

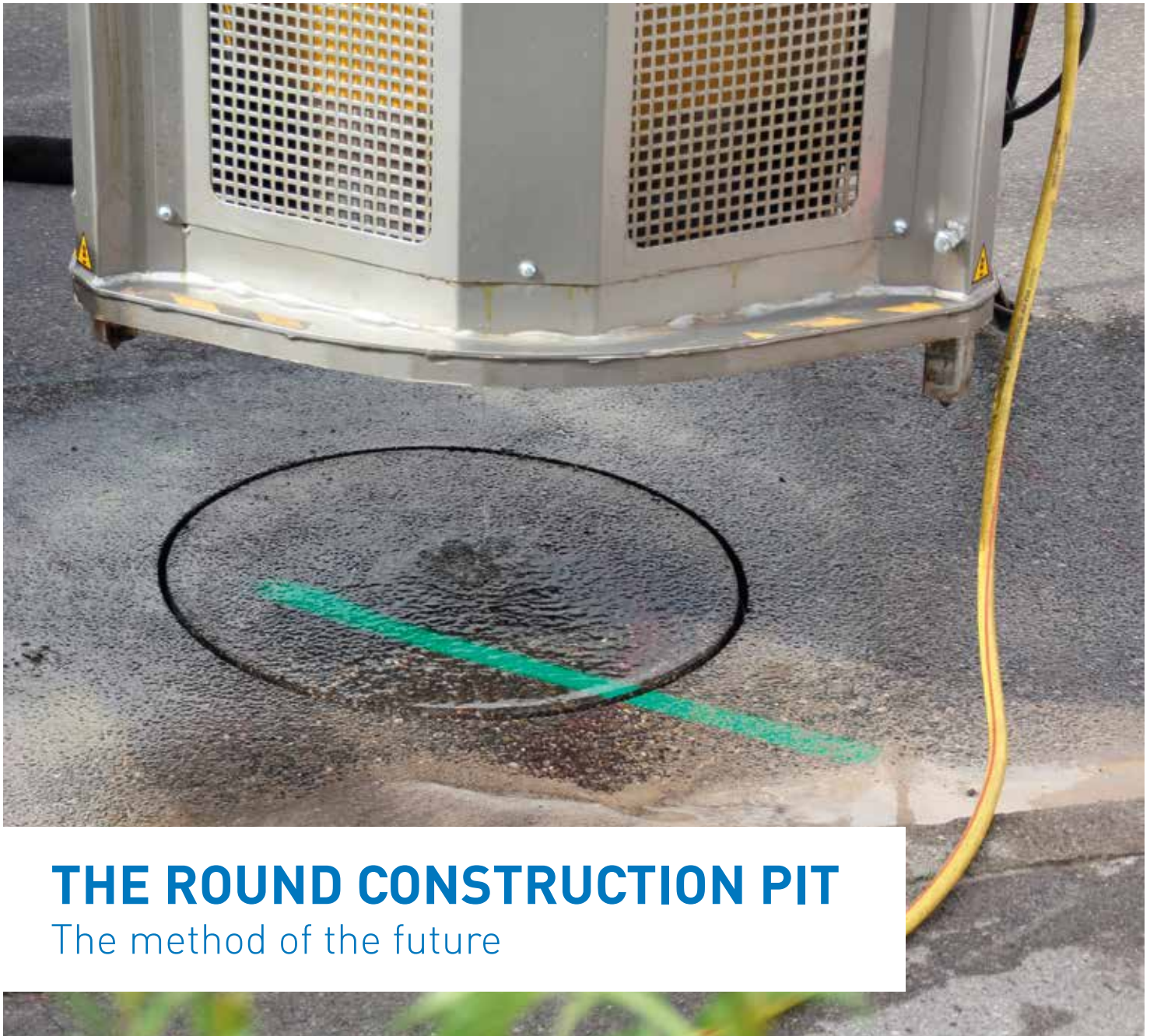
INSPIRING TRENCHLESS TECHNOLOGIES



CD FOR A PERFECT CONSTRUCTION PIT

Core drill units
CD 650/450
CD 650/600
CD 650/600 TSC
CD 1500/650





THE ROUND CONSTRUCTION PIT

The method of the future

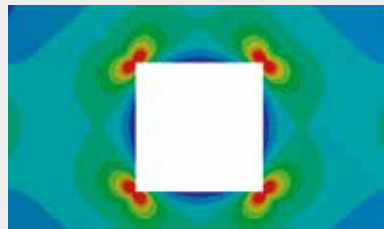
There is increasing evidence that circular excavation pits are the conceptual solution for the trenchless installation and renewal of water, gas, power and data lines within the domain of property service connection techniques. In comparison to conventional square-cut excavation pits, the surface damage and consequential costs can almost be eliminated. The re-instatement surface work is performed in a much safer, more productive and cost effective way.

The core drill works a cylindrical core bore into the surface layer to cut open the excavation pit, with diameters of the opening ranging from 650 mm for minimally invasive keyholes to 1,500 mm for circular walk-in excavation pits. The bored out core is removed and set aside to be replaced later, it is then fitted back into the hole accurately with a special mortar when the work is done. This technique minimises stress fractures as there are no corners, so disruption is minimised and the road surface is re-instated sustainably.





