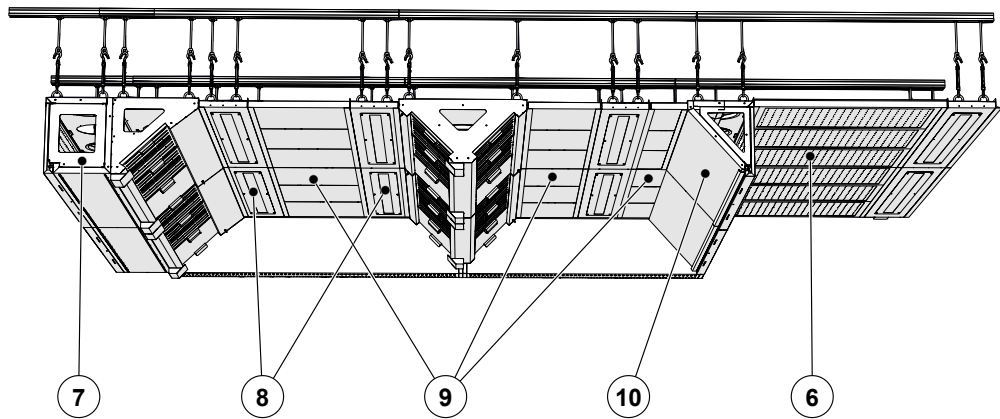
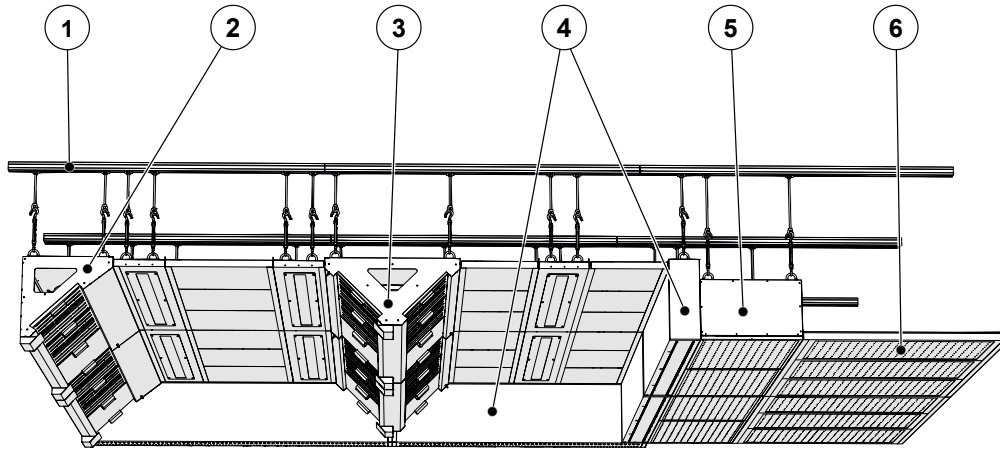


NORDcanopy

HC Ventilation Ceiling installation, use and maintenance manual

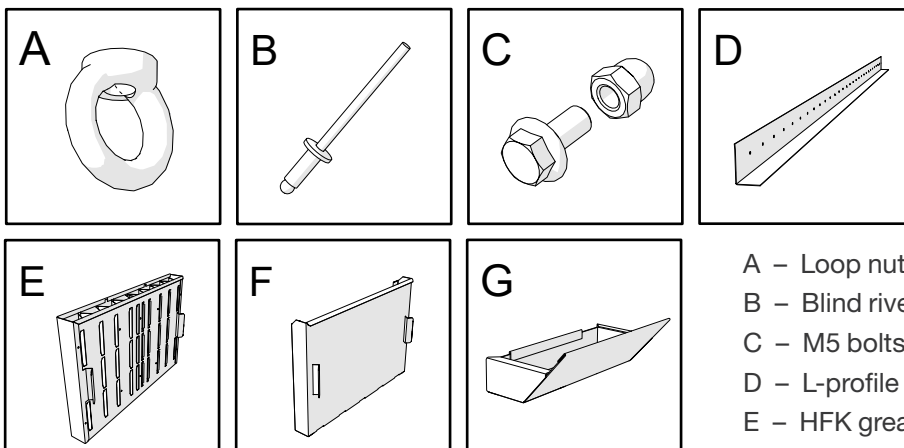
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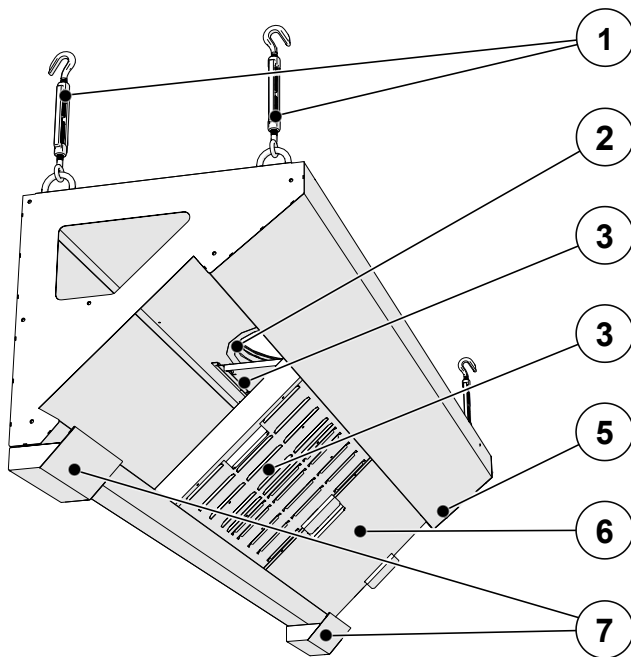
- | | |
|------------------------------------|---------------------------------------|
| 1 – MEFA fastening system | 6 – HCM Noise Absorbing Ceiling Panel |
| 2 – HCE Exhaust Wall Module | 7 – HCAH Horizontal Supply Air Module |
| 3 – HCI Exhaust V-module | 8 – HCL LED Light Module |
| 4 – HCG AirGrip Module | 9 – HCF Ceiling Panel |
| 5 – HCV Vertical Supply Air Module | 10 – HCH Horizontal Supply Air Module |

In the kit:

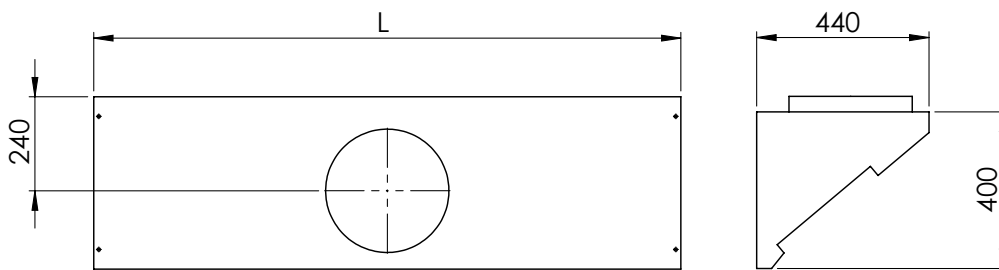


- A – Loop nut
- B – Blind rivets
- C – M5 bolts and capped nuts
- D – L-profile
- E – HFK grease filter
- F – Blind panel for grease filter rail
- G – Grease collection container

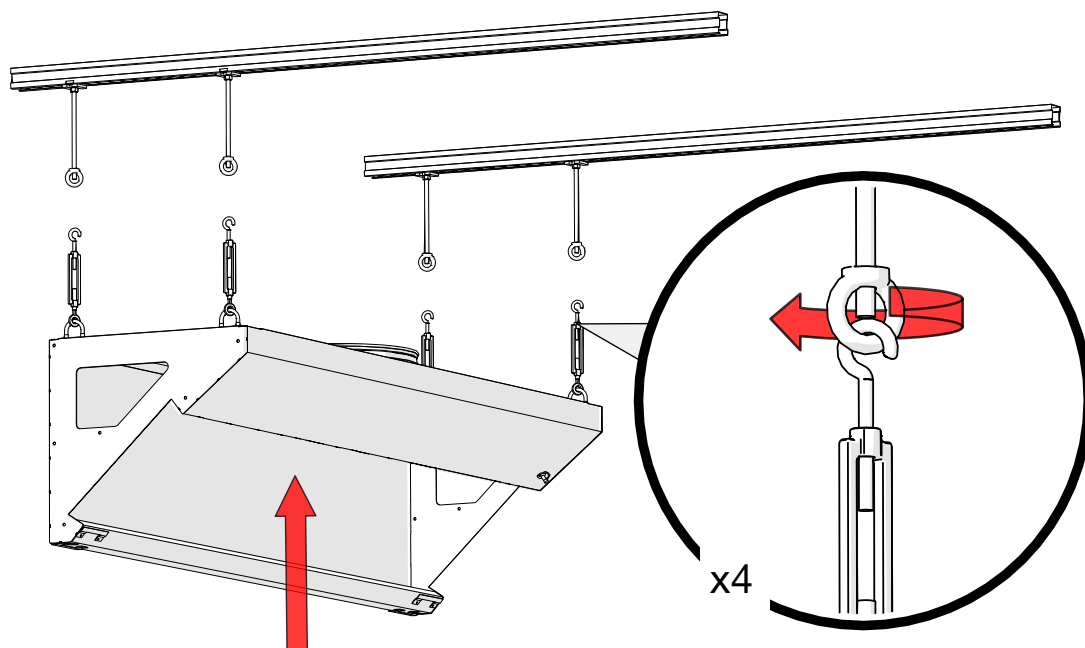
1. HCE Exhaust Wall Module



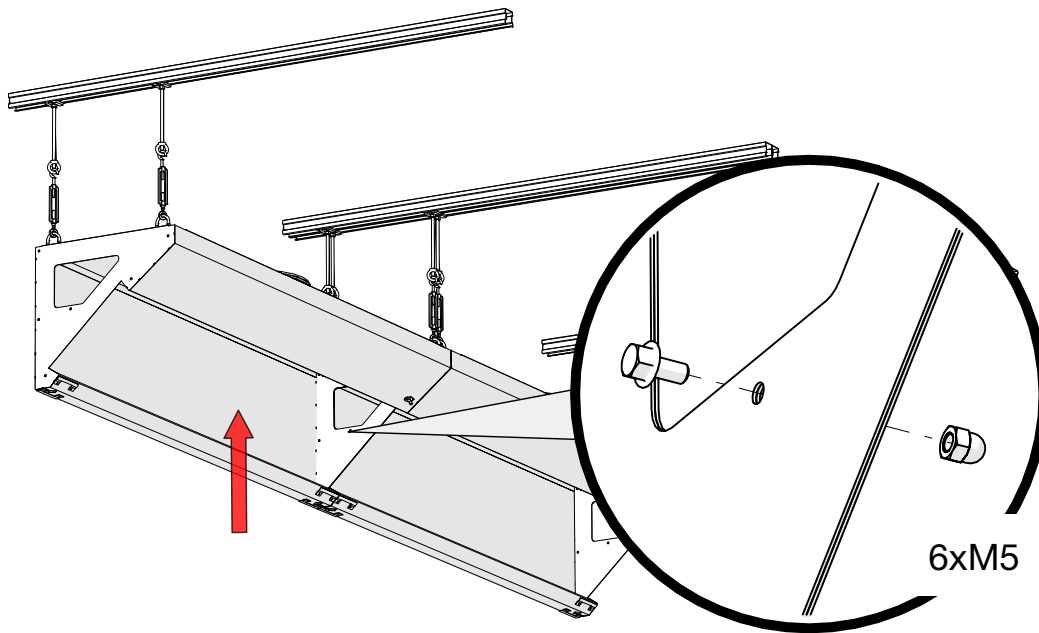
- 1 – Suspension points
- 2 – Exhaust air connection
- 3 – Adjustment plate for exhaust air
- 4 – HFK Grease Filter
- 5 – Airflow measuring nozzles
- 6 – Blind plate for grease filter rail
- 7 – Grease collection container



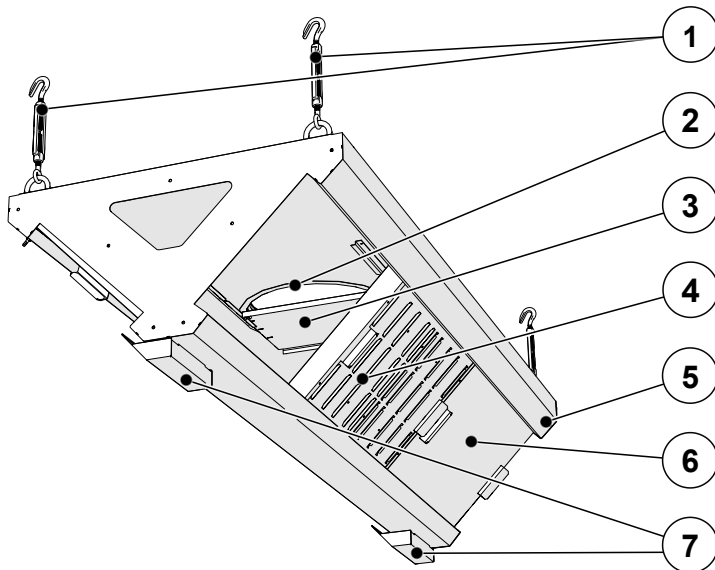
1.1 Hanging the HCE Exhaust Wall Module



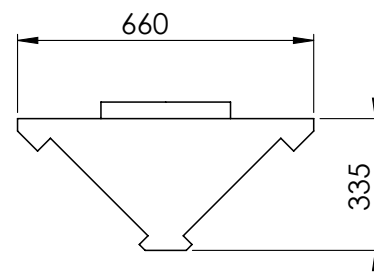
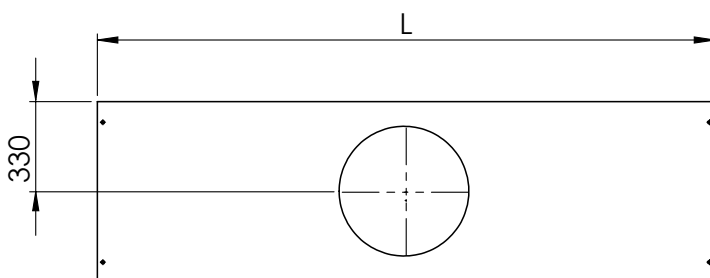
1.2 Sequential connection of the HCE Exhaust Wall Modules



