





## **CYCLONE DUST INLET**

Designed for use in sharp dust. The engineering team designed a cyclonic inlet to separate the large and sharp dust first. Help extend the service life of the filter bag and the machine. Spherical shape design to withstand pressure up to 5000 mm.wg.

## BENEFIT

- Extend the service life of the filter cloth bag
- Reduce the dust burden on the filter bag
- The machine can withstand high pressure. Suitable for long distance piping
- Low pressure loss in the system

## **OPERATION OF THE CONTROL SYSTEM**

Designed by engineers who specialize in dust removal systems. Resulting in energy-saving dust collector by using PLC system to process the operation of the machine

The process starts when dust is sucked into the machine. sensors perform processing from machine pressure If there is a small amount of dust, it will send a signal to the PLC to adjust the inverter to adjust the blower level at 1st cycle. That have been set up appropriately not exceeding the requirements Thus making use of electricity properly and saving energy

When the dust measurement system has more pressure. The system will send a signal to adjust the blower level 2 and 3 respectively, and the system will send a signal to pulse cleaning system to work up to 3 levels to automatically adjust the cleaning frequency. To work properly to save wind energy In addition, the system also checks for leaks and detects filter bag disconnection, if that happens, the system will automatically alarm









## PLC System





Trigger	Message	Status	
00:00:00:00	OF OVERLOAD BLOWER		
00:00:00 00:00	OF OVERLOAD ROTARY	•	
00:00:00 00/00	OF OVERLOAD SWEEP BLADE		





## **RESISTANCE OF SYNTHETIC FIBRES TO THE INFLUENCE OF CHEMICALS AND TO TEMPERATURE**



Scrim and fibre types	Continuous operating temp. (Maximum)	Description	Resistance to Hydrolysis	Resistance to Acids	Resistance to Alkalis	Resistance to Oxidation
Polypropylene	90°C / (95°C)	РР	excellent	excellent	excellent	restricred
Polyamide	110°C / (115°C)	PA	restricted	moderate	good	moderate
Polyacrylonitrile copolymer	115°C / (120°C)	AC	good	moderate	moderate	good
Temperature resistant olefin	125°C / (135°C)	RO	excellent	excellent	excellent	restricted
Polyacrylonitrile homopolymer	125°C / (140°C)	DT	good	good	moderate	good
Polyester	150°C / (150°C)	PE	restricted	moderate	restricted	good
Polyphenylene Sulfide	190°C / (200°C)	PPS	excellent	excellent	excellent	moderate
M-Aramid	200°C / (220°C)	NO, NX	moderate	moderate	moderate	moderate
Aromatic polyamide-imide	200°C / (220°C)	KMT	restricted	moderate	restricted	moderate
Polyimide	240°C / (260°C)	PI	good	moderate	moderate	good
Polytetrafluorethylene	250°C / (280°C)	PTFE, TF, TFL	excellent	excellent	excellent	excellent

## RECOMMENDED FELT & FILTER VELOCITIES

Particle Size of		Approx. Dust Cake Laver Reg'd for	Pulse Jet		
Dust	Typical Examples	99.5% Collection Efficiency	Air/Cloth Ratio m/min	Area wt. of felt gm.m²	
Course 10-200 um	Flour, Grain, Textiles, Paper, Plastics, Fertilizers, Sanding	250 g/m <sup>2</sup>	2.5-3.5	400	
Medium 5-100 um	Detergents, Leather, Tobacco, Sugar, Shot blast, Refractory, Grinding	300 g/m <sup>2</sup>	500		
Fine 3-20 um	Cement, Asphalt, Limestone, Chalk, Foundry Dusts, Foodstuffs, Pharmaceuticals	400 g/m <sup>2</sup>	1.5-2.0	500/540	
Very Fine 0.5-20 um	Pigments, Carbon, Steel Furnace, Metal Gouging, Finishing	500 g/m <sup>2</sup>	1.0-1.5	500/540/640 + surface finish	
Fume Smoke & Fine Spherical <0.2-10 um	Aluminum Oxide Ferrosilicon, Smelting Fume	700 g/m <sup>2</sup> Precoat with silica or limestone having nom. Particle size of 50 um	0.75-1.0	540/640 + surface finish	
			Air/Cloth will depend on bulk density of dust & angle of repose of dust.		



