

AFE

Low Velocity Supply Unit

20/AFE/7000/0106/EN



- Horizontal low velocity air supply at floor level
- Installation by integration into wall structure
- Detachable front plate with metallic internal structure enable cleaning of the unit and ductwork
- Rectangular duct connection at top/bottom of the unit

MATERIAL AND FINISHING

PART	MATERIAL	NOTE
Front panel	Perforated galvanised steel	
Casing	Galvanised steel	
Finishing	Polyester-epoxy-painted RAL 9010 / 30% gloss	Special colours available

QUICK SELECTION

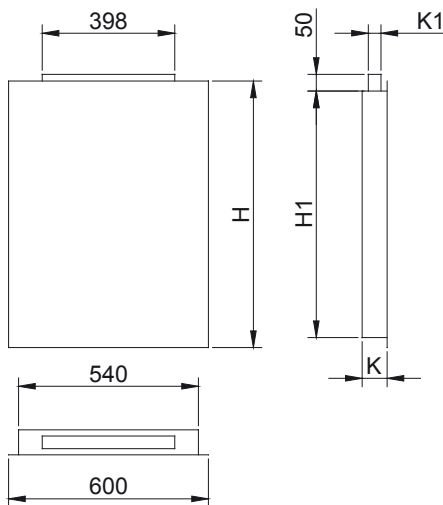
qv	l/s	40	50	60	70	80	90	100	110
	m ³ /h	144	180	216	252	288	324	360	396
AFE-400-30	LpA	20	26	32	38				
	ΔPst	6	10	14	20				
	ΔPtot	13	20	29	40				
	L0,2 (-3 °C 1.1 m)	< 0.5	< 0.5	< 0.5	< 0.5				
	L0,2 (- 3 °C)	2,0	2,5	2,9	3,3				
AFE-400-40	LpA	18	22	27	32	36			
	ΔPst	5	8	12	16	21			
	ΔPtot	9	14	20	28	36			
	L0,2 (-3 °C 1.1 m)	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			
	L0,2 (- 3 °C)	2,1	2,5	3,0	3,4	3,6			
AFE-400-60	LpA		18	20	24	28	32	35	
	ΔPst		3	4	5	7	9	11	
	ΔPtot		5	8	10	14	17	29	
	L0,2 (-3 °C 1.1 m)		< 0.5	< 0.5	< 0.5	< 0.5	0,6	0,9	
	L0,2 (- 3 °C)		2,6	3,0	3,4	3,7	4,5	4,9	
AFE-400-80	LpA		16	19	22	25	28	31	35
	ΔPst		2	3	5	6	7	9	12
	ΔPtot		4	6	8	10	12	15	19
	L0,2 (-3 °C 1.1 m)		< 0.5	< 0.5	0,5	0,6	0,7	1	1,3
	L0,2 (- 3 °C)		2,4	3,0	2,9	3,5	4,2	4,5	5,1

LpA values presented with room attenuation 4 dB (red 10m² - sab). When using room attenuation 8 dB (red 10m² - sab): LpA - 4dB.
 LpA A-weighted sound pressure level, reduced by total equivalent absorption surface of 10m², dB(A) red 10m² - sab
 ΔPst Static pressure drop, Pa
 ΔPtot Total pressure drop, Pa

L_{0,2} (-3 °C 1.1 m) Throw length, m when residual velocity of supply air jet 0,2 m/s, ΔT -3 °C in 1,1 m height
 L_{0,2} (- 3 °C) Throw length, m when residual velocity of supply air jet 0,2 m/s, ΔT -3 °C
 Room temperature (Tr) = 24 °C
 Supply air temperature (Ta) = 21 °C

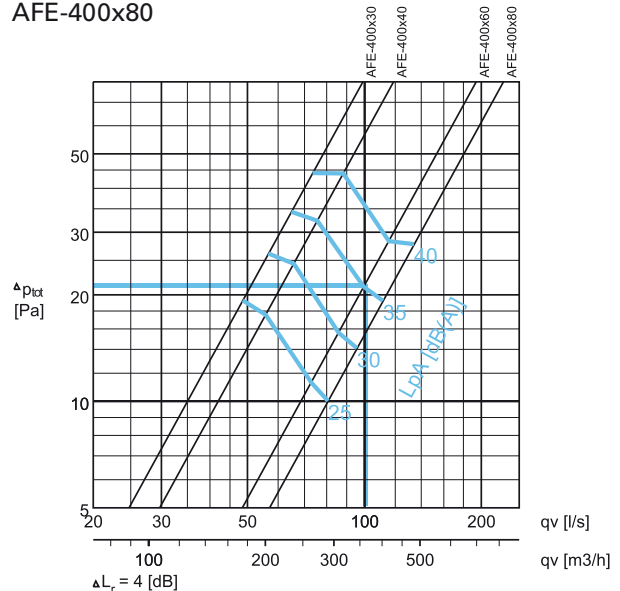
DIMENSIONS

NS	H	H1	K	K1
400x30	600	540	65	28
400x40	800	740	75	38
400x60	1000	940	95	58
400x80	1200	1140	115	78

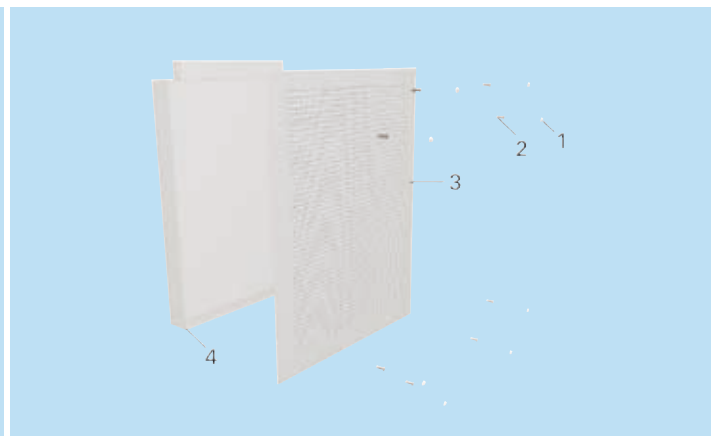


Pressure drop and sound data, supply

AFE-400x30, AFE-400x40, AFE-400x60, AFE-400x80



Selection example :
 Requirements : qv = 100 l/s
 LpA ≤ 35 dB(A)
 Selection : AFE-400x60
 ΔPtot = 21 Pa
 LpA = 35 dB(A)



Function

Air is supplied into the space through the front panel of the unit, normally at a slightly lower temperature than the room air temperature.

