



Handbook

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## **CAP-G**

### **Multi-Nozzle Diffuser**



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## Description

CAP-G is a multi-nozzle diffuser. The product is intended for air supply. The product is installed into plasterboard ceilings. The airflow direction of the product can be changed by adjusting the nozzles. The field of application is comfort ventilation systems for offices, shops, medical rooms, school classrooms, etc.

## Highlights

- Versatile adjustability of air discharge patterns
- High airflow capacity with low sound level and moderate pressure drop
- Compact design
- Operable without plenum box, connected directly to the duct

## Accessory

- **THOR:** Plenum box

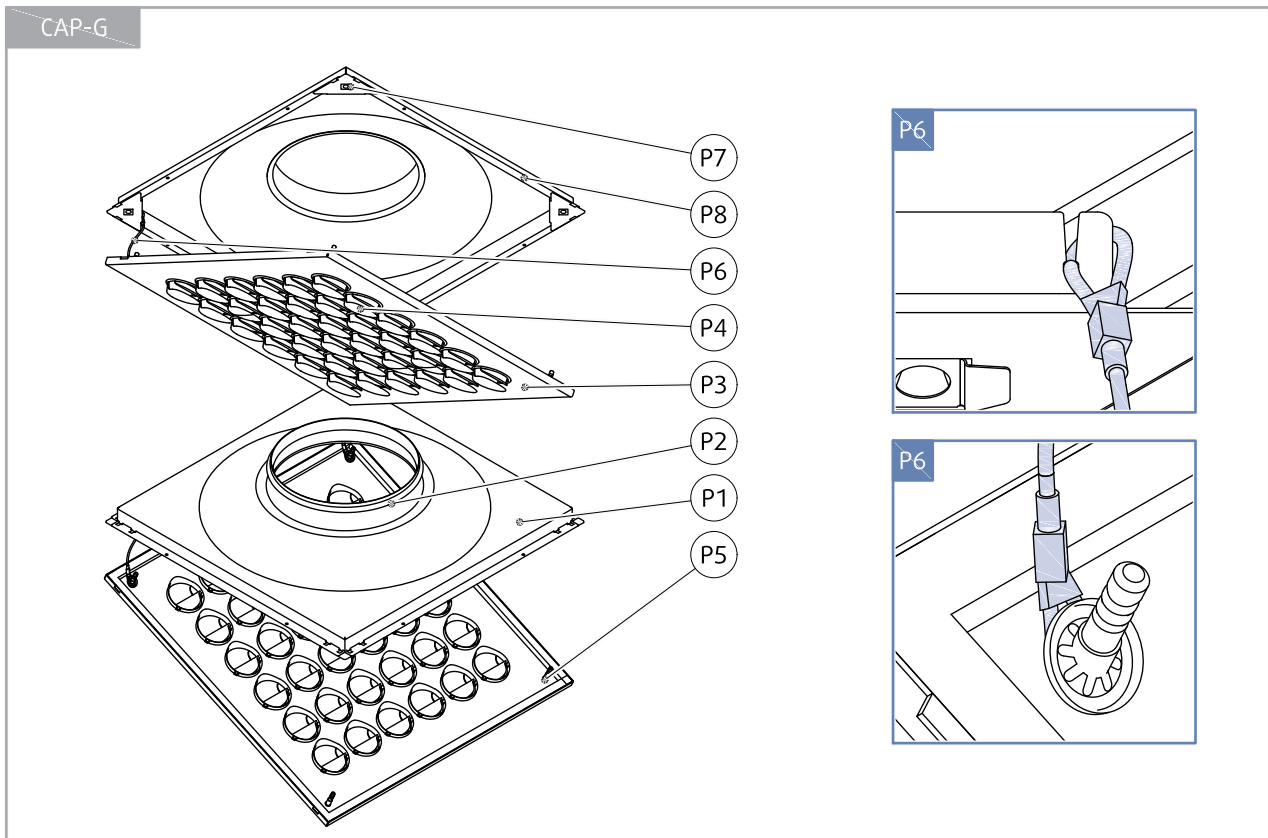
## Design

CAP-G is manufactured from galvanized steel sheet. The product consists of a removable front panel and a backing box. The backing box has a circular duct connection equipped by a rubber gasket. The front panel has fixing pins for attaching to the backing box. The nozzles can be rotated by 360° in the plane of the front panel. The product, including nozzles, is provided powder painted to RAL9003 (signal white) as standard. Other RAL colours are available upon request.

## Item Numbers

Ordering code	Item no.
CAP-G-125-16-SW	160082
CAP-G-160-25-SW	160083
CAP-G-200-36-SW	160084
CAP-G-250-49-SW	160085
CAP-G-315-81-SW	160086

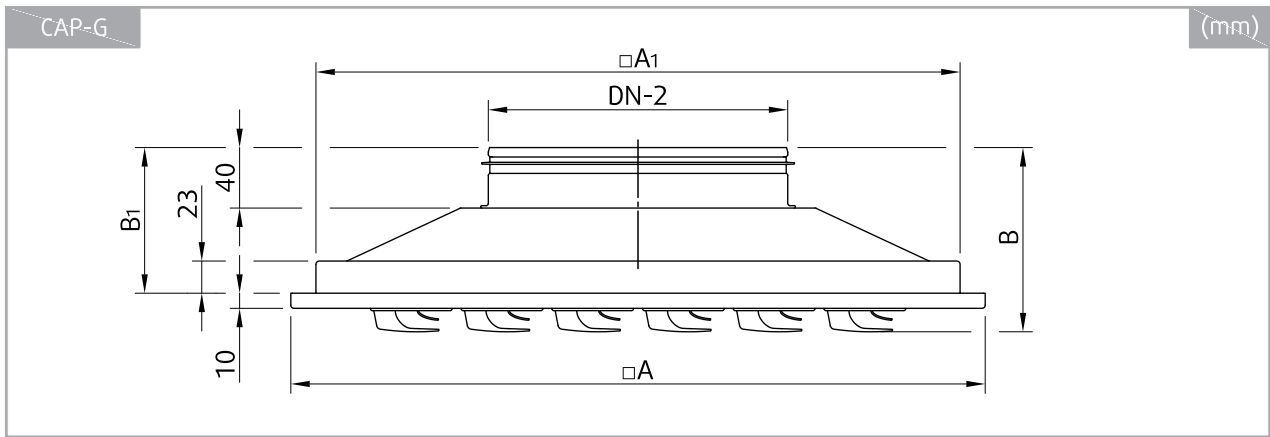
## Product Parts



### Legend

- P1** Backing box
- P2** Duct connection with a rubber gasket
- P3** Front panel
- P4** Nozzles
- P5** Pin for front panel fixing
- P6** Safety cable (inside the backing box)
- P7** Clip springs for front panel fixing (inside the backing box)
- P8** Opening for diffuser fixing

# Dimensions & Weights

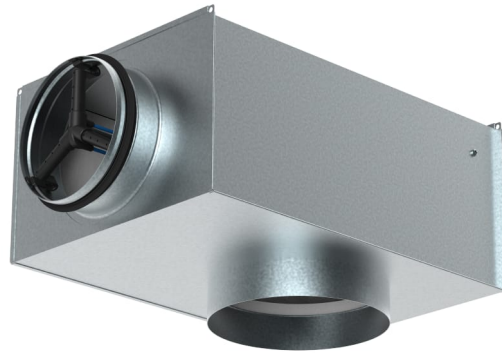


	$\square A$	$\square A_1$	B	$B_1$	m
	mm				kg
CAP-G-125-16-SW	359	326	119	96	2,0
CAP-G-160-25-SW	359	326	122	99	2,0
CAP-G-200-36-SW	459	426	122	99	3,3
CAP-G-250-49-SW	599	566	122	99	5,0
CAP-G-315-81-SW	599	566	119	96	4,6

## Accessory

### THOR

#### Plenum Box



## Description

THOR is a plenum box. The product is intended for pressure reduction, airflow balancing and sound attenuation as well as for measuring and adjusting the airflow. The product is used together with air diffusers. The product can be used for air supply and extract.

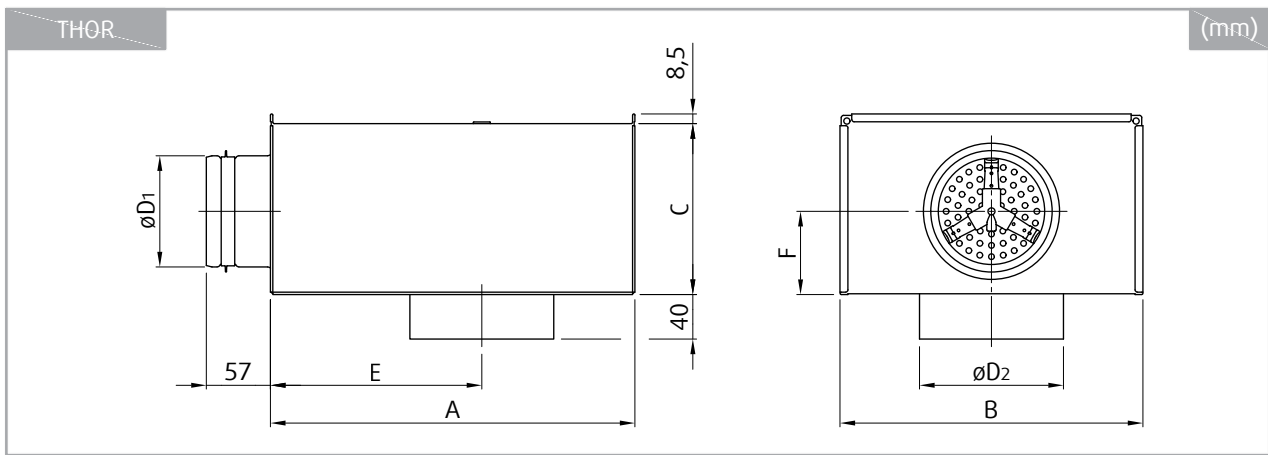
## Design

THOR is manufactured from hot-dip galvanized steel sheet. The product consists of a plenum box and a duct connection with a rubber gasket. The duct connection is equipped by the ZEUS damper with impulse tubes for measuring differential pressure for flow volume calculation, using a portable measuring device. It can be adjusted manually using a cable gearing.



