



**SPEED-WASTE-LIFTER**  
Model 105-7/9 and 95-5



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For decades, the name Villiger has been synonymous with sophisticated and practical, high-quality solutions in the waste management industry. Entrepreneurship, a pioneering spirit and the joy of innovation characterise the present and future of the Villiger Group.

Villiger is one of the leading companies in waste management systems, spanning development to production and service. At its Swiss headquarters in Oberrüti, the company employs over 90 motivated professionals, plus over 110 employees at our partner company.

Furthermore, we place great emphasis on the professional development of numerous trainees every year. Each of them is an integral part of our company – for us, this is an important investment in the next generation.

Villiger is the only industry player that offers you all around solutions from a single source. The product range extends from conventional underground, semiunderground and aboveground containers and lift systems to the fully automated SPEED-WASTE-LIFTER, which comprises a pickup device and mobile cleaning systems. Competent consulting, prompt service, expert repairing and a large spare parts warehouse complete the offering.

Our passion for modern waste management systems means embracing continuous advancement and always challenging the status quo. We place a very high value on research and development and are always looking for new, more efficient solutions in-line with our customers' needs to save disposal costs and reduce CO<sub>2</sub> emissions.



## Intelligent Container Management



**Significantly lower CO<sub>2</sub> emissions and fuel costs, thanks to Villiger's intelligent container management concept.**

The waste disposal industry is heading for a structural change. Requirements of customers, cities, associations, etc. present companies with three central challenges: Environmental compatibility, increasing waste volumes, rising costs and growing traffic volumes.

This market development has arrived at Villiger quite some time ago. Villiger's innovative concept is characterised by sustainability, economic efficiency, longevity and flexibility.

### **It is high time for more relaxed working**

Revolution does not happen overnight, it needs time to mature. With the SPEED-WASTE-LIFTER, Villiger is setting new standards in container management.

## Stay up-to-date with us

# Trends

**Innovative municipalities and cities, so-called "Smart Cities", take into account the changing needs of people. This, together with the general increase in urbanisation, calls for clean and space-saving solutions in waste management.**

The clearly recognisable trend: "From residential collection to collection points for entire neighbourhoods" has the following advantages:

- Small space requirement: Centralised collection points for entire neighbourhoods
- Aesthetics: Large-volume containers which, in addition, are installed underground
- Efficient disposal due to good accessibility of the containers by the refuse collection vehicles
- Convenience: Intelligent assistance systems (user identification, weight measurement, etc.)
- Quality of life: significant minimisation of noise and odour emissions



A highly sophisticated concept

# SPEED-WASTE-LIFTER

Large container  
volumes (capacity  
up to 6 m<sup>3</sup>)



### Think holistically

You determine how you work! We show you the decisive advantages of the SPEED-WASTE-Lifters concept. The heart of the SPEED-WASTE-Lifter is its fully automated functions and optimized processes.

There is no doubt that front container emptying has enormous advantages. All movements are shorter, faster and safer.

Today, the new underground containers have a capacity of over 6 m<sup>3</sup> and emptying takes only a few seconds. In order to collect the waste optimally and efficiently, compactors with large capacities and fast pressing are required. Front balers, which work from front to back and not vice versa, are particularly suitable for this. This results in a better weight distribution of the vehicle. In addition, the heavy and low rear section is no longer required, which makes driving much more pleasant.



**Technology and innovation.**

**Our ideas succeed.**

## Our solution for professional emptying.



**Revolutionary is when you can save fuel in addition to your scarce time and greatly reduce CO<sub>2</sub> emissions.**

### Villiger ICOM meets these challenges:

- A lifter system that has been developed and optimised solely for emptying containers. Unique in function, with an automation of all processes.
- An intelligent control system steers all functions precisely and automatically, either from the cab or optionally with a remote control next to the cab.
- A lifter that offers everything to assist the driver and ensures a relaxed environment.
- A mushroom pickup device for containers, which is fast and ensures maximum safety. It is gentle on the containers, as the lifting - emptying - resetting is carried out precisely, smoothly and without slamming.
- A fully automated parking of the Lifter in the shortest possible time, on both sides and without having to fold the complete system.
- A big CO<sub>2</sub> saving as well as a massive fuel saving due to efficient and fast emptying.
- An automatic extension and retraction of the support legs for high and safe stability.
- A parallel telescopic tower so that the underground containers can be lifted exactly vertically and without wedging out of the concrete element.
- A frontal, fast and safe container emptying without any contact with the tower.
- A limited hazard zone, as the container is emptied at the front with the boom retracted.
- A substantial cost saving on the pressing device, standard compactors can be used.
- An automatic closing of the compactors roof and immediately starting of the pressing process.
- A small overhang of the body without a deep pressing area, for a safe ride.

# The system solution



## This is Villiger ICOM, Intelligent Container Management

As a technology leader in waste container systems, Villiger knows the requirements and trends of the market. Based on this experience, Villiger started years ago to develop extremely efficient lift systems, which are 100 % tailored to the needs of the waste disposal industry. Today, Villiger with its full range of products is your key partner for all your waste management needs. From container to fully equipped collection vehicles.

But ICOM is more than that! It is a philosophy that takes a holistic approach:

- Speed = economic efficiency
- Safety and ease of use
- Versatility
- Ecology





# Increased performance guaranteed

We have the perfect package for every need, depending on your individual requirements! The unique SPEED-WASTE-LIFTER-System has clear advantages over conventional crane systems in container management.



## Speed = economic efficiency + productivity

- The container is emptied within a very short time - resulting in an enormous cost reduction
- Our new performance concept ensures significantly higher productivity

## Safety and ease of use

The high level of automation and assistance systems enable convenient and safe operation.

- Safety: Greatly increased, both for the operating personnel and for other road users (pedestrians)

## Versatility

- Containers from almost all manufacturers with the mushroom system are suitable for Villiger equipment.
- The carrier vehicle is versatilely applicable for different open troughs, compactor containers or the washing module.
- The high modularity allows a high vehicle utilisation

## Ecological arguments

- Much less driving is required for the same performance. The reduced CO<sub>2</sub> emissions are a contribution to achieving the UN climate goals.



1. Front emptying
2. Vertical stroke of tower 2,700 mm
3. Articulated arm 4.5 / 7 or 8.8 m
4. Emptying device SPEED-GRIPPER
5. Up to 6 m<sup>3</sup> container filling volume
6. Twin-screw compactor
7. Large 7 m<sup>3</sup> hopper
8. Collecting compactor, 23 m<sup>3</sup>
9. Hydraulic tailgate
10. Hydraulic sliding roof
11. Hooklift (option)
12. Payload up to 10,500 kg
13. More height than others
14. More clearance / space

## Various applications



Positions above the open trough can be programmed



Emptying the compactor container



The SPEED-WASHER in use

**More height**  
for  
**convenient**  
**unloading.**



**This is ICOM:**  
**Intelligent Container Management**



The name says it all: due to the numerous optimisations, the semi or fully automated processes and the many advantages in terms of cost savings and CO<sub>2</sub> reductions, Villiger offers you a sophisticated and well thought-out collection vehicle that will convince you.

**Quick**  
and  
**safe**  
**emptying**  
of the containers.



# Take advantage of the strengths!

**Whether short or long term: with ICOM you are on the winning side.**

Time is money - what applied in the past is even more important today. With ICOM you can achieve optimizations that were previously not possible. This greatly reduces the number of trips throughout the year. The result is a profitable solution for all involved: Higher performance, fewer trips... - and even more ecological.

Thanks to such innovative approaches, Villiger is always one step ahead of the competition. Our systems are an excellent investment in the future. Join us in taking the step to excellence!

**ICOM saves time, money, increases comfort and reduces CO<sub>2</sub> emissions.**

These advantages result in time savings of up to 70 % - an impressive reduction over the entire year. This also significantly reduces fuel costs, which helps to protect our environment. ICOM also offers added value in terms of safety: our sophisticated system ensures the highest safety standards.

## 16 good reasons for highly efficient container emptying

1. Quick readiness for the emptying process
2. Automatic support on both sides
3. Lift system is lifted from the lateral parking position
4. Emptying device with clamping equipment for precise and fast docking to the container
5. Vertical lift for quick and vertical lifting of the collection containers
6. Automated and secure sequences
7. Short distances for front loading
8. Quick functions of the SPEED-GRIPPER emptying device
9. Collection container up to 6 m<sup>3</sup> – quick, precise emptying
10. Large 7 m<sup>3</sup> hopper at compactor VC 24
11. Fast compaction thanks to counter-rotating twin-screw compactor
12. Capacity of the compactor container up to 30 m<sup>3</sup>
13. Automated return of the container
14. Automated closing of the compactor container roof
15. Enormous driver assistance thanks to automatic processes
16. Mountainous: Gradient up to 7° in longitudinal direction of the vehicle



## SPEED-WASTE-LIFTER 105-7/9

# The upper class

If you want to move big things, you need a refuse disposal vehicle that meets the special requirements of the waste disposal industry and fits exactly into your process chain. With the high-performance SWL 105-7/9 you will get even more out of your business!

### **The only one in its class**

The SPEED-WASTE-LIFTER 105-7/9 represents our larger lifter. It has a range of 7 metres, respectively up to 8.8 metres. Due to the greater range, the gripper lifting connection is placed/parked sideways. The system can be placed on both sides and pick up/set down containers on both sides. The system can be used as a semi-automatic system, where the driver gets out of the cab and operates the SWL via a radio remote control unit. This means that he only needs to dock onto the container from the parking position; the lift system does the rest and automatically returns to the parking position.

### **Can do more than you think: The SPEED-WASTE-LIFTER 105-7/9**

The SWL 105-7/9 can also be used in fully automatic operation: here the driver does not need to leave the cab and controls everything via the monitors and the joystick.

### **Depending on the configuration, the SWL can be operated in the following modes:**

- **Semi-automatically** with radio remote control up to 8.8 m
- **Fully automatically** from the cab with joystick

### **Clear conditions when parking**

You will never have to worry about where and how to park the SPEED-WASTE-LIFTER incl. SPEED-GRIPPER lifting connection.

Experience has taught us that with standard loading cranes and the attached container lifting connection, the question always arises as to where to put it:

- a) Retracting the crane every time means a considerable amount of time for every use before and after emptying the container.
- b) Placing the crane over the trough and bringing the container lifting connection over the rear also takes a certain amount of time, in fact you will lose at least 600 to 700 mm of height of the compacting unit. In addition, it also becomes difficult to integrate a sliding roof.

### **With our concept we pursue a different approach:**

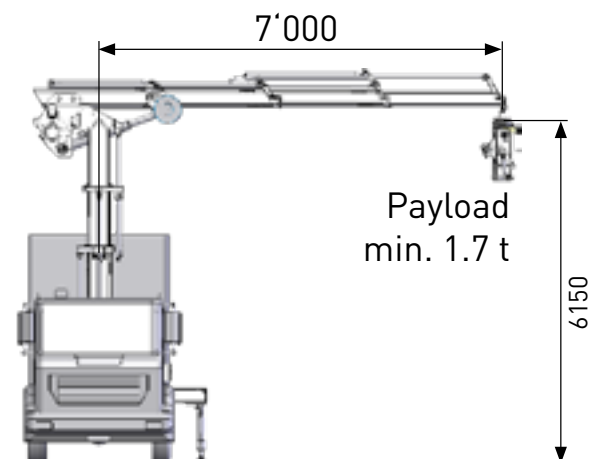
The SWL has a very fast automatic extension and retraction system and can even be used on both sides. This way we create more convenient and ergonomic parking conditions.



