

AIR. PERFECTED.

Master Air Technology
by Dwell Air

A revolution in Air Purification.

The Air We Breathe Has Fallen Behind

India's homes have become smarter.

✓ *Our appliances have evolved.*

✓ *Our lifestyles have upgraded.*



But Our Air?

It's still filtered with technology invented in the 1940s.



- ▶ We accepted filters you throw away every 3 months.
- ▶ Fans that get louder.
- ▶ Systems that lose efficiency the moment dust touches them.

Dwell Air decided to stop accepting the compromise.

Every Technology Solves One Problem... and Creates Three More.

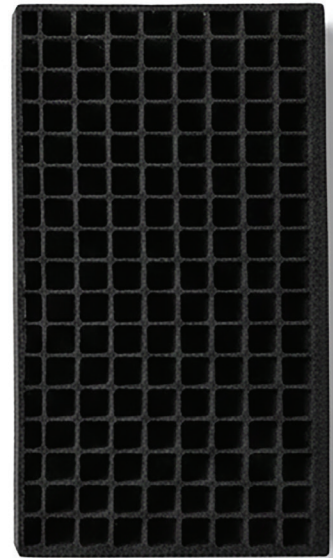
HEPA FILTER



ESP FILTER



IFD FILTER



1. HEPA — The Filter We Outgrew

- *HEPA cleans well on Day 1.
On Day 30, it becomes a problem.*

- 225 Pa resistance (your fan cries every time it runs)
- High power consumption
- Clogs fast — replaced every 3 months
- Ideal breeding ground for bacteria & mold
- Performance drops every single week
- HEPA cleans your air... but drains your energy, your money, and your patience.

HEPA cleans your air... but drains your energy, your money, and your patience.

2.

ESP (Electrostatic Precipitators) – Powerful, but Temperamental

*In theory, ESPs should have changed the world.
In reality, they changed maintenance budgets.*

- Sparking & discharge issues
- Ozone generation (dangerous, especially indoors)
- Low dust-holding capacity
- Needs frequent deep cleaning
- Efficiency collapses with humidity

ESPs look good on technical sheets. They behave badly in real homes

3.

IFD – Smart, Compact... Until It Isn't

*IFD came as the “modern alternative.”
But the promise didn't survive the real world.*

- Highly sensitive to humidity
- Performance decays rapidly
- Short operational lifespan
- Not suited for India's climate or dust load

IFD works in controlled rooms – not in Bengaluru monsoons or Delhi winters.

The Limitations of Yesterday's Filtration

FEATURES	MASTER AIR BY DWELL	TRADITIONAL HEPA	ESP	IFD
Single-Pass Efficiency	99.6%	99.97%	85-95%	80-90%
Filter Lifespan	15+ years	3-6 months	1-2 years	1-2 years
Maintenance	Wash annually	Replace quarterly	Clean monthly	Replace annually
Airflow Resistance	< 50 Pa	225+ Pa	50-100 Pa	100-150 Pa
Pathogen Inactivation	99.99%	0%	Variable	Minimal
Ozone Emission	< 0.01 ppm	0 ppm	0.02-0.05 ppm	0.01-0.03 ppm
Energy Consumption	Very Low	High	Medium	Medium
Noise Level	< 30 dB	45-60 dB	35-45 dB	40-50 dB
Long-term Cost	Lowest	Highest	Medium	Medium

**WE DIDN'T IMPROVE
FILTRATION.**

**WE
REIMAGINED
IT.**

What happens when you combine:

Plasma ionization

Advanced electrostatic
capture

Semiconductor materials

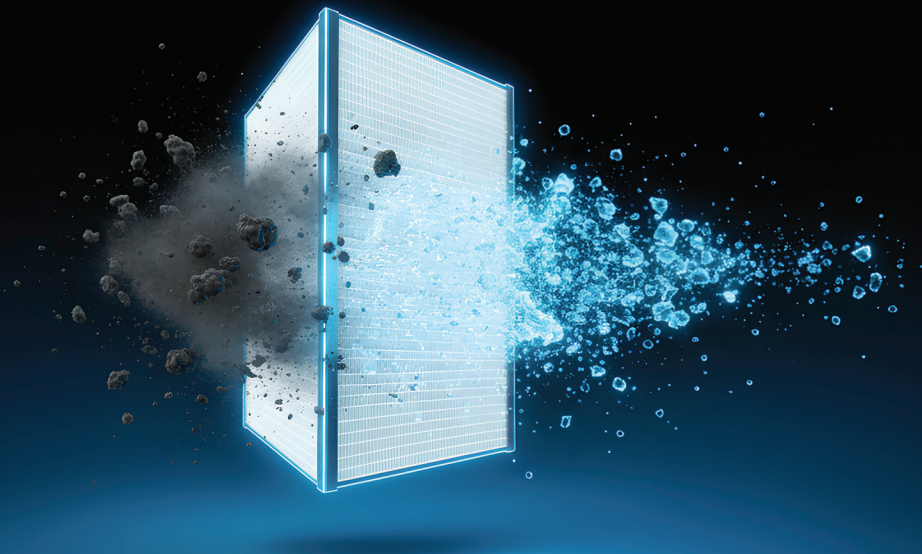
Zero-spark safety
engineering

A 15-year filter design

Active pathogen
neutralization

...into one seamless technology?

