

# Let's make the earth more beautiful than ever

CO<sup>2</sup> reduction,  
Suppression  
of dioxin

Significant  
trash volume  
reduction

Rugged body

Able to process  
garbage at:  
Highlands,

~~1~~/~~300~~ ~ ~~1~~/~~500~~

Fuel cost

Electricity bills

Not  
required

350L Model



**TOBPO**  
Tokyo Omotesando Brand Promotion Office

# W-MTD (Magnetic Thermal Decomposition Device)

## W-MTD

### Wet method flue gas processing device

Wet type flue gas processing device plays an important role when W-MTD is used in the city or inside the ship when the smoke generation is not recommended. It washes smoke and odor away and prevents them to go outside. But it requires power in order to operate.

600L Model

350L Model

1300L Model

Throw in box

350L Model

Magnetic nozzle

Magnetic nozzle

ash exit  
(Same at the other side)

## Technical summary

W-MTD generates magnetic heat reaction within the furnace by taking the small amount of air through the magnet and decomposes the organic matters to the atom state. It is based on combining the various theories from different fields. Carbonation might occur when a lot of air is sent into the furnace during the operation; then, please put the carbonated trash into the furnace for re-processing, and they become powdery which can be used for the next processing.

Heating is required at the beginning of the operation, yet neither electricity nor fossil fuel is required for the decomposition reaction.

This is because when organic matters heated at the beginning contact with the processed ash inside the furnace, it starts to decompose the other organic matters continuously so that they themselves become a magnetized ash and generate heat.

Decomposition reaction continues; which can save the running cost when compared with the general incinerator. Also, W-MTD uses no fossil fuel which is environmentally friendly. W-MTD can process organic matters in general and sorting is not required. Plastics, papers, resins, timbers are not needed to be separated. However, when you put a lot of high- water-content trash, raw wood, vegetable trash, etc., the operation might be difficult and the processing might take longer, therefore, it is recommended to lower the trash water content to less than 20%. Trash can be put inside the furnace continuously as the volume decreases; and they are reduced to 1/300 -1/500 at the end.

W-MTD does not decompose inorganic matters, yet vinyl-wrapped electric wire, PC with metal fittings can also be put in; organic matters among them are decomposed and inorganic matters are mixed and dropped in the ash, please sieve them later.

# W-MTD, Solution for the world's plastic wastes problem

## Magnetic Thermal Decomposition Device CO<sub>2</sub> reduction, Suppression of Dioxin

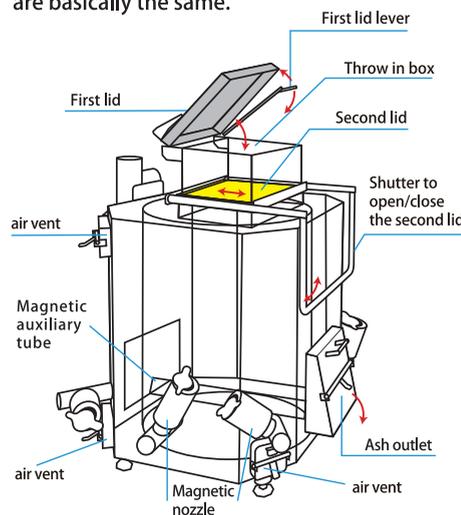
24hr continuous operation is possible

### Characteristics of W-MTD

- 1, This device adopts magnetic reaction based on the quantum theory. W-MTD does not burn organic wastes. CO<sub>2</sub> reduction, Suppression of dioxin.
- 2, No electric power, fossil fuel is required for processing. Significant cost reduction.
- 3, Reduce the volume of the trash by 1/300 – 1/500.
- 4, No meter, switch is required. All operations are manual which requires human resource. It depends on the human eyes. If W-MTD sunk in the water during such disaster situation as floods and become muddy, dry W-MTD after cleaning with water, then it will start to work again.
- 5, You can move W-MTD anywhere including in the ships.

### 350L Model

Operation for the other models are basically the same.



### Difference between W-MTD and incinerator

According to the combustion data, combustion decreases its speed significantly when the oxygen concentration is 16% and completely stops at 15%. Also, toxic gas such as black smoke is generated by the incomplete combustion even when it contains oxygen over 16% or more. Therefore, re-combustion of exhaust gas is required. Also, large amount of fuel is required which generates tremendous cost and CO<sub>2</sub>.

W-MTD does not required power or fuel. Since it is not an incinerator, W-MTD operates at the oxygen concentration 11.13% (sea level 5,000m).

