RAIL TECHNOLOGY

CATENARY INSTALLATION UNITS

RAIL TECHNOLOGY

STRINGING MACHINES
MADE IN GERMANY

www.zeck-gmbh.com

INNOVATIVE SOLUTIONS FOR CATENARY INSTALLATION UNITS

ZECK offers a wide range of products and services in the rail technology sector, specializing in catenary construction. From electronically controlled catenary installation units and precision pullers to training courses.

ZECK is setting new standards in efficiency and safety, while supporting its customers with high-quality products and professional services.

Your ZECK Team

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Also in the Rental fleet

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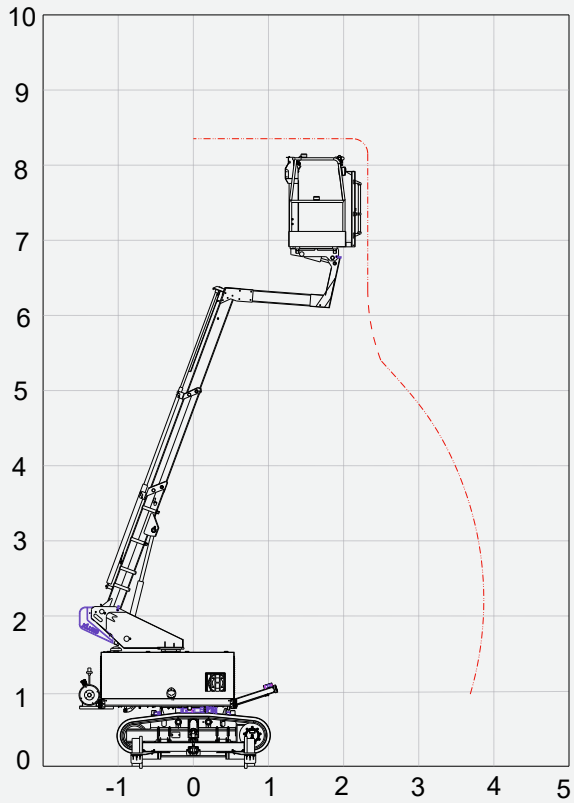
KEY FACTS

- Rail-road elevated working platform
- Outstanding climbing ability of the crawler chassis
- BAV (Swiss Federal Office for Transport) approval for use
- Compliance with Machinery Directive 2006/42/EC, EN 280-1:2022
- Parking brake at both rail wheels and the crawler chassis
- Use of work basket on crawler chassis possible

Meter gauge
RR C-POD 9



The diagram refers to the working area with a track centre distance of 1,000 mm.

DIMENSIONS

Length x width (rail)	3.7 × 2.04 m
Height on rail wheels (surface of rail)	2.4 m
Length x width (road)	3.6 x 2.3 m
Height on road tires	2.2 m
Work basket	0.8 x 0.5 m

OPERATION

- Control panel in work basket
- Work light in basket
- Use of work basket on crawler chassis (no driving movement possible when not in rest position)
- Work under live catenary possible due to lifting limiter

EQUIPMENT

- Battery master switch
- Electric components with IP65 and IP67 protection
- Mechanical opposite track blocking

OPTIONAL EQUIPMENT

- 230 V electrical supply with 3.5 kVA (socket in work basket)
- Electric tank pump
- Wind gauge
- Bio hydraulic oil
- Measuring device for height and lateral position of contact wire
- Tandem trailer (RR C-POD + trailer = total weight below 3.5 t)
- Particulate filter
- Tool box
- Crossarm to lift the machine
- Hydraulic emergency unit (external)

RENTAL FLEET

- Also available in our rental fleet

NET WEIGHT

RR C-POD	2800 kg

SAFE WORKING LOAD (PER WORK BASKET)

200 kg

DRIVE SPEED

Max. on road	4.5 km/h
Max. on rail	15 km/h

WORKING SPEED

Max. on rail	2.5 km/h

ENGINE

- Max. 18.8 kW (25.2 hp), emission stage V
- Water-cooled diesel engine
- 12 V system with high-capacity rechargeable battery
- Powered by 6 independent hydraulic engines (4 for rail operation, 2 for road use)

REMOTE CONTROL

Radio/cable remote control with full functionality for driving on the road as well as safe rerailing

RAIL SUPERELEVATION

Max.	110 mm

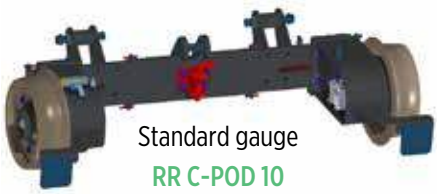
RAIL INCLINATION

Max. meter gauge	60 ‰

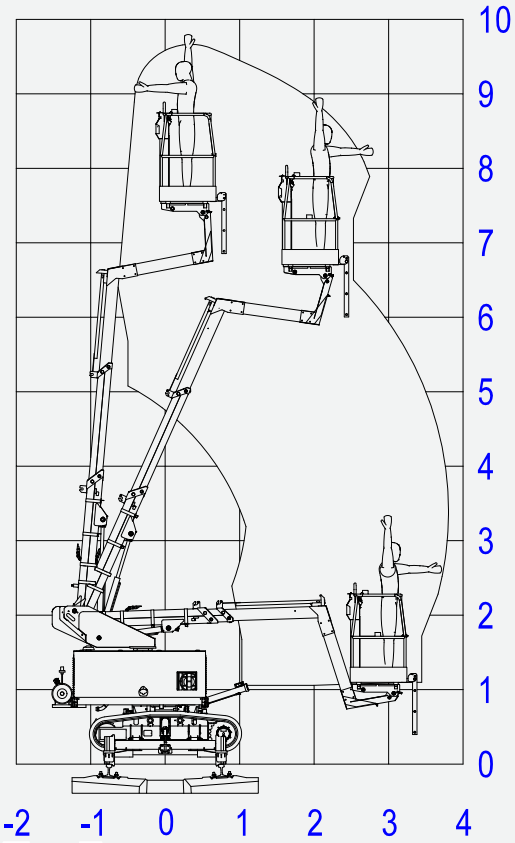
RR C-POD 10

KEY FACTS

- Rail-road elevated working platform
- High climbing ability of crawler chassis
- DB Netz authorization to work
- Compliance with Machinery Directive 2006/42/EC, EN 280:2013+A1:2015
- Parking brake at both rail wheels and both crawlers
- Use of the work basket on the crawler chassis
- Battery master switch



Standard gauge
RR C-POD 10



DIMENSIONS

Length x width (rail)	3.7 - 2.0 m
Height on rail wheels (surface of rail)	2.4 m
Length x width (road)	3.7 x 2.3 m
Height on road tires	2.2 m
Work basket	0.8 x 0.5 m

OPERATION

- Control panel in work basket
- Work light in basket
- Use of work basket on crawler chassis (no driving movement possible when not in rest position)
- Work under live catenary possible due to lifting limiter

EQUIPMENT

- Battery master switch
- Electric components with IP65 and IP67 protection
- Mechanical opposite track blocking

