



Handbook

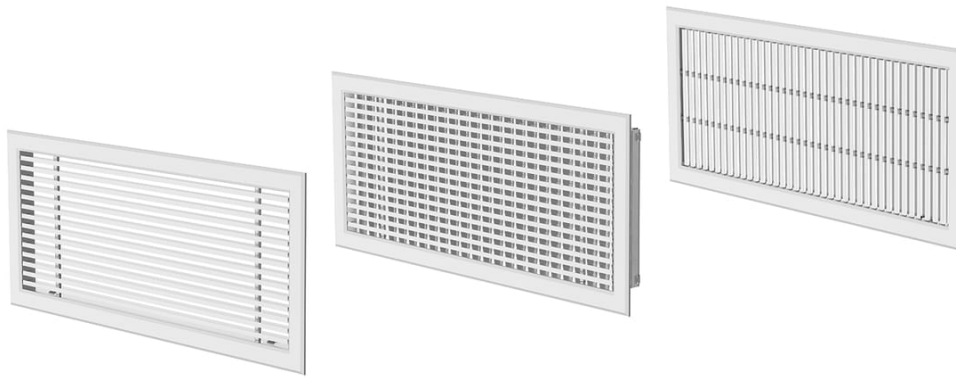
NOVA-L

Fixed Blade Grille



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Description

NOVA-L is a diffusion grille. The product is intended for air supply and air extract. The product is installed into rectangular ducts or into walls and ceilings. The grille can be split into several parts and installed in a continuous line of grilles. For a balanced distribution of air through the entire grille it is recommended to use the R1-NOVA damper or a plenum box. The field of application is industrial and commercial premises with higher emphasis on appearance.

Highlights

- Single or double layer. With two layers, adjustable inner blades for well-shaped air discharge pattern
- With an option to create a continuous line of grilles
- Design with emphasized aesthetics

List of Accessories

- ODN: Plenum Box with Basic Air Adjustment for NOVA
- R1-NOVA: Damper for NOVA
- UR-NOVA: Mounting Frame for NOVA

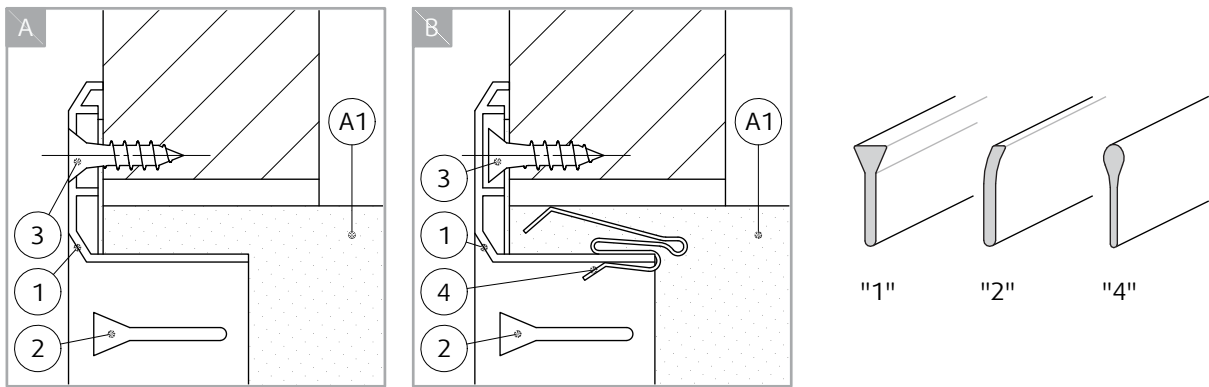
Mounting

The NOVA-L grille can be mounted directly on a rectangular duct using countersunk screws (type "1" mounting), on a wall using a mounting frame and spring clips (type "2" mounting + UR) or, if appropriate, it can also be placed onto a wall and a ceiling using a mounting frame and a mounting mechanism (type "3" mounting).

Design

NOVA-L is manufactured from anodized aluminium profiles. The product consists of a frame and 1 or 2 layers of blades. The first layer is always fixed, the second is adjustable. Single layer grilles can have both horizontal and vertical front blade alignment. Double layer grilles are available only with horizontal front blade alignment. The blades of the second layer are always perpendicular to the first layer. The front blades shape and axial pitch is optional. The blades of the second layer are always shape type "4" with an axial pitch 20 mm. The product is provided in anodized surface finish or powder painted to RAL9003 (signal white) as standard. Other RAL colours are available upon request.

Product Parts



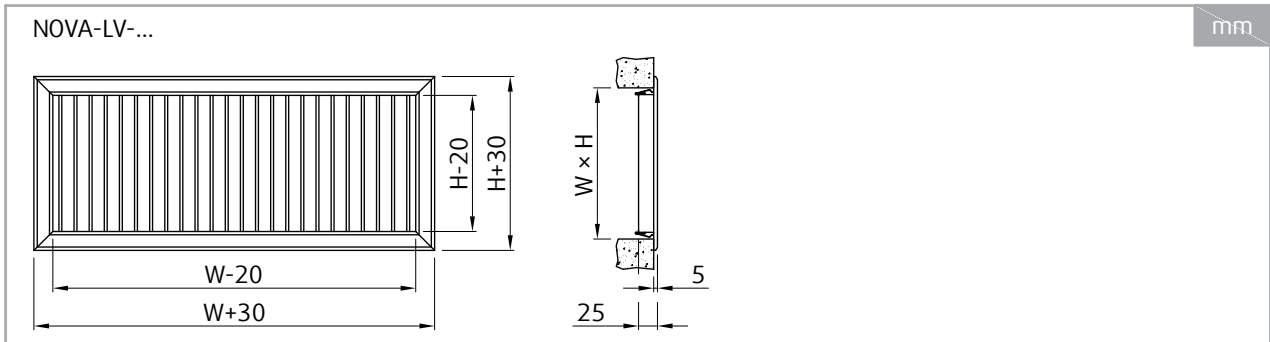
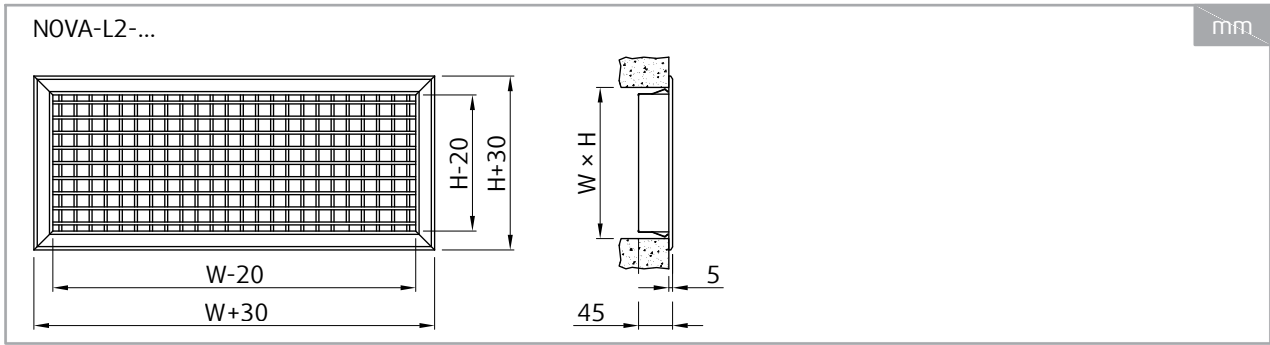
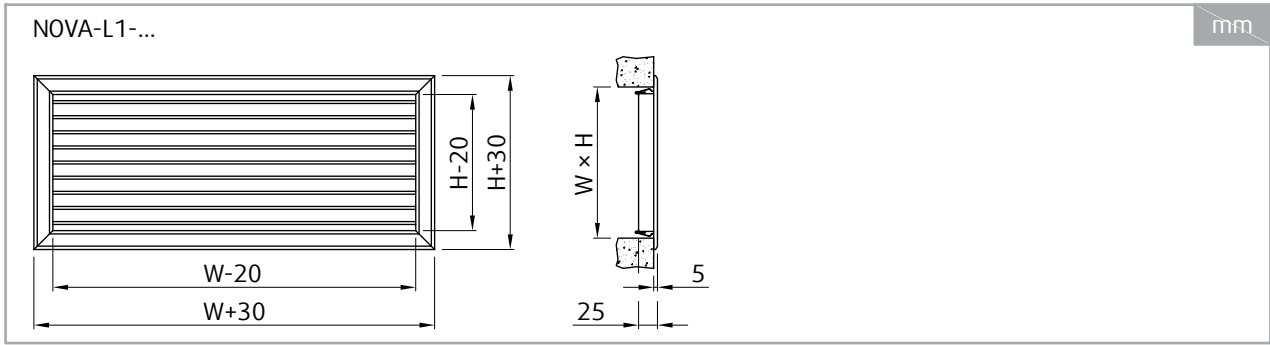
A: Mounting type 1, the grille directly attached with the wall mounting frame and to the building structure by screws.




