

TSN-F

Swirl Diffuser



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Description

TSN-F is a square swirl diffuser. The product is mainly intended for air supply and can be used for air extract as well. The product is installed into T-bar suspended ceilings. The recommended installation height is up to 4 m. The field of application is offices, schools, medical premises, shops, halls, and corridors.

Highlights

- Simple and safe design, easy installation and handling
- Operable without plenum box, can be connected directly to the duct
- Low installation space height requirements
- Well balanced ratio between air flow capacity, pressure drop, and sound generation
- Excellent induction rate at low airflow volumes

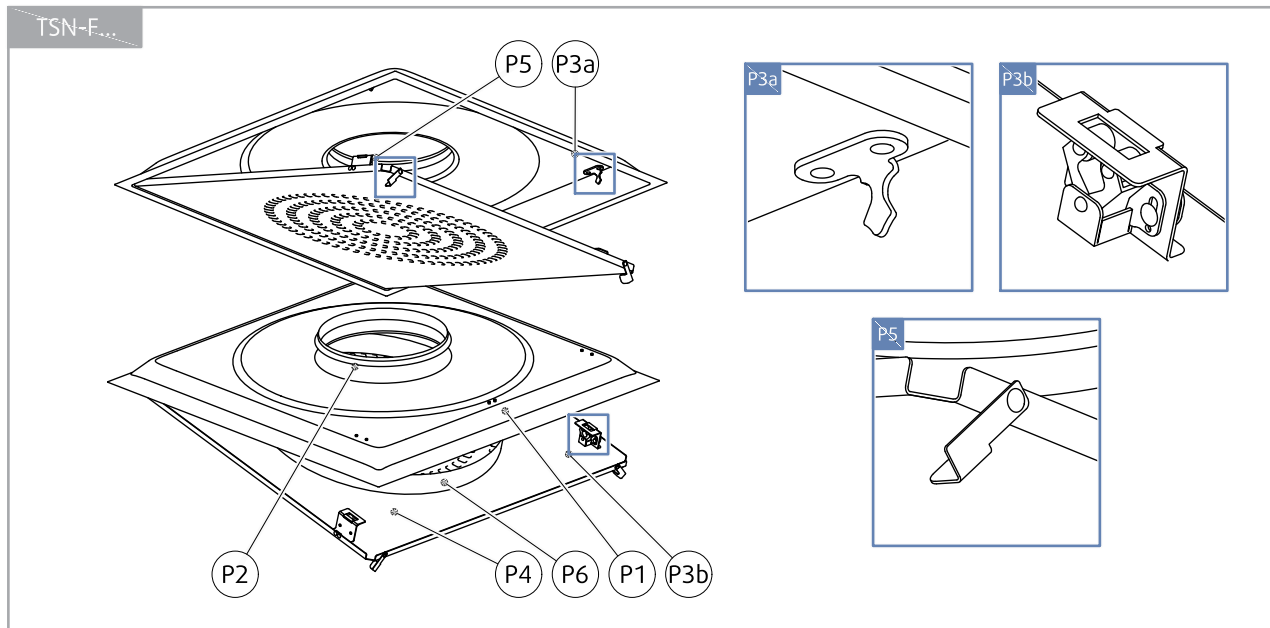
List of Accessories

- **THOR:** Plenum Box
- **THOR-E:** Plenum Box

Design

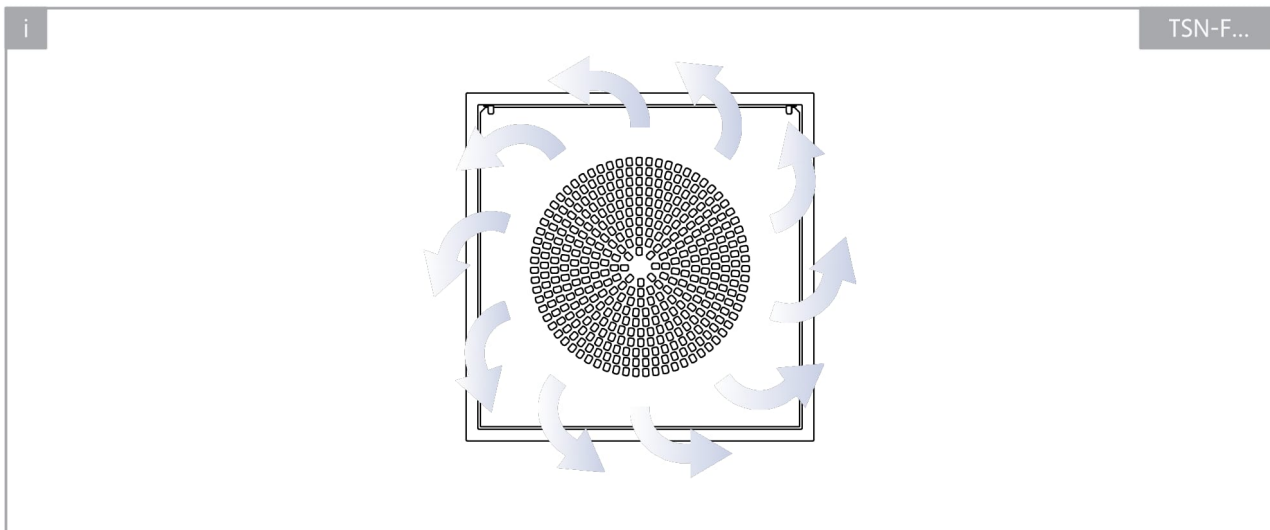
TSN-F is manufactured from galvanized steel sheet. The product consists of a removable front panel and a backing box. The backing box has a circular duct connection equipped with a rubber gasket. The outer shape of the backing box fits into T-bar ceiling frames with raster 600 mm or 625 mm. The front panel is held in the backing box by simple hinges on one side and by spring clips on the other side. The front panel can be opened or detached easily without tools by a pulling strap on the edge of the panel. The product is powder painted to RAL9003 (signal white) as standard. Other RAL colours are available upon request.

