

# POLYGON

## VENTILATION SYSTEM PRODUCT MANUAL

AKAN ENTERPRISE GROUP(ZHEJIANG)CO.,LTD.

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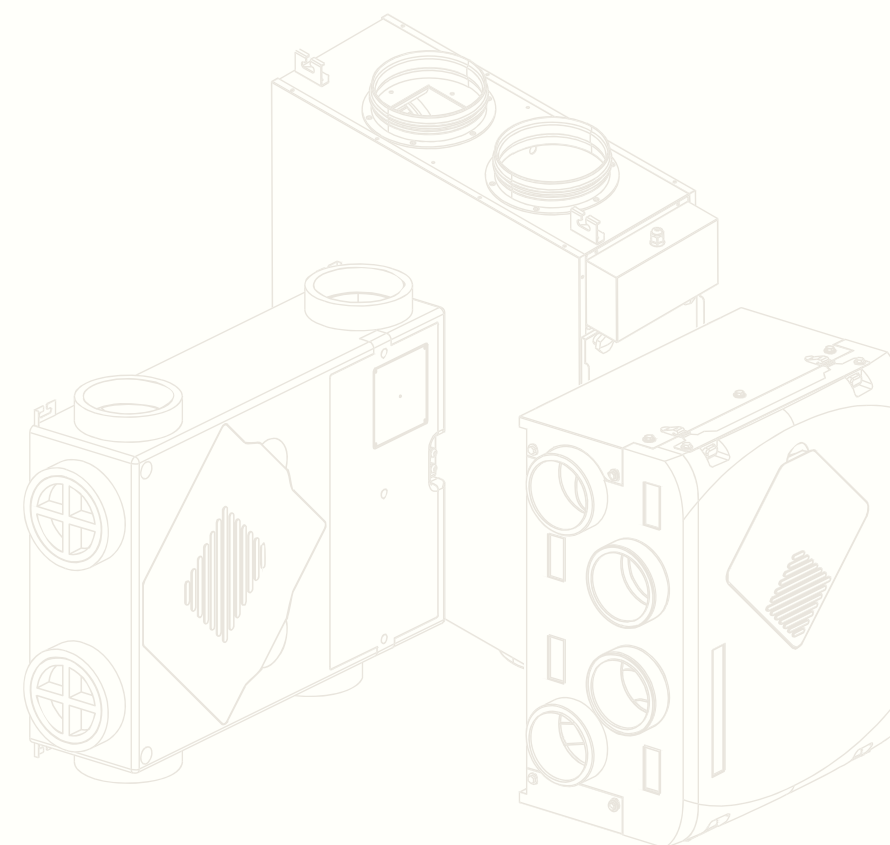
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## Accommodation Ventilation System







# Brand Introduction

POLYGON Pipe is a well-known plastic piping system solution provider, specializing in the R&D, production and sales of plastic products of piping system, with leading technology production equipment. The products cover water supply and drainage, ground-source heat pumps, co-layered drainage, siphon rainwater, municipal engineering, HVAC systems and other fields.

1700000

Factory Scale

3000

Group Employees

500

Key Technical Personnel

20000+

Marketing Network

330+

City Coverage

30+

Countries and Areas of Production and Sales



Baodi, Tianjin

▪ Baodi, Tianjin City [100, 002m²]



Huzhou, Zhejiang

▪ Huzhou, Zhejiang Province [193, 000m²] ▪ Heyuan, Guangdong Province[20, 000m²]



Heyuan, Guangdong



Xinxiang, Henan

▪ Xinxiang, Henan Province [99, 733m²]



Jiangjin, Chongqing

▪ Jiangjin, Chongqing City [80, 000m²]



Liuyang, Hunan

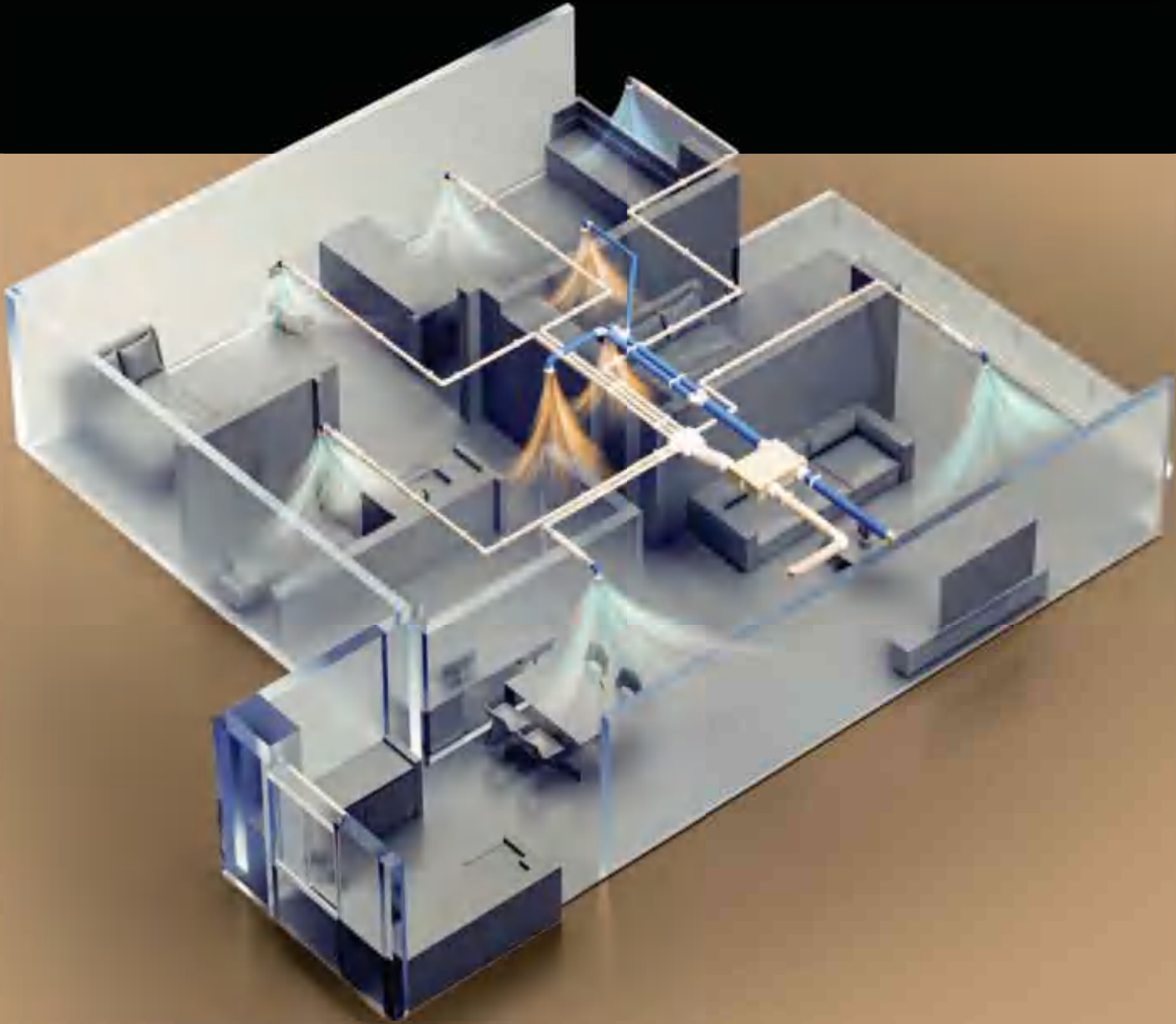
▪ Liuyang, Hunan Province [110, 000m²]



# POLYGON

POLYGON is a dedicated supplier of comfortable systems and a guide for a comfortable lifestyle that focuses on creating a healthy indoor environment quality (temperature and humidity, air cleanliness, oxygen content, and quietness). In 2015, the group established a heating, ventilation, and air conditioning (HVAC) division, dedicated to the research and development of HVAC system products, and officially launched the "POLYGON" brand in 2016, participating in the ISH exhibition and entering market.

