



## FUNCTION

Air is supplied into the space through the front panel of the device, normally at a slightly lower temperature than the room. The incoming air flows down to floor level and gradually pervades the lower level of the occupied space. The low velocity flow pattern is circular, allowing workstations to be located adjacent the device.

## MATERIAL AND FINISHING

The AFC consists of a casing, detachable front panel (10% perforation) and a fixed flow equalization inner structure. The unit is made of epoxy-painted galvanized steel, with white RAL 9010 (30% gloss) as the standard colour. The device contains a detachable coupling sleeve with a gasket.

## ACCESSORIES

- AB/AFC : base (2).
- SB/AFC: base, store model..
- DC/AFC : duct cover 1000, 1500 or 2000 mm (1).

## OPTIONS

- Acid Proofed Steel AISI 316 construction.
- Thicker front panel (1.5 mm).
- Smaller connection for the unit.
- Duct cover (DC) made of perforated plate (same as AFC).

## DIMENSIONS

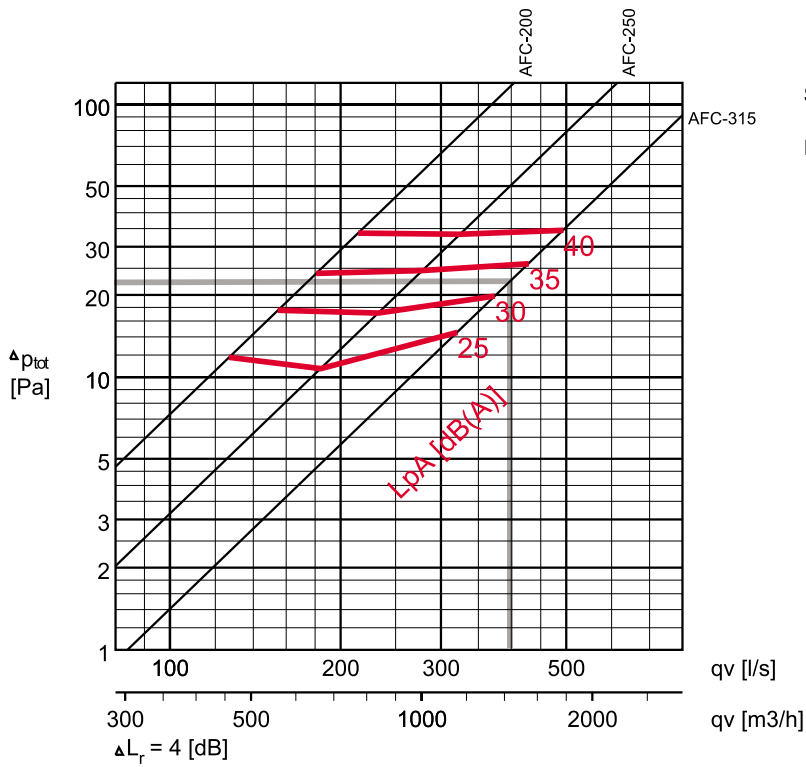


NS	B	D	H	L
200	286	199	1000	40
250	336	249	1200	40
315	406	314	1200	40
400	506	399	1800	40
500	636	499	1800	50
630	806	629	1800	50

- AB/AFC base : height = 50 mm (200 ..315), and 100 mm (400...630).
- SB/AFC base store model : height = 200 mm, B=B+120.

