

Dynamics. Flexibility. Experience.

Identification, weighing and information technology

Welcome to Envicomp

Waste management geared to the future – a topic for Envicomp

Waste management – one of the vital industrial topics facing today's and tomorrow's world. A topic for specialists. A topic for Envicomp.

Envicomp was one of the first companies to conduct intensive research into billing models for waste management services based on the volume of refuse per user. Envicomp is part of an international group of companies and has three locations in Germany.

Our core competences include:

- Identification technology
- Weighing technology
- Information technology

Smart system technology for the waste management industry – throughout Europe

Envicomp technology is in operation all over Europe. That is not a mere coincidence. Because even during the development stage, we made sure that our systems comply not only to national standards but also to European ones.

Our solutions depend on the use of state-of-the-art system technology and are the key to our market leadership in the fields of identification and weighing. The following figures serve to give an indication of our know-how and our experience:

- 3 million transponders
- 800 collection vehicles
- 45 types of lifting devices
- 100 towns and municipalities

Individual solutions for municipal and industrial waste management

Our own inventions in the fields of both hardware and software have put us in a class of our own and given us flexibility. For instance, when it is a question of addressing individual demands and requirements. The modular concept of Envicomp's systems allows for the realisation of tailor-made, customised solutions. Notably for two important sections of the waste management industry:

- For municipal waste management
- For industrial and commercial waste management



Our three basic fields of technology

Three technology sectors form the basis of Envicomp's systems:

- **Data storage technology:**
High-performance transponders in diverse designs and specifications are available in the form of storage modules.
- **Collection vehicle technology:**
Reading unit, weighing cell and board computer are standard fittings of the collection vehicles, compatible with nearly every type of vehicle and lifting device.
- **Information technology:**
Made-to-measure billing and administration programmes in progressive expansion stages for waste management systems.

Three sections that enable us to respond flexibly, dynamically and intelligently to the latest advancements in waste management.

We have even evolved a modular train of thought in terms of service

Different assignments call for flexible, customised concepts. Envicomp not only provides tailor-made hardware and software solutions but also a comprehensive service portfolio:

- Status quo/process analysis
- Consulting/conception
- Development
- Realisation
- Project management
- Training
- Service/maintenance

We have even evolved a modular approach in terms of service: it is left entirely to the client's discretion as to which services he wishes to avail himself of.



dynamics

Modular Envicomp systems

Data storage technology

Flexibility begins with the choice of transponder. Envicomp provides various technologies for every conceivable purpose:

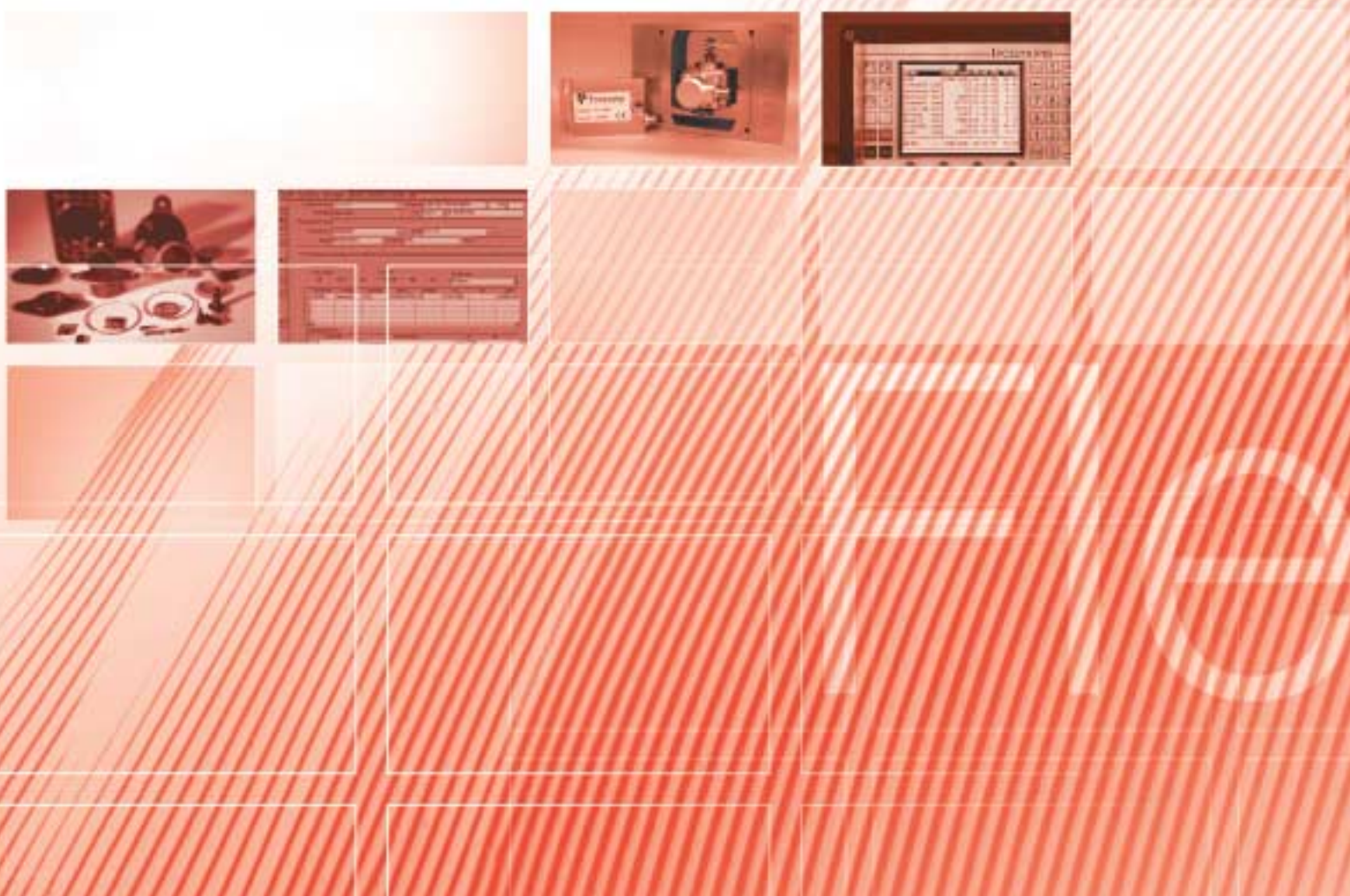
- Read only
- One time programmable
- Read/write