ZEUS damper

## Dimensions



THOR	A	B	C	$\varnothing D_1$	$\varnothing D_2$	E	F	m
	mm							kg
100-125	320	267	150	98	126	185	75	2,5
100-160	360	267	160	98	161	210	80	2,9
125-125	360	267	160	123	126	210	80	2,9
125-160	360	267	160	123	161	210	80	2,9
125-200	450	317	195	123	201	280	98	4,0
160-160	450	317	195	158	161	280	98	4,0
160-200	450	317	195	158	201	280	98	4,0
160-250	500	367	250	158	251	305	125	5,4
200-200	500	367	250	198	201	305	125	5,4
200-250	500	367	250	198	251	305	125	5,4
200-315	565	467	300	198	316	330	150	7,3
250-250	565	467	300	248	251	330	150	7,3
250-315	565	467	300	248	316	330	150	7,3
250-400	620	567	400	248	401	360	200	10,1
315-315	620	567	400	313	316	360	200	10,1
315-400	620	567	400	313	401	360	200	10,1

## Ordering Code

THOR-

### Nominal size: Inlet-Outlet

100-125

100-160

125-125

125-160

125-200

160-160

160-200

160-250

200-200

200-250

200-315

250-250

250-315

250-400

315-315

315-400

### Example of the Ordering Code

THOR-125-160

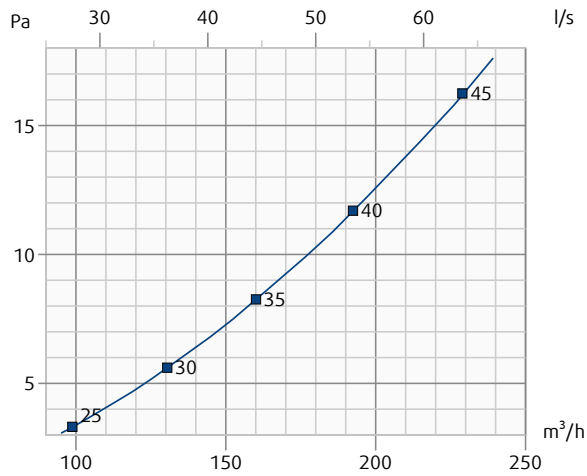
Plenum box THOR with 125 mm circular inlet and 160 mm circular outlet (nominal dimensions).



# Technical Parameters

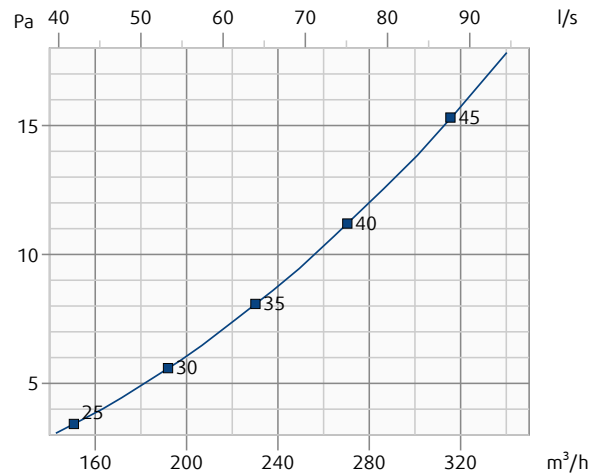
## CAP-G-125-16-SW

Pressure drop & A-weighted sound power level in dB(A)



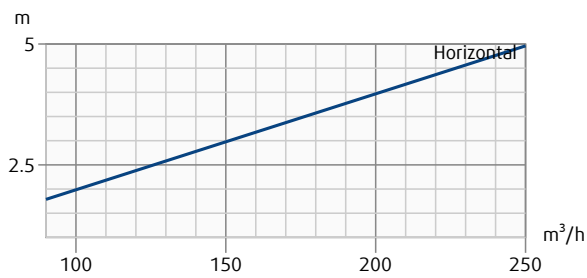
## CAP-G-160-25-SW

Pressure drop & A-weighted sound power level in dB(A)



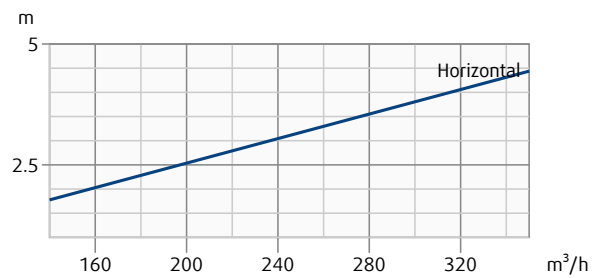
## CAP-G-125-16-SW

Throw length (terminal velocity 0.2 m/s)



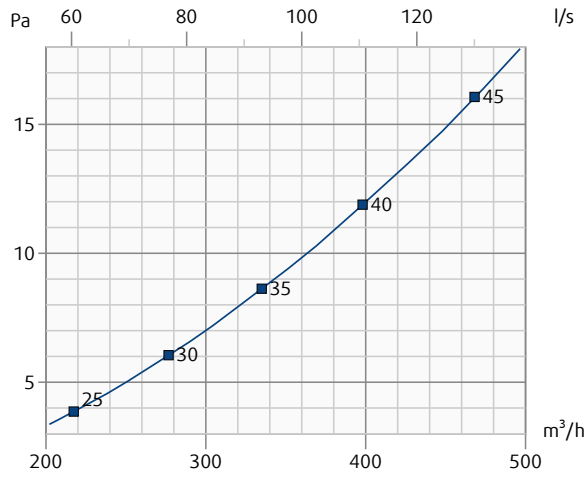
## CAP-G-160-25-SW

Throw length (terminal velocity 0.2 m/s)



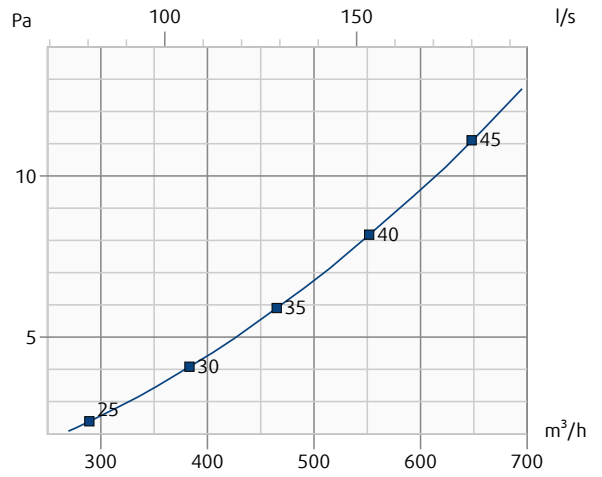
### CAP-G-200-36-SW

Pressure drop & A-weighted sound power level in dB(A)



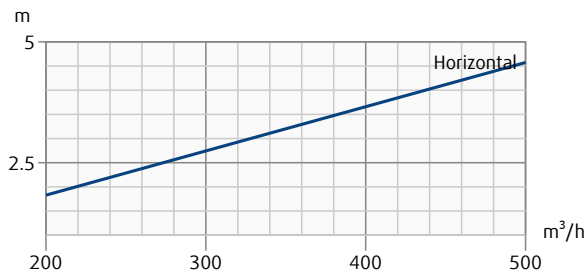
### CAP-G-250-49-SW

Pressure drop & A-weighted sound power level in dB(A)



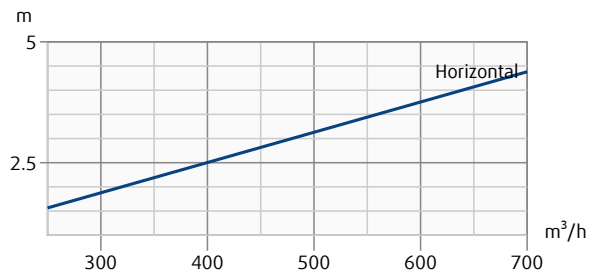
### CAP-G-200-36-SW

Throw length (terminal velocity 0.2 m/s)



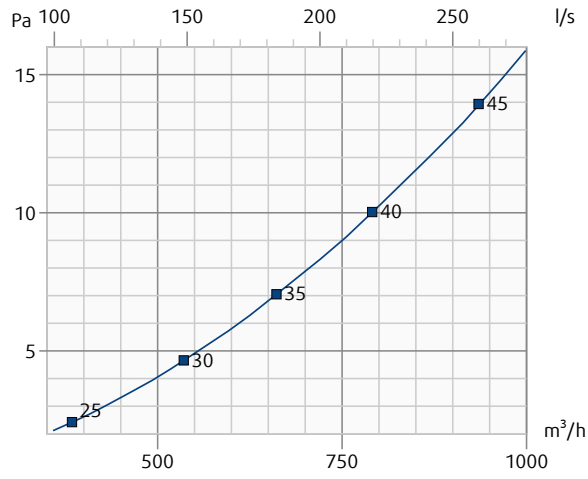
### CAP-G-250-49-SW

Throw length (terminal velocity 0.2 m/s)



