



YoungDongE&T Co.,Ltd

Company Profile



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YOUNGDONG
Environment Technology Co.,Ltd

1. Contents

1. Company Overview

Our company has been working on recycling urban solid waste resources for more than 30 years, and is currently installing and constructing overseas in China, Saudi Arabia, the United States, and Indonesia. Also, about 65 treatment facilities were constructed in Korea.

Company Overview

Company Name

YoungdongENT Co., Ltd.
(Formerly Chunho Industry)

C E O

Woojin Jeon

Founded

Company name changed in February 2021
(Originally established as Chunho Industry in 1994)

Capital

KRW 50 million

Revenue

KRW 6 Billion (H1 2023–2024)

Employees

15 (Office 5, Technical 10)

Business Areas

MSW Recycling Plant Design, Manufacturing & Construction (EPC)

Location

2, Heundeul-gil, Seosin-myeon, Hwaseong-si, Gyeonggi-do, Korea

Certifications

Certifications: 23 Patents, Corporate R&D Center,
INNO-BIZ, ISO 9001/14001

Web-Site

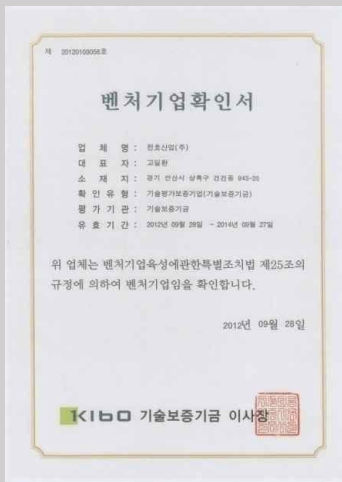
www.youngdongent.com

Company Motto

Engineered with
Technology.
Delivered with
Commitment.



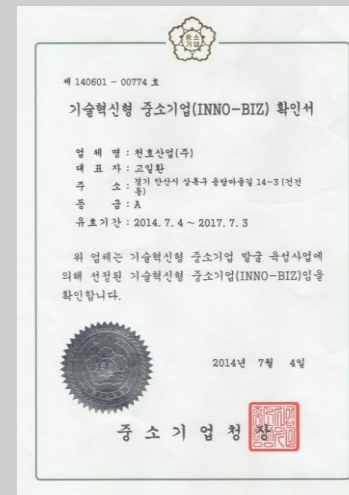
Certificates



Venture Company Certificate(2012)



Quality Management System Certificate(2012)
Environmental Management System Certificate(2012)

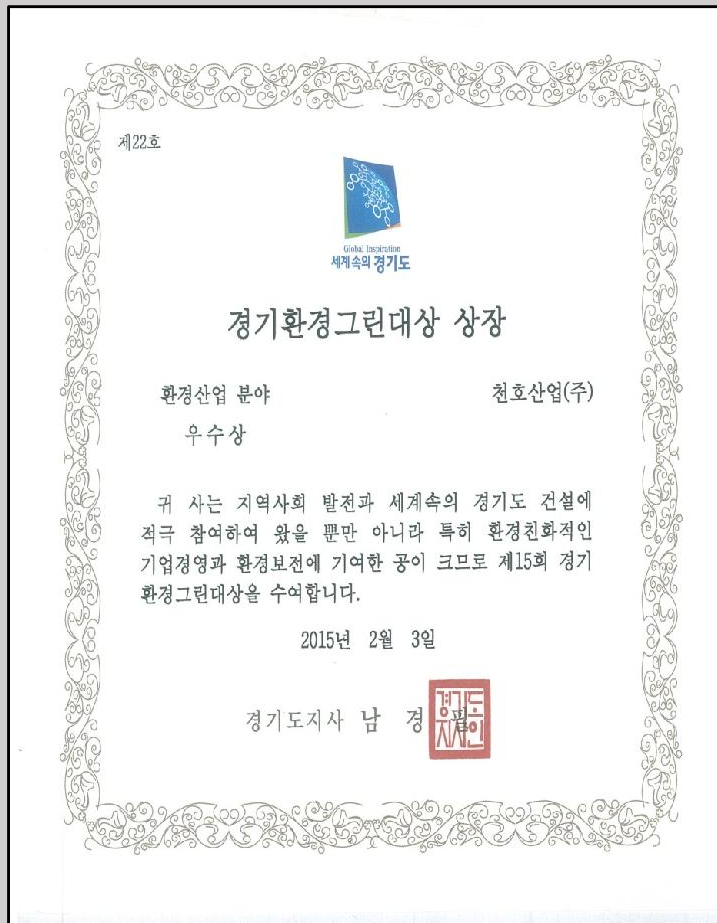


INNO-BIZ Certificate(2014)

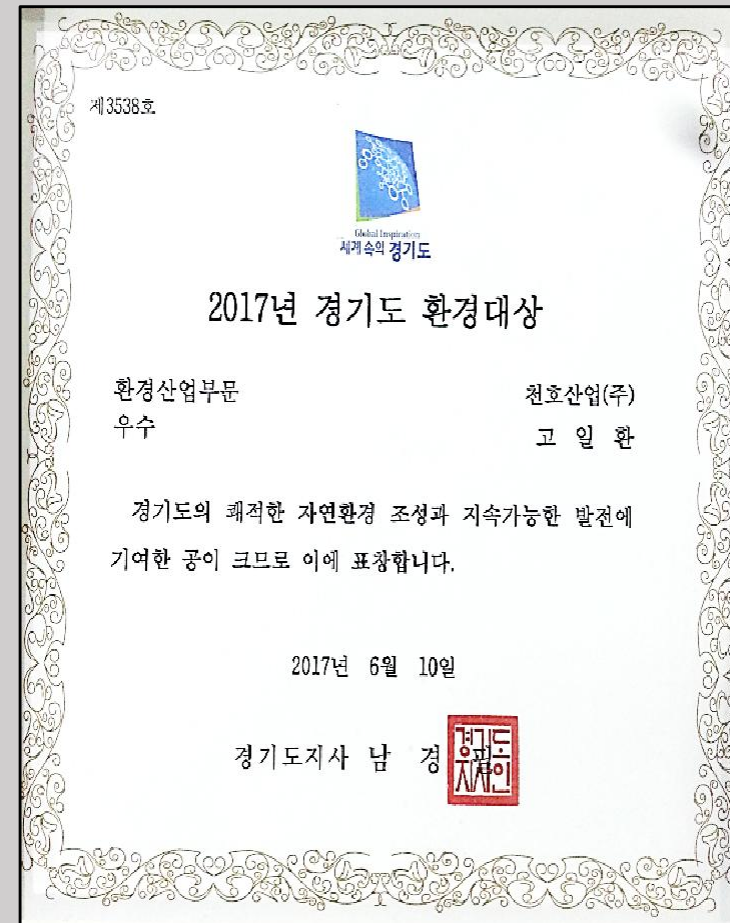


Corporate R&D Center(2014)

Award details



Gyeonggi Environmental Green Award (2015)



Gyeonggi Environmental Award(2017)

Patent List

No.	Patent No.	Patent Title
1	Patent No. 10-0274067	Food Waste Treatment System
2	Patent No. 10-0581136	Carbonization Method for Food Waste
3	Patent No. 10-0324403	Vacuum Filtration System
4	Patent No. 10-1082944	Pump System for Food Waste Transfer
5	Patent No. 10-1082945	Alternative Energy System Using Subway Ventilation
6	Patent No. 10-1116122	Ceramic Filter Media for Non-Point Source Pollution Removal & Manufacturing Method of Ceramic Balls
7	Patent No. 10-1116123	Alternative Energy System Using Building Ventilation
8	Patent No. 10-1101743	Dewatering Machine with Enhanced Efficiency via Increased Cross-Sectional Area
9	Patent No. 10-1105731	Integrated Food Waste Composting System
10	Patent No. 10-0639569	Comprehensive Waste Lighting Treatment System
11	Patent No. 10-1226551	Pellet Fuel Composition
12	Patent No. 10-1226556	Method for Manufacturing Pellet Fuel
13	Patent No. 10-1255044	Hydrokinetic Power Generation Device
14	Patent No. 10-1255114	Pellet-Type Renewable Fuel Using Sawdust
15	Patent No. 10-1389577	Shredder for Food Waste
16	Patent No. 10-1378583	High-Strength Panels Containing Food Waste
17	Patent No. 10-1422202	Lightweight Soil Conditioner Using Sewage Sludge & Dried Jellyfish
18	Patent No. 10-1678357	Method for Manufacturing Soil Conditioner
19	Patent No. 10-1669509	High-Calorific Fuel Production from Waste & Method Thereof
20	Patent No. 10-1702855	Integrated Shredder & Fine Crusher
21	Patent No. 10-0022207	High-Concentration Granular Sludge Mixer
22	Patent No. 10-0126932	Multi-Stage Composting Fermentation System
23	Patent No. 10-0126942	Manual Non-Agitation Composting System
24	Patent No. 10-2495589	MSW Recycling System



Major skill

Design / Manufacturing / Construction (EPC)

- Organic Waste Composting / Soil Improvers / Feed / Fuel Production Facilities
- Livestock Waste Treatment & Recycling Facilities
- Renewable Energy Pelletizing Facilities (Wood, EFB, Food Waste, etc.)
- Municipal Waste-to-Energy Facilities
- MSW Recycling Projects
- Landfill Restoration Projects

Products

- MSW & Landfill Treatment Equipment (Shredders & Separators, Air Separators, Dewatering Machines, Conveyors, Feed Hoppers)
- Piston Pumps, Hot Air Dryers, Disc-Type Dryers, Paddle Mixers

Installation performance

Largest Track
Record in Korea

No.	Delivery Date	Client	Supplied Equipment
1	2009	클린에코	Food Waste Recycling Facility (Pre-treatment / Post-treatment Equipment) – Composting
2	2009	그린아산	Input Storage Hopper, Automatic Shredder & Separator, Transfer Conveyor
3	2009	남해군청	Input Storage Hopper, Automatic Shredder & Separator, Transfer Conveyor
4	2009	고성군청	Input Storage Hopper, Automatic Shredder & Separator, Transfer Conveyor
5	2009	세창환경(성남시청)	Input Storage Hopper, Screw Dewatering Machine, Storage Tank, Transfer Conveyor
6	2009	대송기업(인천시청)	Input Storage Hopper, Automatic Shredder & Separator, Screw Dewatering Machine, Transfer Conveyor
7	2009	여명농장	Input Storage Hopper, Automatic Shredder & Separator, Transfer Conveyor
8	2009	세환산업	Automatic Shredder & Separator, Screw Dewatering Machine, Transfer Conveyor
9	2010	인천 남동구청	Input Storage Hopper, Transfer Conveyor
10	2010	파주시청	Automatic Shredder & Separator, Transfer Conveyor, Chain Conveyor
11	2010	동두천 시청	Input Storage Hopper, Automatic Shredder & Separator, Transfer Conveyor, Fine Shredder
12	2010	우성바이오피드	Food Waste Recycling Facility (Pre-treatment / Post-treatment Equipment) – Feed Production
13	2010	위드이룸	“Saessaki” Manufacturing & Installation Project – Leachate Liquid Fertilizer Production
14	2010	광주광역시청	Screw Dewatering Machine
15	2010	공군제19전투비행단	Non-point Pollution Control System
16	2010	장원 C&S	Food Waste Dryer Installation
17	2011	해동엠셀	Solid-Liquid Separator Installation
18	2011	하남시청	Fine Shredder, Automatic Shredder & Separator, Transfer Conveyor
19	2011	영덕군청	Transfer Conveyor
20	2011	인천삼산농수산물센터	Screw Dewatering Machine Manufacturing & Installation
21	2011	동해시청	Food Waste Dewatering Machine Manufacturing & Supply
22	2011	삼척시청	Shredder & Separator Manufacturing & Installation
23	2011	제주시청	Food Waste Composting Agitator Manufacturing & Installation