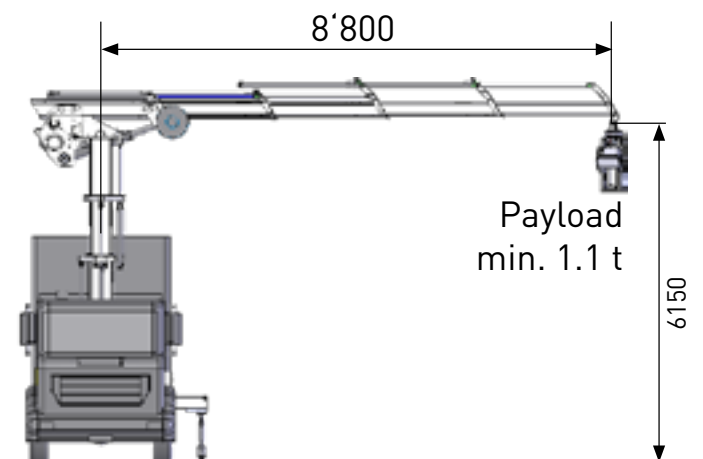


**Clear  
conditions  
when parking  
the lifter.**

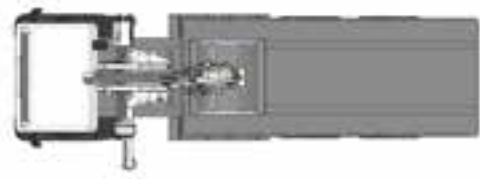
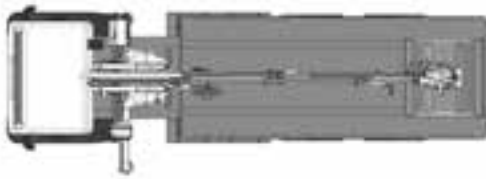
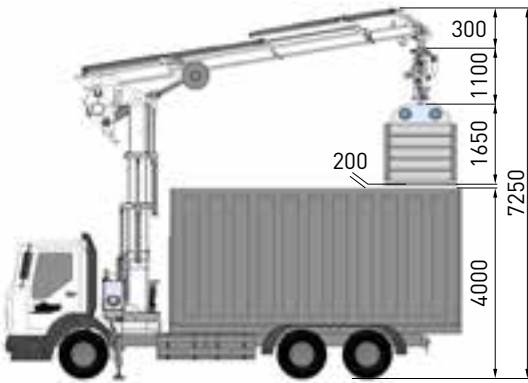
**SWL 105-7**



**SWL 105-9**

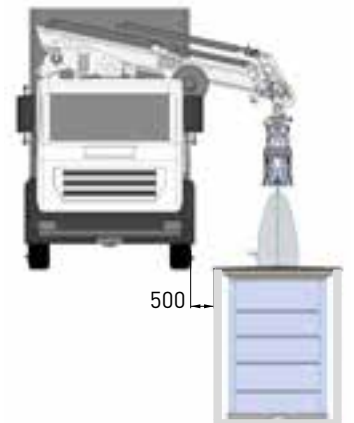
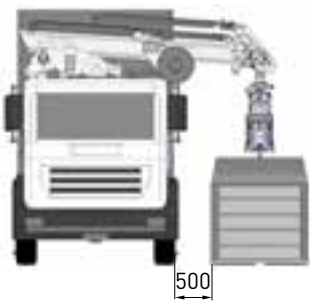
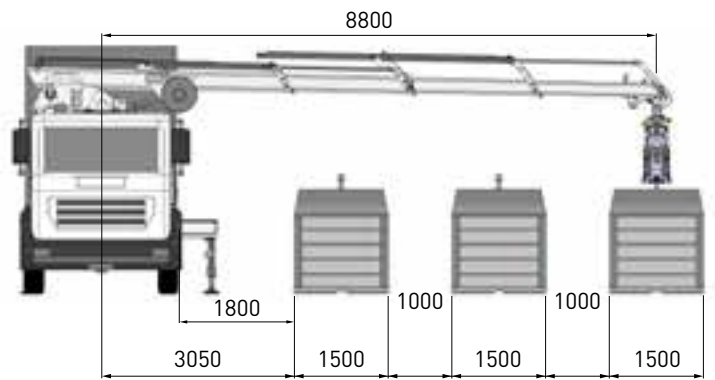
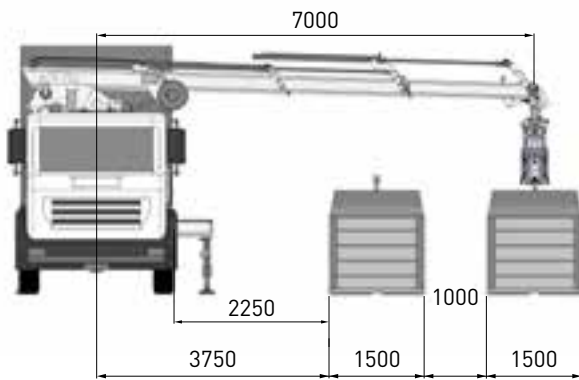


# Technical data: SPEED-WASTE-LIFTER 105-7/9

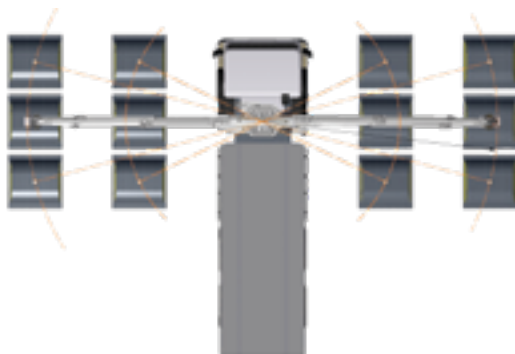


**SWL 105-7**

**SWL 105-9**



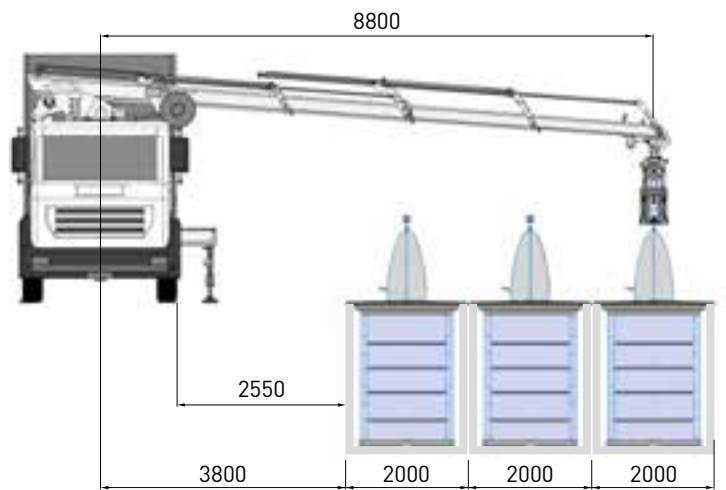
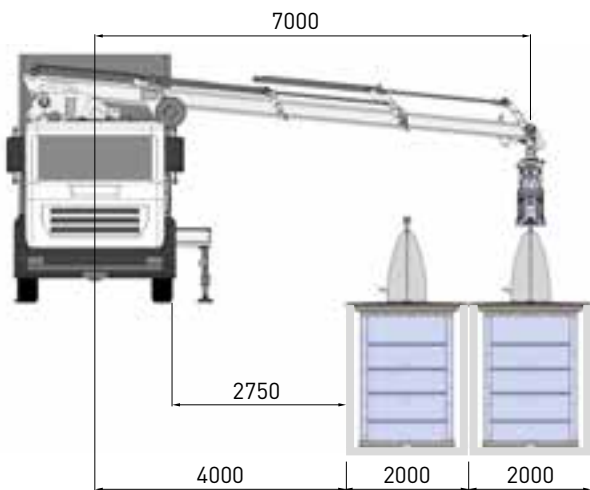
## Application radius





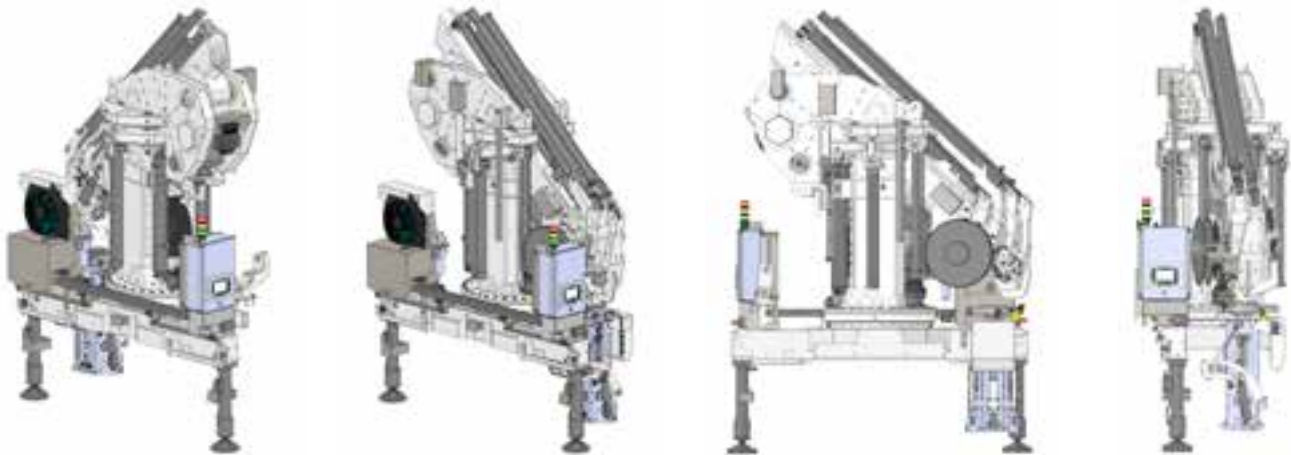
### SWL 105-7

### SWL 105-9



Parked on the left

Parked on the right



Weight 105-7

Weight 105-9

3'700 kg

3'950 kg

(without SPEED-GRIPPER)

(without SPEED-GRIPPER)

# Automation

Applies to models 105-7/9 + 95-5

## **Human is thinking, lifter is steering – fully automatically**

With the fully automatic version of the SPEED-WASTE-LIFTER, it is no longer necessary for the driver to leave the cab.

The intuitive operator guidance and the support through assistance systems make the control of the SWL extremely easy. The operator can concentrate on essentials such as monitoring the working environment. The training for operating the SWL is completed within a short time.

As soon as the vehicle is ready to start at the container collection point, the operator can start the container emptying process fully automatically using the joystick. Distance sensors and high-resolution cameras support the fast and safe emptying process. The SWL automatically moves to the containers to be emptied, grips and empties them and returns them exactly to their original location.

The job is finished and the next collection point can be approached. Up to 20 different containers can be programmed.

## **Intuitive operation**

With the joystick, the electronic pilot control ensures sensitive, proportional control of all functions and enables outstanding precision in all emptying operations. In the basic class you activate the main function for automatic container docking. This is followed by a smooth emptying process. If for some reason automatic container docking is not possible, all precision adjustments can be made with the joystick.

