Lindab **AIRY**

Valve – Supply and extract air

Lindab®

Valve – Supply and extract air AIRY

Description

The valve is designed for installation at a wall or in a ceiling. It can be used for new-build and for replacement. Its smart grip function ensures an easy installation. Its unique sound data ensure an optimum sound level.

The valve consists of two parts; the valve body (AIRYB) and the flat front plate (AIRYFP).
The valve body is fixed to the duct system or a valve socket via flexible spring wings. The front plate is attached to the valve body via springs.

There are 5 standard front plate shapes:
ROUN – a circle,
BOW – a square with sligthly bulged edges,
SQUA – a square,
ELLI – an super ellipse
RECT – a rectangle,
Special shapes are possible on request.

It is recommended that the valve is mounted in the frame ILVRU. The product will also fit in the valve frames VRGU, VRGM, VRFU, VRFM and the products BUCST, and TCPUCST.
The valve body has to cover the brim of the product it is fitted into. Therefor the maximum diameter of the brim for Ø100 is 133.5 mm, for Ø125 is 152.5 mm and for Ø160 is 187.5 mm.
Can be equipped with a blanking – off sector plate for 2 or 3 way air flow.

Maintenance

The visible parts can be wiped off with a damp cloth.
The sound filter should be cleaned or replaced when needed, this is especially of importance for extract air.

Order code

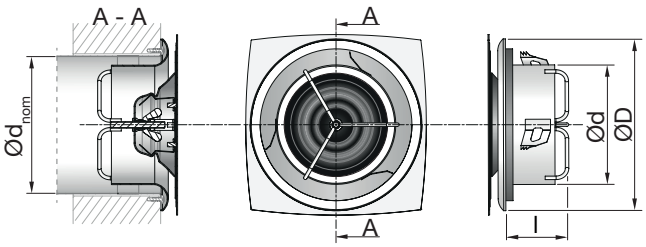
Product AIRYB — **AIRYB** **aaa** **bbb**
Connection dim. Ød Ød nom = 100, 125, 160 mm
Color RAL 9003, RAL 9010

Example: AIRYB - 125 - 9003

Product AIRYFP — **AIRYFP** **aaa** **bbb** **ccc**
Connection dim. Ød Ød nom = 100, 125, 160 mm
Type BOW, ELLI, RECT, ROUN, SQUA
Color RAL 9003, RAL 9010

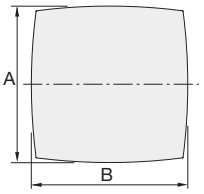
Example: AIRYFP - 125 - ELLI - 9003

Dimensions

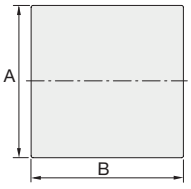


Ød nom	Ød mm	ØD mm	l mm	m kg
100	84	138	55	0.13
125	109	157	58	0.18
160	144	191	58	0.28

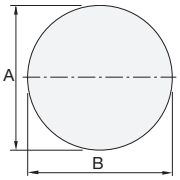
AIRYFP BOW



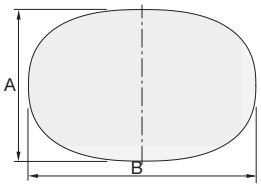
AIRYFP SQUA



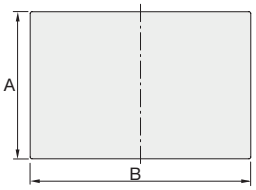
AIRYFP ROUN



AIRYFP ELLI



AIRYFP RECT



Ød nom	A mm	B mm	Type	m kg
100	140	140	BOW	0.17
100	140	210	ELLI	0.21
100	140	140	ROUN	0.13
100	140	210	RECT	0.24
100	140	140	SQUA	0.17
125	165	165	BOW	0.22
125	165	248	ELLI	0.29
125	165	165	ROUN	0.18
125	165	248	RECT	0.33
125	165	165	SQUA	0.23
160	210	210	BOW	0.34
160	210	315	ELLI	0.44
160	210	210	ROUN	0.28
160	210	315	RECT	0.53
160	210	210	SQUA	0.35

Materials and finish

Material: Galvanized sheet metal.
Colour: White RAL 9003, gloss 30 or white RAL 9010, gloss 30.

Special colours are available on request.
The front plate can be ordered in stainless steel.
It is also possible to paint the front plate with standard wall paint or to cover it with wallpaper.