Installation performance

Largest Track
Record in Korea

No.	Delivery Date	Client	Supplied Equipment
24	2011	제주시청	Food Waste Composting Facility Blower Installation Work
25	2011	파주시청	Food Waste Shredder & Separator Manufacturing & Installation
26	2011	바이오에너지개발	Food Waste Pre-treatment Equipment Manufacturing & Installation
27	2011	NC부산	Screw Dewatering Machine Manufacturing & Supply
28	2012	새한환경기술(대구시청)	Food Waste Pre-treatment Equipment Manufacturing & Installation
29	2012	우성기계(광주광역시)	Screw Conveyor Manufacturing & Installation (39 Units)
30	2012	안산농수산물도매시장	Vegetable Waste Reduction Equipment Manufacturing & Installation
31	2012	파주시청	Food Waste Recycling Facility Repair, Manufacturing & Installation
32	2012	신성엔지니어링	Administrative Multifunctional City Automatic Clean-Net Manufacturing & Installation Project
33	2012	한국환경공단(포항시청)	Pohang Sewage Sludge Conveyor Manufacturing & Supply
34	2013	두수환경	Food Waste Pre-treatment Equipment Manufacturing & Installation
35	2013	한라산업개발(울산광역시청)	Food Waste Pre-treatment Equipment Manufacturing & Installation
36	2013	신한기술	Food Waste Shredder & Separator Manufacturing & Installation
37	2013	(주)대인	Namdong-gu Food Waste Shredder & Separator
38	2013	씨엔지테크	Geoje City Food Waste Dewatering Machine Manufacturing & Installation
39	2013	도봉구청	Food Waste Dryer Manufacturing & Installation
40	2013	오산시청	Ecological River Filtration Equipment Manufacturing & Installation
41	2014	중량하수처리장	Screw Conveyor Manufacturing & Installation
42	2014	이엔이텍(서귀포시청)	Shredder & Separator Manufacturing & Installation
43	2014	정문환경	Shredder & Separator Manufacturing & Installation
44	2014	서희건설	Piston Pump Manufacturing & Installation (4 Units)
45	2014	부산환경공단	Fine Shredder Manufacturing & Installation (2 Units)
46	2014	코리아 PTG	Wastewater Treatment Plant Coagulated Sludge Treatment Facility Installation Project
47	2014	삼익 산업	Solid Fuel (Wood Pellet) Production Line
48	2015	세광 산업	Hongcheon Automatic Shredder & Fine Shredder Manufacturing & Installation
49	2015	동두천시청	Food Waste Treatment Plant Shredder & Separator and Others
50	2015	동진씨미컴	Non-point Pollution Reduction Facility

Installation performance

Largest Track
Record in Korea

No.	Delivery Date	Client	Supplied Equipment
51	2015	한솔이엠이	Ulsan Metropolitan City Organic Waste Recycling Facility
52	2015	정일 기계	Yeosu City Belt & Chain Conveyor Line
53	2015	대보엔지니어링	Gwangju Metropolitan City Agricultural & Marine Products Wholesale Market Shredder & Separator Manufacturing & Installation
54	2015	아이서비스	Changwon City Food Waste Treatment Plant Shredder & Separator Manufacturing & Installation
55	2015	새환경 기술	Nonsan Livestock Manure Recycling Pre-treatment Facility Manufacturing & Installation
56	2015		Screw Dewatering Machine Manufacturing & Installation
57	2016	JC	Food Waste Recycling Facility Manufacturing & Installation – USD 4.5 Million (Approx. KRW 5 Billion)
58	2016		Screw Conveyor Manufacturing & Installation
59	2016		Screw Conveyor Manufacturing & Installation
60	2016		Screw Dewatering Machine & Conveyor Manufacturing & Installation
61	2016		Gwangju Western Agricultural & Marine Products Wholesale Market Conveyor Manufacturing & Installation
62	2016		Food Waste Recycling Pre-treatment Equipment Manufacturing & Installation
63	2016		Busan Banyeo Agricultural Products Wholesale Market Dewatering Machine Manufacturing & Installation
64	2016		Vegetable Waste Reduction Equipment Manufacturing & Installation
65	2016		Seawater Filter Manufacturing & Installation
66	2016		Blower & Cyclone Manufacturing & Installation
67	2016	KMBT	Illinois, USA Food Waste Pre-treatment Equipment Manufacturing & Installation
68	2016		Namdong-gu, Incheon Screw Dewatering Machine Manufacturing & Installation
69	2016		Ulleungdo Drum Screen Manufacturing & Installation
70	2017	KMBT	Illinois, USA Wood Shredding Equipment Manufacturing & Installation
71	2017		Gosaek-dong, Suwon Food Waste Pre-treatment Equipment Manufacturing & Installation
72	2017		Gwangju Environment Corporation Shredder & Separator Manufacturing & Supply
73	2017	고성군청	Screw Conveyor Manufacturing & Installation
74	2017	가이아	Shredder & Separator (3 units) Manufacturing & Supply
75	2017	대아환경	Screw Dewatering Machine Manufacturing & Installation
76	2017	그린아산	Shredder & Separator, Screw Conveyor Manufacturing & Installation

Exports

Exports

Exports

Installation performance

Largest Track
Record in Korea

Exports

Exports

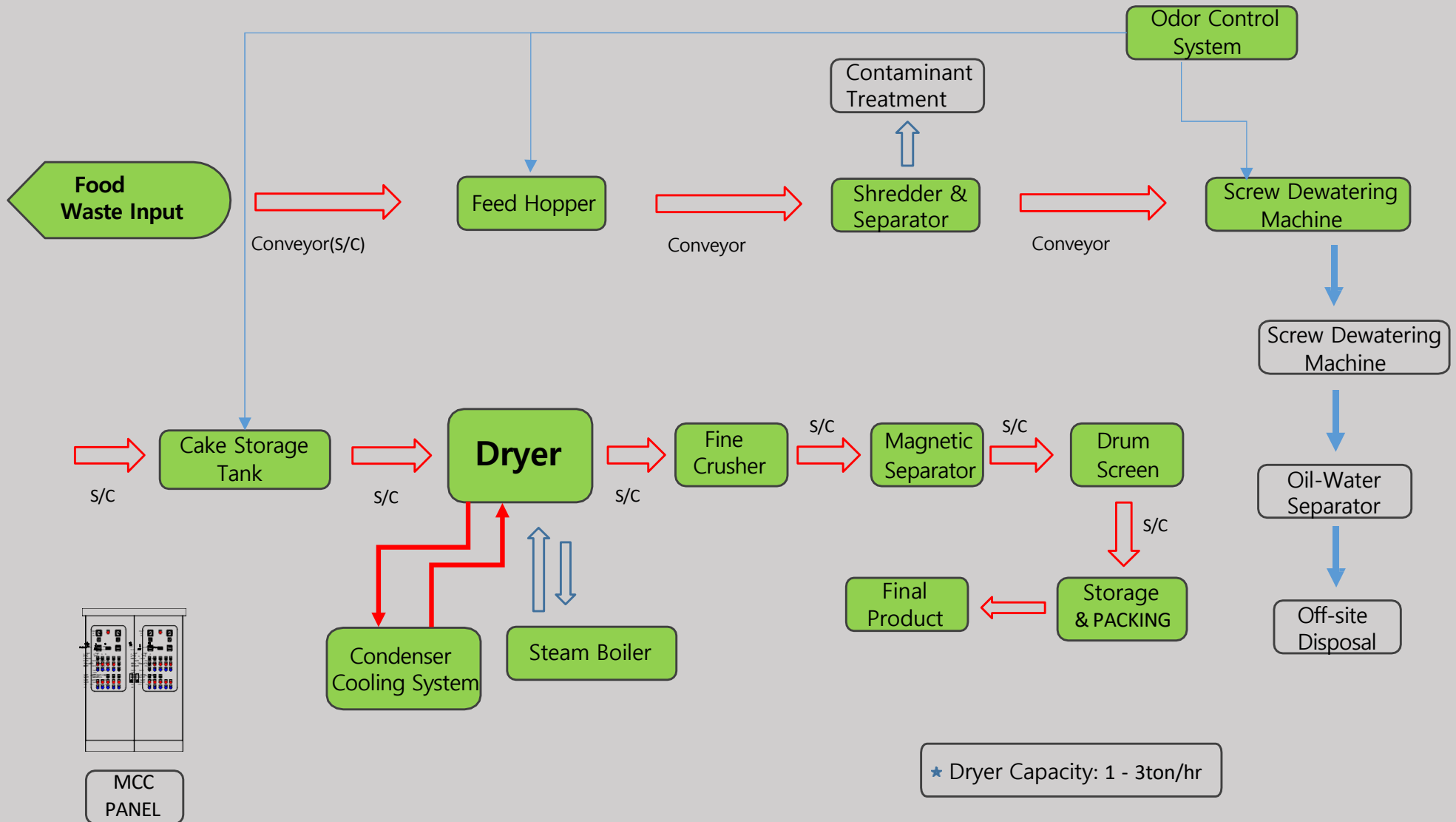
No.	Delivery Date	Client	Supplied Equipment
77	2018	코오롱환경서비스	Food Waste Treatment Facility Improvement Project (Gwacheon Resource Recovery Center)
78	2018	세창환경(성남시청)	Screw Conveyor Manufacturing & Installation
79	2018	ECOLOCAP(시카고)	Screw Dewatering Machine Manufacturing & Installation for Agricultural By-products in Illinois, USA
80	2018	그린아산	Input Hopper Improvement
81	2018	제주시청	Expansion Project of Recycling Sorting Facility at Western Landfill Site
82	2018	정문환경	Shredder & Separator Manufacturing & Installation
83	2018	삼미환경	Screw Dewatering Machine Manufacturing & Installation
84	2018	여명농장	Screw Conveyor Manufacturing & Installation
85	2018	창원시청	Food Waste Resource Recycling Facility – Shredder & Separator Manufacturing & Installation
86	2018	클린에코	Storage Hopper and Screw Conveyor Manufacturing & Installation
87	2018	장원씨앤에스	Screw Dewatering Machine Manufacturing & Installation
88	2019	대명기업	Drying Facility Installation
89	2020	철원,완도	Food Waste Treatment Plant
90	2021	EM솔루션	Manufacturing & Installation
91	2021	아크로비스타	Shredder & Separator and Conveyor Systems Manufacturing & Installation
92	2021	고바이오	Organic Resource Recycling Facility Manufacturing & Installation
93	2022	ADHI-JAYA CONSTRUKSI.KSO	Municipal Solid Waste Resource Recycling System Installation in Bantar Gebang, Indonesia
94	2022	강원도 고성군	Shredder & Separator and Salt Dissolution Tank Manufacturing & Installation
95	2023	강원도 횡성군	Ribbon Screw Mixer Dryer Renovation and Improvement Works
96	2023	인천시 옹진군 연평도	Shredder & Separator Cutter Replacement and Chain Conveyor Repair Works
97	2023	경남 거제시	Shredder & Separator Manufacturing & Installation
98	2023	강원도 홍천군	Shredder & Separator, Fine Shredder, Pulper Agitator, etc. Manufacturing & Installation
99	2023	경남 창원시	Shredder & Separator Manufacturing & Installation
100	2023	경남 창원시 팔용 농수산	Shredder & Separator and Others Manufacturing & Installation
101	2024	기림 E&A	Food Waste Treatment Facility at Raemian Samsung Yongsan – Shredder & Separator Manufacturing & Installation
102	2024	광주환경공단	Automatic Shredding & Sorting Machine and Conveyor Systems Manufacturing & Installation
103	2024	강원도 화천군	Livestock Manure Treatment Plant – Input Hopper and Discharge Conveyor Manufacturing & Installation
104	2024	경남 진주시	Food Waste Treatment Plant – Piston Pump Manufacturing & Installation
105	2024	경기도 여주시	Resource Recycling Center – Piston Pump Manufacturing & Installation



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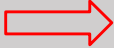
2. Food Waste Recycling Process overview

2-2. Drying Process (Food Waste, Sewage Sludge)



