



RSP ESE 3.

Modern utility line construction with the ESE 3 Keyhole.



Suction Excavator



For the perfect Keyhole.

Keyhole technology means that gas pipes, water pipes, power lines or data lines for building connections can be re-laid or replaced from a small circular keyhole without having to dig ditches.

This technology has tremendous advantages. Building connections often involve traffic obstructions and expensive surface repair work. This doesn't have to be!

Gas, water and FTTH building connections are laid from the main line in the road to the building using **keyhole technology**. This is done from a drill hole measuring just 650 mm in diameter. After opening up the road surface, a suction excavator opens up the keyhole as far as the main line, protecting the road surface. The operation of the drilling system and all of the required work for utility line production takes place from the surface.

The advantages of the keyhole procedure are obvious. Freshly-laid road surfaces are not dug up. The round hole does not have any effect on the tension and load-bearing capacity of the ground and the road surface. Only a minimal amount of civil engineering work is required, which avoids follow-on costs resulting from by damage to the road surface.

When the work is complete, the core is inserted again with special cement, avoiding the cost of additional asphaltting work. The adverse effects on traffic are reduced to a minimum.





ESE 3 - clever and compact.

The ESE 3 is a compact working machine that impresses through its extensive technology, expertise and practical solutions. In addition to the standard equipment with a single fan and a telescopic hose carrier with a range of 3.10 m, the development was primarily focussed on the optional circular cutter tool.

With this compact working machine, you are in a position to quickly, effectively and economically create a keyhole. You have all required tools, such as a compressor and water system available on one vehicle. Due to the container that can be folded out sideways, with a volume of 1.1 m³, the material that is sucked up can be emptied directly into a big bag or back into the keyhole to fill it again.

The advantages at a glance:

- all of the required tools on one machine
- minimal amount of civil engineering work
- minimal adverse effects on traffic
- sucked-up material and asphalt core are re-used
- less time taken and use of less material saves money
- follow-on costs because of surface damage are avoided



Perfect Equipment

Chassis

| | |
|------------------------|--------------------------|
| Chassis | Mercedes Benz Atego |
| Wheelbase | 4,160 mm |
| Diesel engine | 238 PS |
| Overall measurement | 8,000 x 2,400 x 3,070 mm |
| Unladen vehicle weight | 11,300 kg |
| Gross vehicle weight | 12,000 kg |

Suction system specification

| | |
|-----------------------|--------------------------------|
| Actuation | Hydraulic |
| max. volume | 11,300 m ³ /h |
| max. vacuum | 14,855 Pa |
| Container | cyclone 1.1 m ³ |
| Container discharge | side tipper into big bag |
| Compressed air system | 4.5 m ³ /min, 7 bar |
| Filter system | 22 cartridge filters, |
| Control system | PLC and radio remote control |
| Suction depth | 10 m* |
| Suction distance | 30 m* |

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Articulated hose carrier

| | |
|--------------------|-------------------------------------|
| Manufacturer | Palfinger PC 1500 A |
| Pivoting | 190° |
| Range | 3,100 mm |
| max. lifting power | 380 kg |
| Suction hose | length 4,930 mm, diameter 150 mm |

Additional Equipment

| | |
|----------------------------|--|
| High-pressure water system | 160 bar, 25 l/min, 400 l tank |
| Hose reel | 1x oiled air, 1x un-oiled air, 1x high-pressure water |
| Connections | external hydraulic outlet |
| Tool Box | additional stainless steel storage box |
| Container | Side door in container for removal of material |

Core Bore Unit

| | |
|-------------------------|---------|
| Height | 1360 mm |
| Diameter drill bitt | 650 mm |
| Weight with drill bitt | 360 kg |
| max. drilling depth | 450 mm |
| max. operating pressure | 200 bar |

* Depending on material