



DET+DETV EXHAUST/SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT DESCRIPTION

This ingenious architectural valve is suitable for homes as well as for offices. You can choose between a ceiling or a wall installation.

This product is not only pleasing to the eye, it combines also exceptional air technical performances at an extremely low noise level.

You can use this residential valve easily as supply or exhaust, in new buildings and for renovation. Also servicing is done in a flash.

The residential diffuser consists of two parts:

- The base valve (available with mounting bracket or springs)
- The deflector plate (available in different shapes and surface finishings)

A simple screw joint couples both parts faultlessly.

Each valve has a double lip seal. In this way your ductwork gets a class D airtightness (EN1751).

Next to that a static pressure measurement can easily be done.

Because every detail is important, you can choose for the primer version. (standard RAL9010)

You can paint your residential diffuser in your favorite color and give a personal touch to the design and your home!

APPLICATION	Product	DET***
	Direction airflow	Radial
	Type airflow	Supply or exhaust
CONSTRUCTION	Volume control	Damper, pressure measurement possible
	Front plate	Different shapes possible →
MATERIAL	Standard material	PP (Base), powdercoated aluminium (Damper plate)
	Standard finishing	RAL9010
INSTALLATION	Mounting options	Mounting springs, mounting bracket

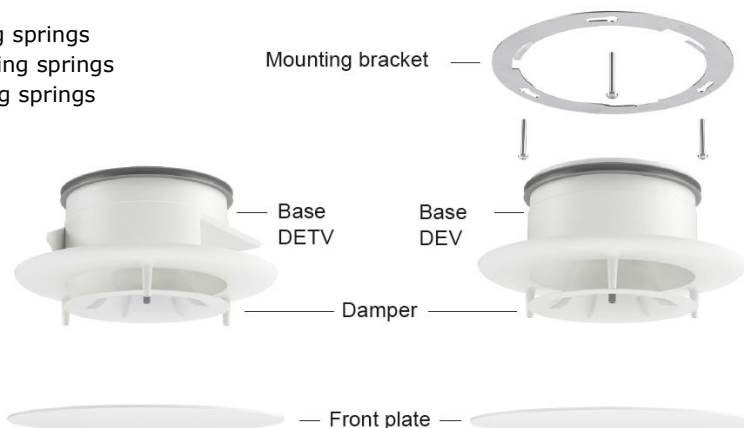


DETL-125 - Valve Ø125mm large frontplate with mounting bracket
DETQ-125 - Valve Ø125mm square frontplate with mounting bracket
DETS-125 - Valve Ø125mm small frontplate with mounting bracket

DETVL-125 - Valve Ø125mm large frontplate with mounting springs
DETVQ-125 - Valve Ø125mm square frontplate with mounting springs
DETVS-125 - Valve Ø125mm small frontplate with mounting springs

QUICK SELECTION TABLE

RESIDENTIAL VALVE SUPPLY 125mm			
Lw			
20 dB(A)	25 dB(A)	30 dB(A)	35 dB(A)
73 m³/h	86 m³/h	104 m³/h	125 m³/h
RESIDENTIAL VALVE EXHAUST 125mm			
Lw			
20 dB(A)	25 dB(A)	30 dB(A)	35 dB(A)
73 m³/h	86 m³/h	102 m³/h	121 m³/h



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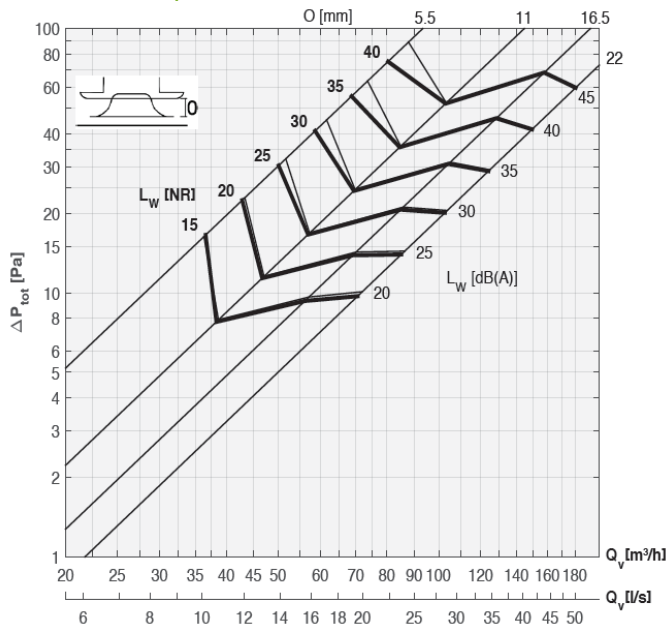




