



# PAXAA Cyclone, PX-CY

Product Catalog



## PAXAA Cyclone, PX-CY

Dry Centrifugal Dust Collector



- *An economical solution*
- *Excellent for high dust & high temp.*
- *Heavy-duty construction*
- *Can be used alone or as a pre-cleaner*

### Application

Cyclones are most commonly used in applications generating high dust loads, such as woodworking and machining, where coarse or large dust particles are produced. The Cyclone can be used alone or with filter bags, depending on whether the discharge air is exhausted to the atmosphere or returned to the plant.

When air streams have high dust concentration of coarse and fine particles from a production operation, the Cyclone is used as a pre-cleaner to a pulse jet bag or cartridge dust collector.

### Design

PAXAA cyclones are offered in mild and in stainless steel versions. For applications involving abrasive products, the thick-walled version must be applied.

Determine the cyclone size for a given air volume in  $\text{m}^3/\text{min}$  so that the pressure drop across the cyclone comes to lie between 5 and 10 mbar.

### Mode of operation

The material-laden conveying air is directed tangentially into the separating chamber. The air-solids mix flowing into the chamber is thereby deflected, causing it to spin. As a result, the material particles are carried toward the outside and slide down the wall. The conveying air separated from the material rises up the core of the cyclone, leaving the cyclone through the dip pipe and flowing into the air collection line. Thanks to the streamline geometry applied, the areas without any air flow and where material can settle are minimized.



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## Features and Options

### Advantages

- Engineered by the Dust Collection Experts
- Robust 4mm thickness Carbon Steel Construction
- Stitch Welded Interiors

### Features

- Custom engineering to meet specific applications
- From 1000 m<sup>3</sup>/h to 20,000 m<sup>3</sup>/h
- Standard sizes available from 400 mm to 1100 mm
- Coned tops for rain run-off
- Fabricated from carbon steel, aluminum, stainless steel and AR plate
- Fully welded construction from 4 mm to 10 mm thickness plate on some models
- 300 mm inspection door above material discharge
- Square to round inlet
- Used in a variety of industries

### Options

- Structural Supports custom engineered to meet customer's requirements
- Inlet and outlet transitions for duct connections
- Outlet dampers / Vortex breaker / Expansion chamber
- Insulation for high temp applications
- Rubber lined body and cones for high abrasion applications
- Inlet linings out of AR plate, stainless steel, rubber, etc.
- Multiple inlets and back draft dampers
- Access/Cleanout Doors
- Plain End & Flanged Inlets/Outlets
- Clockwise/Counter Clockwise Inlets/Outlets
- Rotating Tops
- Hopper with rack and pinion slide gate
- Rotary airlock and receiver
- Discharge elbow with bird screen
- After-filter
- Silencer
- Integral fan and motor assembly
- Internal helix
- Particle laboratory testing
- Efficiency guarantee if required
- Larger sizes available
- Multi-cyclone model available







## PAXAA Cyclone, PX-CY

High separating efficiency

### Primary Collector or Precleaner

Use the PAXAA Cyclone as your primary collector with or without the optional after-filter, for dusts of moderate to coarse particle size. The PAXAA Cyclone will remove up to 99% (by weight) of dust generated by steel grinding and saw dust.

Use it as a precleaner for any of PAXAA's more efficient final collectors such as the PAXAA Pulse Jet, PAXAA Reverse Air, or PAXAA Mechanical Shaker Baghouses. By reducing the dust load on the higher efficiency final filter, a more economical final filter may be selected and a longer filter life can be obtained.

### Sizes

PAXAA offers 11 basic selections to handle airflows from 1000 m<sup>3</sup>/h to 20,000 m<sup>3</sup>/h. These are sized to deal with the majority of small to medium industrial dust collection applications.

### No Maintenance

Unlike many dust collectors the PAXAA Cyclone contains no moving or replaceable parts and is essentially maintenance free. The air is drawn into the Cyclone tangentially and rotates at high velocity around the inner circumference. The heavier dust is separated from the air by centrifugal action and is deposited in the drum or hopper.



### Where to Use the PAXAA Cyclone

The Cyclone can be used in almost any application that generates dust particles greater than 20 microns in diameter. This includes sanding, coarse grinding, finishing, material handling, conveying, material processing, cutting, and crushing.

### Typical Applications

- Woodworking
- Metalworking
- Foundries
- Plastics
- Rubber
- Chemicals
- Grains
- Food
- Coal
- Ceramics
- Rock products
- Paper (not "trim")



# PAXAA Cyclone, PX-CY

Selecting Your Cyclone

## Selecting Your Cyclone

The following table shows the basic models that are available. Contact PAXAA for additional details.

Size	Airflow	Motor <sup>1</sup>	Inlet Dia.	Dust Storage	Approx. Dimensions			Weight
				Type	H	W	D	
	(m <sup>3</sup> /h)	(kW)	(mm)		(mm)	(mm)	(mm)	(kg)
<b>PX-CY16-2</b>	1400 – 1,700	2	150	DRUM	2,700	900	900	180
<b>PX-CY20-2</b>	1,700 – 2,600	3	200	DRUM	3,000	1,100	1,100	250
<b>PX-CY20-5</b>	2,600 – 3,700	5	200	DRUM	3,000	1,100	1,100	290
<b>PX-CY24-7.5</b>	3,400 – 5,100	7.5	250	DRUM	3,500	1,100	1,100	410
<b>PX-CY30-10</b>	5,100 – 6,800	10	360	DRUM	3,900	1,100	1,100	520
				AIRLOCK	5,500	- <sup>2</sup>	-	430
<b>PX-CY30-15</b>	6,000 – 7,500	15	360	DRUM	4,000	1,100	1,100	540
				AIRLOCK	5,500	-	-	440
<b>PX-CY36-20</b>	8,500 – 11,900	20	410	DRUM	4,800	1,700	1,700	1,000
				AIRLOCK	6,500	-	-	1,180
				HOPPER	6,600	-	-	1,340
<b>PX-CY36-25</b>	9,400 – 12,800	25	410	DRUM	5,100	1,700	1,700	1,020
				AIRLOCK	6,700	-	-	1,270
				HOPPER	6,900	-	-	1,360
<b>PX-CY36-30</b>	10,200 – 13,600	30	410	DRUM	5,100	1,700	1,700	1,040
				AIRLOCK	6,700	-	-	1,320
				HOPPER	6,900	-	-	1,380
<b>PX-CY44-40</b>	13,600 – 18,700	40	510	AIRLOCK	7,500	-	-	1,520
				HOPPER	7,500	-	-	1,450
<b>PX-CY44-50</b>	15,300 – 20,400	50	510	AIRLOCK	7,500	-	-	1,630
				HOPPER	7,500	-	-	1,500

1 Integral fan only

2 These dimensions will vary with the size of the support stand

## PAXAA

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