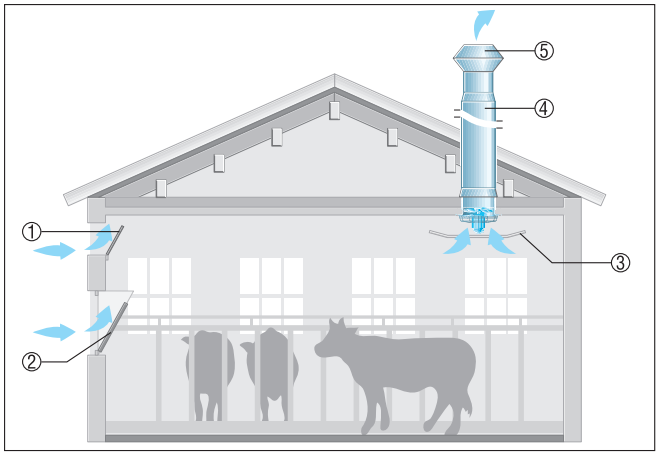
# DZS 50/8 B

## Stable air extraction via the roof: Recommendations for measures and accessories to be used by the customer

- A good stable climate is an important pre-requisite for healthy livestock, better food utilization, efficient working animal performance and quicker fattening.
- Long-term humidity and harsh stable vapours can cause serious damage to buildings.
- Natural ventilation through open windows and doors as well as gravity ventilation through shafts is uncertain and insufficient as it is dependent on atmospheric influences.
- **Advantages of a mechanical ventilation device:**
- Sufficient ventilation at all times as output and effectiveness are adapted to the size of the stable and the stocking.
- Independent of atmospheric influences.
- The air volume is adjusted to the corresponding area by output control.
- Prevention of draughts.
- Air flow rates are adjusted to seasonal conditions (summer/winter operation).




① Supply air shutter
② Tilting window
③ Baffle plate
④ Insulated folded spiral-seams duct
⑤ Deflector hood

## Stable ventilation via exterior wall: Recommendations for measures and accessories to be used by the customer

- Winter operation: Supply air using adjustable shutter in the cornice
- Summer operation: Supply air using tiltable windows with lateral panel

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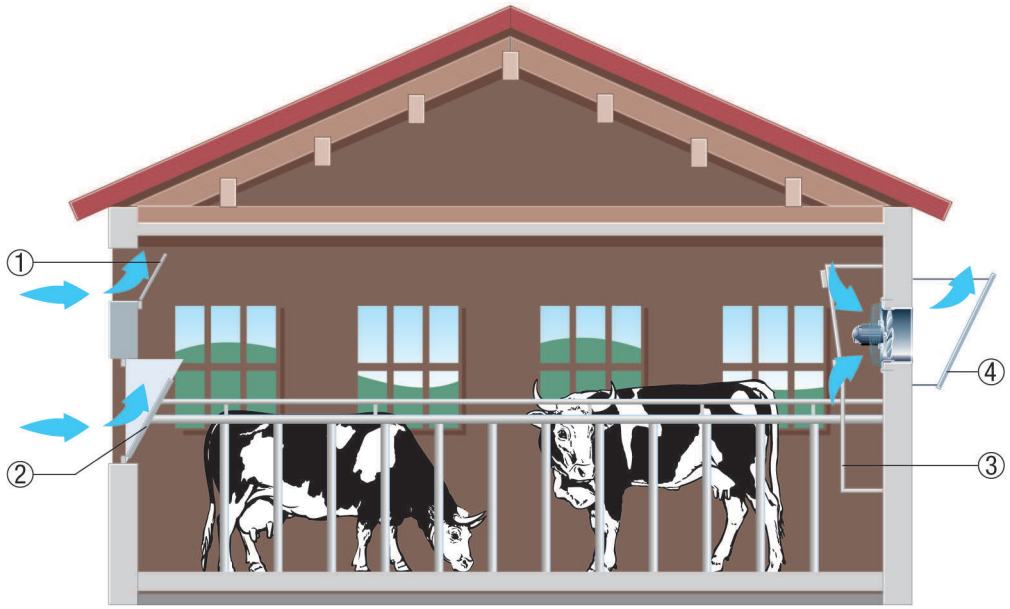


① Adjustable shutter
② Tilting window
③ Exhaust air box
④ Wind deflector

## Determination of the required air volume

- Determination of the minimum air volume/animal according to air flow rate table DIN 18910. An extract is shown below.
- Maximum air volume/hour = minimum air volume / animal x number of animals

| Buildings for cattle | Summer temperature above 25°C | Summer temperature below 25°C |
|---|---|---|
| Weight of individual animal<br>kg | Minimum air quantity per animal<br>m³/h | Minimum air volume<br>m³/h |
| 60 | 65 | 48 |
| 100 | 94 | 70 |
| 150 | 129 | 97 |

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| Buildings for cattle | Summer temperature above 25°C | Summer temperature below 25°C |
|---|---|---|
| 200 | 163 | 122 |
| 300 | 223 | 167 |
| 400 | 275 | 206 |
| 500 | 319 | 239 |
| 600 | 354 | 266 |
| 800 | 400 | 300 |

| Buildings for pigs | Summer temperature above 25°C | Summer temperature below 25°C |
|---|---|---|
| Weight of individual animal<br>kg | Minimum air quantity per animal<br>m³/h | Minimum air volume<br>m³/h |
| 10 | 25 | 17 |
| 20 | 37 | 25 |
| 30 | 47 | 31 |
| 60 | 75 | 50 |
| 100 | 106 | 71 |
| 150 | 145 | 97 |
| 200 | 184 | 123 |
| 300 | 263 | 175 |

| Poultry houses | Summer temperature above 25°C | Summer temperature below 25°C |
|---|---|---|
| Weight of individual animal<br>kg | Minimum air flow rate per animal<br>m³/ h | Minimum air volume<br>m³/ h |
| 0,055 | 0,6 | 0,38 |
| 0,165 | 1,7 | 1,06 |
| 0,310 | 2,8 | 1,75 |
| 0,520 | 4,1 | 2,56 |

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| Poultry houses | Summer temperature above 25°C | Summer temperature below 25°C |
|---|---|---|
| 0,700 | 5,1 | 3,19 |
| 1,130 | 7,0 | 4,38 |
| 1,630 | 8,9 | 5,56 |
| 2,200 | 10,2 | 6,38 |