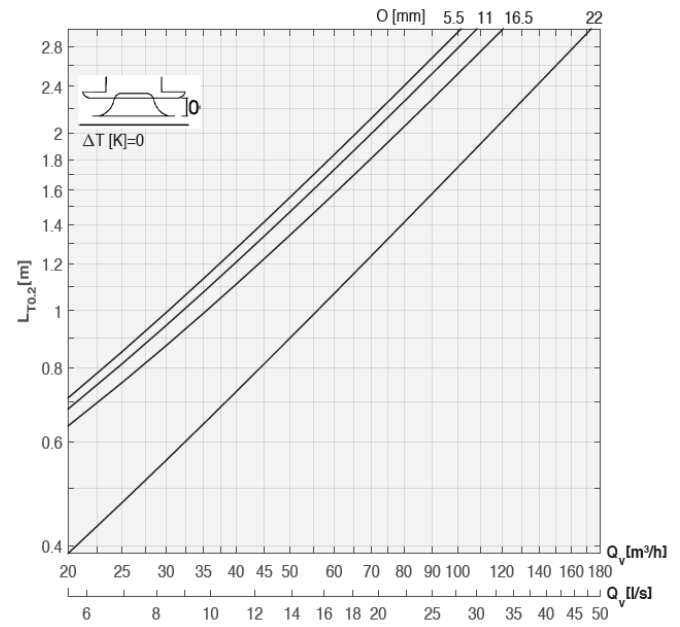
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AIR MANAGEMENT SYSTEMS

