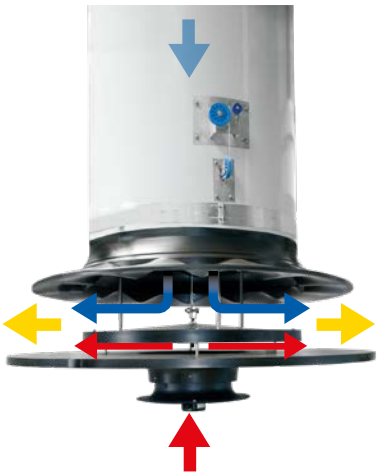
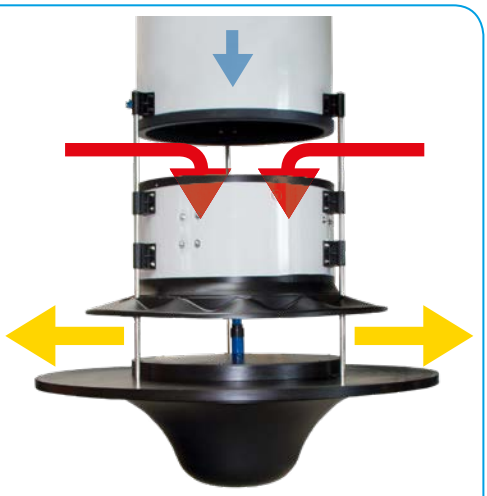
ZLV Neo and ZLV Vario

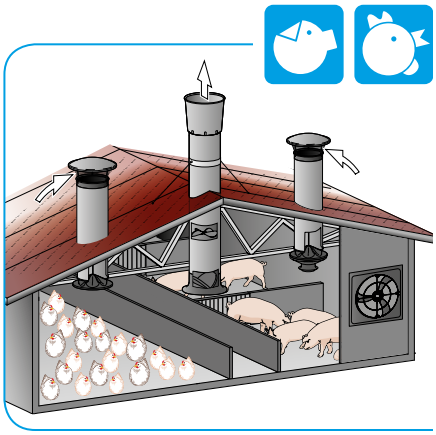
Fresh air distributor for consistent fresh air supply



ZLV Neo including recirculation unit
optimal for temperatures down to -20 °C/-4 °F



ZLV Vario in transition mood
optimal for temperatures down to -50 °C/-58 °F



ADVANTAGES

- **Flexible system for every type of stable and livestock quantities in diameters of Ø 650, 730, 820, 920 mm**
- **Ultra-fine fresh air distribution across a large distribution radius, also with minimal air fl ow rates**
- **Danger of ice formation also at extreme outside temperatures considerably reduced**
- **Winter, transitional and summer operation switch automatically (can be set centralized or de-centralized).**
- **Complete closing of the recirculation gap, thereby increasing maximum fresh air capacity.**
- **All components made from thermally-insulated polyurethane**

Fresh air distributor ZLV Neo

ZLV Neo for ultra-fi ne fresh air distribution across a large distribution radius, even at minimal air flow rate. ZLV Neo has been developed for equal pressure ventilation and negative pressure ventilation as well as for compact stable buildings (so-called mono-blocks).

