

**For an ecological
disposal**



**Food waste
treatment systems**

AZP 80

AZ 80

AP 80

GROUP
5



How best to dispose of food waste

In many restaurants and larger catering outlets you can still find today the conventional method of food waste disposal. This is to say that vegetable peelings and trimmings, and food left overs are still collected in swill bins, or buckets.

It is also a fact that accumulated food waste is held in the kitchen area longer than the legally permissible time.

Problems created by food waste are:

- Food waste is inadvertently poured direct into the sewage system causing blockages in pipework, and placing great strain on the sewage system.

- Food waste has a very high water content and is therefore not generally handled by the normal refuse collection service.

- Waste that is stored in buckets or bins generates unpleasant odours, even within a very short period of time.

The ideal solution for a totally hygienic disposal of food waste in a problem free manner is the MEIKO AZP 80.

The first class design, simplicity of operation, and total reliability will assist you greatly with the problems of handling food waste.

Type of outlets:

- university cafeterias
- hospital and health care facilities
- department stores and shopping malls
- staff feeding facilities
- military barracks
- hotels and restaurants
- food processing plants

A modern, elaborate, and most up-to-date concept.

MEIKO food waste treatment appliances convert problematic food waste easy to handle, difficult to dispose of, into an bio-waste which can be used as compost material.

Herewith, the following various disposal alternatives are made possible:

- composting plant
- biogas plant
- processing into animal feed
- sewage treatment



Hygienic and cost effective food waste treatment with the MEIKO AZP 80

This illustration clearly shows the compact design of the AZP 80. It consists of a grinding mechanism and a solid waste de-watering press combined to form a single unit.

The appliance is suitable for the grinding and condensing of assorted bulk food waste, in addition to vegetable peelings and inorganic materials.

The base of the grinding tank is covered with an easily removable stainless steel sieve basket. Metal items such as cutlery accidentally thrown into the grinding tank drop directly into the sieve basket and not into the grinding teeth. In addition, any waste residue that remains after each operating period when the system has been drained down, also collects in the sieve baskets, allowing the unit to be quickly and easily cleaned. The housing of the de-watering press is fitted with an access door that provides easy access to the entire internal surface area for cleaning.

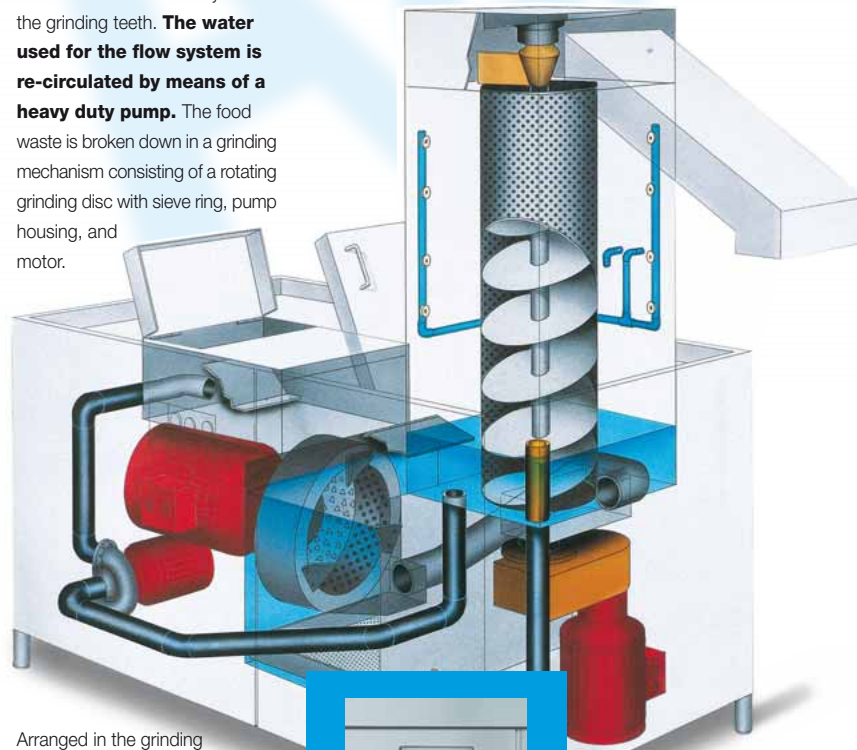


Should the cover be lifted during operation of the appliance, an integral safety circuit fitted with a micro-switch will automatically cut off power to the unit, preventing injury to the operating staff.

