

# WAMAIR® FP / FPX Polygonal Dust Collectors



**HIGH PERFORMANCE**  
**VERSATILE DESIGN**



CERTIFIED  
ATEX version  
available

available with  
**zero**  
nanofiber  
filter elements

## INTELLIGENT SOLUTIONS TO ALL KINDS OF DUST ISSUES

WAMAIR® is a Polygonal Dust Collector range that comes in a steel housing equipped with high performance POLYPLEAT™ or pocket-type filter elements.

WAMAIR® Dust Collectors are supplied in a stand-alone version with their own hopper range, as bin vents or fully insertable to be easily integrated into several applications such as silo venting, mechanical conveying, mixing and blending, as well as discharging through loading bellows.

The range has been designed in compliance with regulations for the manufacture of equipment for dry powder processing in several industries such as building and construction, glass, chemicals, animal feed and food processing.

WAMAIR® Dust Collectors are provided with **zero** filter media to achieve optimal performance in all kinds of dedusting applications.

### Filter Elements and Filter Media

#### POLYPLEAT™

Pleated Elements



GLAZED FACE SIDE



**Available dimensions:**

L = 520 mm

L = 770 mm

L = 920 mm

**zero** filter media



NANOFIBER

High Efficiency Filtration  
with nanofiber deposit



OIL-REPELLENT



ANTISTATIC



MICROPOROUS  
ePTFE MEMBRANE



WATER-REPELLENT

#### Pockets

Flat Needle-Felt Elements



HEAT SET



**Available dimensions:**

L = 500 mm

L = 750 mm

L = 1,000 mm

L = 1,500 mm



OIL-REPELLENT



ANTISTATIC



POLYURETHANE  
COATING



WATER-REPELLENT



MICROPOROUS  
ePTFE MEMBRANE

## Features

### DIMENSIONAL

- Air volume: 250 ~ 9,000m<sup>3</sup>/h (147 ~ 5,300 cfm)
- Filtering surface: 3 ~ 70m<sup>2</sup> (32 ~ 755 sq ft)
- Temperature range: -20°C ~ 80°C (-4°F ~ 176°F)
- Horizontal or vertical installation
- Stainless steel casing or insertable version

### APPLICATIONS

- Suitable for both positive (up to 500mm H<sub>2</sub>O) and negative (up to -350mm H<sub>2</sub>O) pressure applications
- Wide range of filter elements and media, including high efficiency **zero** technology
- ATEX-versions available

### MAINTENANCE

- Inspection door with captive fastening knobs for easy and safe access for filter element replacement

### CLEANING SYSTEM

- High efficiency programmable compressed air cleaning system
- "Full Immersion" solenoid valves, integrated into air tank to minimise flow resistance

## Options and Accessories

### ATEX Certification

Available for:

- Zone 22 (Category 3D)
- Zone 21 (Category 2D)

ATEX Versions Suitable for Internal Zone 20 application

### Filter Media

Available with:

**EC 1935/2004 (food-grade materials)**

- EU 10/2011 (food-grade plastic materials);
- EC 2023/2006 (GMP-regulation).



### Presetting

for differential pressure gauge

### Polygonal Hopper

Prearranged for bin, butterfly valve, rotary valve, various types of flow aids



### Integrated Suction Fan

Available with:

- Choke valve
- Silencer



### Electronic Control Panel

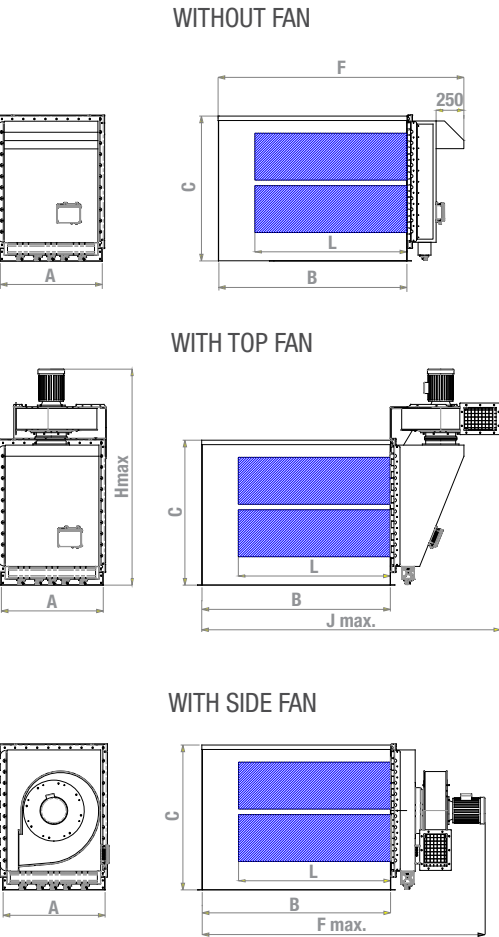
Available with:

