

The cost gets reduced, and materials get recycled nationwide.

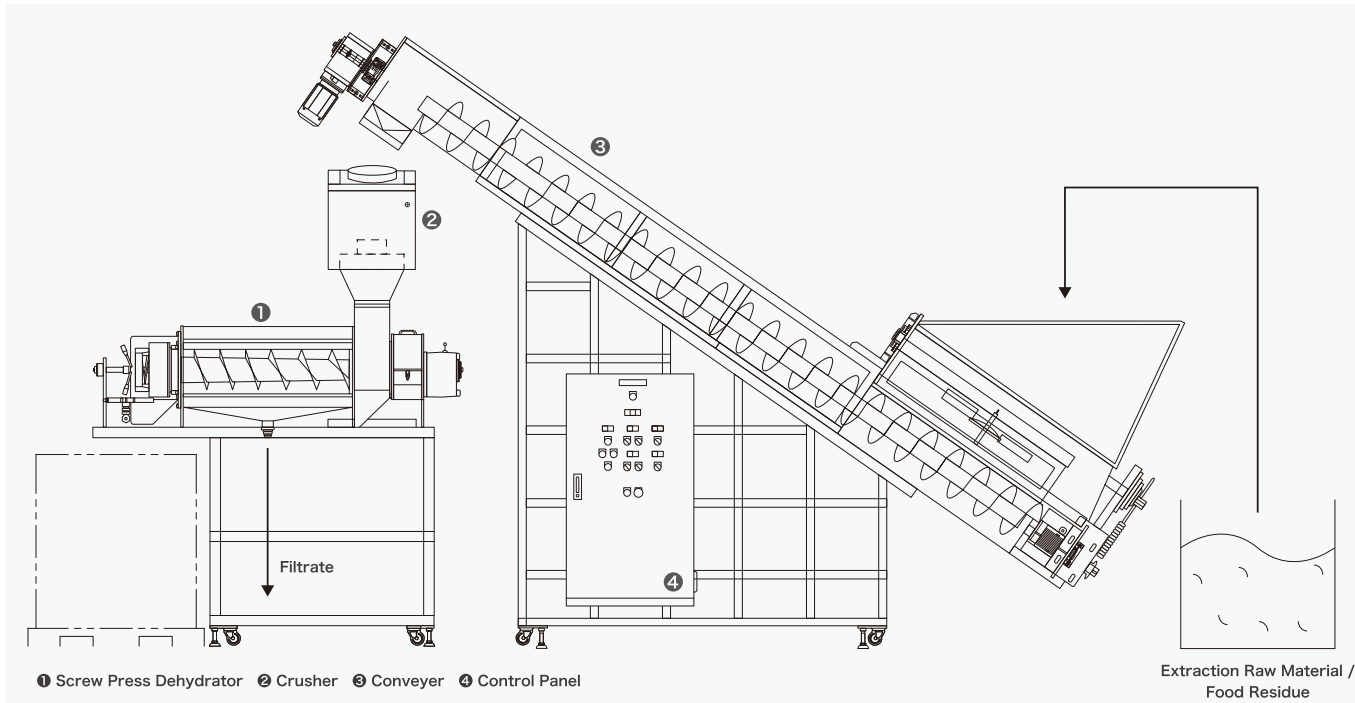
Case 01 Sprouts Producer, Shizuoka

Used to pay almost JPY100,000 a day to dispose of sprouts. The recycling of all sprout residue to pig and cow feed through the introduction of crusher, conveyer, and screw press dehydrator is expected to contribute significantly in reducing the disposal cost.

Sprout Residue Reduction: More Than 70%
Lee of dehydrated sprout: Recycled to Ecofeed

Case 02 Cut Vegetable Producer, Tochigi

The introduction of crusher, screw conveyor, and screw press dehydrator reduced the vegetable waste from 8 tons to 3.2 tons. More Than 60% of Disposal Cost Reduction.