## **The fully automatic mode from the cab with joystick offers the following:**

- Extending / retracting supports vertically
- Gripping container
- Emptying container
- Setting down container
- Automatic parking

Manual corrections can be made via radio remote control or joystick.

## **Look ahead calmly –**

### **you are well positioned in the back**

- Thanks to the automation, each container is gently emptied within 90 seconds and you are ready to continue your journey.
- Enormous time and cost savings.
- Significant reduction of CO<sub>2</sub> emissions.



## **Get excellent support!**

### **Interactive display**

Our colour display is state-of-the-art and visualises the most important parameters for successful emptying. This ensures higher precision and more convenience.





**Better weight distribution of the vehicle.**

**Improved driving in curves without rear-load compactor.**



# SPEED-WASTE-LIFTER 105-7/9

## Semi-automation

### **Man thinks, the lifter controls - semi-automatically**

In the semi-automatic version of the SPEED-WASTE-LIFTER, the driver leaves the cab and takes the radio remote control unit with him. He goes near the container and leaves the danger zone.

The semi-automatic version is only available for the SWL 105-7/9. Depending on the gripping length, the horizontal supports must be extended to ensure stability.

The operator can select the container on the display, which is located at the control box; when arriving in the main menu, the supports can be extended. After the vehicle is safely supported, the SPEED-GRIPPER is moved manually onto the mushroom via the radio remote control. After the SPEED-GRIPPER is safely placed on the mushroom lifting connection, the operator can operate the clamps from the SG. Then the automatic mode can be started with the available key combination.

The SWL moves up to the hopper and opens the container floor. By moving the toggle switch in the opposite direction the container floor is closed and the container set down again at the same place.

The operator must use a key combination to unlock the mushroom lifting connection. The container can only be unlocked when placed on the ground. This is for safety reasons, so that no container can fall down. This is guaranteed by a coded safety switch.

When releasing the mushroom lifting connection, the operator must lift the SWL tower to release the SG from the mushroom lifting connection. When this has been achieved, a key combination can be used to automatically move to the parking position.

### **This is what the semi-automatic mode has to offer:**

- Manual operation via radio remote control
- Extending / retracting supports vertically
- Docking container
- Automatic emptying
- Automatic return to the same place
- Automatic parking

Manual corrections can be made via radio remote control or joystick.



**Technology  
and  
innovation.**  
Our ideas prevail.



**Radio remote control operation:**

All lifting movements can be carried out via the radio remote control like on the joystick; in addition, the following is possible:

- Activating parking position change
- Switching OFF truck engine
- Switching ONN truck engine
- Optional:
  - Increasing speed
  - Minimising speed
  - Scale: Tare
  - Scale: Gross



# Front loading

## Please load in front - rear is closed

There is no doubt that front loading offers considerable advantages over conventional rear loading. Greater safety, less space requirement and shorter distances are just some of the benefits. To collect waste optimally and efficiently, for example, you need compactor containers with a large capacity and fast compaction. Front compactors, working from front to back and not vice versa, are particularly suitable for this purpose. This results in a better weight distribution of the vehicle. In addition, the heavy and low rear section is no longer needed, which makes driving around curves much more pleasant.

### 1. Compact and quick retraction

Due to the distinctive control in the SWL software, several functions can be controlled simultaneously. This results in quick retraction or parking of the Speed-Gripper on the vehicle chassis.

### 2. Parking position

Parking takes place fully automatically from the cab via joystick or from outside with the radio remote control. Two or just one parking position can be programmed in the software. This can be adapted upon customer request.

### 3. Anti-sway brake

Depending on the load, the anti-sway brake holds the container vertically, to ensure that the fast emptying process is not impaired.

### 4. Central lubrication reduces costs

Regular lubrication reduces wear. The automatic central lubrication system ensures that all lubrication intervals are precisely maintained. During operation, each lubrication point is continuously lubricated with a precisely dosed quantity of grease. Furthermore, the transparent tank with the grease supply is clearly positioned.



4.



3.

2.

**The compacting  
screws  
rotate  
from front  
to back and not  
vice versa.**



**1.**



# SPEED-GRIPPER

## Mushroom lifting connection EL 28-2 is available for both models

### The perfect interaction between lifting connection and container.

The emptying device SPEED-GRIPPER EL 28-2, which allows the gripping of a container with mushroom lifting connection, is an important and essential component in automation.

Optimal power transmission and container alignment is possible thanks to controlled gripping. You achieve an optimum of safety and efficiency. The emptying device EL 28-2 is compatible with the SPEED-WASTE-LIFTER, which is designed for automated work flows.

The software of the SWL can be used to program the angle of the container for the SG and change it by pressing a button on the SWL display. However, it must be ensured that the SG is placed parallel to the container. The angle of the SG can easily be adjusted using the joystick in the cab or the radio remote control.

The SPEED-GRIPPER can drive an angle of about 220 degrees.

### Safety:

- A self-locking cam track ensures friction-locked clamping of the fixed mushroom disc
- The "on Ground" safety sensor allows the cam track to open only when the container is safely on the ground
- The hydraulic SPEED-GRIPPER control is only supplied with pressure oil when the container is safely on the ground or above the trough
- The friction-locked clamps prevent rotation of the container during the cycle
- The electronics communicates via a monitored CAN data bus, which does not allow any malfunctions



### SPEED-GRIPPER EL 28

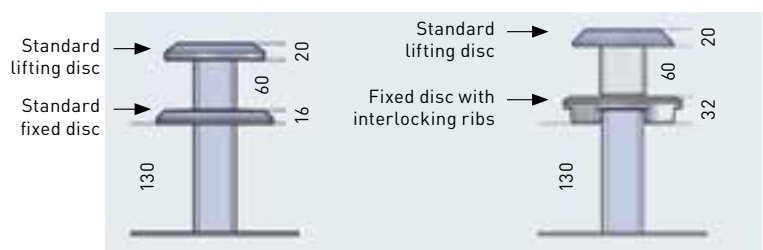
Dead weight 170 kg /

Load capacity 2,500 kg / 3,000 kg

### 1. Docking

### 2. Clamping

### 3. Lifting the container



**Meeting the  
demands:  
Safety & speed**



1.



2.



3.



# Has everything to convince

**The upper class SWL 105-7/9 impresses with its versatile applications.**

Your challenges increase and your demands count. Your satisfaction is our motivation to always find new solutions and best performances. More productivity, more comfort and variety - this is what our concept stands for and thus forms a class of its own!

## Various practical applications







## More of everything ...

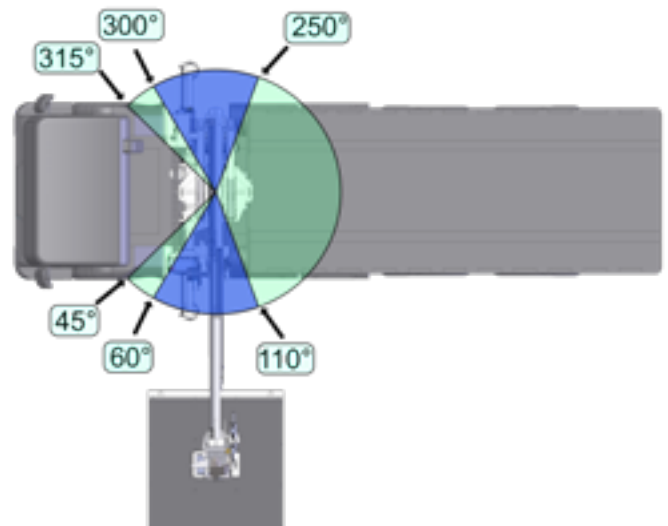
**More support:** For example with the multi-chamber glass trough. Automatic approach of the individual trough chambers including emptying of containers until they are returned to their place.

**More economic efficiency** - all underground containers can be collected and automatically emptied at one location.

**More convenience** – look forward to every tour of the day.



## Application radius



# SPEED-WASTE-LIFTER 105-7/9



## Don't give away an inch

Certainly, emptying containers in cities is not without risks. For this reason, the hazardous area should be kept close to the vehicle and as small as possible.



## Unlimited use



## Comes up very high

Even if you rarely need this position, it is impressive in any case!

## Unlimited gathering

No matter whether the containers are close to the vehicle or far away from it, the SPEED-WASTE-LIFTER grips them in any

With the SPEED-WASTE-LIFTER you use the given space conditions optimally. This is also how you get to areas that are unreachable by conventional systems.



Also gets down very low.



**The concept means more safety, more productivity, more automation!**

**Keep an eye on the risk**

What can we do to make container emptying safer?  
 Gripping the container on the left or right side and pulling it towards the vehicle, then lifting it into the front loading compactor. This results in a considerably smaller danger zone.



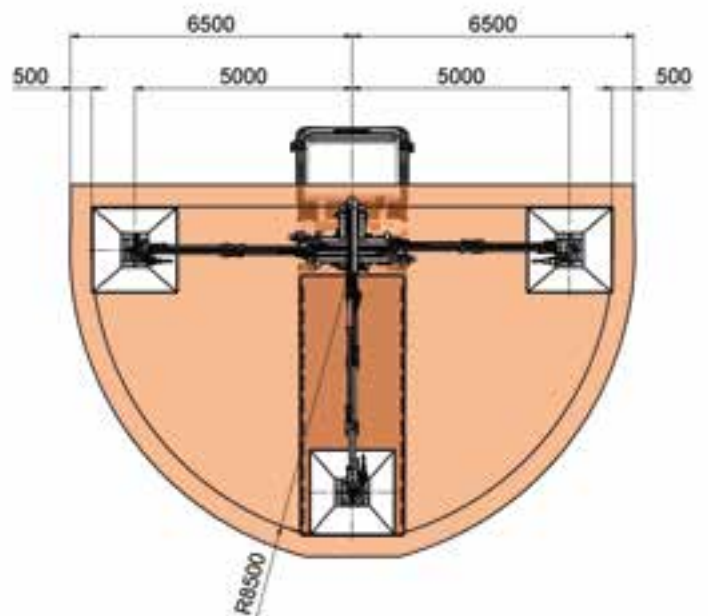
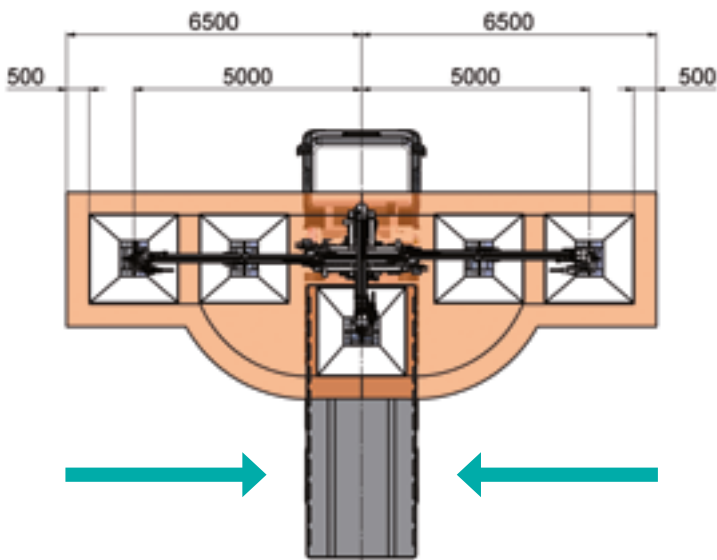
**Reduced danger zone**

**Front emptying with SPEED-WASTE-LIFTER (applies to models 105-7 and 95-5)**

With front loading, the container is first moved towards the vehicle before it is turned over the emptying position. Thus, the movements are shorter and the hazardous zone is minimized.

