

# Fair and Responsible Waste Disposal

An ecological, trend-setting project implemented with B&R technology, IT technologies and modern control systems utilize automation for households.



**Separating or reducing the amount of trash plays an extremely important part in being able to protect valuable natural resources over the long term. However, flat-rate garbage fees contradict the “polluter-pays” principle and make it that much less motivating for people to separate rubbish. Incentives are especially low in housing developments which have large dumpsters available. With their Multipress ECO concept, the Austrian machine manufacturer Pottinger reveals an intelligent system for responsible, fair waste disposal.**

Ways of eliminating waste have changed greatly for housing complexes, communities, and companies. Lawmakers and society as a whole are calling for sustainable waste disposal solutions which result in higher rates of recycling. The development and use of modern, efficient procedures in environmental technology can offer substantial contributions in this regard.

Separating trash must be rewarded. Put plainly and simply, communities do not have an incentive for separating garbage or reducing its amount. For larger housing areas, it is completely normal to charge a flat rate which depends on the number of people or the size of the

complex. The actual amount of trash produced isn't even calculated. The system used by Pottinger's waste disposal technology allows the exact amount of trash to be determined so that a fair rate can be charged. One logical consequence of this is an increased motivation in separating out recyclable objects. Trash is weighed, identified, and then compressed to a ratio of five to one.

**Fair waste disposal fees in densely populated areas, cleanliness where trash is collected, and increased motivation for separating trash were the primary arguments for this type of system.**

This system has already been applied in several European cities and is warmly received by the people who use it. Access to the trash weighing area is controlled using a magnetic card which saves customer data. Once the card has been checked and recognized, the cover opens automatically. Trash is then thrown in, weighed, and the data is saved. With a capacity of up to 600 liters, the calibrated scale also allows very large amounts of trash or bulky objects to be dropped off as well. The scale area is then closed automatically once a button is pressed. That's all the customer has to do. Trash is then led down to the compacting area

where it is compressed. Even the smallest dumpster with 8m<sup>3</sup> can hold about three tons of trash – the same volume as almost 200 household trashcans.

Savings of up to half of the refuse fees, no overflowing garbage cans, waste disposal day or night, and checking



User instructions on the display.



User identification with a transponder card or key ring accessory.

waste costs over the Internet are very convincing arguments for this system. Foul smells are a thing of the past at garbage collection locations thanks to the fact that the closed system absorbs



Weighing area with 600 liter volume capacity.

odors by spraying deposited trash with an odor-hampering liquid. For towns, the noticeably reduced transport costs resulting from the trash compression and not having to empty every individual household trash container have relieved the strain on budgets.

**It is now absolutely possible for both communities and individuals to save money and be more cost-conscious.**

Data is transferred to a central server over a GSM network. GSM modems are installed in both the compacting container and the server for the communication between both systems. Data concerning the weight of refuse is sent to the central server once a day. When the compacting container is full, an SMS is automatically sent to the transporting company responsible for disposing of the waste. The operators (mostly local authorities) also have access to the server. Data is handled by an accounting program which calculates the accumulated fees for the customer. Advance payments of any amount sent to the local authorities results in electronic credit being noted on the server. From there, the credit is forwarded to the compacting container system over the GSM network. In this way, the customer can see how much credit is left each time the container is used. If the credit

is used up, the customer's card is blocked. However, the card can be reloaded and used further.




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“Feedback from users of this system show that people are clearly more willing to separate their refuse. Up to 80% of transport costs are saved thanks to compacting the garbage. There are two reasons for this: this system increases awareness for separating garbage which saves space, and disposal becomes much easier and more efficient.



Multipress Eco systems come in 8, 10, or 12m<sup>3</sup> container sizes or as a station with 32m<sup>3</sup>.

Poettinger has already carried out the last steps needed to market this system in the international arena. Sending SMS text messages and transferring data over foreign networks work without a hitch. Additional steps have been taken to optimize the performance of the entire system including reducing transfer times and creating error correction routines over SMS. Systems have now been implemented in Germany, Italy, Portugal, Sweden, and Switzerland in addition to projects in the local Austrian market. 



# PÖTTINGER

## Waste Disposal Technology

The Poettinger company has its roots in agricultural machine manufacturing. Formed in Grieskirchen, Austria, in 1871, the company currently has over 1,000 employees in Austria, Germany, and the Czech Republic working with agricultural and waste disposal technology. One quarter of the 120 million Euro revenue of last year was achieved in the Austrian market. A milestone in waste disposal was set in 1996 with the first compacting container with an automatic weighing system.