A range of styles and housing designs permits functional transponder solutions for each container system. Existing stocks can also be retrofitted without any problems. All popular transmission frequencies are acceptable. We can supply the transponders adapted to conform to national or international standards on request.

Collection vehicle technology

Envicomp systems can be used with almost all types of lifting devices. Regardless of whether the preference is for a front-loading, side-loading or rear-loading mechanism. Our very own in-house hardware solutions can be customised to meet individual customer needs.

- The Envicomp reading unit has been conceived as a multi-reader and is capable of reading and processing almost every make of transponder on the market. Different frequencies and transmission methods are not an obstacle. In other words, you can retain your independence.



- Envicomp's weighing technology consists of a weighing cell, a compensation unit and a load computer and is compatible with nearly all types of lifting mechanisms. All functions are integrated into the normal workflow and are to a large extent fully automatic. The principle of dynamic weighing ensures that the emptying process is not interrupted at any stage. Everything stays as it was as far as the driver of the refuse collection vehicle is concerned.

- The high-performance Envicomp board computer houses the central control panel for all the identification and weighing processes. All the information regarding the locality, date, time and weight is recorded and then exported to the reading station at the end of the trip together with the collection vehicle's operating data.

- Two further options provided by Envicomp are available in the form of a route monitor installed in the vehicle itself and a state-of-the-art GSM/GPS-driven vehicle tracking device.

Information technology

Envicomp's billing and administration software is a modular information system based on an Oracle database and was devised with the special needs of waste management in mind.

- Comprehensive software solutions for all relevant areas of waste management: from refuse bin management to the billing notification
- Perfect integration of all data emanating from the identification and weighing processes
- Interfaces for financial accounting software
- Generation of all essential economic statistics – for effective trip data controlling, for example

NOVILITY

Experience



Smart solutions for municipal waste management

Fairer, more transparent systems of municipal waste management

The rapidly increasing cost of waste disposal is crying out for new ideas and concepts in the field of waste management. Fairer billing systems based on the principle of the actual amount of waste produced combined with more transparent billing models based on service are called for. Envicomp's systems provide the vital prerequisites in terms of logistics and technology. The modular system allows for individual solutions and gradual expansion. The following modules can be configured and linked with one other according to the respective requirements:

- Identification
- Weighing
- Data processing

Additional logistics modules such as the "Tour monitoring" programme open up further expansion prospects.

Envicomp is your competent partner for municipal waste management, since its system solutions not only apply to the initial introduction of billing models based on service but also cover upgrading and expansion projects.

Smart waste disposal systems introduce a host of benefits

For the consumer:

- Transparent system of charges based on the principle of the actual amount of waste produced
- Billing based on service

For the municipal waste management enterprise:

- Safe flow data acquisition
- Comprehensive refuse bin management
- Clean data stock (no fee-evasion through unregistered bins)
- Precise administration of customers and property
- Reliable organisation of refuse bins and collection schedules
- Continual process of route optimisation
- Seamless integration of billing and rate assessment



Convincing waste management concepts for industry and commerce

Modular Envicomp systems for companies of any size

There is also a wide range of convincing Envicomp solutions for the increasingly complex demands posed by industrial and commercial waste management. Our modular Envicomp systems can be adapted to cater precisely for individual requirements, different waste materials and any size of company. Envicomp has even developed all-embracing controlling and operating tools for the most complex waste management systems in special industrial sectors. The experience we have gained in the course of the many years we have spent dealing with systems for municipal waste management is there for our customers' benefit.

Concepts for customised solutions

The following systems represent just a few examples of tailor-made solutions devised for use in the industrial and commercial sector:

- Concepts for corporate waste management including resolute flow management per volume and expense account based on the exact determination of
 - Refuse quantity
 - Refuse category
 - Disposal and recycling costs
- Concepts for dealing with documentation required under the ordinance governing disposal records
- Concepts for a practicable container management system
- Route planning systems

The entire spectrum for industry and commerce

Basically speaking, the whole spectrum of Envicomp's technology is available for industrial and commercial waste disposal purposes as well, the three core competences being:

- Identification technology
- Weighing technology
- Information technology

Envicomp offers numerous options in the field of weighing technology:

Dynamic container weighing

- Truck weigh-bridges for the dynamic weighing of refuse collection vehicles
- Dynamic rail weighing systems

(Different bins collected on a rota basis can be weighed collectively.)

In terms of information technology Envicomp also offers the following add-on components designed for special tasks and fields of application:

- Handheld computers
- Practical transponder solutions
- Barcode identification
- GPS/GSM technology
- High-performance software

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