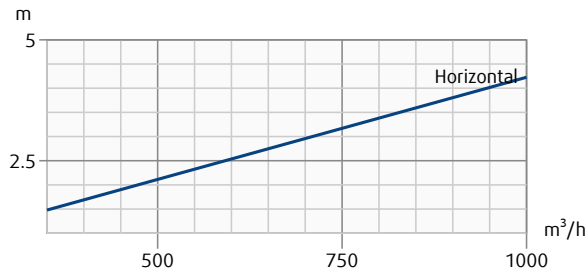
### CAP-G-315-81-SW

Pressure drop & A-weighted sound power level in dB(A)



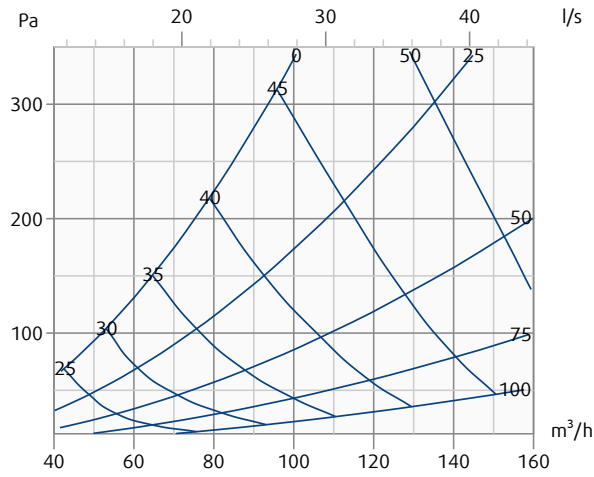
### CAP-G-315-81-SW

Throw length (terminal velocity 0.2 m/s)



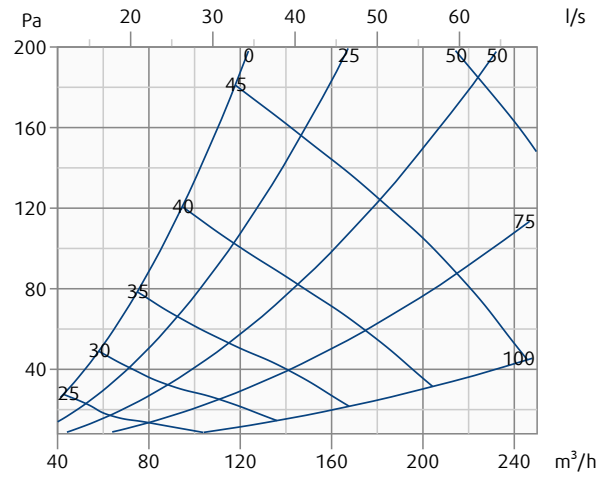
**CAP-G-125-16-SW + THOR-100-125**

Pressure drop & A-weighted sound power level in dB(A)



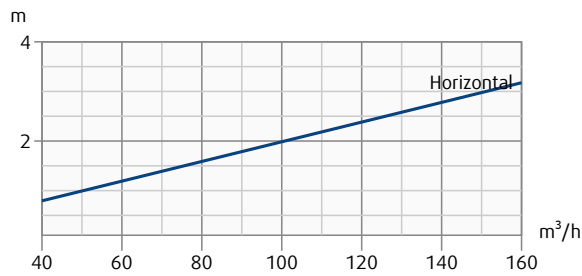
**CAP-G-160-25-SW + THOR-125-160**

Pressure drop & A-weighted sound power level in dB(A)



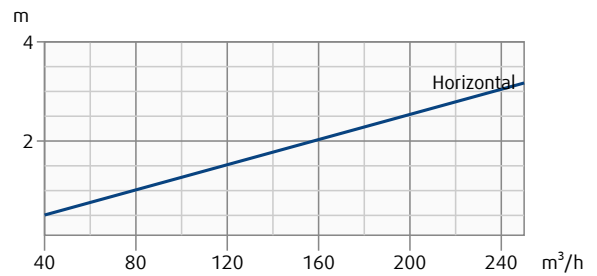
**CAP-G-125-16-SW + THOR-100-125**

Throw length (terminal velocity 0.2 m/s)



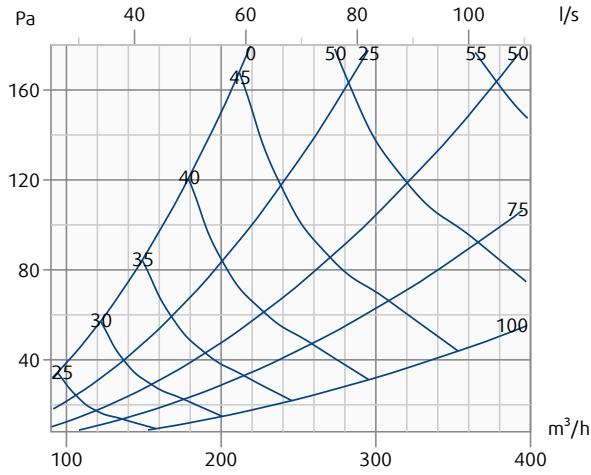
**CAP-G-160-25-SW + THOR-125-160**

Throw length (terminal velocity 0.2 m/s)



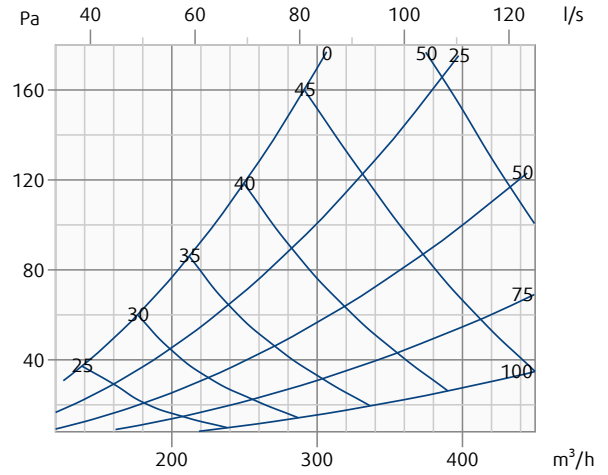
**CAP-G-200-36-SW + THOR-160-200**

Pressure drop & A-weighted sound power level in dB(A)



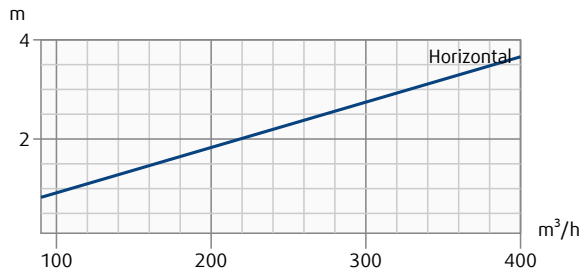
**CAP-G-250-49-SW + THOR-200-250**

Pressure drop & A-weighted sound power level in dB(A)



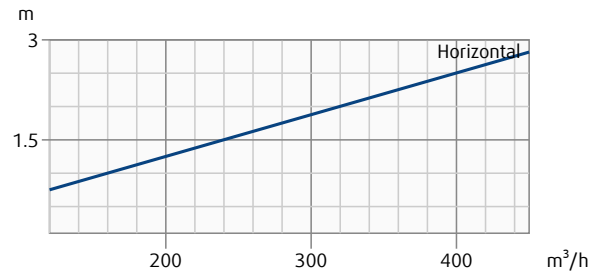
**CAP-G-200-36-SW + THOR-160-200**

Throw length (terminal velocity 0.2 m/s)



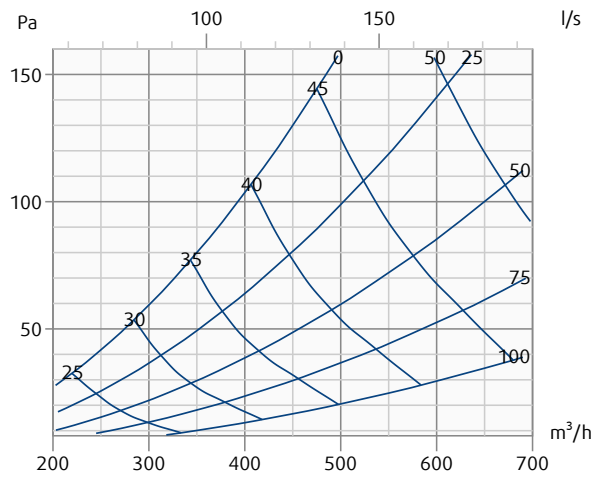
**CAP-G-250-49-SW + THOR-200-250**

Throw length (terminal velocity 0.2 m/s)



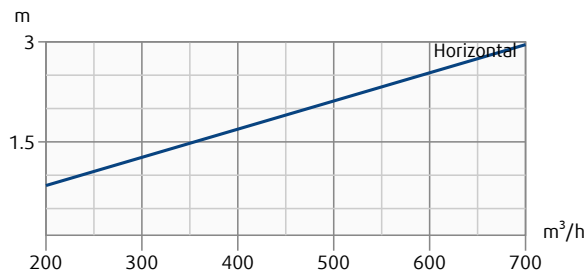
**CAP-G-315-81-SW + THOR-250-315**

Pressure drop & A-weighted sound power level in dB(A)



