
FiT®
SERIES
Built to FIT. Designed to deliver.
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FIT® SERIES

Balanced Ventilation for Multi-Family Living

Designed for multi-family applications, the FIT® Series fresh air appliance with energy recovery (ERV) delivers efficient, code-compliant ventilation in a compact, low-profile design.

With an airflow capacity of up to 129 CFM at 0.4” w.g., this energy recovery ventilator ensures fresh air supply while transferring heat and moisture for year-round comfort and efficiency.

The FIT® Series is built for flexibility, offering both hardwired and corded versions to meet installation preferences. Its slim profile and ceiling bracket make mounting easy, even in tight spaces. The energy recovery core optimizes heating and cooling efficiency by transferring heat and moisture between incoming and outgoing air.

For multi-family projects where space is at a premium but performance is non-negotiable, the FIT® Series is the right choice.

Built to FIT. Designed to deliver.

What Does this Mean for You:

Enhanced Flexibility: Ideal for mirrored floor-plans and code requiring hard-connect options.

Slim Profile: The compact design allows for clean installation in tight spaces with minimal footprint.

Greater Efficacy: Greater airflow with less energy consumption.

Enhanced IAQ Solutions: Meets HVI and CSA requirements.

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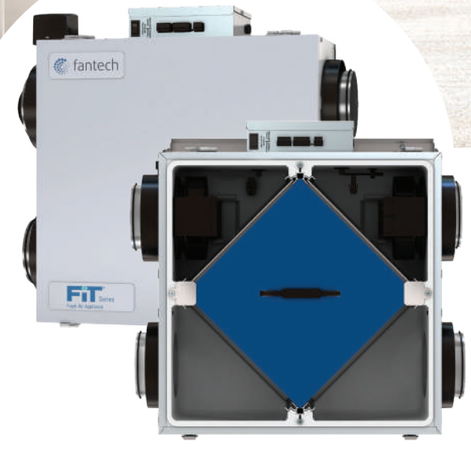


Key Features of the FIT Series

Energy Efficiency
up to 77% SRE at 32°F/0°C

Easy Installation & Maintenance

CSI & HVI Certified

MERV3 filter (included)
MERV8 and MERV13 Filters (optional)

Side-Port Connections

Fan Efficacy
up to 2.2 cfm/W

FiT® SERIES
PRODUCT LINE

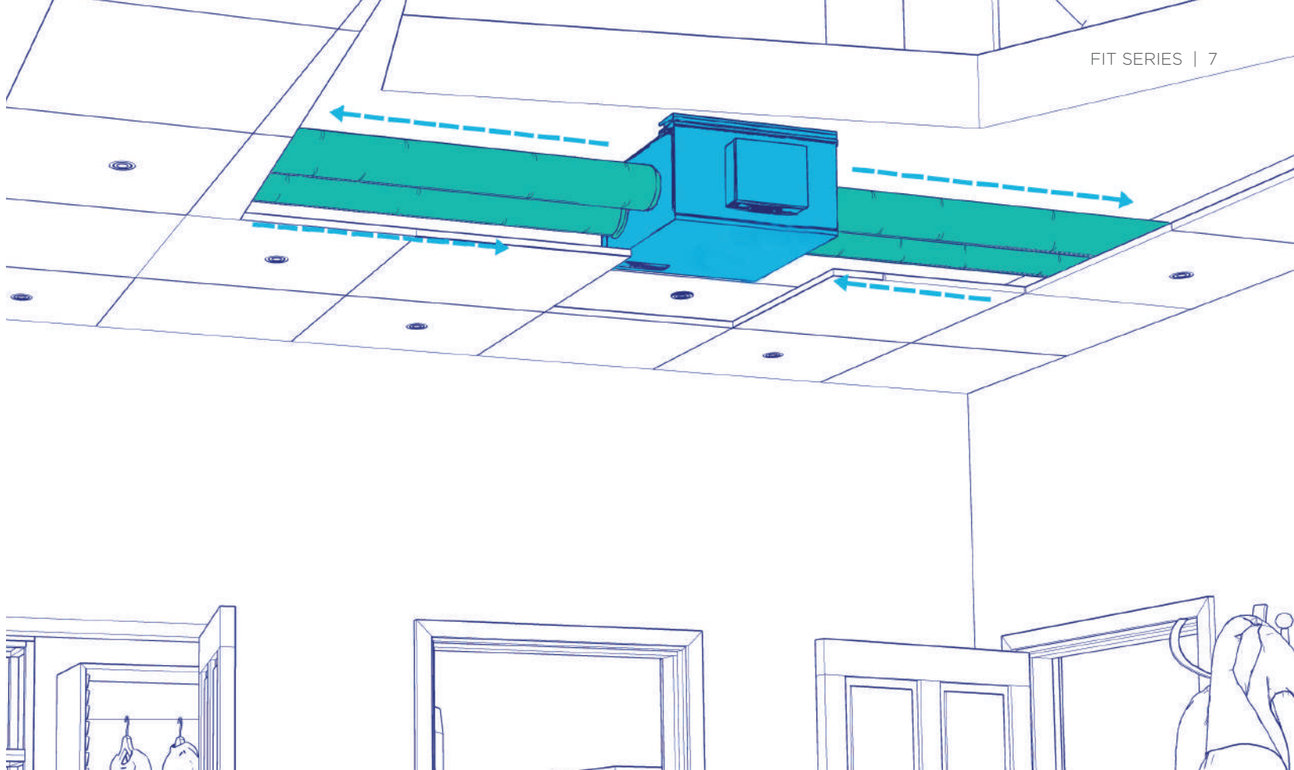
What's in the name?

FIT 120 E - D - EC - M - HC

- FIT — Name
- 120 — CFM cfm @ 0.4" P_s
- E — Energy Recovery Ventilator
- D — Shutoff Damper
- EC — ECM Motor
- M — Mirrored
- HC — Hard Connect

Model		FIT® 80E²	FIT® 80E-D²	FIT® 120E²	FIT® 120E-D²	FIT® 120E-D-EC²
Easy to specify BIM objects & CSI specs available on product page						
Airflow range (Low/ High speed)	cfm @ 0.4" wg	36-78	36-78	40-127	40-127	40-129
Duct connection	inch	4	4	5	5	5
Voltage / Phase	V / ~	120/1	120/1	120/1	120/1	120/1
Duct type		Round	Round	Round	Round	Round
Consumed power (Low / High speed)	W	42/52	42/52	45/120	45/120	23/147
Fan Efficacy @ 0˚C/32˚F	cfm/W	1.5	1.5	1.2	1.2	2.2
Adjusted Sensible Recovery Efficiency @ 0˚C/32˚F	%	75	75	81	81	80
Sensible Recovery Efficiency @ 0˚C/32˚F¹	%	70	70	74	74	77
Sensible Recovery Efficiency @ -25˚C/-13˚F¹	%	55	55	61	61	61
Total Recovery Efficiency @ 35˚C/95˚F¹	%	50	50	64	64	70
Max current	A	0.6	0.6	1.4	1.4	3
Certifications						
Defrost cycle		Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown
Depth	inch (mm)	20 5/8 (523)	20 5/8 (523)	23 5/32 (588)	23 5/32 (588)	23 5/32 (588)
Width	inch (mm)	21 5/8 (549)	21 7/8 (556)	24 5/8 (625)	25 1/16 (636)	25 1/16 (636)
Height	inch (mm)	10 1/6 (255)	10 1/6 (255)	10 (254)	10 (254)	10 (254)
Weight	lbs (Kg)	29 (13)	30 (13)	34 (15)	35 (16)	35 (16)

¹Performance at low speed. ² Standard has fresh air supply on the right; Mirrored has fresh air supply on the left.



