

Air Curtain AXI1, AXI2, AXI3, AXI4

USER'S MANUAL



Email: sales@stavoklima.com.sa

Tel: + 966 (011) 22 00 313

Fax: + 966 (011) 22 00 313 Ext. 116

www.stavoklima.com.sa

1.0 Contents

1.0 Contents	2
2.0 Foreword	3
3.0 Introduction	4
3.1 Dimensions	5
3.2 Product info.....	6
3.3 Technical parameters	7
4.0 Package contents.....	9
5.0 Unboxing	10
6.0 Safety precautions.....	11
6.1 Fire Safety.....	11
7.0 Unit description	12
8.0 Installation.....	13
8.1 Required tools	14
8.2 Connection Kit.....	15
8.3 Silent Blocks.....	17
8.4 Electro-connection Box	19
8.5 Wall Mounting.....	20
8.6 Ceiling Mounting.....	23
8.7 Custom Horizontal Mounting	25
8.8 Vertical Mounting	25
8.9 Minimal Distances	28
8.10 Connecting the unit.....	29
8.10 Commission	32
9.0 Wall controller.....	33
9.1 Features.....	33
9.2 Control.....	34
9.3 Fan Speed Regulation	34
9.4 ON/OFF Indicator	34
9.5 Door Contact	35
10.0 Maintenance	36
10.1 Fan maintenance.....	37
10.2 Maintenance schedule.....	37
11.0 Troubleshooting	39
12.0 Important Warnings	40
13.0 Contact Info	40

2.0 Foreword

Thank you for choosing Stavoklima!

At Stavoklima we believe in *quality, performance* and *cost-effectiveness*. All our products are hand-built in the Czech Republic, in the heart of Europe, from the best components available. We produce all the metal parts ourselves from carefully selected metal sheets using high-end metal processing machines. We apply very strict quality control from the very beginning of the production process to the moment of delivery to your door. Customer's satisfaction is our highest priority.

The core component of every air curtain are the fans. Inside every Stavoklima unit you will find long-lasting maintenance-free fans from the World fan industry leader – German company Ziehl-Abegg. All fans are ErP2015 compliant provide high energy efficiency with respect and protection to the environment.

The custom-made control unit reflects over 25 years of experience and presents wide variety of control options with high level of reliability ensuring a quality product with a long lifespan. All internal electronics comply with SASO directives and the latest standards.

Stavoklima air curtains are made to last & keep occupants comfortable while minimizing negative environmental impacts. We bring you the European standard of indoor climate protection.

“Open your doors for the public without compromising the comfort.”

Compliance chart:

	ErP 2015 Fan efficiency European norm
	CE mark Compliant with European Standards
	SASO Certificate Certified for Saudi Arabian market
	STAVOKLIMA® Quality Control Stavoklima-specific high-degree quality assurance program

3.0 Introduction

The AXI industrial air curtains are designed for demanding situations with first and foremost focus on performance and durability. AXI is suitable for applications where regular air curtain would suffer from environmental effects. The air volume generated by the AXI unit is unparalleled by standard air curtains. It is perfectly capable of covering higher entrances, standard entrances with high protection requirements and situations where negative pressure, chimney effect, draft, wind and other undesired effects complicate the situation. The unit can be mounted either horizontally (wall mounting, ceiling mounting) or vertically (floor mounting). Accessory for ceiling mounting is not part of the standard delivery.

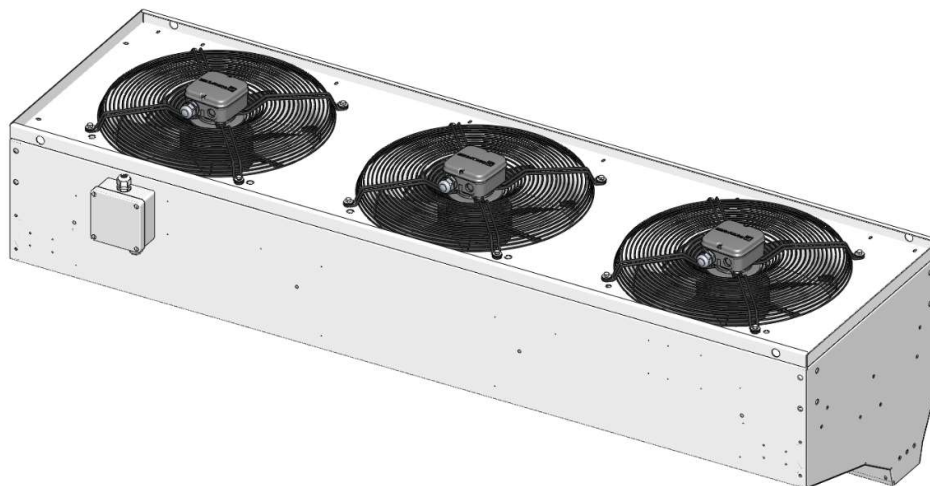
An air curtain is a device which generates an engineered stream of guided air through a doorway or an opening acting as a separator of two adjacent areas against energy loss, humidity, and mass exchanges.

Every unit is equipped with directable outlet louvre for tuning of air flow vector and heavyduty chassis. The air curtain can be operated manually using the wall controller or automatically via mechanical door contact. In conjunction with supplied door contact it constitutes an autonomous system that is switched ON only when needed. The integrated delay timer complements the longevity of the unit and provides stable operation in situations where doors are opened and closed with high frequency.

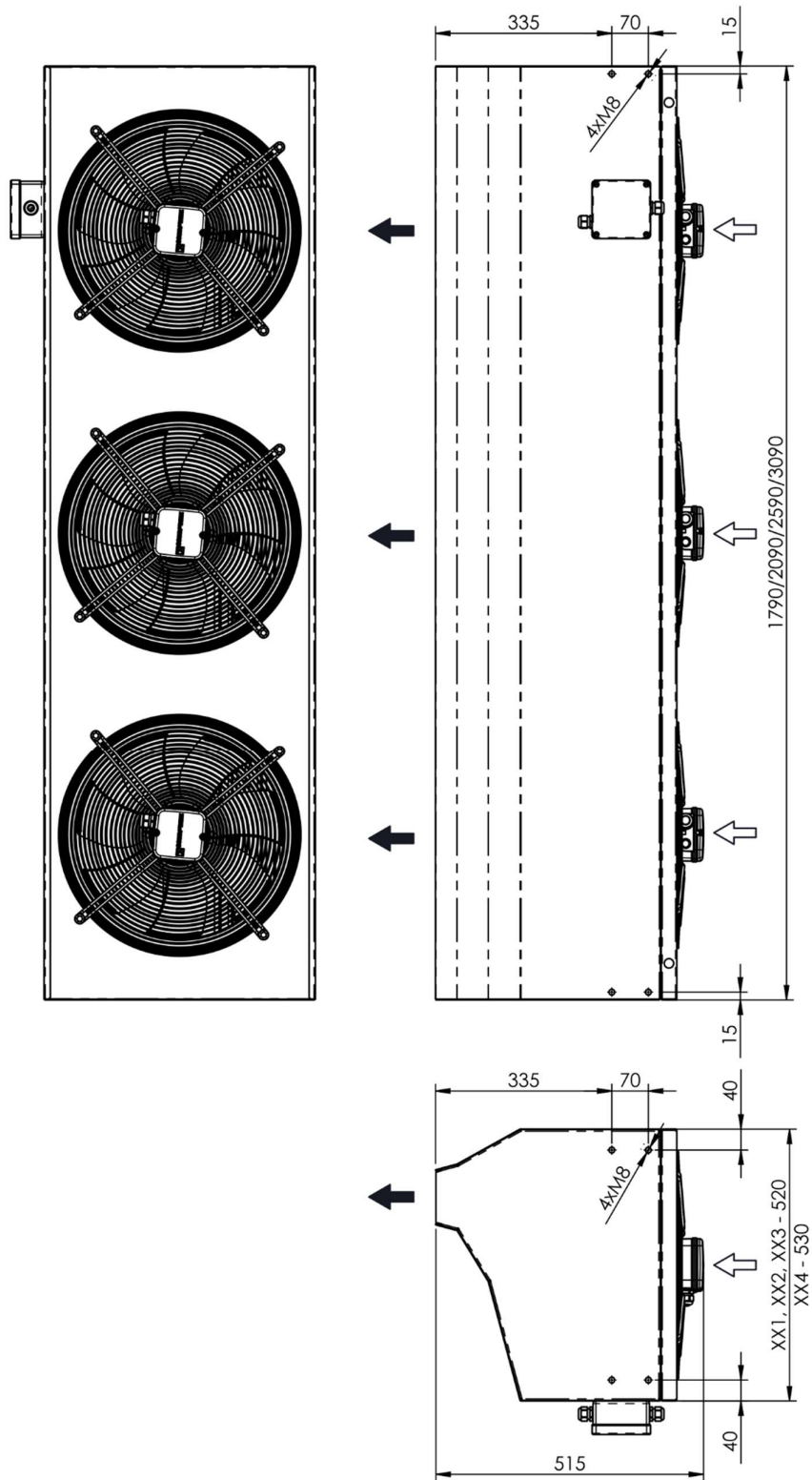
The unit uses high-performance maintenance-free axial fans to generate air barrier in the door area separating the indoor from the outdoor. The outlet should not be blocked by any objects in the direction of exiting air. The unit's electrical parts are rated IP 54 on the protection chart, which means foreign objects impenetrability, partial dust protection and increased water resistance (splashing water from multiple directions).

The unit is fully capable of running 24/7 in temperatures ranging from -25°C to +50°C.

The default finish is galvanized steel or RAL 7045 (telegrey) for an extra cost.