Exhaust gas amount is significantly low, mostly water vapor. Especially, with 1300L model, only a few oxygens are required and it operates even when all the magnetic nozzles are closed.

### Theory of magnetic heat generation

Magnetic heat generation theory was announced by Paul Dirac who shared Nobel Prize with Erwin Schrödinger by their magnetic monopole and zero-point energy theory. The theory was too difficult and was ignored by the physicists at that time, yet it slowly started to be recognized in recent years. W-MTD was born based on these theories.

### ○ What can be processed by this device

Waste from daily life/ paper diaper/rubber products/ woods/ petrochemical products such as plastics, etc. /animal and plant residues, agricultural waste, industrial waste, fishing net/livestock (cow, pig, chicken) dung., etc.

Basically, any organic matters can be processed yet sometimes the device operates better if you mix the multiple kinds of trash rather than throwing in the one type of trash. Please let us know the operator in charge and we will instruct the operator for 5 days before an operation starts.

### ✗ What cannot be processed

Metals / Glasses / Potteries / Earth and sands / Liquid

For trashes with large water content, they cannot be processed if water is dripping from the trash. Raw trees and vegetables, grasses, plants, farm animal dung are high water content and they need to be dried before putting them into this device.

### Caution

- 1, When trash is dripping, dry the trash before throwing it into the furnace.
- 2, This device can process organic trash.
- 3, Long objects have to be cut.
- 4, Processing time varies depending on the trash types.
- 5, We recommend an inspection once every 6 months to maintain the good performance.
- 6, For your safety, please do not open the W-MTD's lid and the ash outlet simultaneously. Air goes into the furnace and the flame goes up.
- 7, Wet type flue gas processing device requires power for the operation. Dissolve the general household soap powder into the water tank to cleanse the smoke.

W-MTD has the processing theory different from the incinerator, therefore, exhaust gas temperature is significantly low, lower than 100°C and is almost like water vapor. Amount of toxic substance contained in the exhaust gas mass is significantly low; also, amount of residue is 1/300 - 1/500 which is far less compared to the incinerator which is 1/15. Also, toxic substances contained in the residue is significantly low, therefore, W-MTD is high performance. Residue of the existing incinerator can also be processed by W-MTD and they become 1/300- 1/500. W-MTD can save the space to bury the residue.

# W-MTD (Magnetic Thermal Decomposition Device)



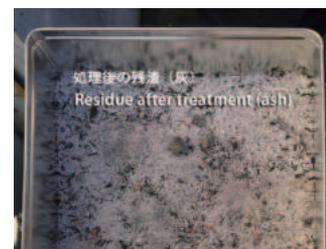
## Reference data

W-MTD (Magnetic Thermal Decomposition Device) is not specified by the Act on Special Measures against Dioxins nor a smoke generation facility under Air Pollution Control Law, therefore, no standard is given against its exhaust gas, yet, for your reference, please refer to the the emission standard for the small size incinerator as described in the following chart:

Waste incinerator emission standards				Magnetic Thermal Decomposition Device	
Specified facility (Smoke generation facility)	Item	Unit	Emission standards	Our data	
*1 (Incinerator floor size is over 0.5㎡ or the processing ability is over 50kg/h)	Dioxin concentration in the exhaust gas	ng-TEQ/m <sup>3</sup>	5	0.061~0.27	
	Dust concentration	g/m <sup>3</sup>	0.15	0.0049	
	Sulfur oxide concentration	ppm	0.11	0.001	
	Sulfur oxide amount	m <sup>3</sup> /h	0.16	0.00034	
*2 (Incinerator floor size is over 2㎡ or the processing ability is over 200kg/h)	Nitrogen oxide concentration	ppm	250	77	
	Hydrogen chloride concentration	mg/m <sup>3</sup>	700	34	
	Dioxin concentration in processed residue	ng-TEQ/m <sup>3</sup>	3	0.043~0.19	
					Measured on January 27, 2014

W-MTD (Magnetic Thermal Decomposition Device) has the processing theory different from the incinerator, therefore, exhaust gas temperature is significantly low, lower than 100°C. Therefore, the theory specified by Ministry of the Environment does not apply. Amount of toxic substances contained in the exhaust gas mass is significantly low; also, amount of residue is 1/300 - 1/500 which is far less compared to the incinerator which is 1/15. Also, toxic substances contained in the residue is significantly low, which shows the high performance of W-MTD.

Since 600L/1300L model has a lid which widely opens, large amount of wastes can be put at the beginning of the operation. After that, wastes can be put continuously through the throw-in



Beaches like this.....



Image photo

Will be revived by W-MTD



Image photo



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