

NOVA-A

An Aluminium Diffusion Grille for Rectangular Ducts



Ordering Code

		NOVA-A -	□	□	□	□	□	□	□
Single-row			1						
Double-row			2						
	screws		1						
	spring clips		2						
Mounting ¹	safety mounting mechanism		3						
Dimensions		L × H							
			R1						
Damper Type			R2						
			R3						
Mounting frame ¹			UR						
	horizontal		H						
Blades	vertical ²		V						
	anodized		AN						
	RAL9010/30		W						
Surface finish ³	other RAL color		RAL						

Ordering code example:

NOVA-A - 2 - 2 - 400 × 200 - R1 - UR - H - RAL9010

An aluminium grille for rectangular ducts with two rows of blades and mounting with spring clips, intended for a structural opening with dimensions 400 × 200 mm, type 1 damper, mounting frame included, with the first row of blades horizontally oriented and a powder paint RAL 9010 surface finish.

1. The mounting frame is not automatically included in a standard order for mounting types "1" and "2", if interested, please remember to add the "UR" option into the ordering code.
In case of mounting type "3", there is no need to enter the "UR" into the ordering code (it will be automatically included in the delivery).
2. In case the 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 eloxal surface finish as default. If a RAL color different from RAL9010 gloss 30 is required, then „RAL“ shall be written in the ordering code. The exact color definition - the RAL number - shall be stated in the notes of the order.

Description

NOVA-A is a rectangular aluminium diffusion grille with one or two rows of adjustable blades. It is adequate for usage in such premises that require a higher emphasis on appearance. The NOVA-A diffusion grille directs the air using its adjustable blades in a horizontal, as well as vertical direction. It is designed for air supply and air extract. For a balanced distribution of air through the entire diffusion grille it is recommended to use a damper or a plenum box.

Information about the NOVA grille accessories is available on page 38.

- NOVA-R1, -R2, -R3, -R4 – dampers
- NOVA-UR – mounting frame
- ODEN – plenum box
- PB-NOVA – plenum box

Mounting

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

The type “3” safety mounting mechanism consists of a ratchet/spring combination which enables the fixing of the grille by sliding it into the mounting frame with no tools required. To detach the grille from the frame the ratchet springs shall be one by one pressed by a flat screwdriver towards the grille body pulling the grille out of the frame.

IMPORTANT: For fixing type “3” the size of the installation opening for the mounting frame must be exactly according to the specification in this document (H x L dimension in the dimensions table). The mounting frame after installation must not be deformed by external forces (like by mounting into improperly formed and sized installation opening, etc.) For sufficient safety the grilles with more than 4 fixing type “3” spring ratchets are equipped by 2 chains. These must be fixed to the adjacent rigid building structure.

NOTE: for mounting type “1” it is recommended to reduce the cut-out height dimension “H” by 10mm. This helps fixing the grille in proper position.

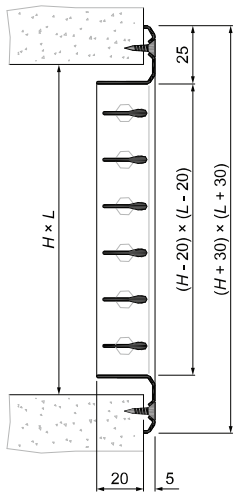
Design

Material used:

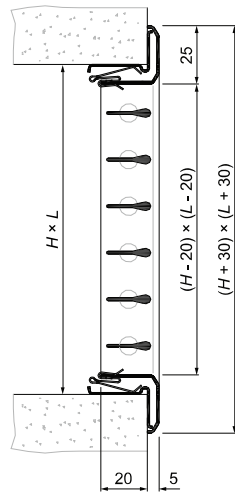
The NOVA-A diffusion grille is manufactured from aluminium profiles with eloxal coating or, if appropriate, a powder-lacquered (RAL 9010 - white) surface finish; other RAL types are available upon request.

Type of blades:

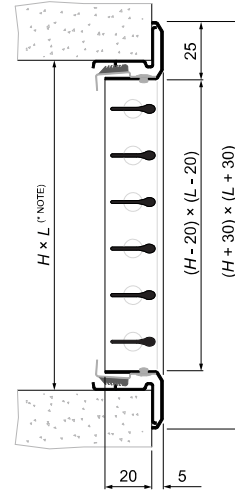
Single-row as well as double-row diffusion grilles can have both horizontal and vertical front blade alignment. The second row of blades is always perpendicular to the first row. The blades’ axial pitch is 20 mm.