You don't get a filter.



YOU GET MASTER AIR.

*The world's most advanced purification system for
homes and buildings.*

Data That Feels Like Magic.

Engineering That Feels Like Art.

99.6%

Single-pass purification

80%

Less resistance than HEPA

20x

Dust-holding capacity

99.99%

Virus inactivation

<0.005

mg/m³ ozone

15+

Year lifespan

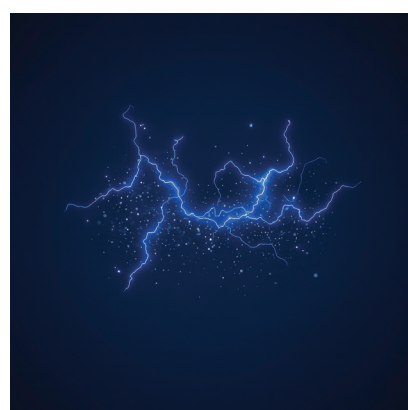
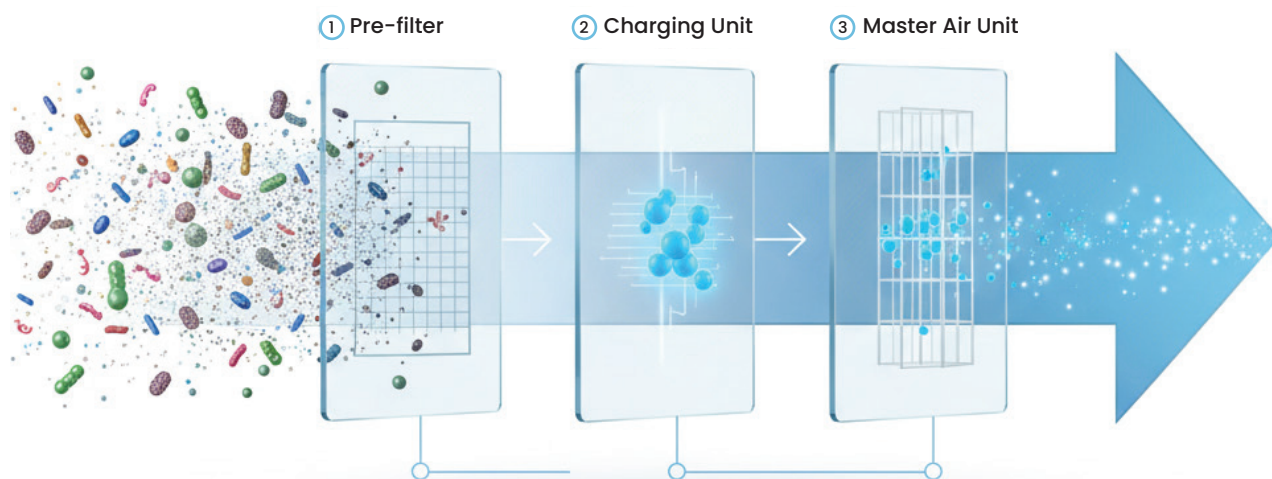
Performance

doesn't degrade

These numbers belong to no known filter.

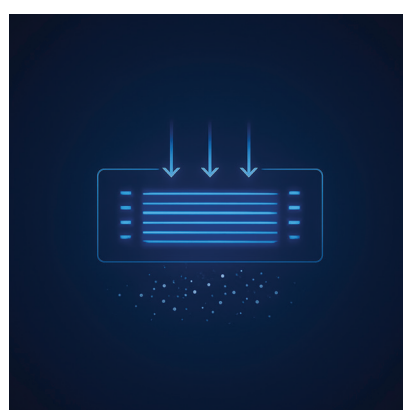
They belong to a new category.

How It Works — In 3 Elegant Steps



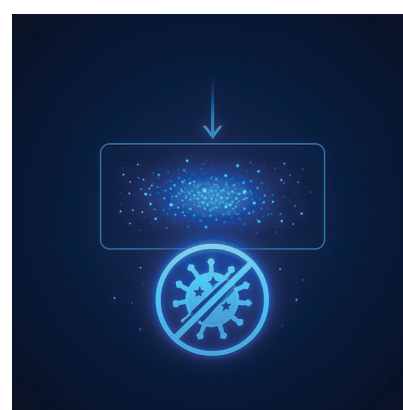
1 Ionize

Particles receive charge; pathogens begin to fracture.



2 Capture

Electric field traps everything from PM10 to ultrafine particles.



3 Neutralize

99.99% pathogen elimination

TAKE A CLOSER LOOK.



