

IAQ

Indoor Air Quality

ERV

Thermo Ventilator

Ventilation Fan

Accessories

Comfortable **ventilation solution** for people and air
Himpel is heading to the world.

Himpel, a **ventilation specialized company** established in
1989, is **realizing** a pleasant and healthy **ventilation culture**.

- | | | | |
|--|---|--|---|
| <p>1989</p> <ul style="list-style-type: none"> Established Jindo Precision Chemicals Co., Ltd. | <p>1997</p> <ul style="list-style-type: none"> Selected as a promising small entity (in GyeongGi-Do) | <p>1999</p> <ul style="list-style-type: none"> Acquired KS (Korea Industrial Standards) mark (ventilation fan) | <p>2000</p> <ul style="list-style-type: none"> Changed the company name to Jindo Living Tech Co., Ltd. |
| <p>2003</p> <ul style="list-style-type: none"> Acquired ISO 9001 | <p>2005</p> <ul style="list-style-type: none"> Approved Lab affiliated with company (No. 051108) | <p>2006</p> <ul style="list-style-type: none"> Certificated as INNO BIZ company (R6061-0049) by the Small and Medium Business Administration of Korea | <p>2008</p> <ul style="list-style-type: none"> Received the small and Medium Business Administration Award |
| <p>2009</p> <ul style="list-style-type: none"> Received the Small and Medium Business Award for Technology Innovation Selected as GOOD DESIGN (ventilation fan) Received the Minister of Knowledge and Economy prize | <p>2010</p> <ul style="list-style-type: none"> Changed the company name to HIMPEL Co., Ltd. Acquired European Electrical Appliances Safety Certification CE | <p>2011</p> <ul style="list-style-type: none"> Selected as a Top 500 HT Product of Small and Medium Business | <p>2012</p> <ul style="list-style-type: none"> Won the Prime Minister's commendation as a small business contributor (in manufacturing division) Acquired KS (Korea Industrial Standards) mark (Heat recovery ventilation system) |
| <p>2014</p> <ul style="list-style-type: none"> Won the President of Korea Consulting as Company Renovation (the Korea Chamber of Commerce & Industry) Selected as Small Hidden Champion (Ministry of Employment and Labor) | <p>2015</p> <ul style="list-style-type: none"> Acquired Indonesian safety certification SNI Received a commendation from the Minister of Trade, Industry and Energy in the leadership section of the National Productivity Competition Selected as Excellent Job Company(GyeongGi-Do) | <p>2016</p> <ul style="list-style-type: none"> Received the National Brand Promotion Agency Award for Best Reading Management Workplace Received a commendation from the Minister of Trade, Industry and Energy as Company Renovation | <p>2017</p> <ul style="list-style-type: none"> Delivered and completed the heat recovery ventilation system for the first zero energy house demonstration complex in Korea Selected as an excellent female employment company |
| <p>2018</p> <ul style="list-style-type: none"> HUEZENTTE selected as Good Design Acquired China electrical product safety certification CCC Received a commendation from the Ministry of Gender Equality and Family for employment support business for women with career interruption | <p>2019</p> <ul style="list-style-type: none"> Awarded as an exemplary taxpayer from the Ministry of Strategy and Finance Received the Presidential Citation for the 40th anniversary of Korea Industrial Technology Received the 1 Million Dollar Export Tower award Completed the Zero Energy plant (first in Korea) | <p>2020</p> <ul style="list-style-type: none"> Awarded by Korea Facility Technology Association | <p>2021</p> <ul style="list-style-type: none"> Awarded 1st in Korea customer satisfaction index Received HUEVEN S New Product (NEP) Certification Received presidential citation at Korea Green Management Awards Received citation from the minister of employment and labor for youth job creation |
| <p>2022</p> <ul style="list-style-type: none"> Acquired ISO 45001 | | | |

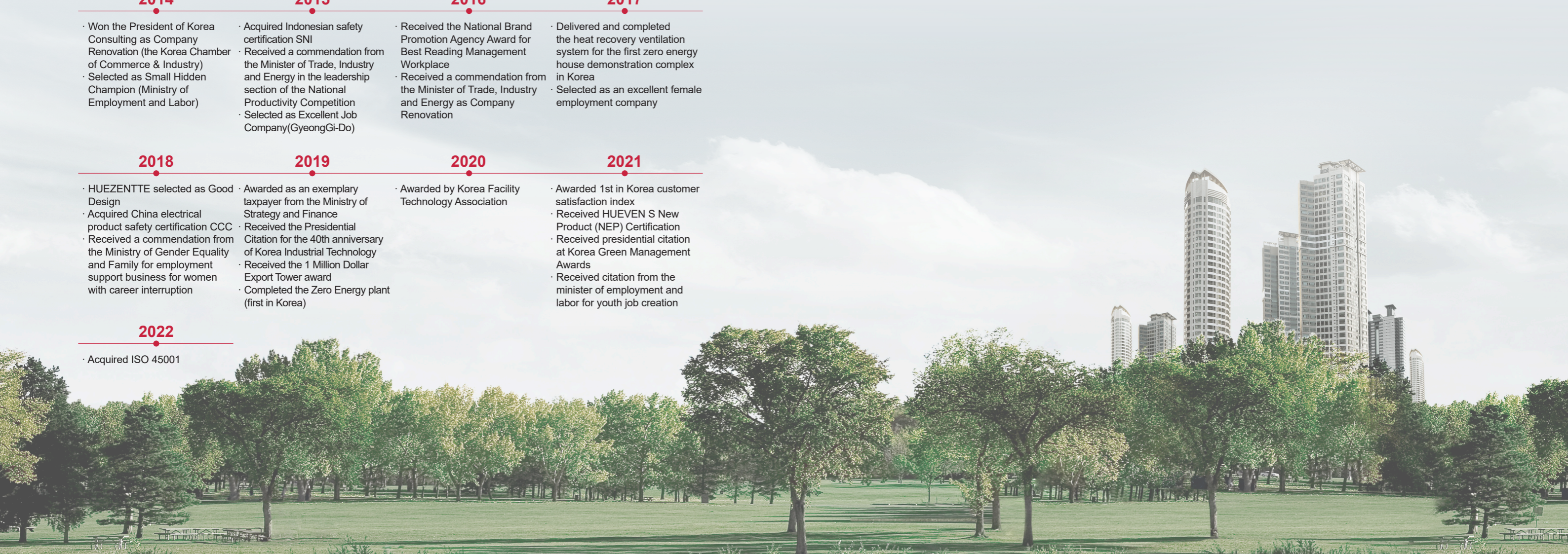
Himpel's mission is "Contributing to human health through air and energy technology."

In 2003, we were the first in the industry to obtain ISO9001 certification, which is certified by UKAS in the UK. The excellence of our technology and quality is being recognized worldwide through the KS certification of the Korea Standards Association, the constant air volume certification of the Korea Facility Technology Association, and the international standards CE, PSE, SNI, and CCC certification.










We have established a wide range of delivery records and the best professional network covering excellent domestic construction companies. Specialized products and sincere services are the best benefits that only Himpel customers can enjoy.