Food Waste Recycling Process

Hopper



Shredder & Separator



Piston Pump



Dewatering Machine



Dryer



Drum Screen



Discharge



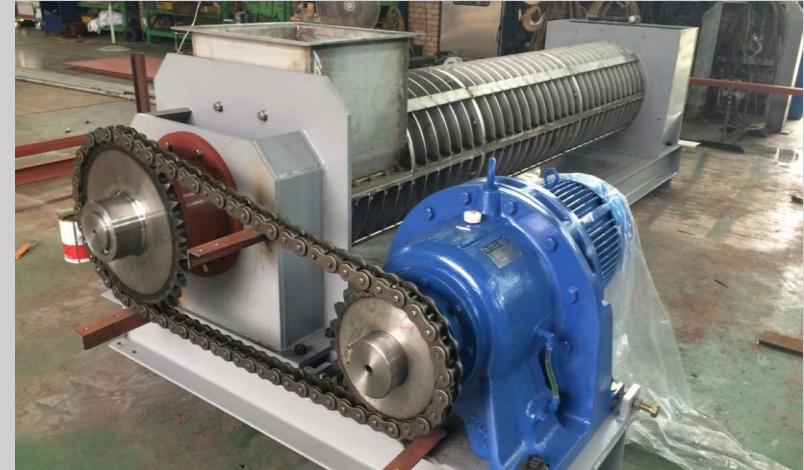
3. key products

Introduction to Key Products

Crush & Separator



Screw Dewatering Machine



Introduction to Key Products

Fine Crusher



Piston Pump



Drum Screen



Hopper



Introduction to Key Products



Inlet Hopper



Screw Conveyor



Introduction to Key Products

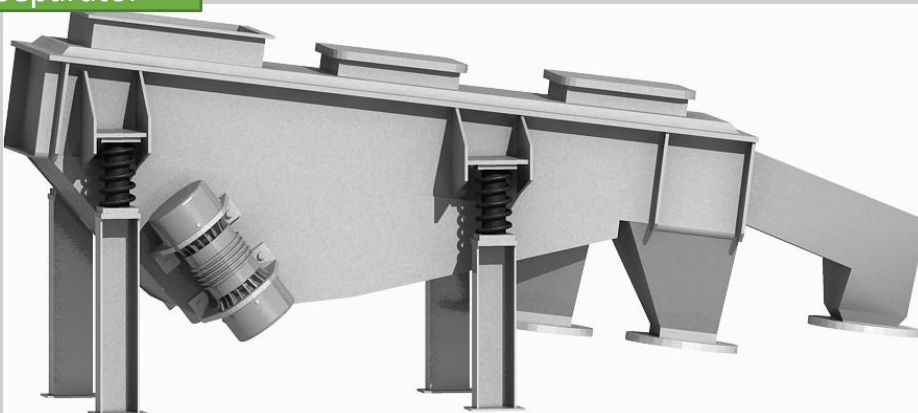
Magnetic Separator



Storage Tank



Vibrating Separator



Wet Scrubber



Introduction to Key Products



Escalator Type Agitator



Dryer

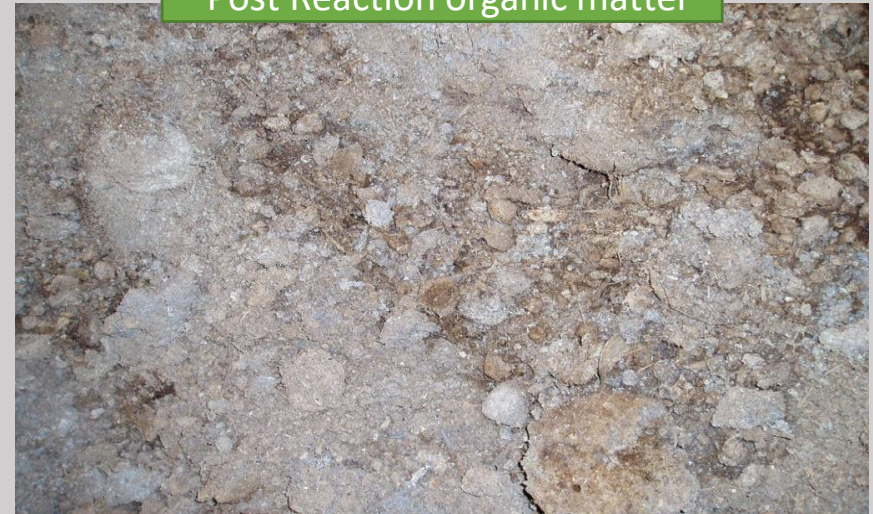


Introduction to Key Products

Lime Reaction System



Post Reaction organic matter



Post-Reaction Temperature





4. Pre-treatment Facilities

4. Detailed Overview of Pre-treatment Facilities



Feed Tank



Shredder & Separator



Screw Dewatering



Disk Dryer

Pre-Treatment Equipment : Feed Storage Tank

Feed Storage Tank Specifications

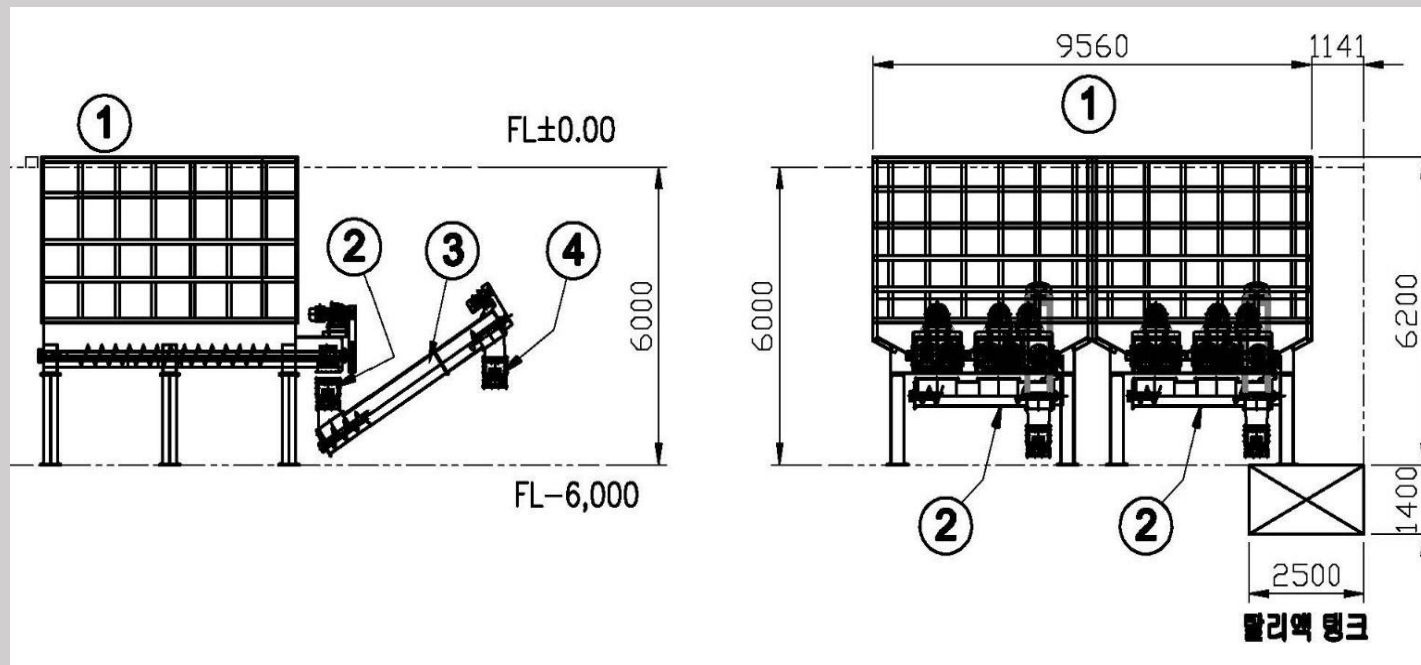
No.	Item	Description
1	Product Name	Inlet Hopper(Available for custom manufacturing depending on site conditions)
2	Capacity	100 m ³ x 2 sets
3	Type	Rectangular, Self-supporting
4	Application	Temporary storage tank for food waste, equipped with a metering conveyor at the bottom
5	Drive Type	Chan drive (Variable Speed)
6	R P M	4~5RPM (Discharge Capacity : 10m ³ /hr)
7	Material	Shaft : SS400, Body & Screw : STS304
8	Power Consumption	Max. 5.5 Kw/hr (Motor : 7.5HP, Gear Ratio 1/59)
9	Top Door	Sliding Type (Door Motor : 0.75Kw)
10	Main Components	Top Cover, Inlet, Outlet, Chain Drive Unit, Bottom Metering Conveyor, Door Motor
11	Power Supply	AC380V, 60Hz, 3-Phase

Pre-Treatment Equipment : Feed Storage Tank

Feed Storage Tank Specifications

■ Size(mm) : W4780 x H3636 x L5600

Layout



NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY
1	INLET HOPPER	100m ³	STS304	2
2	SCREW CONVEYOR	10m ³ /hr	STS304	2
3	SCREW CONVEYOR	10m ³ /hr	STS304	2
4	SCREW CONVEYOR	10m ³ /hr	STS304	1

Pre-Treatment Equipment : Feed Storage Tank

Feed Storage Tank Photo (Reference)



Pre-Treatment Equipment : Feed Storage Tank

Feed Storage Tank Features

- 1) Sliding-Type door mounted on a rack gear for safe and easy operation
- 2) Manual door operation available even in case of power failure
- 3) Dual screw discharge ensures smooth transfer without bridging
- 4) Cyclo motor provides high torque transmission
- 5) Bottom discharge line designed with R-bending to prevent sagging
- 6) Double-layer bottom frame to prevent discharge line sagging
- 7) Front discharge outlet enables metered transfer and handles bulky materials

Pre-Treatment Equipment : Shredder & Separator Overview

Shredder & Separator Overview

Food waste is generally discharged after being separated and packed in standardized food waste bags.

Food waste transported by collection vehicles may be delivered either in bags or without bags; however, in most cases, it is collected and transported while still wrapped in plastic bags.

At the food waste feed hopper, some plastic bags may be torn by the twin screws. If not, they are torn by a bag opener or a shredder.

The shredder & separator crushes the food waste into uniform particles and also performs the function of opening and tearing plastic bags.

The crushing and bag-opening process is carried out by high-speed rotation of the main rotating blades, equipped with sharp cutting tips, which crush the food waste while simultaneously tearing the plastic bags.

The crushed food waste is discharged through the lower screen, while lighter plastic bags are lifted by rotational force and discharged separately through the upper outlet.

The particle size of the crushed food waste is uniformly maintained and can be adjusted.

Since the crushed particles are discharged through the screen, the particle size is determined by the perforation size of the lower screen.

Pre-Treatment Equipment : Shredder & Separator Overview

Product Specifications

No.	Item	Description
1	Product Name	Shredder & Separator Overview
2	Model No.	CHCS-10VH
3	Processing Capacity	10 M ³ / hr
4	Processing Method	Blade Rotation Type
5	Target Material	Food Waste, Agricultural By-products, Waste Wood, etc.
6	Separation Efficiency	≥96% (May vary depending on site conditions)
7	Overall Dimensions	2,150(W)x1,500(L)x1,815(H)mm (Height may vary depending on site conditions)
8	Material	Body/Blade/Screen – SS400, Shaft – S45C, Blade Tip – SKD-11, Wheel – FC20
9	Power Consumption	MAX. 37Kw
10	Equipment Weight	4.5 ton
11	Motor Specification	50HP
12	R P M	680
13	Power Supply	AC 380 V, 60 Hz, 3-Phase
14	Main Components	Body, Inlet/Outlet Chute, Motor, Blower (2.2Kw), Contaminant Discharger(0.75Kw)

Pre-Treatment Equipment : Shredder & Separator Overview

Product Features

The shredder & separator automates both the shredding of food waste and the separation of foreign materials.

It is a highly durable system that has been widely installed and operated both domestically and overseas.

In particular, it is a proven system that has been tested and certified by an authorized testing institute.

