



INDOOR AIR QUALITY

เพื่อคุณภาพอากาศภายในอาคารที่ดีกว่า
WELLBEING





WHO WE ARE

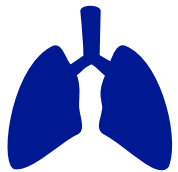
VentPro for wellbeing



WHO WE ARE?

Passion for AIR

- ✓ We help People to Breathe Fresh Air
- ✓ 45 years experience in IAQ - Sweden - ROW
- ✓ Construction Business in Thailand since 2006
- ✓ IAQ Solution Provider
- ✓ Our ventilation partners are the leading manufactures in the world

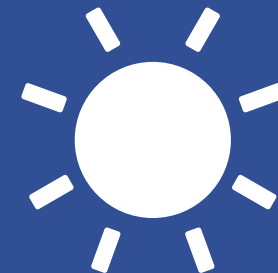


Ventpro help to educate, install, service and sell ventilation product for homes, offices, schools and clinics in Thailand at affordable prices through dealers, project developers, offices and building/homeowners.



Ventpro helps with

- ✓ Education
- ✓ Installation
- ✓ Service
- ✓ Products



HOW WE DO IT

Ventilation is the only thing we do!



01

VENTILATION SOLUTION

Provide advice, product, drawing and installation support in new and existing buildings

02

VENTILATION PRODUCT

Provide Exhaust Fan, Inlets, Inline Fan, ERV, duct pipe and accessories

03

AIR BALANCING

With our educated staff and highly professional tools we we can adjust the air to the right amount

04

IAQ (INDOOR AIR QUALITY)

Provide product to measure IAQ

OUR CREATIVE MANAGMENT

"Management is doing things right; leadership is doing the right things"



BJÖRN NYLÉN

Chief Executive Officer & Founder



HATHAIRAT FAKKAENCHAN

Chief Administrative Officer & Founder



RICHARD ERIKSSON

Chief Operation Officer & Founder

PERCEPTUAL MAP

Ventilation is the only thing we do!

TOTAL Ventilation Solutions EXPERTS



Multi Product Producer

Panasonic



Only Ventilation Producer



Hatari

Products

SOME REFFERANCES

"Together We are Strong"



PROJECT: RISC
Research & Innovation for
Sustainability Center &
MQDC

Passive Ventilation,
Balanced Ventilation, ERV
Ventilation



PROJECT: FALCON HILL

Bathroom fan and passive
ventilation.

ERV Ventilation and
drawings

PROJECT: PERFECT PROPERTY

EPIV - PM2.5 filter



PROJECT: EEC
40 years of mechanical and
electrical engineering
practices in Thailand and
overseas

Passive Ventilation and ERV
Ventilation



PROJECT: SCG
Inlets



PROJECT: SINGLE CUSTOMERS

EPIV
WALL ERV
DUCT ERV

INFO WEB

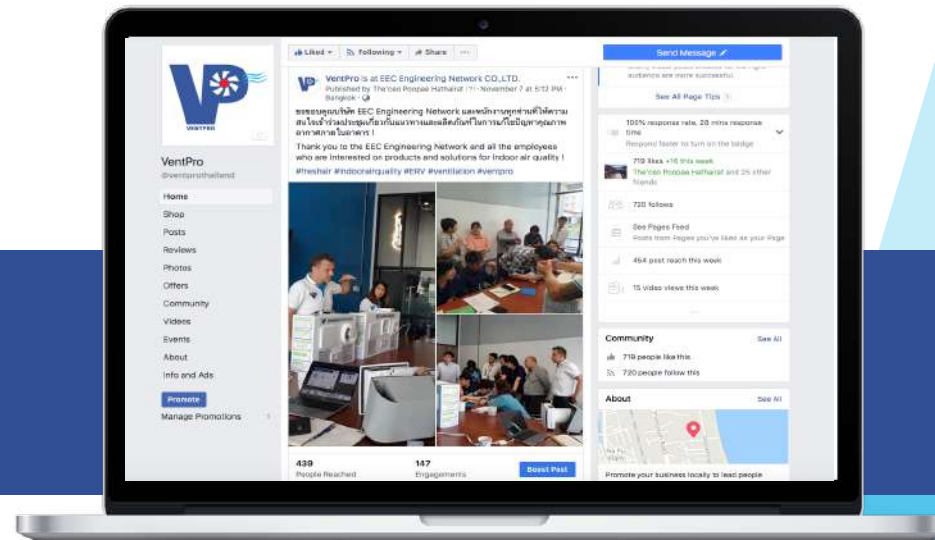


WWW.VENTPRO.CO.TH

Website is developed both in Thai and English language. We work with product and information updates as well as translation to Thai.

[HTTPS://WWW.FACEBOOK.COM/VENTPROTHAILA](https://www.facebook.com/ventprothaila)

We are active on social media like Facebook.



SOLUTIONS FOR

With teamwork we achieve great things!



Residential



Office



Schools



Retails



Hotel



Clinics



Healthcare



Industrials



Developer / Project



Contractor



Engineer / Architects



Facility Management

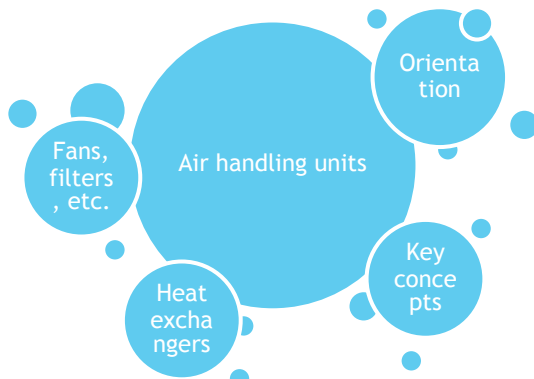
MAIN PARTNERS

Together we are strong and can do it!

