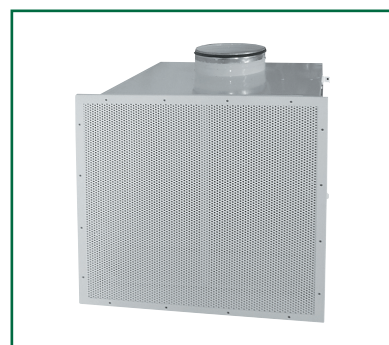
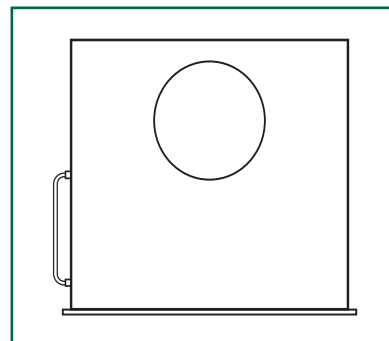


Exhaust air device for clean rooms SPWH, SPWV



Exhaust air devices SPWH and SPWV for clean rooms are intended for ceiling or wall installation in premises where the requirements for very clean air are high, for example clean rooms, pharmaceutical industries, etc. SPWH has duct connection placed at the side of the terminal box and SPWV has duct connection positioned on the top.

The device includes a HEPA filter of class H13 or H14 according to PN-EN1822-1, which ensures a very high degree of filtration.

Integral measurement sockets in the device mean that the pressure drop can be measured and that any filter leakage can be identified. Excessively high pressure drops across the filter also indicate that it should be replaced.

SPWH(V) is made of painted steel sheet, and its construction makes filter replacement quick and easy. On request diffuser can be also equipped with filter class H11.

Product facts

Exhaust air device SPWH(V)

Intended for ceiling or wall installation.

Has an integrated connection box.

Equipped as standard with a HEPA filter of class H13 or H14.

Four sizes with a broad air flow range.

Available with both circular and rectangular connections.

Quick selection

Size	Max airflow for SPWH(V) with filter H13		Max airflow for SPWH(V) with filter H14		Airflow l/s (m ³ /h) at sound level		
	l/s	m ³ /h	l/s	m ³ /h	25dB(A)	30dB(A)	35dB(A)
SPWH(V) 30	78	280	46	165	69 (249)	-	-
SPWH(V) 45	175	630	103	370	129 (463)	157 (566)	-
SPWH(V) 53	242	870	142	510	153 (550)	189 (682)	235 (847)
SPWH(V) 61	308	1110	181	650	182 (655)	229 (826)	289 (1041)

In order to keep the work of diffuser normal, it is recommended to not exceed the maximum airflow values given in above table.

Product code example:

Exhaust air diffuser with filter SPWH-61-2-14-1

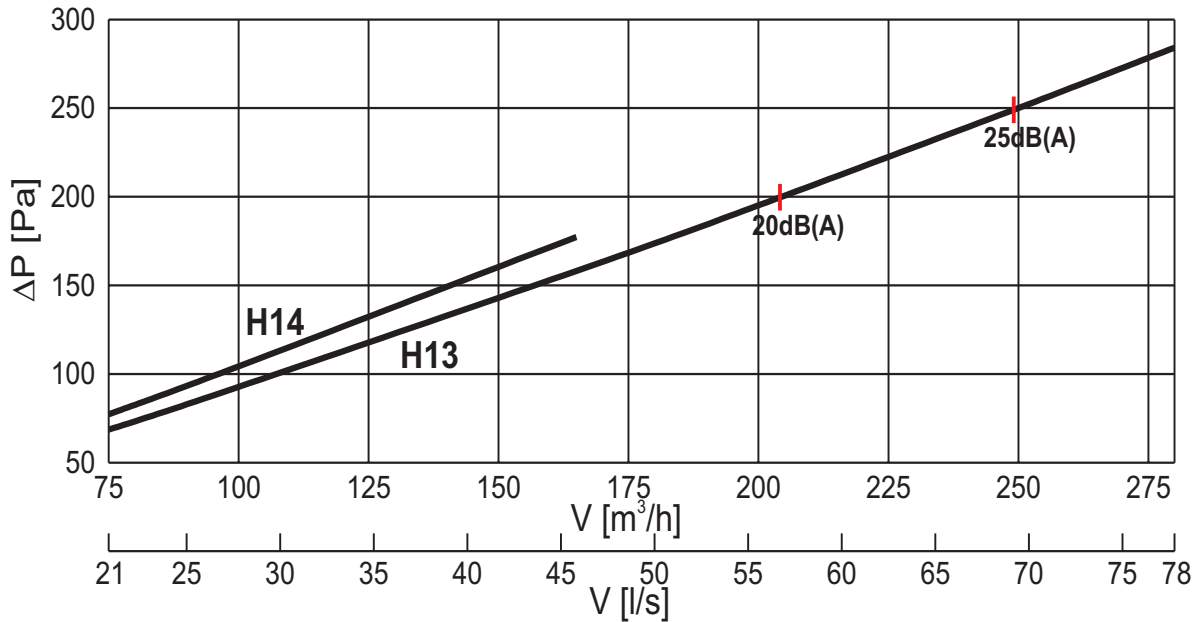
Device of size 61 with rectangular connection with a HEPA filter of class H14 size 610x610x69mm. Duct connection on the side.