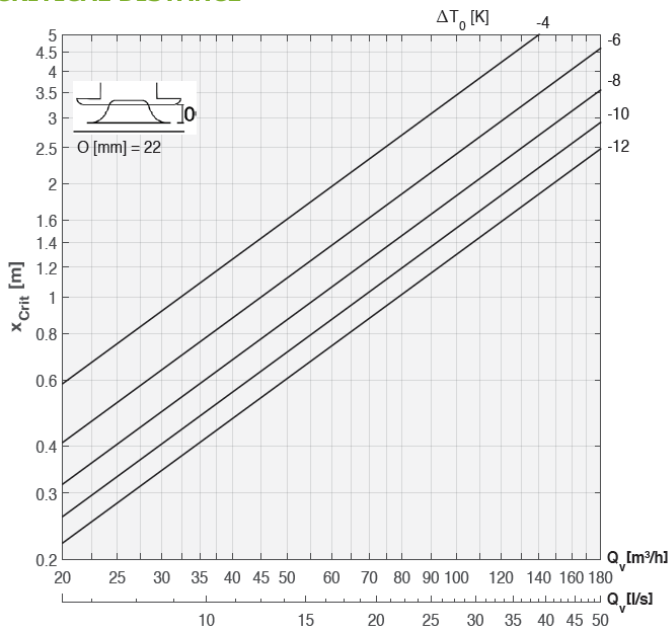
SUPPLY SOUND POWER, PRESSURE DROP



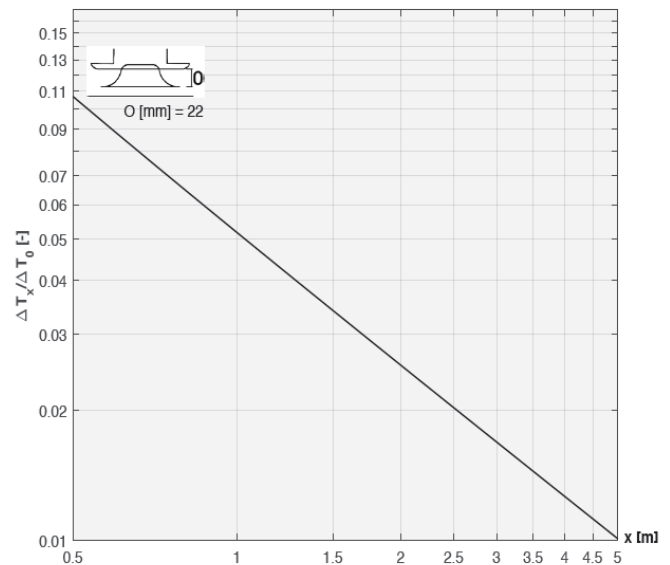
THROW



CRITICAL DISTANCE



TEMPERATURE



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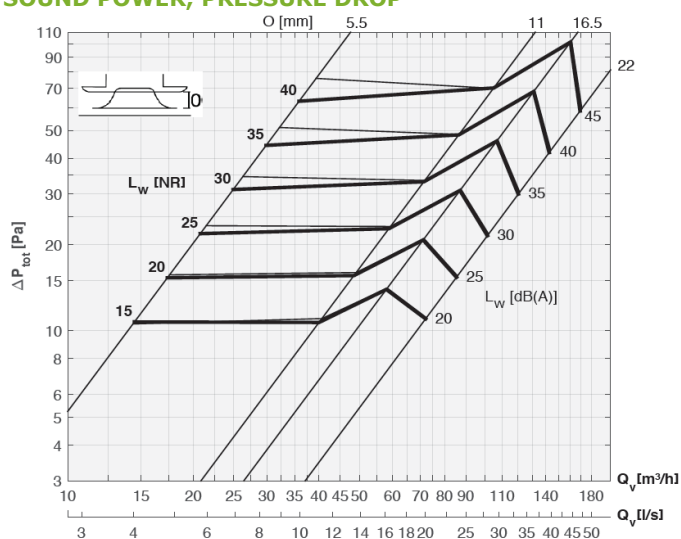




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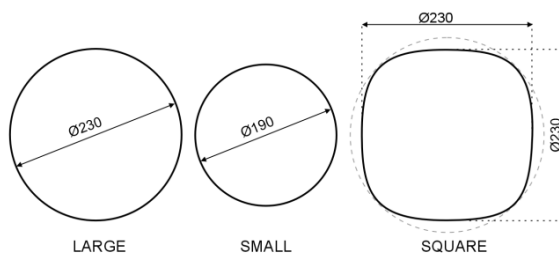
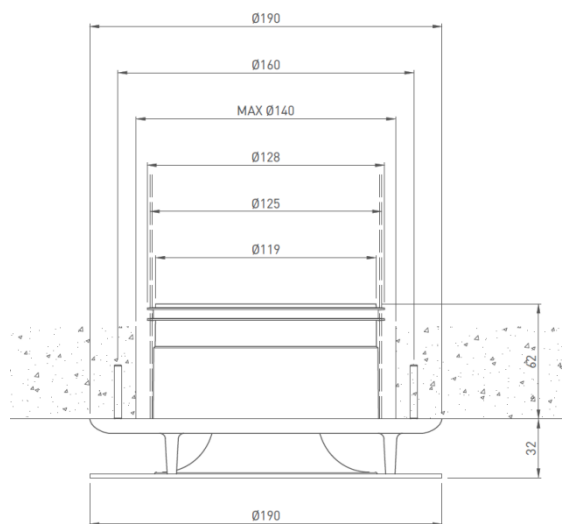
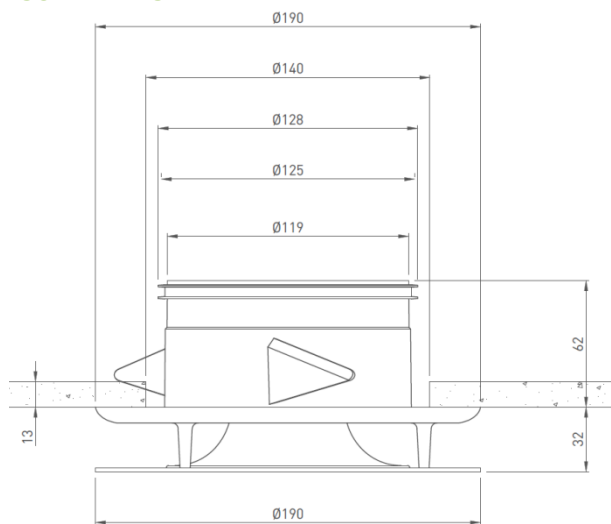
AIR MANAGEMENT SYSTEMS

EXHAUST SOUND POWER, PRESSURE DROP



Symbol	Unit	
ΔP_{tot}	[Pa]	total pressure loss
x_{crit}	[m]	critical distance at which the jet detaches from the ceiling because of ΔT_0
Q_v	$[m^3/h]$ / $[l/s]$	airflow
ΔT_x	[K]	difference between ambient temperature and jet centreline temperature at distance x
ΔT_0	[K]	temperature difference between ambient air and supply air
LW	[NR] / [dB(A)]	sound power
$L_{T0.2}$	[m]	distance at which the jet centreline velocity decreases to 0.2 m/s
O	[mm]	aperture
x	[m]	distance measured from the diffuser's centre

MEASUREMENTS



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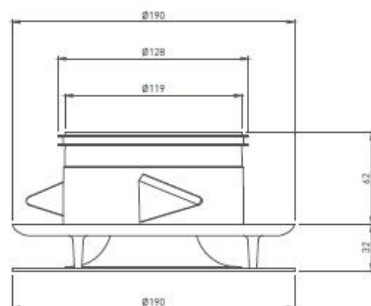


