

FOOD WASTE FERMENTATION & DECOMPOSITION MACHINE

ECO CLEAN



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Smelly food waste is not waste any more,
but a valuable resource.

 **Wooram Co.,Ltd.**

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 **Wooram Co.,Ltd.**



Recycling to Keep Earth Clean

Wooram Is Continuously Making Every Effort to Be One of the Top Environmental Service Companies.

HISTORY

- Apr. 2001 Established Jeonhu ISB Co. (1118-106, Bangchon-dong, Dong-gu, Daegu, Korea).
- Apr. 2008 Changed Jeonhu ISB Co. to a corporation, and moved to 123-2, Seonhwa-ri, Jinryang-eup, Gyeongsan, Gyeongsangbuk-do, Korea.
- Dec. 2014 Expanded business and added business items (Manufacturing and export & import of microorganism & food waste decomposing machines).
- Apr. 2015 Changed the company name to Wooram Co., Ltd., and company address to 59-11, Songnae-ri, Namsan-myeon, Gyeongsan, Gyeongsangbuk-do, Korea.
- Apr. 2015 Registered the manufacturing business of measuring instruments.
- July. 2015 Registered the factory.
- July. 2015 Launched Eco Clean (WR-70 / WR-50) products.
- Oct. 2015 Achieved ISO9001 Certification.
- Nov. 2015 Launched Eco Clean (WR-150 / WR-100) products.
- Dec. 2015 Established an auxiliary research center.
- Feb. 2016 Launched Eco Clean (WR-150 / WR-100) products.

Having begun as a company specializing in an environmental business with CSO treatment facilities and corrosion inhibition equipments for various pipes in the water treatment field, Wooram has been devoted to developing and producing a wide range of equipments used to decompose food waste. Focusing on environmental protection under a motto of "Keep Earth Clean," we at Wooram have aimed to ferment and decompose food waste using microorganism. in order to recycle food waste resources by producing high quality organic fuels. Our own research center established to achieve these goals has researched a variety of microorganisms with more effects. In addition, Wooram is making more efforts to provide customers with more amazing impression beyond satisfaction, aiming to be the top company specializing in environment.