OPTIONAL EQUIPMENT

- 230 V electrical supply with 3.5 kVA (socket in work basket)
- Electric tank pump
- Wind gauge
- Rear carrier basket with quick-action coupling for trailer coupling
- Bio hydraulic oil
- Measuring device for height and lateral position of contact wire
- Tandem trailer (RR C-POD + trailer = total weight below 3.5 t)
- Particulate filter
- Tool box
- Crossarm to lift the machine
- Hydraulic emergency unit (external)

RENTAL FLEET

- Also available in our rental fleet

NET WEIGHT

RR C-POD	2700 kg

SAFE WORKING LOAD (PER WORK BASKET)

200 kg

DRIVE SPEED

Max. on road	4.5 km/h
Max. on rail	19.9 km/h

WORKING SPEED

Max. on rail	2.5 km/h

ENGINE

- Max. 18.8 kW (25.2 hp), emission stage V
- Water-cooled diesel engine
- 12 V system with high-capacity rechargeable battery
- Powered by six independent hydraulic motors (4 for rail operation, 2 for road use)

REMOTE CONTROL

Radio/cable remote control with full functionality for driving on the road as well as safe rerailing

RAIL SUPERELEVATION

Max.	200 mm

RAIL INCLINATION

Max. standard gauge	40 ‰

Wire installation with tensioning force of 10-30 kN with individually controlled bull wheel units for 1, 2, or 3 wires

INSTALLED ON A RAIL-BOUND VEHICLE OR A RAIL-ROAD TRUCK

	PAGE	RAIL-BOUND VEHICLE	RAIL-ROAD TRUCK
BM 954	16	✓	X
BM 957	20	✓	X
BM 984	22	✓	X
BM 988	24	✓	X
BM 982	26	✓	X
BM 974	28	✓	X
BM 966	30	✓	✓
BM 994	32	✓	✓
BM 969	18	✓	X
BM 971	34	✓	✓
BM 925	36	✓	✓
BM 921	38	✓	✓
BM 990	46	✓	X

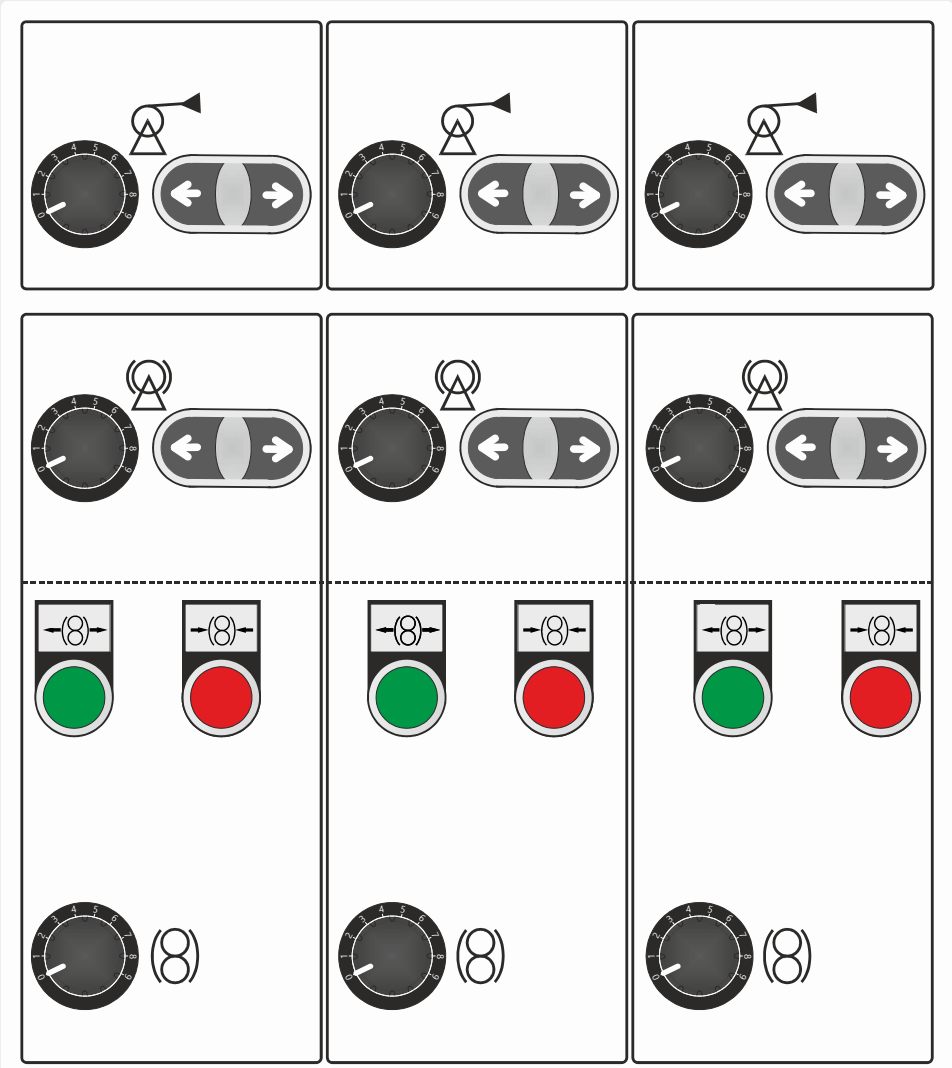
Wire installation with tensioning force of < 10 kN by hydraulically tensioned drum stands

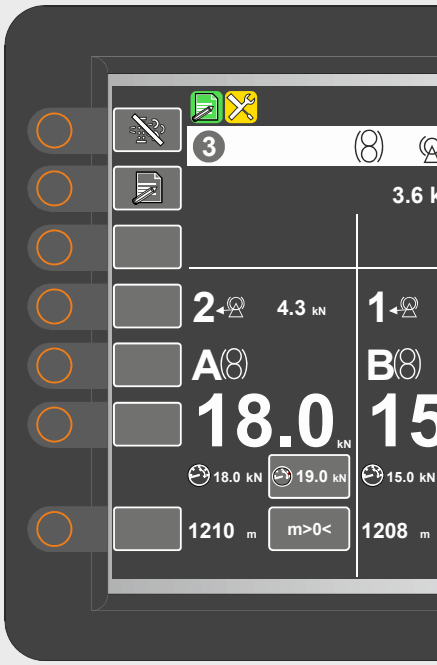
	PAGE	RAIL-BOUND VEHICLE	RAIL-ROAD TRUCK
BM 987	40	✓	✓
BM 959	42	✓	✓
BM 960	44	✓	✗
BM 935	48	✓	✗
BM 991	52	✓	✗
TB 20 SB Z939	54	✗	✓
TBH 20 Z972	56	✓	✗
TBH 20 Z292	57	✓	✗
TBF 20-2W Z504	58	✗	✗