Washable polymer membrane
total heat exchange materials



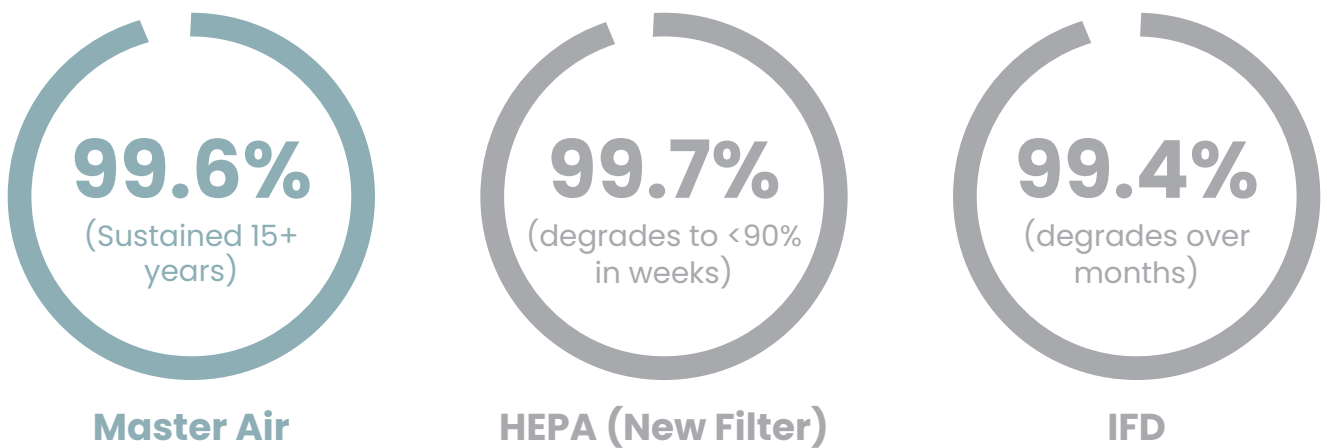
Efficiency — 99.6% and Beyond

**Most filters get worse over time.
This one doesn't know how to fail.**

At 1.5 m/s airflow, Master Air captures 99.6% of PM2.5 particles in a single pass. Even at higher velocities — 2.5 m/s and beyond — efficiency remains above 99.3%.

Particle size is irrelevant. Whether 0.3 microns or 2.5 microns, Master Air captures it. Consistently. Continuously. Without compromise.

FILTER THICKNESS	1.0 m/s	1.5 m/s	2.0 m/s	2.5 m/s	3.0 m/s
10cm	100.0%	100.0%	100.0%	99.7%	99.3%
5cm	100.0%	99.3%	97.7%	95.1%	92.0%
3cm	98.8%	95.0%	89.5%	84.1%	78.3%
2cm	94.4%	85.3%	76.3%	67.8%	62.0%



The difference: Master Air never fades.

Resistance —

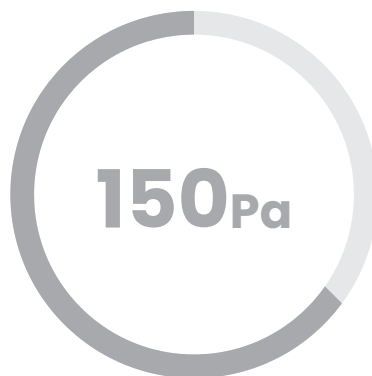
80% Lower

When a filter breathes easier, so do you.

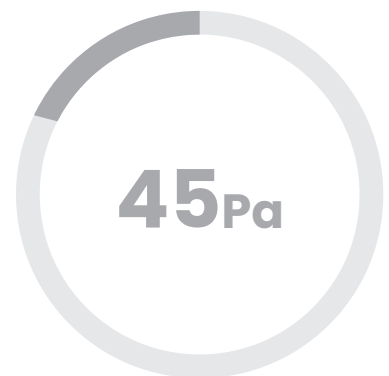
Master Air offers just 30 Pa of resistance at 2.5 m/s. Traditional HEPA: 225 Pa. That's 80% less resistance.



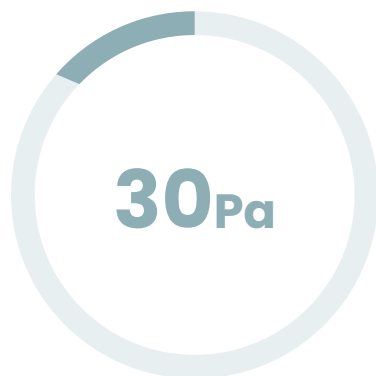
HEPA Filter



F8 Medium Filter



IFD (1.5mm spacing)



Master Air (3cm)



Master Air (5cm)

Dust Capacity —

20× More

A filter that lasts 15 years... behaves like it.

Traditional HEPA filters hold approximately 300 grams of dust before requiring replacement. Master Air holds over 6,000 grams — more than 20 times the capacity — without meaningful efficiency loss.