A system you can rely upon

Operational characteristics

Food waste is flushed with water through a loading chute into the grinding mechanism of the machine. A heavy duty rotating grinding disc is arranged horizontally within the side wall of the grinding tank. The horizontal water flows in the side of the grinding tank overlap each other, ensuring that floating particles are directed into the suction system of the grinding teeth. **The water used for the flow system is re-circulated by means of a heavy duty pump.** The food waste is broken down in a grinding mechanism consisting of a rotating grinding disc with sieve ring, pump housing, and motor.



Arranged in the grinding disc surface is a set of grinding and cutting teeth in one of the hardest materials available today, tungsten carbide.

The circular screen comprising the wall of the grinding unit acts as a sieve ring. A series of pump vanes are arranged behind the grinding plate producing a suction effect

and ensuring movement of the broken down waste to the de-watering press.

Food waste is drained in the de-watering press consisting of a perforated cover sieve with a worm type screw column conveyor. The screw conveyor is located within a perforated sieve sleeve and directs food waste vertically along the internal sleeve wall. This results in

the liquid being forced outwards through the numerous perforations whilst the remaining food waste is further compacted as it travels to the discharge chute.

The liquid separated through the perforated sieve sleeve falls back into the grinding tank.

A volume reduction of up to 85 %, normally approx. 70 % is obtainable.



The control switch and pilot lamps are easily accessible and clearly visible. The operating condition is indicated by pilot lamps.

Depending on space availability, the discharge chute of the de-watering press can be turned 90° to enable discharge to be carried out in any one of the three different directions, which is particularly advantageous in the often cramped conditions of the average kitchen.

The quality is in the detail

At regular intervals an **automatic cleaning programme** incorporating a disinfectant with a warm water rinse is applied to the food waste treatment system. This is supported by a **sieve cylinder rinse, universally arranged** around the de-watering press.

The most important advantages:

- **High performance from a powerful 5,5 kW grinding motor.**
- **Considerable cost savings through a volume reduction of up to 85 %.**
- **Easy to clean, the streamlined design ensures maximum external hygiene and cleanliness.**
- **Simple cleaning for the grinding tank by means of a removable wire sieve basket.**

- **Effortless cleaning of the de-watering press with the easily removable perforated sleeve screen. This means internal hygiene of the highest standard.**



When fully opened the double wall insulated wing doors guarantee total access to all components over the full length of the appliance.



The powerful grinding mechanism with its tungsten carbide cutting teeth will handle even the most obstinate of food waste. Metal items and other residues are collected above the floor of the grinding tank in the wire sieve basket.

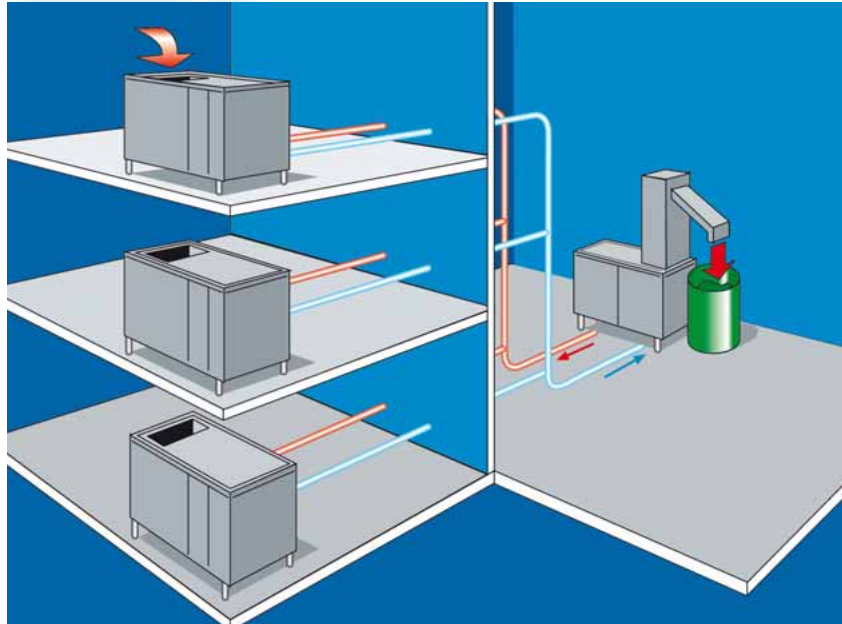


The stainless steel housing of the de-watering press is easily opened to gain access to the perforated sleeve screen and screw conveyor. This enables the parts to be easily removed, cleaned, and re-fitted quite simply.



