"IND" TECHNICAL DATA & DETAILS OF THE PRODUCTS

MODELS

The wide range of models available fits to many problems linked to a wide varieties of installations.

IND1 Through wall mounting heat recovery ventilator unit provided with fans.

IND2 Internal wall mounting heat recovery unit ducting towards the inside, that requires ACP or ACM in-line duct fans.

IND3 Remote mounting heat recovery unit totally ducted, that needs ACP or ACM in-line duct fans.

IND4 External self-contained wall mounting heat recovery unit provided with integral fans.

IND5 External wall mounting heat recovery unit ducting towards the inside, that requires ACM and ACP in-line duct fans.

DESCRIPTION

FORCLIMA "IND" models provide balanced ventilation for commercial and residential areas and are ideal for swimming pools, computer rooms, class rooms, shower rooms, changing areas and for all the environments where it is necessary a continuous change of the air maintaining constant the internal temperature. Fresh pre-warmed air from outside is continually provided to the room with simultaneous extraction of stale air, smells and pollution. Filters incorporated in the wall mounting models or the ones to be added to the ducting models, clean either the supply and the extract air. Therefore they assure a continuous exchange of clean air creating a more health and comfortable environment. Heat is transferred from outgoing air to the fresh air supply with **no cross contamination**, maintaining internal temperatures and providing a clean fresh working environment.

OPERATION

A 3 speed controller type mod. **FORCLIMA** "**HR500**" or "**VCON5**" for IND1 & IND4 model provides hum-free controlled operation at low noise levels. The controller also provides the facility to reverse the supply fan and achieve extraction only through the unit. ON/OFF speed selection and fan reversal can be automatically controlled using simple sensors.
In case it is used "triac" type speed controller, it is to consider an eventual increase of the noise due to the cut of the phase.
Maximum operating temperature is 40°C.

CONSTRUCTION

Grey, high impact styrene case and outer grille.
Cream ABS inner grille.

HEAT EXCHANGER

The polymer UPVC heat exchanger transfers heat from the outgoing stale air to the fresh air supply raising the temperature of the fresh air and, most importantly, reducing the Relative Humidity of the supply air to the room. So that there is a continuous exchange of air in the environment without dispersion of energy, achieving therefore **an economic saving.**

MOTOR & FAN

The **IND1 & IND4** models are provided with two painted steel axial and two external rotor motors, safeguarded by thermal overload protection, with low level of noise. Electric protection IP24. The **IND2, IND3 & IND5** models requires ACP & ACM in-line duct fans (one for the air supply and one for the air extraction). Electric protection IP54.

WEIGHT

IND1: 16 Kg IND2: 9 Kg
IND3: 10 Kg IND4: 19 Kg IND5: 10 Kg

INSTALLATION

The wall mounting models require a 610mmx380mm hole in the wall with a 3° slope to the outside for a better condensate drainage. The **IND2, IND3 & IND5** models are provided with a condensate drain.
The electric wirings have a 4 core and earth wire of 0,75 mm² to be connected to the speed controller **VCON5** or **HR500**, or directly to the line through a switch.

MAINTENANCE

All the models need to be checked every six months or as conditions necessitate as follows:
- Clean or replace the filters.
- Wash the heat exchanger from deposits of dust or fat in warm soapy water.

The filters and the exchanger are put on lines, they are easily extractable through the side panel.

GUARANTEE

The unit has 24 months guarantee.

Note. *To ensure peak performance the appliance should be cleaned regularly.*

TECHNICAL DATA "IND1"

VOLUME (m³/h)	Outgoing AIR	Incoming AIR	Extraction Only
LOW Speed	350	320	600
NORMAL Speed	450	410	750
BOOST Speed	550	500	900

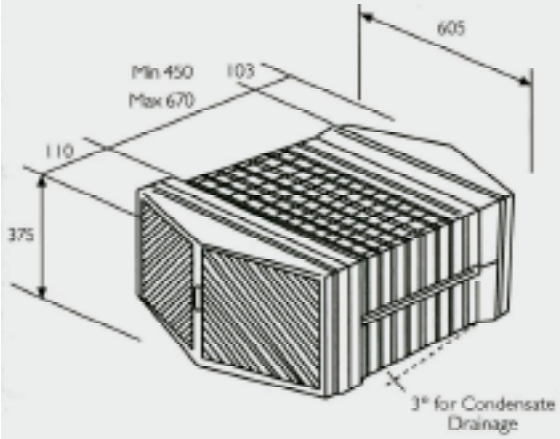
Hole in the wall: 610 x 380mm.