Creating Healthy IAQ

FIT ERV
bring in fresh air, remove stale air; air tempered by outgoing air

ECO-Feel IAQ
increases ventilation based on TVOCs

Customer Support:
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Indoor Air Quality

The Role of Filtration and Ventilation in Multi-Family Residential Environments

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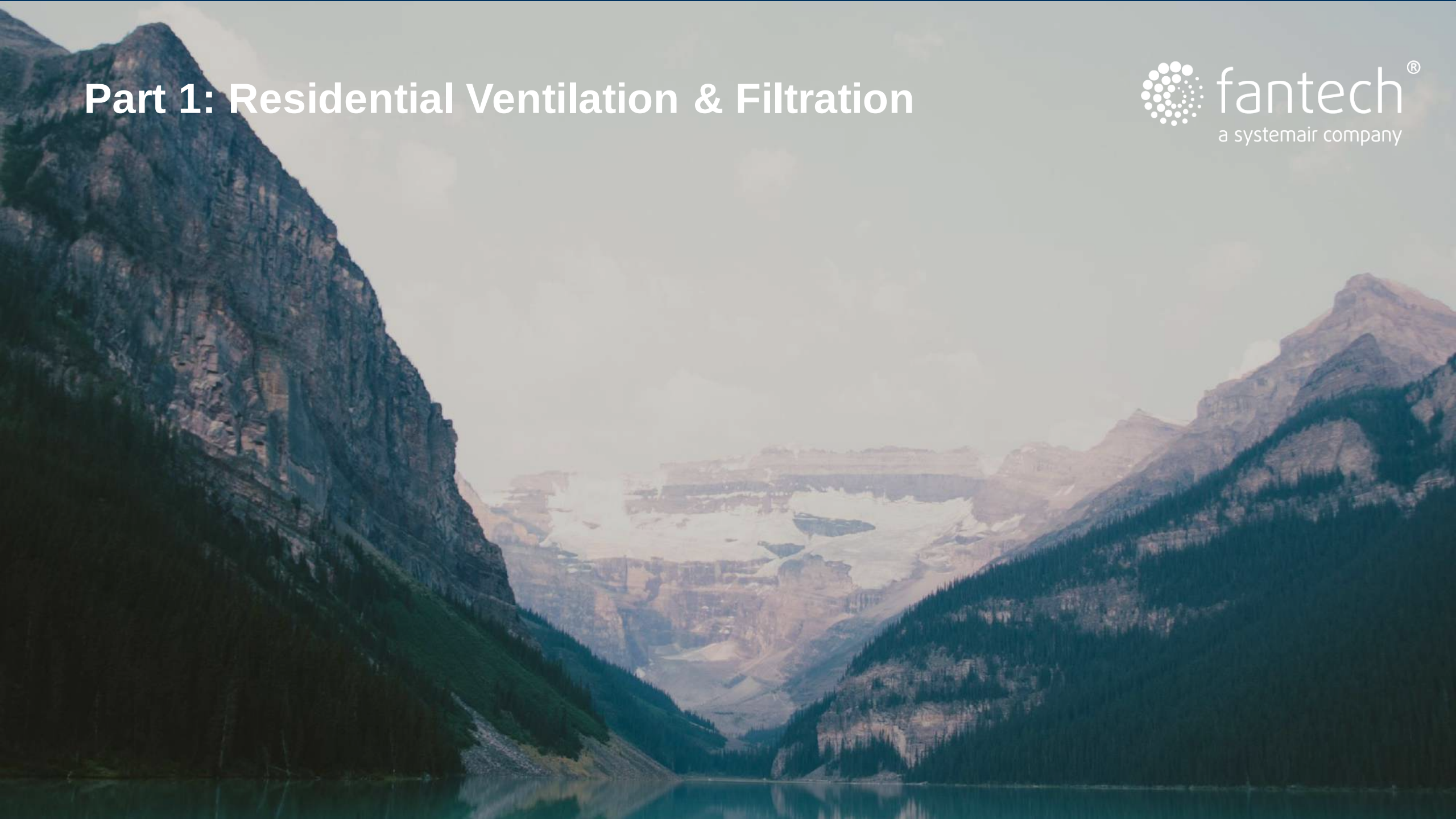
Part 1: Residential Ventilation & Filtration



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The Why

Why Air Quality Matters in Multi-Family Residential Projects

- Health and well-being
- Energy efficiency
- Odor control
- Regulatory compliance
- Moisture and mold prevention

The Belmont at Eastview – Phase 1

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> Improving indoor air quality by reducing common indoor pollutants like fine particulate matter (PM2.5) and volatile organic compounds (VOCs) **can lower respiratory symptoms by up to 20-50%,** especially for those with asthma and allergies

Environmental Protection Agency (EPA)

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> Improving ventilation and IAQ could **reduce symptoms of SBS** (headaches, eye irritation, and fatigue) **by 20-30%**, leading to better well-being for occupants

Indoor Air journal

> Indoor air quality has become a **crucial element** of living environment building operations, especially in multifamily buildings

Jordan & Skala Engineers

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79

Current Life Expectancy

- The average person is expected to live 79 years

70

Years Indoors

- The average person will spend 70 years indoors

50

Years in Your Home

- The average person will spend 50 years inside their home

90 Percent of your time is spent indoors!

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The Challenge

The Challenge

- Managing indoor air quality in units
- Preventing contaminants between units
- High energy efficiency standards
- Noise control and space constraints
- Limited resident control over ventilation

The Quad at York – Phase II

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> Nontransient dwelling units shall be provided with outdoor air energy recovery ventilation systems with an enthalpy recovery ratio of not less than 50% at cooling design conditions and not less than 60% at heating design conditions