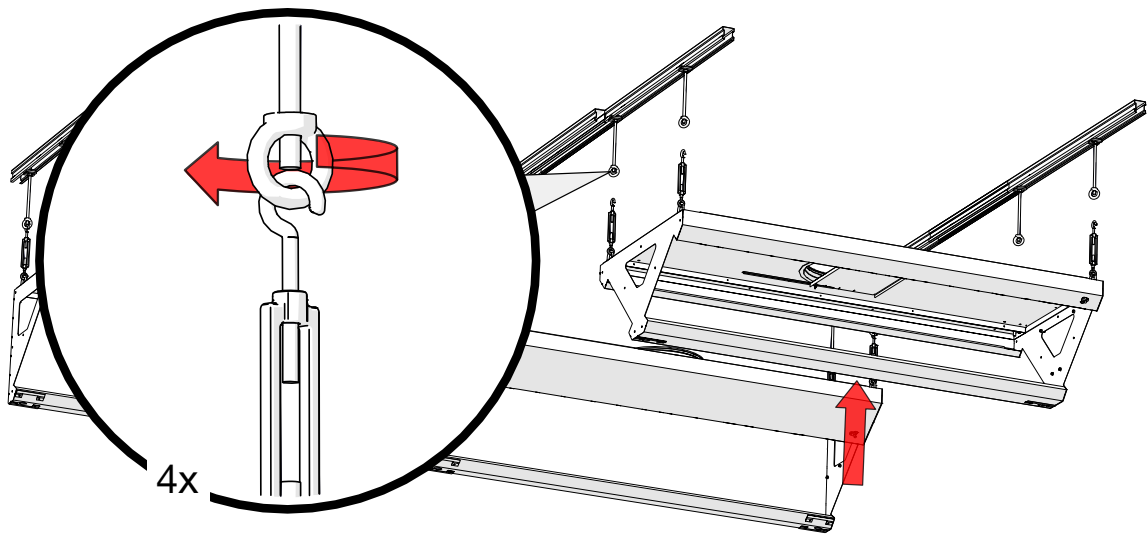
2. HCl Exhaust V-Module



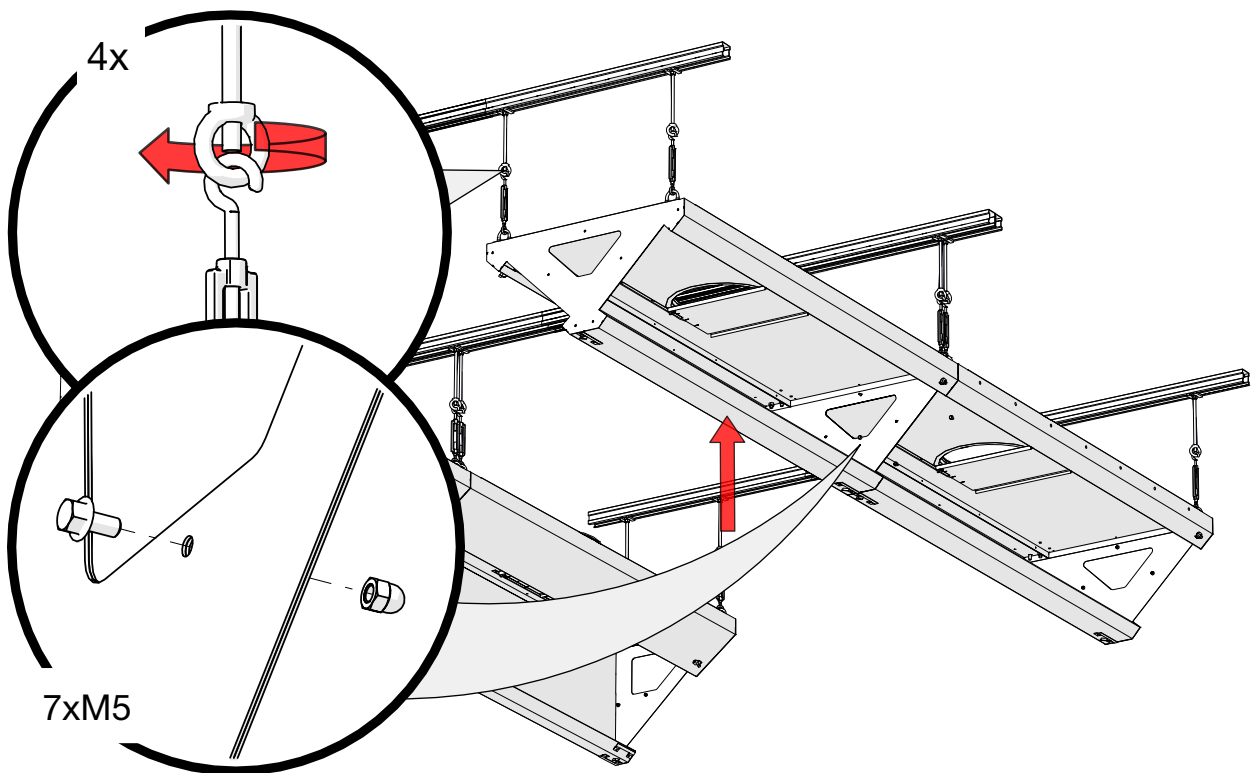
- 1 - Suspension points
- 2 - Exhaust air connection
- 3 - Adjusting plate for exhaust air
- 4 - HFK Grease Filter
- 5 - Airflow measuring nozzles
- 6 - Blind panel for grease filter rail
- 7 - Grease collection container



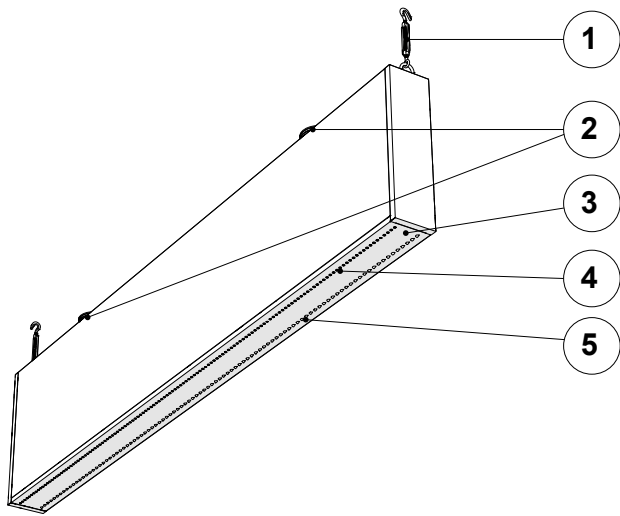
2.1 Hanging the HCI Exhaust V-Module



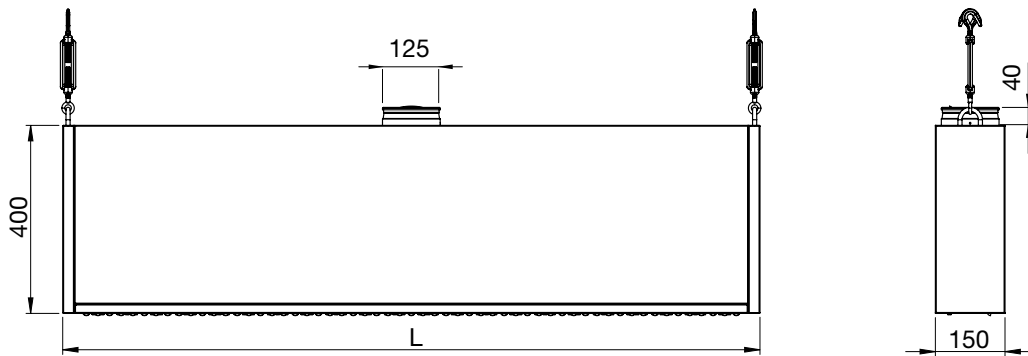
2.2 Sequential connection of HCI Exhaust V-Modules



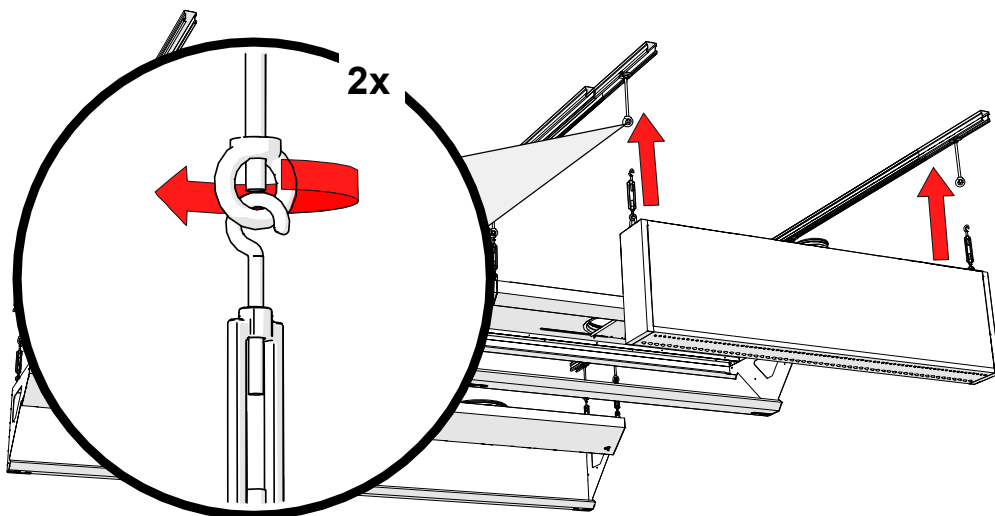
3. HCG AirGrip Module



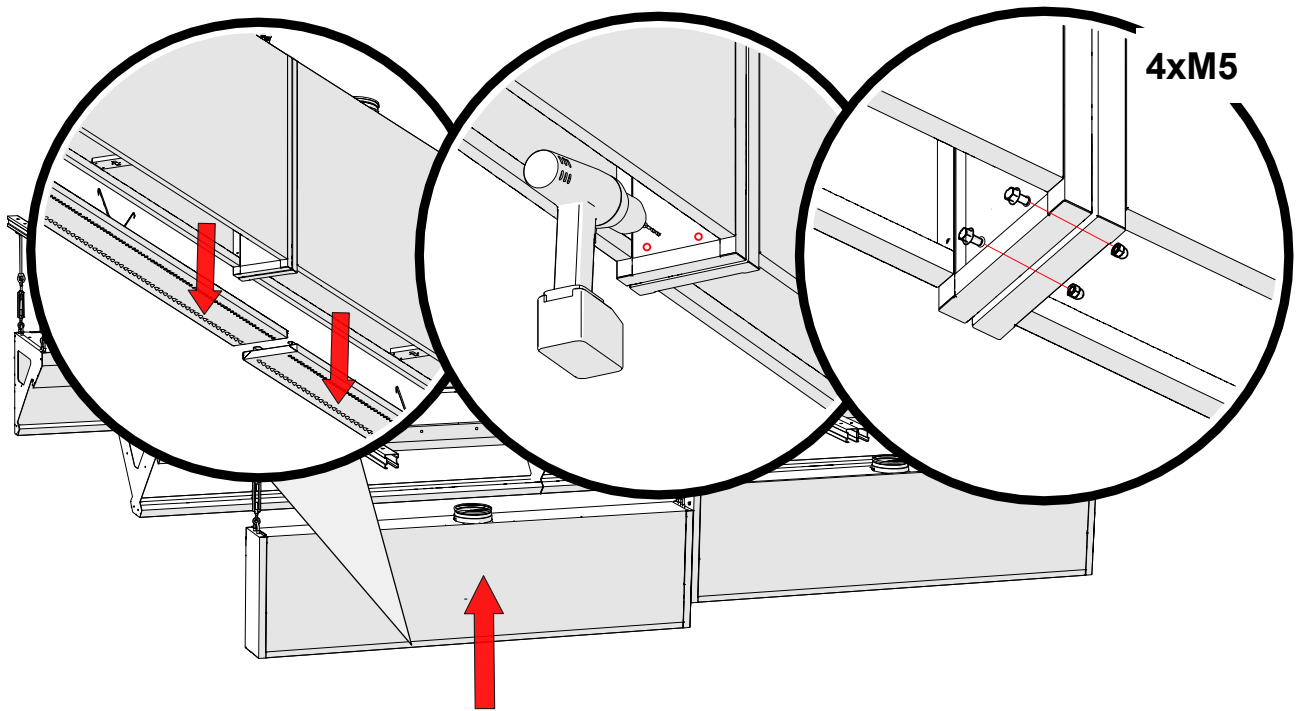
- 1 – Suspension points
- 2 – Supply air connection
- 3 – Housing hatch
- 4 – Vertical AirGrip system
- 5 – Horizontal AirGrip system