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Technical data

Capacity
Air flow q_v [l/s] and [m³/h], total pressure Δp_t [Pa], throw $l_{0.2}$ [m] and sound power level L_{WA} [dB(A)] can be seen in the graphs.

Frequency-related sound power level
The sound power level in the frequency band is defined as $L_{WA}+K_{ok}$. K_{ok} values are specified in charts beneath the graphs on the following pages.

Sound attenuation
Sound attenuation of the diffusers ΔL from duct to room, including end reflection, see table below.

Ød	Centre frequency Hz							
nom	63	125	250	500	1K	2K	4K	8K
100	22	18	13	11	9	8	7	8
125	20	16	11	9	9	7	6	5
160	18	14	10	9	9	7	6	6

Balancing
Balancing data is contained in a separate brochure.

Blanking off sector plate

Correction for sound and throw
When using blanking off sector in Airy calculate correction factor C and use this factor to read corrected sound- and throw data:

$C = ((\alpha / 360)+1)$

Corrected flow to use for reading data in diagrams = $C \times q_v$

Example

AIRY-125
Sector plate α: 120°
Airflow q_v: 20 l/s
Required pressure drop Δp_t: 50 Pa

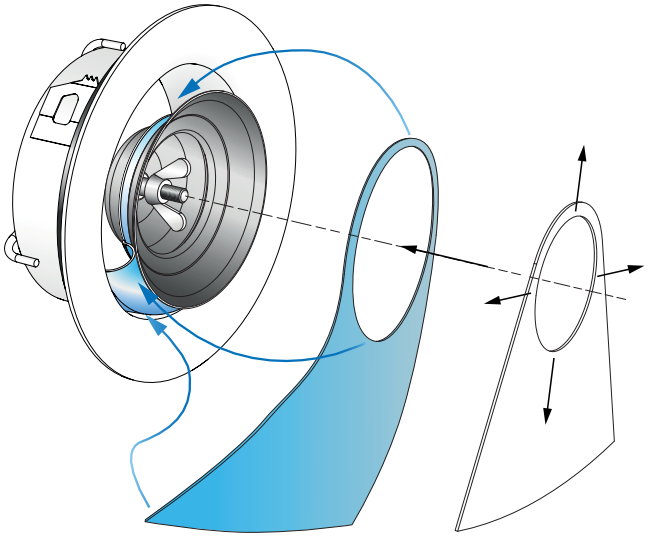
$C = ((120 / 360)+1) = 1.33$

Corrected flow to use for reading data in diagrams = 1.33 × 20 l/s = 27 l/s

Corrected data:
Sound power level L_{WA}: 30 dB(A)
Slot setting for 50 Pa: 12 mm
Throw $l_{0.2}$ (12 mm. slot): 2.6 m

Accessories

Blanking-off sector plate

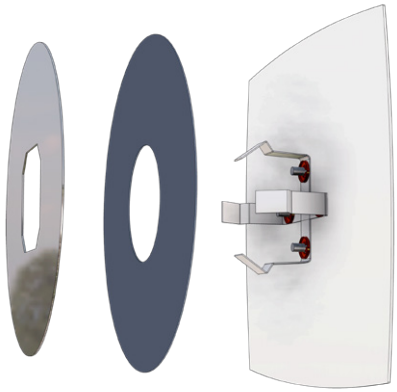


Order code

Product AIRYBP
AIRYBP
Connection dim. Ød aaa
Ød nom = 100, 125, 160 mm

Example: AIRYBP - 125

Sound filter



Order code

Product AIRYSI
AIRYSI
Connection dim. Ød aaa
Ød nom = 100, 125, 160 mm

Example: AIRYSI - 125

Changing the sound filter

The sound filter can be changed by first removing the filter holder and then the filter itself. Press the new sound filter onto the front plate and then press the filter holder onto the sound filter.