- WR - 70
- WR - 100



Canopy-loading type

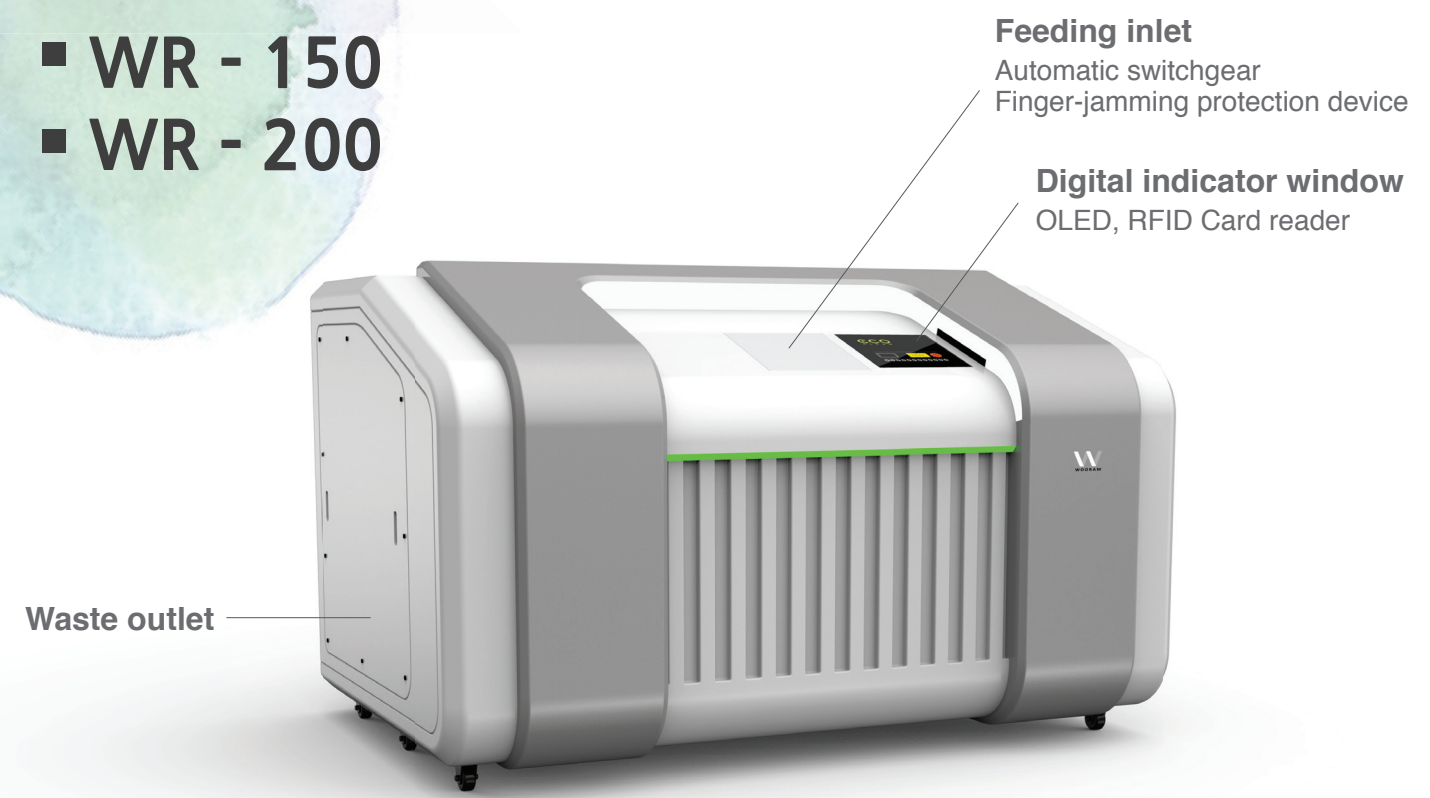
■ System Specifications

Model	WR-70	WR-100
material	SUS & STEEL	SUS & STEEL
Input Process	RFID card and Password	RFID card and Password
standard	1.8M(L)×1.3M(W)×1.2M(H)	2M(L)×1.8M(W)×1.2M(H)
weight	800kg	1000kg
Treatment Capacity	70kg/day	100kg/day
Treatment Process	Fermentation & decomposition using microorganism	Fermentation & decomposition using microorganism
Data transfer method	WCDMA	WCDMA
Power Consumption	20kw / Less than a day	35kw / Less than a day

※ The above specifications are based on general food waste, and thus their feeding and decomposing capacities vary depending on the type of food waste.

※ The product design is subject to change without prior notice for quality improvement.

- WR - 150
- WR - 200



Canopy-loading type

■ System Specifications

Model	WR-150	WR-200
material	SUS & STEEL	SUS & STEEL
Input Process	RFID card and Password	RFID card and Password
standard	2.3M(L)×1.8M(W)×1.2M(H)	2.7M(L)×1.8M(W)×1.2M(H)
weight	1300kg	1600kg
Treatment Capacity	150kg/day	200kg/day
Treatment Process	Fermentation & decomposition using microorganism	Fermentation & decomposition using microorganism
Data transfer method	WCDMA	WCDMA
Power Consumption	50kw / Less than a day	75kw / Less than a day

※ The above specifications are based on general food waste, and thus their feeding and decomposing capacities vary depending on the type of food waste.

※ The product design is subject to change without prior notice for quality improvement.

RFID Fermentation & Decomposition Machine Features a Simpler Structure, Less Noise and More Convenience.

How to use RFID

1

Touch Card

1. Touch your RFID card to the "Touch Card" window

2 3 4 5

or enter your registered password.

2

Feeding Inlet Open

2. A word appears in the left window and hence the feeding inlet is opened automatically.

3

3. Feed food waste into the inlet after it is fully opened.

4

Close

4. Press the "Close" button

Touch Card

or touch your RFID card to the "Touch Card" window.

