



ATM 35 THROTTLING AND MEASURING UNIT	A4326011
ATM 40 THROTTLING AND MEASURING UNIT	A4326012
ATM 45 THROTTLING AND MEASURING UNIT	A4326013
ATM 50 THROTTLING AND MEASURING UNIT	A4326014
ATM 56 THROTTLING AND MEASURING UNIT	A4326015

Contents

Applications _____	1
Features _____	1
Options _____	1
Dimensions _____	1
Calibration lines _____	2
Pressure characteristic _____	3
Wiring _____	4
Technical specifications _____	4



Applications

The Fancom ATM-unit is a part of the ventilation system that is used to measure the airflow through the chimney module using the airflow transmitter, and to throttle using the vortex damper.

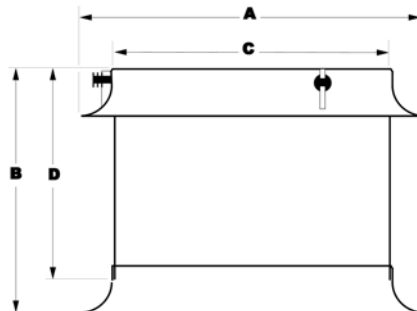
Features

- Fancom throttling and measuring unit in chimney module in diameters of 35 up to and including 56 cm.
- Quick installation system using connecting pins making it easy to connect the throttling and measuring unit to the fan module or to the Fancom chimney.
- The actuator in the ATM needs an AC power supply. When a DC power is supplied, the vortex damper will automatically open (fail safe).
- The power supply for the actuator is coming from the PFB (Power Fail Box). This PFB contains a 100VA transformer and a battery. When there is no power supply (230V), the PFB will switch automatically from AC to DC, thus opening the vortex damper automatically.

Options

- Power Fail Box (PFB+Transformer) for the power supply and automatically opening of the vortex dampers at power break down. Article codes: A7120013.05 + A5431003
- Protection grids are available in all sizes. The protection grids are made of stainless steel. The protection grid can be connected to the air entry cone of the chimney module

Dimensions



Type	φA Largest diameter [mm]	B Height with air entry cone [mm]	φC Outside diam. of the chimney to be connected [mm]	D Height without air entry cone [mm]
35	440	393	362	350
40	502	398	412	350
45	565	404	462	350
50	628	410	512	350
56	702	418	572	350

