UNDERGROUND MACHINES

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VERSATILE MACHINES 12.10

DIGITAL MACHINES

CODE	RANGE	BULL WHEEL DIAMETER	GROOVES NUMBER	ENGINE POWER	
PM1150	30 kN			18,8 kW	12.20
PM1250	50 kN	350 mm	7	42 kW	12.25
PM1450	100 kN	400 mm	8	55 kW	12.30

FULL ELECTRIC MACHINE

CODE	RANGE	BULL WHEEL DIAMETER	GROOVES NUMBER	BATTERY PACK	
PE1150	30 kN	250 mm	8	96 V	12.35
PE1250	50 kN	300 mm	8	350 V	12.40

DUAL MACHINES 12.45

LARGE MACHINES

CODE	RANGE	BULL WHEEL DIAMETER	GROOVES NUMBER	ENGINE POWER	
ARS803	200 kN	600 mm	10	18,8 kW	12.50
ARS802	240 kN	350 mm	10	42 kW	12.55
ARS907	280 kN	400 mm	10	55 kW	12.60
ARS919	360 kN	960 mm	11	209 kW	12.65

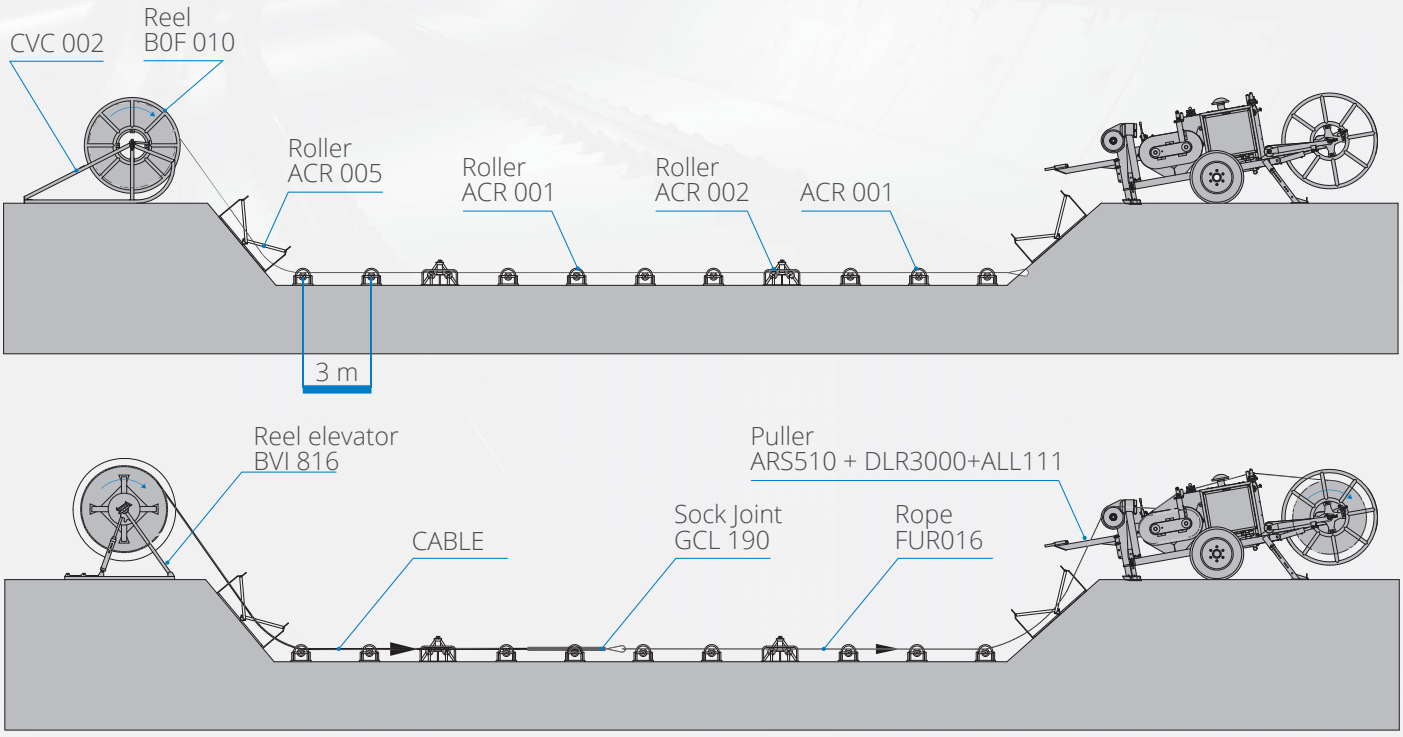
UNDERGROUND MACHINES

A complete range for any need

From the service winch to the full electric machines, Tesmec offers a complete range of machines to face every jobsite condition of any underground application:

- Service winches for pay out operations
- Versatile and essential machines for standard projects
- Digital machines for the latest innovation in control and precision
- Full electric machines for urban or tunneling projects
- Dual machines for users operating in both overhead and underground industries
- Large machines for heavy pipeline rehabilitation.

