NO MORE RISK

MINI EXCAVATORS

VACUUM TOOLING
NO MORE RISK

MORE POWER TO THE VACUUM

THE WHOLE RANGE OF MINI EXCAVATORS

NO MORE RISK

HIGHER PERFORMANCE AND CONTROL
Vacuum Trucks and Suction Excavators are often used to carry out cleaning and maintenance operations in dangerous places, exposing the operators to many risks, such as gas emissions, explosions, slipping or impacts with the material. Usually, workers have to work in team holding the suction hose and conveying the material using shovels and other tools.

The goal of Gerotto Mini Excavators is to eliminate and replace the human presence during cleaning operations, keeping men at a safe distance and ensuring a safe suction cleaning activity.

This choice has, all along, been the purpose of the research and innovation process which, together with the experience gained on field, have made the Mini Excavators the ideal equipments for the vacuum technology and for the removal of the material in confined, narrow or difficult to be reached places.

**GOALS:**
- Transformation of the Variable Costs into Fixed Costs;
- Labour reduction through special technologies introduction;
- Workers’ health preservation;
- On-line Cleaning Operations;
- Increased Production.

**ADVANTAGES**
- Safe Operations in Confined Spaces;
- Labour Reduction;
- Time Saving;
- Operator works in safe areas at a safe distance;
- Operating Costs Reduction;
- No Plant Stoppage;
- No Human Risks.
Vacuum Trucks and Suction Excavators are special vehicles created for sucking material, which could be liquid or muddy (in the case of Vacuum Trucks) or even solid (in the case of Suction Excavators).

Both machines are composed of a container, mounted on a chassis, and of a suction hose. A pump (or a ventilator system) creates the vacuum, so the material is sucked through the hose and then collected inside the container. In most cases, the hose is carried by hand to reach the material to remove, but this activity exposes workers to many dangers, such as exposure to chemical agents and dangerous substances.

For this reason, Gerotto has created the Mini Excavators: these robots are connected to the suction hose and the operator uses a remote control to drive them, from a safe area, reducing the exposure to the risks.

Example of Mini Excavator connected to a Vacuum Truck.
Gerotto’s Mini Excavators are the perfect machines for cleaning operations and remediation works combined with vacuum trucks, suction excavators and industrial aspirators. They replace manual labour in all those situations where workers are exposed to risks (chemical exhalations, confined spaces, explosions, etc.).

Every Mini Excavator is designed to be connected to the suction hose of the suction machine to carry it inside confined and dangerous spaces. These machines are manoeuvred at a safe distance thanks to hydraulic distributors and/or remote controls, often with the assistance of cameras and lights to better operate in dark and narrow places.

Gerotto has developed many Mini Excavators for several types of applications and is constantly working to improve their features and functionalities. Every model can also be equipped with a large number of accessories, and adapted to every condition of the work environment and of the material to remove.

NEW STAINLESS STEEL MINI EXCAVATORS

In the last period, Gerotto’s R&D department completely renovated the product range introducing the use of stainless steel for the entire structures, including fittings, couplings, and screws. This material improvement has highly increased the resistance of the machines to wear and chemical agents, extending their life and reducing maintenance operations. In particular, stainless steel tracked undercarriages are now produced directly by Gerotto and are perfect for working in dangerous and polluted environments.
Mini Robot for safety distance aspirations with Vacuum Trucks, Suction Excavators, and Industrial Vacuum Cleaners / Pumps with any diameter of aspiration (from Ø 80 mm [3"] to Ø250 mm [10"]). It is a totally remote controlled Mini Excavator very appropriate for under conveyors, mining and confined spaces operation. The Lombrico Mini Excavator is a double tracked ROV controlled from outside, equipped with a suction hose to be connected to a vacuum unit.

**FEATURES**
- Two hydraulic driven rubber tracks
- Hydraulic manual manifold to control all the movements of the machine
- Quick connection system to the external hydraulic source
- Video Inspection System
- Various tools

**TECHNICAL DATA**

**LOMBRICO S**

**SUCTION HOSE FROM/TO**

<table>
<thead>
<tr>
<th>Ø 100-250 mm</th>
<th>Ø 4&quot;-10&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANHOLE</td>
<td></td>
</tr>
<tr>
<td>Ø 600 mm</td>
<td>Ø 24&quot;</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

| 1650 mm | 65" |
| 490 mm  | 19,3"|
| 560 mm  | 20"  |
| 270 Kg  | 635 lb|

**LOMBRICO XXS**

**SUCTION HOSE:**

<table>
<thead>
<tr>
<th>Ø 150 mm</th>
<th>Ø 6&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANHOLE</td>
<td></td>
</tr>
<tr>
<td>Ø 450 mm</td>
<td>Ø 18&quot;</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

| 980 mm | 38,5" |
| 330 mm | 13"   |
| 400 mm | 16"   |
| 80 Kg  | 176 lb|

**APPLICATION FIELDS**

- under conveyor cleaning operations
- mining industry
- confined spaces activities