**CAP-G-315-81-SW + THOR-250-315**

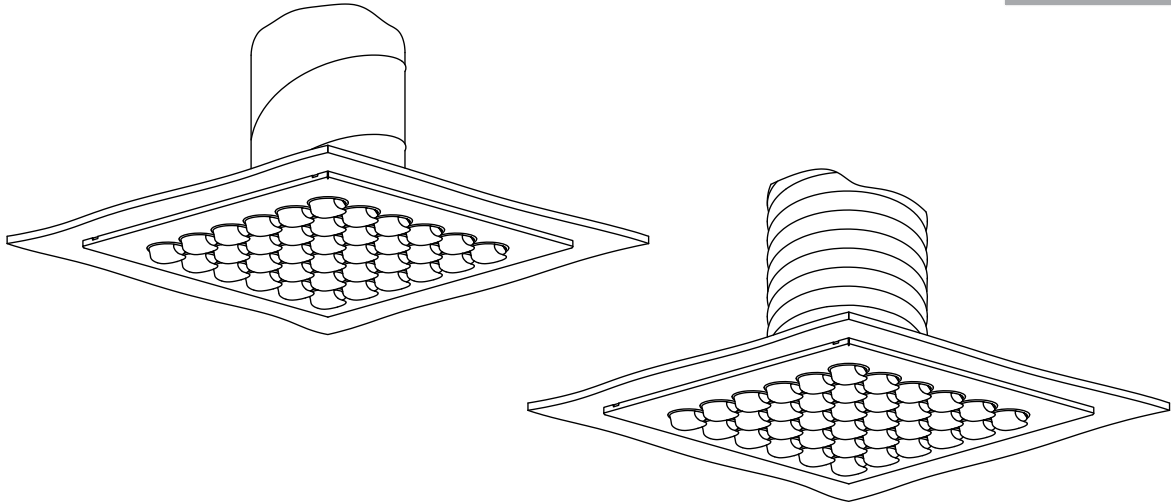
Throw length (terminal velocity 0.2 m/s)

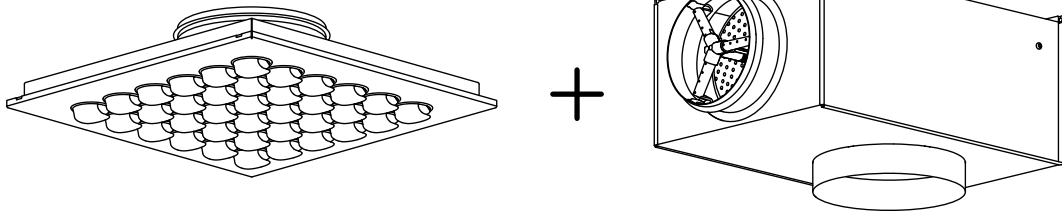


# Installation

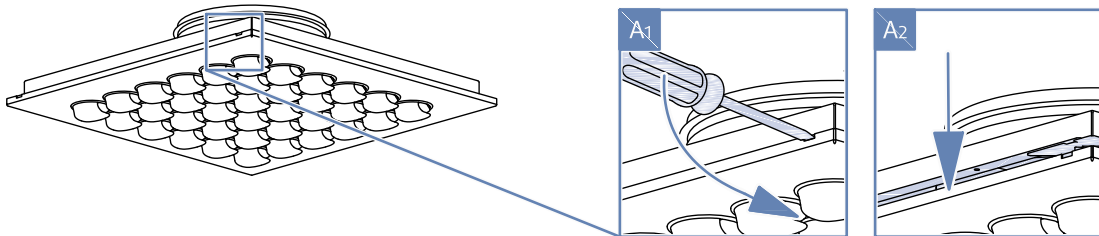


CAP-G

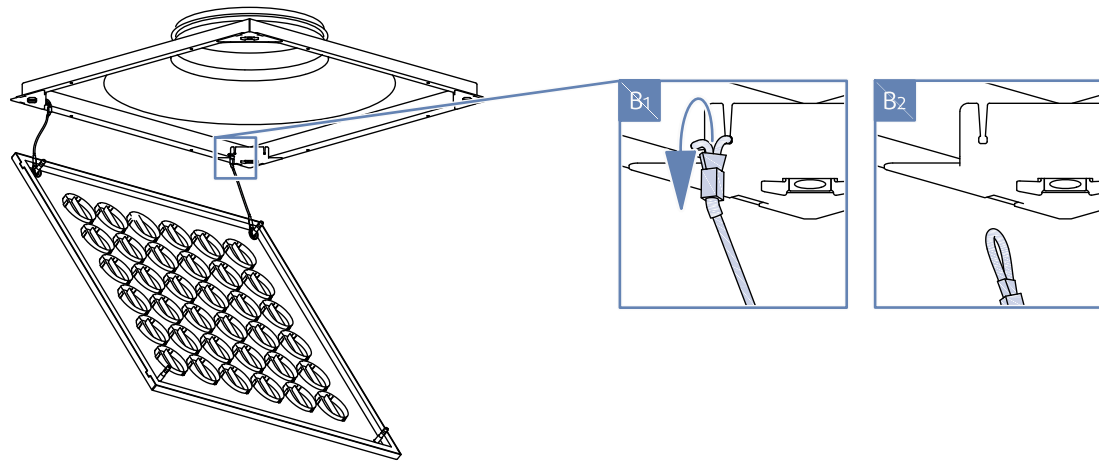




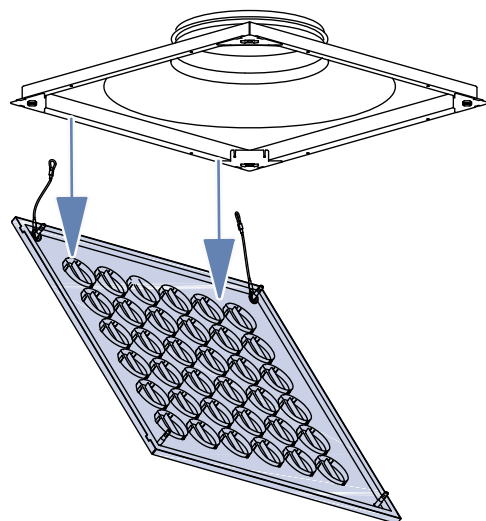
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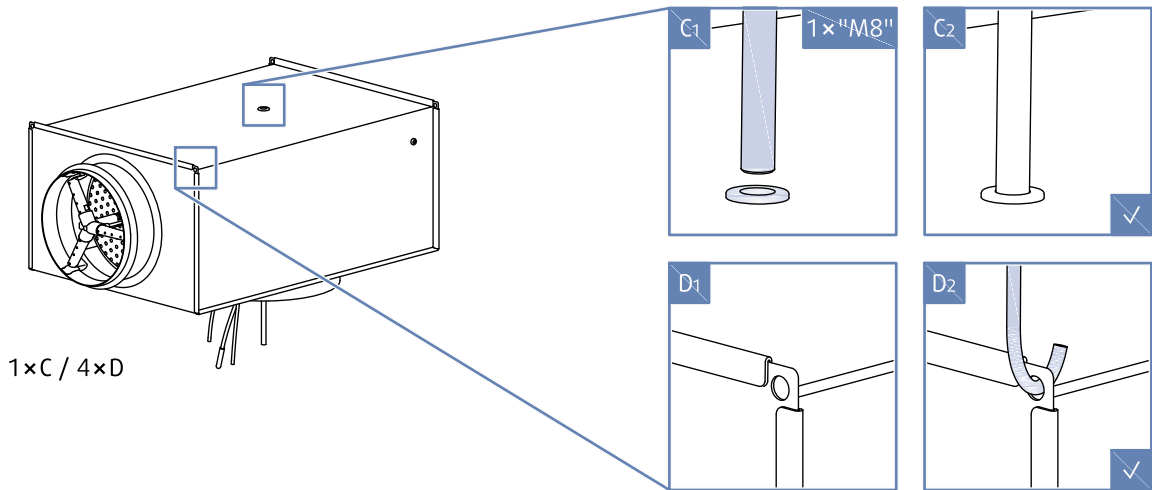
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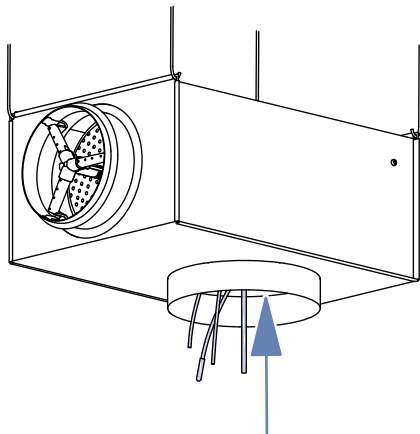


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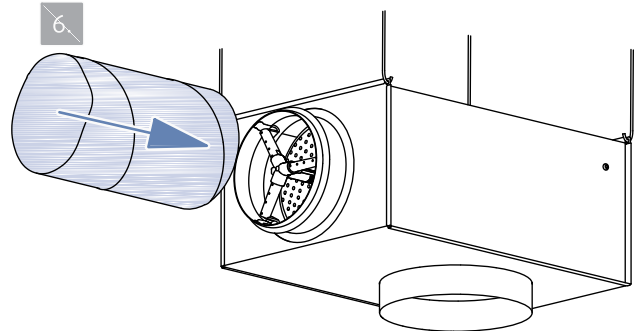
CAP-G + THOR