5

Feeding Inlet Close

5. A word appears in the left window, and the feeding inlet is closed automatically.

6

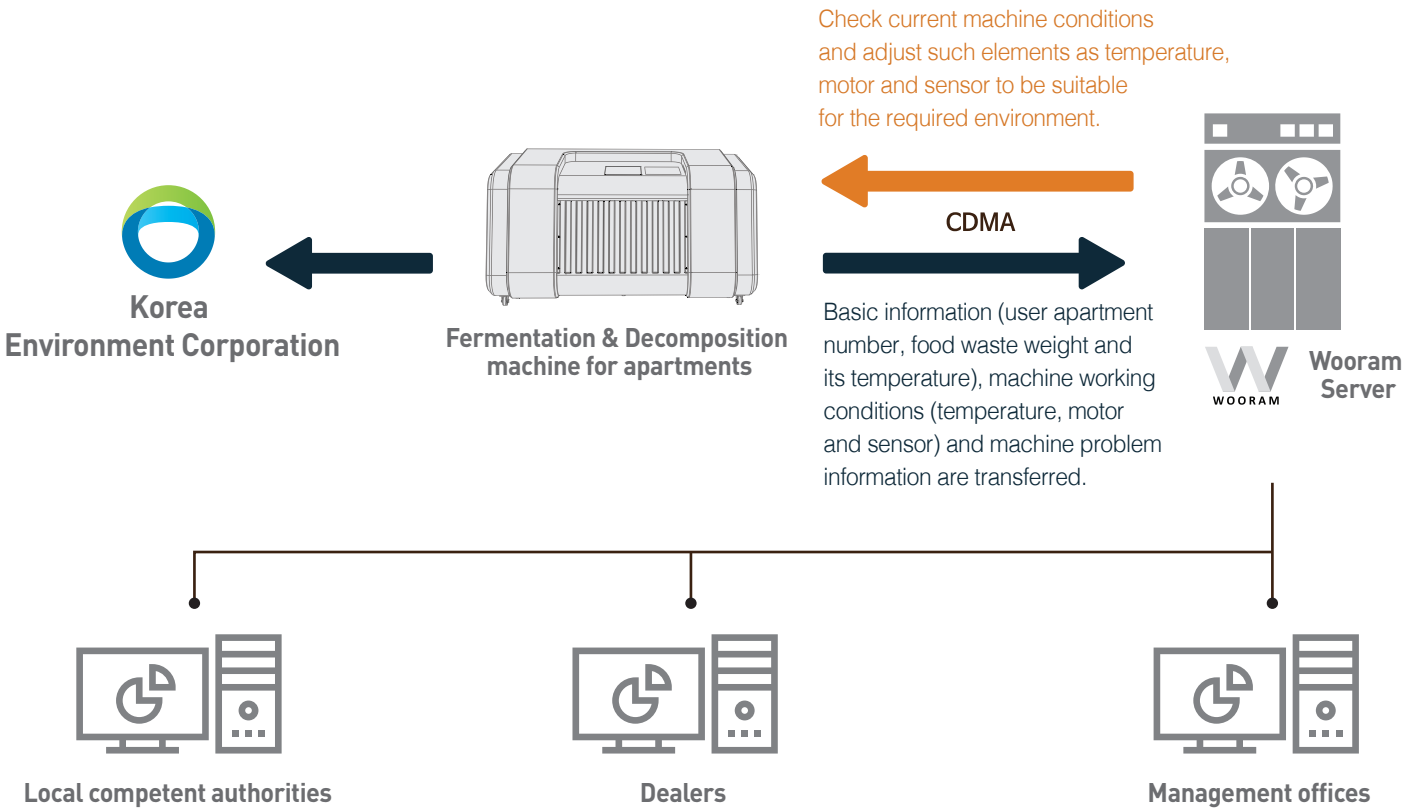
0.00 kg

2015-10-00 00:00:00

6. The weight of fed food waste is displayed.

Wooram's Unique Control System

When food waste is fed to our machine installed in the apartments, every real-time information about users, including the apartment number, used time and food waste weight, is automatically stored in the management site of Wooram Co., Ltd. The information is provided for its manager, local competent local authorities, apartments management offices and other organizations that need such information. In addition, our monitoring system makes it possible to perform real-time monitoring and to take proper actions immediately if there is any problem.



Control system (Network operation server)

WOORAM Control Monitoring System

CITY TOTAL

OK

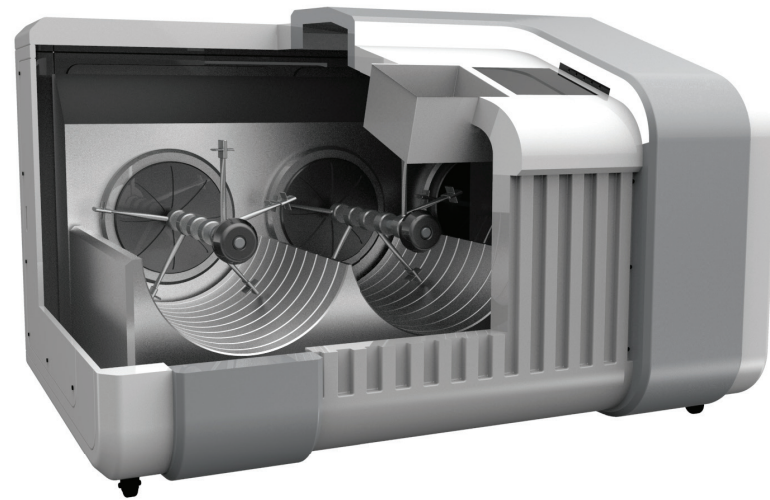
◇ Alarm

City	County	Base	MachineName	MachineID	Comment	SaveDate	SaveTime	Value
서울시	영등포구	우림아파트	102동 앞	2	불가한 상태	2016-06-30	11:50:15	STOP