※ Key Features

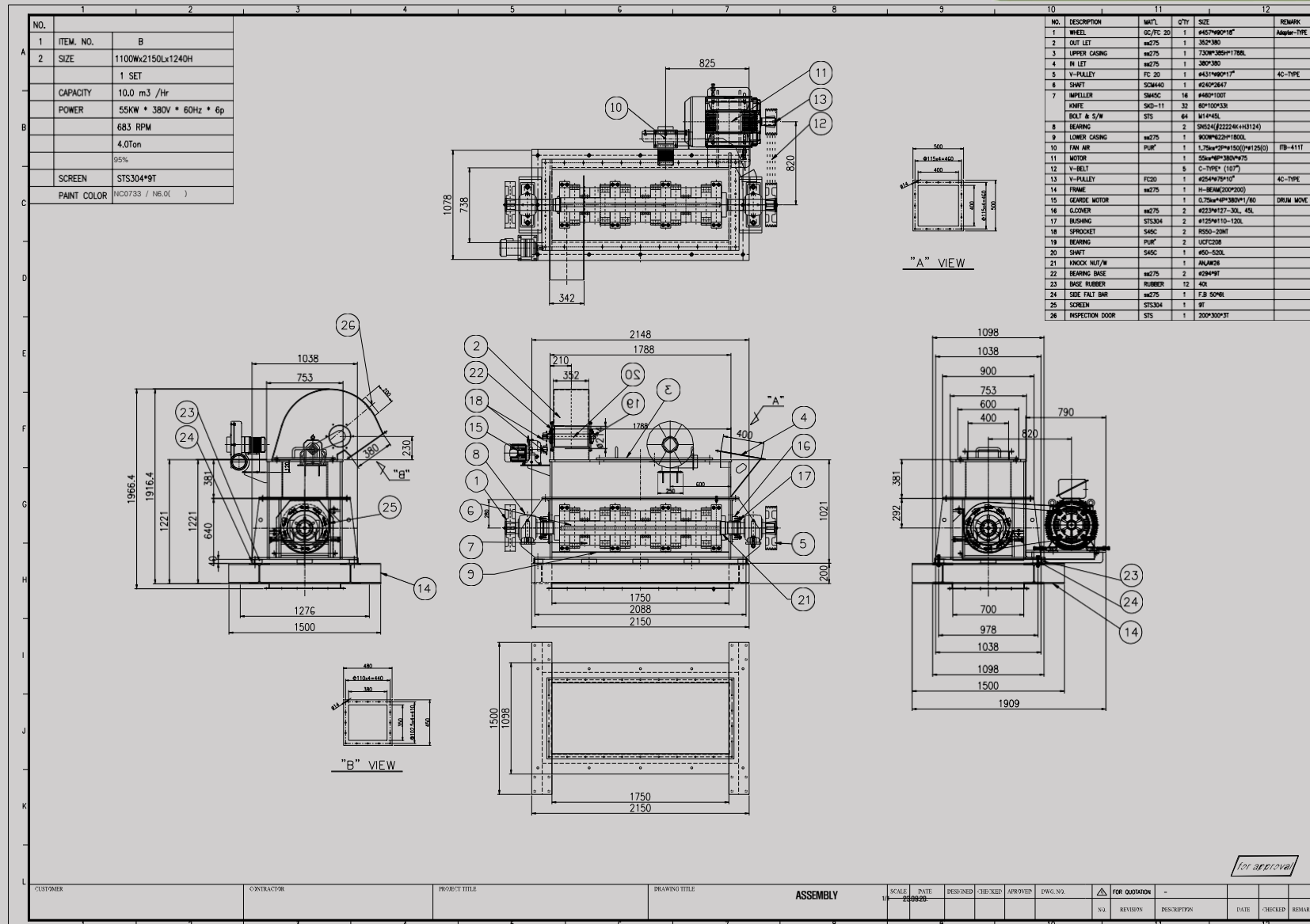
- Collected food waste can be directly fed into the inlet hopper without manual sorting
- After shredding, food waste and foreign materials are automatically separated and discharged
- Automated separation reduces manpower requirements
- Excellent performance: Particle size ≤ 10 mm (95%), Separation efficiency $\geq 95\%$, Residual foreign materials $\leq 0.3\%$

Product Function	Processing Details ■ Processing Details by Shredder & Separator Function			
	Blade & Cutter (Rotating Unit)	Lower Screen	Process Performance	Residual Foreign Materials
Food Waste Shredding	Food Waste is crushed by high-speed rotation of the blades	Crushed particles are discharged through the lower screen	Only uniformly sized food waste is processed, resulting in high efficiency	$\leq 0.3\%$ in final output
Plastic Bag Opening	Plastic bags are torn by cutting blades and high-speed spiral blades, which convey the waste forward	Downward discharge is minimized, while torn plastic is lifted by airflow and discharged through the upper outlet		

Pre-Treatment Equipment : Shredder & Separator Overview

Product General Drawing

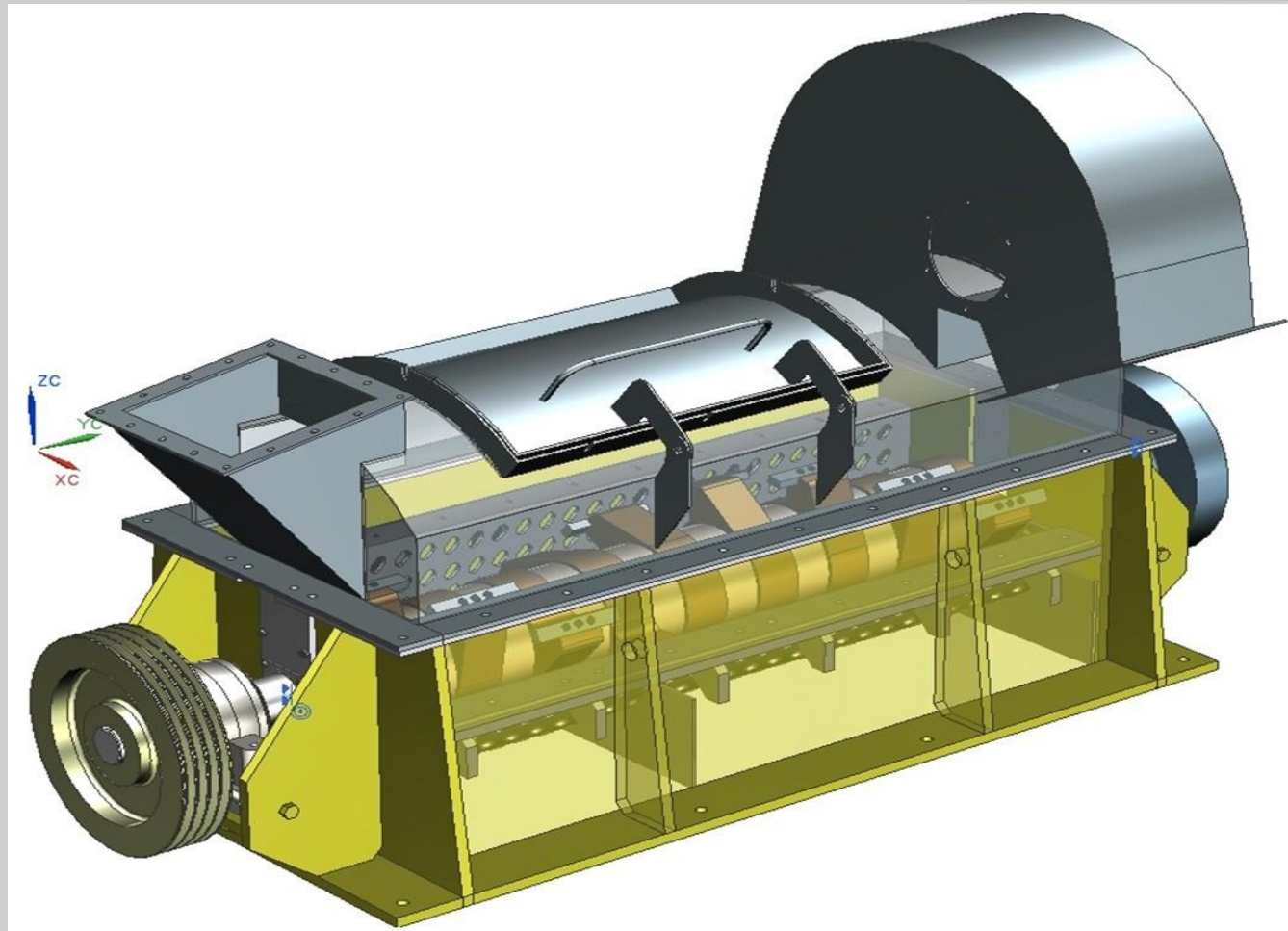
General Drawing



Pre-Treatment Equipment : Shredder & Separator Overview

Product General Drawing

3D General Drawing



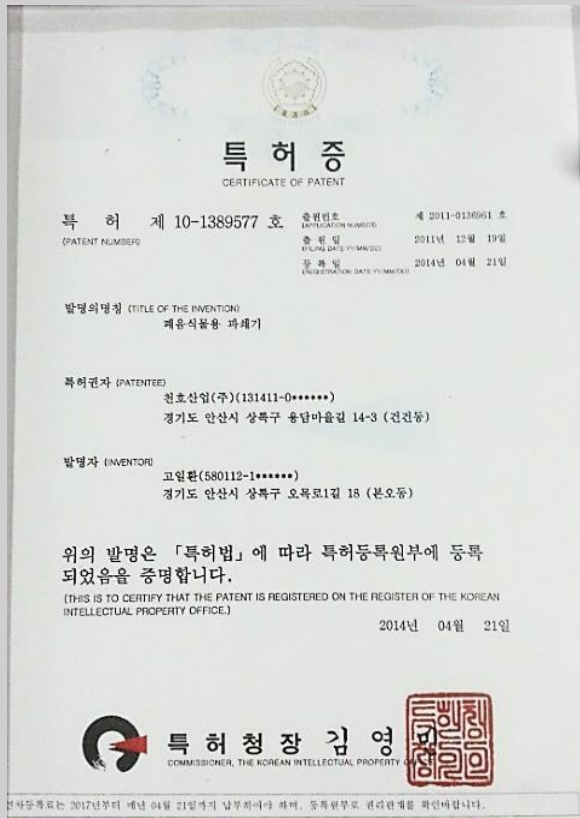
Pre-Treatment Equipment : Shredder & Separator Overview

Operating Features

- 1) Blade rotation system ensures effective separation of plastics and contaminants
- 2) Blade tips are made of die steel with vacuum heat treatment for excellent durability
- 3) Blades are designed as a single integrated unit for easy replacement
- 4) Wheels are installed to reduce load on the rotating system and motor
- 5) Drive belts are designed with 5V type to prevent slippage
- 6) A blower is installed at the contaminant outlet to enhance discharge efficiency
- 7) Top door is designed for easy maintenance
- 8) Minimal clearance between screen and blades ensures finer particle size
- 9) Block-type bearings are applied to protect the rotating system and ensure safety
- 10) Y- Δ (star-delta) starting method prevents overcurrent
- 11) Particles discharged through the screen are cut, not crushed
- 12) Knife-cut particles improve dewatering efficiency in the subsequent process
- 13) Proven performance with extensive domestic references and reliable after-sales service

Pre-Treatment Equipment : Shredder & Separator Overview

Intellectual Property



Patent (10-1389577)



Patent (10-1702855)

(3 / 3)

시험결과

제 PIS03140 - 1호

5. 시험결과

1) 처리용량, 이물질 선별량

항목	구분	시험결과	비고
처리용량		12.1 톤/시간	- 시험 자원화시설의 전 후단설비의 처리능력에 의해 선별기 용량에 미치지 못한 상태에서의 처리결과임
이물질 선별량		1,073 kg	- 83.99톤/일 이 투입되어 정상처리되는 조건에 대한 측정치임 - 작업자 1인에 의한 금속 탐색 및 이물질의 수선별량도 포함 되었음
이물질 선별율		95.1%	- 선별기 선별 이물질 종류 ○박엽류 : 52.7% ○채소상유질 : 47.4% ○갈비뼈 : 19% ○골육 : 1%
이물질 함유율		0.07%	- 과외 및 이물질선별후 처리물에 대한 미선별 이물질(금속,비닐류) 함유를 임.
과외	25<	0	
처리물	20~25	0.6 %	
입도 (mm)	10~20	16.5 %	
	<10	82.9 %	
연속처리성능		양호	

2) 최종 처리부산물의 품질

항목	구분	시험결과	참고기준	
			비표준규격	사료내 남은음식물 유해물질 허용기준
중금속 (ppm)	합수율 (%)	70.3		
	유기물 (%)	22.9		
	회분 (%)	6.8		
	밀도 (g/cm³)	0.64		
	As	0.35	50	-
	Cd	0.04	5	2.5
	Hg	ND	2	0.5
	Pb	0.5	150	20
	Cr	1.01	300	-
	Cu	2.3	300	-
Ni	1.71	50	-	
Zn	6.12	900	-	
색상		흑갈색		

3) 전기안전성능

구분	항목	절연저항(MΩ)	내 전압	접지상태
파쇄기,송풍기 모터		∞	양호	양호

Accredited Test Report(KTL)