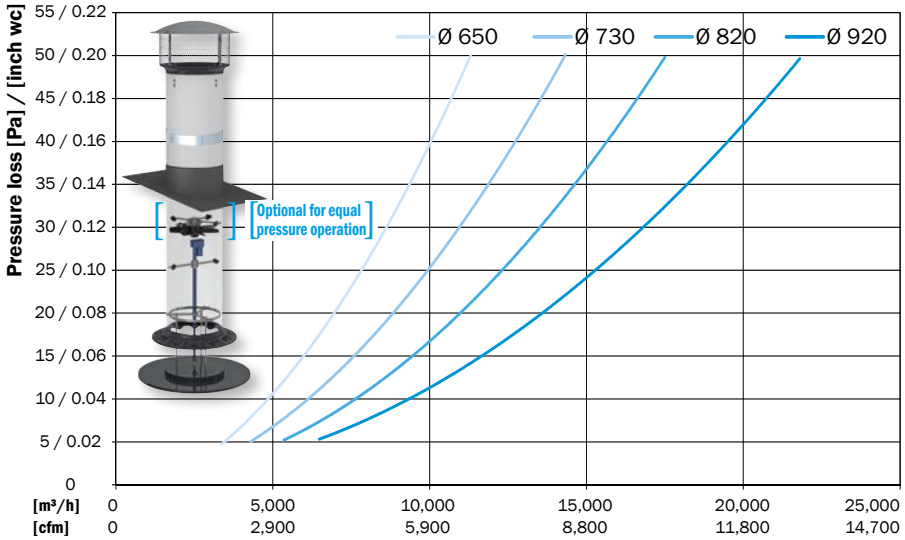
The wave structure in the nozzle ensures the optimum fresh air control even with a minimal opening. This system can also be employed with equal pressure systems (additional fresh air fan required) where the discharge stables have large openings and in areas where leaks and wind influence come into play. The optionally available air conduction unit partially deflects the incoming fresh air at the distributor plate.

Fresh air distributor ZLV Vario

Conventional recirculation systems are driven with a fixed area ratio setting between the fresh air and recirculating air. This results in a significant portion of the fan capacity (up to 50%) being guided via the permanently open recirculation gap even with summer ventilation.

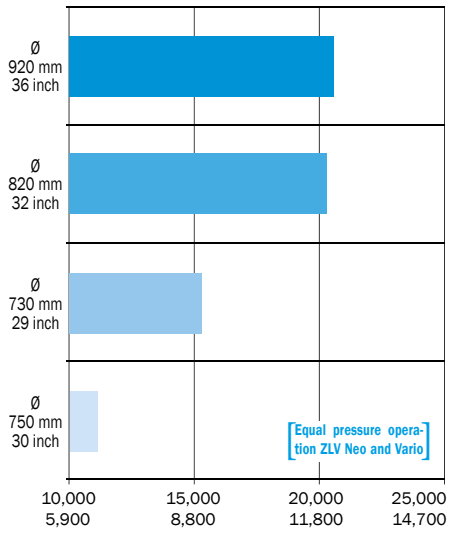
ZLV Vario's sliding fan module makes it possible to variably adjust the recirculation gap. The advantage of this is that 100% of the fan capacity is available as fresh air capacity during summer operation. This means that the number of fresh air ducts required can be halved through the use of the ZLV-Vario.

ZLV Neo air capacity



Values with single covering ring may vary.

ZLV Neo and Vario air capacity



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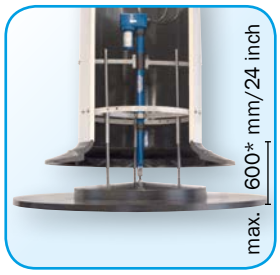
Fresh air distributor ZLV Neo

ZLV Neo for ultra-fine fresh air distribution across a large distribution radius, even at minimal air flow rate. ZLV Neo has been developed for equal pressure ventilation and negative pressure ventilation as well as for compact stable buildings (so-called mono-blocks).

Interior diameter Ø		Air flow			
		Equal pressure ventilation		Negative pressure ventilation [40 Pa] / [0.16 inch/wc]	
mm	inch	[m³/h]	cfm	[m³/h]	cfm
650	26	11,100	6,500	10,000	6,000
730	29	15,300	9,000	12,700	7,500
820	32	20,300	12,000	15,600	9,200
920	36	21,900	13,000	19,500	11,500

Fresh air distributor for motor drive (decentralized variant)



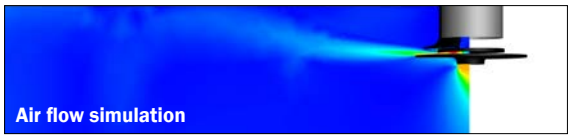
For the fresh air supply over the roof for decentralised control.

Several fresh air distributors are controlled via a central drive unit.