Product Parts

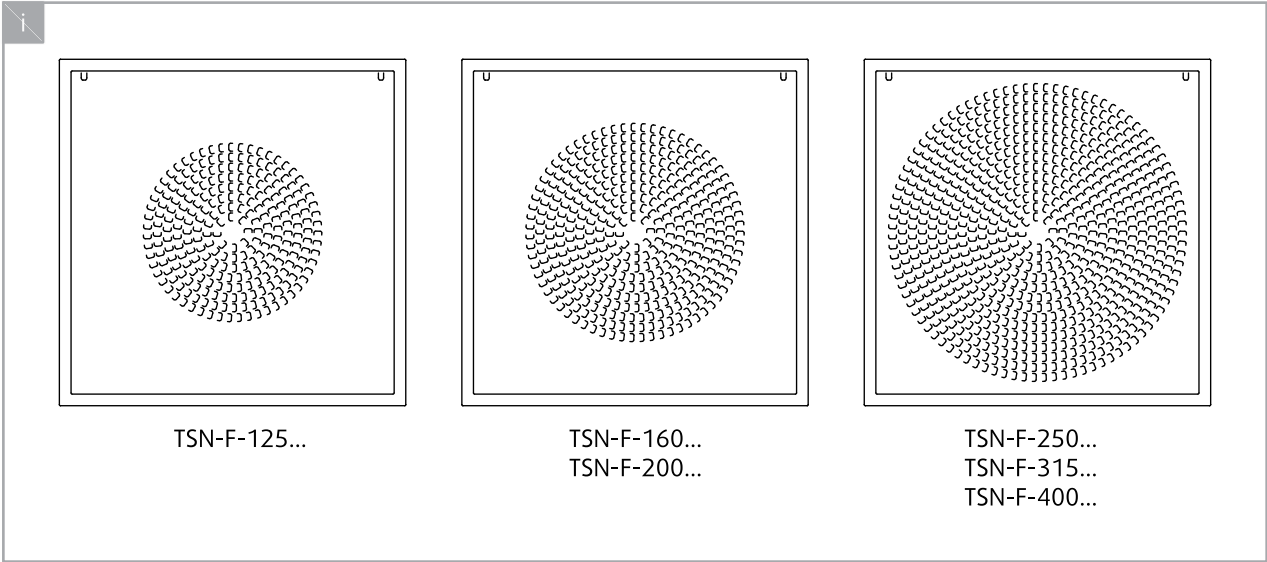
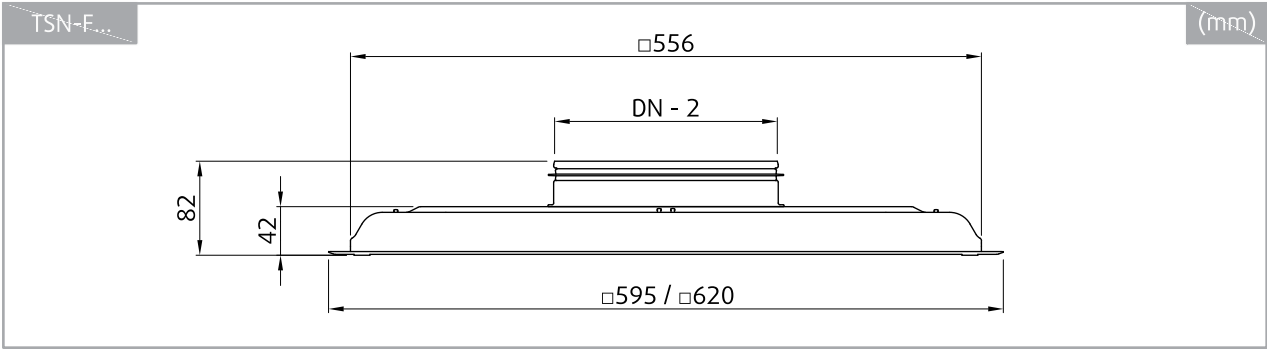


Legend:

- P1** - Backing box
- P2** - Duct connection equipped with a rubber gasket
- P3a, P3b** - Spring clips for front panel fixing
- P4** - Front panel
- P5** - Pulling straps
- P6** - Deflection ring



Dimensions & Weights



	m
	kg
TSN-F-125-600-SW	5,4
TSN-F-160-600-SW	5,2
TSN-F-200-600-SW	5,2
TSN-F-250-600-SW	5,2
TSN-F-315-600-SW	5,1
TSN-F-400-600-SW	5,0
TSN-F-125-625-SW	5,8
TSN-F-160-625-SW	5,6
TSN-F-200-625-SW	5,6
TSN-F-250-625-SW	5,6
TSN-F-315-625-SW	5,6
TSN-F-400-625-SW	5,4

Ordering Codes

TSN-F-

Nominal size (DN)

125

160

200

250

315

400

T-bar ceiling raster

600

625

Surface finish

SW Signal white (RAL9003)

RALXXXX Other RAL colour

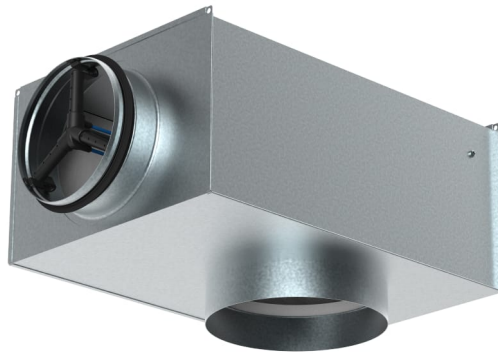
Example of the Ordering Code

TSN-F-125-600-SW

A swirl diffuser with nominal size 125, T-bar ceiling raster size 600, signal white colour.

Accessories

THOR



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.

Accessory

- MB-THOR: Mounting Bridge

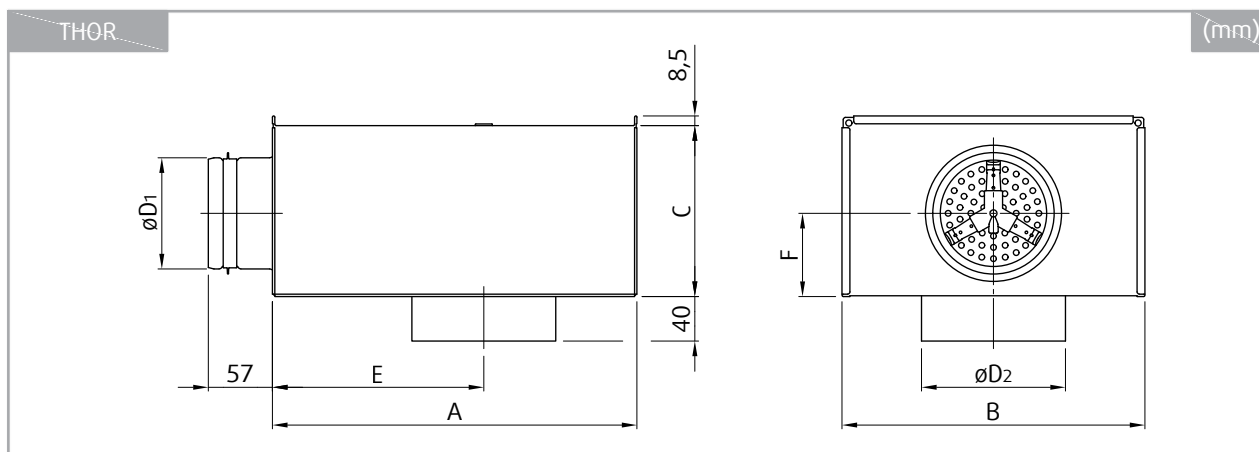
Design

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).