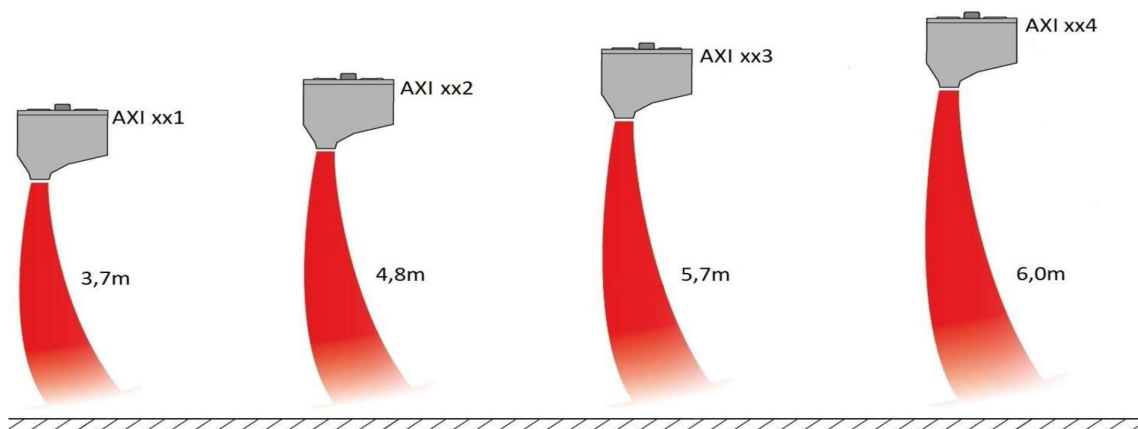


3.1 Dimensions



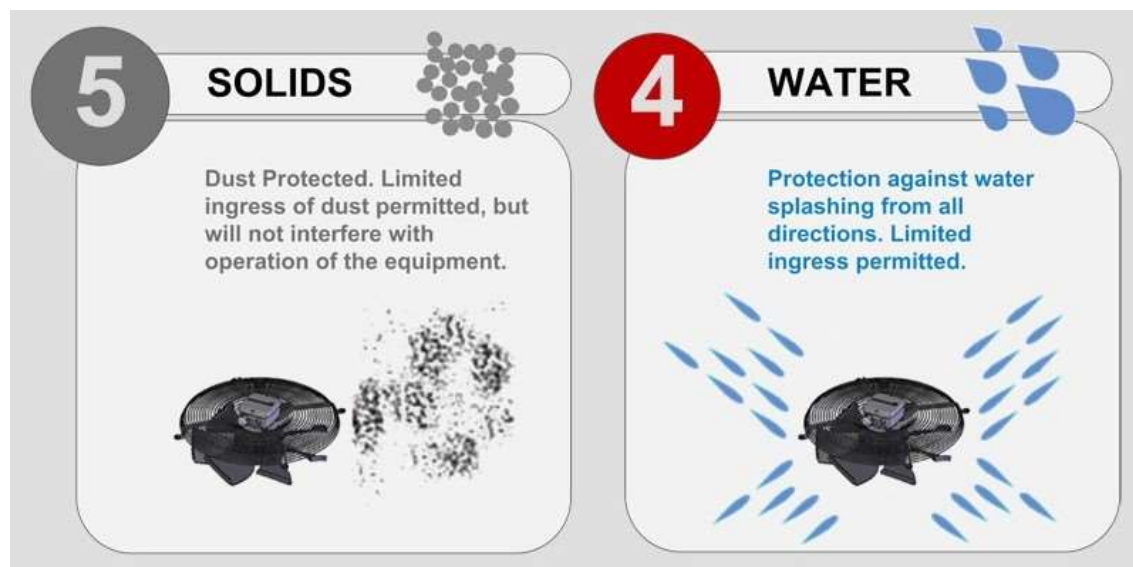
3.2 Product info

There are total of 4 different variants of AXI air curtain – AXI1, AXI2, AXI3 and AXI4. Higher number represents higher performance. It is designed for door size not higher than 3,7 meters (AXI1), 4,8 meters (AXI2), 5,7 meters (AXI3) and 6 meters (AXI4). The same rules apply for vertical units with regard to door width. In case of vertical units, two air curtains can be mounted on both sides of the door facing each other, thus increasing the effective range. Units can be joined together (horizontally and vertically) using a special connection kit.



The AXI air curtain houses axial fans with outstanding performance and industrial-grade durability (IP protection level 54).

IP54 protection level definition (fans + electrical connector box)



3.3 Technical parameters

Technical specifications		<i>SHCP-181-4-AXI</i> <i>SVCP-181-4-AXI</i>	<i>SHCP-182-4-AXI</i> <i>SVCP-182-4-AXI</i>	<i>SHCP-183-4-AXI</i> <i>SVCP-183-4-AXI</i>	<i>SHCP-184-4-AXI</i> <i>SVCP-184-4-AXI</i>
Air volume (fan speed 3, 2, 1)	m ³ /h	6200	8250	10600	14400
		4300	5700	7500	10460
		2150	2850	3750	5230
Length	mm	1800	1800	1800	1800
Power	V	230	230	230	230
Number of fans	pcs	2 x 350 mm fan	3 x 350 mm fan	3 x 400 mm fan	3 x 450 mm fan
Nominal power	kW	0,26	0,39	0,72	1,17
Nominal current	A	1,8	2,8	3,8	6,5
IP protection level	IP	54	54	54	54
Controller	type	Industrial	industrial	industrial	industrial
Outlet width	mm	100	100	100	100
Noise level at 5 m	dB	58	59	67	67
Weight	kg	52	56	58	70

fan speed voltage: stage 3 - 230V, stage 2 - 160V, stage 1 - 120V

fans: safety margin 15% for 60 Hz voltage frequency

Technical specifications		<i>SHCP-211-4-AXI</i> <i>SVCP-211-4-AXI</i>	<i>SHCP-212-4-AXI</i> <i>SVCP-212-4-AXI</i>	<i>SHCP-213-4-AXI</i> <i>SVCP-213-4-AXI</i>	<i>SHCP-214-4-AXI</i> <i>SVCP-214-4-AXI</i>
Air volume (fan speed 3, 2, 1)	m ³ /h	8500	10850	13400	15400
		5880	7500	9480	11200
		2940	3750	4740	5600
Length	mm	2100	2100	2100	2100
Power	V	230	230	230	230
Number of fans	pcs	3 x 350 mm fan	4 x 350 mm fan	4 x 400 mm fan	3 x 450 mm fan
Nominal power	kW	0,39	0,52	0,96	1,17
Nominal current	A	2,8	3,7	5	6,5
IP protection level	IP	54	54	54	54
Controller	type	Industrial	industrial	industrial	industrial
Outlet width	mm	100	100	100	100
Noise level at 5 m	dB	59	59	68	68
Weight	kg	62	66	68	75

fan speed voltage: stage 3 - 230V, stage 2 - 160V, stage 1 - 120V

fans: safety margin 15% for 60 Hz voltage frequency

Technical specifications		<i>SHCP-261-4-AXI</i> <i>SVCP-261-4-AXI</i>	<i>SHCP-262-4-AXI</i> <i>SVCP-262-4-AXI</i>	<i>SHCP-263-4-AXI</i> <i>SVCP-263-4-AXI</i>	<i>SHCP-264-4-AXI</i> <i>SVCP-264-4-AXI</i>
Air volume (fan speed 3, 2, 1)	m ³ /h	11600	13500	16500	20100
		8000	9310	11660	14600
		4000	4660	5830	7300
Length	mm	2600	2600	2600	2600
Power	V	230	230	230	230
Number of fans	pcs	4 x 350 mm fan	5 x 350 mm fan	5 x 400 mm fan	4 x 450 mm fan
Nominal power	kW	0,52	0,65	1,2	1,56
Nominal current	A	3,7	4,6	6,3	8,6
IP protection level	IP	54	54	54	54
Controller	type	Industrial	industrial	industrial	industrial
Outlet width	mm	100	100	100	100
Noise level at 5 m	dB	59	59	68	68
Weight	kg	77	81	84	94

fan speed voltage: stage 3 - 230V, stage 2 - 160V, stage 1 - 120V

fans: safety margin 15% for 60 Hz voltage frequency

Technical specifications		<i>SHCP-311-4-AXI</i> <i>SVCP-311-4-AXI</i>	<i>SHCP-312-4-AXI</i> <i>SVCP-312-4-AXI</i>	<i>SHCP-313-4-AXI</i> <i>SVCP-313-4-AXI</i>	<i>SHCP-314-4-AXI</i> <i>SVCP-314-4-AXI</i>
Air volume (fan speed 3, 2, 1)	m ³ /h	13900	16050	19950	25500
		9600	9000	14100	18530
		4800	4500	7050	9270
Length	mm	3100	3100	3100	3100
Power	V	230	230	230	230
Number of fans	pcs	5 x 350 mm fan	6 x 350 mm fan	6 x 400 mm fan	5 x 450 mm fan
Nominal power	kW	0,65	0,78	1,44	1,95
Nominal current	A	4,6	5,5	7,6	10,8
IP protection level	IP	54	54	54	54
Controller	type	Industrial	industrial	industrial	industrial
Outlet width	mm	100	100	100	100
Noise level at 5 m	dB	60	60	69	69
Weight	kg	90	95	98	113

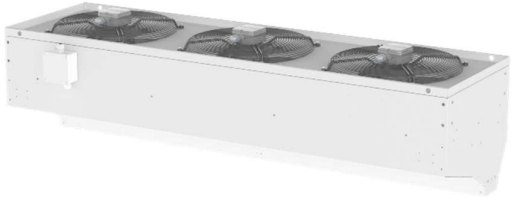






fan speed voltage: stage 3 - 230V, stage 2 - 160V, stage 1 - 120V

fans: safety margin 15% for 60 Hz voltage frequency

4.0 Package contents

Every unit is packed in a paper box made of recycled cardboard protected by polystyrene foam. The air curtain housing is wrapped around in a LDPE bag for additional moisture protection.

The contents of the packaging are the following:

	AXI air curtain (1x)
	Wall suspension (2x) with M8 screws (4x)
	Allen key – size 6 (1x)
	Screw driver (1x)
	ROJ light industrial wall controller (1x) Not part of the packaging
	Mechanical door contact (1x) Not part of the packaging
	User's manual (1x)

5.0 Unboxing

Before unboxing, please check the integrity of the packaging itself. If you spot any visible damage (dents, creases, deformations, bent corners, etc.) do not continue the unboxing process and report these to the supplier. Unboxing a damaged packaging without reporting back to the supplier passes the responsibility for the condition of the contents of the packaging onto the end user.

During unboxing, check carefully the contents of the packaging and inspect all the parts identified in the previous chapter. If you received extra accessories (aside of the packaging), use common sense and/or supplier's instructions to unbox & inspect these.

Make a record of any damaged parts and report back to the supplier.

Transport and handling must be performed with a relevant equipment with adequate capacity. The packaging should be handled with care and by personnel with relevant qualification only.



WARNING: Follow the instructions on labels placed on the unit. Packaged units must not be tilted or placed in positions other than as delivered or recommended by the manufacturer. The packaging also bears the serial number and type of the unit for easy identification of the unit type.



RECYCLING: Please recycle the packaging in compliance with your local environmental standards.



STORAGE: Storage conditions for unopened packaging is temperature range from -10 °C to +50 °C, humidity 50-85% non-condensing.

6.0 Safety precautions

Observe the generally applicable country-specific regulations, in particular CSN 12 2002 and other related regulations. The unit must be disconnected from the mains when performing any service. Connections and grounding of the unit or its parts must comply especially with CSN 332190, 332000-5-51, 33 2000-5-54. Any electrical servicing must be performed by personnel with professional qualification in accordance with Section 6 of CBU Regulation no. 50/78 Coll.

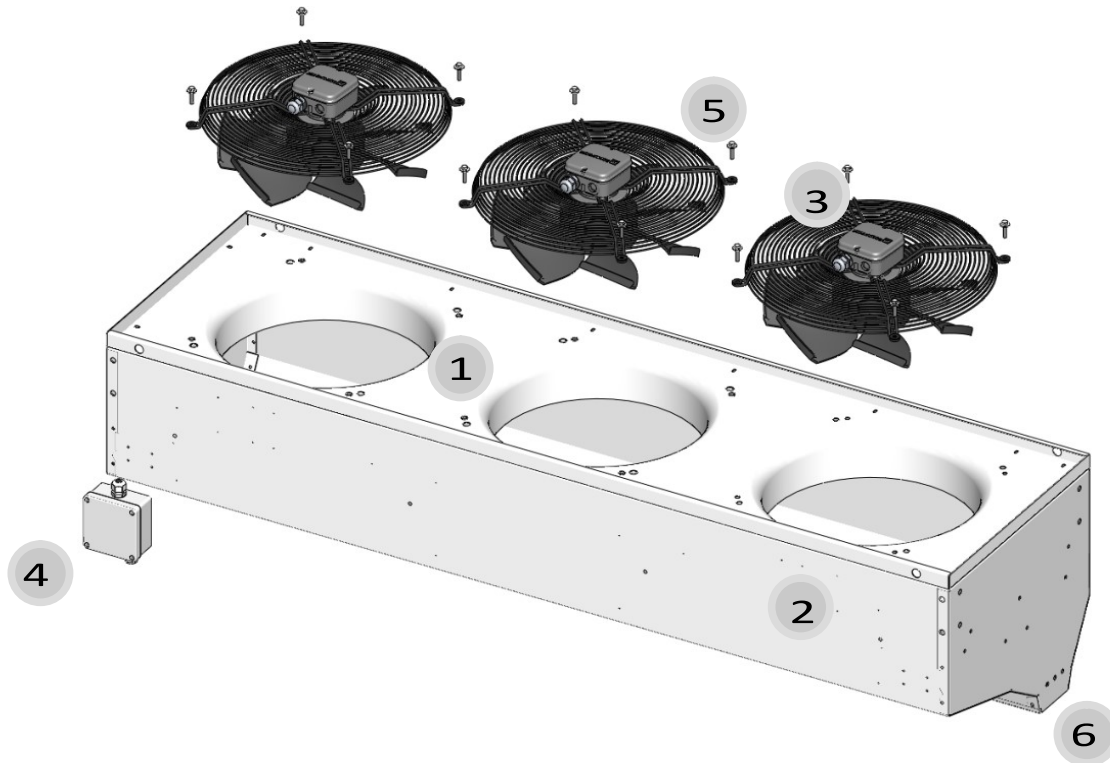
6.1 Fire Safety

Observe the country-specific standards and applicable regulations. In particular, CSN 061008 – Fire safety of appliances and heat sources, CSN 730823 Fire-technical properties of materials – degrees of combustibility. Install the unit 150 mm from combustible materials of classes B, C1, C2, 400 mm from easily combustible materials (class C3), and 1000 mm in the direction of radiation (air outlet of the unit).



