

AT

Grilles



Grille

AT



Description

AT is a transfer air grille (overflow grille), made of aluminum suitable for installation in doors and walls. Can be delivered as a single part grille or including a mating flange.

Order code

Product	AT	a	1	b	ccc x ddd	eeee
Type						
AT						
Frame						
1 - 25 mm frame						
2 - 25 mm frame + mating flange						
Grid						
1 - Fixed slanting horizontal blades						
Installation						
- Not prepared						
V Visible screw holes						
Size						
L: 200 - 1200 mm						
H: 100 - 1100 mm						
Grilles standard finish:						
- Anodized aluminium						
9010 RAL 9010, gloss 30						
9003 RAL 9003, gloss 30						
xxxx On request, other RAL colour						

Example 1: AT-21-V-800-200-9010

Example 2: AT-11-1000-400

Min. - max. dimensions

H \ L	200	↔	600	↔	1200
100					
↕					
600					
↕					
1100					

Standard grilles are available with 50 mm pitch within the above min. and max. sizes. Customized sizes available on request.

To avoid a gap between the frame and the top slanting horizontal blade the H-dimension should always end in 00-20-25-40-45-60-65-80-85.

LindQST

Use the advanced Lindab web tool LindQST to calculate the full range of grilles and to find the suitable grille type and dimension for all applications. Product selection, room dimensioning and documentation search are easy available directly on web and mobile devices. Find this and much more on www.lindQST.com.

Maintenance

The external parts should be wiped with a damp cloth.

Materials and finish

Grille frame and blades: Aluminium

Grilles standard finish:

- Aluminium anodized
- RAL 9010, gloss 30
- RAL 9003, gloss 30

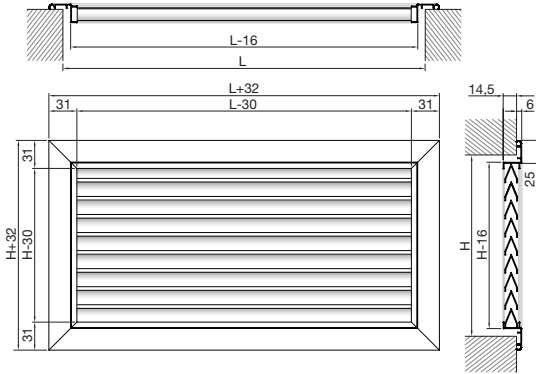
The grille is available in other colours. Please contact Lindab's sales department for further information.

Grille

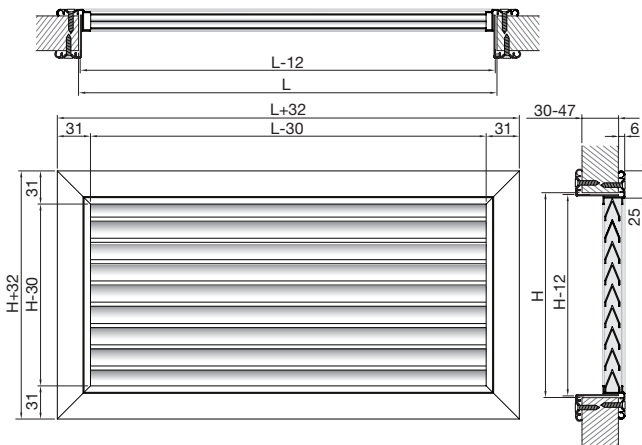
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Frame and grid

AT-11 - 25 mm frame - with fixed slanting horizontal blades.

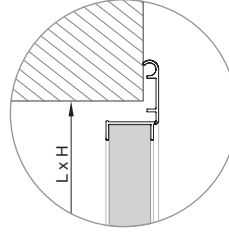


AT-21 - 25 mm frame + mating flange - with fixed slanting horizontal blades.

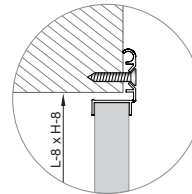


Installation

- Not prepared



V* - Visible screw holes



V

* Screws are not included.

