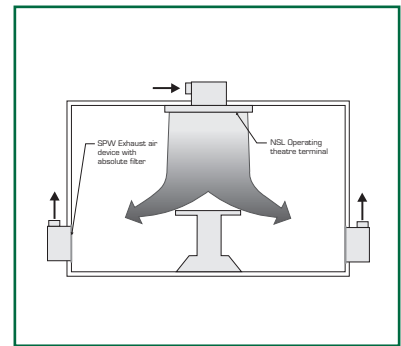
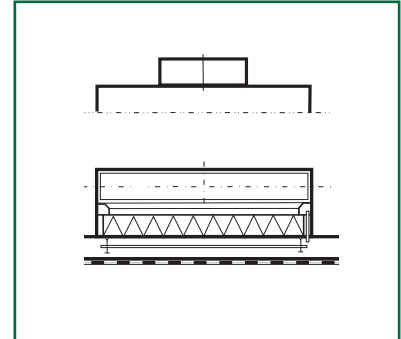


Operating theatre terminal NSLA



Ceiling diffuser NSLA is intended for operating theatres. Its special construction means that very clean air can be supplied at the same time as thermal comfort is maintained.

The supply air is cleaned with a very effective HEPA filter of class H13 according to standard EN 1922-1. Other filters, e.g. of class H14, can be supplied on request.

The air flow is supplied via the whole diffuser surface of perforated sheet, and is entirely laminar with a very low velocity of between 0.15 and 0.20 m/s.

The temperature difference between the supply air and the room air ($t_{\text{supply}} - t_{\text{room}}$) should be between $-0.5 \div -4$ K.

The laminar air flow means that generated impurities are greatly restricted. These are led away from the operating table and surrounding areas, regardless of whether any people are moving around in the vicinity. This is because the air flow is very stable.

The construction of the terminal means that the filter can be replaced very quickly and simply. It is also possible to specify a duct through the filter for operation lighting, as an extra feature.

The ceiling diffuser can also be provided with an airtight cut-off damper as an accessory in the connection ducts.

Also included in the ceiling diffuser NSLA is a measurement socket, which makes it possible to measure the pressure drop across the filters and to identify any filter leakage.

Quick selection

Size	Air flow		Outlet velocity, m/s	Pressure drop in filter class H13, Pa
	l/s	m ³ /h		
1	500 - 665	1800 - 2400	0,15 - 0,20	240 - 330
2	610 - 833	2200 - 3000	0,15 - 0,20	200 - 270
3	750 - 1000	2700 - 3600	0,15 - 0,20	240 - 320

Product facts

Operating theatre terminal NSLA

Supply air terminal with a laminar flow function intended for installation in the ceiling of an operating theatre.

Equipped with a HEPA filter for very high efficiency of supply air filtration.

Available in three sizes.

Product code example:

Operating theatre terminal
NSLA-20-13-1-2-2-1.

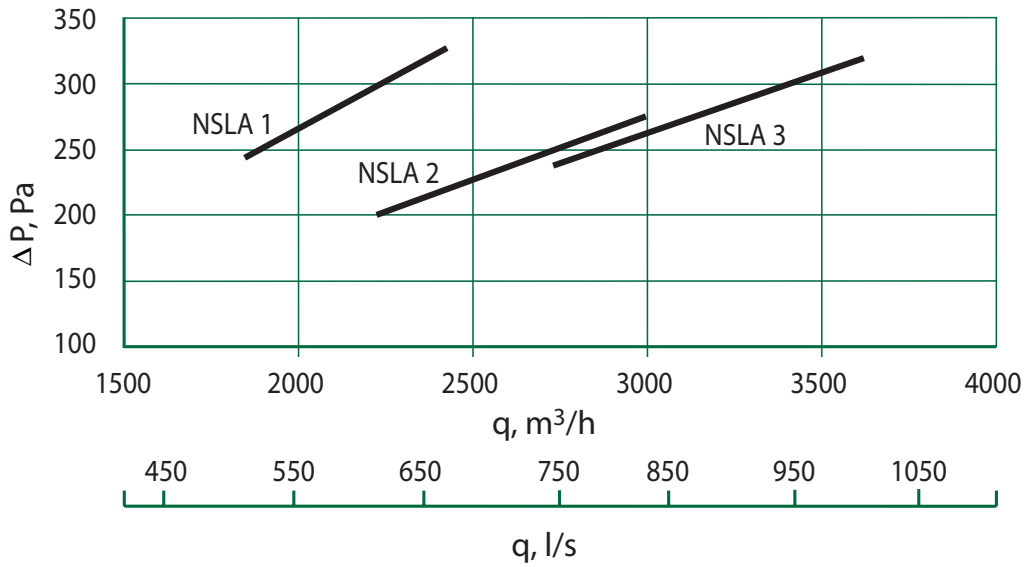
Operating theatre terminal of size 2 without damper, HEPA filter of class H13, filter depth of 69 mm. The terminal has a rectangular duct connection of 160x600 mm and has opening for operating lighting.