The diffuser is painted in colour RAL 9010.

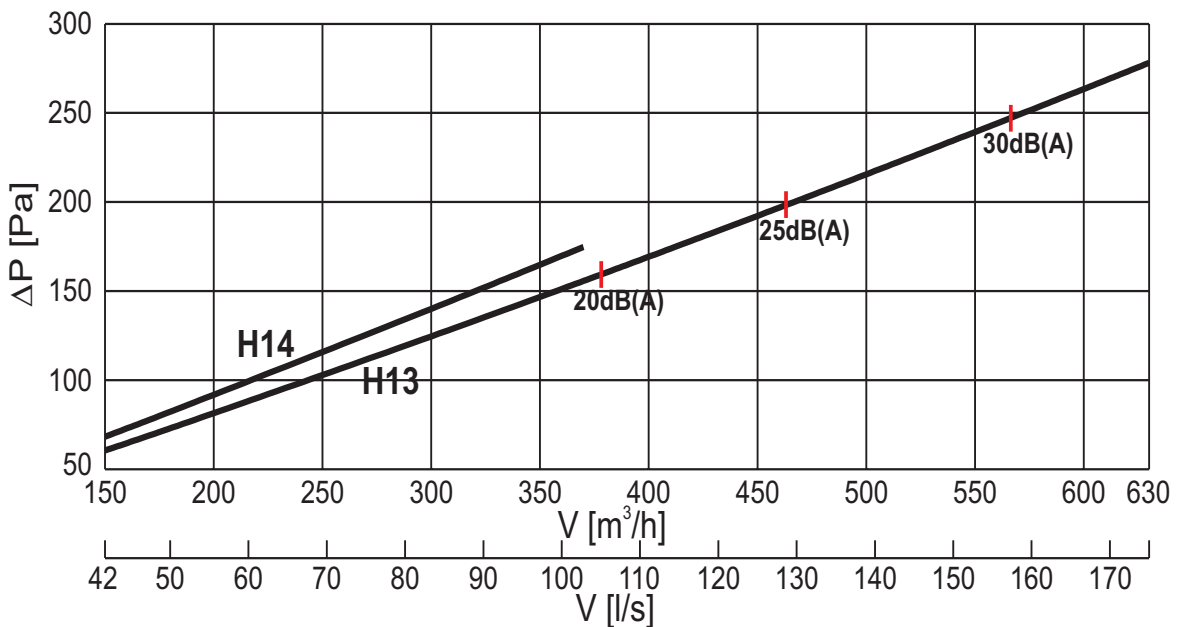
AIRTREND Ltd
 Predstavništvo u Beogradu
 Kumanovska 14, 11000 Beograd
 Tel: 011/3836886, 3085740
 Faks: 011/3444113
 e-mail: gobrid@eunet.rs
 web: www.airtrend.rs