7.0 Unit description

The description of the individual parts of the unit is for informative purposes only.
Disassembly of the unit should be performed by authorized personnel only!



1	Air curtain backplate with fan collars for better airflow and ErP 2015 compliance
2	Air curtain chassis
3	Axial fans with connector boxes
4	Main connector box (loosely stored within the packaging)
5	Connecting material (screws)
6	Air curtain outlet with positionable louvre

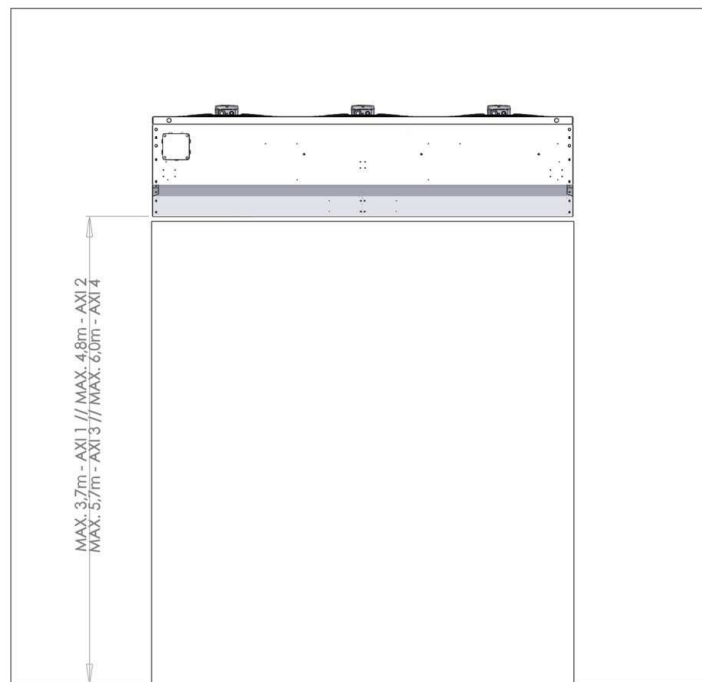
8.0 Installation

In case of a horizontal installation, the air curtain is suspended at four suspension points located on both sides of the unit – two on top right and two on the top left side. Connection is performed using 4 screws with standard M8 threads. These screws are included. In case of vertical installation, the unit is attached to the floor using a connection kit. Fastening material for floor mounting (screws, plugs, anchors, etc.) is not included. During the installation, always make sure all screws and fasteners are used and properly tightened.

Use adequate wall/floor plugs and anchors only. Consider carefully the installation situation and the suitability of used fasteners and anchors as well as the strength of the structure. Make sure the wall or floor is stable and capable of supporting the weight of the unit. The manufacturer is not liable for improperly used wall/floor plugs or other inappropriate fastening or suspending material.

Follow all local safety regulations and use common sense to avoid injury of self or others.

For proper performance, please respect recommended maximal mounting heights/widths.

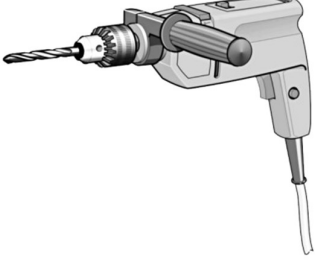








WARNING: Installation is performed at one's own risk. Any damage resulting from inappropriate handling is not covered by the warranty.

8.1 Required tools

In order to successfully install the air curtain, additional tools are needed. Make sure the selection of the tools corresponds to the material of the wall. If not, alter the required tools list accordingly.

List of recommended tools:

	Electric drill tool (1x) Not part of the packaging
	Wall/floor plug and corresponding screw (6x) or other fasteners suitable for given situation Not part of the packaging
	Allen key – size 6 (1x)
	Chemical anchor (1x) Not part of the packaging
	Water Level (1x) Not part of the packaging
	Screwdriver (1x) or multi-purpose tool
	Meter measure (1x) Not part of the packaging



WARNING: Any damage resulting from the use of unsuitable tools or inadequate fasteners is not covered by the warranty.

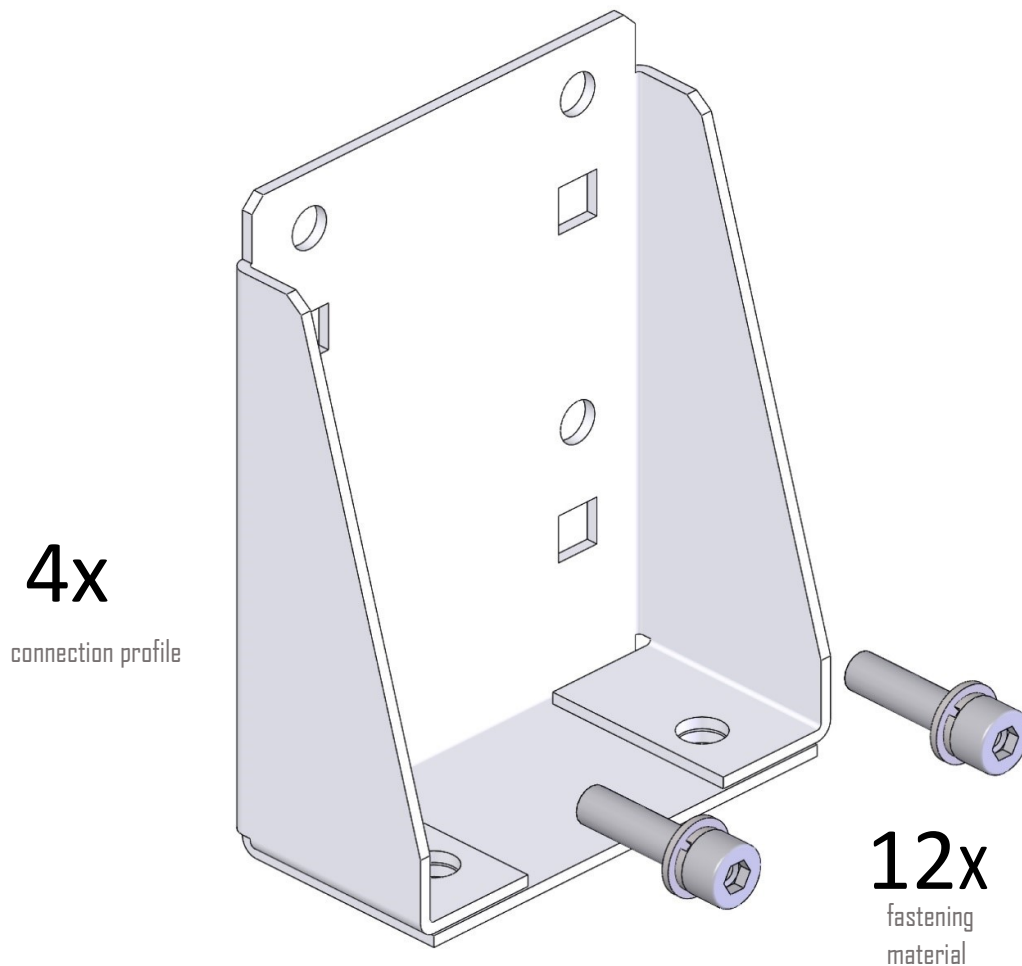
8.2 Connection Kit

All industrial AXI units support joining of the units. Any number of horizontally-mounted units can be combined together in order to cover doors wider than a single air curtain. Such set of units may need additional support and each of the units be suspended on all four suspension points.

Connecting multiple units vertically is limited to two air curtains due to limited weight carry capacity of the air curtains.

The connection kit offers three different mounting positions depending on the desired tolerance between joined units or distance from the wall (vertical mounting).

The connection kit consists of 4 pieces of triangle-shaped profiles, 12 pieces of M8x30 screws, 4 pieces of M8 nuts, 12 pieces of spring washers – size 8 and 12 pieces of washers – size 8.

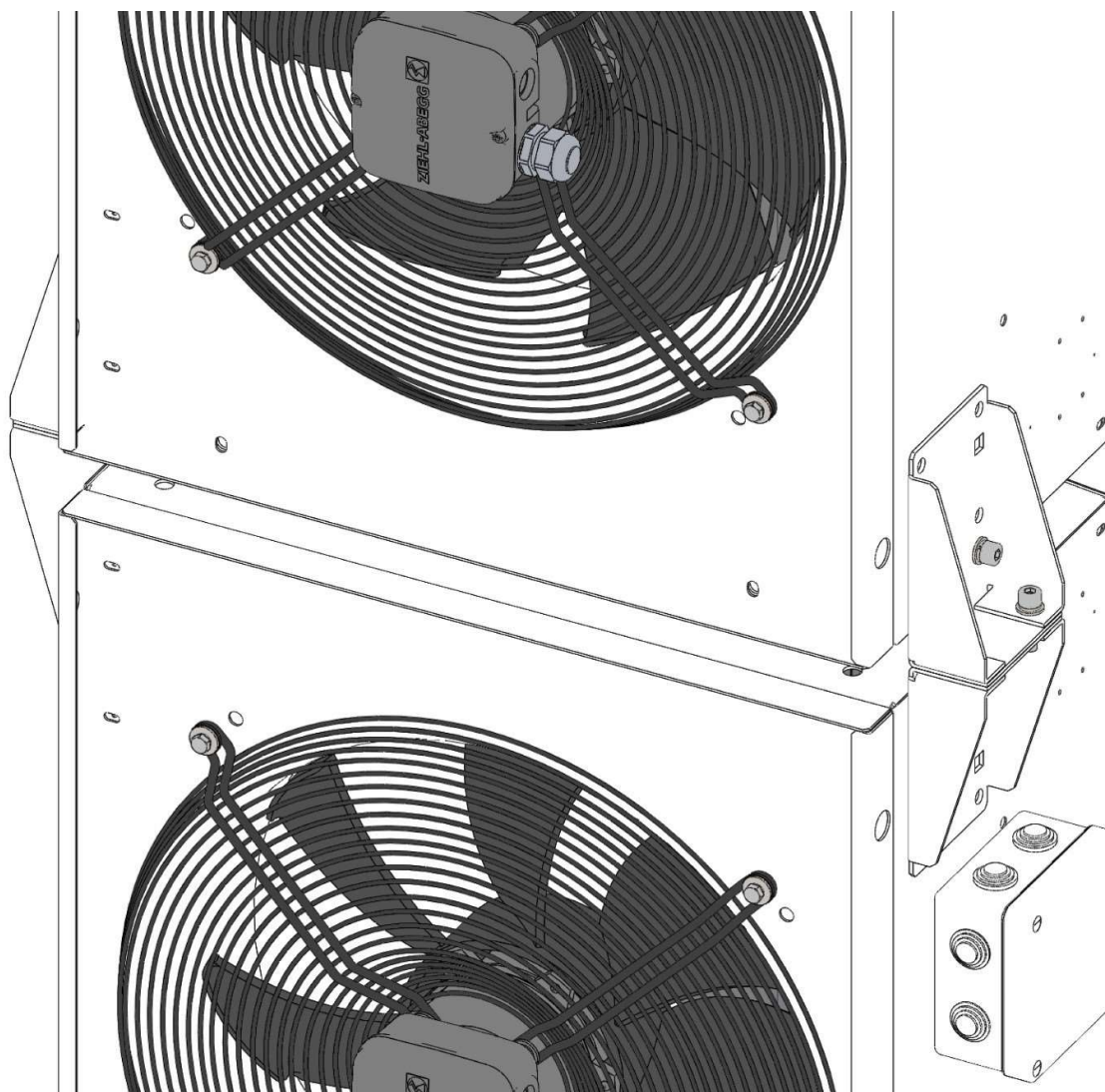


For joining the units together, a connection kit is required (not part of a standard delivery). Each connection kit consists out of four triangle-shaped profiles that can be combined together.