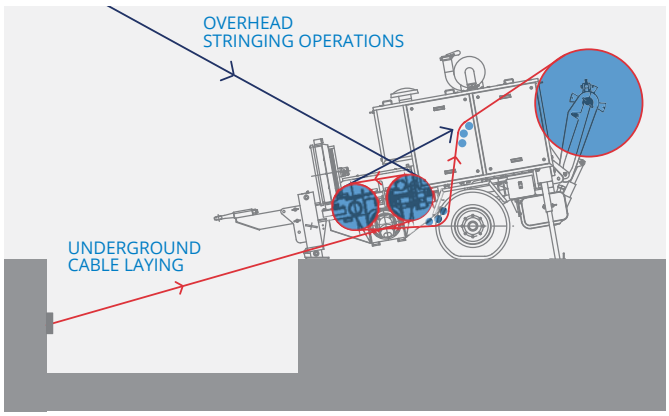
UNDERGROUND APPLICATION



UNDERGROUND MACHINES: OUR VALUE PROPOSITION

DIGITAL MACHINES

The new digital HMI (Human Machine Interface) is a significant innovation on the new digital stringing machine for underground. The new control panel is drastically simplified!
The innovative graphic display shows all the information, including diesel engine parameters, machine performance, and diagnostic output.
This new digital technology eliminates most of the instruments and devices installed on the previous control panel.
The remote, also usable by cable connection, controls the machine and allows the operator to work from a position that offers a better overview of the jobsite, less noise and a higher degree of safety.



DUAL MACHINES

A machine that can be used for overhead stringing operations and underground cable laying
This machine allows to select the capstans direction, in order to get always the ideal entry angle for each application.
Moreover, thanks to a detachable reel system, it is possible to pay out the pilot cable without having placet the machine.
This means having prepared in advance the section to be installed, and use the machine full time, for its purpose without wasting time in unwinding operations.
The same feature gives the big advantage of no length limitationfor the section to be pulled.

FULL ELECTRIC MACHINES

Zero emission, silent, no oil:
Full electric machines with no heat engine on board, battery storage (LiFePO4) and plug-in charging system.
Designed for urban projects of cable laying and pipe rehabilitation. While pulling the machine makes no noise due to diesel engine absence. Furthermore, all the hydraulic components (motors, pumps and valves) have been replaced by electric ones, consequently there is no oil at all on board.

LARGE MACHINES

Machines especially developed for pipelines rehabilitation
Tesmec offers a complete range of electronic machines able to rehabilitate pipelines with a huge time and cost saving compared to dig-and-replace solutions:

- Efficiency: high performance, ensuring fast installation and cost saving project
- Reliability: machines work 24/7 in the most difficult conditions all over the world
- Safety: a mandatory requirement for Tesmec machines

UNDERGROUND APPLICATION

ENERGY CABLE INSTALLATION

RENEWABLES

WIND FARM

In every modern wind farm, every turbine interconnection is done with an underground MV cable link.
Very often also the connection to the grid is built with underground links between the farm and the substation

PHOTOVOLTAIC

Similarly, also for the latest photovoltaic farms, in addition to the underground interconnections, the link to the grid is guaranteed with underground cables

OVERHEAD RESTRICTIONS

RIGHT OF WAY

In many Countries, especially when highly populated, it is more and more challenging to get right of way for the construction of an overhead transmission line.

AESTHETIC

In order to protect the natural landscape and the urban skyline, for several projects the underground network is the right solutions, furthermore it allows to contain the costs of developing a new solutions for transmission lines structure (ex. T-pylons, Germogli, Equilibre etc.)

CLIMATE EVENTS

Most of worldwide black out are a consequence of climate events (storm, wind, fire, ice), to solve this problem many utilities decide to develop the new lines underground or in some case to buried the existing lines.

GRID IMPROVEMENT

HVDC LINKS

For long and uninterrupted high voltage transmission line the DC links becomes cheaper than the AC.
No heavy current for charge and discharge the cable are required, decreasing the power dissipation along the line.

PIPELINE REHABILITATION

RENOVATION

CLOSE-FIT SLIPLINING

Method of lining with a continuous pipe for which the cross section is reduced to facilitate installation and reverted after installation to provide a close fit to the existing pipe.

CIPP LINING

Method of lining with a flexible tube impregnated with a thermosetting resin which produces a pipe after resin cure.

PE – LINING (LOOSE FIT LINING)

The slip lining is one of the first trenchless technologies for the rehabilitation of pipe networks. The technique consists in the insertion, in the pipe to be rehabilitated, of a new pipe of smaller diameter. The existing pipe acts as a guide pipe into which the new pipe is inserted.

REPLACEMENT

PIPE BURSTING

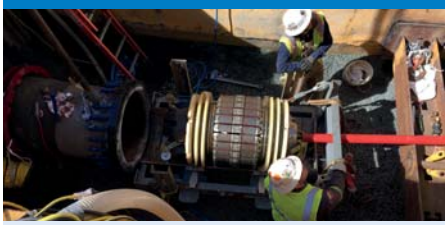
Replacement method in which an existing pipe is broken by brittle fracture, using mechanically applied force from within. The pipe fragments are forced into the surrounding ground. At the same time a new pipe, of the same or larger diameter, is drawn in.

PIPE SPLITTING

Replacement method for breaking an existing pipe by longitudinal splitting. At the same time a new pipe of the same or larger diameter is pulled in behind the splitting tool.