**SUITEABLE TO WORK WITH**

- Vacuum Trucks
- Suction Excavators
- Industrial Aspirators
- Dust Aspirators
- Vacuum Cleaners

**ADVANTAGES**
- Operator stands in a safe position
- Labour Reduction
- Excellent Manoeuvrability
- Time and Costs saving

**OPTIONAL**

- Camera System Available
- Battery Driven Version Available

**SUITABLE TO WORK WITH**

- Vacuum Trucks
- Suction Excavators
- Industrial Aspirators
- Dust Aspirators
- Vacuum Cleaners

**APPLICATION FIELDS**

- DUCTS/COLLECTORS/TUNNEL
- LARGE AND SMALL TANKS
- MINES
- UNDER CONVEYOR BELTS
Gerotto Single-Tracked Lombrico Mini Excavator is especially designed and developed for reclaiming works in small ducts and sewer pipes. It has lateral stabilizer wheels, very suitable for the Removal of the material from obstructed sewers pipes, and for Ducts Inspection Activities. It ensures the Safety of the Operations, as the operator commands the machine from a safe position, the Profitability of the Investment, as with the use of this equipment the job is done faster and without any manpower involved, the Efficiency of the Service, with the precise operations carried out with accurate and articulated movements, and the Environmental Sustainability.

### Lombrico 500/600

**SINGLE-TRACKED**

#### Lombrico 500 Technical Data

**Standard Suction Hose**

<table>
<thead>
<tr>
<th>Ø 150 mm</th>
<th>Ø 6”</th>
</tr>
</thead>
</table>

**Manhole**

<table>
<thead>
<tr>
<th>Ø 500 mm</th>
<th>Ø 20”</th>
</tr>
</thead>
</table>

**Dimensions**

- 1600 mm
- 480 mm
- 270 mm
- 310 Kg

- 63”
- 19”
- 11”
- 436 lb

#### Lombrico 600 Technical Data

**Standard Suction Hose**

<table>
<thead>
<tr>
<th>Ø 200 mm</th>
<th>Ø 8”</th>
</tr>
</thead>
</table>

**Manhole**

<table>
<thead>
<tr>
<th>Ø 600 mm</th>
<th>Ø 24”</th>
</tr>
</thead>
</table>

**Dimensions**

- 1450 mm
- 550 mm
- 300 mm
- 180 Kg

- 57”
- 22”
- 12”
- 397 lb

### Advantages

- Safe operations
- Time saving
- No plant stoppage
- Reduction of labour

### Optional Camera System Available

### Optional Camera System Available

### Application Fields

Ideal for the cleaning of:

- In Service Sewer Pipes

**Suction to Work With**

- Recycling Vacuum Trucks
- Industrial Aspirators
- Vacuum Trucks
- Suction Excavators
- Dust Aspirators
Lombrico Shark is a hydraulic, self-propelled machine and radio remote controlled. Lombrico Shark has been specifically designed for safely cleaning out conduits and tanks containing materials that emit potentially dangerous gases. For this reason it is particularly suited for working in refineries and petrochemical plants, where gas emissions from effluent are more frequent.

**TECHNICAL DATA**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>L</th>
<th>H</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>1820 mm</td>
<td>520 mm</td>
<td>500 mm</td>
</tr>
<tr>
<td>72&quot;</td>
<td>20.5&quot;</td>
<td>20&quot;</td>
</tr>
<tr>
<td>727.5 lb</td>
<td></td>
<td></td>
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</table>

**FEATURES**

- Two hydraulic driven rubber tracks
- Long-Distance remote control system
- Heavy duty cutting head
- Heavy Duty Video Inspection System
- Various options available

**ADVANTAGES**

- Safe operations
- Time saving
- No plant stoppage
- Reduction of labour

**APPLICATION FIELDS**

Ideal for the cleaning of:

- **TANKS**
- **COLLECTORS AND DUCTS**

**SUITABLE TO WORK WITH**

- Vacuum Trucks
- Suction Excavators
- Industrial Aspirators
- Dust Aspirators

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The images and technical data refer to machine already in production. The R&D Department is at disposal to customize the products according to the most various needs.
Tools for improving the performance of all models of Lombrico Mini Excavator. Every tool is attachable to the frontal part of the Lombrico and has been designed for better removing specific types of material (sludge, liquids, oils, etc.). The R&D Department of Gerotto is continuously searching for new and quick solutions to the cleaning application.