C403.7.4.1 Energy recovery systems. – ICC Digital Code

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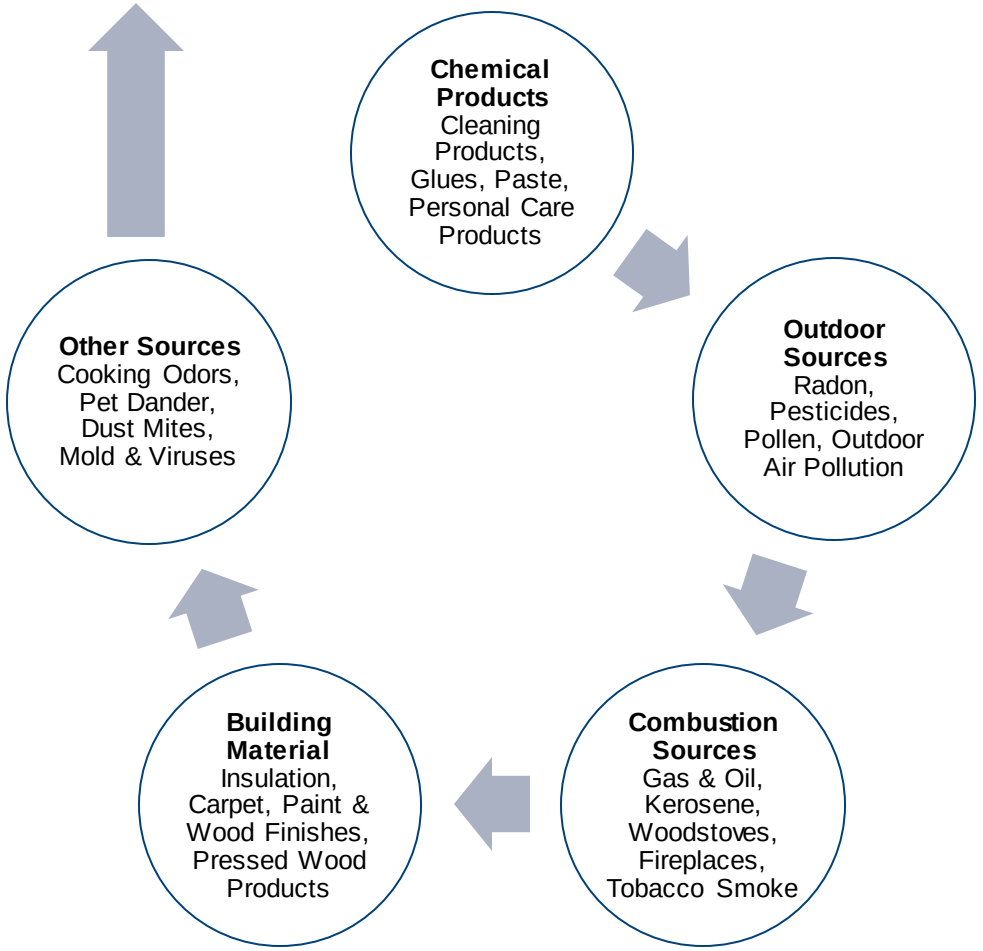
Top Sources of Indoor Air Pollution

- Chemical products
- Outdoor sources
- Combustion sources
- Building Materials
- Other Sources



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What can you do to improve indoor air quality?

- Ventilate
  - Let your home breathe

- Filtration
  - Filter the air you breathe

‘But I have a UV Light and a good filter..’

- Filtering and purifying air is beneficial, but doesn’t rid home of germs and viruses
- Harmful germs and viruses must come in direct contact with a UV light or particles must be large enough to be trapped by a filter
- Most gases, germs and viruses never come in contact with the UV light.

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Considerations for Tight Homes

- **Pros**
  - Tight Homes are less expensive to heat & cool.
  - Tighter Homes allow for better control of heating and cooling with minimal draft caused by natural infiltration
  - Tighter Homes allow you to have more control over indoor air supply and quality.
- **Cons**
  - Home stays in negative pressure
  - Kitchen & Bath exhaust fans
  - Combustion Sources - Fireplaces, gas appliances, etc.

The Role of Filtration

- Cleans the indoor air
- Removes major particles found in the home
- HEPA media is certified 99.97% at capturing particles 0.3 mircrons and smaller
- These particles represent the greatest health concerns for our respiratory system

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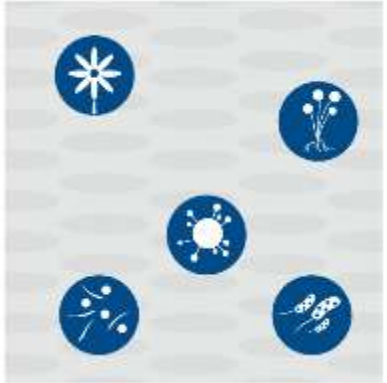
The Role of Filtration

Activated Carbon Filter

- Removes gaseous compounds such as odors and VOCs
  - Smoke
  - Gases
  - Cleaning Chemicals
  - Odors

MERV 8 Filter

- Collects particles as small as 3 microns
  - Dust
  - Dust Mites
  - Lint
  - Pollen
  - Mold



HEPA Filter

- Traps 99.97% of airborne particles
  - Viruses
  - Bacteria
  - Allergens
  - Pollen
  - Mold
  - Wild fire smoke particles

Advantages of a Whole-House HEPA System

- Samples 300 cubic feet of air every minute
- Cleans the air
- Returns it back to the livable space

- Other advantages for the homeowner:
  - Reduces ambient sound
  - Suitable for installation in non-conditioned spaces
  - Directly mounted on the plenum
  - Mount independent of the central A/C system, optional

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What are your ventilating options?

- **Exhaust only**

- **Supply only**

- **Balanced system, direct ducted with HRV/ERV**

Why ventilate?

- Required by Code
- Health and safety of occupants
- Building investment

- Mold / Mildew
- Remove odor
- Eliminate fog, condensation on mirrors and windows
- Remove toxins, VOCs
- Protect structure and materials

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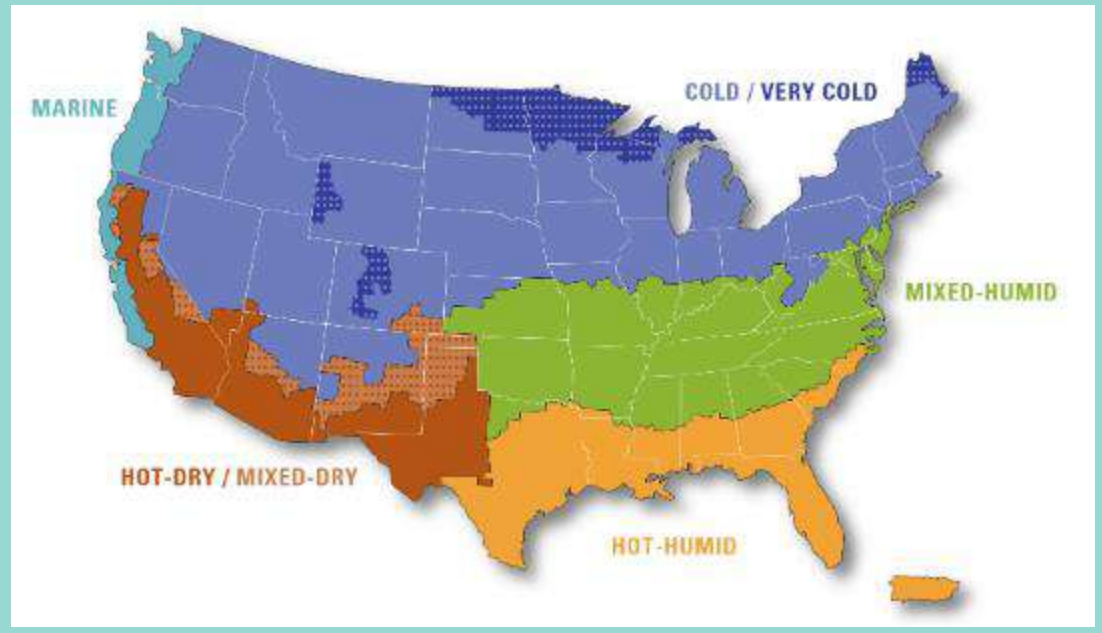
Residential Construction Codes & Ventilation

- Most states and local code jurisdictions adhere closely to a version of the IRC, IECC and IMC.
- Those codes define the bare MINIMUM requirements for mechanical ventilation
  - Bathroom exhaust
  - Kitchen range hood exhaust
  - Makeup air for cooking exhaust
  - Clothes dryer exhaust
  - Whole dwelling ventilation
- Those codes require minimal air cleaning for IAQ
- Radon requirements are typically addressed as a feature of the new or existing home's real estate transaction, if at all.

HRV or ERV?