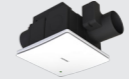












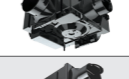








We will continue to provide and realize a pleasant and healthy ventilation culture with eco-friendly, high-quality ventilation specialty products in the future,

Sincerely yours, President **Jeong-Hwan Kim**



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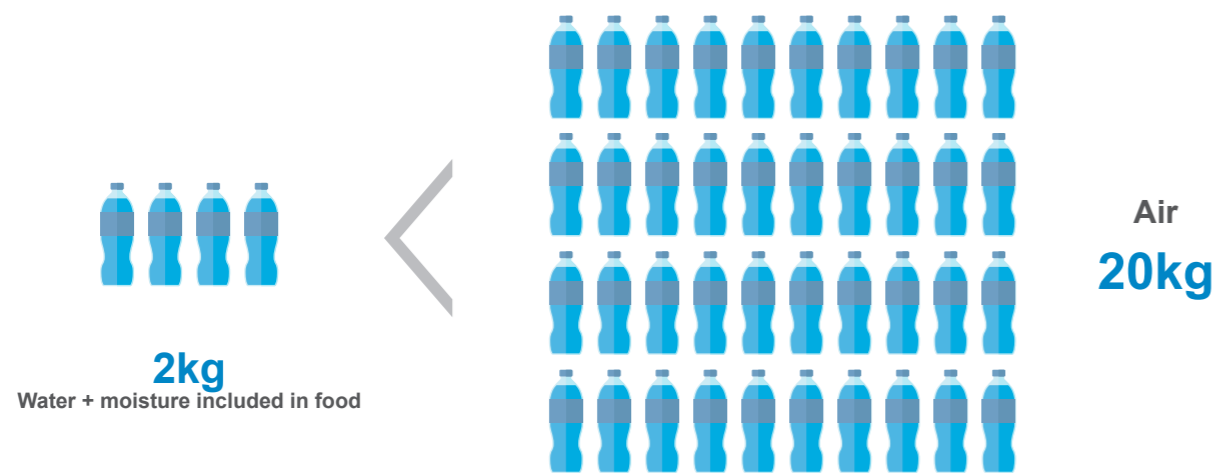


You close the window because of fine dust.
Is the indoor air you breathe safe?

Modern men spend over 90% of the day indoors. Indoor pollutants are 1,000 times more likely to be transmitted to human lungs than outdoor pollutants. Of the 7 million air pollution-related deaths (in 2012), 61% or 4.3 million deaths are attributed to 'indoor air' pollution, resulting in heart disease, stroke, and lung disease.

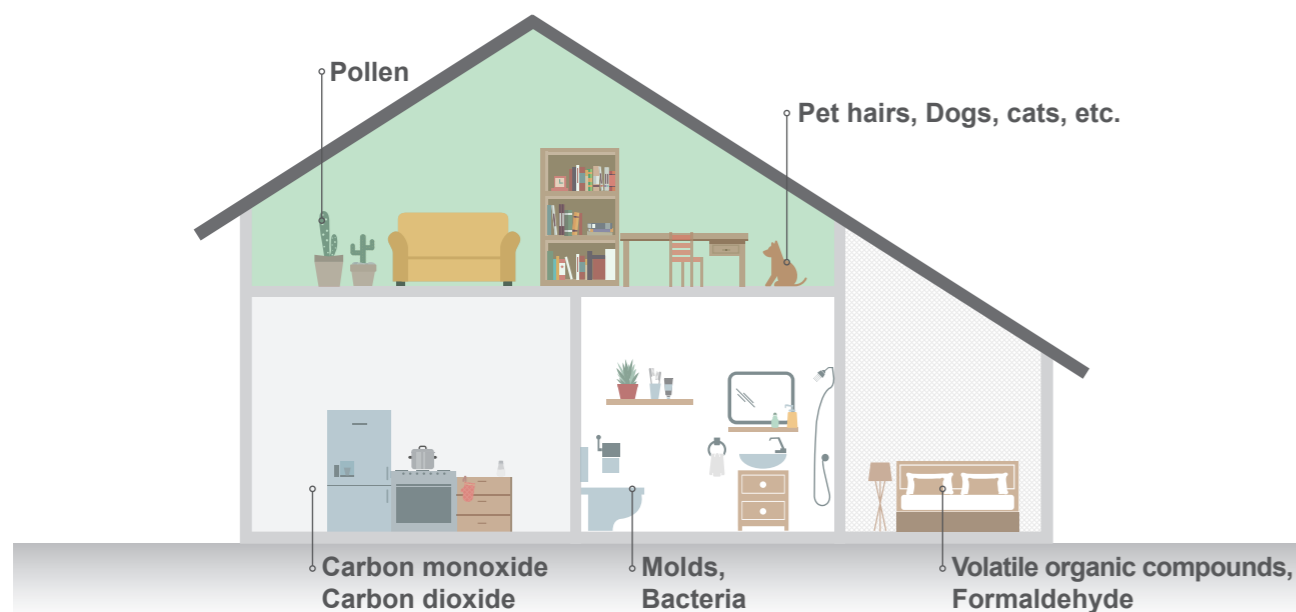
What is the amount of air you breathe in a day?

(Based on daily consumption amount per person)

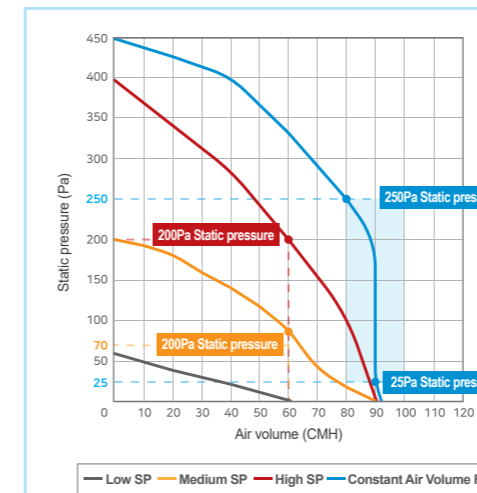


"Air is equivalent to 20 times the daily intake of water and food"

What are the causes of indoor pollution in the house?



Indoor air to breathe
Turn it into a Himpel ventilation appliance!



Constant air volume exhaust fan

The air volume is maintained to be more than 60CMH within the static pressure of 20-250Pa, and the variation of the max a minimum air volume is kept within ±10% (always maintaining constant air volume). (KARSE B 0044)

High static pressure exhaust fan

The air volume is more than 60CMH at the static pressure of 200Pa.

Medium static pressure exhaust fan

The air volume is more than 60CMH at the static pressure of 70Pa.

Low static pressure exhaust fan

The air volume is more than 60CMH at the static pressure of 0Pa.

Why should I use a constant air volume fan?

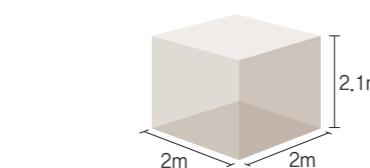
Even if the static pressure difference increases due to the high-rise and high-density of the building, the air volume does not decrease and ventilation is always constant, maintaining a comfortable bathroom throughout the four seasons.

Calculation of ventilation volume by area

Required number of ventilations

Dimensions of bathroom space

Division	Number of times (per hour)
Bathroom	6 to 10 times
Bathroom	2 to 4 times
Living room	4 to 6 times
Kitchen	10 to 20 times
Hall/Stairway	4 to 6 times
Utility room (Storage)	15 to 20 times



$$\begin{aligned} \text{Ventilation required for bathroom} &= (\text{width} \times \text{height} \times \text{height}) \times \text{number of required ventilations} \\ &= (2 \times 2 \times 2.1) \times (6-10) \\ &= \mathbf{51-84CMH} \end{aligned}$$

* Ventilation per room is based on the number of natural ventilations

* The above calculation method was created to help you select a ventilation fan, and there may be differences in performance and experience due to external influences (installation location, duct length, duct bending degree, etc.) in actual use.

