STRINGING & LAYING EQUIPMENT

OUR BEST DEAL

FOR OVERHEAD
& UNDERGROUND
APPLICATIONS

TESMEC

Our strategy is based on innovation, internationalization and integration. We design, manufacture and market digital and full electric stringing machines, overhead and underground equipment and tools, covering the entire life cycle of infrastructure for electrical power lines as well as their construction and maintenance.

TESMEC

1. OVERHEAD

1.1 Digital machines

1.2 Essential machines

1.3 Overhead tools

2. UNDERGROUND

2.1 Digital machines

2.2 Underground tools

NUMBERS NEVER LIE.

Tesmec is an innovative company, motivated by the desire to grow. In a world that is constantly changing and advancing. In detail, the product portfolio consists of rock trenching equipment, surface miners, stringing equipment, railway equipment and electronic devices for smart grid management.

ENERGY STRINGING

Machines and equipment for both overhead and underground stringing.

ENERGY AUTOMATION

Solutions for smart grids and automation systems.

70+
Years of experience

1100+
Employees

8
Production plants

35+
Patents specifically developed

12
Subsidiaries

4
Business unit

WORLDWIDE SUCCESS

TRENCHERS & SURFACE MINERS

Solutions excavation of trenches, laying of sub-services and cultivation of surface mines.