The company has a professional ventilation laboratory that ensures the operational effectiveness of the entire system from the main unit, distribution, to control, aiding in product innovation, research and development, and implementation. POLYGON Ventilation has now become a leader in domestic healthy whole-house ventilation systems, and its product systems are widely used in various places such as residences, apartments, office buildings, hotels, and schools.



### Seven Major Production Bases

Shanghai, Zhejiang, Chongqing, Henan, Hunan, Tianjin, Guangdong



### Efficient Production

Automated production lines; informationized management and logistics; currently the only manufacturer in China with a shield tunnel pipe production line.



### Stringent Testing

"Three inspections" system for raw materials, in-process, and finished products; passed ISO management system certification.



### Association Membership

Member units of the Comfortable Home Division and Fresh Air and Water Purification Division of the China Metal Structure Association.



### Effect Assurance

Equipped with a professional fresh air laboratory, capable of testing air volume, fresh air rate, static pressure, heat exchange efficiency, noise, PM2.5 filtration efficiency, and other factors to ensure the effectiveness of the system's use.



### System Advantages

One-stop provision of fresh air system products, convenient, worry-free, and guaranteed.



### Industry Honors

Top ten trusted brands by consumers, outstanding contribution awards, social responsibility practice awards, etc.

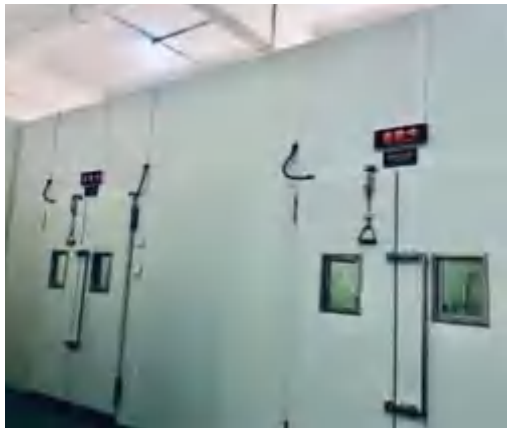


### CNAS Laboratory

Internationally recognized, quality assurance.

### patented product:





Enthalpy Difference Laboratory

The laboratory comprises the Enthalpy Difference Control Room, the Enthalpy Difference Laboratory (outdoor side), and the Enthalpy Difference Laboratory (indoor side). The entire laboratory can test airflow up to a maximum of 3500m³/h. Its main function is to test five parameters of the fresh air system: airflow, static pressure, heat exchange efficiency, effective ventilation rate, and input power.



Semi-anechoic Chamber

This chamber is designed to test the noise generated by the fresh air main unit during operation. The room-in-room structure and walls utilizing special sound-absorbing structures create a quiet environment, eliminating external noise interference. During experiments, the setup simulates real-life conditions to ensure the test results are accurate and reliable.



Primary Filtration Laboratory

This laboratory tests the PM2.5 filtration efficiency of the fresh air main unit. It features an extended testing table with auxiliary fans, a dust generation section, a pre-sampling section, the fresh air main unit, and a post-sampling section. By simulating high-pressure dust generation, it recreates outdoor haze scenarios. A dust particle counter measures six sets of data before and after filtration by the fresh air unit, allowing for a comparison to calculate the filtration efficiency.



Sources of Indoor Air Pollution

Outdoor Gaseous Pollution

Common outdoor gaseous pollutants such as vehicle exhaust and garbage incineration, including ozone, are also exacerbating indoor pollution.

Outdoor Solid Pollutants

Solid pollutants such as haze and dust enter the indoor environment and are extremely difficult to clean.

Formaldehyde and Benzene from Decoration

Formaldehyde and benzene, which can have a dormancy period of up to 15 years from decoration, are lurking killers in the home.

Carbon Dioxide

A lack of air circulation or a large number of people can easily lead to excessive levels of carbon dioxide, which is the main culprit for lethargy, dizziness, drowsiness, and stuffiness.

Secondhand Smoke and Kitchen Fumes

Smoking and cooking at home are accompanied by a large amount of secondhand smoke and fumes, which are harmful to health.

Various Odors

Common areas such as kitchens and bathrooms often produce various pollutants that affect the quality of life.

Pollen and Dust Mites

Flowers and plants release tiny pollen into the air, and a large amount of dust mites exist deep in beds and sofas. These can easily trigger allergic symptoms such as rhinitis.

Bacteria and Viruses

These are significant but often neglected pollutants. Damp environments are prone to breeding bacteria, and air conditioners that are not cleaned for a long time become breeding grounds for bacteria and viruses.





# About POLYGON

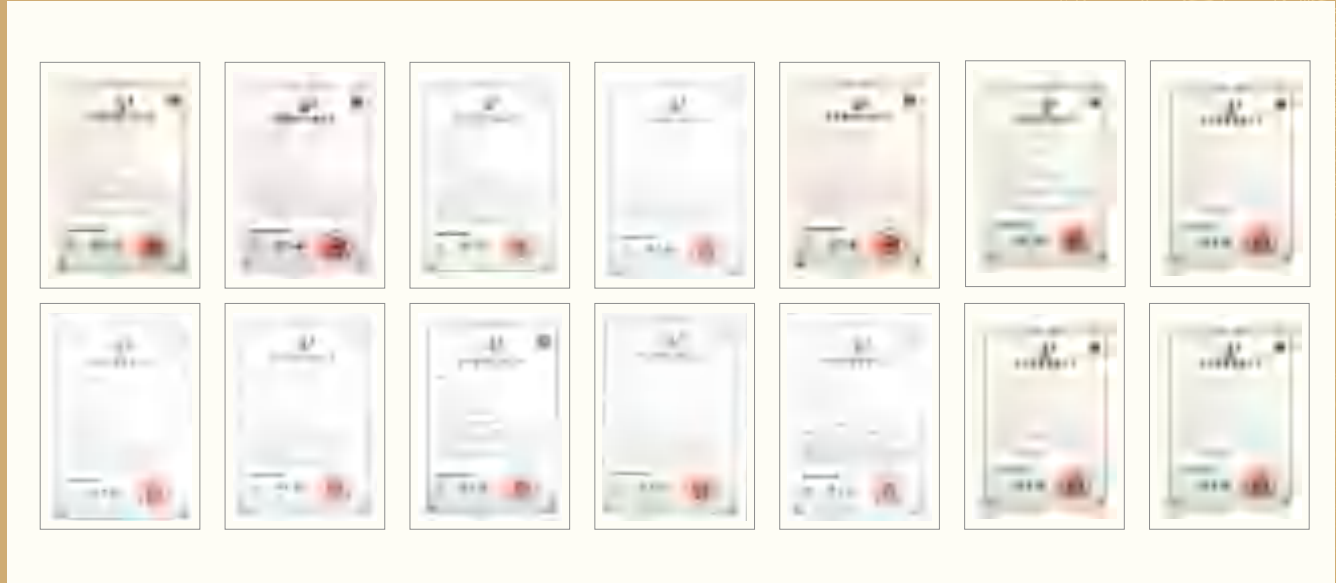
POLYGON is dedicated to creating a healthy indoor environment (temperature, humidity, air cleanliness, freshness, and quietness) as a provider of comfortable system solutions and advocate for comfortable living.