Recommended ventilation fans by housing type

Housing type	Category	Recommended product
Apartment (Shared housing)	High rise (15th to 20th floors and above)	ZEROC
	Middle floor (Floors 10-15)	Firex / ZEROC
	Low floor (1-10 floors)	TURBO 747 / Firex / ZEROC
Villa	5th floor and below	Firex / ZEROC
Single	1st-2nd floor	Firex / ZEROC

* Based on the highest number of floors

* Product specifications may differ depending on the installation and construction conditions.

How is HIMPEL ERV different from the air purifier?

Category	ERV	Air purifier
Installation space	Living room, regular room, utility room, outdoor unit room, balcony, veranda and others	living room, regular room
Clean space	Clean the entire household (within 2 hours with one equipment)	Clean only the layout space (requires products for each room)
Air volume	100 ~ 250 (Possible to set the desired air volume)	Not disclosed by the manufacturer (Cannot be set)
Noise	40dB or less	40-60dB
Filter	pre-filter, medium filter, HEPA filter	Pre-filter, Carbon filter, HEPA filter
Space restriction	None	Occupation of installation space and restriction of surrounding space
Advantages and Disadvantages	Removal of harmful gas and supply of oxygen	Cannot remove harmful gas and supply of oxygen

Hueven S

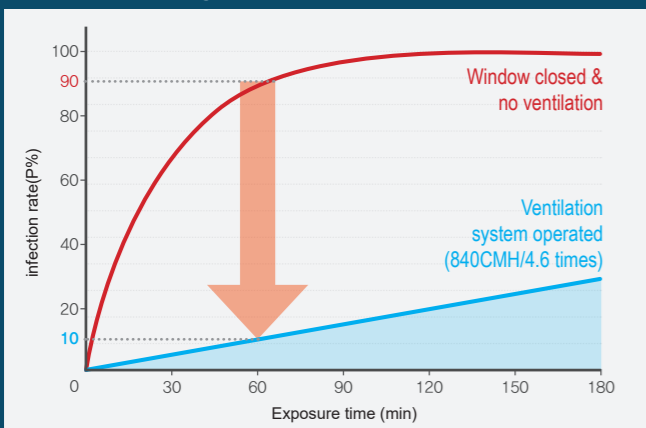
Korea's first stand type ventilation system (ERV) NEP(New Excellent Product) Certification / Pin-Up Design Award

- NEP (New excellent product) is a certification that evaluates technicality, product performance, and quality of products to which new technologies developed for the first time in Korea are applied by the Ministry of Trade, Industry and Energy(MOTIE).
- The Pin-up design was awarded in recognition of the excellence of design value in a contest hosted by the KAID(Korea Association of Industrial Designers).



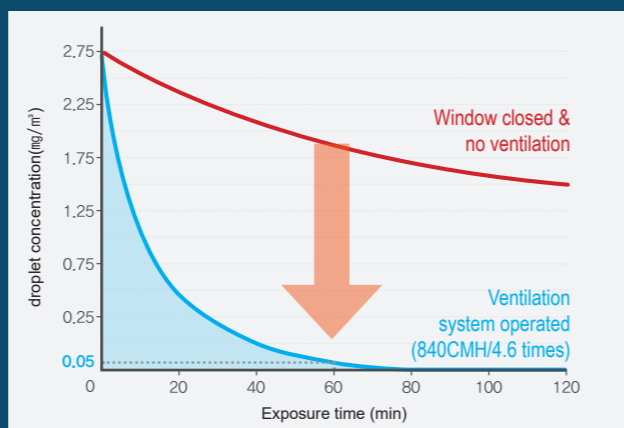
Reduction of virus infection rate and droplet removal effect when mechanical ventilation is used

1. Effect of reducing virus infection rate



90% reduction of infection rate

2. Virus droplet removal effect



98% reduction of droplet concentration

• Laboratory : 181m³, initial droplet concentration : 2.7mg/m³ / Cooling conditions: Indoor temperature (RA) 20.1°C, Outdoor temperature (OA) 29.6°C (based on 2 HRD2-400EGS units)
 • Reference thesis : Estimation of airborne viral emission: Quanta emission rate of SARS-CoV-2 for infection risk assessment, Department of Civil and Mechanical Engineering, University of Cassino (Italy), Queensland Institute of Technology (Australia), 2020

Huezentte 2

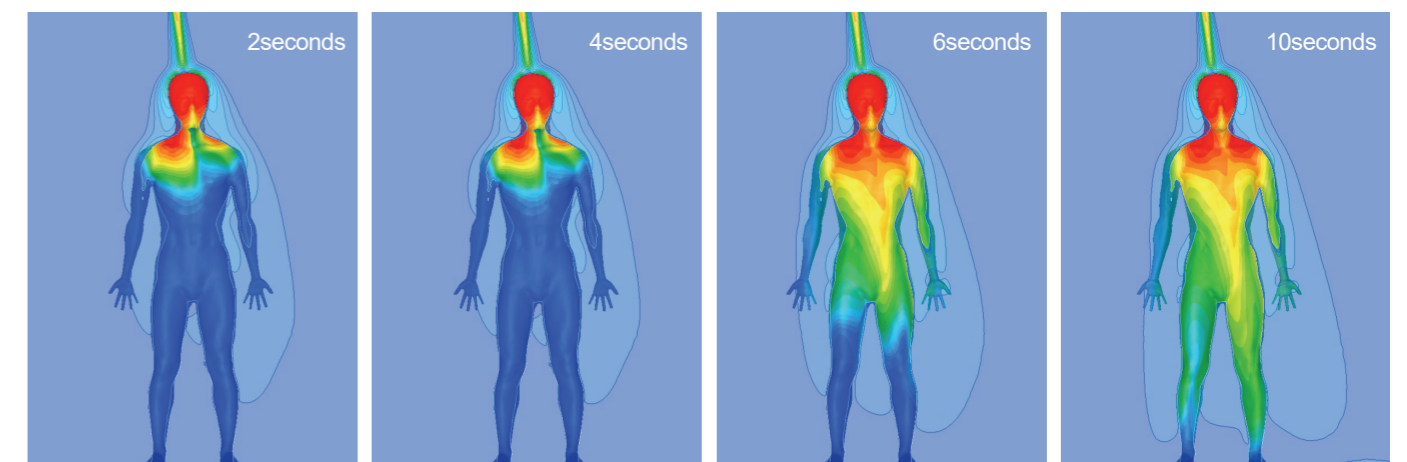
Korea's first thermo ventilator Awarded IR52 (Jang Young-sil Award) / Good Design Award

* Jang Young-sil is a famous Korean inventor. He is famous enough to be called the Thomas Edison of Korea.

- The IR52 is awarded by selecting and rewarding the research performance of companies hosted by the Ministry of Trade, Industry and Energy(MOTIE), as well as excellent new technology products and technological innovation achievements.
- The Good Design (GD) award is awarded by selecting an outstanding design from the Ministry of Trade, Industry and Energy.