The connection kit fills multiple roles:

- Joining AXI air curtains together (horizontally and vertically)
- Mounting vertical AXI units to the floor
- Securing the top of the vertically-mounted unit to the wall

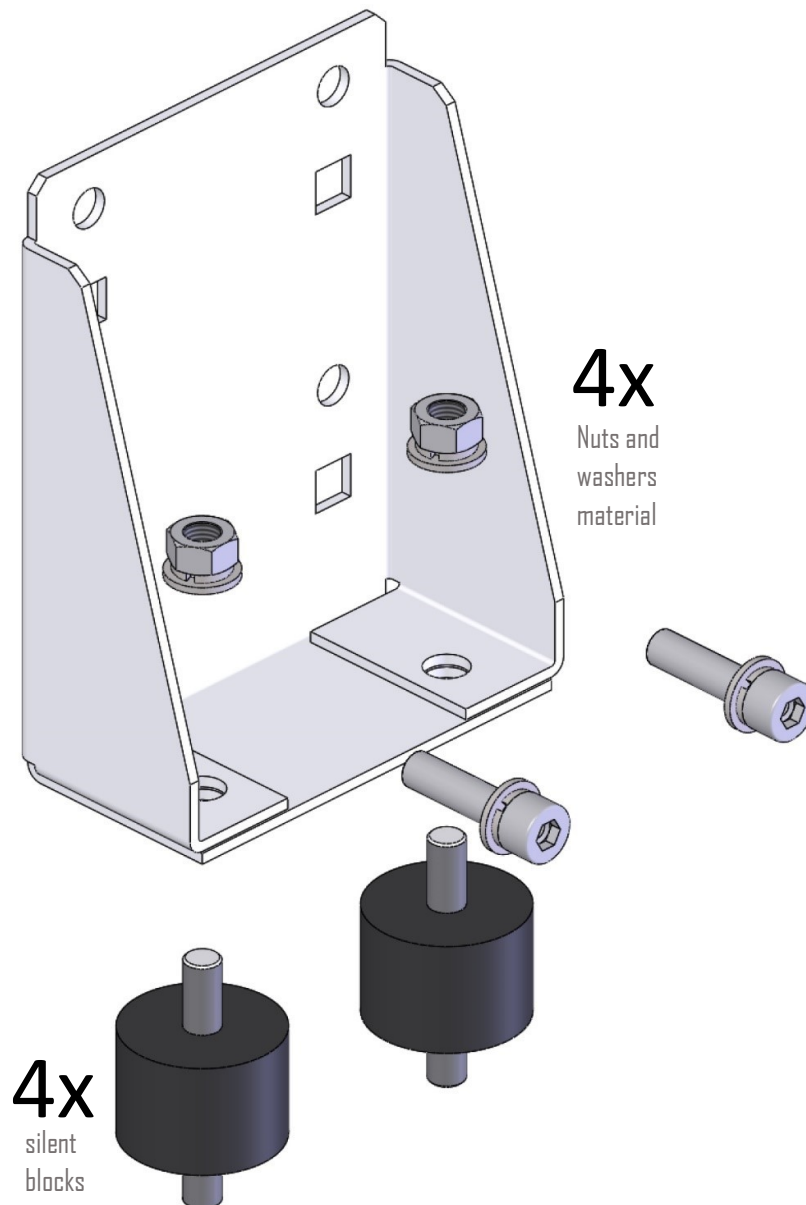
The connection kit is assembled using supplied screws and attached to the air curtain using supplied screws. The air curtain has threaded rivets at designated spots for connection kit.



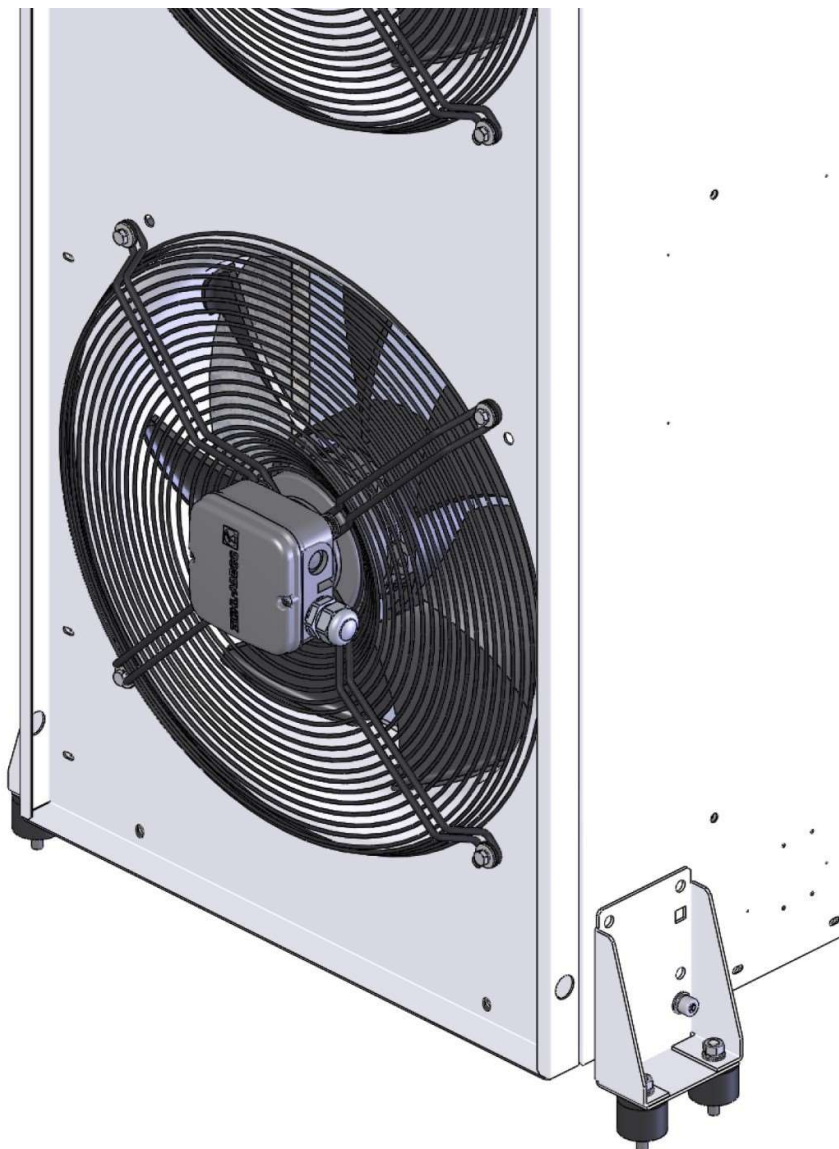
8.3 Silent Blocks

Vertically-mounted AXI industrial air curtains may tend to transfer vibrations generated by the axial fans to the surface they are mounted to. In order to reduce this effect, install a set of silent blocks (not part of a standard delivery) between the floor and the connection kit. This step is optional and case-dependent.

The connection kit consists of 4 pieces of M8x30 silent blocks, 4 pieces of M8 nuts, 4 pieces of spring washers – size 8, 4 pieces of washers – size 8 and 4 pieces of cylindrical spring.

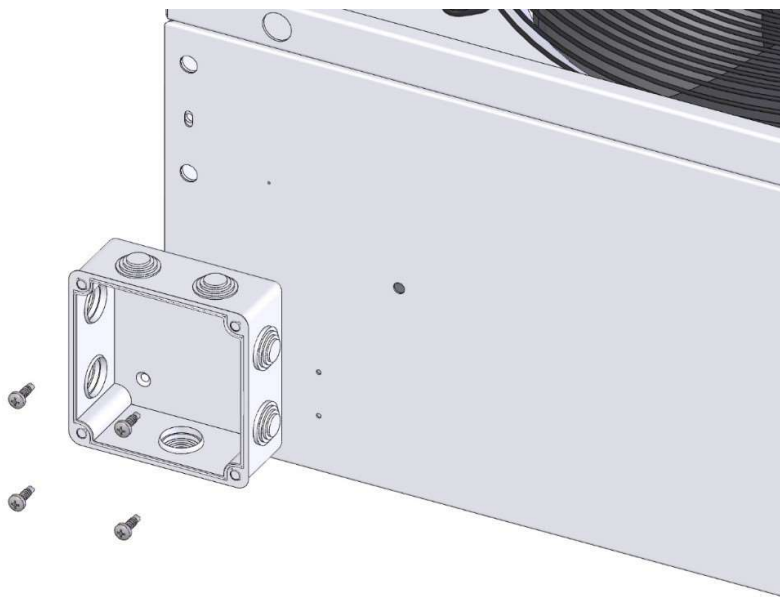


The silent blocks have M8 thread that requires corresponding connection diameter in the floor. Use equivalent form of floor anchor with M8 nut to establish a firm connection to the silent blocks.



8.4 Electro-connection Box

In order to minimize the space requirements for the AXI packaging, the electro-connection box of the air curtain comes freely put inside the packaging and needs to be attached to the side of the unit prior to mounting. Use the supplied self-tapping screws to mount the electroconnection box onto the unit at a suitable location.



Screwing in the self-tapping screws



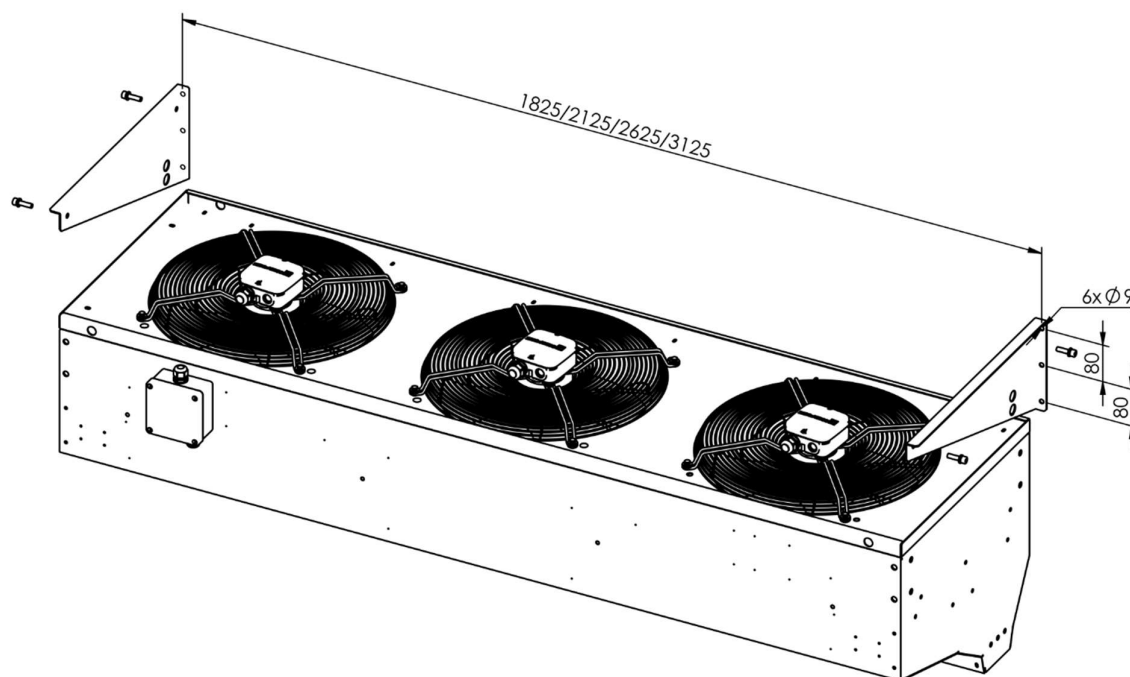
8.5 Wall Mounting

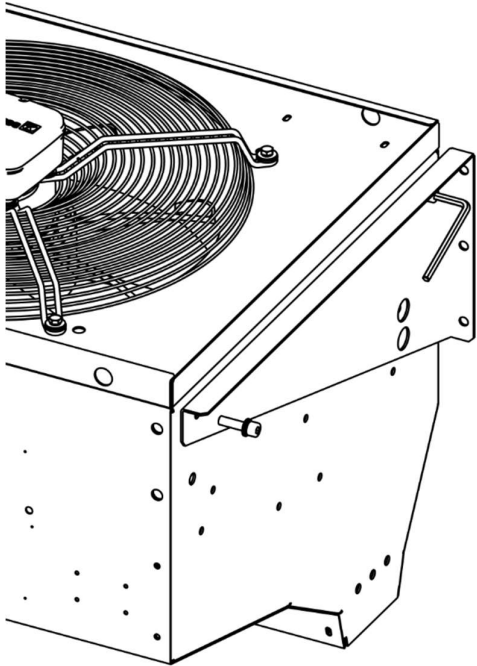
Horizontal mounting is more suitable for situations where the width of the door exceeds the height and the horizontal installation is not compromised by insufficient loading capacity of the wall or ceiling, suboptimal offset or other factors (e.g. sectional doors).