Pre-Treatment Equipment : Shredder & Separator Overview

Major Supply References

■ Period : 2009 ~ 2024

No.	Delivery Date	Client	Project Name	Quantity	Remarks
1	2009	클린에코	Food Waste Treatment Plant	1	
2	2009	그린아산	Food Waste Treatment Plant	1	
3	2009	남해군청	Food Waste Treatment Plant	1	
4	2009	세창환경	Food Waste Treatment Plant	1	
5	2009	대송기업	Food Waste Treatment Plant	1	
6	2009	여명농장	Food Waste Treatment Plant	1	
7	2010	선영이엔씨	Food Waste Treatment Plant	2	
8	2010	세환산업	Food Waste Treatment Plant	2	
9	2010	정문환경	Food Waste Treatment Plant	2	
10	2010	고성군청	Food Waste Treatment Plant	1	
11	2011	장원 C&S	Food Waste Treatment Plant	1	
12	2011	인천광역시청	Food Waste Treatment Plant	1	
13	2011	파주시청	Food Waste Treatment Plant	2	
14	2012	새한환경기술	Food Waste Treatment Plant	3	
15	2012	삼척시청	Food Waste Treatment Plant	1	
16	2012	안산시청	Food Waste Treatment Plant	1	
17	2012	바이오에너지 개발	Food Waste Treatment Plant	1	
18	2012	신성엔지니어링	Food Waste Treatment Plant	4	

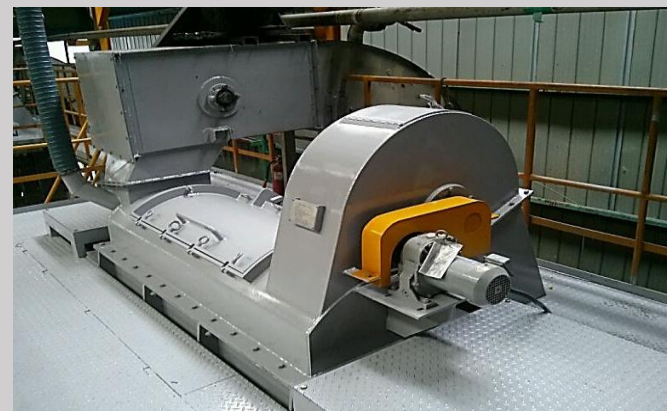
No.	Delivery Date	Client	Project Name	Quantity	Remarks
19	2013	신한기술	Food Waste Treatment Plant	1	
20	2013	대인기계공업	Food Waste Treatment Plant	1	
21	2014	이엔이텍	Food Waste Treatment Plant	1	
22	2014	정문환경	Food Waste Treatment Plant	1	
23	2015	세광산업	Food Waste Treatment Plant	2	
24	2015	동두천시청	Food Waste Treatment Plant	1	
25	2015	아이서비스	Food Waste Treatment Plant	2	
26	2016	새한환경기술	Manure Recycling Plant	1	
27	2016	대련금지환보	Food Waste Treatment Plant	1	China Export
28	2017	동부환경	Vegetable Waste Reduction Plant	1	
29	2017	KMBT	Food Waste Treatment Plant	1	USA Export
30	2017	대명기업	Food Waste Treatment Plant	2	
31	2017	연일	Food Waste Treatment Plant	1	
32	2017	가이아	Food Waste Treatment Plant	3	
33	2017	그린아산	Food Waste Treatment Plant	1	
34	2018	정문환경	Food Waste Treatment Plant	1	
35	2024	광주환경공단	광주시 음식물 자원화처리장	1	
Various other supply records (over 100 units delivered)					

Pre-Treatment Equipment : Shredder & Separator Overview

Product & Installation Photos



■ Changwon City Hall



■ Changwon City Hall

Pre-treatment Equipment Introduction : Screw Dewatering Machine

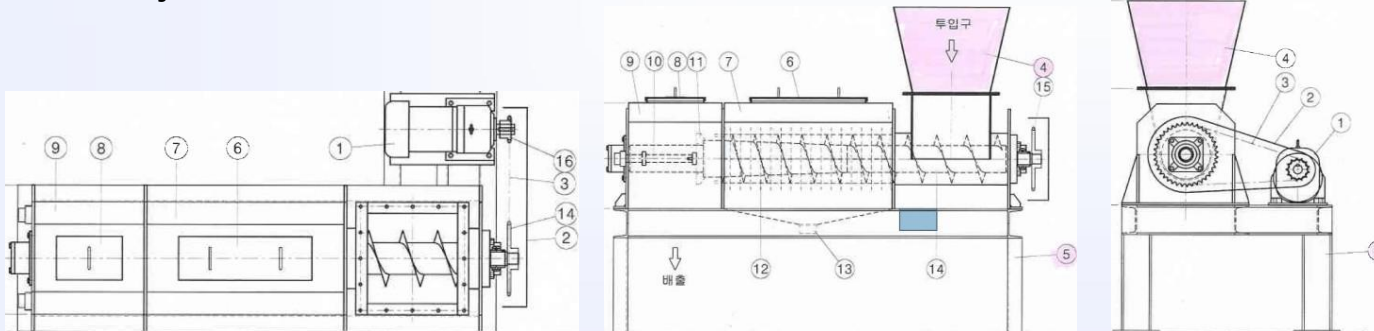
Screw Dewatering Machine Overview

- **Application** : A system that removes moisture and salinity by compressing food waste, agricultural by-products, and various sludge

Performance : Reduces moisture content from 85–90% to around 75% when processing food waste
 Reduces salinity from 2.3% to 0.36% (approx. 75% removal)

• Features & Advantages

- ▶ Dewatering function based on juicer principle
- ▶ Reduces volume by approx. 60% compared to input at 75% moisture content
- ▶ Excellent solid-liquid separation efficiency, removing over 75% of salinity during dewatering
- ▶ Low noise and low-speed operation with fewer breakdowns
- ▶ Salinity reduced from 2.3% to approx. 0.36% during food waste processing
- ▶ Easy maintenance structure



NO.	DESCRIPTION	SPEC.	MATL	QTY	REMARKS
1	GEARD MOTOR	3HP*4P*380V	BUY	1	
2	CHAIN COVER	2.3T	SS400	1	
3	CHAIN	SEE DWG	SS400	1	
4	IN LET CASE	2.0T	STS304	1	
5	FRAME	SEE DWG	SS400	1	
6	CHECKING DOOR	2.0T	STS304	1	
7	SCREEN COVER	2.0T	STS304	1	
8	CHECKING DOOR	2.0T	STS304	1	
9	OUTLET COVER	2.0T	STS304	1	
10	PRE. CONTROL SUPPORT	SEE DWG	S45C	2	
11	PRE. CONTROLLER	SEE DWG	SS400	1	
12	SCREEN (WEDGE TYPE)	SEE DWG	STS304	1	
13	WATER OUTLET	80A*100L	STS304	1	
14	CENTER SCREW	SEE DWG	STS304	1	
15	CHAIN SPRACKET	RS# 80	S45C	1	
16	CHAIN SPRACKET	RS# 80	S45C	1	

Pre-treatment Equipment Introduction : Screw Dewatering Machine

Product Specifications

No.	Item	Description
1	Product Name	Screw Dewatering Machine(Available for custom manufacturing depending on site conditions)
2	Model	CHSD-10VH
3	Capacity	7 ~ 10 m3/hr
4	Processing Method	Screw-type Press Dewatering
5	Target Material	Food Waste, Vegetables, Fruits, etc.
6	Performance	Inlet Moisture: 80%~90%, Outlet Moisture: 74%~78%
7	Overall Size	1,800W × 5,223L × 1,300H
8	Material	Body: SS400, Screw Drum & Screw: STS304, Shaft: S45C
9	Power Consumption	Max. 22 kW/hr
10	Equipment Weight	4 ton
11	Gear Reducer	Cyclo Reducer 1/87 (Motor: 30HP)
12	RPM	7.5 RPM
13	Power supply	AC380V 60Hz 3-Phase

Pre-treatment Equipment Introduction : Screw Dewatering Machine

Product Structure

The screw dewatering machine by Youngdong E&T Co., Ltd. is a horizontal rotating type. The filter drums rotate with the screw rotors to gradually increase dewatering efficiency. It consists of a rotor, drum, drive unit, discharge outlet, gearbox, and other components.

1) Screw Rotor

A horizontal conical rotor with spiral blades conveys the cake to the discharge outlet.

It rotates at low speed by a motor and reducer.

2) Filter Drum

A horizontal conical drum installed outside the rotor separates solid and liquid through a perforated screen. It is divided into two parts for easy maintenance.

3) Cone Adjustment Device

Controls the moisture content and discharge rate of the cake and is easy to operate.

4) Frame Structure

Designed for easy disassembly of all components. Parts in contact with waste are made of corrosion-resistant stainless steel.

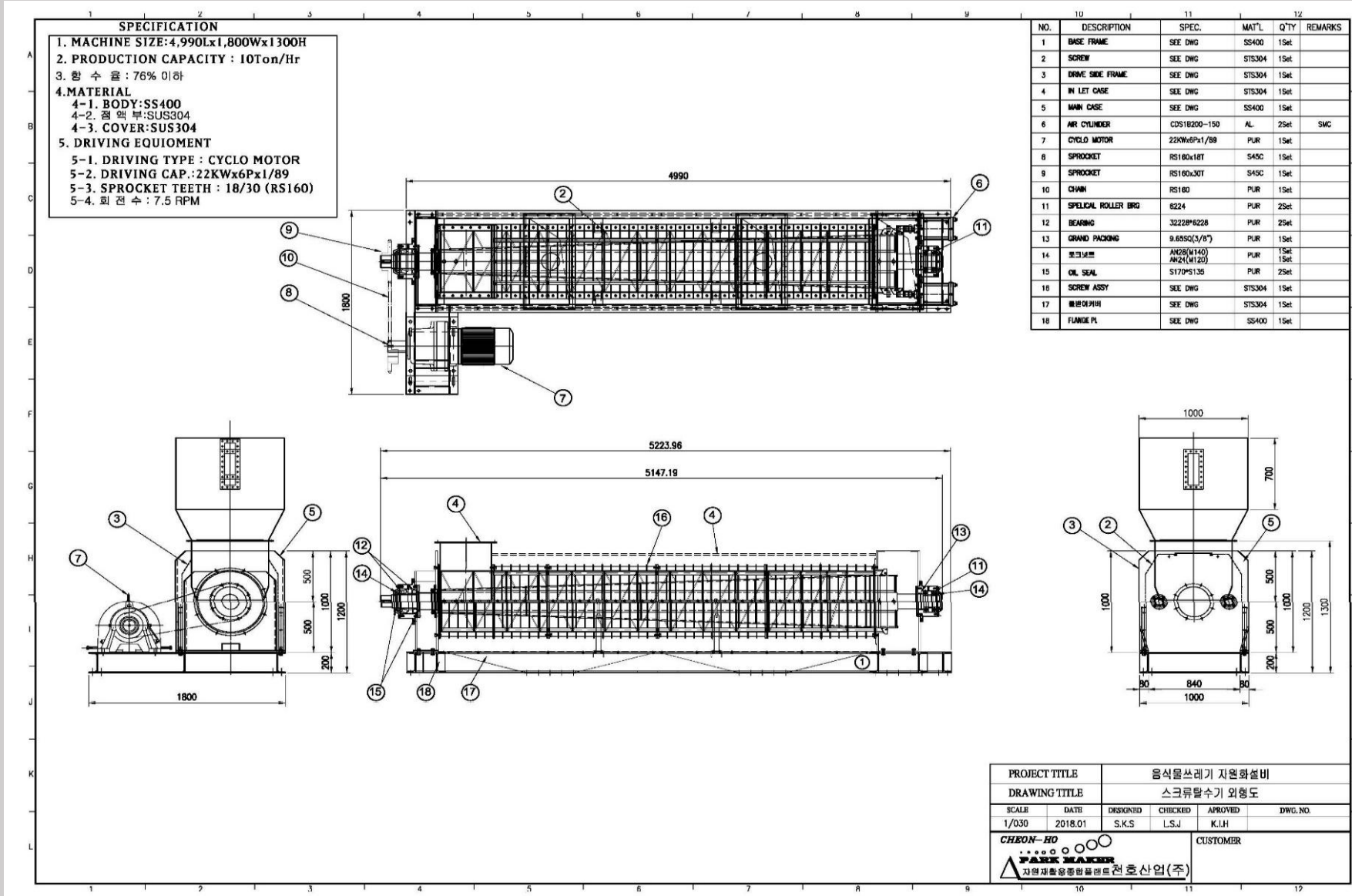
5) Drive Unit

Consists of a motor and reducer, connected via a gearbox for uniform power transmission.