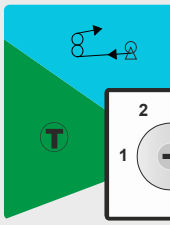
ZECK OPERATOR INTERFACE - ZOL 3.0

ELECTRONICALLY CONTROLLED DRUM STAND PRETENSION FORCE

- Continuous pretension force independent of drum size and unwinding diameter





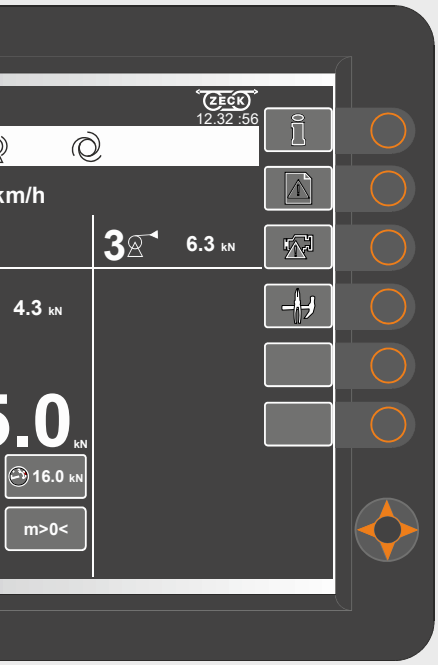


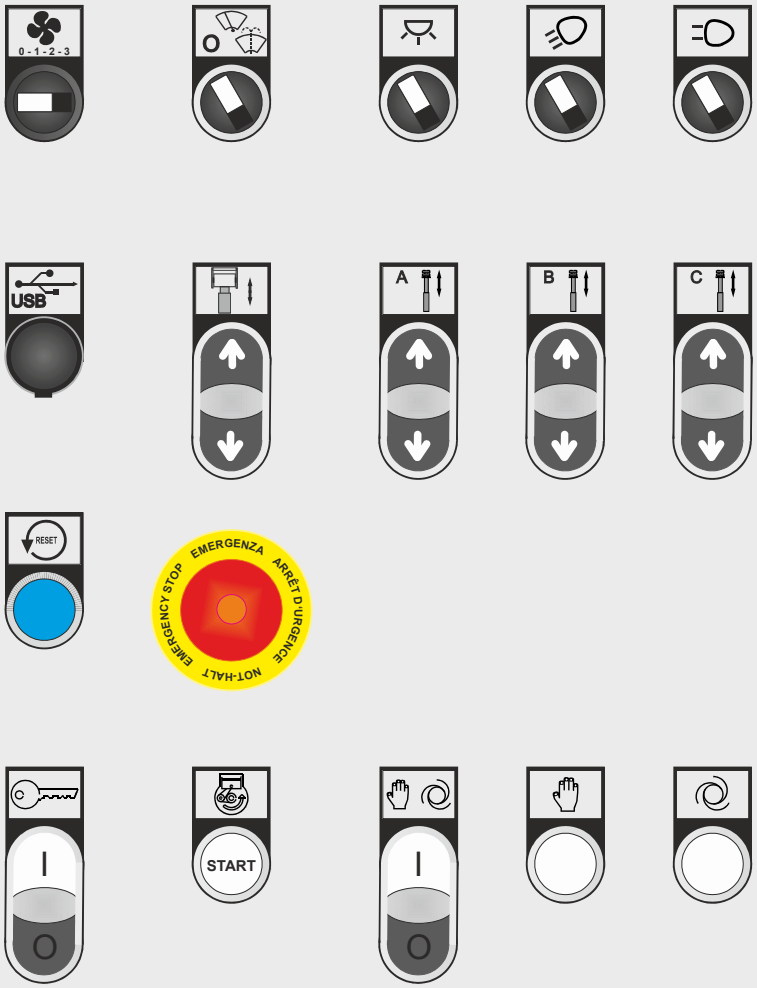
LOADSENSING SYSTEM

- Efficient control of machine due to hydraulic supply as needed (energy-efficient)

PRECISION CONTROL AND EASY OPERATION*

- 12” touchscreen with function keys
- Control of tensioning forces as well as the drive and control units with integrated diagnostic system
- PLC control for maximum productivity and safety
- ZECK stringing data record system with USB interface
- GPS modem for remote diagnostics*
- Communication with carrier vehicle via hardware or CAN* (if present)





HP-ATS, HIGH PRECISION AUTOMATIC TENSIONING SYSTEM*

- High-precision automatic tensioning system for tolerances of ± 1 % of the set nominal tensioning force
- Careful wire installation due to soft start-up and stopping

*** OPTIONAL**

DRUM STAND "VARIO"

- Hydraulic drum clamping system without drum shaft for easier handling and faster setup.

DRUM STAND STANDARD

- Hydraulically driven drum stand with drum shaft
- Optionally available in a laterally adjustable version or with a swivel frame

SELF-LOADING DRUM STAND

- Craneless drum holding fixtures starting from upper surface of rail
- For catenary and underground cable installation

WELL THOUGHT OUT, DOWN TO THE FINEST DETAIL

BULL WHEEL UNIT

- For 1, 2, or 3 wires - individually controlled
- Max. tensioning force 30 kN
- Installation at the final tensioning force
  → no re-tightening necessary

CABIN

- Soundproof cabin, optionally with ventilation system, heating system, air conditioning
- Electronic control desk with ZECK stringing data record system

CONTROL DESK

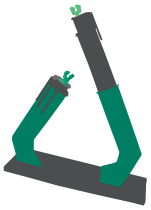
- Precision control and easy operation

BM 954

OLD WIRE GUIDE FUNNEL

For removing old wire/cable

PRECISE | EFFICIENT | ECONOMICAL



CONTACT WIRE POSITIONER

- 1-2 hydraulically controlled guidance arms with large lateral reach. Individually operated by radio remote control.

POSITIONING MAST WITH POWER UNIT

- Tangential pulley head on wire guiding tower for setting the wire height
- Fully encapsulated power unit with diesel engine according to the latest emissions standard (supply from the carrier vehicle is also possible on request)“

BM 954

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 27 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 6 hydraulic drum stands
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

WIRE GUIDING SYSTEM

- 2 hydraulically controlled guidance arms with large lateral reach: right/left approx. 4.0 m, height: approx. 8.5 m
- Individual operation of the guidance arms with radio remote control

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force
- Air conditioning for cabin

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	18.4 x 2.8 x 3.3 m
Net weight	approx. 25000 kg

DRUM STAND WITH SHAFT

Number	6
Max. drum weight	3500 kg
Max. drum Ø	3 x 2000 mm
Max. drum Ø	3 x 1600 mm

TENSIONER PERFORMANCE

Max. tensioning force	2 x 27 kN
Max. speed	5 km/h

ENGINE

- Max. 92.5 kW (124.3 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 969

KEY FACTS

- Self-loading drum stand with hydraulic clamping for fast, convenient, safe, and quick drum changes
- No drum shaft required
- Catenary installation/underground cable installation unit installed on a rail-bound vehicle
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 25 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire
- Power supplied by carrier vehicle

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 2 self-loading drum stands with hydraulic drum clamping fixture (without drum shaft) for easy handling of the drums.
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Freewheeling device directly at the drive
- Software-controlled automatic mode allows for convenient loading of the drum
- drum stand swivelling 180° to the left and right with defined installation positions (2 x contact wire, 4 x underground cable)

WIRE GUIDING SYSTEM

- 2 hydraulically controlled guidance arms with large lateral reach: right/left approx. 4.0 m, height: approx. 8.5 m
- Individual operation of the guidance arms with radio remote control

