

The Air Excellent air distribution system is ductwork designed to distribute air for central mechanical ventilation systems with heat recovery used to ventilate residential and small commercial buildings. The ventilation unit is connected to the distribution boxes using insulated mass flow ducts and silencers and the semi-rigid duct is rolled out to supply fresh air to the habitable rooms and extract stale, moist from the wet rooms.

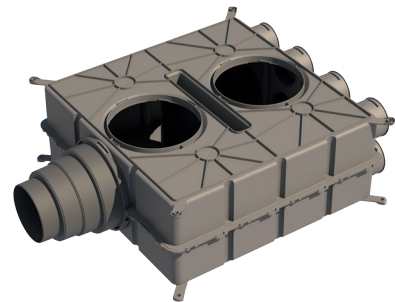
The distribution box is an important part of the air distribution system. It controls the air capacity of the duct runs within the system. To control the air flow per duct run, adjustable air flow restrictors are mounted at the ductwork connections in the distribution box.

### One for all, all for one

Air Excellent is a comprehensive portfolio of ductwork and parts to make complete, energy-efficient and easy to install ventilation systems. The ductwork is available in various circular and semi-circular dimensions. All ductwork types can connect to one universal distribution box by use of adapters. This eliminates the need to keep stock of numerous box types and limits costs. One box. One solution for all installations.

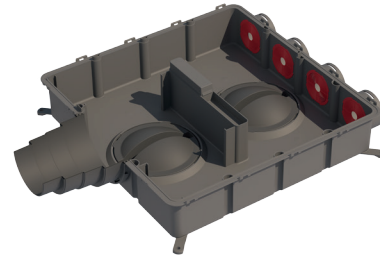
### Features & performance

- Superior system performance due to low pressure loss
- 8 duct run connections for all possible installations
- Tested according to TÜV SÜD Standard TAK 01-2013 (system pressure: + 2000 Pa/- 2000 Pa)
- Elimination of cross-talk and HRV-unit sound
- Multiple DN180-based inspection hatches with EPDM seal-ring and bayonet-locking
- Easy to clean the system and re-arrange the flow restrictors (renovation)



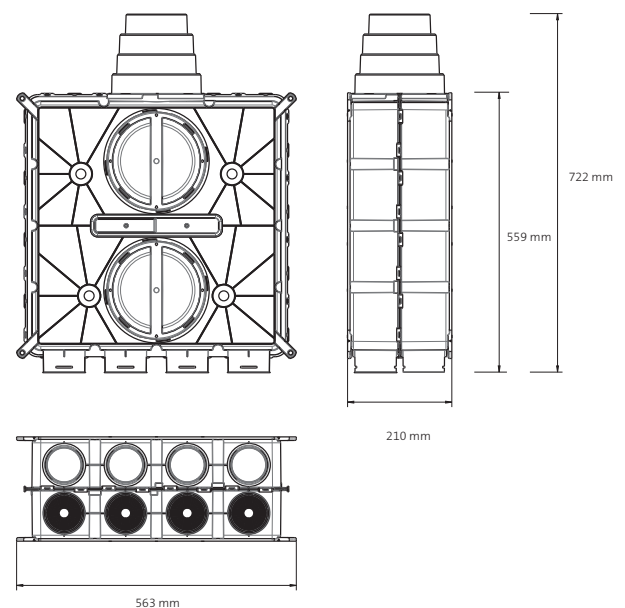
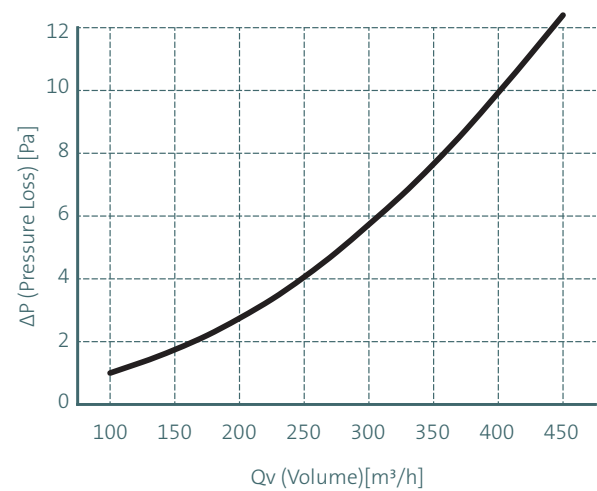
### Ease of installation