LABORATORY VALIDATION

A Master Air filter with a CADR of 300 m³/h absorbed the equivalent of 5,875 cigarettes — representing 15 years of continuous operation in severe pollution conditions — and showed no decline in purification performance.
The filter didn't even require cleaning.

WIND SPEED	0.3M FILTER RATE	RESISTANCE	ACCUMULATED DUST
1.5 m/s	99.6%	14 Pa	100.0%
1.5 m/s	97.6%	15 Pa	97.7%
1.5 m/s	94.0%	19 Pa	89.5%
1.5 m/s	92.5%	23 Pa	76.3%

CADR Performance Over Time

HEPA system	Initial CADR 315 m³/h	After 6,000 hrs 134 m³/h	Performance Change 57% decline
Master Air	Initial CADR 315 m³/h	After 6,000 hrs 308 m³/h	Performance Change 2% decline

Pathogen Inactivation — 99.99%



Hospital-Grade Sterilization. Without the Hospital.

*Most purifiers promise “clean air.”
Very few can promise **sterile air**.*

Master Air Technology by **Dwell Air**, isn't a consumer purifier mechanism — it is a **medical-grade sterilization platform**, validated by certified testing centers and classified under **Class II Medical Device** standards.

Lab-Verified Results

Guangdong Provincial Microbial Analysis & Testing Center
(Accredited medical microbiology facility)

PATHOGEN / TEST	KILL RATE	NOTES
Influenza A (H1N1)	99.98–99.99%	30 m ³ chamber
Influenza A (H3N2)	99.78%	Airborne virus
Staphylococcus aureus	>99.9%	20 m ² chamber
Airborne bacteria	>90%	60 m ³ chamber

Why It Matters?

HEPA stores live viruses.
Master Air **neutralizes** them.

Protection your family will never see — but always feel.

This is not filtration.
This is **airborne infection control**.

Ozone Safety —

<0.005 mg/m³

Advanced ionization. Zero harmful by-products.

Traditional ionizers and ESP systems release ozone — a respiratory irritant. Master Air's Safety Grid Technology™ delivers high-intensity purification without generating unsafe by-products.

Independently tested and verified for ultra-low ozone release.

Certified Test Values

National Air Conditioning Equipment QA & Inspection Center

SOURCE

OZONE OUTPUT (MG/M³)

Master Air Technology

<0.005

Indian Safety Limit

<0.050

Typical Outdoor Air

~0.080

Why It Matters?

You get powerful electrostatic purification — with ozone levels **20×** lower than outdoor air.

POWER WITHOUT POLLUTION.

Humidity Survival —

95%+ Efficiency @ 90% RH

Purification engineered for Indian monsoons — and Delhi's extreme swings.

Where IFD filters and ESP systems collapse in humidity, Master Air maintains stable, high-efficiency performance — even in **90% RH**, one of the harshest real-world conditions.

Whether it's **Mumbai's monsoon**, **Chennai's coastal humidity**, or **Delhi's sudden jumps from dry heat to sticky post-rain conditions**, performance stays consistent.

High-Humidity Test Results

TECHNOLOGY

EFFICIENCY @ 90% RH

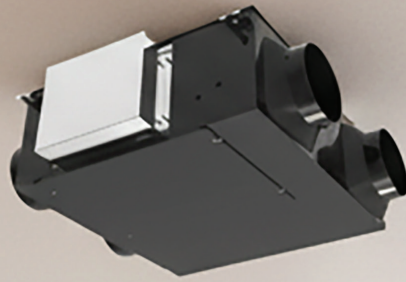
Master Air	95%+
IFD Filters	<70%
Conventional ESP	Unstable

Why It Matters?

From Delhi NCR's unpredictable weather cycles to heavy monsoon regions, Master Air delivers steady purification — no sparking, no drop in sterilization, no field collapse.

**INDIAN MONSOON APPROVED.
DELHI TESTED.**

TWO FORMS. ONE TECHNOLOGY.



BRAVO

ENERGY RECOVERY VENTILATOR

Fresh air + Energy Recovery + Master Air filtration.



DWEll

BABY AIR

The standalone icon of invisible purification.

BRAVO

WHEN VENTILATION BECOMES INTELLIGENT.

Fresh Air + Exhaust + Sterilization Level Purification + Energy Recovery

IN ONE INTELLIGENT SYSTEM.

Every home needs fresh air.

But opening windows brings
heat, humidity, dust, and pollution.



Traditional ERVs fix some of that — but not all.



BRAVO fixes everything.

Quietly. Continuously. Automatically.

Dwell ERV Advantages



WHOLE-HOME FRESH AIR

Fresh air for every room, 24/7.



MASTER AIR PURIFICATION BUILT-IN

99.6% particulate removal
99.99% pathogen inactivation



ENERGY RECOVERY

Saves up to 60% energy with heat exchange core



SUPER SILENT OPERATION

Engineered for bedrooms & living rooms.



10–15 YEAR FILTER LIFE

No frequent replacements. Minimal upkeep.