#### A powerful Pulse Jet system.

Compared to existing systems by using the same pressure of 4 Bar. Envotech 's multi venturi system efficient system General Up to double BENEFIT

Use air from Compressor less than double. Clean the filter bags thoroughly. Air volume does not damage the filter bag when used continuously.



#### High performance filter bag

Because the dust has both moisture and viscosity contamination in system, we choose a special filter bag to keep the filter fabric working long.

#### BENEFIT

Filter 500 g / sqm thick and durable. Dust filter up to 0.5 microns. Thus ,reduces dust dispersion problems.





## Model

ITEM MODEL		AIR VOLUME	DIMENSION (MM.)			BLOWER	MOTOR	FILTER BAG	FILTER AREA
		СММ.	А	В	с	MODEL	HP.	PCS.	SQ.M.
1	60-4.5S.	300	3,400	3,000	7,600	MOb711	50	60	127.17
1	60-4.5C.	400				MOb801	60		
2	108-4.5S.	500	2 0 9 2	2 5 2 2	3,500 7,800	MOb901	75	108	228.91
2	108-4.5C.	600	3,982	3,500		MOb1001	100		
2	125-4.5S.	700	4 252	3,500 7,800	7 800	7,800 MOb1121	100	125	264.93
3	125-4.5C.	800	4,352		7,800		125		
4	163-4.5S.	900	4,560	3,850	7,900	MOb1251	150	163	345.48
4	163-4.5C.	1000							
-	190-4.5S.	1100	5 050	4 250	8,140	MOb1401	150	190	402.70
5	190-4.5C.	1200	5,050	4,250			175		
6	215-4.5S.	1300	F F00	4 700	4,700 8,600		175	215	455.60
6	215-4.5C.	1400	5,500	4,700		Mob1601	220	215	455.69
7	240-4.5S.	1500	5,850	4,950	9,000		220	240	508.68
/	240-4.5C.							240	











## AIR VOLUME DESIGN

Machine	Model	Qty. of suction	Dia. Outlet (mm.)	Air flow (cmm)
	PC-025-3	1	300	70
	PC-025-5	2	(250+250)350	100
Cleaner machine	PC-025	1	350	100
Cleaner machine	PC-050	3	(350+350+350)600	270
	SR-1000A-T	1	200	35
	SR-1500A-T	1	250	40
	SGA 5B-T	1	350	90
Destoner machine	SGA 10B-T	1	400	120
	SGA 15B-T	1	500	200
Rice polishing	VTA 5A-T	1	250	50
	VTA 5AA-T	2	250	100
	VTA 10AB-T	1	300	80
machine	VTA 12GM-T	1	350	85 (100)
	VTA 15AB-T	1	350	115
Vortical rice whiteper	KB 40G-TA	1	200	40
vertical rice whiteher	KB 60GS-T	1	250	60



# Reference







## Reference





#### CHAROEN POKPHAND ENGINEERING CO.,LTD.

97 Yenjit Road , Thung Wat Don, Sathorn 10120 Bangkok Thailand Tel : +66(0)2-782-2931 Fax : +66(0)2-675-9412 cpe\_care@cpe.co.th Website : www.cpe.co.th



#### ENVOTECH ENGINEERING CO.,LTD.

29 Moo 8 Soi Viroonraj Rd. Thamai Krathumban Samutsakorn 74110 Thailand Hot line : +66(0)85-252-6464, +66(0)61-417-9449 Tel : +66(0)34-866-555 | Fax : +66(0)34-866-595 Antipollution@envotech.co.th

Website : www.envotech.co.th | Line : @envotech

### Certification