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Biodegradable hydraulic oil
- Window heating for overhead cover
- Electric hydraulic emergency unit
- Air conditioning for cabin

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	18.4 x 3.0 x 3.2 m
Net weight	approx. 28600 kg

DRUM STAND "self-loading"

Number	2
Max. drum weight (crane loading)	6000 kg
Max. drum weight (self-loading)	3500 kg
Max. drum Ø	2600 mm

TENSIONER PERFORMANCE

Max. tensioning force	25 kN
Max. speed	5 km/h

BULL WHEEL

Number	4 (2 x 2)
Diameter	1500 mm
Groove Ø	27 mm

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Careful wire installation due to soft start-up and stopping. Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Operating elements for tensioning force and all machine functions
- Radio remote control for drum stands and wire guidance arms
- PLC control for maximum productivity and safety
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 957

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 20 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 4 hydraulic drum stands
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

WIRE GUIDING SYSTEM

- 2 hydraulically controlled guidance arms with large lateral reach: right/left approx.approx. 4.5 m, height: approx. 8.5 m (over upper surface of rail), extension possible
- Individual operation of the guidance arms with radio remote control

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force
- Air conditioning for cabin

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	19.3 x 2.8 x 2.8 m
Net weight	approx. 10500 kg

DRUM STAND WITH SHAFT

Number	4
Max. drum weight	3500 kg
Max. drum Ø	1800 mm

TENSIONER PERFORMANCE

Max. tensioning force	2 x 20 kN
Max. speed	5 km/h

ENGINE

- Max. 92.5 kW (124.3 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 984

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle
- TB “VARIO” with hydraulic clamping for comfortable, safe and quick drum change. No drum shaft needed!
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 30 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 4 drum stands with hydraulic drum clamping fixture (without drum shaft) for easy handling of the drums
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)

WIRE GUIDING SYSTEM

- 2 hydraulically controlled guidance arms with large lateral reach: right/left approx. 4.5 m, height: approx. 8.5 m
- Individual operation of the guidance arms with radio remote control
- Rope guidance mast, adjustable in height, with large roller guidance for 1 or 2 wires for the careful prepositioning of the wire

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system
- Winch to reduce the catenary wire length

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force
- Air conditioning for cabin
- Drum winch to install the remaining length of the contact wire on the drum

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	18.4 x 2.9 x 3.2 m
Net weight	approx. 21600 kg

DRUM STAND "VARIO"

Number	4
Max. drum weight	3500 kg
Max. drum Ø	2000 mm

TENSIONER PERFORMANCE

Max. tensioning force	2 x 30 kN
Max. speed	5 km/h

ENGINE

- Max. 100 kW (134.1 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 988

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle
- TB “VARIO” with hydraulic clamping for comfortable, safe and quick drum change. No drum shaft needed!
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 20 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 2 drum stands (fix-mounted) with hydraulic drum clamping fixture (without drum shaft) for easy handling of the drums
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)

WIRE GUIDING SYSTEM

- 2 hydraulically controlled guidance arms with large lateral reach: right/left approx. 4.5 m, height: approx. 8.5 m (over upper surface of rail), extension possible
- Rope guidance mast, adjustable in height, with large roller guidance for 1 or 2 wires for the careful prepositioning of the wire
- Individual operation of the guidance arms with radio remote control

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force
- Air conditioning for cabin

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	12.4 x 2.7 x 2.9 m
Net weight	approx. 15600 kg

DRUM STAND "VARIO"

Number	2
Max. drum weight	3500 kg
Max. drum Ø	2000 mm

TENSIONER PERFORMANCE

Max. tensioning force	2 x 20 kN
Max. speed	5 km/h

ENGINE

- Max. 55.4 kW (74 hp)
- Liquid-cooled diesel engine with electronic rpm control
- Diesel engine compliant with the EU emissions directive
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 982

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle
- TB “VARIO” with hydraulic clamping for comfortable, safe and quick drum change. No drum shaft needed!
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 30 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire
- Installed on a platform trailer or rail wagon

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 2 drum stands with hydraulic drum clamping fixture (without drum shaft) for easy handling of the drums
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)

WIRE GUIDING SYSTEM

- Individual operation of the guidance arm by radio remote control: right/left approx. 4.5 m, height: approx. 8.5 m (over upper surface of rail), extension possible
- Individual operation of the guidance arm by radio remote control

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force
- Air conditioning for cabin

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	10.8 x 2.6 x 3.0 m
Net weight	approx. 12800 kg

DRUM STAND "VARIO"

Number	2
Max. drum weight	3500 kg
Max. drum Ø	1800 mm

TENSIONER PERFORMANCE

Max. tensioning force	2 x 30 kN
Max. speed	5 km/h

ENGINE

- Max. 55 kW (74 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 974

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 20 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 4 hydraulic drum stands
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

WIRE GUIDING SYSTEM

- 2 hydraulically controlled guidance arms with large lateral reach: right/left approx. 4.5 m, height: approx. 8.5 m (over upper surface of rail), extension possible
- Individual operation of the guidance arms with radio remote control

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter
- Air conditioning for cabin
- Drum winch to install the remaining length of the contact wire on the drum

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	13.7 x 2.9 x 3.3 m
Net weight	approx. 17500 kg

DRUM STAND WITH SHAFT

Number	4
Max. drum weight	3500 kg
Max. drum Ø	1800 mm

TENSIONER PERFORMANCE

Max. tensioning force	2 x 20 kN
Max. speed	5 km/h

ENGINE

- Max. 70 kW (93.7 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface

BM 966

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-road truck
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 30 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 2 hydraulic drum stands
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

WIRE GUIDING SYSTEM

- Rope guidance mast, adjustable in height, with large roller guidance for 1 or 2 wires for the careful prepositioning of the wire

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force
- Air conditioning for cabin

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	9.1 x 2.5 x 2.4 m
Net weight	approx. 8890 kg

DRUM STAND WITH SHAFT

Number	2
Max. drum weight	3500 kg
Max. drum Ø	1800 mm

TENSIONER PERFORMANCE

Max. tensioning force	2 x 30 kN
Max. speed	5 km/h

ENGINE

- Without a diesel engine (hydraulic and electric supply by carrier vehicle)
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 994

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-road truck
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

BULL WHEEL UNIT

- 1 controlled bull wheel unit
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 2 hydraulic drum stands
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

EQUIPMENT

- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system
- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	7 x 2.5 x 2.4 m
Net weight	approx. 7500 kg

DRUM STAND WITH SHAFT

Number	2
Max. drum weight	2500 kg
Max. drum Ø	1680 mm

TENSIONER PERFORMANCE

Max. tensioning force	1 x 15 kN
Max. speed	5 km/h

ENGINE

- Max. 55 kW (74 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 971

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle
- New construction: simultaneous installation of 2 new wires with a final tension of 2 x 15 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

BULL WHEEL UNIT

- 2 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 2 hydraulic drum stands
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

EQUIPMENT

- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system
- Overhead cover with control panel

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	7.4 x 2.5 x 2.4 m
Net weight	approx. 8000 kg

