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TAESUNG MACHINERY **Catalog**

Waste Paper Disposal & Dust control
& Air Filtration System Solutions



TAESUNG MACHINERY INC.

History

1986 05 Establishment of 'Taesung Machinery'	2002 09 Application for practical utility registration No. 028923 (for a dust collecting device)	2006 04 Taesung Machinery relocates its Hwaseong factory to expand its business	2007 02 Creation of company website
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COMPANY INTRODUCTION

Taesung Machinery Inc. has a unique vision for the future, **leading the way in the field of waste paper disposal equipment and dust collection equipment** for the cardboard market with our innovative technology solution, the eco-friendly waste paper disposal system.

We are committed to providing not only products, but also the highest quality and optimal solutions that go beyond our customers' expectations, realizing a value that exceeds their expectations.



Contents

Company Introduction	02
Eco-friendly Waste Paper Disposal System	04
Separator	06
Briquetting Press	06
Bag Filter	07
Blower	07
TSM Baler	08
Waste Paper Transport Machine	10
Cutting Blower	10
Pipe Line	10
Scrap Conveyor	11
Belt Conveyor	11
TSM Shredder	12
Diecutter Shredder	12
Shredder600	12
Shredder1200	13
Shredder1500	13
Shredder1800 & 2500	13
Dust Collector	14
Bag Filter	14
Automatic Sectional Filter	15
Corrugator Web Cleaner	15

2014 06
Development of a
shredder

2015 01
Conversion of
Taesung Machinery
to a Taesung
Machinery Inc.

2016 12
Development of an
eco-friendly waste
paper disposal system

2017 09
Establishment of an
affiliated research
institute

2018 09~10
Acquired 'ISO 9001:2015'
Acquired 'ISO 14001:2015'
'CE' certification /
'S Mark' certification

2021 06
Patent registration of
'Eco-friendly Waste Paper
Disposal System'

Consultation

Machine
layout and design
planning

Solution
proposal

Machine
manufacturing
and assembly
facility

Machine
installation



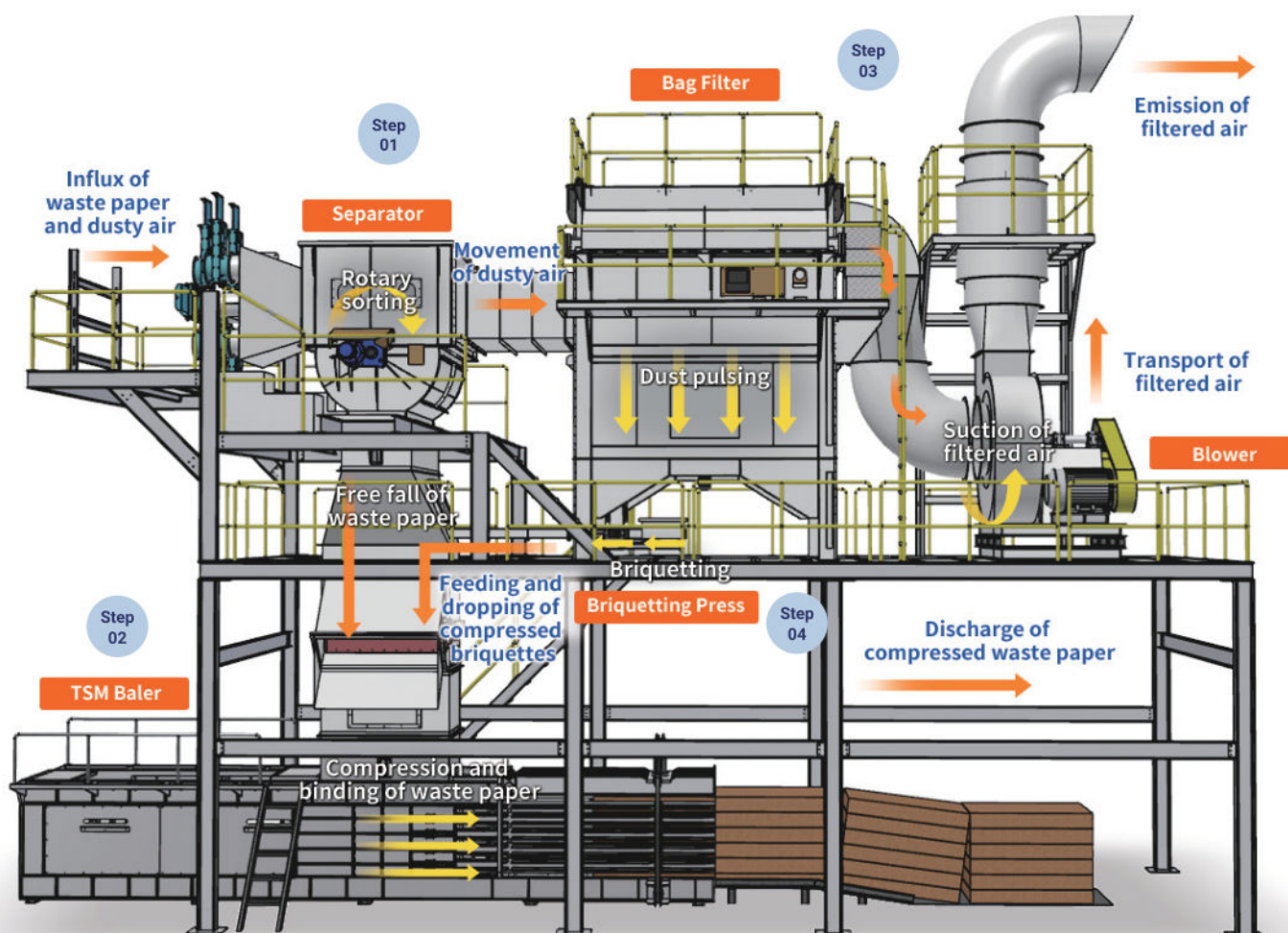
**Best technology solutions
for your business.**

