

SYCSA®

**WAMAIR®
FP / FPX**

Polygonal Dust
Collectors



WAM®

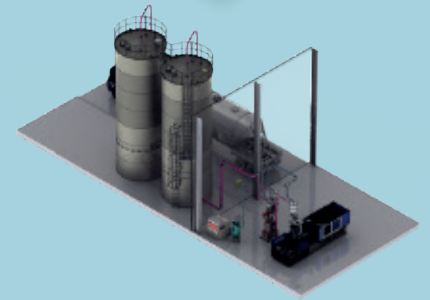
PARTNER **SYCSA®**



BULK MATERIAL HANDLING SOLUTIONS

We just don't sell you a product

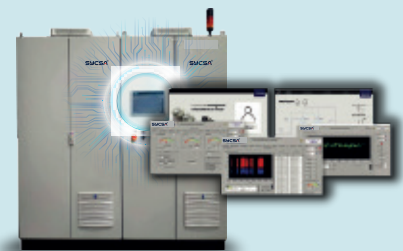
SYCSA® accompanies you through *all the phases* of your project



DESIGN



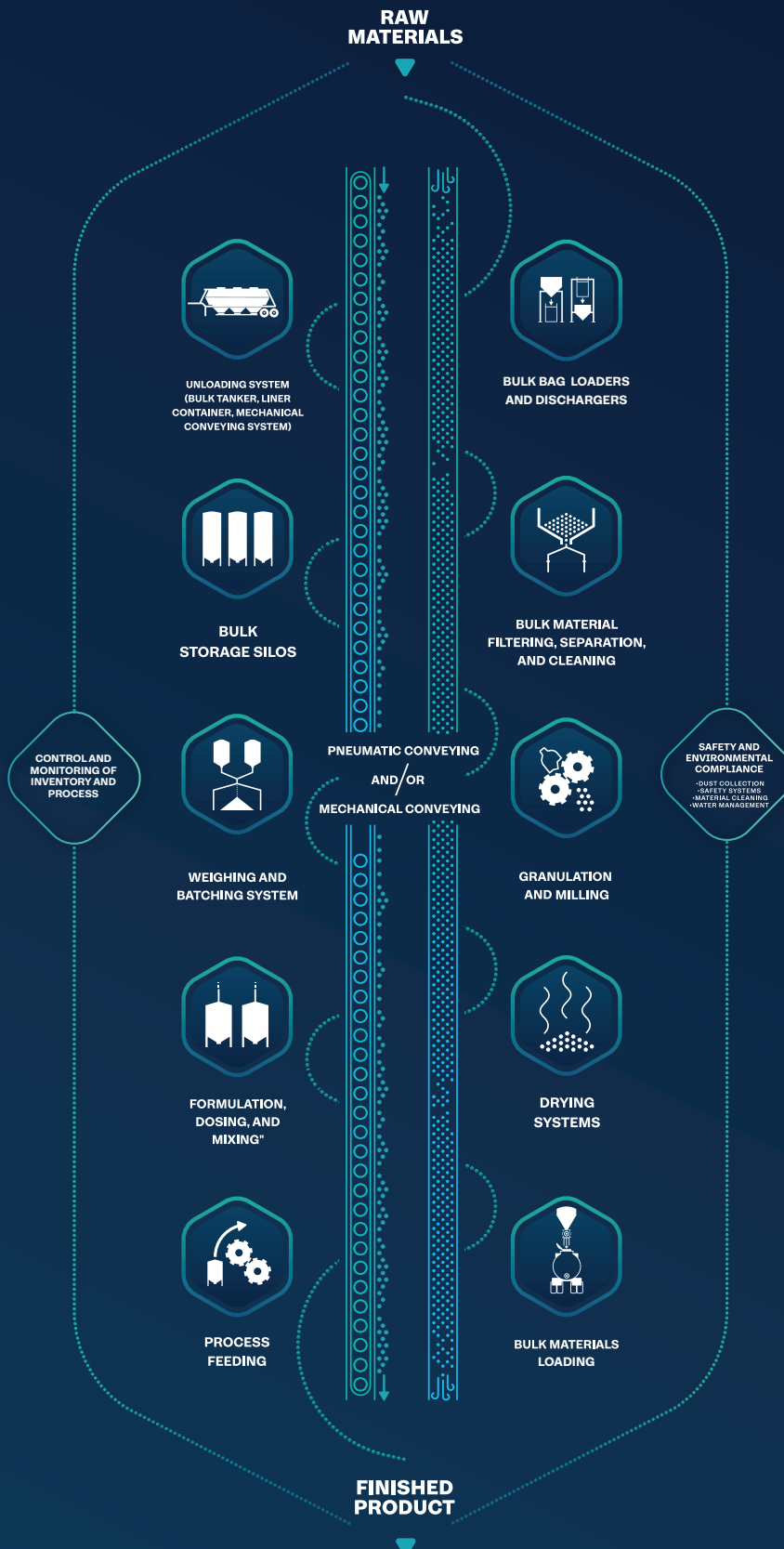
INSTALLATION



AUTOMATION



AFTER-SALES SERVICE



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 ~ 9,000m³/h (147 ~ 5,300 cfm)
- Filtering surface: 3 ~ 70m² (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 H₂O) and negative (up to -350mm H₂O) 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:

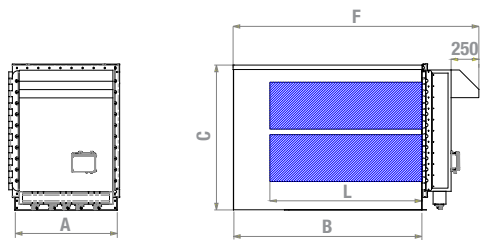