DRUM STAND WITH SHAFT

Number	2
Max. drum weight	3500 kg
Max. drum Ø	1600 mm

TENSIONER PERFORMANCE

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

ENGINE

- Max. 55 kW (74 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 925

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle or a rail-road truck
- New installation: installation of one new wire with a final tension of 28 kN
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

CRANE

- Hydraulic telescopic crane to load/unload drums, with railway certification, opposite track blocking, and radio remote control

BULL WHEEL UNIT

- 1 individually controlled bull wheel unit
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 2 hydraulic drum stands
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

WIRE GUIDING SYSTEM

- Rope guidance mast, adjustable in height, with large roller guidance for 1 wire for the careful prepositioning of the wire

EQUIPMENT

- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system
- Overhead cover with control panel

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	9.0 x 2.5 x 2.7 m
Net weight	approx. 7500 kg

DRUM STAND WITH SHAFT

Number	2
Max. drum weight	3500 kg
Max. drum Ø	1800 mm

TENSIONER PERFORMANCE

Max. tensioning force	1 x 28 kN
Max. speed	5 km/h

ENGINE

- Max. 36 kW (48 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- ZECK stringing data record system with USB interface
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter

BM 921

KEY FACTS

- Electronically controlled catenary installation unit installed on a rail-bound vehicle or a rail-road truck
- New construction: simultaneous installation of 1 new wire with a final tension of 28 kN
- Wire exchange: simultaneous installation of 1 new wire while pulling in 1 old wire

BULL WHEEL UNIT

- 1 individually controlled bull wheel units
- Each bull wheel with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)

DRUM STAND

- 2 hydraulic drum stands
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Careful catenary installation with minimal wire deflection between drum and bull wheel (< 3°)

WIRE GUIDING SYSTEM

- Rope guidance mast, adjustable in height, with large roller guidance for 1 or 2 wires for the careful prepositioning of the wire
- Individual operation with radio remote control

EQUIPMENT

- Lockable, soundproof cabin with ventilation system, windshield wipers, seat and control panel
- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Remote diagnosis via GSM/GPS modem
- Printer for ZECK Stringing Data Record System
- ITS, Intelligent Tension Sustainer: In error mode the machine temporarily continues tensioning with last set tensioning force
- Air conditioning for cabin

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	6.7 x 2.5 x 2.6 m
Net weight	approx. 5850 kg

DRUM STAND WITH SHAFT

Number	2
Max. drum weight	3500 kg
Max. drum Ø	1 x 1800 mm
Max. drum Ø	1 x 2000 mm

TENSIONER PERFORMANCE

Max. tensioning force	1 x 28 kN
Max. speed	5 km/h

ENGINE

- Max. 18 kW (24 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- HP-ATS (High Precision Automatic Tensioning System): Tensioning forces with tolerances between the nominal and actual value of only ± 1 %
- Careful wire installation due to soft start-up and stopping
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system
- Electronically controlled drum stand pretension force. Continuous pretension force independent of drum size and unroll diameter
- Operating elements for tensioning force and all machine functions

BM 987

KEY FACTS

- TB “VARIO” with hydraulic drum clamping for comfortable, safe and quick drum change.
  No drum shaft needed!
- Catenary installation unit installed on a rail-bound vehicle or a rail-road truck
- New construction: simultaneous installation of 2 new wires via 2 hydraulic drum stands
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

DRUM STAND

- 2 drum stands with hydraulic drum clamping fixture (without drum shaft) for easy handling of the drums
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit

WIRE GUIDING SYSTEM

- Rope guidance mast, adjustable in height, with large roller guidance for 1 or 2 wires for the careful prepositioning of the wire
- Individual operation with radio remote control

EQUIPMENT

- Lighting for working in darkness
- Base frame made of steel profiles 1 x 20’ with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Biodegradable hydraulic oil
- Electric tensioning force control of drum stands. Display of nominal and actual force in radio remote control

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	6.5 x 2.5 x 2.3 m
Net weight	approx. 5850 kg

DRUM STAND "VARIO"

Number	2
Max. drum weight	4500 kg
Max. drum Ø	2000 mm

TENSIONER PERFORMANCE

Max. drive torque	3000 Nm
Max. speed	5 km/h

ENGINE

- Max. 43.7 kW (58.6 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 12 V system with high capacity rechargeable battery

CONTROL SYSTEM

- ATS, Automatic Tensioning System
- Operating elements for tensioning force and all machine functions
- Radio remote control for drum stands and guidance mast

BM 959

KEY FACTS

- Catenary installation unit installed on a rail-bound vehicle or a rail-road truck
- New construction: simultaneous installation of 2 new wires via 2 hydraulic drum stands
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire

DRUM STAND

- 2 hydraulic drum stands
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

WIRE GUIDING SYSTEM

- Rope guidance mast, adjustable in height, with large roller guidance for 1 or 2 wires for the careful prepositioning of the wire

EQUIPMENT

- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system

OPTIONAL EQUIPMENT

- Diesel particulate filter (DPF)
- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Electronic tensioning force control of drum stands. Display of nominal and actual force in radio remote control

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	6.2 x 3.1 x 2.9 m
Net weight	approx. 5100 kg

DRUM STAND WITH SHAFT

Number	2
Max. drum weight	4000 kg
Max. drum Ø	2000 mm

TENSIONER PERFORMANCE

Max. drive torque	2600 Nm
Max. speed	5 km/h

ENGINE

- Max. 18.8 kW (25.2 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 12 V system with high capacity rechargeable battery

CONTROL SYSTEM

- ATS, Automatic Tensioning System
- Operating elements for tensioning force and all machine functions
- Radio remote control for drum stands and guidance mast

BM 960

KEY FACTS

- Completely electronically controlled catenary installation unit installed on a rail-bound vehicle
- New construction: simultaneous installation of 2 new wires
- Wire exchange: simultaneous installation of 1 new wire while removing 1 old wire
- Machine can be operated in both directions

CRANE

- Palfinger PR 220 hydraulic telescopic crane (22.5 m, 11 m range) to load/unload drums as well as perform smaller crane tasks, and for use with the work basket. The crane has an opposite track blocking feature and radio remote control, and is approved for railway operation.