B: Mounting type 2, the grille attached to the wall mounting frame by spring clips. The wall mounting frame fixed to the building structure by screws.




Legend

- 1 Grille frame
- 2 1st row of blades is fixed, 2nd row is individually adjustable
- 3 Screw
- 4 Spring clip
- A1 Wall mounting and adjustment frame, part of plenum box ODEN-F

Dimensions & Weights



NOVA-L...W×H...12...									
W	H	1		2		4		m	m ₂
		A _V	A _{V2}	A _V	A _{V2}	A _V	A _{V2}		
mm		m ²						kg	
200	100	0,007	0,003	0,011	0,008	0,010	0,006	0,26	0,36
	150	0,012	0,005	0,018	0,013	0,015	0,009	0,37	0,52
	200	0,016	0,007	0,025	0,017	0,021	0,013	0,48	0,67
300	100	0,012	0,006	0,018	0,013	0,015	0,010	0,37	0,52
	150	0,019	0,009	0,029	0,021	0,024	0,016	0,52	0,75
	200	0,026	0,012	0,040	0,028	0,034	0,021	0,68	0,97
	300	0,039	0,017	0,061	0,044	0,052	0,033	0,99	1,43
400	100	0,016	0,008	0,024	0,018	0,021	0,014	0,47	0,67
	150	0,026	0,012	0,039	0,028	0,034	0,022	0,68	0,97
	200	0,035	0,016	0,054	0,039	0,046	0,030	0,88	1,27
	300	0,054	0,024	0,084	0,061	0,072	0,045	1,29	1,87
	400	0,073	0,033	0,115	0,082	0,097	0,061	1,69	2,46
500	100	0,021	0,010	0,031	0,023	0,027	0,017	0,58	0,83
	150	0,033	0,015	0,050	0,036	0,043	0,028	0,83	1,20
	200	0,045	0,021	0,069	0,050	0,059	0,038	1,08	1,57
	300	0,069	0,031	0,108	0,078	0,091	0,058	1,58	2,31
	400	0,093	0,042	0,146	0,105	0,124	0,079	2,09	3,05
	500	0,117	0,053	0,184	0,133	0,156	0,099	2,59	3,79

NOVA-L...W×H...12...									
W	H	1		2		4		m	m ₂
		A _v	A _{v2}	A _v	A _{v2}	A _v	A _{v2}		
mm		m ²						kg	
600	100	0,025	0,012	0,037	0,027	0,032	0,021	0,69	0,99
	150	0,039	0,018	0,060	0,043	0,051	0,033	0,99	1,43
	200	0,054	0,025	0,083	0,060	0,071	0,045	1,29	1,88
	300	0,083	0,037	0,129	0,093	0,109	0,069	1,89	2,76
	400	0,112	0,050	0,175	0,126	0,148	0,094	2,50	3,65
	500	0,141	0,063	0,221	0,159	0,187	0,118	3,10	4,54
800	100	0,033	0,016	0,051	0,037	0,043	0,028	0,90	1,30
	150	0,053	0,025	0,082	0,059	0,070	0,045	1,30	1,88
	200	0,073	0,034	0,113	0,082	0,096	0,062	1,69	2,47
	300	0,112	0,051	0,175	0,127	0,149	0,095	2,49	3,65
	400	0,152	0,069	0,238	0,172	0,201	0,128	3,28	4,82
	500	0,191	0,086	0,300	0,216	0,254	0,162	4,08	5,99
1000	100	0,042	0,020	0,064	0,046	0,054	0,035	1,11	1,61
	150	0,067	0,031	0,103	0,074	0,087	0,056	1,61	2,34
	200	0,091	0,042	0,142	0,102	0,120	0,077	2,11	3,08
	300	0,141	0,064	0,220	0,159	0,187	0,119	3,10	4,54
	400	0,190	0,086	0,298	0,215	0,253	0,161	4,09	6,01
	500	0,240	0,108	0,376	0,271	0,319	0,202	5,08	7,47
1200	100	0,051	0,025	0,077	0,056	0,066	0,043	1,33	1,92
	150	0,081	0,038	0,124	0,090	0,106	0,068	1,92	2,80
	200	0,111	0,051	0,172	0,124	0,146	0,094	2,51	3,67
	300	0,170	0,078	0,266	0,193	0,226	0,144	3,69	5,42
	400	0,230	0,105	0,361	0,261	0,306	0,195	4,88	7,17
	500	0,290	0,131	0,455	0,329	0,386	0,246	6,06	8,93

Ordering Codes

Blades orientation and layers

NOVA-L1 Horizontally aligned blades, single layer

NOVA-L2 Horizontally aligned blades, double layer

NOVA-LV Vertically aligned blades, single layer

Mounting

1 Screws

2 Spring clips ¹

Dimensions

W×H

Damper

R1

Blade shaping type

1

2

4

Blades axial pitch (mm)

12

17

20

Product version

0 Standard

C Corner (not available for NOVA-LV)

M Middle (not available for NOVA-LV)

Surface finish

AN Anodized

SW Signal white (RAL 9003, gloss 30%)

RALXXXX Other RAL colour

NOTES:

1. The plenum box ODEN-F for the grille of the size 200 mm × 100 mm is available only with rear duct connection orientation, type 1. The lateral connection orientation type 2 is not possible.
2. In case the front row blade alignment – horizontal (H) or vertical (V) – is not specified in the ordering code, the product with a horizontal blade alignment (H) will be delivered as default.
3. In case the RAL surface finish is not specified in the ordering code, the product will be delivered with a natural anodized surface finish as default.