- Definition
  - HRV: Heat Recovery Ventilator
    - Sensible recovery only
  - ERV: Energy Recovery Ventilator
    - Sensible & latent recovery
- Use case
  - HRV: Colder areas, longer heating season, dry outside
  - ERV: Warmer more humid areas, longer cooling season, high outside RH



How does a Fresh Air Appliance work?

- Sensible and latent heat transfer
- Ex. Cooling season

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Pros & Cons of Fresh Air Appliances with Heat Recovery Ventilators?

- Pros
  - Typically less expensive
  - Washable for easy maintenance and cleaning
  - Often used in colder climates and for applications where latent recovery is not desired
    - Indoor pools
    - Pet kenneling facilities
    - Etc.
- Cons
  - Requires a condensate drain
  - Does not transfer moisture through the core, transferring only sensible heat
  - Not ideal for many applications in humid climates

Pros & Cons of Fresh Air Appliances with Energy Recovery Ventilators

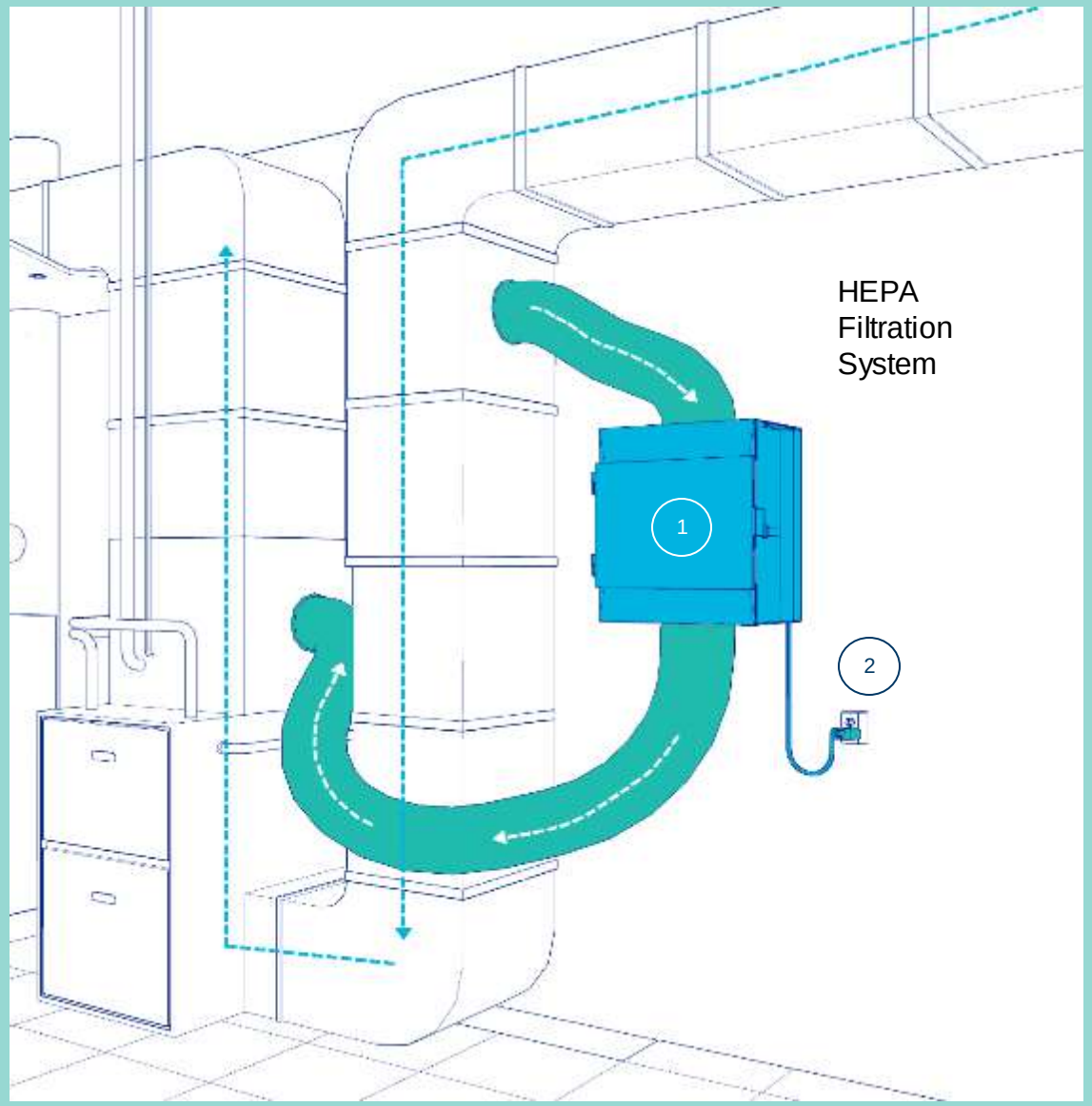
- Pros
  - Transfer moisture through the core to control humidity levels
  - Does not require a condensate drain
  - Some new polymer cores are washable for easy maintenance and cleaning
  - Some new polymer cores are freeze tolerant for use in colder climates.

- Cons
  - ERV is sometimes less efficient than same size HRV
  - ERV is more expensive than HRV

Appliance Installation Best Practices: Good

- Clean filtered air for the entire house with HEPA filtration system

1. 2-stage filtration: 1) pre-filter with carbon; 2) HEPA filter.
2. Voice control via smart plug and voice-enabled devices



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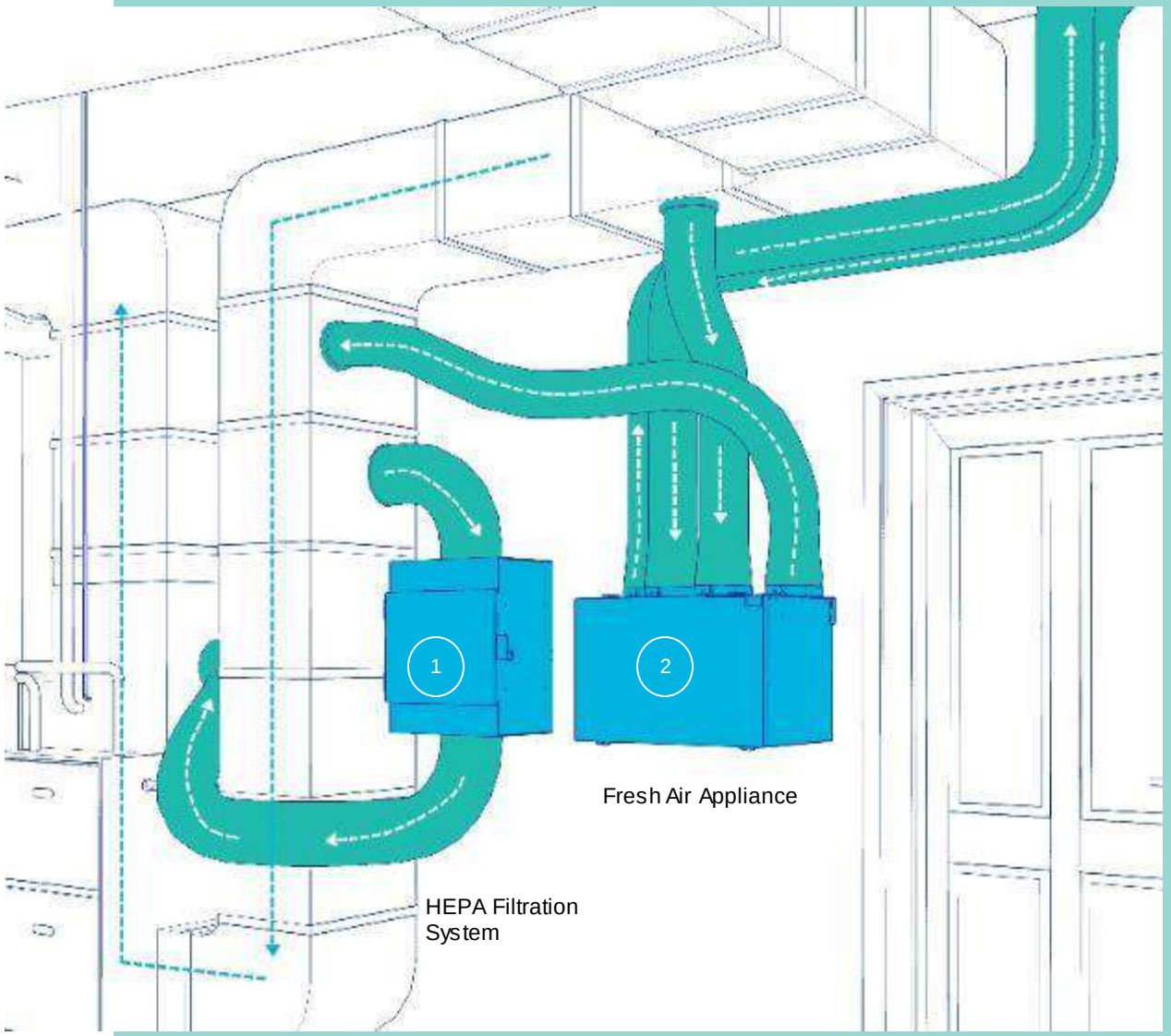
Appliance Installation Best Practices: Better

