

STRINGING MACHINES
MADE IN GERMANY

2023

Contents

MACHINES	6
DRUM WINCHES	7
ELECTRIC DRUM WINCH	8-9
DRUM WINCHES	10-21
DOUBLE DRUM WINCH	22-25
MOUNTABLE DRUM WINCH	26
ROPE RECOVERING UNIT	27-28
MOUNTABLE ROPE RECOVERING UNIT	29
PULLERS	30-31
PERSONNEL WINCH	32-50
PULLER	34-46
TENSIONERS	51
TENSIONER	52-66
PULLER-TENSIONERS	67
PULLER-TENSIONER	68-87
ROPEWAY PULLER-TENSIONER	88-89
DRUM STAND	90-95
DRUM CARRIER	96-97
REEL WINDER	98-101
ROPE WINDER	102
REWINDER	103
HYDRAULIC POWER UNIT	104-105
ACCESSORIES	106
ROPE	107-109
REEL	110-113
CONNECTOR	114-117
PULLEY BLOCK	118-123
TANDEM KIT PULLEY BLOCK	124
HANDLE OPGW COUNTERWEIGHT	125
RUNNING BOARD	126-128
PRESSING TOOL	129-132
ROPE CUTTER	133
ROPE CLAMP	134
LINE CAR	135-138
RESCUE SIYSTEM	139
LINE CAR	140-144
PULLING ROBOT	145
ALUMINUM ACCESSORIES	146
LADDER PLATFORM	147-155
GIN POLE	156
PULLING GRIP	157-160
ROLLER STAND	161
SNATCH BLOCK	162
CONDUCTOR LIFTER SHACKLE	163
LIFTING TACKLE WIRE ROPE SLING	164
MEASURING TOOLS	165-166
GROUNDING SYSTEM	167
FALL PROTECTION	168
TOOL BAG	169

AUTOMATIC ROPE CLAMPING SYSTEM



TIME SAVINGS

Significant time savings during drum change.
When the drum is changed, the rope must not be anchored with a separate rope clamp.

SAFETY

Highest safety level due to fail-safe clamping system!
In case of failure of the hydraulic system or stop of the engine, the clamping system remains active.

MACHINE TYPE

Depending on machine type, up to 6 rope clamps possible.

SIMPLE

Easy operation: Automatic mode controls
deactivation of clamping during stringing operation

AVAILABLE

Optionally available for all ZECK puller-tensioners,
tensioners, pullers.

**ROPE CLAMPING BY
SPRING FORCE**

MACHINE GENERATION VERSION V007

STANDARD EQUIPMENT



SAFETY

- Increased occupational safety due to intuitive operating concept
 - Optimized visualization
 - Reduced number of operating elements
- Easy change of operation mode by pressing a button to switch between pulling mode, ATS tensioning mode or SLTS tensioning mode
- New and simple operation of the speed control. Comfortable and quick adjustment of the stringing speed
- Larger, rpm-controlled hydraulic oil cooler for a more energy-efficient and stronger cooling effect
- Electric hydraulic oil level indicator



SAFETY

Safe operation of the hydraulic supports due to decentralized operation by touch of a button (from WB 1500/5)



PRETENSION WB 1800

- Electrically adjustable drum stand pretension with pressure indication (bar) in display of remote control and control panel
- Electronic TB pretension regulation for puller-tensioners with bull wheel \varnothing of 1800 mm



DAILY CHECK

- Daily machine checks



SLTS SMART LOW TENSIONING SYSTEM

- (from WB 1500/5) with improved functionality. Large ZECK puller-tensioners (e.g. with a tensioning force of 270 kN) also achieve a minimum tensioning force of approx. 2 kN.



OVERVIEW OF LOCATION AND MACHINES

- Display of all machine locations
- ZECK Online Portal - here you can keep an eye on all machine data and pulling data in your fleet



OPTIONAL



REMOTE CONTROL

- New large color display showing all relevant data
- Increased operating comfort
- New frequency range and fully automatic frequency management for an optimized wireless connection



SYNCHRO MODE

- Optimized multiple synchronization system for up to 4 machines



CONTROL

- Automatic oil condition analysis



ROPE CLAMP

- Automatic rope clamping system for up to 6 ropes. For maximum safety when changing the reel and drum



PRETENSION

Electronic TB pretension regulation ensures even gentler handling of HTLS|ACCC conductors and constant pretension when changing the unwinding diameter of the rope drum

- Force indication (kN) in display of remote control and control panel
- Condition: Drum stand with corresponding optional equipment

REMOTE DIAGNOSIS ZECK CONNECT



MACHINE GENERATION V007

The new ZECK CONNECT remote diagnosis system reads out machine data, and analyzes and processes information from all pullers, tensioners and puller-tensioners. All data is visualized in the ZECK CONNECT portal.

Our Technical Service can provide specialized support at all times using the data provided. If a client requires an on-site visit from a ZECK service technician, the data provides us with all the information needed to prepare perfectly for the service appointment.



DAILY MACHINE CHECKS

Data retrieved by ZECK CONNECT allows the fleet to be checked on a daily basis:

- Machine usage statistics
- Monitoring of technical machine data, such as temperature, pressure of the hydraulic system and operating hours
- Machine monitoring



PROACTIVE SERVICE

- Preemptive machine maintenance resulting in fewer downtimes
- Automatic retrieval of operating hours
- Rapid provision of tools and spare parts for service
- Increase in machine availability



GEOFENCING - DETERMINING THE LOCATION

- Locations of all ZECK machines are identified and displayed on a map in the ZECK Connect portal
- ZECK CONNECT can be used to define virtual fences that allow the machine location to be monitored. If the machine leaves the defined area, the system sends out a message (anti-theft protection)

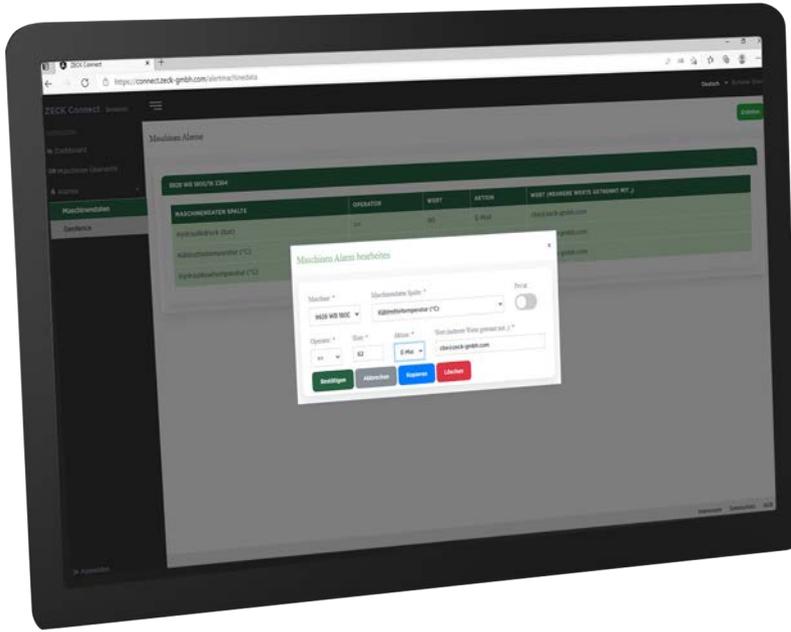


ZECK CONNECT SUPPORT

ZECK CONNECT portal - the future-oriented tool for connecting users.

If a service is required, all the relevant data is recorded and sent to ZECK After Sales to provide specific support remotely or prepare perfectly for an upcoming service appointment.



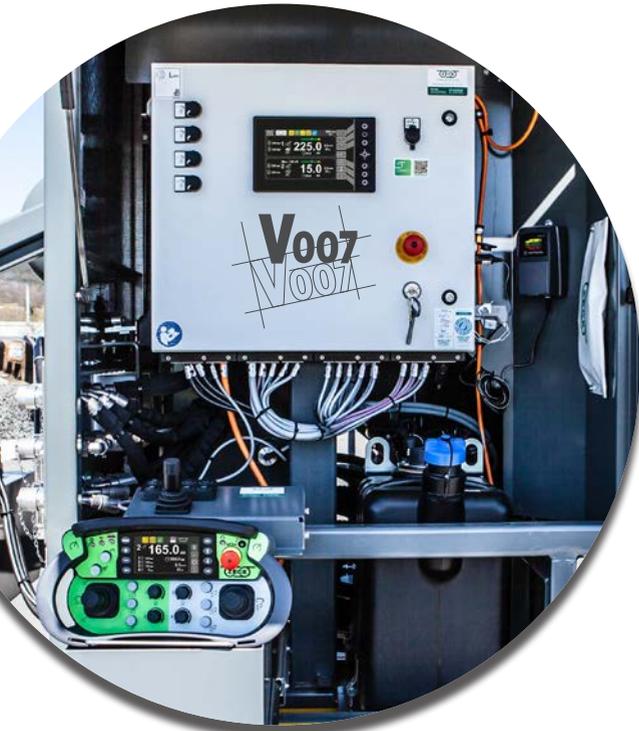


ZECC CONNECT PORTAL

Here you can keep an eye on all machine data and pulling data in your fleet

ZECC CONNECT APP

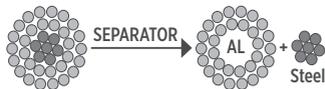
ZECC CONNECT app – Wireless transfer of pulling data from the machine directly to the smartphone/tablet (download, view, share/forward)



SYSTEM AVAILABILITY

- All ZECC machines from generation V007 available
- Interface to ZECC On Site (ZOS) BIM/construction site software

ZAS - ZECK ALU SEPARATOR



The innovation for an efficient and clean sorting of old ACSR conductors!

POSSIBLE APPLICATION



DURING THE STRINGING OPERATION

(ZAS) is positioned between the puller-tensioner and a reel winder/drum stand



AFTER THE STRINGING OPERATION

Off the dereeling device/ reel winder/drum stand



Additional information:

www.zeck-gmbh.com/de/produkte/zas

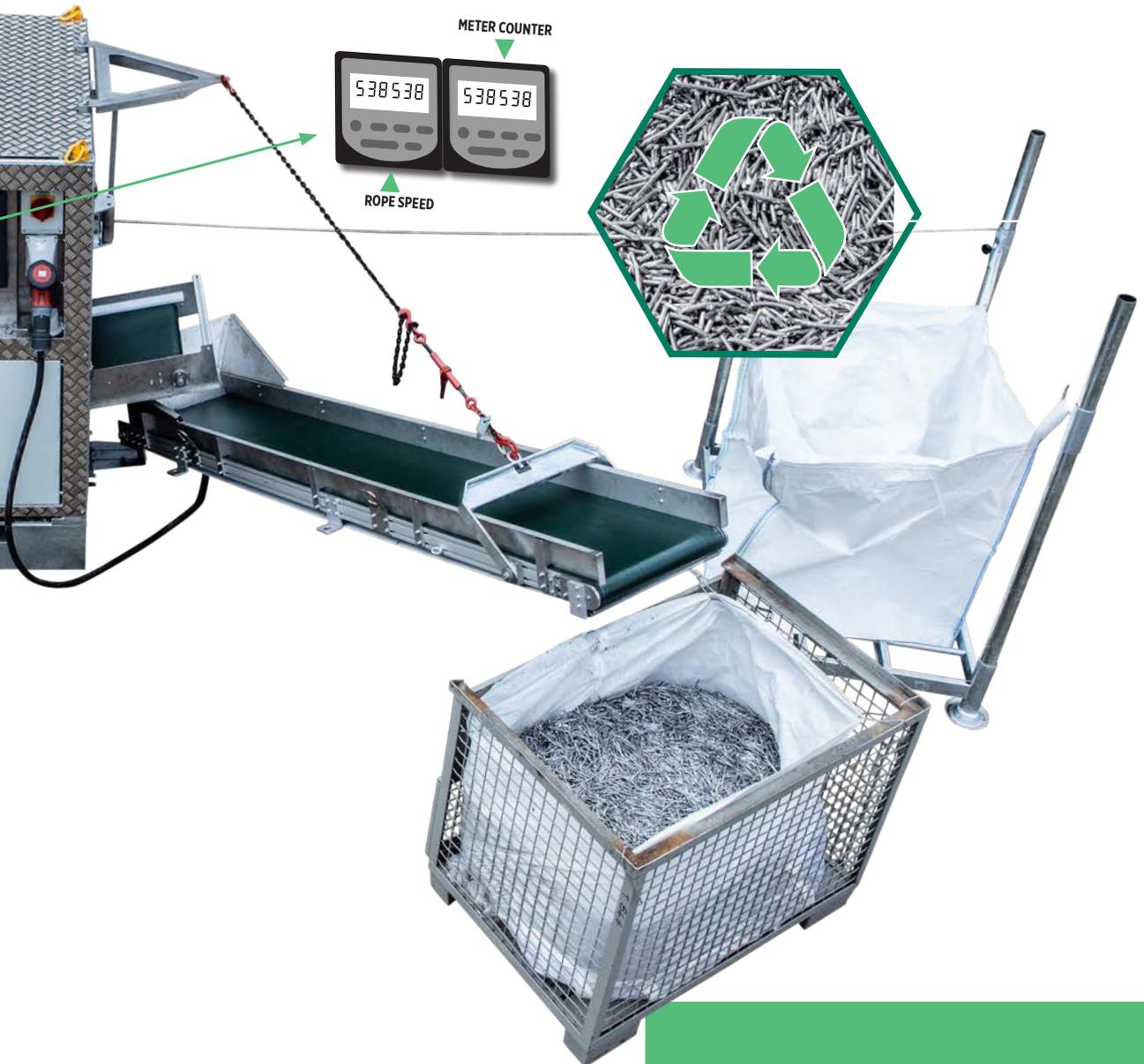


RAW SCRAP MATERIAL

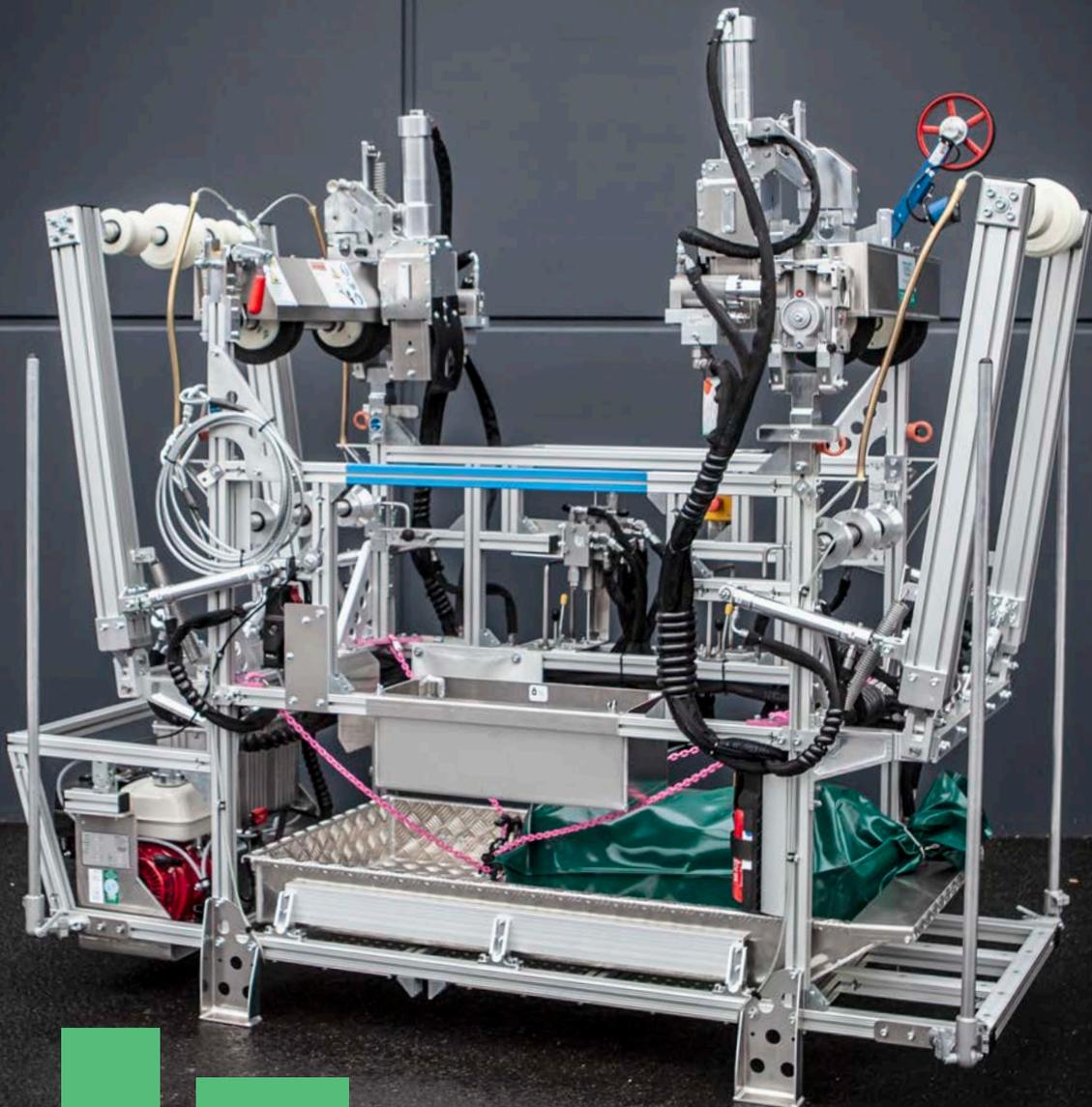
Quick amortization thanks to high revenue of raw scrap material



Max. speed
6.4 km/h



SAFETY BRAKE FOR CONDUCTOR CAR (PATENT PENDING)





KEY FACTS

1. The safety brake is activated by spring force – for maximum functional safety
2. Hydraulic control system (without electrical system)
3. Conductor car stopped safely at a maximum incline of 25°, even if the conductors are greased or wet
4. The hydraulic system opens the tensioner automatically when the drive lever is actuated
5. If the car is not moving, the tensioner is activated automatically
6. A spring allows the user to lift the safety brake upward with ease
7. The working space for the fitter is not reduced as a result
8. All ZECK conductor cars can be retrofitted [LF 923](#) | [LF 947](#) | [LF 952](#) | [LF 975](#)

SAGGING PLATFORM



SAGGING PLATFORM IN A NEW, PATENTED DESIGN

- Aluminum lasered edge profiles
- For horizontal use at strain towers
- High surefootedness due to aluminum profile and extra wide working surface
- High-quality RUD chains, continuously adjustable
- Fast assembly due to pre-installed suspension fixture with chains
- Locking bolt with lynch pin and steel safety rope
- Markings on chains and connection elements to adjust at 5° angles (0° | 5° | 10° | 15° | 20°)



ADVANTAGES OVER PREVIOUS VERSION WITH ALUMINUM TUBES

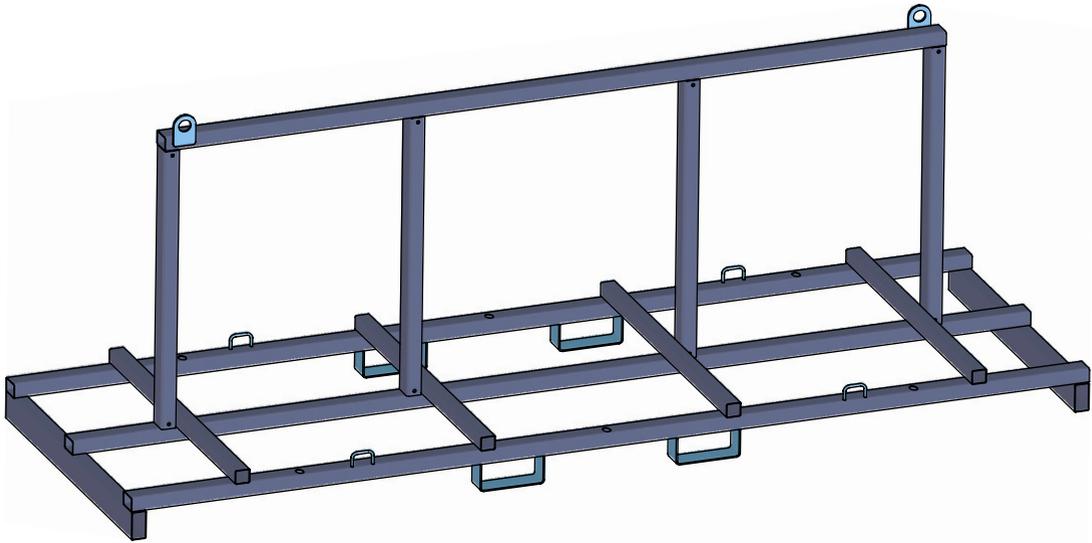
- INCREASED stability with lower weight
- Reduction of welding seams by approx. 85 %, resulting in lower risk of tears and reduced annual inspection work
- Connection elements for adjusting the angles and integrated lifting eye are milled from solid materials (no welding seams)
- Fork lift fixtures for easy transport
- Width of running surface: 480 mm
- Transport crate for chains and suspension fixture



OPTIONAL

- Handrails
 - 2 folding ladders for reaching tensioning clamps
 - Transport frame for sagging platform
Article no. 80-3490
-

TRANSPORT FRAME SAGGING PLATFORM



DIMENSIONS

Length x Width x Height
3900x 900 x 1530 mm



EQUIPMENT

- Hot-dip galvanized steel frame
- Fork lift fixtures
- 2 x lashing straps



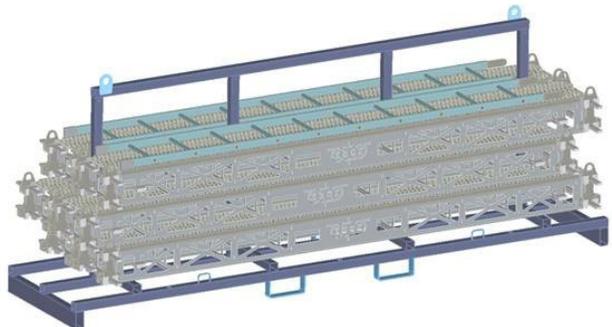
TOTAL WEIGHT

approx. 155 kg



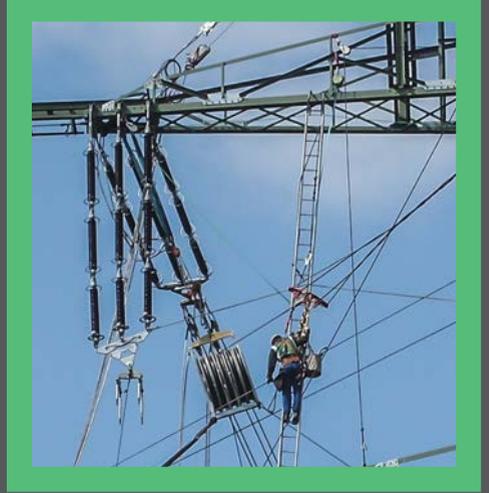
OPTIONAL

- Rungs for side attachment
- Tarpaulin



MACHINES





ON SITE



DRUM WINCHES

ELECTRIC DRUM WINCH

eST 140 Z280

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer)	15 kN
Max. pulling force (outer rope layer)	12 kN
Max. speed (inner rope layer)	33 m/min
Max. speed (outer rope layer)	45 m/min

DRUM CAPACITY

K = 86000/($\phi \times \phi$); e.g. ϕ 12 mm approx. 300 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.0 x 1.6 x 1.8 m
Weight (without rope) 1280 kg



KEY FACTS

- Electric drum winch with powerful rechargeable batteries, 2 x 4.4 kWh (Batteries can be easily inserted/removed)
- Completely electronically controlled drum winch with a max. pulling force of 15 kN
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- 15 kW 48 V

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- Infinitely adjustable rope speed and exact control with max. load
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for monitoring the pulling force, as well as the drive and electric system, with an intelligent diagnosis and fault recognition system
- Integrated battery management system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 100 km/h (with official approval and homologation for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical support
- Automatic rope guiding device
- Underbody shield
- Drawbar adjustable in height with changeable towing device for car or truck

OPTIONAL EQUIPMENT

- Radio remote control
- Lockable toolbox
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- 3rd rechargeable battery 4.4 kWh

Special designs on request



ST 80 Z264

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 10 kN
 Max. speed (outer rope layer) 27 m/min (4.3 kW)
 Optional 53 m/min (8.7 kW)

DRUM CAPACITY

K = 30500/(Ø x Ø); e.g. Ø 9 mm approx. 370 m

DIMENSIONS | WEIGHT

Without chassis
 Length x Width x Height approx. 1.2 x 0.9 x 1.0 m
 Weight (without rope) approx. 290 kg
 With chassis
 Length x Width x Height approx. 3.1 x 1.6 x 1.6 m
 Weight (without rope) approx. 620 kg



KEY FACTS

- Versatile drum winch with a max. pulling force of 10 kN and a max. speed of 27 m/min (4.3 kW) (optional 53 m/min (8.7 kW))
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 4.3 kW (5.8 hp)
- Gasoline engine with recoil start

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Operating elements for pulling force and all machine functions
- Direct acting overload protection

EQUIPMENT

- Robust steel frame with anchoring eye bolts
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Gasoline engine with recoil or electric start, max. 8.7 kW (11.8 hp)
- Chassis with removable drawbar for operation on construction sites (easily tilted by hand for dismounting of the wheels before anchoring the base frame)
- 1-axle chassis with rigid axle, lighting and mudguard for up to 80 km/h including mechanical sprag and aluminum cover (machine can be fixed in the chassis with four screws)
- Tarpaulin
- Radio remote control
- Biodegradable hydraulic oil
- Rope of various types (steel or synthetic fiber)
- Aluminum cover, color as per RAL color table

Special designs on request

ST 140 L Z254



PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 16 kN
Max. speed (outer rope layer) 65 m/min

DRUM CAPACITY

K = 55000/(\varnothing x \varnothing); e.g. \varnothing 12 mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 3.2 x 1.6 x 1.5 m
Weight (with rope) max. 749 kg

KEY FACTS

- Flexible drum winch with a max. pulling force of 16 kN and a max. speed of 65 m/min
- Weight (with synthetic rope 300 m) below 750 kg, can be transported by car and carrying an EU drivers license, category B
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 16.5 kW (22.1 hp)
- Gasoline engine with electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Operating elements for pulling force and all machine functions
- Automatic hydraulic oil cooling system
- Direct acting overload protection

EQUIPMENT

- 1-axle chassis with spring-mounted axle, lighting and mudguard for up to 80 km/h (transport by car)
- Back support via robust mechanical sprag
- Front support via robust mechanical support
- Automatic rope guiding device
- Aluminum cover, color as per RAL color table
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Radio remote control
- Free wheel device to manually pull out rope without engine
- Biodegradable hydraulic oil
- Rope of various types (synthetic fiber)

Special designs on request

DRUM WINCH Z250

ST 140 Z250

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 16 kN
 Max. speed (outer rope layer) 76 m/min

DRUM CAPACITY

$K = 55000/(\varnothing \times \varnothing)$; e.g. $\varnothing 12$ mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.0 x 1.6 x 1.8 m
 Weight (without rope) approx. 950 kg

ST 180 Z250

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 22 kN
 Max. speed (outer rope layer) 50 m/min

DRUM CAPACITY

$K = 55000/(\varnothing \times \varnothing)$; e.g. $\varnothing 12$ mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.0 x 1.6 x 1.8 m
 Weight (without rope) approx. 950 kg

ST 280 Z250

PERFORMANCE IN PULLING MODE

2-STAGE SYSTEM

Stage 1
 Max. pulling force (inner rope layer) 32 kN
 Max. speed (outer rope layer) 40 m/min

Stage 2
 Max. pulling force (inner rope layer) 14 kN
 Max. speed (outer rope layer) 88 m/min

DRUM CAPACITY

$K = 55000/(\varnothing \times \varnothing)$; e.g. $\varnothing 12$ mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.0 x 1.6 x 1.8 m
 Weight (without rope) approx. 950 kg

Switchable 2-stage system for max. flexibility

ST 340 Z250

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 41 kN
 Max. speed (outer rope layer) 34 m/min

DRUM CAPACITY

$K = 55000/(\varnothing \times \varnothing)$; e.g. $\varnothing 12$ mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.0 x 1.6 x 1.8 m
 Weight (without rope) approx. 950 kg



KEY FACTS

- Versatile drum winches with a max. pulling force from 16 kN to 41 kN
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 16.5 kW (22.1 hp)
- Gasoline engine with electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- Infinitely adjustable rope speed and exact control with max. load
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 100 km/h (with official approval and homologation for road service)
- Hinged/dismountable drawbar for car (machine can be transported transversally on a truck)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical sprag
- Front support via robust mechanical support
- Automatic rope guiding device
- Free wheel device to manually pull out rope without engine
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Liquid-cooled diesel engine with rpm-control and max. 18.8 kW (25.6 hp)
- Drawbar adjustable in height with changeable towing device for car or truck
- Hinged transport support for safe transport and unloading of axle
- Radio remote control
- Slack rope safety system (only for steel rope)
- Underbody shield
- Spare wheel with holding fixture
- Lockable toolbox
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Biodegradable hydraulic oil
- Rope of various types (steel or synthetic fiber)
- 230 V battery charger including rechargeable battery
- Aluminum cover, color as per RAL color table

Special designs on request

DISMOUNTABLE DRUM WINCH Z270

ST 140 T Z270

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 16 kN
 Max. speed (outer rope layer) 76 m/min

DRUM CAPACITY

$K = 55000/(\emptyset \times \emptyset)$; e.g. \emptyset 12 mm approx. 380 m

DIMENSIONS | WEIGHT

DRUM WINCH Length x Width x Height approx. 1.78 x 1.13 x 1.83 m
 Weight (without rope) approx. 630 kg
 DRUM WINCH UNIT WITH CHASSIS
 Length x Width x Height approx. 3.17 x 1.59 x 1.8 m
 Weight (without rope) approx. 930 kg

ST 180 T Z270

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 22 kN
 Max. speed (outer rope layer) 50 m/min

DRUM CAPACITY

$K = 55000/(\emptyset \times \emptyset)$; e.g. \emptyset 12 mm approx. 380 m

DIMENSIONS | WEIGHT

DRUM WINCH Length x Width x Height approx. 1.78 x 1.13 x 1.83 m
 Weight (without rope) approx. 630 kg
 DRUM WINCH UNIT WITH CHASSIS
 Length x Width x Height approx. 3.17 x 1.59 x 1.8 m
 Weight (without rope) approx. 930 kg

ST 280 T Z270

PERFORMANCE IN PULLING MODE

Stage 1
 Max. pulling force (inner rope layer) 32 kN
 Max. speed (outer rope layer) 40 m/min
 Stage 2
 Max. pulling force (inner rope layer) 14 kN
 Max. speed (outer rope layer) 88 m/min