Example of Ordering Code

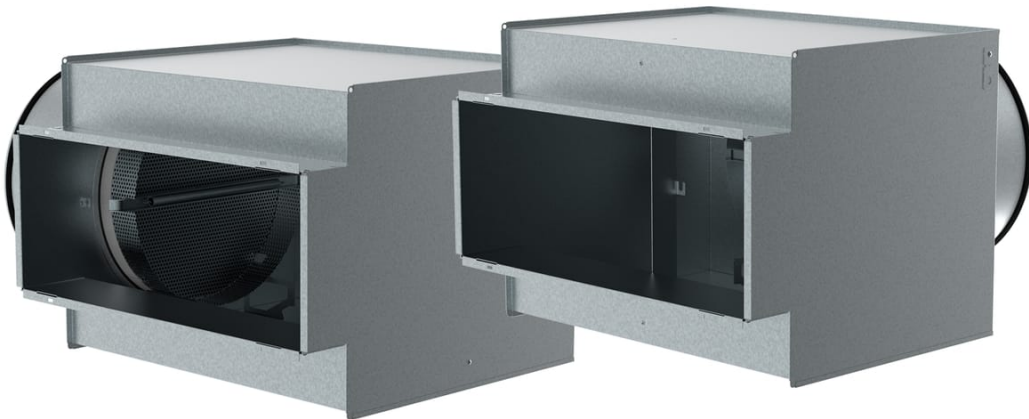
NOVA-L2-2-400x200-1-12-SW

Fixed blade grille with two rows of blades, first with blade axial pitch 12 mm. Mounting with spring clips, intended for a structural opening with dimensions 400 mm × 200 mm, the front row of blades horizontally oriented. Signal white powder paint RAL9003 surface finish.

Accessories

ODEN-F

Plenum Box



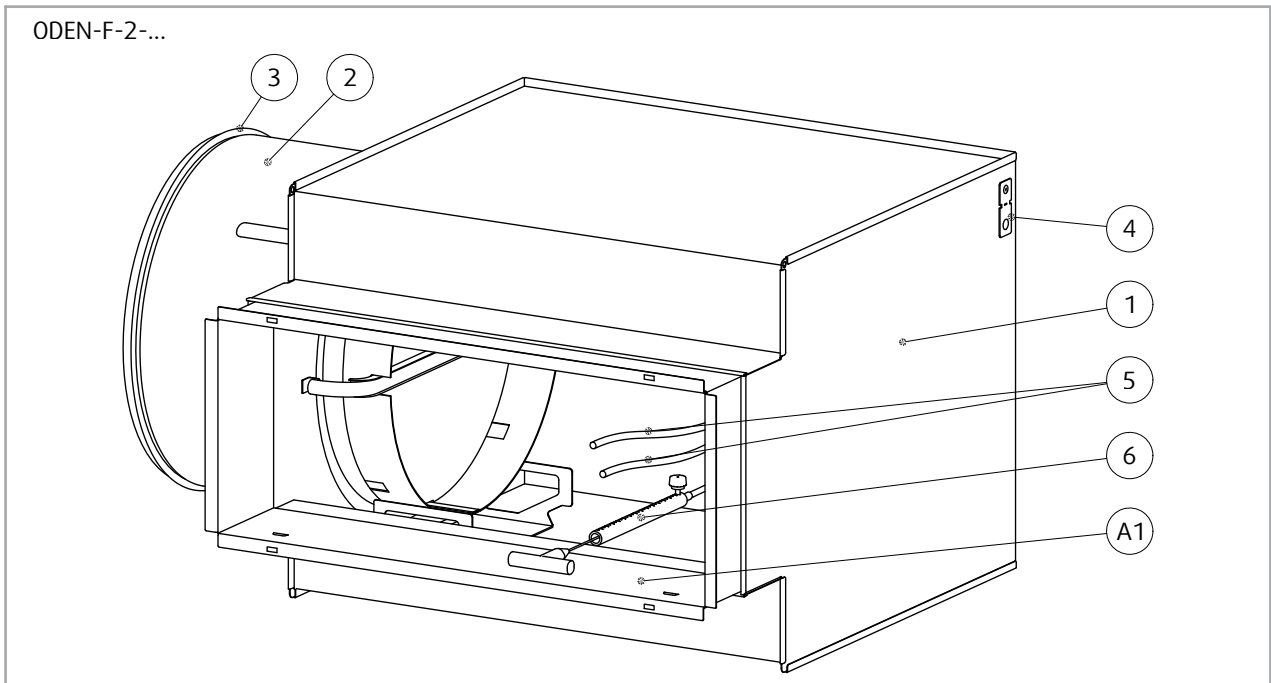
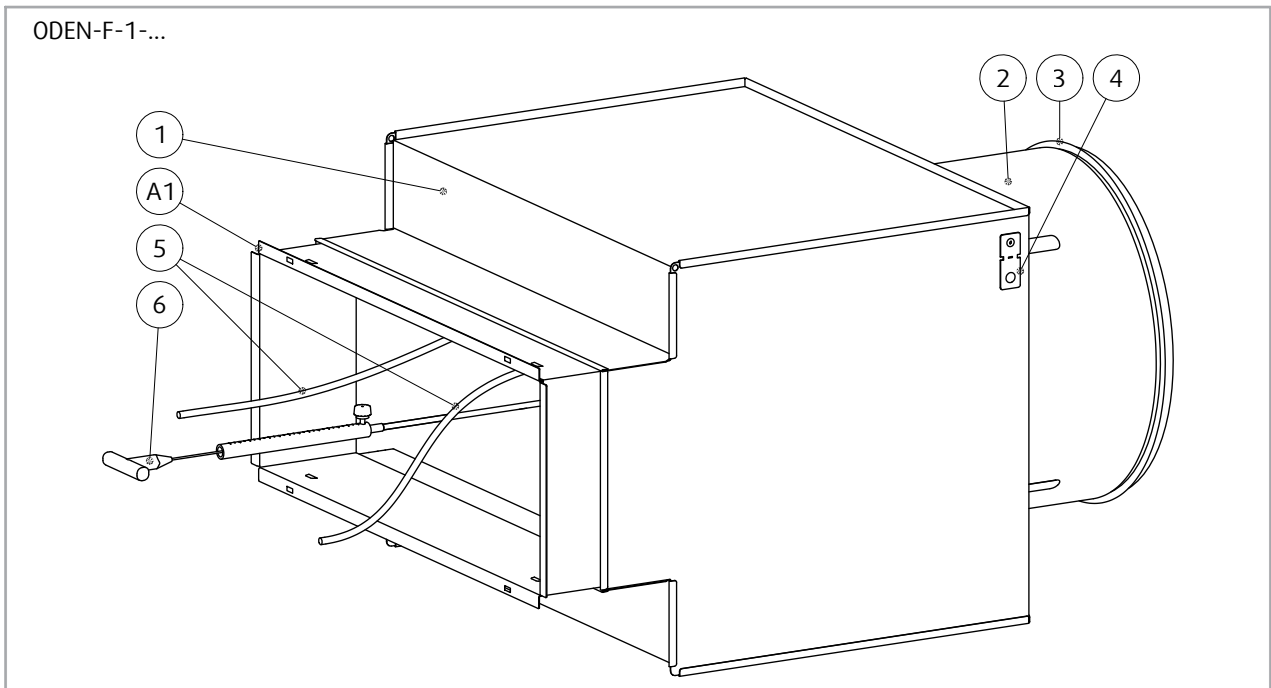
Description

ODEN-F is a plenum box intended for both air supply and air extract. It can be used along with the NOVA-A grilles for the supply air flow velocity reduction and a better distribution (optimizing) of the air flow through the grille with possibility to adjust and measure the air flow volume.

Design

The ODEN-F plenum box is manufactured from galvanized steel sheet with a rear or lateral side mounted circular duct connection with a rubber gasket. The plenum box is equipped by a cylinder-shaped perforated adjustment damper in the connection spigot. A measurement probe on the damper enables supply or extract air flow measurements readable outside the box by pressure impulse tubes. The damper can be adjusted from outside the box by a pulling cable mechanism. The measurement and adjustment requires no additional mounting tools.