- Clean filtered air brought from outside
- Simplified Installation

1. 3-stage filtration: Pre-filter with carbon, HEPA filter.
2. Brings fresh outdoor air in, removes stale inside air. Outside air tempered by the energy of outgoing air



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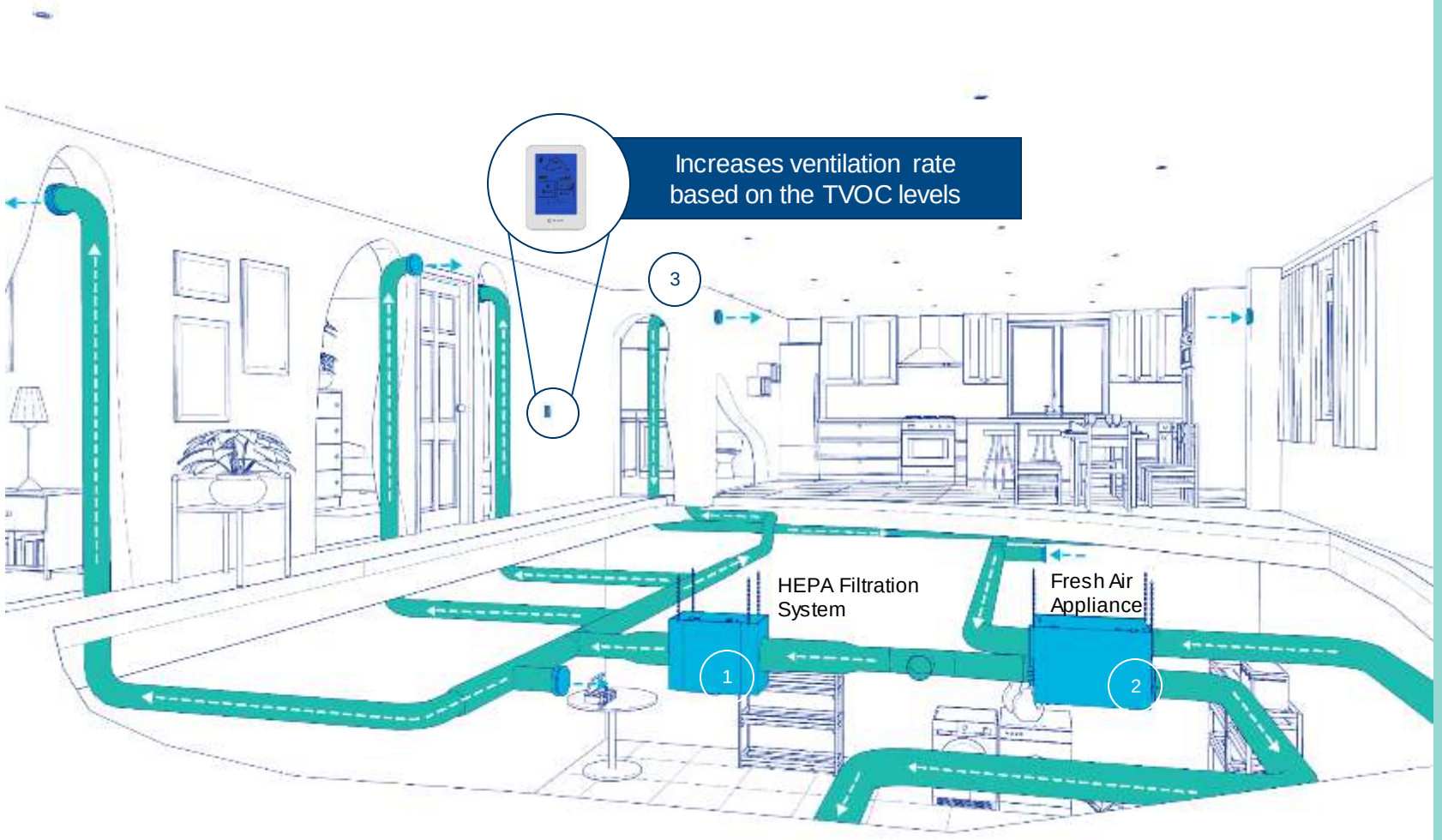
Appliance Installation Best Practices: Best