# PRESSURE DROP AND SOUND DATA, SUPPLY

AFC-200, AFC-250, AFC-315

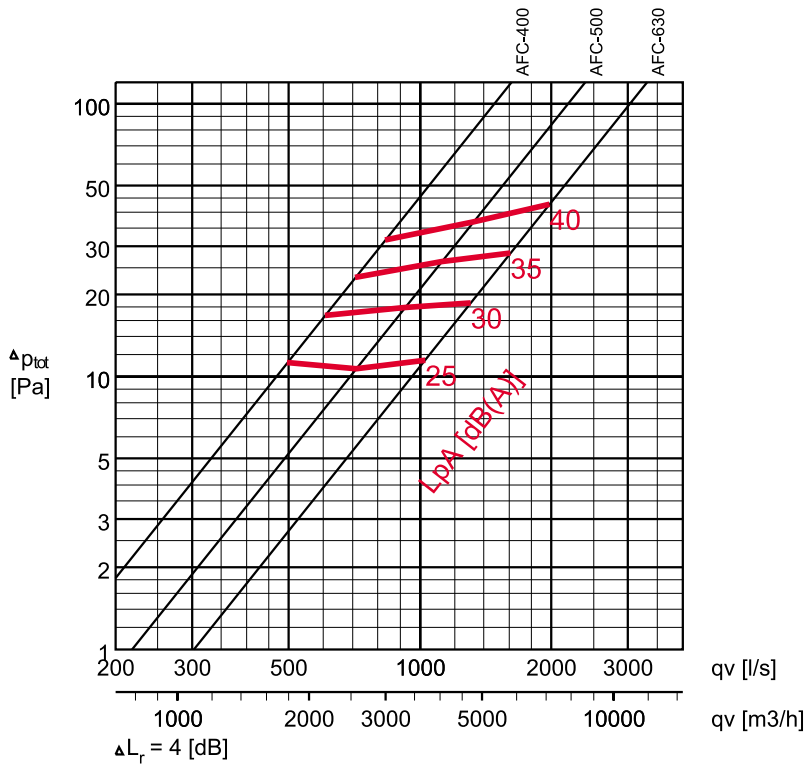


Selection example :

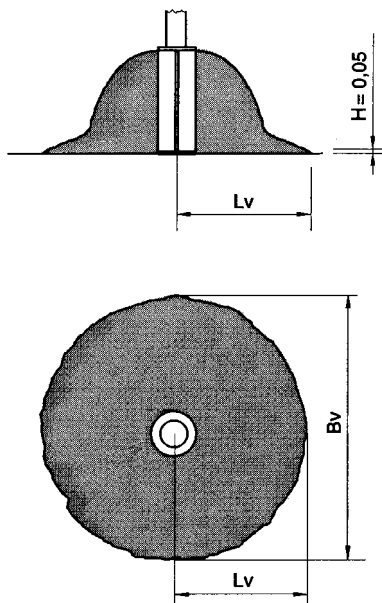
Requirements :  $q_v = 400$  l/s  
 $L_{pA} \leq 35$  dB(A)

Selection : AFC-315  
 $\Delta p_{tot} = 23$  Pa  
 $L_{pA} = 32$  dB(A)

AFC-400, AFC-500, AFC-630



# NEAR ZONE



H = 0,05 m	Qv		L <sub>pA</sub> [dB(A)]	ΔP <sub>tot</sub> (Pa)	v = 0,20 m/s		v = 0,35 m/s	
	(l/s)	(m³/h)			L (m)	B (m)	L (m)	B (m)
AFC-200	127	457	25	12	<0,5	<0,5	<0,5	<0,5
	155	558	30	18	<0,5	<0,5	<0,5	<0,5
	181	652	35	24	0,7	0,6	<0,5	<0,5
	215	774	40	34	1,8	1,6	<0,5	<0,5
	254	914	45	47	2,4	2,2	<0,5	<0,5
AFC-250	184	662	25	11	1,3	2,6	<0,5	<0,5
	233	839	30	17	1,6	3,2	<0,5	<0,5
	279	1004	35	25	1,8	3,6	<0,5	<0,5
	324	1166	40	33	2,0	4,0	<0,5	<0,5
	380	1368	45	46	2,4	4,8	<0,5	<0,5
AFC-315	321	1156	25	15	2,3	4,6	<0,5	<0,5
	374	1346	30	20	2,5	5	<0,5	<0,5
	429	1544	35	26	2,8	5,6	<0,5	<0,5
	494	1778	40	34	3,1	6,2	<0,5	<0,5
	590	2124	45	49	3,6	7,2	0,6	1,2
AFC-400	495	1782	25	11	2,8	3,92	<0,5	<0,5
	604	2174	30	17	3,4	4,76	0,5	1,0
	709	2552	35	23	3,8	5,3	0,8	1,6
	832	2995	40	32	4,4	6,2	1,4	2,8
	960	3456	45	42	5,0	7,0	1,7	3,4
AFC-500	722	2599	25	11	3,6	7,2	<0,5	<0,5
	923	3323	30	18	4,2	8,4	<0,5	<0,5
	1116	4018	35	26	5,1	10,2	0,7	1,4
	1323	4763	40	37	6,0	12,0	1,1	2,2
	1550	5580	45	50	6,5	13,0	1,7	3,4
AFC-630	1027	3697	25	11	4,8	9,6	<0,5	<0,5
	1308	4709	30	19	5,8	11,6	1,0	2,0
	1614	5810	35	28	6,8	13,6	2,0	4,0
	1981	7132	40	43	7,8	15,6	3,0	6,0
	2420	8712	45	64	9,2	18,4	4,5	9,0