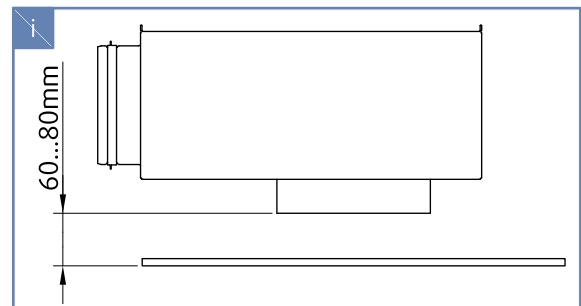
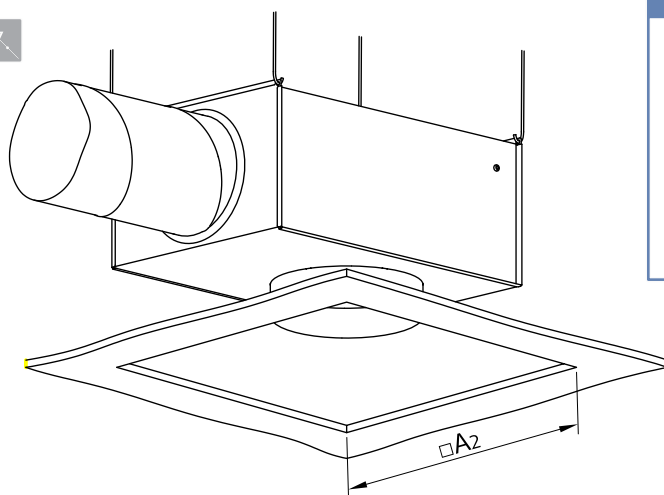
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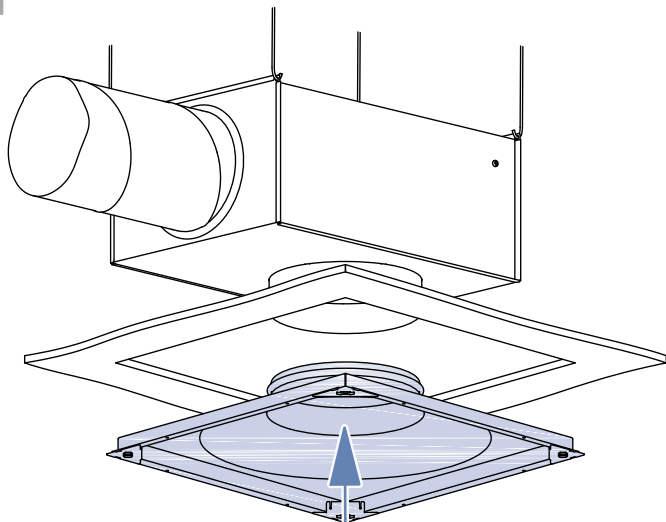
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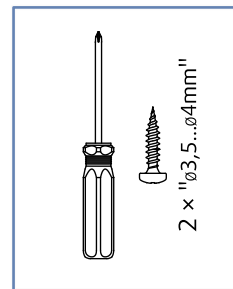
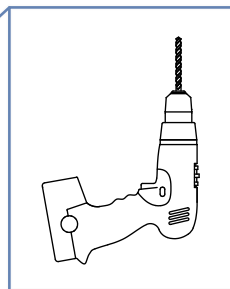
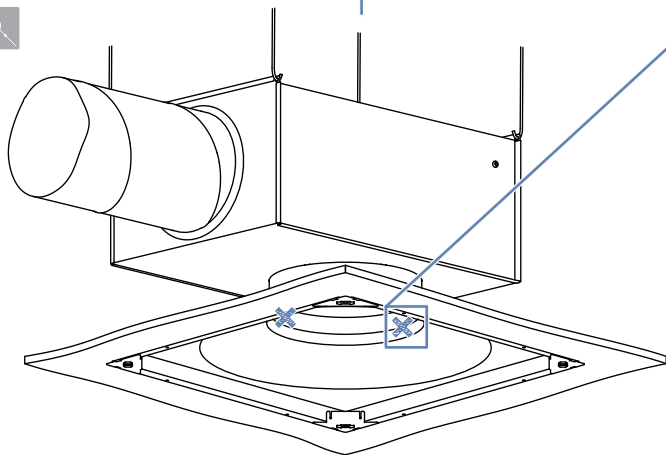
CAP-G...	A2 (mm)
CAP-G-125-16	330
CAP-G-160-25	430
CAP-G-200-36	570
CAP-G-250-49	
CAP-G-315-81	

8.

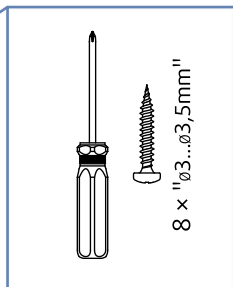
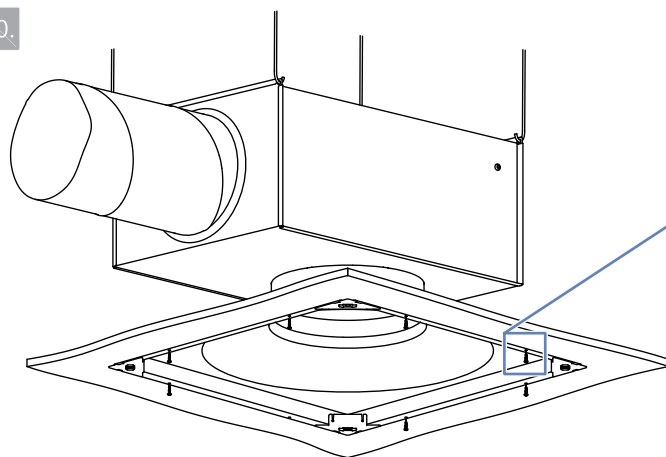
CAP-G + THOR



9.

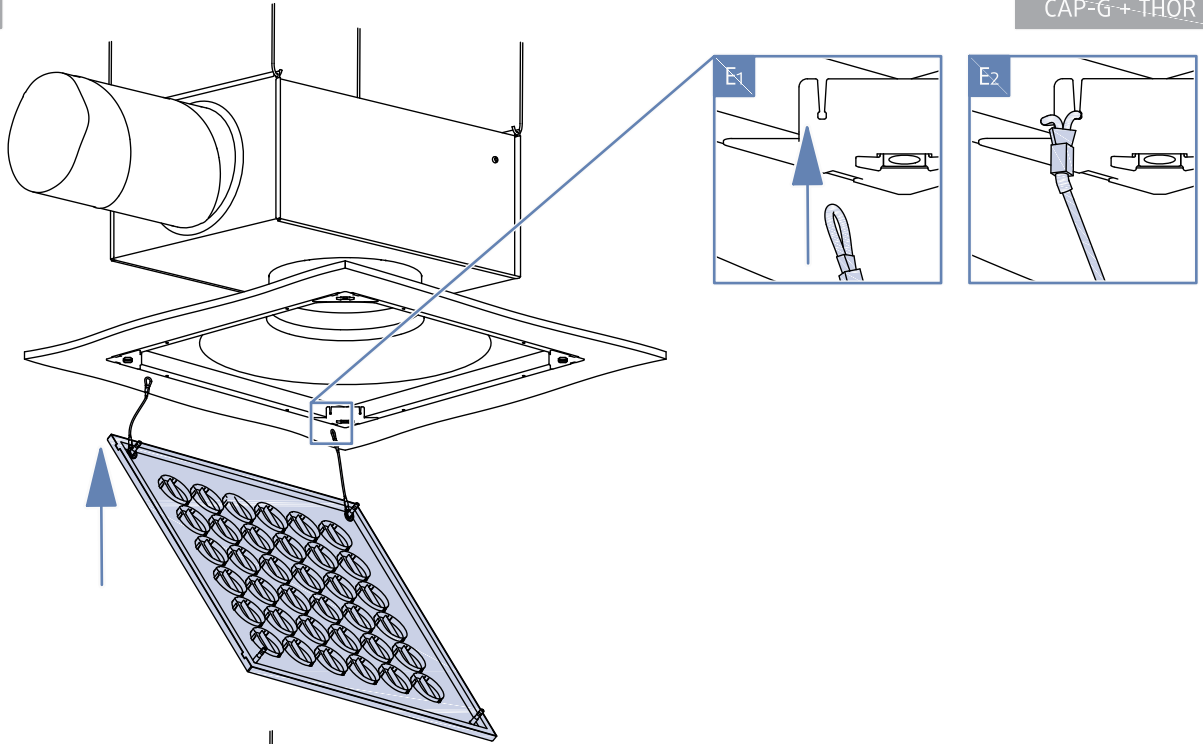


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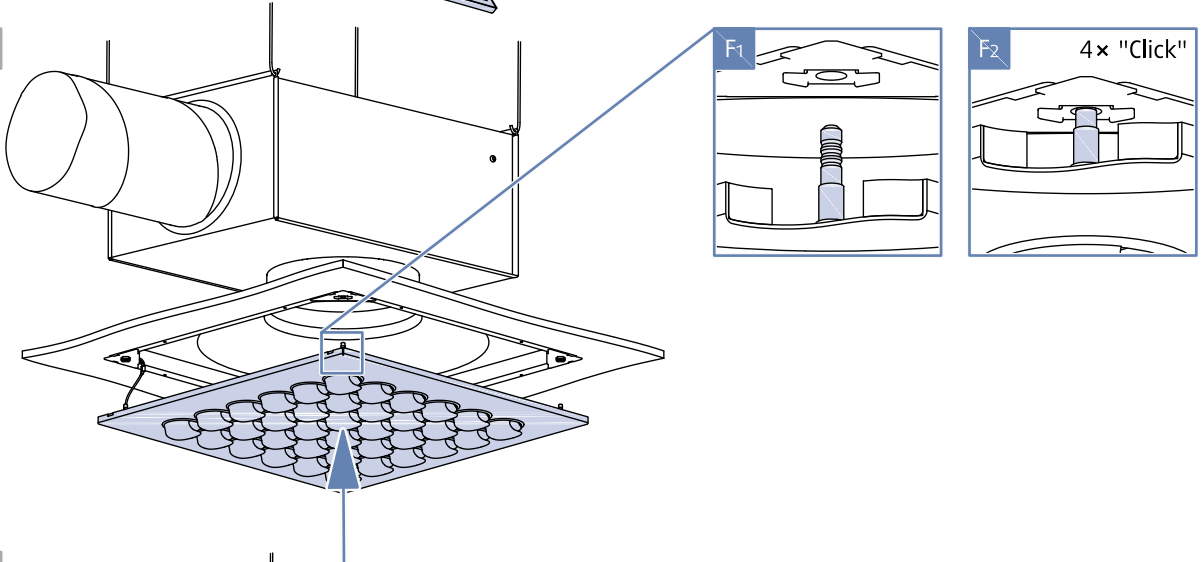