Eco-friendly Waste Paper Disposal System

The eco-friendly waste paper disposal system developed by Taesung Machinery Inc.

Taesung Machinery Inc.'s innovative technology for eco-friendly circularity in recycled packaging and corrugated cardboard production plants.

This high-efficiency, environmentally friendly waste paper disposal and treatment system helps to collect and recycle raw materials for corrugated cardboard while also separating and collecting the dust generated during the briquetting and handling of the briquettes. By effectively controlling indoor and outdoor air pollution in the workplace, it helps to comply with legal emission standards under the Clean Air Conservation Act.



Process

Step
01

The waste paper introduced by the air pressure of a blower or cutting blower is sorted into waste paper and dusty air by a separator.

Step
02

The separated waste paper falls vertically by gravity and is automatically compressed and bound in a waste paper baler.

Step
03

The separated dusty air is filtered through a bag filter and discharged into the atmosphere through a suction blower.

Step
04

Filtered briquettes are compressed in the briquetting press and then reintroduced into the waste paper baler, where they are compressed and discharged along with the waste paper.

Features of an eco-friendly waste paper disposal system and comparison with existing equipment



Existing Cyclone Dust Collection Equipment



Taesung Machinery Inc.'s Eco-friendly waste paper disposal system

Exceeds air pollution emission standards due to dust overload

Dealing with air quality regulations

Complying with emissions standards of less than 50mg/Sm³

Scattered dust generation on the upper part of the Cyclone dust collector

Improving indoor and outdoor working environments

Preventing scattered dust within the workplace and waiting areas through accurate dust collection

Occupies a large space in the work area due to its bulky machinery structure

Maximizing utilization of the workspace

Designing a compact structure with a low height that is 1/4 the size of existing equipment

Sweeps residual waste inside the waste paper processing site into a sack and processes it

Ease of manage waste paper processing site

The scrap paper is sucked into the cleaning port and reintroduced into the waste paper baler

Separate discharge after collecting dust in the lower basket of Cyclone

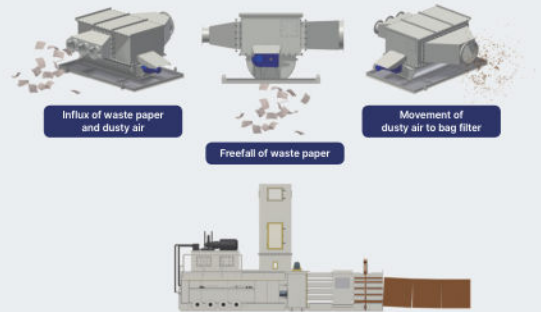
Convenience in the process of handling briquettes

Equipped with briquetting press under the bag filter for automatic compression and discharge

Eco-friendly Waste Paper Disposal System

Separator

A waste paper separator that sorts waste paper generated during processing using a rotary method, allowing the waste paper to fall downward by gravity and directing the air containing briquettes to the bag filter.