INSPECTION

PIG PULLING



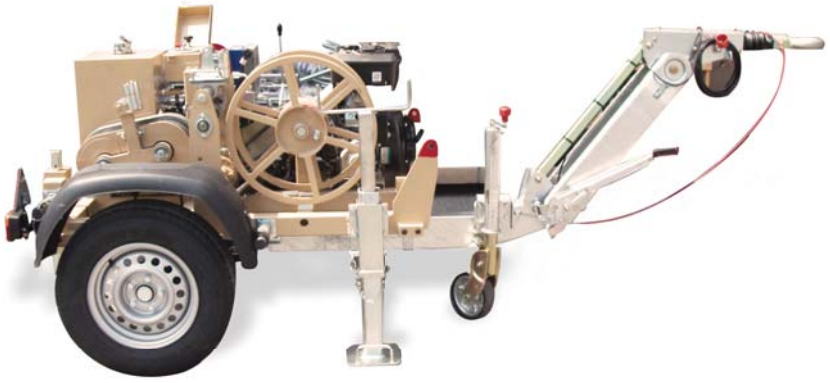
Pigging is an **in-line inspection** (ILI) technique in which devices referred to "pigs" are inserted into pipelines to perform cleaning and inspection activities. Pigging can be conducted on a variety of pipelines sizes and in some conditions the use of pullers can be suggested.

ARS200

HYDRAULIC PULLER

MAX PULL	MAX SPEED	ROPE DIAMETER
15 kN	3,6 km/h	8 mm

Bull-wheel diameter	200 mm
Weight (dry)	500 kg
Gasoline	13 kW (18 hp)
Suitable for	1 rope
Layout	Single

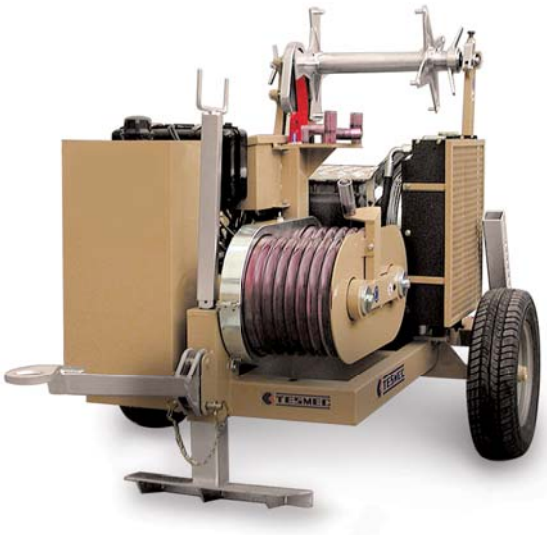


ARS405

HYDRAULIC PULLER

MAX PULL	MAX SPEED	ROPE DIAMETER
30 kN	3 km/h	13 mm

Bull-wheel diameter	325 mm
Weight (dry)	980 kg
Diesel	19 kW (26 hp)
Suitable for	1 rope
Layout	Single

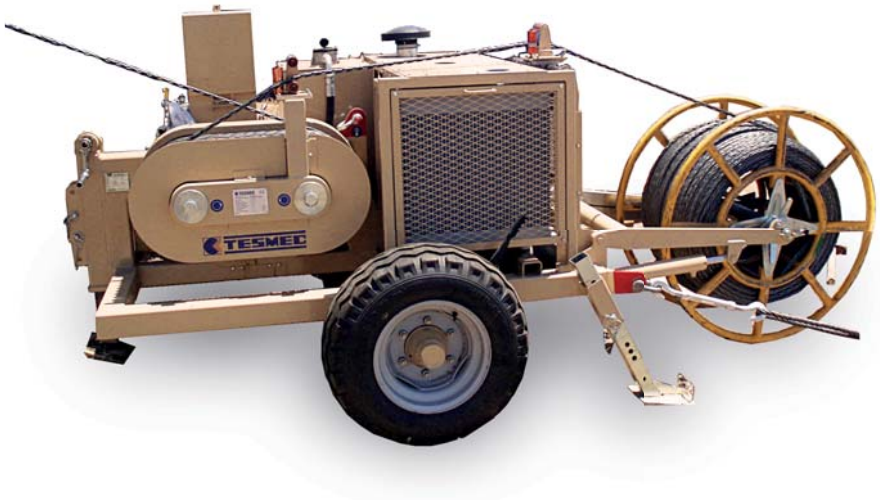


ARS403

HYDRAULIC PULLER

MAX PULL	MAX SPEED	CONDUCTOR DIAMETER
35 kN	3,6 km/h	13 mm

Bull-wheel diameter	325 mm
Weight	980 kg
Diesel	25 kW (34 hp)
Suitable for	1 rope
Layout	Single



ARS522

HYDRAULIC PULLER

MAX PULL	MAX SPEED	CONDUCTOR DIAMETER
50 kN	5 km/h	16 mm

Bull-wheel diameter	400 mm
Weight	2050 kg
Diesel	60 kW (81 hp)
Suitable for	1 rope
Layout	Single

ARS519

HYDRAULIC PULLER

MAX PULL	MAX SPEED	CONDUCTOR DIAMETER
70 kN	4 km/h	16 mm

Bull-wheel diameter	400 mm
Weight	21000 kg
Diesel	60 kW (81 hp)
Suitable for	1 rope
Layout	Single

ARS612

HYDRAULIC PULLER

MAX PULL	MAX SPEED	ROPE DIAMETER
140 kN	4,5 km/h	24 mm

Bull-wheel diameter	600 mm
Weight	4800 kg
Diesel	129 kW (173 hp)
Suitable for	1 rope
Layout	Single

PM1150

PULLING MACHINE

MAX PULL	MAX SPEED	MAX ROPE DIAMETER
30 kN	42 m/min	12 mm

+ INTEGRATED COVERS
+ LIGHT & SIMPLE

with ALL112

PERFORMANCE*

Max pull	30 kN
Speed at max pull	13 m/min
Max speed	42 m/min
Pull at max speed	9 kN

*at 20°C and at sea level

HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating direction.