POLYGON is one of the subsidiary brands under the AKAN Enterprise Group. Established in 2015, the group's HVAC division focuses on researching and developing HVAC system products. In 2016, POLYGON was officially established as a brand and made its debut at the ISH Exhibition, entering market. With a professional fresh air laboratory, the company ensures the operational effectiveness of the entire system from the main unit to distribution and control, facilitating product innovation and development.

POLYGON has been deeply involved in the HVAC market for many years, focusing on the research and development of cutting-edge technologies such as indoor air purification, fresh air, and temperature and humidity control. It holds multiple product patents and has participated in the formulation of national and local HVAC industry standards.

The research and development laboratory continuously refines and upgrades its capabilities, integrating advanced production technologies from Europe to create comfortable indoor system solutions suitable for the Chinese environment.

Currently, the company has established seven major production bases in China. Its products and systems are widely used in various locations such as residences, apartments, office buildings, hotels, and schools, committed to creating efficient, healthy, safe, energy-saving, and comfortable living environments for consumers.





A photograph of a modern living room with large windows overlooking a green landscape. The room features a blue sofa with cushions, a black armchair, a black ottoman, and a black wood-burning stove. A small round table with a plant and a bowl is in the foreground. The text "Eight Advantages of Polygon Ventilation System" is overlaid on the left side of the image.

## Eight Advantages of Polygon Ventilation System

- High airflow and low noise
- Anti-mold and anti-static
- Pressure-resistant and impact-resistant
- flexible installation with Quick plug-in connection
- Wide range of accessories
- Easy installation without structure damage
- Flexible and bendable
- Smooth long distance airflow





**EPP *Fresh***  
**POLYGON EPP**  
**VENTILATION PIPE**



**Integral Forming**  
EPP integral forming: light weight and durable, convenient and flexible installation.



**Safe and Healthy**  
EPP material is degradable and harmless to the human body, eliminating the need for conventional rubber insulation boards and glue for field insulation, saving time and effort.



**Long Service Life**  
Chemical molecules have extremely strong stability, ensuring long-term use.



**Excellent Insulation**  
EPP material has excellent heat resistance and strong thermal stability.

Polygon Main Pipe Accessories



POLYGON EPP Fresh Air Main Pipe

DN125(1m)	DN160(1m)	DN180(1m)
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Gray EPP Fresh Air Main Pipe

DN200
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Gray EPP Fresh Air Main Pipe - Flame Retardant

DN125(1m)	DN160(1m)	DN180(1m)
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EPP Circular Pipe Elbow

DN125×90°	DN160×90°	DN180×90°
DN200×90°		



EPP Circular Pipe Coupling

DN125	DN160	DN180	DN200
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EPP Circular Pipe Coupling - Flame Retardant

DN125	DN160	DN180
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EPP Circular Pipe Elbow - Flame Retardant

DN125×90°	DN160×90°	DN180×90°
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EPP Circular Pipe Tee

DN125	DN160
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EPP Circular Pipe Tee - Flame Retardant

DN125	DN160
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EPP Circular Pipe Reducer

DN160/DN125	DN180/DN160
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EPP Circular Pipe Reducer - Flame Retardant

DN160/DN125	DN180/DN160
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EPP Circular Pipe Clamp

DN125/DN160/DN180 (General)	DN200
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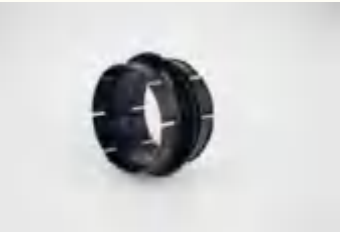


# Polygon Main Pipe Accessories



Air Pipe Insert Socket

DN160-125	DN200-160
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Air Pipe Insert Socket

DN125	DN160	DN180	DN200
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Silencing Pipe - Kit

Φ130(1m)	Φ130(0.6m)	Φ165(1m)
Φ165(0.6m)	Φ185(1m)	Φ185(0.6m)
Φ205(1m)		



Silencing Pipe - Type II

DN110(0.6m)	DN110(1m)
DN160(0.6m)	DN160(1m)



Gray ABS Straight Flange Air Outlet

DN125	DN160	DN200
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Flange Soft Connection

DN158-98	DN158-108	DN158-123
DN158-145	DN158-158	DN193-158
DN198-193		



Universal Buckle Pipe

DN110(2m)	DN160(2m)
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Adjustable universal pipe clamp

φ110-230
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## Product Advantages

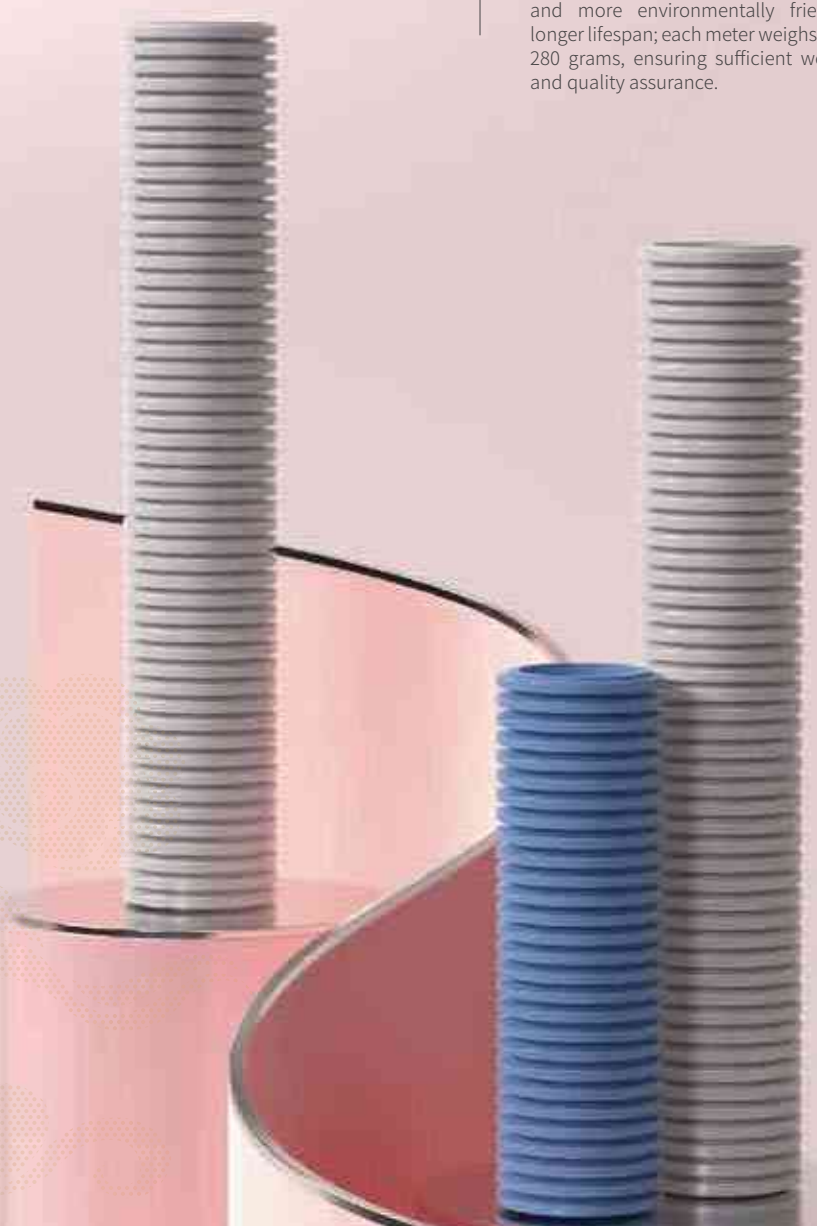
**Flexible and sturdy**  
Corrugated structure, which is flexible and easy to bend, ensures no air surge risk; ring stiffness exceeds 8 with high pressure resistance.