**Rear discharge with standard loading crane**

For rear loading, the container is moved to the emptying position with the boom extended. This creates a large hazardous area.



## SPEED-WASTE-LIFTER 95-5

# The compact class

**If you want to achieve great things with smaller devices, you need handy, efficient and ergonomic products that meet all requirements.**

### **The first in its class**

The SWL 95-5 stands for our small lifter. Everything points to a perfect device, compact, powerful, reliable and with all advantages. The SWL 95-5 has a reach of 4.5 metres and is used wherever containers are located close to the roadside or side walk. This short distance to the containers offers an enormous advantage in automation - all paths are shorter and can be automated even faster and more precisely.

### **Compact means versatile**

The system is only available in fully automatic mode. This means that the driver never leaves the cab. He operates all functions from the cab. In the standard design, all functions are possible on both sides of the vehicle, such as automatic recognition and gripping of the container as well as parking of the lifter.

A special feature is that the lifter has the parking position including the gripper above the chassis. The standard equipment also includes parking on both sides.

A considerable advantage when converting the vehicle: components such as the tank, air filter, batteries or exhaust never need to be moved.

The SWL can be mounted on both three- and four-axle vehicles.



### **High-resolution camera**



### **Distance sensors**

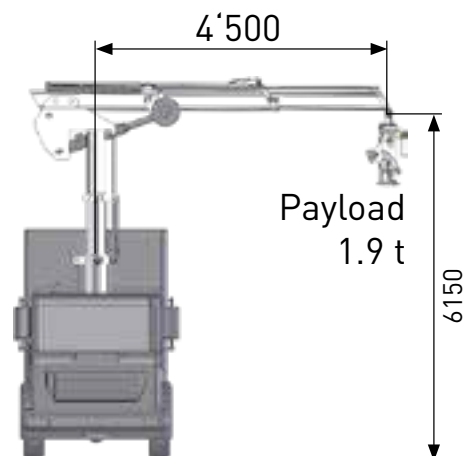


**Success is  
based on  
experience.**

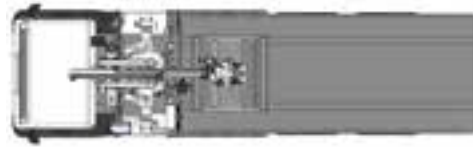
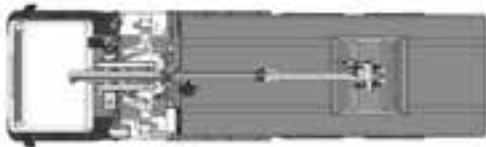
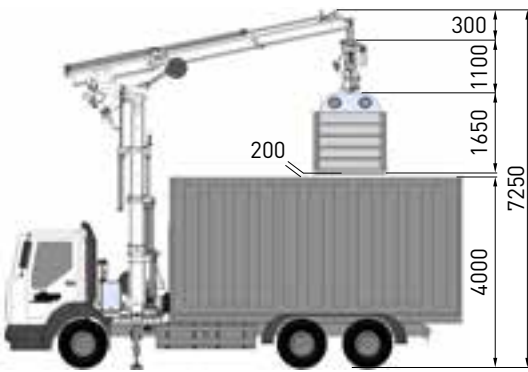
**We have several decades  
of experience.**



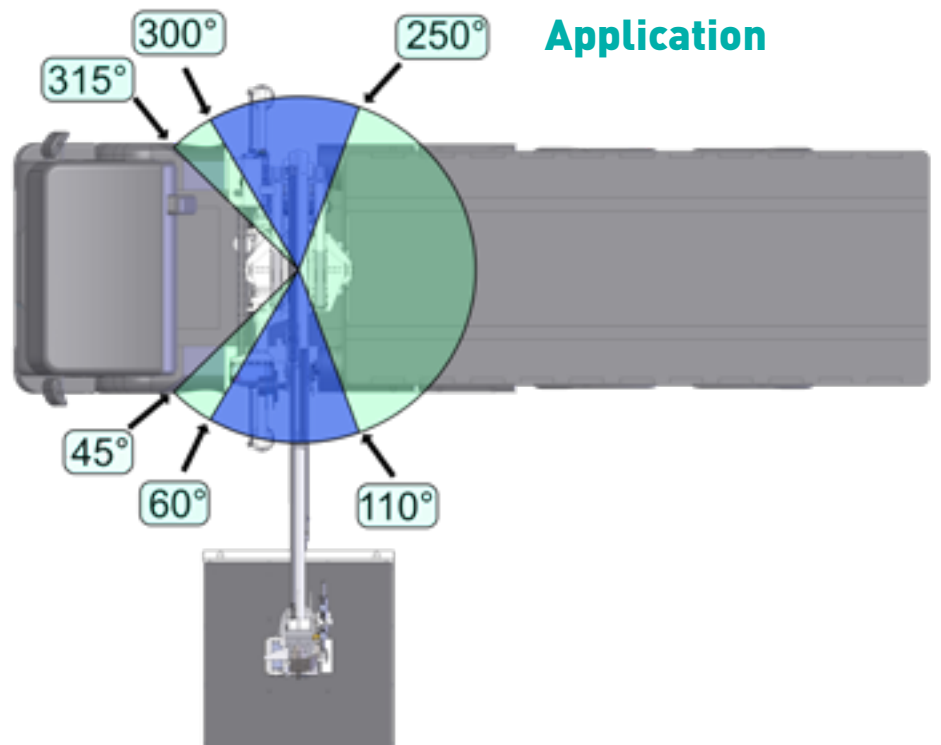
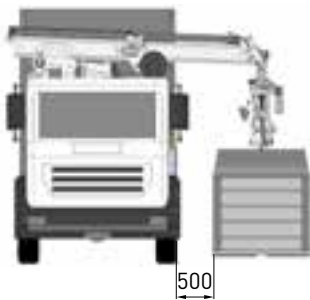
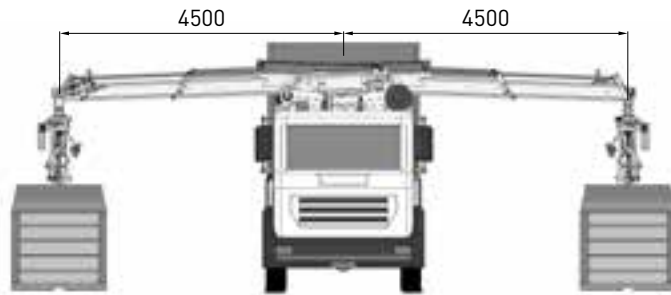
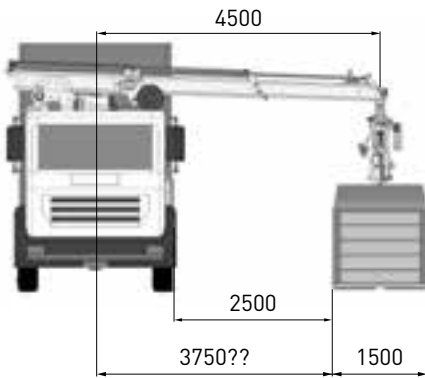
### SWL 95-5

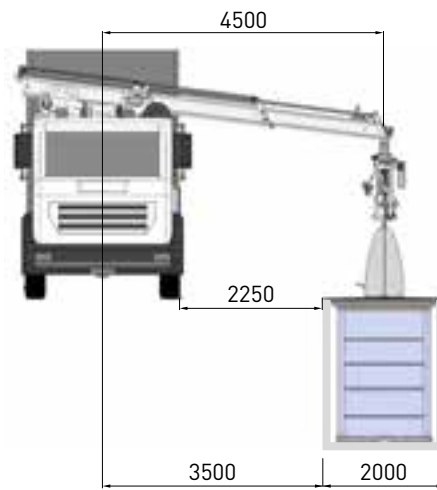
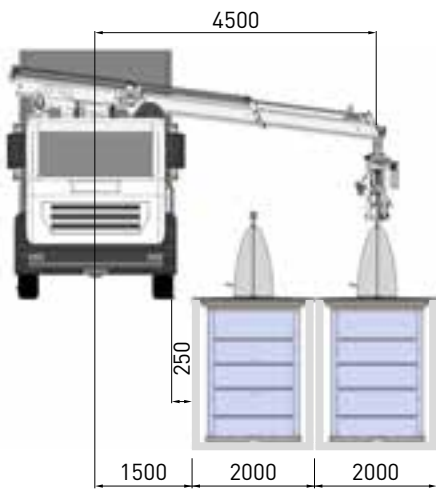
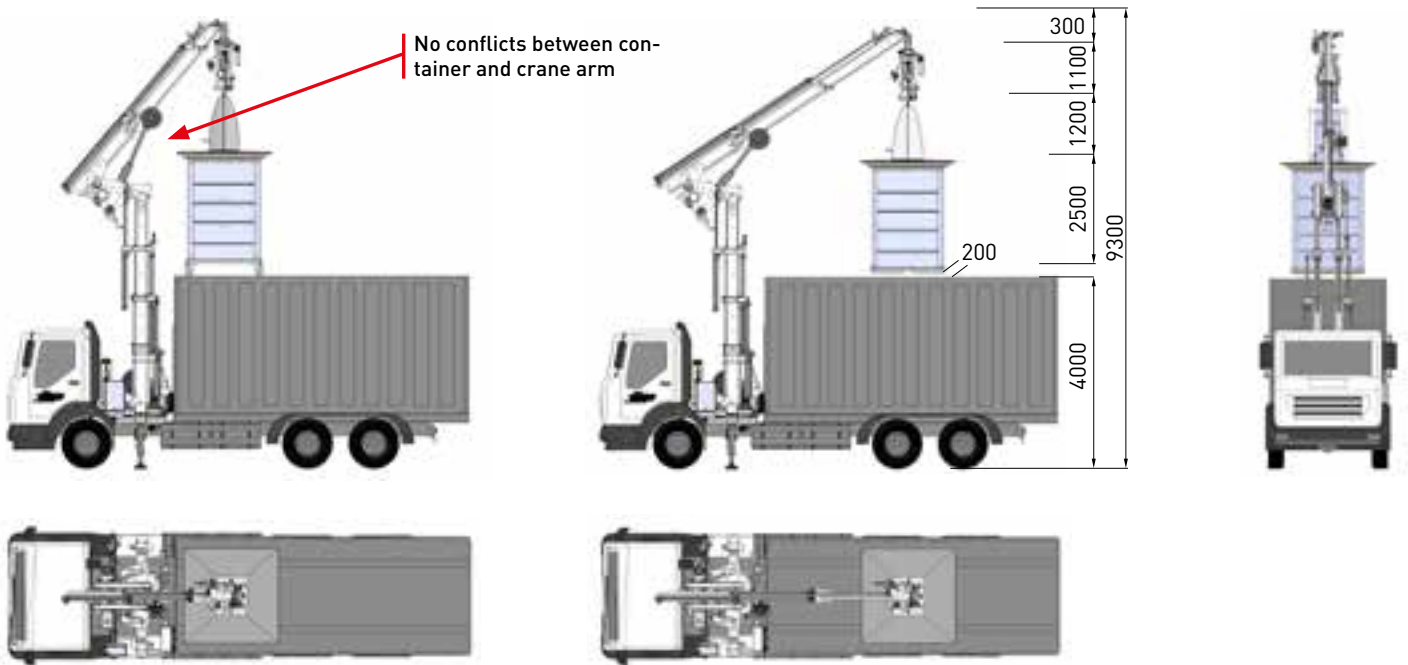


# Technical data: SPEED-WASTE-LIFTER 95-5



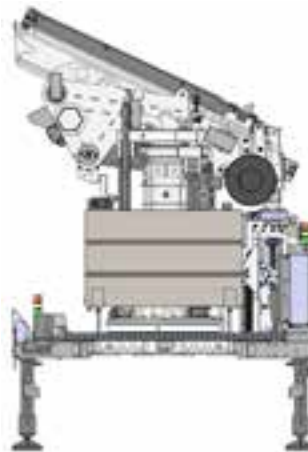
## SWL 95-5





Parked on the left

Parked on the right



Weight 105-7

3'000 kg

(without SPEED-GRIPPER)

# SPEED-WASTE-LIFTER 95-5

## Automation

### **Man thinks, the lifter controls - fully automatically!**

With the fully automatic version of the SPEED-WASTE-LIFTER, it is no longer necessary for the driver to leave the cab.