- Balanced ventilation, TVOC sensing & bathroom exhaust
- Fully dedicated system

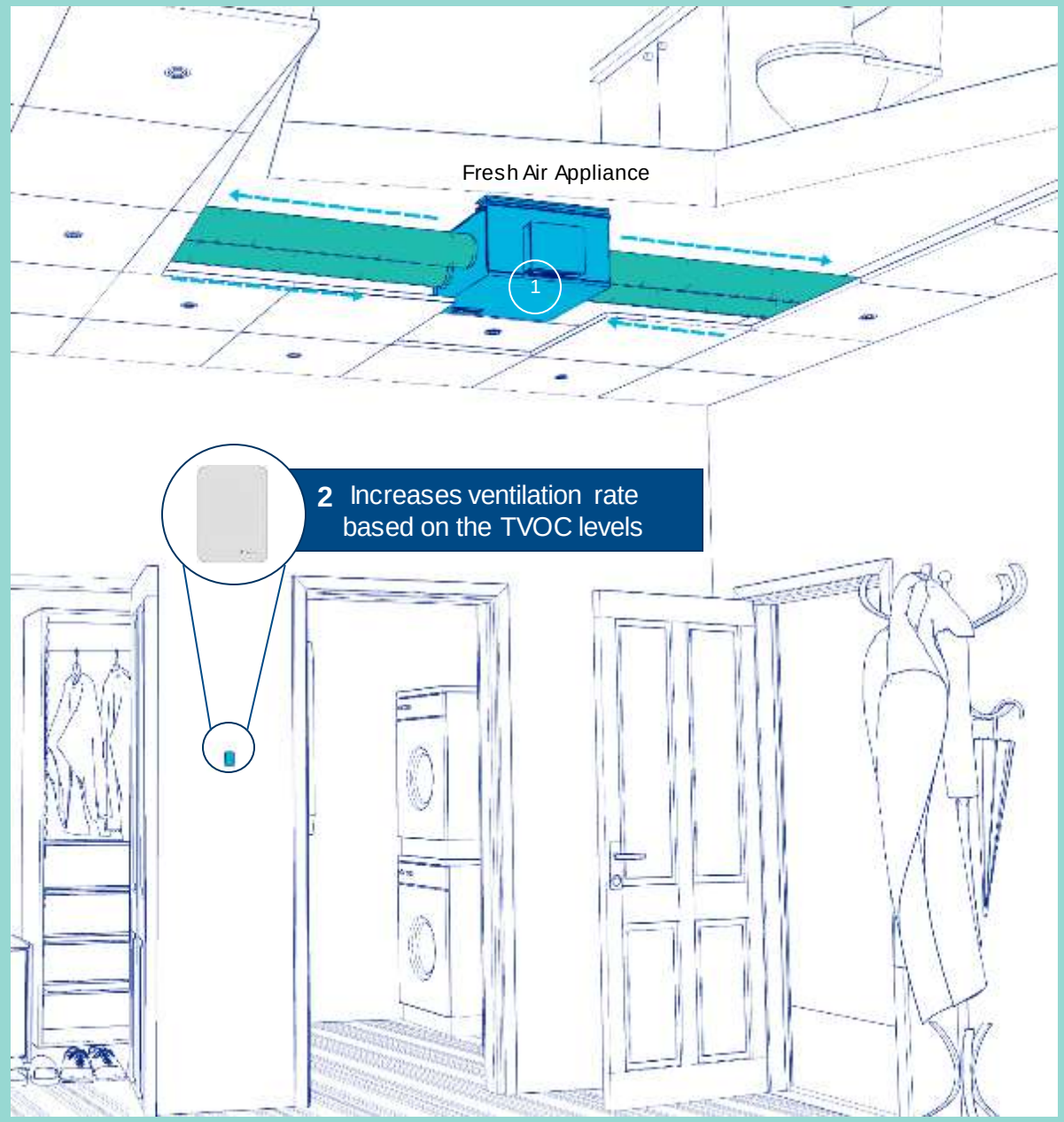
1. Ensures the supply air is perfectly clean
2. Brings fresh outdoor air in, removes stale inside air.
3. Boosts your bathroom exhaust for up to minutes with wireless timer



Appliance Installation Best Practices: Multi-Family

- False ceiling applications

1. Brings fresh outdoor air in, removes sale inside air. Outside air is tempered by the energy of the outgoing air
2. Controls the fresh air appliance on demand



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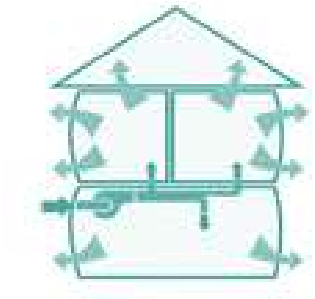
Sizing Your Unit

- Fantech units range from 70 to 1400 cfm
- Follow ASHRAE or IRC standards for ventilation
- Follow local code
- Below is example only

Ventilation Air Requirements, cfm (I-P)

Floor area, ft^2	Number of bedrooms, airflow in cfm				
	1	2	3	4	5
<500	30	38	45	53	60
501-1000	45	53	60	68	75
1001-1500	60	68	75	83	90
1501-2000	75	83	90	98	105
2001-2500	90	98	105	113	120
2501-3000	105	113	120	128	135
3001-3500	120	128	135	143	150
3501-4000	135	143	150	158	165
4001-4500	150	158	165	173	180
4501-5000	165	173	180	188	195

Ventilation Installation Best Practices: Balancing



Positive Air Pressure

(supply only system)

Negative Air Pressure

(exhaust only system)

Balanced Air Flow

Why do I have to balance my Fresh Air Appliance (ERV / HRV)?

- Positive pressure pushes moist air into the wall cavities where it can lead to mold problems
- Negative pressure pulls unconditioned air through windows, doors, attics, and basements creating moisture problems, hot and cold spots, and negatively affect indoor air quality
- Balanced air flow occurs when the supply air (CFM) is equal to the stale air exhaust (+/- 10%)
- Fresh Air Appliances should always be balanced unless specified otherwise.

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Installation Best Practices: TVOC Sensing Controller

- Senses the home's current conditions
  - Relative humidity
  - Total Volatile Organic Compounds (TVOCs)
- Selects the correct operating mode to maximize good air quality, lower energy consumption
- TVOC sensing should override all pre-sets

Part 2: Multi-Family Residential Solution

FIT ® Series

The Fresh Air Appliance Designed to FIT

Product Overview

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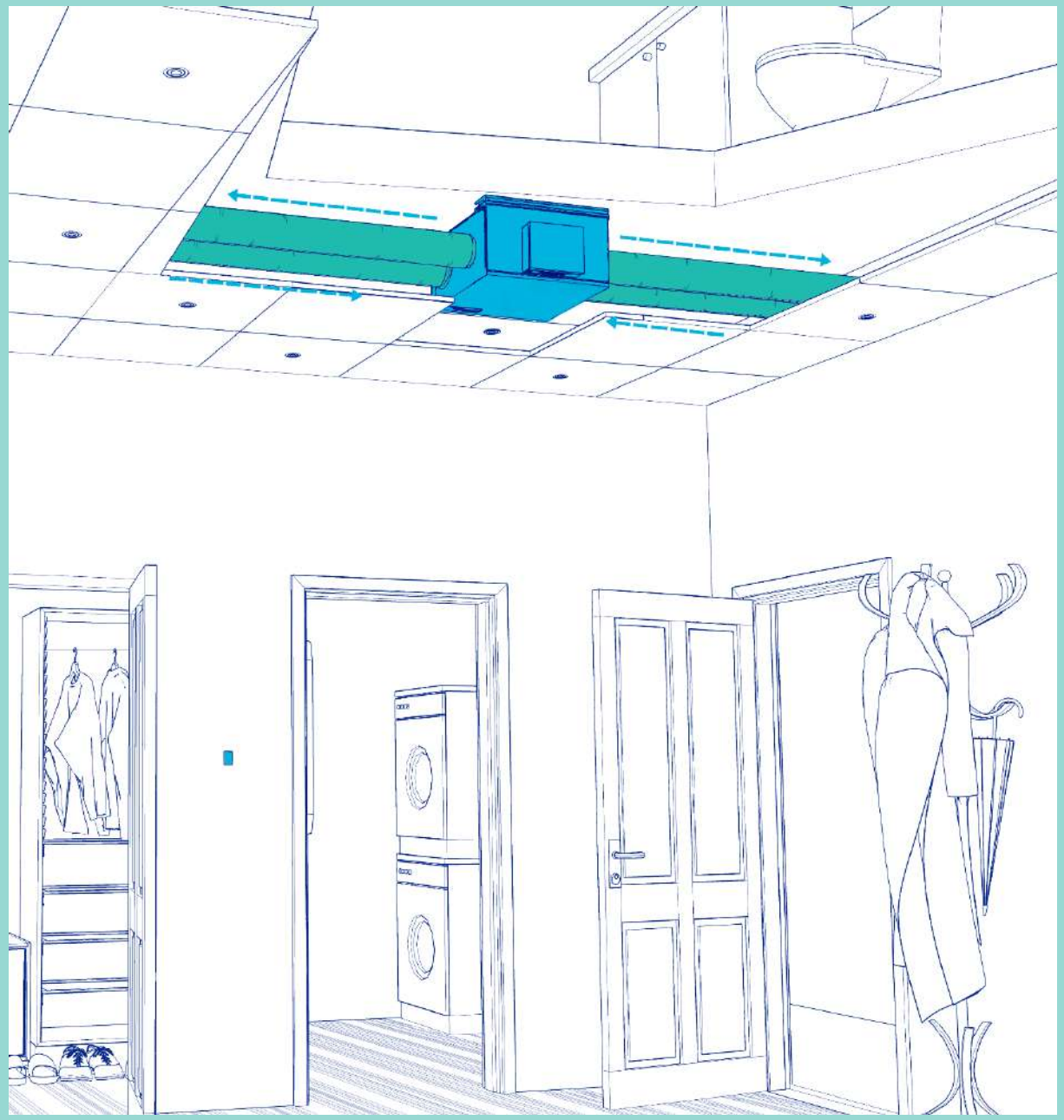
Fits? You bet.