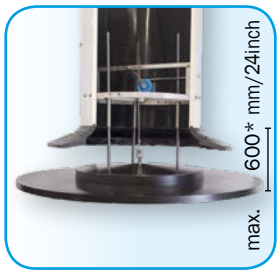
The optional recirculation air fan caters for a better intermix of fresh air with stable air.

* incl. recirculation air fan + 296 mm/12 inch

- **Exhaust nozzle provides for more than 20% air flow increase**
- **This allows flows in the stable with a length and width ratio of 1:1.5**



Fresh air distributor for rope drive (centralized variant)



For the fresh air supply over the roof to the central control.

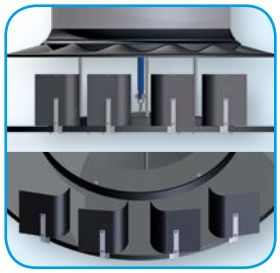
Regulation of the quantity of fresh air via adjustment of the distributor plate.

Every ZLV Neo is activated via a motor and is optionally available with recirculation air fan.

* incl. recirculation air fan + 296 mm/12 inch

- **This allows flows in the stable with a length and width ratio of 1:1.5**
- **Easy to assemble**
- **Up to 8 fresh air distributors per motor**

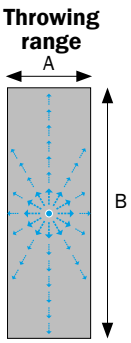
ZLV air conduction unit



For partial deflection of the incoming fresh air at the distributor plate.

This can be required under various construction conditions, for example when using the fresh air distributor close to a wall or with the installation of two fresh air distributors close to each other.

- **With an air conduction unit, a ratio of 1:3 is possible.**
- **A quadratic configuration of air distribution is no longer essential**



Fresh air distributor ZLV Vario

ase in
of more
n 20%

ZLV Vario's sliding fan module makes it possible to variably adjust the recirculation gap and to close it completely. This has the advantage that up to 50% of fan capacity can be conserved during summer ventilation.

Interior diameter Ø		Air flow Equal pressure ventilation	
mm	inch	[m³/h]	cfm
650	26	11,100	6,500
730	29	15,300	9,000
820	32	20,300	12,000
920	36	21,900	13,000

for cold
ic zones

Fresh air distributor for motor drive (decentralized variant)

ZLV Vario automatically switches to winter, transition and summer mode. This makes 100% of fan output available as fresh air capacity during summer operation. Thus, the number of fresh air ducts required can be halved.

ZLV Vario delivers fresh air over the roof, with each ZLV activated by a motor.

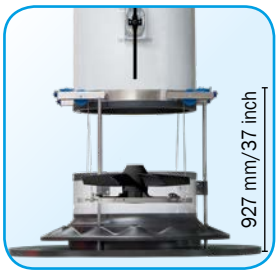
- **Automatic switching to winter, transition and summer mode.**
- **The danger of ice formation under extreme outside temperatures is considerably reduced**

Fresh air distributor for rope drive (centralized variant)

ZLV Vario automatically switches to winter, transition and summer mode. This makes 100% of fan output available as fresh air capacity during summer operation. Thus, the number of fresh air ducts required can be halved.

ZLV Vario feeds fresh air via the roof and is activated via a central motor unit.

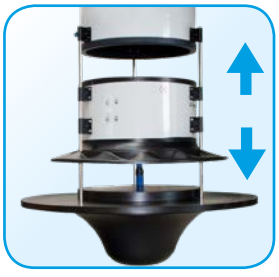
- **Automatic switching to winter, transition and summer mode.**
- **The danger of ice formation under extreme outside temperatures is considerably reduced**



Sliding fan module on ZLV Vario

The sliding fan module on the ZLV Vario makes it possible to variably modify the recirculation gap and to close it completely, which increases the max. fresh air capacity per unit and reduces the fresh air ducts needed by 50% (compared to conventional recirculation systems).