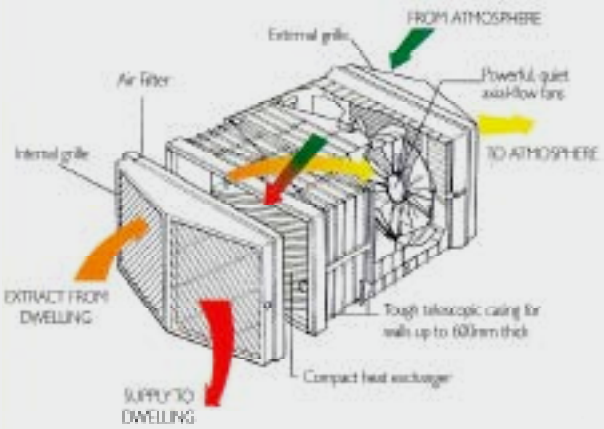
Weight:16Kg

Noise Level: 31-53 dB(A) at 3 mt.

Power Consumption:
60W supply fan; 150W extract

DIMENSIONS

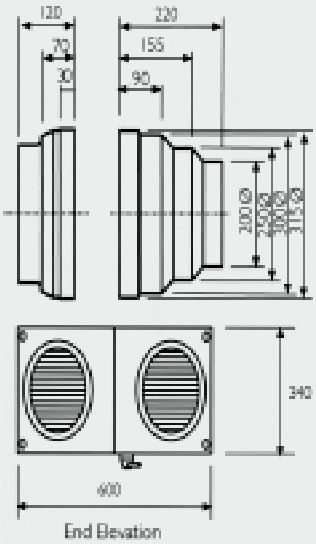


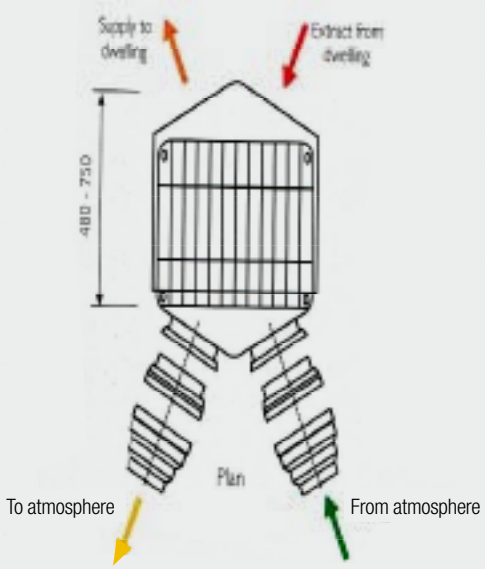


TECHNICAL DATA "IND2"