From head to toe in 10 seconds! Huezentte Hair & Body dry effect

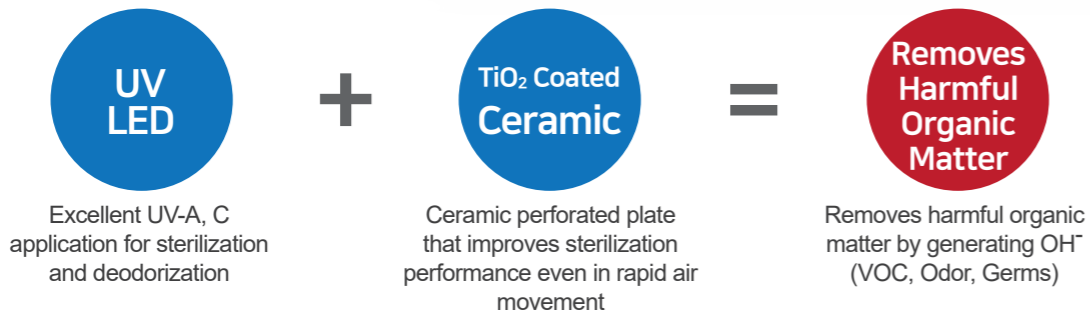


• Bathroom height: 2.1M / Adult height: 170cm / Huezentte dry 190CMH(strong)

UV sterilization

Removes even viruses and bacteria!

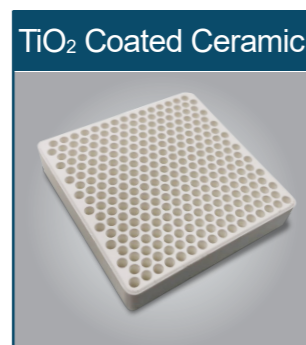
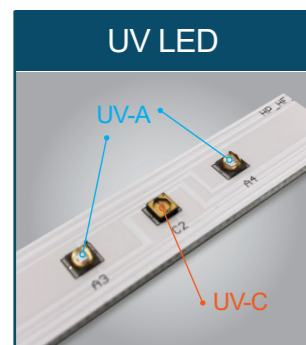
It is an anti-virus ventilation system with anti-virus sterilization technology for safe ventilation.



Removes harmful organic matter in a safer and more effective way compared to Ionizer and Plasma technology.

Anti-virus sterilization

By applying UV-A and C, stronger sterilization and deodorization functions by TiO₂ coated ceramic photocatalysis are added to provide cleaner air.



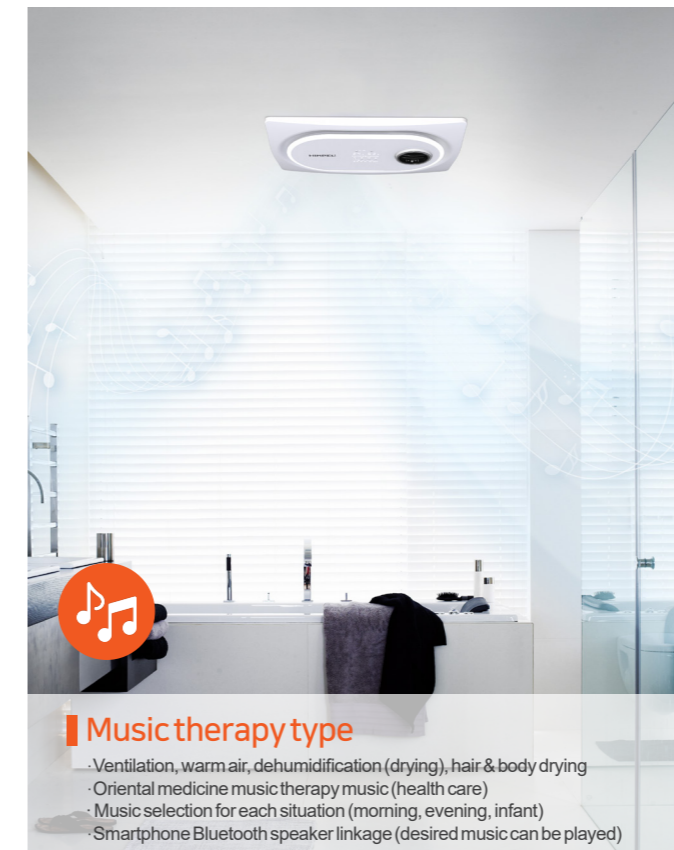
Type	Air sterilizer standard	Test result
Airborne bacteria reduction rate	More than 80% removed	99.0% removed
Airborne virus reduction rate	More than 60% removed	95.6% removed
Toluene	More than 70% deodorization	99.9% deodorization
Acetic acid	More than 70% deodorization	98.0% deodorization
Ammonia	More than 70% deodorization	95.8% deodorization
Acetaldehyde	More than 70% deodorization	92.0% deodorization
Formaldehyde	More than 70% deodorization	87.9% deodorization
Ozone production (PPM)	0.05 or less	0.003

※ Based on air sterilizer KOUVAAS 02:2019 / Test result of Korea Testing Laboratory
※ Test model: HRD-EP150IBC

Huezentte 3

Bathroom ventilation appliances that meet consumer needs

Creates a differentiated space with various optional functions that make the bathroom a comfortable healing space.



“HUEZENTTE3, a bathroom ventilation appliance that creates a differentiated space according to consumer needs”

ZEROC P Design The Ventilation System

Patent registration completed

We provide customized solutions for a comfortable and clean bathroom space 24 hours a day, 365 days a year.

Released in the second half of 2020

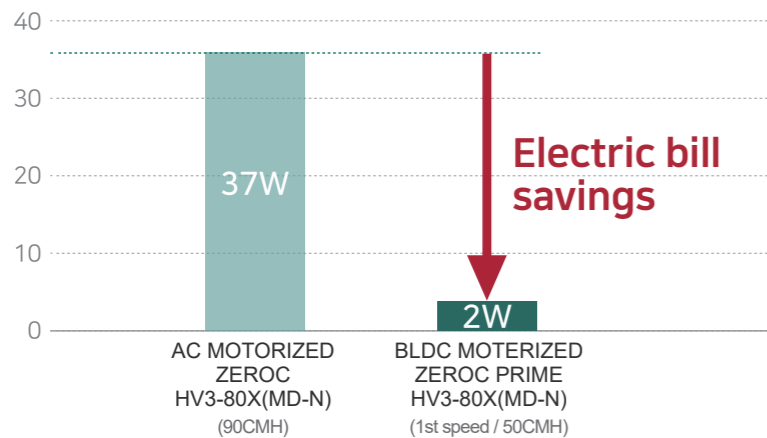


[Remote control]

- Lowest 2W ultra-low power consumption (1st speed)
- 160CMH turbo (10th speed), which is twice as high as a general fan
- Low-noise ventilator quieter than a library-25dB (1st speed)
- Automatic humidity operation and humidity display for customer convenience
- Wireless remote control that can adjust the air volume according to the situation
- World's first 10-stage airflow control
- Triple ventilation system (optional)

※ Product specifications and performance are subject to change depending on the quality improvement or installation conditions.