DRUM CAPACITY

$K = 55000/(\emptyset \times \emptyset)$; e.g. \emptyset 12 mm approx. 380 m

DIMENSIONS | WEIGHT

DRUM WINCH Length x Width x Height approx. 1.78 x 1.13 x 1.83 m
 Weight (without rope) approx. 630 kg
 DRUM WINCH UNIT WITH CHASSIS
 Length x Width x Height approx. 3.17 x 1.59 x 1.8 m
 Weight (without rope) approx. 930 kg
 Switchable 2-stage system for max. flexibility

ST 340 T Z270

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 41 kN
 Max. speed (outer rope layer) 34 m/min

DRUM CAPACITY

$K = 55000/(\emptyset \times \emptyset)$; e.g. \emptyset 12 mm approx. 380 m

DIMENSIONS | WEIGHT

DRUM WINCH Length x Width x Height approx. 1.78 x 1.13 x 1.83 m
 Weight (without rope) approx. 630 kg
 DRUM WINCH UNIT WITH CHASSIS
 Length x Width x Height approx. 3.17 x 1.59 x 1.8 m
 Weight (without rope) approx. 930 kg



V



II - III

KEY FACTS

- Winch unit can be transported by helicopter – weight approx. 660 kg (puller + gasoline engine + 300 m synthetic fiber rope, 12 mm Ø)
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 16.5 kW (22.1 hp)
- Gasoline engine with electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- Infinitely adjustable rope speed and exact control with max. load
- Clearly structured control desk to supervise the hydraulic system, drive system and electronic system
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- Lockable aluminum cover (chequer plate)
- Hinged/dismountable drawbar for car (machine can be transported transversally on a truck)
- Back support via robust mechanical sprag, can be attached either to the chassis or the winch unit
- Front support via robust mechanical support
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Liquid-cooled diesel engine with rpm-control and max. 18.8 kW (25.6 hp)
- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 100 km/h (with official approval and homologation for road service)
- Drawbar adjustable in height with changeable towing device for car or truck
- Hinged transport support for safe transport and unloading of axle
- Radio remote control
- Free wheel device to manually pull out rope without engine
- Slack rope safety system (only for steel rope)
- Spare wheel with holding fixture
- Lockable toolbox
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Biodegradable hydraulic oil
- Rope of various types (steel or synthetic fiber)
- Aluminum cover, color as per RAL color table

Special designs on request

DRUM WINCH Z253

ST 140 Z253

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 16 kN
 Max. speed (outer rope layer) 37 m/min

DRUM CAPACITY

K = 55000/(Ø x Ø); e.g. Ø 12 mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 1.4 x 1.1 x 1.5 m
 Weight (without rope) approx. 440 kg

ST 180 Z253

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 22 kN
 Max. speed (outer rope layer) 26 m/min

DRUM CAPACITY

K = 55000/(Ø x Ø); e.g. Ø 12 mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 1.4 x 1.1 x 1.5 m
 Weight (without rope) approx. 440 kg

ST 280 Z253

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 34 kN
 Max. speed (outer rope layer) 21 m/min

DRUM CAPACITY

K = 55000/(Ø x Ø); e.g. Ø 12 mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 1.4 x 1.1 x 1.5 m
 Weight (without rope) approx. 470 kg

ST 340 Z253

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 40 kN
 Max. speed (outer rope layer) 13 m/min

DRUM CAPACITY

K = 55000/(Ø x Ø); e.g. Ø 12 mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 1.4 x 1.1 x 1.5 m
 Weight (without rope) approx. 470 kg



KEY FACTS

- Versatile drum winches with a max. pulling force from 16 kN to 40 kN
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 8.7 kW (11.7 hp)
- Gasoline engine with recoil start

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Direct acting overload protection

EQUIPMENT

- Robust steel frame with anchoring eye bolts
- Automatic rope guiding device
- Lockable aluminum cover (chequer plate)
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Chassis with removable drawbar for operation on construction sites (easily tilted by hand for dismantling of the wheels before anchoring the base frame)
- Tarpaulin
- Free wheel device to manually pull out rope without engine
- Biodegradable hydraulic oil
- Rope of various types (steel or synthetic fiber)

Special designs on request

ST 280 Z265

PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 34 kN
 Max. speed (outer rope layer) 56 m/min

DRUM CAPACITY

K = 55000/(Ø x Ø); e.g. Ø 12 mm approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 2.9 x 1.7 x 1.6 m
 Weight (without rope) approx. 950 kg



KEY FACTS

- Versatile drum winch with a max. pulling force of 34 kN and a max. pulling force of 56 m/min
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 26 kW (35 hp)
- Liquid-cooled diesel engine
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Operating elements for pulling force and all machine functions
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical sprag
- Front support via robust mechanical support
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Free wheel device to manually pull out rope without engine
- Lockable toolbox
- Rope of various types (steel or synthetic fiber)
- Aluminum cover, color as per RAL color table

Special designs on request

ST 500 E Z258



PERFORMANCE IN PULLING MODE

Max. pulling force (inner rope layer) 63 kN
Max. speed (outer rope layer) 42 m/min

DRUM CAPACITY

K = 87500/(Ø x Ø); e.g. Ø 14 mm approx. 440 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 3.4 x 2.3 x 1.6 m
Weight (without rope) approx. 1600 kg



KEY FACTS

- Versatile drum winch with a max. pulling force of 63 kN and a max. pulling force of 42 m/min
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 38 kW (51.7 hp)
- Liquid-cooled diesel engine
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Operating elements for pulling force and all machine functions
- Automatic hydraulic oil cooling system
- Direct acting overload protection

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical sprag
- Front support via robust mechanical support
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Brake, lighting and mudguard (for rigid chassis)
- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Drawbar adjustable in height with changeable towing device for car or truck
- Cable or radio remote control
- Free wheel device to manually pull out rope without engine
- Slack rope safety system (only for steel rope)
- Lockable toolbox
- Spare wheel with holding fixture
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Biodegradable hydraulic oil
- Rope of various types (steel)
- Aluminum cover, color as per RAL color table
- Extra large rope drum K = 176100/(Ø x Ø); e.g. Ø 14 mm: 890 m (model ST 550 E)

Special designs on request

ST 1100 E Z260

PERFORMANCE IN PULLING MODE

2-STAGE SYSTEM

Stage 1

Max. pulling force (inner rope layer) 135 kN
 Max. speed (outer rope layer) 18 m/min

Stage 2

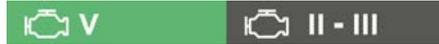
Max. pulling force (inner rope layer) 90 kN
 Max. speed (outer rope layer) 28 m/min

DRUM CAPACITY

K = 114000/(Ø x Ø); e.g. Ø 21 mm approx. 250 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.5 x 2.3 x 1.7 m
 Weight (without rope) approx. 2900 kg



KEY FACTS

- Versatile drum winch with reversible 2-stage system and a max. pulling force of 135 kN or 90 kN and a max. speed of 18 m/min or 28 m/min
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 38 kW (51.7 hp)
- Liquid-cooled diesel engine
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Operating elements for pulling force and all machine functions
- Automatic hydraulic oil cooling system
- Direct acting overload protection
- Switchable 2-stage system for max. flexibility

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical sprag
- Front support via robust mechanical support
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Brake, lighting and mudguard (for rigid chassis)
- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Drawbar adjustable in height with changeable towing device for car or truck
- Cable or radio remote control
- Slack rope safety system (only for steel rope)
- Lockable toolbox
- Spare wheel with holding fixture
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Biodegradable hydraulic oil
- Rope of various types (steel)
- Aluminum cover, color as per RAL color table

Special designs on request

ST 1100 Z272



KEY FACTS

Completely electronically controlled drum winch with a max. pulling force of 133 kN per puller and a max. speed of 37 m/min

- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 55.4 kW (74.3 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- Infinitely adjustable rope speed and exact control with max. load
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

- Max. pulling force (inner rope layer) 133 kN
- Max. speed (outer rope layer) 37 m/min

DRUM CAPACITY

- K = 87500/($\varnothing \times \varnothing$); e.g. \varnothing 14 mm approx. 250 m

DIMENSIONS | WEIGHT

- Length x Width x Height approx. 250 m
- Weight (without rope) approx. 4200 kg

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical sprag
- Front support via robust hydraulic sprag
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Drawbar adjustable in height with changeable towing device for car or truck
- Cable or radio remote control
- Free wheel device to manually pull out rope without engine
- Slack rope safety system (only for steel rope)
- Lockable toolbox
- Underbody shield
- Spare wheel with holding fixture
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Biodegradable hydraulic oil
- Rope of various types (steel)
- Aluminum cover, color as per RAL color table

Special designs on request

ST 280 D Z255

PERFORMANCE IN PULLING MODE

Upper winch

Max. pulling force (inner rope layer)	16 kN
Max. speed (outer rope layer)	50 m/min

Lower winch

Max. pulling force (inner rope layer)	34 kN
Max. speed (outer rope layer)	37 m/min

DRUM CAPACITY

Upper winch

K = 55000/(Ø x Ø); e.g. Ø 9 mm	approx. 680 m
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Lower winch

K = 55000/(Ø x Ø); e.g. Ø 12 mm	approx. 380 m
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DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.0 x 1.6 x 1.8 m
Weight (without rope)	approx. 1280 kg



KEY FACTS

- Completely electronically controlled double drum winch with a max. pulling force of 16 kN or 34 kN and a max. speed of 50 m/min or 37 m/min
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 16.5 kW (22.1 hp)
- Gasoline engine with electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Each rope drum with an automatically activated safety brake

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- Infinitely adjustable rope speed and exact control with max. load
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 100 km/h (with official approval and homologation for road service)
- Back support via robust mechanical sprag
- Front support via robust mechanical support
- Automatic rope guiding device
- Lockable aluminum cover (chequer plate)
- Free wheel device to manually pull out rope without engine
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Liquid-cooled diesel engine with rpm-control and max. 18.8 kW (25.6 hp)
- Drawbar adjustable in height with changeable towing device for car or truck
- Hinged transport support for safe transport and unloading of axle
- Upper winch with max. pulling force of 22 kN at 36 m/min
- Upper winch with max. pulling force of 34 kN at 37 m/min
- Radio remote control
- Slack rope safety system (only for steel rope)
- Lockable toolbox
- Underbody shield
- Spare wheel with holding fixture
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Biodegradable hydraulic oil
- Rope of various types (steel)
- Aluminum cover, color as per RAL color table

Special designs on request

ST 340 D Z263



KEY FACTS

- Completely electronically controlled double drum winch with a max. pulling force of 16 kN or 40 kN and a max. speed of 50 m/min or 34 m/min
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 16.5 kW (22.1 hp)
- Gasoline engine with electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Each rope drum with an automatically activated safety brake

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- Infinitely adjustable rope speed and exact control with max. load
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Upper winch

- Max. pulling force (inner rope layer) 16 kN
- Max. speed (outer rope layer) 50 m/min

Lower winch

- Max. pulling force (inner rope layer) 40 kN
- Max. speed (outer rope layer) 34 m/min

DRUM CAPACITY

Upper winch

- $K = 55000/(\emptyset \times \emptyset)$; e.g. $\emptyset 9 \text{ mm}$ approx. 650 m

Lower winch

- $K = 55000/(\emptyset \times \emptyset)$; e.g. $\emptyset 12 \text{ mm}$ approx. 380 m

DIMENSIONS | WEIGHT

- Length x Width x Height approx. 4.0 x 1.6 x 1.8 m
- Weight (without rope) approx. 1370 kg

EQUIPMENT

- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 100 km/h (with official approval and homologation for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical sprag
- Front support via robust mechanical support
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Liquid-cooled diesel engine with rpm-control and max. 18.8 kW (25.6 hp)
- Drawbar adjustable in height with changeable towing device for car or truck
- Hinged transport support for safe transport and unloading of axle
- Upper winch with max. pulling force of 22 kN at 36 m/min
- Upper winch with max. pulling force of 34 kN at 37 m/min
- Radio remote control
- Free wheel device to manually pull out rope without engine
- Slack rope safety system (only for steel rope)
- Lockable toolbox
- Underbody shield
- Spare wheel with holding fixture
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Biodegradable hydraulic oil
- Rope of various types (steel or synthetic fiber)
- Aluminum cover, color as per RAL color table

Special designs on request

ST 500 D Z232

PERFORMANCE IN PULLING MODE

Upper and lower winch

Max. pulling force (inner rope layer) 63 kN

Max. speed (outer rope layer) 78 m/min

DRUM CAPACITY

Upper and lower winch

K = 87500/(Ø x Ø); e.g. Ø 14 mm approx. 450 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.3 x 2.3 x 2.2 m

Weight (without rope) approx. 3500 kg



KEY FACTS

- Completely electronically controlled double drum winch with a max. pulling force of 63 kN each winch and a max. speed of 78 m/min
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging
- Upper winch can be limited according to customer requirements (e.g. to 2.5 t for gin pole lifting)

ENGINE

- Max. 55.4 kW (75.3 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Each rope drum with an automatically activated safety brake

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- Infinitely adjustable rope speed and exact control with max. load
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Drawbar adjustable in height with changeable towing device for car or truck
- Cable or radio remote control
- Free wheel device to manually pull out rope without engine
- Slack rope safety system (only for steel rope)
- Lockable toolbox
- Underbody shield
- Spare wheel with holding fixture
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Biodegradable hydraulic oil
- Rope of various types (steel)
- Aluminum cover, color as per RAL color table

- Both winches can be used simultaneously (ST 500x2 Z262)

Special designs on request

ST 1100 D Z272



KEY FACTS

- Completely electronically controlled double drum winch with a max. pulling force of 68 kN or 133 kN and a max. speed of 80 m/min or 37 m/min
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

ENGINE

- Max. 55.4 kW (75.3 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Each rope drum with an automatically activated safety brake

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- Infinitely adjustable rope speed and exact control with max. load
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Upper winch

Max. pulling force (inner rope layer)	68 kN
Max. speed (outer rope layer)	80 m/min

Lower winch

Max. pulling force (inner rope layer)	133 kN
Max. speed (outer rope layer)	37 m/min

DRUM CAPACITY

Upper winch

K = 87500/(Ø x Ø); e.g. Ø 14 mm	approx. 450 m
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Lower winch

K = 11400/(Ø x Ø); e.g. Ø 21 mm	approx. 250 m
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DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.6 x 2.3 x 2.2 m
Weight (without rope)	approx. 4400 kg

EQUIPMENT

- 2-axle chassis with rigid axles and parking brake for up to 30 km/h (construction site operation, without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Automatic rope guiding device
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Cable or radio remote control
- Free wheel device to manually pull rope off the upper winch without engine
- Remote diagnosis system via GSM network with GPS modem
- Slack rope safety system (only for steel rope)
- Lockable toolbox
- Spare wheel with holding fixture
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Biodegradable hydraulic oil
- Rope of various types (steel)
- Aluminum cover, color as per RAL color table

Special designs on request

ST 140 - ST 280 A Z251

PERFORMANCE IN PULLING MODE

E.g. with a supply of 23 l/min at 230 bar by the carrier vehicle

Max. pulling force (inner rope layer)

ST 140 A Z251 16 kN

ST 180 A Z251 22 kN

ST 280 A Z251 34 kN

Max. speed (outer rope layer)

ST 140 A Z251 70 m/min

ST 180 A Z251 50 m/min

ST 280 A Z251 40 m/min

DRUM CAPACITY

$K = 55000 / (\emptyset \times \emptyset)$; e.g. $\emptyset 12 \text{ mm}$ approx. 380 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 0.8 x 1.1 x 0.6 m

Weight (without rope) approx. 300 kg



KEY FACTS

- Versatile drum winch to be mounted to a tractor or similar vehicle
- Suitable for lifting loads for rapid and safe tower equipping, tower erection or final sagging

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Operating elements for pulling force and all machine functions
- Direct acting overload protection

EQUIPMENT

- Automatic rope guiding device
- Lockable aluminum cover (chequer plate)
- Large rope drum with sturdy pressure roller for rope fixation

OPTIONAL EQUIPMENT

- Radio remote control
- Free wheel device to manually pull out rope without engine
- Slack rope safety system (only for steel rope)
- Mounted drum winch including tractor (e.g. New Holland)
- Tractor mounted crane (e.g. Palfinger PK 6001)
- Front support via robust mechanical sprag
- Additional single capstan puller
- Rope of various types (steel or synthetic fiber)
- Aluminum cover, color as per RAL color table

- Double drum winch (Z268)

Special designs on request



PERFORMANCE IN PULLING MODE

Max. drive torque	1230 Nm
Max. pulling force (inner rope layer)	70 kN
Max. pulling force (outer rope layer)	24 kN
Max. speed (inner rope layer)	46 m/min
Max. speed (outer rope layer)	130 m/min

DRUM CAPACITY

K = 1103100/(Ø x Ø); e.g. Ø 19 mm approx. 3100 m

DRUM

Max. drum Ø (interior)	460 mm
Max. drum Ø (exterior)	1360 mm
Max. width	850 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.3 x 2.4 x 2.5 m
Weight (without rope)	approx. 3800 kg

KEY FACTS

- Completely electronically controlled winch for dismantling conductors with a max. pulling force of 70 kN and a max. speed of 130 m/min
- Machine is constructed especially for a fast disposal of conductors
- Conductor spacers can be simply wound onto the rope drum

ENGINE

- Max. 55.4 kW (75.3 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 12-V system with high capacity battery

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Rope drum with automatically activated safety brake (lowering limiter, UE standard, CE compliant)

CONTROL SYSTEM

- Cable remote control
 - Control of rope direction
 - Control of rope guidance
 - Open/close flanges
- Infinitely adjustable rope speed and exact control with max. load
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust hydraulic support
- Manually controlled hydraulic rope guidance
- Rope drum flanges can be opened hydraulically (easy discarding of the old conductor package)

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Radio remote control
- Non-detachable reel (machine can be used as drum winch)
- Acoustic insulation
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

HB 800 Z193

PERFORMANCE IN PULLING MODE

Max. drive torque	3200 Nm
Max. pulling force (inner rope layer)	14 kN (Ø 460 mm)
Max. pulling force (middle rope layer)	8 kN (Ø 840 mm)
Max. pulling force (outer rope layer)	5.4 kN (Ø 1200 mm)
Max. speed (inner rope layer)	37 m/min
Max. speed (middle rope layer)	70 m/min
Max. speed (outer rope layer)	50 m/min

DRUM CAPACITY

K = 523765/(Ø x Ø); e.g. Ø 16 mm approx. 2045 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 1.7 x 1.2 x 1.7 m
 Weight (without rope) approx. 890 kg



KEY FACTS

- Flexible puller for dismantling conductors with a max. pulling force of 14 kN and a max. speed of 50 m/min
- Machine is constructed especially for a fast disposal of conductors

ENGINE

- Max. 16.5 kW (22.1 hp)
- Gasoline engine with recoil start

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Operating elements for pulling force and all machine functions

EQUIPMENT

- Robust steel frame with anchoring eye bolts
- Detachable reel with cone shaped core

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation, without official approval for road service)
- Non-detachable reel
- Reel with higher rope capacity
- Cable remote control
- Free wheel device to manually pull out rope without engine
- Lockable toolbox
- Biodegradable hydraulic oil

Special designs on request

HB 800 A Z196



PERFORMANCE IN PULLING MODE

E.g. with a supply of 23 l/min at 160 bar by the carrier vehicle

Max. drive torque	3200 Nm
Max. pulling force (inner rope layer)	14 kN (Ø 460 mm)
Max. pulling force (middle rope layer)	8 kN (Ø 840 mm)
Max. pulling force (outer rope layer)	5.4 kN (Ø 1200 mm)
Max. speed (inner rope layer)	20 m/min
Max. speed (middle rope layer)	35 m/min
Max. speed (outer rope layer)	50 m/min

DRUM CAPACITY

K = 405208/(Ø x Ø); e.g. Ø 16 mm approx. 1500 m

DIMENSIONS | WEIGHT

Length x Width x Height approx. 1.7 x 1.2 x 1.8 m
Weight (without rope) approx. 535 kg

KEY FACTS

- Versatile mounted drum winch for dismantling of conductors to be mounted on to a truck or a similar vehicle
- Machine is constructed especially for a fast disposal of conductors

DRIVING SYSTEM

- Rope drum with planetary gear and hydraulic motor as encapsulated drive unit (highly efficient, minimal maintenance)
- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinitely adjustable rope speed and exact control with max. load
- Operating elements for pulling force and all machine functions

EQUIPMENT

- Robust steel frame with anchoring eye bolts
- Detachable reel with cone shaped core

OPTIONAL EQUIPMENT

- Non-detachable reel
- Reel with higher rope capacity
- Cable remote control
- Free wheel device to manually pull out rope without engine

Special designs on request

PULLER

ON SITE





PERSONNEL WINCH

SPW 3 P Z415 | SPW 3 PR Z415

PERFORMANCE IN PULLING MODE

Max. pulling force, laden journey	30 kN
Max. pulling force, people transport.....	7.5 kN
Max. speed, laden journey	3 km/h
Max. speed, people transport	1 km/h

CAPSTAN

Number	2
Diameter	355 mm
Groove Ø	16 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.7 x 2.4 x 2.3 m
	approx. 3 x 1.8 x 2.4 m
Weight (without rope)	approx. 2550 kg
	approx. 2750 kg
Max. reel weight	approx. 1600 kg



KEY FACTS

- Personnel winch
- Completely electronically controlled puller with road chassis or crawler chassis
- Suitable for universal use on radio masts, in synchronous or single drive mode with block stop for additional safety
- Machine approved by trade association based on DIN EN 1808:2015-08 "Safety requirements for suspended access equipment - Design calculations, stability criteria, construction - Examinations and tests"; German version EN 1808:2015

ENGINE

- Max. 43.7 kW (59.5 hp), EU emission stage V
- Liquid-cooled diesel engine in accordance with the EU emissions directive with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear, service brake and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- USB interface for reading out error list, machine data and key history
- Automatic hydraulic oil cooling system
- Adjustable overload protection
- Monitoring of a total of 15 safety functions that allow safe people transport
- Easy to switch between people transport and laden journey using the operating mode switch (key login)
- Both machines can be coupled with one another and controlled synchronously using a remote control (both machines are connected to and secured with a 13 mm steel rope)

EQUIPMENT

- Crawler chassis with a max. drive speed of 4.7 km/h or road chassis with 80 km/h approval
- Lockable aluminum cover (chequer plate)
- Front support via robust hydraulic sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Synchronization system for connecting several machines to one another
- Acoustic insulation
- Hydraulic reel lifting device for reels with Ø 1100 – 1400 mm
- Rope inlet and outlet are protected against intervention
- A door prevents access to the bull wheel unit during operation

OPTIONAL EQUIPMENT

- ZECK Connect remote diagnosis system
- Biodegradable hydraulic oil

Special designs on request



SPW 1 Z452

PERFORMANCE IN PULLING MODE

Max. pulling force	10 kN
Max. speed	3 km/h

CAPSTAN

Number	2
Diameter	220 mm
Groove Ø	16 mm

ROPE CAPACITY

K=250100/(Ø x Ø); e. g. Ø 10 mm	approx. 2500 m
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DIMENSIONS | WEIGHT

Length x Width x Height	approx. 3.7 x 1.6 x 1.6 m
Weight (without rope)	approx. 1300 kg



KEY FACTS

- Puller for feeder cable in catenary construction, construction of medium-voltage overhead power lines and underground cable projects
- Completely electronically controlled puller with capstans (Ø 220 mm) made of hardened steel with a groove diameter of 16 mm and a max. pulling force of 10 kN
- Free wheel mode (diesel engine off) – this enables the rope to be pulled out at up to 8 km/h with minimal force.

ENGINE

- Max. 18.8 kW (25.6 CV)
- Liquid-cooled diesel engine with electronic rpm-control
- Diesel engine in accordance with EU emissions directive
- 12-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Automatic rope guiding device
- Hydraulic free wheel for reel to easily pull out rope without capstan
- Dismountable reel
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for monitoring the pulling and tensioning force as well as the hydraulic, drive and electric systems
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

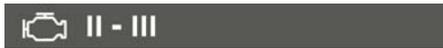
- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 100 km/h (with official approval and homologation for road service)
- Fixed drawbar with coupling for cars
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical support

OPTIONAL EQUIPMENT

- Drawbar adjustable in height with changeable towing device for car or truck
- Cable or radio remote control
- Lockable toolbox
- Grounding plate
- Biodegradable hydraulic oil
- Rope of various types (steel or synthetic fiber)
- Aluminum cover, color as per RAL color table

Special designs on request

USPW 3.2 Z227



PERFORMANCE IN PULLING MODE

Max. pulling force	32 kN
Max. speed	6.6 km/h
Speed at max. pulling force	1.6 km/h

CAPSTAN

Number	2
Diameter	350 mm
Groove Ø	40 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.8 x 2.4 x 2.1 m
Weight (without rope)	approx. 2400 kg
Weight (with rope)	max. 3500 kg

KEY FACTS

- Completely electronically controlled puller with large capstans (Ø 350 mm) made of hardened steel with a groove diameter of 40 mm and a max. pulling force of 32 kN
- Machine including reel and rope can be driven on the road.

ENGINE

- Max. 31 kW (42 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 12-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with spring-mounted axle, brake, lighting and mudguard for up to 80 km/h (transport by car or truck)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic support legs
- Front support via robust hydraulic support
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1100 – 1400 mm
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- Precleaner for engine air filter
- Cable or radio remote control
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table

Special designs on request

SPW 3.5 E Z414

PERFORMANCE IN PULLING MODE

Max. pulling force	35 kN
Max. speed	4 km/h
Speed at max. pulling force	1.2 km/h

CAPSTAN

Number	2
Diameter	350 mm
Groove Ø	40 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 3.3 x 1.7 x 1.7 m
Weight (without rope)	approx. 1300 kg



KEY FACTS

- Puller with large capstans (Ø 350 mm) made from hardened steel with a groove diameter 40 mm and a max. pulling force of 35 kN
- Machine can be transported by helicopter

ENGINE

- Max. 25 kW (32.6 hp)
- Liquid-cooled diesel engine
- 12-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Operating elements for pulling force and all machine functions
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1100 – 1400 mm
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- Gasoline engine according EU emissions directive
- Precleaner for engine air filter
- Automatic rope clamping system
- Electronic force recorder
- 1-axle chassis with spring-mounted axle, brake, lighting and mudguard for up to 100 km/h (transport by car or truck)
- PLC control for optimized productivity and safety
- Cable or radio remote control (only with PLC)
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table

Special designs on request

SPW 7.5 Z431



PERFORMANCE IN PULLING MODE

Max. pulling force	75 kN
Max. speed	4.7 km/h
Speed at max. pulling force	1.5 km/h

CAPSTAN

Number	2
Diameter	450 mm
Groove Ø	54 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.3 x 2.2 x 1.9 m
Weight (without rope)	approx. 2700 kg



KEY FACTS

- Completely electronically controlled puller with large capstans (Ø 450 mm) made from hardened steel with a groove diameter of 54 mm and a max. pulling force of 75 kN

ENGINE

- Max. 63 kW (85 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1100 – 1400 mm
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- ZECK Connect remote diagnosis system
- Precleaner for engine air filter (top air filter)
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- Back support via robust hydraulic support legs
- Front support via robust hydraulic sprag
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Acoustic insulation
- Electric preheating system
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table
- Adjustable rope guidance, hydraulically driven

Special designs on request

SPW 7.5 T Z451 | SPW 9T Z451

PERFORMANCE IN PULLING MODE

Max. pulling force	75 kN 90 kN
Max. speed	4.7 km/h 4.4 km/h
Speed at max. pulling force	1.2 km/h 1.1 km/h

CAPSTAN

Number	2
Diameter	450 mm
Groove Ø	54 mm

DIMENSIONS | WEIGHT

POWER UNIT L x W x H	approx. 1.9 x 1.4 x 1.5 m
Weight	approx. 1020 kg
BULL WHEEL UNIT L x W x H	approx. 1.1 x 1.1 x 1.3 m
Weight	approx. 935 kg
CHASSIS with drawbar L x W x H	approx. 4.75 x 2.2 x 1.15 m
Weight	approx. 780 kg
TOTAL L x W x H	approx. 4.7 x 2.2 x 2 m
Weight	approx. 2735 kg



KEY FACTS

- Machine can be easily dismantled into two parts and transported by helicopter. Completely electronically controlled, dismantlable puller with large capstans (Ø 450 mm) made of hardened steel with a groove diameter of 54 mm and a max. pulling force of 75 kN (or 90 kN)

ENGINE

- Max. 55.4 kW (75.3 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic system to control a separate drum stand/reel winder

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- Lockable aluminum cover (chequer plate)
- Front support via robust mechanical leg supports
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Automatic rope clamping system
- Cable or radio remote control
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request



PERFORMANCE IN PULLING MODE

Max. pulling force	90 kN
Max. speed	5 km/h
Speed at max. pulling force	2.3 km/h

CAPSTAN

Number	2
Diameter	540 mm
Groove Ø	54 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.6 x 2.2 x 2.2 m
Weight (without rope)	approx. 3700 kg

KEY FACTS

- Completely electronically controlled puller with large capstans (Ø 540 mm) made from hardened steel with a groove diameter of 54 mm and a max. pulling force of 90 kN

ENGINE

- Max. 98 kW (133 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust hydraulic sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1100 – 1400 mm
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- ZECK Connect remote diagnosis system
- Precleaner for engine air filter
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Back support via robust hydraulic support legs
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table
- Adjustable rope guidance, hydraulically driven

Special designs on request

SPW 13 Z442

PERFORMANCE IN PULLING MODE

Max. pulling force	130 kN
Max. speed	4.2 km/h
Speed at max. pulling force	1.9 km/h

CAPSTAN

Number	2
Diameter	620 mm
Groove Ø	60 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.8 x 2.3 x 2.5 m
Weight (without rope)	Approx. 5700 kg



KEY FACTS

- Completely electronically controlled puller with large capstans (Ø 620 mm) made of hardened steel with a groove diameter of 60 mm

ENGINE

- Max. 129 kW (172.6 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Automatic rope guiding device. Plug-in axle with quick locking for reel IT (quick change of reel without tools)
- Back support via robust mechanical support legs
- Front support via robust hydraulic sprag
- Automatic rope clamping with grounding device
- Acoustic insulation

OPTIONAL EQUIPMENT

- ZECK Connect remote diagnosis system
- Precleaner for engine air filter
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 1-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Back support via robust hydraulic support legs
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Adjustable rope guidance, hydraulically driven
- Aluminum cover, color as per RAL color table
- Holding fixture for hose kit