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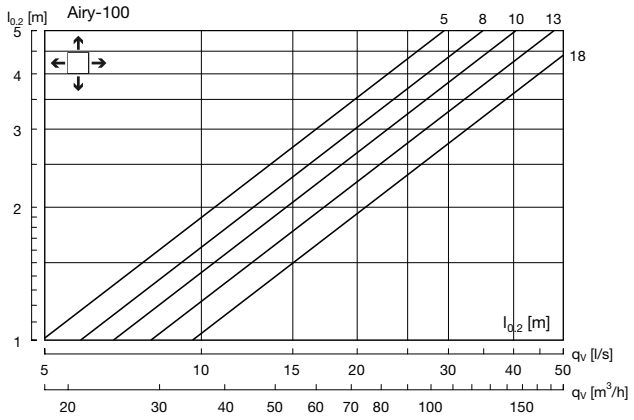
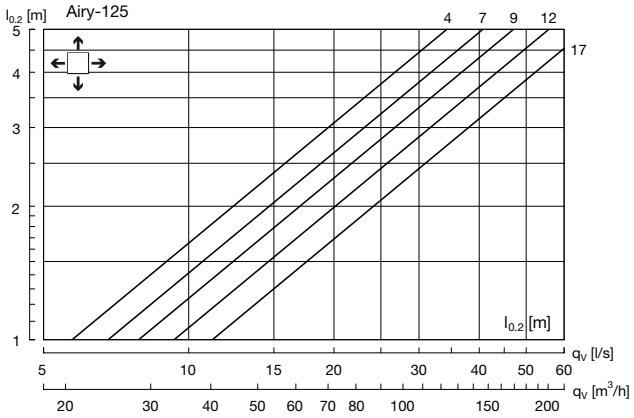
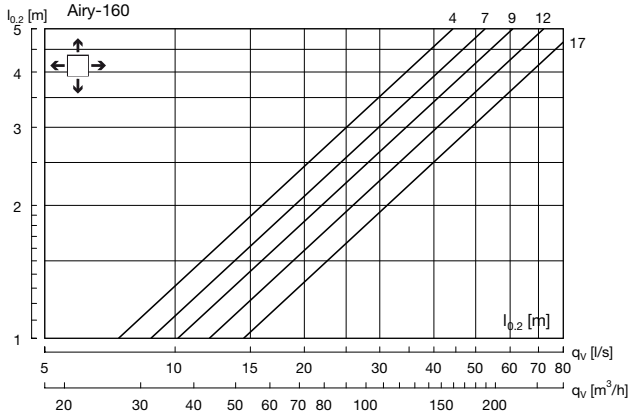
Throw $l_{0.2}$
Throw $l_{0.2}$ [m] can be seen in the graphs for isothermal air, at a terminal velocity of 0.2 m/s.



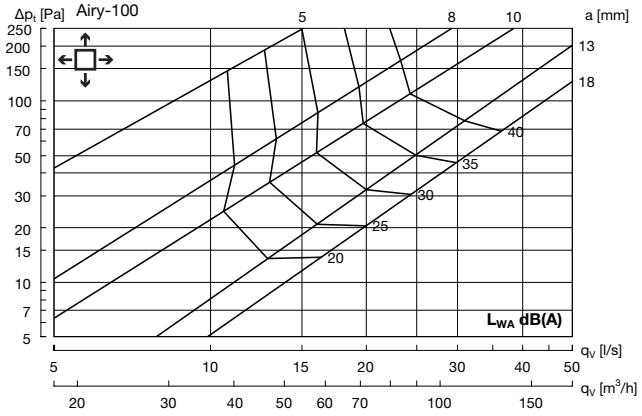




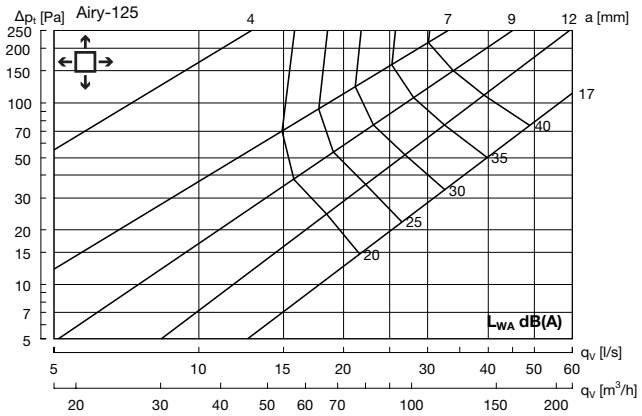
Valve – Supply and extract air AIRY

Technical data

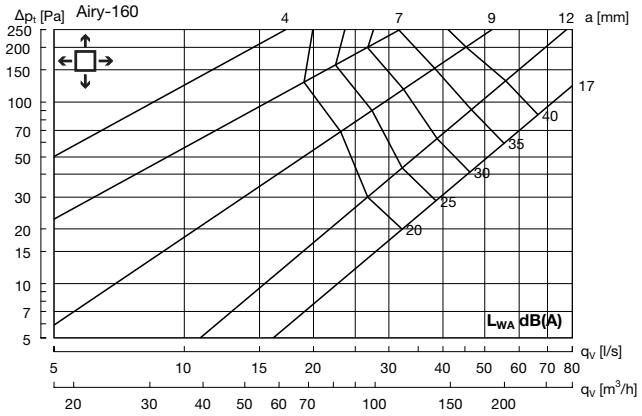
Supply air



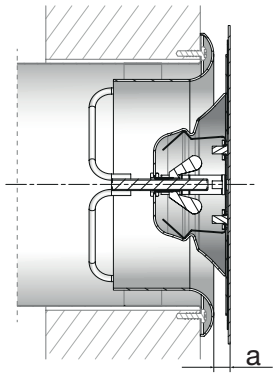
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	0	-6	0	1	-7	-13	-17	-21



