

By using The Very  
Latest Pipe And  
Cable Laying Plough  
Technology Saving  
Time and Money

2002



Georg Föckersperger GmbH



# Ploughing in of Water, Sewerage and Gas Pipes

The only plough available in Germany that may be adjusted hydraulically and converted from a cable plough into a pipe plough



## Top performance in record time

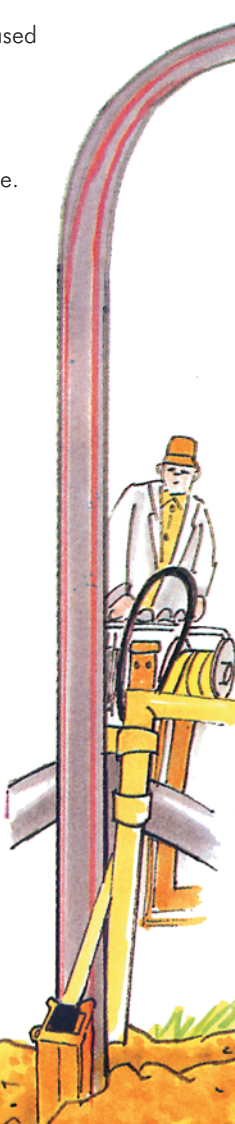
Being pulled by a special traction unit, and based upon our Cable Plough Technology, it is not an isolated instance to plough in pipes &/or cables resp. over a distance of 5 km/(3.miles) in one day - safe against frost And well within the specified depth of coverage.



Ploughing in with round-about laser and GPS

## Use of very latest technology

We use the very latest techniques in ploughing. In order to guarantee the specified ploughing depths, it is even possible to use laser technology. This ensures that pipes and cables will be placed underground evenly. By virtue of digital depth indication, directly at pipe plough &/or rocket plough resp., monitoring of depth is continuously ensured.



Rocket Plough

## It is essential to plough properly

Regardless of whether cable plough, pipe plough, rocket plough or sanding technique should be the issue, ploughing in is offering great advantages as compared with conventional laying.

- short building time - minimum space required for construction work - possible savings of up to 50 per cent.

**NOVELTY**



# - Automatic Sanding Cart -

## Mechanical sanding of cables and pipes



Ploughing in a water pipe with an outer dia. of a 180 mm/(7") using the Automatic sanding Cart

### 1st: At home along all tracks

The "Automatic Sand Cart" specifically designed for difficult terrain, which is attached directly to the pipe &/or cable plough, takes care of filling up hollow space along ploughed up zones.

That new "Automatic Sanding Cart" will guarantee a continuously even feeding through the sand canal, even along difficult terrain. This latest development will replace expensive and time-consuming manual labor.

### 2nd: The advantages at a glance

- Less staff required  
(Continuous shovelling not necessary).
- 100 per cent. uniform feeding of material.
- Suited even along difficult tracks and terrain.
- "Funnel Age" gone due to mechanical sanding.