Features

- Each packing finished rotary blade blocks the air flow between top and bottom to prevent dust scattering during waste paper fall
- Compact design with low height for indoor installation
- Stable operation even during long-term continuous operation
- Minimization of noise and vibration
- Simple structure for easy inspection, maintenance and repair

Spec	Model	TSM_Separator_10	TSM_Separator_15	TSM_Separator_18
Size (W × L × H)		2200 × 1400 × 1500	3700 × 2050 × 2160	4000 × 2200 × 2430
Air Volume (m ³ /min)		600	800	1400
Maximum Length of Waste Paper (mm)		1600	2000	2400
Motor Capacity (kW)		1.5	2.2	2.2

Briquetting Press

This equipment compresses and disposes of the dust filtered by the bag filter in a compacted block form, thus suppressing secondary dust generation.



Features

- Over 90% of the volume of Briquetting are compressed
- Complete automatic system for reduced labor
- Connected to the dust discharge outlet of the bag filter for briquettes processing
- Optimized for efficient processing of large amounts of dust



Bag Filter

A facility that filters out the dusty air to purify it.

Features

- High dust collection efficiency of 95% or more.
- Dust attached to the filter surface is automatically removed by the Air Pulse method
- Lightweight and simplified structure for stable operation.
- Continuous dust removal method maintains a constant pressure drop, allowing for stable long-term operation
- The briquettes discharge has been developed mechanically, allowing for tailored installation of low-height dust collection equipment within the facility
- Capacity is selected and installed to suit the on-site conditions



Air Header

- Increased efficiency by shortening and straightening the header and blow tube piping
- High flow rate and excellent performance due to high flow coefficient (Cv) compared to bend pipe valves



Filter Bag

- Waterproof coating for improved durability against moisture
- Widening the space between bags to minimize clogging of debris



Dust Sweeper

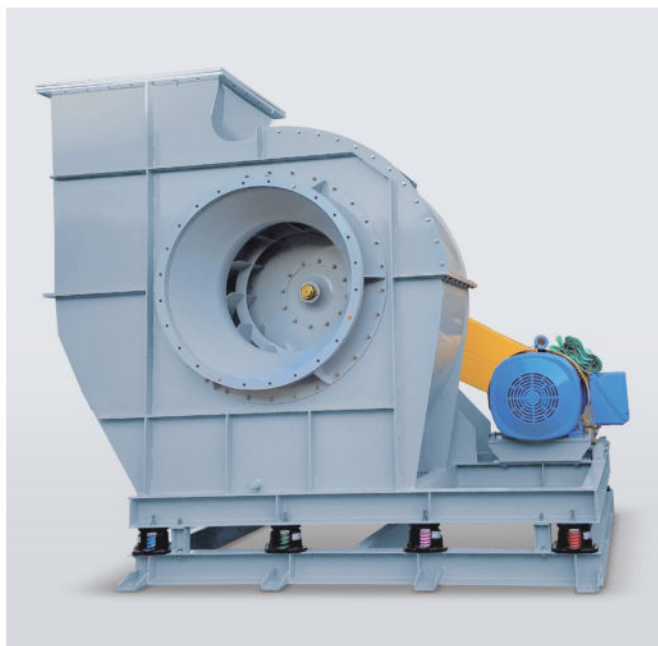
- Provides significant effect with low power of 1HP
- Reduces height by 3-4 meters by transforming the shape of the dust sweeper
- Achieves a compact design by significantly reducing the height of the back filter

Blower

A blower that sucks in purified air that has gone through primary separation of waste in the separator and secondary removal of fine dust in the bag filter, and releases it back into the atmosphere.

Features

- Can be installed outdoors
- High-speed operation for high efficiency
- Suction volume, blower size, and motor output determined according to air volume
- Inverter operation through Energy Saving System for energy savings