One crucial benefit of round excavation pits, when compared to conventional square pits, is the long-term resistance of the repaired surface after the work has been carried out, this is due to the round shape. Re-sealed square excavation pits suffer strong term stress from the traffic running over or the thermal strain. The corners of square-cut pits are subject to stress peaks, so consequently severe cracks appear. If the excavation pit is circular, the strain is distributed evenly so stress is up to four times less.



Strain distribution in a square-cut excavation pit.



Strain distribution in a round excavation pit.



Square-cut pit – consequential costs cannot be avoided.



Round pit – restored surface.



- Low investment and operation costs
- Short set-up times, simple transportation
- Crowned bore heads for asphalt or concrete, also with combined bits
- Simple construction suitable for job sites
- Bore depth thrust via large hand wheel – lifting and lowering are easy to control
- Wet drilling with water is possible

PERFORMANCE FEATURES

- Crowned bore head size: 650 mm
- Max. Drilling depth: 450 mm
- Max. Rotation: 200 rpm





- Short set-up times, easy transportation
- Crowned bore heads for asphalt or concrete, also with combined heads, if you choose
- Simultaneous application of two crowned bore heads is possible
- Simple construction suitable for the job site
- Bore depth thrust via large hand wheel – lifting and lowering are easy to control
- Wet drilling with water is possible

PERFORMANCE FEATURES

- Crowned bore head size: 650 mm
- Max. Drilling depth: 600 mm
- Max. Rotation: 200 rpm