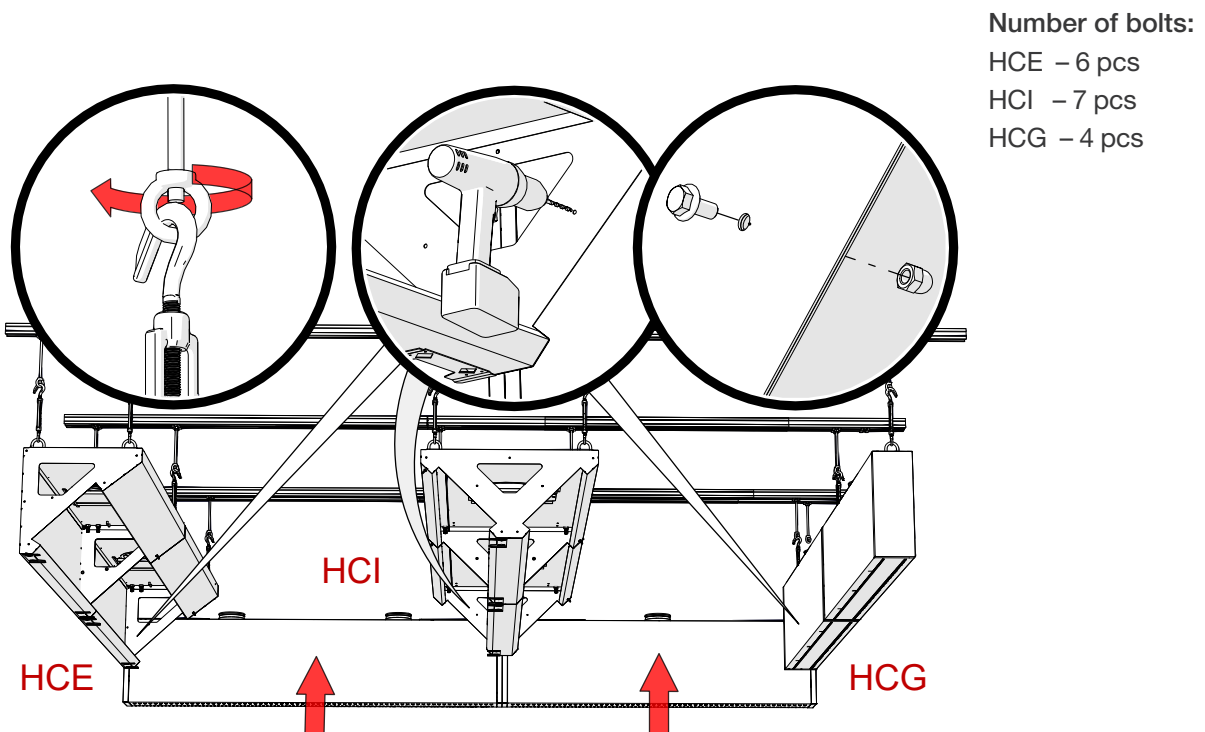
3.1 Hanging the HCG AirGrip Module



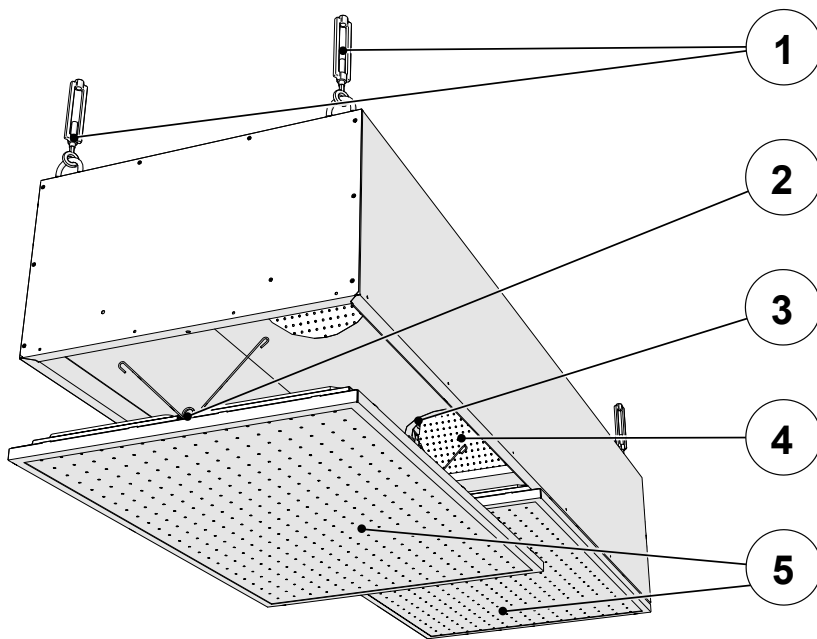
3.2 Sequential connection of HCG AirGrip Modules



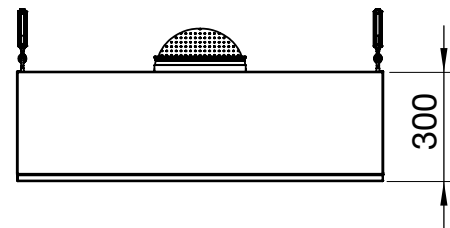
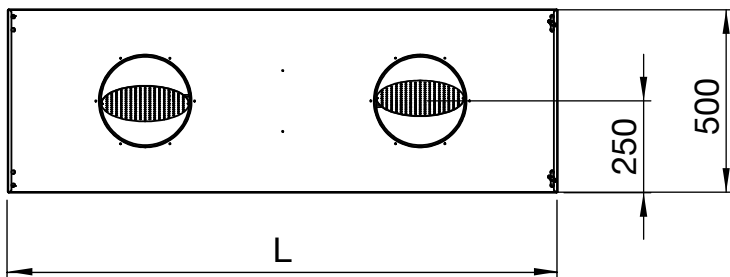
3.3 Connecting the HCG AirGrip Module to the ventilation ceiling modules



4. HCV Vertical Supply Air Module



- 1 – Suspension points
- 2 – Front panel lock
- 3 – Supply air connection
- 4 – Supply air adjusting plate
- 5 – Front panels



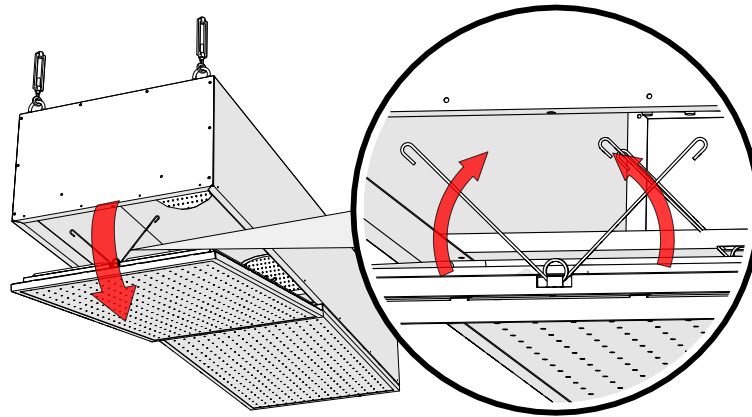
k-values
Supply air

Dimensions		Open	Open 50%	Closed
1000	500	46,6	33,8	14,9
1500	500	90,9	63,9	29,5
2000	500	93,2	66,6	30,0
2500	500	139,8	99,8	45,1

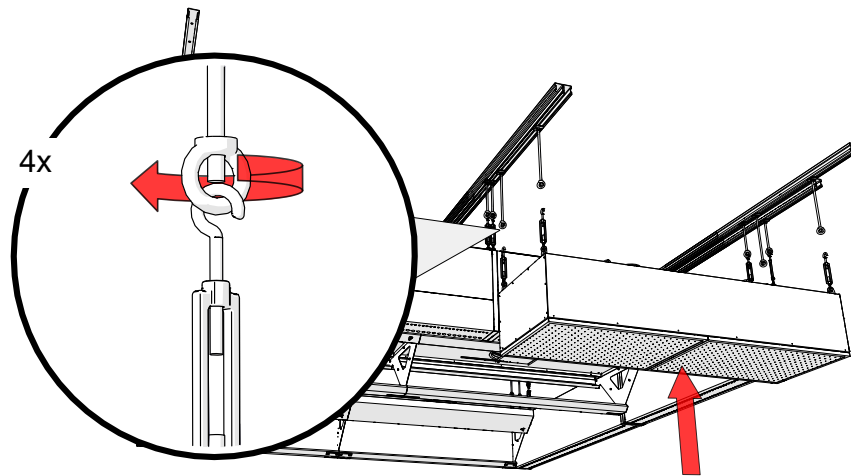
Extract air

Dimensions		Open	Open 50%	Closed
1000	500	36,7	33,8	14,9
1500	500	71,1	63,9	29,5
2000	500	73,4	52,4	23,7
2500	500	110,1	78,6	35,5

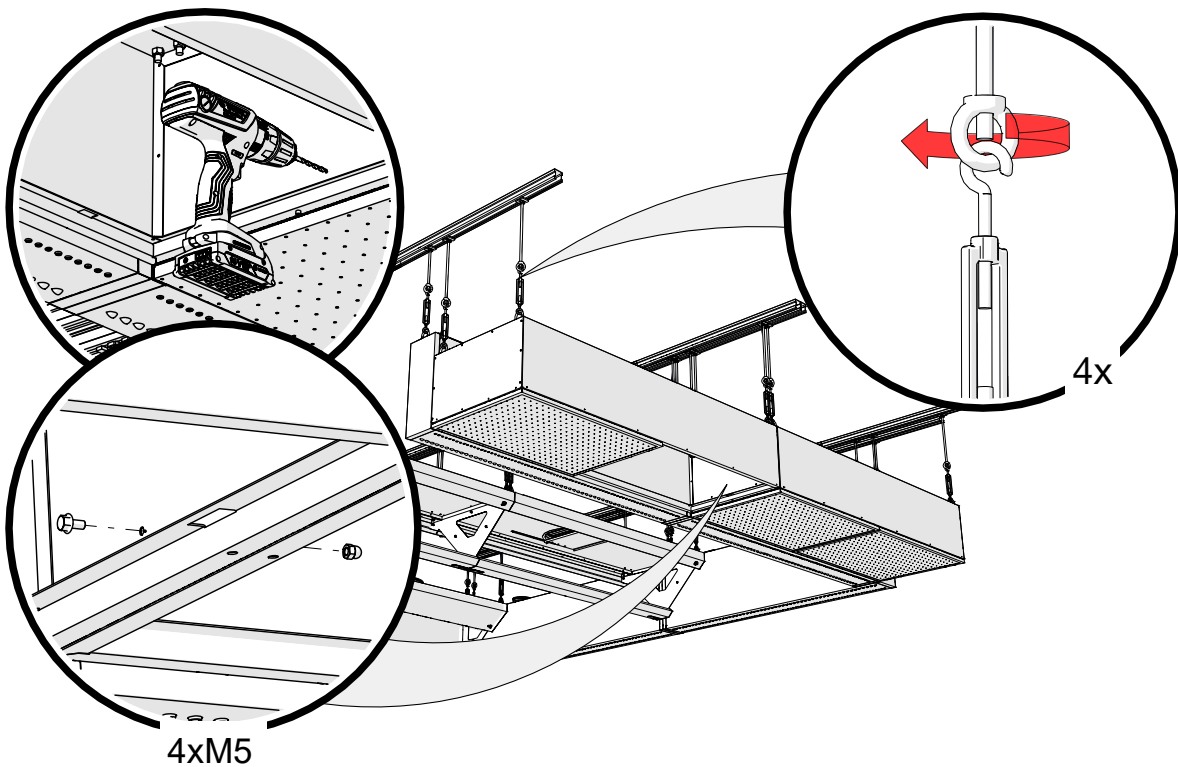
4.1 Opening the HCV Vertical Supply Air Module front panel



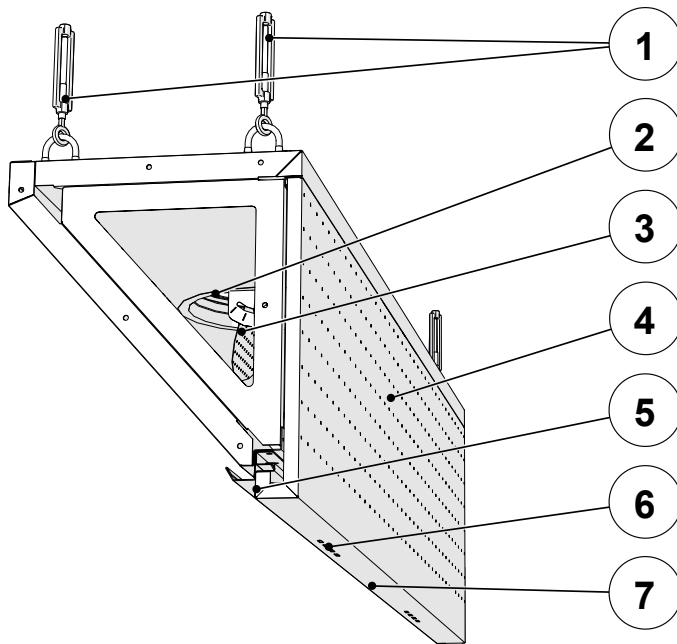
4.2 Hanging the HCV Vertical Supply Air Module