Eco-friendly Waste Paper Disposal System

TSM Baler

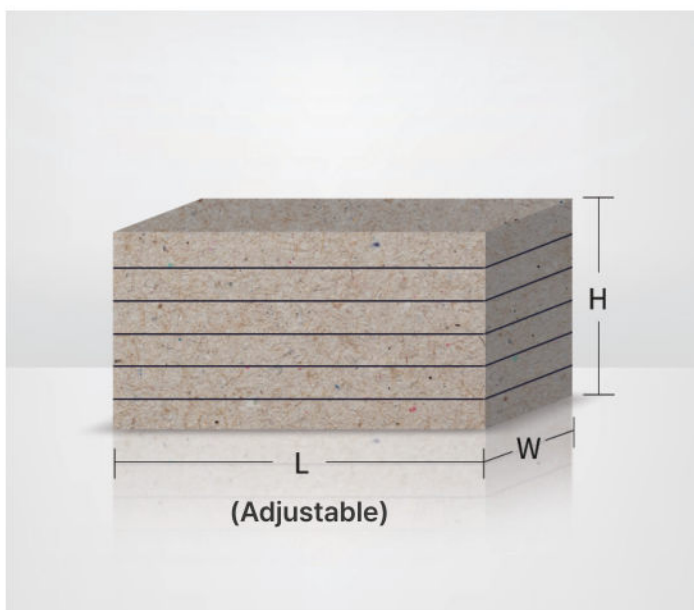
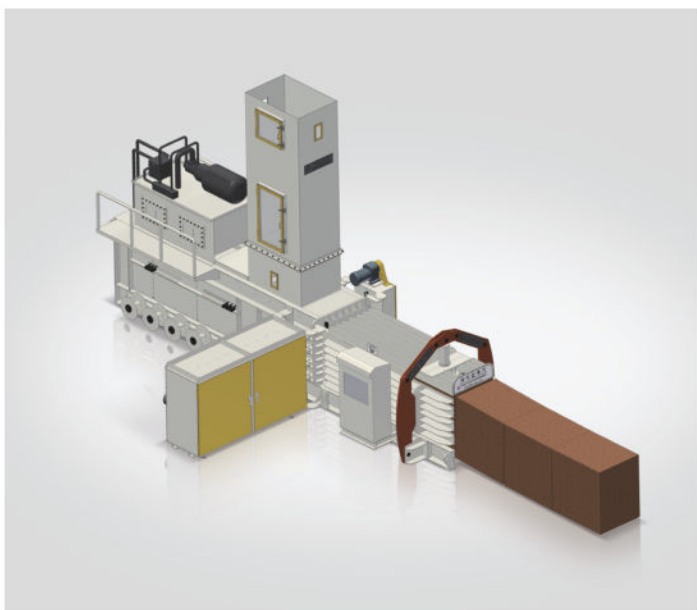
A machine for continuously compressing and automatically fastening and discharging waste paper produced during corrugated cardboard production and processing, using a horizontal hydraulic compactor for transporting and storing the waste paper.



Features

- Strong durability and powerful compression force
- Complete automation system for budget savings
- Use of air cooling system
- Waste paper is fed into the hopper through a waste paper conveyor
- Stable operation maintained by self-diagnostic system
- Shortening the cycle time per operation increases work efficiency
- Increased durability through the use of special materials such as cast iron for the compression head and main frame
- User-friendly operation with touch screen type PLC control panel and automatic operation function
- Safety devices such as safety locks and emergency stop function ensure operator safety.





Spec		Model	TSM_Baler_50	TSM_Baler_75
Compressed Material Size (W × H × L)			760 × 1100 × L	1050 × 1100 × L
Oil Pump Motor			50HP (37kW)	75HP (55kW)
Binding Method			4-Iron Wire Binding	5-Iron Wire Binding
Compression Power	Operating Pressure of 200kg/cm ²		76 TON	98 TON
	Maximum Pressure of 250kg/cm ²		95 TON	143 TON
Processing Capacity (10 HR)			50 TON	100 TON
Oil Flow Rate (Oil Usage Capacity)			800 L	1600 L
Hydraulic Cylinder			220	270
Surface Pressure	Operating Pressure of 200kg/cm ²		9.08 kg/cm ²	10.1 kg/cm ²
	Maximum Pressure of 250kg/cm ²		11.36 kg/cm ²	12.65 kg/cm ²
Machine Weight			11 TON	20 TON
Machine Size (W × L × H)			3900 × 7750 × 2050	4400 × 8600 × 2150
Fedder (Hopper) Machine Size (W × L)			760 × 1100	1050 × 1600



Waste Paper Transport Machine



Cutting Blower

The Cutting Blower is a device that cuts and generates air pressure on the input waste paper from a pipeline or conveyor, and transfers it to the waste paper discharge system.