CHARACTERISTICS

Bull-wheel diameter	
Max rope diameter	12 mm
Weight (without rope)	1100 kg
Number of grooves	
Suitable for	1 rope
Layout	Single

ENGINE

Diesel	18,8 kW (25,5 hp)
Emission level	tier 4f / Stage V
Cooling system	WATER
Electrical system	12 V

Lower emission level available on demand for countries where higher level is not adopted or usable.

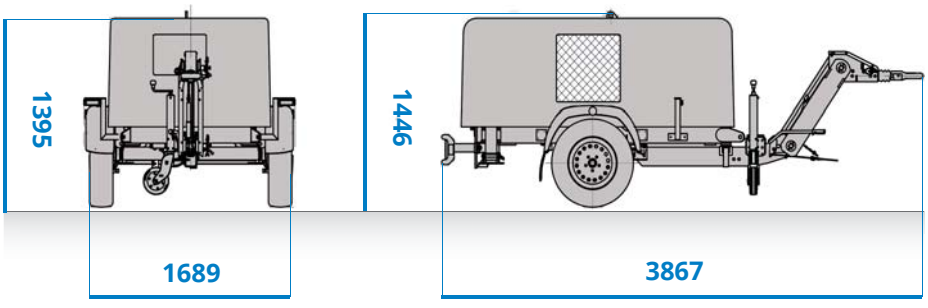
CONFIGURATION

Lockable sound proof integrated covers.

Negative self-acting hydraulic brake.
Rigid axle 30 km/h.
Grounding connection point.
Digital meter counter
Control instruments for hydraulic system and Diesel engine
Mechanical front and rear stabilizers.
On board reel winder with automatic level wind and reel for 1000 m of d. 10 mm rope.

AVAILABLE DEVICES

ALL050	Pull pre-setting system.
ALL110	Deflection boom optional
ALL112	Trailer 80 km/h. **EC type-approved for road circulation** with hook Ø 40 mm and lighting system
ALL261	External printer
DLR300	Electronic pull and speed recorder



with ALL112

DLR300

PM1250

PULLING MACHINE

MAX PULL	MAX SPEED	MAX ROPE DIAMETER
50 kN	67 m/min	14 mm

+ **NEW TESMEC DIGITAL HMI:**
  7" color display
  Radio remote control
  Remote Diagnostic with GPS
  Data Recorder
+ **AUTOMATIC REEL WINDER**
+ **INTEGRATED COVERS**

PERFORMANCE*

Max pull	50 kN
Speed at max pull	17 m/min
Max speed	67 m/min
Pull at max speed	12,5 kN
Free wheel max speed	150 m/min

*at 20°C and at sea level

HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating direction.

CHARACTERISTICS

Bull-wheel diameter	350 mm
Max rope diameter	14 mm
Weight (without rope)	2000 kg
Number of grooves	7
Suitable for	1 rope
Layout	Single

ENGINE

Diesel	42 kW (56 hp)
Emission level	tier 4f / Stage IIIB
Cooling system	WATER
Electrical system	12 V

Lower emission level available on demand for countries where higher level is not adopted or usable.

CONFIGURATION

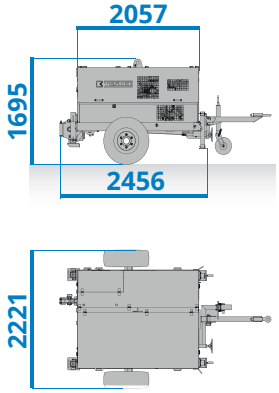
New Tesmec digital HMI.
Automatic reel winder.
Lockable sound proof integrated covers.

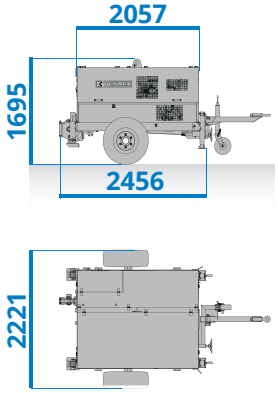
Negative self-acting hydraulic brake.
Rigid axle 30 km/h.
Grounding connection point.
Mechanical front and rear stabilizers.
On board reel winder with automatic level wind and reel for 700 m of d. 14 mm rope.
Free wheel device.
Electronic pull value limitation control.

AVAILABLE DEVICES

ALL037	Preheating device up to -30°C
ALL110	Deflection boom optional
ALL112	Trailer 80 km/h. **EC type-approved for road circulation** with hook Ø 40 mm and lighting system
ALL261	External printer
ALL270	emote Diagnostic System with GPS localization including 3-year subscription.
ALL400	Reel-winder preset for different rope diameter

ALL112





7" COLOR DISPLAY

RADIO REMOTE CONTROL

PM1450

PULLING MACHINE

MAX PULL	MAX SPEED	MAX ROPE DIAMETER
100 kN	33 m/min	16 mm

+ **NEW TESMEC DIGITAL HMI:**
  7" color display
  Radio remote control
  Data Recorder
+ **AUTOMATIC REEL WINDER**
+ **INTEGRATED COVERS**

PERFORMANCE*

Max pull	100 kN
Speed at max pull	15 m/min
Max speed	33 m/min
Pull at max speed	40 kN
Free wheel max speed	83 m/min

*at 20°C and at sea level

HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating direction.