The intuitive operator guidance and the support through assistance systems make the control of the SWL extremely easy. The operator can concentrate on essentials such as monitoring the working environment. The training for operating the SWL is completed within a short time.

As soon as the vehicle is ready to start at the container collection point, the operator can start the container emptying process fully automatically using the joystick. Distance sensors and high-resolution cameras support the fast and safe emptying process. The SWL automatically moves to the containers to be emptied, grips and empties them and returns them exactly to their original location.

The job is finished and the next collection point can be approached. Up to 20 different containers can be programmed.

### **Intuitive operation**

With the joystick, the electronic pilot control ensures sensitive, proportional control of all functions and enables outstanding precision in all emptying operations. In the basic class you activate the main function for automatic container docking. This is followed by a smooth emptying process. If for some reason automatic container docking is not possible, all precision adjustments can be made with the joystick.

### **The fully automatic mode from the cab with joystick offers the following:**

- Extending / retracting supports vertically
- Gripping container
- Emptying container
- Setting down container
- Automatic parking

Manual corrections can be made via radio remote control or joystick.

### **Look ahead calmly –**

#### **you are well positioned in the back**

- Thanks to the automation, each container is gently emptied within 90 seconds and you are ready to continue your journey.
- Enormous time and cost savings.
- Significant reduction of CO<sub>2</sub> emissions.







**You never  
drive with  
an open top.**

On top: Hydraulic sliding roof.

Quick and safe emptying of SMART containers.



**SPEED-WASTE-LIFTER 95-5**

# They lift up

The only one in its class that can automatically empty 6 m<sup>3</sup> collection containers. And that at a four metre filling height of the compactor container.



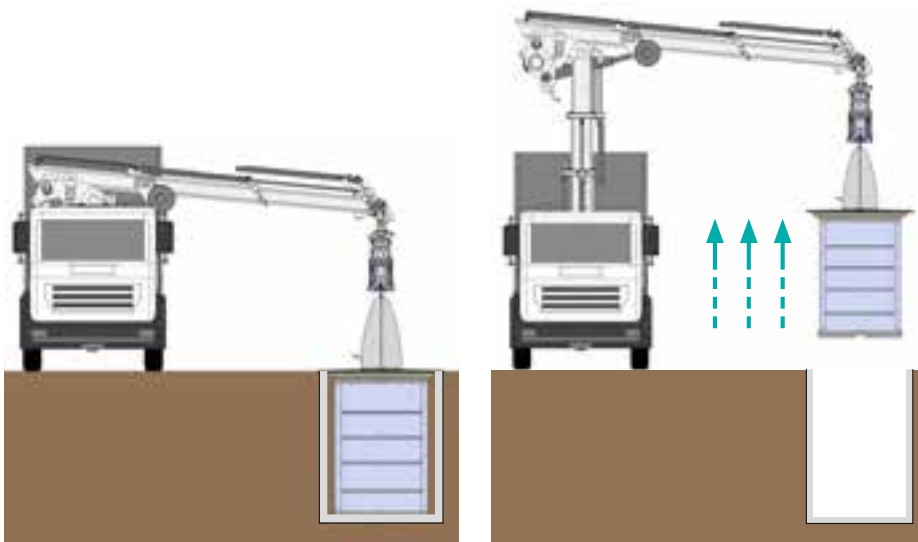
**The way to maximum efficiency - every minute counts!**

Handling your daily performance effortlessly requires a robust tool. You need automated technology that you can work with - even in difficult and narrow streets and spaces.

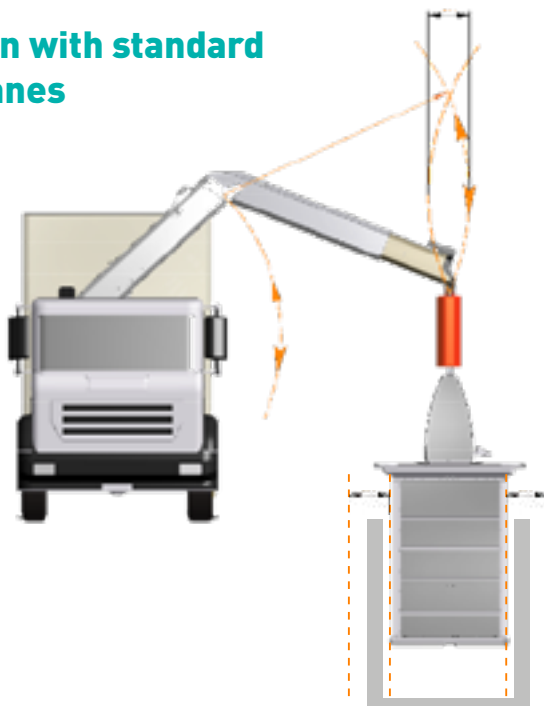
On the right you can see the processes from the vehicle driven into position to the final emptying of the container.

**One of its strengths is the vertical lift**

Especially for the underground systems it is a great advantage that the containers are lifted exactly vertically out of the storage pit. This prevents damage during lifting and inserting.



**Comparison with standard loading cranes**



Move to position. Lifter is in operating position.



Container is lifted vertically from the storage pit.



Vertical lifting without any tilting.



Front unloading of a 6 m³ container.

# Precise, even when changing sides

Different control of containers, positioned once on the left and then again on the right, is no problem for the compact class SWL 95-5 and is one of the basic functions. Regardless of which side the containers are emptied, this can be easily done using the fully automatic mode. You only need a short time to change sides - the lifter is raised and turned by 90° each time before emptying begins.



## Adaptable

The containers can still be emptied automatically even on gradients of up to 7° in longitudinal direction of the vehicle.

Road gradient of 7°.



**Unlimited possibilities  
-  
making work fun!**



**Do not exit vehicle**

In many cities, the collection containers are located in narrow and busy one-way streets, where it is not possible to exit the vehicle. Here only 90 seconds are needed for the fully automatic emptying!



# SPEED-COMPACTOR VC 24: The screw compactor

**The perfect interaction: SWL in combination with the SPEED-GRIPPER and the Compactor VC 24:  
An extremely high-performance system!**

The COMPACTOR VC 24 is the newest component in our product portfolio. The high compaction of the material results in a higher performance per vehicle, so less trips are necessary. This waste disposal vehicle has been designed and developed by us from scratch. It has been developed in close cooperation with waste disposal companies, drivers, cities and municipalities who care about the SPEED-WASTE-LIFTER. Thus it is exactly adapted to your needs.



SPEED-WASTE-LIFTER: Long ranges, high stroke.

# Guaranteed higher daily performance

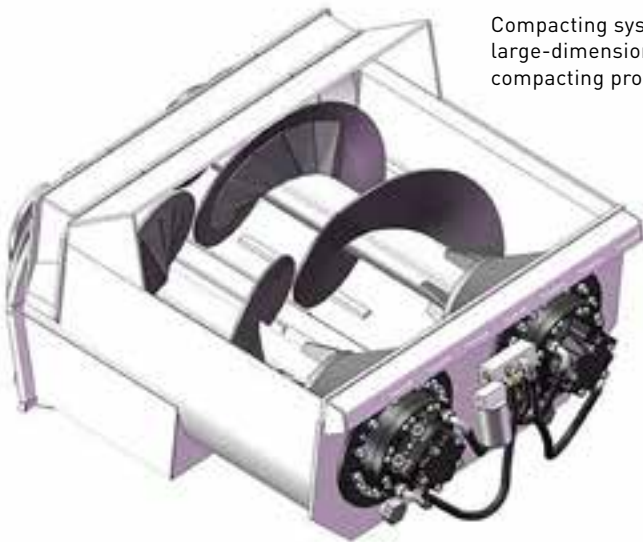
**Massively reduces the CO<sub>2</sub> emissions per collected tonne, making it worthwhile for operators and the environment.**

Since daily performance increases considerably, the higher acquisition costs are recovered in no time at all:

- The two core elements of the VC 24 are the counter-rotating twin-screw compactor and the self-supporting lightweight Hardox tube, which sets new standards. The result is an unprecedented combination of speed and large loading volume.
- This ensures fast processing with a capacity of 5 m<sup>3</sup> per minute, more than enough to completely compact the waste before the next collection container reaches the hopper. This prevents unnecessary waiting at sites with several containers to empty. It also ensures that the hopper is empty before the truck is ready to leave again.
- Suitable for a wide range of materials: Paper, cardboard, light packaging, PET bottles, compostable waste and residual waste
- Advantages compared to a punch press or rotary piston press
  - Extremely fast material removal into the compacting chamber
  - No pushing back or loosening of the compacted material possible
  - Minimised risk of drifting during road travel due to sliding roof.
  - Shorter downtimes of the truck and thus considerable savings in fuel and time as well as labour costs
  - Easier to clean, as there are no hidden hollow spaces
  - Therefore also better than other systems in terms of odour emissions
  - Fast compaction = considerable increase of the daily performance
  - Fewer emptying trips, as considerably more is being loaded
  - At the end, the hopper can also stay loosely filled with 7 m<sup>3</sup> and automatically empties itself during the tilting process
  - The compaction time can be pre-set and the hopper roof also opens and closes automatically
  - An automatically controlled hopper roof closes the hopper and opens only for emptying the container. An addition, this roof also prevents rainwater from entering the container.
- Advantages of the self-supporting equipment made of HARDOX:
  - 7 m<sup>3</sup> loading volume of the covered hopper
  - 23 m<sup>3</sup> loading volume of the waste collection compacting chamber
  - 30 m<sup>3</sup> total loading volume (23 m<sup>3</sup> compacted and 7 m<sup>3</sup> loosely in the closed hopper)



Compacting system with two large-dimensioned screws - quick compacting process.