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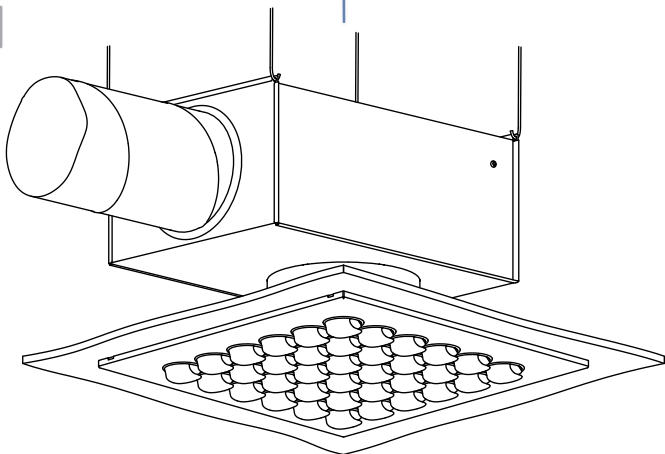
CAP-G + THOR



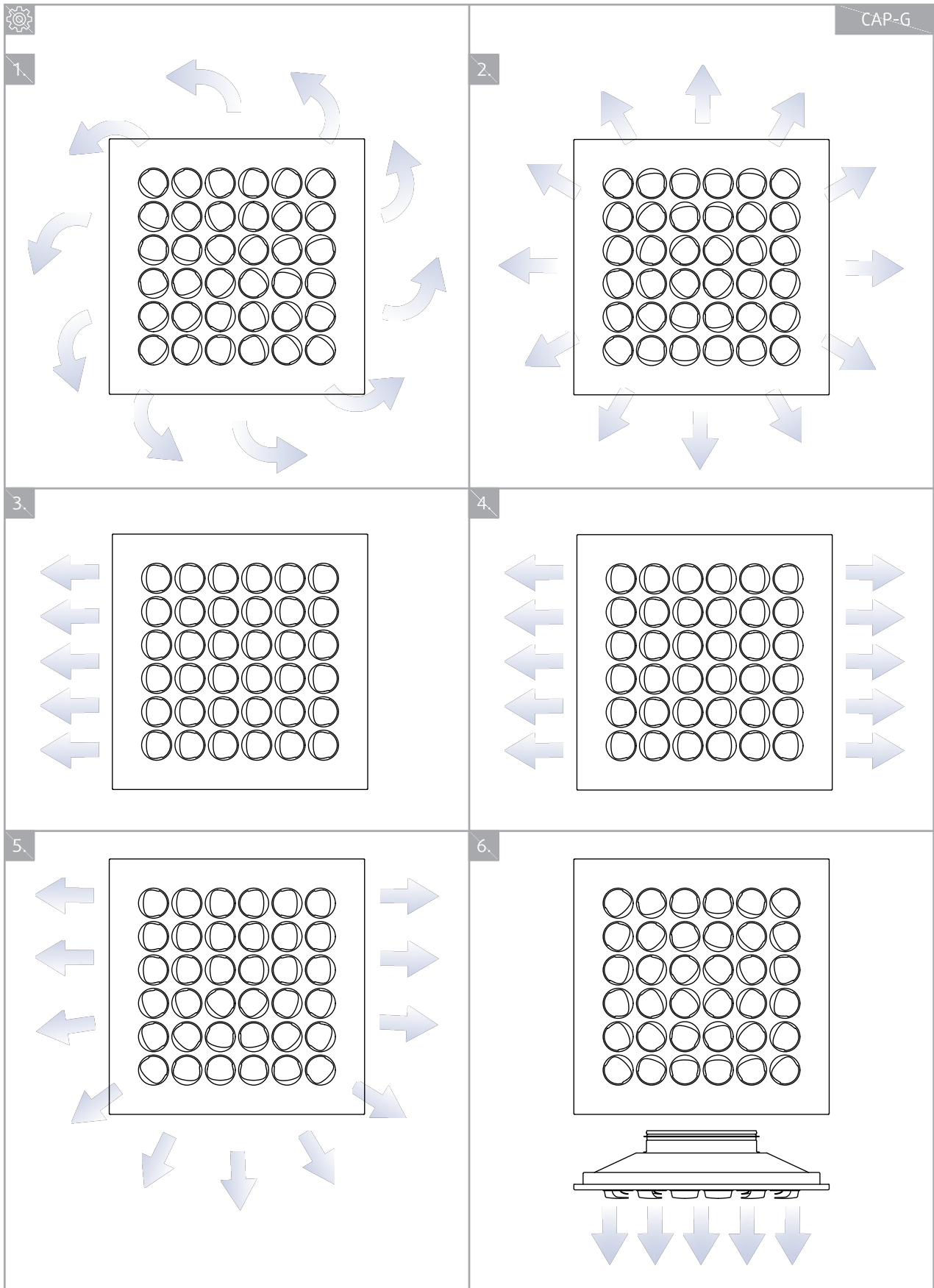
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✓



# Setup Possibilities

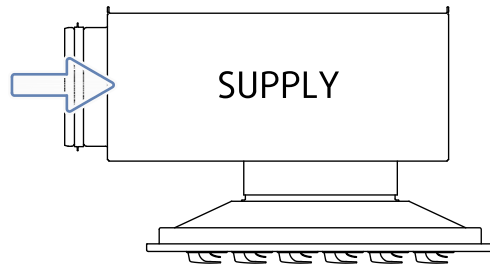


## Legend

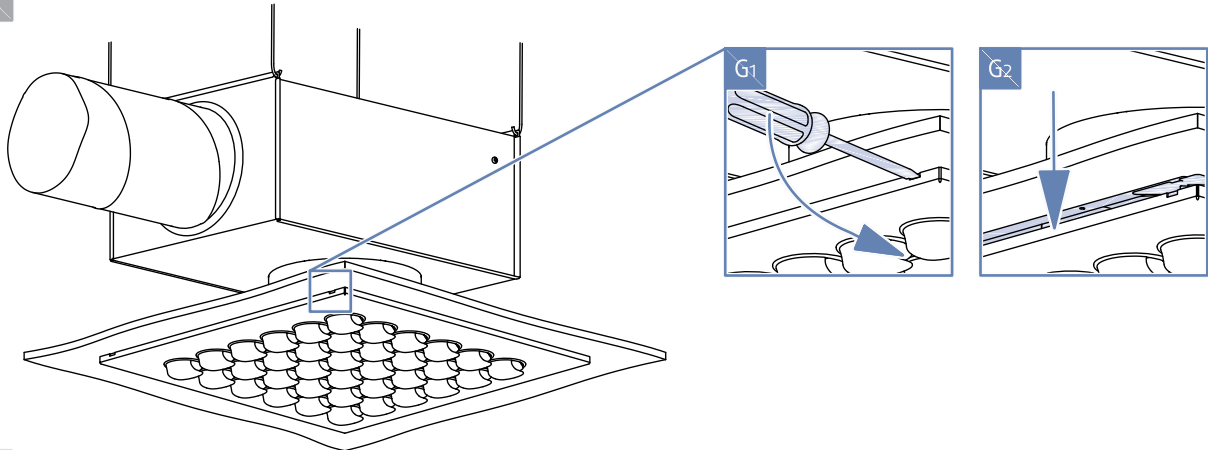
- 1 Tangential horizontal swirl discharge
- 2 Radial horizontal omnidirectional discharge
- 3 Horizontal discharge, single direction
- 4 Horizontal discharge, 2 directions
- 5 Horizontal discharge, 3 directions
- 6 Vertical discharge

