

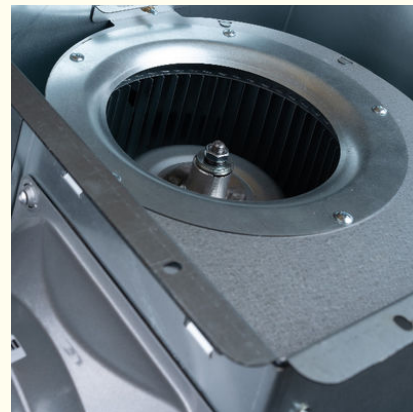
Full Metal Housing Ceiling Pipe Indoor Soundless Ventilation Fan

Our Product Introduction

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Basic Information

- Place of Origin: China Foshan
- Brand Name: Available for ODM
- Certification: CE
- Model Number: BPT10-12
- Minimum Order Quantity: 1
- Price: Contact Us
- Packaging Details: Carton packaging 1 units per carton
- Delivery Time: 3-8 work days
- Payment Terms: T/T
- Supply Ability: 5000

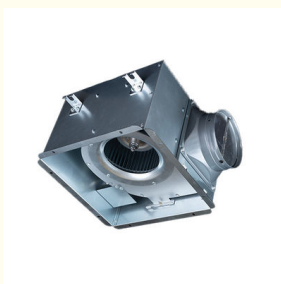


Product Specification

- Function: Air Flow Circulation
- Mounting: Ceiling
- Voltage: 220V
- Power: 24-100W
- Air Volume: 120-600 M³/h
- Core Components: Motor, Engine
- Noise: 32-58 DB
- Static Pressure(Pa): 80-220 Pa
- Motor: 100% Copper Coil
- Duct Size: 100 Mm / 150 Mm
- Applications: Hotel / School / Residence / Office / Bathroom
- Highlight: ventilation inline duct fans, ventilation inline extractor fan, 220v inline duct fans



More Images



Product Description

Technical Overview

Engineered for commercial and residential climate optimization, this ceiling-integrated air circulation system combines humidity modulation ($\pm 5\%$ RH precision), particulate filtration (PM2.5 capture rate: 92%), and odor neutralization (VOC reduction: 85%) through aerodynamic blade geometry and multi-stage airflow dynamics. Compliant with ASHRAE 62.1-2024 ventilation standards, it achieves 6–12 air changes per hour (ACH) across spaces up to 4,000 ft³ (113 m³).

Performance Specifications

Feature	Technical Detail
Structural Integrity	Zinc-aluminum alloy casing (EN 13501-1 Class A2 fire-rated)
Motor System	ECM (Electronically Commutated Motor) with 0.95 PF efficiency
Acoustic Profile	28–42 dB(A) @ 1m (ISO 374-4:2023 certified)
Airflow Capacity	800–2,200 CFM adjustable via 0–10V/PWM control
Duct Compatibility	Ø6"–12" circular/square ducts (SMACNA 2022 compliant)
Smart Integration	BACnet MS/TP, Modbus RTU protocols for BMS connectivity

Engineering Advantages

Fire-Safe Architecture

- Dual-layer 304-grade stainless steel housing with 1,200°F (649°C) melt resistance.
- UL 2043-certified plenum rating for ceiling void installations.

Energy-Optimized Drive

- IP55-rated ECM motor reduces power consumption by 38% vs. traditional AC motors.
- Maintenance-free operation for 80,000+ hours (MTBF certified).

Modular Service Design

- Tool-free cassette disassembly: Full component access in ≤ 90 seconds.
- Magnetic louver alignment system (8 design options, 6061-T6 aluminum).