Roof opening with hydraulic closure

Monitor with function operation

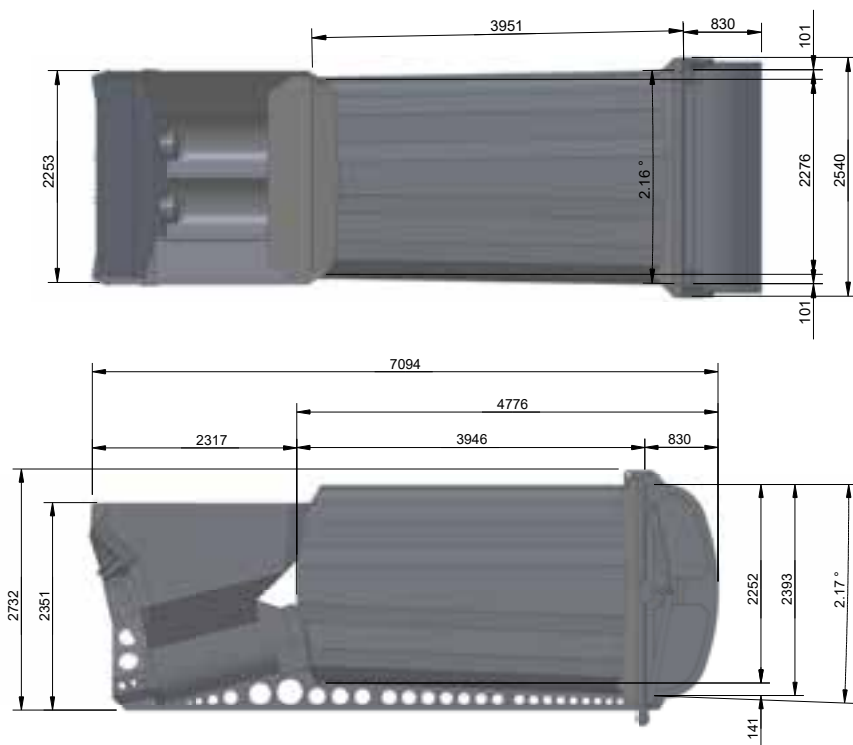
Hydraulic oil transmission motor





## Intelligent loading and unloading

### Technical data SPEED-COMPACTOR VC 24



No matter the application you are planning, our Compactor VC 24 will always convince you!

- Light, self-supporting Hardox construction
- New design
- Large hopper, 7 m<sup>3</sup>
- Hydraulic sliding roof
- Large loading volume of 30 m<sup>3</sup>
- Two counter-rotating twin-screw compactors
- Large hydraulic tailgate
- etc.





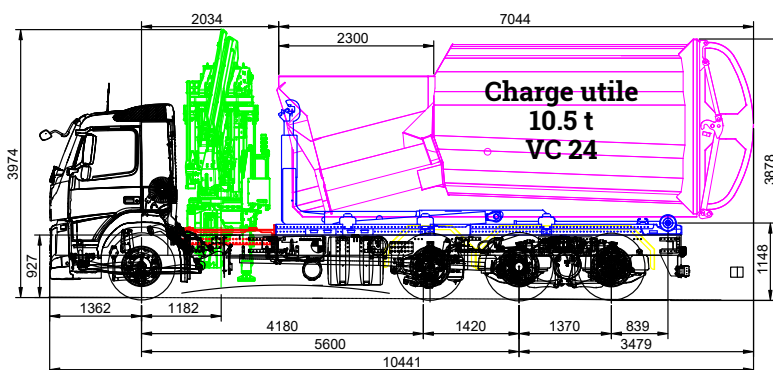


## Convenient unloading

### Nothing ever stands in your way

The unique compact design of the retracted Speed Lifter is convincing in every respect. Nothing ever stands in your way and you can tilt the trough at any time. Standard loading cranes with attached lifting connection face completely different challenges.

**Also available with SPEED-WASTE-LIFTER 95-5!**



4-axle vehicle with hooklift and SWL 105-9



Hydraulic cover opening



Hydraulic cover closure



Safety two-hand operation

# Collection system UGS-FS

## The screw compactor



### Modular waste collection program

The translift collection system type UGS-FS, to be mounted on a truck with crane, is designed for emptying above-ground and underground containers in the waste sector. This device is part of the modular waste collection program of Villiger AG. The high quality product is characterised by high productivity and low maintenance.

The UGS-FS system is a fixed equipment fitted with a compaction unit with two screws. This unit is emptied by hydraulically opening the tailgate and the ejection plate, which is combined with the compaction system. This system has proven itself in the use for side loader systems and offers the advantage that the loading method, the loading capacity and the weight distribution allow an efficient vehicle.

### Features

- The hopper with screw compactor is used as ejection plate, whereby the device does not have to tilt to empty the waste.
- Hopper and lifter are optimised in terms of control and geometry to speed up the emptying cycle and make it more efficient.
- The twin-screw compactor enables fast processing and high continuous pressure, which increases capacity and productivity.
- The screw compactor is suitable for many different waste fractions.
- Compacting is automated with the SWL.
- The compaction capacity is 4 to 6 m<sup>3</sup> per minute, which is more than sufficient to completely compact the waste before the collection container is placed back on (or in) the ground.



3-axle waste disposal vehicle with SWL 105-7, a collecting compactor with 18 m<sup>3</sup> capacity and a bag trough.

## Technical data of the fixed equipment UGS-FS for collecting

- Fixed equipment with ejection plate and hydraulic tailgate
- Hopper 5 m<sup>3</sup>
- Compacting system with two counter-rotating screws
- Automatic compacting
- Liquid-tight design: incl. outlet
- Oil level hydraulic incl. warning
- Available as 18 m<sup>3</sup> and 22 m<sup>3</sup> compactor





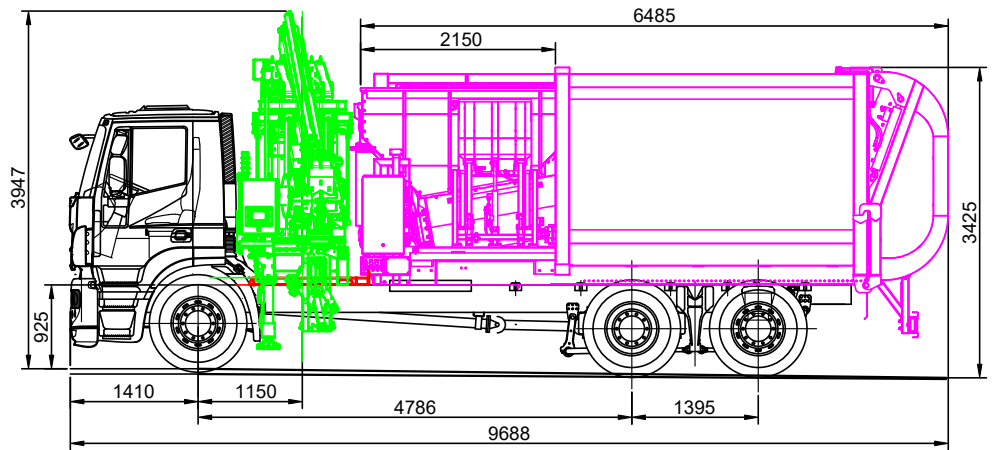
**Enjoy the simplification**

The numerous automatisms and precise mechanisms make your everyday life easier, increasing your comfort significantly. Last but not least you save time and fuel.

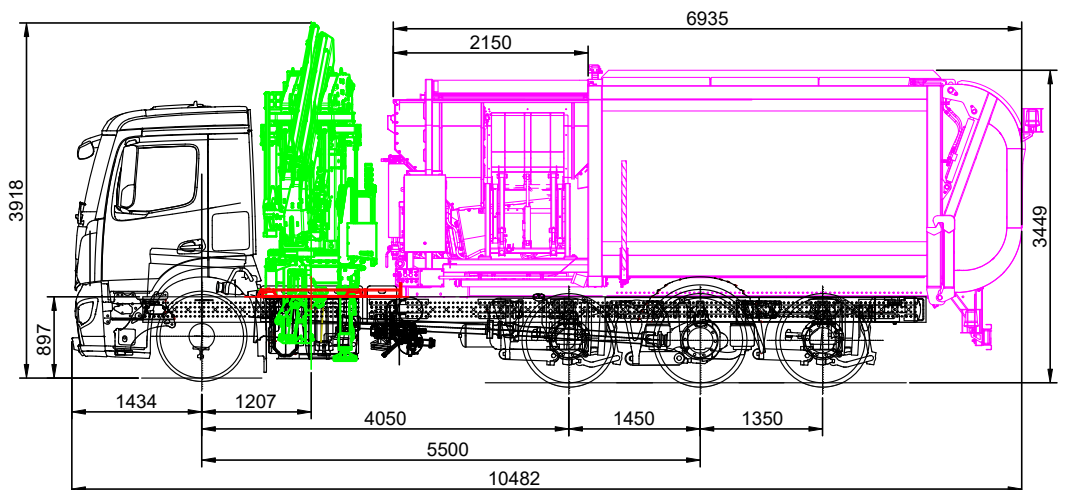


**Technical data collecting compactor fixed equipment UGS-FS**

**3-Axle vehicle with SWL 105-7**  
(also available with SWL 95-5)

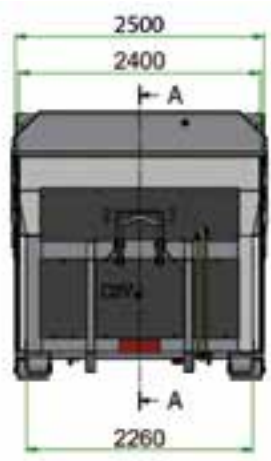
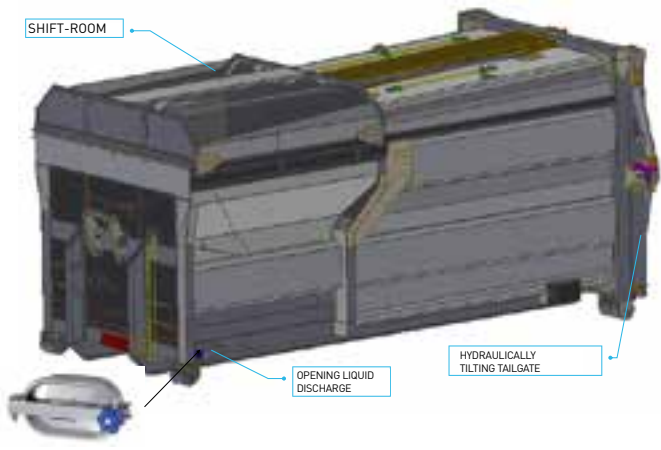
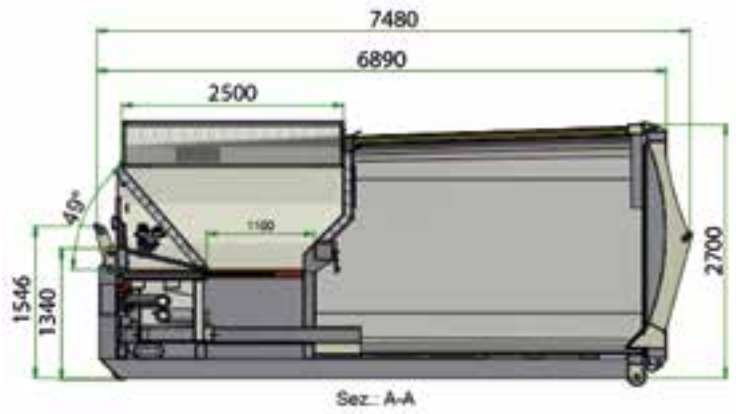


**4-Axle vehicle with SWL 105-7**  
(also available with SWL 95-5)





4-axle vehicle with hooklift and SPEED-WASTE-LIFTER 105-7 with compacting press VCP 18



# SPEED-COMPACTOR VCP 18

## The plunger press



Sturdy welded steel construction made of steel profiles and sheet steel with robust press plunger, driven by two hydraulic crosswise arranged cylinders. Large hopper with a capacity of 6 m<sup>3</sup>. Automatically controlled sliding roof above the hopper, including a hydraulic tailgate.