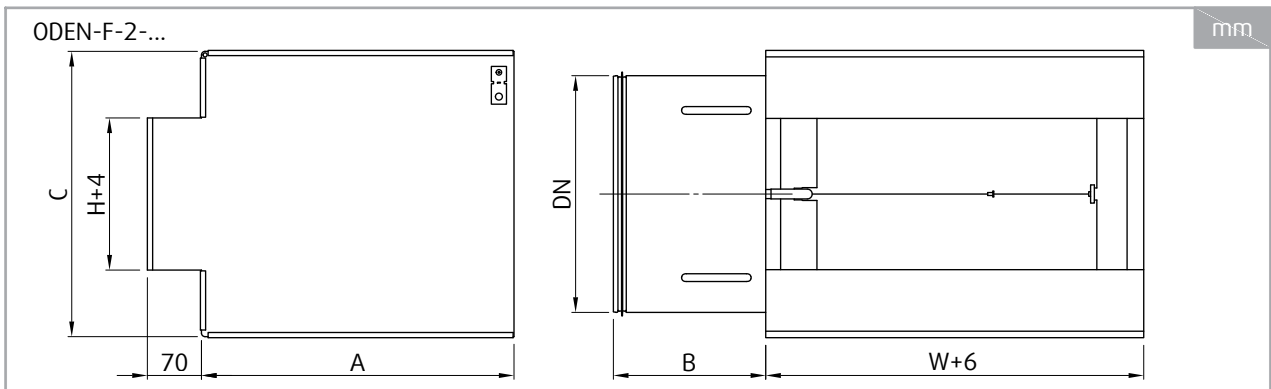
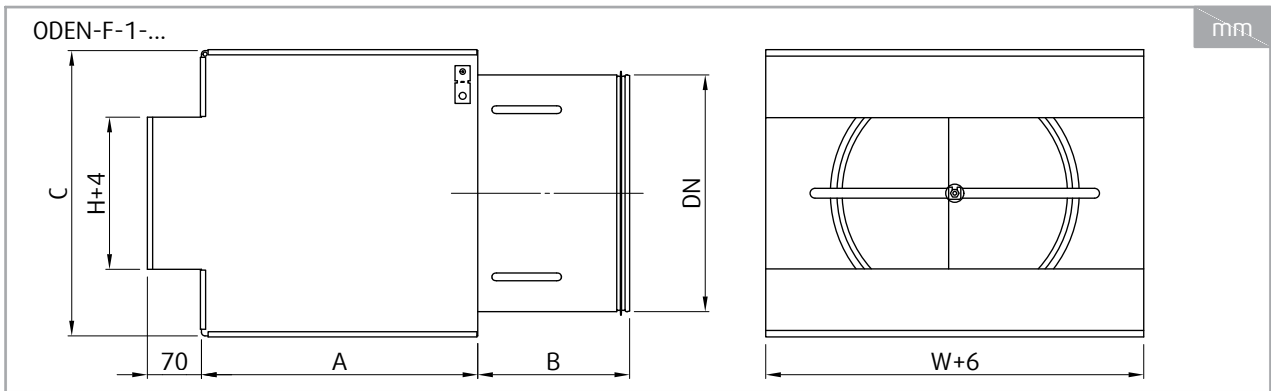
Product Parts



Legend

- 1** Plenum box casing
- 2** Duct connection
- 3** Duct connection gasket
- 4** Bendable hangers
- 5** Commissioning tubes
- 6** Bowden
- A1** Wall mounting and adjustment frame, part of plenum box ODEN-F

Dimensions



ODEN-F	W × H	DN	A	B	C	m
	mm					kg
ODEN-F-1	200 × 100	125	302	145	190	3,6
ODEN-F-1	300 × 100	160	317	160	225	5,1
ODEN-F-2			260			4,8
ODEN-F-1	300 × 150	200	337	170	265	6,2
ODEN-F-2			295			6,0
ODEN-F-1	400 × 100	160	317	160	225	5,9
ODEN-F-2			260			5,4
ODEN-F-1	400 × 150	250	352	185	315	8,4
ODEN-F-2			350			8,4
ODEN-F-1	500 × 100	200	337	170	265	7,5
ODEN-F-2			295			7,2
ODEN-F-1	500 × 150	250	352	185	315	9,1
ODEN-F-2			350			9,0
ODEN-F-1	500 × 200	315	367	200	380	11,4
ODEN-F-2			415			11,8
ODEN-F-1	600 × 200		367			11,6
ODEN-F-2			415			12,5
ODEN-F-1	700 × 200		367			12,3
ODEN-F-2			415			13,3
ODEN-F-1	800 × 200		367			13,0
ODEN-F-2			415			14,1

Ordering Codes

ODEN-F-

Duct connection location

1 Rear

2 Lateral

Dimensions (equal to grille nominal dimensions)

L×H

Example of Ordering Code

ODEN-F-2-800x200

Plenum box with lateral duct connection for NOVA-L grille with nominal dimensions 800 mm x 200 mm.

R1-NOVA

Damper for NOVA



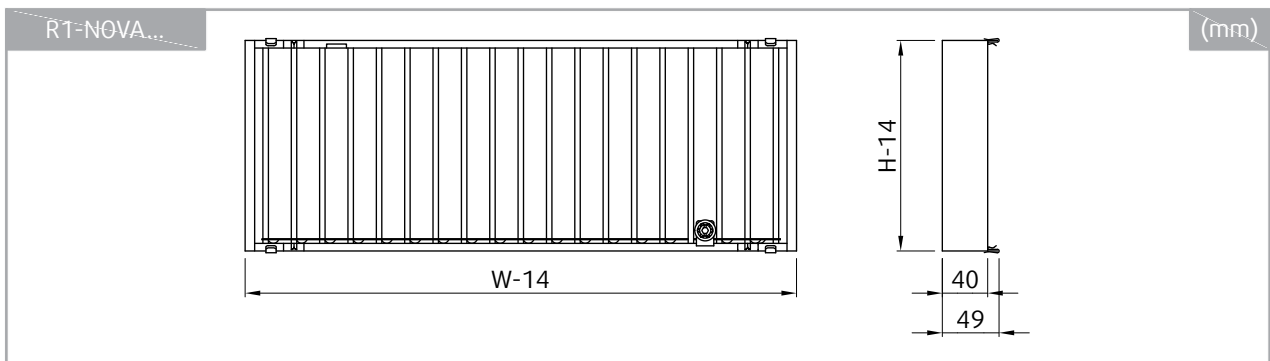
Description

R1-NOVA is a damper for NOVA grilles. The product is intended to balance distribution of air through the entire grille. The product is intended for air supply as well as for air extract. The damper changes the air flow using its regulating wheel.

Design

R1-NOVA is manufactured from galvanized steel sheet. The product consists of a frame, adjustable blades and a regulating wheel. The regulating wheel is operated by a flap tip screwdriver. The blades are opposed and interconnected. The blades angle controls the air flow. The product is provided without any additional surface finish.