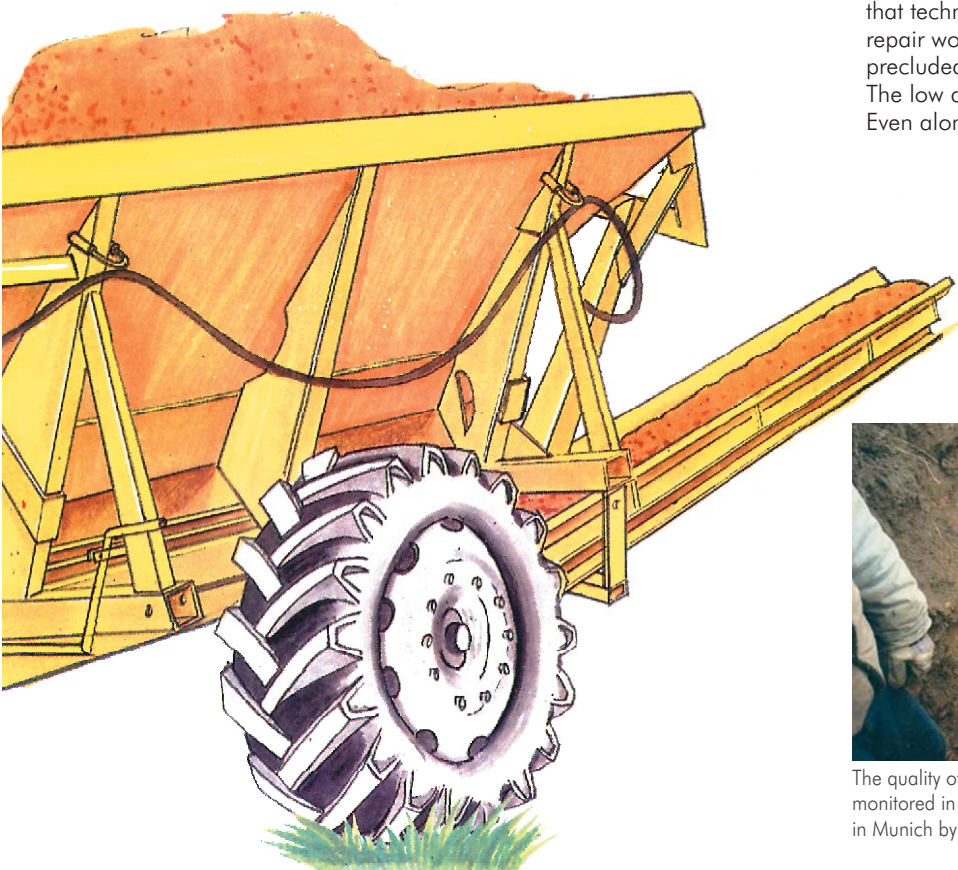
Laying a high-tension power cable by using the Automatic Sanding Cart

### 3rd: Separate tracks and trails

In order to avoid damages to environment, the "Automatic Sand Cart" is traveling along a separate trail which is displaced relative to the track. By virtue of that technical feature, damages are avoided so that repair work by the building contractors are virtually precluded.

The low design permits ploughing without problems Even along tracks in forests.

# NOVELTY



The quality of our ploughing performance is continuously monitored in cooperation with an independent Institute in Munich by inspecting sites previously ploughed up.



# Pipe and Cable Laying Ploughs, Training of Operators

Top performance demanded of man and equipment

Versatility when ploughing in pipes and cables real fast, economically, and environmentally friendly - quite some requirements only very latest Pipe & Cable Plough Technology can cope with and, of course, ... the experience of the



One operation only for ploughing up to 24 cable protection tubes

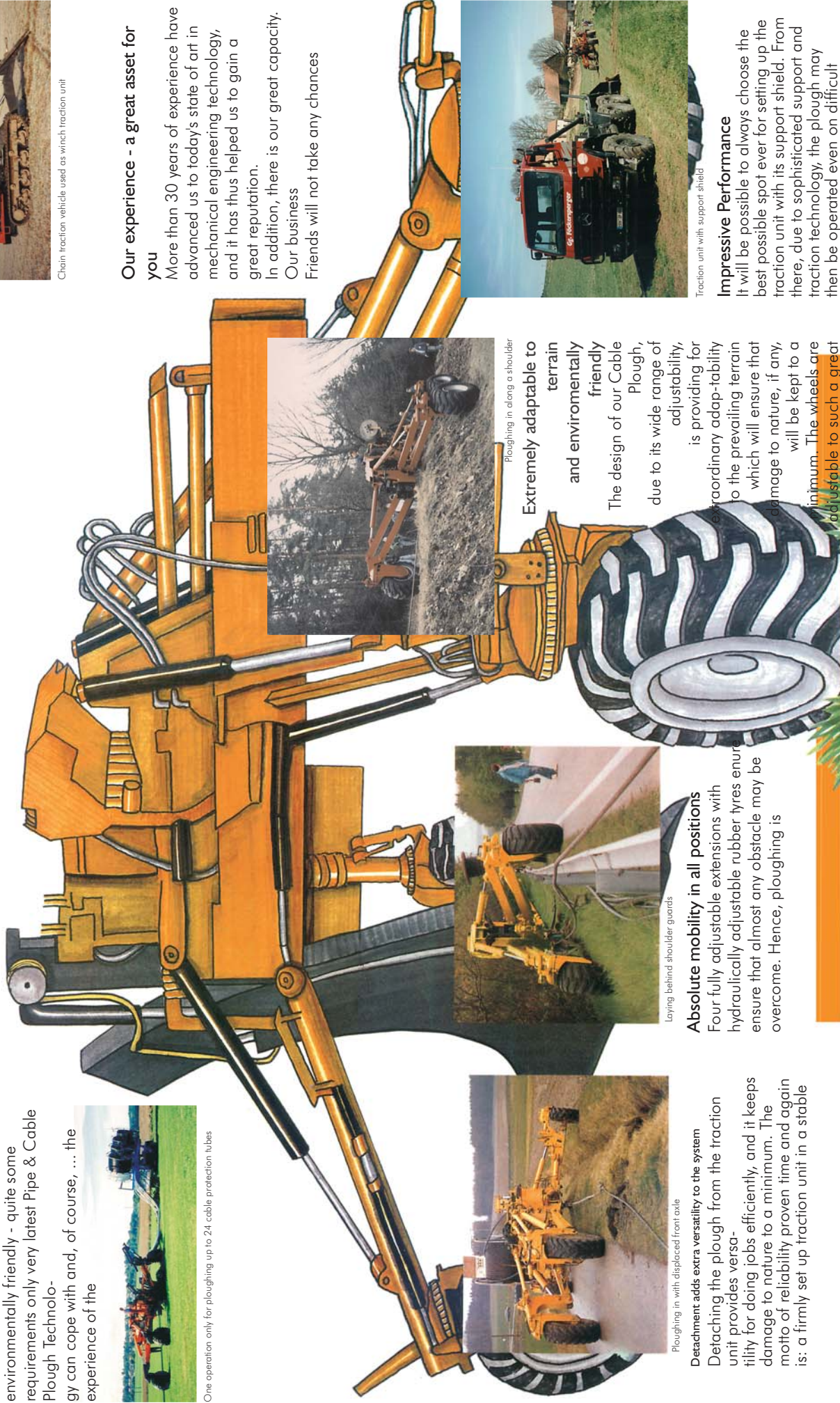
Very Latest Technology For Ploughing In Pipes &/ or Cables Real Fast