Special designs on request

SPW 19 Z449



PERFORMANCE IN PULLING MODE

Max. pulling force	190 kN
Max. speed	6 km/h
Speed at max. pulling force	2.2 km/h

CAPSTAN

Number	2
Diameter	620 mm
Groove Ø	60 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.8 x 2.3 x 2.5 m
Weight (without rope)	approx. 6600 kg



KEY FACTS

- Completely electronically controlled puller with large capstans (Ø 620 mm) made of hardened steel with a groove diameter of 60 mm

ENGINE

- Max. 200 kW (268.2 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust hydraulic sprag
- Automatic rope clamping with grounding device
- Acoustic insulation

OPTIONAL EQUIPMENT

- ZECK Connect remote diagnosis system
- Precleaner for engine air filter
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Back support via robust hydraulic support legs
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table

Special designs on request

PULLER R

SPW 7.5 R Z441

ENGINE

Max. 55.4 kW (74.3 hp), EU emission stage V

PERFORMANCE IN PULLING MODE

Max. pulling force 75 kN
 Max. speed 4.7 km/h
 Speed at max. pulling force 1.7 km/h

CAPSTAN

Number 2
 Diameter 450 mm
 Groove Ø 54 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4 x 1.9 x 2.1 m
 Weight (without rope) approx. 4550 kg
 Max. reel weight approx. 1700 kg

SPW 9 R Z441

ENGINE

Max. 55.4 kW (74.3 hp), EU emission stage V

PERFORMANCE IN PULLING MODE

Max. pulling force 90 kN
 Max. speed 4.1 km/h
 Speed at max. pulling force 1.0 km/h

CAPSTAN

Number 2
 Diameter 450 mm
 Groove Ø 54 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4 x 1.9 x 2.1 mm
 Weight (without rope) approx. 4550 kg
 Max. reel weight approx. 1700 kg

SPW 13 R Z450

ENGINE

Max. 105 kW (141 hp), EU emission stage V

PERFORMANCE IN PULLING MODE

Max. pulling force 130 kN
 Max. speed 2.1 km/h
 Speed at max. pulling force 0.6 km/h

CAPSTAN

Number 2
 Diameter 620 mm
 Groove Ø 60 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 5.3 x 2.3 x 2.9 m
 Weight (without rope) approx. 7100 kg
 Max. reel weight approx. 3500 kg

SPW 19 R Z453

ENGINE

Max. 105 kW (141 hp), EU emission stage V

PERFORMANCE IN PULLING MODE

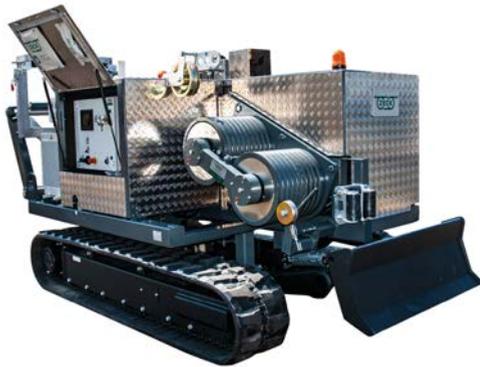
Max. pulling force 190 kN
 Max. speed 2.7 km/h
 Speed at max. pulling force 1.2 km/h

CAPSTAN

Number 2
 Diameter 620 mm
 Groove Ø 60 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 5.3 x 2.3 x 2.9 m
 Weight (without rope) approx. 8000 kg
 Max. reel weight approx. 3500 kg



KEY FACTS

- Completely electronically controlled puller with crawler chassis and large capstans made of hardened steel.
- Universal application for underground cable installation and overhead power line construction. With extra large reel for pulling distances of over 2000 m

ENGINE

- Liquid-cooled diesel engine with electronic rpm-control
- Diesel engine in accordance with EU emissions directive
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Radio remote control for pulling mode and caterpillar drive
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- Crawler chassis with max. driving speed of 4.7 km/h
- Lockable aluminum cover (chequer plate)
- Front support via robust hydraulic sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1100 – 1400 mm (SPW 7.5 R Z441 + SPW 9 R Z441)
- Fixed reel holding fixture for reels 1100-1800 mm (SPW 13 R Z450 + SPW 19 R Z450)
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- ZECK Connect remote diagnosis system
- Precleaner for engine air filter
- Automatic rope clamping system
- SLTS system to automatically tension out rope
- Synchronization system for connecting several machines to one another
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table
- Adjustable rope guidance, hydraulically driven
- Special wire direction guiding device for use as underground cable winch

Special designs on request

SPW 13-19 Z448

SPW 13 Z448

ENGINE

Max. 147 kW (200 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 130 kN
 Max. speed 4.2 km/h
 Speed at max. pulling force 1.9 km/h

CAPSTAN

Number 2
 Diameter 620 mm
 Groove Ø 60 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.8 x 2.3 x 2.5 m
 Weight (without rope) approx. 5000 kg

SPW 16 Z448

ENGINE

Max. 147 kW (200 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 160 kN
 Max. speed 6 km/h
 Speed at max. pulling force 2 km/h

CAPSTAN

Number 2
 Diameter 620 mm
 Groove Ø 60 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.8 x 2.3 x 2.5 m
 Weight (without rope) approx. 5000 kg

SPW 19 Z448

ENGINE

Max. 200 kW (272 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 190 kN
 Max. speed 6 km/h
 Speed at max. pulling force 2.2 km/h

CAPSTAN

Number 2
 Diameter 620 mm
 Groove Ø 60 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 4.8 x 2.3 x 2.5 m
 Weight (without rope) approx. 5400 kg



KEY FACTS

- Completely electronically controlled puller with large capstans (Ø 620 mm) made from hardened steel with a groove diameter of 60 mm

ENGINE

- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust hydraulic sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1100 – 1400 mm
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Back support via robust hydraulic support legs
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table
- Adjustable rope guidance, hydraulically driven

Special designs on request

SPW 18+9 Z435

PERFORMANCE IN PULLING MODE

Max. pulling force	2 x 90 kN or 1 x 180 kN
Max. speed	6 km/h
Speed at max. pulling force	2 km/h

CAPSTAN

Number	4 (2 x 2)
Diameter	2 x 620 mm (180 kN)
Diameter	2 x 540 mm (90 kN)
Groove Ø	60 mm (180 kN)
Groove Ø	54 mm (90 kN)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.3 x 2.3 x 2.7 m
Weight (without rope)	approx. 8000 kg



KEY FACTS

- Completely electronically controlled double puller with large capstans Ø 2 x 620 mm (180 kN) and 2 x 540 mm (90 kN) made from hardened steel with a groove diameter of 60 mm (180 kN) and 54 mm (90 kN), with a max. pulling force of 2 x 90 kN or 1 x 180 kN

ENGINE

- Max. 200 kW (272 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust hydraulic sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1100 – 1400 mm
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Back support via robust hydraulic support legs
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table
- Adjustable rope guidance, hydraulically driven

Special designs on request

SPW 26 Z437



PERFORMANCE IN PULLING MODE

Max. pulling force	260 kN
Max. speed	5 km/h
Speed at max. pulling force	2 km/h

CAPSTAN

Number	2
Diameter	800 mm
Groove Ø	82 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.8 x 2.3 x 2.6 m
Weight (without rope)	approx. 8700 kg



KEY FACTS

- Completely electronically controlled puller with large capstans (Ø 800 mm) made from hardened steel with a groove diameter 82 mm and a max. pulling force of 260 kN

ENGINE

- Max. 262 kW (356 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust hydraulic sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1000 – 1900 mm
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Back support via robust hydraulic support legs
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table
- Adjustable rope guidance, hydraulically driven

Special designs on request

SPW DISMOUNTABLE

SPW 19 T Z444

ENGINE

Max. 147 kW (200 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 190 kN
 Max. speed 5 km/h
 Speed at max. pulling force 1.9 km/h

CAPSTAN

Number 2
 Diameter 620 mm
 Groove Ø 60 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 5.6 x 2.5 x 2.3 m
 Weight (without rope) approx. 6000 kg

WEIGHT OF EACH INDIVIDUAL PART

Weight below approx. 1200 kg

SPW 30 T Z434

ENGINE

Max. 155 kW (210 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 300 kN
 Max. speed 5 km/h
 Speed at max. pulling force 1.2 km/h

CAPSTAN

Number 2
 Diameter 700 mm
 Groove Ø 75 mm
 Optional 80 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 5.6 x 2.5 x 2.3 m
 Weight (without rope) approx. 6800 kg

WEIGHT OF EACH INDIVIDUAL PART

Weight below approx. 1200 kg

SPW 38 T Z434

ENGINE

Max. 147 kW (200 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 380 kN
 Max. speed 4 km/h
 Speed at max. pulling force 0.9 km/h

CAPSTAN

Number 2
 Diameter 700 mm
 Groove Ø 80 mm
 Optional 75 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 5.6 x 2.5 x 2.3 m
 Weight (without rope) approx. 8300 kg

WEIGHT OF EACH INDIVIDUAL PART

Weight below approx. 1200 kg

SPW 45 T Z434

ENGINE

Max. 147 kW (200 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 450 kN
 Max. speed 3.6 km/h
 Speed at max. pulling force 0.75 km/h

CAPSTAN

Number 2
 Diameter 700 mm
 Groove Ø 75 mm
 Optional 80 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 5.6 x 2.5 x 2.5 m
 Weight (without rope) approx. 8300 kg

WEIGHT OF EACH INDIVIDUAL PART

Weight below approx. 1360 kg



V



II - III

KEY FACTS

- Completely electronically controlled dismantlable puller with large capstans of hardened
- Machine can be assembled/dismounted autonomously by a manually controlled crane
- Machine can be easily dismantled for helicopter transport

ENGINE

- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic system to control one drum stand/reel winder

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- Lockable aluminum cover (chequer plate)
- Front and back support via robust mechanical supports legs
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Pre-cleaner for engine air filter
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- Groove diameter 80 mm
- Cable or radio remote control
- Remote diagnosis system via GSM network with GPS modem
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

SPW 28 Z425

PERFORMANCE IN PULLING MODE

Max. pulling force	280 kN
Max. speed	4.8 km/h
Speed at max. pulling force	2.4 km/h

CAPSTAN

Number	2
Diameter	900 mm
Groove Ø	85 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.7 x 2.4 x 2.7 m
Weight (without rope)	approx. 10400 kg



KEY FACTS

- Completely electronically controlled puller with large capstans (Ø 900 mm) made from hardened steel with a groove diameter 85 mm and a max. pulling force of 280 kN

ENGINE

- Max. 360 kW (490 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each capstan with an automatically activated safety brake
- Hydraulic reel drive with planetary gear and hydraulic motor (minimal maintenance)

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic support legs
- Front support via robust hydraulic sprag
- Automatic rope guiding device
- Automatic rope clamping with grounding device
- Hydraulic reel lifting device for reels with Ø 1000 – 1900 mm
- Plug-in axle with quick locking for reel IT (quick change of reel without tools)

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Special wire direction guiding device for use as underground cable winch
- Aluminum cover, color as per RAL color table
- Adjustable rope guidance, hydraulically driven

Special designs on request

ON SITE



TENSIONING MACHINES

TENSIONER WITHOUT ENGINE

B 1500/1.5 E Z349

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	15 kN
Min. tensioning force	approx. 2 kN
Max. speed	5 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	40 mm
Number of conductors	1

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 3.4 x 1.7 x 2.4 m
Weight	approx. 1200 kg

B 1500/2.5 E Z338

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	25 kN
Min. tensioning force	approx. 2 kN
Max. speed	5 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	40 mm
Number of conductors	1

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 3.4 x 1.7 x 2.4 m
Weight	approx. 1600 kg

B 1500/4 E Z383

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	40 kN
Min. tensioning force	approx. 3.5 kN
Max. speed	5 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	40 mm
Number of conductors	up to 2

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 3.3 x 1.8 x 2.4 m
Weight	approx. 2150 kg



DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake

CONTROL SYSTEM

- Infinite manual tensioning force regulation
- Operating elements for tensioning force and all machine functions
- Automatic hydraulic oil cooling system

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Front support via robust mechanical support
- Back support via robust mechanical support legs
- Automatic rope clamping with grounding device
- Free wheel device to manual position the rope without engine

OPTIONAL EQUIPMENT

- Digital meter counter
- Cover of checker plate or aluminum, color as per RAL color table

Special designs on request

B 1500/2.5 Z385

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	25 kN
Min. tensioning force	approx. 3 kN
Max. speed	6 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	25 kN
Speed at max. pulling force	0.7 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	1

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.3 x 1.8 x 2.7 m
Weight	approx. 2050 kg



KEY FACTS

- Tensioner for 1 cable with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm and a max. pulling and tensioning force of 25 kN

ENGINE

- Max. 26 kW (35 hp)
- Liquid-cooled diesel engine
- 12-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Rope direction controlled by operating lever
- ATS, Automatic Tensioning System
- Operating elements for tensioning force and all machine functions
- Automatic hydraulic oil cooling system

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical support
- Automatic rope clamping with grounding device
- Digital meter counter

OPTIONAL EQUIPMENT

- Gasoline engine according EU emissions directive
- Precleaner for engine air filter
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 1-axle chassis with spring-mounted axle, brake, lighting and mudguard for up to 80 km/h (transport by car or truck)
- Bull wheels for left- and right-hand-lay conductors
- Cable remote control for tensioning force
- Hydraulic system (700/1000 bar) to power the press head
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request



PERFORMANCE IN TENSIONING MODE

Max. tensioning force	30 kN
Min. tensioning force	approx. 5 kN
Max speed (non-stop operation)	25 km/h
Max speed (interim operation)	27 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	30 kN
Speed at max. pulling force	1.5 km/h

BULL WHEEL

Number	2
Diameter	1800 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	1

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.4 x 2.2 x 3.0 m
Weight	approx. 4200 kg

KEY FACTS

- Completely electronically controlled tensioner for installation by helicopter for 1 cable with 2 bull wheels (Ø 1800 mm), with a groove diameter 45 mm (optional 60 mm) and a max. pulling and tensioning force of 30 kN
- ITS, Intelligent Tension Sustainer (double safety for stringing operation and helicopter, tensioner temporarily continues pulling with last set tensioning force in case of failure)

ENGINE

- Max. 55.4 kW (75.3 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axle, brake, lighting and mudguard for up to 80 km/h (transport by car or truck)
- Front support via robust hydraulic support
- Bull wheels for left- and right-hand-lay conductors
- Groove diameter 60 mm
- Cable or radio remote control for tensioning force
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1500/4 Z325

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	40 kN
Min. tensioning force	approx. 3.5 kN
Max. speed	6 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	40 kN
Speed at max. pulling force	0.8 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	1
Optional	2

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.9 x 2.3 x 2.6 m
Weight	approx. 2900 kg



KEY FACTS

- Tensioner for 1 cable (optional 2) with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm and a max. pulling and tensioning force of 40 kN

ENGINE

- Max. 26 kW (35 hp)
- Liquid-cooled diesel engine
- 12-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Rope direction controlled by operating lever
- ATS, Automatic Tensioning System
- Operating elements for tensioning force and all machine functions
- Automatic hydraulic oil cooling system

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical support
- Automatic rope clamping with grounding device
- Digital meter counter

OPTIONAL EQUIPMENT

- Gasoline engine according EU emissions directive
- Precleaner for engine air filter
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 1-axle chassis with spring-mounted axle, brake, lighting and mudguard for up to 80 km/h (transport by car or truck)
- Bull wheels for left- and right-hand-lay conductors
- Version for up to 2 conductors
- Cable remote control for tensioning force
- Hydraulic system (700/1000 bar) to power the press head
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1500/8 Z341



PERFORMANCE IN TENSIONING MODE

Max. tensioning force	80 kN
Min. tensioning force	approx. 5 kN
Max. speed	5 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	75 kN
Speed at max. pulling force	0.6 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	up to 2
Optional	3

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.6 x 2.3 x 2.8 m
Weight	approx. 4000 kg

KEY FACTS

- Tensioner for up to 2 ropes (optional 3) with 2 bull wheels (Ø 1500 mm), with a groove diameter of 45 mm and a max. pulling and tensioning force of 75 kN

ENGINE

- Max. 26 kW (35 hp)
- Liquid-cooled diesel engine
- 12-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Rope direction controlled by operating lever
- ATS, Automatic Tensioning System
- Operating elements for tensioning force and all machine functions
- Automatic hydraulic oil cooling system

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device
- Digital meter counter

OPTIONAL EQUIPMENT

- Precleaner for engine air filter
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- Back support via robust hydraulic sprag
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to three conductors
- Cable remote control for tensioning force
- Hydraulic system (700/1000 bar) to power the press head
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1500/9 Z331

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	90 kN
Min. tensioning force	approx. 6 kN
Max. speed	6 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	90 kN
Speed at max. pulling force	1 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	up to 2
Optional	3

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.9 x 2.3 x 2.7 m
Weight	approx. 4600 kg



KEY FACTS

- Completely electronically controlled tensioner for up to 2 cable (optional 3) with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm (optional 60 mm) and a max. pulling and tensioning force of 90 kN

ENGINE

- Max. 63 kW (85 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- 2-axle chassis with rigid axles and brake for up to 30 km/h (construction site operation without official approval for road service)
- Brake, lighting and mudguard (for rigid chassis)
- Front support via robust hydraulic support
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to three conductors
- Groove diameter 60 mm
- Cable or radio remote control for tensioning force
- Synchronization system for connecting several machines to one another
- Hydraulic system (700/1000 bar) to power the press head
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1500/4.5x3 Z348



KEY FACTS

- Completely electronically controlled tensioner for up to 3 (1 + 1 + 1) cables with 6 (3 x 2) bull wheels (Ø 1500 mm), with a groove diameter 45 mm and a max. pulling and tensioning force of 3 x 45 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 96.5 kW (131 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 3 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

PERFORMANCE IN TENSIONING MODE

Max. tensioning force 3 x 45 kN
Min. tensioning force approx. 4 kN
Max. speed 6 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force 3 x 45 kN
Speed at max. pulling force 1.5 km/h

BULL WHEEL

Number 6 (3 x 2)
Diameter 1500 mm
Groove Ø 45 mm
Number of conductors up to 3 (1 + 1 + 1)

DIMENSIONS | WEIGHT

Length x Width x Height approx. 6.4 x 2.3 x 2.8 m
Weight approx. 8800 kg

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Hydraulic system (700/1000 bar) to power the press head
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1500/14 Z337

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	140 kN
Min. tensioning force	approx. 10 kN
Max. speed	5 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	140 kN
Speed at max. pulling force	0.5 km/h
Max. speed	1 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	up to 4

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.0 x 2.3 x 2.9 m
Weight	approx. 6300 kg



KEY FACTS

- Completely electronically controlled tensioner for up to 4 cables with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm (optional 60 mm) and a max. pulling and tensioning force of 140 kN

ENGINE

- Max. 63 kW (85 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Rope outlet
- Front support via robust hydraulic support
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Groove diameter 60 mm
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Hydraulic system (700/1000 bar) to power the press head
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1800/7x2



PERFORMANCE IN TENSIONING MODE

Max. tensioning force	2 x 70 kN
Min. tensioning force	approx. 6 kN
Max. speed	6 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	2 x 70 kN
Speed at max. pulling force	1.2 km/h

BULL WHEEL

Number	4 (2 x 2)
Diameter	1800 mm
Groove Ø	60 mm
Number of conductors	4 (2 x 2)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.5 x 2.4 x 2.9 m
Weight	Approx. 10400 kg



KEY FACTS

- Completely electronically controlled tensioner for up to 2 (1+1) ropes with 4 (2 x 2) bull wheels (Ø 1800 mm), with a groove diameter of 60 mm and a max. pulling and tensioning force of 2 x 70 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 55 kW (75 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Hydraulic system (700/1000 bar) to power the press head
- Arctic kit with preheating system for up to -30 °C

Special designs on request

B 1500/16 Z380

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	160 kN
Min. tensioning force	approx. 10 kN
Max. speed	5 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	160 kN
Speed at max. pulling force	0.4 km/h
Max. speed	1 km/h

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	40 mm
Number of conductors	up to 6

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.1 x 2.3 x 2.8 m
Weight	approx. 7500 kg



KEY FACTS

- Completely electronically controlled tensioner for up to 6 cables with 2 bull wheels (Ø 1500 mm), with a groove diameter 40 mm and a max. pulling and tensioning force of 160 kN

ENGINE

- Max. 63 kW (85 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 6 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- ZECK Connect remote diagnosis system
- Precleaner for engine air filter
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Front support via robust hydraulic support
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Hydraulic system (700/1000 bar) to power the press head
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1500/9x2 Z327



KEY FACTS

- Completely electronically controlled tensioner for up to 4 (2 + 2) (optional 6 (3 + 3)) cables with 4 (2 x 2) bull wheels (Ø 1500 mm), with a groove diameter 45 mm (optional 60 mm) and a max. pulling and tensioning force of 2 x 90 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 75 kW (102 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

PERFORMANCE IN TENSIONING MODE

Max. tensioning force 2 x 90 kN
Min. tensioning force approx. 6 kN
Max. speed 6 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force 2 x 90 kN
Speed at max. pulling force 1 km/h

BULL WHEEL

Number 4 (2 x 2)
Diameter 1500 mm
Groove Ø 45 mm
Number of conductors up to 4 (2 + 2)
Optional 6 (3 + 3)

DIMENSIONS | WEIGHT

Length x Width x Height approx. 5.9 x 2.3 x 2.6 m
Weight approx. 8900 kg

EQUIPMENT

- Automatic rope clamping system
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Front support via robust hydraulic support
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to six conductors
- Groove diameter 60 mm
- Cable or radio remote control for tensioning force
- Synchronization system for connecting several machines to one another
- Hydraulic system (700/1000 bar) to power the press head
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1500/6x3 Z381

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	3 x 60 kN
Min. tensioning force	approx. 8 kN
Max. speed	5 km/h

PERFORMANCE IN PULLING MODE

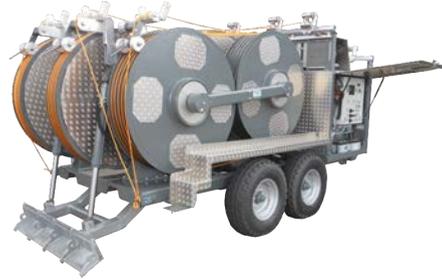
Max. pulling force	3 x 60 kN
Speed at max. pulling force	1 km/h

BULL WHEEL

Number	6 (3 x 2)
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	up to 3 (1 + 1 + 1)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.9 x 2.3 x 2.8 m
Weight	approx. 8700 kg



KEY FACTS

- Completely electronically controlled tensioner for up to 3 (1 + 1 + 1) ropes with 6 (3 x 2) bull wheels (Ø 1500 mm), with a groove diameter of 45 mm and a max. pulling and tensioning force of 3 x 60 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 96,5 kW (131 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 3 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Front support via robust hydraulic support
- Rope in device for max. 5° rope deflection
- Cable or radio remote control
- Hydraulic system (700/1000 bar) to power the press head
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1500/12x2 Z346



KEY FACTS

- Completely electronically controlled tensioner for up to 4 (2 + 2) (optional 6 (3 + 3)) cables with 4 (2 x 2) bull wheels (Ø 1500 mm), with a groove diameter 45 mm (optional 60 mm) and a max. pulling and tensioning force of 2 x 120 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 70 kW (90 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	2 x 120 kN
Min. tensioning force	approx. 8 kN
Max. speed	5 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	2 x 120 kN
Speed at max. pulling force	0.4 km/h
Max. speed	0.7 km/h

BULL WHEEL

Number	4 (2 x 2)
Diameter	1500 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	up to 4 (2 + 2)
Optional	6 (3 + 3)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.4 x 2.5 x 2.9 m
Weight	approx. 12500 kg

EQUIPMENT

- 2-axle chassis with rigid axles and brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- ZECK Connect remote diagnosis system
- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- Automatic rope clamping system
- Lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Front support via robust hydraulic support
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to six conductors
- Groove diameter 60 mm
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Hydraulic system (700/1000 bar) to power the press head
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

B 1800/14x2 Z384

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	2 x 140 kN
Min. tensioning force	approx. 10 kN
Max. speed	5 km/h

PERFORMANCE IN PULLING MODE

Max. pulling force	2 x 140 kN
Speed at max. pulling force	0.5 km/h

BULL WHEEL

Number	4 (2 x 2)
Diameter	1800 mm
Groove Ø	60 mm
Number of conductors	up to 4 (2 + 2)
Optional	6 (3 + 3)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.7 x 2.5 x 3.2 m
Weight	approx. 14500 kg



KEY FACTS

- Completely electronically controlled tensioner for up to 4 (2 + 2) (optional 6 (3 + 3)) cables with 4 (2 x 2) bull wheels (Ø 1800 mm), with a groove diameter 60 mm (optional 70 mm) and a max. pulling and tensioning force of 2 x 140 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 70 kW (90 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system

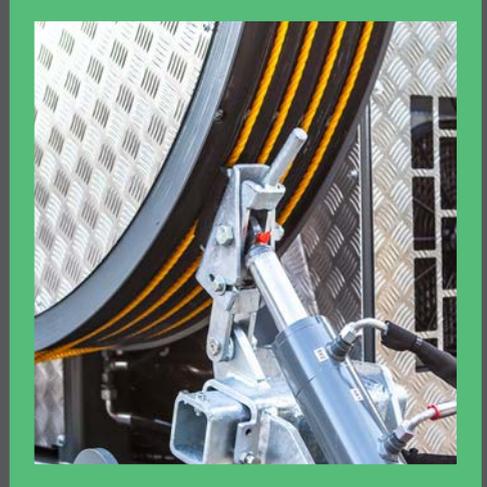
EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Precleaner for engine air filter
- ZECK Connect remote diagnosis system
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Front support via robust hydraulic support
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to six conductors
- Groove diameter 70 mm
- Cable or radio remote control
- Synchronization system for connecting several machines to one another
- Hydraulic system (700/1000 bar) to power the press head
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request



ON SITE



PULLER-TENSIONERS

WB 1500/2.5 Z361

PERFORMANCE IN PULLING MODE

Max. pulling force	25 kN
Max. speed	6 km/h
Max. Speed with max. pulling force	1.8 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	25 kN
Max. speed	6 km/h
Min. tensioning force ATS SLTS	approx. 3.5 kN -

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	1

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.0 x 1.9 x 2.7 m
Weight	approx. 2200 kg



KEY FACTS

- Completely electronically controlled puller-tensioner for 1 cable with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm and a max. pulling and tensioning force of 25 kN

ENGINE

- Max. 26 kW (35 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 12-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Gasoline engine according EU emissions directive
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 1-axle chassis with spring-mounted axle, brake, lighting and mudguard for up to 100 km/h (transport by car or truck)
- Bull wheels for left- and right-hand-lay conductors
- Radio remote control
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/2.5 Z365



KEY FACTS

- Completely electronically controlled puller-tensioner for 1 rope with 2 bull wheels (Ø 1500 mm), with a groove diameter of 45 mm and a max. pulling and tensioning force of 25 kN

ENGINE

- Max. 55.4 kW (74.3 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 12-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Max. pulling force	25 kN
Max. speed	8 km/h
Max. Speed with max. pulling force	3 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	25 kN
Max. speed	8 km/h
Min. tensioning force ATS SLTS	approx. 3.5 kN -

BULL WHEEL

Number	1
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	1

DIMENSIONS | WEIGHT

Length x Width x Height	Approx. 4.5 x 2.2 x 2.65 m
Weight	approx. 2750 kg

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 1-axle chassis with spring-mounted axle, brake, lighting and mudguard for up to 100 km/h (transport by car or truck)
- Bull wheels for left- and right-hand-lay conductors
- Radio remote control
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/4+2.5 Z372

PERFORMANCE IN PULLING MODE

Max. pulling force	2 x 25 kN or 1 x 40 kN
Max. speed	6 km/h
Max. Speed with max. pulling force	2 x 1.8 km/h or 1 x 2.3 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	2 x 25 kN or 1 x 40 kN
Max. speed	6 km/h
Min. tensioning force ATS SLTS	approx. 8 kN approx. 2 kN (40 kN Bull wheels)
Min. tensioning force ATS SLTS	approx. 4 kN approx. 1.5 kN (25 kN Bull wheels)

BULL WHEEL

Number	4 (2 + 2)
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	up to 2 (1+1)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.2 x 2.29 x 2.9 m
Weight	approx. 5900 kg



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 2 (1+1) ropes with 4 (2 + 2) bull wheels (Ø 1500 mm), with a groove diameter of 45 mm and a max. pulling and tensioning force of 2 x 25 kN or 1 x 40 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 63 kW (85 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Radio remote control
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/4.5 Z307



PERFORMANCE IN PULLING MODE

Max. pulling force	45 kN
Max. speed	6 km/h
Max. Speed with max. pulling force	2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	45 kN
Max. speed	6 km/h
Min. tensioning force ATS	approx. 4.5 kN

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	1
Optional	2

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5 x 2.2 x 2.5 m
Weight	approx. 3500 kg

KEY FACTS

- Completely electronically controlled puller-tensioner for 1 cable (optional 2) with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm and a max. pulling and tensioning force of 45 kN

ENGINE

- Max. 63 kW (85 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Front support via robust hydraulic support
- Version for up to 2 conductors
- Radio remote control
- Synchronization system for connecting several machines to one another
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil

Special designs on request

WB 1800/4.5 Z388

PERFORMANCE IN PULLING MODE

Max. pulling force	45 kN
Max. speed	6.8 km/h
Max. Speed with max. pulling force	4.1 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	45 kN
Max. speed	6.8 km/h
Min. tensioning force ATS SLTS	approx. 7 kN approx. 1.5 kN

BULL WHEEL

Number	2
Diameter	1800 mm
Groove Ø	45 mm
Number of conductors	1
Optional	2

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.6 x 2.3 x 2.8 m
Weight	approx. 5100 kg



KEY FACTS

- Completely electronically controlled puller-tensioner for 1 rope (optional 2) with 2 bull wheels (Ø 1800 mm), with a groove diameter of 45 mm and a max. pulling and tensioning force of 45 kN

ENGINE

- Max. 105 kW (141 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Lifting eyes for lifting the machine, and an anchoring eye for clamping a conductor
- Acoustic insulation
- Electronically controlled drum stand pretension
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Automatic rope/conductor clamping with grounding device
- Working platform with railing
- Rope in device for max. 5° rope deflection

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to two conductors (right-hand-lay conductors)
- Radio remote control
- Synchronization system for connecting several machines to one another
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/5 Z375 105 kW



KEY FACTS

- Completely electronically controlled puller-tensioner for 1 cable (optional 2) with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm and a max. pulling and tensioning force of 50 kN