**Rotational speed setting
via proportional valve –
simple torque adjustment**

**Rotational drive with quick coupling –
simple and quick change
of the crowned bore head**

**Great cutting depth up to 600 mm –
can cut through thick road surfaces**

CD 650/600 TSC

The all-rounder

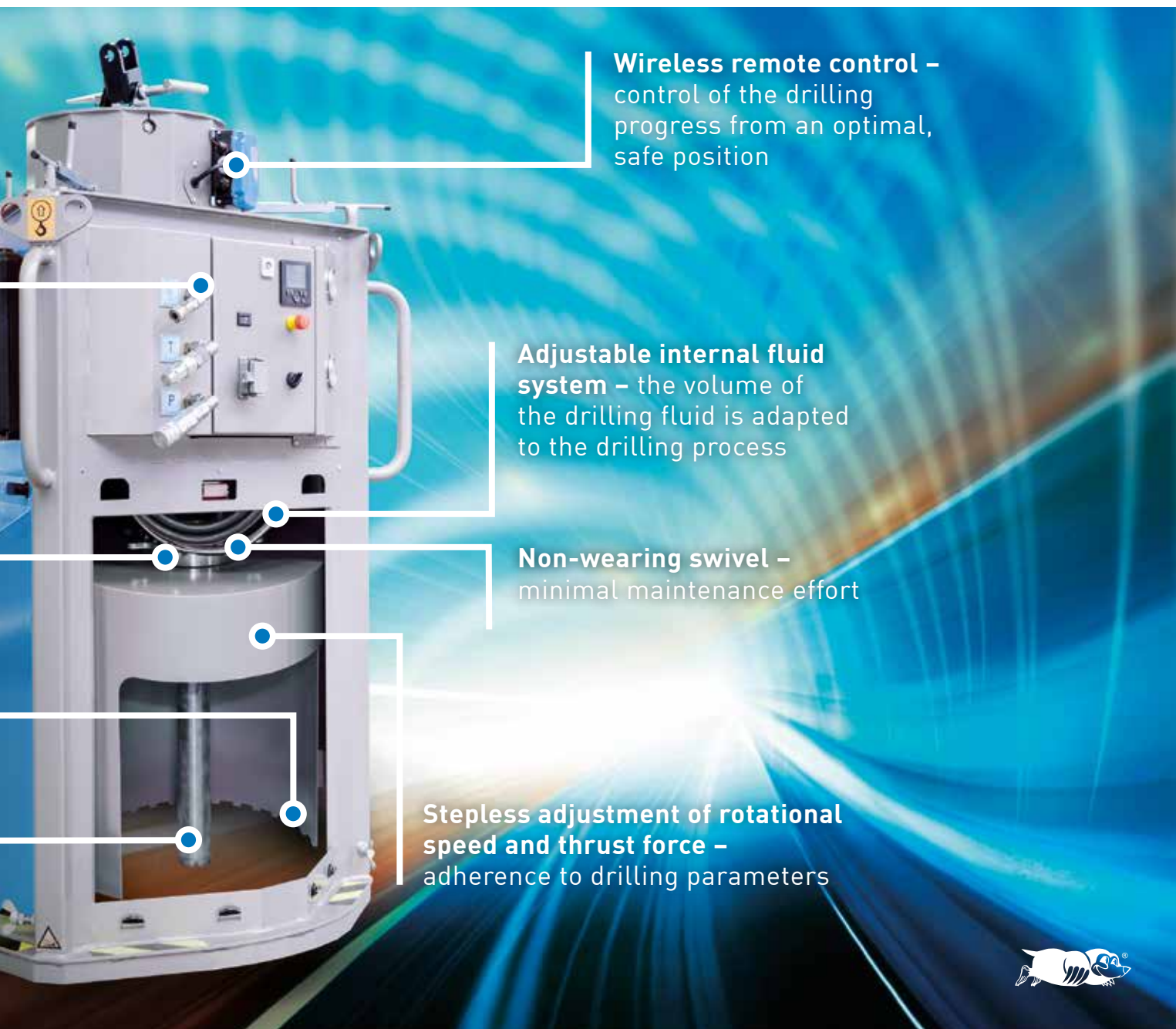
**Integrated reception for a second
(smaller) crowned bore head –
optimal cutting speed with both
crowned bore heads**

The core drill CD 650/600 offers the solution for opening up a minimally invasive keyhole, it can also be used for other jobs. The CD 650/600 is the drill of choice for great cutting depths and hard surfaces. Due to the double spindle gear, two crowned bore heads can be driven simultaneously at optimal cutting parameters. In a single working cycle, the core is cut out while a smaller core hole is bored in the centre. This small central bore hole allows even very thick cores to be lifted out quickly and safely.

PERFORMANCE FEATURES

- Application of crowned bore heads with a maximum diameter of 650 mm
- Great cutting depth of 600 mm
- Strong torque of 560 Nm
- Crowned bore heads for asphalt and concrete cover layers





Wireless remote control – control of the drilling progress from an optimal, safe position

Adjustable internal fluid system – the volume of the drilling fluid is adapted to the drilling process

Non-wearing swivel – minimal maintenance effort

Stepless adjustment of rotational speed and thrust force – adherence to drilling parameters



WIRELESS REMOTE CONTROL



Operation from any position – ergonomic and safe.