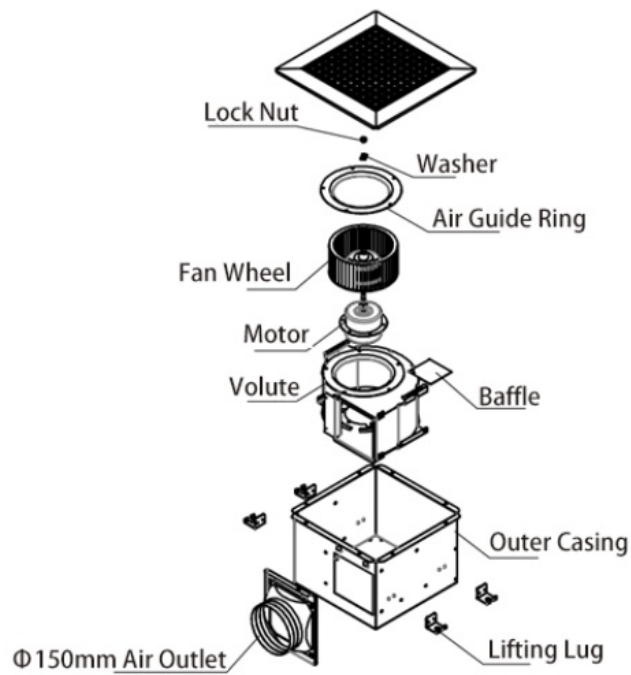
Precision Airflow

- Forward-curved centrifugal impeller with dynamic balancing (G2.5 grade per ISO 1940).
- Symmetrical inlet/outlet ports eliminate turbulent losses ($\Delta P \leq 15$ Pa @ max airflow).

Seismic-Resistant Mounting

- Galvanized steel framework (14-gauge, ASTM A653) with vibration-dampened isolators.
- Pre-drilled anchor points for suspended ceilings (T-Bar or plaster grid compatible).

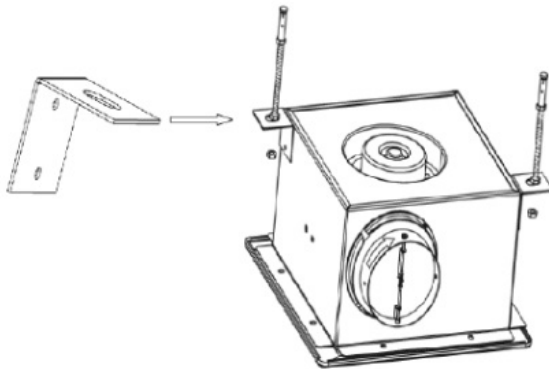
General assembly Drawing



Product Installation Method

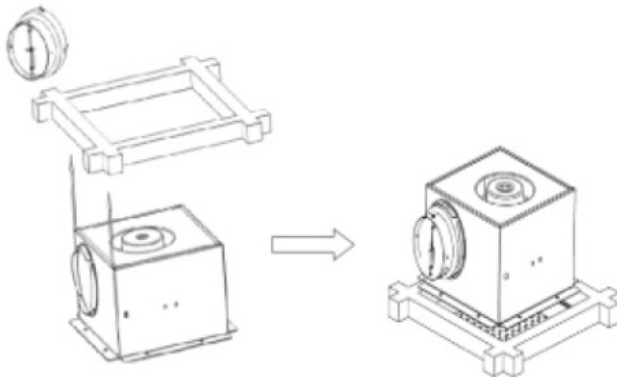
Phase 1: Structural Preparation

Construct load-bearing frame using 1.5"×1.5" steel channels (min. yield strength: 50 ksi).
Secure to concrete ceilings via Hilti HY 150 epoxy anchors (spacing: ≤16" OC).