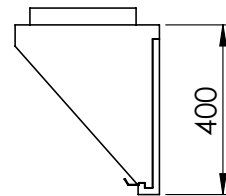
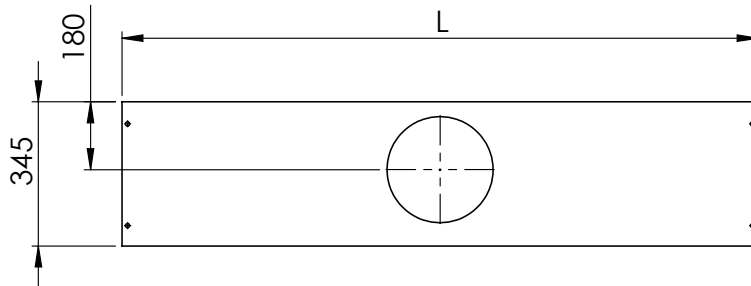
4.3 Sequential connection of HCV Vertical Supply Air Modules



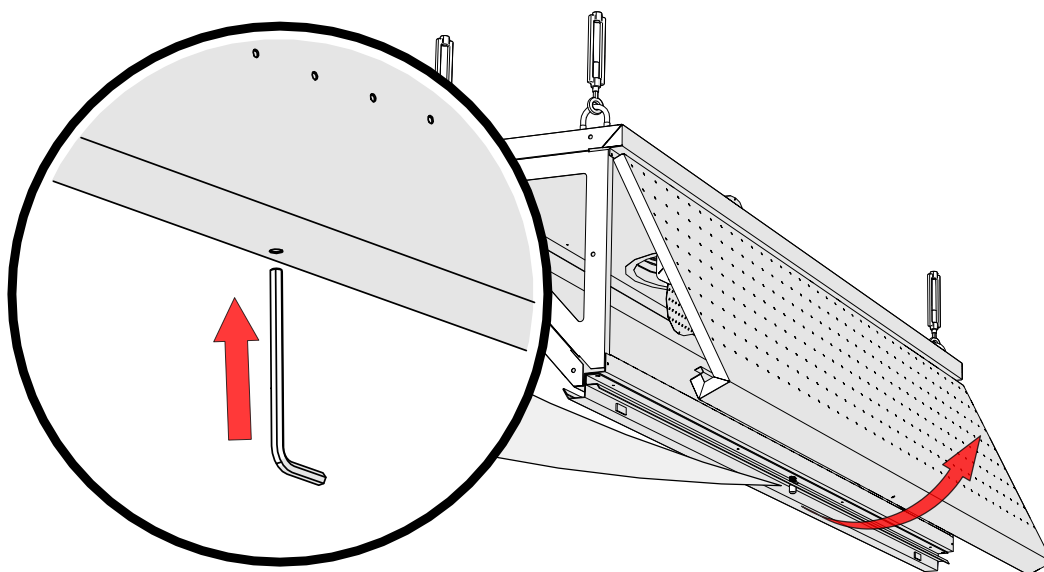
5. HCH Horizontal Supply Air Module



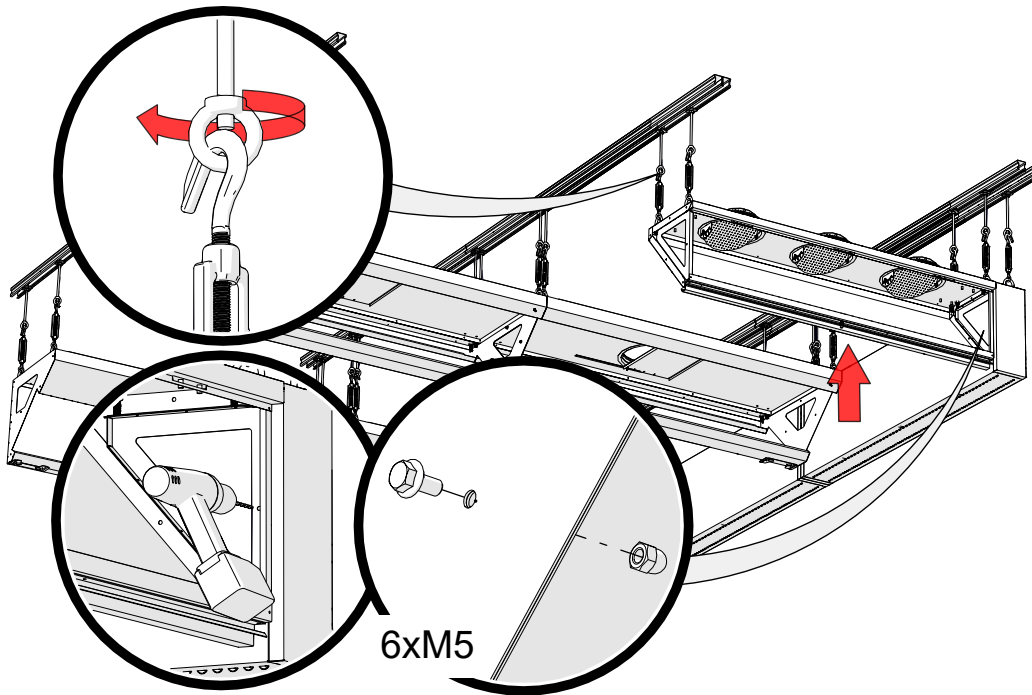
- 1 – Suspension points
- 2 – Supply air connection
- 3 – Supply air adjustment plate
- 4 – Front panel
- 5 – AirGrip air nozzle system
- 6 – Auxiliary supply opening
- 7 – Front panel lock



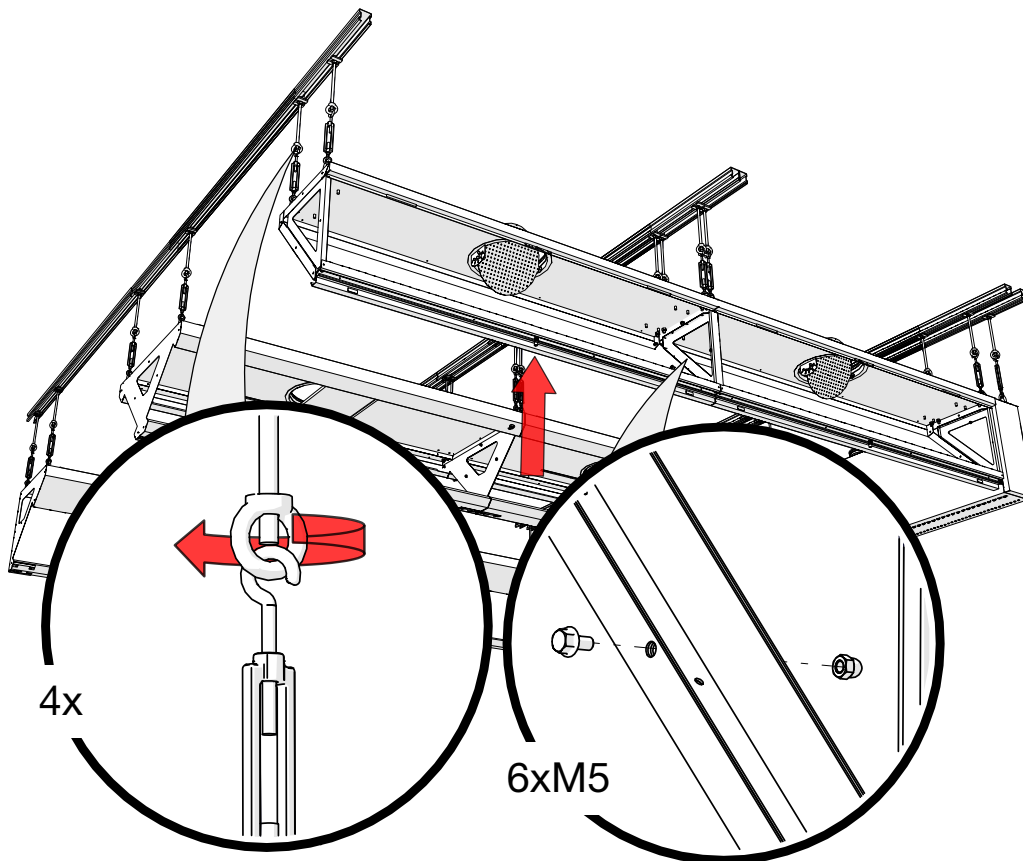
5.1 Opening the HCH Horizontal Supply Air Module front panel



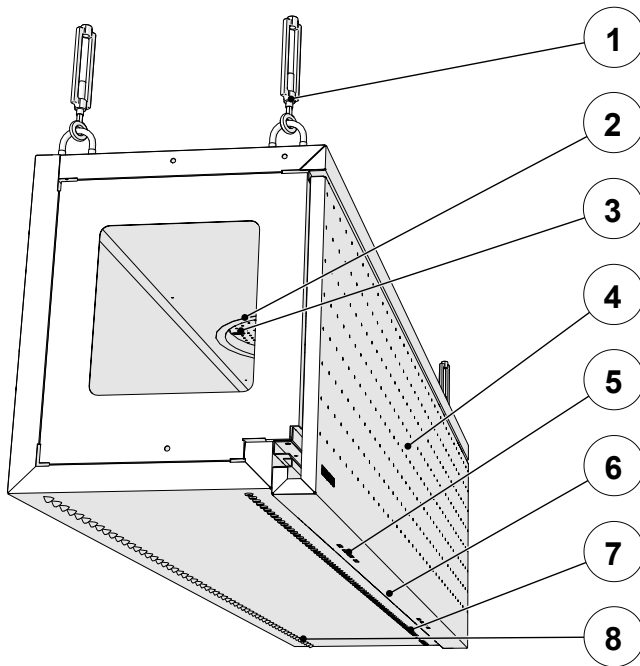
5.2 Hanging the HCH Horizontal Supply Air Module



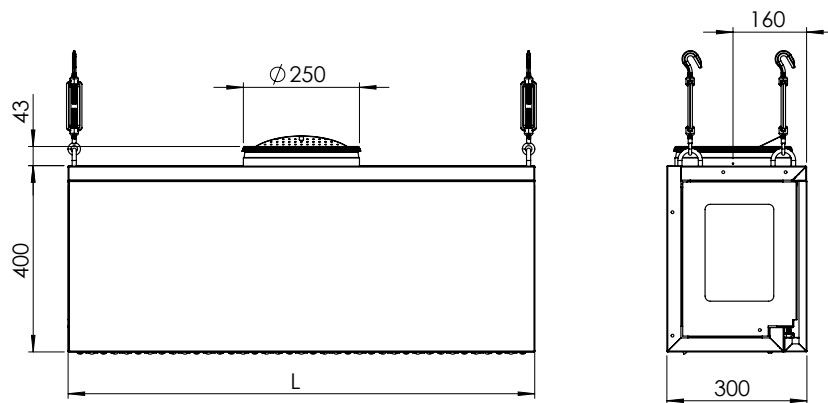
5.3 Sequential connection of HCH Horizontal Supply Air Modules