**High-quality and environmentally friendly**  
High-density PE-HD extrusion molding, compared to traditional PVC air ducts, requires no glue bonding, which is safer and more environmentally friendly, longer lifespan; each meter weighs over 280 grams, ensuring sufficient weight and quality assurance.

**Insulation and noise reduction**  
Double-wall hollow structure reduces noise and provides insulation.

**Efficient air delivery**  
Smooth inner wall, low air resistance; quick plug-in connection, smooth and seamless, no air leakage, easy to maintain and clean.

**Various choices**  
POLYGON EPP flexible corrugated round pipe, multiple specifications and colors available to meet customer needs.







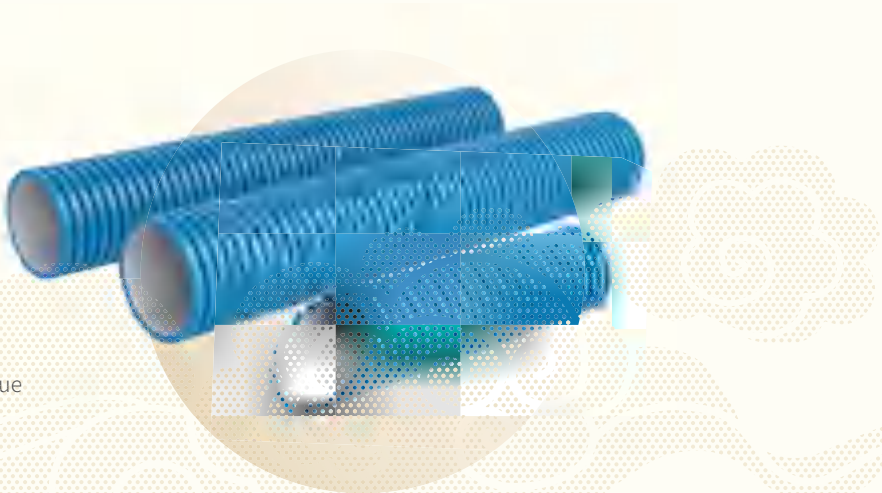
**POLYGON PE Flexible Corrugated Circular Pipe** *Fresh*

# POLYGON PE Flexible Corrugated Circular Pipe

## Sky Blue ●






Insulation and noise reduction, light sound of air supply, light weight and sturdy.

-  Smooth airflow
-  Insulated for noise reduction
-  Sterile and environmentally friendly
-  High aesthetic value



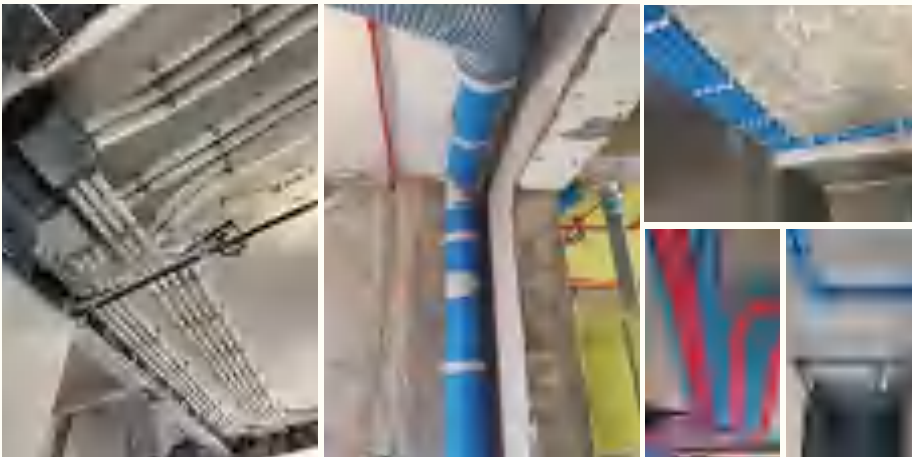
## Elegant Grey ●

Resistant to mold and bacteria in humid environments, effectively preventing secondary pollution.

-  Anti-mold and antibacterial
-  Efficient airflow
-  Light sound of air supply
-  Sterile and environmentally friendly
-  Flexible and sturdy



### Application Examples







POLYGON PE flexible corrugated circular pipes, complete with accessories, offer flexible installation options and a wide range of diameters for various applications.

Residential buildings, villas, offices, restaurants, bars, hotels, etc.

# POLYGON PE Flexible Corrugated Circular Pipe

## China Red ●






Insulated for noise reduction, light sound of air supply, light weight and sturdy.

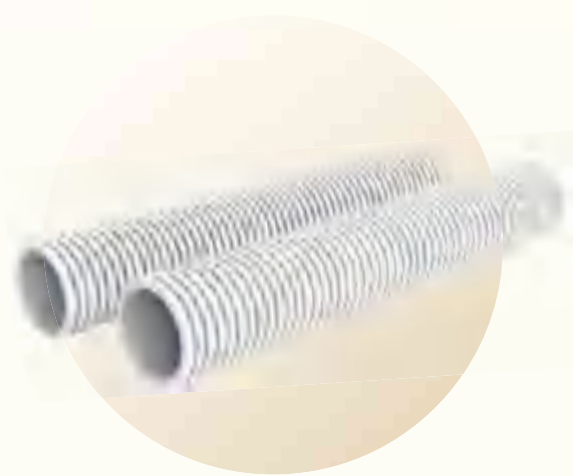
-  Smooth airflow
-  Insulated for noise reduction
-  Sterile and environmentally friendly
-  High aesthetic value



## Moon White ○

Enhanced with anti-mold and anti-static properties, resistant to mold in humid conditions, and prevents dust accumulation in dry environments, effectively preventing secondary pollution.