THOR-E



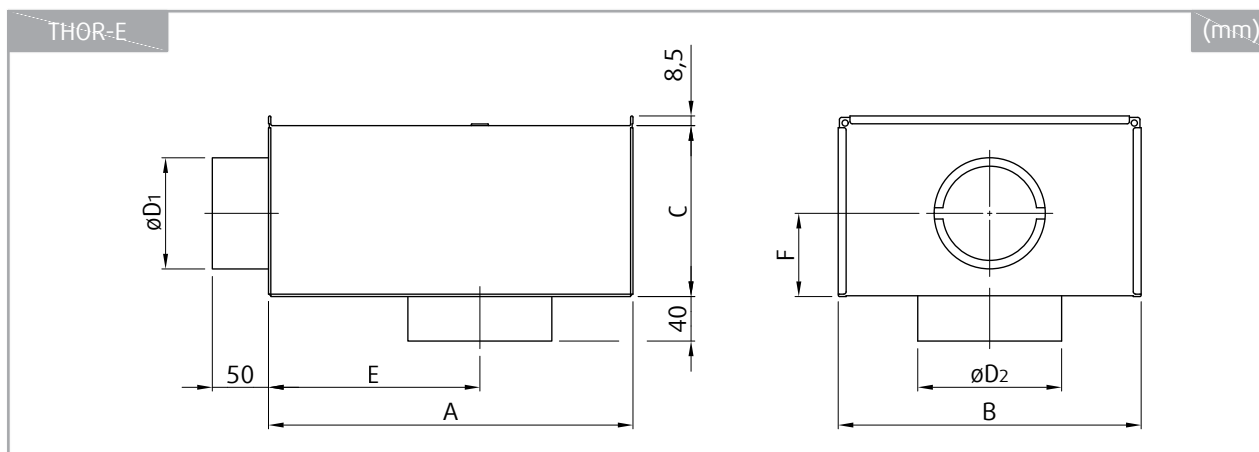
Description

THOR-E 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-E is manufactured from hot-dip galvanized steel sheet. The product consists of a plenum box and a connection sleeve without a gasket. The inlet sleeve is equipped with a simple sheet metal damper that is adjustable by pull-ropes from outside.

Dimensions



THOR-E	A	B	C	øD ₁	øD ₂	E	F	m
	mm							kg
100-125	320	267	150	98	126	185	75	2,3
100-160	360	267	160	98	161	210	80	2,6
125-125	360	267	160	123	126	210	80	2,6
125-160	360	267	160	123	161	210	80	2,6
125-200	450	317	195	123	201	280	98	3,7
160-160	450	317	195	158	161	280	98	3,7
160-200	450	317	195	158	201	280	98	3,7
160-250	500	367	250	158	251	305	125	4,9
200-200	500	367	250	198	201	305	125	4,9
200-250	500	367	250	198	251	305	125	4,9
200-315	565	467	300	198	316	330	150	6,9
250-250	565	467	300	248	251	330	150	6,9
250-315	565	467	300	248	316	330	150	6,9
250-400	620	567	400	248	401	360	200	9,6
315-315	620	567	400	313	316	360	200	9,6
315-400	620	567	400	313	401	360	200	9,6

Ordering Code

THOR-E-

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

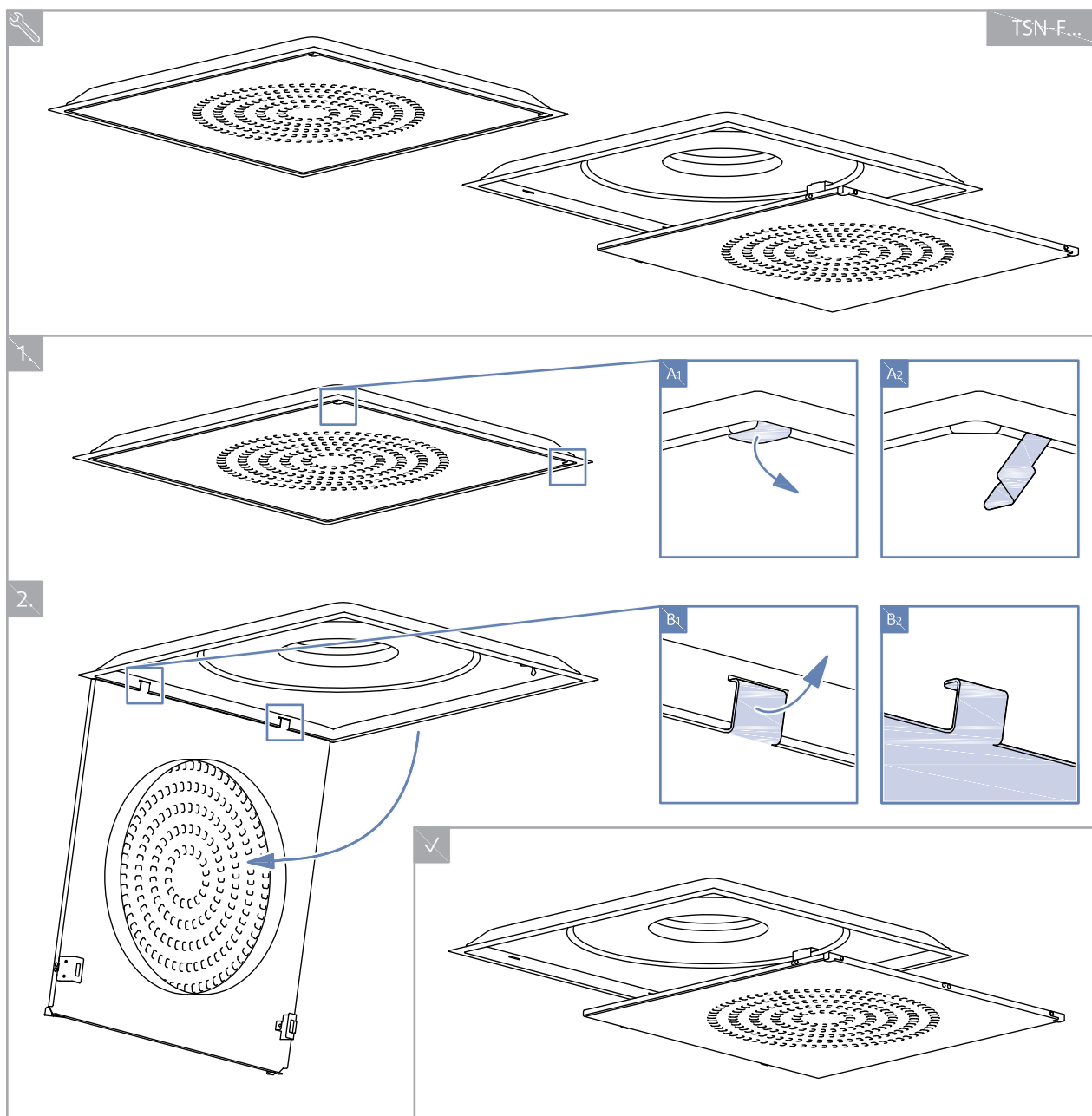
THOR-E-100-125

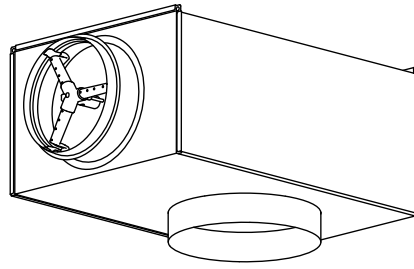
Plenum box THOR-E with 100 mm circular inlet and 125 mm circular outlet (nominal dimensions).

