

KFZ[®]

binlifts | **sideloaders** | weighing & ID | data solutions



TERBERG
MATEC

Manufacturer of environmental equipment

KTZ[®] *Collecting Technology*

Terberg Machines in collaboration with Kliko have developed an exceptionally effective, reliable and safe waste collection system for under and above ground containers using the very latest technologies available.

The system consists of two main components;

Containers

The under-ground waste container, stored invisibly underground complete with an above ground waste insertion pillar. The KTZ system container requires no electrical or hydraulic power installations meaning that the system is largely maintenance-free and thus provides a considerable saving in capital outlay.

The above-ground container options have been specially designed for the KTZ system and are also compatible with the side loading KTZ system.

Collection Vehicle,

The KTZ collection vehicle, an exceptional sophisticated vehicle, developed by Terberg Machines and fitted with an automatic side-loader allowing above and under ground containers to be emptied automatically by just one driver/operator.

The underlying principles for the KTZ system design are to ensure safety and offer the best working conditions possible. The collection system co-developed by Terberg and Kliko offers municipalities, architects and town & country planners possibilities that have not been available previously. The compact design and efficiency of the KTZ system make the solution possible, not just physically but financially.





The KTZ system is suitable for use everywhere, both in new and existing housing areas (town centres, redevelopment areas) and in shopping centres.

The underground container site consists of a concrete pit fitted with a frame and hinged lid that incorporates a top plate and the waste insertion pillar.

A galvanized top-emptying inner container hangs in the concrete pit and waste insertion pillars are available in a wide variety of shapes and colours.

The above-ground container consists of galvanized steel and is available, upon request, in a colour of your choice. The above-ground container is top-emptying, by opening its large cover. In the front part of the cover, large waste insertion holes are fitted, so all waste can be inserted easily.

Both the under and above ground containers are equipped with special slots on both sides of the container. The KTZ vehicles collection arms are fitted with a twist-lock docking system that locks securely into the slots, this system eliminates the risk of falling containers associated with similar underground container collection systems.

An access control system is available as option on both the under and above ground containers, the system administrator can then control waste insertion access by means of a magnetic access pass. Use of the access pass can be connected to a pre-paid credit system for waste disposal.

The access control system can also be used for container management purposes. Through GPRS communication the container can communicate with the administrator and provide various streams of information such as malfunctions and material fill levels.

An energy point is positioned next to the underground site. This is activated by an extending energy point from the KTZ collection vehicle providing safe 24 volts to the maintenance-free spindle motor used to open the containers hinged lid.

The top-emptying inner container is lifted from its underground position automatically and hoisted to the KTZ collection vehicle in an upright position ensuring that no materials are spilled from the container.





The side loader is operated automatically from the vehicle cab by one driver/operator.

All handling by the driver/operator is performed by a moveable ergonomically designed operating console and all actions are followed by seven on-board camera's, which are connected to two monitors. This vision system ensures that the docking system locks accurately onto the inner container.

Hand and foot controls are used so that the operator can keep his attention on the monitors at all times.



The collection vehicle approaches and is positioned alongside the container pit. Both safety arms fold out and give an acoustic and visual signal. The hinged lid is then opened automatically by the energy point.



The emptying cycle begins after the collection vehicle has been supported automatically (levelled by integral hydraulic support legs).



The arms of the side loader move downwards and both pick-up frames automatically lock onto the inner container, by means of twist locks. The inner container is brought out upright and emptied into the collection vehicle.



The KTZ collection vehicle has a side loader consisting of the following parts:

- Automatic hydraulic collection arms.
- Two pick-up frames fitted with a twist lock system.
- Two long safety arms that deploy to protect the working area.
- Camera system with seven cameras and two monitors, to fully control the operating area.
- Optional Terberg container weighing system, to determine and store the weight of the container.
- Optional Terberg RF Identification system for recognizing container ID numbers.



Advantages of the KTZ collection system in combination with underground sites are:

- Short emptying cycle, only 180 seconds.
- Low operating costs, due to excellent logistic efficiency.
- Vehicle can be equipped with a hook loader system, with de-mountable containers.
- Ergonomically designed, one person operation from within the vehicle cab.
- Side loader can be optionally equipped with Terberg weighing and RF Identification system.
- Clear and safe working area, protected all round by safety arms.
- Reliable, patented 'twist lock' docking system.
- Simple top-emptying containers, no leakage or waste spillage.
- Operating errors are practically impossible.
- Very low maintenance and cleaning costs for the inner containers and no electrical installation costs.
- No hydraulic parts in the container pit.

KT-Z Range

Wheel base	Approx. volume m ³	GVW (tonnes)	Configuration	Demountable container	VDL Hookloader system 21 tonnes	Weighing System - Indicative	High Frequency Container identsystem	Washing container
4300mm	20	26	6x2	•	•	•	•	NA
4400mm	20	26	6x2	•	•	•	•	•
4600mm	20	26	6x2	•	•	•	•	•
4800mm	23	26	6x2	•	•	•	•	•

Terberg Matec UK Ltd. reserve the right to change the specification or design of our equipment at any time without prior notification.



Terberg Matec UK Ltd, Leacroft Road,
 Birchwood, Warrington, Cheshire, WA3 6PJ
 Tel > +44 (0) 1925 283 915
 Fax > +44 (0) 1925 283 905
 E-mail: sales@terberg.co.uk



Terberg Machines B.V, Postbus 127,
 3400 AC IJsselstein (U), Holland.
 Tel > +(31) 30 2100 600
 Fax > +(31) 30 2100 600
 E-mail: info@terbergmachines.nl