SWEGON



- Since 1932
 - Market leader in energy-efficient ventilation and indoor climate systems
 - 2,200 employees across Europe, North America and Asia
 - SEK 4.4 billion in 2017
 - Solution Provider
 - Subsidiaries in 17 countries
- Production in 14 sites



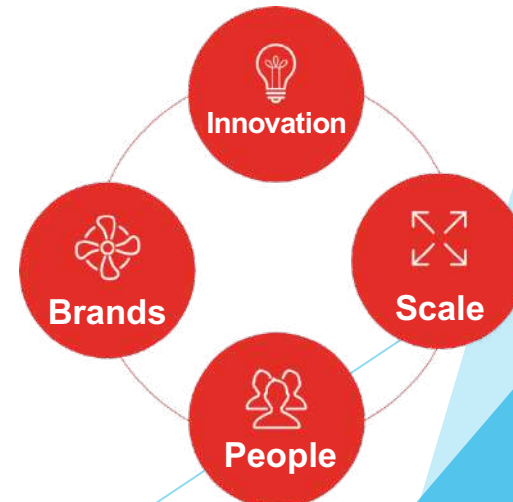
VENTS Company

- Founded in the 90th
- Vents are proud to proclaim worldwide ventilation leader
- 50 million units of manufactured and sold products
- Product range, 10 000 items for residential and industrial ventilation
- 2000 employees



Volution Group

- PAX
- FRESH
- INVENTOR
- Ventilation Group - 20 Ventilation Companies
- Revenue (FY18) £206m



EUROPEAN CERTIFICATE / STANDARDS

"TRUST"

CERTIFICATE

Certified Passive House Component
Valid until 31st December 2019

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category: **Air handling unit with heat recovery**
Manufacturer: **Swegon Operations AB Sweden**
Product name: **Ventilation unit series GOLD RX (Aluminium Rotor)**

Specification: **Airflow rate > 800 m³/h**
Heat exchanger: **Regenerative**

This certificate was awarded based on the product meeting the following main criteria

Heat recovery rate $\eta_{PR} \geq 75\%$
Specific electric power $P_{el,spec} \leq 0.45 \text{ Wh/m}^3$
Leakage $\leq 3\%$ ¹⁾²⁾
Performance number ≥ 10
Comfort: Supply air temperature $\geq 16.5^\circ\text{C}$ at outdoor air temperature of -10°C

¹⁾ Carry-over from extract to supply air side.

²⁾ Due to heat exchanger condition the risk of carry-over from extract air to supply air side exists. In order to avoid carry-over into the supply air side, pressure conditions in the device must be set as given by the manufacturer.

³⁾ At the lower airflow rate might be exceeded.

www.passivehouse.com



Swegon

Eurovent
Certita

CERTIFICATE
N° 06.06.319



Air Handling Unit / Centrales de traitement d'air

Range Name / Nom de Gamme :
GOLD

Granted on June 15, 2006 – Date 1ère admission 15 juin 2006

This document is valid at the date of issue – Check the current validity on:
Document valable à la date d'émission – Vérifier la validité en cours sur :
www.eurovent-certification.com

Participant/Titulaire

SWEGON Operations AB
Box 500
S3530 Kvarnum, Sweden

This certificate is issued by Eurovent Certita Certification according to the certification rules:

ECP AHU – « Air Handling Unit » in force at established date.

Pursuant to the decision notified by Eurovent Certita Certification, the right to use the mark ECP shall be granted to the beneficiary company for the above Range in the conditions defined by the certification program mentioned.

Unless withdrawn or suspended, this certificate remains valid as long as the requirements for the certification program framework are met. The validity of the certificate is to be verified on www.eurovent-certification.com

THIS CERTIFICATE HAS BEEN ISSUED ON 11/12/2019
THIS CERTIFICATE IS VALID UNTIL 31/12/2020

Ce certificat est délivré par Eurovent Certita Certification dans les conditions fixées par le référentiel :

ECP AHU – « Centrales de traitement d'air » en vigueur à date d'édition.

En vertu de la décision notifiée par Eurovent Certita Certification, le droit d'usage de la marque ECP est accordé à la société qui en est bénéficiaire pour la gamme visée ci-dessus, dans les conditions définies par le programme de certification mentionné.

Sauf retrait ou suspension, ce certificat demeure valide tant que les conditions du référentiel du programme de certification sont respectées. La validité du certificat est à vérifier sur le site Internet www.eurovent-certification.com

CE CERTIFICAT A ÉTÉ ÉMIS LE 11/12/2019
CE CERTIFICAT EST VALIDE JUSQU'AU 31/12/2020

Paris, 11 décembre 2019

MANAGING BOARD MEMBER / MEMBRE DIRECTOIRE



Organisme accrédité n° 5-9517
Certification Produits et Services selon la norme NF EN ISO/CEI 17065:2012
Portée d'accréditation sur www.cofrac.fr
Accréditation ISO 9001:2015 Produits et Services Certification according to NF EN ISO/CEI 17065:2012 –
Scope available on www.cofrac.fr

COFRAC est signataire des accords MSA, CEA et MIA d'IAF.
COFRAC is signatory of EA MSA and IAF MSA.
Date of 1st accreditation: 04/04/2014

EUROVENT CERTITA CERTIFICATION SAS au capital de 100 000 € – 4
Tel : 33 (0)1 75 44 71 71 – 513 133 637 RCS Paris – SIRET 51



DIY CHAIN	COUNTRY	DIY CHAIN	COUNTRY
1 Home Depot	USA	19 Jula	Norway
2 Home Depot	Canada	20 Jula	Sweden
3 Home Depot	Mexico	21 K-Rauta	Russia
4 Citi hardware	Philippines	22 K-Rauta	Sweden
5 Sodimac	Chile	23 Leroy Merlen	Poland
6 Easy Chile	Chile	24 Leroy Merlen	Russia
7 Bauhause	Denmark	25 Maxidom	Russia
8 Bauhause	Sweden	26 Mr. Bricolage	Bulgaria
9 Baumax	Austria	27 Novaya Liniya	Ukraine
10 Baumax	Hungary	28 OBI	Romania
11 Biltrema	Sweden	29 OBI	Ukraine
12 Bricostore	Romania	30 Praktiker	Poland
13 Castorama	Poland	31 Praktiker	Romania
14 Castorama	Russia	32 Praxis	Netherlands
15 Class Ohlson	Sweden	33 Brico	Netherlands
16 Epicenter	Ukraine		
17 Gardin	Netherlands		
18 Jula	Sweden		

PART OF **BLAUBERG**
GROUP

WHAT IS PM2.5?