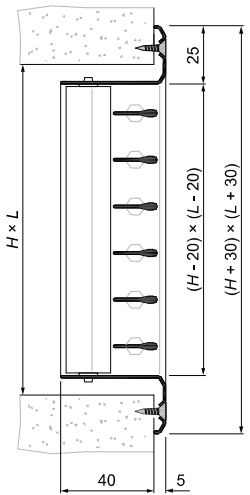
NOVA-A-1-1-LxH-H



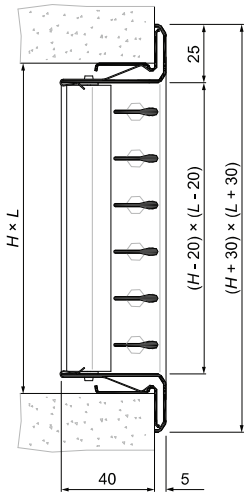
NOVA-A-1-2-LxH-H



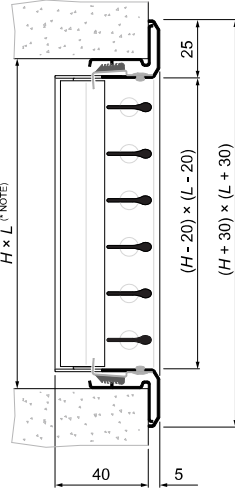
NOVA-A-1-3-LxH-H



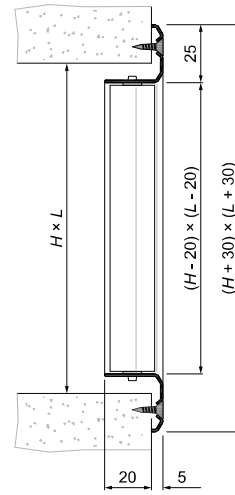
NOVA-A-2-1-LxH-H



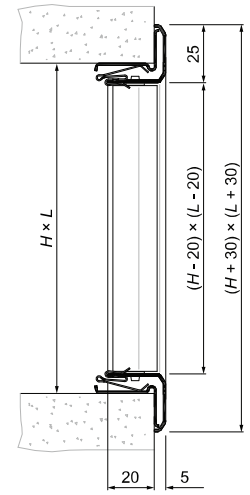
NOVA-A-2-2-LxH-H-UR



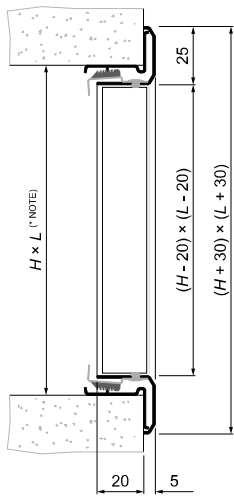
NOVA-A-2-3-LxH-H



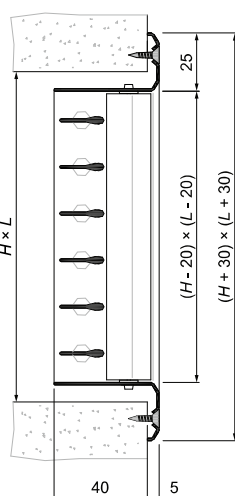
NOVA-A-1-1-LxH-V



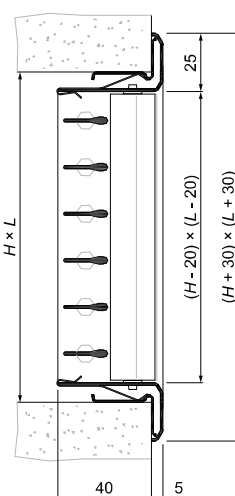
NOVA-A-1-2-LxH-V-UR



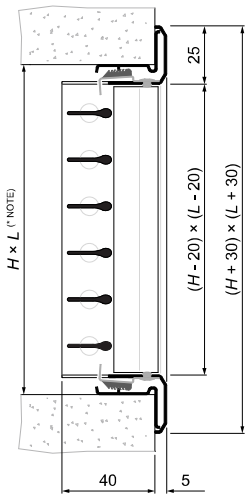
NOVA-A-1-3-LxH-V



NOVA-A-2-1-LxH-V



NOVA-A-2-2-LxH-V-UR



NOVA-A-2-3-LxH-V

Fig. 1: Basic NOVA-A dimensions and diffusion grille types

*** IMPORTANT: for installation and security information to the safety mounting mechanism „3“ see the article „Mounting“.**

NOTE: for mounting type „1“ it is recommended to reduce the cut-out height dimension „H“ by 10mm. This helps fixing the grille in proper position.