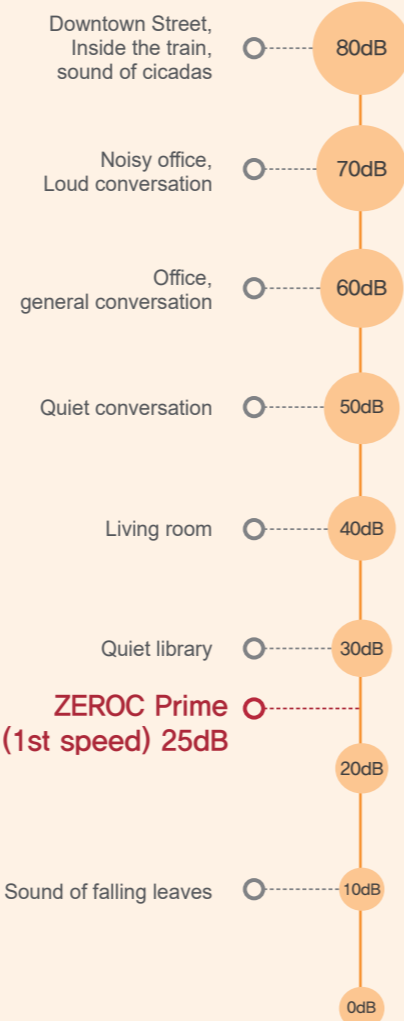
94.5% reduction in power consumption and energy



* Electric consumption when using 24 hours for 30 days

* There may be a difference in rates depending on the high-voltage and low-voltage housing.

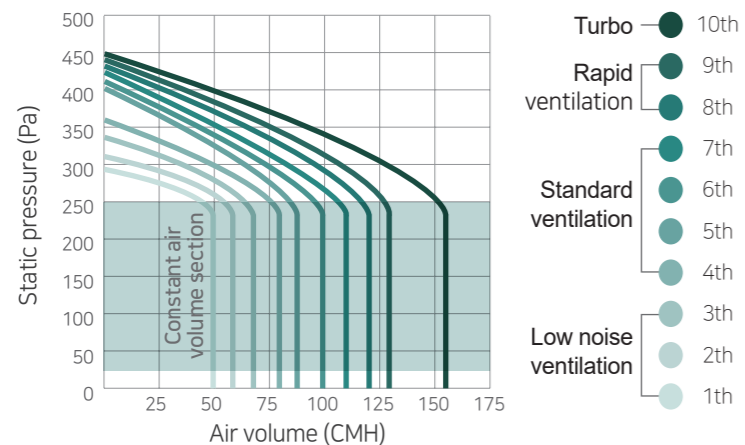
Ventilation fan quieter than the library



ZEROC Prime (1st speed) 25dB

The world's first 10-speed control constant air volume fan

This is a ventilator with a new concept that can control the air volume according to the bathroom environment from 50 to 160 air volumes.



LIVO P Add Ventilation to Ventilation

Patent pending

Customized ventilation solution expandable up to 3 branches in a ceiling-mounted body.

Released in the second half of 2020

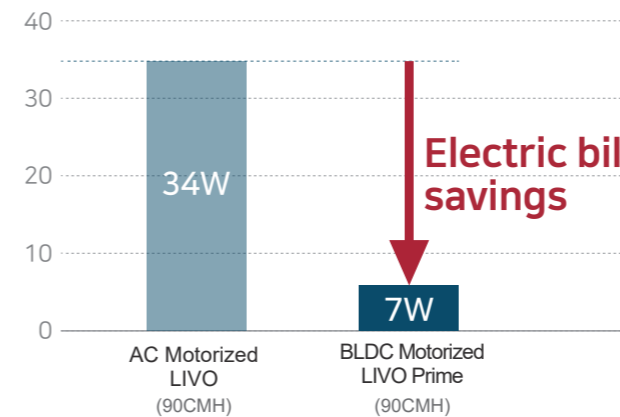


[Remote control]

- Highly convenient to install as a slim product with a height of 150mm
- Noise Down, Efficiency Up-31dB (90CMH based on 2 branches)
- Automatic humidity operation for customer convenience
- Wireless remote control that can adjust the air volume according to the situation

※ Product specifications and performance are subject to change depending on the quality improvement or installation conditions.

81% Reduction in power consumption and energy



* Electric consumption when using 24 hours for 30 days

* There may be a difference in rates depending on the high-voltage and low-voltage housing.

Realizing the low noise constant air volume

Constant air volume	Single room (1 branch)	Two-room (2 branches)
70CMH	30dB	28dB
90CMH	37dB	31dB
120CMH	45dB	40dB

Compact expandable ventilation appliance



Easy to install



Energy saving



Expandable ventilation system

A new change to the existing bathroom fan Compact expandable ventilation appliance

- Luxurious design that enhances installation convenience with a slim product
- Noise Down, Efficiency Up- Ventilation appliance with low noise and low power
- Reflecting customer convenience-Automatic operation of humidity and humidity display

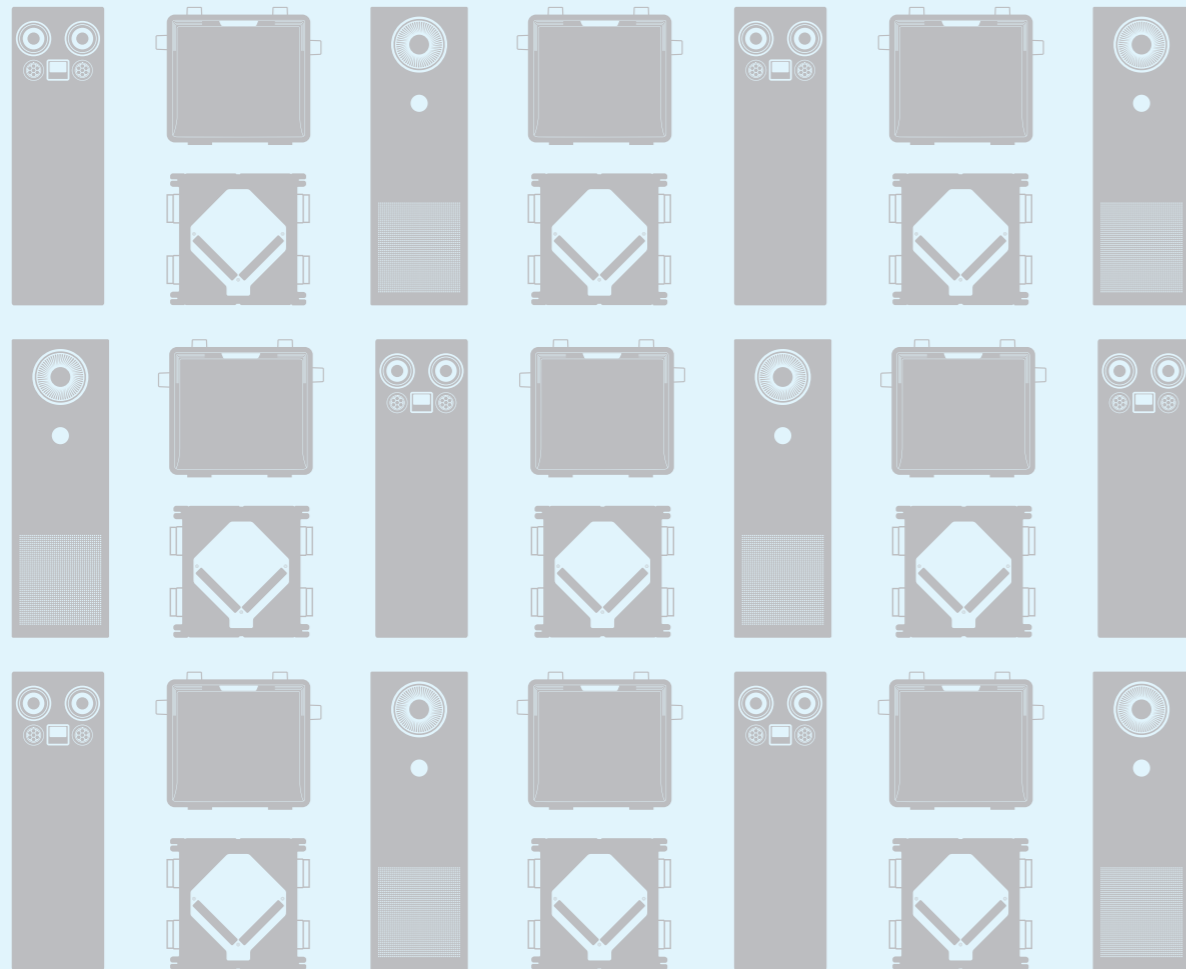
LIVO Prime all over my house! Multiple expansion branches available





- Smells and moisture from several places such as shoe cabinets and dressing rooms at once!
- Three types of ventilation are possible for a comfortable living space
- A high airtight motorized damper is applied as a standard, ensuring even headwinds!