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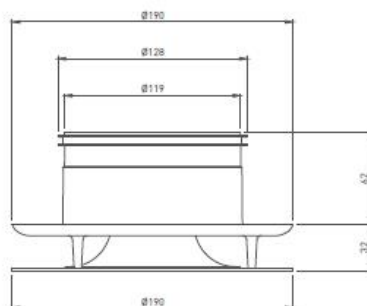
AIR MANAGEMENT SYSTEMS

MOUNTING INSTRUCTIONS

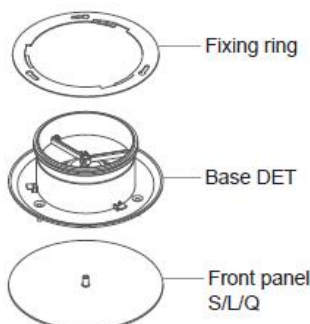
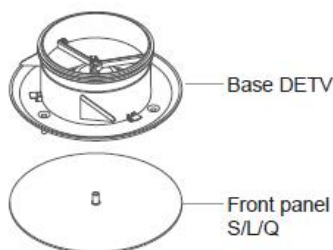
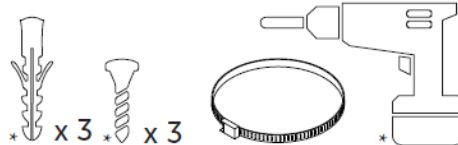
DETV
With mounting springs. Suitable for
plaster ceiling up to 16 mm thick.



DET
With mounting ring. Suitable
for all other ceilings.

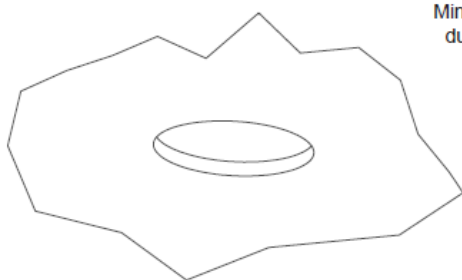


TOOLS (*only for the DET with mounting bracket)



PREPARATION

Make an opening in the ceiling
Minimal hole size = 128 mm for installation in a
duct and 135 mm for a flexible duct Maximum
size of the hole = 140 mm.



NOTE

Use a hole saw - Ø 140 mm

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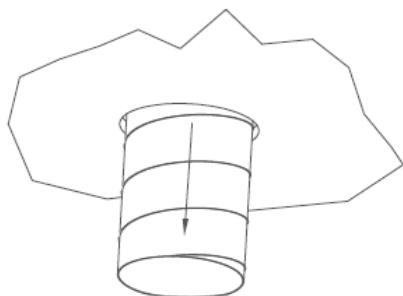
DETV

EXHAUST/SUPPLY AIR VALVE

AIR MANAGEMENT SYSTEMS

INSTALLATION DETV - WITH MOUNTING SPRINGS (only for plaster ceilings)

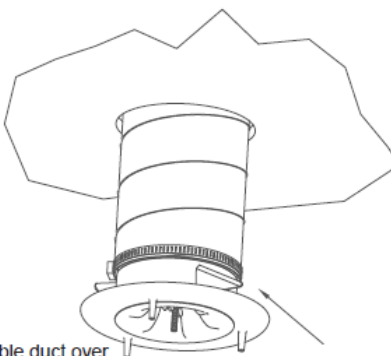
1.



Guide the flexible duct through the hole and remove 20 cm of insulation if necessary.

! With solid ducts, you can directly install the valve and turn in a clockwise direction.

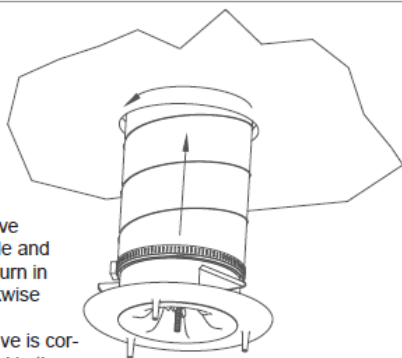
2.



Slide the flexible duct over the valve, against the springs and secure it with a clamping band.

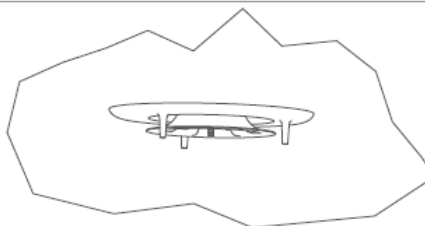
! Clamping band is not included

3.