DRUM STAND

- 4 hydraulic drum stands, including 1 manually swiveling drum stand for underground cable work
- Freewheeling device directly at the drive
- Individual control of each drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

WIRE GUIDING SYSTEM

- 2 masts adjustable in height with large roller guidance for 1 or 2 wires for the careful prepositioning of the wire

EQUIPMENT

- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system
- Overhead cover with control panel at both ends of the wagon

OPTIONAL EQUIPMENT

- Arctic kit with preheating system for up to -30 °C
- Biodegradable hydraulic oil
- Radio remote control for drum stands and guidance mast

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	18.3 x 2.8 x 3.3 m
Net weight	approx. 31200 kg

DRUM STAND WITH SHAFT

Number	4
Max. drum weight	3500 kg
Max. drum Ø	1800 mm

TENSIONER PERFORMANCE

Max. drive torque	4000 Nm
Max. speed	5 km/h

ENGINE

- Max. 55 kW (74 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- Careful wire installation due to soft start-up and stopping
- ATS, Automatic Tensioning System
- PLC control for maximum productivity and safety
- Clearly structured control desk with color display to control the tensioning forces as well as the drive and control units with integrated diagnostic system

BM 990

KEY FACTS

- TB “self-loading“ with hydraulic drum clamping for comfortable, safe and quick drum change
- No drum shaft required
- Catenary/underground cable installation unit installed on a rail-bound vehicle or a rail-road truck
- Installation of 1 new wire or the pulling in of 1 old wire
- Emission-free electric drive

DRUM STAND

- 1 self-loading drum stand with hydraulic drum clamping fixture (without drum shaft) for easy handling of the drums
- Freewheeling device directly at the drive
- Software-controlled automatic mode allows for convenient loading of the drum
- Continuously rotatable drum stand with defined installation positions (2 x contact wire, 4 x underground cable)

WIRE GUIDING SYSTEM

- 2 hydraulically controlled guidance arms with large lateral reach: right/left approx. 4.0 m, height: approx. 8.50 m
- Individually controlled by radio remote control

EQUIPMENT

- Lighting for working in darkness
- Base frame made of steel profiles with mounts for container corner fittings (according to DIN ISO 1161)
- Circumferential railing as fall prevention system
- Work platform with folding railing on operator shelter for working conveniently/safely on the wire guidance arm

OPTIONAL EQUIPMENT

- Biodegradable hydraulic oil
- Window heating for overhead cover
- Electric hydraulic emergency unit

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	6.1 x 3.0 x 3.0 m
Net weight	approx. 12200 kg

DRUM STAND "self-loading"

Number	1
Max. drum weight (crane loading)	6000 kg
Max. drum weight (self-loading)	3500 kg
Max. drum Ø	2600 mm

TENSIONER PERFORMANCE

Max. drive torque	3750 Nm

ENGINE

- 400 V electric motor with electronic rpm control

CONTROL SYSTEM

- ATS, Automatic Tensioning System
- PLC control for maximum productivity and safety
- ZECK stringing data record system with USB interface
- Operating elements for tensioning force and all machine functions
- Radio remote control for drum stands and wire guidance arms

BM 935

KEY FACTS

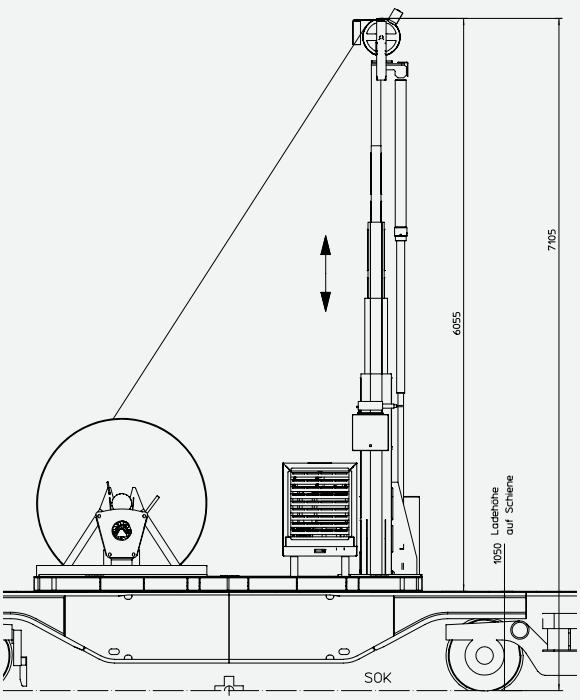
- Catenary installation unit installed on a rail-bound vehicle
- Hydraulically driven drum stand for the installation of new wire or the pulling in of old wire
- Hydraulic lifting mast with rope guide

DRUM STAND

- 1 hydraulic drum stand (fix-mounted)
- Freewheeling device directly at the drive
- Individual control of drum stand, with planetary gear and hydraulic motor as completely enclosed drive unit
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types

WIRE GUIDING SYSTEM

- Rope guidance mast, adjustable in height, with large roller guidance for 1 wire for the careful prepositioning of the wire, lift: 3.2 m



EQUIPMENT

- Base frame made of steel profiles with fastening straps

OPTIONAL EQUIPMENT

- Diesel particulate filter (DPF)
- Radio remote control for drum stands and guidance mast
- Biodegradable hydraulic oil

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	4.1 x 2.4 x 3.0 m
Net weight	approx. 3250 kg

DRUM STAND WITH SHAFT

Number	1
Max. drum weight	3500 kg
Max. drum Ø	1800 mm

TENSIONER PERFORMANCE

Max. drive torque	2800 Nm
Max. speed	5 km/h

ENGINE

- Max. 18.8 kW (25.2 hp)
- Liquid-cooled diesel engine with electronic rpm control
- 24 V system with high capacity rechargeable battery

CONTROL SYSTEM

- Operating elements for tensioning force and all machine functions

SPW 1 Z452

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 and a groove diameter of 16 mm with a maximum pulling force of 10 kN
- Free wheel mode (diesel engine off) so that the rope can be pulled out quickly at up to 8 km/h with minimal force

DRIVE SYSTEM

- Each capstan with planetary gear and hydraulic motor as completely enclosed drive unit (highly efficient, minimal maintenance)
- Automatically activated safety brake on the capstan
- Automatic rope guiding device
- Hydraulic free wheel activation for the rope drum allows easy removal of the rope without a capstan unit
- Detachable reel
- Hydraulic drum drive with planetary gear and hydraulic motor (minimal maintenance)

EQUIPMENT

- 1-axle chassis with suspended axle, brake, lighting and mudguard for up to 100 km/h
- Rigid drawbar with car coupling
- Lockable aluminum cover (checker plate)
- Back support via robust mechanical support legs
- Front support via robust mechanical support

OPTIONAL EQUIPMENT

- Height-adjustable drawbar with detachable towing device for passenger vehicles or trucks
- Cable or radio remote control
- Lockable toolbox
- Grounding plate
- Biodegradable hydraulic oil
- Different rope versions available (steel or synthetic fiber)
- Aluminum cover, color as per RAL color table
- Lighting package for night work

Special designs on request

DIMENSIONS | WEIGHT

Length x Width x Height	4.1 x 2.4 x 3.0 m
Net weight	approx. 3250 kg

CAPSTAN

Number	2
Diameter	220 mm
Groove Ø	16 mm
Approx. rope capacity	2500 m

K=250100 (Ø x Ø); e.g. 10 mm

PERFORMANCE IN PULLING MODE

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

ENGINE

- Max. 18.8 kW (25.2 hp)
- Liquid-cooled diesel engine with electronic speeds
- Diesel engine compliant with the EU emissions directive
- 12 V system with high capacity rechargeable battery

CONTROL SYSTEM

- Control of rope direction and rope speed (infinite) by joystick
- PLC control for maximum 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 interface
- Automatic hydraulic oil cooling system
- Adjustable overload protection

BM 991

KEY FACTS

- Hydraulically turnable drum stand installed on a rail-bound vehicle
- For the installation of contact wire or underground cable
- Low-noise electric motor ensures emission-free installation