WORKS WITH ANY AC SYSTEM

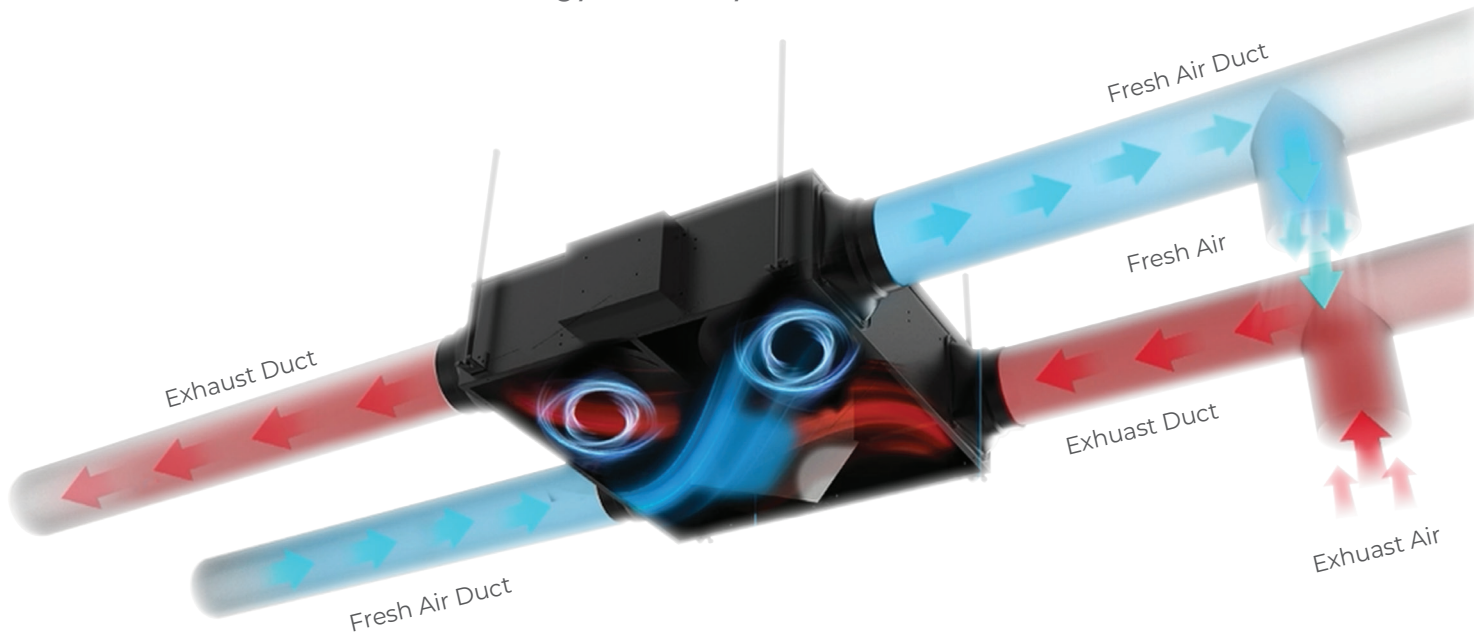
VRF, central AC, split AC — all compatible.



SMART CONTROL

The BRAVO Flow

Fresh Air In → Purification → Energy Recovery → Silent Distribution



1. Outdoor Air Intake

Controlled fresh airflow. No uncontrolled drafts.

2. Master Air Purification

- 99.6% particulate removal
- 99.99% pathogen inactivation
- Ultra-low resistance
- 10–15 year filter life

3. Energy Recovery Core

Keeps your AC cooling inside while still bringing fresh air in.