Model		DM10	DM15	DM20	DM25	DM30	DM40	DM60
Processing Capacity	kg/h	40~60	80~120	250~350	400~600	800~1000	1200~1500	3000~5000
Measurement	mm	L 776	L 1352	L 2000	L 2298	L 2693	L 3800	L 6011
		W 310	W 463	W 817	W 857	W 967	W 800	W 1320
		H 600	H 732	H 1051	H 1072	H 1179	H 900	H 1737
Motor		0.1kW×100V AC	0.75kW×200V AC	1.5kW×200V AC	1.5kW×200V AC	1.5kW×200V AC	3.7kW×200V AC	11kW×200V AC
Material	Main Body	SUS304						
	Screen	SUS304						
	Screw	SUS304						
	Other	Standard: SS (SUS is optional)						

※Specifications are subject to change without notice.
※Dimensions are without hopper.

※Capacity differs by the material being processed.
※Cleaning nozzle and frame are optional.

2017 SME Technology Award, Shizuoka City, "Manufacturing technology of a dehydrator for food residue volume reduction"

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Patent

PAT No. 4214183
PAT. P 2017-100489

PAT No. 4474499
PAT. P 2018-71979

PAT No. 608731
PAT. P 2018-217054

2019.05-1-2.000CB (MR)

Screw Press Dehydrator

DMseries
Dehydration Machine series

ADVANCED TECHNOLOGY FOR SUSTAINABLE FUTURE



Waste management through debulking and recycling is critical in pursuing a sustainable society. DM series provides solutions to those who pursue sustainable growth in harmony with the environment and society.

ADVANCED TECHNOLOGY FOR SUSTAINABLE FUTURE
KAWAGUCHI SEIKI

RESIDUE PRESSING RESOURCE EXTRACTING

Applications of DM Series



With its outstanding separative performance, the DM series debulks food residue and industrial waste with extremely efficient dehydration. This high extraction capability is also applicable to the extraction of pharmaceutical, cosmetic, and juice ingredients. As much as debulking contributes to your cost reduction, this DM series helps you create new value-added products by offering excellent performance.

Applicable to Waste Debulking and Resource Extracting, both for

Superb efficiency in debulking food residues and industrial wastes

The screw press dehydrator reduces waste disposal cost.

The superbly efficient dehydrator reduces the volume of high water content residues of vegetables such as sprout and cabbage, fruits, and used tea leaves significantly. Further, this series can be used for solid-liquid separation of coating refuse and solvent and recycling of non-woven fabric (crushing, cleaning, dehydrating) or be integrated into a waste plastic recycling plant (crushing, cleaning, dehydration, drying). The DM series is applicable to both organic and inorganic substances.

DEBULKING
APPLICATION

Extraction line of pharmaceutical, cosmetic, and juice ingredients

Ideal for extraction of juice, essence, and coloring in a production line

The crushing and dehydration system of the sanitary type screw press dehydrator applies to a variety of extraction lines. The extraction of pharmaceutical, cosmetic, and supplement ingredients from various plants, colorants from natural materials such as safflower or red cabbage, powdery raw material from plants, and raw material for juice by pressing various fruits are just a few of applications where this series contributes highly in making efficient production line.

EXTRACTION
APPLICATION

Supports Ecofeed initiative of food residue

The system to recycle food waste for Ecofeed is also available

Ecofeed is an animal feed made of dehydrated food residue which increases dry matter intake. Kawaguchi Seiki has succeeded in developing an original Ecofeed processing system* which processes food residue only with screw press dehydrator (without dryer) by stopping fermentation with organic acid during dehydration. Further, the use of filtrate for liquid feeding (for limited regions) is also available to create a zero-emission cycle.

FEED
PRODUCTION
APPLICATION

Dehydration by DM Series

Organic
Substance

Sprouts, cabbage, lettuce, Chinese cabbage, carrots, radishes, burdock, onion, bean seedlings, tomatoes, young barley, various tea shells, olives, oranges, pineapples, apples, coconuts, pulp, etc.

Inorganic
Substance

Waste plastic, coating refuse, non-woven fabric, etc.

Organic and Inorganic Substances to Expand Your Opportunities

*: Introduction of Kawaguchi Seiki's Ecofeed system is subject to the support (subsidy) under the "Emergency Ecofeed Increase Project" by the Ministry of Agriculture, Forestry and Fisheries of Japan.