ERV

A device that discharges contaminated air from the inside to the outside for healthy indoor air quality and puts fresh air from outside into the room

There are ERV, air supply systems, exhaust systems, hybrid ventilation systems, and 3-stage control systems and others.



	HUEVEN C 1 (Ceiling-Mounted Type) HRD-50C(SM), HRD-70C(SM)	15
	HUEVEN C 2 (Ceiling-Mounted Type) HRD-100C, HRD-100C(DS)	17
	HUEVEN A (Suspended Type) HRD1-50PLI_BC, HRD1-100PLI_BC	19
	HUEVEN E (Suspended Type) HRD-EP150I(DS), HRD-EP200I(DS), HRD-EP250I(DS)	20
	HUEVEN EBSN (Slim, Suspended Type) HRD-EP50IBSN, HRD-EP100IBSN, HRD-EP150IBSN	21
	HUEVEN EBN (Suspended Type) HRD-EP100IBN, HRD-EP150IBN, HRD-EP200IBN, HRD-EP250IBN	22
	HUEVEN EF 1 (Suspended Type) HRD-EP150IBC, HRD-EP200IBC, HRD-EP250IBC	23
	HUEVEN EF 2 (Slim, Suspended Type) HRD-EP100IBC, HRD-EP150IBCN	24
	HUEVEN EGI (Small) HRE-S150, HRE-S250(D), HRE-350(D)	25
	HUEVEN EGI (Medium, Large) HRD1-350EGI, HRE-500(D), HRE-800(D), HRE-1000(D)	26
	HUEVEN S (Stand Type) HRD2-400EGS, HRD2-400EGS_U	27
	HUEVEN S (Stand Type) HRD2-1000EGS	28

Hueven C 1 (Ceiling-Mounted Type)



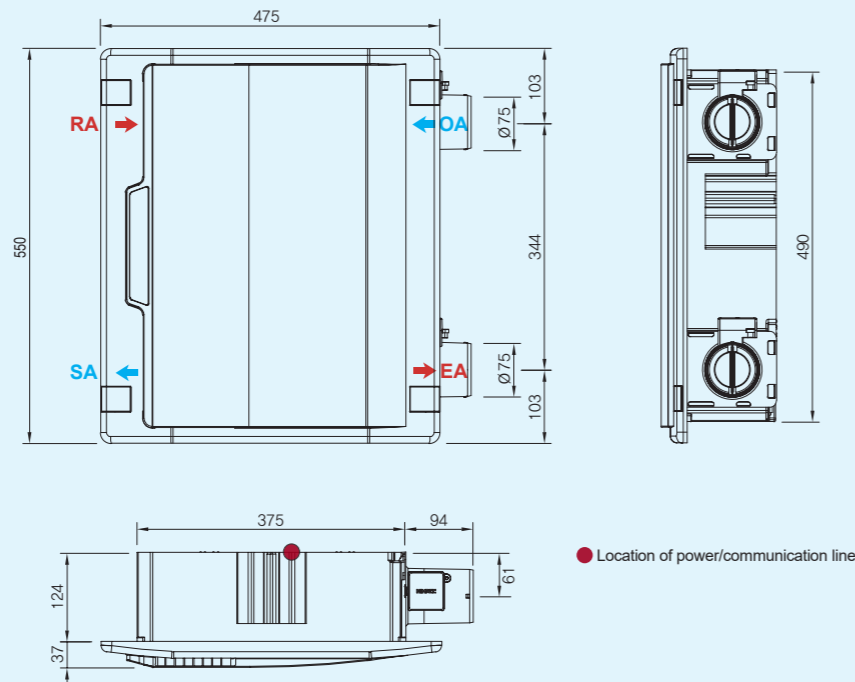
HRD-50C(SM)
HRD-70C(SM)

Housing dimension	500 X 390mm (±5mm)
Duct diameter	Outdoor : EA-OA: Ø75

- BLDC Fan-Motor (High efficiency/Low noise)
- Minimization of energy loss thanks to ERV
- High-efficiency cross-flow type enthalpy recovery element
- 3 levels of air volume control(High/medium/low)
- Automatic ventilation / timer / filter check notification
- Air pollutant removal, dust, soot, yellow dust prevention
- HEPA filter



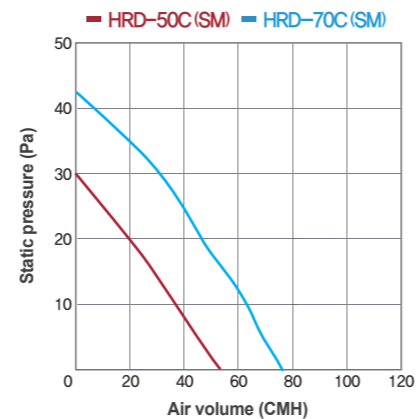
Product dimensions (unit: mm)



Controller



Performance



※ Product specifications and performance are subject to change depending on the quality improvement or installation conditions.

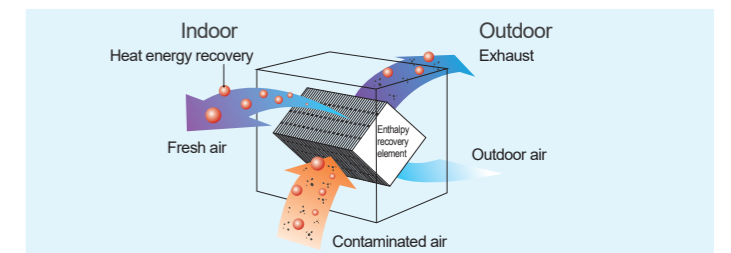
Model	HRD-50C(SM)			HRD-70C(SM)		
	Power	1Ø X 220V X 60Hz				
Mode	High	Medium	Low	High	Medium	Low
Air volume (CMH)	60	50	40	80	70	60
Power consumption (W)	16	14	11	28	24	16
Noise (dB)	Below 40			Below 40		
Filter	Pre + HEPA					
Enthalpy recovery efficiency (%)	72 for heating, 60 for cooling			74 for heating, 69 for cooling		
Product dimension (mm)	Product body 490(W)X375(D)X124(H), Grille cover 550(W)X475(D)X37(H)					
Weight (kg)	7					
Option	Wired control , RS485 communication, Home network linkage					