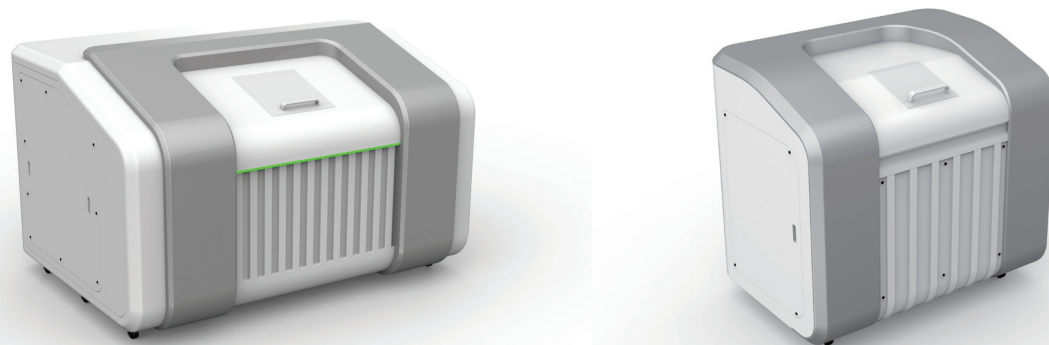
◇ Equipment Status

City	County	Base	MachineName	MachineID	Total Weight	Door Motor	Movement	LED LAMP	Stirrer Temp	TransportDeviceMotor	ExhaustFan
서울시	중구	우림아파트	101동 앞	M160101_001	986 KG	CLOSE	AUTO	ON	30 °C	FWD	ON
			201동 앞	M160101_002	100 KG	CLOSE	INIT	ON	34 °C	FWD	ON
			301동 앞	M160101_003	1,500 KG	OPEN	AUTO	ON	39 °C	FWD	ON
			401동 앞	M160101_004	400 KG	RUN	AUTO	ON	31 °C	REV	ON
			501동 앞	M160101_005	756 KG	OPEN	AUTO	ON	36 °C	FWD	ON
	강서구	우림공동주택	00주책 앞	M160301_001	124 KG	CLOSE	AUTO	ON	36 °C	FWD	ON
			XX주책 앞	M160301_002	985 KG	OPEN	INIT	ON	32 °C	FWD	ON
			101동 앞	M160130_001	885 KG	CLOSE	AUTO	ON	34 °C	FWD	ON
	영등포구	우림아파트	102동 앞	M160130_002	512 KG	CLOSE	INIT	ON	38 °C	FWD	STOP
			103동 앞	M160130_003	1,204 KG	OPEN	AUTO	ON	36 °C	FWD	ON
부산시	중구	우림아파트	104동 앞	M160130_004	421 KG	RUN	AUTO	ON	38 °C	REV	ON
			1004동 앞	M160401_001	1,573 KG	CLOSE	AUTO	ON	35 °C	FWD	ON
			2004동 앞	M160401_002	500 KG	OPEN	INIT	ON	36 °C	FWD	ON

■ inner structure



■ WRH Series (manual / WRH-30, 50, 70, 100, 150)



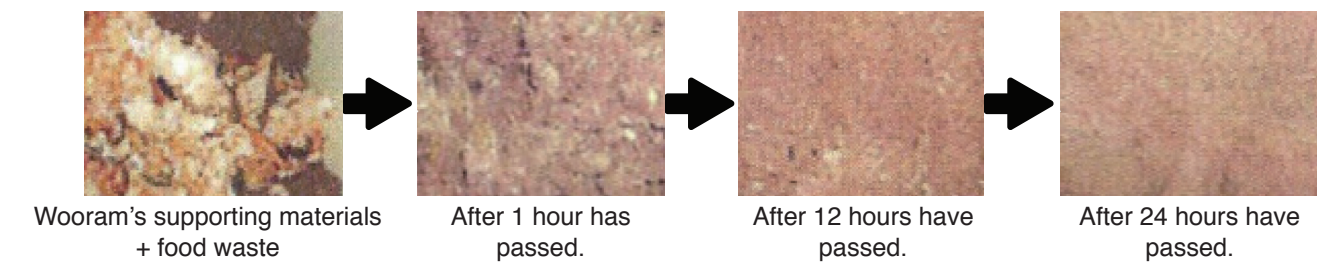
■ WRL Series (Lift installation / WRL-100, 150, 200, 500)



