



ATM 63 THROTTLE AND MEASURING UNIT
ATM 80 THROTTLE AND MEASURING UNIT

A4326101
A4326103

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Application

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

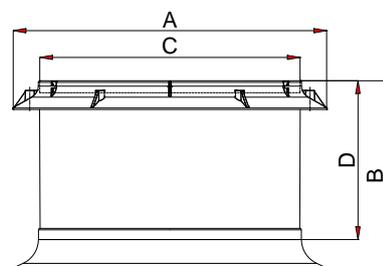
Features

- Fancom throttle and measuring unit in chimney module in diameters of 63 and 80 cm.
- Quick mounting system with coupling pins for easy mounting to a fan module or Fancom chimney.
- An AC powers the motor in the ATM. With DC power, the inlet will automatically open (fail safe).
- The motors are powered by the PFB (Power Fail Box). This PFB has a 100VA transformer and a battery. In the event of a power failure (230V) the PFB will switch the supply from AC to DC, so the inlet will automatically open.
- The unit has an 8-segment inlet.
- The unit is supplied with a removable air entry cone

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 diameter of chimney to be connected [mm]	D Height without air entry cone [mm]
63	775	571	650	500
80	985	595	813	500

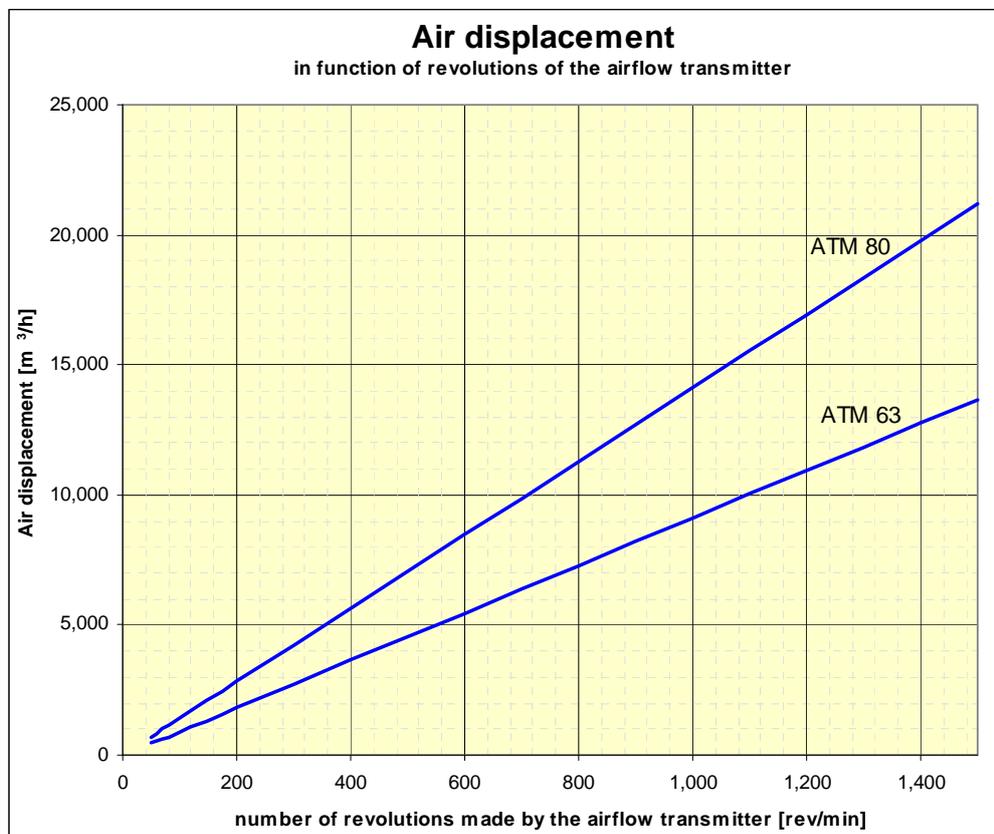


Calibration lines The graph below shows the relationship between the number of revolutions of the airflow transmitter and the airflow flowing through the ATM-unit. If the number of revolutions is known, the air displacement can be read at the calibration line concerned.

For example: when the airflow transmitter of the ATM 80 revolves at a rate of 1000 revolutions per minute, 15000 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]		
Typ	Minimum	Maximum
63	425	13500
80	700	21000





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 a 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.