Please follow these steps in order to mount the air curtain on the wall:

- 1) Attach the electro-connection box on the air curtain using supplied screws.
- 2) Using the meter measure and water level, mark the drilling points for the wall brackets on the wall. Follow the drilling spacing at the bottom of this page.
- 3) Drill the holes for wall plugs and anchors. Always use adequate drill bit for selected wall plugs.
- 4) Apply chemical anchor inside the drill holes or insert the wall plugs into the wall.
- 5) Screw in the screws or equivalent fasteners (e.g. threaded rod).
- 6) Allow the chemical anchor to harden (if used).
- 7) Lift the air curtain using appropriate handling tools.
- 8) Attach the wall brackets onto the air curtain using the supplied M8 screws.
- 9) Tighten the screws. If done properly, the wall bracket should be tightly attached to the wall.
- 10) Use supplied screws to attach the air curtain to the wall bracket and tighten all the screws using the supplied Allen key.

Drilling spacing and recommended mounting





The supplied wall brackets offer two mounting options (standard and reversed) depending on the desired mounting place.

The unit should be supported for the entire time until all four screws are properly fastened.

Use the supplied Allen key to fasten the screws.

When mounted, make sure the unit is stable and fit for operation. Check the wall around the mounting points regularly.

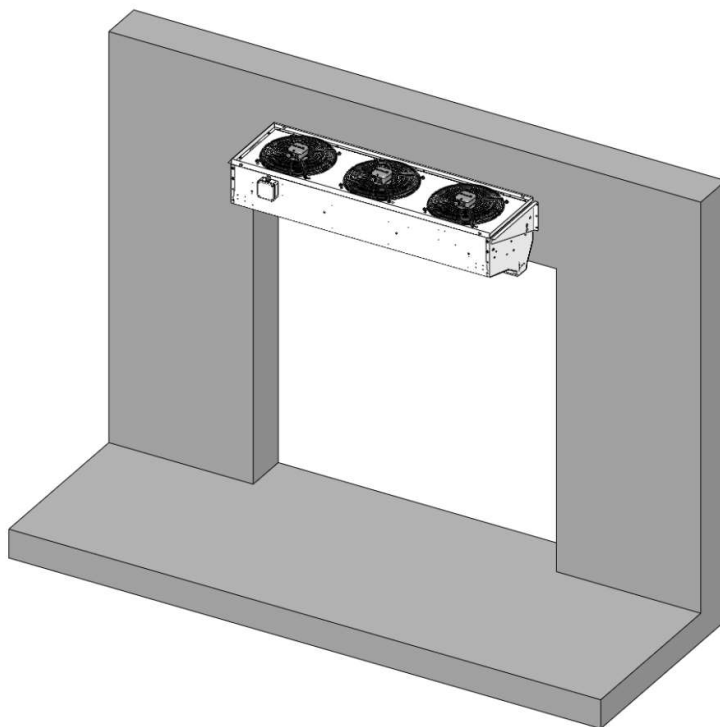


WARNING: Use suitable lifting equipment and keep the unit secured for the entire time of the installation. Any damage resulting from the use of inadequate lifting equipment or handling is not covered by the warranty.

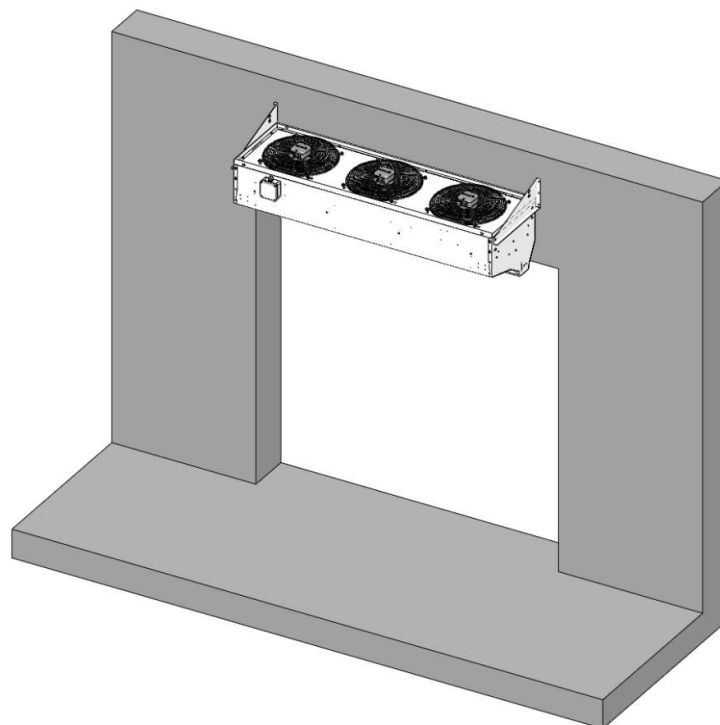


OPTIMAL MOUNTING: In order to achieve the best performance, make sure the unit is centered above the door, it covers the entire width of the door and it is mounted in proximity of the top of the door. The offset of the door should be minimal.

There are two alternative mounting options for the supplied wall brackets:



Standard mounting



Reverse mounting

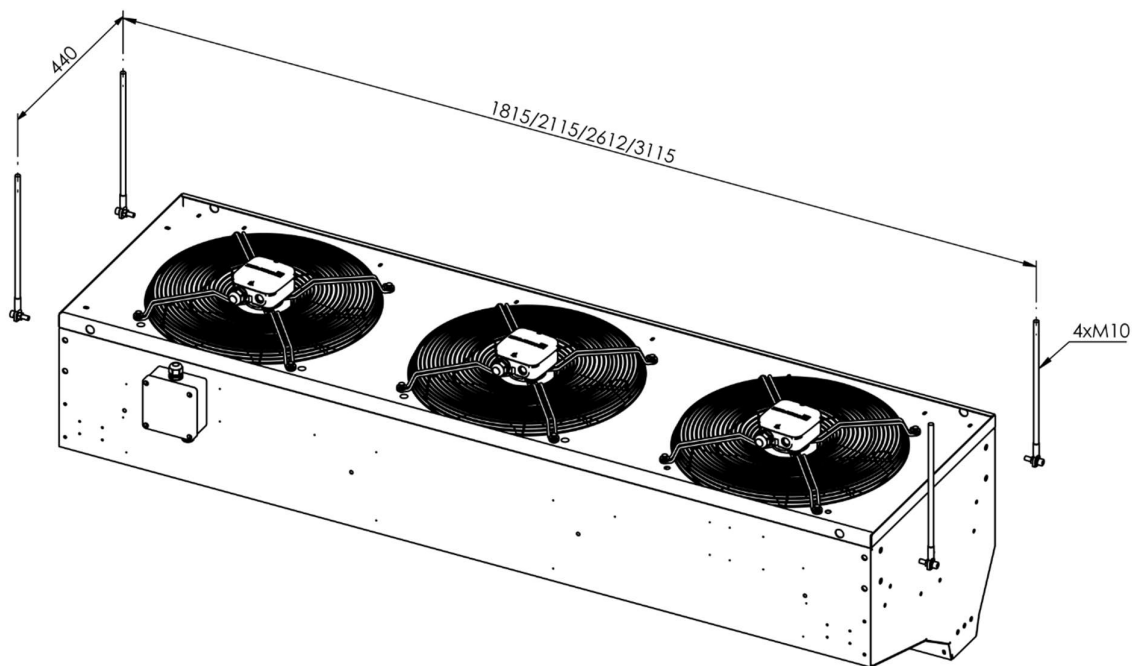
8.6 Ceiling Mounting

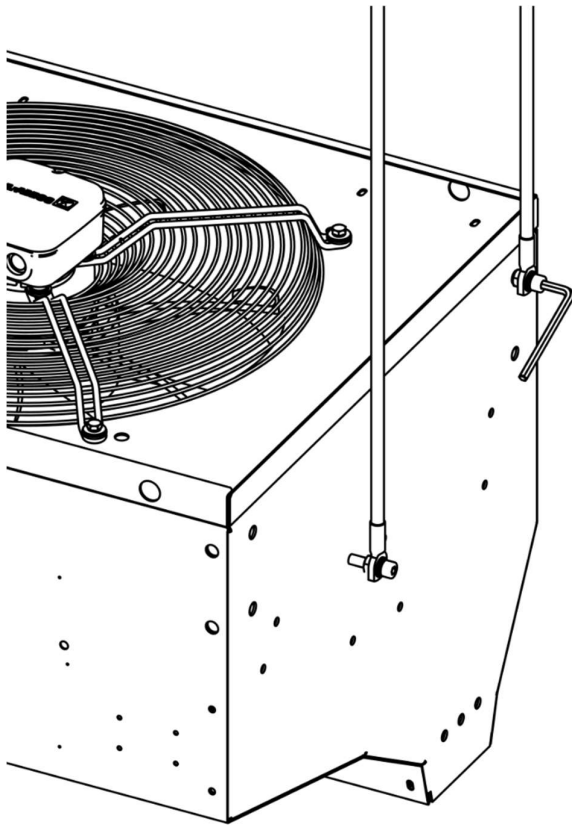
Horizontal mounting is more suitable for situations where the width of the door exceeds the height and the horizontal installation is not compromised by insufficient loading capacity of the wall or ceiling, suboptimal offset or other factors (e.g. sectional doors).

Please follow these steps in order to mount the air curtain on the ceiling:

- 1) Attach the electro-connection box on the air curtain using supplied screws.
- 2) Using the meter measure, mark the drilling points for the M10 threaded rods. Follow the drilling spacing at the bottom of this page.
- 3) Drill the holes for the threaded rods. Use adequate (preferably $\varnothing 12$) drill bit for supplied threaded rods.
- 4) Apply chemical anchor inside the drill holes.
- 5) Insert the threaded rods into the ceiling.
- 6) Allow the chemical anchor to harden.
- 7) Make sure the intersections of opposing hinge eyes are in level. Use adequate metal cutting tool to shorten the threaded rods, if necessary.
- 8) Lift the air curtain using appropriate handling tools.
- 9) Attach the hinge eyes at the ends of threaded rods to the air curtain using the supplied screws and tighten all the screws using the supplied Allen key.

The ceiling threaded rods use 4 connection points (threaded rivets) located on the top of the left and right side panel:





The threaded suspension rods are 1 meter long and are not part of a standard delivery. Please consult the availability of longer suspension options with your local supplier.

The unit should be supported for the entire time until all four screws are properly fastened.

Use the supplied Allen key to fasten the screws.

When mounted, make sure the unit is stable and fit for operation. Check the ceiling around the mounting points regularly.



WARNING: Use suitable lifting equipment and keep the unit secured for the entire time of the installation. Any damage resulting from the use of inadequate lifting equipment or handling is not covered by the warranty.



OPTIMAL MOUNTING: In order to achieve the best performance, make sure the unit is centered above the door, it covers the entire width of the door and it is mounted in proximity of the top of the door. The offset of the door should be minimal.