ENGINE

- Max. 105 kW (141 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Max. pulling force	50 kN
Max. speed	6 km/h
Optional	6.8 km/h
Max. Speed with max. pulling force	3.7 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	50 kN
Max. speed	6 km/h
Optional	6.8 km/h
Min. tensioning force ATS SLTS	approx. 7 kN approx. 1.5 kN

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	1
Optional	2

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.8 x 2.3 x 2.5 m
Weight	approx. 4500 kg

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Lockable aluminum cover (chequer plate)
- Acoustic insulation
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Lifting eyes for lifting the machine, and an anchoring eye for clamping a conductor
- Automatic rope/conductor clamping with grounding device
- Working platform with railing
- Rope in device for max. 5° rope deflection

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to two conductors (right-hand-lay conductors)
- Radio remote control
- Synchronization system for connecting several machines to one another
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/7 T Z350

PERFORMANCE IN PULLING MODE

Max. pulling force	70 kN
Max. speed	5.6 km/h
Max. Speed with max. pulling force	1.3 km/h

PERFORMANCE IN TENSIONING MODE

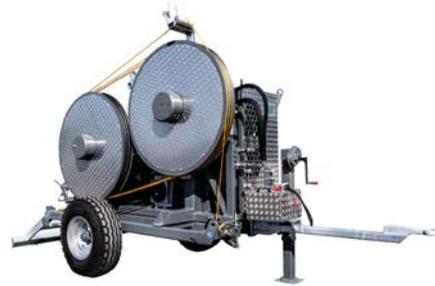
Max. tensioning force	70 kN
Max. speed	5.6 km/h
Min. tensioning force ATS SLTS	approx. 9 kN approx. 2.5 kN

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	1

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.7 x 2.3 x 3.2 m
Weight	approx. 3450 kg



KEY FACTS

- Completely electronically controlled puller-tensioner for 1 rope with 2 bull wheels (Ø 1500 mm), with a groove diameter of 45 mm and a max. pulling and tensioning force of 70 kN
- Machine can be easily dismounted for helicopter transport (weight of each component below 1150 kg)

ENGINE

- Max. 55.4 kW (74.3 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to control one drum stand

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- Lockable aluminum cover (chequer plate)
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
 - Rear support via robust mechanical sprag
 - Front support via robust mechanical sprag
- Radio remote control
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 2 cable (optional 3) with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm (optional 60 mm) and a max. pulling and tensioning force of 90 kN

ENGINE

- Max. 105 kW (143 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Max. pulling force	90 kN
Max. speed	6 km/h
Max. Speed with max. pulling force	2.2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	90 kN
Max. speed	6 km/h
Min. tensioning force ATS SLTS	approx. 8 kN approx. 2 kN

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	up to 2
Optional	3

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.4 x 2.3 x 2.7 m
Weight	approx. 6350 kg

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Working platform with railing
- Rope in device for max. 5° rope deflection
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- Front support via robust hydraulic support
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to three conductors
- Groove diameter 60 mm
- Radio remote control
- Synchronization system for connecting several machines to one another
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1800/9 Z377

PERFORMANCE IN PULLING MODE

Max. pulling force	90 kN
Max. speed	5 km/h
Max. Speed with max. pulling force	2.2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	90 kN
Max. speed	5 km/h
Min. tensioning force ATS SLTS	approx. 8 kN approx. 2 kN

BULL WHEEL

Number	2
Diameter	1800 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	up to 2
Optional	3

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6 x 2.4 x 3.2 m
Weight	approx. 7300 kg

KEY FACTS

- Completely electronically controlled puller-tensioner for up to 2 (optional 3) ropes with 2 bull wheels (Ø1800 mm), with a groove diameter of 45 mm (optional 60 mm) and a max. pulling and tensioning force of 90 kN

ENGINE

- Max. 105 kW (141 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection



EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axles and brake for up to 30 km/h (construction site operation without official approval for road service)
- Electronically controlled drum stand pretension
- Acoustic insulation
- Working platform with railing
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Rope in device for max. 5° rope deflection
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Lighting and mudguard (for rigid chassis)
- Bull wheels for left- and right-hand-lay conductors
- Radio remote control
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Synchronization system for connecting several machines to one another
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/9+4.5 Z359



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 2 (1 + 1) cables with 4 (2 x 2) bull wheels (Ø 1500 mm), with a groove diameter 45 mm (optional 50 mm) and a max. pulling and tensioning force of 2 x 45 kN or 1 x 90 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 105 kW (141 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Max. pulling force	2 x 45 kN or 1 x 90 kN
Max. speed	6 km/h
Max. Speed with max. pulling force	2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	2 x 45 kN or 1 x 90 kN
Max. speed	6 km/h
Min. tensioning force ATS SLTS	approx. 8 kN approx. 2 kN (90 kN Bull wheels)
Min. tensioning force ATS SLTS	approx. 4.5 kN approx. 1.5 kN (45 kN Bull wheels)

BULL WHEEL

Number	4 (2 x 2)
Diameter	1500 mm
Groove Ø	45 mm
Optional	50 mm
Number of conductors	up to 2 (1 + 1)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.35 x 2.3 x 3.1 m
Weight	approx. 8500 kg

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Working platform with railing
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Groove diameter 60 mm
- Radio remote control
- Synchronization system for connecting several machines to one another
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/12 Z312

PERFORMANCE IN PULLING MODE

Max. pulling force	120 kN
Max. speed	4.8 km/h
Max. Speed with max. pulling force	2.8 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	120 kN
Max. speed	4.8 km/h
Min. tensioning force ATS SLTS	approx. 10 kN

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	up to 3

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.1 x 2.5 x 3.1 m
Weight	approx. 6000 kg



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 3 ropes (optional 4) with 2 bull wheels (Ø 1500 mm), with a groove diameter of 45 mm (optional 60 mm) and a max. pulling and tensioning force of 120 kN

ENGINE

- Max. 129 kW (172.6 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 1-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic sprag
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Front support via robust hydraulic support
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to four conductors
- Groove diameter 60 mm
- Radio remote control
- Synchronization system for connecting several machines to one another
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/12+4.5+4.5 Z371



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 3 (1 + 1 + 1) cables with 6 (3 x 2) bull wheels (Ø 1500 mm), with a groove diameter 45 mm (optional 60 mm) and a max. pulling and tensioning force of 3 x 45 kN or 1 x 120 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 155 kW (210 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Max. pulling force	3 x 45 kN or 1 x 120 kN
Max. speed	5.5 km/h
Max. Speed with max. pulling force	3.4 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	3 x 45 kN or 1 x 120 kN
Max. speed	5.5 km/h
Min. tensioning force ATS SLTS	approx. 10 kN approx. 2.5 kN (120 kN Bull wheels)
Min. tensioning force ATS SLTS	approx. 4.5 kN approx. 1.5 kN (45 kN Bull wheels)

BULL WHEEL

Number	6 (3 x 2)
Diameter	1500 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	up to 3 (1 + 1 + 1)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 7.5 x 2.5 x 2.5 m
Weight	approx. 11000 kg

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Acoustic insulation
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Groove diameter 60 mm
- Radio remote control
- Electronically controlled drum stand pretension
- Lockable toolbox
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Holding fixture for hose kit
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1800/14 Z364

PERFORMANCE IN PULLING MODE

Max. pulling force	140 kN
Max. speed	5 km/h
Max. Speed with max. pulling force	2.3 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	140 kN
Max. speed	5 km/h
Min. tensioning force ATS SLTS	approx. 12 kN approx. 2.5 kN

BULL WHEEL

Number	2
Diameter	1800 mm
Groove Ø	60 mm
Number of conductors	up to 4

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.7 x 2.5 x 3.3 m
Weight	approx. 10400 kg



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 4 ropes (optional) with 2 bull wheels (Ø 1800 mm), with a groove diameter of 60 mm and a max. pulling and tensioning force of 140 kN

ENGINE

- Max. 205 kW (275.2 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 3 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axles and brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Acoustic insulation
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Electronically controlled drum stand pretension
- Automatic rope/conductor clamping with grounding device
- Working platform with railing
- Rope in device for max. 5° rope deflection

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Bull wheels for left- and right-hand-lay conductors
- Radio remote control
- Synchronization system for connecting several machines to one another
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1800/14+7 Z366



PERFORMANCE IN PULLING MODE

Max. pulling force	2 x 70 kN or 1 x 140 kN
Max. speed	6.4 km/h
Max. Speed with max. pulling force	2.8 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	2 x 70 kN or 1 x 140 kN
Max. speed	6.4 km/h
Min. tensioning force ATS SLTS	approx. 15 kN approx. 2 kN (140 kN Bull wheels)
Min. tensioning force ATS SLTS	approx. 7 kN approx. 1.5 kN (70 kN Bull wheels)

BULL WHEEL

Number	4 (2 + 2)
Diameter	1800 mm
Groove Ø	60 mm
Number of conductors	up to 2 (1+1)

DIMENSIONS | WEIGHT

Length x Width x Height	7.92 x 2.53 x 3.07 m
Weight	14,550 kg

KEY FACTS

- Completely electronically controlled puller-tensioner for up to 2 (1+1) ropes with 4 (2 + 2) bull wheels (1800 mm), with a groove diameter of 60 mm, and a max. pulling and tensioning force of approx. 15 kN | approx. 2 kN (140 kN Bull wheels)
- Each bull wheel can be controlled individually

ENGINE

- Max. 205 kW (275.2 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Electronically controlled drum stand pretension
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to four conductors
- Radio remote control
- Synchronization system for connecting several machines to one another
- Lockable toolbox
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/15 Z313

PERFORMANCE IN PULLING MODE

Max. pulling force	150 kN
Max. speed	4.6 km/h
Max. Speed with max. pulling force	2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	150 kN
Max. speed	4.6 km/h
Min. tensioning force ATS SLTS	approx. 12 kN approx. 2.5 kN

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	up to 4

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.3 x 2.4 x 2.7 m
Weight	approx. 8100 kg



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 4 cables with 2 bull wheels (Ø 1500 mm), with a groove diameter 45 mm (optional 60 mm) and a max. pulling and tensioning force of 150 kN

ENGINE

- Max. 155 kW (210 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axle and parking brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust mechanical support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Front support via robust hydraulic support
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Groove diameter 60 mm
- Radio remote control
- Synchronization system for connecting several machines to one another
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 4 ropes with 2 bull wheels (Ø 1500 mm), with a groove diameter of 45 mm (optional 60 mm) and a max. pulling and tensioning force of 150 kN

ENGINE

- Max. 129 kW (172.6 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Max. pulling force	150 kN
Max. speed	4.8 km/h
Max. Speed with max. pulling force	2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	150 kN
Max. speed	5 km/h
Min. tensioning force ATS SLTS	approx. 10 kN approx. 2.5 kN

BULL WHEEL

Number	2
Diameter	1500 mm
Groove Ø	45 mm
Optional	60 mm
Number of conductors	up to 4

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5 x 2.3 x 2.6 m
Weight	approx. 8200 kg

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axles and brake for up to 30 km/h (construction site operation without official approval for road service)
- Working platform with railing
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Lifting eyes for lifting the machine, and an anchoring eye for clamping a conductor
- Acoustic insulation
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Brake, lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to four conductors
- Groove diameter 60 mm
- Radio remote control
- Synchronization system for connecting several machines to one another
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1500/16+4+4+4 Z355

PERFORMANCE IN PULLING MODE

Max. pulling force	4 x 48 kN or 1 x 160 kN
Max. speed	4.8 km/h
Max. Speed with max. pulling force	2.3 km/h

PERFORMANCE IN TENSIONING MODE

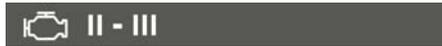
Max. tensioning force	4 x 48 kN or 1 x 160 kN
Max. speed	4.8 km/h
Min. tensioning force ATS SLTS	approx. 12 kN approx. 2.5 kN (160 kN)
Min. tensioning force ATS SLTS	approx. 4.5 kN approx. 1.5 kN (40 kN)

BULL WHEEL

Number	8 (4 x 2)
Diameter	1500 mm
Groove Ø	45 mm
Number of conductors	up to 4 (1+1+1+1)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 9 x 2.5 x 3.8 m
Weight	approx. 18000 kg



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 4 (1+1+1+1) cables with 8 (4 x 2) bull wheels (Ø 1500 mm), with a groove diameter 45 mm and a max. pulling and tensioning force of 4 x 48 kN or 1 x 160 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 200 kW (272 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic support legs
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- Self-driving chassis, controlled by radio remote control
- Rope in device for max. 5° rope deflection
- Radio remote control
- Electronically controlled drum stand pretension
- Lockable toolbox
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1800/18 Z364



KEY FACTS

- Completely electronically controlled puller-tensioner for up to 4 ropes with 2 bull wheels (Ø 1800 mm), with a groove diameter of 60 mm and a max. pulling and tensioning force of 180 kN

ENGINE

- Max. 205 kW (275.2 hp), EU emission stage V
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

PERFORMANCE IN PULLING MODE

Max. pulling force	180 kN
Max. speed	5 km/h
Max. Speed with max. pulling force	2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	180 kN
Max. speed	5 km/h
Min. tensioning force ATS SLTS	approx. 16 kN approx. 2.5 kN

BULL WHEEL

Number	2
Diameter	1800 mm
Groove Ø	60 mm
Number of conductors	up to 4

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 6.6 x 2.5 x 3.1 m
Weight	approx. 10400 kg

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axles and brake for up to 30 km/h (construction site operation without official approval for road service)
- Electronically controlled drum stand pretension
- Working platform with railing
- Lockable aluminum cover (chequer plate)
- Rope in device for max. 5° rope deflection
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Acoustic insulation
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Automatic rope clamping system
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Bull wheels for left- and right-hand-lay conductors
- Radio remote control
- Synchronization system for connecting several machines to one another
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 1700/18+9 Z354

PERFORMANCE IN PULLING MODE

Max. pulling force	2 x 90 kN or 1 x 180 kN
Max. speed	5 km/h
Max. Speed with max. pulling force	2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	2 x 90 kN or 1 x 180 kN
Max. speed	5 km/h
Min. tensioning force ATS SLTS	approx. 16 kN approx. 2.5 kN (180 kN Bull wheels)
Min. tensioning force ATS SLTS	approx. 8 kN approx. 2 kN (90 kN Bull wheels)

BULL WHEEL

Number	4 (2 x 2)
Diameter	1700 mm
Groove Ø	60 mm
Number of conductors	up to 4 (2 + 2)
Optional	6 (3 + 3)

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 7.2 x 2.5 x 3.1 m
Weight	approx. 16000 kg

KEY FACTS

- Completely electronically controlled puller-tensioner for up to 4 (2 + 2) cable (optional 6 (3 + 3)) with 4 (2 x 2) bull wheels (Ø 1700 mm), with a groove diameter 60 mm and a max. pulling and tensioning force of 2 x 90 kN or 1 x 180 kN
- Each bull wheel can be controlled individually

ENGINE

- Max. 200 kW (272 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 4 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection



EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axles and brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Back support via robust hydraulic sprag
- Front support via robust hydraulic support
- Automatic rope/conductor clamping with grounding device

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- Lighting and mudguard (for rigid chassis)
- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Bull wheels for left- and right-hand-lay conductors
- Type suitable for up to three conductors
- Radio remote control
- Synchronization system for connecting several machines to one another
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

WB 2400/24 Z360



PERFORMANCE IN PULLING MODE

Max. pulling force	240 kN
Max. speed	1.8 km/h
Max. Speed with max. pulling force	1.6 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force	240 kN
Max. speed	1.8 km/h
Min. tensioning force ATS SLTS	approx. 20 kN approx. 3.5 kN

BULL WHEEL

Number	2
Diameter	2400 mm
Groove Ø	80 mm
Optional	60 mm or 70 mm
Number of conductors	up to 2

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 7.5 x 2.5 x 3.6 m
Weight	approx. 14250 kg

KEY FACTS

- Completely electronically controlled puller-tensioner for up to 2 cables with 2 bull wheels (Ø 2400 mm), with a groove diameter 80 mm (optional 60 mm or 70 mm) and a max. pulling and tensioning force of 240 kN

ENGINE

- Max. 200 kW (272 hp)
- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 2 drum stands

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling and tensioning force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- ZECK Connect remote diagnosis system
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. OPGW or pilot rope)
- 2-axle chassis with rigid axles and brake for up to 30 km/h (construction site operation without official approval for road service)
- Lockable aluminum cover (chequer plate)
- Front and back support via robust hydraulic support legs
- Automatic rope/conductor clamping with grounding device
- Working platform with railing

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- Rope in device for max. 5° rope deflection
- Bull wheels for left- and right-hand-lay conductors
- Groove diameter 60 mm or 70 mm
- Radio remote control
- Electronically controlled drum stand pretension
- Lockable toolbox
- Holding fixture for hose kit
- Grounding plate with fixture including 3 m of copper cable, 50 mm²
- Acoustic insulation
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Aluminum cover, color as per RAL color table

Special designs on request

ROPEWAY PULLER-TENSIONER

RW WB 1800/13 Z386

ENGINE

Max. 100 kW (136 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 130 kN
 Max. speed 2.4 km/h
 Max. Speed with max. pulling force 1.2 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force 130 kN
 Max. speed 2.4 km/h
 Min. tensioning force ATS | SLTS approx. 12 kN | approx. 2 kN

BULL WHEEL

Number 2
 Diameter 1800 mm
 Groove Ø 70 mm
 Number of conductors 1
 Drive unit, redundant optional

DIMENSIONS | WEIGHT

POWER UNIT Length x Width x Height approx. 4.1 x 2.25 x 2.25 m
 Weight approx. 3700 kg
 PULLER UNIT Length x Width x Height approx. 5.0 x 2.2 x 2.7 m
 Weight approx. 5650 kg

RW WB 2400/27 Z379

ENGINE

Max. 200 kW (272 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 270 kN
 Max. speed 2 km/h
 Max. Speed with max. pulling force 1.3 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force 270 kN
 Max. speed 2 km/h
 Min. tensioning force ATS | SLTS approx. 20 kN | approx. 3.5 kN

BULL WHEEL

Number 2
 Diameter 2400 mm
 Groove Ø 80 mm
 Number of conductors 1
 Drive unit, redundant optional

DIMENSIONS | WEIGHT

POWER UNIT Length x Width x Height approx. 4.1 x 2.25 x 2.25 m
 Weight approx. 4100 kg
 PULLER UNIT Length x Width x Height approx. 6.2 x 2.5 x 3.0 m
 Weight approx. 10700 kg

RW WB 1800/18 Z389

ENGINE

Max. 100 kW (136 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 180 kN
 Max. speed 2.1 km/h
 Max. Speed with max. pulling force 0.85 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force 180 kN
 Max. speed 2.1 km/h
 Min. tensioning force ATS | SLTS approx. 16 kN | approx. 2 kN

BULL WHEEL

Number 2
 Diameter 1800 mm
 Groove Ø 80 mm
 Number of conductors 1
 Drive unit, redundant optional

DIMENSIONS | WEIGHT

POWER UNIT Length x Width x Height approx. 4.1 x 2.25 x 2.25 m
 Weight Approx. 3700 kg
 PULLER UNIT Length x Width x Height approx. 5.0 x 2.2 x 2.7 m
 Weight approx. 6000 kg

RW WB 2400/40 Z393

ENGINE

Max. 200 kW (272 hp)

PERFORMANCE IN PULLING MODE

Max. pulling force 400 kN
 Max. speed up to max. 210 kN 1.8 km/h
 Max. Speed with max. pulling force 1 km/h

PERFORMANCE IN TENSIONING MODE

Max. tensioning force 400 kN
 Max. speed 2 km/h
 Min. tensioning force ATS | SLTS approx. 35 kN | approx. 4 kN

BULL WHEEL

Number 2
 Diameter 2400 mm
 Groove Ø 80 mm
 Number of conductors 1
 Drive unit, redundant standard

DIMENSIONS | WEIGHT

POWER UNIT Length x Width x Height approx. 3.9 x 2.3 x 2.3 m
 Weight approx. 4500 kg
 PULLER UNIT Length x Width x Height approx. 6.2 x 2.2 x 2.5 m
 Weight approx. 15800 kg



NEW SAFETY CONCEPT

- Two-channel design of the safety-critical components
- The error management offers error detection, as well as error display, and restores the safe state of the machine, if required
- Individual errors do not lead to loss of the safety function
- Redundant drive unit

KEY FACTS

- Completely electronically controlled puller-tensioner for ropeway construction in two parts. Pulling/tensioning force 130 kN / 180 kN / 270 kN / 400 kN via 2 bull wheels, Ø 1800 mm or 2400 mm with a groove diameter of 70 mm or 80 mm for 1 rope.
- Each machine part fits into a standard container for transport.
- Special rope-friendly machine design with an inclined bull wheel arrangement

ENGINE

- Liquid-cooled diesel engine with electronic rpm-control
- 24-V system with high capacity battery

DRIVING SYSTEM

- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Each bull wheel with an automatically activated safety brake
- Hydraulic system with quick-action screw couplings to individually control 1 drum stand

CONTROL SYSTEM

- Control of rope direction and rope speed (infinitely) by joystick
- ATS, Automatic Tensioning System
- SLTS, Smart Low Tensioning System (machine can be used in stringing operations with low tensioning force, e.g. pilot rope)
- PLC control for optimized productivity and safety
- Clearly arranged control panel with color display for supervision of pulling force as well as hydraulic, drive, and electric system with an intelligent diagnosis and fault recognition system
- ZECK Stringing Data Record System with USB port
- Automatic hydraulic oil cooling system
- Adjustable overload protection

EQUIPMENT

- 12 V socket incl. voltage converter
- Lockable aluminum cover (chequer plate)
- Working platform with railing
- Lifting eyes

OPTIONAL EQUIPMENT

- Diesel engine in accordance with EU emissions directive
- Automatic rope clamping system
- ZECK Connect remote diagnosis system
- Acoustic insulation
- Hydraulically controlled pressure roller
- Groove diameter 80 mm
- Radio remote control
- Storage box for lifting gear
- Biodegradable hydraulic oil
- Redundant drive unit for the highest safety level

Special designs on request

TB Z246

TECHNICAL DATA

Max. drive torques	2900 Nm
Max. drum Ø	3000 mm
Drum shaft Ø	76 mm
Max. drum weight (at max. width)	10000 kg
Max. drum width (80 mm bore)	1485 mm
Max. drum width (125 mm bore)	1585 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 2.0 x 2.1 x 1.8 m
Weight	approx. 850 kg



KEY FACTS

- Hydraulically controlled drum stands up to max. 10000 kg
- Suitable for wooden and steel drums
- Hydraulic supply by ZECK machine or ZECK hydraulic power unit
- Change of drum by crane

DRIVING SYSTEM

- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change) and parking brake
- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- High-quality drum shaft made of solid material with adjustable drum driving bolt, suitable for all drum types (wooden drum, steel drum with three or four spokes)
- 2 drum fixing cones, can be adjusted with socket wrench to safely fix the drum
- Free wheel device directly at the drive
- Hydraulic system with quick-action screw coupling

EQUIPMENT

- Galvanized, robust steel frame with anchoring eye bolts
- Fork lift fixtures
- Dismountable for reduced transport dimensions

OPTIONAL EQUIPMENT

- Drum shaft for standard support width
- Longer drum shafts and adapters for different drum widths
- Automatic rope guiding device (can be adjusted to rope Ø and drum width)
- Reel with dismantable flange HT/BM for reeling old rope
- Electronically controlled drum stand pretension
- Holding fixture for hose kit
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic power unit HA Z246-702

Special designs on request

TB HELI Z246



TECHNICAL DATA

Max. drive torque	2900 Nm
Max. drum weight (at max. width)	10000 kg
Max. drum Ø	2700 mm
Drum shaft Ø	76 mm
Max. drum width (80 mm bore)	1485 mm
Max. drum width (125 mm bore)	1585 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 2.0 x 2.1 x 1.8 m
Weight	approx. 1150 kg

KEY FACTS

- Hydraulically controlled drum stand up to max. 10000 kg
- Suitable for wooden and steel drums
- Hydraulic supply by ZECK machine or ZECK hydraulic power unit (3 hose design)
- Change of drum by crane

DRIVING SYSTEM

- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change) and parking brake
- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- High-quality drum shaft made of solid material with adjustable drum driving bolt, suitable for all drum types (wooden drum, steel drum with three or four spokes)
- 2 drum fixing cones, can be adjusted with socket wrench to safely fix the drum
- Free wheel device directly at the drive
- Hydraulic system with quick-action screw coupling

EQUIPMENT

- Galvanized, robust steel frame with anchoring eye bolts
- Helicopter design with adjusted hydraulic system for higher rope speed of up to 25 km/h or 150 rpm
- Fork lift fixtures
- Dismountable for reduced transport dimensions
- Drum shaft for standard support width

OPTIONAL EQUIPMENT

- Reel with dismantlable flange HT/BM for reeling old rope
- Electronically controlled drum stand pretension
- Holding fixture for hose kit
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic power unit HA HELI Z246-700

Special designs on request

TB Z550

TECHNICAL DATA

Max. drive torque	4500 Nm
Max. drum weight (at max. width)	13000 kg
Max. drum Ø	3000 mm
Max. drum width (125 mm bore)	1575 mm
Standard width (optional for wider drums):	
Max. drum width (155 mm bore)	1640 mm
Drum shaft Ø	96 mm
Optional	76 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 2.6 x 2.4 x 1.9 m
Weight	approx. 1360 kg



KEY FACTS

- Hydraulically controlled drum stand for max. 13000 kg
- Suitable for wooden and steel drums
- Hydraulic supply by ZECK machine or ZECK hydraulic power unit
- Change of drum by crane

DRIVING SYSTEM

- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change) and parking brake
- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change)
- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types (wooden drum, steel drum with 3 or 4 spokes)
- 2 drum fixing cones, can be adjusted with socket wrench to safely fix the drum
- Free wheel device directly at the drive
- Hydraulic system with quick-action screw coupling

EQUIPMENT

- Galvanized, robust steel frame with anchoring eye bolts
- Fork lift fixtures
- Dismountable for reduced transport dimensions

OPTIONAL EQUIPMENT

- Drum shaft for standard support width
- Longer drum shafts and adapters for different drum widths
- Drum shaft up to 25 tons
- Automatic rope guiding device (can be adjusted to rope Ø and drum width)
- Reel with dismantlable flange HT/BM for reeling old rope
- Reel with dismantlable flange HT/TBF and higher rope capacity to wind up old rope
- Electronically controlled drum stand pretension
- Fixture for additional drum shaft
- Holding fixture for hose kit
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic system with flat face quick-action couplings
- Hydraulic power unit HA Z246-702

Special designs on request

TB ACCESSORIES

HYDRAULIC ROPE GUIDING DEVICE

DIMENSIONS | WEIGHT

Max. drum width	approx. 1750 mm
Weight	approx. 190 kg
Lower max. drum width	
Max. drum Ø	2700 mm



SUPPORT FRAME FOR TB

- TB Z246 | TB Z249 | TB Z550
- Anchoring eyes for drum stands
 - Incl. four crane eyes for lifting

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 5.9 x 2.4 x 0.9 m
Net weight + eyes	approx. 1500 kg



TB IT 7 | TB IT 10

TECHNICAL DATA

TB IT 7

Max. drum weight	7000 kg
Max. drum Ø	3000 mm
Min. drum Ø	1400 mm
Drum width (125 mm bore)	600 - 1500 mm
Drum shaft Ø	60 mm

DIMENSIONS | WEIGHT

With transport box	
Length x Width x Height	approx. 2.3 x 0.9 x 0.8 m
Weight	approx. 530 kg



TECHNICAL DATA

TB IT 10

Max. drum weight	10000 kg
Max. drum Ø	3200 mm
Min. drum Ø	1500 mm
Drum width (125 mm bore)	750 - 1650 mm
Drum shaft Ø	60 mm

DIMENSIONS | WEIGHT

With transport box	
Length x Width x Height	approx. 2.4 x 1.0 x 0.8 m
Weight	approx. 638 kg

KEY FACTS

- Drum stand for max. 7000 kg or 10000 kg
- Suitable for wooden drums (optional for steel drums)
- Manually controlled hydraulic cylinders for quick loading/unloading of the drum without a crane

EQUIPMENT

- Robust galvanized steel frame with anchoring eye bolts
- Dismountable for reduced transport dimensions
- Mechanical locking for lifting cylinders
- Drum shaft with 2 tension units on each side to fix the drum
- Two mechanically controlled disk brakes

OPTIONAL EQUIPMENT

- Transport box
- Hydraulic drive (max. drive torque 2900 Nm)
- Special drum shaft for steel drums (according to drum drawing)
- Reel with dismountable flange HT/BM for reeling old rope
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic system for drum stand control with flat face quick-action couplings
- Hydraulic power unit HA Z246-702

Special designs on request

TB 40 Z551



TECHNICAL DATA

Max. drive torque.....	10000 Nm
Max. drum weight	40000 kg
Max. drum Ø	5000 mm
Drum shaft Ø	160 mm
Optional	132 mm
Drum width min. max.	1900 mm 2600 mm
Optional	Desired design

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 3.2 x 4.9 x 2.0 m
Weight	approx. 3400 kg

KEY FACTS

- Hydraulic driven drum stand for max. 40000 kg
- Suitable for wooden and steel drums (according to drum drawing)
- Hydraulic supply by ZECK machine or ZECK hydraulic power unit

DRIVING SYSTEM

- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change)
- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Hydraulic system with quick-action screw coupling
- Free wheel device directly at the drive

EQUIPMENT

- Robust galvanized steel frame with anchoring eye bolts
- Dismountable for reduced transport dimensions
- Mechanical locking for lifting cylinders
- Adjustable drum driving bolt for all drum types
- Parking brake

OPTIONAL EQUIPMENT

- Hose kit with quick-action couplings (5 m, 10 m, 15 m, or 20 m)
- Hydraulic system with flat face quick-action couplings
- 15 m hose kit with quick-action coupling (other lengths available)
- Biodegradable hydraulic oil
- Machine version for up to 50.000 kg (TB 50)
- Hydraulic power unit HA Z246-702

Special designs on request

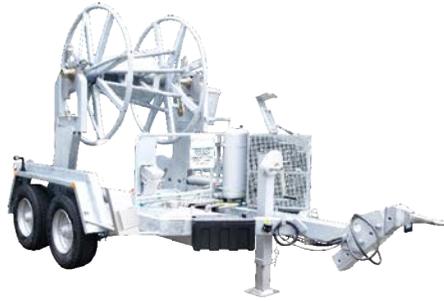
TBF 70 Z247

TECHNICAL DATA

Max. drive torque.....	2900 Nm
Max. drum weight (at max. width)	7000 kg
Max. drum Ø	2800 mm
Max. drum width (125 mm bore)	1550 mm
Max. drum width (80 mm bore)	1500 mm
Drum shaft Ø	76 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 4.8 x 2.4 x 2.4 m
Weight	approx. 2850 kg