Technical Parameters

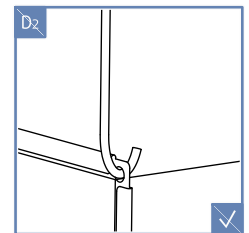
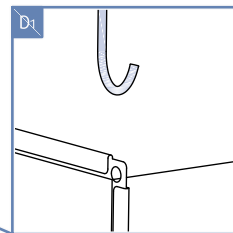
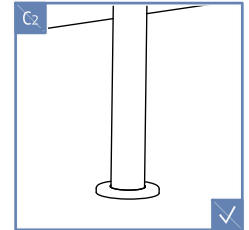
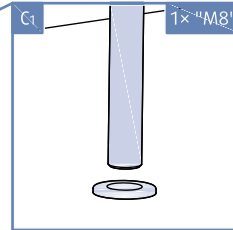
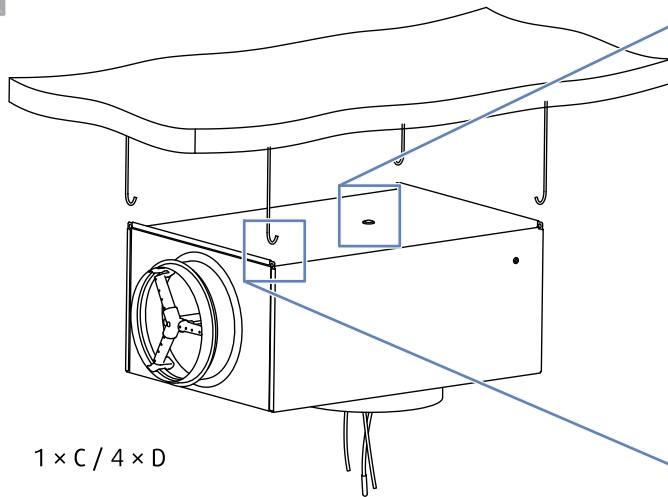
Diagrams and technical parameters are available at design.systemair.com (product TSN-F).

Installation

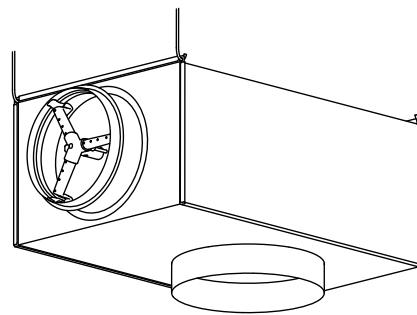
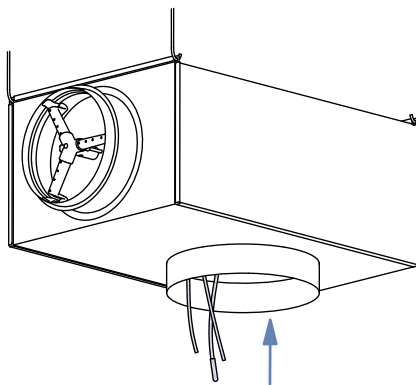


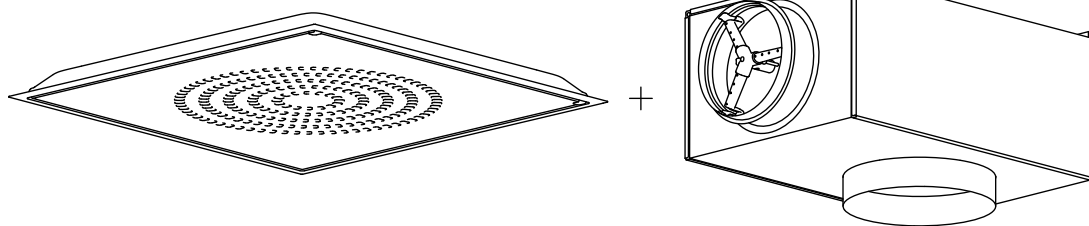


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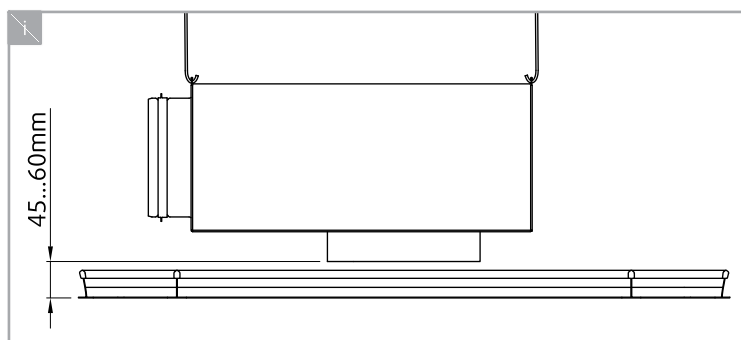
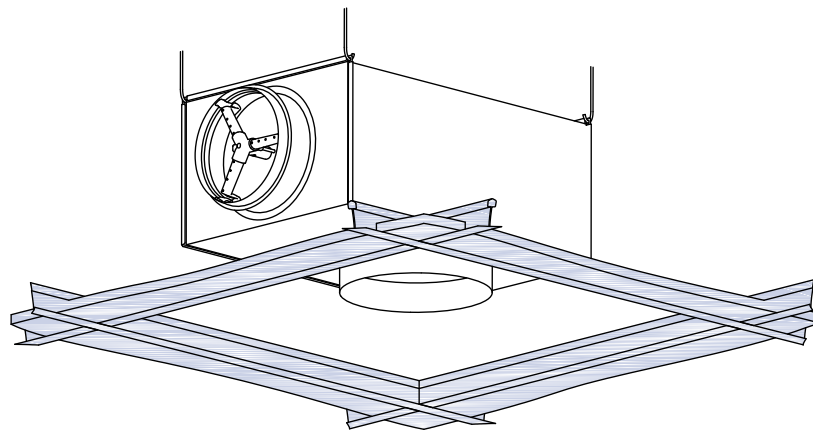


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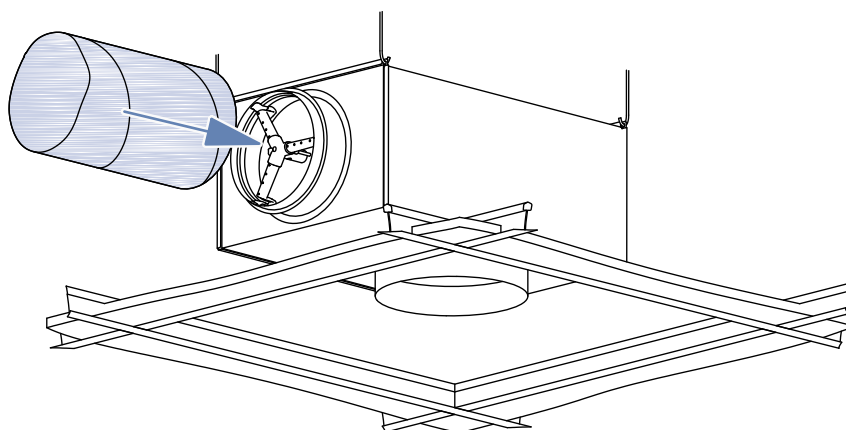