Using a warm water rinsing system, that is ingeniously arranged in all four corners of the de-watering press, prevents a blocking of the perforated sleeve screen through vigorous rinsing at the determined intervals, and shows all round cleanliness and hygienic standards.

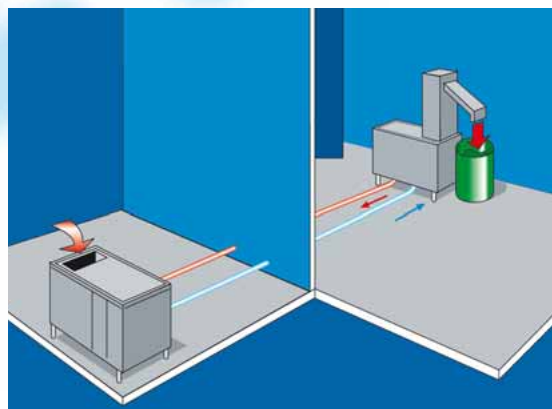
The food waste treatment system in a modular design



With this compact unit the grinding mechanism and de-watering press are directly connected to each other. With this method the ground waste has to be transported from the kitchen area to the waste disposal room.

The most effective method of removing the kitchen waste is without doubt the separate installation of the grinding unit and de-watering press. This system enables the waste to be transported immediately out of the kitchen area. With this system, several grinding units in various locations can be attached to the waste de-watering press whilst the grinding unit is installed

in the area where the waste is generated (e. g. in the vegetable preparation areas, or dishwash room). The waste de-watering unit is placed in the garbage collection room where the interconnected pipework system enables food waste to be carried instantly and hygienically from source to the waste separator.



The future with advanced engineering

Food waste treatment systems are not only designed to be installed horizontally and separated from each other over several floors, but can also be installed in a vertical position. Pumps convey the refuse reliably to the de-watering press and re-circulate the separated water to the grinding units. This entire system operates with an extremely low water consumption. The pumps and the complete valve control system are installed in the module systems AZ 80 and AP 80, this means that only the interconnecting pipework has to be installed within the building fabric.



Technical data

Performance:

- Food waste up to 450 kg/h
- Mixed waste up to 320 kg/h

The machine is supplied ready for connection and operation. All controls are neatly and accessibly arranged and wired, and are accommodated in a water type control box of stainless steel located to the front of the appliance.

Electrical connection of the appliance to a 3 phase 400 Volt, 50 cycles, connected load 7,0 kW.

Grinding tank filling:

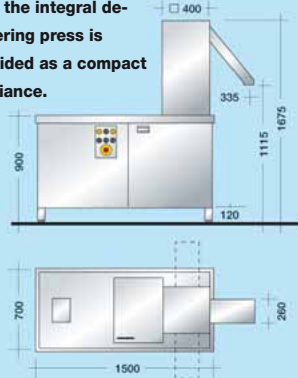
Fresh water DN 20

Drainage:

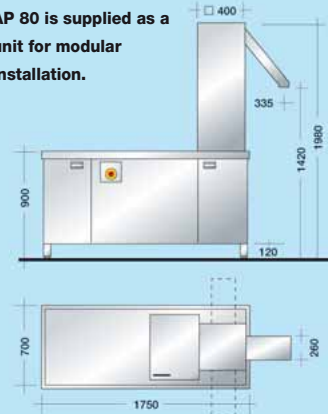
Pipe diameter DN 100
Grease separator/trap DIN 4040

The grinding disc, circular sieve ring, pump housing, motor shaft, tank, flushing trough, sieve tube, worm screw column, discharge chute, and external casing, is completely manufactured in stainless steel 18/9. The grinding and cutting teeth are manufactured in tungsten carbide.

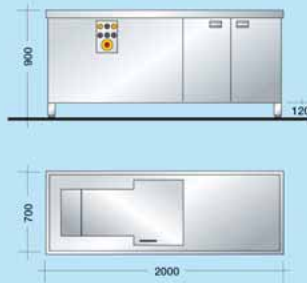
The food waste treatment system AZP 80 with the integral de-watering press is provided as a compact appliance.



The de-watering press AP 80 is supplied as a unit for modular installation.



The grinding unit AZ 80 is provided as an element for modular installation.



It is not necessary to use fresh water where the AZP 80 or the AZ 80 is incorporated within a dishwashing system, as the waste water from the dishwashing machine can be used to run the de-watering appliance.



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