"Breathe Fresh Air"

THE AIR POLLUTION IN BANGKOK, THAILAND



*PM_{2.5} concentrations measured in micrograms of particles per cubic meter of air (µg/m³)
Data: WHO Global Platform on Air Quality & Health

[More about the data](#)

Search another location

Air Quality & Health Burden in Thailand

58,903 Annual Deaths from air pollution

Share  

Outdoor

AIR POLLUTION

Leading Killer

Acute lower respiratory infection

National Air Quality

25

annual average PM 2.5

Household

AIR POLLUTION

Leading Killer

Acute lower respiratory infection

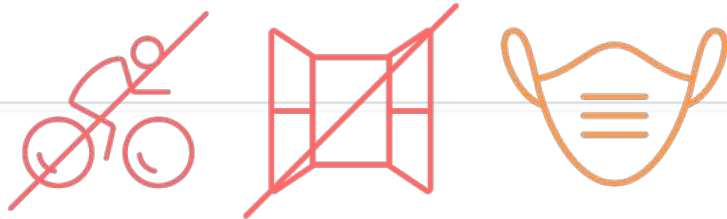
Child Deaths (0-5yrs)

173

per year

BREATHELIFE

BreatheLife mobilizes cities and individuals to protect our health and our planet from the effects of air pollution.



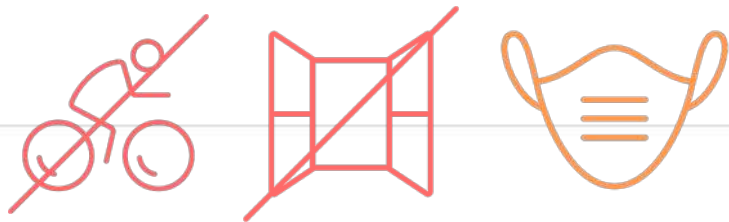
Bangkok

Past 22 Months Daily-Average AQI

PM _{2.5}	PM ₁₀	O ₃	NO ₂	SO ₂	CO
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summary	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31									
Feb 2018	2	3	1							131	119	121	143	126	158																									
Mar 2018																																								
Apr 2018																																								
May 2018	10		6													82	65	59	66	68	87	83	84	79	54	57	58	69	81	55	59									
Jun 2018	3		22							79	64	64	52	55	49	64	55	51	54	47	52	46	50	56	62	65	63	76	82	62	64	77	79	72	57	65	70	69	73	
Jul 2018	1		25							56	58	47	55	50	50	63	69	82	66	70	73	65	61	76	68	65	74	55	55	62	70	70	75	82	76	70	70	57	63	62
Aug 2018	5		21							69	67	65	67	67	64	76	85	89	74	67	54	48	57	56	55	58	52	38	38	53	74	73	75	64	57	53	42	62	77	48
Sep 2018	6		16							55	63	58	54	48	49	66	74	79	97	100	63	93	103	78	55	57	44	43	49	57	60	80	70	68	56	52	47	61	79	
Oct 2018	3		13							47	55	73	104	97	45	72	83	92	87	97	89	68	85	63	52	52	63	73	87	80	46	60	73	78	80	68	79	65	76	86
Nov 2018	3		12							92	105	109	136	129	120	102	85	72	72	79	72	99	127	126	124	86	81	102	110	88	103	98	79	82	103	99	100	80	102	
Dec 2018	15		6							125	119	115	98	113	98	93	115	80	90	93	100	80	81	86	95	86	83	93	126	165	159	137	139	115	132	152	152	159	87	77
Jan 2019	1	5	6		8					69	81	88	90	103	117	159	160	90	92	121	172	153	152	162	146	124	136	112	143	124	158	132	134	136	163	146	135	157	165	177
Feb 2019	7		16							167	128	115	94	99	95	77	87	86	73	80	87	101	143	90	92	82	69	66	56	60	74	63	77	75	77	79	96			
Mar 2019	6		16							104	95	100	93	80	98	100	69	76	71	69	75	116	83	72	64	101	102	109	93	90	79	104	111	96	83	77	74	78	80	81
Apr 2019	16		13							86	79	77	78	71	63	77	64	75	62	67	67	69	67	59	58	59	68	70	73	99	105	76	75	75	82	94	97	69	59	
May 2019	12		15							56	51	52	61	56	50	79	98	107	106	97	98	104	80	89	109	98	88	95	84	85	82	72	68	71	75	66	79	76	50	51
Jun 2019	6		23							61	55	56	64	62	59	71	75	68	57	48	58	49	51	49	53	58	48	44	44	63	68	64	66	60	53	63	62	63	51	
Jul 2019	3		25							52	66	76	71	69	66	74	61	62	67	71	81	66	61	49	50	43	51	53	54	61	54	67	66	65	87	65	50	55	39	57
Aug 2019	17		14							57	49	49	51	45	47	54	54	60	64	48	42	46	56	67	67	70	47	41	52	55	43	50	52	46	40	34	46	41	46	46
Sep 2019	3		18							47	37	51	53	52	58	66	60	57	57	55	59	56	42	55	63	65	76	66	74	77	58	78	62	89	116	110	102	131	141	
Oct 2019	7		20							171	106	85	78	93	90	82	72	72	83	101	96	88	79	65	73	73	75	75	83	82	92	148	94	80	84	90	68	73	79	78
Nov 2019	1	4	1	2						86	62	77	85	95	134	123	125																							