- **Complete closing of the recirculation gap, thereby increasing maximum fresh air capacity.**
- **Automatic switching to winter, transition and summer mode.**



ZLV Neo and ZLV Vario

Fresh air distributor for consistent fresh air supply

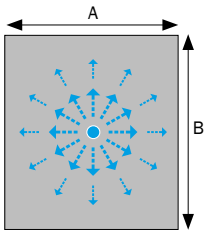
Planning and design

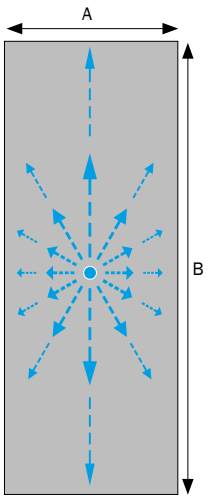
Planning starts with an even distribution of the fresh air distributors (ZLV). Near equal sized rectangles ensure an optimum distribution of fresh air. The fresh air distributor can be employed both in negative pressure systems and in equal pressure systems (integration of additional fan). The side ratio A:B should not exceed 1:1.5. With an air conduction unit, a ratio of 1:3 is possible.

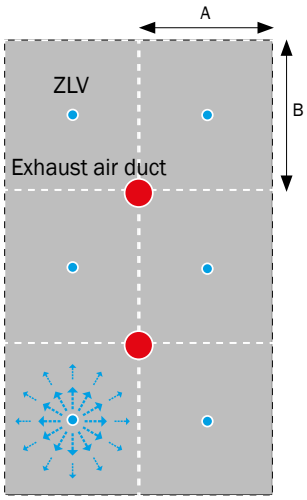
Throwing ranges*

Ø 650 mm / 26 inch up to 13 m / 43 ft.
Ø 730 mm / 29 inch up to 16 m / 53 ft.
Ø 820 mm / 32 inch up to 20 m / 66 ft.
Ø 920 mm / 36 inch up to 22 m / 72 ft.
*depending on the negative pressure, outside temperature and stall indoor temperature

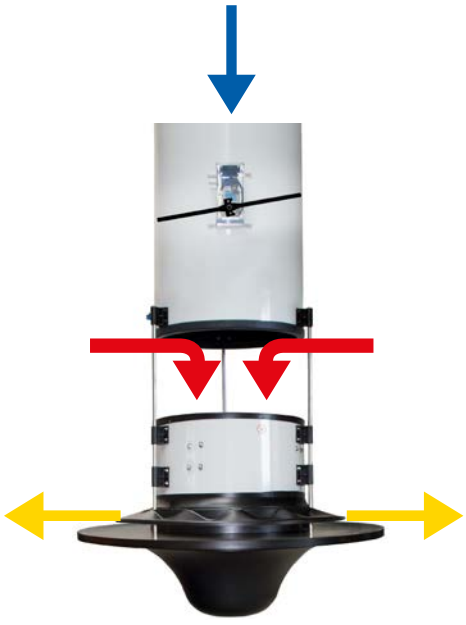
Design of the fresh air duct: Rain hood with protective bird grid and top PUR nozzle, 3 m / 10 ft. air duct.



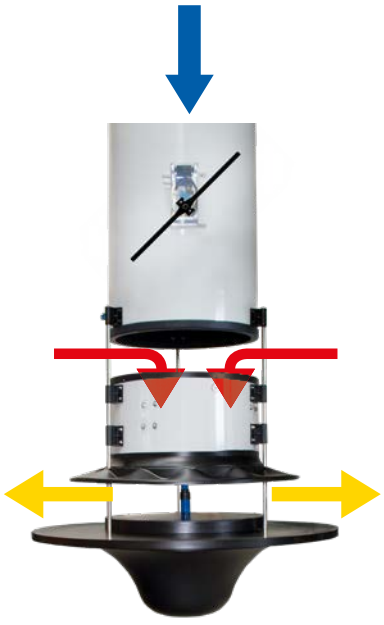




ZLV Vario operating modes



Winter operation



Transitional operation

Summer operation

»Extras + accessories«

Rain hood incl. Protective bird grid

Recirculation air fan

Electric motor with 450 stroke V4 230 V / V6 24 V

SLRK control 160 VA without transformer

ZLV air conduction unit