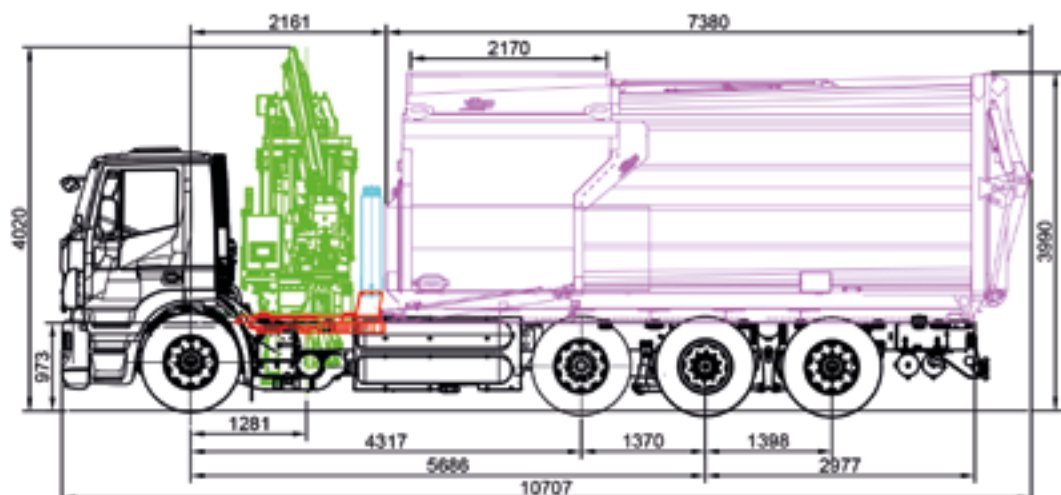
Hopper with sliding roof.



4-axle vehicle with fixed compactor and SWL 105-9.

## Technical data CRSx-24

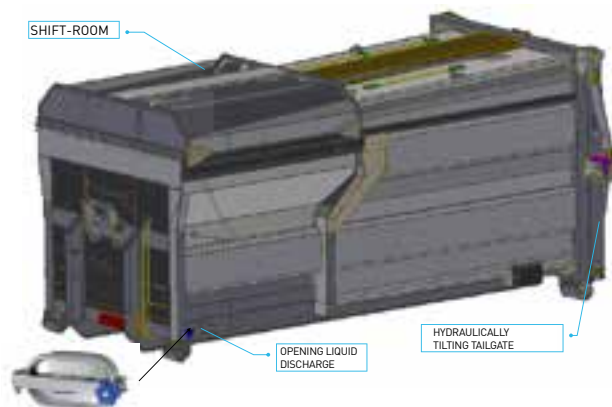
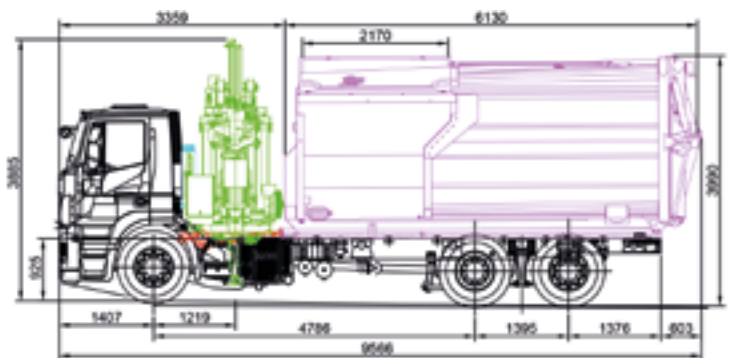
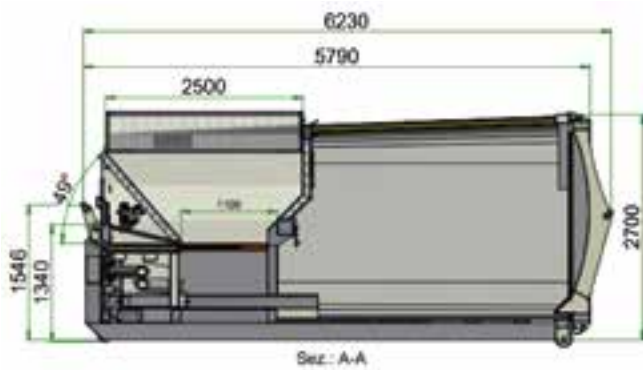
4-axle vehicle with compactor and SWL 105-9 (optionally available with SWL 95-5)



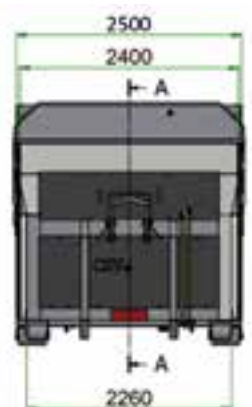


# SPEED-COMPACTOR VCP 16

The plunger press



## Technical data VCP 16







**4-axle vehicle** with hooklift and SWL 95-5 as well as collecting COMPACTOR VCP 16

Operation of the Safety two-hand control for the tailgate.

Wide open tailgate.



# Technical inputs and comments

# Commissioning

During commissioning, the customer's wishes come first. With the SWL software, various customer-specific requirements can be set. With the 20 different programmable containers, the freedom of movement of the lift system can also be limited to prevent collision with the truck or the equipment. When starting up with an inexperienced operator, the speed, which can be increased at any time, is reduced according to the customer's wishes. With the help of a GPRS module (remote maintenance), the SWL can be accessed anywhere in the world with a cell phone network. The access provides the technician with the possibility to make various changes and perform live diagnostics with the operator.

## The following options are available:

- Programming of up to 20 containers
- Turning the containers above the feed chute 90° so that the container floor is facing the transverse side of the vehicle
- Lifting / lowering the container above the trough opening
- Reducing or increasing speeds of all functions
- Specifying how many compacting cycles the equipment should perform
- Enabling cycle counter for third parties\*
- Dynamic weighing of emptied waste\*\*
- Speed increase when operating a SWL function
- Defining curb: if a container is on a curb or on a dip opposite the road, this can be compensated with one touch of a button

## Depending on the type of trough, different settings can be made:

### • Compactor container:

- Number of compacting cycles
- Speed of individual functions\*\*\*
- Automatic opening/closing of roof opening

### • VC-24

- Switch-on duration of the screw compactor
- Speed of individual functions
- Automatic opening/closing of roof opening

### • Open trough

- Determination of the emptying positions
- Several departments programmable
- Automatic incremental counting of the emptying position for balanced filling of the trough

\* We output a plus pulse for the cycle counter

\*\* Distromel has a dynamic weighing system that can weigh the load during the cycle (gross, tare)

\*\*\* Only possible with Villiger supported compactor containers and a hydraulic pump.

# Technical specifications

# SWL 95-5

## **Parking positions:**

Has two fixed parking positions at 90° and at 270°. The SPEED-GRIPPER (SG) parks on the lifter base.

## **Safety:**

- The lifter has a signalling column on each side, which indicates the general condition of the SWL to the operator and the surroundings. An additional signal light is located in the cab above the SWL display
- EMERGENCY STOP buttons are located in the cab and to the left and right of the vehicle. Depending on the model, the EMERGENCY STOP button on the equipment is also linked to the SPEED-WASTE-LIFTER.
- The driver is informed of all situations by the five cameras.
- 2x cameras on the cab to observe the surroundings.
- 2x cameras on the left and right of the vehicle for positioning for automatic gripping
- 1x camera on the tower, so that you can look into the trough opening.
- For emptying in the dark, there are two optional worklights per working side.
- The transport warning «Monitoring», monitors the position from the SWL, so that the operator cannot accidentally start driving with the supports extended.
- In case of a joystick failure, there is also an EMERGENCY operating unit, which is attached in the cab.

## **Control box:**

- The SWL is equipped with the latest technology of mobile processors.
- The communication between the sensors and microcontrollers takes place via the «CANOpen Protocol».
- An additional PLC is used to separately monitor the support.

## **Cab:**

- The ergonomic joystick allows easy manoeuvring from the crane.
- With the SWL display, all important information is shown on the homepage. More information can be displayed by using just a few buttons.
- In addition to the SWL display, there are two other camera displays which automatically change to the best view during a cycle. The rear view camera is also coupled via one of the displays. The rear view camera helps to unload the collected material and to maneuver.
- Mechanical switches can be used to switch the worklights on and off.

## **Options:**

- A hooklift can be hydraulically attached to the SWL and the oil release can be made via the SWL display.

## **SWL display**

- Up to 20 different containers can be programmed. They are marked both with images and names.
- The parking position can be changed by pressing a button on the display. If the SG is parked on the left side and work has to be carried out on the right side, this can be done by pressing a button in the main menu. By pressing the button and making a few joystick moves, the lift will change sides.

# Technical specifications

# SWL 105-7/9

## **Parking positions:**

The vehicle must have at least one parking position to park the SPEED-GRIPPER. If there is only one parking position, the position change button can be used to automatically move to the other gripping position.

## **Safety:**

- The lifter has a signalling column on each side, which indicates the general condition of the SWL to the operator and the surroundings. An additional signal light is located in the cab above the SWL display
- EMERGENCY STOP buttons are located in the cab and to the left and right of the vehicle. Depending on the model, the EMERGENCY STOP button on the equipment is also linked to the SPEED-WASTE-LIFTER.
- The driver is informed of all situations by the five cameras.
- 2x cameras on the cab to observe the surroundings.
- 2x cameras on the left and right of the vehicle for positioning for automatic gripping
- 1x camera on the tower, so that you can look into the trough opening.
- For emptying in the dark, there are two optional worklights per working side.
- The transport warning «Monitoring», monitors the position from the SWL, so that the operator cannot accidentally start driving with the supports extended.

## **Control box:**

- The SWL is equipped with the latest technology of mobile processors.
- The communication between the sensors and microcontrollers takes place via the CANOpen Protocol.
- An additional PLC is used to separately monitor the support.

## **Cab (only for fully automatic version):**

- The ergonomic joystick allows easy manoeuvring from the crane.
- With the SWL display, all important information is shown on the homepage. More information can be displayed by using just a few buttons.
- In addition to the SWL display, there are two other camera displays which automatically change to the best view during a cycle. The rear view camera is also coupled via one of the displays. The rear view camera helps to unload the collected material and to maneuver.
- Mechanical switches can be used to switch the worklights on and off.

## **Options:**

- A hooklift can be hydraulically attached to the SWL and the oil release can be made via the SWL display.