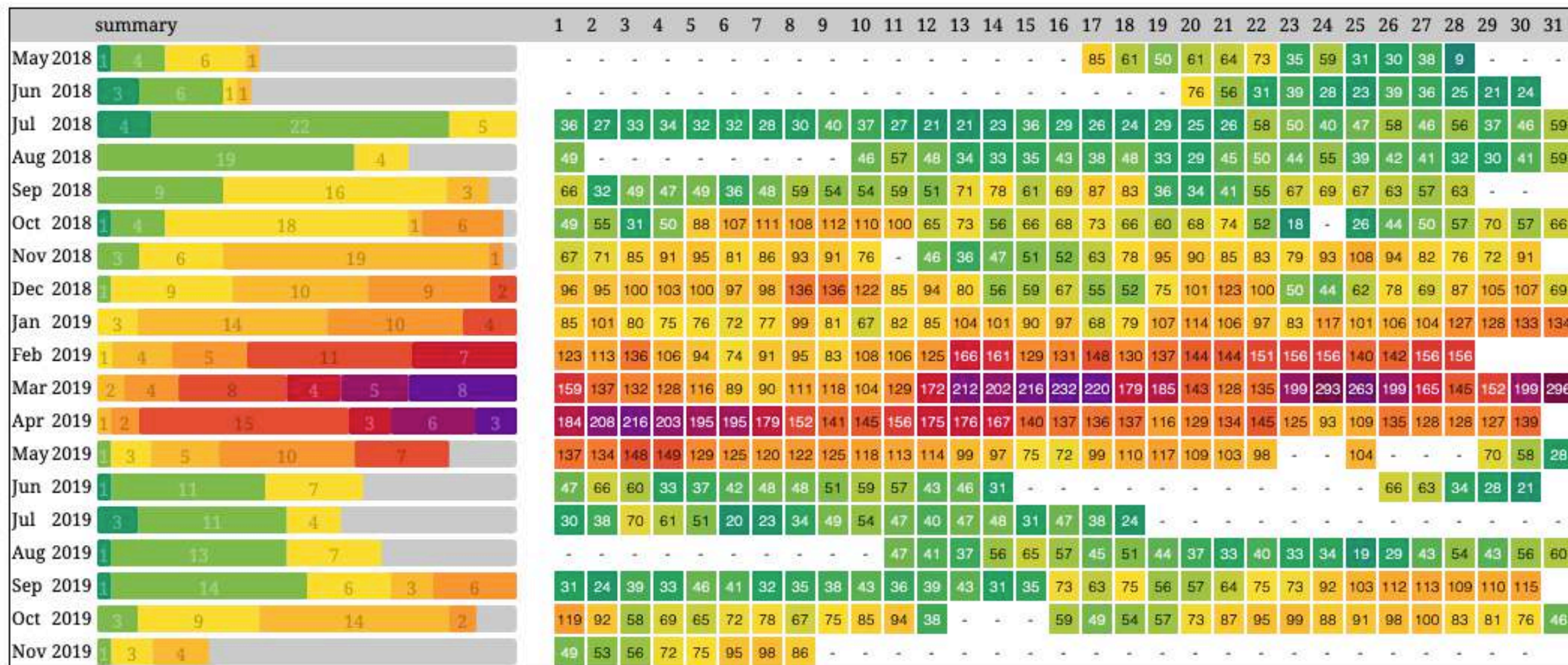
Note: the daily AQI is based on the 24 hours average of hourly readings.



Chiangmai - CMIS

Past 19 Months Daily-Average AQI

PM_{2.5} PM₁₀



Note: the daily AQI is based on the 24 hours average of hourly readings.

มลพิษทางอากาศเป็นหนึ่งในสาเหตุหลักของการเสียชีวิตก่อนวัยอันควร เนื่องจากอาการของโรคหัวใจขาดเลือด โรคหลอดเลือดสมองหรือโรคปอดอุดตันเรื้อรัง และยังไม่รวมถึงผลกระทบเชิงลบต่อโรคหอบหืดและโรคระบบทางเดินหายใจอื่น ๆ (ที่มา: WHO)

มลพิษภายในบ้านมีมากกว่าภายนอก

Air Pollution is one of the main causes of premature death due to its role in diseases like ischemic heart, stroke or COPD, not to mention its negative effects on asthma and other respiratory ailments (source: WHO).

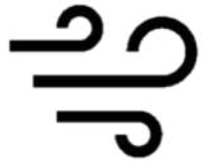
Indoor air pollution-caused deaths

Source: World Health Organization figures, 2012

- 1) 34% - stroke
- 2) 26% - coronary heart disease
- 3) 22% - COPD
- 4) 12% - respiratory infections in children
- 5) 6% - lung cancer



This is how your comfort is affected



Air velocity



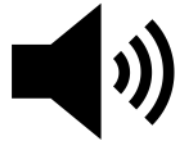
Air quality



Air humidity



Thermic climate



Sound environment



Light

BENEFITS WITH OUR SOLUTIONS

- ▶ Wellbeing and comfort
- ▶ Health and productivity
- ▶ Energy efficient solutions
- ▶ Low operating cost
- ▶ High reliability and functionality
- ▶ Easy installation and maintenance
- ▶ Space efficiency
- ▶ Local service and support



- More details:
 - Transport away
 - Impurities
 - Over/under temperature
 - Provide premises with fresh air
 - Balance pressure in the premises
 - Heating and cooling recovery
- As **energy efficient** as possible

เราจะสร้าง " Safe Zone" ได้อย่างไร?
How can we create or own "safe zone" ?