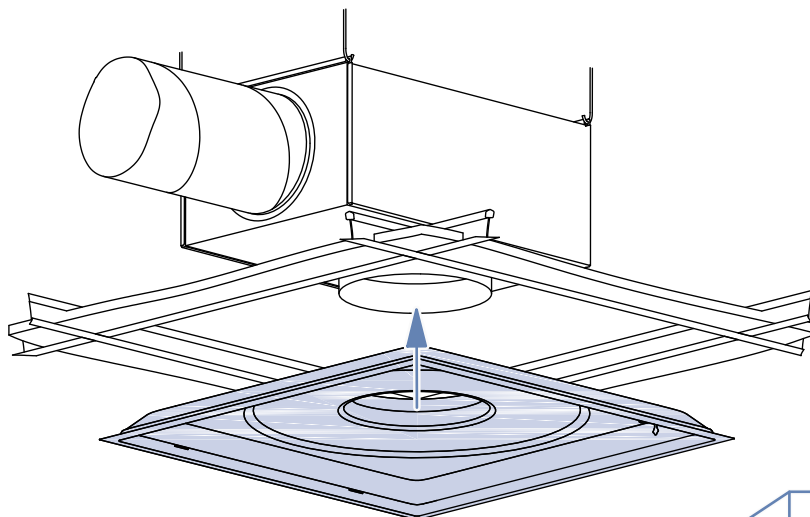
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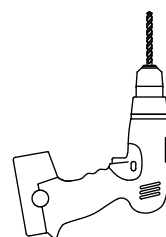
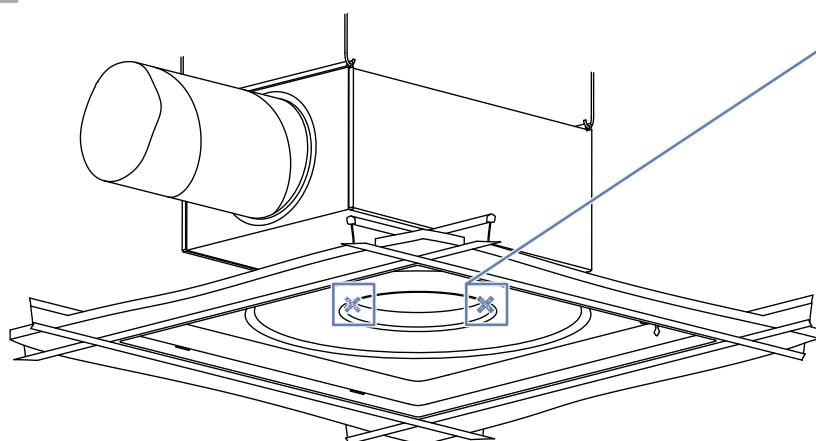
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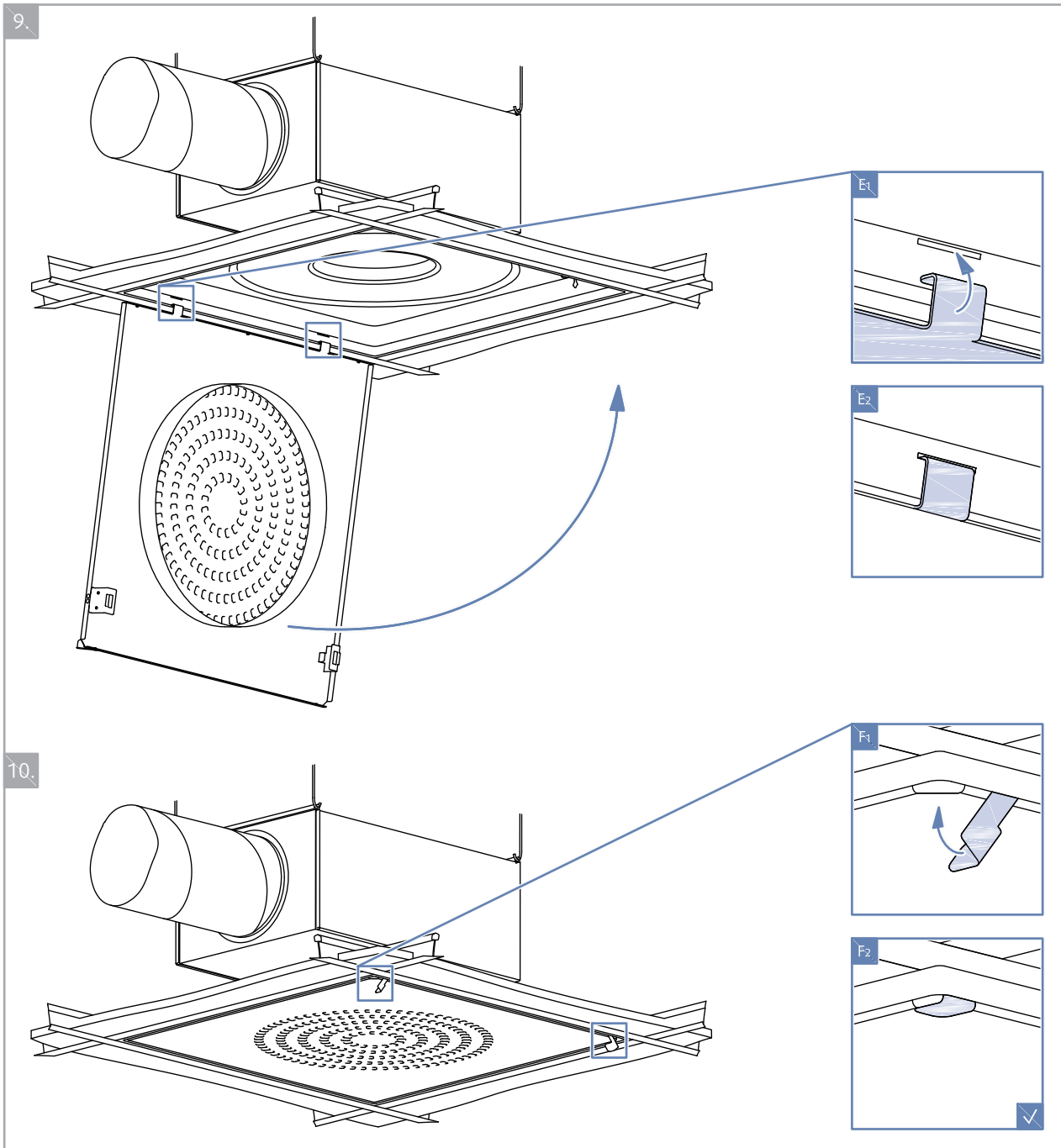
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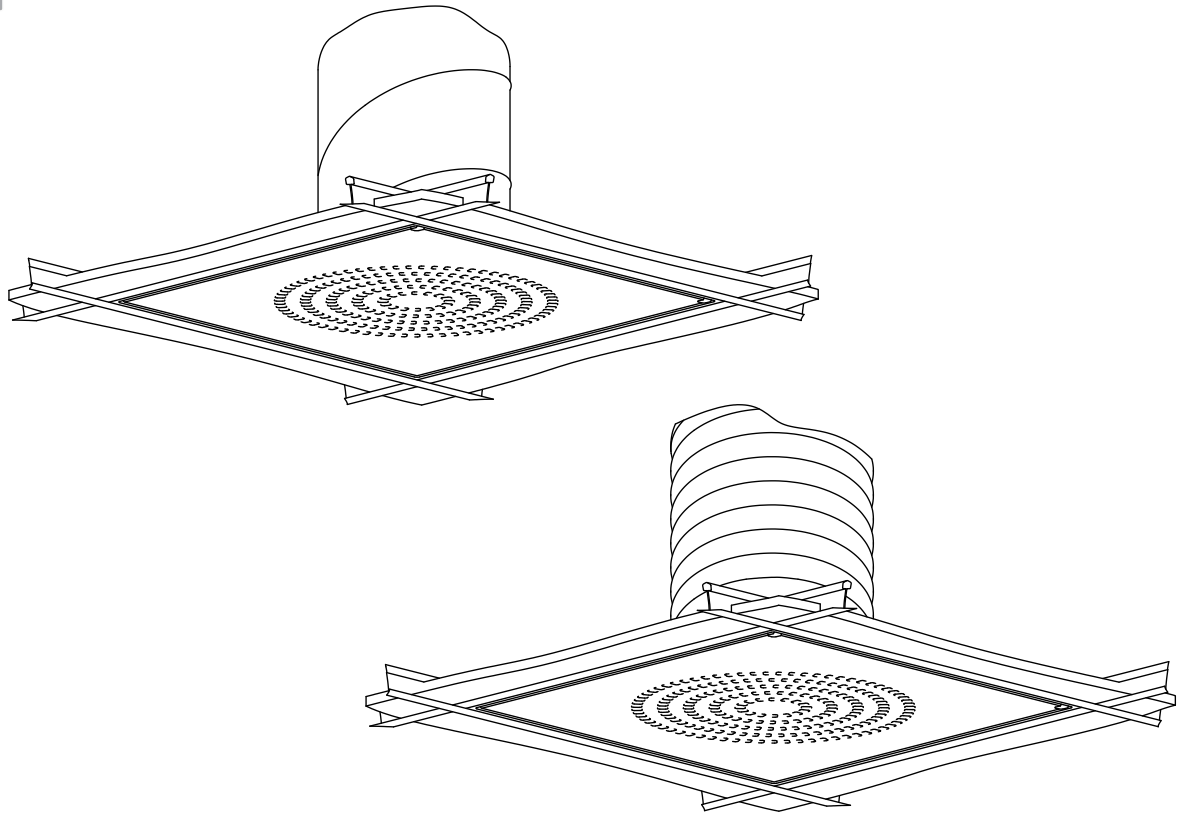


