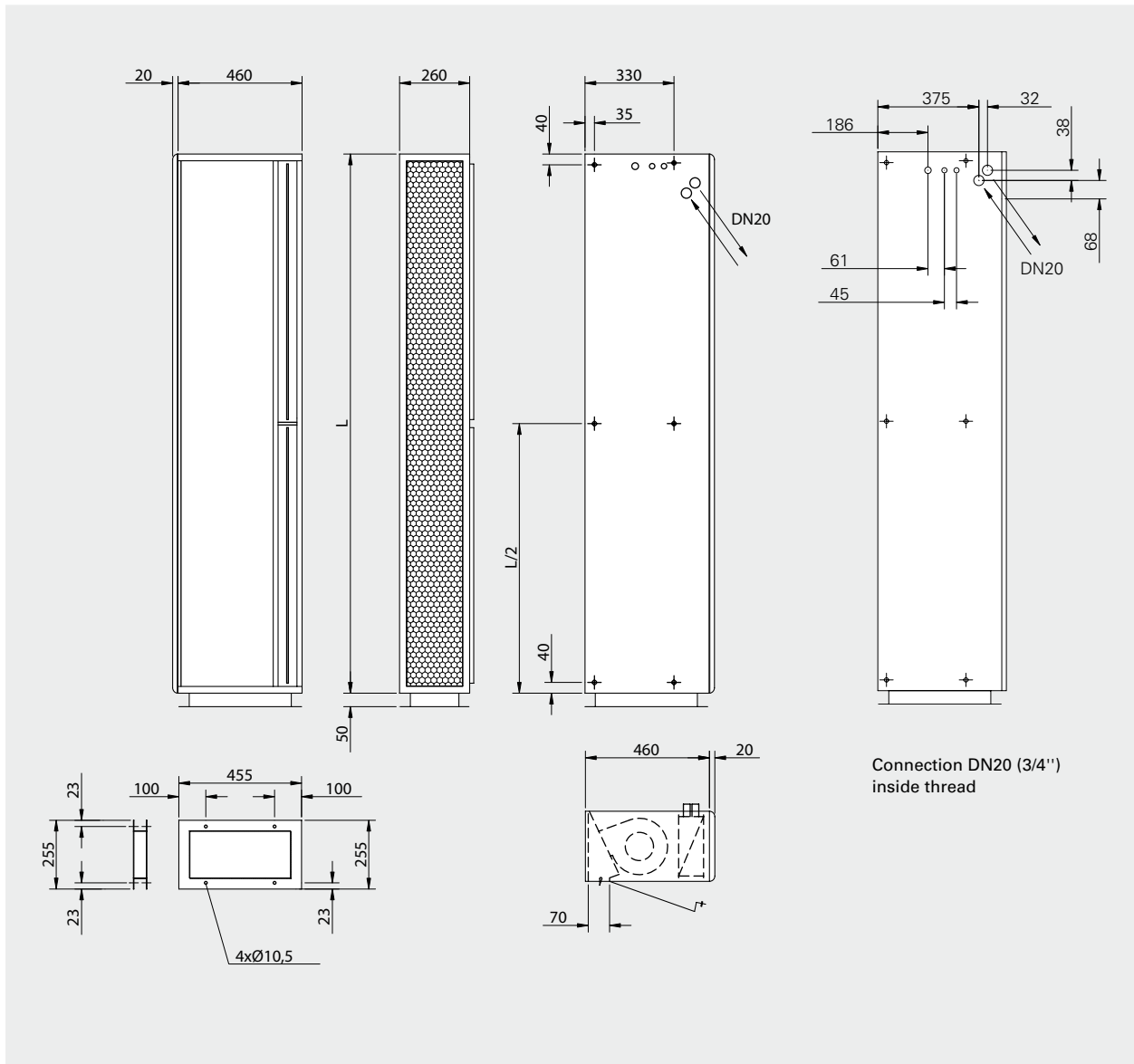
*3) Applicable at water temperature 80/60 °C, air temperature +15 °C.

Protection class AGV4000 A/E/W: IP23.

CE compliant.



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.

Control kits

Ambient ✎

Level 1

Airflow is controlled manually.

Complete control kit:

- CB30N, control box, controls the airflow in 3 steps

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 (2s–10 min.) set on MDC.

Complete control kit:

- CB30N, control box, controls the airflow in 3 steps
- MDC, door contact with time delay

Electric ⚡

Level 1

Airflow is controlled manually. Room thermostat controls the heat output in 2 steps.