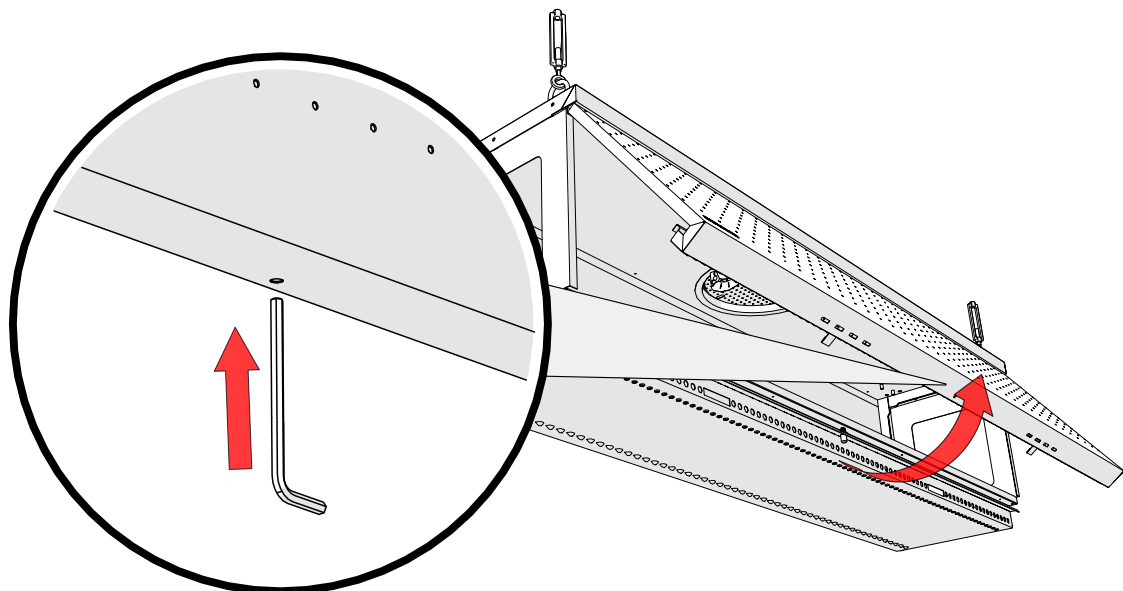
6. HCAH Horizontal Supply Air Module



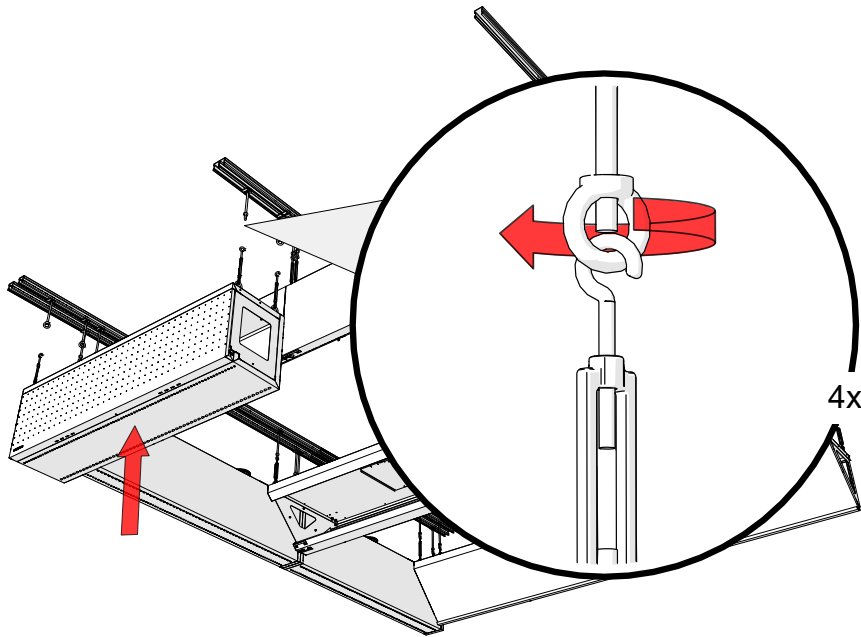
- 1 – Suspension points
- 2 – Supply air connection
- 3 – Supply air adjustment plate
- 4 – Front panel
- 5 – Auxiliary supply openings
- 6 – Front panel lock
- 7 – Vertical AirGrip system
- 8 – Horizontal AirGrip system



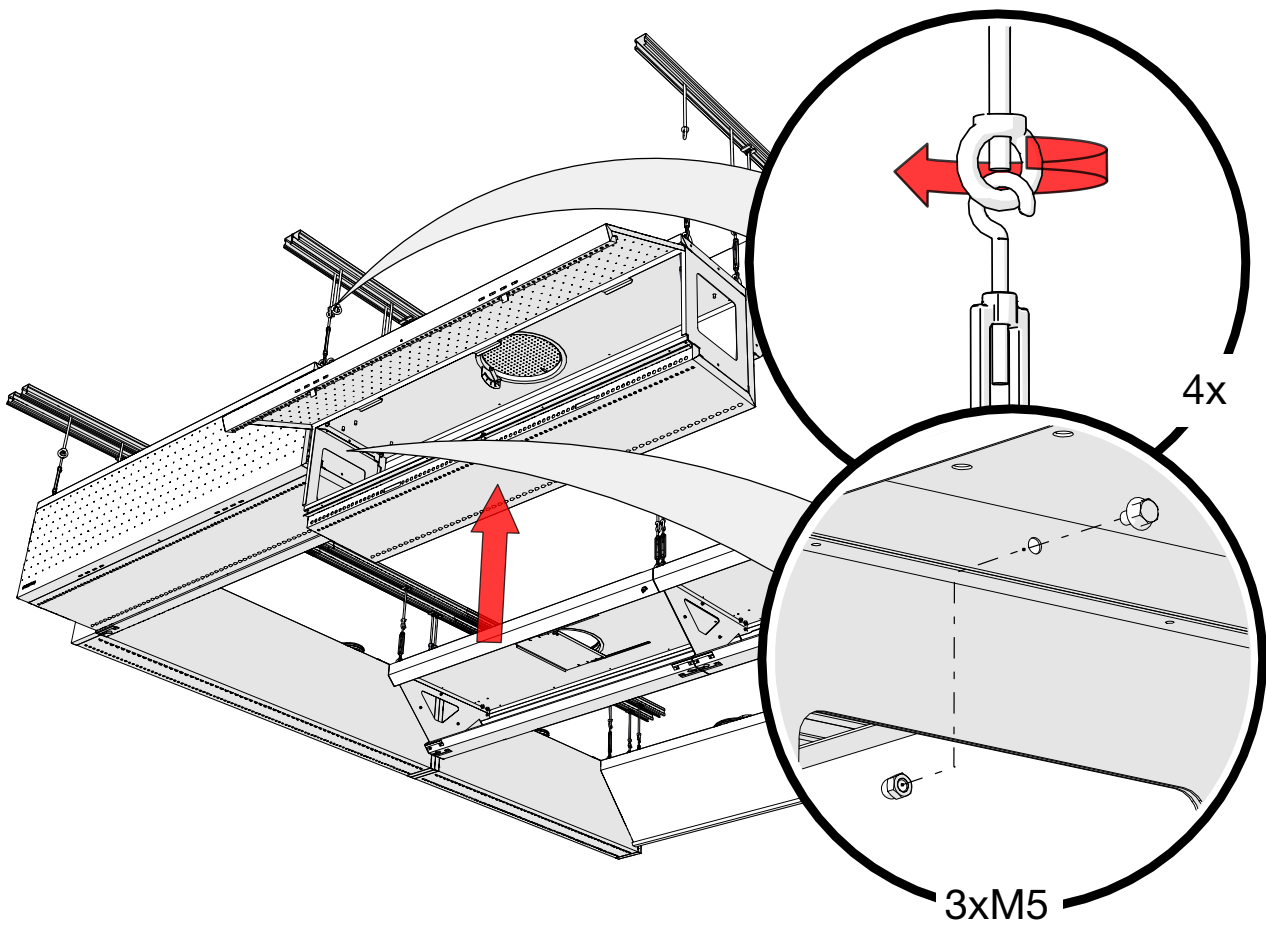
6.1 Opening the HCAH Horizontal Supply Module front panel



6.2 Hanging the HCAH Horizontal Supply Module

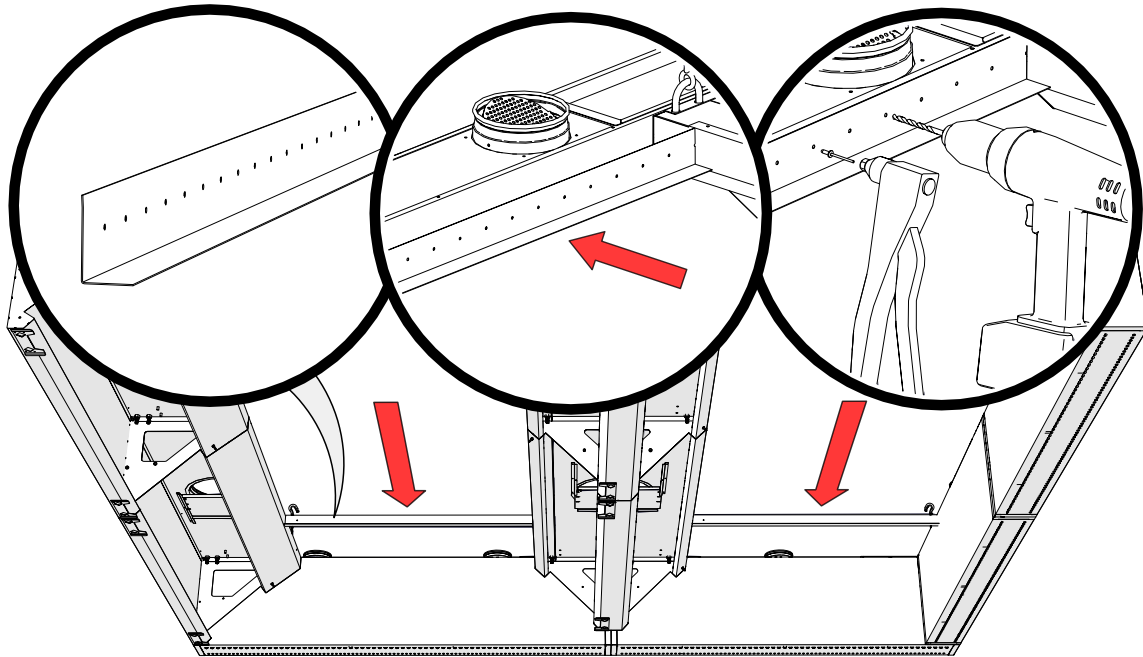


6.3 Sequential connection of HCAH Horizontal Supply Modules

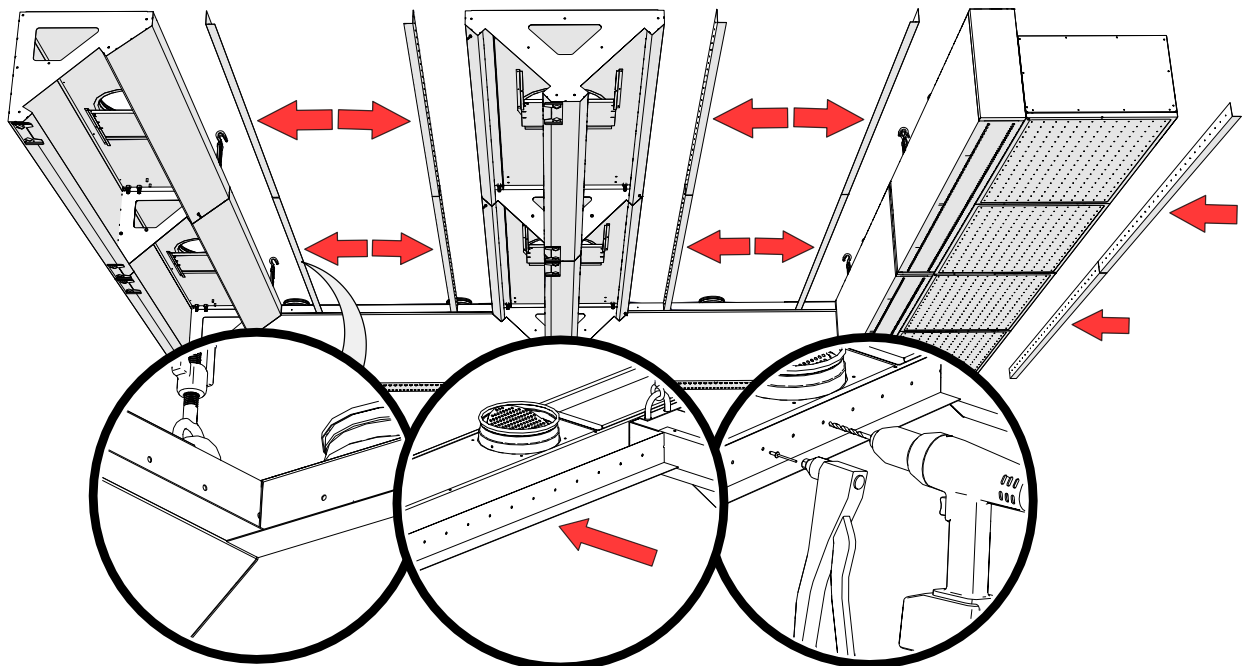


7. Installing L-profiles

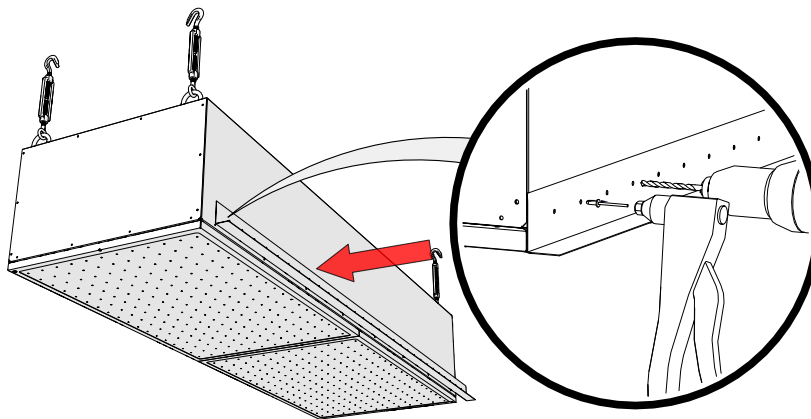
7.1 Installing the L-profiles running between the chambers



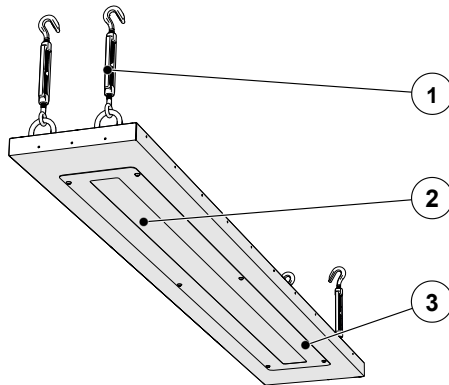
7.2 Installing L-profiles on the sides of the ventilated ceiling chambers