Chain traction vehicle used as winch traction unit

**Our experience - a great asset for you**

More than 30 years of experience have advanced us to today's state of art in mechanical engineering technology, and it has thus helped us to gain a great reputation. In addition, there is our great capacity. Our business Friends will not take any chances



Laying behind shoulder guards

## Absolute mobility in all positions

Four fully adjustable extensions with hydraulically adjustable rubber tyres ensure that almost any obstacle may be overcome. Hence, ploughing is

**Extremely adaptable to terrain and environmentally friendly**  
The design of our Cable Plough, due to its wide range of adjustability, is providing for extraordinary adaptability to the prevailing terrain which will ensure that damage to nature, if any, will be kept to a minimum. The wheels are adjustable to such a great extent



Ploughing in along a shoulder



Traction unit with support shield

## Impressive Performance

It will be possible to always choose the best possible spot ever for setting up the traction unit with its support shield. From there, due to sophisticated support and traction technology, the plough may then be operated even on difficult



# The Föckersperger installation system

## ... cheap, protecting the environment, with top performance



Installing among the highway



Installing along the railway



Passing a water with the plough



Installing directly from the winch

### Installing of

- force cables
- telephone cables
- optical fibre cables
- electricity cables
- protection cable pipes
- water, sewerage and gas pipes

### Cheap

for the installation only one passing is necessary  
 due to its high daily performance (approx. 4000 meters) the  
 personnel costs are maintained at a low rate  
 Great installing efficiency, Short time for installing  
 due to its flexibility the system can be installed everywhere, even in the  
 places where only excavator-made or hand-made ditch could be possible  
 The circulation is not disturbed  
 economies of more than 50 %

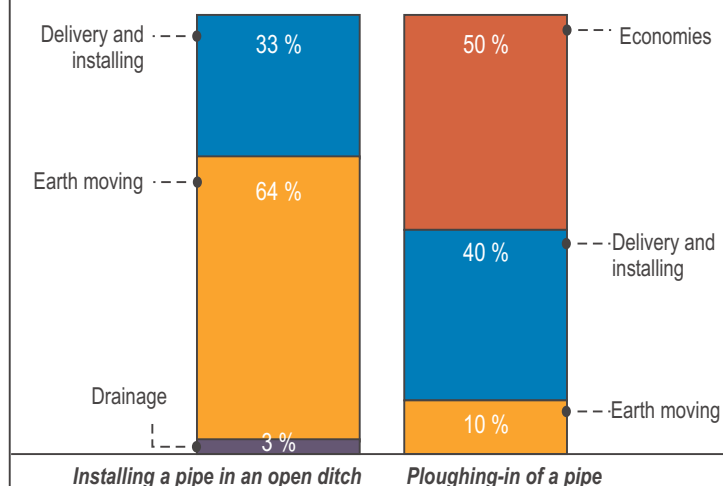
### Protecting the environment

short time after finishing the installation, no signs can be observed  
 using the plough the combustible consume is 90% lower compared to  
 the traditional methods  
 the earth is not dug out and no earth slices are exchanged  
 it is not necessary to lower the level of the underground water