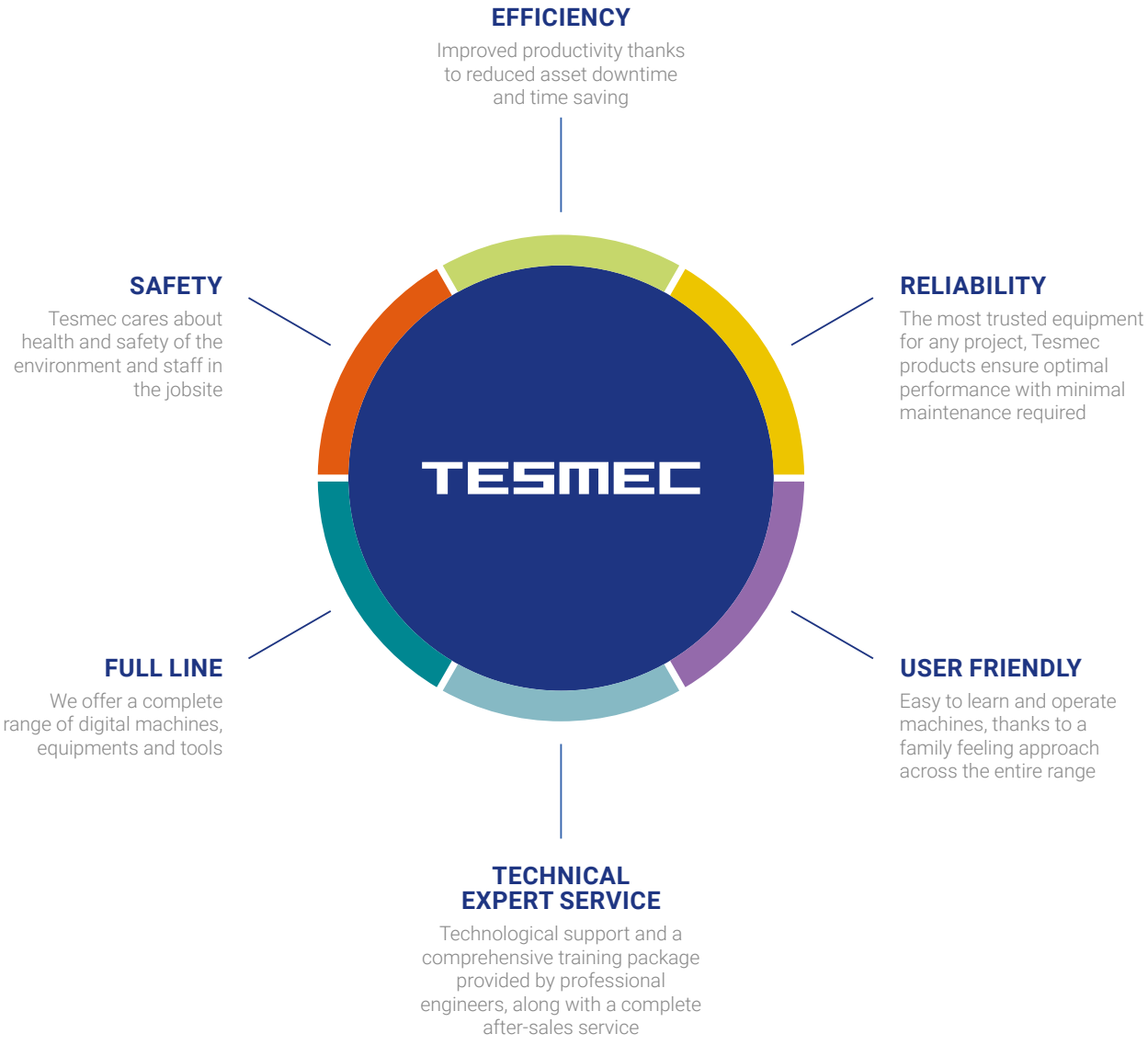
RAILWAY

Installation, maintenance and diagnostics of the railway line.

EFFICIENCY FOR ATTITUDE.

Tesmec's foundation is rooted in mechanical stringing, a sector in which it took its first steps as a company and as Italian technological excellence. It is precisely from "mechanical stringing" that the name Tesmec derives (in Italian "tesatura meccanica"). For decades, we have passionately developed equipment for the construction and maintenance of overhead and underground power lines: digital and full-electric stringing machines, traditional machines and tools for overhead and underground stringing.

We work every day to maintain the right balance between new digital technologies and the strong tradition of quality, reliability and durability of the Tesmec brand, according to an integrated solution approach.
Our goal is to offer our customers the best possible solutions through expertise and constant innovation.
We are proud to call ourselves the best in the field of stringing, providing the highest quality and reliability in every project we tackle.



AN HISTORY OF SUCCESS

With a 70-year history of excellence, Tesmec is a pioneer in stringing solutions, facing the challenge of combining a strong tradition of quality, reliability, and durability with a new concept of integrated, digital and sustainable solutions. Nowadays, our Group has surpassed 35 developed patents.

REPUBBLICA ITALIANA

MINISTERO DELL'INDUSTRIA E DEL COMMERCIO

UFFICIO CENTRALE DEI BREVETTI

BREVETTO PER INVENZIONE INDUSTRIALE 566988

— classe H 02g

Società EDISON a Milano
Inventore designato Luigi Paris

Data di deposito: 9 novembre 19[illegible]
Data di concessione 18 maggio 1957

Macchina-freno per consentire lo svolgimento automatico sotto tiro costante, di cavi avvolti su bobina, particolarmente per la tesatura di linee aeree di trasporto di energia elettrica

Oggetto del presente trovato è una macchina freno per svolgere sotto tiro di conduttore per linee aeree di trasporto di energia elettrica automaticamente senza impiego di operai, per mantenere il conduttore sotto tiro costante al variare della velocità di stendimento e di un carro munito di mezzi di ancoraggio sul quale la macchina-freno viene sistemata per essere facilmente trasportata e stabilmente ancorata su terreni comunque accidentati.

Fondamentalmente l'invenzione è caratterizzata dall'associazione di mezzi di aderenza su cui viene fatto passare il cavo, tendenti per effetto dello svolgimento del cavo stesso, con mezzi idrodinamici azionati da detti mezzi di aderenza ed atti a mantenere costante la coppia frenante con il variare della velocità di svolgimento del cavo.