KEY FACTS

- Mobile drum stand for max. 7000 kg
- Suitable for wooden and steel drums
- Hydraulic supply by ZECK machine or integrated ZECK hydraulic power unit
- Quick and easy loading/unloading of the drum via hydraulic drum holding fixtures

ENGINE

- Max. 16.5 kW (21.8 hp), EU emission stage V
- Gasoline engine with electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change)
- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types (wooden drum, steel drum with 3 or 4 spokes)
- 2 drum fixing cones, can be adjusted with socket wrench to safely fix the drum
- Free wheel device directly at the drive
- Hydraulic system with quick-action screw coupling

EQUIPMENT

- 2-axle chassis with spring-mounted axles, brake, lighting and mudguard for up to 80 km/h (with official approval and homologation for road service)
- Galvanized steel frame
- Back support via robust mechanical support legs
- Front support via robust mechanical support
- Drum shaft for standard support width
- Parking brake

OPTIONAL EQUIPMENT

- Chassis for delivery within EU-countries including ABS (anti-lock braking system)
- Reel with dismantable flange HT/BM for reeling old rope
- Electronically controlled drum stand pretension
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic system with flat face quick-action couplings
- Lockable toolbox
- Biodegradable hydraulic oil

Special designs on request

TBF S01 Z241



TECHNICAL DATA

Max. drive torque.....	2900 Nm
Max. drum weight (at max. width)	7000 kg
Max. drum Ø	2800 mm
Max. drum width (125 mm bore)	1456 mm
Max. drum width (80 mm bore)	1384 mm
Drum shaft Ø	76 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 3.4 x 2.5 x 2.0 m
Weight	approx. 1300 kg

KEY FACTS

- Mobile drum stand ZECK suitable for wooden and steel drums, applicable for max. 7000 kg
- Hydraulic supply by ZECK machine to tension the rope (incl. ATS) or by ZECK hydraulic power unit
- Change of drum by crane

DRIVING SYSTEM

- Integrated hydraulic drive (drive unit does not have to be dismantled for a rope drum change)
- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types (wooden drum, steel drum with 3 or 4 spokes)
- 2 drum fixing cones, can be adjusted with socket wrench to safely fix the drum
- Free wheel device directly at the drive
- Hydraulic system with quick-action screw coupling

EQUIPMENT

- 1-axle chassis with rigid axle for up to 30 km/h (construction site operation without official approval for road service)
- Front support via robust hydraulic sprag
- Parking brake
- Disc brake

OPTIONAL EQUIPMENT

- Mounted or separate hydraulic power unit (independent operation, e.g. to retrieve old conductors)
- Brake, lighting and mudguard (for rigid chassis)
- Automatic rope guiding device (can be adjusted to rope Ø and drum width)
- Reel with dismantlable flange HT/BM for reeling old rope
- Suitable for pulling out pilot rope via helicopter (max. installation speed approx. 20 km/h)
- Electronically controlled drum stand pretension
- Holding fixture for hose kit
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic system with flat face quick-action couplings
- Biodegradable hydraulic oil
- Hydraulic power unit HA Z246-702

Special designs on request

HTB Z191

TECHNICAL DATA

Max. drive torque	1100 Nm
Diameter disk brake	390 mm
Optional	700 mm
Max. reel weight	3500 kg

REEL HOLDING FIXTURE IT

Diameter	1100-1900 mm
Axle Ø (mm)	45 mm

REEL HOLDING FIXTURE ZECK

Model	H0, H1, H2, H3, H0/T, H2/T, HT
Diameter	1100 - 1750 mm
Axle Ø (mm)	35 - 40 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 1.8 x 1.8 x 1.4 m
Weight	approx. 560 kg



KEY FACTS

- Hydraulic reel winder for standard steel reel
- Hydraulic supply by ZECK machine or ZECK hydraulic power unit
- Manually operated hydraulic cylinders with plug-in axle for quick and easy loading/unloading of reel

DRIVING SYSTEM

- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Free wheel device directly at the drive
- Hydraulic system with quick-action screw coupling

EQUIPMENT

- Hot-dip galvanized, robust steel frame with anchoring eye bolts and fork lift fixtures
- Disk brake system for the controlled tensioning of the rope without hydraulic support

OPTIONAL EQUIPMENT

- Automatic rope guiding device (can be adjusted to rope Ø and reel width)
- Hydraulic drive (max. drive torque 1500 Nm)
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic system with flat face quick-action couplings
- Biodegradable hydraulic oil
- Hydraulic power unit HA Z246-702

Special designs on request

HTB HELI Z191



TECHNICAL DATA

Max. drive torque	2000 Nm
Diameter disk brake	700 mm
Max. reel weight	3500 kg

REEL HOLDING FIXTURE IT

Diameter	1100 - 1900 mm
Axle Ø (mm)	45 mm

REEL HOLDING FIXTURE ZECK

Model	H0, H1, H2, H3, H0/T, H2/T, HT
Diameter	1100 - 1750 mm
Axle Ø (mm)	35 - 40 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 1.8 x 1.8 x 1.4 m
Weight	approx. 560 kg

KEY FACTS

- Hydraulic reel winder for standard steel reel for fast pilot rope installation by helicopter
- High reel speed of max. 290 rpm (25 km/h)
- Hydraulic supply by ZECK machine or ZECK hydraulic power unit
- Manually operated hydraulic cylinders with plug-in axle for quick and easy loading/unloading of reel

DRIVING SYSTEM

- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Hydraulic system with quick-action screw coupling
- Free wheel device directly at the drive

EQUIPMENT

- Hot-dip galvanized, robust steel frame with anchoring eye bolts and fork lift fixtures
- Disk brake system for the controlled tensioning of the cable without hydraulic support (suitable for pulling out pilot rope via helicopter)
- Automatic rope guiding device (can be adjusted to rope Ø and reel width)

OPTIONAL EQUIPMENT

- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic system with flat face quick-action couplings
- Automatic rope guiding device (can be adjusted to rope Ø and reel width)
- Biodegradable hydraulic oil
- Hydraulic power unit HA Heli Z246-700

Special designs on request

HTB E Z195

TECHNICAL DATA

Max. drive torque	1100 Nm
Diameter disk brake	350 mm
Max. reel weight	1700 kg

REEL HOLDING FIXTURE IT

Diameter	1100 - 1400 mm
Axle Ø (mm)	45 mm

REEL HOLDING FIXTURE ZECK

Diameter	1100 - 1380 mm
Axle Ø (mm)	35 - 40 mm

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 1.5 x 1.5 x 1.5 m
Weight	approx. 460 kg



KEY FACTS

- Hydraulic reel winder for standard steel reel
- Hydraulic supply by ZECK machine or ZECK hydraulic power unit
- Manually operated hydraulic cylinders with plug-in axle for quick and easy loading/unloading of reel

EQUIPMENT

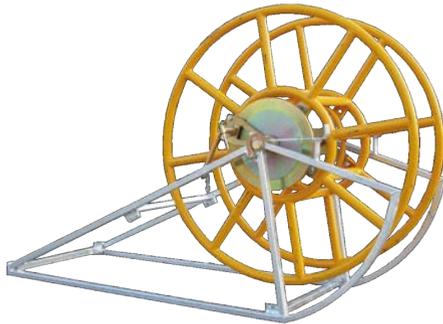
- Hot-dip galvanized, robust steel frame with anchoring eye bolts and fork lift fixtures
- Disk brake system for the controlled tensioning of the rope without hydraulic support
- Automatic rope guiding device

OPTIONAL EQUIPMENT

- Holding fixture for hose kit
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic system with flat face quick-action couplings
- Biodegradable hydraulic oil
- Hydraulic power unit HA Z246-702

Special designs on request

V192-500



HB 4 Z192

TECHNICAL DATA

Max. reel weight 4000 kg
 Diameter disk brake 300 mm

REEL HOLDING FIXTURE IT

Diameter 1100 - 1900 mm
 Plug-in axle Ø 40 mm x 800 mm

REEL HOLDING FIXTURE ZECK

Model H2 + H3 + HT
 Diameter 1380 - 1750 mm
 Axle Ø (mm) 40 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 2.1 x 1.6 x 1.2 m
 Weight approx. 275 kg

KEY FACTS

- Reel winder without drive unit to manually pull out the pilot rope

EQUIPMENT

- Galvanized, robust steel frame with anchoring eye bolts
- Dismountable for reduced transport dimensions
- Plug-in axle with quick lock for reel IT
- Mechanically controlled disk brake
- Loading/unloading of drum by crane

Special designs on request

TECHNICAL DATA

Max. reel weight 1500 kg

REEL HOLDING FIXTURE IT

Diameter 1100 - 1400 mm
 Axle Ø (mm) 45 mm

REEL HOLDING FIXTURE ZECK

Model H0 + H2
 Diameter 1100 - 1380 mm
 Axle Ø (mm) 35 - 40 mm

DIMENSIONS | WEIGHT

Length x Width x Height approx. 2.6 x 1.3 x 1.1 m
 Weight approx. 85 kg

KEY FACTS

- Reel winder without drive unit to manually pull out the pilot rope

EQUIPMENT

- Galvanized, robust steel frame with anchoring eye bolts
- Dismountable for reduced transport dimensions
- Quick and easy loading/unloading of rope drum

OPTIONAL EQUIPMENT

- Plug-in axle with disk brake
- Plug-in axle with clamp ring

Special designs on request



V192-002

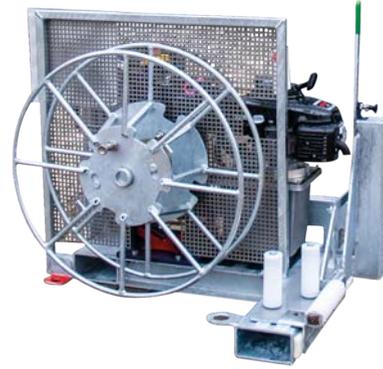
SW Z851

TECHNICAL DATA

Max. pulling force (inner rope layer)	1.8 kN
Max. pulling force (outer rope layer)	0.75 kN
Max. speed (inner rope layer)	2.0 km/h
Max. speed (outer rope layer)	5.5 km/h

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 1.2 x 0.8 x 0.9 m
Weight	approx. 330 kg (incl. dismountable reel)



KEY FACTS

- Rope winder to wind and unwind rope (anchoring rope | cradle blocks | chains)
- Continuous rope speed adjustment in both directions
- Compact dimensions, can be transported on one euro pallet
- Easy, manually adjustable rope guidance

ENGINE

- Max. 3.2 kW (4.3 hp)
- Gasoline engine with recoil start
- Emergency stop to quickly stop the machine

CONTROL SYSTEM

- Operating lever for continuous control of rope speed
- Switch drive | free wheel by operating lever
- Reel drive adjustable in height for easy installation and dismounting of reel

EQUIPMENT

- Robust, hot-dip galvanized steel frame with fork lift fixtures and fixture for front-end loader

OPTIONAL EQUIPMENT

- Reel Ø 800 mm (rope capacity K 135.113) to wind up e.g. (77-9032) ropes for cradle blocks or chains
- Detachable reel Ø 800 mm (rope capacity K 67.660), (V851-210) to wind up; very easy and quick opening of reel
- Tarpaulin
- Biodegradable hydraulic oil
- Digital meter counter

Special designs on request

UHTB Z901



TECHNICAL DATA

Max. drive torque	1230 Nm
Max. load	4000 kg
Reel Ø	1100 – 1800 mm
Reel type ZECK	H0, H1, H2, H3, H0/T, H2/T, HT
Axle Ø Reel ZECK	35 – 40 mm
Reel type IT	1100, 1400, 1800 mm
Axle Ø Reel IT	45 mm
Drum Ø	500 – 2240 mm
Drum width	400 – 1400 mm
Drum center bore	50 – 125 mm

PULLER | TENSIONER PERFORMANCE

Max. pulling force	4.9 kN
Max. speed	310 m/min

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 2.6 x 1.3 x 1.1 m
Weight	approx. 2000 kg (without drum)

KEY FACTS

- Hydraulic reel winder and drum stand for rewinding and visual inspections of rope with a max. pulling/tensioning force of 4.9 kN and a max. speed of 310 m/min
- Extremely quick and easy loading/unloading of standard steel reels (Reel Ø 1100 – 1800 mm) and standard wood and steel drums (Drum Ø 500 – 2240 mm, Drum width 400 – 1400 mm)

ENGINE

- Max. 15 kW (20 hp)
- Electric motor (400 V; socket 32 A)

DRIVING SYSTEM

- Planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Infinite rope speed control
- Free wheel device directly at the drive

EQUIPMENT

- Robust steel frame with anchoring eye bolts
- Quick and easy installation of reel IT via plug-in axle with quick locking
- Automatic rope guiding device (can be adjusted to rope Ø and reel width)

OPTIONAL EQUIPMENT

- Galvanized steel frame
- Tool box
- Digital meter counter
- Cable remote control
- 15 m hose kit with quick-action coupling (other lengths available)
- Hydraulic system with flat face quick-action couplings
- Biodegradable hydraulic oil

Special designs on request

HA Z246-702

PERFORMANCE IN PULLING MODE

Max. system pressure 240 bar
 Max. flow rate 17.2 l/min

PERFORMANCE IN TENSIONING MODE

Max. system pressure 240 bar
 Max. flow rate ATS 40 l/min

DIMENSIONS | WEIGHT

Length x Width x Height approx. 1.2 x 0.7 x 1.0 m
 Weight approx. 120 kg



KEY FACTS

- Hydraulic power unit to pull rope out or win with a ZECK reel winder or drum stand with a max. speed of 5 km/h

ENGINE

- Max. 6.9 kW (9.4 hp)
- Gasoline engine with recoil and electric start
- 12-V system with high capacity battery

CONTROL SYSTEM

- Rope direction controlled by operating lever
- Can be switched to infinitely adjustable ATS (Automatic Tensioning System)

EQUIPMENT

- Robust steel frame
- Chassis with removable drawbar for operation on construction sites (easily tilted by hand for dismounting of the wheels)
- Tarpaulin
- Fixed hose kit with quick-action couplings (5 m)

OPTIONAL EQUIPMENT

- Electric motor (HA Z246-703)
- Cable remote control for tensioning mode (ATS)
- Tool box
- Biodegradable hydraulic oil

Special designs on request

HA HELI Z246-700



PERFORMANCE IN PULLING MODE

Max. system pressure	240 bar
Max. flow rate	14.4 l/min

PERFORMANCE IN TENSIONING MODE

Max. system pressure	240 bar
Max. flow rate	ATS 100 l/min

DIMENSIONS | WEIGHT

Length x Width x Height	approx. 1.2 x 1.2 x 1.1 m
Weight	approx. 313 kg



KEY FACTS

- Hydraulic power unit to pull out rope with a helicopter with a max. speed of 25 km/h

ENGINE

- Max. 6.9 kW (9.4 hp)
- Gasoline engine with recoil and electric start
- 12-V system with high capacity battery

CONTROL SYSTEM

- Can be switched to infinitely adjustable ATS (Automatic Tensioning System)

EQUIPMENT

- Robust steel frame
- Chassis with removable drawbar for operation on construction sites (easily tilted by hand for dismounting of the wheels)
- Fixed hose kit with quick-action couplings (5 m)
- Operating lever to connect 2 consumers
- Cable remote control for tensioning mode (ATS)
- Tarpaulin
- Tool box

OPTIONAL EQUIPMENT

- Hose kit with quick-action couplings (5 m and 15 m)
- Biodegradable hydraulic oil

Special designs on request

ACCESSORIES



BRAIDED STEEL ROPE

- Braided steel rope made of 12 or 18 galvanized high-tensile steel strands with spliced eyes on both ends
- Perfectly suitable as pulling rope in the construction of overhead transmission lines
- Highly flexible and twist resistant
- Long working life due to high-quality lubrication of the individual strands
- Low abrasion on pulley blocks, rope sheaves and scaffold elements due to hexagonal cross section
- Delivered on hot-dip galvanized steel reel IT with \varnothing of 1100, 1400 or 1800 mm



HEAVY DUTY BRAIDED STEEL ROPE

- Considerably increased working load due to high-tech strands with equal diameter

OPTIONAL

- Worked in marking tape (article. no, serial no., year of production, rope \varnothing)
- Large amounts of rope (10000 - 20000 m) on large steel drums, available on request

Special designs on request

Article no.	Rope \varnothing (mm)	Standard length (m)	Max. capacity with standard lengths (m)			Working load (kN)	Breaking load (kN)	Weight (kg/m)
			Reel \varnothing 1100 mm	Reel \varnothing 1400 mm	Reel \varnothing 1800 mm			
60-1008	8	1600	3200	6400	12800	14	50	0.23
60-1010*	10	1000	2000	4000	8000	20	72	0.33
60-1011	11	800	1600	3200	6400	24	85	0.39
60-1012	12	1400	1400	2800	5600	31	110	0.49
60-1013*	13	1200	1200	2400	4800	32	115	0.56
60-1014	14	1000	1000	2000	4000	35	127	0.68
60-1016*	16	800	800	1600	3200	48	170	0.81
60-1018*	18	1200	-	1200	2400	60	215	1.10
60-1020*	20	1000	-	1000	2000	76	270	1.35
60-1022*	22	900	-	900	1800	90	320	1.52
60-1024*	24	800	-	800	1600	101	360	1.80
60-1027***	27	600	-	600	1200	130	460	2.29
60-1029***	29	500	-	500	1000	151	536	2.59
HEAVY DUTY BRAIDED STEEL ROPE								
60-1013HD*	13	1200	1200	2400	4800	38	138	0.70
60-1016HD*	16	800	800	1600	3200	55	195	1.01
60-1022HD*	22	900	-	900	1800	104	370	1.74
60-1024HD*	24	800	-	800	1600	127	450	2.11
60-1027HD***	27	600	-	600	1200	149	529	2.61
60-1029HD***	29	500	-	500	1000	177	630	3.17

* in stock | *** with 18 strands | - Model on request | Working load: Calculated according to European standards (safety factor 3.55)

ROPE

PP BRAIDED HOLLOW ROPE

- Absorption resistant fibers
- Low strength
- High elongation (approx. 6.4 % at 20 % of breaking load)
- Good abrasion resistance
- Very easy to splice (like pulling grip)
- Cost effective



PP/PES BRAIDED HOLLOW ROPE

- Easy handling as especially light pulling rope
- Good strength
- Standard elongation (approx. 3.2 % at 20 % of breaking load)
- Very good abrasion resistance
- Very easy to splice (like pulling grip)
- Cost effective



PES DOUBLE BRAID ROPE

- Very robust pulling rope
- Good strength
- Low elongation (approx. 3.6 % at 20 % of breaking load)
- Very good abrasion resistance
- Spliceable



BRAIDED ROPE WITH HF (HF CORE | PES COVER)

- High-strength pulling rope, suitable for drum winches
- Very good strength
- Lowest elongation (approx. 1.2 % at 20 % of breaking load)
- Very good abrasion resistance
- Spliceable



BRAIDED ROPE WITH HF+ (HF CORE | PES COVER)

- High-strength pulling rope, suitable for drum winches
- Highest strength
- Lowest elongation (approx. 0.5 % at 20 % of breaking load)
- Very good abrasion resistance
- Spliceable



BRAIDED HOLLOW ROPE WITH HF

- High breaking load at small rope diameter
- Highest strength
- Lowest elongation (approx. 1.0 % at 20 % of breaking load)
- Satisfying abrasion resistance
- Very easy to splice (like pulling grip)



BRAIDED HOLLOW ROPE WITH HF+

- Particularly suitable for higher breaking loads at small rope diameters
- Highest strength
- Lowest elongation (approx. 0.5 % at 20 % of breaking load)
- Satisfying abrasion resistance
- Very easy to splice (like pulling grip)



HIGH TENSILE FIBERS MADE OF DYNEEMA® OR NOVOLEEN®

Abbreviations: PES = polyester | PP = polypropylene | HF = high-tensile fibre | HF+ = extremely high-tensile fibre

SYNTHETIC FIBER ROPE

- Synthetic fiber rope, delivered in cardboard box

OPTIONAL

- Delivered on disposable reel or steel reel with \varnothing of 1100, 1400 or 1800 mm
- Spliced eyes (breaking load and working load are reduced by approx. 10%)
- Tarpaulin for steel reel

Special designs on request

Rope \varnothing (mm)	6	8	10	12	13	14	16	18	20	22	24
PP Braided hollow rope Article no. 60- Weight (kg/100 m) Breaking load (kN) Working load (kN)	-	-	5110 2.7 12.1 1.7	5112 4.4 16.5 2.4	-	5114 5.8 23.1 5.3	5116 7.3 29.7 4.2	5118 10.6 39.6 5.7	5120 14.2 47.3 6.8	5122 15.5 57.2 8.2	5124 18.5 67.1 9.5
PP/PES Braided hollow rope Article no. 60- Weight (kg/100 m) Breaking load (kN) Working load (kN)	-	-	-	5312 5.5 29.7 4.2	-	5314 7.5 36.3 5.2	5316 9.8 47.3 6.8	5318 12.4 66.0 9.4	5320 18.5 83.6 11.9	-	5324 27.5 115.5 16.5
PP/PES Double braid rope Article no. 60- Weight (kg/100 m) Breaking load (kN) Working load (kN)	5206 2.6 10.0 1.4	5208 4.0 16.5 2.4	5210 6.8 26.4 3.8	5212 9.3 39.6 5.7	-	5214 13.0 45.5 6.5	5216 18.0 61.1 8.7	5218 23.4 91.3 13.0	5220 30.0 110.0 15.7	5222 37.3 134.2 19.2	5224 43.4 159.5 22.8
Braided rope with HF Article no. 60- Weight (kg/100 m) Breaking load (kN) Working load (kN)	5006 2.6 18.3 2.6	5008 4.0 33.3 4.7	5010 6.8 54.4 7.8	5012 9.9 82.5 11.9	-	5014 13.3 105.5 15.1	5016 17.5 133.3 19.0	5018 22.3 166.6 23.8	5020 28.0 211.1 30.2	5022 33.0 254.0 36.3	5024 39.0 280.5 40.1
Braided rope with HF+ + Article no. 60- Weight (kg/100 m) Breaking load (kN) Working load (kN)	-	6108 4.6 47.0 6.7	6110 7.3 81.8 11.7	6112 9.8 110.0 15.7	-	6114 13.8 130.0 18.6	6116 17.0 152.0 21.7	6118 22.5 188.0 26.9	6120 28.0 206.0 29.4	6122 31.0 243.0 34.7	6124 37.0 280.0 40.0
Braided rope with HF+ Article no. 60- Weight (kg/100 m) Breaking load (kN) Working load (kN)	-	-	6210 8.4 94.4 13.5	6212 9.3 137.0 19.6	6213 11.9 160.0 22.9	6214 14.0 177.7 24.4	6216 15.0 223.3 31.9	6218 19.5 265.5 37.9	-	6222 31.5 346.8 49.5	6224 41.0 535.6 76.5
Braided hollow rope with HF Article no. 60- Weight (kg/100 m) Breaking load (kN) Working load (kN)	5406 1.9 35.4 5.1	5408 3.3 62.1 8.9	5410 4.8 88.6 12.7	5412 7.2 132.8 19.0	-	5414 10.0 186.1 26.6	5416 11.5 212.8 30.4	5418 15.3 270.0 38.6	5420 20.1 342.8 49.0	5422 23.4 400.0 57.1	5424 28.4 485.6 69.4
Braided hollow rope with HF+ Article no. 60- Weight (kg/100 m) Breaking load (kN) Working load (kN)	5506 2.0 42.2 6.0	5508 4.1 83.7 12.0	5510 5.4 111.7 16.0	5512 9.5 195.5 28.0	-	5514 10.9 223.5 31.9	5516 14.5 283.8 40.5	5518 22.2 420.1 60.0	5520 27.0 510.2 72.9	5522 29.5 555.5 79.4	5524 36.3 670.1 95.7

Abbreviations: PES = polyester | PP = polypropylene | HF = high-tensile fibre | HF+ = extremely high-tensile fibre | Working load: Calculated according to European standards (safety factor 7) | - Model not available

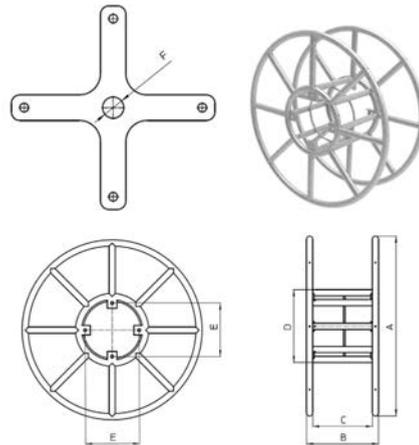
REEL IT

REEL IT

- Hot-dip galvanized steel reel
- Without integrated bearing

OPTIONAL

- With bolted cross plates on both sides to hold the axle
- Painted steel reel



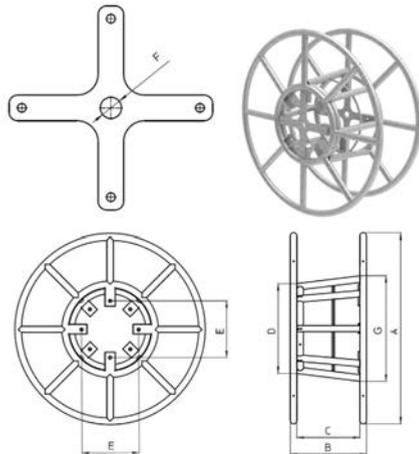
Article no.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (kg)
77-9030	520	420	340	260	160	50	21
77-9032	800	380	340	320	210	50	18
77-9034	1100	560	460	570	420	50	66
77-9035	1400	560	460	570	420	50	105
77-9037	1800	560	460	570	420	50	138
77-9041	1900	560	460	570	420	50	145

REEL IT (DETACHABLE)

- Hot-dip galvanized steel reel with cone-shaped core and detachable flange
- Detachable for scrapping conductors

OPTIONAL

- With bolted cross plates on both sides to hold the axle
- Painted steel reel



Article no.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
77-9052	1100	560	460	570	420	50	680	79
77-9054	1400	560	460	570	420	50	715	93

REEL IT

Article no.	77-9030	77-9032	77-9034	77-9035	77-9037	77-9041	77-9052	77-9054
Reel Ø (mm)	520	800	1100	1400	1800	1900	1100	1400
Detachable	No	No	No	No	No	Yes	Yes	Yes
Rope capacity factor	46064	130981	273390	531350	976440	1105779	249650	487750
Ø 8 mm	700	2020	4270	8300	15260	17278	3900	7620
Ø 10 mm	450	1300	2730	5310	9760	11058	2500	4880
Ø 12 mm	310	900	1900	3690	6780	7679	1730	3390
Ø 13 mm	260	750	1620	3140	5780	6543	1480	2890
Ø 14 mm	220	650	1390	2710	4980	5642	1270	2490
Ø 16 mm	170	500	1070	2080	3810	4319	980	1900
Ø 18 mm	-	-	840	1640	3010	3413	770	1500
Ø 20 mm	-	-	680	1330	2440	2764	620	1220
Ø 22 mm	-	-	-	1100	2020	2285	-	1010
Ø 24 mm	-	-	-	920	1700	1920	-	850
Ø 26 mm	-	-	-	790	1440	1636	-	720
Ø 28 mm	-	-	-	680	1250	1410	-	620
Ø 30 mm	-	-	-	590	1080	1229	-	540

Capacity (m) = Rope capacity factor/(Ø x Ø)

The effective diameter of braided steel ropes may vary which reduces the maximum rope length.

REEL ZECK

REEL ZECK

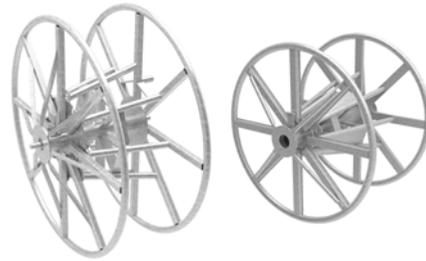
- Hot-dip galvanized steel reel
- Fix-mounted axle
- Maintenance-free bearing



HO, H2, H3

REEL ZECK (DETACHABLE)

- Hot-dip galvanized steel reel with cone-shaped core and detachable flange
- Detachable for scrapping conductors
- Maintenance-free bearing
- Fix-mounted axle (HT)
- Dismountable flange can be released with a lever (without screws)
- Wire to bundle the conductor can be pushed through even when reel is full



HT, HT/TBF

REEL ZECK (DETACHABLE) CATENARY

- Hot-dip galvanized steel reel with cone-shaped core and detachable flange
- Detachable for scrapping conductors
- Maintenance-free bearing
- Fix-mounted axle (HT)
- Dismountable flange can be released with a lever (without screws)
- Wire to bundle the conductor can be pushed through even when reel is full



HT/BM

BM for rail technology

TECHNICAL DATA REEL ZECK

Type of reel	H0	H2	H3	H0/T	H2/T	HT/BM	HT	HT/TBF
Article no.	V201-000	V201-202	V201-300	V201-020	V201-220	V190-204	V201-330	V190-301
Detachable	No	No	No	Yes	Yes	Yes	Yes	Yes
Application	USPW, HTB	SPW, HTB	HTB	USPW, HTB	SPW, HTB	TB, TBF, BM	HTB	TB, TBF
Rope capacity factor	240000	460000	1243000	220000	450000	600000	860000	150000
Shaft Ø (mm)	35	40	40 or 45	35	40	Hollow shaft Ø 80	40 or 45	Hollow shaft Ø 80
Axle length (mm)	620	680	842	620	680	785	1000	1360
Outer Ø (mm)	1100	1380	1750	1100	1380	1400	1750	1650
Core Ø (mm)	350	400	400	570/360	580/380	850/450	1040/760	885/400
Clear width (mm)	360	410	580	360	360	600	580	980
Weight (kg)	74	148	220	110	170	215	270	360

ROPE CAPACITY REEL ZECK

Rope Ø (mm)	H0 (m)	H2 (m)	H3 (m)	H0/T (m)	H2/T (m)	HT/BM (m)	HT (m)	HT/TBF (m)
8	3750	7200	19420	3450	7050	9300	13450	24400
10	2400	4600	12430	2200	4500	6000	8600	15000
12	1670	3200	8630	1530	3140	4100	6000	10400
13	1420	2720	7350	1300	2680	3500	5100	8900
14	1220	2350	6340	1140	2300	3000	4400	7600
16	940	1800	4850	860	1760	2300	3380	4650
18	-	1420	3830	-	1400	1800	2660	3670
20	-	1150	3100	-	1140	1500	2160	2980
22	-	950	2560	-	930	1200	1780	2460
24	-	800	2150	-	800	900	1500	2060
28	-	-	-	-	-	650	1100	1510
32	-	-	-	-	-	600	850	1160

Rope capacity (m) = Rope capacity factor/(Ø x Ø)

The effective diameter of braided steel ropes may vary which reduces the maximum rope length.