Control kit CK01E:

- CB32N, control box, controls the airflow in 3 steps and heat output in 2 steps
- RTI2, 2-step room thermostat

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 (2s–10 min.) set on MDC. 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.

Control kit CK02E:

- CB32N, control box, controls the airflow in 3 steps and heat output in 2 steps
- MDC, magnetic door contact with time delay
- RTI2, 2-step room thermostat

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.

Control kit CK03GD:

- ADEA, regulator (complete with outdoor sensor, built-in room sensor and door contact)
- ADEAIS, indoor sensor
- ADEAEB, control board, for external mounting
- ADEAGD1, additional electric board

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

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

Thermozone AGV 4000 A/E/W

Water

Level 1

Airflow is controlled manually. Room thermostat controls the heat output via actuator/valve on/off.

Control kit CK01W:

- CB30N, control box, controls the airflow in 3 steps
- T10, room thermostat IP30

Note! A set of valves VR20 or VR25 or actuator+valve SD20+TVV20 or TVV25 should be added for a complete control kit.

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 (2s–10 min.) set on the MDC. 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 on/off. 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.

Control kit CK02W:

- CB30N, control box, controls the airflow in 3 steps
- MDC, magnetic door contact with time delay
- RTI2, 2-step room thermostat

Note! A set of valves VR20 or VR25 or actuator+valve SD20+TVV20 or TVV25 should be added for a complete control kit.

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.

Control kit CK03GD:

- ADEA, regulator (complete with outdoor sensor, built-in room sensor and door contact)
- ADEAIS, indoor sensor
- ADEAEB, control board, for external mounting
- ADEAGD1, additional electric board

Note! A set of valves VR20 or VR25 or actuator+valve SD20+TVV20 or TVV25 should be added for a complete control kit.

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

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

Output charts water

AGV4000WL

Incoming / outgoing water temperature 80/60 °C

Type	Fan position	Airflow [m³/h]	Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
			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

Type	Fan position	Airflow [m³/h]	Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
			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

Type	Fan position	Airflow [m³/h]	Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
			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

Type	Fan position	Airflow [m³/h]	Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
			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

Output charts water

AGV4000WH

Incoming / outgoing water temperature 130/70 °C								
Type	Fan position	Airflow [m³/h]	Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
			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

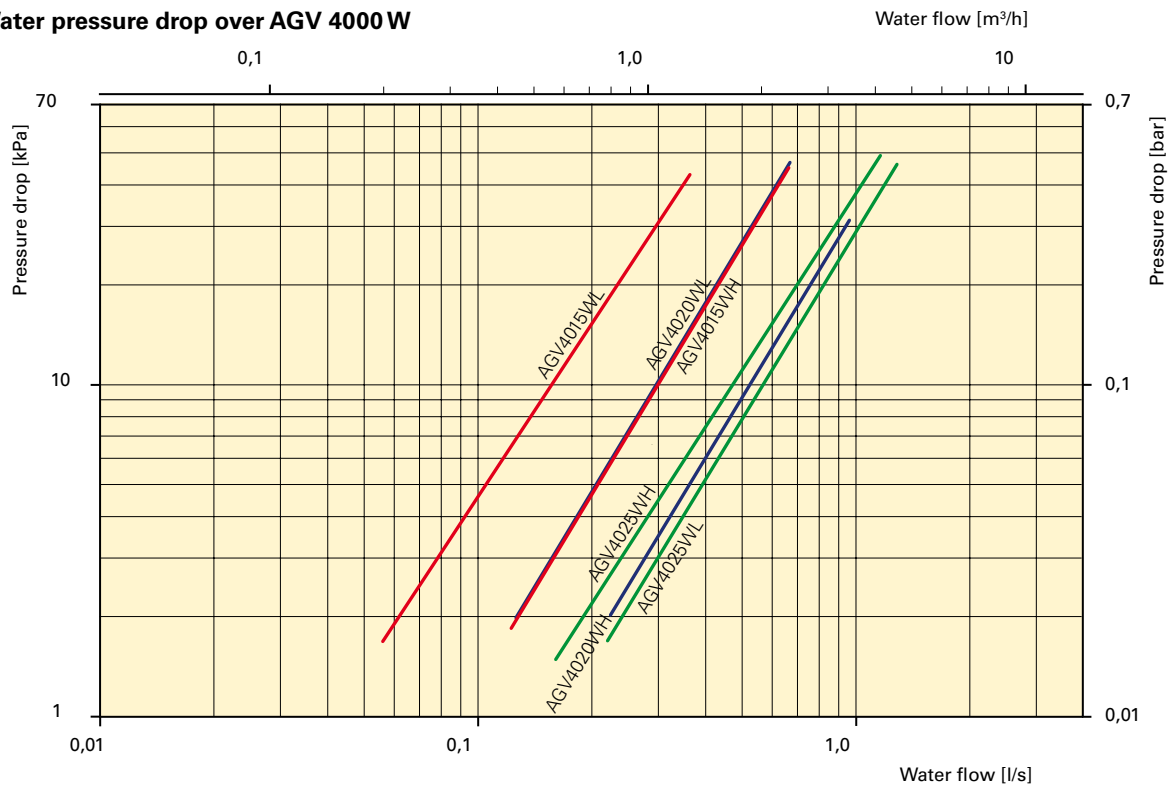
Incoming / outgoing water temperature 110/80 °C								
Type	Fan position	Airflow [m³/h]	Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
			Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]
AGV4015WH	max	3500	33,6	44	0,27	31,4	47	0,25
	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								
Type	Fan position	Airflow [m³/h]	Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
			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