CHARACTERISTICS

Bull-wheel diameter	400 mm
Max rope diameter	16 mm
Weight (without rope)	3100 kg
Number of grooves	8
Suitable for	1 rope
Layout	Single

ENGINE

Diesel	55 kW (75 hp)
Emission level	tier 4f / Stage IIIB
Cooling system	WATER
Electrical system	12 V

Lower emission level available on demand for countries where higher level is not adopted or usable.

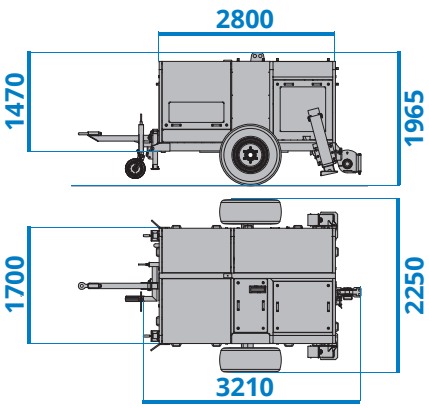
CONFIGURATION

New Tesmec digital HMI.
Automatic reel winder.
Lockable sound proof integrated covers.

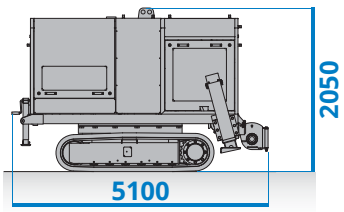
Negative self-acting hydraulic brake.
Rigid axle 30 km/h.
Grounding connection point.
Hydraulic front and mechanical rear stabilizers.
On board reel winder with automatic level wind and reel for 1500 m of d. 16 mm rope.
Free wheel device.
Electronic pull value limitation control.

AVAILABLE DEVICES

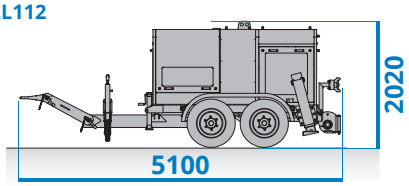
ALL037	Preheating device up to -30°C
ALL110	Deflection boom optional
ALL112	Trailer 80 km/h. **EC type-approved for road circulation** with hook Ø 40 mm and lighting system
ALL065	**Self-propulsion movement with caterpillar system** **Performance:** Max speed 2 km/h Max inclination with machine full weight 60% (30°) Weight (without rope) 4100 kg **Complete with radio remote control**
ALL261	External printer
ALL270	Remote Diagnostic System with GPS localization including 3-year subscription.
ALL280	Automatic grease pump
ALL400	Reel-winder preset for different rope diameter



ALL065



ALL112



7" COLOR DISPLAY

RADIO REMOTE CONTROL

Pictures & drawings can be different according to technical specifications - updating programme variations without notice are possible.

PE1150

FULL ELECTRIC MACHINE

MAX PULL	MAX SPEED	MAX ROPE DIAMETER
30 kN	70 m/min	11 mm

+ **NEW TESMEC DIGITAL HMI:**
  7" color display
  Radio remote control
  Data Recorder
+ **AUTOMATIC REEL WINDER**
+ **INTEGRATED COVERS**

PERFORMANCE*

Max pull	30 kN
Speed at max pull	15 m/min
Max speed	70 m/min
Pull at max speed	5 kN
Free wheel max speed	70 m/min
*at 20°C and at sea level	

CHARACTERISTICS

Bull-wheel diameter	250 mm
Max rope diameter	11 mm
Weight (without rope)	---- kg
Number of grooves	8
Suitable for	1 rope
Layout	Single

ELECTRICAL POWER PACK

Battery pack	96 V
Charge time	5H 230 V 50 Hz
	10H 120 V 60 Hz
1 PH+N+PE	

REEL WINDER

Max rope diameter	9/11 mm
Max rope lenght	1200/900 m
Automatic level wind	

CONFIGURATION

New Tesmec digital HMI.
Automatic reel winder.
Lockable sound proof integrated covers.

Negative self-acting electrical brake.
Rigid axle 30 km/h.
Grounding connection point.
Mechanical front and rear stabilizers.
Free wheel device.
Electronic pull value limitation control.
Integrated warm-up system.

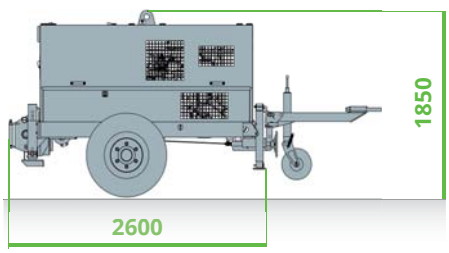
BATTERY STORAGE CAPACITY

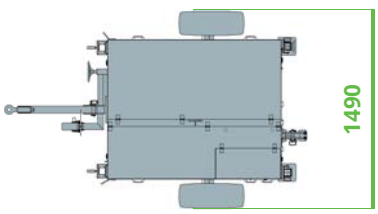
Rope length recovered		
Working Cycle	Average	5000 m
	Max pulling force	1300 m

AVAILABLE DEVICES

ALL110	Deflection boom optional
ALL112	Trailer 80 km/h. **EC type-approved for road circulation** with hook Ø 40 mm and lighting system
ALL261	External printer
ALL270	Remote Diagnostic System with GPS localization including 3-year subscription.
ALL280	Automatic grease pump
ALL400	Reel-winder preset for different rope diameter