8.7 Custom Horizontal Mounting

In situations where none of the above-described methods is applicable, a custom solution may be required. Contact your local Stavoklima supplier for more information.

8.8 Vertical Mounting

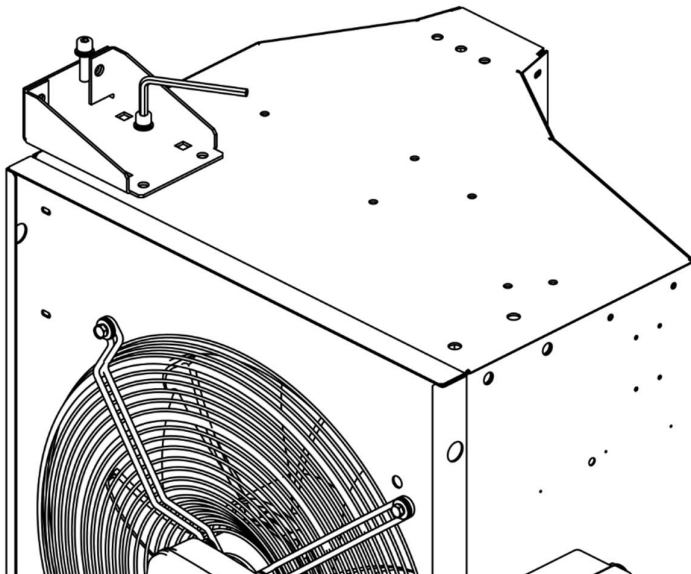
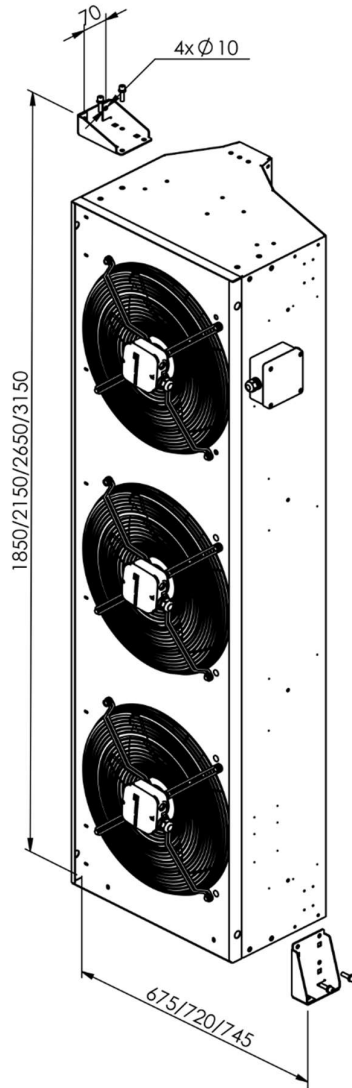
Vertical mounting is more suitable for situations where the height of the door exceeds the width and the vertical installation is not compromised by insufficient space around the door, suboptimal offset or nature of the door (e.g. winged door).

Since industrial door often serve as a passtrough for cars, forklifts, carriages and other means of transport that can effectively block the airstream, it is highly recommended to install the vertical air curtains on both sides of the door rather than covering the entire width of the door using a single-sided unit with higher performance.

A connection kit and silent blocks (optional) are required for floor mounting (not part of a standard delivery).

Please follow these steps in order to mount the air curtain onto the floor:

- 1) Attach the electro-connection box on the air curtain using supplied screws.
- 2) Using the meter measure and water level, mark the drilling points for the floor and the wall. Follow the drilling spacing at the bottom of this page.
- 3) Drill the holes for plugs and anchors. Always use adequate drill bit for selected wall plugs.
- 4) Mount the connection kit on the bottom and on the top of the air curtain using the supplied M8 screws. Use supplied Allen key to tighten the screws. Select appropriate set of mounting holes on the connection kit depending on the offset from the wall.
- 5) Apply chemical anchor inside the drill holes and push in the threaded rods or insert the plugs into the floor and the wall.
- 6) Allow the chemical anchor to harden.
- 7) Position the air curtain with the connection kit attached over the drill holes.
- 8) Screw in the screws, equivalent fasteners or nuts on threaded rods and tighten them. If done properly, the air curtain should be tightly attached to the ground and the wall.

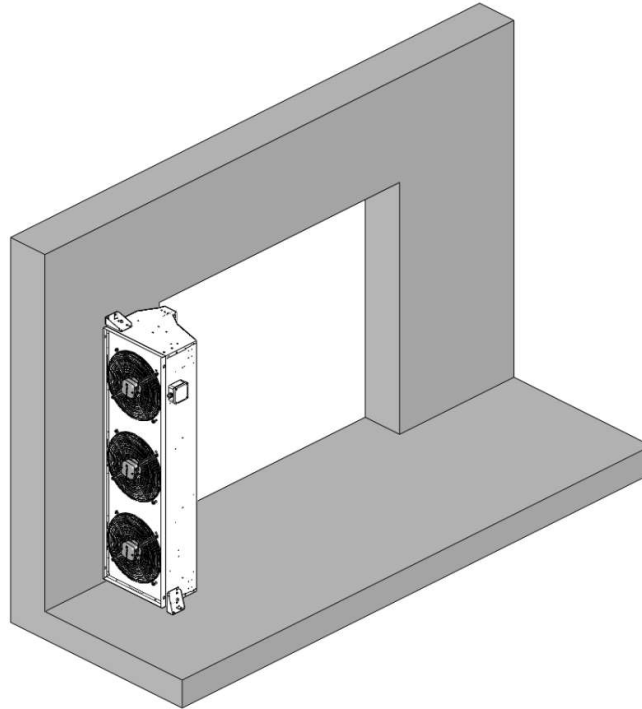


A connection kit is required to safely secure the vertically-mounted unit in place. The top of the unit needs to be attached to the wall in order to prevent knocking the unit down.

The unit should be supported for the entire time until all screws are properly fastened.

Use the supplied Allen key to fasten the screws.

When mounted, make sure the unit is stable and fit for operation. Check the floor and the wall around the mounting points regularly.



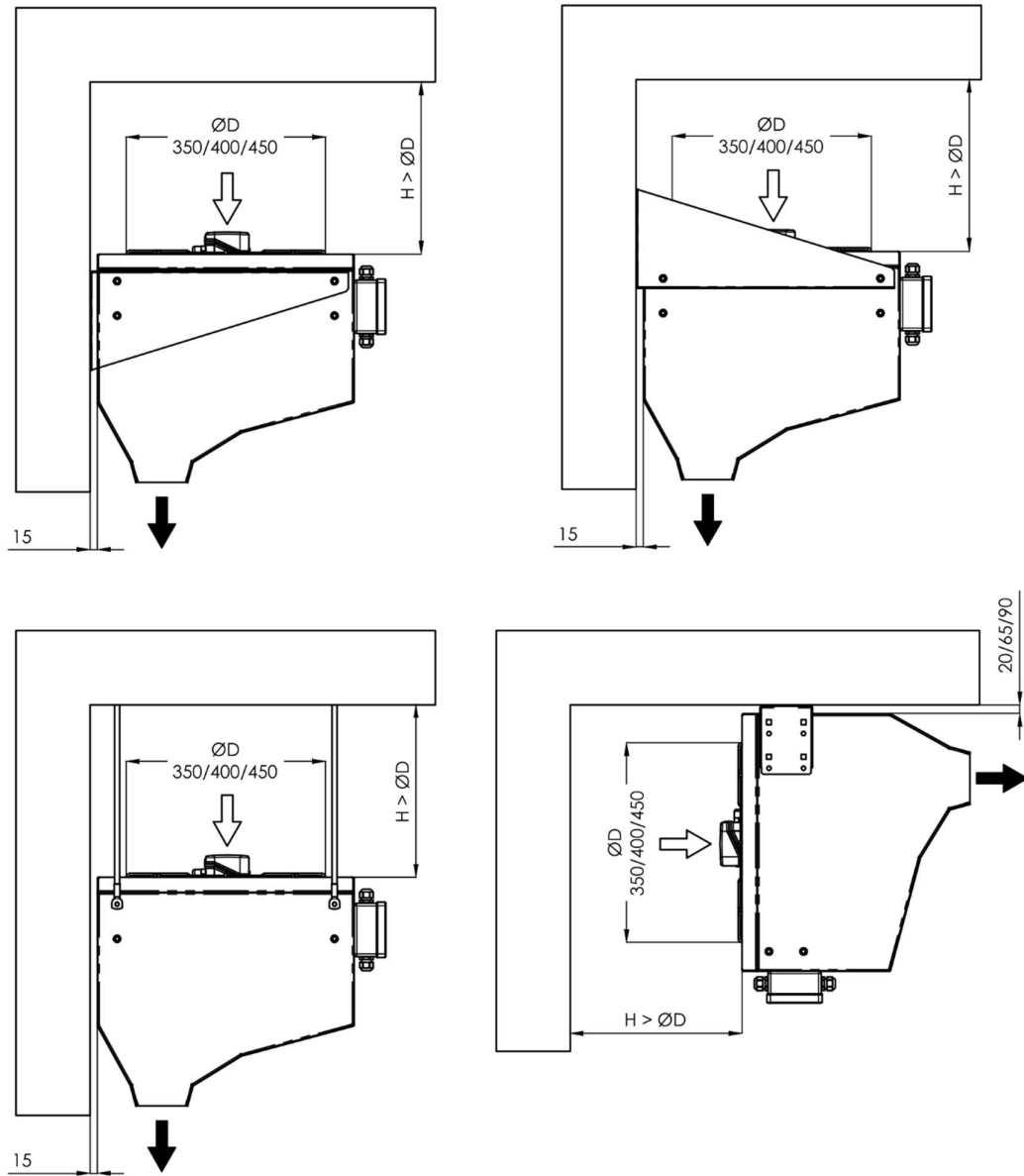
WARNING: Use suitable lifting equipment and keep the unit secured for the entire time of the installation. Any damage resulting from the use of inadequate lifting equipment or handling is not covered by the warranty.



OPTIMAL MOUNTING: In order to achieve the best performance, make sure the unit or units are installed as close to the door as minimal distances allow. Make sure the air curtain covers the entire height of the door. The offset of the door should be minimal. If units are installed on both sides of the door, the outlets are to be positioned directly against each other.

