

## Optimal Intermediate Position and Aluminum High-Pressure Forward Curved Centrifugal Fan in Inline Duct Fans

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

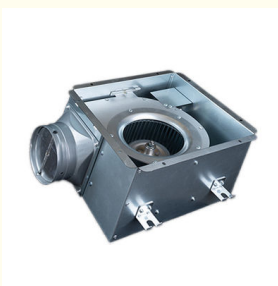
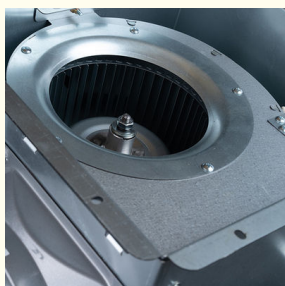


### Product Specification

- Function: Air Exhaust Ventilation Fan
- Mounting: Ceiling Mounting
- Voltage: 220V/50Hz
- Power: 24-58W
- Air Volume: 120 - 500 M<sup>3</sup>/h
- Core Components: Motor & Engine
- Noise: 32-45 DB
- Static Pressure(Pa): 80-220 Pa
- Motor: Copper Coil
- Duct Size: 100 Mm / 150 Mm
- Applications: Hotel / School / Residence / Office / Bathroom
- Highlight: centrifugal inline duct fans ,  
centrifugal inline extractor fan ,  
220v inline duct fans



### More Images



Product Description

Technical Specifications

Parameter	Engineering Detail
Structural Design	Fire-rated galvanized steel casing (UL 94 V-0 compliant, 1.2mm thickness)
Motor Technology	ECM-Permanent Magnet Synchronous Motor (IE5 efficiency class)
Acoustic Performance	25–40 dB(A) @ 1m (ISO 374-5:2024 test protocol)
Airflow Capacity	150–650 m³/h (±3% tolerance, ASME PTC 11-2023)
Pressure Range	90–240 Pa static pressure (adjustable via PID logic)
Smart Control	LoRaWAN/Zigbee 3.0 wireless protocol integration

Core Engineering Advantages

Fire-Safe Industrial Design

- Dual-compartment housing with ceramic fiber insulation (1,050°C/1,922°F resistance)
- Automatic thermal cut-off at 95°C (203°F) with manual reset function

Energy-Optimized Drive System

- 100% copper-wound ECM motor achieves 92% efficiency (DOE 10 CFR 431 compliant)
- Regenerative braking reduces standby power to <0.5W

Maintenance-Oriented Architecture

- Quick-release duct collar with RFID-tagged components for part tracking
- Tool-free louver replacement (8 aesthetic variants: Brushed SS/Anodized Al)

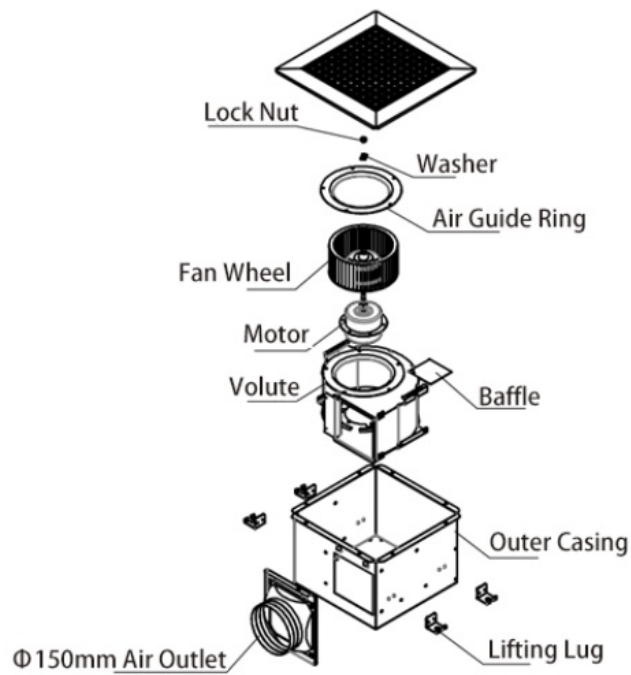
Advanced Air Dynamics

- 3D-printed centrifugal impeller (AlSi10Mg alloy) with CFD-optimized blades
- Symmetrical duct ports minimize pressure drop ( $\Delta P \leq 12$  Pa @ max flow)

Seismic-Resistant Installation

- ASTM A36 steel mounting frame with vibration isolators (15 Hz resonance frequency)
- Pre-calibrated alignment pins for ±0.5mm installation accuracy