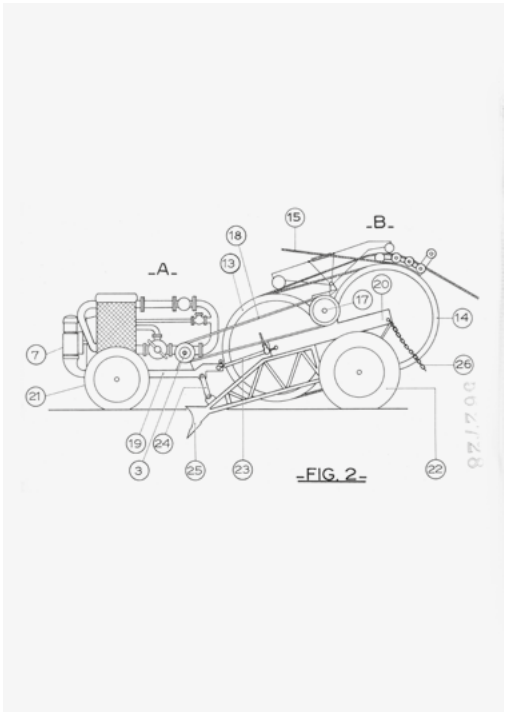
I mezzi di aderenza e mezzi idrodinamici essendo sistemati su retrotreni ad asse unico di carri distinti, accoppiabili secondo inclinazioni regolabili ed uno almeno dei quali è munito di mezzi di ancoraggio.

I mezzi di aderenza sono costituiti essenzialmente da due ruote a gole su cui vengono fatte passare più spire del cavo che deve essere frenato, ed alle quali è collegato un moltiplicatore di giri, mentre i mezzi idrodinamici sono costituiti da un circuito principale a fluido incomprimibile nel quale agiscono una pompa volumetrica comandata, a mezzo trasmissione flessibile, dall'albero veloce del moltiplicatore di giri, una valvola a pressione costante regolabile ed un dissipatore del calore di trafilazione e da un circuito secondario, inserito fra la aspirazione e la mandata del circuito principale, nel quale sono inseriti una pompa a motore, con accoppiamento automatico per un'unica direzione, la quale può agire come turbina ed una valvola di ritegno munita di by-pass con rubinetto, sull'albero della pompa agente come turbina essendo calettata una ventola che coopera col dissipatore di calore.

Il retrotreno portante i mezzi di aderenza è munito di timone, è collegabile con catene a picchetteni d'amarro ed è montato su ruote gommate così come il retrotreno portante i mezzi idrodinamici, ed quale è accoppiabile a mezzo di una struttura reticolare in cui parte almeno degli elementi incernierati sono costituiti da bielle di lunghezza regolabile.

A titolo puramente esemplificativo e non limitativo i disegni allegati rappresentano una realizzazione preferita del trovato.

Figura 1 è una vista prospettica degli organi principali parzialmente sezionati co-



FIRST STRINGING PATENT

Tesmec obtained its first patent concerning a tensioner machine for stringing overhead transmission lines that allow the automatic release under continuous pull of conductors wound on reels. This patent was granted by Edison on May 18, 1957.

Certified Quality System
ISO 9001:2015

Certified Environmental System
ISO 14001:2015

Certified Health & Safety System
ISO 45001:2018

1. OVERHEAD

OVERHEAD

1.1 DIGITAL MACHINES

NEW CONCEPT MACHINES.

Tesmec introduces revolutionary stringing machines designed for the future. A strong tradition of quality, reliability and durability meets the new technologies generating a new concept of machines.