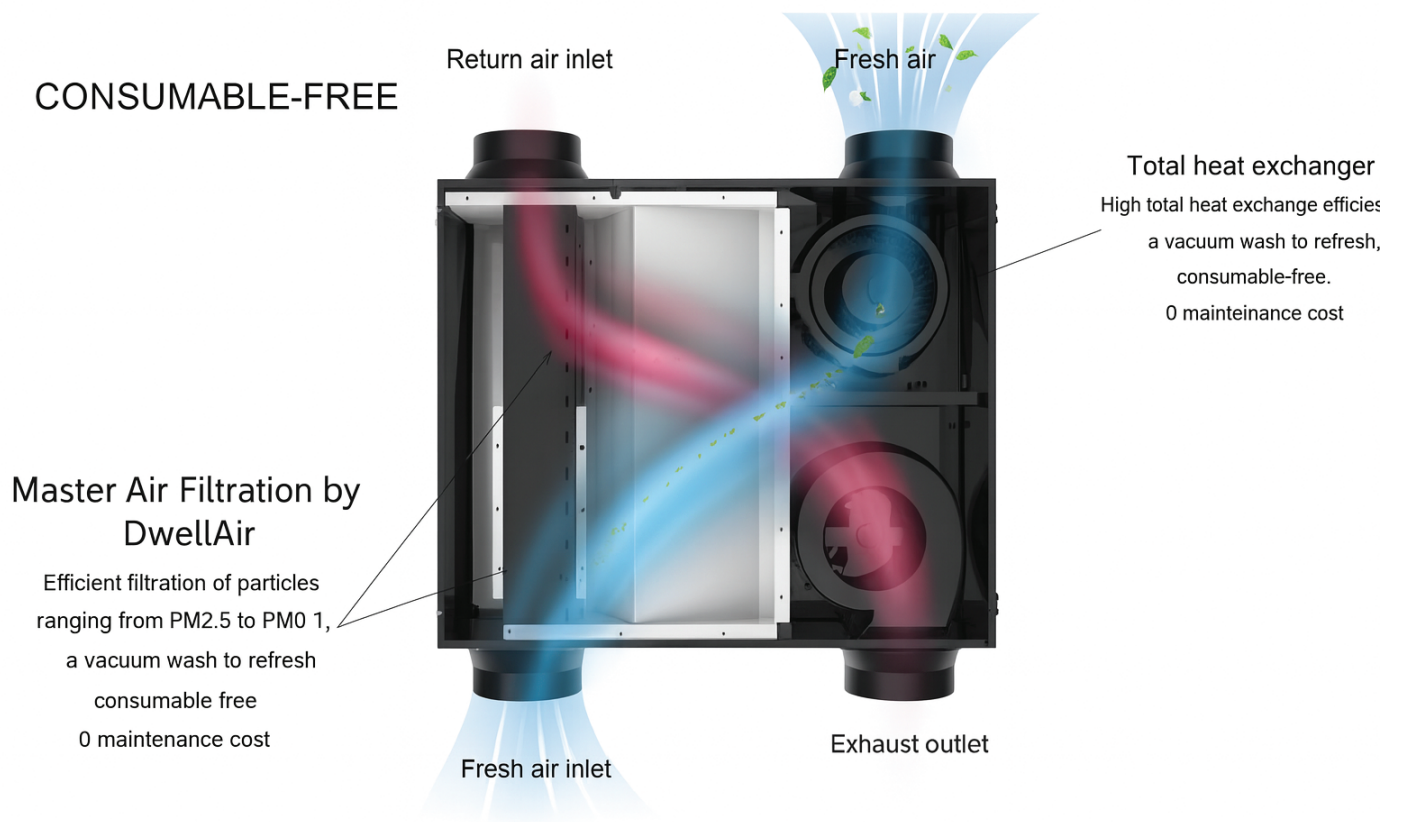
4. Multi-Room Distribution

Every room receives fresh, clean air through quiet ducts.

5. Indoor Air Exhaust

Stale, CO₂-laden air is removed without losing cooling.

CONSUMABLE-FREE



BABY AIR

THE ICON OF INVISIBLE PURIFICATION.

Not all homes have ducts. Not all rooms need
whole-home systems.

**But every space deserves Master
Air.**



BABY AIR BY DWELL AIR

**brings the same revolutionary technology into a
standalone form that works anywhere**

Dwell Purifier Advantages



MASTER AIR CORE

Same breakthrough technology in a portable form.



PLUG-AND-PLAY

No installation. No ducts. Just plug in.



ULTRA-QUIET

<30 dB. Silent enough for nurseries and bedrooms.



MINIMAL MAINTENANCE

Wash filter annually. No replacements. Ever.



15+ YEAR LIFESPAN

One purchase. Lifetime protection. Zero recurring costs.



SMART CONNECTIVITY

App control, air quality monitoring, and scheduling.

Experience the Difference

FEATURE	TRADITIONAL ERV	BRAVO
Filtration	Basic mesh	Master Air Technology
Pathogen Control	None	99.99% sterilization
Energy Recovery	Yes	High-efficiency recovery
Humidity Handling	Weak	Stable at 90% RH
Dust Handling	Low	20× capacity
Ozone Emission	Possible	<0.005 mg/m ³
Maintenance	Monthly/Quarterly	Minimal



**Every room. Always fresh.
Always balanced.
Always protected.**

BRAVO is not another ventilation system.

It is the reason your home finally feels like
it's breathing *with you*.

What Separates Technology from Breakthrough Engineering?

SAFETY GRID TECHNOLOGY™

THE CHALLENGE

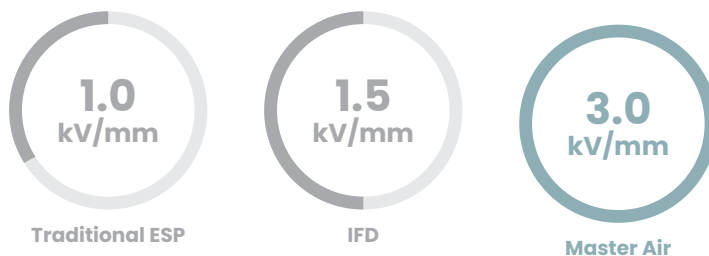
Traditional electrostatic systems operate at dangerously low voltages — only 1/3 of air's breakdown threshold — to avoid sparking and discharge ignition.