- Differential pressure meter
- Connectivity with Modbus RS485
- WiFi or GPRS module

Heating System

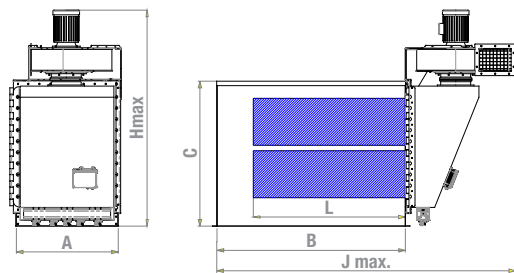
For cold environments from 0 to -20 °C (not available for ATEX version)

Overall Dimensions - Horizontal Polygonal Dust Collectors

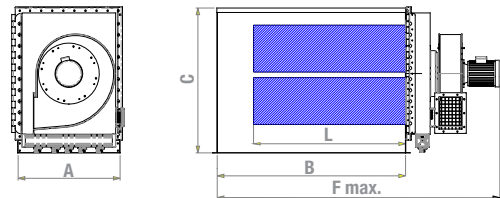
WITHOUT FAN



WITH TOP FAN



WITH SIDE FAN



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	

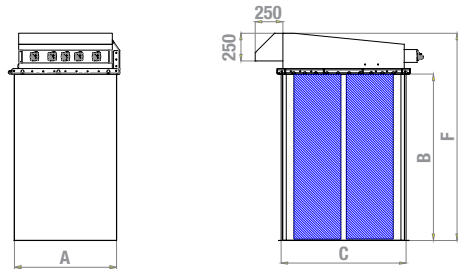
* Filtering surface area varies according to the number of filter elements



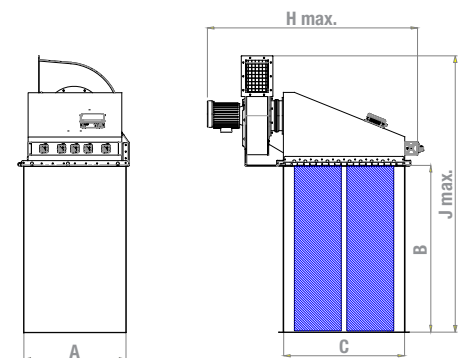
ATEX version available
Provided also for POLYPLEAT™ with 42-56 and 48-70 m² but related to M and S volume index