Dimension



W	H	m
mm		kg
200	100	0,36
	150	0,48
	200	0,61
300	100	0,53
	150	0,71
	200	0,90
	300	1,27
400	100	0,69
	150	0,93
	200	1,18
	300	1,67
	400	2,15
500	100	0,86
	150	1,15
	200	1,47
	300	2,07
	400	2,67
	500	3,29
600	100	1,03
	150	1,38
	200	1,75
	300	2,47
	400	3,19
	500	3,93

W	H	m
mm		kg
225	75	0,32
	125	0,47
	225	0,75
325	75	0,46
	125	0,67
	225	1,06
	325	1,46
425	75	0,61
	125	0,87
	225	1,39
	325	1,90
	425	2,42
525	75	0,74
	125	1,07
	225	1,70
	325	2,33
	425	2,96
	525	3,61
625	75	0,88
	125	1,26
	225	2,01
	325	2,76
	425	3,50
	525	4,28

W	H	m
mm		kg
800	100	1,40
	150	1,86
	200	2,35
	300	3,30
	400	4,25
	500	5,23
1000	100	1,73
	150	2,30
	200	2,92
	300	4,10
	400	5,28
	500	6,50
1200	100	2,08
	150	2,76
	200	3,49
	300	4,91
	400	6,32
	500	7,78

W	H	m
mm		kg
825	75	1,17
	125	1,68
	225	2,65
	325	3,63
	425	4,61
	525	5,62
1025	75	1,45
	125	2,08
	225	3,29
	325	4,50
	425	5,71
	525	6,96
1225	75	1,72
	125	2,47
	225	3,91
	325	5,36
	425	6,80
	525	8,29

Ordering Codes

Damper

R1-NOVA

Dimensions

W x H

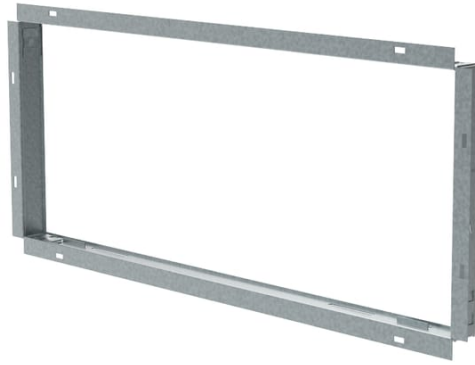
Example of the Ordering Code

R1-NOVA-1025x75

Damper for NOVA, dimensions 1025 mm × 75 mm.

UR-NOVA

Mounting Frame for NOVA



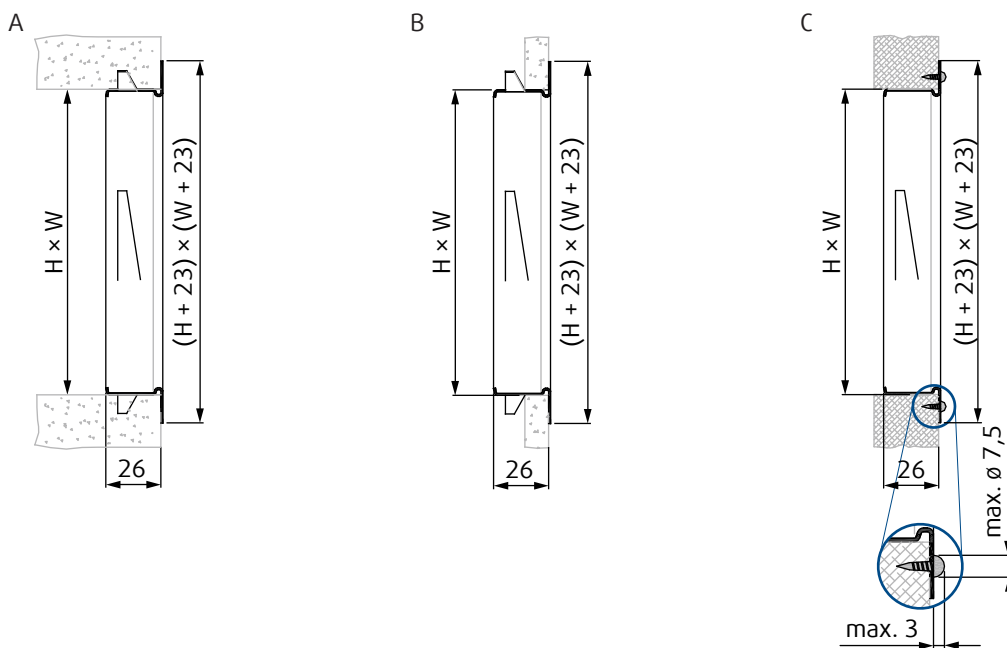
Description

UR-NOVA is a mounting frame for NOVA grilles. The product is intended to simplify the installation of a grille. The product is installed into a walls, ceilings or rectangular ducts.

Design

The product is manufactured from galvanized steel sheet. Non-standard version of the product manufactured from stainless steel is available upon request.

Dimension



A - walling concrete, B - plaster board, C - wood

W	H	m
mm		kg
200	100	0,19
	150	0,22
	200	0,26
300	100	0,26
	150	0,29
	200	0,33
	300	0,39
400	100	0,33
	150	0,36
	200	0,39
	300	0,46
	400	0,53
500	100	0,39
	150	0,43
	200	0,46
	300	0,53
	400	0,59
	500	0,66
600	100	0,46
	150	0,49
	200	0,53
	300	0,59
	400	0,66
	500	0,73

W	H	m
mm		kg
225	75	0,19
	125	0,22
	225	0,29
325	75	0,26
	125	0,29
	225	0,36
	325	0,43
425	75	0,33
	125	0,36
	225	0,43
	325	0,49
	425	0,56
525	75	0,39
	125	0,43
	225	0,49
	325	0,56
	425	0,63
	525	0,69
625	75	0,46
	125	0,49
	225	0,56
	325	0,63
	425	0,69
	525	0,76

W	H	m
mm		kg
800	100	0,59
	150	0,63
	200	0,66
	300	0,73
	400	0,79
	500	0,86
1000	100	0,73
	150	0,76
	200	0,79
	300	0,86
	400	0,93
	500	1,00
1200	100	0,86
	150	0,90
	200	0,93
	300	1,00
	400	1,06
	500	1,13

W	H	m
mm		kg
825	75	0,59
	125	0,63
	225	0,69
	325	0,76
	425	0,83
	525	0,90
1025	75	0,73
	125	0,76
	225	0,83
	325	0,90
	425	0,96
	525	1,03
1225	75	0,86
	125	0,90
	225	0,96
	325	1,03
	425	1,10
	525	1,16