# Commissioning

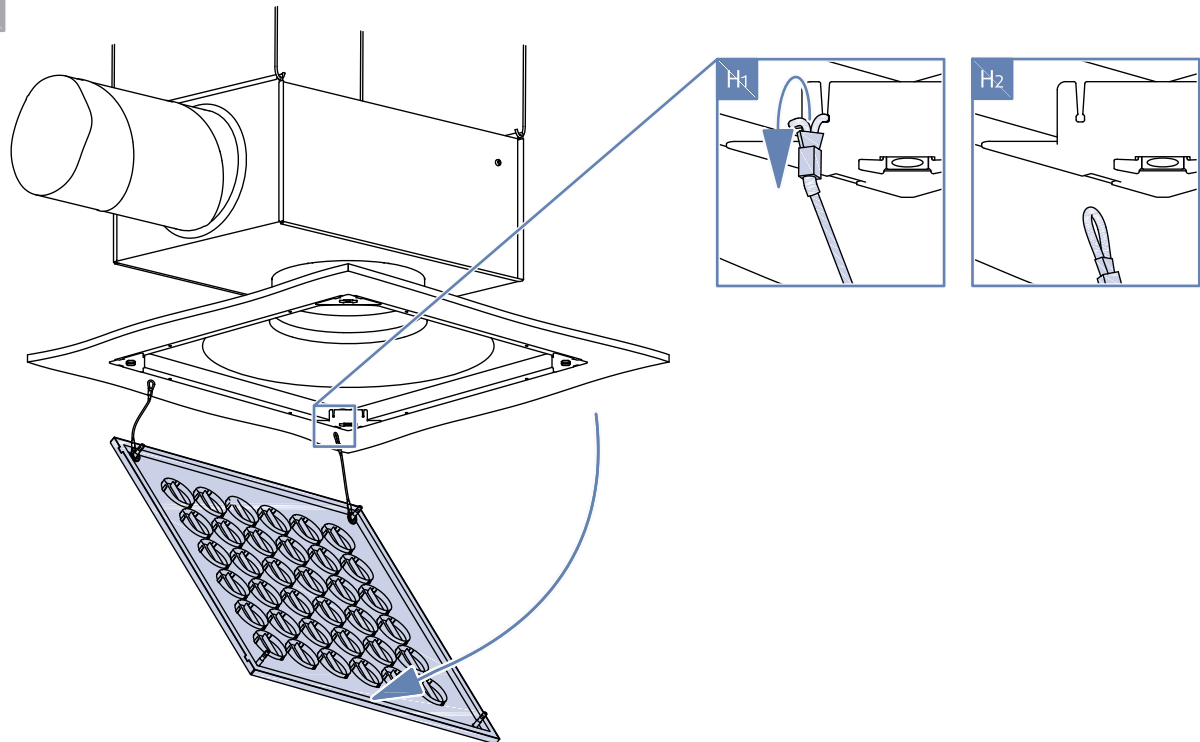
CAP-G+THOR



1.

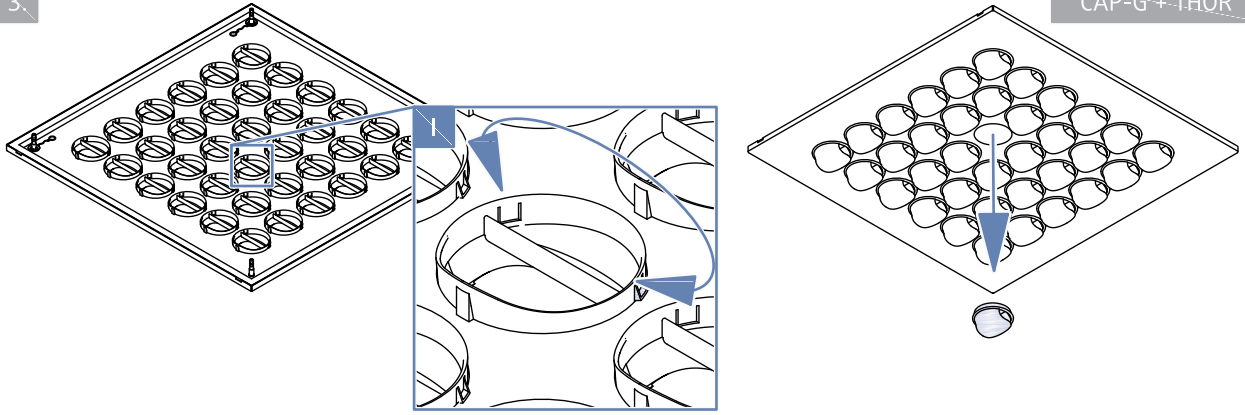


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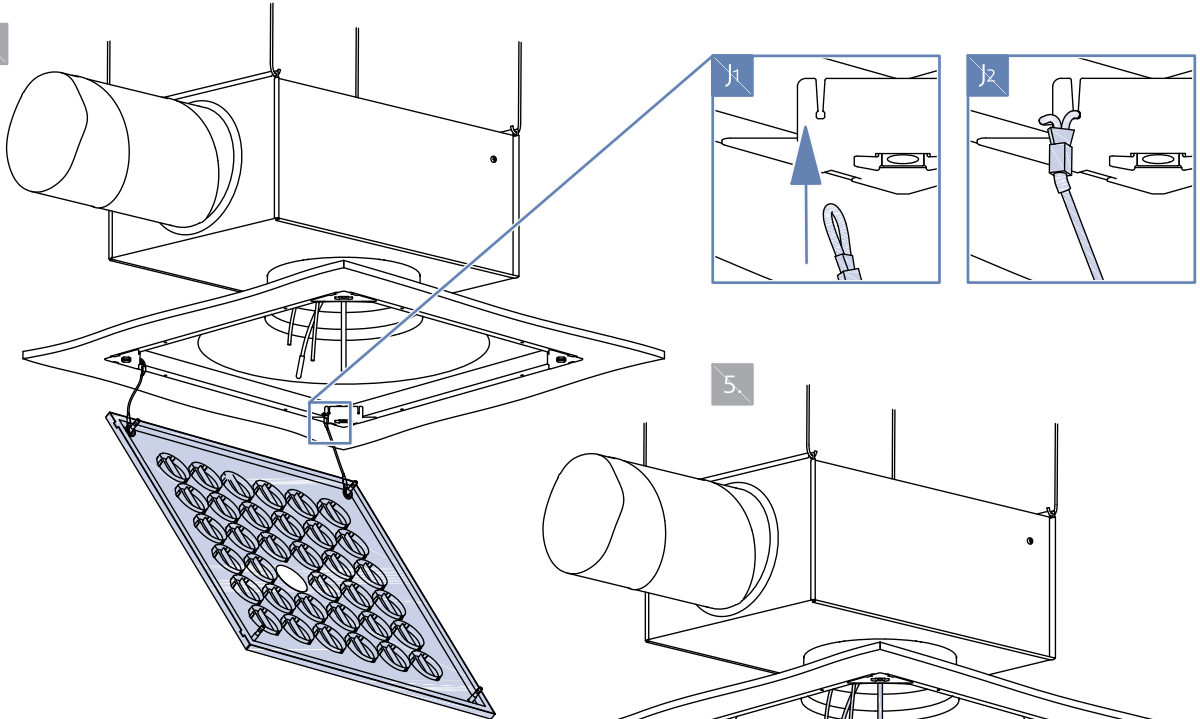


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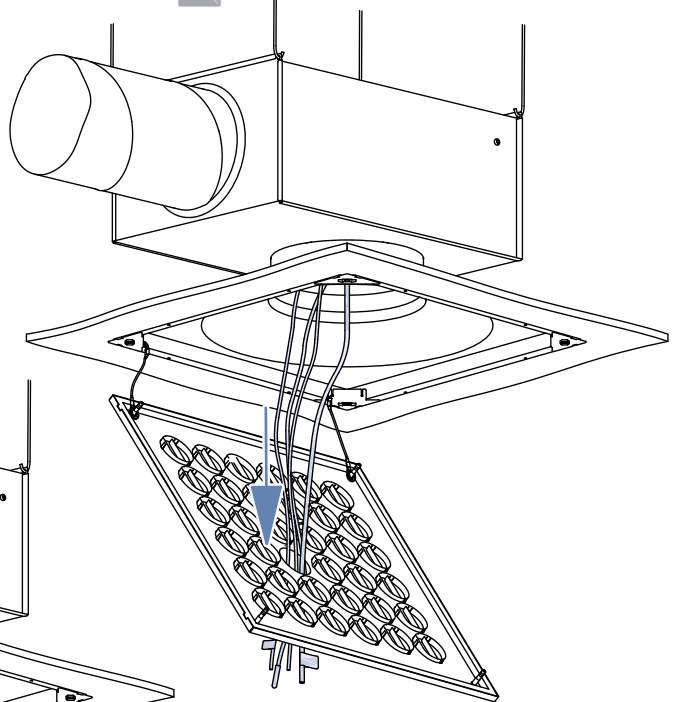
CAP-G + THOR