ZECK SWIVEL JOINT "TYPE WB"

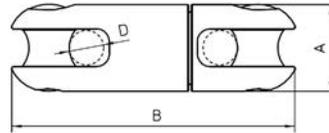
NEW: APPROVED FOR PASSING OVER BULL WHEELS

SWIVEL JOINT

- Can be pulled over bull wheels
- Rope connector made of high-quality galvanized steel with thrust ball bearing
- Turnable connecting element to balance the twist between pulling rope and conductor.



Special designs on request



Article no.	A (mm)	B (mm)	D (mm)	Working load (kN)	Breaking load (kN)	Weight (kg)
76-0399	28	112	10	29	87	0.4
76-0400	40	139	13	45	135	1.0
76-0405	54	183	18	85	255	2.3
76-0406	60	218	24	133	400	3.3

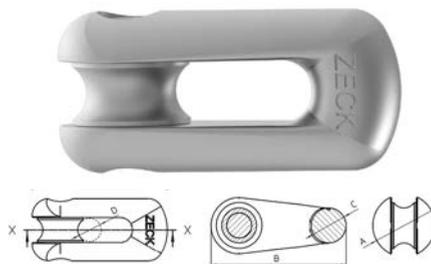
Working load: Safety factor 3



FIXED JOINT

- NEW: Increased breaking and working load!
- Rope connector made of high-quality galvanized steel
- Connecting element can be pulled over capstans

Special designs on request



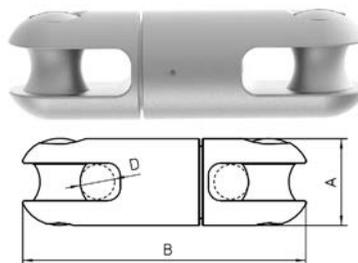
Article no.	A (mm)	B (mm)	C (mm)	D (mm)	Working load (kN)	Breaking load (kN)	Weight (kg)
77-0201	28	60	15	10	28	85	0.2
77-0205	40	79	19.5	13	68	204	0.4
77-0207	48	91	20	16	90	270	0.6
77-0209	54	101	22	18	110	330	0.8
77-0211	60	121	26	24	150	450	1.0
77-0213	75	163	42	28	250	750	3.0
77-0215	82	172	42	32	266	800	3.0

Working load: (Calculated according to safety factor 3.0)

SWIVEL JOINT

- Rope connector made of high-quality galvanized steel with thrust ball bearing
- Turnable connecting element to balance the twist between pulling rope and conductor.

Special designs on request



Article no.	A (mm)	B (mm)	D (mm)	Working load (kN)	Breaking load (kN)	Weight (kg)
77-0408	77	323	28	250	750	8
77-0409	81	335	32	266	750	9

Working load: (Calculated according to safety factor 3.0)

PULLING GRIP

PULLING GRIP

- Made in Europe
- Pressed version



Special designs on request

Article no. (pressed)	Article no. (spliced)	Rope Ø (mm)	Working load (kN)	Breaking load (kN)	Weight (kg)
77-0013	-	8 - 17	11	35	0.80
77-0017	-	17 - 29	28	85	1.55
77-0020	-	29 - 38	43	130	2.48
77-0022	-	38 - 50	60	180	3.22

- Model not available | Working load: Calculated with safety factor 3.0

PULLING GRIP

- Made in Germany
- Pressed or spliced version



Special designs on request



Article no. (pressed)	Article no. (spliced)	Rope Ø (mm)	Working load (kN)	Breaking load (kN)	Weight (kg)
77-0116	77-0117	6.0 - 10.9	6	18	0.24
77-0122	77-0123	11.0 - 15.9	11	34	0.42
77-0128	77-0129	16.0 - 20.9	22	66	0.84
77-0134	77-0135	21.0 - 26.9	31	93	1.36
77-0140	77-0141	27.0 - 37.9	40	120	1.80
77-0146	77-0147	38.0 - 44.9	42	126	2.10
77-0152	77-0153	45.0 - 55.0	46	138	2.90

Working load: Calculated with safety factor 3.0

CONNECTION GRIP

CONNECTION GRIP

- Made in Europe
- Pressed version



Special designs on request

Article no.	Rope Ø (mm)	Working load (kN)	Breaking load (kN)	Weight (kg)
77-0043	8 - 17	11	35	1.15
77-0047	17 - 29	28	85	2.15
77-0050	29 - 38	43	130	3.20
77-0052	38 - 50	60	180	4.80

Working load: Calculated with safety factor 3.0

CONNECTION GRIP

- Made in Germany
- Pressed version



Special designs on request

Article no.	Rope Ø (mm)	Working load (kN)	Breaking load (kN)	Weight (kg)
77-0158	6.0 - 10.9	6	18	0.80
77-0162	11.0 - 15.9	11	34	1.20
77-0166	16.0 - 20.9	22	66	1.50
77-0170	21.0 - 26.9	31	93	2.30
77-0174	27.0 - 37.9	40	120	3.00
77-0178	38.0 - 44.9	42	126	3.40
77-0182	45.0 - 55.0	46	138	4.20

Working load: Calculated with safety factor 3.0

PULLEY BLOCK

ZECK PULLEY BLOCK

- Massive aluminum sheave molded in one piece
- for single conductor or 2, 3 or 4 bundled conductors.
- Available diameters: 250/350/500/650/800/1000/1200/1500 mm
- Galvanized steel frame
- Bolted groove liners for easy exchange
- High-quality, maintenance-free ball bearings with high safe working load

OPTIONAL

- Groove liners of polyamide or aluminum
- Anti-fleeting device
- Individually adjustable distance between sheaves

Special designs on request



OPTIONAL FOR HIGH INDUCED CURRENTS

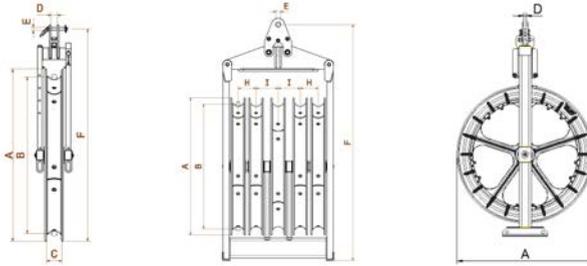


Disc grounding system with carbon brush
(current induction 20 kA/0.4 s)



Grounding roller (current induction 3.5 kA/0.4 s)
OPTIONAL: with carbon brush (current induction 20 kA/0.4 s)

PULLEY BLOCK



Article no. (aluminum)	Article no. (polyamide)	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
-	76-1223	1	330	250	54	34	19	534	90	30	11
-	76-1224	1	440	350	54	26	19	595	90	30	13
76-1250	76-1254	1	612	500	68	40	19	871	141	47	27
76-1033	76-1034	1	750	650	68	40	19	1009	141	47	34
76-1029	76-1030	1	750	650	95	40	19	1009	141	47	38
76-1021	76-1022	1	900	800	68	40	19	1159	141	47	39
76-1017	76-1018	1	900	800	95	40	19	1159	168	56	45
76-1009	76-1010	1	1100	1000	68	40	19	1359	168	56	43
76-1005	76-1006	1	1100	1000	95	40	19	1359	168	56	52
76-1001	-	1	1350	1200	130	88	25	1729	300	100	116
76-1240	-	1	1650	1500	130	88	25	2029	300	100	136

Article no. (aluminum)	Article no. (polyamide)	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	H (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-1256	76-1255	3	612	500	68	27	30.5	1249	146	141	47	108
76-1085	76-1086	3	750	650	68	27	30.5	1387	146	141	47	128
76-1081	76-1082	3	750	650	95	27	30.5	1387	174	201	67	144
76-1069	76-1070	3	900	800	68	27	30.5	1537	146	201	67	144
76-1065	76-1066	3	900	800	95	27	30.5	1537	174	249	83	165
76-1053	76-1054	3	1100	1000	68	27	30.5	1737	146	219	73	160
76-1049	76-1050	3	1100	1000	95	27	30.5	1737	174	249	83	188

Article no. (aluminum)	Article no. (polyamide)	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	H (mm)	I (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-1147	76-1148	5	612	500	68	27	30.5	1279	100	146	141	47	152
76-1145	76-1146	5	750	650	68	27	30.5	1417	100	146	141	47	182
76-1141	76-1142	5	750	650	95	27	30.5	1417	145	178	201	67	211
76-1129	76-1130	5	900	800	68	27	30.5	1567	100	146	201	67	208
76-1125	76-1126	5	900	800	95	27	30.5	1567	145	178	249	83	247
76-1133	76-1134	5	900	800	95	27	36.5	1618	145	178	441	147	290
76-1113	76-1114	5	1100	1000	68	27	30.5	1767	100	146	219	73	232
76-1109	76-1110	5	1100	1000	95	27	30.5	1767	145	178	249	83	287
76-1117	76-1118	5	1100	1000	95	27	36.5	1818	145	178	441	147	330

Working load: Calculated according to European standards (safety factor 3) | - Model not available

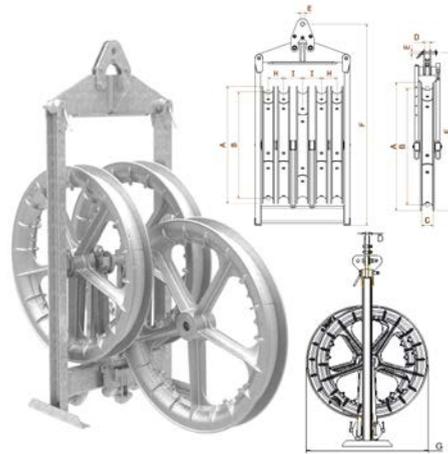
PULLEY BLOCK

ZECK PULLEY BLOCK (DETACHABLE)

- Massive aluminum sheave molded in one piece for increased stability
- For 2-, 3-, or 4-bundle
- Detachable version to use the pulley blocks individually
- Galvanized steel frame with clevis attachment turnable by 90°
- Bolted groove liners for easy exchange
- High-quality maintenance-free ball bearings with high safe working load

OPTIONAL

- Groove liners of polyamide or aluminum
- Anti-fleeting device
- Alternative distance between sheaves (H)
- Grounding device with laterally mounted disk and carbon brush for aluminum groove liners (tested according to European guidelines)
- Grounding device with pressure roller and carbon brush for aluminum and polyamide groove liners



Special designs on request

Article no. (aluminum)	Article no. (polyamide)	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-1269	76-1270	3	612	500	68	22	30.5	1350	686	146	141	47	142
76-1271	76-1272	3	750	650	68	22	30.5	1488	823	146	141	47	164
76-1273	76-1261	3	750	650	95	22	30.5	1488	823	178	201	67	181
76-1274	76-1260	3	900	800	68	22	30.5	1638	973	146	201	67	181
76-1275	76-1258	3	900	800	95	22	30.5	1638	973	178	201	67	203
76-1276	76-1277	3	1100	1000	68	22	30.5	1838	1173	146	201	67	199
76-1278	76-1279	3	1100	1000	95	22	30.5	1838	1173	178	219	73	228

Article no. (aluminum)	Article no. (polyamide)	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H/I (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-1280	76-1281	5	612	500	68	22	30.5	1350	686	146	474	47	210
76-1282	76-1283	5	750	650	68	22	30.5	1488	823	146	141	47	245
76-1284	76-1245	5	750	650	95	22	30.5	1488	823	178	201	67	274
76-1285	76-1259	5	900	800	68	22	30.5	1638	973	146	201	67	272
76-1232	76-1233	5	900	800	95	22	30.5	1638	973	178	201	67	308
76-1286	76-1287	5	1100	1000	68	22	30.5	1838	1173	146	201	67	299
76-1230	76-1231	5	1100	1000	95	22	30.5	1838	1173	178	219	73	348

Working load: Calculated according to European standards (safety factor 3)

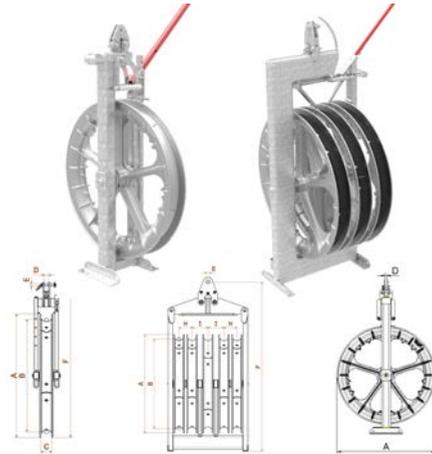
PULLEY BLOCK

ZECK PULLEY BLOCK (HELICOPTER)

- Massive aluminum sheave molded in one piece for increased stability
- For single conductor, 2-, 3-, or 4-bundle
- Ball bearing hinge mechanism for automatic insertion of the pulling rope
- Galvanized steel frame with clevis attachment turnable by 90°
- Bolted groove liners for easy exchange
- High-quality maintenance-free ball bearings with high safe working load

OPTIONAL

- Groove liners of polyamide or aluminum
- Anti-fleeting device
- Alternative distance between sheaves (H)
- Fixed clevis
- Grounding device with laterally mounted disk and carbon brush for aluminum groove liners (tested according to European guidelines)



Special designs and breaking load on request

Article no. (aluminum)	Article no. (polyamide)	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-1264	76-1246	1	612	500	68	17	20.5	1083	141	47	49
76-1238	76-1236	1	750	650	68	17	20.5	1228	141	47	64
76-1243	76-1244	1	750	650	95	17	20.5	1228	141	47	69
76-1237	76-1241	1	900	800	68	17	20.5	1378	141	47	72
76-1262	76-1263	1	900	800	95	17	20.5	1378	168	56	78
76-1265	76-1266	1	1100	1000	68	17	20.5	1578	168	56	80
76-1267	76-1268	1	1100	1000	95	17	20.5	1578	168	56	88

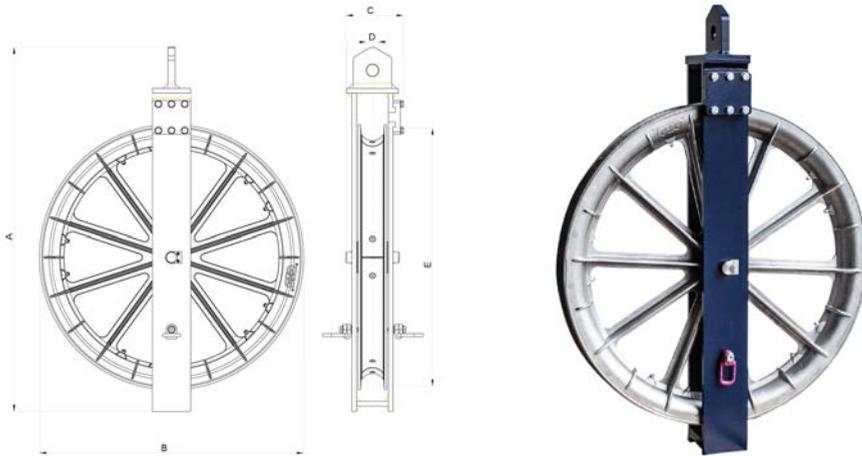
Article no. (aluminum)	Article no. (polyamide)	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	H (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-1288	76-1289	3	612	500	68	22	30.5	1455	146	141	47	174
76-1290	76-1291	3	750	650	68	22	30.5	1593	146	141	47	198
76-1292	76-1293	3	750	650	95	22	30.5	1593	178	201	67	218
76-1294	76-1295	3	900	800	68	22	30.5	1743	146	201	67	219
76-1296	76-1297	3	900	800	95	22	30.5	1743	178	219	67	243
76-1298	76-1299	3	1100	1000	68	22	30.5	1943	146	219	73	242
76-1300	76-1301	3	1100	1000	95	22	30.5	1943	178	219	67	273

Working load: Calculated according to European standards (safety factor 3)

PULLEY BLOCK

REINFORCED PULLEY BLOCK

- Rigid frame of steel
- For single pulley block or pulley blocks for 2-, 3- or 4-bundle conductors
- Available diameters: 800/1000 mm
- With eyes for anchoring
- Wire direction guiding device, screw-type
- For single pulley block or pulley block for 2, 3 or 4-bundle conductors

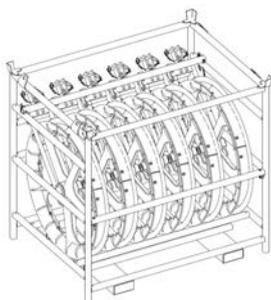


Article no.	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-1312	1	1512	1100	239	50	1000	500	166	136

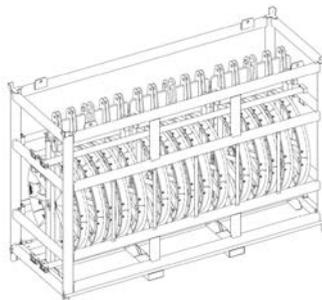
ZECK TRANSPORT BOX

TRANSPORT BOX FOR PULLEY BLOCKS OF VARIOUS TYPES

- Hot-dip galvanized
- Stackable



- Transport boxes for single pulley blocks are executed individually: (e.g. 1000/G95)
Height x Width x Length – 1630 x 1210 x 1549 mm



- Transport boxes for bundle pulley blocks are executed in standard sizes:
Height x Width x Length - 2040 x 1200 x 3175 mm

ZECK TRANSPORT BOX

Article no.	Pulley block	Number in transport box
76-2001	S-1200	6
76-2002	S-1000	6
76-2003	S-800	6
76-2004	S-650	6
76-2005	S-500	6
76-2006	S-350/S-250	6
76-2011	T-1200	4
76-2012	T-1000	4
76-2013	T-800	4
76-2014	T-650	4
76-2015	T-500	4
76-2021	Q-1200	3
76-2022	Q-1000	3
76-2023	Q-800	3
76-2024	Q-650	3
76-2025	Q-500	3

OPTIONAL:

- Transport box for single pulley blocks with independent suspension (for free turning wheels)

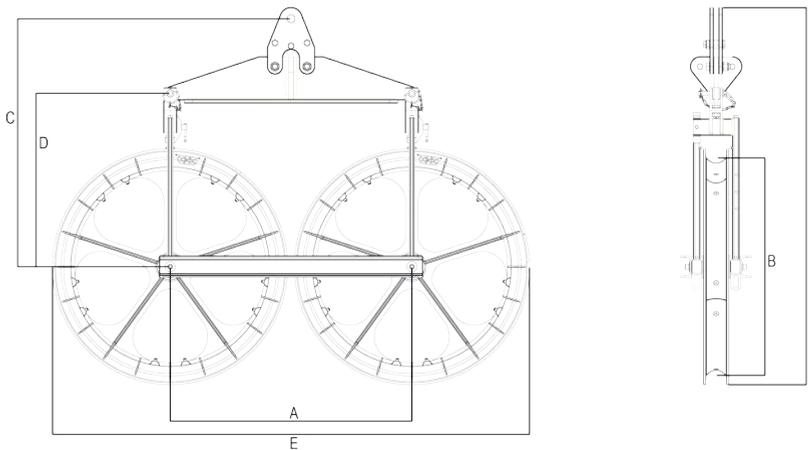
Special designs on request

TANDEM KIT PULLEY BLOCK

ZECK TANDEM KIT

- Steel cross beam and connection beam
- For single pulley block or pulley blocks for 2-, 3- or 4-bundle conductors
- Available diameters: 500/650/800/1000/1200/1500 mm
- Galvanized steel frame

Special designs on request



TANDEM KIT Single conductor

Article no.	Number of wheels	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Breaking load (kN)	Working load (kN)	Weight pulley block (kg)	Weight KIT (kg)
76-3753	2	1130	1000	1156	808	2230	1758	250	83	110	66

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 Phone: +49 9542 9494 0 | Fax: +49 9542 9494 94 | info@zeck-gmbh.com | www.zeck-gmbh.com

Subject to modifications and errors. Illustrations may include optional equipment. Technical data can deviate depending upon the machine types. Performance data apply to 20 °C and sea level.

HANDLE | OPGW - COUNTER WEIGHT

ZECK HANDLE FOR COUNTER STRINGING OPERATION

- The handle can easily be attached to each single pulley block
- Pulley block can easily be held during counter stringing operation

Special designs on request

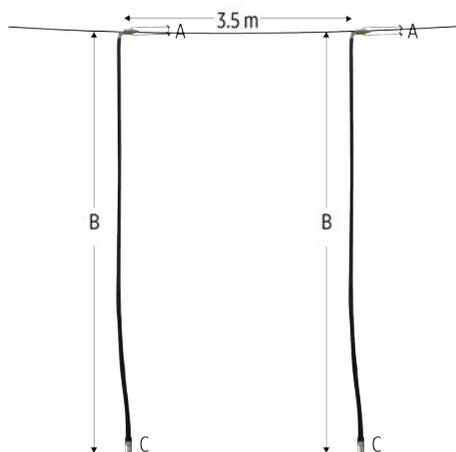


Article no.	L (mm)	B (mm)	H (mm)	Weight (kg)
76-2026	230	100	220	1.6

OPGW-COUNTER WEIGHT

- Prevents twisting of the OPGW
- We recommend using 2 counter weights to avoid that the OPGW twists when driving over the pulley block
- Delivery includes clamp unit and counter weight (approx. length 3 m), to avoid twisting
- Please specify when ordering:
 - Rope Ø
 - Groove Ø of pulley block

Special designs on request



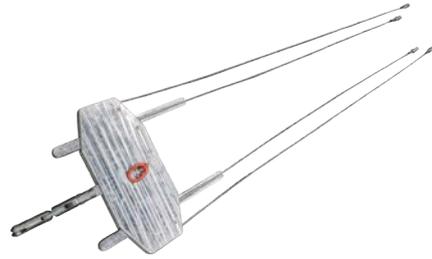
Article no.	Number of counter weights	A (mm)	B (mm)	C (mm)	Rope Ø (mm)	Weight (kg)
77-0841	2	60	2930	38	10 - 17	7.5
77-0843	2	60	3060	38	17 - 23	7.8

RUNNING BOARD (ALUMINUM)

RUNNING BOARD (BALANCING)

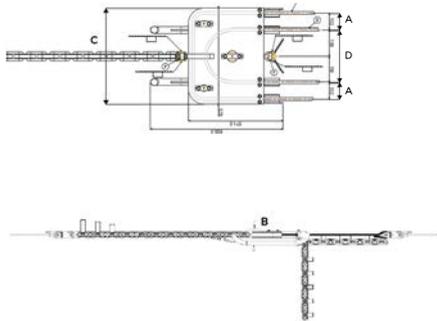
- To connect a 2-, 3-, or 4-bundle of pilot ropes to the pulling rope
- Balancing wheels for stabilization during the stringing operation
- Delivery includes swivel joints and steel rope with pressed eyes

Special designs on request



Article no.	Number of ropes	A (mm)	B (mm)	C (mm)	D (mm)	Joint 76-0405	Working load (kN)	Breaking load (kN)	Rope length (m)*	Weight (kg)
77-0870	4	102	167	570	316	5x	22	66	2 x 8	42

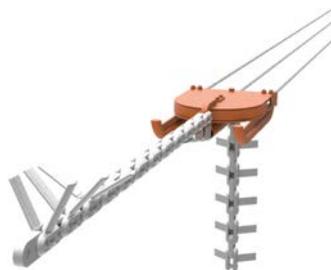
Working load: Calculated with safety factor 3.0



RUNNING BOARD

RUNNING BOARD (BALANCING)

- To connect a 2-, 3-, or 4-bundle to the pulling rope
- Balancing wheels and weights for stabilization during the stringing operation
- Delivery includes swivel joints and steel rope with spliced eyes
- A connector with a working load of 120 kN and a breaking load of 360 kN is used for all running boards



OPTIONAL

- Reinforced design with a working load of 160 kN and a breaking load of 480 kN possible

Special designs on request

Article no.	Number of ropes	A (mm)	B (mm)	C (mm)	D (mm)	Joint 76-0405	Joint 76-0406	Working load (kN)	Breaking load (kN)	Rope length (m)*	Weight (kg)
77-0800	2	146	161	350	-	2	1	93	280	1 x 30	174
77-0802	2	174	161	406	-	2	1	93	280	1 x 30	186
77-0804	3	146	161	350	-	3	1	93	280	1 x 30 + 1 x 15	208
77-0806	3	174	161	406	-	3	1	93	280	1 x 30 + 1 x 15	220
77-0820	4	100	160	540	292	4	1	120	360	2 x 30	276
77-0822	4	145	160	650	356	4	1	120	360	2 x 30	296
77-0824	4	146	160	640	292	4	1	120	360	2 x 30	296
77-0826	4	178	160	760	356	4	1	120	360	2 x 30	316

*For a rope \varnothing of 16 mm or 18 mm | Working load: Calculated with safety factor 3.0

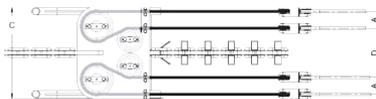
Running board with breaking load of 480 kN, may only be used with pulley blocks with groove width 95 mm

Article no.	Number of ropes	A (mm)	B (mm)	C (mm)	D (mm)	Joint 76-0405	Joint 77-0408	Working load (kN)	Breaking load (kN)	Rope length (m)*	Weight (kg)
77-0806-15	3	174	161	540	-	3	1	160	480	1 x 30 + 1 x 15	233

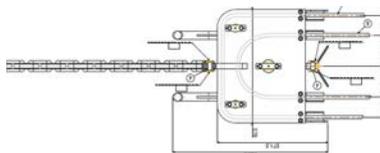
- 2 and 3 bundle



- 4 bundle, designed for two individual machines working in synchro mode or machines with two bull wheel units.



- 4 bundle, designed for machines with one bull wheel unit

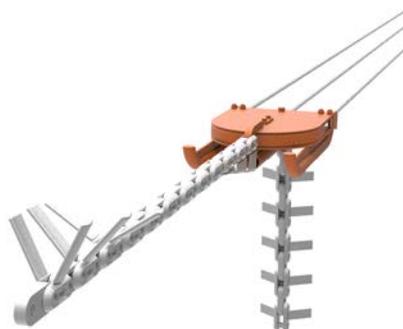


RUNNING BOARD

RUNNING BOARD (FIXED)

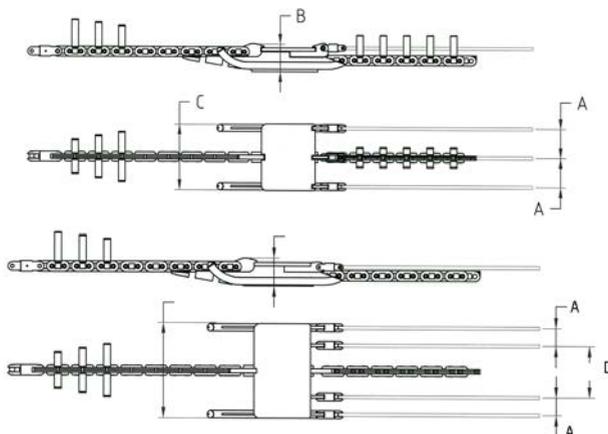
- To connect a 2-, 3-, or 4-bundle to the pulling rope
- Delivery includes swivel joints and steel rope with spliced eyes
- Counterweights for stabilization

Special designs on request



Article no.	Number of ropes	A (mm)	B (mm)	C (mm)	D (mm)	Joint 76-0405	Joint 76-0406	Rope length (m)*	Working load (kN)	Breaking load (kN)	Weight (kg)
77-0853	2	146	170	335	-	2	1	2 x 3.5	93	280	98
77-0854	2	174	170	390	-	2	1	2 x 3.5	93	280	100
77-0855	3	146	170	335	-	3	1	3 x 3.5	93	280	105
77-0850	3	174	170	390	-	3	1	3 x 3.5	93	280	108
77-0856	4	100	170	535	292	4	1	4 x 3.5	120	360	122
77-0857	4	145	170	643	356	4	1	4 x 3.5	120	360	130
77-0858	4	146	170	635	292	4	1	4 x 3.5	120	360	130
77-0851	4	178	170	755	356	4	1	4 x 3.5	120	360	137

*For a rope \varnothing of 16 mm or 18 mm | Working load: Calculated with safety factor 3.0



PRESSING TOOLS

HYDRAULIC PRESS HEAD

- Light and easy to handle crimping unit with flat face quick action couplings
- Double acting cylinder with very short pressing cycle and highest reliability
- Please specify when ordering:
 - Type of conductor
 - Hexagonal diameter of compression
 - Drawing of compression dead end clamps

OPTIONAL

- Lockable transport box
- Dies for aluminum crimping
- Dies for steel crimping



Article no.	77-7400CE (100 t)	77-7500CE (200 t)
Compression force (kN)	1000	2000
Operating pressure (bar)	700	700
Performance ratio (t/kg)	3.0	2.1
Max. exterior Ø of compression (mm)	76	90
Max. stroke (mm)	24	33
Weight (kg)	33	98
	Optional	
Dies for aluminum crimping	77-7410	77-7510
Dies for steel crimping	77-7420	77-7520
Metal box for press head and dies	77-7448	Not available

PRESSING TOOLS

HYDRAULIC POWER UNIT FOR PRESS HEAD

- Highly reliable power unit with integrated valve and control unit
- Two hydraulic flat face quick-action couplings to power double acting presses
- Hot-dip galvanized steel frame

77-7730CE

- Made in Germany
- Increased stroking speed and working life (tested with > 35000 cycles)
- Increased safety due to dead man's switch
- Shorter pressing cycle due to higher flow rate
- NEW: Highest reliability due to 3 independent hydraulic filtration systems

Special designs on request



Brand	ZECK	ZECK	Sanwa Tekki	Europe
Article no.	77-7730CE	77-7733CE (SPS)	77-7700CE	77-7750CE
Operating pressure (bar)	700	700	700	700
Engine	Gasoline engine	Gasoline engine	Gasoline engine	Electric motor
Engine performance	Max. 4.3 kW (5.8 hp)	Max. 4.3 kW (5.8 hp)	Max. 4.3 kW (5.8 hp)	Max. 2.2 kW (50 Hz, 230 V) Optional 400 V (77-7752CE)
Dimensions (mm)	720 x 490 x 490	720 x 490 x 490	590 x 430 x 450	560 x 470 x 620
Weight (kg)	52	72	63	45
	Optional			
Metal box for power unit	77-7447	Not available	77-7447	77-7447
Tarp	77-7449			
	Optional			
Tarp	77-7449			
Handle foldable	77-7450			