Overall Dimensions - Vertical Polygonal Dust Collectors

WITHOUT FAN



WITH TOP FAN



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



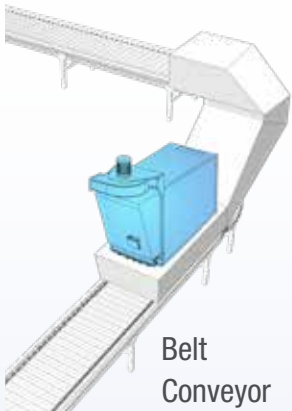
WORLDWIDE SUPPORT

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

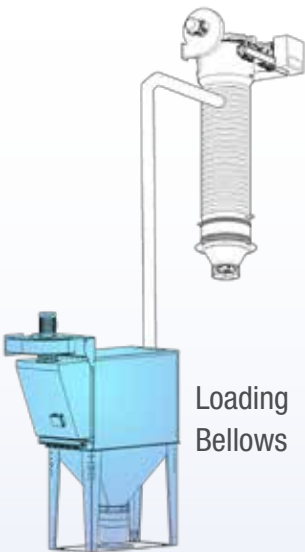


VERSATILE

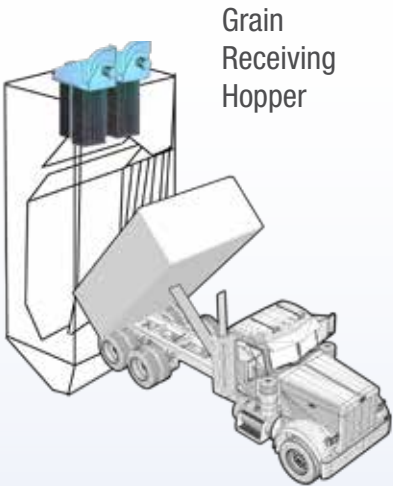
Perfectly suitable for many different technical applications:



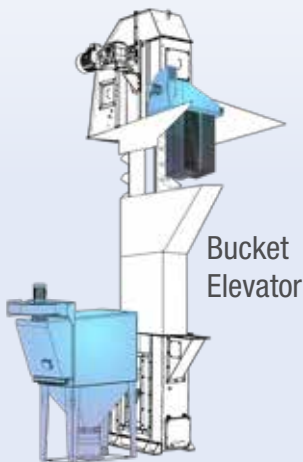
Belt Conveyor



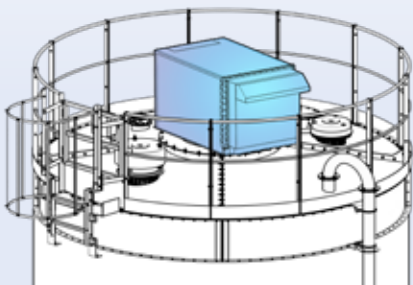
Loading Bellows



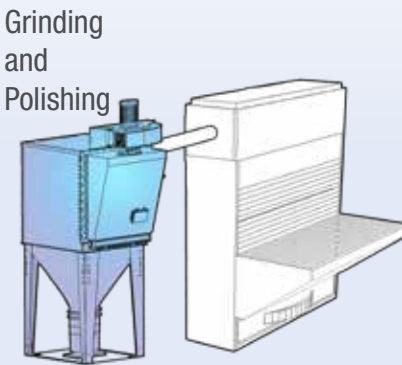
Grain Receiving Hopper



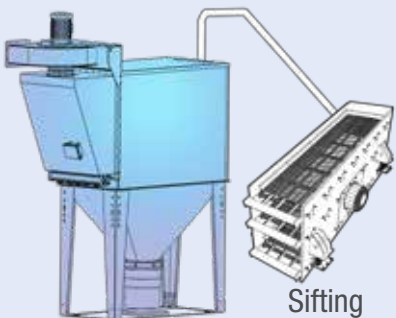
Bucket Elevator



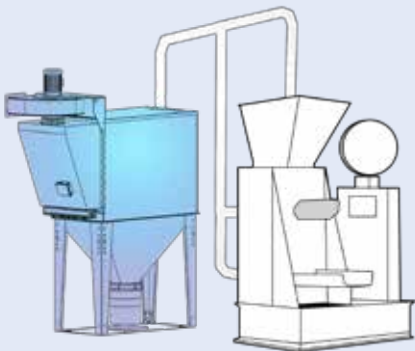
Silo Venting



Grinding and Polishing



Sifting



Bagging

Application



◎ LOADING AND UNLOADING EQUIPMENT

- Liners loading and unloading systems
- Railroad loading system
- Truck loading system (telescopic spouts) (loading bellows)
- Pumping system and preparation tank
- Reclaim system and sweep
- Manual or automatic bag opener
- Manual or automatic big bag unloaders
- Manual or automatic big bag loaders
- Bagging machine
- Palletizer

◎ STORAGE

- Bolted silo
- Welded silo
- Water tank
- Silos and pressurized vessels
- Hopper
- Fabric silo

◎ MATERIAL FILTERING AND CLEANING

- Venting filters
- Filter receiver
- Dust collectors
- Magnetic Separation and Metal Detection
- Non-ferrous material detectors
- Gravity and in-line screens
- Lump breaker
- Pellet deduster (fine separator)

◎ SECURITY SYSTEMS

- Lightning protection system
- Vacuum and pressure relief valves
- Explosion vent
- Explosion isolation safety valve
- Flameless venting
- Temperature, pressure and humidity monitoring and control system
- Silo or hopper overfilling systems
- Truck unloading locking system
- Metal detector
- Explosion isolation systems

◎ PNEUMATIC CONVEYING

- Dilute phase conveying
- Dense phase conveying
- Blowers
- Blower packages
- Dense phase pneumatic vessel
- Dilute phase pneumatic vessel
- Vacuum and pressure pneumatic vessel
- Aero-slide conveyors

◎ MECHANICAL CONVEYING

- Bucket elevator
- Screw conveyors & feeders
- Belt conveyor
- Drag conveyor
- Tubular cable & disc conveyor
- Discharge feeders (electromechanics and electromagnetics)
- Vibrating elevators

◎ MIXING

- Centrifugal batch mixer
- Planetary mixer
- Single and double paddle mixer
- Sludge mixer
- Gravimetric mixer for plastic
- PVC mixer (mixing and cooling)
- Container mixer

◎ DOSING AND MACHINE FEEDING

- Volumetric feeders
- Gravimetric feeders
- Additives or pigment dosing system
- Minor ingredients dosing system

◎ VALVES

- Slide valve
- Diverter valve
- Gravity diverter valve
- Multiport diverter valve
- Butterfly valve
- Iris valve
- Rotary valve for pneumatic conveying
- Rotary valve for dosing and locking
- Pinch valve
- Check valve

◎ CONVEYOR LINE COMPONENTS

- Vacuum wands and sight glasses
- Gaskets
- Pipe or tubing and bends
- Tees, wyes, laterals, reductions and connections
- Cam and groove and quickie assemblies
- PVC and metallic hoses
- Pneumatic conveying manifold
- Take Off boxes

◎ EQUIPMENT FOR EFFICIENT UNLOADING OF SILOS AND HOPPERS

- Bin activators
- Reclaim system & sweep conical and flat bottom
- Aeration systems
- Mechanical extractors
- Agitators
- Arch-breaker discharge & screw feeder
- Aeration bin bottoms

◎ AUTOMATION CONTROL PANELS

- Industrial control panel
- Power panel & Control
- Remote monitoring panel
- Inventorying & control systems

◎ COMPLEMENTARY EQUIPMENT

- Self-contained vacuum loader
- Compressed air material loaders
- Air to air heat exchangers; for conveying air
- Gas cooling/heating
- PET crystallizing
- Deshumidifiers
- Drying & dehumidifying
- Central vacuum receivers
- Granulators
- Lump breaker
- Pneumatic vibrator
- Electric vibrator





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Engineering, construction,
automation and maintenance for
**production plants with
bulk material handling**