- Differential pressure meter
- Connectivity with Modbus RS485
- WiFi or GPRS module

### Heating System

For cold environments from 0 to -20 °C (not available for ATEX version)

# Overall Dimensions - Horizontal Polygonal Dust Collectors



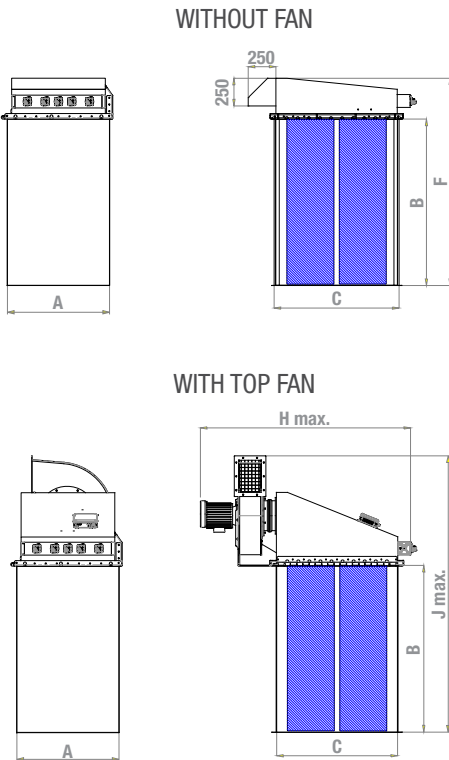
| VOLUME INDEX | Filter Media Surface |             |        | Collector Body Dimensions |        |        |        | Without fan | With top fan | With side fan | Fan Power (kW) |
|--------------|----------------------|-------------|--------|---------------------------|--------|--------|--------|-------------|--------------|---------------|----------------|
|              | POLYPLEAT™ (m²)      | POCKET (m²) | L (mm) | A (mm)                    | B (mm) | C (mm) | H (mm) | F (mm)      | J max. (mm)  | F max. (mm)   |                |
| 1            | 6 - 10*              | 3           | 500    | 570                       | 700    | 825    | 1,415  | 1,220       | 1,590        | 1,515         | 0.75 ~ 3.00    |
| 2            | 14                   | 5           | 750    |                           | 950    |        |        | 1,470       | 1,590        | 1,765         |                |
| 3            | 18                   | 6           | 1,000  |                           | 1,200  |        |        | 1,720       | 2,090        | 2,015         |                |
| 4            |                      | 8           | 1,250  |                           | 1,450  |        |        | 1,970       | 2,340        | 2,265         |                |
| 5            |                      | 9           | 1,500  |                           | 1,700  |        |        | 2,220       | 2,590        | 2,515         |                |
| 6            |                      | 5           | 500    | 845                       | 700    | 825    | 1,510  | 1,220       | 1,645        | 1,610         | 0.75 ~ 5.50    |
| 7            |                      | 7           | 750    |                           | 950    |        |        | 1,470       | 1,895        | 1,860         |                |
| 8            | 28                   | 9           | 1,000  |                           | 1,200  |        |        | 1,720       | 2,145        | 2,110         |                |
| 9            |                      | 12          | 1,250  |                           | 1,450  |        |        | 1,970       | 2,395        | 2,360         |                |
| A            |                      | 14          | 1,500  |                           | 1,700  |        |        | 2,220       | 2,645        | 2,610         |                |
| B            |                      | 6           | 500    | 570                       | 700    | 1,320  | 2,005  | 1,220       | 1,645        | 1,610         | 0.75 ~ 5.50    |
| C            |                      | 9           | 750    |                           | 950    |        |        | 1,470       | 1,895        | 1,860         |                |
| D            | 34                   | 12          | 1,000  |                           | 1,200  |        |        | 1,720       | 2,145        | 2,110         |                |
| E            |                      | 15          | 1,250  |                           | 1,450  |        |        | 1,970       | 2,395        | 2,360         |                |
| F            |                      | 18          | 1,500  |                           | 1,700  |        |        | 2,220       | 2,645        | 2,610         |                |
| G            |                      | 9           | 500    | 845                       | 700    | 1,320  | 2,030  | 1,220       | 1,815        | 1,640         | 1.10 ~ 7.50    |
| H            |                      | 14          | 750    |                           | 950    |        |        | 1,470       | 2,065        | 1,890         |                |
| L            | 42-56*               | 18          | 1,000  |                           | 1,200  |        |        | 1,720       | 2,315        | 2,140         |                |
| M            |                      | 22          | 1,250  |                           | 1,450  |        |        | 1,970       | 2,565        | 2,390         |                |
| N            |                      | 28          | 1,500  |                           | 1,700  |        |        | 2,220       | 2,815        | 2,640         |                |
| P            |                      | 12          | 500    | 1,065                     | 700    | 1,320  | 2,130  | 1,220       | 1,815        | 1,740         | 1.10 ~ 11.00   |
| Q            |                      | 18          | 750    |                           | 950    |        |        | 1,470       | 2,065        | 1,990         |                |
| R            | 48-70*               | 24          | 1,000  |                           | 1,200  |        |        | 1,720       | 2,315        | 2,240         |                |
| S            |                      | 30          | 1,250  |                           | 1,450  |        |        | 1,970       | 2,565        | 2,490         |                |
| T            |                      | 36          | 1,500  |                           | 1,700  |        |        | 2,220       | 2,815        | 2,740         |                |
| Y            |                      | 45          | 1,250  | 1,065                     | 1,450  | 1,815  | 2,815  | 2,000       | 2,565        | 2,495         | 3.00 ~ 11.00   |
| U            |                      | 54          | 1,500  |                           | 1,700  |        |        | 2,250       | 2,815        | 2,745         |                |