77-7733CE

WITH ELECTRONIC CONTROL (PLC)

- Recording system for compressions
- If desired, an individual file for every connector can be created
- Selection of aluminum compression or steel compression possible
- Cable remote control with cable of 5 m

Special designs on request



PRESSING TOOLS

HYDRAULIC HOSE KIT

- Includes 2 maximum pressure hoses with flat face quick-action couplings
- To connect the press head to the hydraulic power unit or a ZECK machine with an integrated hydraulic system for presses

Special designs on request

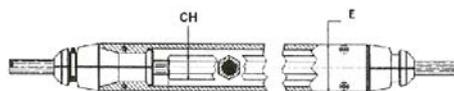


Article no.	Length (m)	Weight (kg)
77-7431CE	3	3.4
77-7432CE	5	4.5
77-7433CE	10	7.9
77-7434CE	15	10.8
77-7435CE	20	14.3
Optional		
77-7445	Box for hose kit for lengths up to 10.0 m	

JOINT STIFFENER

- To protect the mid-span joint against bending when passing over pulley blocks
- Please specify when ordering:
 - Mid-span joint
 - Conductor Ø
 - Max. exterior Ø of pressed sleeve

Special designs on request



Article no.	E Ø (mm)	Groove diameter pulley block (mm)	Max. CH Ø (mm)	Breaking load at edges (kN)*
77-0450	60	68	49	2 - 5
77-0452	73	95	59	max. 6.5

*Varies according to total length

PRESSING TOOLS

CONDUCTOR TRIMMER

- Conductor trimmer with adjustable cutting wheel for trimming aluminum wires of aluminum/steel conductors (max. conductor \varnothing 38.3 mm)
- Including case and holding fixture for bushing
- Weight: 2.05 kg

OPTIONAL

- Conductor trimmer for larger conductor \varnothing (Article no. 60-8155)



60-8150

BUSHING FOR CONDUCTOR TRIMMER

- Bushing for aluminum/steel conductors
- Please specify when ordering:
 - Conductor \varnothing (max. 38.3 mm)
 - Type of conductor

OPTIONAL

- Bushing for larger conductor \varnothing (Article no. 60-8165)

Special designs on request



60-8160

ROPE CUTTER

CUTTER (HYDRAULIC)

- High-quality hydraulic cutter
- Double piston hydraulic system for cutting ropes and conductors
- Pressure relief valve (for overload protection)
- Area of application: -15 to +50 °C



Article no.	Max. rope Ø (mm)	Length (mm)	Width (mm)	Operating pressure (bar)	Weight (kg)
77-3000	25	476	150	700	3.2
77-3060	45	550	144	700	5.8
77-3083	55	595	144	700	8.3

CUTTER (HYDRAULIC) WITH BATTERY

- High-quality cutting tool with rechargeable battery
- Double piston hydraulic system for cutting ropes and conductors
- Ergonomic design for easy handling
- Pressure relief valve (for overload protection)
- Area of application: -15 to +50 °C



Article no.	Max. rope Ø (mm)	Length (mm)	Width (mm)	Height (mm)	Performance (V)	Battery (Ah)	Weight (kg)
77-3085	25	391	133	81	18	2	3.1
77-3087	45	407	88	401	18	4	6.7
77-3088	55	441	87	424	18	4	8.9

ROPE CLAMP

SELF-GRIPPING CLAMP

- Self-gripping clamp for anchoring conductors (aluminum, aluminum/steel, copper) and steel rope
- Higher breaking load due to optimized design, production and steel quality
- High-quality hot-dip galvanizing for increased protection against corrosion
- Clamp made of high-tensile steel (heat-treated, forged, cadmium-plated surface)
- Please specify rope diameter when ordering
- 5 liners for 76-5000 (8-11 mm | 11-14 mm | 14-17 mm | 17-20 mm | 20-23 mm)
- 4 liners for 76-5100-S (21.8-26 | 26-29 | 29-32 | 32-35.2)
- 5 liners for 76-5200-S (32-35 mm | 35-38 mm | 38-41 mm | 41-44 mm | 44-46 mm)
- OPGW, clamping ranges in 0.5 mm increments available



Article no.	Changeable liners	Aluminum conductor Ø (mm)	Copper conductor Ø (mm)	Steel rope ground wire Ø (mm)	Braided steel rope Ø (mm)	OPGW Ø (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-5000	Yes	8 - 23 (76-5010)	8 - 23 (76-5020)	8 - 23 (76-5030)	No	7.5 - 21 (76-5050)	192	51	7
76-5040	No	-	-	-	8-12 13-16	-	192	51	7
76-5100-S	Yes	21.8 - 35.2 76-5110-S	21.8 - 35.2 76-5120-S	21.8 - 24 76-5130-S	No	-	305	96	15
76-5140	No	-	-	-	18 - 24 24 - 28	-	305	96	16
76-5200-S	Yes	32 - 46 (76-5210)	32 - 46 (76-5220)	32 - 46 (76-5230)	No	-	330	110	19

Working load: Calculated with safety factor 3.0

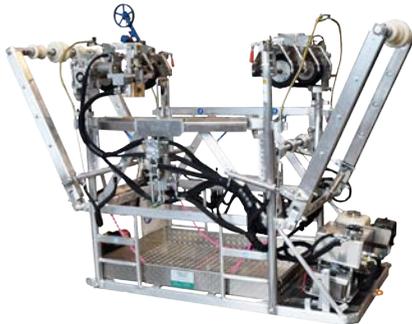
SELF-GRIPPING CLAMP

- Self-gripping clamp for anchoring conductors (aluminum, aluminum/steel, copper) and steel rope
- Clamp made of high-tensile steel (heat-treated, forged, cadmium-plated surface)
- Please specify when ordering:
 - Rope Ø (with interchangeable liners)



Article no.	Changeable liners	Aluminum conductor Ø (mm)	Copper conductor Ø (mm)	Steel rope ground wire Ø (mm)	Braided steel rope Ø (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
77-5300	Yes	7 - 16 (77-5310)	7 - 16 (77-5320)	7 - 13 (77-5330)	7 - 13 (77-5340)	64	12	2.5
77-5600	No	-	2.5 - 15	2.5 - 15	-	49	10	1.5
77-5700	Yes	specifically for lifting conductors Ø 7 - 38 mm (77-5710)			-	98	20	5.5
77-5900	Yes	45 - 57 (77-5910)	-	34 - 57 (77-5930)	-	420	80	26

Working load: Calculated according to European standards (safety factor 4.93 - 5.25) | - Model not available



TECHNICAL DATA

Max. speed	4 km/h
Max. inclination angle (wet cable)	15°
Max. inclination angle (dry cable)	25°
Rope diameter (mm)	19 – 50 mm
Optional	19 – 36 mm
Distance between ropes 300/450 mm	2-, 3-, 4-bundle
Distance between ropes 300/450/500 mm.....	2-, 3-, 4-bundle
Number of ropes	1 – 4
Safe working load	200 kg

DIMENSIONS | WEIGHT

Length x Width (internal dimensions)	approx. 1.2 x 0.7 m
Length x Width x Height	approx. 2.5 x 1.1 x 1.6 m
Weight	approx. 265 kg



KEY FACTS

- Hydraulically powered line car with hydraulic lifting arms and welded aluminum profiles for 1 – 4 conductors (max. distance between conductors 500 mm)
- Fast and safe passing of suspension towers

ENGINE

- Max. 4.3 kW (5.8 hp)
- Gasoline engine with recoil and electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Generously dimensioned gearbox for a long working life and high reliability
- Automatically activated service brake with integrated hose rupture protection
- High safety due to parking brakes acting directly at the conductor
- Drive wheels of high-quality, abrasion-resistant material
- Hydraulic hoses and screw connections with special sealing system
- Dismountable drive for towing the line car

CONTROL SYSTEM

- Control of driving direction via operating lever
- High-quality control technology for exact control of drive unit and swivel arms

EQUIPMENT

- Robust frame of welded aluminum profiles
- Lifting points
- Lifting points for tow line
- Fire extinguisher
- Load holding valves at the hydraulic drives keep the swivel arms and the line car safely in position
- Cover for drive wheels made of unbreakable, transparent polycarbonate

OPTIONAL EQUIPMENT

- Safety net
- Adjustable lifting chain
- Lifting device
- Digital meter counter
- Special drive wheels for single conductor
- Platform to elevate the floor space (for 3-bundle)
- Tool box
- Battery indicator and battery charger
- Additional hinged axle
- Transport box
- Biodegradable hydraulic oil

Special designs on request

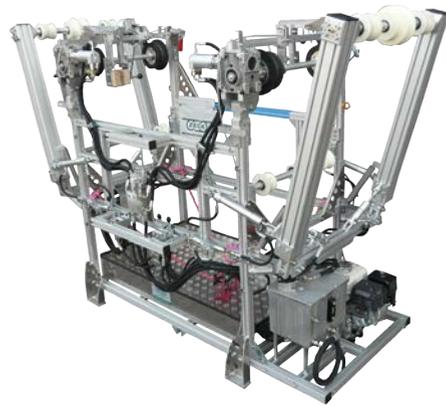
LF 923

TECHNICAL DATA

Max. speed	4.5 km/h
Max. inclination angle (wet cable)	15°
Max. inclination angle (dry cable)	25°
Rope diameter (mm)	19 – 50 mm
Optional	19 – 36 mm
Distance between ropes 300/450/500 mm	3-, 4-bundle
Distance between ropes 300/450/500 mm	2-bundle (horizontal and vertical)
Number of ropes	1 - 4
Safe working load	200 kg

DIMENSIONS | WEIGHT

Length x Width (internal dimensions)	approx. 1.2 x 0.7 m
Length x Width x Height	approx. 2.2 x 1.0 x 1.8 m
Weight	approx. 280 kg



KEY FACTS

- Hydraulically powered line car with hydraulic swivel arms and bolted aluminum profiles for 1 - 4 conductors (max. distance between conductors 500 mm)
- Fast and safe passing of suspension towers

ENGINE

- Max. 4.3 kW (5.8 hp)
- Gasoline engine with recoil and electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Generously dimensioned gearbox for a long working life and high reliability
- Automatically activated service brake with integrated hose rupture protection
- High safety due to parking brakes acting directly at the conductor
- Drive wheels of high-quality, abrasion-resistant material
- Hydraulic hoses and screw connections with special sealing system
- Dismountable drive for towing the line car

CONTROL SYSTEM

- Control of driving direction via operating lever
- High-quality control technology for exact control of drive unit and swivel arms

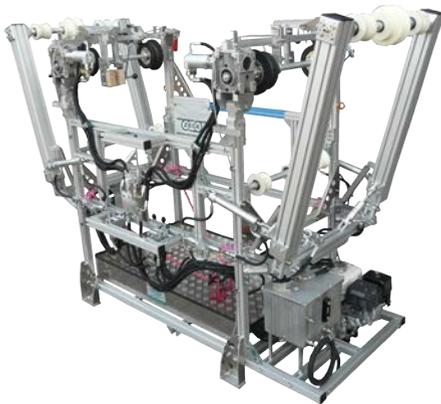
EQUIPMENT

- Robust frame of bolted aluminum profiles (easy maintenance and repair)
- Cover for drive wheels made of aluminum
- Lifting points
- Lifting points for tow line
- Load holding valves at the hydraulic drives keep the swivel arms and the line car safely in position
- Support legs for easy transport by forklift truck or pallet jack
- Fire extinguisher

OPTIONAL EQUIPMENT

- Hydraulic safety brake
- Safety net
- Adjustable lifting chain
- Positioning support (axle with 2 wheels)
- Lifting device
- Digital meter counter
- Special drive wheels for single conductor
- Platform to elevate the floor space (for 3-bundle)
- Equipment box
- Tool box
- Transport box
- Biodegradable hydraulic oil
- Tub for ZECK Rescue System
- Machine version for a distance between conductors of 457 mm

Special designs on request



TECHNICAL DATA

Max. speed	4 km/h
Max. inclination angle (wet cable)	15°
Max. inclination angle (dry cable)	25°
Rope diameter (mm)	19 – 50 mm
Optional	19 – 36 mm
Distance between ropes 300/450/500/600 mm ...	3 bundle conductor
Distance between ropes 300/450/500/600 mm ...	2-bundle (horizontal and vertical)
Distance between ropes 300/450/500 mm	4 bundle conductor
Number of ropes	1 – 4
Safe working load	200 kg

DIMENSIONS | WEIGHT

Length x Width (internal dimensions)	approx. 1.2 x 0.8 m
Length x Width x Height	approx. 2.2 x 1.1 x 1.8 m
Weight	approx. 290 kg

KEY FACTS

- Hydraulically powered line car with hydraulic swivel arms and bolted aluminum profiles for 1 – 4 conductors (max. distance between conductors 600 mm)
- Fast and safe passing of suspension towers

ENGINE

- Max. 4.3 kW (5.8 hp)
- Gasoline engine with recoil and electric start
- 12-V system with high capacity battery

DRIVING SYSTEM

- Generously dimensioned gearbox for a long working life and high reliability
- Automatically activated service brake with integrated hose rupture protection
- High safety due to parking brakes acting directly at the conductor
- Drive wheels of high-quality, abrasion-resistant material
- Hydraulic hoses and screw connections with special sealing system
- Dismountable drive for towing the line car

CONTROL SYSTEM

- Control of driving direction via operating lever
- High-quality control technology for exact control of drive unit and swivel arms

EQUIPMENT

- Robust frame of bolted aluminum profiles (easy maintenance and repair)
- Lifting points
- Load holding valves at the hydraulic drives keep the swivel arms and the line car safely in position
- Lifting points for tow line
- Cover for drive wheels made of aluminum
- Support legs for easy transport by forklift truck or pallet jack
- Fire extinguisher

OPTIONAL EQUIPMENT

- Hydraulic safety brake
- Safety net
- Adjustable lifting chain
- Positioning support (axle with 2 wheels)
- Lifting device
- Digital meter counter
- Special drive wheels for single conductor
- Platform to elevate the floor space (for 3-bundle)
- Equipment box
- Tool box
- Transport box
- Biodegradable hydraulic oil
- Tub for ZECK Rescue System
- Machine version for a distance between conductors of 457 mm

Special designs on request

LINE CARS

LINE CARS

- For 2-, 3-, and 4-bundle conductors
- With drive engine, max. 6.3 kW (8.6 hp)
- Welded line car for the installation of aerial warning balls or dampers (max. inclination angle 25°)
- Including parking brake and dynamic brake
- Max. speed 40 m/min
- 4 axles can be opened consecutively for passing of suspension tower
- Please specify when ordering:
 - Distance between conductors

OPTIONAL

- Meter counter
- Lifting device

Special designs on request



Article no.	Bundle	Distance between conductors (mm)	Length (mm)	Width (mm)	Height (mm)	Working load (kg)	Weight (kg)
77-6130	2	400 – 600	1900	940	1690	200	208
77-6131	3	400 – 600	1900	940	1690	200	213
77-6132	4	400 – 600	1900	940	1690	200	218

LIFTING DEVICE FOR LINE CAR

- Lifting device is installed on conductors for easy lifting of line car
- Aluminum lifting device is installed on 2 ropes with the rope rests and the guide pulley pointing upwards
- Adjustable rope rests and clamping jaws (400/450/500 or 600 mm)
- Rubber lining for conductor protection
- Working load: 500 kg
- Length x Width x Height: 650 x 400x 375 mm
- Weight: 9 kg

Special designs on request



V947-800

RESCUE SYSTEM

ZECK LINE CAR RESCUE SYSTEM

The rescue system is available for line cars LF 975 | LF 923 | LF 947

- The sliding platform with ball bearing allows to easily push out the injured person. A fast rescue is also possible at the maximum inclination angle.
- Sliding platform can be locked in 4 positions.
- Anti-fall grating at the bottom of the line car provides safe footing for the rescuer.
- The large hatch allows an easy and injury-free rescue.

All ZECK line cars (welded or bolted) can be upgraded with the rescue system retrospectively.



ZECK LINE CAR RESCUE SYSTEM ACCESSORIES

- Multi-functional rolling ladder
- Dismountable in 3 sections
- Adjustable to distance between conductors: 400, 450, 500 mm
- For 2-, 3-, 4-bundle

EQUIPMENT

- (1x) rolling ladder (2/3/4 bundle), 3 pieces

OPTIONAL

- Sturdy aluminum transport box
- (2x) round sling
- (1x) height rescue equipment (backpack)
- (1x) small guide pulley (to guide the rope inside the line car)
- (2x) snatch block (10 kN)
- Lifting rope/tower rope (100 m)



LINE VEHICLE

LINE CAR LF 976

- For single pulley block or pulley block for 2-, 3- or 4-bundle conductors, rope \varnothing 19 – 50 mm (max. distance between conductors 500 mm)
- Without drive engine
- Line car with mechanical wheel axles and welded aluminum profiles (max. inclination angle 20°)
- High safety due to parking brakes acting directly at the conductor
- Aluminum drive wheels
- Lifting crank to easily lift the roller axles
- Lifting beam to pass suspension sets
- Working load: 200 kg, max. 2 people
- Length x Width x Height: 2.2 x 0.9 x 1.6 m
- Weight: 102 kg
- Additional axle to drive on 3- and 4-bundle conductors



F3-205-1 XXX

OPTIONAL

- Adjustable lifting chain
- Second lifting beam
- Lifting device
- Meter counter
- Special drive wheels for single conductor
- Elevation of floor space (for 3-bundle)
- Tool box
- Transport box
- Safety net
- 2 additional axles for vertical 2-bundle
- Lifting device for single conductor
- Swivel roller axle with drive wheels made of rubber and a service brake

Special designs on request

LINE CAR

- For 2-, 3-, and 4-bundle conductors
- Without drive engine
- Welded line car for the installation of aerial warning balls, spacers, or dampers
- Including parking brake and dynamic brake
- 4 axles can be opened consecutively for passing of suspension tower
- Please specify when ordering:
 - Distance between conductors



OPTIONAL

- Meter counter
- Lifting device

Special designs on request

Article no.	Bundle	Distance between conductors (mm)	Length (mm)	Width (mm)	Height (mm)	Working load (kg)	Weight (kg)
77-6133	2	400 – 510	1900	820	1258	200	90
77-6134	3	400 – 510	1900	820	1258	200	96
77-6135	4	400 – 510	1900	820	1258	200	100

LINE VEHICLE

LINE CAR

- For 2-, 3-, and 4-bundle conductors
- Without drive engine
- Welded line car for the installation of aerial warning balls, dampers, or spacers
- Including parking brake and hydraulic brake

OPTIONAL

- Meter counter

Special designs on request



Article no.	Bundle	Distance between conductors (mm)	Length (mm)	Width (mm)	Height (mm)	Working load (kg)	Weight (kg)
77-6126	2	400 – 510	1000	850	1600	100	58
77-6127	3	400 – 510	1000	850	1600	100	61
77-6128	4	400 – 510	1000	850	1600	100	62

LINE CAR

- For single conductor or ground wire
- Welded line car for the installation of aerial warning balls or dampers
- Including parking brake and dynamic brake
- Use only with safety rope with sufficient breaking load
- Working load: 150 kg
- Length x Width x Height 640 x 700 x 1956 mm
- Weight: 38 kg

OPTIONAL

- Meter counter

Special designs on request



77-6124

LINE CAR

LINE CAR FOR WORKING ON SINGLE CONDUCTOR

- Without drive engine
- Welded line car for working on single conductor (e.g. aerial marker balls, bird protection systems)
- Including two parking brakes
- With eyes for towing or pulling
- Circumferential safety rope
- Including guidance rollers to prevent lifting when working on the platform

OPTIONAL

- Meter counter
- Service brake

Special designs on request



Article no.	Length (mm)	Width (mm)	Height (mm)	Working load (kg)	Weight (kg)
77-6123	2500	750	2186	200	100

LINE VEHICLE

INSPECTION LINE CAR

- For single conductor or ground wire
- Welded inspection line car for the installation of aerial warning balls or dampers
- Including parking brake and dynamic brake
- Use only with safety rope with sufficient breaking load
- Working load: 100 kg
- Length x Width x Height: 900 x 700 x 800 mm
- Weight: 19 kg

OPTIONAL

- Meter counter

Special designs on request



77-6125

LINE BICYCLE

- For driving safely on overhead power lines to execute inspections
- For the installation of spacers, dampers and aerial warning balls
- Driven by muscle power
- High-tensile ball bearing polyamide rollers with anti-slip coating
- Static brake, operated via manual lever, acting via shoe brakes directly at the conductor
- Dynamic disc brake, operated via manual lever, acting directly at the driving axle
- Easily adjustable to different distances between conductors (bicycles for 2-, 3-, 4-bundle)
- Safety belt
- Rollers are insulated and turn smoothly

OPTIONAL

- Meter counter

Special designs on request



LINE VEHICLE

LINE BICYCLE SINGLE CONDUCTOR

- Working load: 100 kg
- Weight: 25 kg



77-6150

LINE BICYCLE 2-BUNDLE

- Distance between conductors: 400, 457 or 500 mm
- Working load: 100 kg
- Weight: 32 kg



77-6152

LINE BICYCLE 3-BUNDLE

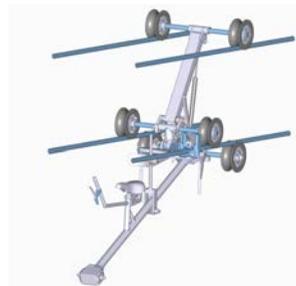
- Distance between conductors: 400 mm
- Working load: 100 kg
- Weight: 38 kg



77-6154

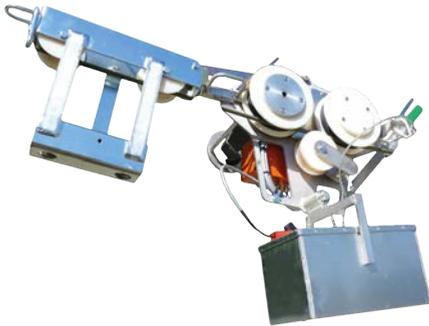
LINE BICYCLE 4-BUNDLE

- Distance between conductors: 400, 457 or 500 mm
- Working load: 100 kg
- Weight: 42 kg



77-6156

LKE 85 | LKE 110



TECHNICAL DATA

Max pulling force - LKE 85	approx. 85 kg*
Max pulling force - LKE 110	approx. 110 kg at an inclination of max. 9°
Max speed - LKE 85	Approx. 16 m/min
Max speed - LKE 110	Approx. 12 m/min
Max. reach	approx. 3000 m at a pulling force of 50 kg*
Max. rope diameter	10 - 40 mm

* Performance dependent on: inclination angle, pulling force, battery charge, ambient temperature

DIMENSIONS | WEIGHT

Length x Width x Height

LKE 85 LKE 110 with rechargeable battery	0.7 x 0.6 x 1.0 m
Transport box	1.2 x 0.8 x 0.7 m

Weight

LKE 85 LKE 110 (without battery)	22.5 kg
Battery pack 33 Ah	25 kg
Battery pack 44 Ah	32 kg
Transport box	50 kg
Recovering device	9 kg

KEY FACTS

- To exchange ground wire or conductor
- Pulling robot is installed with both rope guidance rollers on the rope and secured and pulls a synthetic fiber rope with attached cradle blocks along an already present conductor
- Pulling robot made of aluminum with a max. pulling force of approx. 85 kg* | 110 kg and a max. speed of Approx. 16 m/min | Approx. 12 m/min

ENGINE

- Electric motor
- 2x Battery pack with a capacity of 33 Ah
- 230-V AC-charger

DRIVING SYSTEM

- Drive wheels of high-quality, abrasion-resistant material
- Special clamping system for driving over compression joints

CONTROL SYSTEM

- Radio remote control
 - Control of driving direction
 - Reach approx. 300 m
 - Highest operational safety due to "Reflektomat" technology to avoid foreign influences (TÜV certified)
- Easy battery exchange due to quick change connector
- Automatic free wheel device to tow the pulling robot

EQUIPMENT

- Shock resistant case for electric control
- Radio remote control
- Battery charger and second battery for radio remote control
- Second battery case with battery pack
- Charger for battery pack in robust aluminum case
- Recovering device to recover the pulling robot in case of failure
- Lockable transport box

OPTIONAL EQUIPMENT

- Battery pack with a capacity of 44 Ah
- Radio remote control with 2 transmitters
- Line tensioner
- Cradle block

Special designs on request

CRADLE BLOCK



CRADLE BLOCK

- Specially designed for the exchange of conductors and OPGW
- Working with live line possible (exchange of OPGW above live conductors)
- Alternative for a scaffold, e.g. when crossing railway lines or streets
- Protection of OPGW by rope-enclosing rollers

Special designs on request

79-2000



79-2007



79-2001



79-2030



79-2005



79-2032



79-2006



77-2020



Article no.	Frame	2- 3- rope system	Roller	Max. compression joint Ø (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
79-2000	Aluminum	2	PA	62	17	5.7	2.18
79-2001	Aluminum	2	PA Al	62	17	5.7	2.66
79-2002	Aluminum	2	Al	62	17	5.7	3.25
79-2005	Stainless steel	2	Al	62	30	10	3.80
79-2007	Aluminum	2	PA Al	85	17	5.7	3.10
79-2006	Aluminum	2	PA	85	17	5.7	2.70
79-2030	Stainless steel	3	PA	62	30	10	3.80
79-2032	Stainless steel	3	Al	62	30	10	5.30
77-2020	Aluminum	3	Al	50	6	2	2.00

Working load: Calculated according to European standards (safety factor 3)



LINE TENSIONER

LINE TENSIONER

- Maintenance-free line tensioner with infinitely variable tensioning force
- Prevents the rope sections between cradle blocks from sagging
- Entire unit of line tensioner and cradle blocks can be pulled from the opposite tower and dismantled consecutively
- Drive wheel can be installed in 2 different positions
 - Min. rope \varnothing : 9 mm, max. rope \varnothing 20 mm, max. joint \varnothing 30 mm
 - Min. rope \varnothing : 25 mm, max. rope \varnothing 40 mm, max. joint \varnothing 50 mm

Special designs on request



Article no.	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
860-500	200	300	250	3.7



ALUMINUM ACCESSORIES



SPACER CLAW

- Only use to secure people
- To bridge insulator sets
- Extended lug for stronger hold at the spacer
- High-tensile, anodized aluminum
- Easy to attach with a ground rod
- Rounded edges to attach a spring safety hook



Article no.	L (mm)	B (mm)	H (mm)	Weight (kg)
80-3010	228	140	142	0.9

PROTECTIVE LINE CROSSING BEAM

- Ideal protection for crossing overhead power lines
- Easy installation of protective line crossing beam on conductor
- High stability due to aluminum profile
- Easily movable along conductor due to 2 smoothly gliding polyamide rollers
- Lateral guidance rollers prevent escape of the conductor
- Aluminum tube, 2.7 m, pivoting, for ideal protection of the sagging conductor
- Locking bolt with safety splint for an increased stability
- 4 welded eyes to attach pilote ropes
- Customized lengths on request



Article no.	L (m)	H (m)	Weight (kg)
80-3300	3	1.7	20

OPGW TENSIONING PLATFORM

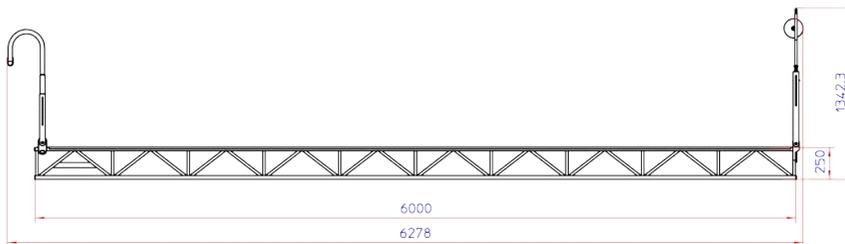
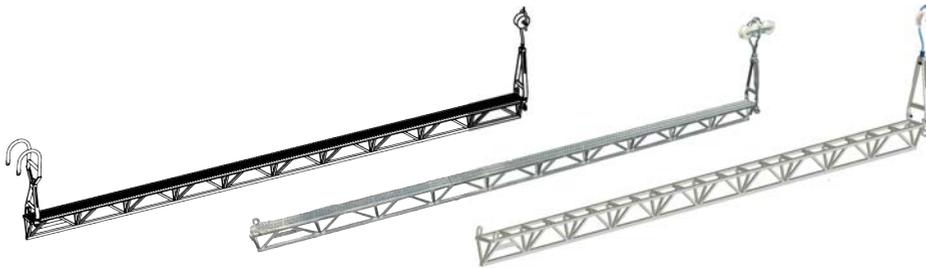
- For horizontal use at strain towers
- Lightweight square aluminum profile
- High stability due to trapezoidal construction
- Easy transport due to foldable, turnable conductor hook
- Flexible installation in the tower top due to welded eyes
- Height 250 mm x Width 250 mm

OPTIONAL

- Tower hook in s-shape
- Tower hook in s-shape foldable and turnable
- Conductor hook with PA or aluminum sheave
- Conductor hook with two sheaves
- Conductor hook with three sheaves
- Additional anti-slip safety due to perforated metal planks

Special designs on request

Article no.	L (m)	Working load (kN)	Weight incl. perforated grating (kg)
F5-607-31xxx	2	3.0	8
F5-607-33xxx	3	3.0	12
F5-607-35xxx	4	3.0	16
F5-607-37xxx	5	3.0	21
F5-607-39xxx	6	3.0	25



LADDER | PLATFORM



SUSPENSION LADDER

- For vertical use at the suspension tower
- High anti-slip safety and secure grip due to aluminum structure profile
- Light and easy to handle aluminum construction
- Ladder rungs welded on the inside and on the outside
- Easy mounting in the tower due to s-shaped hooks
- High safety due to captive snap hook
- Working load vertical 3 kN
- Max. tensioning angle 25° (working load 1.25 kN)

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OPTIONAL

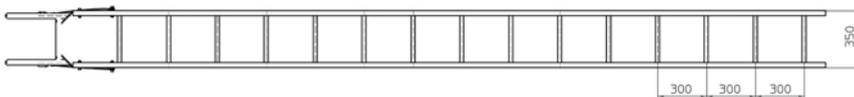
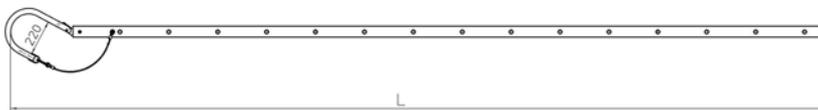
- Continuous safety rope in the rail
- Continuous safety rope in the hook
- Fixture for later extension of suspension ladder
- Extension for suspension ladder (min. 2 m | max. 5 m)