Accessories

- No accessories

Grille

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Free area

H \ L	AT Transfer door grille												
	A _k (m ²)												
	200	250	300	350	400	450	500	550	600	700	800	900	1000
100	0,010	0,013	0,016	0,019	0,022	0,025	0,028	0,031	0,034	0,040	0,047	0,053	0,059
150	0,016	0,020	0,025	0,030	0,034	0,039	0,044	0,048	0,053	0,062	0,071	0,080	0,090
200	0,022	0,028	0,034	0,040	0,047	0,053	0,059	0,065	0,071	0,083	0,096	0,108	0,120
250	0,028	0,036	0,044	0,051	0,059	0,067	0,074	0,082	0,090	0,105	0,120	0,136	0,151
300	0,034	0,044	0,053	0,062	0,071	0,080	0,090	0,099	0,108	0,127	0,145	0,163	0,182
350	0,040	0,051	0,062	0,073	0,083	0,094	0,105	0,116	0,127	0,148	0,170	0,191	0,213
400	0,047	0,059	0,071	0,083	0,096	0,108	0,120	0,133	0,145	0,170	0,194	0,219	0,243
450	0,053	0,067	0,080	0,094	0,108	0,122	0,136	0,150	0,163	0,191	0,219	0,246	0,274
500	0,059	0,074	0,090	0,105	0,120	0,136	0,151	0,166	0,182	0,213	0,243	0,274	0,305
550	0,065	0,082	0,099	0,116	0,133	0,150	0,166	0,183	0,200	0,234	0,268	0,302	0,336
600	0,071	0,090	0,108	0,127	0,145	0,163	0,182	0,200	0,219	0,256	0,293	0,329	0,366
700	0,083	0,105	0,127	0,148	0,170	0,191	0,213	0,234	0,256				
800	0,096	0,120	0,145	0,170	0,194	0,219	0,243	0,268	0,293				
900	0,108	0,136	0,163	0,191	0,219	0,246	0,274	0,302	0,329				
1000	0,120	0,151	0,182	0,213	0,243	0,274	0,305	0,336	0,366				

Quick selection, transfer air, AT

Grille size [mm]			Air flow rate																				
			m³/h	25	50	150	225	300	375	450	525	600	675	750	825	900	975	1050	1125	1200	1275		
A _k [m²]			l/s	(7)	(14)	(42)	(63)	(83)	(104)	(125)	(146)	(167)	(188)	(208)	(229)	(250)	(271)	(292)	(313)	(333)	(354)		
H=100	200x100 (0,0097)	L _{WA} [dB(A)]	21	34																			
		V _k [m/s]	0,7	1,4																			
		Δp _t [Pa]	5	18																			
	300x100 (0,0158)	L _{WA} [dB(A)]	<20	25	46																		
		V _k [m/s]	0,4	0,9	2,7																		
		Δp _t [Pa]	2	7	61																		
400x100 (0,03)	L _{WA} [dB(A)]		<20	34	42	47																	
	V _k [m/s]		0,5	1,4	2,1	2,8																	
	Δp _t [Pa]		0	2	4	7																	
500x100 (0,0281)	L _{WA} [dB(A)]		<20	35	43	49																	
	V _k [m/s]		0,5	1,5	2,2	2,9																	
	Δp _t [Pa]		2	19	43	75																	
600x100 (0,0343)	L _{WA} [dB(A)]			31	39	45	49																
	V _k [m/s]			1,2	1,8	2,4	3																
	Δp _t [Pa]			13	29	51	80																
H=200	300x200 (0,0343)	L _{WA} [dB(A)]			31	39	45	49															
		V _k [m/s]			1,2	1,8	2,4	3															
		Δp _t [Pa]			13	29	51	80															
	400x200 (0,0466)	L _{WA} [dB(A)]			25	33	39	43	47	50													
		V _k [m/s]			0,9	1,4	1,8	2,2	2,7	3,1													
		Δp _t [Pa]			7	16	28	43	62	85													
500x200 (0,0589)	L _{WA} [dB(A)]			20	28	34	38	42	45	48	50												
	V _k [m/s]			0,7	1,1	1,4	1,8	2,1	2,5	2,8	3,2												
	Δp _t [Pa]			4	10	17	27	39	53	70	88												
600x200 (0,0712)	L _{WA} [dB(A)]			<20	25	30	35	38	41	44	46	48	50										
	V _k [m/s]			0,6	0,9	1,2	1,5	1,8	2,1	2,3	2,6	2,9	3,2										
	Δp _t [Pa]			3	7	12	19	27	36	48	61	74	90										
H=300	400x300 (0,0712)	L _{WA} [dB(A)]			<20	25	30	35	38	41	44	46	48	50									
		V _k [m/s]			0,6	0,9	1,2	1,5	1,8	2,1	2,3	2,6	2,9	3,2									
		Δp _t [Pa]			3	7	12	19	27	36	48	61	74	90									
	500x300 (0,0896)	L _{WA} [dB(A)]			<20	20	26	30	34	37	39	42	44	46	47	49							
		V _k [m/s]			0,5	0,7	0,9	1,2	1,4	1,6	1,9	2,1	2,3	2,6	2,8	3							
		Δp _t [Pa]			2	4	7	12	17	23	30	38	47	57	67	79							
600x300 (0,1081)	L _{WA} [dB(A)]			<20	22	26	30	33	36	38	40	42	44	45	47	49							
	V _k [m/s]			0,6	0,8	1	1,2	1,4	1,5	1,7	1,9	2,1	2,3	2,5	2,7	2,9	3,1						
	Δp _t [Pa]			3	5	8	12	16	21	26	32	39	46	55	63	73	82						
H=400	600x400 (0,145)	L _{WA} [dB(A)]			<20	<20	21	24	27	30	32	34	36	38	40	41	42	44	45				
		V _k [m/s]			0,4	0,6	0,7	0,9	1	1,2	1,3	1,4	1,6	1,7	1,9	2	2,2	2,3	2,4				
		Δp _t [Pa]			2	3	4	6	9	12	15	18	22	26	30	35	40	46	52				

10 ≤ LWA < 30 30 ≤ LWA < 40 40 ≤ LWA < 50

Data valid for:

- Transfer air

Terminology:

- A_k = effective free area
- V_k = effective face velocity
- Δp_t = total pressure loss
- L_{WA} = sound power level

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Technical data

Capacity

Air flow rate q_v [l/s] and [m³/h], total pressure loss Δp_t [Pa] and sound power level L_{WA} [dB(A)] can be seen in the diagram on next page for a given example.