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	4	-6	-1	0	-6	-11	-15	-15



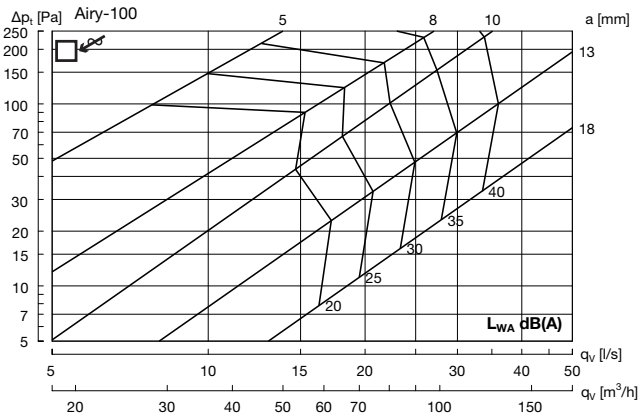
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	4	-4	-1	-1	-6	-10	-13	-13



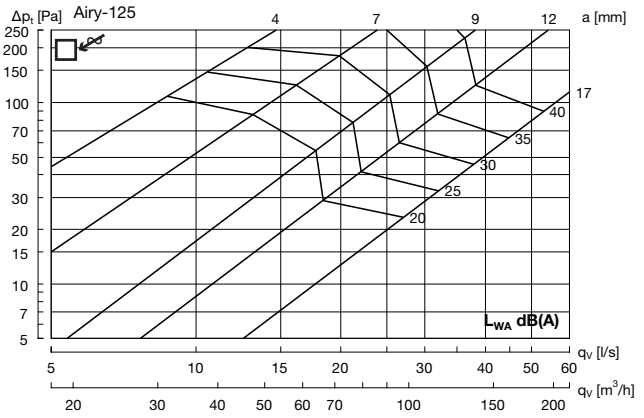
Valve – Supply and extract air AIRY

Technical data

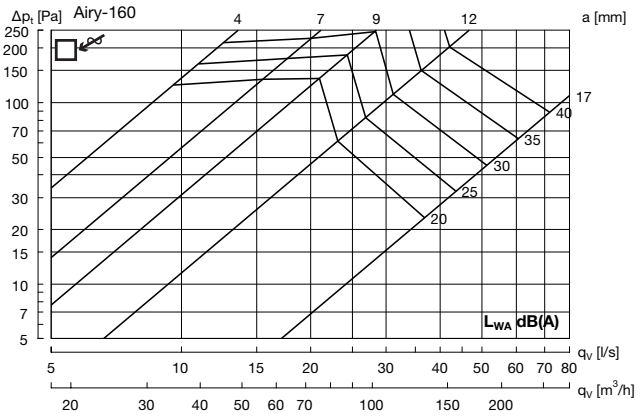
Extract air



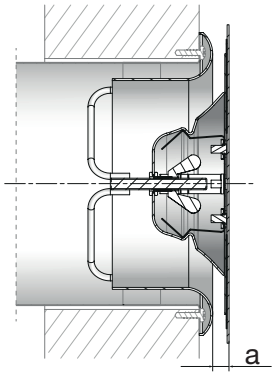
Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	-11	-3	0	-7	-9	-15	-15



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	8	-9	-3	-3	-5	-6	-17	-21



Hz	63	125	250	500	1K	2K	4K	8K
K_{ok}	11	-8	-2	-2	-4	-10	-19	-17



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Airy with bend and T-piece

Sound correction values:
Add this value to the diagram for Airy when using T-piece or bend.

Supply air

Ød1 nom	TCPU	BKU	BU	BSU
100	3	1	1	0
125	2	2	1	0
160	5	5	4	3

Extract air

Ød1 nom	TCPU	BKU	BU	BSU
100	2	1	0	0
125	2	2	1	0
160	5	5	4	2

TCPU

BKU

BU

BSU

Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

Lindab | For a better climate