The terminal is made of zinc steel sheet painted RAL 9010 colour.

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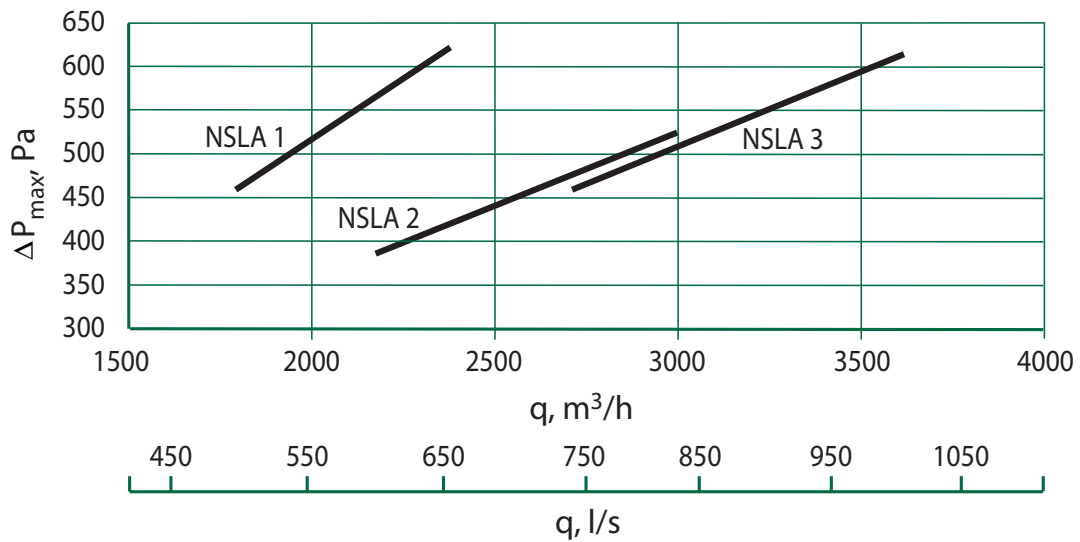
Air flow, design pressure drop, final pressure drop

Air flow and design pressure drop for a terminal with a HEPA filter of class H13



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

The final pressure drop for the ceiling diffuser indicates that the filter requires replacement. Measurement is performed with the help of the pipe marked in red.