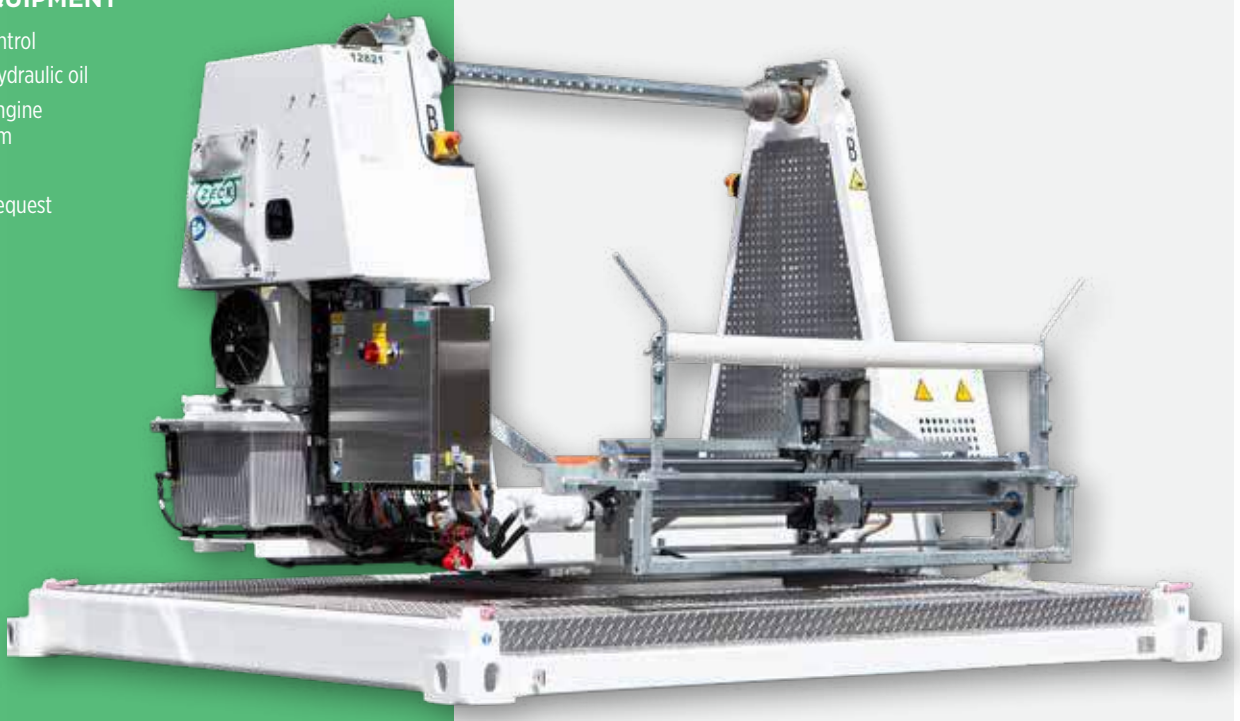
EQUIPMENT

- Storage compartment in the base frame
- Cable remote control with 15 m connection cable

OPTIONAL EQUIPMENT

- Radio remote control
- Biodegradable hydraulic oil
- More powerful engine
  7.5 kW | 4000 Nm

Special designs on request



DIMENSIONS | WEIGHT

Length x Width x Height	3.1 x 2.5 x 2.2 m
Net weight	approx. 2200 kg

PERFORMANCE IN PULLING MODE

Max. drive torque	2600 Nm
Max. rotational speed	12 rpm

DRUM STAND

Number	1
Drum weight	5500 kg
Max. drum Ø	2600 mm
Max. drum width	1400 mm

CONTROL SYSTEM

- Free wheeling device for gentle unrolling of the drum with almost no effort
- Pulling mode for pulling in cables
- ATS (Automatic Tensioning System) for tensioning cables

ENGINE

- 4 kW
- Electric variable speed drive for energy-efficient and low-noise operation

TB 20 SB Z939

KEY FACTS

- Hydraulically driven drum stand with slew ring for independent loading of drums
- Suitable for wooden and steel drums
- Installation of new wire or the pulling in of old wire

DRUM STAND

- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types (wooden and steel drum with 3 or 4 spokes)
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place

EQUIPMENT

- PLC-controlled machine, including force measurement
- Radio remote control with display, incl. holding fixture on drum stand

OPTIONAL EQUIPMENT

- Biodegradable hydraulic oil

DIMENSIONS | WEIGHT

Length x Width x Height	1.4 x 2.0 x 2.2 m
Net weight	approx. 1850 kg

DRUM STAND

Number	1
Max. drum weight (self-loaded)	2000 kg
Max. drum weight (crane loaded)	2500 kg
Max. drum Ø (self-loaded)	2000 mm
Max. drum Ø (crane loaded)	2500 mm
Max. drum width	1130 mm

PERFORMANCE IN PULLING MODE

Max. drive torque	2800 Nm
Max. speed	5 km/h

CONTROL SYSTEM

- PLC control for maximum productivity and safety
- Radio remote control with display, incl. holding fixture on drum stand

Illustrations may show optional equipment

TBH 20 Z972

KEY FACTS

- Catenary installation unit installed on a rail-bound vehicle
- Hydraulic drive for the installation of 1 new wire or the pulling in of 1 old wire

CONTROL SYSTEM

- PLC control for maximum productivity and safety
- Radio remote control with display, incl. holding fixture on drum stand

ENGINE

- Max. 18.8 kW (25.2 hp)
- Liquid-cooled diesel engine with electronic rpm control
- Diesel engine compliant with the EU emissions directive
- 12 V system with high-capacity rechargeable battery

DRUM STAND

Drum weight	3000 kg
Max. drum Ø	2800 mm
Max. drive torque	2600 Nm

DIMENSIONS | WEIGHT

Length x Width x Height	3.2 x 2.5 x 1.7 m
Net weight	approx. 1600 kg

DRUM STAND

- Drum stand with planetary gear and hydraulic motor as encapsulated drive unit
- Freewheeling device directly at the drive
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum clamping cones can be adjusted with a socket wrench to fix the drum securely in place
- Fixture for hydraulic drum drive and hydraulically activated coupling

EQUIPMENT

- Base frame with anchoring eye bolts, optionally with container corner fittings (according to DIN ISO 1161)
- Lockable aluminum cover

OPTIONAL EQUIPMENT

- Diesel particulate filter (DPF)
- Biodegradable hydraulic oil
- Radio remote control
- Noise reduction kit

TBH 20 Z292

KEY FACTS

- Hydraulic drive for the installation of 1 new wire or the pulling in of 1 old wire

CONTROL SYSTEM

- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types (wooden and steel drum with 3 or 4 spokes)
- 2 drum clamping cones, can be adjusted with socket wrench to safely fix the drum

DRUM STAND

Drum weight	3000 kg
Max. drum Ø	2000 mm
Max. drive torque	2800 Nm

DIMENSIONS | WEIGHT

Length x Width x Height	1.4 x 1.6 x 0.9 m
Net weight	approx. 620 kg

OPTIONAL EQUIPMENT

- Hydraulic power unit with gasoline/diesel engine or electric motor
- ATS, Automatic Tensioning System
- Radio remote control
- Biodegradable hydraulic oil

