

THE MOST INNOVATIVE VENTILATION FOR BUILDINGS UNDER CONSTRUCTION AND RENOVATION Replace Your Mechanical Ventilation with TwinFresh Comfo

# Ventilation Application example based on TwinFresh Comfo



### One TwinFresh Comfo unit can serve rooms up to 343 SQ.FT

To arrange a ventilation system based on **TwinFresh Comfo ventilators**, install one unit in each room. For larger premises, install two ventilators. Units can operate independently or can be wired for Master-Slave operation.

Air flows from one room to another through door grilles, openings or halls and ensures required circulation in premises.

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### Efficient Energy Recovery Ventilation in Winter and Summer

Random cracks or opening a window lets cooler fresh air into the house but at the same time it lets the heated air out. This ventilation method increases both furnace load and your heating bills.

In cold season, Twin Fresh recovers energy from the exhausted air to pre-treat the air entering the house. It not only helps to save on energy cost but it reduces the load placed on the furnace.



## TwinFresh Comfo vs Regular ERV



TwinFresh Comfo		Regular ERV
No	Ductwork required	Yes
No	Dust collection inside a ductwork	Yes
No	Complicated wiring of the controls	Yes
No	Balancing is required	Yes
No	Professional installers are needed	Yes
No	Additional interior works to hide ducts	Yes
No	Separate room for installation	Yes
No	Antifreeze protection for core	Yes
< 24 W	Power consumption for a 4 bedroom house	> 100 W
$\leq$ 90 %	Apparent Recovery Effectiveness	$\leq 80 \%$
0.2-0.5	Sones/Sound level	3

### Benefits:

Pending patent on ceramic ERV core:

- Apparent Recovery Effectiveness is  $\leq 90\%$
- Recovers heat and moisture to reduce heating costs in winter and air conditioning costs in summer EC-motor
- Eficacy 5.7 CFM/W Twice as high as the Energy Star requirement
- Wishper quiet operation, as low as 0.2 SONES Aluminium or stainless steel outer hood:
- Modern design that fits any interior and exterior.

- 100% corrosion proof.

Plug-&-Play installation:

- No special skills required
- No balancing needed
- Through the wall installation. Compact unit design Multifunctional Wireless Remote Control Almost no maintenance required
- Washable filter and core.

MERV6 air purification

Antibacterial treatment of ERV core and filters

### TwinFresh Comfo design





Turning ventilator on / off Speed switch Passive air supply: The louvre shutters are opened, but the fan stands still. Ventilation:

All the ventilators in the network operate permanent air extract or air supply mode

#### Humidity control mode selection:

The ventilator automation enables setting one of three humidity set points (45, 55 or 65 %). The ventilator will operate to increase or decrease the indoor humidity level to maintain comfortable environment for you.

### Niah mode:

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The ventilator is switched to low speed on a signal from built-in light sensor

Supply mode: The fan continuously supplies fresh air to the room. Ventilation with

### energy regeneration: The ventilator switches from supply and extract modes and

vice versa in a set time period to enable the transfer of heat energy in winter and control of moisture in summer.

#### **Operation of TwinFresh Comfo Ventilators**

### The ventilator is designed for both extract and supply ventilation with energy recovery function.

- CYCLE I. While warm, stale air is extracted from a room it passes through the ceramic energy core where the heat and moisture is being accumulated.
- After the ceramic core heats up, the ventilator automatically switches to supply mode. CYCLE II. As the clean, fresh air from outside passes through the ceramic energy core, it
- absorbs moisture and it warms up due to to the accumulated heat. As temperature of the accumulator drops down, the fan switches to extract mode and the cycle is renewed. The ventilator changes its operation mode for supply or extract ventilation every 70 seconds.

### CYCLE I 19 ºF 68 0 19 °F **)** 14 °F AIR SUPPL CYCLE II 14 °F

## Technical data





TwinFresh Comfo RA-50



TwinFresh Comfo RA1-50



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