- Extremely lightweight and no sharp edges
- Can be installed on walls, on floors, behind suspended ceilings
- Integrated mounting brackets on both sides
- Mass flow ductwork connection allows vertical and horizontal installations
- Air flow restrictors are easy to place and replace due to good accessibility
- One adaptable mass flow ductwork connection for DN125, DN150, DN160 and DN180



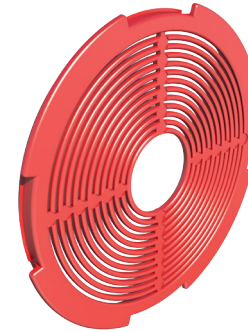
| Pressure Loss Dbox |                         |
|--------------------|-------------------------|
| Qv (Volume) [m³/h] | ΔP (Pressure Loss) [Pa] |
| 100                | 1.0                     |
| 150                | 1.7                     |
| 200                | 2.7                     |
| 250                | 4.0                     |
| 300                | 5.7                     |
| 350                | 7.6                     |
| 400                | 9.9                     |
| 450                | 12.4                    |

Figures are based on measurements by the TÜV SÜD.



### The 12-stage air flow restrictor

The air restrictor helps to set the required air capacity per duct run between distribution boxes, the valves and/or grills. The setting of the multiple restrictors in a ventilation system is determined by a ventilation calculation. The air flow restrictor is placed inside the distribution box and can be removed or altered due to system changes or cleaning purposes. The rings inside the flow restrictors can be easily taken out by cutting.



| Ring(s) removed | Zeta  | Q <sub>v</sub> [m³/h] |      |      |      |       |       |
|-----------------|-------|-----------------------|------|------|------|-------|-------|
|                 |       | 10                    | 20   | 30   | 40   | 50    | 60    |
| ΔP [Pa]         |       |                       |      |      |      |       |       |
| 0               | 20.01 | 4.5                   | 17.9 | 40.2 | 71.5 | 111.7 | 160.9 |
| 1               | 15.98 | 3.6                   | 14.3 | 32.1 | 57.1 | 89.2  | 128.5 |
| 2               | 12.45 | 2.8                   | 11.1 | 25.0 | 44.5 | 69.5  | 100.1 |
| 3               | 9.41  | 2.1                   | 8.4  | 18.9 | 33.6 | 52.5  | 75.7  |
| 4               | 7.32  | 1.6                   | 6.5  | 14.7 | 26.2 | 40.9  | 58.9  |
| 5               | 5.30  | 1.2                   | 4.7  | 10.7 | 18.9 | 29.6  | 42.6  |
| 6               | 3.63  | 0.8                   | 3.2  | 7.3  | 13.0 | 20.3  | 29.2  |
| 7               | 2.62  | 0.6                   | 2.3  | 5.3  | 9.4  | 14.6  | 21.1  |
| 8               | 1.82  | 0.4                   | 1.6  | 3.7  | 6.5  | 10.2  | 14.6  |
| 9               | 1.24  | 0.3                   | 1.1  | 2.5  | 4.4  | 6.9   | 10.0  |
| 10              | 0.77  | 0.2                   | 0.7  | 1.5  | 2.8  | 4.3   | 6.2   |
| 11              | 0.41  | 0.1                   | 0.4  | 0.8  | 1.5  | 2.3   | 3.3   |
| 12              | 0.18  | 0.0                   | 0.2  | 0.4  | 0.6  | 1.0   | 1.4   |