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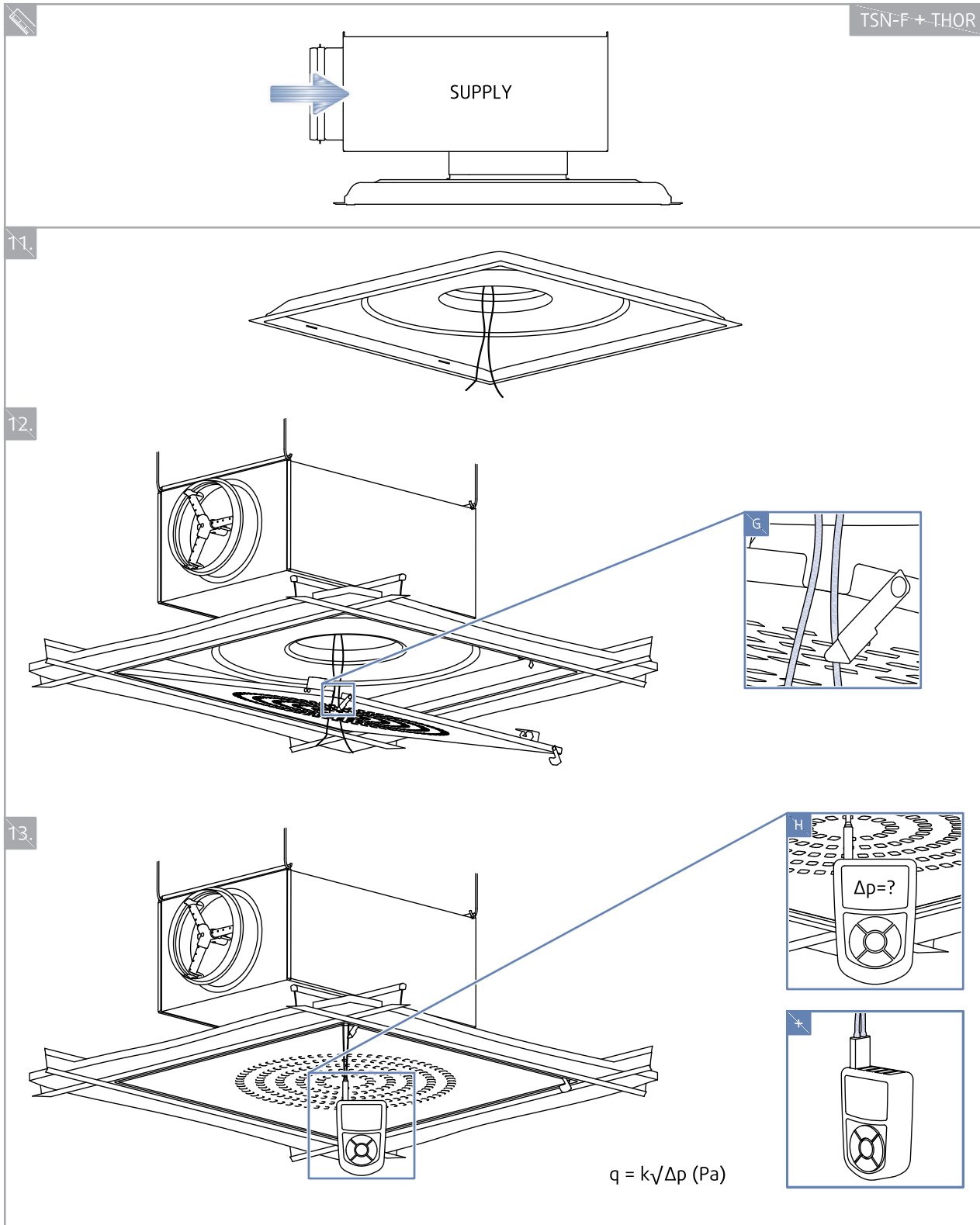
2 x "ø3,5...ø4 mm"