Ordering Codes

Mounting frame

UR-NOVA

Dimensions

W x H

Example of the Ordering Code

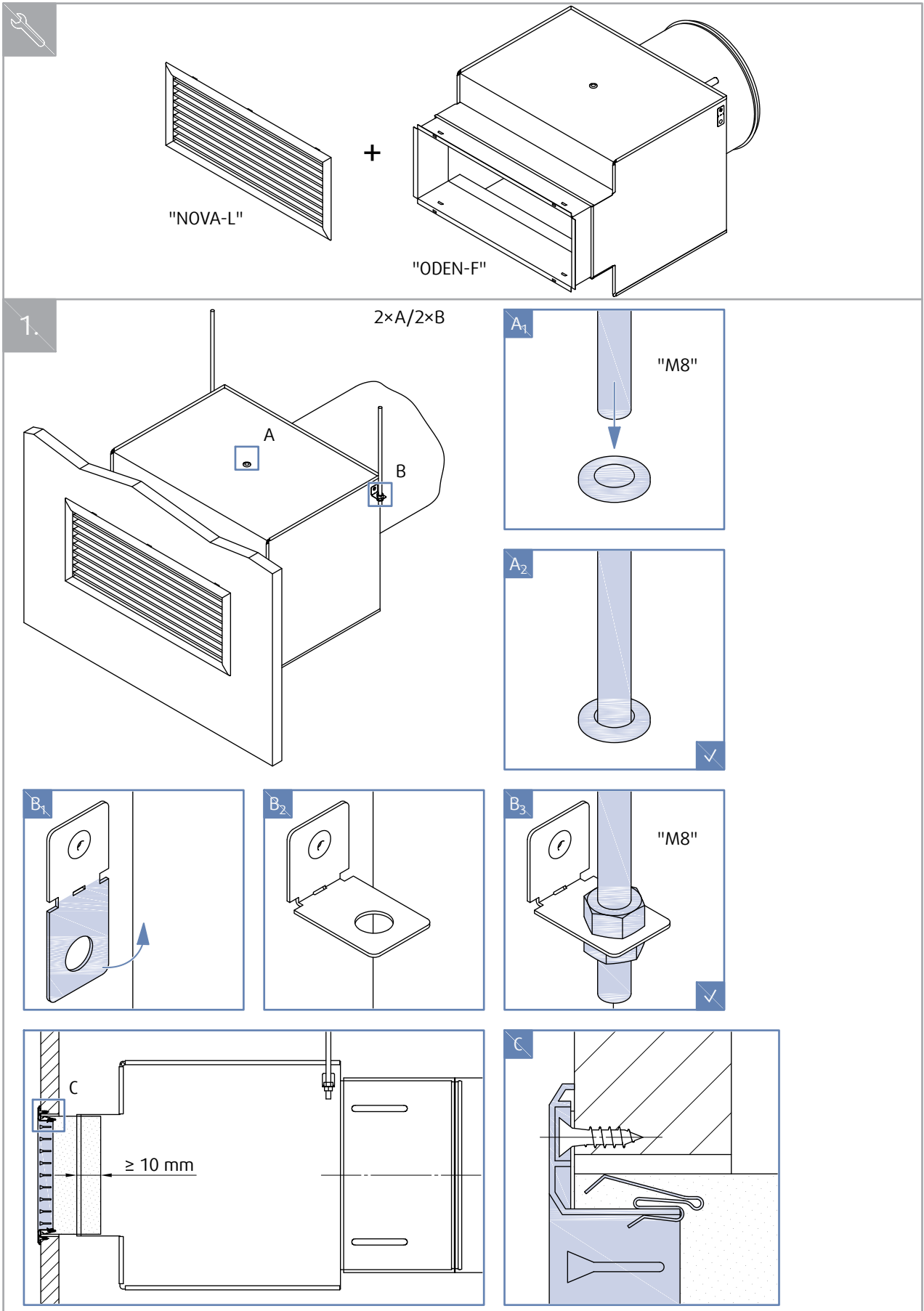
UR-NOVA-1025x125

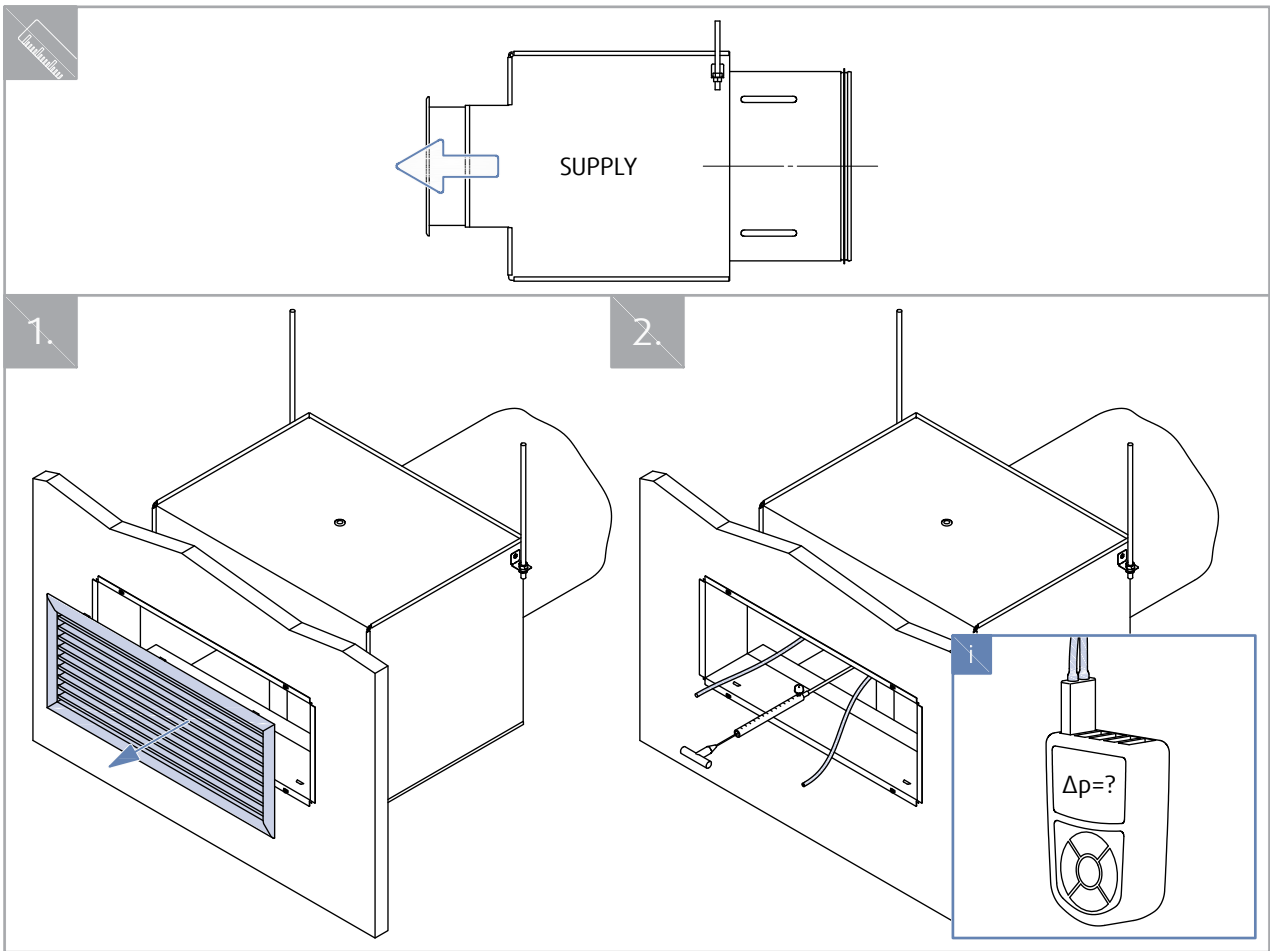
Mounting frame for NOVA, dimensions 1025 mm × 125 mm from galvanized steel.