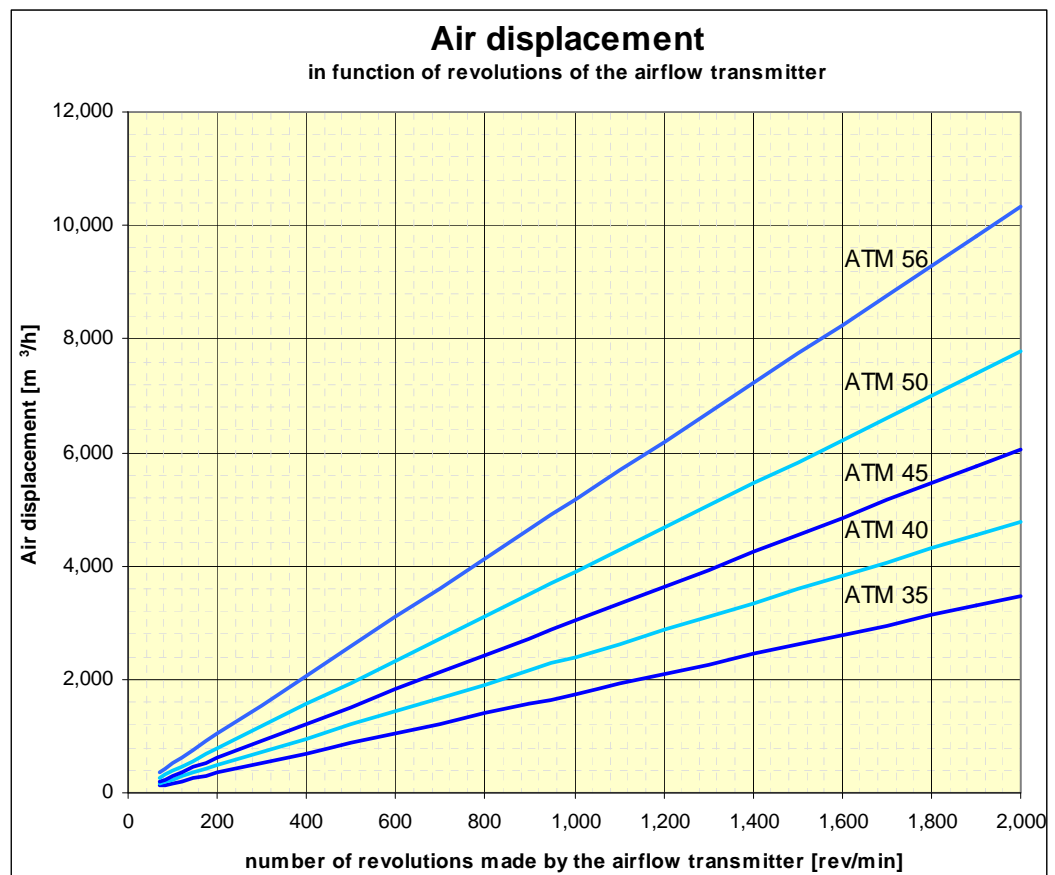


Calibration lines The graph below shows the relationship between the number of revolutions of the airflow transmitter and the airflow flowing through the ATM-unit. If the number of revolutions is known, the air displacement can be read at the calibration line concerned.

For example: when the airflow transmitter of the ATM 45 revolves at a rate of 1500 revolutions per minute, 4500 m³/h is displaced.

The measurements were carried out by an ATM-unit equipped with an air entry cone but without a protection grid. This is connected to the corresponding Fancom fan that is also built into the chimney module. The measurements were carried out in accordance with the international standards DIN 1952 (1971), NEN1048 (1962), NBN 688 (1966), NBN 793 (1968).

Measuring range [m ³ /h]		
Type	Minimum	Maximum
35	125	3500
40	175	5000
45	225	6500
50	275	8000
56	350	11000





Pressure characteristic

With central air exhaust the air displacement per section is based on the application of the pressure difference. Air will flow because the section is connected to the central duct via the ATM-unit, and because negative pressure is present in the central duct. The graph below shows what the air displacement will be when a certain pressure difference is applied.