### Top performances

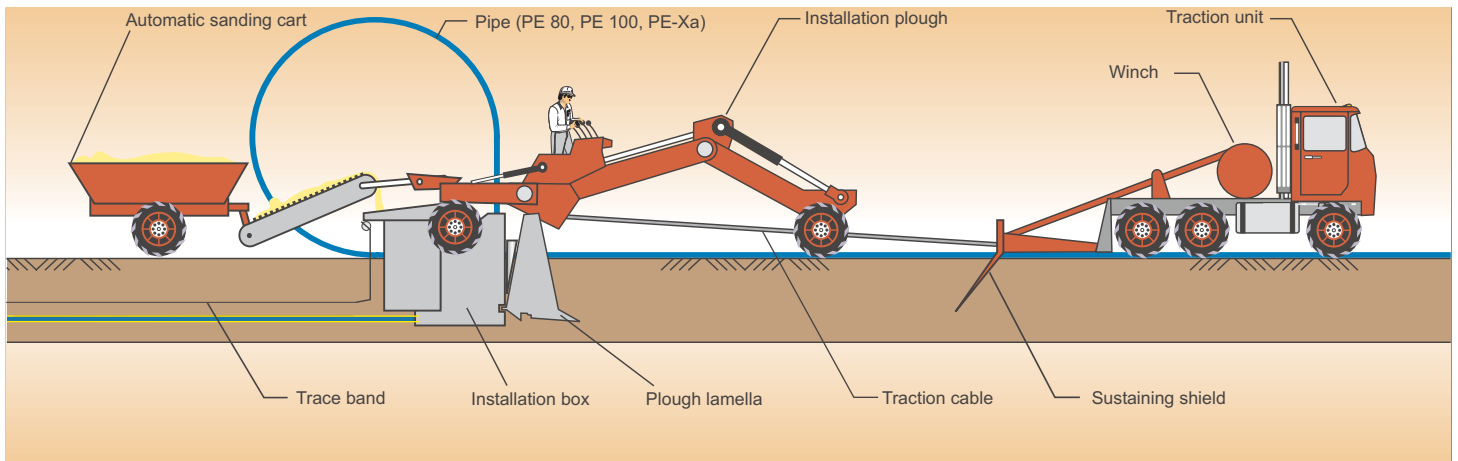
more than 30 years of experience in building, development and  
 use of pipe and cable ploughs  
 the cables and pipes installed with the Föckersperger system are  
 among the best and most persistent in comparison with those using  
 the traditional methods  
 able to switch hydraulically from cable to pipe plough  
 automatic sanding cart for mechanical sanding of cables and pipes  
 permanent research and development of the technique  
 more than 50,000 km of cables and pipes installed