8.9 Minimal Distances

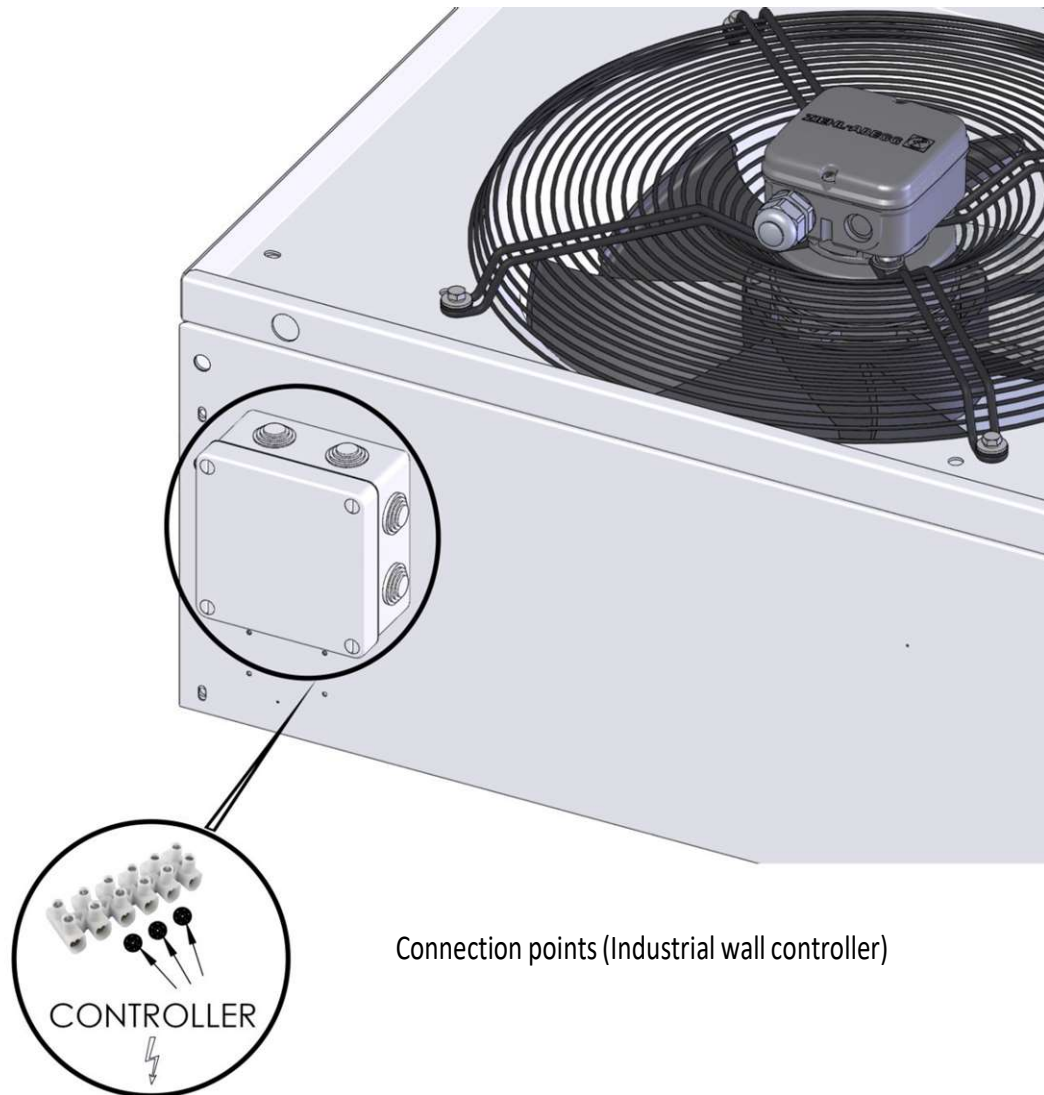
Respect the minimal distances from the ceiling and the wall in order to use the full potential of the unit. Regardless the mounting orientation, always make sure the inlet of the air curtain is at least one fan diameter distant from the wall or ceiling:



8.10 Connecting the unit

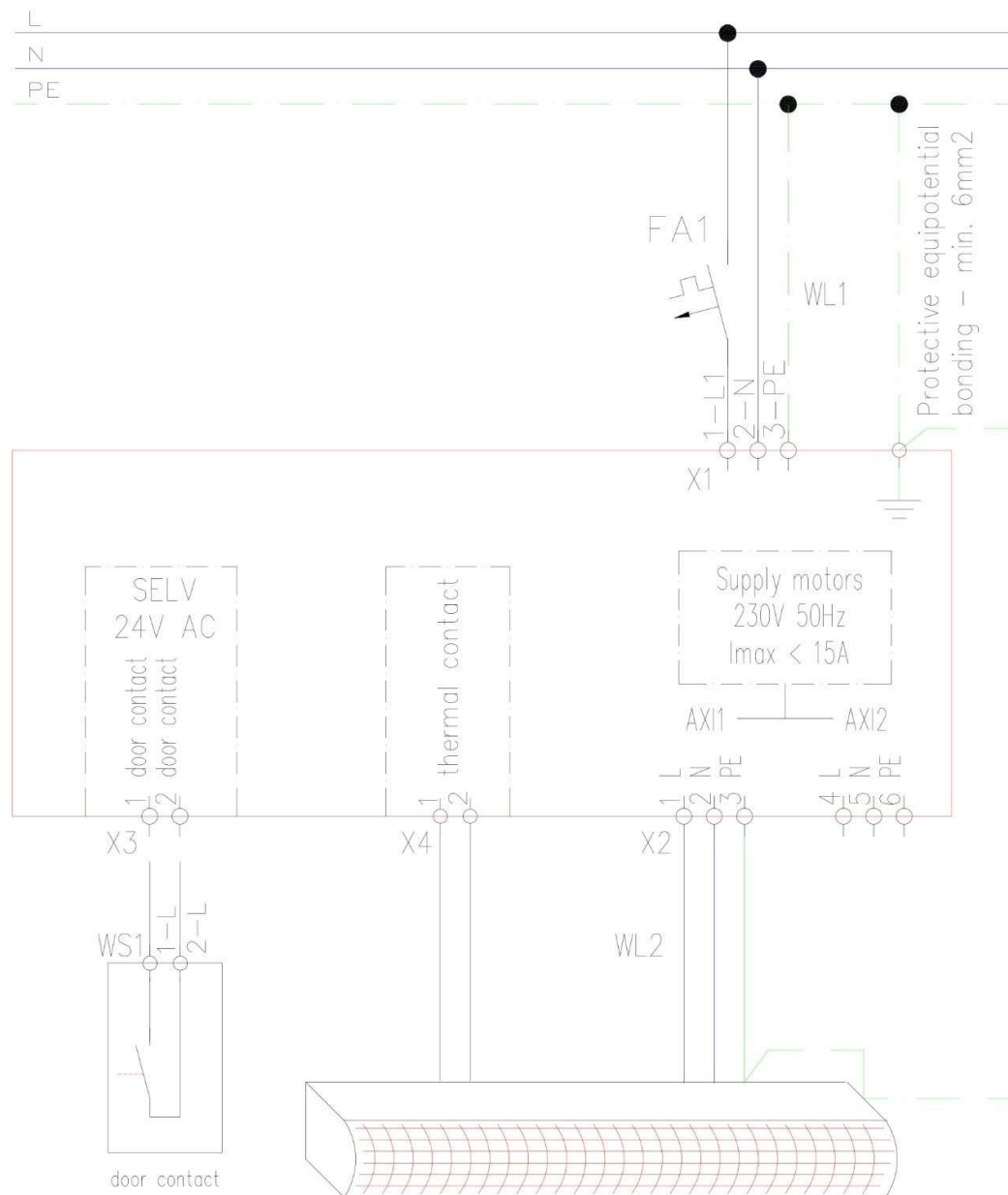
The air curtain requires connection to electrical network of 220 V (AC) at 60 Hz using hardwired cable connection. Only authorized electrician is permitted to perform connecting of the air curtain.

Connecting points are located on the front of the unit. Please use only adequate power cable – CYKY J3x4mm².



WARNING: Connecting is performed at one's own risk. Prior to connecting the air curtain to the electrical network, check the integrity of all supplied cables. If you detect any damage, do not connect the unit and contact the supplier. Any damage resulting from inadequate handling is not covered by the warranty.

Wiring diagram

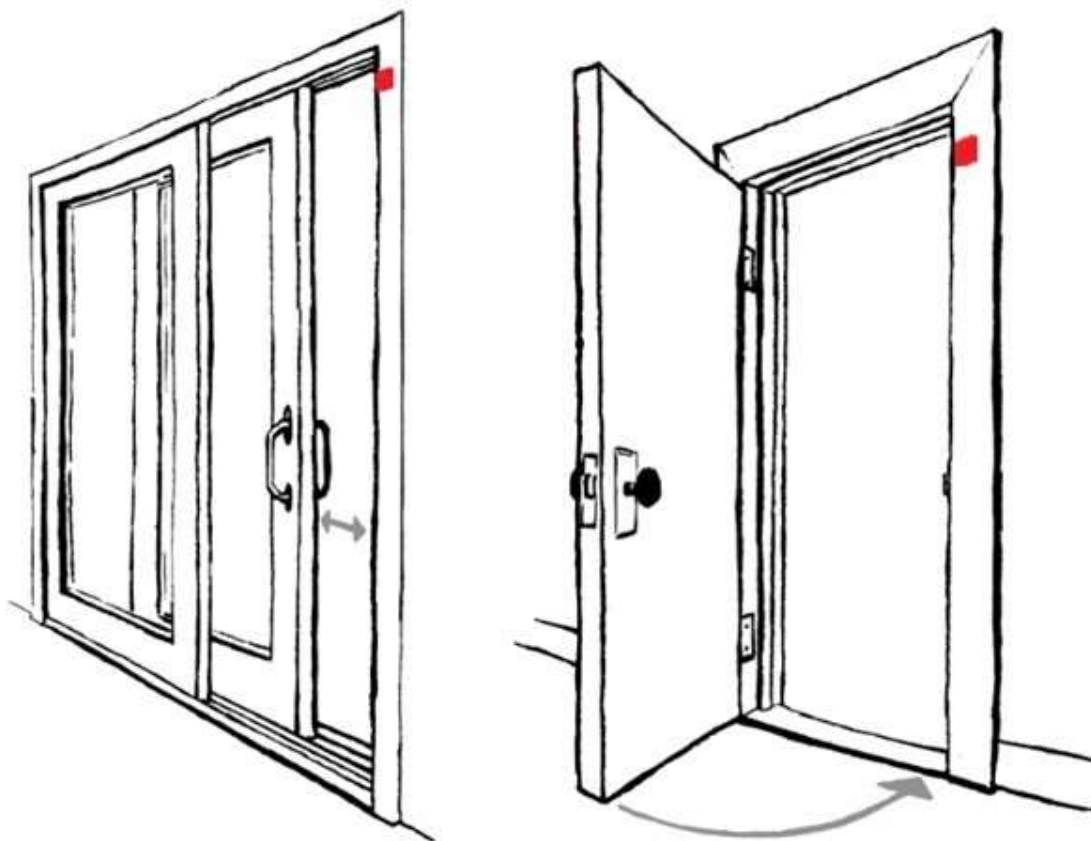


Tablet of cables and protection	
Position	Type
FA1	C/20A/3p
WL1	CYKY-J 3x4
WL2	CYKY-J 3x4
WS1	CYKY-O 2x1,5

Cable section are valid for the cable lenght to 50m.

The supplied door contact can be used with both – sliding door and standard door. The mechanical door contact reacts to door opening by angling the contact wheel. Once derailed from its centered default position, the door contact signals open door status to the

controller. It is meant to be mounted on the door frame with the wheel intersecting the opening radius of the door. The distance of the sensor wheel and the door edge should be as close as conditions allow.



Installation spots on sliding and standard door



Mechanical Door contact



OPTIMAL MOUNTING: Use self-tapping screws for mounting the door contact into position. If the situation doesn't allow solid fastening method, use heavy duty glue to secure the door contact in place. Prior to permanent mounting, tape the door contact to the door and test the functionality.

8.11 Commission

Prior to the first startup of the unit, check the following:

- integrity of the unit's chassis
- stability of mechanical mounting and anchoring of the unit
- proper connection of the power cable and the door contact
- sufficient circuit breaker in the electrical cabinet supervising the electrical slot the unit uses
- absence of mechanical objects or debris in and around the unit

After positive checkup of the unit the air curtain can be turned ON by turning the fan speed selector clockwise. From this point the fans of the unit should be working and air should be coming out of the unit's outlet.



STARTUP ISSUES: If you encounter difficulties commissioning the unit, refer to the Troubleshooting chapter (11.0) prior to contacting the supplier.

Follow the steps!