Air flow, pressure drop, sound levels

SPWH, SPWV 30



SPWH, SPWV 45

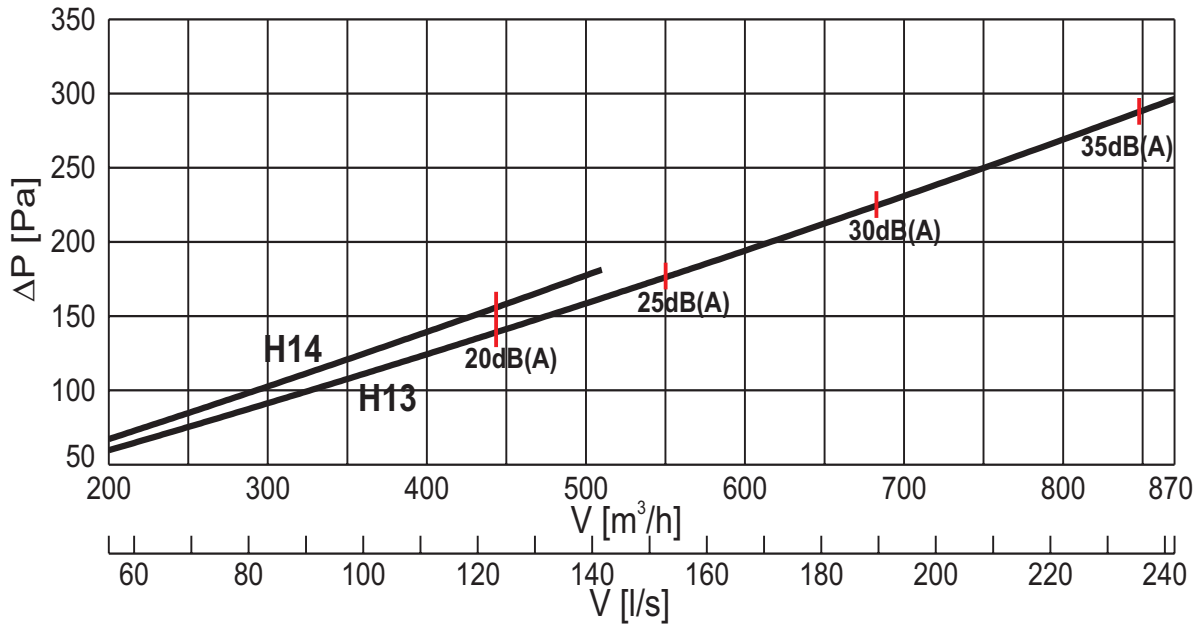


Pressure drop for a complete SPWH(V) terminal with an original filter of class H13 and H14 with height H = 69 mm

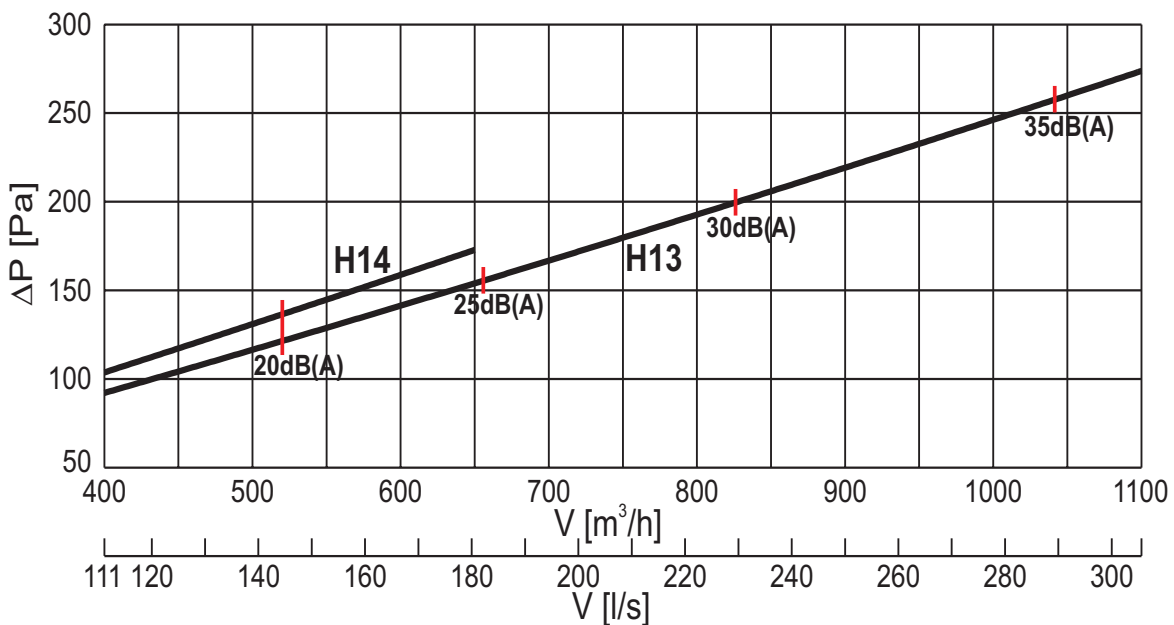
In the above graphs the sound levels in dB(A) are indicated for a reference room with 10 m² room absorption, equivalent to 4 dB room attenuation. $L_W = L_{A10} + K_{OK}$