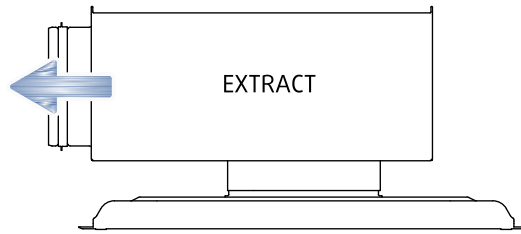




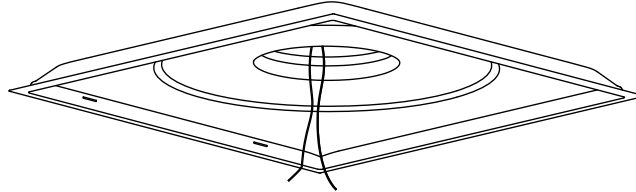
Commissioning

TSN-F + THOR

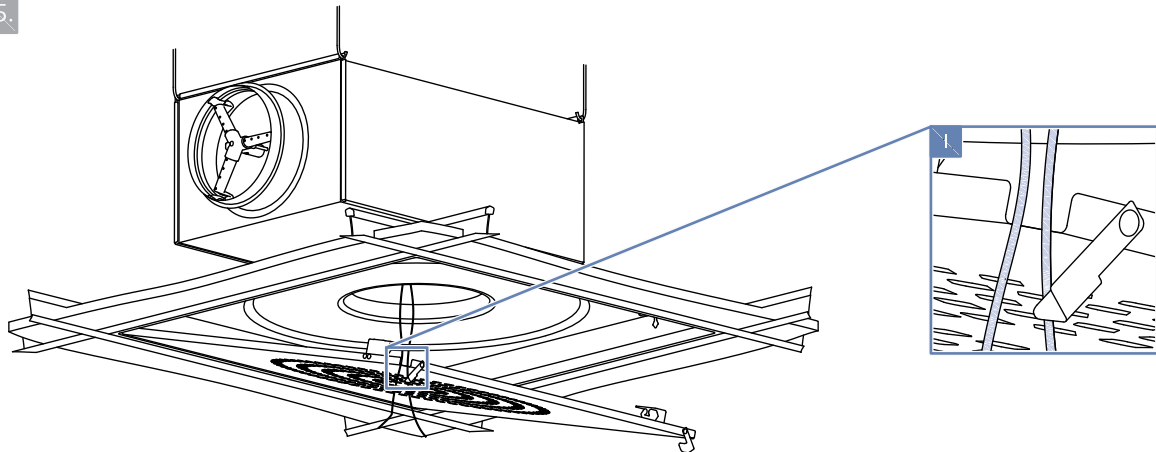




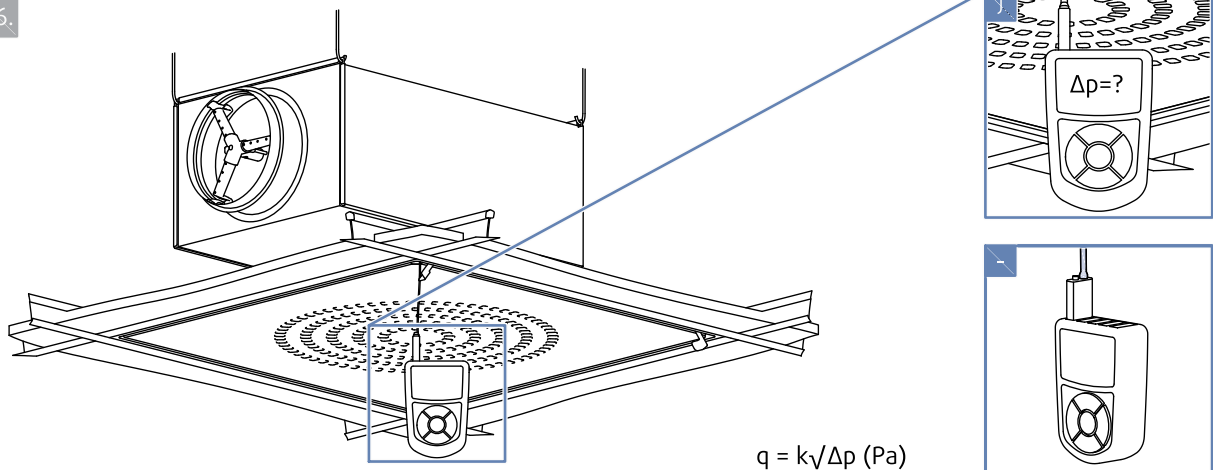
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15.



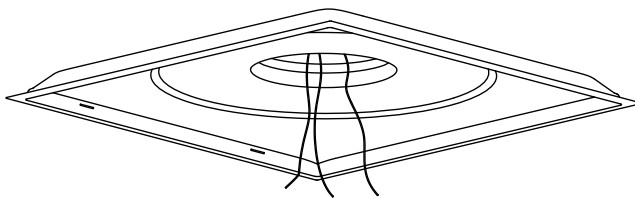
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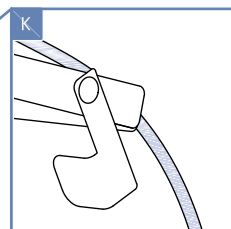
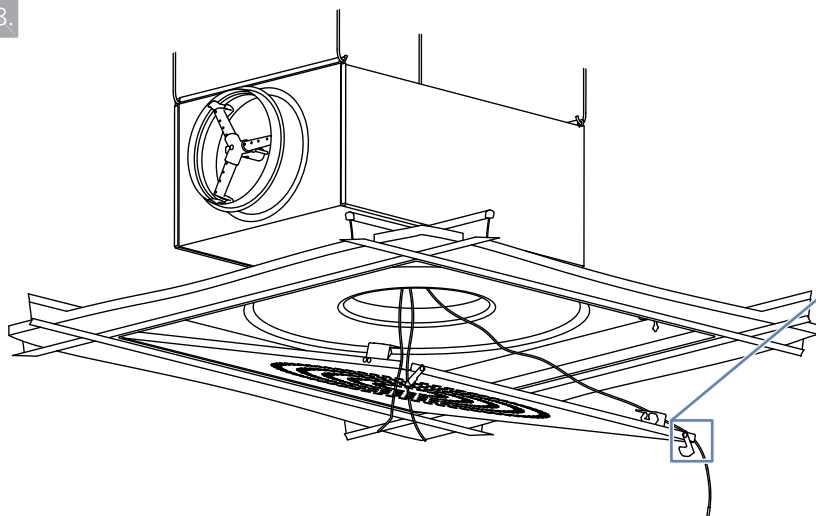