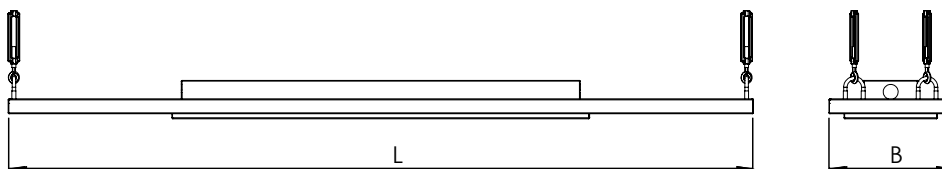
7.3 Connecting the L-profile to the HCV Supply Air Modul



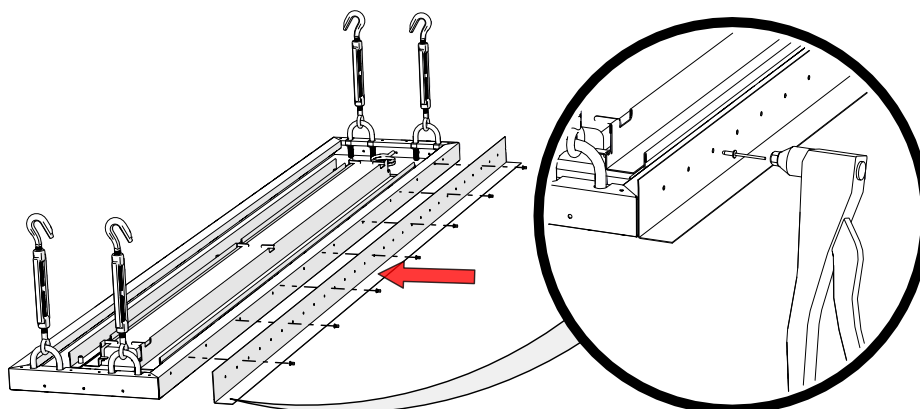
8. HCL LED Light Module



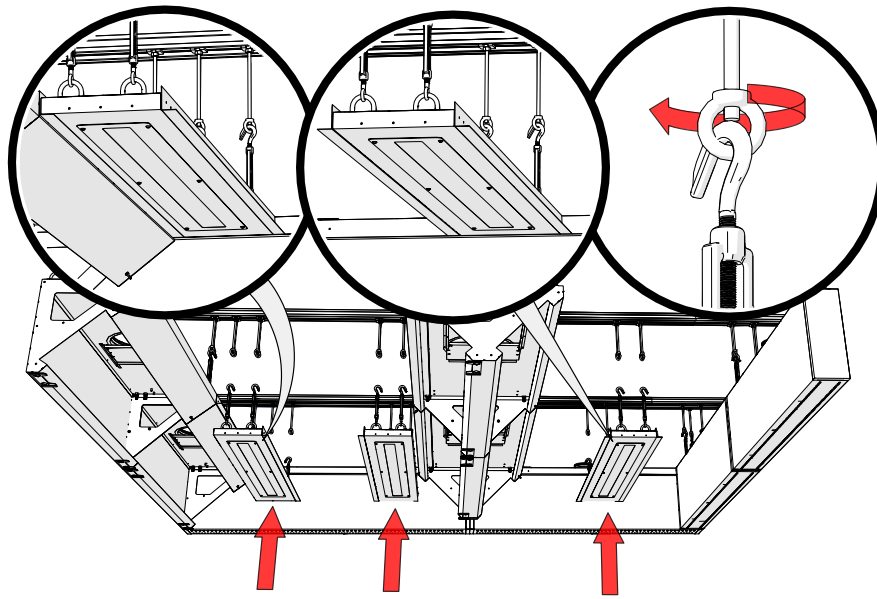
- 1 – Suspension points
- 2 – LED luminaire
- 3 – Openable lighting case



8.1 Connecting L-profiles to the HCL LED Light Module

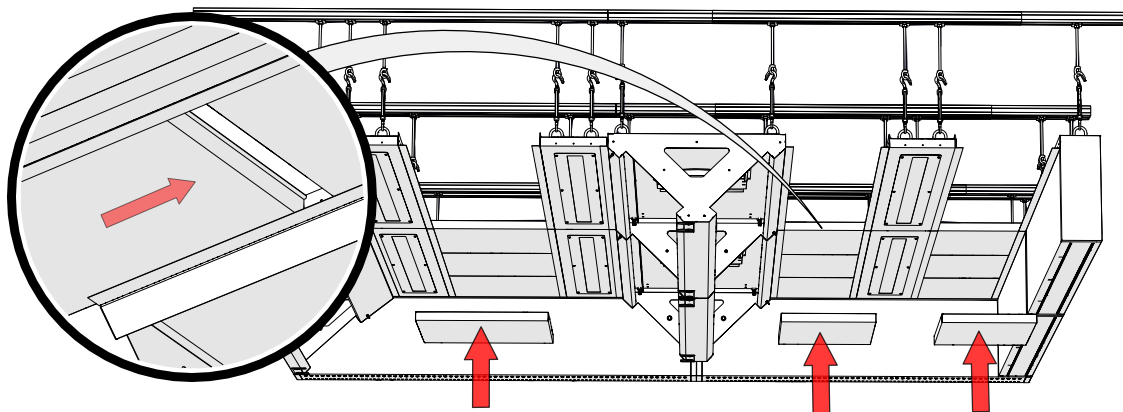


8.2 HCL LED Light Module installation



9. HCF Ceiling Panel

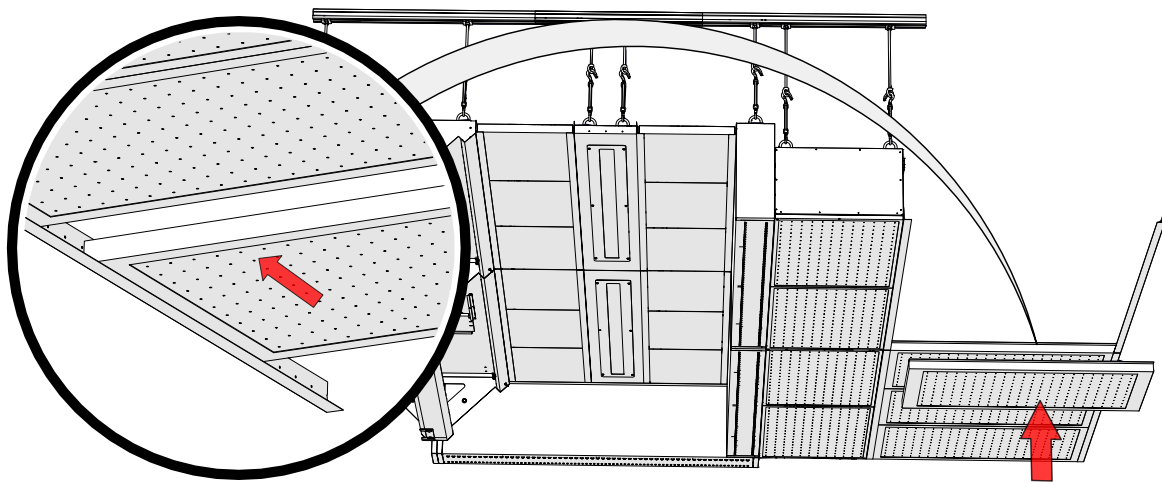
9.1 Installing the HCF Ceiling Panel



10. HCM Noise Absorbing Ceiling Panel



10.1 Installing the HCM Noise Absorbing Ceiling Panel

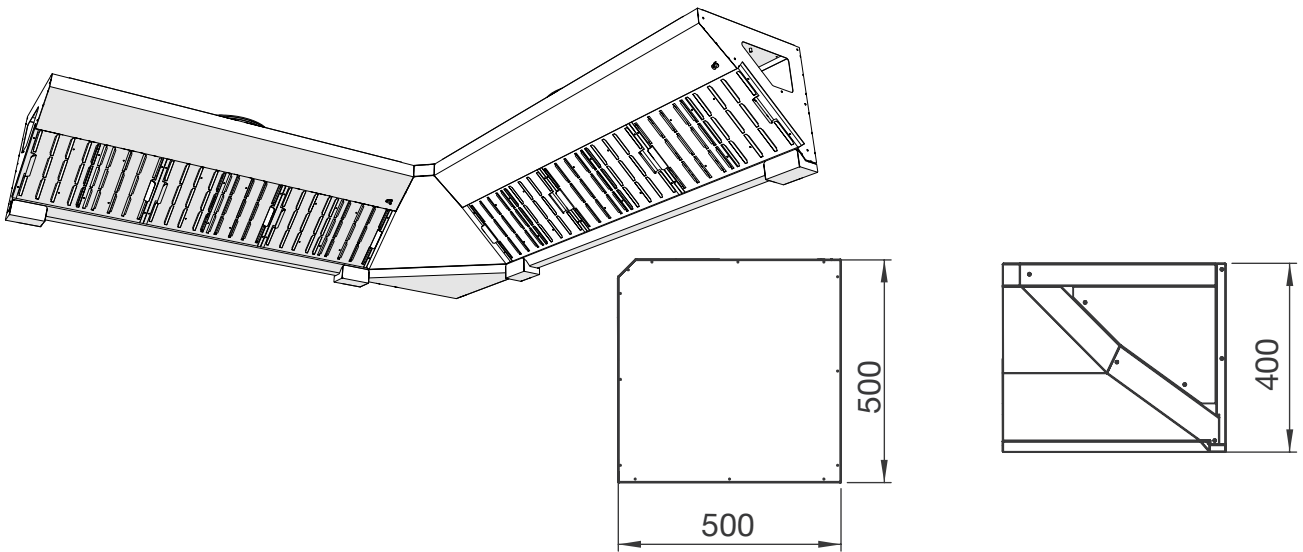


11. Installing the Ozone Generator

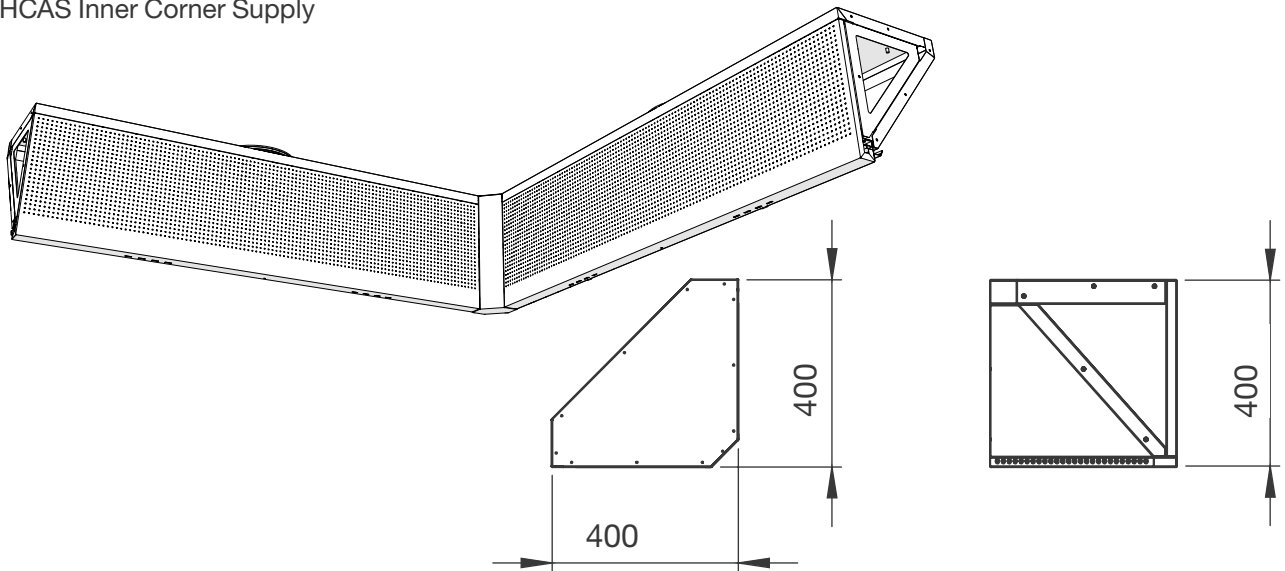
The ozonator installation guide can be found on the [ETS NORD website](http://www.etsnord.com).