Sound power level L_{WA}

Sound power level L_{WA} [dB(A)] can be seen in the diagram. The sound power levels apply for grilles without an opposed blade damper.

Frequency-related sound power level

The sound power level in the frequency band is defined as

$$L_{Wf} = L_{WA} + K_{ok}$$

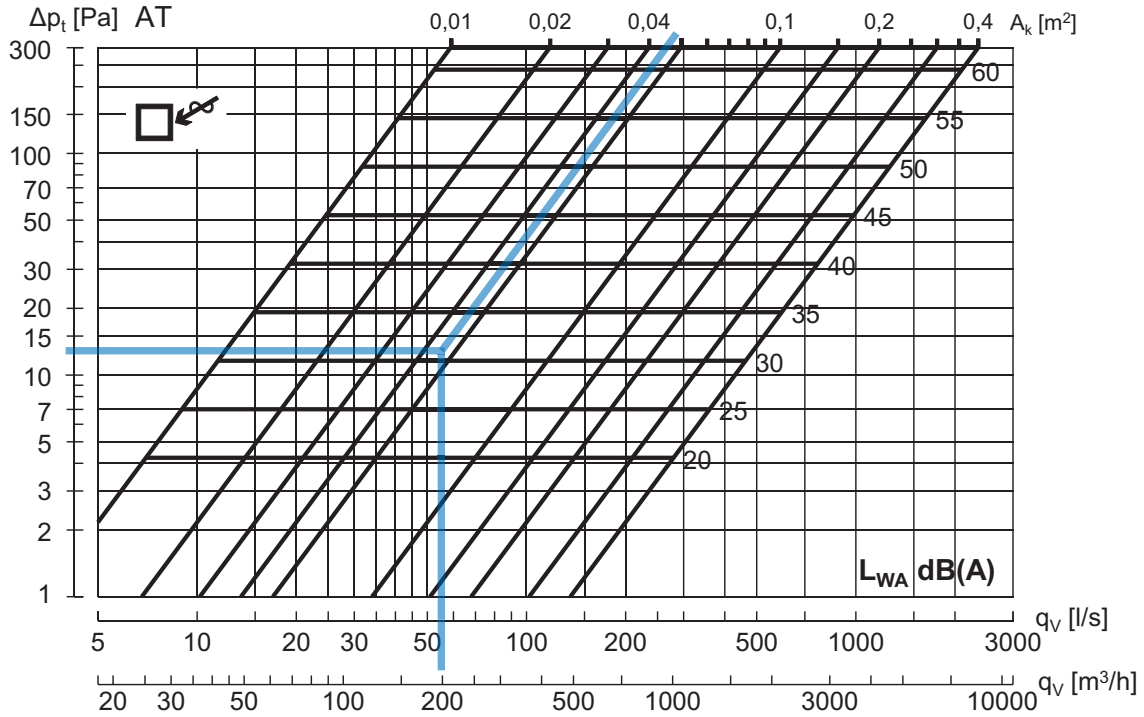
K_{ok} values are given in the table below.

	Centre frequency (f) [Hz]							
	63	125	250	500	1K	2K	4K	8K
Transfer air	-7	-5	-7	-6	-5	-8	-17	-24

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AT transfer air



Example:

Grille size (LxH): 400 × 200 mm
 Free area A_k : 0,047 m²
 Air flow rate q_v : 200 m³/h (56 l/s)
 Result:
 Sound power level L_{WA} : ~31 [dB(A)]
 Total pressure loss Δp_t : ~13 [Pa]

Data valid for:

- Transfer air

 For grilles with free area > 0,4 m², we refer to use Lindabs online calculation tool on www.lindqst.com



Good Thinking

At Lindab, good thinking is a philosophy that guides us in everything we do. We have made it our mission to create a healthy indoor climate – and to simplify the construction of sustainable buildings. We do that by designing innovative products and solutions that are easy to use, as well as offering efficient availability and logistics. We are also working on ways to reduce our impact on our environment and climate. We do that by developing methods to produce our solutions using a minimum of energy and natural resources, and by reducing negative effects on the environment. We use steel in our products. It's one of few materials that can be recycled an infinite number of times without losing any of its properties. That means less carbon emissions in nature and less energy wasted.

We simplify construction