Pre-treatment Equipment Introduction : Screw Dewatering Machine

Product General Drawing

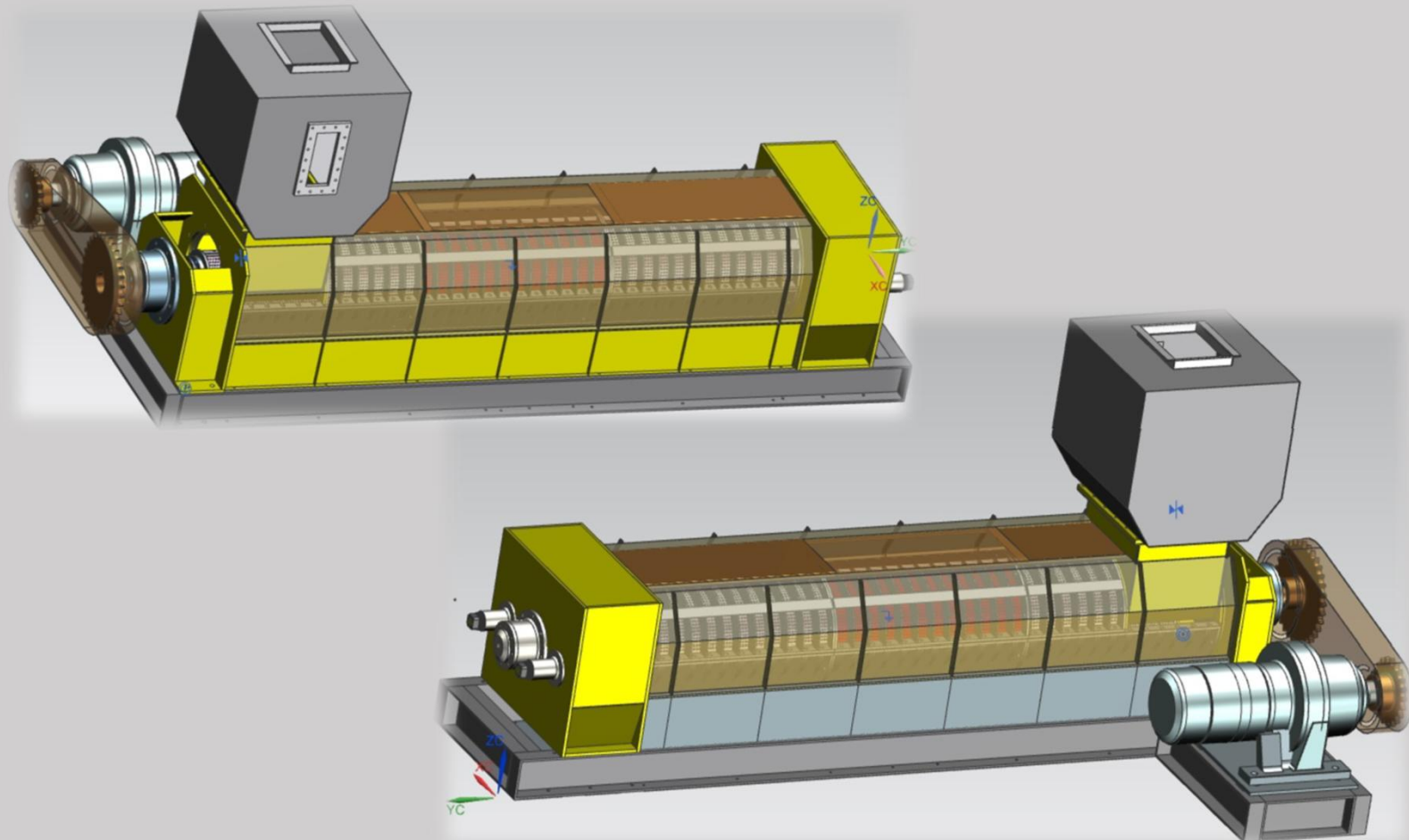
General Drawing



Pre-treatment Equipment Introduction : Screw Dewatering Machine

Product General Drawing

3D View



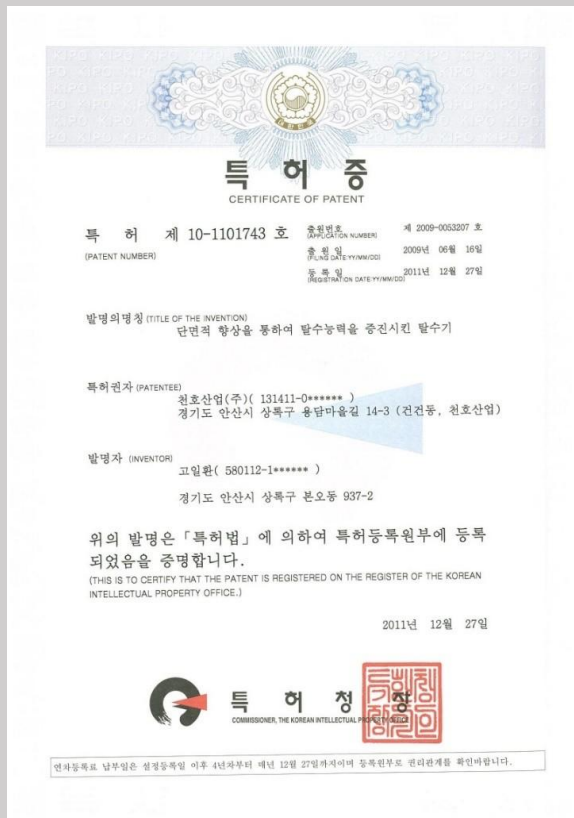
Pre-treatment Equipment Introduction : Screw Dewatering Machine

Operating Features

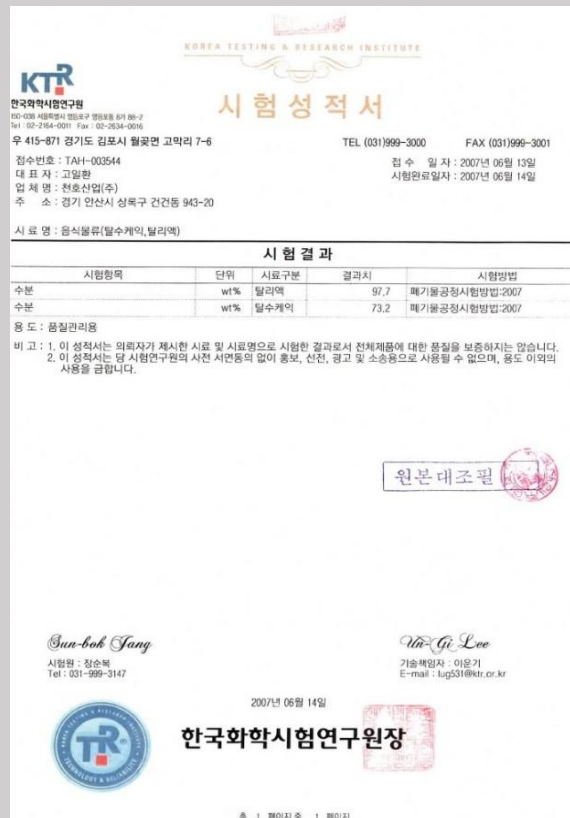
- 1) Level sensor at the inlet enables automatic feeding in conjunction with the transfer system
- 2) Variable speed drive ensures required dewatering efficiency and processing capacity under pressure
- 3) Screw flights are hard-faced with wear-resistant material to significantly improve durability
- 4) Top cover is designed as a sliding type for easy inspection
- 5) Simple structure allows easy assembly, disassembly, and maintenance
- 6) Proven performance with extensive domestic and overseas experience, ensuring stable operation and reliable after-sales service

Pre-treatment Equipment Introduction : Screw Dewatering Machine

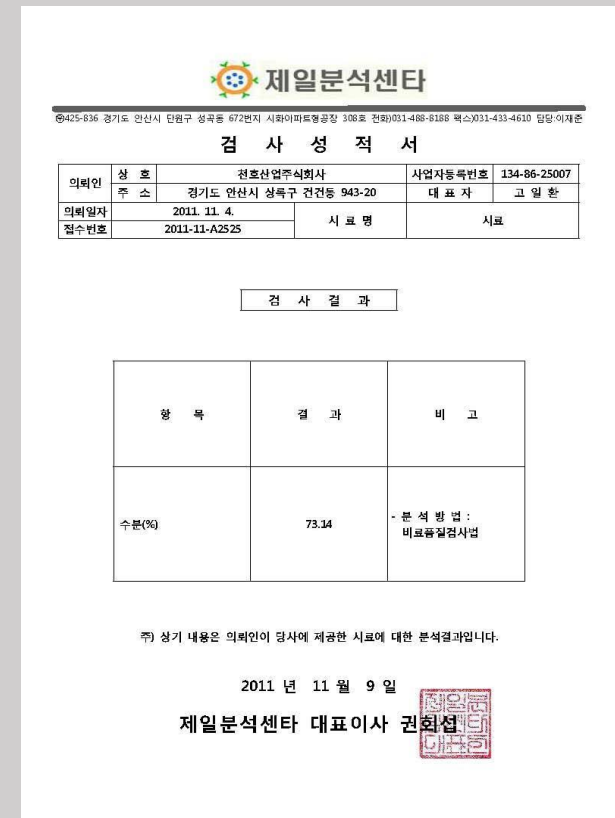
Intellectual Property



Patent(No. 10-1101743)



Certified Test Report(KTR)



Inspection Report (Jeil Analysis Center)

Pre-treatment Equipment Introduction : Screw Dewatering Machine

Major Supply References

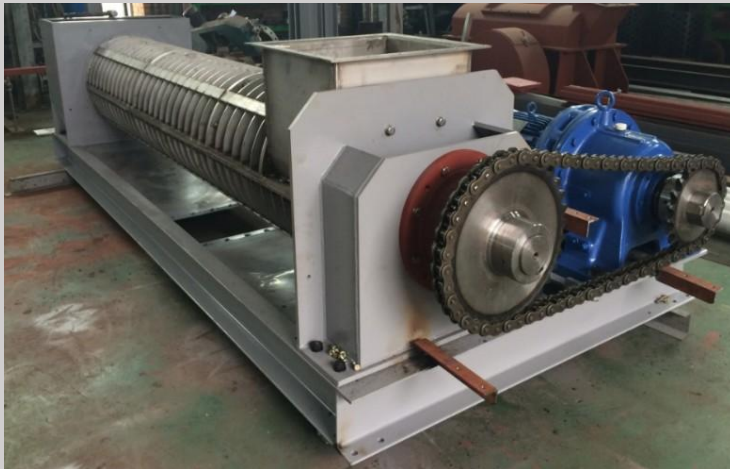
■ Period : 2009 ~ 2018

No.	Delivery Date	Client	Project Name	Quantity	Remarks	No.	Delivery Date	Client	Project Name	Quantity	Remarks
1	2009	클린에코	Food Waste Treatment Plant	2		17	2012	안산시청	Food Waste Treatment Plant	1	
2	2009	그린아산	Food Waste Treatment Plant	2		18	2013	한라산업개발	Food Waste Treatment Plant	4	
3	2009	남해군청	Food Waste Treatment Plant	1		19	2013	씨엔지테크	Food Waste Treatment Plant	3	
4	2009	세창환경	Food Waste Treatment Plant	2		20	2014	여명농장	Food Waste Treatment Plant	1	
5	2009	대송기업	Food Waste Treatment Plant	1		21	2016	대런금지환보	Food Waste Treatment Plant	1	China Export
6	2009	여명농장	Food Waste Treatment Plant	1		22	2016	푸른농장	Food Waste Treatment Plant	1	
7	2010	선영이엔씨	Food Waste Treatment Plant	2		23	2016	태현이엔지	Food Waste Treatment Plant	1	
8	2010	세환산업	Food Waste Treatment Plant	2		24	2016	동부환경	Food Waste Treatment Plant	1	
9	2010	인천광역시청	Food Waste Treatment Plant	1		25	2017	코오롱환경서비스	Food Waste Treatment Plant	1	
10	2010	광주광역시청	Food Waste Treatment Plant	1		26	2017	대야환경	Food Waste Treatment Plant	1	
11	2010	정문환경	Food Waste Treatment Plant	1		27	2017	그린아산	Food Waste Treatment Plant	1	
12	2011	장원 C&S	Food Waste Treatment Plant	2		28	2018	ECOLOCAP	Food Waste Treatment Plant	1	USA Export
13	2011	인천광역시청	Food Waste Treatment Plant	1		28	2018	삼미환경	Food Waste Treatment Plant	1	
14	2011	NC 부산	Food Waste Treatment Plant	1		30	2018	여명농장	Food Waste Treatment Plant	1	
15	2012	새한환경기술	Food Waste Treatment Plant	3		Various other supply records (over 100 units delivered)					
16	2012	동해시청	Food Waste Treatment Plant	1							

Pre-treatment Equipment Introduction : Screw Dewatering Machine

Product Photos

Internal View (Overall)



Internal View (Screen)



Completed Product Photo



Completed Product Photo



Pre-treatment Equipment Introduction : Screw Dewatering Machine

Installation Photos



Drying Equipment: Disc Dryer

Disc Dryer Overview

- **Application** : A system that dries moisture in food waste, agricultural by-products, and various sludge to produce feed, compost, and reusable resources
- **Performance**: Reduces moisture content from 75–85% to below 15% when processing food waste
- **Features & Advantages**
 - ▶ Large heat transfer area improves drying efficiency (over 95%) with low noise and low-speed operation
 - ▶ Distributed load ensures high durability and excellent conveying and mixing by discs
 - ▶ Indirect heating method enables efficient moisture evaporation at high temperature and allows load control with linked systems
 - ▶ Target moisture content can be controlled by adjusting steam supply and rotation speed. Widely applied worldwide.