Air flows: see ACP/ACM
Weight: 9 Kg.
Hole in the wall: 610 x 380

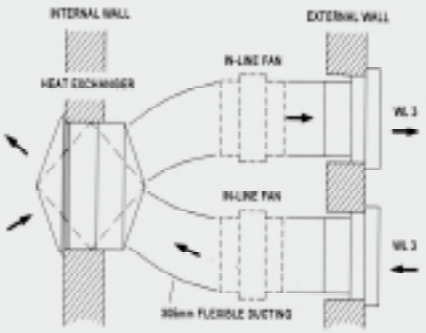
DIMENSIONS

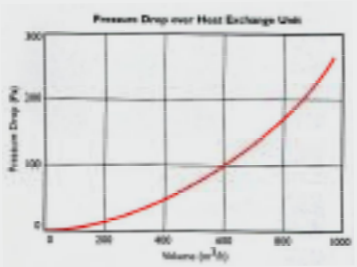




INSTALLATION

INSIDE OUTSIDE

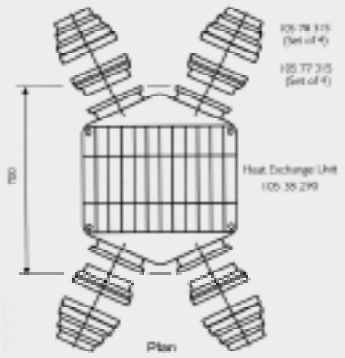


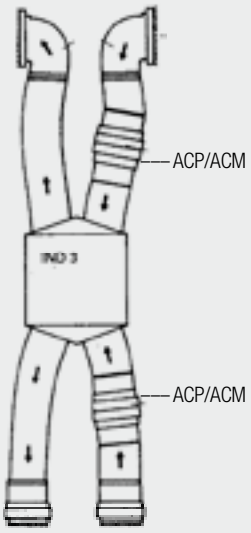


TECHNICAL DATA "IND3"

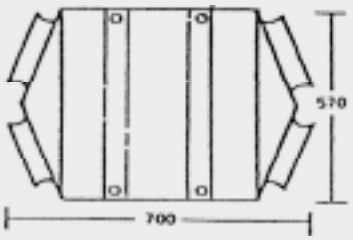
Weight: 10 Kg. **Air flows:** ACP/ACM in line fans

DIMENSIONS

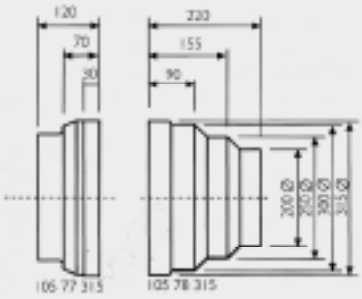


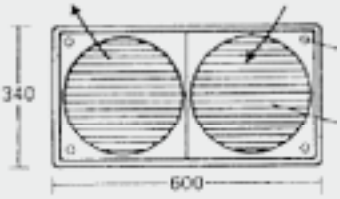


TYPICAL INSTALLATION

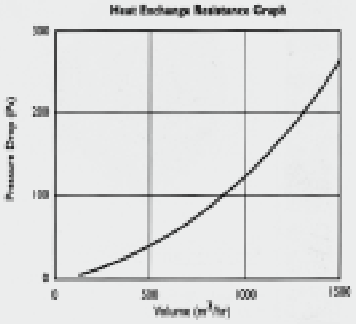


Example of spigot reductions



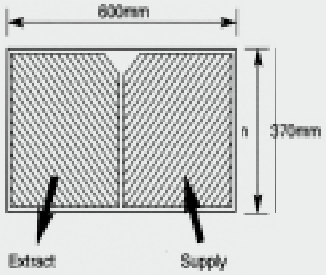


PERFORMANCE

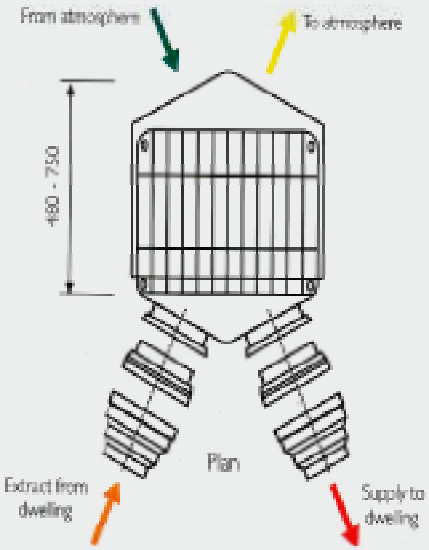


TECHNICAL DATA "IND4"

Weight: 19 Kg.
Hole in the wall: 610 x 380 mm.
Power absorption: 210 W 220.1.
Noise level: 31/53 dB(A) at 3 mt.