Technical Parameters

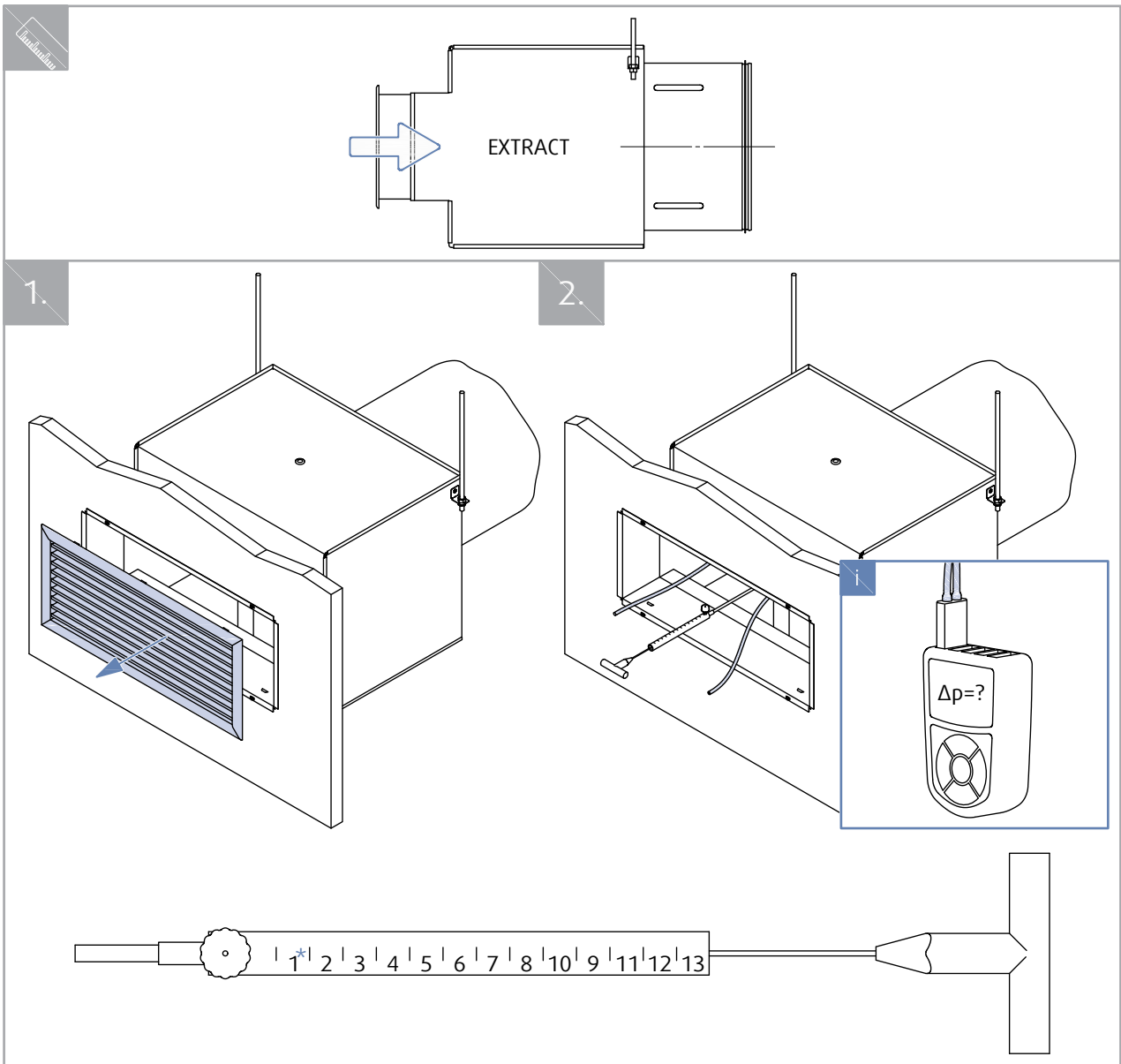
Diagrams and technical parameters are available at design.systemair.com


Installation




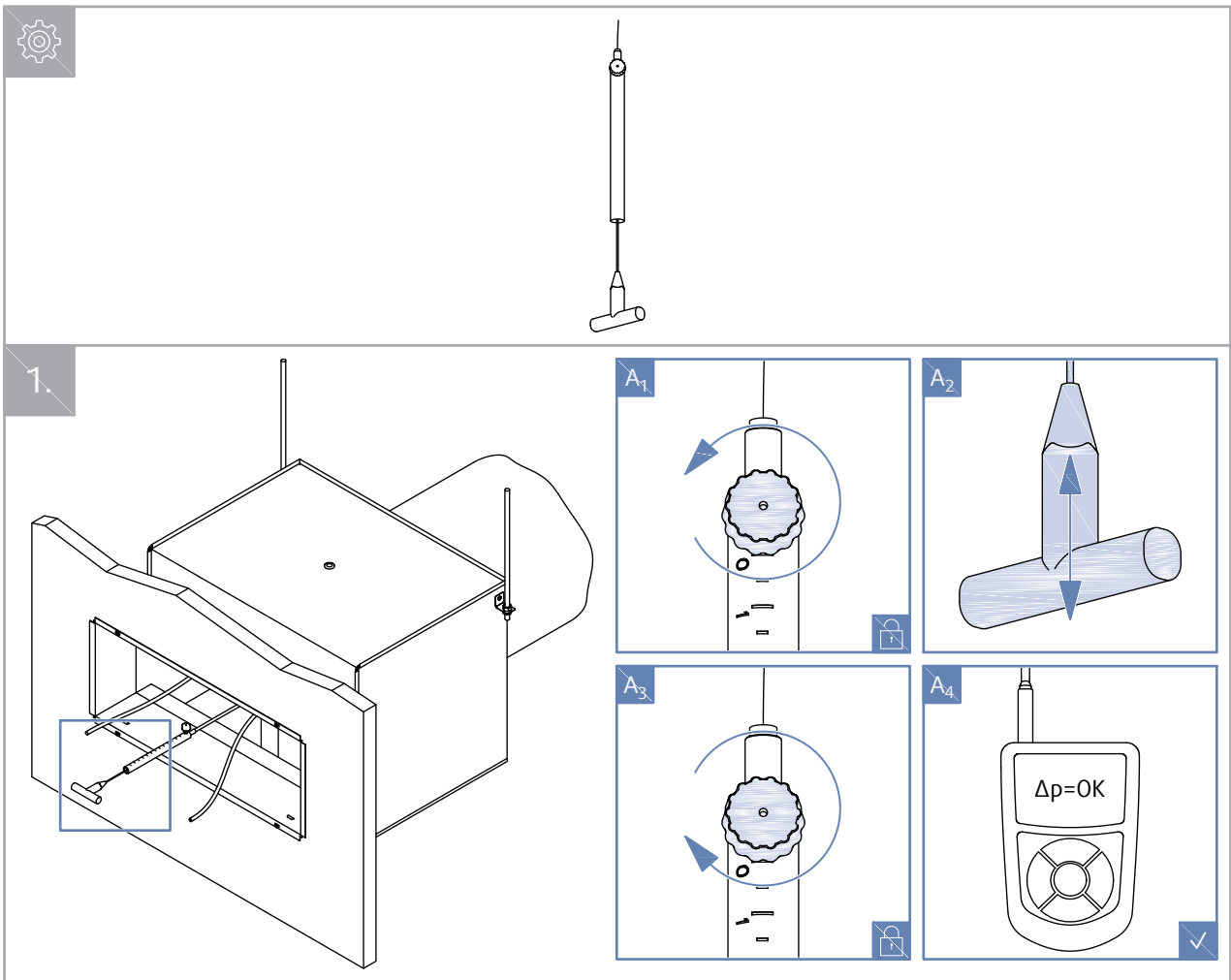


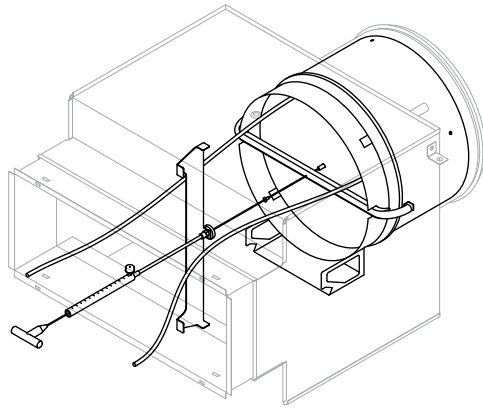
SUPPLY 	DN	k	
ODEN-F-	mm	→ q (m ³ /h)	→ q (l/s)
200×100-1	125	33,13	9,20
300×100-1	160	57,71	16,03
300×100-2			
400×100-1			
400×100-2			
300×150-1	200	91,15	25,32
300×150-2			
500×100-1			
500×100-2			
500×150-1	250	143,57	39,88
500×150-2			
400×150-1			
400×150-2			
500×200-1	315	247,55	68,76
500×200-2			
600×200-1			
600×200-2			
700×200-1			
700×200-2			
800×200-1			
800×200-2			