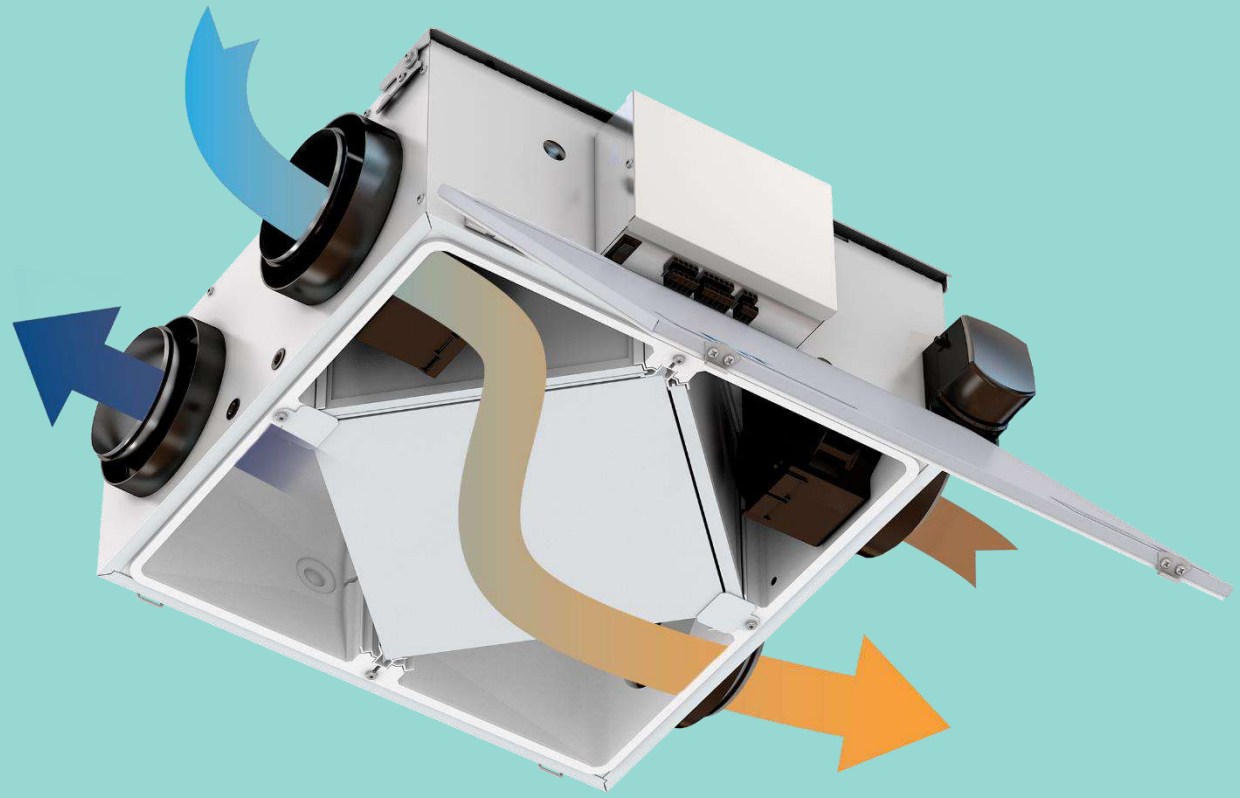
- The low-profile FIT® Series:
  - Slim profile
  - Energy recovery
  - Easy commissioning
  - Easy access latches for maintenance
  - External access to electrical terminal
  - Hard-connect or corded versions
  - No drain
  - Washable electrostatic filters
  - Standard/Mirrored floor plans
  - Integrated shutoff damper (D-Models)

FIT	120	E	-	D	-	EC	-	M	-	HC
Name	CFM cfm @ 0.4" P_s	Energy Recovery Ventilator		Shutoff Damper		ECM Motor		Mirrored		Hard Connect



At the core of the units…

- Energy recovery core
- Electrostatic filters (washable)
- Up to 77% sensible energy recovery (SER)



> Our FIT 80E delivers the highest CFM in the most compact design.

Amir Refaat, North American Product Manager - IAQ

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FIT 80E Specifications

- Motor type: AC
- No drain
- Easy access utilizing 2 latches
- Small Profile: 20 5/8” x 21 5/8” x 10 1/6”
- Light Weight: 29 lbs.
- 78 cfm @0.4” wg.

FIT 80E-D Specifications

- Motor type: AC
- No drain
- Easy access utilizing 2 latches
- Small Profile: 20 5/8” x 21 7/8” x 10 1/6”
- Light Weight: 30 lbs.
- 78 cfm @0.4” wg
- Integrated **shutoff damper**

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FIT 120E Specs

- Motor type: AC
- No drain
- Easy access utilizing 2 latches
- Small Profile: 23 5/8 x 24 5/8” x 10”
- Light Weight: 34 lbs.
- 127 cfm @0.4” wg.

FIT 120E-D Specs

- Motor type: AC
- No drain
- Easy access utilizing 2 latches
- Small Profile: 23 ½ x 25” x 10”
- Light Weight: 35 lbs.
- 127 cfm @0.4” wg.
- Integrated **shutoff damper**

FIT 120E-D-EC Specs

- Motor type: **EC**
- No drain
- Easy access utilizing 2 latches
- Small Profile: 23 ½ x 25” x 10”
- Light Weight: 35 lbs.
- 129 cfm @0.4” wg.
- Integrated **shutoff damper**

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Model		FIT® 80E²	FIT® 80E-D²	FIT® 120E²	FIT® 120E-D²	FIT® 120E-D-EC²
Easy to specify BIM objects & CSI specs available on product page						
Airflow range (Low/ High speed)	cfm @ 0.4" wg	36-78	36-78	40-127	40-127	40-129
Duct connection	inch	4	4	5	5	5
Voltage / Phase	V / -	120/1	120/1	120/1	120/1	120/1
Duct type		Round	Round	Round	Round	Round
Consumed power (Low / High speed)	W	42/52	42/52	45/120	45/120	23/147
Fan Efficacy @ 0˚C/32˚F	cfm/W	1.5	1.5	1.2	1.2	2.2
Sensible Recovery Efficiency @ 0˚C/32˚F[1]	%	70	70	74	74	77
Sensible Recovery Efficacy @ -25˚C/-13˚F[1]	%	55	55	61	61	61
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Max current	A	0.6	0.6	1.4	1.4	3
Defrost cycle		Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown
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Height	inch (mm)	10 1/6 (255)	10 1/6 (255)	10 (254)	10 (254)	10 (254)
Weight	lbs (Kg)	29 (13)	30 (13)	34 (15)	35 (16)	35 (16)

[1]Performance at low speed. [2] Standard has fresh air supply on the right; Mirrored has fresh air supply on the left.