Place the valve inside the hole and turn it half a turn in the anti-clockwise direction. When the valve is correctly installed in the ceiling, turn it a quarter turn in the clockwise direction.

4.

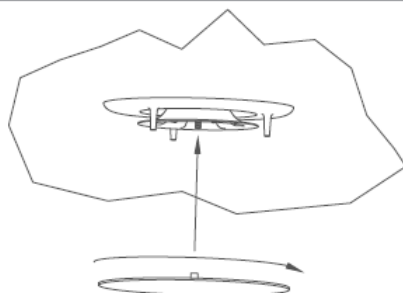


The base is now perfectly attached to the ceiling.

The volume damper can be adjusted to get the desired flow rate (see table)

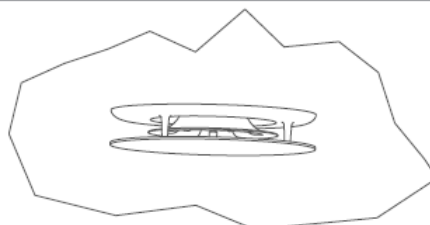
O [mm]	Qv [m³/h]	Δp _{supply} [Pa]
5,5	25	8
11	50	13
16,5	75	16
22	100	19

5.



Attach the front plate by mounting the threaded connector. Rotate the plate until it is perfectly adapted.

6.



The valve is now assembled.

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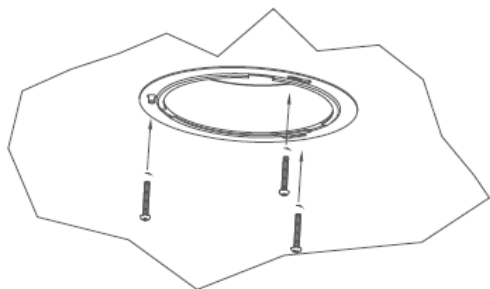


DET EXHAUST/SUPPLY AIR VALVE

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MONTAGE DET - WITH MOUNTING RING (for all other ceilings)

1.



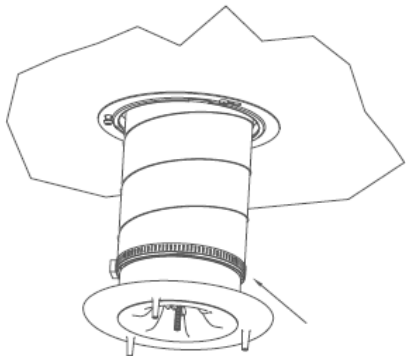
Fix the mounting ring with screws.
Use screws and dowels that are
suitable for the ceiling type.

2.



Guide the flexible duct
through the hole
and remove 20 cm of
insulation if necessary.

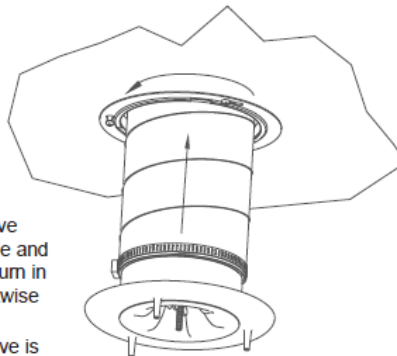
3.



Slide the valve over the
valve and secure it with a
clamping band.

! Clamping band is not
included

4.



Place the valve
inside the hole and
turn it half a turn in
the anti-clockwise
direction.
When the valve is
correctly installed in
the ceiling, turn it a
quarter turn anti-
clockwise.

5.

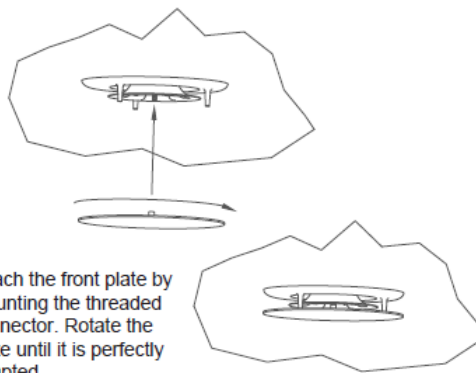


The valve is now perfectly
adapted to the ceiling.

The volume damper can be
adjusted to get the desired
flow rate (see table)

O [mm]	Qv [m³/h]	Δp _{supply} [Pa]
5,5	25	8
11	50	13
16,5	75	16
22	100	19

6.



Attach the front plate by
mounting the threaded
connector. Rotate the
plate until it is perfectly
adapted.

The valve is
now assembled.

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