ΔL<sub>r</sub> = 4 dB, ΔT = -3°C

# SOUND LEVEL DATA, SUPPLY

	Qv		$\Delta P_{st}$ (Pa)	$\Delta P_{tot}$ (Pa)	F (Hz)								$L_{pA}$ [dB(A)]	NR	NC
	(l/s)	(m <sup>3</sup> /h)			63	125	250	500	1000	2000	4000	8000			
AFC-200	127	457	2	12	42	31	25	28	22	9	17	22	25	25	22
	155	558	3	18	43	31	30	34	30	18	17	22	30	26	24
	181	652	4	24	44	31	33	38	36	25	17	22	35	32	30
	215	774	6	34	44	34	38	42	41	33	23	22	40	37	36
AFC-250	184	662	2	11	44	25	26	31	17	5	14	17	25	22	21
	233	839	4	17	44	30	31	35	27	17	18	21	30	27	25
	279	1004	5	25	44	35	36	38	35	25	21	23	35	31	30
	324	1166	7	33	44	38	39	41	42	32	24	26	40	38	36
AFC-315	321	1156	4	15	40	28	30	29	22	8	6	20	25	23	20
	374	1346	6	20	41	31	34	34	29	17	10	20	30	26	24
	429	1544	8	26	42	34	38	38	35	25	14	20	35	31	30
	494	1778	10	34	43	37	40	42	41	32	20	20	40	37	38
AFC-400	495	1782	2	11	49	33	29	27	17	12	16	20	25	23	20
	604	2174	3	17	52	33	33	33	27	19	19	23	30	27	23
	709	2552	4	23	54	33	37	38	34	25	22	26	35	30	29
	832	2995	5	32	52	37	41	42	41	32	25	27	40	37	35
AFC-500	722	2599	3	11	39	28	29	30	17	9	16	17	25	22	20
	923	3323	5	18	46	32	34	34	28	18	18	22	30	26	24
	1116	4018	7	26	52	34	38	37	35	24	19	29	35	32	29
	1323	4763	10	37	57	37	41	41	42	30	22	32	40	38	36
AFC-630	1027	3697	5	11	51	28	26	27	15	9	10	22	25	25	22
	1308	4709	8	19	55	32	32	31	24	15	14	29	30	32	29
	1614	5810	12	28	58	35	36	34	32	19	17	38	35	38	35
	1981	7132	18	43	61	38	40	38	39	24	19	40	40	43	39

$\Delta L_r = 4$  dB

## SPECIFICATION

The Halton AFC displacement unit shall be furnished and installed where shown on the working drawings. It shall be made of epoxy-painted galvanized steel, with a robust, maintenance free, non-clogging structure and white (RAL 9010) as the standard colour. The AFC shall incorporate a detachable perforated

front panel, and an internal fixed flow equalization element. Air distribution into the occupied zone shall be over the entire surface area, with uniform low velocity and noise, even with large airflow rates. A large range of accessories (duct cover, base, cover list) shall be available.



# PRODUCT CODE

AFC - D

Size of connection  
200,250,315,400,500,630

## Specifics and accessories

SD=, MA=, TP=, CO=, CP=, AC=

Accessories  
DC/AFC=Duct cover  
SB/AFC=Base, store model  
AB/AFC=Base

Plastic Strip Color  
W=White  
G=Grey  
B=Black  
L=Blue

Color  
W=White  
X=Special RAL colour (add code)

Thicker front panel (1.5mm)  
N=No  
Y=Yes

Material  
CS=Steel  
AS=Stainless steel /AISI316

D Special size of duct conn.  
200 160  
250 160,200  
315 160,200,250  
400 160,200,250,315  
500 160,200,250,315,400  
630 160,200,250,315,400,500