Technical Details

Dimensions

Dimensions		Free area		Weight	
L	H	A _{v1}	A _{v2}	m ₁	m ₂
(mm)		(m ²)		(kg)	
200	100	0,012	0,009	0,20	0,30
	150	0,019	0,016	0,25	0,40
	200	0,026	0,021	0,32	0,52
300	100	0,018	0,015	0,27	0,42
	150	0,030	0,024	0,34	0,57
	200	0,041	0,033	0,44	0,73
300	300	0,064	0,051	0,60	1,04
	100	0,025	0,020	0,34	0,54
	150	0,041	0,033	0,43	0,73
400	200	0,055	0,045	0,55	0,95
	300	0,086	0,070	0,77	1,35
	400	0,117	0,095	0,98	1,75
500	100	0,031	0,025	0,41	0,67
	150	0,051	0,042	0,52	0,89
	200	0,070	0,057	0,67	1,16
	300	0,109	0,088	0,93	1,66
	400	0,148	0,120	1,19	2,16
500	500	0,187	0,151	1,45	2,65
	100	0,038	0,030	0,48	0,79
	150	0,062	0,050	0,61	1,05
	200	0,085	0,068	0,79	1,38
	300	0,132	0,107	1,10	1,97
600	400	0,179	0,145	1,40	2,56
	500	0,226	0,183	1,71	3,15
	100	0,051	0,041	0,63	1,03
800	150	0,084	0,068	0,79	1,38
	200	0,114	0,092	1,03	1,81
	300	0,177	0,143	1,43	2,58
	400	0,240	0,194	1,83	3,36
	500	0,303	0,246	2,23	4,14
1000	100	0,064	0,051	0,77	1,27
	150	0,105	0,085	0,97	1,71
	200	0,143	0,116	1,26	2,23
	300	0,222	0,180	1,76	3,20
	400	0,302	0,244	2,25	4,17
1200	500	0,381	0,309	2,74	5,13
	100	0,076	0,062	0,91	1,51
	150	0,126	0,102	1,15	2,03
	200	0,172	0,139	1,50	2,66
	300	0,268	0,217	2,09	3,82
1200	400	0,363	0,294	2,67	4,97
	500	0,459	0,372	3,26	6,13

Dimensions		Free area		Weight	
L	H	A _{v1}	A _{v2}	m ₁	m ₂
(mm)		(m ²)		(kg)	
225	75	0,010	0,008	0,17	0,26
	125	0,018	0,014	0,25	0,39
	225	0,034	0,028	0,38	0,62
325	75	0,014	0,012	0,22	0,35
	125	0,026	0,021	0,33	0,53
	225	0,051	0,041	0,50	0,86
325	325	0,076	0,062	0,68	1,19
	75	0,019	0,016	0,28	0,44
	125	0,035	0,028	0,41	0,67
425	225	0,068	0,055	0,63	1,09
	325	0,100	0,082	0,85	1,52
	425	0,133	0,108	1,08	1,94
525	75	0,024	0,019	0,33	0,53
	125	0,043	0,035	0,49	0,81
	225	0,084	0,068	0,76	1,33
	325	0,125	0,102	1,03	1,85
	425	0,166	0,135	1,30	2,36
525	525	0,207	0,168	1,57	2,88
	75	0,029	0,023	0,38	0,62
	125	0,052	0,042	0,57	0,95
	225	0,101	0,082	0,88	1,56
	325	0,150	0,122	1,20	2,18
625	425	0,199	0,162	1,52	2,79
	525	0,248	0,201	1,84	3,40
	75	0,038	0,031	0,48	0,80
825	125	0,069	0,056	0,73	1,24
	225	0,134	0,109	1,14	2,04
	325	0,200	0,162	1,55	2,84
	425	0,265	0,215	1,96	3,64
	525	0,330	0,268	2,37	4,44
1025	75	0,048	0,039	0,59	0,98
	125	0,086	0,070	0,89	1,52
	225	0,168	0,136	1,39	2,51
	325	0,249	0,202	1,90	3,50
	425	0,331	0,268	2,41	4,48
1225	525	0,412	0,334	2,91	5,47
	75	0,057	0,046	0,69	1,16
	125	0,104	0,084	1,05	1,80
	225	0,201	0,163	1,65	2,98
	325	0,299	0,242	2,25	4,15
1225	425	0,396	0,321	2,85	5,33
	525	0,494	0,401	3,45	6,51

A_{v1}, m₁, ...NOVA-A-1 - single-row

A_{v2}, m₂, ...NOVA-A-2 - double-row

Tab. 1: Dimensions, free area and weight of the NOVA-A diffusion grilles

NOTE: Further technical details for the NOVA-A diffusion grilles are available on pages 14-16.