THE BREAKTHROUGH

Master Air's proprietary Safety Grid uses advanced semiconductor materials to create a uniform, stable, high-intensity electric field while completely suppressing air discharge.

THE RESULT

- ✓ Up to 3× higher field strength than conventional ESP systems
- ✓ Zero discharge events
- ✓ Zero ozone production
- ✓ Absolute safety
- ✓ Uncompromising performance



3× THE POWER. ZERO COMPROMISE.

DUAL-PHASE SUPPORT ARCHITECTURE

THE CHALLENGE

Ordinary electrostatic filters use direct support structures between positive and negative electrode plates. Over time, dust accumulation damages insulation, causing short circuits and efficiency loss.

THE BREAKTHROUGH

Master Air isolates the electrodes completely through our Dual-Phase Support system. Positive and negative plates never share a contamination pathway.

THE RESULT

- ✓ Massive dust-holding capacity (6,000+ grams)
- ✓ No performance degradation over time
- ✓ No short-circuit failures
- ✓ True long-term reliability

EVEN UNDER EXTREME DUST LOADING, ELECTRICAL INTEGRITY REMAINS PERFECT.

ADVANCED POLYMER COMPOSITE ELECTRODES

THE CHALLENGE

Create electrode plates that are lightweight, structurally capable of supporting complex geometries, mechanically durable, and electrically stable under continuous high-field operation.

THE BREAKTHROUGH

Years of materials science research led to custom-engineered polymer composite plates — molded in a single integrated process with no adhesives, no printing, no weak points.

THE RESULT

- ✓ No cracking
- ✓ No electrical leakage
- ✓ No degradation over time
- ✓ Flawless, enduring performance

DESIGN ADVANTAGES

- Lightweight construction
- Supports complex multi-layer geometries
- Resistant to mechanical damage
- Stable across temperature ranges (-10°C to 60°C)
- Stable across humidity ranges (0-95% RH)

JUST FLAWLESS, ENDURING PERFORMANCE.

Comprehensive Performance Analysis

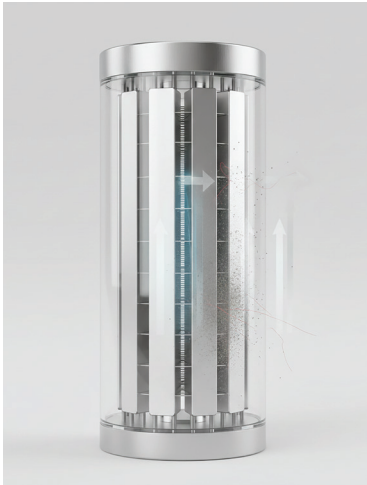
PARAMETER	MASTER AIR	HEPA	ESP	IFD
Purification Efficiency	99.6% (sustained)	99.7% (degrades)	85-95%	90-95%
Virus/Bacteria Killing	Yes (99.99%)	No	Partial	Partial
Wind Resistance @ 2.5m/s	30 Pa	225 Pa	50-80 Pa	40-50 Pa
Filter Lifespan	15+ years	3 months	1 year	1-2 years
Maintenance Requirement	Washable, 1+ year cycle	Replace every 3 months	Clean monthly	Clean quarterly
Dust Holding Capacity	6,000+ gms	~300 grams	500-800 grams	400-600 grams
Performance Continuity	Constant (15+ years)	Degrades rapidly	Moderate decline	Degrades over time
Ozone Generation	<0.005 mg/m³	None	0.02-0.05 mg/m³	0.01-0.03 mg/m³
Energy Consumption	80% lower than HEPA	Baseline (high)	Moderate	Moderate-High
Humidity Sensitivity	Minimal (95%+ @ 90% RH)	Moderate	High	Very High
Sparking/ Discharge Risk	Zero (Safety Grid)	N/A	Yes	Yes
Initial Equipment Cost	Premium	Low	Moderate	Moderate-High
Environmental Impact	Minimal waste	High (40 filters/10 yrs)	Moderate	Moderate

The Master Air Advantage



vs HEPA:

- 80% lower resistance = dramatic energy savings
- 20× dust capacity = virtually no maintenance
- 15+ year lifespan vs 3 months
- Active pathogen inactivation vs passive trapping



vs ESP:

- Zero sparking/discharge (Safety Grid technology)
- 10× lower ozone generation
- Higher efficiency with lower maintenance
- Compact form factor



vs IFD:

- Superior humidity performance (95% vs 70% @ 90% RH)
- 3× longer lifespan
- Higher single-pass efficiency
- More stable long-term performance

Where Master Air Belongs



LUXURY HOMES



SPAS



VILLAS



HOTELS



OFFICES



HEALTH CARE



RETAILS

WHY DWELL AIR?

A LEGACY OF PERFORMANCE

For years, Dwell Air has been synonymous with performance-driven ventilation, exhaust systems, and air solutions across India.