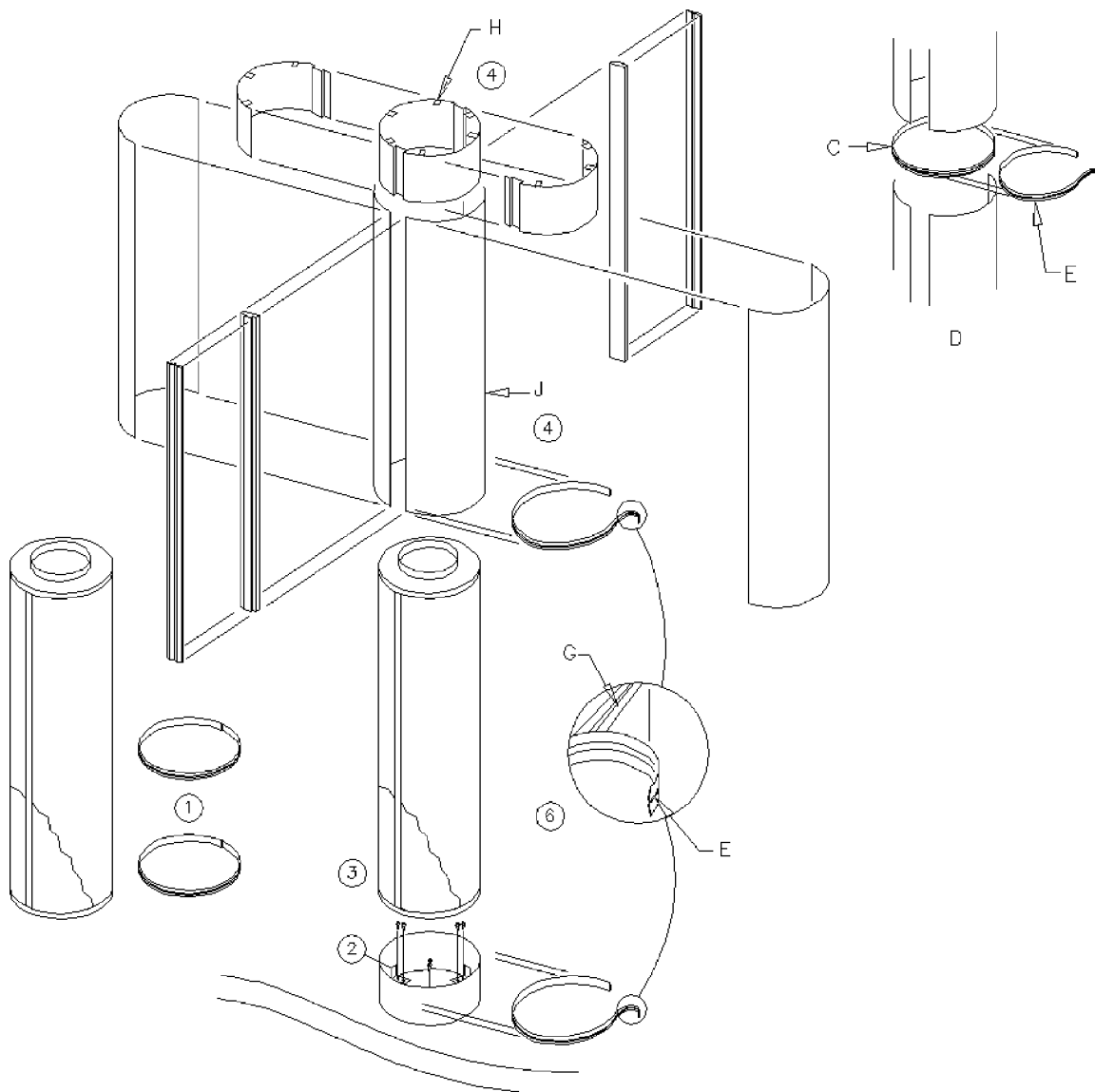
## Example

AFC-315; SD=200;MA=AS;TP=N;CO=W;AC=SB

# INSTALLATION

Perform the installation in the numerical order.

1. Remove plastic cover strips (E) from unit.
  2. Locate AS base in position on floor and secure in place with angle brackets (3 places equi-spaced).
  3. Locate unit onto AS base.
  4. After installation of ductwork locate DC duct cover as follows :  
Position top sections (H) together against ceiling and fix into position.  
Locate main sections (J) on top flange of unit and secure to top sections.
  5. Secure DC duct cover with screws.
  6. Re-fit plastic cover strips between DC duct cover and AF unit, and between AS base and AF unit by bending strip back on itself (E) and pressing bead into groove in flange (G).
- When multiple sections of DC duct cover are used (D) an aluminium coupling flange (C) is needed.



## SERVICE

To open the front panel (2). First remove the plastic strips (1) and undo the screws under them. Pull out the front panel. If required, the inner structure (3) can be detached by undoing the fixing screws. Pull out the inner structure. Reassemble in reverse order. Clean the parts with a brush or damp cloth. Reassemble after cleaning.



NUMBER	NAME
1	PLASTIC STRIPS
2	FRONT PANEL
3	INNER STRUCTURE
4	CASING