ERV for a pleasant indoor environment

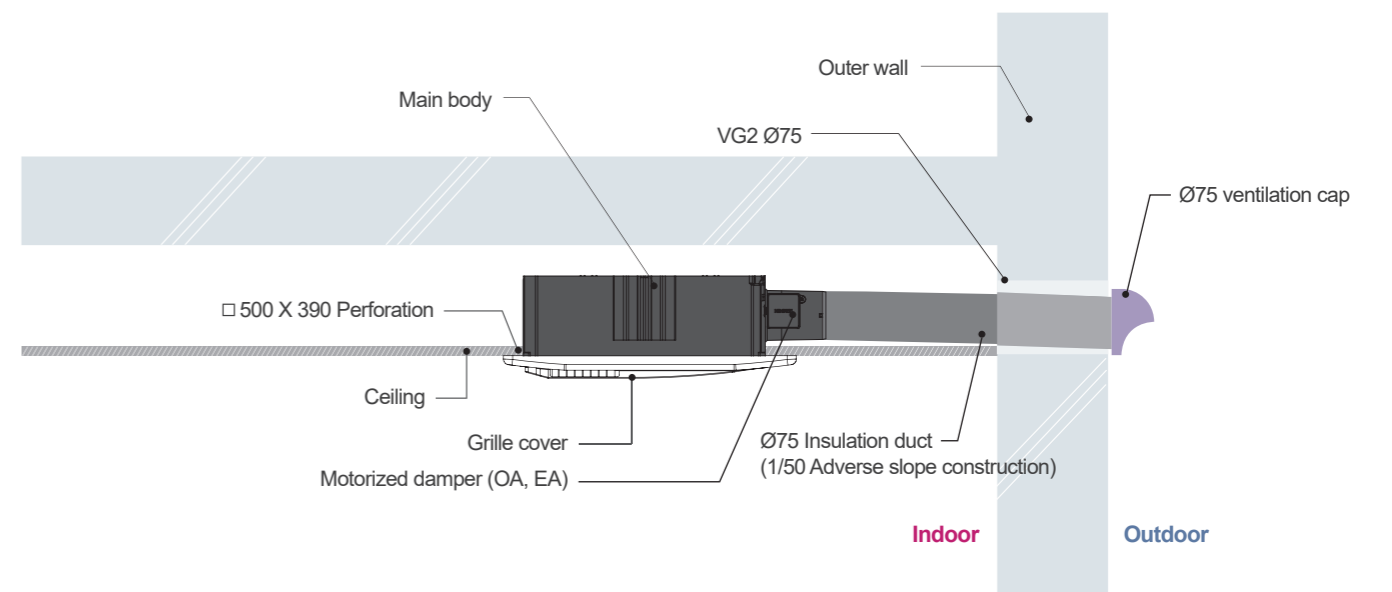
- Korea's first ceiling-mounted type ERV
- As each room can be controlled, only the necessary room can be operated, reducing unnecessary operating costs.
- In cold weather, when the indoor air supply (SA) temperature decreases, the air supply temperature is sensed to control the air supply and exhaust air volume. (Severe cold season operation mode)
- Condensation and inflow of outside air are prevented by applying an motorized damper (M.D) on the outside (OA)/exhaust (EA) side.
- The product height is 124mm, so there are few restrictions on installation.

Minimization of energy loss thanks to ERV



- When exhausting, heat energy is discharged to the outside along with contaminated air, and when supplying air, heat energy is recovered and fresh air is supplied to the room. By reducing the indoor cooling and heating load caused by ventilation, the cost for cooling and heating is reduced.

Ceiling-mounted type ERV installation details



Hueven C 2 (Ceiling-Mounted Type)

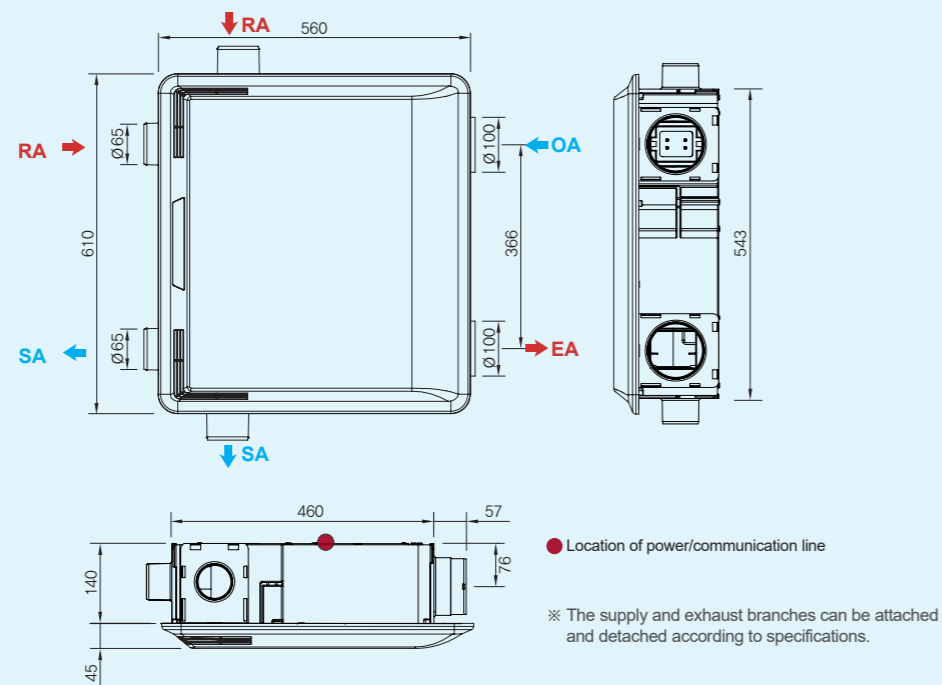


HRD-100C/HRD-100C(DS)

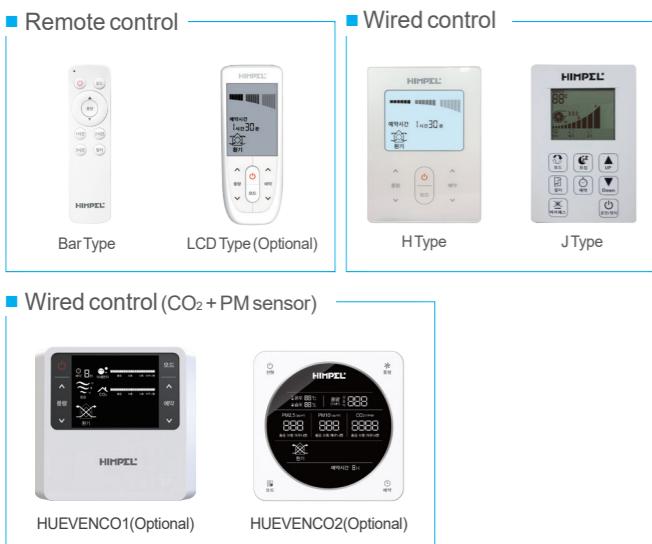
Housing dimension	500 X 470mm (±5mm)
Duct diameter	• Outdoor : EA·OA: Ø100 • Indoor : RA·SA: Ø65

- BLDC Fan-Motor (High efficiency/Low noise)
- Minimization of energy loss thanks to ERV
- High-efficiency cross-flow type enthalpy recovery element
- 3 levels of air volume control (High / Medium / Low)
- Multi-branch
- Automatic ventilation / timer / filter check notification
- Air pollutant removal, dust, soot, yellow dust prevention
- HEPA filter