Air flow, pressure drop, sound levels

SPWH, SPWV 53



SPWH, SPWV 61



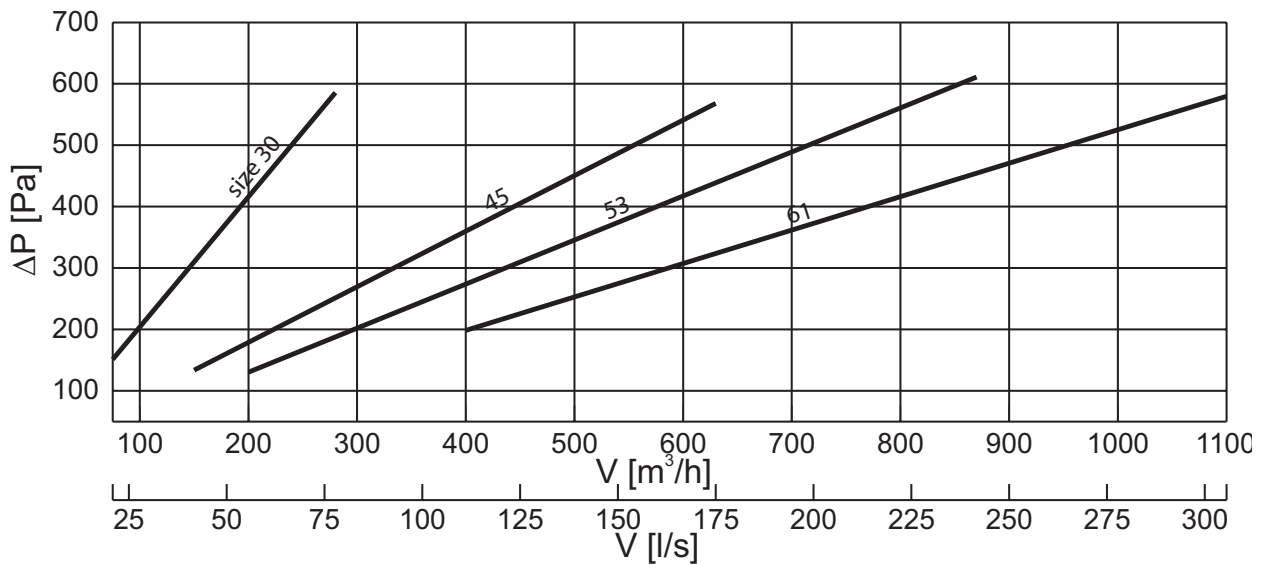
Pressure drop for a complete SPWH(V) terminal with an original filter of class H13 and H14 with height H = 69 mm

In the above graphs the sound levels in dB(A) are indicated for a reference room with 10 m² room absorption, equivalent to 4 dB room attenuation. $L_w = L_{A10} + K_{OK}$

Final pressure drop

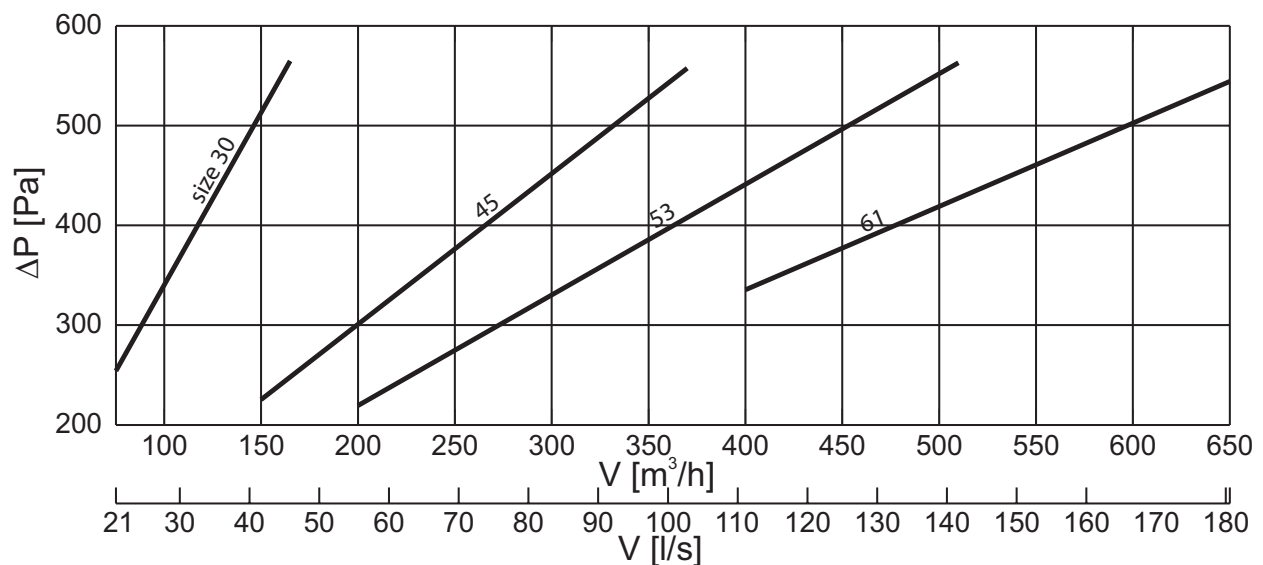
Final pressure drop for terminal with a HEPA filter of class H13