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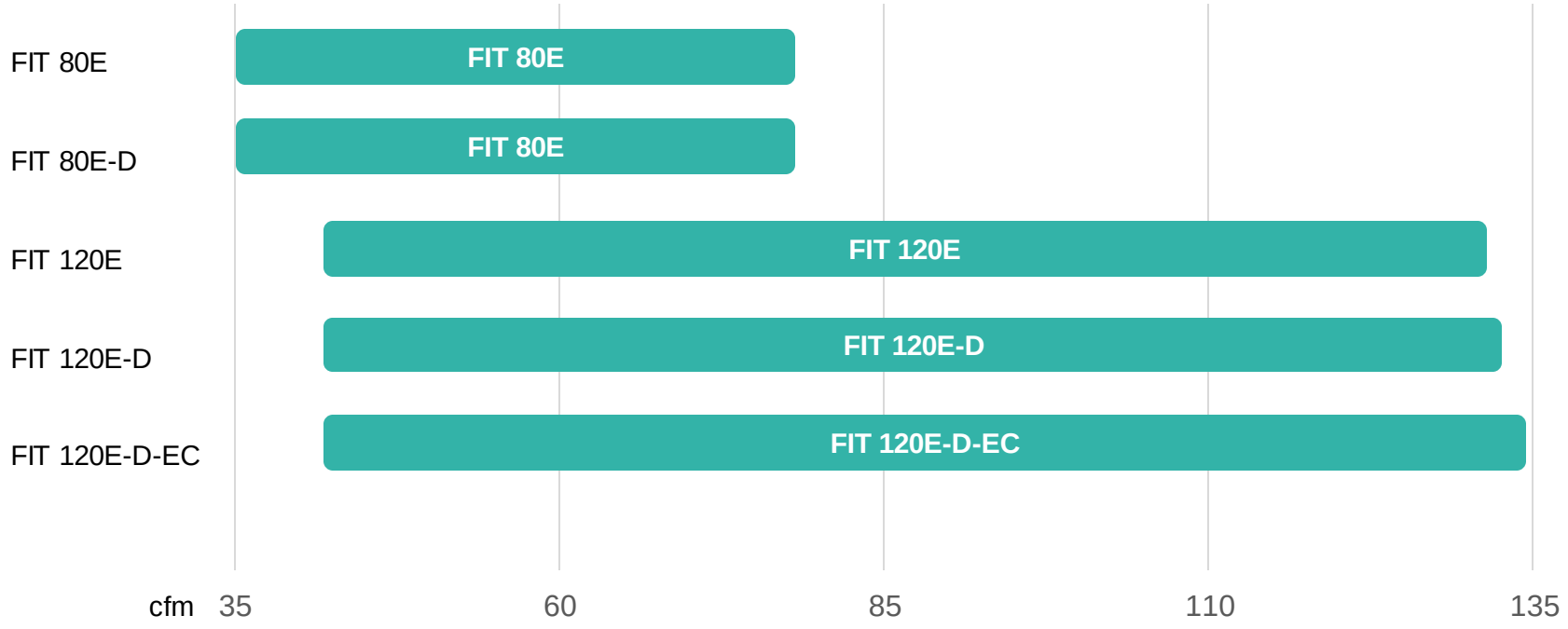
Airflow Ranges



What set us apart?

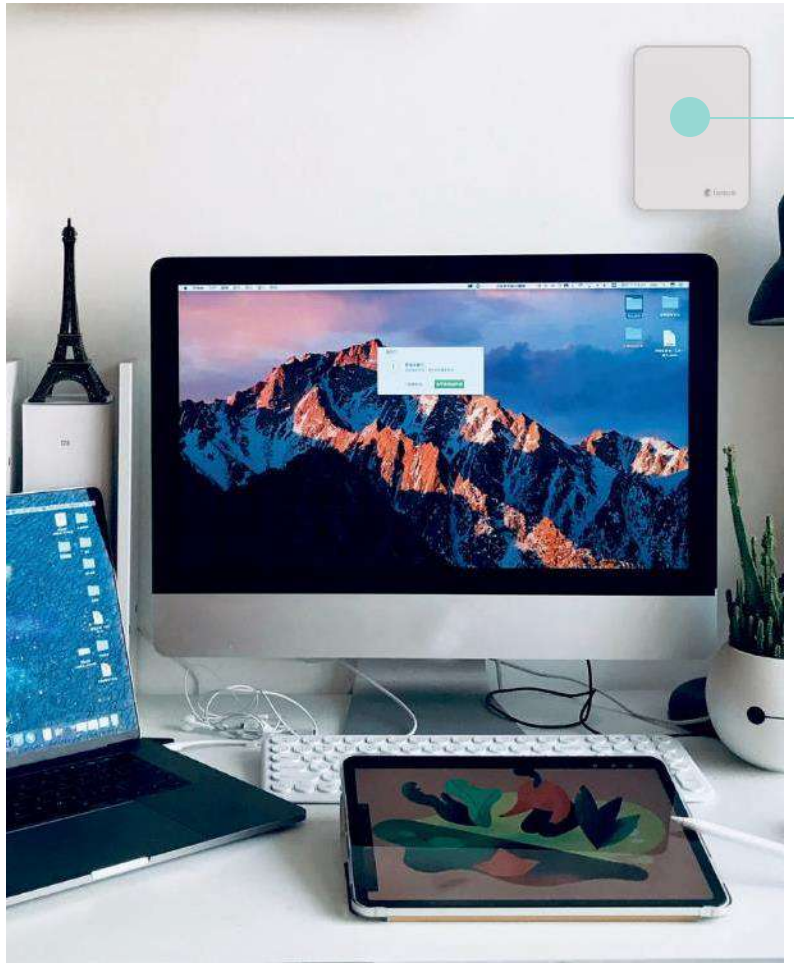
- Airflow (CFM) to volume exceeds industry standard with ultra-compact casing
- Simple balancing procedure
- 7-year motor warranty
- Ideal for multi-family residential properties
- Screenless TVOC sensing controller ensures the fresh air appliance is working as intended within each unit of the complex

Why Spec FIT from Fantech?

- Easy to specify
  - CSI specifications provided
  - BIM model includes RVF and DXF files
- Efficient and straightforward installation in multi-family homes, prioritizing energy savings and reducing power consumption.
- Low profile for tight spaces
- Mirrored and hard connect options

Built to FIT. Designed to Deliver.

ECO-Feel® Auto IAQ Control



- Optimizes FIT performance based on IAQ, indoor RH and outdoor temperature
- Maintains ventilation at RH level of 45% (factory preset)
- 20 mins ON/40 mins OFF per hour of operation at low speed
- Ventilation rate increases when IAQ sensor detects a spike in indoor air's VOCs
- Screenless design ideal for multi-family homes

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Better air everywhere