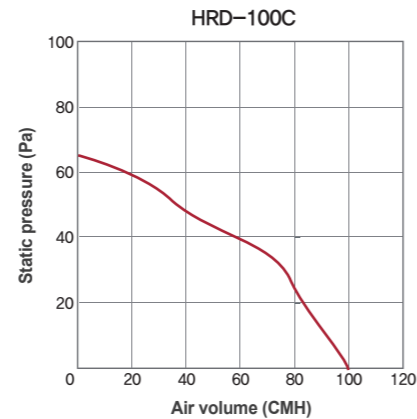
Product dimensions (unit: mm)



Controller



Performance



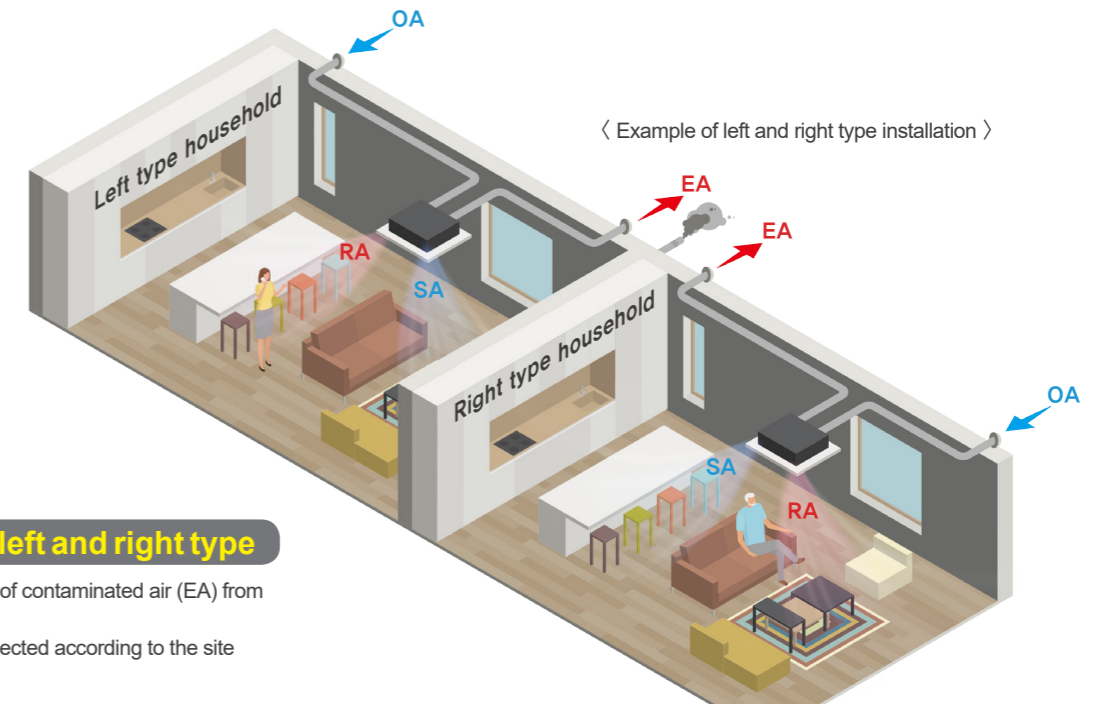
Grille



※ Product specifications and performance are subject to change depending on the quality improvement or installation conditions.

Model	HRD-100C		HRD-100C(DS)
Power	Ø1 X 220V X 60Hz		
Mode	High	Medium	Low
Air volume (CMH)	110	100	70
Power consumption (W)	33	27	20
Noise (dB)	Below 40		
Filter	Pre + HEPA		
Enthalpy recovery efficiency (%)	74 for heating, 68 for cooling		
Product dimension (mm)	Product dimensions (mm) product body 543(W) X 460 (D) X 140(H) / Refer to the image above for the grille cover		
Weight (kg)	9		
Option	Wired control , RS485 communication, Home network linkage, Bypass, Air cleaning		

ERV Left And Right Type



Features of left and right type

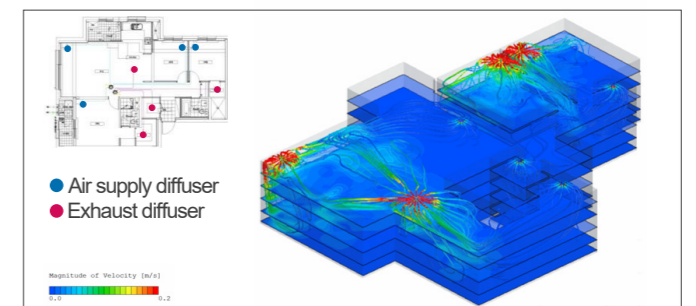
- Prevents the inflow of contaminated air (EA) from other households.
- The type can be selected according to the site situation.

Pleasant ventilation throughout the room with multi-branch function



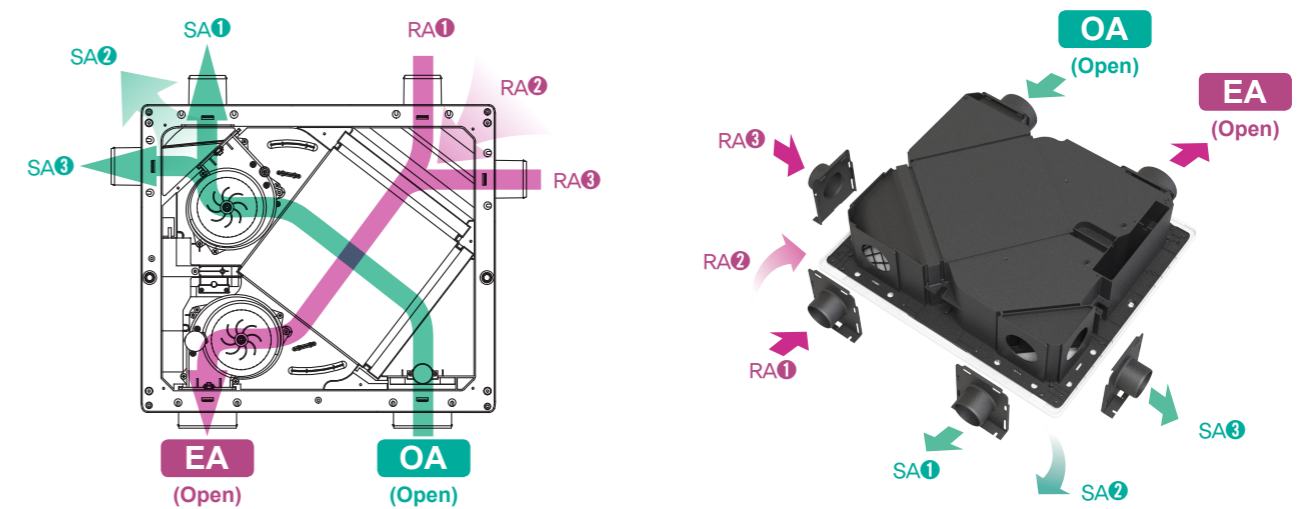
- HUEVEN C Multi-branch function allows 24 hours of constant ventilation through air supply and exhaust diffusers installed throughout the room.

Optimizing indoor flow by Himpel ERV



- HUEVEN C2 multi-branch ventilation system is applied to rapidly circulate the entire indoor air through the air supply and exhaust diffuser and discharge harmful substances such as fine dust and carbon dioxide.
- ※ Analysis condition: Self flow analysis result based on general apartment of 82.64m² / 110CMH air volume

HUEVEN C2 Energy recovery ventilation system



※ Freely selectable branch direction