The supply air flows down to floor level and gradually pervades at low velocity level the occupied space and finally rises up due to the convection of warm surfaces.

The low velocity flow pattern is directed forwards.

Openable and cleanable unit with non-clogging design.

Note: The flow pattern data is for a unit installed flush with a wall at floor level.

Servicing

CODE DESCRIPTION

1	Cover plug
2	Screw
3	Front panel
4	Casing

Open the front panel (3) by unscrewing the screws (2) under the cover plugs (1). Pull out the front panel. Clean the parts using a brush or damp cloth instead of immersing in water. Reassemble in reverse order when attaching the front panel to the casing (4).

SOUND LEVEL DATA, SUPPLY

	qv		ΔP_{st} (Pa)	ΔP_{tot} (Pa)	F (Hz)								LpA [dB(A)]	NR	NC
	(l/s)	(m ³ /h)			63	125	250	500	1000	2000	4000	8000			
AFE-400x30	49	176	9	19	43	26	26	29	23	10	16	18	25	21	19
	57	205	13	26	44	28	30	34	30	19	17	19	30	26	24
	65	234	17	34	45	30	33	38	36	26	18	20	35	32	30
	73	263	22	44	45	31	36	42	42	33	20	20	40	38	37
AFE-400x40	56	202	10	18	47	29	23	28	24	5	12	18	25	21	18
	66	238	14	24	48	30	28	33	30	17	13	19	30	26	25
	76	274	19	32	49	31	33	38	36	27	14	20	35	32	30
	88	317	26	44	49	31	36	41	41	34	20	20	40	37	36
AFE-400x60	73	263	6	11	47	26	28	29	19	6	13	18	25	21	19
	86	310	8	16	48	27	32	35	27	13	15	19	30	27	25
	100	360	11	21	49	28	36	40	34	19	17	20	35	32	31
	115	414	14	28	49	29	38	44	40	28	18	20	40	37	35
AFE-400x80	81	292	6	10	46	25	29	30	15	16	11	17	25	21	20
	96	346	9	14	47	28	33	36	23	19	12	18	30	27	26
	112	403	12	19	48	30	36	41	31	21	13	19	35	33	32
	134	482	17	28	48	32	39	44	38	29	20	21	40	37	36

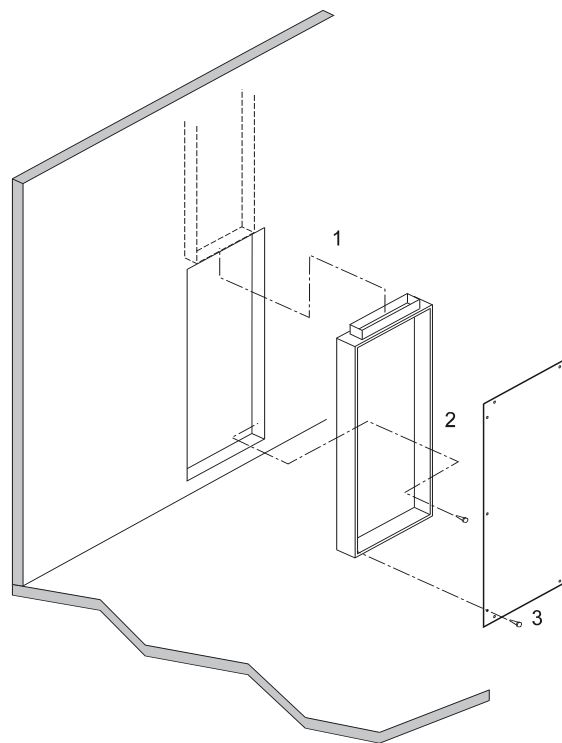
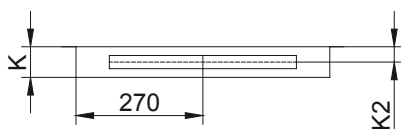
LpA values presented with room attenuation 4 dB (red 10m² - sab). When using room attenuation 8 dB (red 10m² - sab): LpA - 4dB.
NR/NC noise criteria

Installation

Perform the installation in the numerical order.

1. Locate the diffuser within the wall space and connect the ductwork.
2. Fix the diffuser to the wall from inside the casing.
3. Screw the front plate to the casing and hide the screws with the plastic plugs delivered with the diffuser.

Duct installation



AFE	K	K2
400x30	65	27
400x40	75	32
400x60	95	42
400x80	115	52

Suggested specifications

The low velocity unit shall be made of polyester-epoxy-painted hot galvanized steel, with a robust, maintenance free, non-clogging design and with a standard white (RAL 9010) colour.

The unit shall comprise a detachable perforated front panel with a flow equalization element and casing.

The unit shall have a rectangular duct connection at the top or bottom depending on where the unit is located.

Product code

AFE-D

D = Size of duct connection

400 x 30

400 x 40

400 x 60

400 x 80

Specifics and accessories

CO = Colour

W White

X Special colour

Code example

AFE-400x30, CO=W