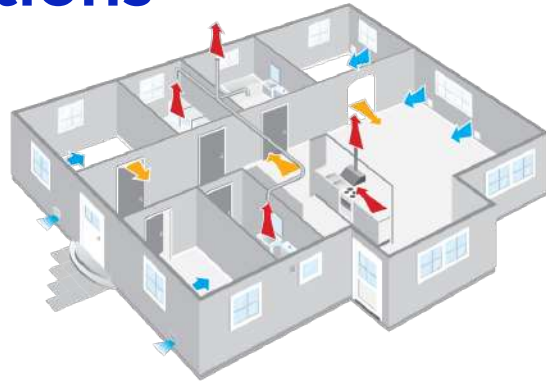
โลกภายนอกเป็นสมบัติ
ของสาธารณและเราไม่
สามารถแก้ไขได้อย่าง
ง่ายดาย แต่บ้านของคุณ
คือที่อยู่อาศัยของคุณ:
คุณสามารถแก้ไขได้
(การหายใจ) เพราะมัน
ขึ้นอยู่กับคุณ



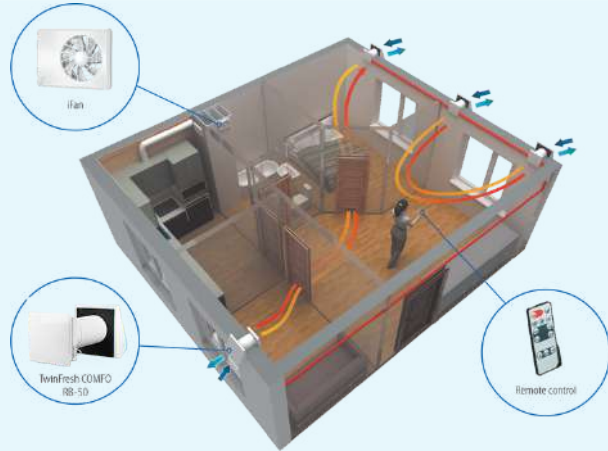
Residential Products & Solutions

3 basic solutions

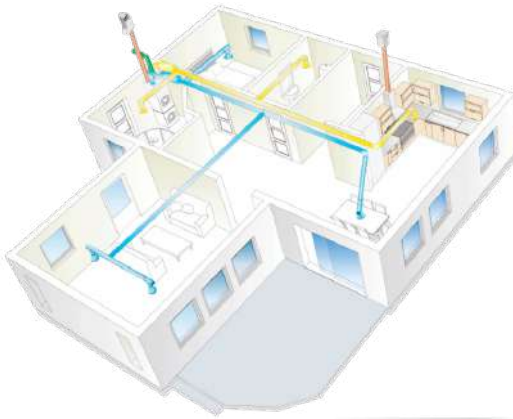
1. Exhaust with Fresh Air Vents



2. ERV Wall Vent



3. Duct ERV



Exhaust Passive Inlet Ventilation - EPIV

นำอากาศเข้ามาโดยผ่านการกรองและนำอากาศเสียออก

Take in fresh filtered air and
take out bad air



The outside world is the public domain, and we cannot modify it easily. But your home is your nest: what you do (and breathe) there is up to you.

พัดลมดูดอากาศอัจฉริยะ รุ่น PAX Norte



- Fully automatic - อัตโนมัติอย่างสมบูรณ์
- Smart function - ฟังก์ชันอัจฉริยะ
- Continue ventilation - ระบายอากาศอย่างต่อเนื่อง
- Light sensor and timer, humidity control - เซ็นเซอร์แสงสว่าง ตั้งเวลาและควบคุมความชื้น
- Easy to clean - ง่ายต่อการทำความสะอาด
- Low energy - ประหยัดพลังงาน
- High capacity - ประสิทธิภาพสูง





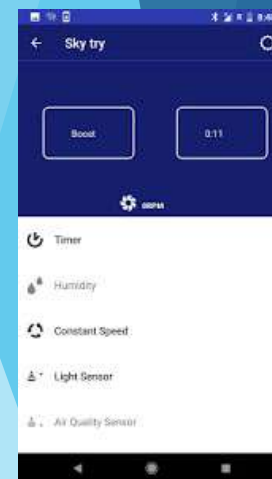
พัฒนาคู่มืออากาศอัจฉริยะ รุ่น **PAX Norte**



พัดลมดูดอากาศอัจฉริยะ รุ่น

INTELLIVENT ICE

- เซ็นเซอร์คุณภาพอากาศที่มีเอกลักษณ์เฉพาะ –
Unique air quality sensor
- ประสิทธิภาพแรงดันที่เหนือกว่า –
Superior pressure performance
- ง่ายต่อการติดตั้ง –
Simple installation
- การควบคุมความชื้นอัจฉริยะและปรับตัวเอง –
Intelligent and self-adjusting humidity control
- ไขพัดแบบถอดได้ง่ายต่อการทำความสะอาด –
Removable impeller for easy cleaning
- ปรับเปลี่ยนด้วยหน้าจอสัมผัสหรือเชื่อมต่อผ่านแอปพลิเคชัน –
Fine tuning with touch panel or app connectivity
- เซ็นเซอร์แสงสว่างสำหรับการเริ่มจับเวลา –
Light sensor for timer start
- เพิ่มและหยุดชั่วคราวผ่านแอปพลิเคชัน –
Boost and pause via App