Special designs on request

Article no.	L (m)	Weight (kg)	Working load vertical (kN)	Working load 25° (kN)	TÜV Mark
F5-601-xxx	3	13	3	1.25	•
F5-601-xxx	4	15	3	1.25	•
F5-601-xxx	5	21.6	3	1.25	•
F5-601-xxx	6	25	3	1.25	•

DISMOUNTABLE SUSPENSION LADDER

Article no.	L (m)	Weight (kg)	Working load vertical (kN)	Working load 25° (kN)	TÜV Mark
F5-601-xxx	5 (3+2)	24	3	1.25	-
F5-601-xxx	6 (4+2)	28	3	1.25	-
F5-601-xxx	10 (5+5)	45	3	1.25	-





LADDER | PLATFORM

SUSPENSION LADDER PLATFORM

- For horizontal use at suspension towers
- To mount on 2 suspension ladders (A-shape)
- High anti-slip safety and secure grip due to aluminum structure profile
- Very sturdy due to 2-bar construction
- Pretensioned suspension wire in profile
- Additional anti-slip safety due to perforated metal planks
- 2 rung fixtures
- Safety bolts on both sides

OPTIONAL

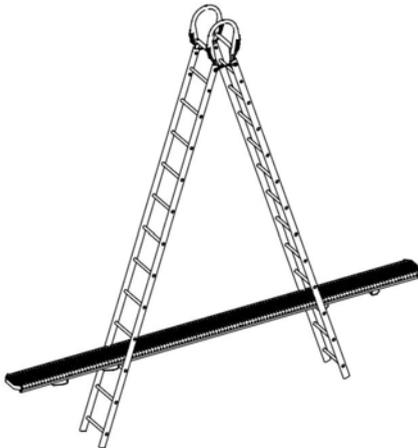
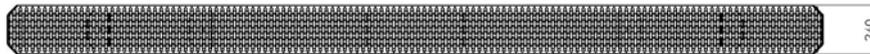
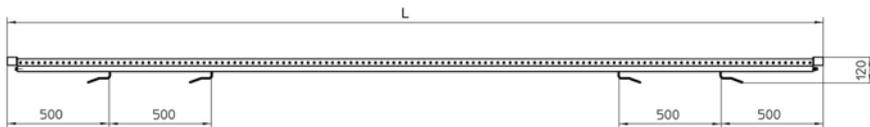
- 4 rung fixtures

Special designs on request

MADE IN GERMANY



Article no.	Sections	L (m)	Working load horizontal (kN)	Weight (kg)
80-1290	1	3	2.5	17
80-1300	1	4	2.5	22.5



LADDER | PLATFORM



SUSPENSION LADDER

- For vertical use at the suspension tower
- Welded suspension ladder made of extruded aluminum pipes
- Fluted rungs
- Tower hook of galvanized steel with safety chain

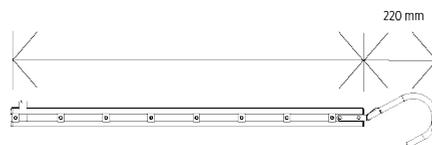
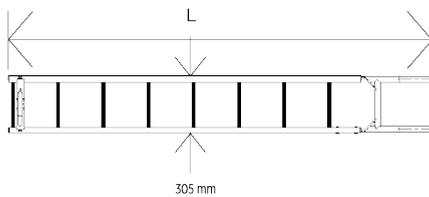
OPTIONAL

- Guide rail on the left for fall protection system
- Fall protection

Special designs on request



Article no.	Sections	L (m)	Working load vertical (kN)	Weight (kg)
77-0710	1	3	3	16
77-0711	1	3.5	3	18
77-0712	1	4	3	20
77-0713	1	5	3	24
77-0714	1	6	3	28
77-0714-2	2	6 (4+2)	3	30
77-0715	2	8 (4+4)	3	38
77-0716	2	10 (5+5)	3	46
77-0717	3	12 (4+4+4)	3	55





LADDER | PLATFORM

TENSIONING PLATFORM (2 kN)

- For horizontal and vertical use at suspension towers
- Triangular structure

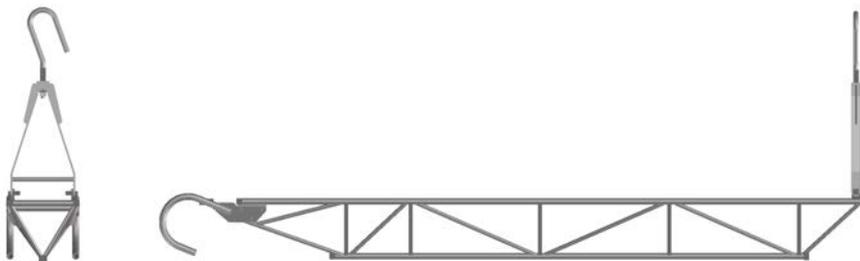
OPTIONAL

- Foldable and turnable tower hook
- Turnable polyamide sheave in the conductor hook
- Turnable aluminum sheave in the conductor hook
- Additional anti-slip safety due to perforated metal planks

Special designs on request



Article no.	Sections	L (m)	D (mm)	Working load vertical (kN)	Working load horizontal (kN)	Weight (kg)
77-1251	1	4	320	3	2	24
77-1253	1	5	320	3	2	27
77-1254	1	6	350	3	2	31
77-1255	2	6 (4+2)	350	3	2	33
77-1256	2	7 (4+3)	350	3	2	37
77-1257	2	8 (4+4)	350	3	2	40



LADDER | PLATFORM



TENSIONING PLATFORM

- For horizontal use at strain towers
- High anti-slip safety and secure grip due to aluminum structure profile
- Light and easy to handle aluminum construction
- Very sturdy due to 4-bar construction
- Ladder rungs welded on the inside and on the outside
- Easy transport due to foldable, turnable conductor hook (with polyamide sheave)
- Easy mounting in the tower due to s-shaped hooks
- Simple securing of hook with safety chain
- High safety due to captive snap hook

MADE IN GERMANY

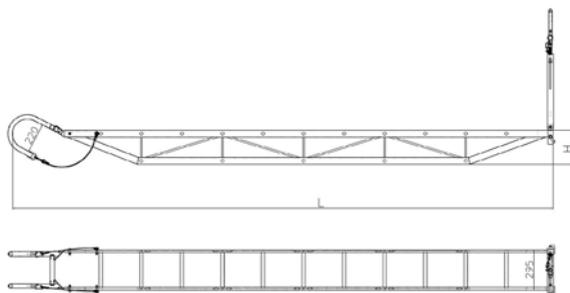


OPTIONAL

- Conductor hook with safety chain without conductor sheave
- Aluminum conductor sheave
- Circumferential safety steel rope at the conductor hook with conductor sheave
- Additional anti-slip safety due to perforated metal planks

Special designs on request

Article no.	Sections	L (m)	H (mm)	Working load horizontal (kN)	Weight (kg)
F5-600-1xxx	1	2.5	250	2.5	17.8
F5-600-1xxx	1	3	250	2.5	19.6
F5-600-1xxx	1	3.5	250	2.5	21.7
F5-600-1xxx	1	4	250	2.5	23.5
F5-600-1xxx	1	5	250	2.5	30.4



DISMOUNTABLE TENSIONING PLATFORM

Article no.	Sections	L (m)	H (mm)	Working load horizontal (kN)	Weight (kg)
F5-600-2xxx	2	6 (4+2)	350	2.5	33.2
F5-600-2xxx	2	7 (3.5+3.5)	350	2.5	36.6
F5-600-2xxx	2	8 (4+4)	350	2.5	43.6
F5-600-2xxx	2	10 (5+5)	350	2.5	52.3

TENSIONING PLATFORM (3 kN)

- For horizontal and vertical use at suspension towers
- Trapezoidal structure

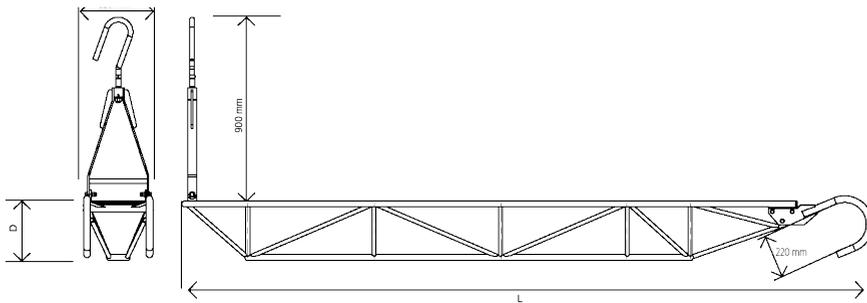
OPTIONAL

- Foldable and turnable tower hook
- Turnable polyamide sheave in the conductor hook
- Turnable aluminum sheave in the conductor hook
- Additional anti-slip safety due to perforated metal planks

Special designs on request



Article no.	Sections	L (m)	D (mm)	Working load vertical (kN)	Working load horizontal (kN)	Weight (kg)
77-1261	1	4	320	3	3	27
77-1263	1	5	320	3	3	30
77-1264	1	6	350	3	3	34
77-1265	2	6 (4+2)	350	3	3	35
77-1266	2	7 (4+3)	350	3	3	36
77-1267	2	8 (4+4)	350	3	3	42



LADDER | PLATFORM



WORKING PLATFORM (3 kN)

- For horizontal use at suspension towers
- Working platform made of aluminum tubes with central suspension fixture
- Anchorage points at both ends
- Guard rail

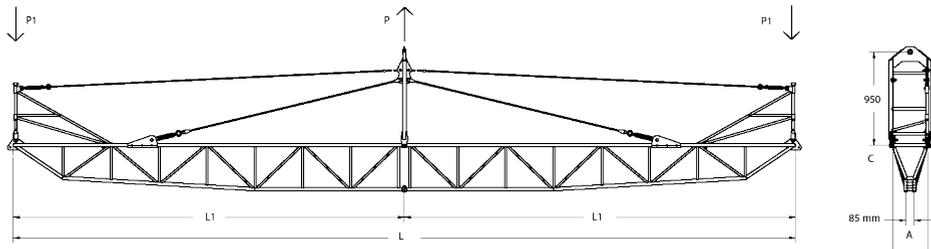
OPTIONAL

- Second guard rail
- Press trolley, turnable 360°
- Railway profile for press trolley
- Additional anti-slip safety due to perforated metal planks

Special designs on request



Article no.	Sections	L (m)	A (mm)	C (mm)	Working load horizontal (kN)	Weight (kg)
77-1204	2	7 (3.5+3.5)	350	446	3	77
77-1205	2	8 (4+4)	350	446	3	86
77-1206	3	10 (4+4+2)	350	446	3	103
77-1207	3	12 (4+4+4)	350	446	3	115
77-1208	3	14 (5+4+5)	350	446	3	126
77-1209	4	16 (4+4+4+4)	350	446	3	144
77-1210	4	18 (6+6+6)	350	446	3	160
77-1211	4	20 (5+5+5+5)	450	550	3	200
77-1212	4	24 (6+6+6+6)	450	550	3	254
77-1213	5	26 (5+5+6+5+5)	450	550	3	271





MADE IN GERMANY

SAGGING PLATFORM new patented design

- Aluminum lasered edge profiles
- For horizontal use at strain towers
- High surefootedness due to aluminum profile and extra wide working surface
- High-quality RUD chains, continuously adjustable
- Fast assembly due to pre-installed suspension fixture with chains
- Locking bolt with lynch pin and steel safety rope
- Markings on chains and connection elements to adjust at 5 angles (0° | 5° | 10° | 15° | 20°)

OPTIONAL

- Handrails
- 2 foldable ladders to reach tensioning clamps
- Sagging platform transport frame – Article no. 80-3490
- Special designs on request

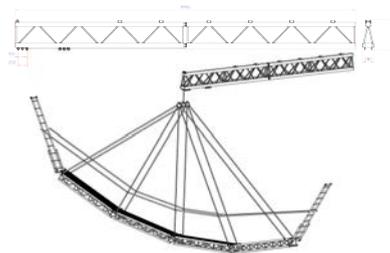
ADVANTAGES OVER PREVIOUS VERSION WITH ALUMINUM TUBES

- INCREASED stability with lower weight
- Reduction of welding seams by approx. 85 %, resulting in lower risk of tears and lower annual inspection efforts
- Connection elements to adjust the angles and integrated lifting eye are milled from solid materials (without welding seams)
- Fork lift fixtures for easy transport

Article no.	Sections	Length (m)	Working load horizontal (kN)	Weight (kg)
F5-604-423XXX	4	14	5	200
F5-604-523XXX	5	18	5	245
F5-604-623XXX	6	22	5	290

BOOM FOR SAGGING PLATFORM

- For extension of the crossarm with a high strain tower angle
- Lockable in various positions
- Maximum working load of 800 kg



80-3500

GIN POLE



GIN POLE

- Gin pole made of high-tensile aluminum
- Standard version with internal rope guidance system and integrated snatch blocks for rope guidance

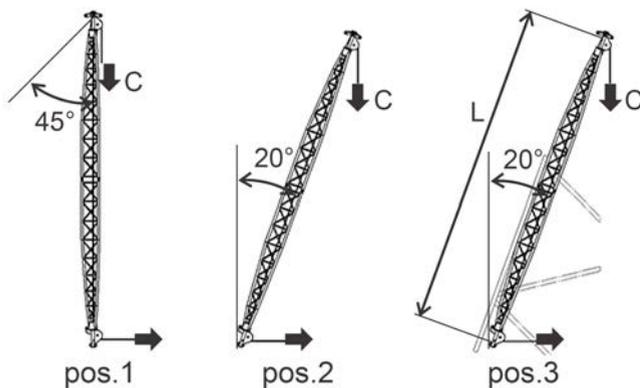
OPTIONAL

- External rope guidance system

Special designs on request



Article no.	Sections	Length (m)	Max. lifting load (kN) a=0°	Max. lifting load (kN) a=20°	Max. lifting load (kN) a=20°	Weight (kg)
77-2220	2	8 (4+4)	10	6	2.4	75
77-2222	2	10 (5+5)	10	6	2.4	88
77-2224	3	12 (4+4+4)	10	6	2.4	99
77-2250	3	12 (4+4+4)	25	15	6	266
77-2252	4	16 (4+4+4+4)	25	15	6	317
77-2254	4	20 (5+5+5+5)	25	15	6	365
77-2270	3	12 (4+4+4)	35	21	8	276
77-2272	4	16 (4+4+4+4)	35	21	8	325
77-2274	4	20 (5+5+5+5)	35	21	8	373
77-2275	5	24 (5+5+5+5+4)	35	21	8	434
77-2280	4	16 (4+4+4+4)	50	30	12	420
77-2282	4	20 (5+5+5+5)	50	30	12	484
77-2286	5	25 (5+5+5+5+5)	50	30	12	564





LEVER HOIST

CHAIN LEVER HOIST

- High-quality chain lever hoist
- Standard lifting height 1.5 m
- Free wheel device
- 4-times riveted load hook
- Nickel-plated load chain, grade V (G100)
- Overload limiter

OPTIONAL

- No freewheel safeguard
- Overload indication
- Wire rope clip
- Increased lifting height



Article no.	Lifting height (m)	Max. lifting load (kN)	Weight including chain (kg)
77-0880-1.5-1676	1.5	10	5.7
77-0880-3.0-1676	3	10	6.8
77-0880-6.0-1676	6	10	9
77-0882-1.5-1676	1.5	16	8
77-0882-3.0-1676	3	16	9.7
77-0882-6.0-1676	6	16	13
77-0884-1.5-1676	1.5	32	15
77-0884-3.0-1676	3	32	18.5
77-0884-6.0-1676	6	32	25.4
77-0886-1.5-1676	1.5	63	26
77-0886-3.0-1676	3	63	33.1
77-0886-6.0-1676	6	63	41.5

LEVER HOIST



CHAIN LEVER HOIST

- Chain lever hoist
- Standard lifting height 1.5 m
- Galvanized round steel link chain



Article no.	Lifting height (m)	Max. lifting load (kN)	Weight including chain (kg)
77-0917-1.5	1.5	10	7.5
77-0917-3.0	3	10	9
77-0917-6.0	6	10	12
77-0918-1.5	1.5	16	9.2
77-0918-3.0	3	16	10.7
77-0918-6.0	6	16	13.7
77-0920-1.5	1.5	32	15.5
77-0920-3.0	3	32	17
77-0920-6.0	6	32	20
77-0922-1.5	1.5	63	26.5
77-0922-3.0	3	63	28
77-0922-6.0	6	63	31



LEVER HOIST

GRIP PULLER

- High-quality grip puller (Made in Europe)
- For pulling or lifting loads or ropes
- Unlimited pulling length
- Type tested for lifting operations

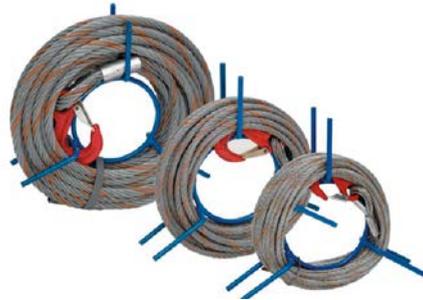


Article no.	Rope Ø (mm)	Max. lifting load (kN)	Weight without rope (kg)
77-0984	8.4	8	6
77-0985	11.5	16	11
77-0986	16	32	21

ROPE FOR GRIP PULLER

- Special rope with hook on one side

Special designs on request



Article no.	Rope Ø (mm)	Rope length (m)	Breaking load (kN)	Weight (kg)
77-0988	8.4	20	45	5.8
77-0992	11.5	20	87	10.6
77-0996	16	20	165	20

LEVER HOIST



GRIP PULLER

- Grip puller
- For pulling or lifting loads or ropes
- Unlimited pulling length
- Type tested for lifting operations

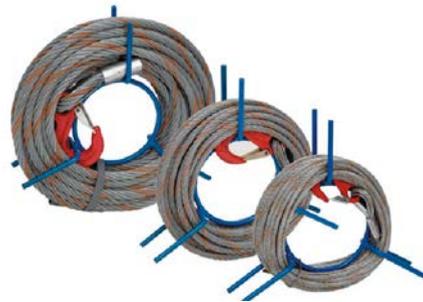


Article no.	Rope Ø (mm)	Max. lifting load (kN)	Weight without rope (kg)
77-0954	8.3	8	6.6
77-0955	11.5	16	13
77-0956	16.3	32	22

ROPE FOR GRIP PULLER

- Special rope with hook on one side

Special designs on request



Article no.	Rope Ø (mm)	Rope length (m)	Breaking load (kN)	Weight (kg)
77-0957	8.3	10	55	2.5
77-0958	8.3	20	55	5
77-0959	8.3	30	55	7.5
77-0960	8.3	40	55	10
77-0961	11.5	10	90	5.5
77-0962	11.5	20	90	11
77-0963	11.5	30	90	16.5
77-0964	11.5	40	90	22
77-0965	16.3	10	181	9.8
77-0966	16.3	20	181	19.6
77-0967	16.3	30	181	29.4
77-0968	16.3	40	181	39.2



ROLLER STAND RB1

TECHNICAL DATA

Length x Width x Height approx. 1.54 x 1.13 x 1.14 m
Weight approx. 40 kg



77-1900

KEY FACTS

- Roller stand for the protection of conductors in the field
- Ball-bearing-mounted polyamide roller with large flanges
- Rack can be folded together for transportation
- Frame made of galvanized steel (optional: aluminum)

Different model available on request

SNATCH BLOCK



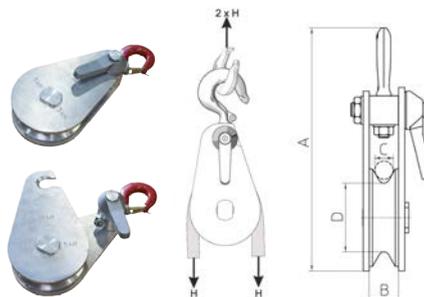
ALUMINUM SNATCH BLOCK

- Snatch block made of aluminum with turnable hook
- One side can be opened
- Ball bearing aluminum sheave

OPTIONAL

- Ball bearing polyamide roller

Special designs on request



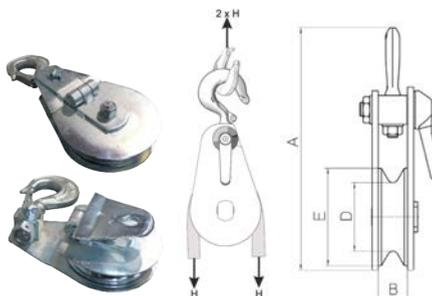
Article no.	A (mm)	B (mm)	C (mm)	D (mm)	H Max. lifting load (kN)	2 x H Max. working load hook (kN)	Weight Al (kg)	Weight PA (kg)
80-3000	230	36	20	52	2.5	5	1.2	1
80-3001	320	39	30	90	5	10	2.6	2.2
80-3002	350	39	30	90	15	30	3.7	3.3
80-3004	390	44	35	100	25	50	4.9	4.4
80-3005	600	60	50	100	40	80	19.6	-

Abbreviations: Al = aluminum | PA = polyamide

STEEL SNATCH BLOCK

- Heavy duty snatch block made of steel with turnable hook
- One side can be opened
- Ball bearing polyamide or steel sheave

Special designs on request



Article no.	Roller	A (mm)	B (mm)	D (mm)	E (mm)	H Max. lifting load (kN)	2 x H Max. working load hook (kN)	Weight (kg)
77-1402	PA	315	18	102	120	5	10	1.7
77-1404	PA	330	20	102	120	7.5	15	2.0
77-1440	Steel	340	20	105	120	7.5	15	3.4
77-1442	Steel	410	25	135	150	10	20	6.6
77-1444	Steel	440	25	135	150	15	30	7.2
77-1446	Steel	510	30	185	200	25	50	13.0

Abbreviations: Al = aluminum | PA = polyamide



CONDUCTOR LIFTER | SHACKLE

CONDUCTOR LIFTER

- For installation work (e.g. suspension set), to support the conductor
- Rubber lining for careful conductor treatment



OPTIONAL

- Hinging device for simultaneous use of several conductor lifters
- Rack for lifting bundled conductors

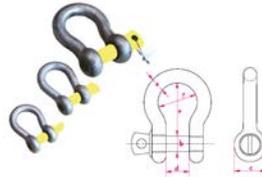
Special designs on request

Article no.	Max. rope Ø (mm)	Length (mm)	Width (mm)	Height (mm)	Max. lifting load (kN)	Weight (kg)
80-3200	43	145	90	190	25	1.4

Max. lifting load: Calculated according to European standards (safety factor 3)

SHACKLE

- High-tensile bow shackle with eye bolts
- Galvanized yellow painted bolt



Special designs on request

Article no.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Breaking load (kN)	Working load (kN)	Weight (kg)
76-9960	6	8	16	12	29	20	30	5	0.05
76-9962	8	10	19	13	31	21	45	7.5	0.09
76-9964	10	11	23	17	37	26	60	10	0.14
76-9966	11	13	27	19	43	29	90	15	0.20
76-9968	13	16	30	20	48	33	120	20	0.33
76-9970	16	19	38	27	60	43	195	33	0.62
76-9972	19	22	46	32	71	50	285	48	1.07
76-9974	22	25	53	36	84	58	390	65	1.64
76-9976	25	28	61	43	95	68	510	85	2.28
76-9978	28	32	68	46	108	74	570	95	3.36
76-9980	32	35	76	51	119	82	720	120	4.31
76-9982	35	38	84	57	133	92	810	135	6.14
76-9984	38	42	92	60	146	98	1020	170	7.81
76-9986	45	50	112	73	177	127	1500	250	12.61

Working load: Calculated according to European standards (safety factor 6)

LIFTING TACKLE | WIRE ROPE SLING



LIFTING TACKLE

- Steel construction with ball bearing sheaves
- Two sheave units that can be equipped with ropes of different lengths

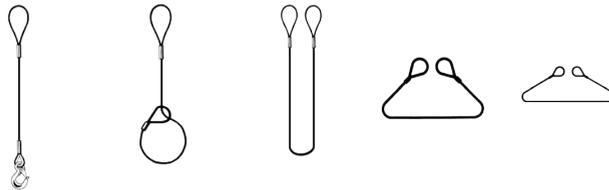


Article no.	Rope sheaves	Rope sheaves Ø (mm)	Rope Ø (mm)	Max. length (mm)	upper bore (mm)	lower bore (mm)	Breaking load (kN)	Max. lifting load = Max. working load (kN)	Weight 2 pieces (kg)
77-8030	2	160	8	380	22	12	75	25	20
77-8031	3	160	8	450	25	12	105	35	27
77-8032	5	160	8	500	29	12	165	55	45
77-8035	2	180	9	370	22	12	90	30	25
77-8036	3	180	9	430	25	12	135	45	30
77-8037	5	180	9	470	29	12	210	70	45

Max. lifting load: Calculated according to European standards (safety factor 3)

WIRE ROPE SLING

- Galvanized steel rope with pressed slings
- Tested according to DIN EN 1344-1
- Sling size: 15 x rope Ø



Inclination angle		0°	0°	0°	0° - 45°	45° - 60°
Article no.	Rope Ø (mm)	Working load (kN)				
77-8110	10	10	8	20	14	10
77-8112	12	15	12	30	21	15
77-8114	14	20	16	40	28	20
77-8116	16	27	21.5	54	38	27
77-8118	18	31.5	25	63	44	31.5
77-8120	20	40	32	80	56	40



MEASURING TOOLS

DYNAMOMETER

- Dynamometer with anodized aluminum case
- Precision: approx. 0.15 % of indicated value
- Delivered in plastic case including manual and calibration certificate
- Delivery including shackles up to a working load of 5 t

OPTIONAL

- Bow shackle from 10 t



Article no.	Resolution (kg)	Shackle (t)	Length (mm)	Width (mm)	Height (mm)	Bore (mm)	Distance between bores (mm)	Working load (kN)	Weight (kg)
76-9710	1	incl. 3.3	160	120	218	85	54	25	1.35
76-9711	2	incl. 6.5	250	160	230	85	54	50	1.85
76-9712	5	excl. 12.0	300	250	315	100	59	100	3.60
76-9713	10	excl. 25.0	120	120	350	126	70	200	5.50

Working load: Calculated according to European standards (safety factor 6)

DYNAMOMETER WITH RADIO REMOTE CONTROL

- Dynamometer with radio remote control and anodized aluminum case
- Radio remote control
- Precision: approx. 0.15 % of indicated value
- Delivered in plastic case including manual and calibration certificate
- Delivery including shackles up to a working load of 5 t

OPTIONAL

- Bow shackle from 10 t



Article no.	Resolution (kg)	Shackle (t)	Length (mm)	Width (mm)	Height (mm)	Bore Ø Shackle (mm)	Distance between bores (mm)	Working load (kN)	Weight (kg)
76-9721	2	incl. 6.5	230	85	54	27	165	50	1.85
76-9722	5	excl. 12.0	315	100	59	38	200	100	3.60
76-9723	10	excl. 25.0	350	126	70	53	210	200	5.50

Working load: Calculated according to European standards (safety factor 6)

MEASURING TOOLS



THERMOMETER

- Delivered in plastic case including calibration certificate
- Weight: 0.6 kg



77-4605

SAG SCOPE

- Instrument for exact measuring of conductor sag
- Including special designed clamping fixture to mount on steel tower
- With horizontal and vertical fine adjustment
- Delivered in case
- Weight: 4.7 kg

OPTIONAL

- Fixture for round towers (77-0001-100)



77-0001

RUNNING EARTH

- To dissipate the electric potential during the stringing operation
- Tested for I_{cc} : 3.5 kA/0.5 s
- Including copper grounding cable (length 6 m – 50 mm²) and grounding clamp
- Conductor diameter 5 – 60 mm
- Weight: approx. 10 kg

OPTIONAL

- With carbon brushes (to easier dissipate inductive currents) current induction 20 kA/0.4 s

76-3999

- Transport box

76-3998



76-4000-50-6

GROUNDING SET

- 3 aluminum conductor clamps (clamping capacity from Ø 5 to 60 mm)
- 3 flexible copper cables with transparent insulation (cross section 50 mm², length 6 or 8 m)
- Special designs on request (e.g. cross section 70, 95 or 120 mm²)
- Insulated detachable fiberglass stick (length 4 -6 m)
- 3 grounding clamps for steel (clamping capacity on round conductors and frames of up to 33 mm)



Article no.	Rope Ø (mm)	Fiberglass stick (m)	Copper cable (m)	Weight (kg)
77-4008	5 – 60	2 x 1.5	6	23
77-4010	5 – 60	2 x 2	6	25
77-4012	5 – 60	3 x 1.5	6	26
77-4014	5 – 60	3 x 2.0	6	28
77-4016	5 – 60	3 x 2.3	8	31

Current carrying capacity of the cable section:

50 mm² – I_{cc} : 11.4 kA/ 1 s | 70 mm² – I_{cc} : 15.9 kA/ 1 s | 95 mm² – I_{cc} : 21.7 kA/ 1 s | 120 mm² – I_{cc} : 27.3 kA/1 s.

FALL PROTECTION



FALL ARREST HARNESS (Antifall device | Positioning)

- Extremely soft harness material
- Fall arrest eye at the front side, center, and back side
- Three holding eyes at the pelvic belt
- Wide back support
- Padded leg straps
- Infinite belt adjustment by quick adjustment buckles
- Tested according to EN 358, EN 361 and EN 813
- Weight: 1.15 kg



77-4110

FALL ARREST HARNESS (Antifall device)

- Extremely soft harness material
- Fall arrest eye at the front side, center, and back side
- Infinite belt adjustment by quick adjustment buckles
- Tested according to EN 361
- Weight: 0.92 kg



77-4100

FALL PROTECTION LANYARD (Y SHAPE)

- Lanyard with steel screw snap hooks in the shock absorber
- Two EH 60 snap hooks
- Tested according to EN 355
- Length: 1200 mm
- Weight: 1.38 kg



77-4162



COLLAPSIBLE BUCKET

COLLAPSIBLE BUCKET

- Bottom made of durable molded polypropylene
- Rope handle reinforced with leather, water resistant and robust
- Made of heavy-duty canvas
- Linen top closing by cord
- Diameter: 210 mm
- Height: 320 mm
- Weight: 0.75 kg



77-4177

COLLAPSIBLE BUCKET

- Bottom made of durable molded polypropylene
- Rope handle reinforced with leather, water resistant and robust
- Made of heavy-duty canvas
- Linen top closing by cord
- Diameter: 300 mm
- Height: 400 mm
- Weight: 1.05 kg



77-4178

TOOL BAG

- Snap hook mounting
- Compartments for small parts
- Additional exterior tool holder
- Reinforced, weather-resistant bottom
- Length x Width: 40 - 25 cm
- Weight: 0.7 kg



77-4181



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