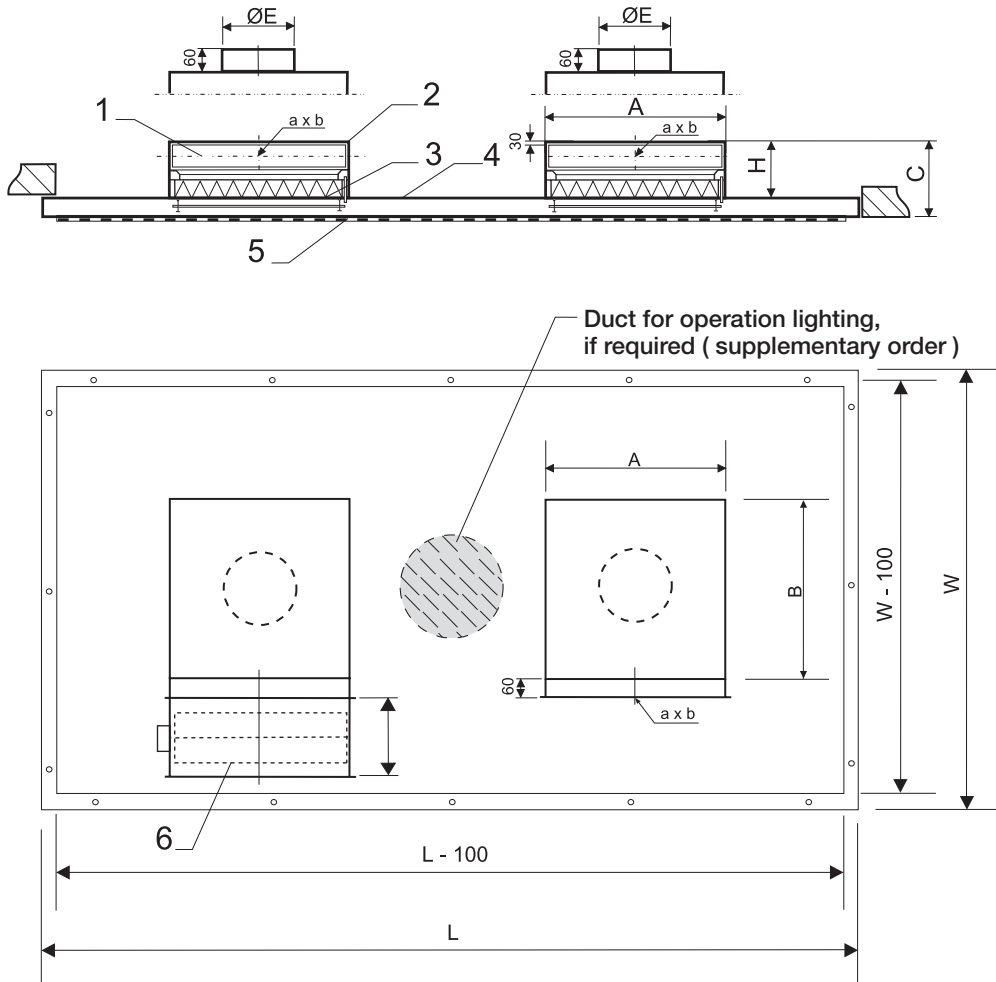


Definitions

q	air flow	l/s, m³/h
Δp	pressure drop	Pa
ΔP _{max}	final pressure drop (indicates filter replacement)	Pa

Product description and dimensions

NSLA Operating theatre terminal



For filters with a height other than 69 mm, the height dimension, H may be different.

1. Terminal inlet (rectangular as standard)
2. Connection box with installed filter
3. Absolute filter (HEPA)
4. Terminal box (frame)
5. Terminal outlet grille. Perforated sheet which is easily removed for filter replacement and disinfection of the internal parts of the terminal.
6. Airtight cut-off dampers which can be adjusted manually or with an electric servomotor (accessory)

Size	A	B	C	ØE	H ¹⁾	L	W	a	b	Filter dimensions
NSLA 1	639	639	405	315	290	2460	1460	110	600	610 x 610
NSLA 2	639	944	455	315	340	2460	1810	160	600	610 x 915
NSLA 3	639	944	495	355	380	2460	2160	200	600	610 x 915

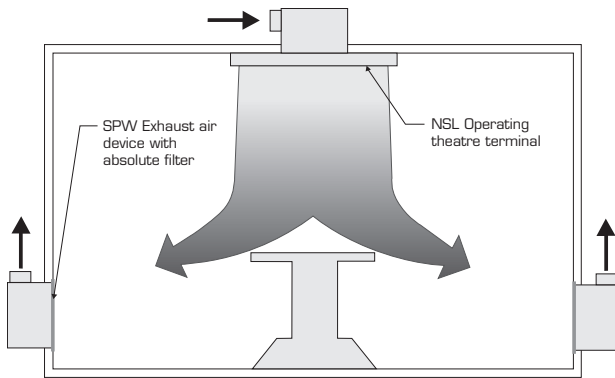
All dimensions are indicated in mm.

¹⁾ It is possible to install a different type of filter, subject to agreement. In this case, the height dimension H, may be changed.

- A x B = Connection box dimensions with filter
- C = Total height of terminal and connection box
- ØE = Dimensions of circular connection (option)
- H = Connection box height with a HEPA filter of class H13 or H14
- L = Terminal length
- W = Terminal width
- a x b = Dimensions of rectangular connection

Installation example, material and surface finish, product code

Installation example



Material and surface finish

The perforated sheet of the terminal outlet is made of painted zinc steel sheet or stainless steel sheet. The terminal box and connection boxes are made of galvanized steel sheet and are stove-enamelled with a paint that is resistant to disinfectants, environmental class M4.

Descriptive text

Ceiling diffuser NSLA manufactured by Fläkt Woods is intended for operating theatres and contains a HEPA filter of class H13 or H14. The air flow is supplied via the whole diffuser surface of perforated sheet, and is entirely laminar with a very low velocity.

Product code

Operating theatre terminal **NSLA-aa-bb-c-d-e-f**

Size, mm _____
 10 = 2500 x 1500 without damper
 20 = 2500 x 1850 without damper
 30 = 2500 x 2200 without damper
 11 = 2500 x 1500 with damper
 21 = 2500 x 1850 with damper
 31 = 2500 x 2200 with damper

Filter class (HEPA) _____
 13 = H13
 14 = H14

Filter depth, mm _____
 1 = 69 mm

Duct connection _____
 Rectangular (a x b), mm
 1 = 110 x 600 mm
 2 = 160 x 600 mm
 3 = 200 x 600 mm
 Circular ØE, mm
 4 = 315 mm
 5 = 355 mm

Damper function _____
 1 = without opening for operating lighting
 2 = with opening for operating lighting

Material and surface finish _____
 1 = painted RAL 9010
 2 = frame and perforating panels made of stainless steel/casing made of zinc steel sheet painted RAL 9010
 3 = perforating panels made of stainless steel/frame and casing made of zinc steel sheet painted RAL 9010
 X = any other colour from RAL palette