พัฒนาคู่อากาศอัจฉริยะ รุ่น **INTELLIVENT ICE**



INTELLIVENT ICE INSTALLATION

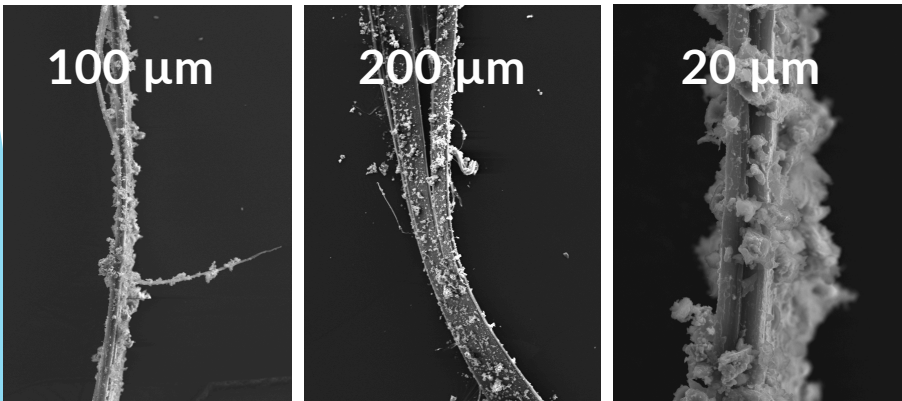
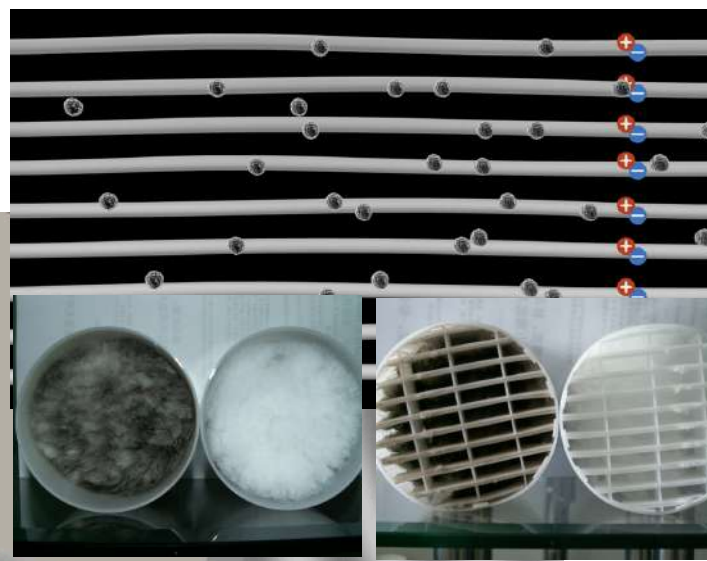


Fresh Air Inlet



โลกภายนอกเป็นสมบัติของสาธารณและเราไม่สามารถ
แก้ไขได้อย่างง่ายดาย แต่บ้านของคุณคือที่อยู่อาศัย
ของคุณ: คุณสามารถแก้ไขได้ (การหายใจ) เพราะมัน
ขึ้นอยู่กับคุณ





100 μm - 1/10 of a millimetre
100 μm - average diameter of a strand of human hair
100 μm - length of a dust particle

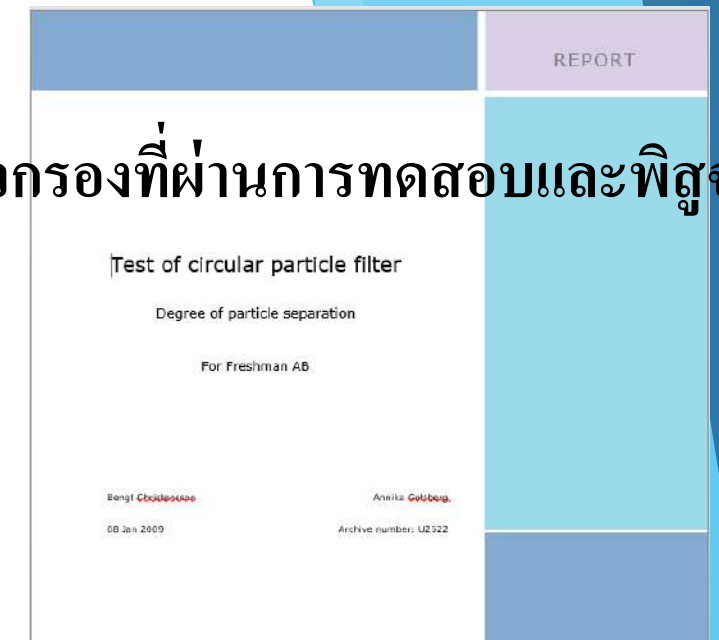


Figure 1 shows the results of the particle degree separation tests. Results from one tested filter.

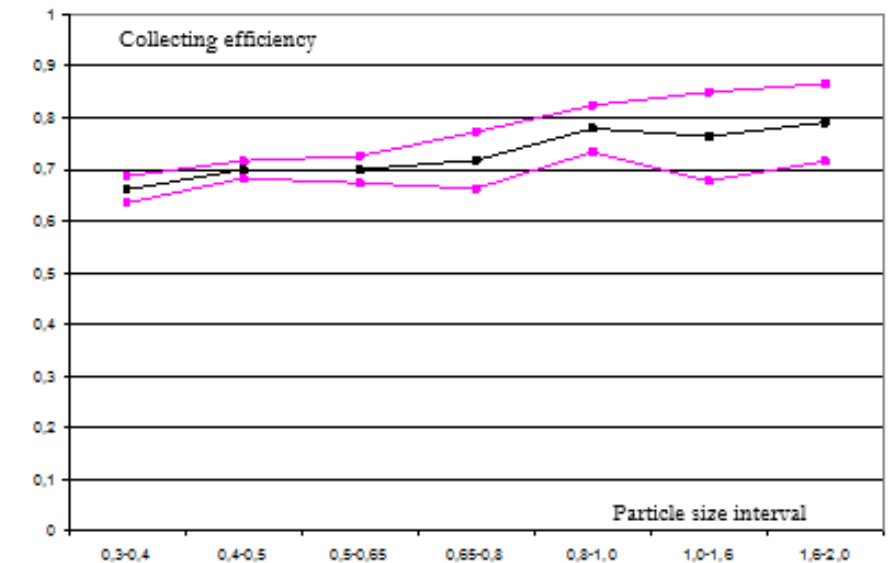


Figure 1. Average value of measurements performed of the degree of separation in different particle size intervals. The top and bottom curves show the standard deviation from the performed measurements for each size interval.