Features

- Robust frame for stable operation
- Built-in noise reduction device for vibration-free and low noise operation
- Essential equipment in the edge trim waste paper processing process of a corrugator
- Additional equipment for smooth operation in the production process of corrugated board
- The specifications and motor output are determined according to the type and quantity of production machinery

Spec \ Model		TSM_CB_10	TSM_CB_20	TSM_CB_30	TSM_CB_40	TSM_CB_50
Motor Output (kW)		7.5	15	22	30	37
Size (W × H × L)		700 × 600 × 970	1150 × 1010 × 910	1240 × 1180 × 980	1240 × 1180 × 980	1240 × 1180 × 980
Motor Operation		Δ	Y-Δ	Y-Δ	Y-Δ	Y-Δ
Discharge Size		Ø 200 or Ø 250	Ø 300	Ø 300	Ø 300	Ø 300 or Ø 400
Processing Capacity	Flexo or Thompson	1 Flexo (transport distance under 20M)	○	○	○	○
	2 Flexo	X	X	○	○	○
	Thompson	X	X	X	○	○
	Slit Score	X	X	○	○	○
	Shredder	X	X	○	○	○

Pipe Line

A transfer pipe that connects the waste paper to reach the waste disposal system by the wind pressure of the cutting blower.

Features

- Efficient line construction based on over 30 years of experience and know-how
- Durable thickness and material to prevent wear and damage during long-term use
- Installation of inspection windows for each section





Scrap Conveyor

Equipment that builds a conveyor line for transporting waste paper with a slope of 20° or more.

Features

- Uses a steel belt to create a stable waste paper fastening structure
- Robust frame design ensures stable operation without deformation
- Conveyor line is designed and manufactured based on the work environment and productivity of the plant
- Easy to maintain and keep clean

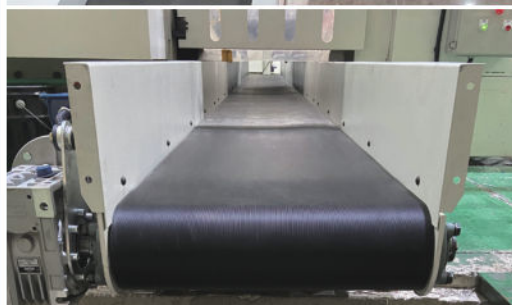


Belt Conveyor

A system that constructs a waste paper transfer conveyor line with a horizontal or less than 5° slope.

Features

- Superior adhesion for non-slip transfer
- Dual guides inside the belt prevent lateral movement
- Designed and manufactured to fit the work environment and productivity of the facility
- Capable of transferring up to 100 meters with a single conveyor line
- Easy to maintain and clean



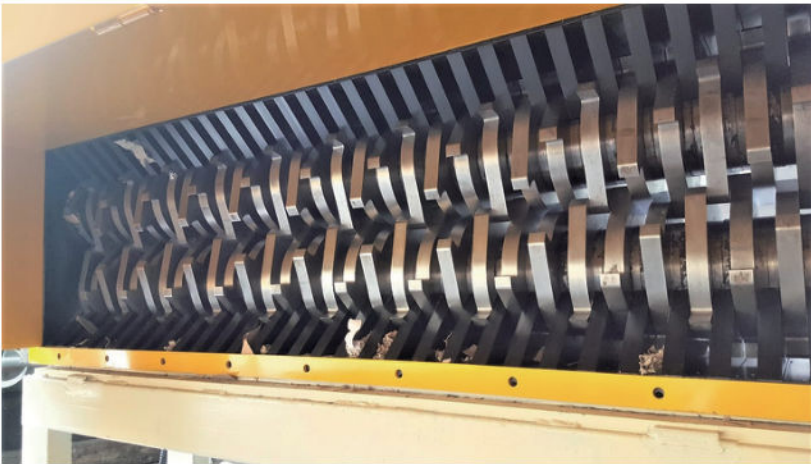
Shredder

TSM Shredder

Shredder is a device that efficiently processes waste generated during production and processing using precision and specially processed blades to reduce the size of the waste for better post-processing and to prevent the pipeline from clogging by shredding it.

Features

- High-strength shredding blades with excellent durability and wear resistance
- Capable of handling large capacity with stable operation
- Conveyor attachment for flexible feeding
- Efficient processing of waste generated during fabric production and processing
- Minimizes dust and noise generation
- Easy to manage, maintain, and repair.