Ecofeed is animal feed produced from recycled food waste. The Ministry of Agriculture, Forestry, and Fisheries of Japan aims to increase the self-sufficiency of concentrated feed by recycling food resources to promote the Ecofeed initiative.

Press down the cost Extract the value

Benefits of Introducing the DM Series

Benefit ❶

Cost Reduction

The ultra-high dehydration efficiency reduces the volume of waste such as food residue, contributing to the significant reduction of industrial waste disposal cost. The labor cost can also be reduced as less manpower is needed in the industrial waste disposal process.

Benefit ❸

New Business Opportunity

Introduction of this series not only supports the ecological cycle through waste reduction but also opens up opportunities to create new value and profit structure through the extraction capability for filtrates adaptable to a processing line.

Benefit ❺

Corporate Social Responsibility

Participation in the zero-emission initiatives by food companies or realization of the self-containment production system by various factories is great CSR activities that elevate the status of the organization.

Benefit ❷

Recycle

Animal feed made from strained lee (Ecofeed* initiative), liquid feed made from the filtrate, or recycling of such residue lead to an ecological cycle of zero-emission.

*: Feel free to contact us for any questions regarding Ecofeed.

Benefit ❹

CO2 Reduction

Reduction of waste reduces the volume to be incinerated by the industrial waste disposal operator which dramatically lowers the CO2 emission and contribute to the low carbon society.

Benefit ❻

Work Environment Improvement

By introducing a system with no vibration, noise, or scattering of material being disposed of, a clean and stress-free work environment can be created with no unpleasant odor and stains. This also improves the way the company is perceived.

DM series provides a solution to the companies in today's recycling society through the volume reduction and recycling of wastes.

Not only the machine itself but also the system integrating conveyer, crusher, and dehydrator are made in-house and available. Though the collaboration network with industrial waste disposal operators, we offer full support including Ecofeed processing solutions.

The solution as a System

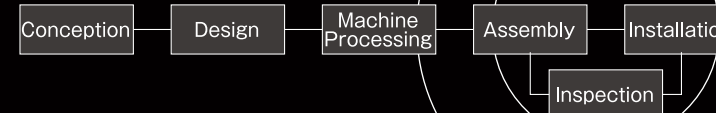
See our capacity as a total solution provider.

Customization

See our responsiveness.

We offer not only standard models but also customized models to meet your purpose and conditions. With our rich pressing know-how and data based on sample tests and actual operations, we can optimize pressure and revolution speed to process the material, customizing to your needs.

Integrated processing system



After-sales service

See our speed.

In the waste disposal line where the processing volume is immense, the machine stoppage caused by faulty equipment can be disastrous. Should trouble occur, Kawaguchi Seiki dispatches service staff quickly to minimize your system downtime.

Innovation

See our R&D capability.

We are always in pursuit of new technology to offer the best solutions by developing our original processing method to recycle the filtrate or collaborating with academia to remove unnecessary components during extraction.

Consulting

See what we can offer.

Reduction of residue, extraction of various essence and liquid-solid separation, from organic to inorganic substances—we pride ourselves as specialists of pressing. So just give us a call, and we are happy to bring the test machine as soon as possible so that we can keep testing and verifying until we can come up an offer which satisfies your needs 100%.

Kawaguchi Seiki is not just a system manufacturer. We pride ourselves as a provider of the total solution of software and hardware including individual machines, system components, quick service and support capability, and consultation and testing know-how of unbeatable level.

Wisdom and Technology in Pressing and Extracting

Total Solution Provided by Kawaguchi Seiki

model DM25



model DM30



Waste Volume Reduction of Unprecedented Level by Ultra High Dehydration Efficiency

Features of DM Series

See the difference in the separative performance

Wedge wire screen with the bigger discharge aperture

Being constructed of 0.3 – 1.0 mm wedge wires, the meshed screen has bigger discharge aperture ratio than a punching metal screen and shows higher separative performance.