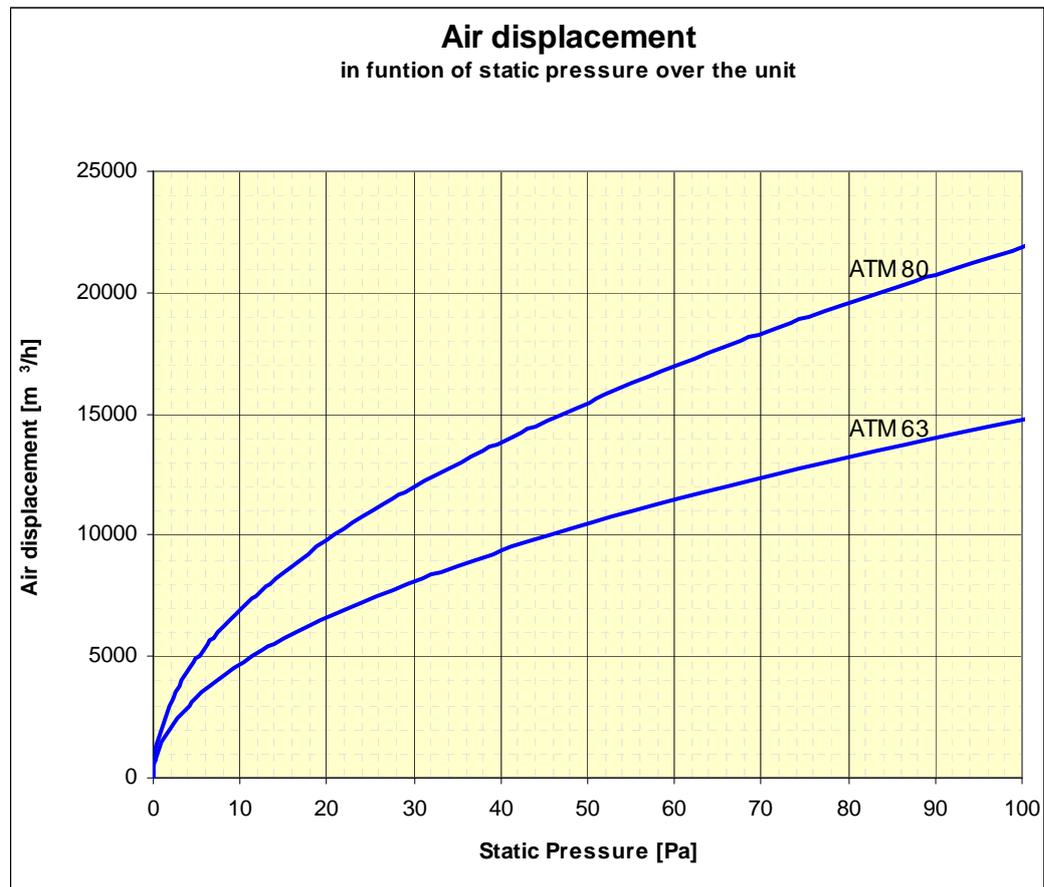
For example: when a pressure difference of 60 Pa is applied over an ATM 80, 17000 m³/h of air will flow.

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: 12000 m³/h must be displaced. An ATM 63 has been chosen. The pressure drop will be 66 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 700 m³/h minimum ventilation is required, an ATM 80 could also be chosen. This results in a maximum pressure drop (at 12000 m³/h) of just 30 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

← 7 x 0,8 mm² →

Control signal, operating voltage and DSR feedback

Technical specification

AT vortex damper

Operating voltage	24Vac ±10%
Power consumption	4W
Maximum motor current	200 mA
Control signal	10-0Vdc
Running time 90° angular displacement	49 sec
Normal position at delivery	0Vdc open, 8.5 Vdc almost closed
Position adjustment at maximum control voltage	
Transformer	Max. 16 motors on 100VA transformer
PFB (Power Fail Box)	Max. 16 motors on PFB

Housing

Protection class	IP55
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Ambient climate

Operating temperature	0°C to +40°C
Storage temperature	-10°C to +50°C
Relative humidity	<95%, uncondensed

DSR feedback

Operating voltage	8-18Vdc
Load (typical at 12V)	min. 9.5mA, max. 15mA
Pulses per revolution	4