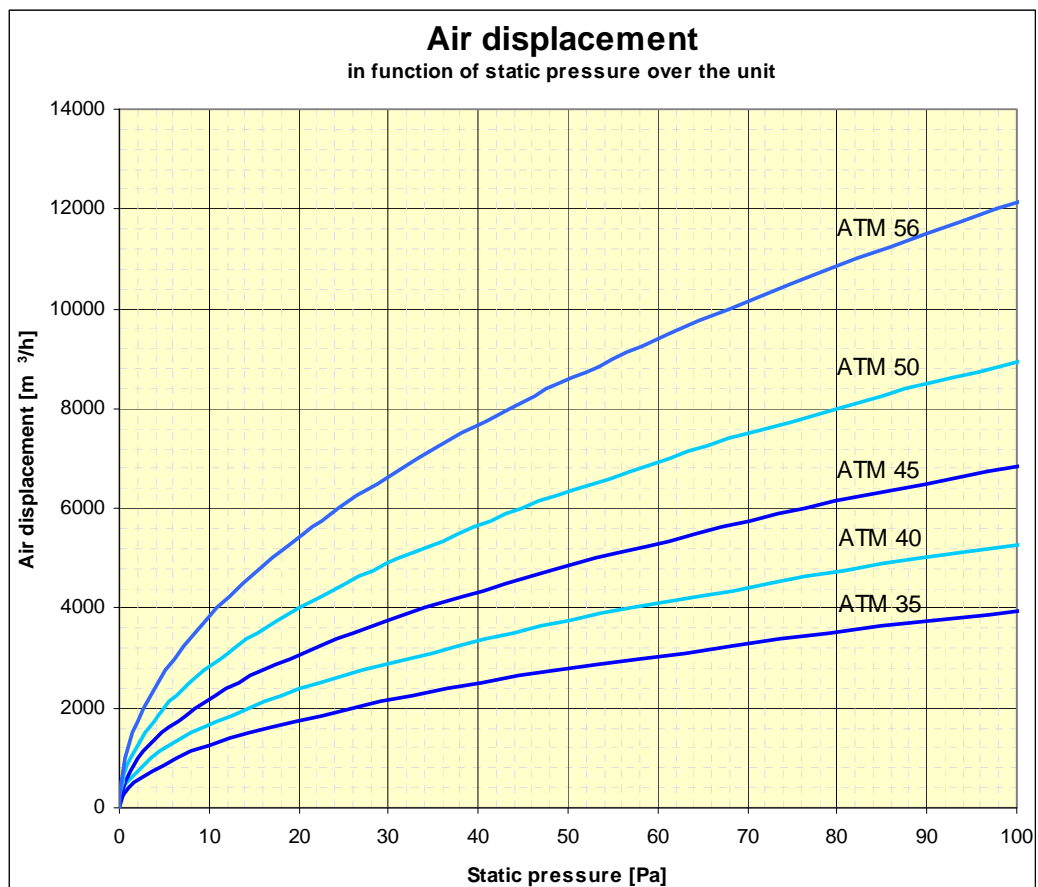
For example: when a pressure difference of 60 Pa is applied over an ATM 50, 7000 m³/h of air will flow.

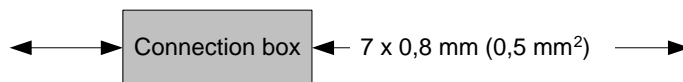
This graph can also be used to read out the pressure necessary to realize a certain air displacement. Look up the required maximum air displacement and the diameter of the ATM-unit, and read out the pressure necessary.

For example: 6000 m³/h, must be displaced. An ATM 45 has been chosen. The pressure drop will be 75 Pa.

The required control range determines the choice of ATM-unit diameter. The measuring range is shown in the table on the previous page. If, in the example above, at least 275 m³/h minimum ventilation is required, an ATM 50 could also be chosen. This results in a maximum pressure drop (at 6000 m³/h) of just 45 Pa.

N.B This only refers to the pressure drop over the ATM-unit. The total pressure necessary also depends on the air inlet, duct design etc.



**Wiring**

Operating voltage
Control signal 10-0 V
DSR feedback

Technical specifications**AT vortex damper**

Supply voltage	18-30Vac
Power consumption	4W
Maximum current	200 mA
Control signal	10-0Vdc
Running time 90° angular rotation	22 sec.
Normal condition at delivery	0Vdc open, 8.5Vdc almost closed
Possibility to adjust the position at maximum control voltage	
Trafo	Maximum 16 actuators on 100VA trafo
PFB	Maximum 16 actuators on PFB

Housing

Protection class	IP55
35 Weight (unpacked)	7.2kg
40 Weight (unpacked)	8.0kg
45 Weight (unpacked)	9.4kg
50 Weight (unpacked)	10.6kg
56 Weight (unpacked)	11.6kg

Ambient climate

Operating temperature range	0°C to +40°C (32°F to 104°F)
Storage temperature range	-10°C to +50°C (50°F to 122°F)
Relative humidity	<95%, uncondensed

DSR feedback sensor

Supply voltage	8-18Vdc
Load (typical at 12V)	min. 9.5mA, max. 15mA
Number of pulses per rotation	4