We've earned the trust of:

- Leading architects and designers
- Premium builders and developers
- Discerning homeowners
- Institutional clients

By delivering products that work — flawlessly, reliably, year after year.

15+

Years in HVAC

1000+

Projects Completed

100+

Trusted Partners

NOW, A NEW DIMENSION

Master Air Technology represents our evolution into the future of air purification.

By partnering with global innovators and bringing world-class technology to India, Dwell Air is redefining what's possible in air quality.

OUR PHILOSOPHY

The best solutions are those you never have to think about.

Technology should work silently, perfectly, permanently — freeing you to focus on what matters.

That's the Dwell Air promise.

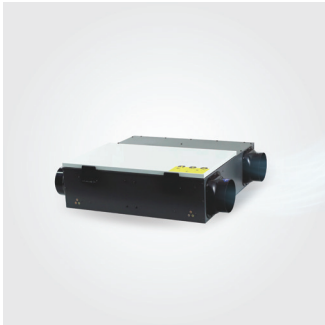
Air this pure should simply exist.
Effortlessly. Silently. Eternally.

PRODUCT PORTFOLIO



Ventilation Systems

High-performance exhaust and fresh air solutions.



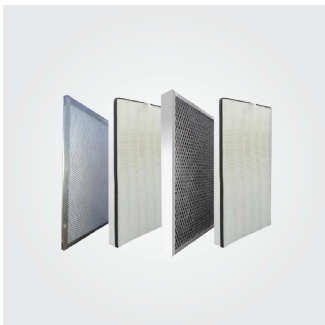
Energy Recovery Ventilators

RESPIRE, BRAVO series with Master Air Technology.



Air Purifiers

Standalone purification with Master Air Technology.



Custom Solutions

Engineered for large-scale residential and commercial projects.

FAQ's

Q: How is Master Air different from HEPA filters?

A: HEPA filters work through passive mechanical filtration — particles get trapped in dense fabric. This creates high resistance, requires frequent replacement, and doesn't kill pathogens. Master Air uses active plasma ionization and electrostatic capture — charged particles are attracted and held while viruses and bacteria are destroyed. Result: 80% lower resistance, 20× longer life, active pathogen elimination.

Q: Is the plasma ionization safe? What about ozone?

A: Absolutely safe. Master Air produces $<0.005 \text{ mg/m}^3$ of ozone — 10× lower than safety standards and 20× lower than outdoor air. Our proprietary Safety Grid technology enables powerful ionization without ozone generation. Independently tested and certified.

Q: How often do I need to replace the filter?

A: You don't. Master Air filters are washable and designed to last 15+ years. Annual rinsing is all that's required. No replacement costs, no disposal waste, no recurring expenses.

Q: What's the actual cost savings over time?

A: Over 10 years, Master Air saves approximately 70% compared to HEPA systems when accounting for filter replacements (₹80,000), energy consumption (₹96,000), and maintenance. Total savings: ~₹1,00,000+ per system.

Q: Does it work in high humidity conditions?

A: Yes. Master Air maintains 95%+ efficiency even at 90% relative humidity — conditions where traditional IFD systems drop to 70% or fail entirely. This makes it ideal for Indian monsoon climates.

Q: Can I install BRAVO in an existing home?

A: Yes. BRAVO can be retrofitted into most existing homes through ceiling or wall mounting. Our technical team conducts site assessments to design optimal duct routing with minimal disruption.

Q: What happens if there's a power failure?

A: The system simply pauses and resumes normal operation when power returns. No damage occurs. No recalibration needed.

Q: Do you offer maintenance contracts?

A: Yes. Annual maintenance contracts are available and include inspection, cleaning, performance verification, and priority support. However, many clients prefer the DIY approach since maintenance is so simple.

Q: Is professional installation required?

A: For BRAVO (ducted systems), professional installation is recommended to ensure optimal performance. For Dwell Air Purifiers (standalone units), installation is plug-and-play — no professional help needed.

Q: What if I move to a new home?

A: BRAVO units can be relocated and reinstalled. Dwell Air Purifiers are fully portable. Your investment moves with you.

Pure. Intelligent. Eternal.

In a world where everything demands maintenance, attention, upgrades, replacements—

Master Air does something rare.

It disappears.

- ✓ Into your ceiling.
- ✓ Into your home.
- ✓ Into your life.

Not because it's invisible.

**But because it works so flawlessly...
you'll forget it's even there.**

**AIR SHOULDN'T BE A PRODUCT.
AIR SHOULD BE A PROMISE.
THIS IS THAT PROMISE, PERFECTED.**

www.dwellventilation.com

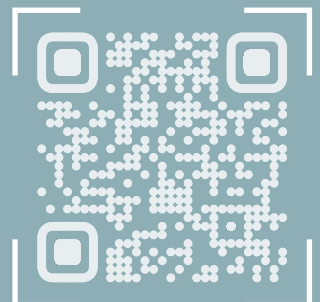
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