- **HOSE REEL**
- **AUGER**
- **SLUDGE SUCTION NOZZLE**
- **BORA NOSE**
- **HIGH PRESSURE WATER NOZZLES**

Double Tracked Mini Excavator, hydraulically driven from an external hydraulic source and controlled through a hydraulic manual manifold. Especially designed for under pipe-lines cleaning and for all the applications in very height-limited environments.

**ADVANTAGES**
- Safe operations
- Time saving
- No plant stoppage
- Reduction of labour

**APPLICATION FIELDS**
- Vacuum Trucks
- Suction Excavators
- Industrial Aspirators
- Dust Aspirators

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>55&quot;</th>
</tr>
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<tbody>
<tr>
<td>1400 mm</td>
<td>12&quot;</td>
</tr>
<tr>
<td>300 mm</td>
<td>12&quot;</td>
</tr>
<tr>
<td>600 mm</td>
<td>12&quot;</td>
</tr>
<tr>
<td>250 Kg</td>
<td>550 lb</td>
</tr>
</tbody>
</table>

*The images and technical data refer to machines already in production. The R&D Department is at disposal to customize the products according to the most various needs.*
Gatto Mini Excavator is a multifunctional and innovative Mini Excavator suitable for both construction and remediation activities. The machine shows its best skills working in confined spaces and areas suspected of pollution and contamination. It is the right solution for safer operations at safe distance.

It can be equipped with a Suction Configuration, which helps the Mini Excavator to be connected to any Suction Unit (Vacuum Trucks, Suction Excavators, Industrial Pumps, etc.). It can also be equipped with a Remote Control System, to make the excavator totally remote and wireless controlled, and with various tools that can be mounted on the power arm.

**Features**
- Two hydraulic driven rubber tracks
- Hydraulic Manual Manifold mounted on board for controlling the machine
- Man-on-board configuration
- Quick connectors to the hydraulic source

**Applicable to work with**
- Vacuum Trucks
- Suction Excavators
- Industrial Aspirators
- Dust Aspirators

**Application Fields**
Ideal for the removal of material in:
- TUNNELLING
- SIPHONS CLEANING
- BIG SEWER PIPES
- TANKS

**Technical Data**

<table>
<thead>
<tr>
<th>Machine</th>
<th>Standard Configuration Dimensions</th>
<th>Suction Configuration Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GATTO</strong></td>
<td>2000 mm</td>
<td>900 mm</td>
</tr>
<tr>
<td>79&quot;</td>
<td>36&quot;</td>
<td>20&quot;</td>
</tr>
</tbody>
</table>

**Optional**
- Camera System Available
- Battery Driven Version Available

**Advantages**
- Reduction of labour
- Working time reduction
- Safe operations in confined spaces
- Accurate and precise interventions

The images and technical data refer to a machine already in production. The R&D Department is at disposal to customize the products according to the most various needs.
The mini loader Dozer Rc is totally radio controlled, born to work in areas at high risk working at a safe distance with a huge time reduction and production increase. It is suitable to work in mining and in aluminium industries, to operate in dangerous and confined spaces, to clean under conveyor belts, pot lines and tanks with safe movements and with the plant in service. In this way, it is not necessary to stop the production process, so the costs are reduced and there are no malfunctions or failures.

**DOZER RC**

**HOSE REEL**

**STRAIGHT BUCKETS 400 mm (10”) AND 700 mm (28”)**

**HYDRAULIC CUTTING HEAD**

**SUCTION CONFIGURATION**

**FRONTAL STABILIZERS**

**FEATURES**

- 8 hours autonomy
- Wide range of the remote control
- Liftable engine compartment
- Working ability even with tracks in the debris
DOZER RC

ADVANTAGES
- Safe radio controlled operations
- Excellent manoeuvrability
- No Plant Stoppage
- Accurate and precise interventions

APPLICATION FIELDS
Suitable for inspection and cleaning of:
- MINING
- UNDER BELT CONVEYORS
- TANKS

SUITABLE TO WORK WITH
- Vacuum Trucks
- Suction Excavators
- Dust Aspirators

OPTIONS
DOZER RC MODELS

INTERCHANGEABLE TOOL ACCORDING TO VARIOUS NEEDS

Gerotto Dozer RC can easily be equipped with different buckets and frontal tools. It can also be turned into a hose carrier for suction technologies, installing a suction configuration on it. Different attachments can be used to improve the suction performance when dealing with different types of material (sludge, liquids, oils, etc.).