DIMENSIONS



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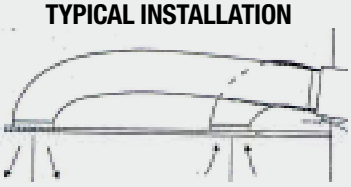
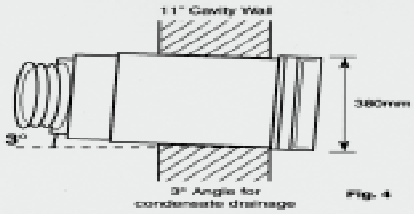
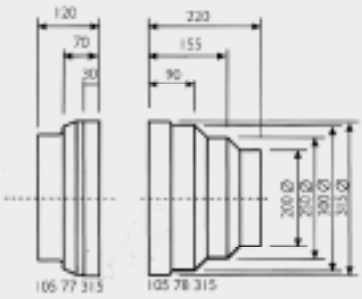
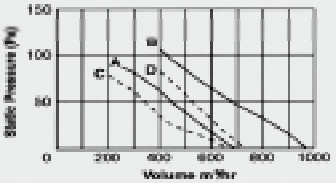




Example of spigot reductions



PERFORMANCE CURVE

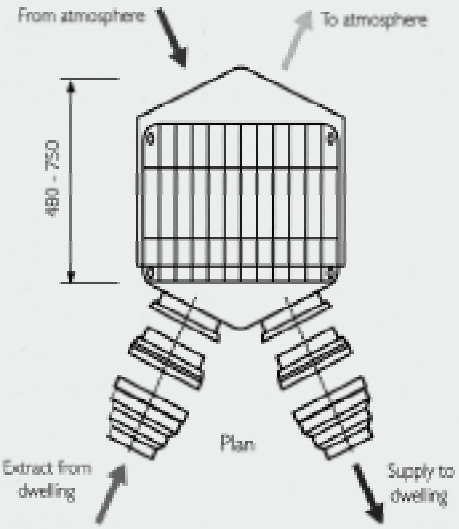


A - Mean heat recovery performance
B - Double extract performance
C - Supply
D - Extract

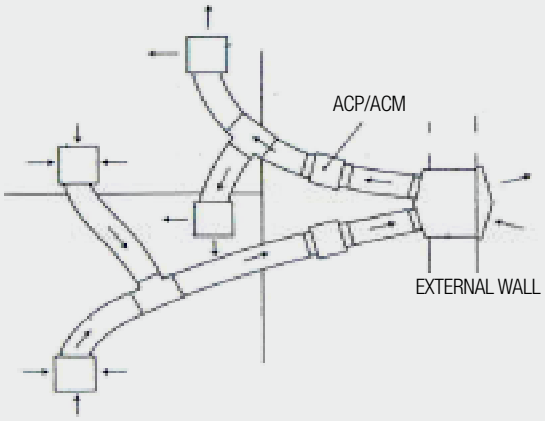
TECHNICAL CHARACTERISTICS "IND5"

Weight: 10 Kg. **Air Flows:** see ACP/ACM. **Hol in the wall:** 610x380 mm.

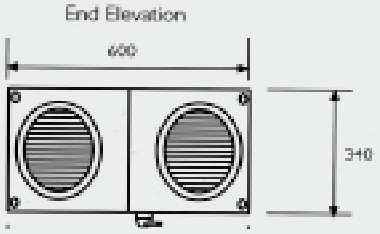
DIMENSIONS

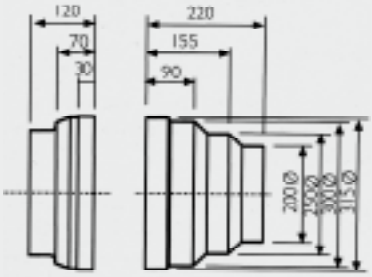


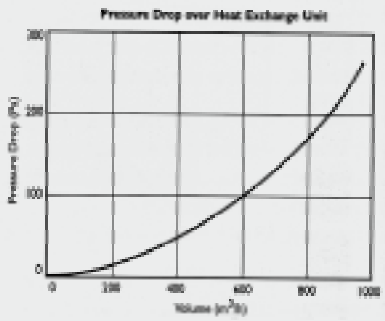
TYPICAL INSTALLATION



Example of spigot reductions







THERMAL EFFICIENCY