Flimmer Filter References

Shijiazhuang Poly Garden 12 000 pcs



Beijing project 4000pcs



Japan house manufacture



Shijiazhuang Chateau Lafite 3500pcs



Chile apartment project



Chile Villa project



South Korea Woonseo-dong project



Installation

Fresh Inlet

1. เจาะรู - Make Hole
2. ติดตั้งช่องนำเข้าอากาศ - Install Inlet

พัดลมอัจฉริยะ - Smart Fan

ผนัง - Wall

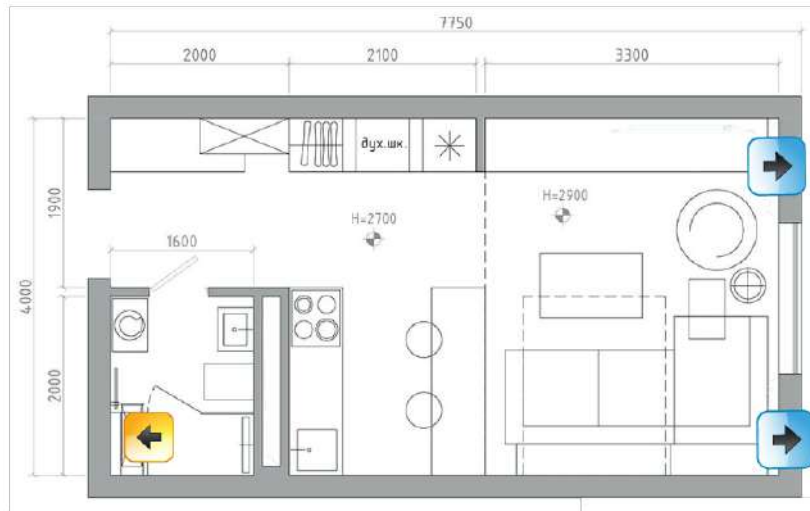
1. เจาะรู - Make Hole
2. เชื่อมต่อระบบไฟฟ้า - Install Electric
3. ติดตั้งพัดลม - Install Fan

ฝ้า - Ceiling

1. เจาะรู - Make Hole
2. เชื่อมต่อระบบไฟฟ้า - Install Electric
3. ติดตั้งพัดลม - Install Fan
4. เดินท่อ - Pull Pipe



Placement Example



AIR OUT - EXHAUST



AIR IN - SUPPLY

Placement Example



AIR OUT - EXHAUST



AIR IN - SUPPLY

Wall ERV

- Good Quality
- Easy to install
- Many models & Sizes 25-320 m³/h
- Residential, Office, Schools



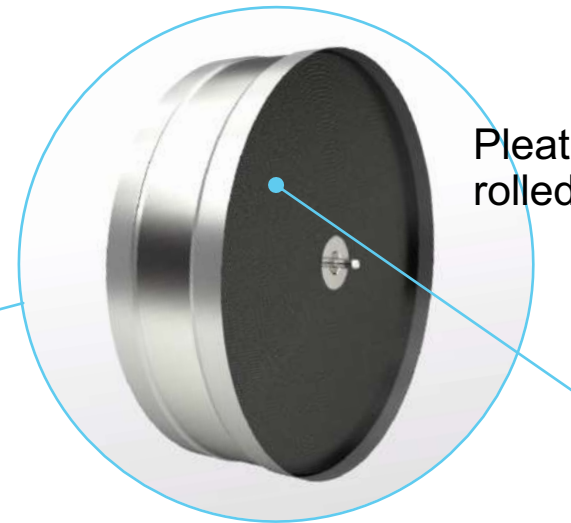
Duct ERV

- Controlled Balanced Ventilation
- Installation training
- Ventpro help with ventilation drawings
- Ventpro help with Air balancing
- Residential, Office, Schools, Hotels



CASA[®]