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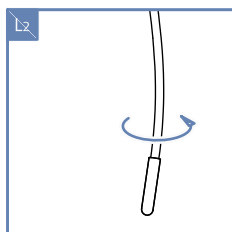
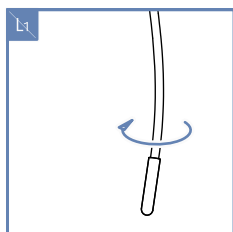
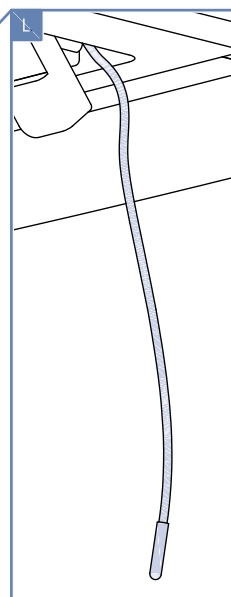
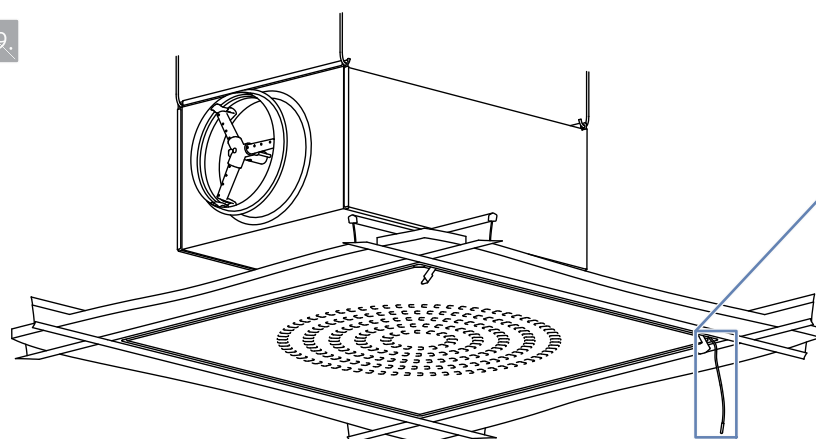
TSN-F + THOR



18.

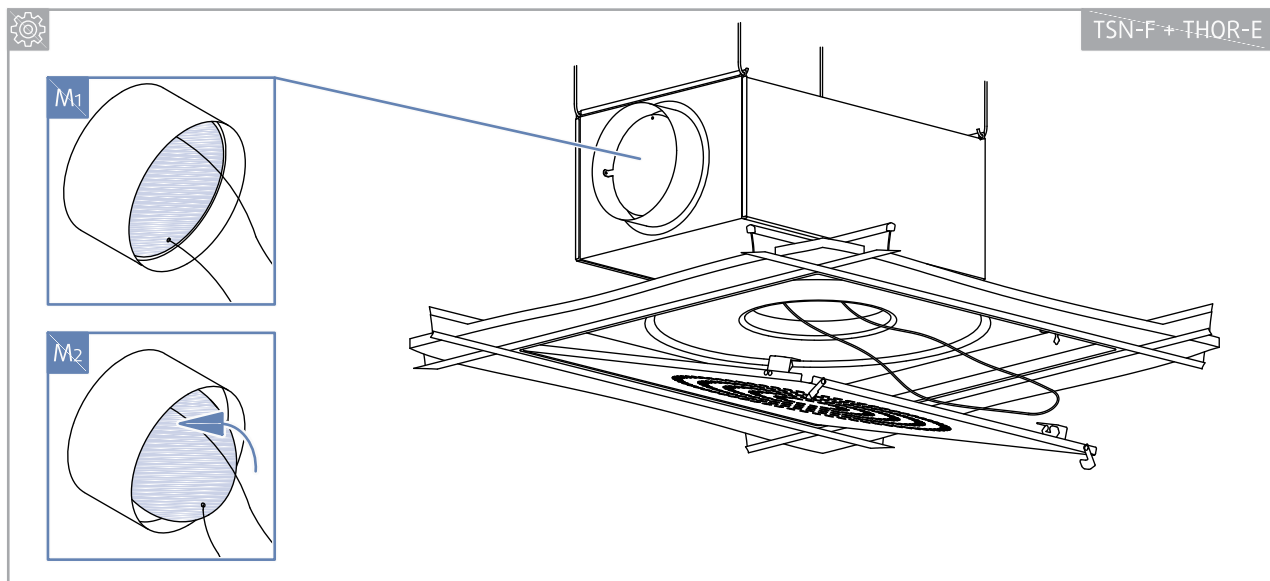


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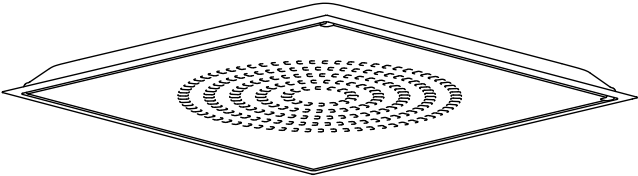


SUPPLY 		k	
TSN-F	THOR	m³/h	l/s
125	100-125	20,2	5,6
	125-125	38,0	10,6
160	100-160	26,6	7,4
	125-160	35,7	9,9
	160-160	60,9	16,9
200	125-200	36,2	10,0
	160-200	59,0	16,4
	200-200	105,7	29,4
250	160-250	59,0	16,4
	200-250	96,2	26,7
	250-250	152,5	42,4
315	200-315	95,0	26,4
	250-315	155,6	43,2
	315-315	81,4	22,6
400	250-400	153,0	42,5
	315-400	254,4	70,7

EXTRACT 		k	
TSN-F	THOR	m³/h	l/s
125	100-125	45,2	12,6
	125-125	46,6	12,9
160	100-160	56,9	15,8
	125-160	74,2	20,6
	160-160	59,3	16,5
200	125-200	114,4	31,8
	160-200	93,4	25,9
	200-200	68,9	19,1
250	160-250	144,4	40,1
	200-250	133,0	37,0
	250-250	114,4	31,8
315	200-315	167,3	46,5
	250-315	227,8	63,3
	315-315	222,1	61,7
400	250-400	266,4	74,0
	315-400	289,2	80,3

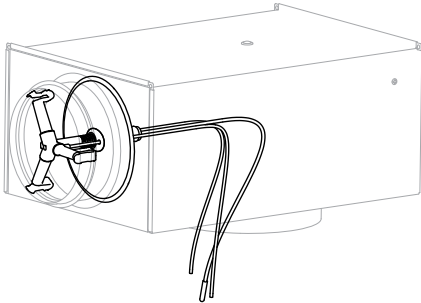


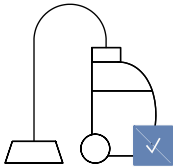
Cleaning





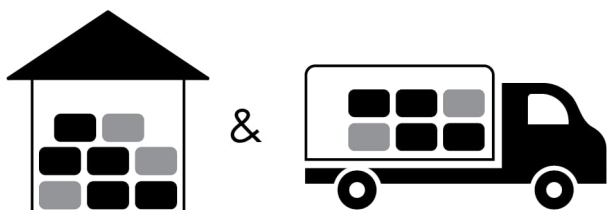
TSN-E...





THOR / THOR-E

Transport, Storage and Operation



 °C -40 °C ... +50 °C

 % ≤ 95%



 °C -20 °C ... +70 °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.



Handbook_TSN_F_en-GB
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