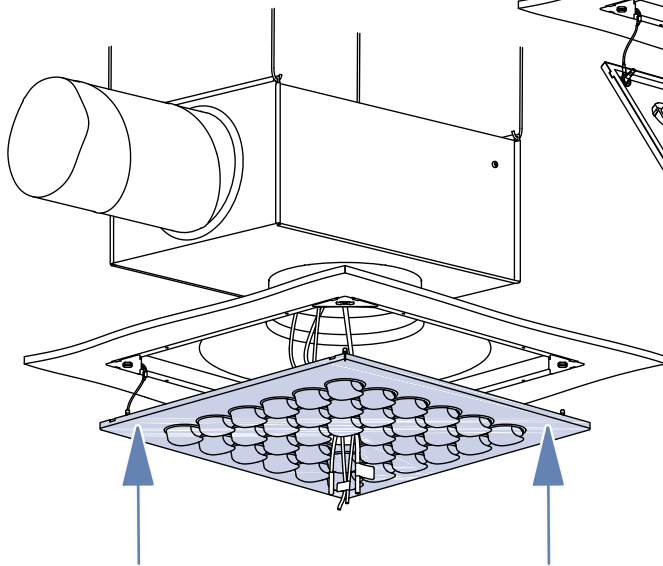
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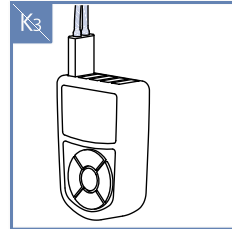
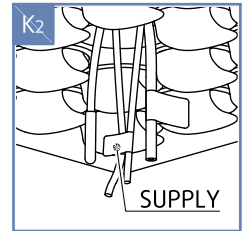
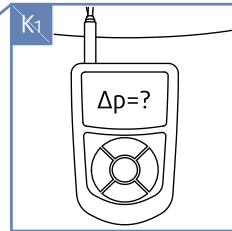
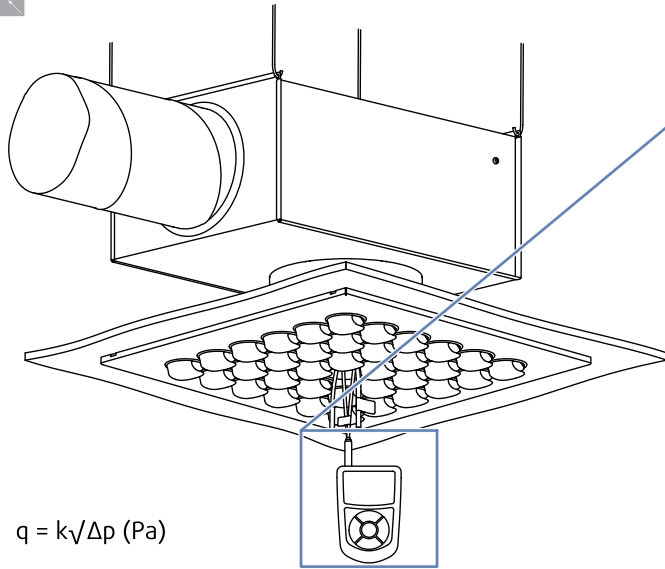
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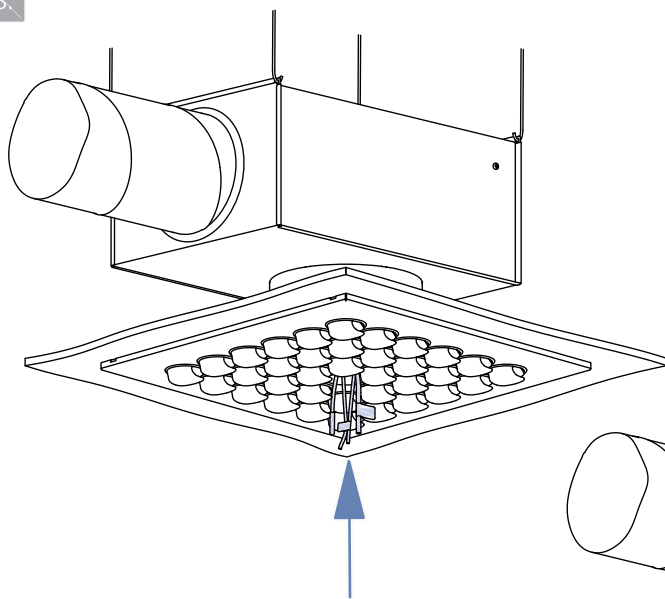


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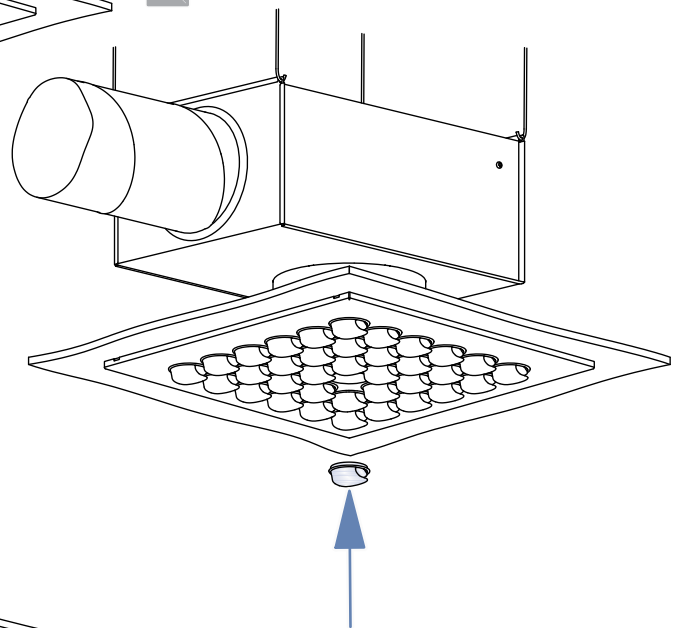


$q = k\sqrt{\Delta p}$  (Pa)

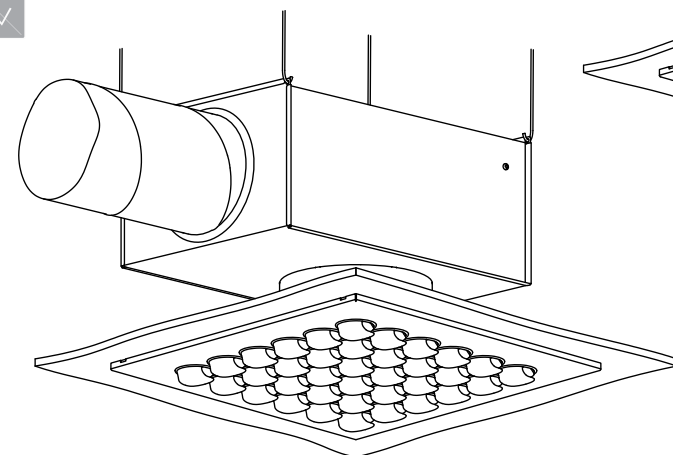
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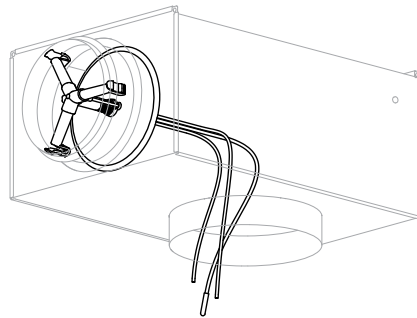
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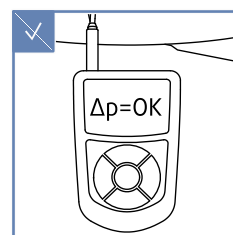
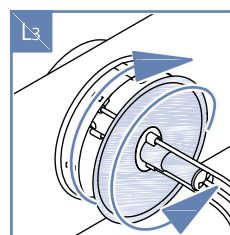
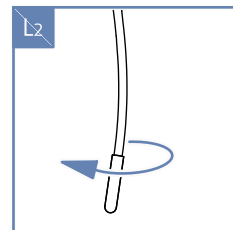
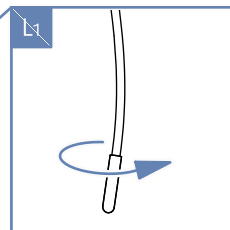
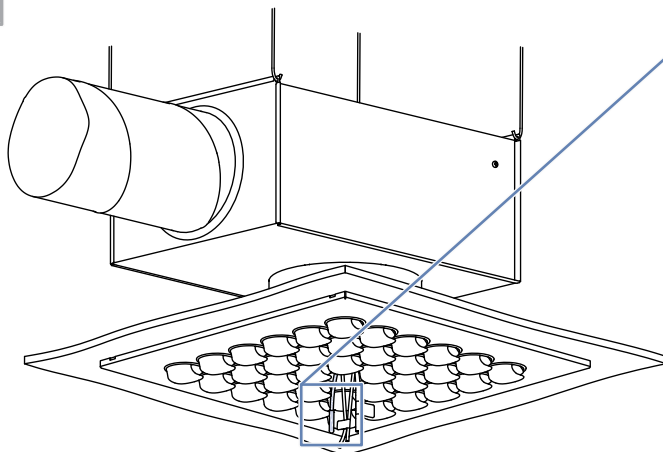
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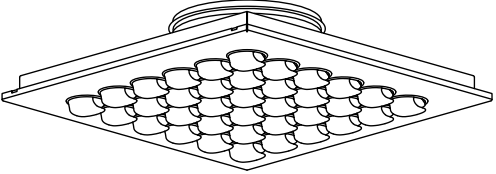
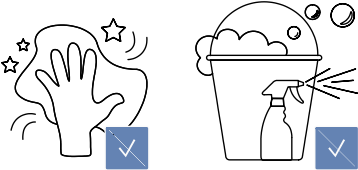
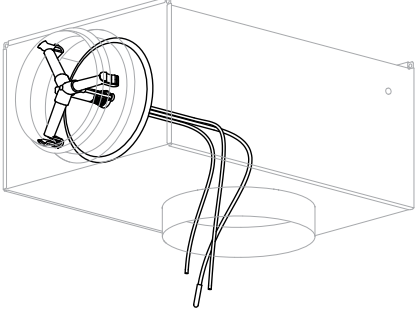
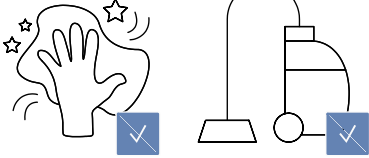


1.

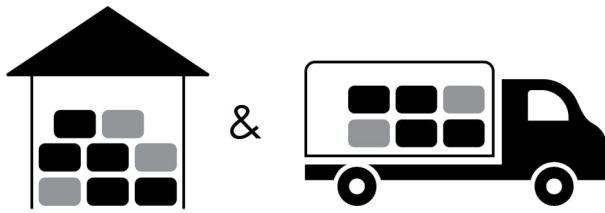



SUPPLY 		k	
CAP-G	THOR	m <sup>3</sup> /h	l/s
125	100-125	19,08	5,30
160	125-160	33,12	9,20
200	160-200	57,24	15,90
250	200-250	93,60	26,00
315	250-315	150,12	41,70


# Cleaning

		CAP-G
		THOR


# Transport, Storage and Operation




 °C -40 °C ... +50 °C

 % ≤ 95%



 °C -20 °C ... +50 °C

 % ≤ 95%

## Supplement

Any deviations from the technical specifications contained herein and the terms should be discussed with the manufacturer. We reserve the right to make any changes to the product without prior notice, provided that these changes do not affect the quality of the product and the required parameters. Current information on all products is available on [design.systemair.com](http://design.systemair.com).



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