Diecutter Shredder



Shredded material
size (W x L): 10 x 170
Hopper size: 250 x 200
Motor capacity: 3HP x 2Set
Processing speed(m/min): 20
Linked with Thompson
: Operated

For shredding waste paper from Thomson diecutter

- Cutting long waste paper into small shredded pieces
- Prevention of clogging or blockage in processing facilities
- Improved efficiency in downstream processing
- Easy maintenance and blade replacement
- Customized on-site installation for ease of use

Shredder600



Shredded material
size (W x L): 20 x 170
Hopper size: 250 x 200
Motor capacity: 10HP x 2Set
Processing speed(m/min): 25
Linked with Thompson
: Operated

For shredding defective fabric in processing centers

- Reduces load on the cutting blower
- Enables smooth transportation in the pipeline
- Applicable equipment for high volume of input waste via conveyor
- Facilitates smooth transfer of waste at intersection of 2 conveyors
- Prevents bottlenecking at 90-degree intersections

Shredder1200



For shredding defective fabric in processing centers

- Shreds directly the defective fabric or underlay from the printing machine
- Minimizes unnecessary movement to the waste paper processing site
- Minimizes time and labor costs for post-processing, contributing to increased efficiency and productivity
- Depending on the structure of the workspace, the need for cutting, and the equipment line, the device can be installed on top of an existing conveyor belt or connected to a cutting blower for shredding

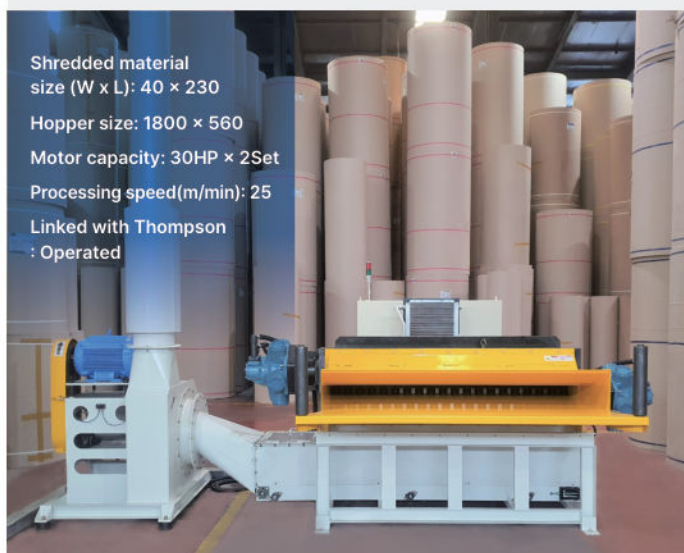
Shredder1500



For shredding defective corrugated board during order change of corrugator

- Automated system for processing defective corrugated board during order change
- Eliminates the need for manual processing by workers
- Enables smooth transportation through pipeline

Shredder1800



For shredding defective surface layer of corrugated board

- Easy processing for surface layer and defective fabric
- Customized design based on the width of waste material for selecting the desired inlet size and method
- Defective waste generated from the surface layer of corrugated board can be fed directly into the shredder or manually placed on a conveyor and fed
- For large fabrics, the inlet can be attached with a conveyor for free input

Shredder2500



Dust Collector

Bag Filter

Dust collection equipment that sucks and purifies the dust generated during corrugated board processing, while reflecting the filter area suitable for the suction capacity.

Features

- Easy filter replacement
- Achieving 24-hour continuous operation of dust collector
- Adopting filters with a large filtration area to capture even fine dust particles
- Achieving vibration-free, low-noise, and powerful suction through precision balancing
- Auto Manual Pulsing function for quickly removing fine dust particles attached to the filter



Process

Step 01

Powerful air suction through the dust collector intake port

Step 02

Air and dust sucked in together are filtered out by the filter and fall into the lower dust basket

Step 03

Filtered air is discharged to the outside through the upper discharge port

Step 04

Dust attached to the filter falls into the lower dust basket through the Auto Manual Pulsing function

Options



Basket

- Basic option
- Method of receiving and processing dust through a hopper

Rotary Valve

- Device for discharging dust from inside the filter to the outside



Briquetting Press

- Compacts dust into blocks, reducing volume by over 90%
- Prevents secondary scattering of dust, resulting in significant labor savings



Automatic Sectional Filter

Efficient dust collection equipment tailored to the characteristics of the printing press with high air volume

Features

- Excellent sealing
- Minimization of power consumption
- Easy filter replacement
- Equipped with automatic operation program control



Corrugator Web Cleaner

High-efficiency dust collection equipment using non-contact method to remove impurities from corrugated board and suction during production to produce high-quality printing corrugated board.

Features

- Antistatic function
- Equipped with self-filter cleaning and fan
- Cleaning head height automatically adjustable
- Thickness and operation time of corrugated board can be adjusted.