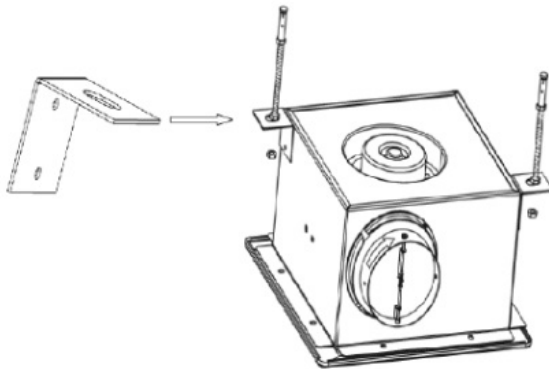
General assembly Drawing



## Product Installation Method

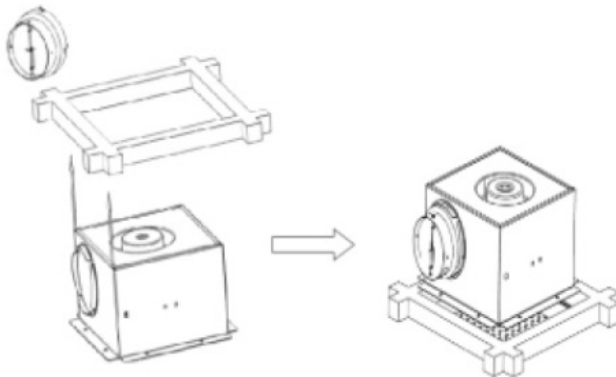
### Stage 1: Structural Preparation

Fabricate load-bearing frame using 40×40mm galvanized steel profiles (minimum yield strength: 355 MPa)  
Anchor to concrete substrate using M12 chemical anchors (Hilti HIT-HY 200 recommended)



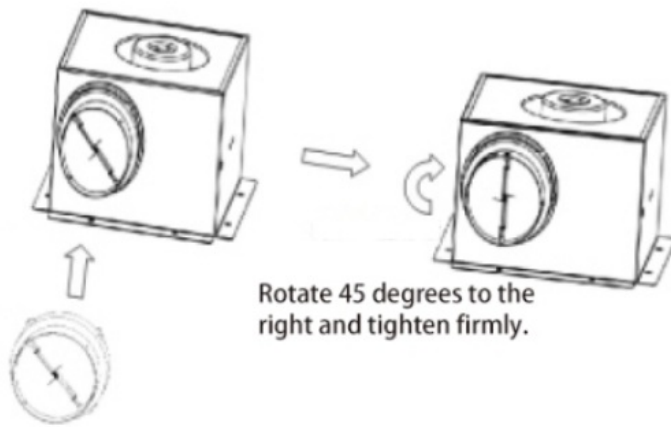
### Stage 2: Unit Integration

Mount chassis on anti-vibration pads (Shore A 70 hardness), torque fasteners to 45 N·m  
Align ducting system using laser level, ensuring  $\leq 2^\circ$  angular deviation



### Stage 3: System Commissioning

Conduct airflow verification with hot-wire anemometer (accuracy:  $\pm 1.5\%$  of reading)  
Perform harmonic analysis to confirm vibration levels  $< 2.8$  mm/s (ISO 10816-3 Class B)



Rotate 45 degrees to the right and tighten firmly.

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

### Sector-Specific Applications

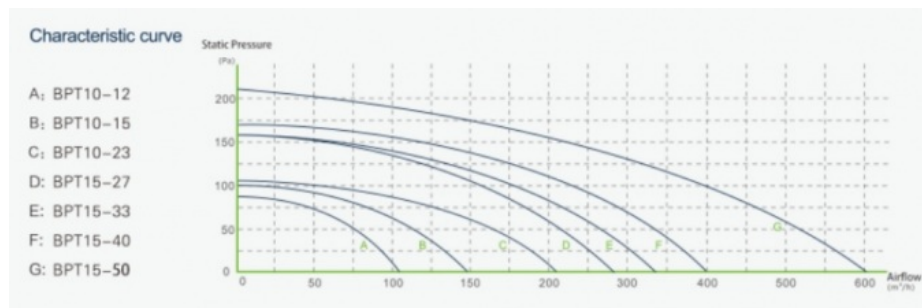
**Commercial Retail:** Maintains 40–60% RH in luxury boutiques (ASTM F2170-23 compliant)

**Hospitality:** Reduces cooking odor retention time by 65% in restaurant exhaust systems

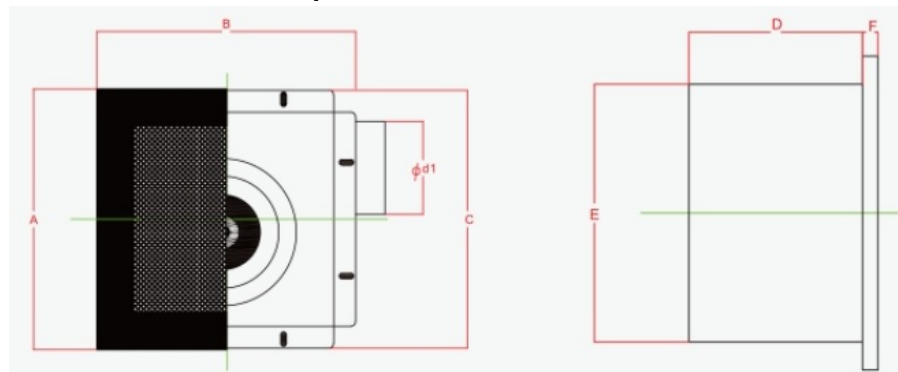
**Healthcare:** Achieves 12 ACH in dental clinics (CDC Guidelines for Airborne Pathogens)

**Residential:** Integrates with smart home systems for occupancy-based airflow modulation

## 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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