The final pressure drop for the terminal indicates when the filter requires replacement. Measurement is performed with the help of the measurement tube.



Final pressure drop for terminal with a HEPA filter of class H14

The final pressure drop for the terminal indicates when the filter requires replacement. Measurement is performed with the help of the measurement tube.



Acoustical data and dimensions

The sound power levels for different octave bands are obtained by adding together the sound pressure level L_{A10} , dB(A), from the graphs, and the corrections K_{ok} for the octave bands in the table with the help of the following formula:

$$L_W = L_{A10} + K_{ok}$$

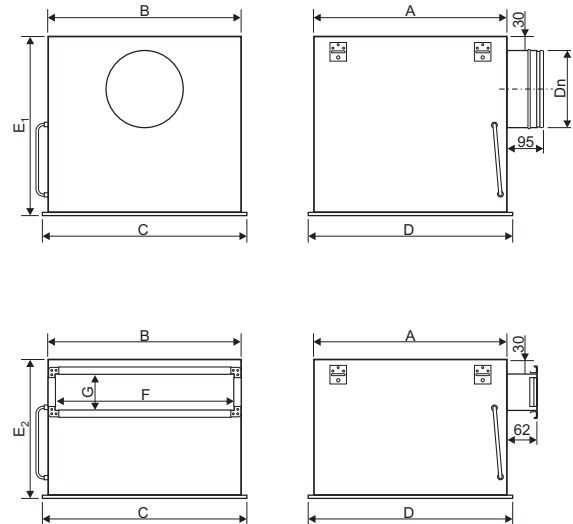
Correction K_{OK}

Size	Correction K_{ok} in dB for octave bands, mean frequency, Hz							
	63	125	250	500	1000	2000	4000	8000
30	14	11	7	2	-3	-8	-15	-21
45	14	13	4	0	-2	-7	-14	-23
53	18	15	9	2	-4	-10	-13	-22
61	17	16	9	-3	-9	-11	-19	-24

Definitions

q	air flow	$l/s, m^3/h$
Δp	pressure drop	Pa
Δp_{max}	final pressure drop (indicates filter replacement)	Pa
L_{A10}	sound pressure level with a room attenuation of 4 dB (10 m ² room absorption area)	dB(A)
L_W	sound power level	dB
K_{ok}	octave band correction	dB

Terminal dimensions



Size	A	B	C	D	E ₁	E ₂	F	G	Dn
30	334	334	384	384	405	330	300	80	160
45	486	486	536	536	445	330	450	80	200
53	556	556	606	606	497	330	520	80	250
61	640	640	690	690	497	330	600	80	250

All dimensions are indicated in mm.

Filter dimensions

Size	length x width (mm)	H (mm)
30	305 x 305	69
45	457 x 457	69
53	535 x 535	69
61	610 x 610	69

Descriptive text, product code

Descriptive text

Supply air terminal SPW for clean rooms for ceiling installation with a HEPA filter of class H13 or H14 and with circular/rectangular duct connection manufactured by Fläkt Woods.

Product code

Supply air terminal **SPWH-aa-b-ee-f**
 (spigot at the side)

Diffuser size _____
 (30, 45, 53, 61)

Duct connection shape _____
 1 = round
 2 = rectangular

Filter class _____
 13 = H13
 14 = H14

Colour _____
 1 = standard RAL 9010
 X = any other colour from RAL palette

Supply air terminal **SPWV-aa-b-ee-f**
 (spigot on the top)

Diffuser size _____
 (30, 45, 53, 61)

Duct connection shape _____
 1 = round
 2 = rectangular

Filter class _____
 13 = H13
 14 = H14

Colour _____
 1 = standard RAL 9010
 X = any other colour from RAL palette