9.0 Wall controller

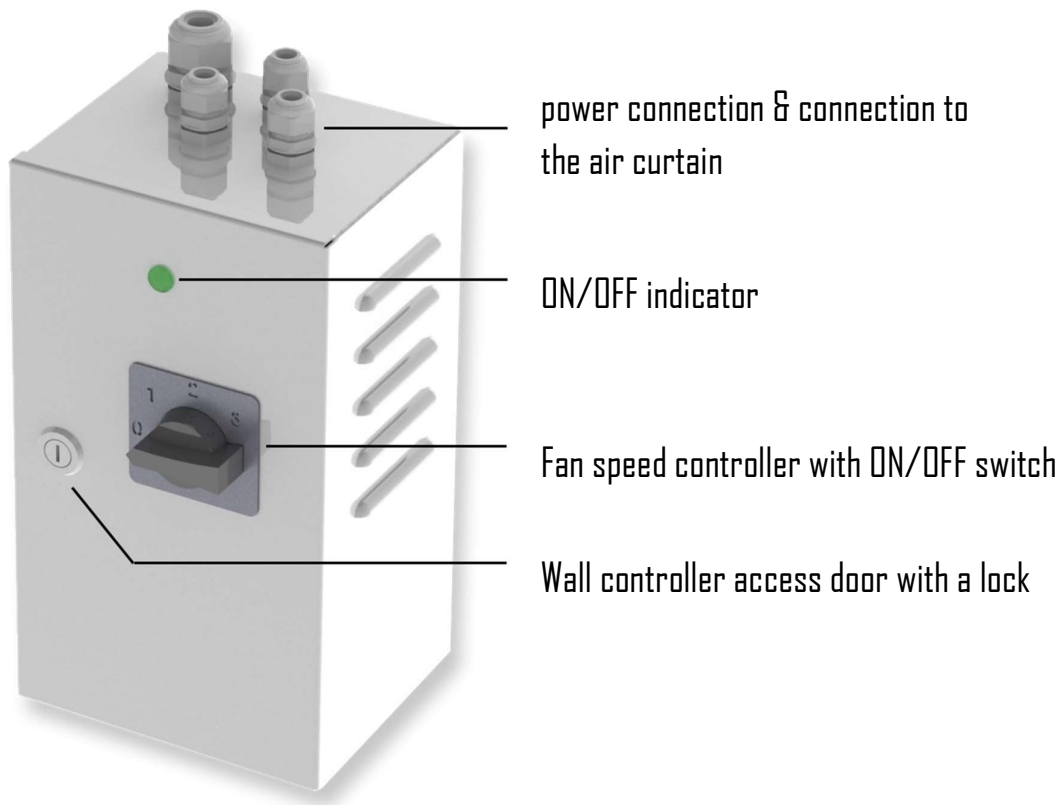
The air curtain is controlled using a hardwired wall controller that is supplied with the unit. For reliable control, install the wall controller on a place with visual contact between the unit and the wall controller. The air curtain reacts to turning of the fan speed controller switch.

The controller is universal and can be used to control multiple Stavoklima air curtains, provided that the total amperage capacity of the controller is not exceeded.

ROJ 14-10 light	Basic industrial wall controller Limited to 14 A (total amperage of units connected to the controller)
ROJ 30-20 light	High-capacity industrial wall controller Limited to 30 A (total amperage of units connected to the controller)

9.1 Features

The command is repeated as long as a button is pressed. The buttons have the following functions:



9.2 Control





For optimal use, make sure the wall controller is installed in the vicinity of the air curtain and it is installed on a visible place. Make sure all the personnel operating the unit have been properly instructed.



WARNING: The wall controller houses transformer and high voltage controller which powers the unit's fans. Only authorized electrician is permitted to open the device and perform maintenance, connection or repairs. Any damage resulting from inadequate handling is not covered by the warranty. Interaction with the device internal components is performed at one's own risk. For safety purposes, keep the wall controller locked and keep the key in the safe location.



9.3 Fan Speed Regulation

Three different fan speed levels can be selected using the wall controller allowing the end user to change the air volume of the air curtain depending on site conditions. Higher fan speed levels entail decreased sound comfort and vice versa. Changing fan speed levels with door contact enabled does not require the door to be opened.

	Zero fan speed level The fans are set OFF
	First fan speed level The fans are set on low speed
	First fan speed level The fans are set on medium speed
	First fan speed level The fans are set on high speed

9.4 ON/OFF Indicator

The wall controller is equipped with ON/OFF LED indicator that provides visual confirmation that the unit is ON or OFF. This is especially practical in loud environments.

	The LED indicator is lit The air curtain is running
	The LED indicator is dark The air curtain is powered down

9.5 Door Contact

Once the door contact is connected to the contacts of the wall controller, the automatic mode is enabled. From this point on, the door contact switches the air curtain's fans ON and OFF based on the position of the door and selected speed level. To preserve the longevity of the fans, the door contact has integrated timer that keeps the air curtain running for 60 seconds after the door close. If the door is opened during this period, the 60 seconds' interval resets and starts over.

The default time interval of the timer can be adjusted by accessing the timer relay inside the wall controller. Only authorized electrician is allowed to perform this procedure. Using the screw driver, the timer can be set anywhere between 50 milliseconds and 100 hours.



Use the top control wheel to set the amount of time within the selected range. The middle wheel changes the preset of the time range:

1 s	Finest setting – milliseconds Range from 50 milliseconds to 1 second
10 s	Fine setting – seconds Range from 500 milliseconds to 10 seconds
1 m	Basic setting – seconds Range from 3 seconds to 60 seconds
10 m	Extended setting – minutes Range from 30 seconds to 10 minutes
1 h	Minute setting – minutes Range from 3 minutes to 60 minutes
10 h	Long-lasting setting – hours Range from 30 minutes to 10 hours
100 h	Ultra-long setting – hours Range from 5 hours to 100 hours



OPTIMAL PRESET: Change the timer only in case of different requirements dictated by the situation. Recommended delay range for standard operation is between 15 seconds and 15 minutes. Do not use unnecessarily short or long intervals. The timer's sole purpose is to prevent unit from frequent switching ON and OFF in situations where the doors are repeatedly opened and closed in short intervals.



WARNING: Only authorized electrician is allowed to interfere with the unit's timer. Do not change the time presets without well-defined requirements and always record the default state for cases, when the default setting need to be restored. Any damage resulting from inadequate timer setting is not covered by the warranty.

10.0 Maintenance

All the units are always factory-checked and tested carefully prior to dispatch. The most frequent errors stem from misunderstanding the function of the unit or from incorrect connection. Therefore, observe carefully the manufacturer's instructions to avoid complicated troubleshooting. Under no circumstances operate the unit in contradiction with the User's manual.

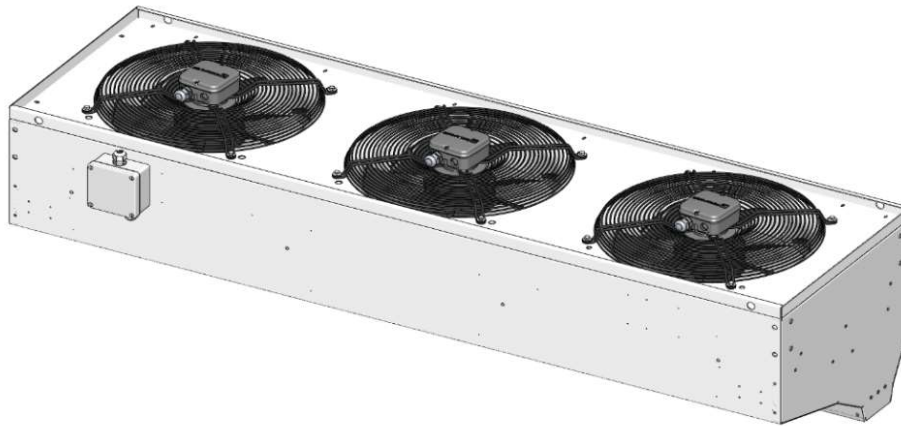
The unit is designed for electrical networks of 220V/60 Hz (alternatively 230/50 Hz). Running the unit under different conditions may result into irreversible damage to the unit. Such damage is not covered by the warranty.



WARNING: Disconnect the unit from electrical supply prior to any work on the device. Risk of electric shock and/or injury.

10.1 Fan maintenance

Every air curtain from AXI product family is equipped with maintenance-free axial fans. It is recommended to frequently check these fans and keep them clean. Use compressed air to clean the fan and wet towel to clean the area around the fans.



WARNING: Do not insert any foreign objects into the fan area. Never attempt to clean a powered fan. Any damage resulting from improper maintenance is not covered by the warranty.

10.2 Maintenance schedule

The AXI air curtains are made of high-quality components that do not require any special maintenance. To ensure long life of the unit, we recommend maintaining it in the specified intervals or more often. If the unit is operated for a long time continuously, periodic maintenance (once a month) is recommended. The environments with high density of airborne particles would require more frequent maintenance. Do not use a chemically treated duster, benzene, thinner, polishing powder, or similar solvents for wiping. It may damage or fade the surface of the unit.

Every 3 months	Wall/floor mount check Check the wall bracket, ceiling suspension or the floor mounting and their surroundings for signs of structural instability (cracks, unevenness, compromised integrity of the wall, loose wall plugs, etc.). Check tightening of all the fasteners and bolted connections. In addition, check tightening of the bolts of the outlet louvres – they are accessible on the inner sidewall of the curtain. Tightening of the central vanes is done by turning the louvres (by tightening the internal threaded pin).
Every 3 months	Unit check & cleaning Check the fan housing and the internal/external parts of the unit and clean them, where possible. Do not wash the fan body with water! Use a damp cloth to remove the dust from the surfaces – otherwise the fan windings may be damaged. Work carefully when wiping the outlet louvres. Fragile – risk of damage!
Every 3 months	Safety check Check the safety of the unit in terms of electric-shock protection in accordance with applicable country-specific standards, incl. checks of the grounding system.
Every 3 months	Wall controller check Check the integrity of the wall controller body, secure connection, functionality of the ON/OFF LED indicator and fan speed controller.
Every 3 months	Door contact check Check the mounting of the door contact. If necessary, relocate it to a more secure position.



WARNING: Disregarding the maintenance schedule may result into poor performance or irreversible damage to the unit. Such damage is not covered by the warranty.

11.0 Troubleshooting

Please refer to the following list of situations before contacting the supplier:

<p>The unit won't start upon turning the fan speed controller to position 1, 2 or 3</p>	<p>1) Door contact check If door contact is enabled, open the door to activate the unit or turn the door contact OFF. The unit should respond immediately.</p> <p>2) Power cable check Check whether the power cable is connected to the circuit breaker in the electrical cabinet and make sure it is connected to the air curtain' connector box</p> <p>3) Circuit breaker check Check the circuit breaker inside the electrical cabinet and make sure it matches the minimal requirements for operating the air curtain.</p>
<p>The unit won't stop upon closing the door (with door contact connected)</p>	<p>1) Timer check The air curtain is programmed to switch the fans OFF 30 seconds after closing of the door. Make sure the door stay closed for more than 30 seconds.</p> <p>2) Door contact check Check thoroughly the door contact, it's integrity and mounting position. The sensor wheel is very likely too close to the door and the state of the door is constantly OPEN. Mount the door contact further away from the door edge.</p> <p>3) Door check Check the door for objects blocking the door from fully closing and remove them.</p>
<p>The strange noises are coming from inside of the unit</p>	<p>1) Internals check Check the internals of the unit including the outlet. Remove any foreign objects.</p> <p>2) Fans check Check the fans for signs of wear and damage. If you detect any signs of a faulty fan, contact your supplier of air curtains.</p>
<p>The unit's performance is low</p>	<p>1) Fan speed check Switch the unit into higher fan speed level.</p> <p>2) Fans check Check the fans for signs of wear and damage. If you detect any signs of a faulty fan, contact your supplier of air curtains.</p> <p>3) Specifications check Check the User's manual for maximal recommended mounting height and make sure this height is not exceeded.</p> <p>4) Negative conditions check There are factors that can have negative impact the air barrier generated by the air curtain – for example chimney effect, pressure difference, draft, etc. These factors need to be minimized in order to provide best conditions for the air curtain to function properly.</p>

<p>The power shortage occurred and the stopped working</p>	<p>1) Restore the power supply Once the power supply is restored, the unit will continue operation with last active setting loaded in the memory before the power down.</p>
--	---

12.0 Important Warnings

Door air curtains are designed to prevent losses of heat or cold, to ensure filtration and heating, or to ensure ventilation with mixing facilities. Any other use is not the intended application. The manufacturer cannot be held liable for any damage resulting from misapplication. Observe this manual when operating these units.

Installation, wiring and repairs must be performed by qualified personnel in accordance with applicable country-specific regulations and standards.

13.0 Contact Info

STAVOKLIMA Saudi

Email: sales@stavoklima.com.sa

Tel: + 966 (011) 22 77 339

Fax: + 966 (011) 22 77 339 Ext. 116

www.stavoklima.com.sa