The R&D Department of Gerotto is continuously searching for new and quick solutions to the cleaning application.

TECHNICAL DATA
DIMENSIONS

L
min 600 mm
max 2200 mm
W
min 700 mm
max 990 mm
970 Kg

W
min 28”
max 39”
87”

SUCTION CONFIGURATION

WITH AUGER

3+1 BUCKET

SUCTION CONFIGURATION

THE NUMBERS AND TECHNICAL DATA REFER TO MACHINES ALREADY IN PRODUCTION.

The R&D Department is at disposal to customize the products according to the most various needs.
ELECTRIC MINI EXCAVATORS

Gerotto Federico S.r.l. has developed a new range of products totally battery powered. They are composed of an electric double tracked platform, which is the base of the machine, and a suction configuration, which can be connected to Suction unit.

ADVANTAGES
- No dangerous gas emissions
- No obstructive cables
- Low noise emissions
- Quick battery charging
- Quick start-up system

E-Tracks are totally designed respecting the environment and the safety of the operators. The Remote Control commands the silenced electric platform, which has a heavy duty frame and two stable rubber tracks suitable to face the hardest soil conditions, such as sloped, sandy and muddy soil, confined spaces and low-manoeuvrability areas. These are the most suitable applications for this kind of machines. The electric technology also eliminates the exhaust gases emissions. For this reason it appears to be the most suitable equipment for closed spaces works. Moreover, hydraulic power packs and hydraulic connections are no longer needed: each Machine is free to move without any technical obstacle.

Our R&D department has designed the machines giving them some incredible technical abilities, such as climbing stairs, in order to reach areas that would be inaccessible for other machines.

Gerotto’s tracked undercarriages have been designed for creating customized Mini Excavators, adaptable to most different environments. All Gerotto undercarriages can go up slopes of up to 30% and reach a speed of 5 km/h on level surfaces.

Gerotto’s tracked undercarriages are made of stainless steel, to guarantee a better resistance to wear and chemical agents.

CREATE YOUR MINI EXCAVATORS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>WEIGHT</th>
<th>HEIGHT</th>
<th>LENGTH</th>
<th>WIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXS</td>
<td>60 Kg</td>
<td>200 mm</td>
<td>730 mm</td>
<td>390 mm</td>
</tr>
<tr>
<td>XS</td>
<td>130 Kg</td>
<td>280 mm</td>
<td>970 mm</td>
<td>420 mm</td>
</tr>
<tr>
<td>S</td>
<td>145 Kg</td>
<td>280 mm</td>
<td>970 mm</td>
<td>420 mm</td>
</tr>
<tr>
<td>M</td>
<td>150 Kg</td>
<td>300 mm</td>
<td>985 mm</td>
<td>500 mm</td>
</tr>
<tr>
<td>L</td>
<td>170 Kg</td>
<td>300 mm</td>
<td>1170 mm</td>
<td>500 mm</td>
</tr>
<tr>
<td>XL</td>
<td>235 Kg</td>
<td>360 mm</td>
<td>1225 mm</td>
<td>530 mm</td>
</tr>
</tbody>
</table>
Gerotto Federico S.r.l. has more than 50 years experience in the planning, building and maintenance of road and complementary works, digging and earth movement, construction and maintenance of sewers, gas and water utilities and in the environmental remediation.

Gerotto Federico S.r.l. has been the first company in Italy to use the Suction technology, and in 2000 it became the RSP GmbH exclusive distributor for Italy.

This suction system is applied to environmental works, in the maintenance and cleaning of confined spaces, such as the removal of materials from silos, tanks, pipes, tunnel and sewers, and in the interventions in petrochemical plants for the removal of refractory sands and tank cleaning. These operations are carried out with the help of remote controlled Mini Excavators designed and produced by Gerotto to replace manual operations and work safely.

These operations are possible in confined spaces also, thanks to the LED lights system installed in the camera heads. The images could be shown on different kinds of screens, with the possibility to record the working activities. The Video Inspection System could be personalized depending on customer needs, on the working environment and on the Mini Excavator settings. The new System features integrated water nozzles for cleaning the cameras’ lenses.