-  Dual protection
-  Efficient airflow
-  Insulated for noise reduction
-  High-quality and environmentally friendly
-  Flexible and sturdy



### Specifications

POLYGON PE Circular Pipe Specifications				
Sky Blue PE-HD Fresh Air Flexible Corrugated Round Pipe -Environmentally Friendly	China Red PE-HD Fresh Air Flexible Corrugated Round Pipe -Environmentally Friendly	Elegant Gray PE-HD Fresh Air Flexible Corrugated Round Pipe -Flame Retardant	Elegant Gray PE-HD Fresh Air Flexible Corrugated Round Pipe -Antibacterial	Moon White PE-HD Fresh Air Flexible Corrugated Round Pipe -Antibacterial
DN75(50m)	DN75(50m)	DN63(50m)	DN63(50m)	DN75(50m)
DN90(40m)		DN75(50m)	DN75(50m)	DN90(40m)
DN110(20m)		DN90(40m)	DN90(40m)	DN110(30m)
DN110(30m)		DN110(30m)	DN110(20m)	
DN160(2m)		DN110(40m)	DN110(30m)	
DN160(3m)		DN160(2m)	DN160(2m)	
DN200(3m)			DN160(3m)	

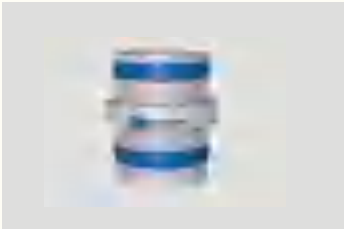


# POLYGON Fresh Air Flexible Corrugated Round Pipe Accessories



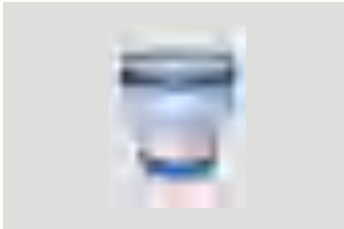
Corrugated Pipe Coupling

DN75    DN90    DN110    DN160    DN200



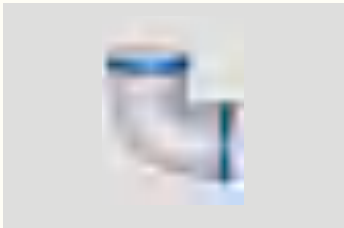
Corrugated Pipe Coupling  
- With Air Valve

DN75



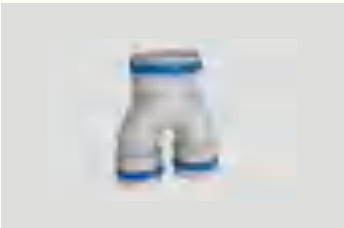
Corrugated Pipe Reducer

DN110/DN75    DN160/DN110    DN200/DN160



Corrugated Pipe Elbow

DN75    DN90    DN110    DN160    DN200



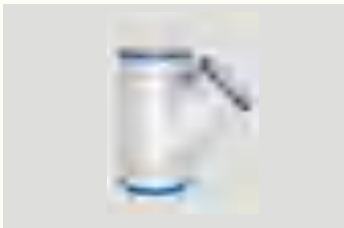
Corrugated Pipe Y-shaped Tee

DN110/DN75    DN160/DN110    DN200/DN160



Corrugated Pipe Y-shaped Tee  
- With Air Valve

DN110/DN75    DN160/DN110



Corrugated Pipe Same-  
-diameter Oblique Tee

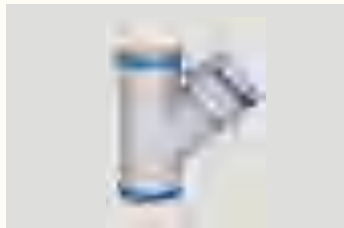
DN75    DN110    DN160



Corrugated Pipe  
Reducing Oblique Tee

DN110/DN75/DN110    DN160/DN110/DN160

DN200/DN160/DN200



Corrugated Pipe Equal Diameter  
Tee - with Air Valve

DN110



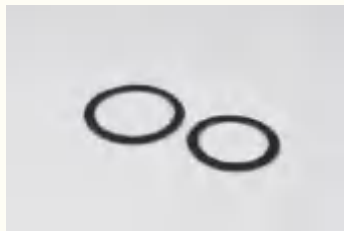
Corrugated Pipe Reducing Coupling

DN90/2-DN63



Seal Ring - EPDM - Flange Air Outlet

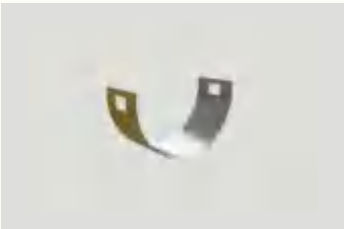
DN100    DN125    DN160    DN180



Seal Ring - EPDM -  
Fresh Air Corrugated Round Pipe

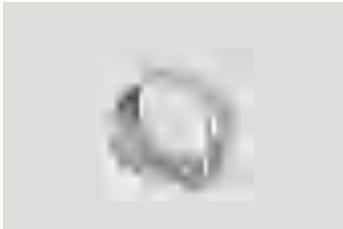
Φ63    Φ75    Φ90    Φ110    Φ160    Φ200

# POLYGON Fresh Air Flexible Corrugated Round Pipe Accessories



SUS201 Corrugated Pipe Clamp

DN63(0.35mm)    DN75(0.35mm)    DN90(0.35mm)



Gray New Type Corrugated  
Round Pipe Clamp - Type II

DN63    DN75    DN90    DN110    DN160    DN200



Gray Insulated Round Pipe Clamp

DN75/DN110 (General)



Corrugated Pipe Quick  
Insert Coupling

DN63



Corrugated Pipe Elbow

DN75



New Type Corrugated Pipe Cutter

DN63    DN75    DN90



End Silencing Pipe - Type II

DN75    DN90



ABS Fresh Air Distributor Plug

General



Direct Distributor - New Type

DN63    DN75    DN90

\*Only suitable for EPP fresh air diffusers and  
sheet metal fresh air diffusers



ABS Direct Distributor

DN63    DN75    DN90

\*Only suitable for ABS fresh air diffusers



Blue Simple Air Volume Balancing  
Valve - for Corrugated Round Pipe

DN63    DN75    DN90



# POLYGON PE Fresh Air Shield Pipe

High Airflow, Small Size

## POLYGON PE Fresh Air Shield Pipe

### Product Advantages

#### Shield Advantages

Unique shield structure, more pressure-resistant, reducing floor pressure, excellent choice for underground air ducts.

#### Dual protection

Added anti-mold and anti-static components, fearless of mold growth in humid environments, and dust accumulation in dry environments, effectively preventing secondary pollution.

#### Flexible and sturdy

Corrugated structure, flexible and easy to bend, ensures no air leakage along the pipe; compression resistance is up to 7kN/m<sup>2</sup> with high compression strength.

#### High-quality and environmentally friendly

High-density PE-HD extrusion molding, compared to traditional PVC air ducts, requires no glue bonding, safer, more environmentally friendly, longer lifespan.

#### Insulation and noise reduction

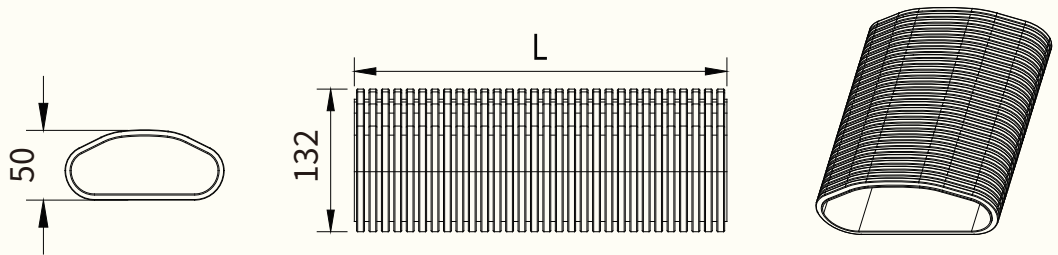
Double-wall hollow structure reduces noise and provides insulation.