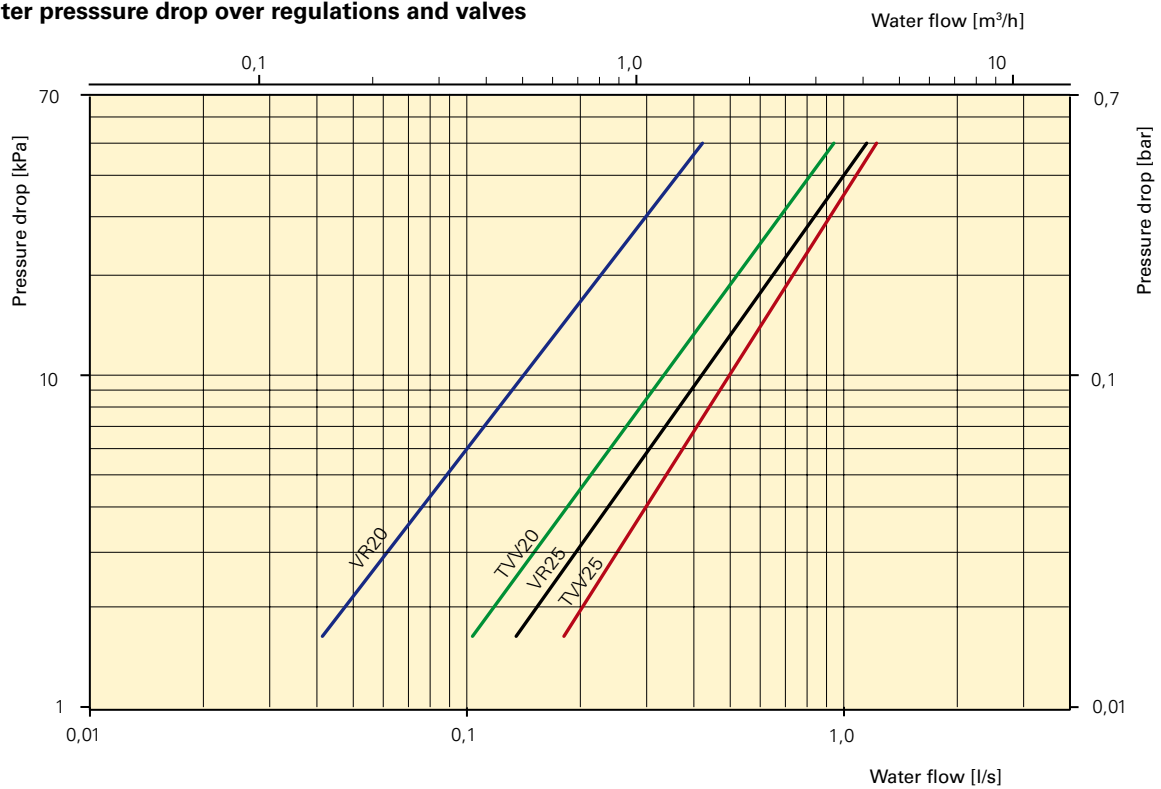
Incoming / outgoing water temperature 80/60 °C								
Type	Fan position	Airflow [m³/h]	Incoming air temp.= +15 °C			Incoming air temp. = +20 °C		
			Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]	Output [kW]	Outgoing air temp. [°C]	Water flow [l/s]
AGV4015WH	max	3500	22,9	34	0,27	20,6	38	0,25
	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

Pressure drop water

Water pressure drop over AGV 4000 W



Water pressure 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