12. Corner Details

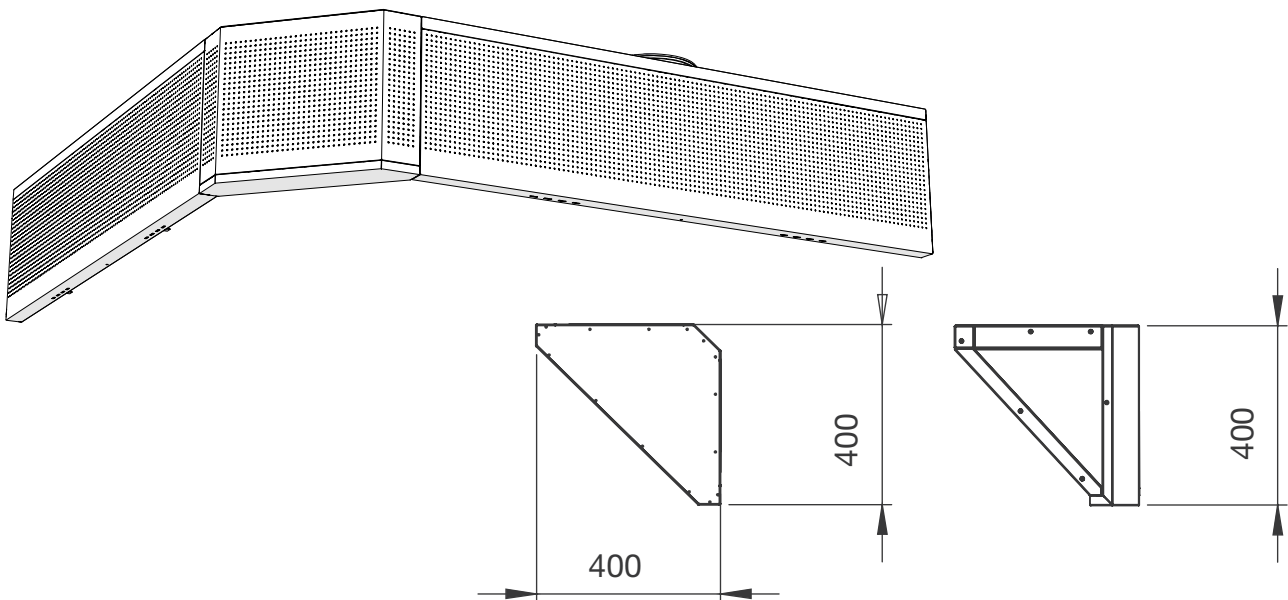
HCAE Inner Corner Exhaust



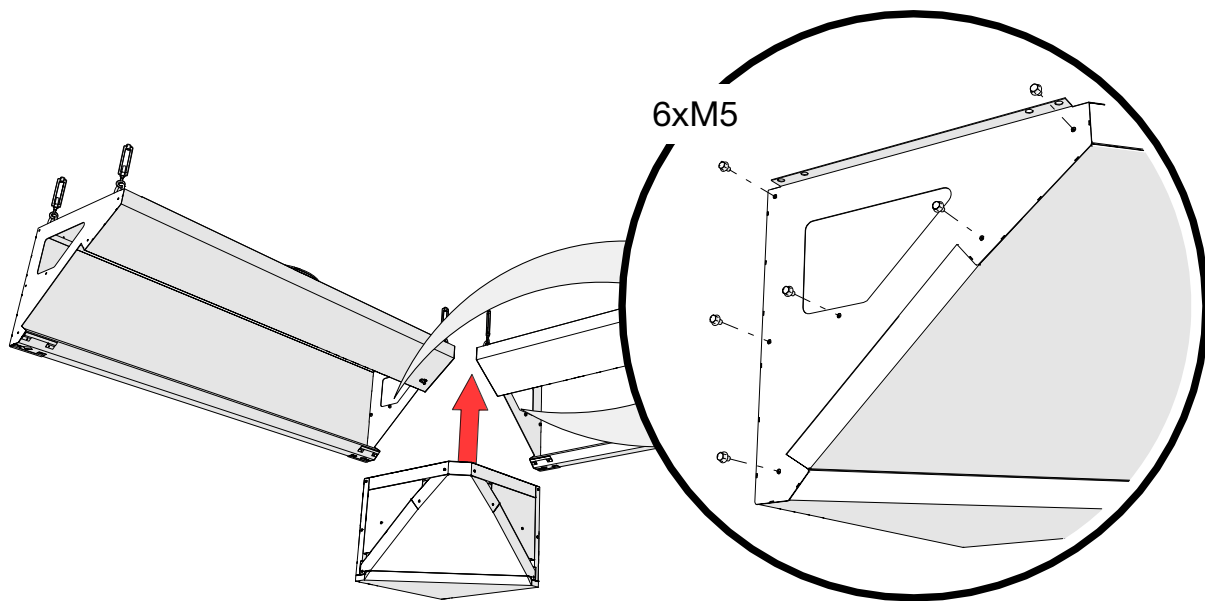
HCAS Inner Corner Supply



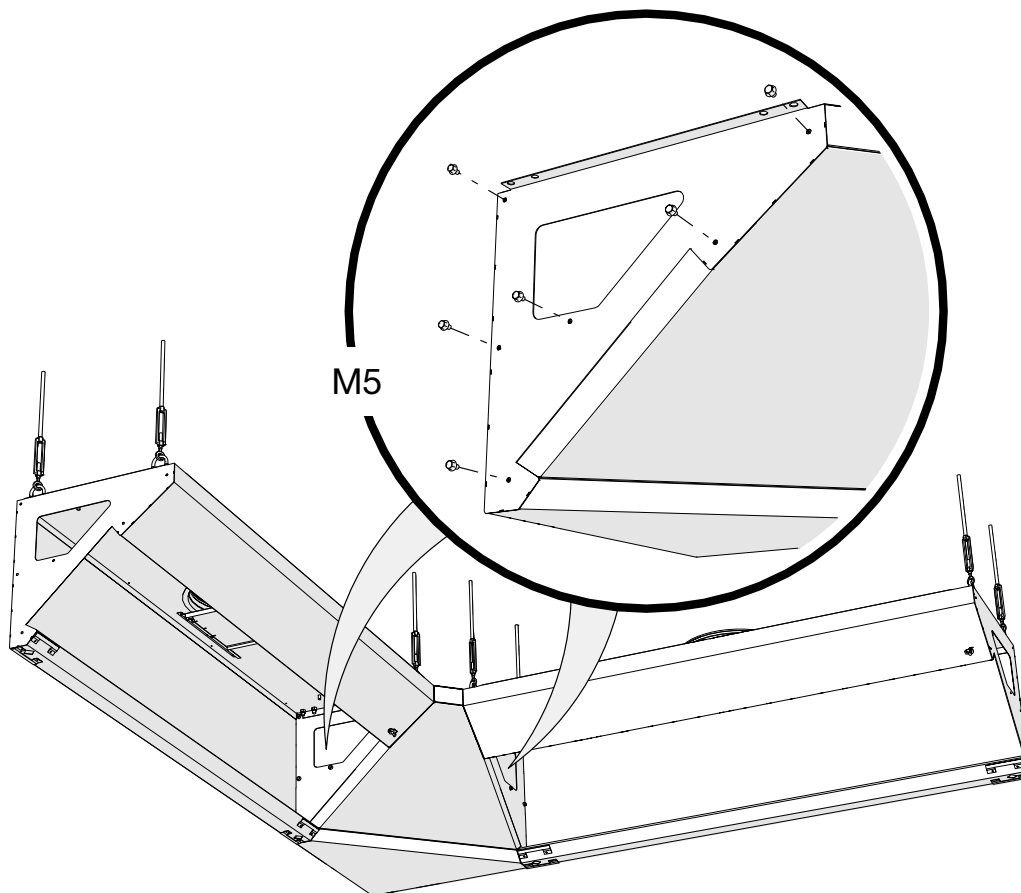
HCAV Outer Corner Supply



12.1 Installing Corner Modules

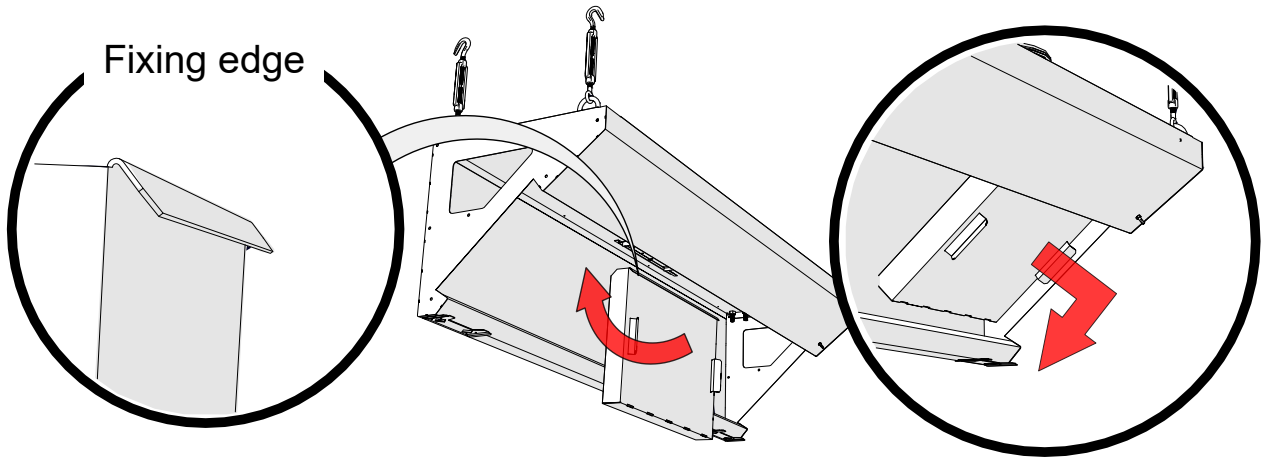


12.2 Connecting the Corner Module to the ventilation ceiling

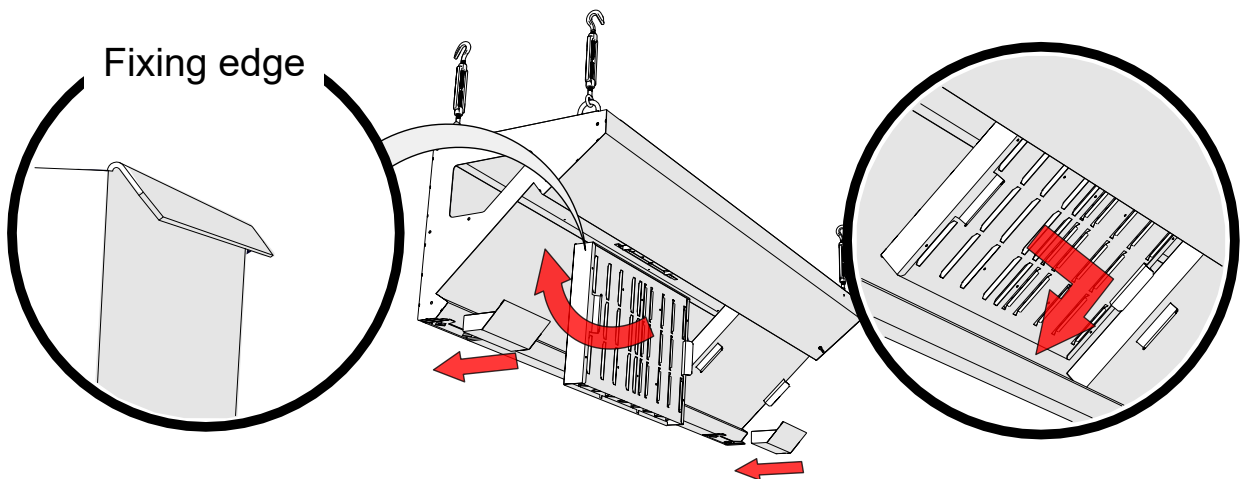


13. Additional Components

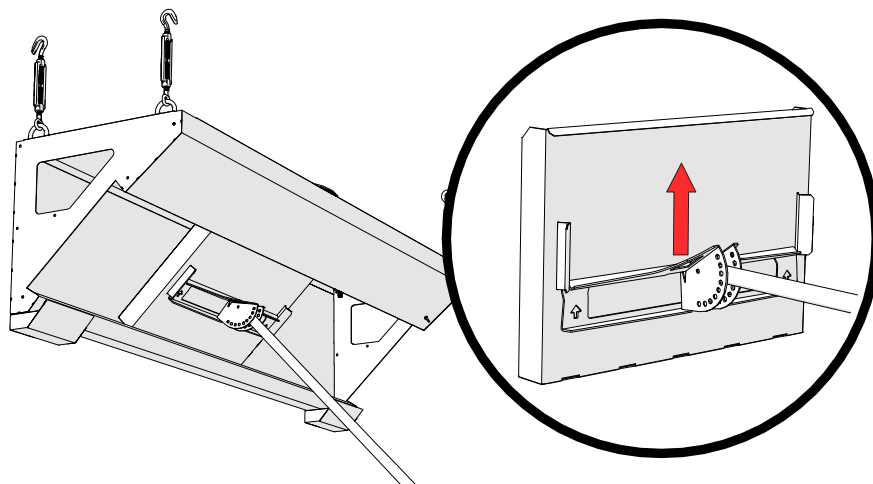
13.1 Installation of the blind plate for grease filter rail



13.2 HFK Grease Filter and grease collection container installation



13.3 Using the Grease Filter removal tool FET "Helping Hand"



14. Measuring and adjusting airflow

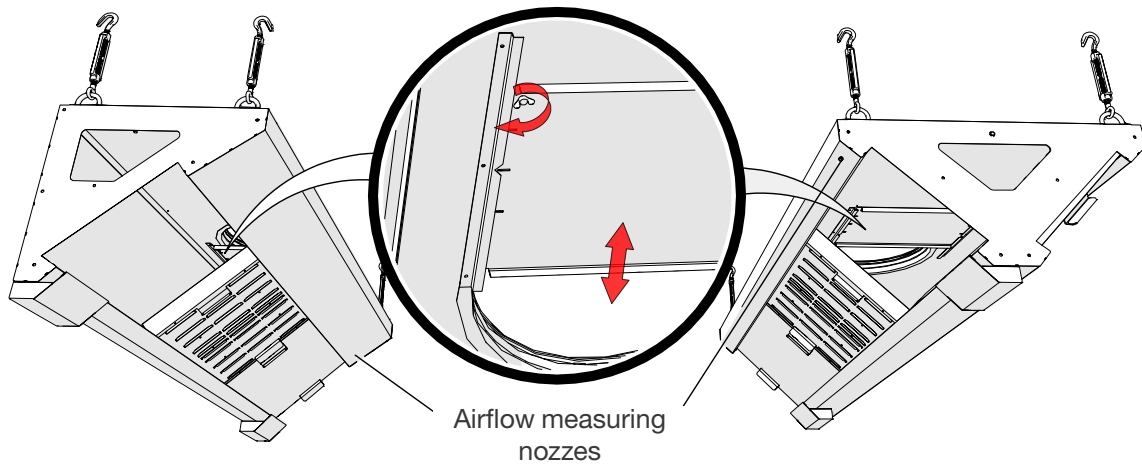
NOTE! During the air volume measurement, all HFK Grease Filters and blind plates must be in place in the exhaust air modules!