#### Efficient air delivery

Smooth inner wall, low air resistance; quick plug-in connection, smooth transition, no air leakage, easy maintenance and cleaning.

### Specifications

Model	Outer Diameter	Inner Diameter
132×52 (20m×2)	132×50	122×41



POLYGON PE Flexible Corrugated Shield Pipe, low floor height, more pressure-resistant, flexible over beams, suitable for both top and underground air ducts.



# POLYGON PE Fresh Air Shield Pipe

## Applications



# Fresh Air Corrugated Shield Pipe Fittings



Light Gray PE-HD Fresh Air Flexible Corrugated Shield Pipe - Antibacterial

132×52 (40m)



Volume Distribution Box of Shield Flat Pipe Air

5-132×52/2-163×68



Volume Distribution Box of Shield Flat Pipe Air

4-132×52/1-163×68



Shield Pipe Rotating Joint

132×52



Shield Pipe Vertical 90° Elbow

132×52



Shield Pipe Horizontal 90° Elbow

132×52



Shield Pipe Sealing Connector

132×52



Shield Pipe Sealing Transition Joint

132×52



ABS Shield Pipe Horizontal 90° Elbow

132×52



ABS Shield Pipe Vertical 90° Elbow

132×52



ABS Shield Pipe Circular Pipe Horizontal Transition Joint

132×52/DN75 132×52/DN90



ABS Shield Pipe Circular Pipe Vertical Transition Joint

132×52/DN75 132×52/DN90

## Fresh Air Corrugated Shield Pipe Fittings



Internal

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132×52/DN75      132×52/DN90



Shiel

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132×52/DN90



Internal Insert Shield Pipe  
Circular Pipe 90° Transition Joint

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132×52/DN75      132×52/DN90



Shield Pipe Horizontal Indoor  
Air Outlet Adapter

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132×52/DN125



Shield Pipe 90° Square Grille  
Bearing Port

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132×52



Shield Pipe 90° Indoor Air  
Outlet Adapter

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132×52/DN125



Shield Flat Pipe Air Volume  
Adjusting Valve

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132×52



Shield Louver Air Valve

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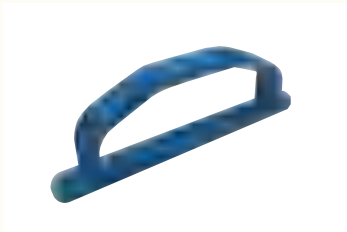
132×52



Shield Pipe Plug

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132×52



Shield Pipe Plastic Pipe Clamp

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132×52



Shield Pipe Metal Pipe Clamp  
- Type II

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132×52



Seal Joint - Shield Pipe Sheet  
Metal Distributor Use

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132×52

## Fresh Air ABS oval tubes and accessories



ABS Oval Pipe

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163×68 (1.2m)



Oval Pipe Horizontal 90° Elbow

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163×68



Oval Pipe Sealing Connector

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163×68



Circular Pipe Oval Pipe Horizontal  
Transition Joint

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DN125-163×68



Circular Pipe Oval Pipe  
Horizontal Transition Joint

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DN160/2-163×68



Oval Pipe Vertical 90° Elbow

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163×68



POLYGON Aperture Air Valve

# Control Air Like Controlling Light

Tight | Precise | Focused

## POLYGON Aperture Air Valve

**Q: How does the fresh air system control the airflow at each outlet?**

**A: By controlling the light.**

Inspired by the aperture of a camera, the design allows adjusting the airflow precisely by sliding the knob to make the blades concentrically contract, reducing the ventilation area.

## Product Advantages

### Ultrasonic Technology

Rigorous and meticulous structure, stable and durable, safe and healthy.

### Carefully Selected Materials

Selects high-quality ABS pure new material, healthy and reliable, quality guaranteed.

### Adjustable at Will

Can be adjusted freely during the installation and commissioning stage, allowing precise control of the airflow at each outlet.

### Ten-level Adjustment, Smooth and Unobstructed

More stable, more precise, no air leakage, no obstruction in the middle, reducing air loss, reducing dust accumulation.



Maximum Gear



Minimum Gear



Max ◀ 9 8 7 6 5 4 3 2 1 0 ▶ Min



Aperture Air Valve  
- Sheet Metal Distributor Use

DN75 DN90 DN110



Aperture Air Valve  
- ABS Distributor Use

DN75 DN90

POLYGON

# Fearless of Rain and Snow Insulated and Antibacterial

Sky Blue Fresh Air Flexible Insulated Circular Pipe



Soundproofing and  
Noise Reduction



Healthy and  
environmentally  
friendly



Flexible  
Installation



Mold-proof and  
Antibacterial



Insulation and  
Anti-condensation

## Sky Blue Fresh Air Flexible Insulated Circular Pipe



### Soundproofing and Noise Reduction

The outer insulation cotton is thick, dense, shock-absorbing, and noise-reducing, providing a quiet and comfortable environment.



### Flexible Installation

Corrugated structure, flexible and bendable, easy to bend during installation, efficient and labor-saving.



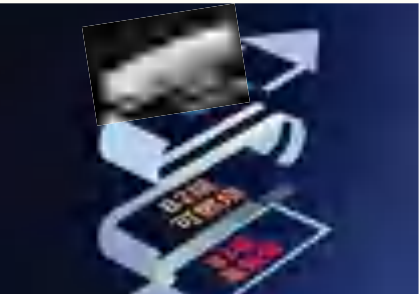
### Mold-proof and Antibacterial

The pipeline contains silver ion components, which inhibit the growth of mold and bacteria. Raw materials added with antistatic masterbatch reduce secondary pollution.



### Healthy and environmentally friendly

The pipeline adopts high-quality PE-HD material, odorless, environmentally friendly, and safe. Resistant to acetic acid corrosion, safe and environmentally friendly.



### Insulation and Anti-condensation

B1-grade flame-retardant rubber-plastic insulation pipe, fireproof and flame-retardant, moisture-proof and anti-condensation.

### Product Parameters

Specifications	DN75	DN110
Material	PE-HD	PE-HD
Inner Diameter	63mm	98mm
Outer Diameter	75mm	110mm
Insulation Thickness	16mm	18mm

**Application Method:** Suitable for all-air air conditioning, environmental control units, ventilation systems with insulation requirements



### EPP Fresh Air Insulation Distributor

Can be matched with EPP Fresh Air Insulation Distributor, EPP material for insulation and shock absorption, aluminum foil rubber-plastic insulation cotton added in the inner layer, making the system connection more secure!

PDB125-8    PDB160-14    PDB160-17



### Insulation Sleeve - Sky Blue - Polygon

B1 flame retardant, safe and reliable; can be wrapped around the air duct to prevent moisture, insulation, and condensation.