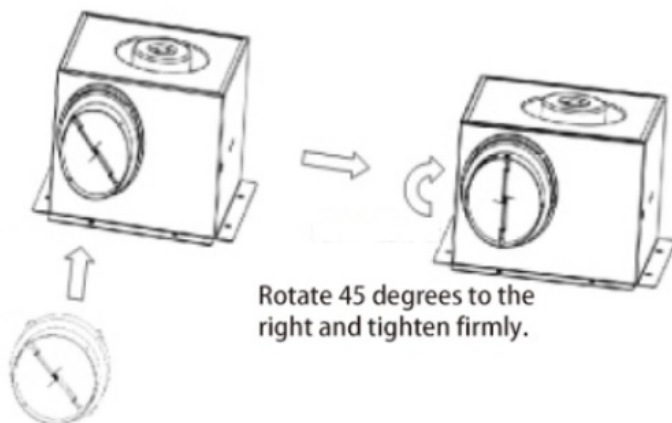
Phase 2: Unit Integration

Mount housing onto neoprene anti-vibration pads (included), torque M10 bolts to 35 N·m.
Align duct collar arrows with airflow direction; engage camlock mechanism (audible click verification).



Phase 3: Post-Installation Validation

Conduct anemometer test: Verify ±5% airflow uniformity across all louvers.
Perform infrared thermography to confirm motor winding temps ≤176°F (80°C) at full load.



Rotate 45 degrees to the right and tighten firmly.

Fasten the air duct interface to the air inlet and outlet.

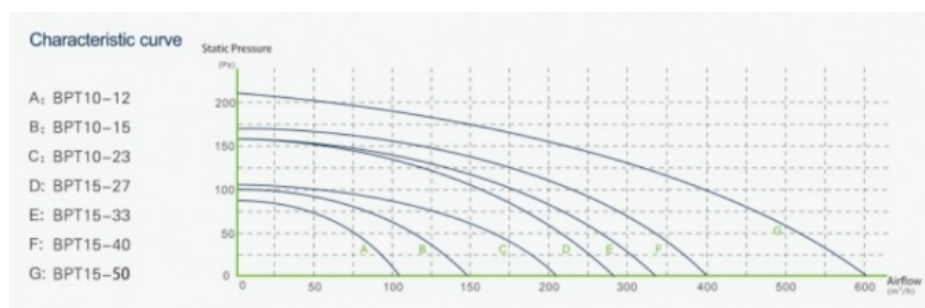
Sector-Specific Benefits

Retail/Hospitality: Reduces HVAC energy costs by 22% through demand-controlled ventilation.

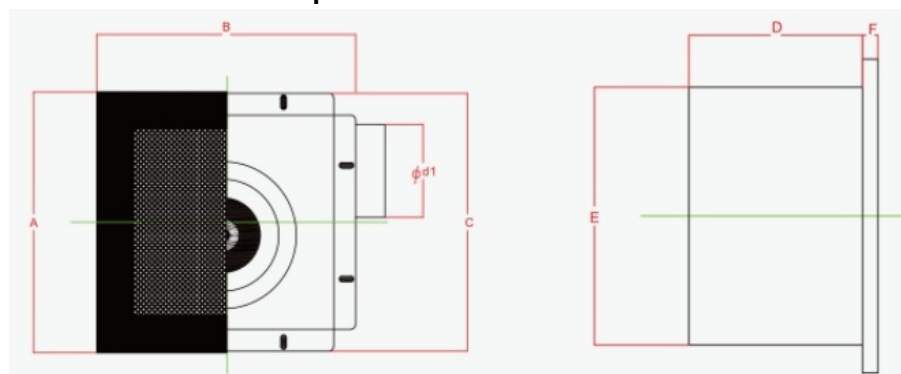
Healthcare: HEPA-compatible variant achieves ISO 14644-1 Class 8 cleanroom standards.

Residential: Integrates with Nest/ecobee thermostats for occupancy-based airflow adjustment.

Product Performance Curve



Product Performance Specifications



Model Num	A	B	C	D	E	F	Cutout Dimensions
BPT10-12	280	280	277	155	230	14	230*240
BPT10-15	280	280	277	155	230	14	230*240
BPT10-21	280	280	277	155	230	14	230*240
BPT15-27	380	380	341	224	306	14	306*306
BPT15-33	380	380	341	224	306	14	306*306
BPT15-40	380	380	341	224	306	14	306*306
BPT15-60	380	380	341	224	306	14	306*306



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