## **SWL display**

- Up to 20 different containers can be programmed. They are marked both with images and names.
- The parking position can be changed by pressing a button on the display. If the SG is parked on the left side and work has to be carried out on the right side, this can be done by pressing a button in the main menu. By pressing the button and making a few joystick moves, the lift will change sides.

## Radio remote control

- The radio remote control must be used starting at 5 metres.
- If the collected material is too heavy starting at 5 metres, a message is shown on the display. To remedy this, the horizontal supports must also be extended. This causes a different load diagram to be run in the software, which provides more stability for the additional load.

All crane movements can be carried out via the radio remote control like on the joystick; in addition, the following is possible:

- Activating parking position change
- Switching OFF the truck engine
- Switching ON the truck engine

## Optional:

- Increasing speed / Minimising speed
- Scale: Tare
- Scale: Gross

<p>Völgler Public Systems GmbH Bahnhofstrasse 13 CH - 5647 Oberried Tel. +41 0647 794 27 20 Fax. +41 0647 794 27 30 info@voelger.com www.voelger.com</p>			
<h3>EG-Konformitätserklärung   CE-Conformity declaration</h3>			
<p>Wir als Hersteller der Maschine erklären, dass nachfolgend bezeichnete Maschine den unten angeführten Richtlinien und Normen entspricht.   As manufacturer of the machine we declare that the machine specified in the following corresponds to the directives and standards listed below.</p>			
Hersteller   Manufacturer:	Völgler Public System GmbH Bahnhofstrasse 13 CH-5647 Oberried		
Befugmächiger für technische Unterlagen   Authorized representative for technical documentation:	Völgler Public System GmbH Paul Völgler Bahnhofstrasse 13 CH-5647 Oberried		
Bezeichnung der Maschine, Handelsbezeichnung   Description of the machine, trade name:	Speed-Lifter-SWL 105-7 Speed-Lifter-SWL 105-7		
Modell, Typ   model, type:	SWL 105-7		
Seriennummer   serial number:	105-17-023		
Baujahr   Year of construction:	2017		
<p>Der Hersteller erklärt hiermit, dass die Maschine den grundlegenden Sicherheits- und Gesundheitsanforderungen der Maschinenrichtlinie 2006/42/EG Anhang 1 entspricht.   The manufacturer hereby declares, that this machine corresponds with basic health and safety requirements of the machinery directive 2006/42/EG attached 1.</p>			
<p>Folgende harmonisierte Normen wurden angewendet.   The following harmonised standards have been applied:</p>			
2006/42/EG EN 12100:2010 in Anlehnung EN 12999:2013			
			
Oberried, 28. März 2017		 Paul Völgler / CEO	
<small>EG_Signatur (EN 12100, EN 12100, EN 12999) (Signature)</small>			

# Customer Service



## Speed – on-site at any time

A service team and direct contact person guarantee our permanent availability, whether sales or technical advice. If you need us, we are fast and reliable. If required, our Villiger sales partners are also always available to provide a responsive, optimal solution.



# villiger-Remote Diagnostics Service

## No downtime allowed

A number of Villiger products come with high built-in intelligence. The SPEED-WASTE-LIFTER, lift system, electronic access and weighing system must all operate flawlessly without downtime. We ensure this via mobile radio and internet technology, which transfer data from the existing installation directly to the technician's computer. They can then make the correct diagnosis and take corrective actions from any location. You in turn save time and money!



# Continuous documentation

## We think in solutions

With a comprehensive range of services and spare parts, we are always ready to respond to your situation and your requirements. Wherever and whenever you need us.

The technical documentation for spare parts and user manuals for the entire product range is already at your fingertips.



# Spare parts

## Reliability lies in the detail

Our range includes all spare parts you need. Maintenance and wear/consumable parts are always in stock. Guaranteed delivery for more than 25 years. We deliver service with manufacturer competence.



# We live Service!

## Repair service with manufacturer competence – safe and precise

Ensure added value for your containers when you repair and overhaul the system.



Automatic washing of an underground container in the mobile cleaning device.  
Underground container cleaning / fresh water tank (tank capacity 4,000 l).





All residual soiling is removed with high-pressure and pre-spray cleaners.

## Up to every trick!

Our mobile cleaning system is equipped with all necessary specifications: from the integrated waste storage room with vacuum unit, brushes and dirt tank to the required fresh water connections. The corresponding SPEED-WASTE-LIFTER is predestined for professional cleaning.



## Your benefits:

- Expertise from over 20 years of Villiger experience
- Value retention of your collection point
- Professional maintenance and cleaning thanks to trained personnel
- Waste water and removal of residual waste in the container
- Removes even aggressive waste residues thanks to our «container cleaners»
- Spare parts available from stock due to in-house production facility in Oberrüti
- Competent service team with on-call service outside opening hours

# Rent ..... Service ..... Buy

You can rent or buy our mobile cleaning system or simply order our cleaning service.

- **Vacuum tank/waste water tank 3,000 l**
- **Fresh water tank 3,500 l**

## Container cleaning and much more with state-of-the-art technology

The basis for successful recycling requires regular maintenance and cleaning of the system. The mobile cleaning system, which has been especially built by us for this purpose, has all the necessary requirements.

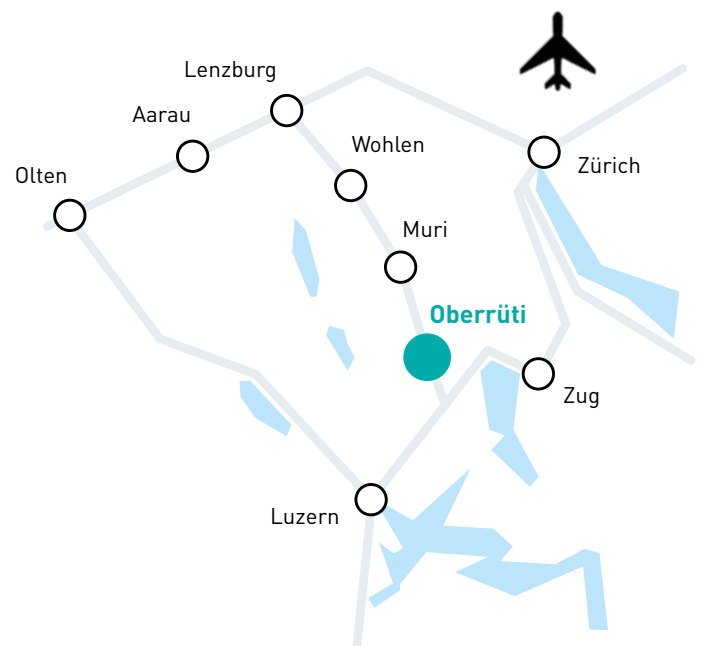
# Why Villiger?

Because we offer waste management systems with a customer perspective in mind. Villiger develops and produces optimal systems, not only for our customers but alongside them. For us, every order is a personal matter.

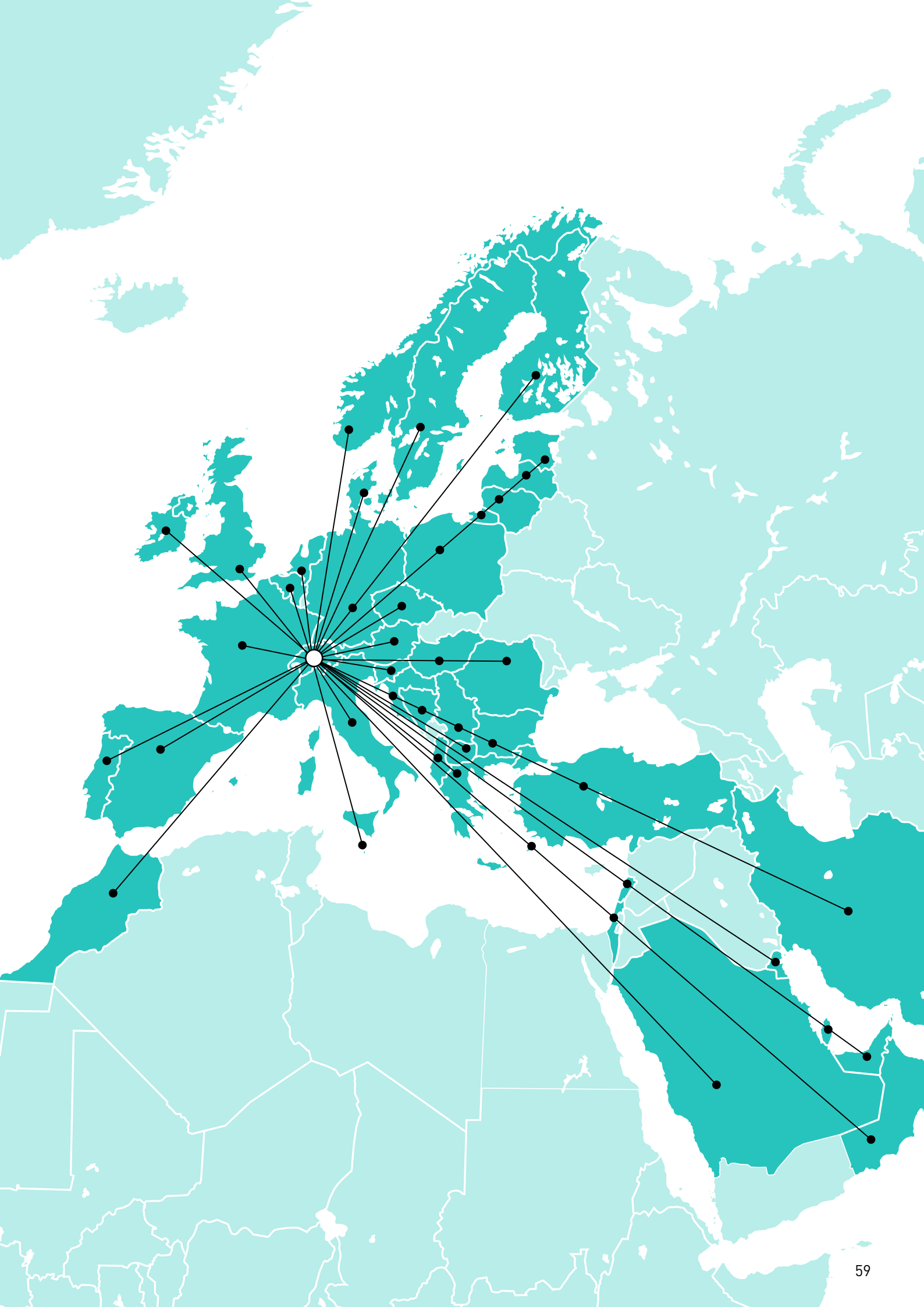
Because, via our comprehensive service and with Swiss values, we are advancing the waste management industry. Villiger stands for reliability, flexibility and a great innovative power.

Because we pride ourselves on a commitment to support the youth. After all, a well educated and trained youth is our future! For many years now, classes of trainees have been an important part of our company. To enhance their learning, we strive to make Villiger an interesting, challenging and supportive employer. We truly believe in motivating the next generation to be top performers.

Because we have a large network of experienced and competent distribution partner, which are present in many different countries. This creates a win-win situation for everyone involved.



- ISO 9001:2015 Quality Management System**
- ISO 14001:2015 Environmental Management System**
- ISO 45001:2018 Occupational Health and Safety Management System**





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