CLEARLY LAID-OUT CONNECTIONS



**Crane connection and
fork lifter reception –**
simplify transportation

**Infinitely variable adjustment of the
speed and thrust forces –** the optimal
drilling parameters are maintained

**The application of different
crowned bore heads is possible –**
with a variable diameter of the
crowned bore heads up to 1,500 mm

Crowned bore head guide –
stabilisation of the drill head
for spot drilling

**3 hydraulic vertically
adjustable pedestals (300 mm) –**
easily aligned core drill

CD 1500/650

The changeable

The core drill CD 1500 adds to the keyhole technique with its round, walk-in excavation pits of up to 1,500 mm in diameter. Within the domain of sewerage rehabilitation methods, this technique has turned out to be very economical and highly productive. The CD 1500 offers optimal ease of operation and, thanks to the compact frame design; it is easily transported in spite of the huge crowned bore head.

PERFORMANCE FEATURES

- Application of crowned bore heads with a maximum diameter of 1,500 mm
- Great cutting depth of 650 mm
- Strong torque of 2,320 Nm
- Crowned bore head for asphalt and concrete covers

CROWNED BORE HEAD GUIDE



For precise spudding and reduction of vibrations.



Wireless operation – the drilling progress is controlled safely from the optimal position

Adjustable internal fluid system – the volume of drilling fluid is adapted to the drilling situation



CROWNED BORE HEAD 1,500 MM & HEIGHT ADJUSTMENT



With pedestals for optimal stability.

WIRELESS REMOTE CONTROL



Operation from any position – ergonomic and safe.



Model

Basic equipment

CD 650/450

- Speed adjustment via oil supply – simple to control, robust
- 3 vertically adjustable pedestals (250 mm) – simple alignment of the keyhole drill
- Thrust regulation via hand wheel – direct drilling control
- Mechanically adjustable depth indicator – non-sensitive

| |
|---|
| Height (mm) |
| Ø core drill unit (mm) |
| Max. Ø crowned bore head (mm) |
| Weight without crowned bore head approx. (kg) |
| Weight with crowned bore head max. (kg) |
| Max. drilling depth (m) |
| Max. operating pressure (bar) |
| Max. oil requirement (l/min) |
| Max. rotational speed (rpm) (outer / inner crowned bore head) |
| Torque (Nm) |
| Max. support pressure, carrier (kg) |
| Operation pressure coolant and water fluid (bar) |

| |
|---------|
| 1,360 |
| 1,060 |
| 650 |
| 300 |
| 360 |
| 450 |
| 200 |
| 25 |
| 200 / - |
| 360 |
| 600 |
| 1–4 |

* when using the inner bore crowned bore head



CD 650/600

- Manual speed adjustment – easy to control
- 3 vertically adjustable pedestals (250 mm) – simple alignment of the keyhole drill
- Thrust regulation via hand wheel – direct drilling control
- Mechanically adjustable depth indicator – non-sensitive
- Simultaneous application of two crowned bore heads possible

1,780
1,220
650
355
420
600*
200
35
200 / 200
470
600
1–4



CD 650/600 TSC

- Rotational speed setting via proportional valve
- Wireless remote control – safe control of the drilling process from the optimal position
- Great cutting depth up to 600 mm – can cut through thick road surfaces
- Integrated reception for a second (smaller) crowned bore head – optimal cutting speed of both crowned drill heads
- Stepless adjustment of rotational speed and thrust force – adherence to the optimal drilling parameters
- Adjustable internal fluid system – the drilling fluid volume is adapted to the drilling process
- Non-wearing swivel – minimal maintenance required