\* Filtering surface area varies according to the number of filter elements



ATEX version available  
Provided also for POLYPLEAT™ with 42-56 and 48-70 m² but related to M and S volume index

# Overall Dimensions - Vertical Polygonal Dust Collectors



| VOLUME INDEX | Filter Media Surface |             |        | Collector Body Dimensions |        |        |        | Without fan | With top fan | Fan Power (kW) |
|--------------|----------------------|-------------|--------|---------------------------|--------|--------|--------|-------------|--------------|----------------|
|              | POLYPLEAT™ (m²)      | POCKET (m²) | L (mm) | A (mm)                    | B (mm) | C (mm) | H (mm) | F (mm)      | J max. (mm)  |                |
| 1            | 6 - 10*              | 3           | 500    | 570                       | 500    | 670    | 1,405  | 865         | 1,390        | 0.75 ~ 3.00    |
| 2            | 14                   | 5           | 750    |                           | 750    |        |        | 1,115       | 1,640        |                |
| 3            | 18                   | 6           | 1,000  |                           | 1,000  |        |        | 1,365       | 1,890        |                |
| 4            |                      | 8           | 1,250  |                           | 1,250  |        |        | 1,615       | 2,140        |                |
| 5            |                      | 9           | 1,500  |                           | 1,500  |        |        | 1,865       | 2,390        |                |
| 6            |                      | 5           | 500    | 845                       | 500    | 670    | 1,500  | 865         | 1,450        | 0.75 ~ 5.50    |
| 7            |                      | 7           | 750    |                           | 750    |        |        | 1,115       | 1,700        |                |
| 8            | 28                   | 9           | 1,000  |                           | 1,000  |        |        | 1,365       | 1,950        |                |
| 9            |                      | 12          | 1,250  |                           | 1,250  |        |        | 1,615       | 2,200        |                |
| A            |                      | 14          | 1,500  |                           | 1,500  |        |        | 1,865       | 2,450        |                |
| B            |                      | 6           | 500    | 570                       | 500    | 1,170  | 1,995  | 865         | 1,450        | 0.75 ~ 5.50    |
| C            |                      | 9           | 750    |                           | 750    |        |        | 1,115       | 1,700        |                |
| D            | 34                   | 12          | 1,000  |                           | 1,000  |        |        | 1,365       | 1,950        |                |
| E            |                      | 15          | 1,250  |                           | 1,250  |        |        | 1,615       | 2,200        |                |
| F            |                      | 18          | 1,500  |                           | 1,500  |        |        | 1,865       | 2,450        |                |
| G            |                      | 9           | 500    | 845                       | 500    | 1,170  | 2,025  | 865         | 1,615        | 1.10 ~ 7.50    |
| H            |                      | 14          | 750    |                           | 750    |        |        | 1,115       | 1,865        |                |
| L            | 42-56*               | 18          | 1,000  |                           | 1,000  |        |        | 1,365       | 2,115        |                |
| M            |                      | 22          | 1,250  |                           | 1,250  |        |        | 1,615       | 2,365        |                |
| N            |                      | 28          | 1,500  |                           | 1,500  |        |        | 1,865       | 2,615        |                |
| P            |                      | 12          | 500    | 1,065                     | 500    | 1,170  | 2,120  | 865         | 1,615        | 1.10 ~ 11.00   |
| Q            |                      | 18          | 750    |                           | 750    |        |        | 1,115       | 1,865        |                |
| R            | 48-70*               | 24          | 1,000  |                           | 1,000  |        |        | 1,365       | 2,115        |                |
| S            |                      | 30          | 1,250  |                           | 1,250  |        |        | 1,615       | 2,365        |                |
| T            |                      | 36          | 1,500  |                           | 1,500  |        |        | 1,865       | 2,615        |                |