Rotary heat exchanger

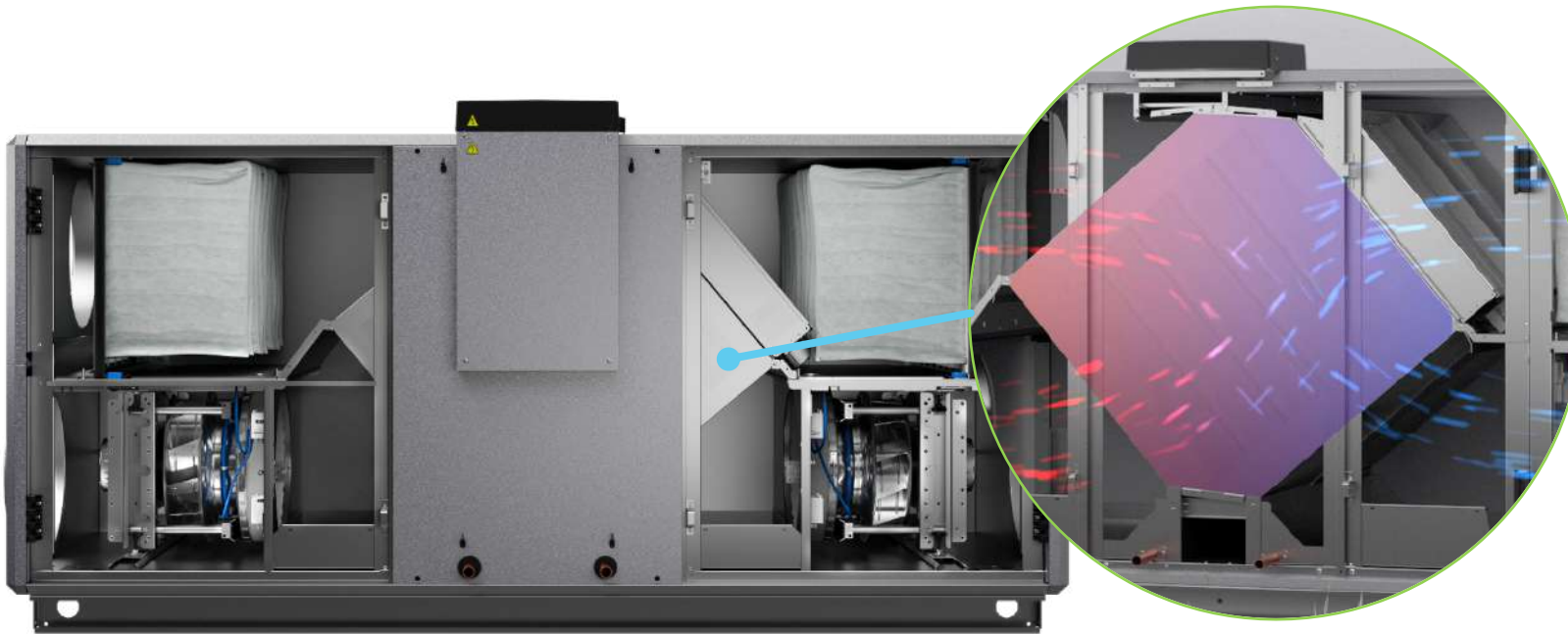


Pleated aluminium sheet,
rolled to a rotor wheel

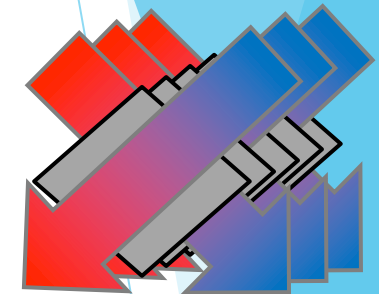
Pleats form passages that
"tap" the cold/heat from the air

Plate heat exchanger

Thin metal discs form separate walls so that the air can pass alternately to the right and left.



Heating/cooling is transferred between the air flows via metal discs



Cross-flow heat exchanger



Counter-flow heat exchanger

Swegon Product Solution



INNOVATIVE



GOLD – Air Handling Unit



PARASOL – Comfort Module



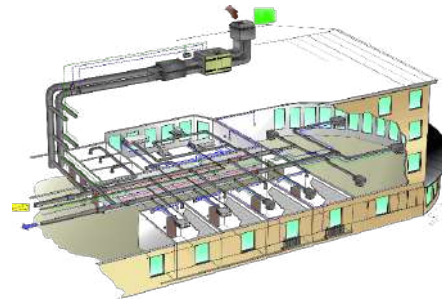
PARAGON – Comfort Module



COMPACT – Air Handling Unit



EAGLE – Disc Diffuser



WISE



Variable air flow damper



CASA – Residential Air Handling Unit



Cooker Hood

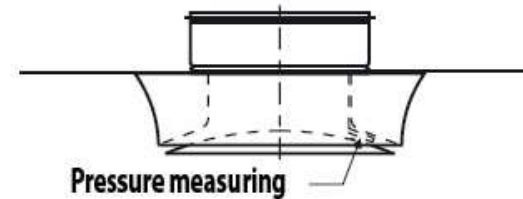


RESIDENTIAL Diffuser



Professional Supply & Exhaust Diffusers

With all the technical information for calculation



Volution Group



PAX[®]



Passive Inlets with filters



The Flimmerfilter has a very high separation capacity and effectively tackles particle problems in most homes.
Equivalent filter class EU8, F7, Merv 13



Vents Product



Bathroom – Exhaust Fans



Passive Inlets



Inline Fans



Wall ERV



Wall ERV



Ceiling ERV



Plastic Accessories



Metal Accessories

MARKET THAILAND

Ventilation is the only thing we do!

- 100+ BILLION MARKET IN THAILAND
- MARKET GROWING
- TO COME
- HEALTHY LIVING TREND
- NO COMPETITORS

- OUTSIDE AIR POLLUTION - PM 2.5 (VERY UNHEALTHY)
- BETTER CONSTRUCTED BUILDINGS (INSULATION)
- DEVELOPER NEED TO IMPROVE IAQ IN THEIR BUILDINGS

- WHO (WORLD HEALTH ORGANISATION) TOP PRIORITY TO IMPROVE AIR QUALITY
- EUROPE, US, AUSTRALIA, MANY ASIA COUNTRIES HAVE STANDARDS
- DOCTORS AND PROFESSORS ALL OVER WORLD RECOMMEND
- MANY STUDIES ABOUT IAQ

- SCG STARTED MANY YEARS ALREADY
- MARKET FOR QUALITY EUROPEAN PRODUCT
- THAILAND IAQ ASSOCIATION
- RECOMMENDATIONS AND STANDARDS WILL COME IN FUTURE

SOLUTIONS FOR

With teamwork we achieve great things!



Residential



Office



Schools



Retails



Hotel



Clinics



Healthcare



Industrials



Developer / Project



Contractor



Engineer / Architects



Facility Management

World-class indoor climate

Centralized Energy Recovery Ventilators



The formula behind a good indoor climate



$$H \times S \times K = P$$

Hardware Software Knowledge Performance

Air handling units (AHU)

Different combinations gives different product categories

- One piece units
- Modular units
- Supply- and extract air units
- Residential units
- Room units



OfficeSolutionTM *AIR*