1,780
1,220
650
435
500
600*
150
55
160 / 1,280
560
600
1–4



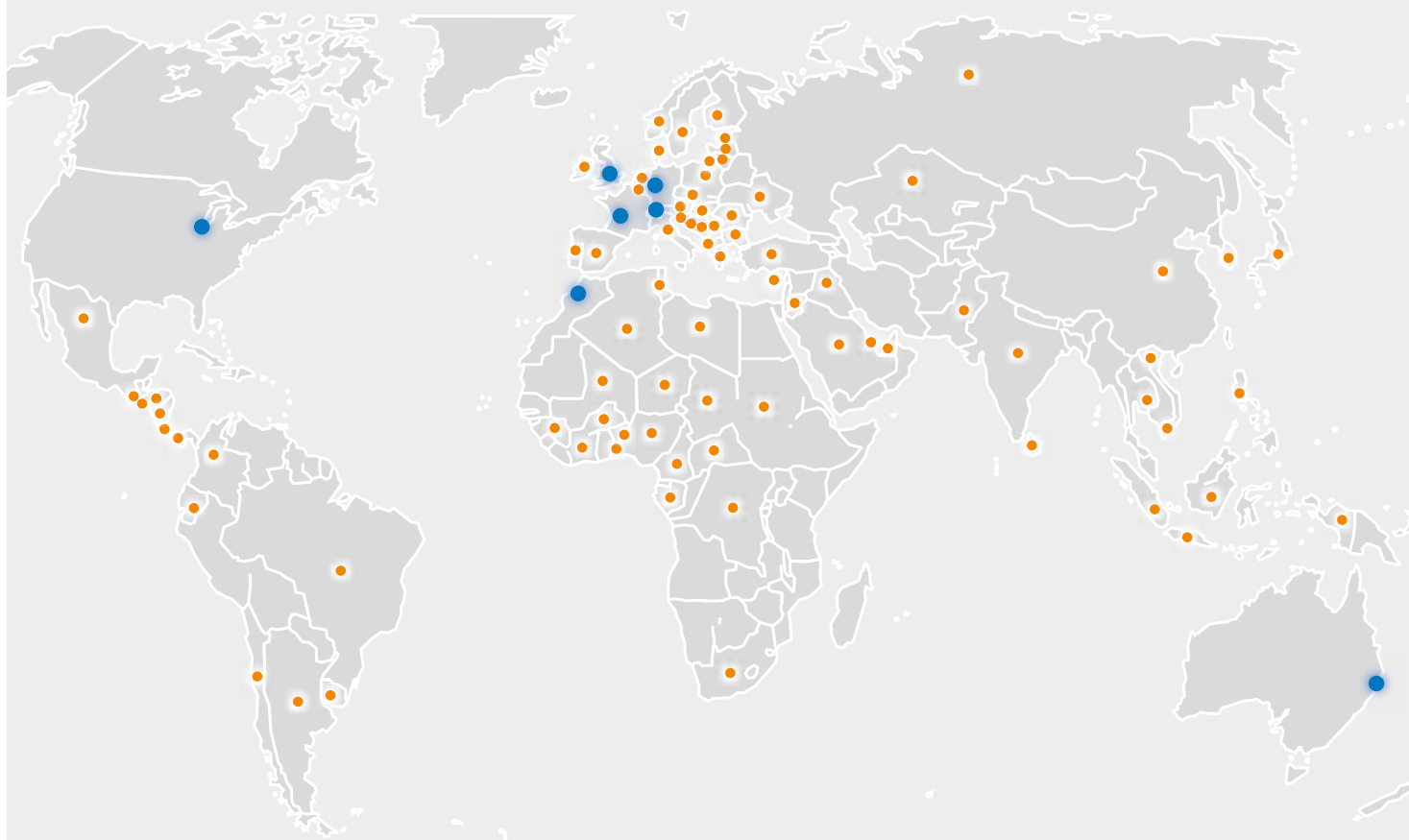
CD 1500/650

- Adjustable internal fluid system – the drilling fluid volume is adapted to the drilling process
- Crowned bore head guide – stabilisation of the crowned bore head for spot drilling
- Wireless remote control – safe control of the drilling process from the optimal position
- Stepless adjustment speed and thrust forces – observance of the optimal drilling parameters
- 3 hydraulic vertically adjustable pedestals (300 mm) – simple alignment of the core drill unit
- Application of different crowned bore heads possible – variable diameter of the crowned bore heads up to 1,500 mm
- Crane connection and fork lift reception – very easy to transport

1,900
2,040
1,500
995
1,250
650
200
45
60 / -
2,320
-
1–4

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