\* Filtering surface area varies according to the number of filter elements

# Benefits



## EASY MAINTENANCE

Minimised plant downtime due to quick and easy maintenance



## LOW EMISSION

Due to advanced technology **zero** filter media



## COMPACT & EASY FITTING DESIGN

Different body configurations available for the same filtering surface area



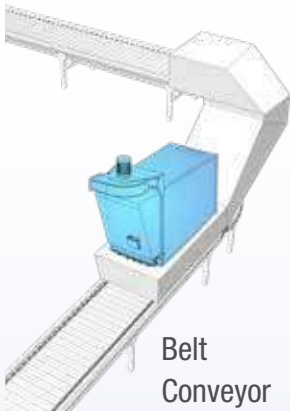
## WORLDWIDE SUPPORT

Technical support and spare parts available worldwide thanks to **WAMGROUP®** subsidiary network

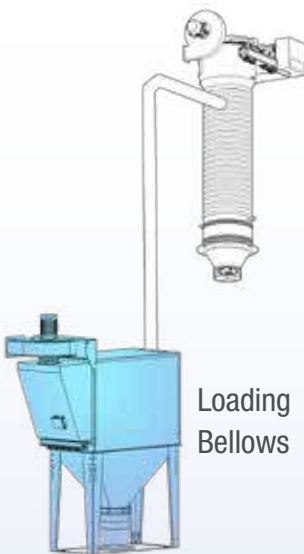


## VERSATILE

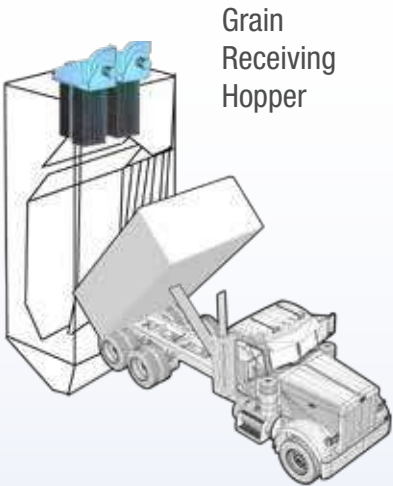
Perfectly suitable for many different technical applications:



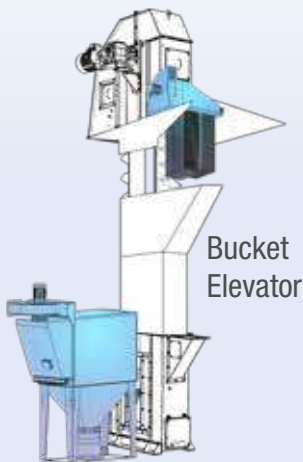
Belt Conveyor



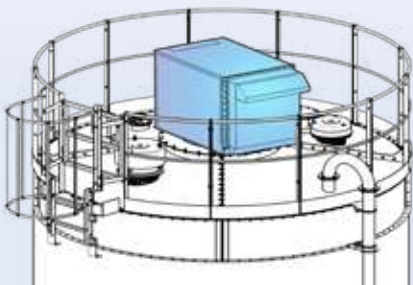
Loading Bellows



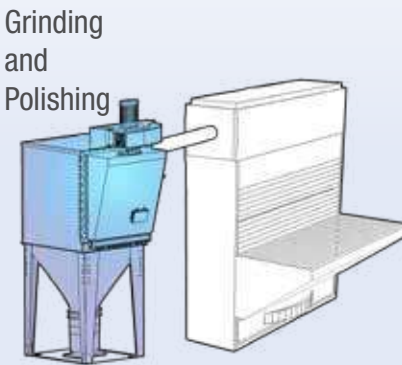
Grain Receiving Hopper



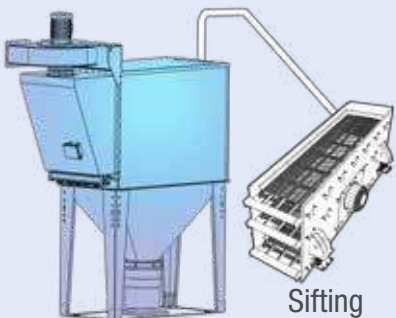
Bucket Elevator



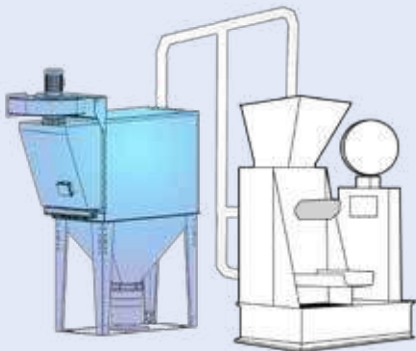
Silo Venting



Grinding and Polishing



Sifting



Bagging

# Application



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