72×16×1000    105×18×1000





**Multi-opening design**  
Split design, easy disassembly,  
easy for maintenance



**Pressure balance**  
Balances pressure, distributes  
fresh air reasonably



**Humanized design**  
Made of galvanized steel plate,  
with sound-absorbing layer  
inside, humanized design with  
side inspection port



## Fresh Air Purification Box



### EPP Fresh Air Distributor

Split design, upper part made of EPP material for noise reduction, lower part made of sheet metal with internal insulation cotton lining, multi-opening split design, easy disassembly, easy maintenance, flexible installation.

PDB160-14   PDB125-7   PDB160-12



### Sheet Metal Fresh Air Distributor

Made of sheet metal, sturdy and fireproof, safe and reliable; with internal insulation cotton lining, multi-opening design, flexible installation, easy disassembly, easy maintenance.

PDB160-6 (DN110)   PDB200-6 (DN110)   PDB160-14   PDB200-14



### ABS Fresh Air Distributor

Available in seven-hole and eight-hole models, with the seven-hole model being smaller in size. Made of brand new ABS material, high strength, lightweight, long service life, with internal sound-absorbing cotton, effectively reducing noise; double inspection cover design, easy to clean and maintain; streamlined air duct, low resistance, more uniform air delivery; sealing ring seals each interface, reducing air leakage rate; can be installed with DN63, DN75, DN90 specifications of PE corrugated pipes simultaneously.

PDB160-7   PDB160-8

Fresh Air *Fresh*  
Purification Box

# Less resistance with grandeur

Pearlescent Silver  
Stainless Steel Spherical  
External Air Outlet

## ● Pearlescent Silver Stainless Steel Spherical External Air Outlet

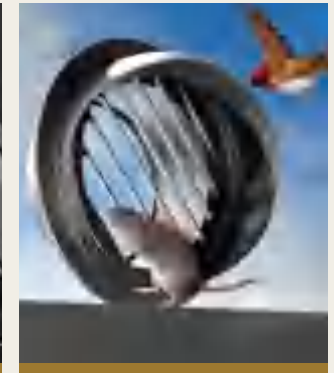
### PRODUCT FEATURES



SELECTED 304  
CORROSION-RESISTANT  
AND RUST-PROOF



LARGE AIRFLOW  
LOW RESISTANCE



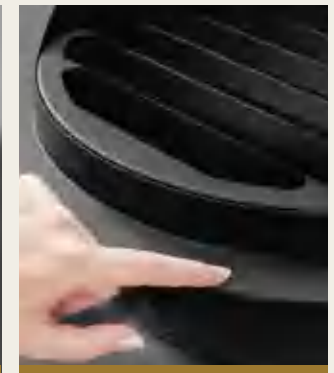
BIRD AND RODENT-PROOF  
NOT EASILY BLOCKED



TRIANGLE RING BUCKLE  
QUICK AND FIRM



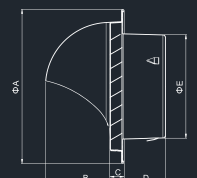
OVERFLOW DESIGN  
FEARLESS OF RAIN BACKFLOW



QUALITY GUARANTEED  
BEAUTIFUL AND NON-PEELING

### TECHNICAL PARAMETER

Specifications	φA	B	C	D	φE	Suitable
PSS-110S	145	70	15	42	105	EPP round pipe
PSS-160S	188	83	20	50	155	
PSS-100S	145	70	15	42	95	Corrugated round pipe
PSS-140S	188	83	20	50	137	







# Fresh air *Fresh* indoor air outlet



Ventilation  
and air exchange



Independent and  
detachable



Versatile  
appearance



Environmentally  
friendly material



Flexible  
installation



Anti-aging

## Polygon New Air Indoor Air Outlet



### Ivory White ABS Supply and Exhaust Air Outlet Kit

Carefully crafted from ABS, ensuring safety, environmental protection, and long-lasting aesthetics without discoloration. Equipped with standard filter cotton to prevent mosquitoes and insects. The panel and cover can be separated for easy cleaning and replacement of the filter cotton.

DN100      DN125



### Fine fiber air outlet cotton ABS ivory white exhaust air outlet kit

Initial efficiency mesh in a bucket shape 130g/7-8mm/180mm



### Pearl white air inlet - diffuser

Made of pure new ABS material, environmentally friendly and moisture-proof; easy and stable installation; adjust the air volume by rotating the middle disc without blocking, according to personal preference; intricate star pattern, aesthetically pleasing.

PP75/C      PP100/C



### Pearl White Air Supply Outlet - Diffusion

Pure new ABS material, environmentally friendly and moisture-proof; easy and sturdy installation; built-in filter, mosquitoes and dust are all blocked, detachable for cleaning; straight louver design, low resistance, reducing air loss.

PP75/C      PP100/C

# Polygon New Air Indoor Air Outlet



Rectangular Stainless Steel Indoor Air Outlet for Shield Flat Pipe

150×130



Filter for Shield Flat Pipe Stainless Steel Rectangular Indoor Air Outlet

G3



## Indoor Air Outlet Adapter - Type II

The main body is made of PP+TPE material, healthy and environmentally friendly; low internal air resistance; universal bending and stretching, convenient installation; standard with dust cover to protect the system from secondary pollution.

DN63-75    DN75-75    DN75-100    DN90-100    DN110-100



## Indoor Air Outlet Adapter

One end connects to the corrugated round pipe, and the other end connects to the end indoor air outlet, which can be widely used for air supply or exhaust and can be installed on walls, floors, or ceilings.

**Double-port adapter:** two corrugated round pipes connect to one adapter.  
**Single-port adapter:** one corrugated round pipe connects to one adapter.

Product Name	Specifications
Indoor Air Outlet Adapter	DN 125-2×DN75
	DN 125-2×DN90
	DN 100-1×DN63
	DN 125-1×DN75
	DN 125-1×DN90