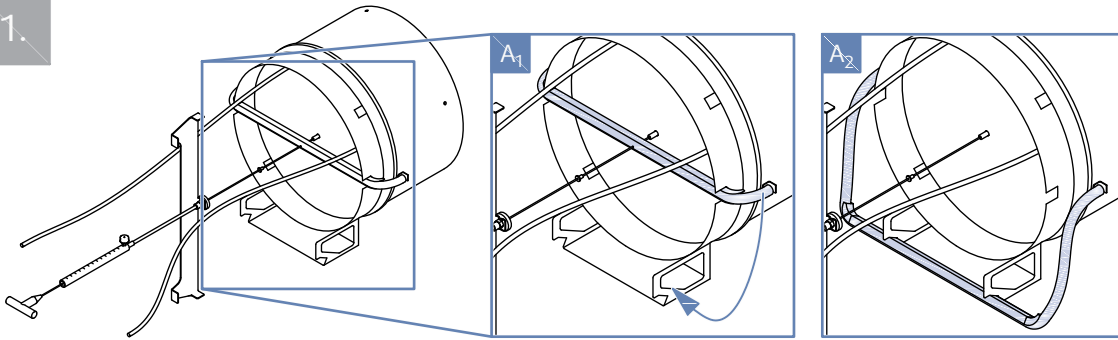
EXTRACT 	DN	*2	*3	*4	*5	*6	*7	*8	*9	*10	*11	*12	*13
	ODEN-F-	mm	$k \rightarrow q \text{ (m}^3\text{/h)}$										
200×100-1	125	39,85	35,36	30,86	26,37	22,72						-	-
300×100-1	160	65,44	54,93	44,43	33,93	23,43	37,60			43,05			-
300×100-2		52,08	46,27	40,45	35,56						40,24		-
400×100-1		67,11	58,41	49,70	41,00	32,30	34,52			38,46			-
400×100-2		70,59	61,10	51,61	42,11	33,59			38,04				-
300×150-1		124,51	104,31	84,10	63,89	43,68	57,15						-
300×150-2	200	125,55	105,27	84,99	64,70	44,42	60,90					-	
500×100-1		127,62	111,03	94,44	77,85	61,29			67,95		-		
500×100-2		125,28	108,51	91,73	74,96	59,03					-		
500×150-1		198,00	191,52	185,05	168,80				139,33				
500×150-2	250	198,26	176,47	154,69	132,90	115,01							
400×150-1		188,56	181,89	175,22	168,55	161,88	143,29	124,70	108,03				
400×150-2		212,96	190,87	168,78	146,69	124,60	116,81	106,03					
500×200-1		370,33	326,78	283,22	239,67	196,11	187,48	173,85					
500×200-2	315	409,75	354,65	299,55	244,45	189,34	174,24						
600×200-1		274,39	246,02	217,64	189,27	161,88							
600×200-2		285,17	260,57	235,96	211,36	183,63	170,80						
700×200-1		301,42	271,09	240,75	210,42	170,34							
700×200-2		67,11	58,41	49,70	41,00	33,41		37,75					
800×200-1		281,85	256,63	231,40	206,18	180,96	166,97						
800×200-2		294,80	271,96	249,13	226,29	203,46	189,41	175,36	164,09				

EXTRACT 	DN	*2	*3	*4	*5	*6	*7	*8	*9	*10	*11	*12	*13
	ODEN-F-	mm	$k \rightarrow q \text{ (l/s)}$										
200×100-1	125	11,07	9,82	8,57	7,32	6,31						-	-
300×100-1	160	18,18	15,26	12,34	9,42	6,51	10,44			11,96			-
300×100-2		14,47	12,85	11,24	10,44						11,18		-
400×100-1		18,64	16,22	13,81	11,39	8,97	9,59			10,57			-
400×100-2		19,61	16,97	14,34	42,11	9,33			10,57				-
300×150-1		34,59	28,97	23,36	63,89	43,68	15,87						-
300×150-2	200	34,88	29,24	23,61	64,70	44,42	16,92					-	
500×100-1		35,45	30,84	26,23	77,85	17,03			18,88			-	
500×100-2		34,80	30,14	25,48	74,96	16,40						-	
500×150-1		55,00	53,20	51,40	46,89				38,70				
500×150-2	250	55,07	49,02	42,97	36,92	31,95							
400×150-1		52,38	50,53	48,67	46,82	44,97	39,80	34,64	30,01				
400×150-2		59,15	53,02	46,88	40,75	34,61	32,45	29,45					
500×200-1		102,87	90,77	78,67	66,57	54,47	52,08	48,29					
500×200-2	315	113,82	98,51	83,21	67,90	52,60	48,40						
600×200-1		76,22	68,34	60,46	52,57	44,97							
600×200-2		79,21	72,38	65,54	58,71	51,01	47,45						
700×200-1		83,73	75,30	66,88	58,45	47,32							
700×200-2		18,64	16,22	13,81	11,39	9,28		10,49					
800×200-1		78,29	71,28	64,28	57,27	50,27	46,38						
800×200-2		81,89	75,55	69,20	62,86	56,52	52,61	48,71	45,58				

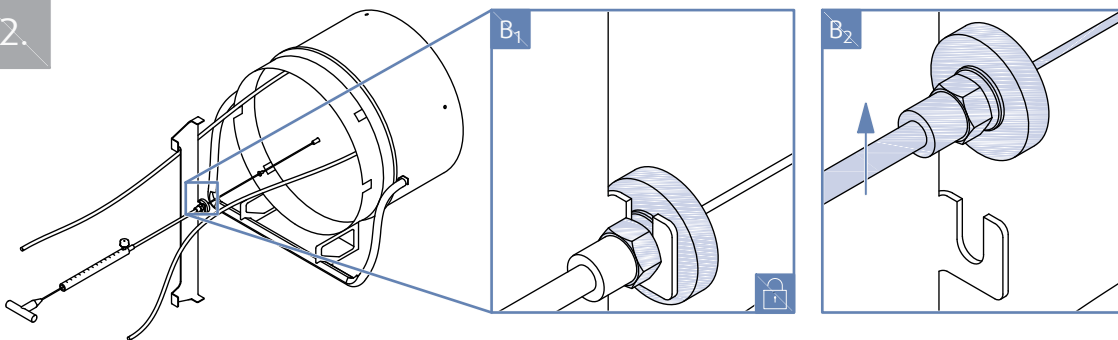




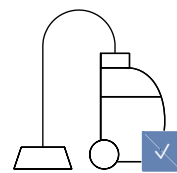
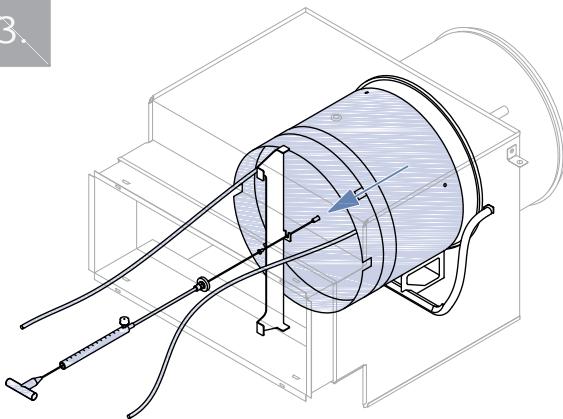
1.



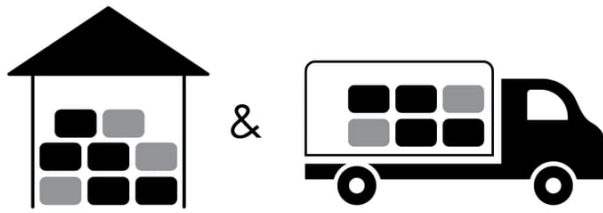
2.




3.




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.



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