TBF 20-2W Z504

KEY FACTS

- Mobile drum stand with road and rail-bound traveling mechanism for track gauges of 1.000 and 1.435 mm (also available for track gauges of 1.000 and 1.435 mm, on request)
- Hydraulic drive for the installation of 1 new wire or the pulling in of 1 old wire

DRUM STAND

- Disk brake (transport lock)
- Freewheeling device directly at the drive
- Individual control of the drum stand, with hydraulic motor as completely enclosed drive unit
- Universal drum shaft with adjustable drum driving bolt, suitable for all drum types
- 2 drum adjusting rings can be adjusted with socket wrench to fix the drum securely in place

EQUIPMENT

- 1-axle chassis with suspended axle, brake, lighting and mudguard for up to 80 km/h
- Drawbar adjustable in height with overrunning brake
- Back support via robust mechanical support legs
- Rail-bound traveling mechanism with 2 hydraulically braked rail wheels
- Front support on road via robust mechanical support winch
- Front support via two robust support legs with rail wheels, for parking on the track

OPTIONAL EQUIPMENT

- Reel with dismountable flange and higher rope capacity to wind up old rope
- Electric motor 2.2 kW
- Adjustable rail-bound traveling mechanism for different track gauges
- Tarpaulin
- Ball coupling for passenger vehicles
- Key safe
- Biodegradable hydraulic oil

DIMENSIONS | WEIGHT

Length x Width x Height	4.4 x 2.3 x 2.3 m
Max. total weight (road, incl. drum)	approx. 3500 kg
NET WEIGHT	approx. 1700 kg

DRUM STAND

Drum weight Load on road	1790 kg
Drum weight Load on rail with crane	3000 kg
Max. drum Ø	2000 mm
Max. drum width	1120 mm
Drum shaft Ø	75 mm

TENSIONER PERFORMANCE

Max. drive torque	3000 Nm
Max. speed	5 km/h

ENGINE

- Max. 8.7 kW (11.7 hp)
- Air-cooled gasoline engine
- 12 V system with high-capacity rechargeable battery

CONTROL SYSTEM

- Operating lever for:
  - Loading/unloading of the drum
  - Raising/lowering the rail-bound traveling mechanism
  - Hydraulic drum drive

ACCESSORIES

ZECK REEL (DISMOUNTABLE) FOR CATENARIES

- Hot-dip galvanized steel reel with cone-shaped core and detachable flange
- Dismountable for scrapping conductors
- Maintenance-free bearing
- Fix-mounted axle (HT)
- Dismountable flange can be released with an operating lever (without screws)
- Wire to bundle the conductor can be pushed through even when reel is full

HT/BM

REEL TECHNICAL DATA

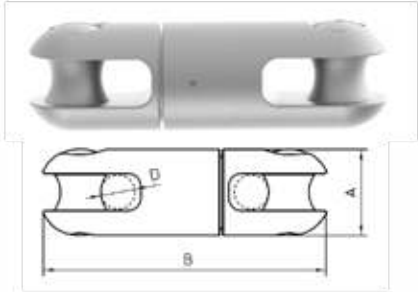
ARTICLE NO.	DISMOUNTABLE	APPLICATION	ROPE CAPACITY FACTOR	SHAFT Ø (mm)	AXLE LENGTH (mm)	OUTER Ø (mm)	CORE Ø (mm)	CLEAR WIDTH (mm)	WEIGHT (kg)
V190-204	Yes	TB, TBF, BM	549000	Hollow shaft Ø 80	815	1400	855/446	600	218

ROPE CAPACITY OF ZECK REEL

ROPE Ø (mm)	8	10	12	13	14	16	18	20
	8570	5490	3810	3250	2800	2140	1690	1370

ZECK SWIVEL JOINT

- Rope connector made of high-quality galvanized steel
- Rotatable connecting element to balance the twist between pulling rope and conductor



TECHNICAL DATA

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

Working load: (Calculated according to safety factor 3.0)

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

TECHNICAL DATA

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

Working load calculated using a safety factor of 3.0

ACCESSORIES

PULLING GRIP

- Made in Europe
- Pressed version

Special designs on request

TECHNICAL DATA

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

SELF-GRIPPING CLAMP

- Self-gripping clamp for anchoring conductors (aluminum, aluminum/steel, copper) and braided steel rope
- Higher breaking load due to optimized design, production and steel quality
- High-quality galvanizing for increased protection against corrosion
- Clamp made of high-tensile steel (heat-treated, forged, cadmium-plated surface)
- Please specify rope diameter when ordering

		NO REPLACEABLE LINERS	
SELF-GRIPPING CLAMP	ARTICLE NO.	8–12 mm	13–16 mm
BRAIDED STEEL ROPE	76-5040	✓	✓

Breaking load 305 kN | Working load 63 kN | Weight 7 kg | Working load: Calculated with safety factor 3.0

CLAMP 76-5000		REPLACEABLE LINERS – RANGE 6–20 MM				
LINERS FOR	ARTICLE NO.	6–8 mm	8–11 mm	11–14 mm	14–17 mm	17–20 mm
ALUMINUM CONDUCTOR	76-5010	✗	✓	✓	✓	✓
COPPER CONDUCTOR	76-5020	6–23 mm available in fixed increments of 1.5 mm				
BRAIDED STEEL ROPE	76-5030	7–16 mm – please specify the exact diameter when ordering				✗
OPGW	76-5050	✗	8–21 mm available in fixed increments of 0.5 mm			

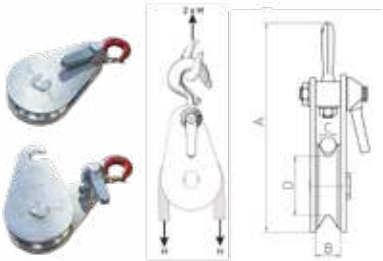
Breaking load 190 kN | Working load 63 kN | Weight 7 kg | Working load: Calculated with safety factor 3.0

ALUMINUM SNATCH BLOCK

- Snatch block made of aluminum with swivel hook
- One side can be opened
- Ball-bearing aluminium sheave

OPTIONAL

- Ball-bearing polyamide sheave



TECHNICAL DATA

ARTICLE NO.	A (mm)	B (mm)	C (mm)	D (mm)	H MAX. LIFTING LOAD (kN)	2X H MAX. WORKING LOAD OF 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

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We offer comprehensive after-sales services at two strategically positioned locations to ensure that your rail technology operates reliably and efficiently at all times.

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SPARE PARTS

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OUR SERVICE LOCATIONS

ZECK GmbH

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Service hotline: +49 (0)9542 9494 822
Email: service@zeck-gmbh.com
Business hours: Mon–Thu 7:00 a.m.–4:30 p.m. | Fri 7:00 a.m.–2:00 p.m.

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Address: Am Rehmanger 30, 38304 Wolfenbüttel, Germany
Service hotline: +49 (0)9542 9494 881
E-Mail: servicepoint@zeck-gmbh.com
Business hours: Mon–Thu 6:30 a.m.–4:00 p.m. | Fri 6:30 a.m.–1:00 p.m.

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