14.1 Adjusting the HCE and HCI Exhaust Modules

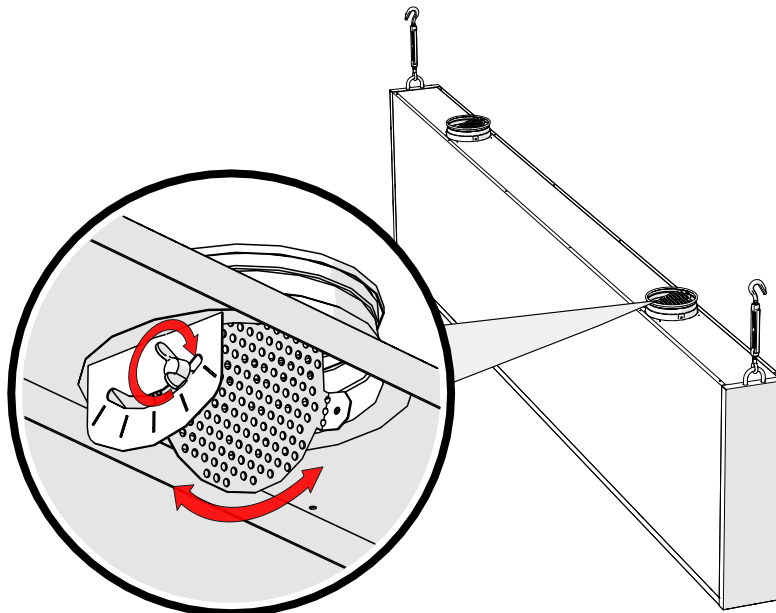
K-factor for measuring airflow

Exhaust K-factor = 16,6 (per 1 filter)

$$Q_v = k \sqrt{\Delta_{pm}}$$



14.2 Adjusting the HCG AirGrip Module



K-factor (supply air)

Product	Air adjustment plate	K-factor	Product	Air adjustment plate	K-factor
HCG 1000	Closed	2,34	HCG 1800	Closed	4,21
	Open	2,33		Open	4,19
HCG 1100	Closed	2,57	HCG 1900	Closed	4,45
	Open	2,56		Open	4,43
HCG 1200	Closed	2,81	HCG 2000	Closed	4,67
	Open	2,80		Open	4,66
HCG 1300	Closed	3,04	HCG 2100	Closed	4,91
	Open	3,03		Open	4,89
HCG 1400	Closed	3,28	HCG 2200	Closed	5,15
	Open	3,26		Open	5,13
HCG 1500	Closed	3,45	HCG 2300	Closed	5,38
	Open	3,45		Open	5,36
HCG 1600	Closed	3,74	HCG 2400	Closed	5,62
	Open	3,73		Open	5,59
HCG 1700	Closed	3,98	HCG 2500	Closed	5,89
	Open	3,96		Open	5,89

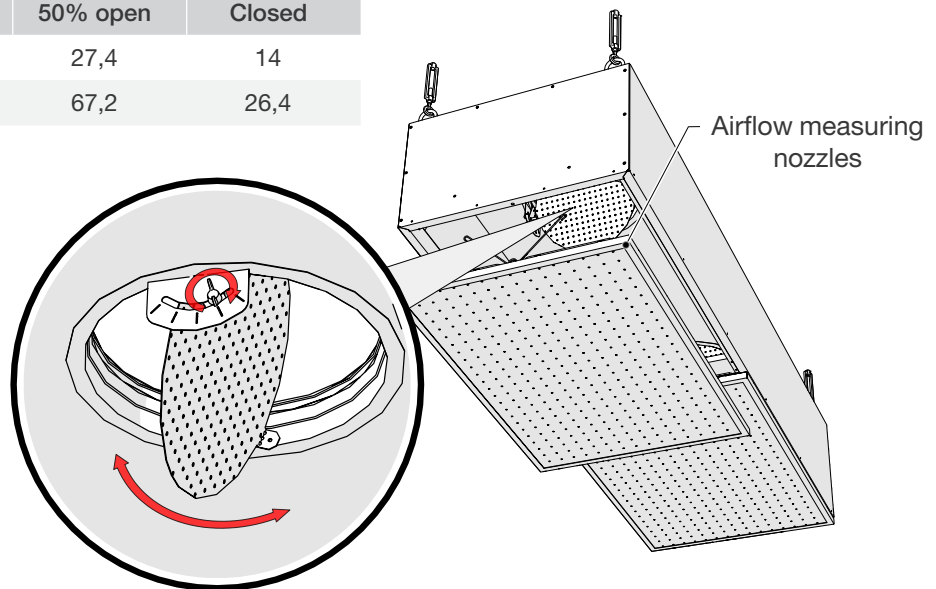
14.3 Adjusting the HCV Supply Air Module

K-factor (supply air)

Dimensions	Open	50% open	Closed
1000 x 500	46,6	33,8	14,9
1500 x 500	90,9	63,9	29,5

K-factor (exhaust air)

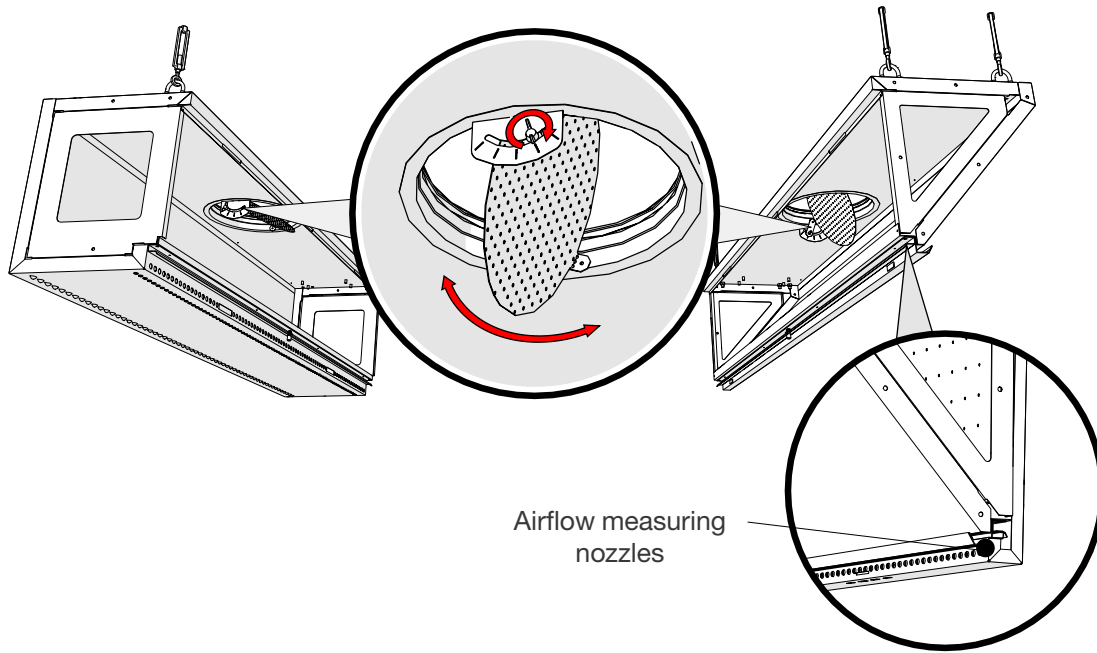
Dimensions	Open	50% open	Closed
1000 x 500	36,7	27,4	14
1500 x 500	71,1	67,2	26,4



14.4 Adjusting the HCAH and HCH Supply Air Modules

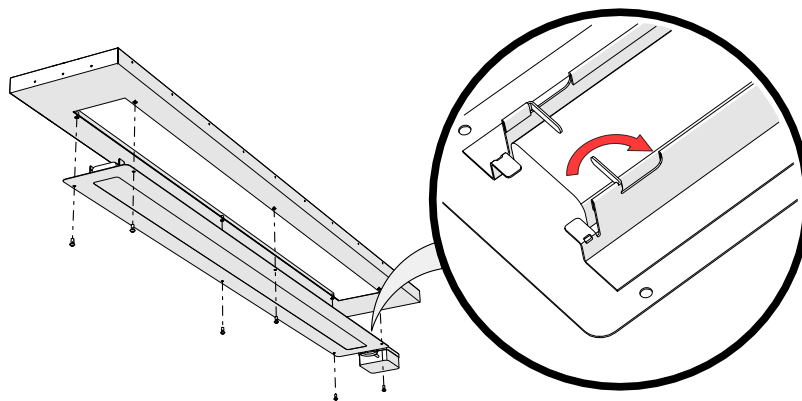
Supply air	K-factor, per 1 m of front panel			
	SPx0	SPx1	SPx2	SPx3
Front panel*	-	19,2	32,3	50,4
AirGrip	2,4	-	-	-

* Front panel k-factors above include the “AirGrip” air capture system K-factor.



15. Replacing the luminaires

NORDcanopy Ventilation Ceiling has integrated light fixtures with protection glass IP66. To remove the luminaires, bend the tabs of the fixing clips outward and remove the light.



16. Ventilation Ceiling maintenance

ACCORDING TO THE CLEANING INTERVAL OF THE VENTILATION CEILING DETERMINED BY THE USE AND FUNCTION OF THE KITCHEN

All internal and external surfaces of the ventilation ceiling, including lighting, are cleaned using neutral cleaning agents. Carefully rinse the surfaces after cleaning, in order to avoid harmful interactions of cleaning agents and high temperatures.

To clean the exhaust chamber, HFK filters are removed from the ventilation ceiling.

To clean HFK grease filters they must be removed from the exhaust modules. Liquid grease must always be disposed of using methods approved according to local regulations and the filters may be washed by hand, in a dishwasher, or steam cleaned. When cleaning the filters, the same procedures are also carried out for the grease collection containers.

NOTE! If the ventilation ceiling's exhaust air modules are equipped with ozonators they must never have any exposure to water or moisture!

NOTE! Never clean the ventilation ceiling when any of its surfaces are hot!

NOTE! Do not use hard or abrasive detergents, chlorine or bleach when cleaning the ventilation ceiling!



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Phone: +46 40 94 68 70

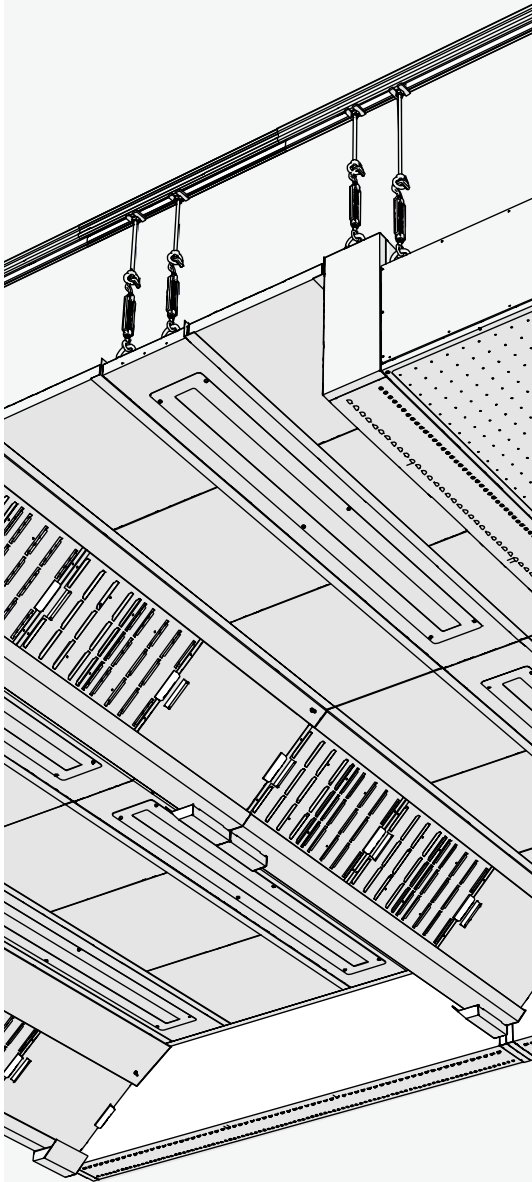
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Let's move the air together!