### The comparison is worth it 50% economies by ploughing



# Description of the system

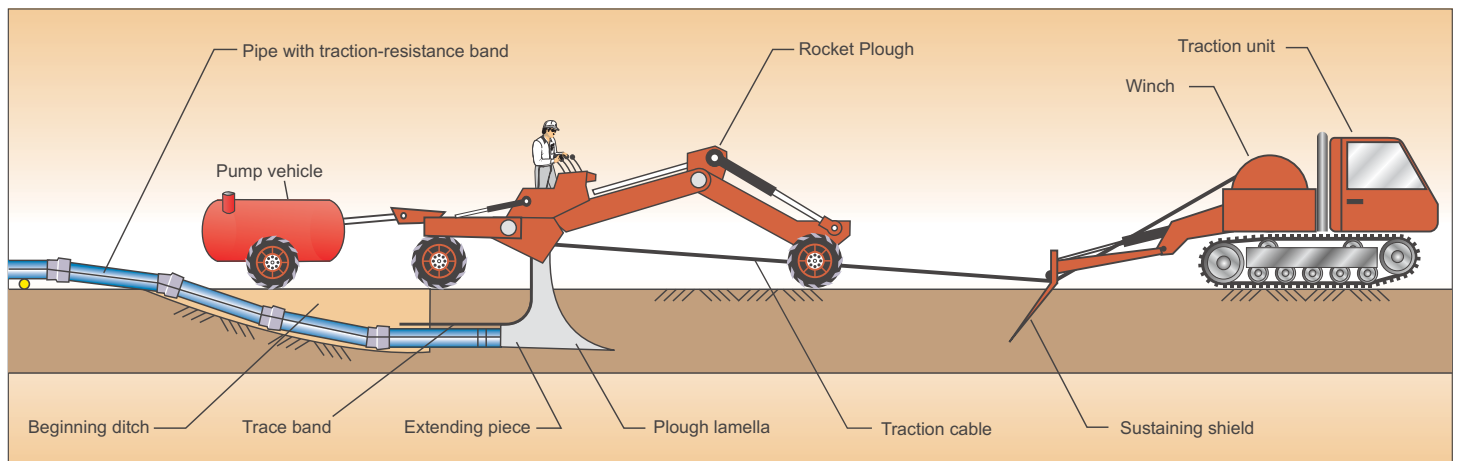
## Föckersperger method for the installation of cables & pipes / The procedure of installation with plough



The plough is tracted using a winch attached to a vehicle, which avoids the ground irregularities. The installation plough has 4 hydraulic complete adjustable extensions with rubber wheels. The plough lamella can be adjusted in order to obtain the depth in the beginning ditch. Using the traction unit of the cable, the plough lamella takes away the earth and settles with its big weight the bottom of the ditch. In this way it is obtained the space for installing the pipe. The empty space can be filled using the automatic sanding cart, connected at the plough. The pipe is installed at the desired depth, on the bottom of the ditch, avoiding mechanical stresses.

## The Föckersperger Rocket Plough installation method

®



In comparison with the method of installation with plough, on the Rocketplough - developed and patented by Georg Föckersperger Company - the pipe (up to 225 mm) is mounted direct on a extending piece and it is drawn in the empty space made by it. In this way can be made empty space with diameter up to 500 mm. In this way can be installed PE pipes with diameters of 355 mm and flexible pipes poured or of steel up to DN 250. Meantime the installing shaft mounted on the Rocketpipe offers the possibility of mounting additional cables and trace bands. In the rocket plough installation method, the 200-300 m long, pre-stretched pipe is layed out behind the ditch and pulled with the plough drive. As driving material soldered pipes (SDR11) are used of PE 80, PE 100, PE pipes with protection mantel, PE-x and flexible pipes poured or of steel.

Introducing the betonit suspension to lower the friction forces and to fill the porous spaces the monitoring of the traction forces actioning on the pipe is also possible.



# Most up-to-date technology- all the time

Technical Data Georg-Foeckersperger-System	
Pipe &/or Cable Plough	
Weight, (dependingsh on the model)	12 - 22 t
Width, min.	2.00 meters/(6' 7")
Width, max.	7.50 meters(24' 7 ¼")
Wheel Base, min.	4.70 meters/(15' 5")
Wheel Base. max.	13.00 meters/(42' 8")
Ploughing Depht, infinitely adjustable (depending on the soil structure)	0 - 2,00 meters
Cable &/or Pipe dia., max.	355 mm/(14")
No. of Cables &/or Empty Tubes, depending upon the Ø dia.	up to 24 ea.
Ground Clearance, (shoulder guard, etc.), max	1.30 m/(4 ¼")
Drive	Hydrostatic
Traction Unit	Up to 460 PS/(horse power)
Winches, Tractive Power	Up to 80 tons



## Most up-to-date technology - All the time

Many of our design solutions are inherent in our highly modern mechanical engineering technology, and they are covered by letters of patent. We can thus offer you a perfect system of mechanical pipe and cable ploughing facilities. A continuous further development right to the most minute detail as well as using high-quality materials Guarantee performance and safety at work. We develop and build all of our special machinery on computer-controlled CNC equipment. **Please challenge us- We shall be most happy to submit our quotation to you.**



*The only choice  
for perfect pipe  
installation.*

**TRACTO-TECHNIK GmbH**

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