Ductwork Airtightness Standards

**Leakage factor q**

- **Class A** Leaky
  - \( q < 1.33 \text{ l/s/m}^2 \text{ at 400 Pa} \)

- **Class B** Moderate
  - \( q < 0.44 \text{ l/s/m}^2 \text{ at 400 Pa} \)

- **Class C** Demanding
  - \( q < 0.15 \text{ l/s/m}^2 \text{ at 400 Pa} \)

- **Class D** Very demanding
  - \( q < 0.05 \text{ l/s/m}^2 \text{ at 400 Pa} \)

Permitted leakage corresponds to one hole Ø3 mm for each m² envelope area.

Leakage per envelope area liters / second and m²
AMA = General Description of Materials and Works
Allmän Material- och Arbetsbeskrivning

AMA - legal status?

No law! AMA is voluntary.
Airtight ductwork?

Correct material  →  Correctly installed  →  How do you know?

Check by measuring

Correct material  →  Correctly installed

Measure leakage at duty pressure, or
400 Pa default pressure
200 Pa minimum pressure

Third party certified ductwork
10% of circular
20% of rectangular

Non-third party certified:
100% to be tested.

Divide ductwork in samples for testing.
25 m² recommended sample size
10 m² minimum sample size

Part Y
Checks for Air Handling Systems

AMA
WGS & Kyl
16
How airtight are ducts?

Leakage/Total Airflow, Ø1000 mm, 100 Pa

Leakage/Total Airflow, Ø125 mm, 300 Pa

Invisible mistakes can ruin the airtightness class
Airtight ductwork

- material
- mounting
- measurement