7" COLOR DISPLAY





RADIO REMOTE CONTROL

PE1250

FULL ELECTRIC MACHINE

MAX PULL	MAX SPEED	MAX ROPE DIAMETER
50 kN	70 m/min	15 mm

+ **NEW TESMEC DIGITAL HMI:**
  7" color display
  Radio remote control
  Data Recorder
+ **AUTOMATIC REEL WINDER**
+ **INTEGRATED COVERS**

PERFORMANCE*

Max pull	50 kN
Speed at max pull	10 m/min
Max speed	70 m/min
Pull at max speed	5 kN
Free wheel max speed	70 m/min

*at 20°C and at sea level

CHARACTERISTICS

Bull-wheel diameter	300 mm
Max rope diameter	15 mm
Weight (without rope)	2500 kg
Number of grooves	8
Suitable for	1 rope
Layout	Single

ELECTRICAL POWER PACK

Battery pack	350 V
Charge time	4H Δ 208 V US*
	4H Y 400 V EU*

*Plug EU: 3PH+N+PE
Plug US: 3PH+PE

REEL WINDER

Max rope diameter	13/15 mm
Max rope lenght	1000/750 m
Automatic level wind	

CONFIGURATION

New Tesmec digital HMI.
Automatic reel winder.
Lockable sound proof integrated covers.

Negative self-acting electrical brake.
Rigid axle 30 km/h.
Grounding connection point.
Mechanical front and rear stabilizers.
Free wheel device.
Electronic pull value limitation control.
Integrated warm-up system.

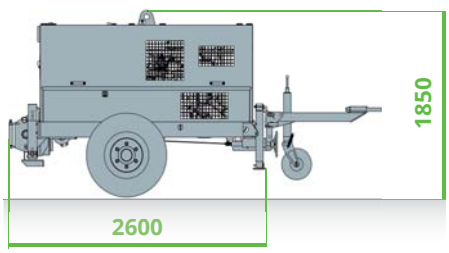
BATTERY STORAGE CAPACITY

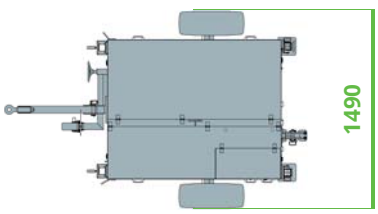
Rope length recovered		
Working Cycle	Average	7000 m
	Max pulling force	1400 m

AVAILABLE DEVICES

ALL110	Deflection boom optional
ALL112	Trailer 80 km/h. **EC type-approved for road circulation** with hook Ø 40 mm and lighting system
ALL261	External printer
ALL270	Remote Diagnostic System with GPS localization including 3-year subscription.
ALL280	Automatic grease pump
ALL400	Reel-winder preset for different rope diameter

7" COLOR DISPLAY





RADIO REMOTE CONTROL

Certified Quality System ISO 9001:2015
Certified Environmental System ISO 14001:2015
Certified Health & Safety System ISO 45001:2018

PL1250

DIGITAL PULLER

MAX PULL	MAX SPEED	ROPE DIAMETER
50 kN	5 km/h	16 mm

Bull-wheel diameter	525 mm
Weight	4300 kg
Diesel	75 kW (102 hp)
Speed at max pull	1,9 kN
Suitable for	1 rope
Layout	Single

PL1450

DIGITAL PULLER

MAX PULL	MAX SPEED	ROPE DIAMETER
100 kN	4,5 km/h	21 mm

Bull-wheel diameter	700 mm
Weight	7200 kg
Diesel	210 kW (281 hp)
Speed at max pull	2,3 kN
Suitable for	1 rope
Layout	Single

PL1700/1750

DIGITAL TENSIONER

MAX PULL	MAX SPEED	ROPE DIAMETER
160/180 kN	4,5 km/h	28 mm

Bull-wheel diameter	1500 mm
Weight	5100 kg
Diesel	55 kW (75 hp)
Speed at max pull	3 km/h
Suitable for	2 conductors
Layout	Single

ARS803

HYDRAULIC PULLER

MAX PULL	MAX SPEED	ROPE DIAMETER
200 kN	4.5 km/h	25 mm

+ HIGH PULL CAPACITY
+ ROAD TRANSPORTATION
+ INTEGRATED COVERS

PERFORMANCE*

Max pull	200 kN
Speed at max pull	2 km/h
Max speed	4,5 km/h
Pull at max speed	90 kN

*at 20°C and at sea level

HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating direction.

CHARACTERISTICS

Bull-wheel diameter	600 mm
Max rope diameter	25 mm
Upper Structure Weight (without rope)	10500 kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

ENGINE

Diesel	209 kW (280 hp)
Cooling system	WATER
Electrical system	24 V

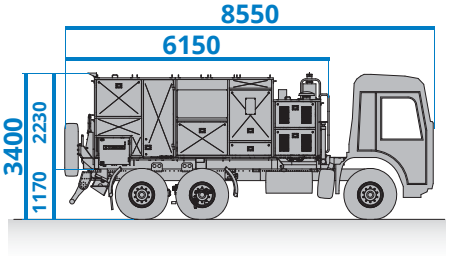
CONFIGURATION

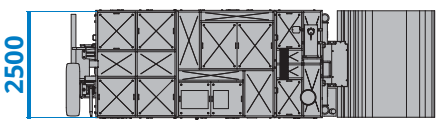
Equipped with hydraulic winding system
Remote with control instruments for hydraulic system and diesel engine.
On board camera sysem to operate the machine from the cabin.
Negative self-acting hydraulic brake.
Control instruments for hydraulic system and Diesel engine.
Grounding connection point.
Hydraulic front stabilizers.
Extendible hydraulic rear stabilisers.
On board reel winder with automatic level wind and reel for 1000 m of d. 25 mm rope.
Free wheel device.
Electronic pull value limitation control.
Pull pre-setting system.