Polygon New

Fresh

Air Artistic Air Outlet

Retro patterns

Subdued coloring

Becomes art

Blend into interior design

Becomes decoration

36












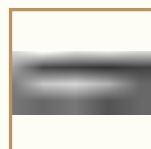

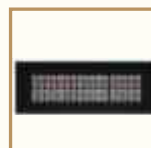

New style art outlet

Square artistic air vent

	<table><tr><td>Product Name</td><td>Ivory White Full Air Outlet - Retro Type</td></tr><tr><td>Specifications</td><td>PM125F/Q</td></tr><tr><td>Material Number</td><td>1420M0630-023</td></tr></table>	Product Name	Ivory White Full Air Outlet - Retro Type	Specifications	PM125F/Q	Material Number	1420M0630-023		<table><tr><td>Product Name</td><td>Pearl Black Metal Air Outlet - Retro Type</td></tr><tr><td>Specifications</td><td>PM125F/Q</td></tr><tr><td>Material Number</td><td>142040530-024</td></tr></table>	Product Name	Pearl Black Metal Air Outlet - Retro Type	Specifications	PM125F/Q	Material Number	142040530-024
Product Name	Ivory White Full Air Outlet - Retro Type														
Specifications	PM125F/Q														
Material Number	1420M0630-023														
Product Name	Pearl Black Metal Air Outlet - Retro Type														
Specifications	PM125F/Q														
Material Number	142040530-024														
	<table><tr><td>Product Name</td><td>Coffee Crop Metal Air Outlet - Retro Type</td></tr><tr><td>Specifications</td><td>PM125F/Q</td></tr><tr><td>Material Number</td><td>142040630-025</td></tr></table>	Product Name	Coffee Crop Metal Air Outlet - Retro Type	Specifications	PM125F/Q	Material Number	142040630-025		<table><tr><td>Product Name</td><td>Ivory White Metal Air Outlet - Fashion Type</td></tr><tr><td>Specifications</td><td>PM125FMQ</td></tr><tr><td>Material Number</td><td>142040530-026</td></tr></table>	Product Name	Ivory White Metal Air Outlet - Fashion Type	Specifications	PM125FMQ	Material Number	142040530-026
Product Name	Coffee Crop Metal Air Outlet - Retro Type														
Specifications	PM125F/Q														
Material Number	142040630-025														
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Specifications	PM125FMQ														
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Product Name	Pearl Black Full Air Outlet - Fashion Type														
Specifications	PM125F/Q														
Material Number	142040630-027														
Product Name	Coffee Brown Metal Air Outlet - Fashion Type														
Specifications	PM125F/Q														
Material Number	142040630-028														
	<table><tr><td>Product Name</td><td>Ivory White Metal Air Outlet - Simple Type</td></tr><tr><td>Specifications</td><td>PM125F/Q</td></tr><tr><td>Material Number</td><td>1420440630-019</td></tr></table>	Product Name	Ivory White Metal Air Outlet - Simple Type	Specifications	PM125F/Q	Material Number	1420440630-019		<table><tr><td>Product Name</td><td>Pearl Fruit Metal Air Outlet - Simple Type</td></tr><tr><td>Specifications</td><td>PM125F/Q</td></tr><tr><td>Material Number</td><td>142040630-020</td></tr></table>	Product Name	Pearl Fruit Metal Air Outlet - Simple Type	Specifications	PM125F/Q	Material Number	142040630-020
Product Name	Ivory White Metal Air Outlet - Simple Type														
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Material Number	1420440630-019														
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Specifications	PM125F/Q														
Material Number	142040630-020														
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Product Name	Coffee Brown Metal Air Outlet - Simple Type														
Specifications	PM125F/Q														
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Product Name	Silky Silver Metal Air Outlet - Simple Type														
Specifications	PM125FIQ														
Material Number	142040630-022														
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Product Name	Collection Ivory White Metal Air Outlet - Elegant Type														
Specifications	PM125F/Q														
Material Number	142040630-029														
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Specifications	PM125F/Q														
Material Number	142040630-030														
	<table><tr><td>Product Name</td><td>Coffee Brown Metal Air Outlet - Elegant Type</td></tr><tr><td>Specifications</td><td>PM125F/Q</td></tr><tr><td>Material Number</td><td>1420440630-031</td></tr></table>	Product Name	Coffee Brown Metal Air Outlet - Elegant Type	Specifications	PM125F/Q	Material Number	1420440630-031		<table><tr><td>Product Name</td><td>Controlled Silver Metal Air Outlet - Elegant Type</td></tr><tr><td>Specifications</td><td>PM125FMQ</td></tr><tr><td>Material Number</td><td>142040630-032</td></tr></table>	Product Name	Controlled Silver Metal Air Outlet - Elegant Type	Specifications	PM125FMQ	Material Number	142040630-032
Product Name	Coffee Brown Metal Air Outlet - Elegant Type														
Specifications	PM125F/Q														
Material Number	1420440630-031														
Product Name	Controlled Silver Metal Air Outlet - Elegant Type														
Specifications	PM125FMQ														
Material Number	142040630-032														

New style art outlet

Rectangular artistic air vent

	<table><tr><td>Product Name</td><td>Ivory White Full Air Outlet - Simple Type</td></tr><tr><td>Specifications</td><td>PM132x52MR Material</td></tr><tr><td>Material Number</td><td>142040530-033</td></tr></table>	Product Name	Ivory White Full Air Outlet - Simple Type	Specifications	PM132x52MR Material	Material Number	142040530-033		<table><tr><td>Product Name</td><td>Matte Black Metal Phoenix Mouth - Minimalist Type</td></tr><tr><td>Specifications</td><td>PM132x52FR</td></tr><tr><td>Material Number</td><td>142040630-034</td></tr></table>	Product Name	Matte Black Metal Phoenix Mouth - Minimalist Type	Specifications	PM132x52FR	Material Number	142040630-034
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Material Number	142040530-033														
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Specifications	PM132x52FR														
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Product Name	Coffee Brown Metal Air Outlet - Compact Type														
Specifications	PM132x52F/R Material														
Material Number	142040630-035														
Product Name	Brushed Tin Metal Gankou - Portuguese Type														
Specifications	PM132x52F Wave														
Material Number	142040630-036														
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Product Name	Ivory White Metal Air Outlet - Elegant Type														
Specifications	PM132x52FR Material														
Material Number	142040530-043														
Product Name	Matte Fruit Metal Air Outlet - Elegant Type														
Specifications	PM132x52FR														
Material Number	142040630-044														
	<table><tr><td>Product Name</td><td>Coffee Brown Metal Phoenix Mouth - Pizzazz Type</td></tr><tr><td>Specifications</td><td>PM132X52F/R</td></tr><tr><td>Material Number</td><td>142040630-045</td></tr></table>	Product Name	Coffee Brown Metal Phoenix Mouth - Pizzazz Type	Specifications	PM132X52F/R	Material Number	142040630-045		<table><tr><td>Product Name</td><td>Brushed Tin Metal Gankou - Elegant Type</td></tr><tr><td>Specifications</td><td>PM132X52F Ni</td></tr><tr><td>Material Number</td><td>1420M0630-046</td></tr></table>	Product Name	Brushed Tin Metal Gankou - Elegant Type	Specifications	PM132X52F Ni	Material Number	1420M0630-046
Product Name	Coffee Brown Metal Phoenix Mouth - Pizzazz Type														
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Product Name	Ivory White Metal Phoenix Mouth - Retro Type														
Specifications	PM132X52Ten Thousand R														
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Product Name	Matte Fruit Metal Phoenix Mouth - Fashion Type														
Specifications	PM132x52														
Material Number	142040630-041														
Product Name	Coffee Chaff Metal Phoenix Mouth - Fashion Type														
Specifications	PM132x52R														
Material Number	142040630-042														

**POLYGON** | Expert in Fresh Air Distribution

# Healthy Whole House Fresh Air System

- **Excellence**  
Striving for perfection, precise airflow control
- **Tranquility**  
Infinite serenity, immersed enjoyment



## 7 Seven Major Production Bases at Headquarters

Shanghai, Zhejiang, Chongqing, Henan, Hunan, Tianjin, Guangdong

## Efficient Production

Automation of production lines; Management, logistics informationization; Currently, one of the few manufacturers in China with shield tunneling pipe production lines

## Strict Testing

Raw materials undergo the "three inspections" system; Certified through ISO 9001 management system

## VIP Member Unit of Association

China Building Metal Structure Association promotes the overall rate of fresh air and clean water separation

## CNAS CNAS Laboratory

Internationally recognized, ensuring quality

## System Advantages

One-stop supply of new BES series products, convenient and guaranteed

## 保 Effect Guarantee

Equipped with professional airflow network test benches, able to test airflow volume, static pressure, wave resistance, color rendering, and other parameters to ensure the effectiveness of the system

## Industry Honors

Ranked among the top ten brands trusted by consumers, highlighting contributions to practicality, social responsibility, and implementation of the actual situation