Drying Equipment: Disc Dryer

Product Name

No.	Item	Description
1	Product Name	Disc Dryer
2	Model	YDDD-3TH
3	Capacity	3 ton/hr
4	Processing Method	Steam Drying
5	Target Material	Food Waste, Vegetables, Fruits, etc.
6	Performance	Inlet Moisture: 75%~85%, Outlet Moisture: 10%~15%
7	Overall Size	∅2,200 × 9,500L
8	Material	Shell: SS400, Shaft: SS400, Disc: STS410
9	Power Consumption	Max. 90 kW/hr
10	Equipment Weight	67 ton
11	Gear Reducer	Cyclo Reducer 6P × 1/80 (Motor: 120HP)
12	RPM	3 RPM
13	Power Supply	AC380V 60Hz 3-Phase

Drying Equipment: Disc Dryer

Product Structure

The disc dryer is a horizontal rotating type. As the rotating shaft turns, steam is supplied to the discs, and drying is achieved by steam heat. It consists of a shell, jacket, drive unit, discs, disc shaft, discharge outlet, and other components.

1) SHEEL

Forms the main body of the dryer

2) Jacket

Covers the entire shell and circulates steam to supply heat

3) Disc

Multiple discs are installed inside the body, with steam supplied and circulated within the discs

4) Disc Shaft & Discharge Outlet

Fixes the discs and serves as a piping path for steam supply
Discharges dried waste and is sealed with a safety locking device during operation

5) Drive Unit

Consists of a motor and reducer, and is safely driven by a chain system

Drying Equipment: Disc Dryer

Product Photos

■ Internal View(Disc, Shaft)



■ External View(Body)



■ Installation Photos



■ Installation Photos



Food Waste Drying Process - Material

■ Input Waste



■ Shredded Material



■ Dewatered Cake



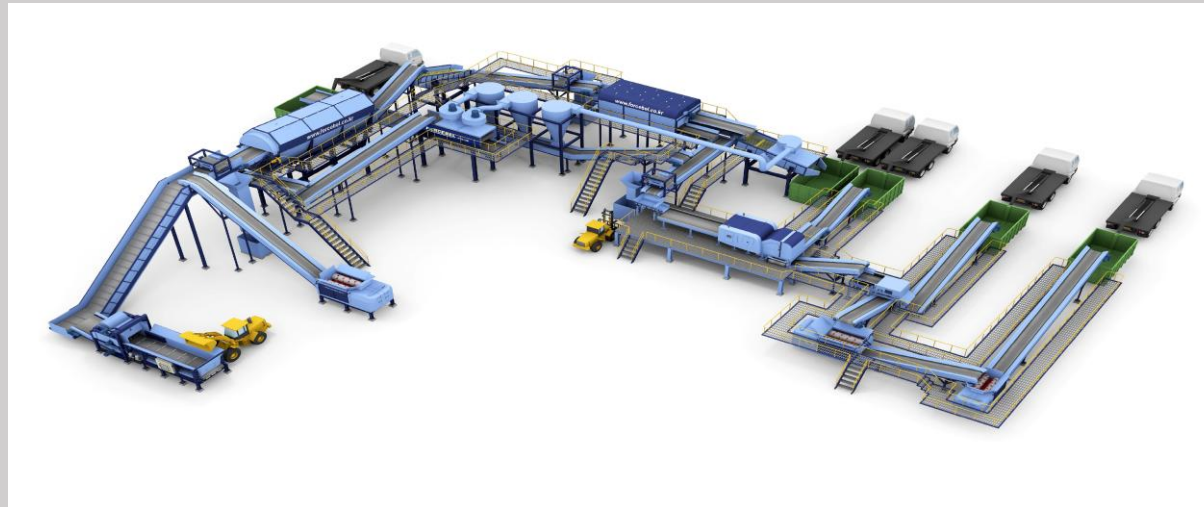
■ Dried Product Discharge





5. MSW (Municipal Solid Waste)

5. Municipal Solid Waste Recycled System



1 Reducing Landfill Wastes

YD system is a waste pre-treatment facility so this can reduce landfill wastes up to 60%

2 Increasing Recycling Ratio

By collecting recycling materials, YD system can maximize the recycling ratio

3 Waste to Energy

Sorted combustibles can be converted to RDFs and they can be used as waste fuel in many plants.

5-1. Municipal Solid Waste Recycled System Overview



- **Object : MSWs**
- **System Component : YD system (500 t/d)**
- **Capacity of System : 500 t/d (about 0.3 t/m³ Specific gravity)**
- **System Area : 4,000m² (MT 4,000m²)**
- **Operation Hours : 16 hours/day (8hr/shift, 2shift/day)**
- **Power Consumption : 400 kw (MT 2 line)**
- **Operational Manpower : Total 50 people (24 people/shift)**
- **Final Product Application :**
 1. Non-combustible
 2. Recycling material (Sale)
 3. Combustible (If required, RDF, additional equipment needed.)
 4. Organic materials (If required, Composting, additional equipment needed.)

5-2 Indonesia Bantar Gebang Project

Indonesia is the second largest plastic emitter in the world.

However, in recent years, the authorities have been seriously aware of environmental issues Restoring conventional landfills has begun to implement projects to turn solid waste into resources.

Young dong actively supported its own technology and contributed to winning the project

We received a number of orders for related facilities, including engineering and design for the entire facility.

In addition, a proposal for the next contract is in progress

We have received suggestions from various neighboring countries and are under consideration.

5-2-1 Project Objectives

MSW

- ① Drying of organic waste (including food waste)
 - Landfill disposal
 - Incineration

LFW

- ① Restoration of municipal solid waste landfill sites
 - Land securing → Development of infrastructure (APT) and industrial sites
- ② Refining and drying of MSW to produce fuel → Used as fuel in cement manufacturing process.
- ③ After drying, part of MSW is incinerated or landfilled

Target Drying Capacity

- ◆ Operating Time: : 15 hours/day → 1,000 ton/day
- ◆ Moisture Reduction per Day : 20% (Water)
- ◆ Volume Reduction per Day : 50% (Size)

5-2-2 Contract Item (MSW)

Item No	Item Name	Contract Q'ty	Item No	Item Name	Contract Q'ty
M-001	Inlet Hopper	2	M-027	In-Combustible Outlet Conveyor-2	1
M-002	Feed Controller	2	M-028	Organic Outlet Conveyor	1
M-003	Manual Screening	2	M-029	Organic Feed Conveyor	1
M-004	Container for Objections	18	M-030	Organic Lifter	1
M-005	Separator Conveyor	2	M-031	Walk Way-1(For Organic Lifter)	1
M-006	Over Bridge	2	M-032	Organic Storage	3
M-007	Magnetic Separator	2	M-033	Bay Load Adjuster	1
M-008	1st Shredder Inlet Conveyor	2	M-034	Walk Way-2(For Bay Load Adjuster)	1
M-009	1st Shredder	2	M-035	Escalator Module	3
M-010	1st Shredder Outlet Conveyor	2	M-036	Air Blower & Piping	18
M-011	Trommel	2	M-037	Organic Outlet Hopper	1
M-012	Trommel Outlet Conveyor	2	M-038	Organic Outlet Conveyor	1
M-013	In-Combustible Screening	2	M-039	Connecting Conveyor	1
M-014	Screening Outlet Conveyor	1	M-040	Dryer Inlet Conveyor	1
M-015	Drying Conveyor	1	M-041	MSW Kiln Dryer	1
M-016	2nd Shredder Inlet Conveyor	1	M-042	Fuel Inlet Hopper	1
M-017	2nd Shredder	1	M-043	Incinerator	1
M-018	2nd Shredder Outlet Conveyor	1	M-045	Temp. Mixer	1
M-019	Kiln Outlet Conveyor	1	M-047	Dry Scrubber	1
M-020	Eddy Current Separator	2	M-048	Bag Filter	1
M-021	Container for Ferrous/Nonferrous Metal	4	M-049	Venturi	1
M-022	2-Way Damper	2	M-050	Scrubber	1
M-023	RDF Container for Incinerator	2	M-051	I.D Fan	1
M-024	Outlet Weighing Scale	2	M-052	Stack	1
M-025	RDF Outlet Conveyor	4	M-053	Incinerator RDF Inlet Air Conveyor	2
M-026	In-Combustible Outlet Conveyor-1	1	M-054	Air Compressor & Piping	1

5-2-3. Contract Item (LFW)

Item No	Item Name	Contract Q'ty	Item No	Item Name	Contract Q'ty
M-101	Inlet Hopper	4	M-119	2nd Shredder Outlet Conveyor-1	2
M-102	Inlet Conveyor	2	M-121	Dryer Inlet Hopper	2
M-103	Feed Controller	2	M-122	Kiln Dryer	2
M-104	Air Blower	24	M-124	Trommel Inlet Conveyor-1	1
M-105	Trommel	2	M-125-1	Trommel Inlet Conveyor-2	1
M-106	Screening Inlet Conveyor-1	1	M-125-2	Trommel Inlet Conveyor-3	1
M-107	Screening Inlet Conveyor-2	1			
M-108	In-Combustible Screening	2			
M-109	Screening Outlet Conveyor	2			
M-110	Magnetic Separator	1			
M-111	Magnetic Separator	1			
M-112	1st Shredder	2			
M-113	Humus Outlet Conveyor	1			
M-114	In-Combustible Outlet Conveyor-1	1			
M-115A	In-Combustible Outlet Conveyor-2	1			
M-115B	Kiln Inlet Conveyor	1			
M-116	Kiln Inlet Conveyor	1			
M-117	Kiln Outlet Conveyor	2			
M-118	2nd Shredder	2			

5-2-4. Youngdong's Business Scope

- 1) Full design and engineering (civil, architectural, mechanical, control) including all related documentation.
- 2) Complete manufacturing and supply (FOB Busan Port) and outsourcing management for local production in Indonesia.
- 3) Process and quality control for all products, including on-site inspection of subcontractors
- 4) Dispatch of supervisors for on-site installation
(Civil, architectural, and mechanical installation carried out in Indonesia)
- 5) Provision of labor costs and related expenses for on-site installation
(Round-trip airfare, accommodation, and meals provided)
- 6) Provision of basic tools for on-site installation
(Equipment supplied locally in Indonesia))
- 7) Training provided through commissioning and mass production stages