AVAILABLE DEVICES

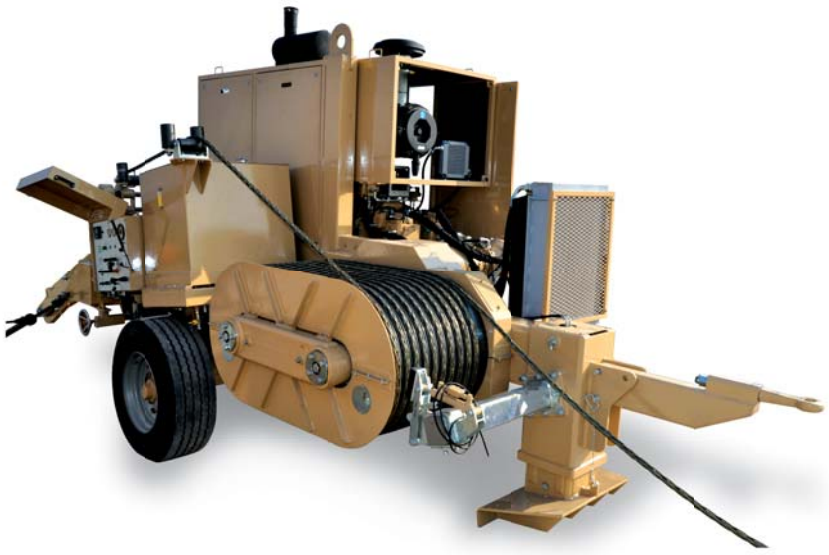
ALL037	Preheating device up to -30°C
DLR300	Electronic pull and speed recorder

ON BOARD CAMERA SYSTEM





DLR300



ARS802

PULLING MACHINE

MAX PULL	MAX SPEED	MAX ROPE DIAMETER
240 kN	4,5 KM/H	32 mm

+ HIGH PERFORMANCE
+ DUAL USE

PERFORMANCE*

Max pull	240 kN
Speed at max pull	2,5 km/h
Max speed	4,5 km/h
Pull at max speed	130 kN

*at 20°C and at sea level

HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating direction.

CHARACTERISTICS

Bull-wheel diameter	800 mm
Max rope diameter	32 mm
Weight (without rope)	9500 kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

ENGINE

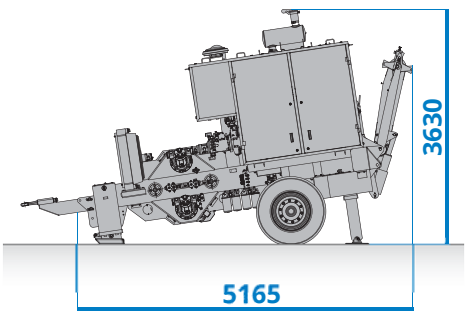
Diesel	280 kW (375 hp)
Cooling system	WATER
Electrical system	24 V

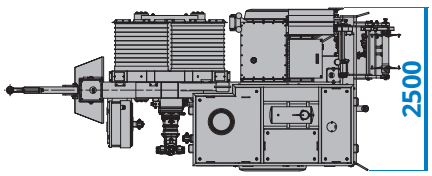
CONFIGURATION

Negative self-acting hydraulic brake
Hydraulic dynamometer with set-point and automatic control of maximum pull
Hydraulic oil cooling system
Control instruments for hydraulic system and Diesel engine
Rigid axle for towing at max speed of 30 km/h with mechanical parking brake
On board reel winder with automatic level wind, suitable for standard reel mod. BOF020 and BOF030 (AXR002 included)
Hydraulic front stabiliser
Grounding connection point

AVAILABLE DEVICES

ALL001	Lighting system for the trailer
ALL002	Air brake system for the trailer
ALL010	Hydraulic power pack to control a separate reel winder
ALL022	Hydraulic quick connectors to control a separate reel winder instead of the built-in one
ALL037	Preheating device for use up to -30°C
ALL051	Cable remote control kit (instrument not included)
ALL053	Electronic pull and speed recorder kit (instrument not included)
ALL059	Radio remote control kit (instrument not included)
ALL070	Extra rollers for an additional pilot rope
ALL071	Hydraulic rope clamp for reel change operations
ALL089	Electronic arrangement for connection of multiple machines and for stringing synchronization
AXR002	Extra shaft
DLR300	Electronic pull and speed recorder





ARS907

PULLING MACHINE

MAX PULL	MAX SPEED	MAX ROPE DIAMETER
280 kN	5 KM/H	38 mm

+ HIGH PERFORMANCE
+ DUAL USE

PERFORMANCE*

Max pull	280 kN
Speed at max pull	2,2 km/h
Max speed	5 km/h
Pull at max speed	117 kN

*at 20°C and at sea level

HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating direction.