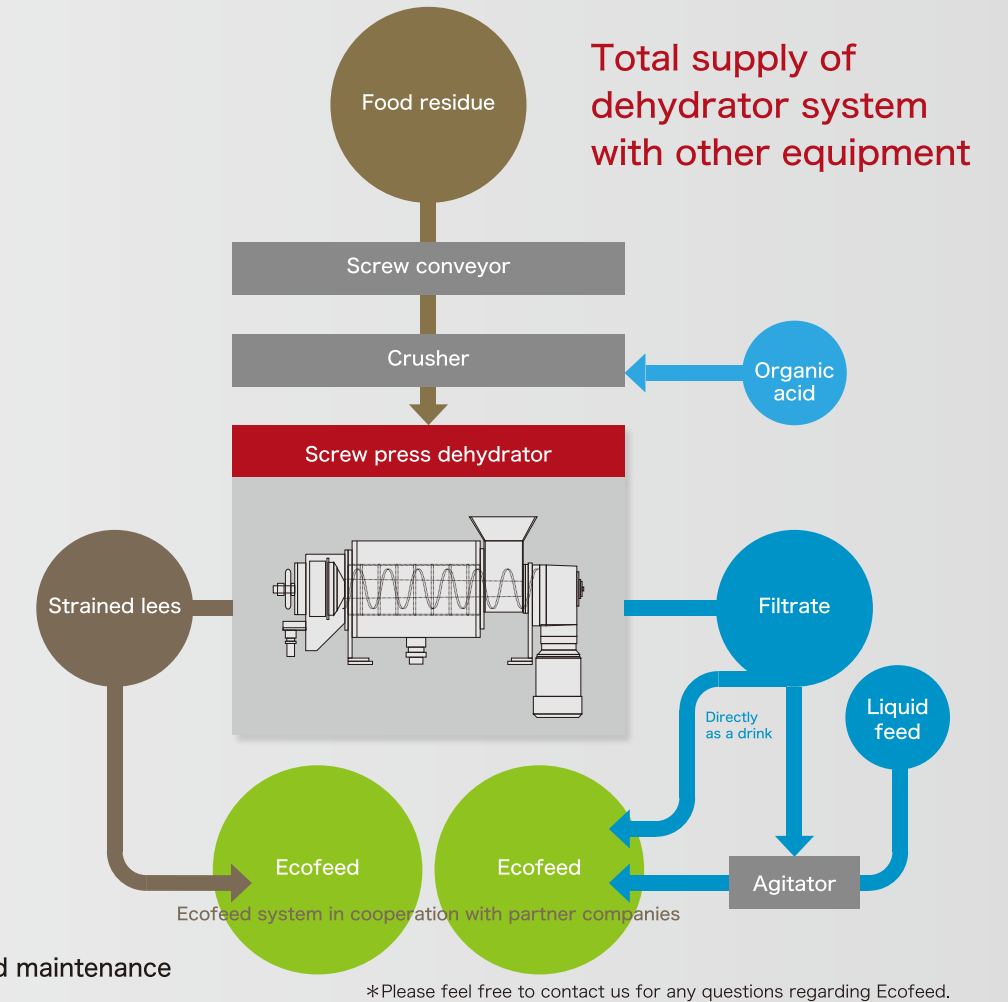
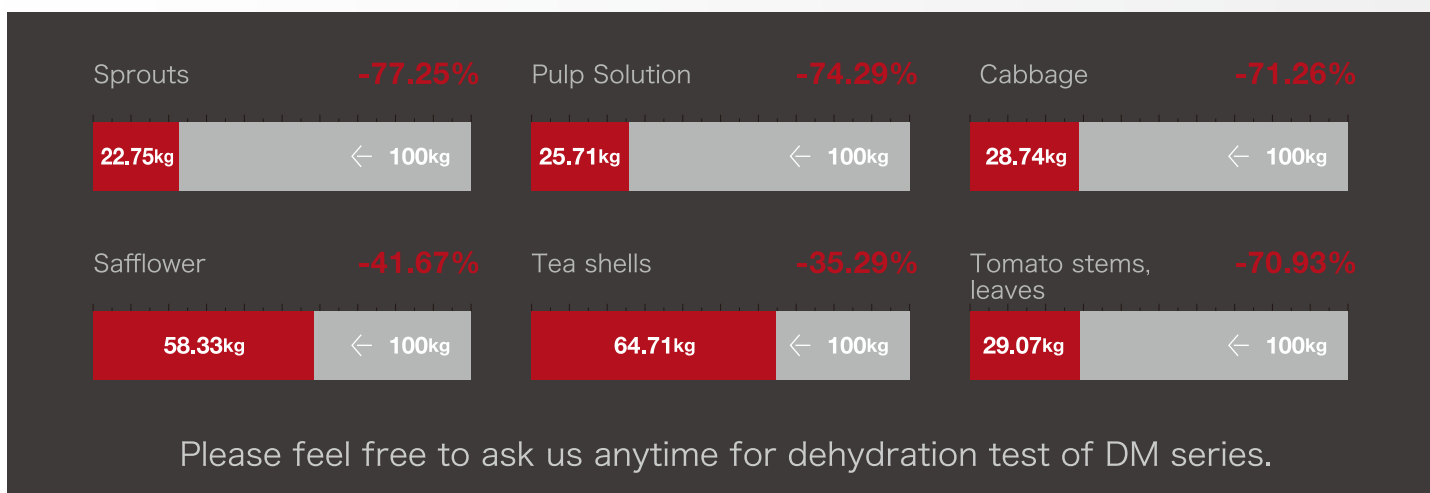
See the difference in the volume reduction.