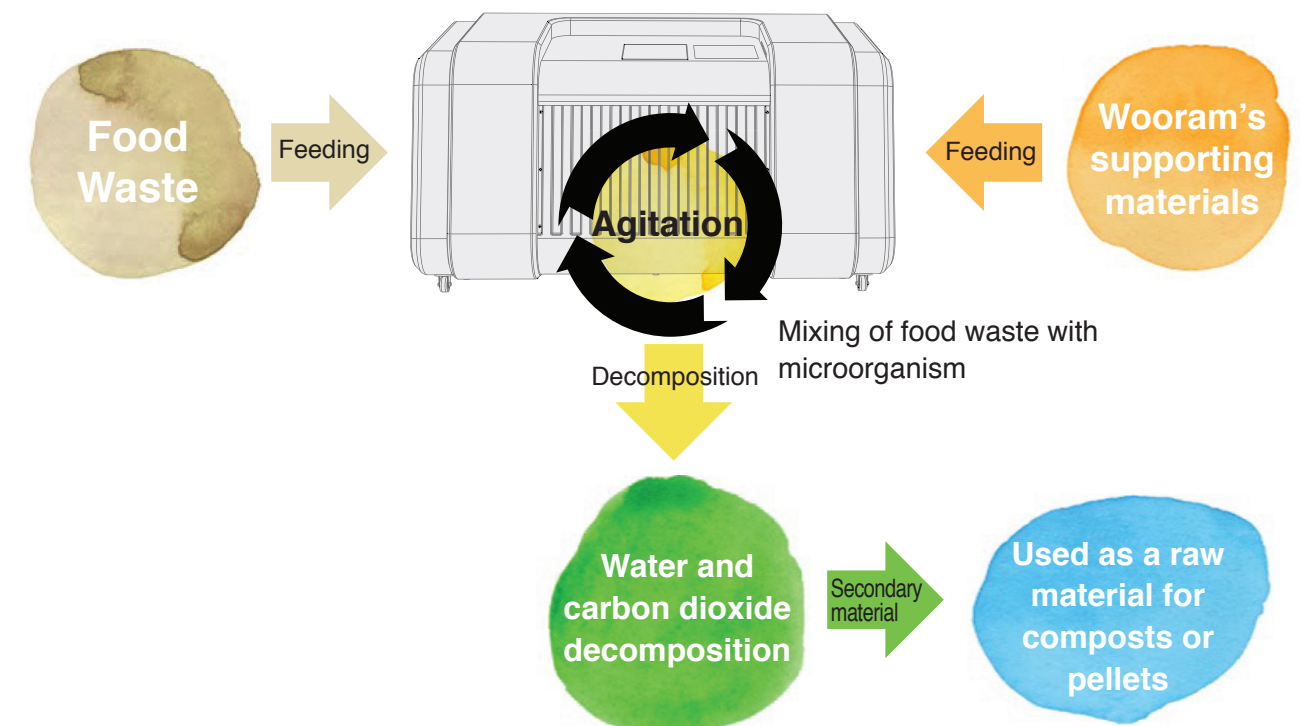
Eco Clean Food Waste Fermentation & Decomposition Machine Recycles and Recovers Valuable Resources from Food Waste.

Eco Clean Is the Perfect Solution to All Environmental Problems Such As Smelly Food Waste, Unpleasant Noise Resulting from its Collection and Transportation, and its Dirty Storage!

■ Process of Food Waste Decomposition



■ Principles of Food Waste Decomposition





Wooram's Supporting Materials Mixed with Food Waste Create Composts and Pellets!

Secondary Materials Can Be Recycled as Organic Fertilizers and Environment-Friendly Resources!

The results of actual field experiments show that the recycled organic fertilizer help crops grow faster. Microorganisms contained in the secondary materials help soil be very fertile, and plants grow well.

■ Decomposition of secondary materials

- Used as a compost



• Field without the secondary material compost



• Field with the secondary material compost

- Used as fuel pellets



Eco Clean Helps Significantly Reduce the Cost of Food Waste **Disposal!**

■ Process of traditional disposal



■ Process of Wooram's Eco Clean



Unlike traditional disposal processes, the Eco Clean process does not need any large-sized disposal plant, but is designed for food waste to be directly fermented and decomposed. For this reason, its ultimate secondary material can be used as a raw material for composts or pellets (More than 85% of all food waste can be decomposed).

ECO CLEAN Is an Innovative Food Waste Fermentation & Decomposition Machine Featuring More Convenience and Higher Performance.