CHARACTERISTICS

Bull-wheel diameter	960 mm
Max rope diameter	38 mm
Weight (without rope)	13500 kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

ENGINE

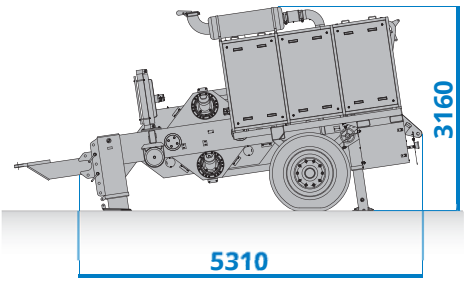
Diesel	280 kW (375 hp)
Cooling system	WATER
Electrical system	24 V

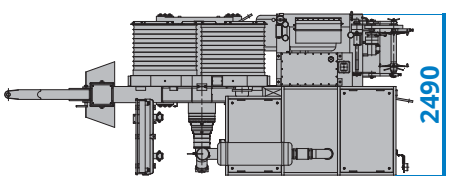
CONFIGURATION

Negative self-acting hydraulic brake
Hydraulic dynamometer with set-point and automatic control of maximum pull
Hydraulic oil cooling system
Control instruments for hydraulic system and Diesel engine
Rigid axle for towing at max speed of 30 km/h with mechanical parking brake
On board reel winder with automatic level wind, suitable for standard reel mod. BOF020 and BOF030 (AXR002 included)
Hydraulic front stabiliser
Grounding connection point

AVAILABLE DEVICES

ALL001	Lighting system for the trailer
ALL002	Air brake system for the trailer
ALL010	Hydraulic power pack to control a separate reel winder
ALL022	Hydraulic quick connectors to control a separate reel winder instead of the built-in one
ALL037	Preheating device for use up to -30°C
ALL051	Cable remote control kit (instrument not included)
ALL053	Electronic pull and speed recorder kit (instrument not included)
ALL059	Radio remote control kit (instrument not included)
ALL070	Extra rollers for an additional pilot rope
ALL071	Hydraulic rope clamp for reel change operations
ALL089	Electronic arrangement for connection of multiple machines and for stringing synchronization
AXR002	Extra shaft
DLR300	Electronic pull and speed recorder



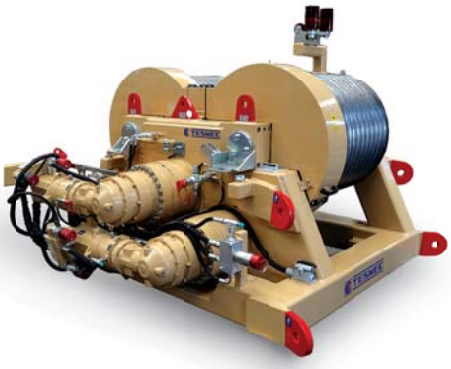


ARS919

PULLING MACHINE

MAX PULL	MAX SPEED	MAX ROPE DIAMETER
360 kN	3,2 KM/H	35 mm

+ DETACHABLE
+ DUAL USE



Work Unit

Power Unit

PERFORMANCE*

Max pull	360 kN
Speed at max pull	1,1 km/h
Max speed	3,2 km/h
Pull at max speed	125 kN

*at 20°C and at sea level

HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating direction.

CHARACTERISTICS

Bull-wheel diameter	960 mm
Max rope diameter	38 mm
Weight (without rope)	13500 kg
Number of grooves	11
Suitable for	1 rope
Layout	Single
Front capstan unit	1700 kg
Rear capstan unit	1700 kg
Gear frame uni	2635 kg
Work unit total weight	6035 kg
Power unit weight (dry)	2500 kg
Power unit weight (with fluid)	2750 kg
Kit lifting beam and anchors	210 kg
Trailer (optional)	3000 kg

ENGINE

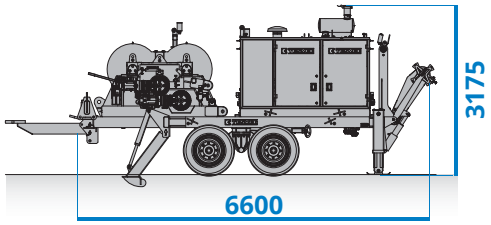
Diesel	209 kW (280 hp)
Cooling system	WATER
Electrical system	24 V

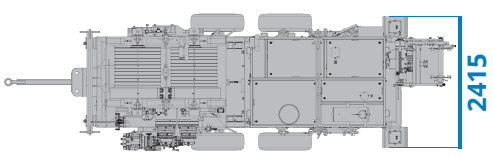
CONFIGURATION

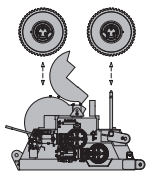
2 negative self-acting hydraulic brakes
Hydraulic dynamometer with set-point and automatic control of maximum pull
Cable remote control instrument for hydraulic system and diesel engine
Emergency stop
Hydraulic oil cooling system
Safety anchoring point on the side of the machine
Max fixed joint suitable to pass on bull-wheel grooves is GFT050
Grounding connection point

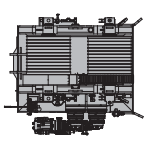
AVAILABLE DEVICES

ALL053	Electronic pull and speed recorder kit (instrument not included)
ALL071	Hydraulic rope clamp for reel change operations
ALL105	Trailer equipped with: • Hydraulic front plough and hydraulic rear stabilizer • Incorporated reel winder for BOF020 • Double axle boogie suspension for towing at max speed of 30 km/h with mechanical parking brake • Tow hook
DLR300	Electronic pull and speed recorder device









CABLE REMOTE CONTROL

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