Tapered screw to increase compressibility

The screw shaft is tapered and narrower at the outlet to perform extremely high compressibility for further reduction of the volume.

Kawaguchi Seiki' s original mechanism reduces volume significantly

DM Series Dehydration Test Data



*Please feel free to contact us for any questions regarding Ecofeed.

Simple design for easy cleaning and maintenance

The simple structure makes cleaning time shorter after use. Maintenance is also easy due to the limited number of consumable parts.

Space-saving design for flexible layout

The ultimate space-saving design allows flexibility in your floor plans. DM10, the ultra-compact model, is used in laboratories.

Keeps the environment clean and comfortable

Low-speed rotation and tight sealing structure contain noise, vibration, and filtrate scattering to keep the environment quiet and clean.

Easy operation to everybody

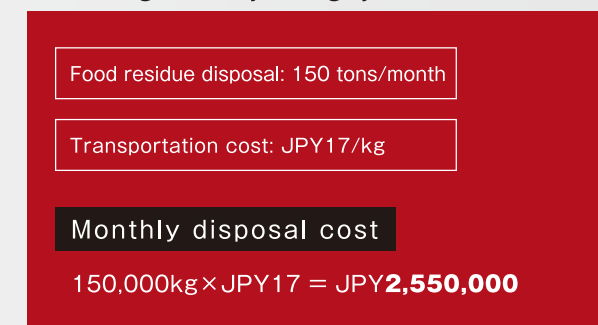
What the operator has to do is just (1) adjust the revolution speed and (2) adjust the pressure. Simple operation allows everybody to run the high-efficiency dehydration with ease.

Continuous automated operation and manpower saving

The system runs continuously as long as the material is fed. DM series realizes maximum productivity with minimum manpower.

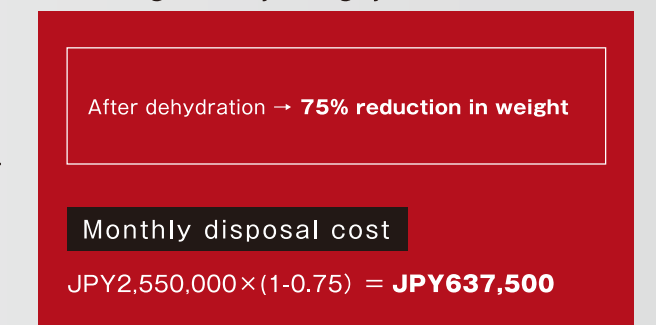
Reduction of food residue disposal cost Example

Disposal cost **before** the introduction of crushing and dehydrating system



The going commissioning fee at the industrial waste disposal operator is JPY10 – 35/kg depending on the area. JPY17/kg is used for this case.

Disposal cost **after** the introduction of crushing and dehydrating system



Cost Reduction Effect 2,550,000 – 637,500 = **JPY1,912,500/month of cost reduction**