5-2-5. Target Throughput

Target Throughput



Daily Throughput : 2000 ton

Input moisture rate : 55%

Output moisture rate : 20%



Overall Installation Layout





MSW Process Flow Diagram



Truck Weighing



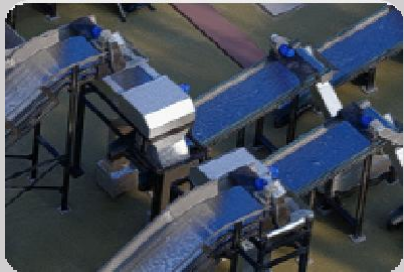
Unloading at Bunker



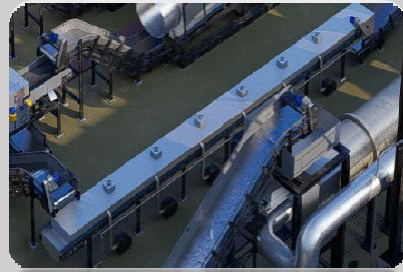
Manual Sorting and
Magnetic Separator



Primary Shredder



Eddy Current Separator



Drying Conveyor



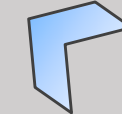
Sun Dry Bay - I



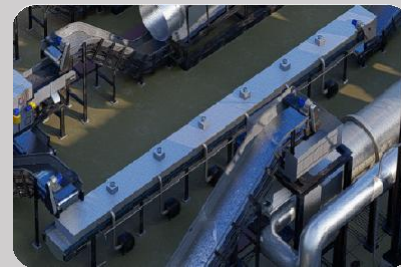
Trommel



RDF Product



Secondary Shredder



Drying Conveyor



In combustible Screen





1. MSW Work Sequence(Unloading at Bunker)



Unloading at Bunker



On-site Installation Status

Weight : 0.6

Moisture : 55%

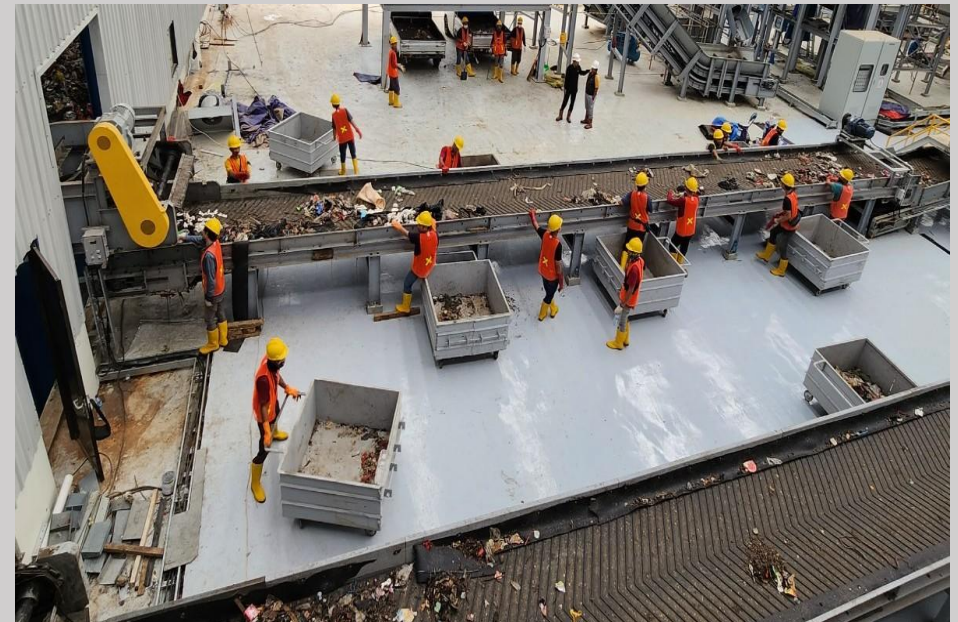
► Collected materials are transported by truck and stored in a bunker.



2. MSW Operation Sequence (Manual Sorting and Magnetic Separator)



Manual Sorting and Magnetic Separator



On-site Installation Status

Weight : 0.6

Moisture : 55%

- ▶ The magnetic separator removes ferrous metals before the material reaches the first shredder to protect the blades, with a capacity of 35 tons per hour.



3. MSW Operation Sequence (Primary Shredder)



Primary Shredder



On-site Installation Status

Weight : 0.6

Moisture : 55%

- ▶ A powerful 500 HP shredder processes material from the magnetic separator, reducing it to a target size of 120 mm.



4. MSW Operation Sequence (Trommel)



Trommel



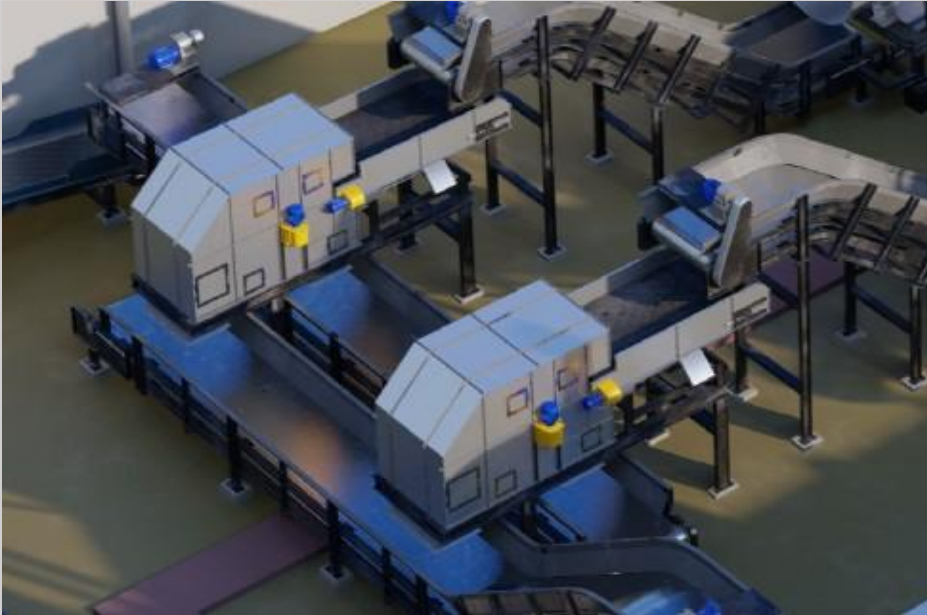
On-site Installation Status

Weight : 0.4

Moisture : 35%

- ▶ It separates materials into combustible and non-combustible fractions.
- ▶ The trommel is designed with openings that allow non-organic materials to pass through.

5. MSW Operation Sequence (Incombustible Screen)



In combustible Screen



On-site Installation Status

Bulk Density(Weight) : 0.3

Moisture : 30%

- ▶ This equipment uses powerful air blowing to separate incoming materials into light combustible fractions and heavy non-combustible waste.
(Light materials are discharged through the rear chute, while heavy materials are discharged through the front chute.)



6. MSW Operation Sequence (Sun Dry Bay I)



Sun Dry Bay - I



On-site Installation Status

Weight : 0.3

Moisture : 30%

- ▶ Blowers installed on the bay floor evaporate moisture, while a canopy prevents rain and allows sunlight to assist the drying process during retention time.

7. MSW Operation Sequence(Drying Conveyor)



Drying Conveyor



On-site Installation Status

Weight : 0.25

Moisture : 20%

- ▶ A hot air drying system dries combustible plastics as they move along the conveyor belt.



8. MSW Operation Sequence(Secondary Shredder)



Secondary Shredder



On-site Installation Status

Weight : 0.25

Moisture : 20%

- ▶ Combustible materials collected from the MSW process are shredded to a target size of 50 × 50 mm before applying the eddy current separator.

9. MSW Operation Sequence(Eddy Current Separator)



Eddy Current Separator



On-site Installation Status

Weight : 0.25

Moisture : 20%

- ▶ Separates small-sized non-ferrous metals, such as aluminum, from dried combustible materials.



LFW Process Flow Diagram



Truck Weighing



Unloading at Sun Dry Bay - II



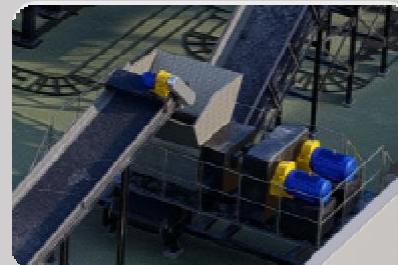
Trommel



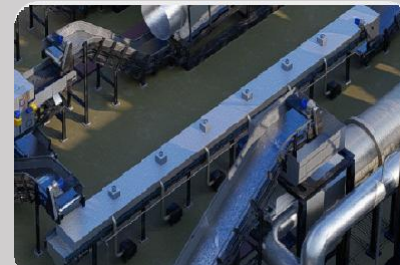
Incombustible Screen



Magnetic Separator



Primary Shredder



Drying Conveyor



Secondary Shredder



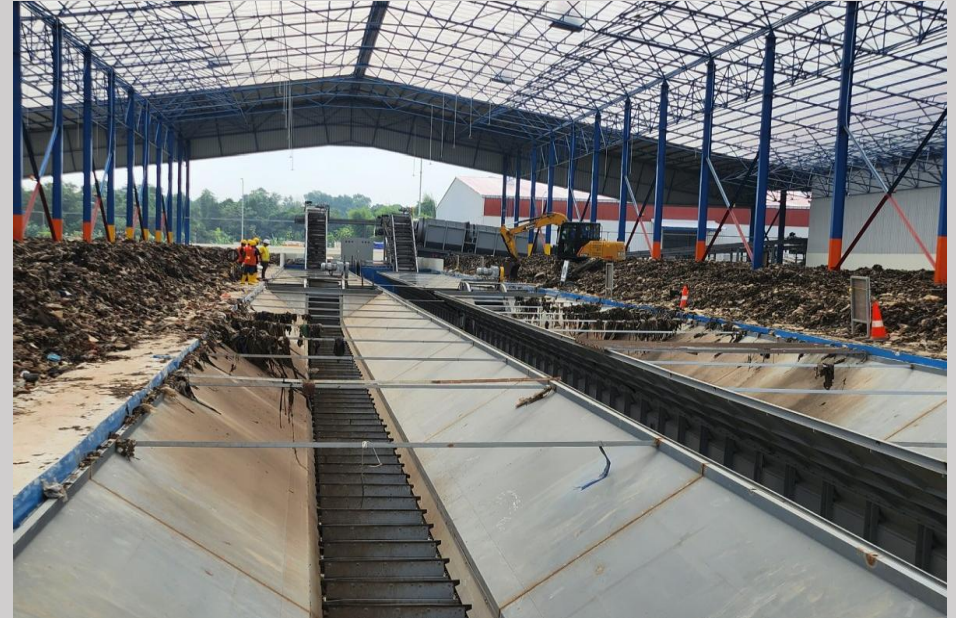
RDF Product



1. LFW Operation Sequence(Unloading at Sun Dry Bay II)



Unloading at Sun Dry Bay - II



On-site Installation Status

Weight : 1.29

Moisture : 28%

- ▶ Materials delivered by truck are spread on the ground, where they are mixed and naturally dried by sunlight and air blown through floor grooves.

2. LFW Operation Sequence(Trommel)



Trommel



On-site Installation Status

Weight : 1.29

Moisture : 28%

- ▶ It separates materials into combustible and non-combustible materials.
The trommel is designed with openings that allow non-organic materials to pass through.



3. LFW Operation Sequence(In combustible Screen)



In combustible Screen



On-site Installation Status

Weight : 0.9

Moisture : 27%

- ▶ This equipment uses powerful air blowing to separate incoming materials into light combustible materials and heavy non-combustible waste. (Light materials are discharged through the rear chute, while heavy materials fall and are discharged through the front chute.)

4. LFW Operation Sequence(Magnetic Separator)



Magnetic Separator



On-site Installation Status

Weight : 0.9

Moisture : 27%

- ▶ separates ferrous metals from the material.



5. LFW Operation Sequence(Primary Shredder)



Primary Shredder



On-site Installation Status

Weight : 0.5

Moisture : 26%

- ▶ A powerful 500 HP shredder reduces material from the magnetic separator to a target size of 120 mm.

6. LFW Operation Sequence(Drying Conveyor)



Drying Conveyor



On-site Installation Status

Weight : 0.25

Moisture : 20%

- ▶ A hot air drying system dries combustible plastics as they move along the conveyor belt.

7. LFW Operation Sequence(Secondary Shredder)



Secondary Shredder



On-site Installation Status

Weight : 0.25

Moisture : 20%

- ▶ Combustible materials collected from the MSW process are shredded to a target size of 50 × 50 mm before applying the eddy current separator.

Thank you.

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