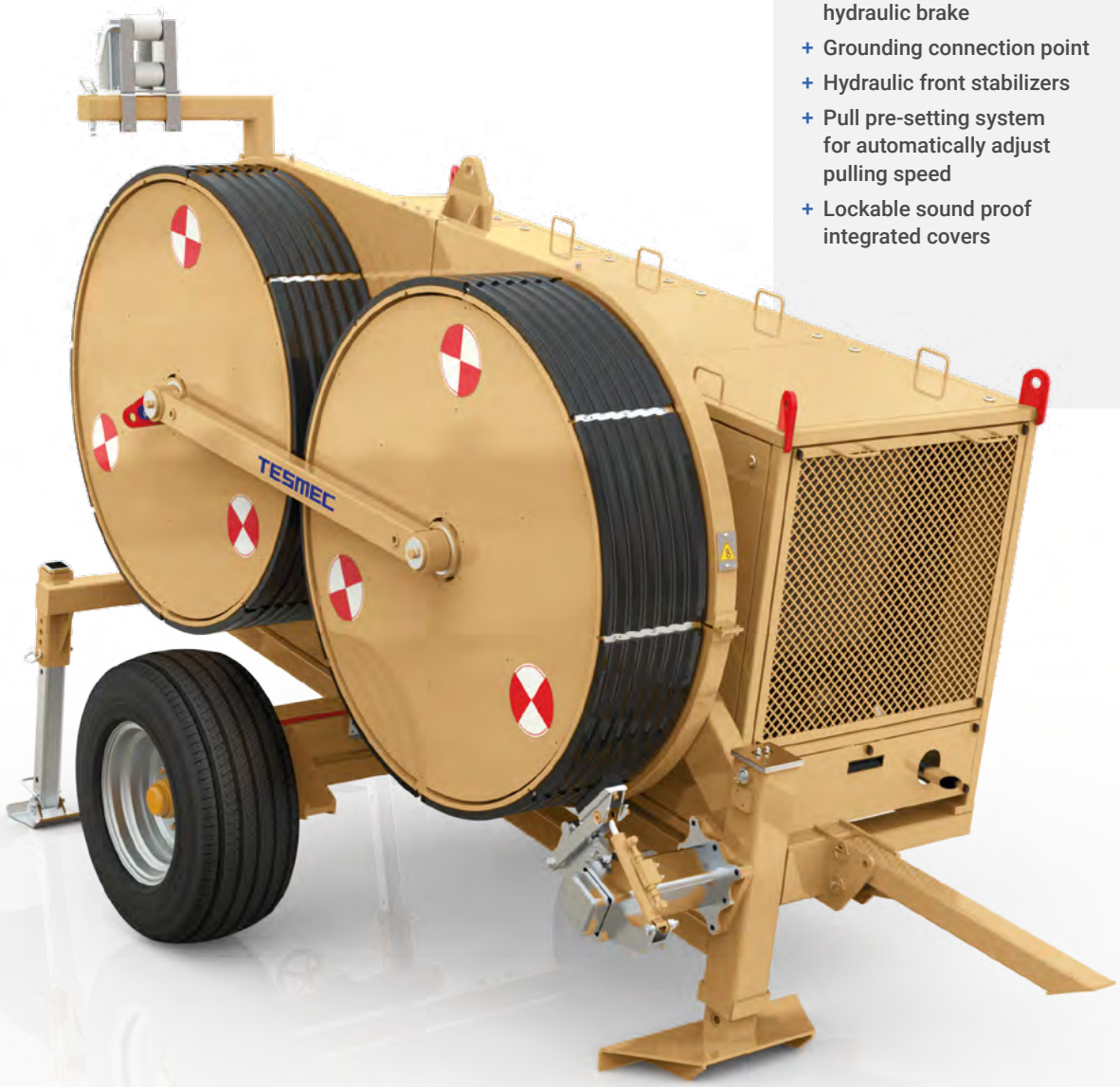
THE NEW DIGITAL STRINGING MACHINES ARE

- **USER FRIENDLY**
- **SAFE**
- **RELIABLE**

FULL OPTIONAL CONFIGURATION AS A STANDARD

INCLUDED IN EVERY DIGITAL STRINGING MACHINE

+ Rigid axle 30 km/h
+ Rope clamp for reel change
+ Negative self-acting hydraulic brake
+ Grounding connection point
+ Hydraulic front stabilizers
+ Pull pre-setting system for automatically adjust pulling speed
+ Lockable sound proof integrated covers



MAIN FEATURES

Teo
Tesmec Evolution Onwards

A COMPLETE AFTER-SALES EXPERIENCE: ALL IN ONE SUITE, MULTIPLE SERVICES.

Teo
CTRL Room

A breakthrough in the after-sales offer that speeds up the remote support and offers a full overview on the stringing equipment.

It allows monitoring in real time:

+ the performance at the jobsite
+ the global equipment status
+ the geolocalisation of the equipment

+
Connected jobsite

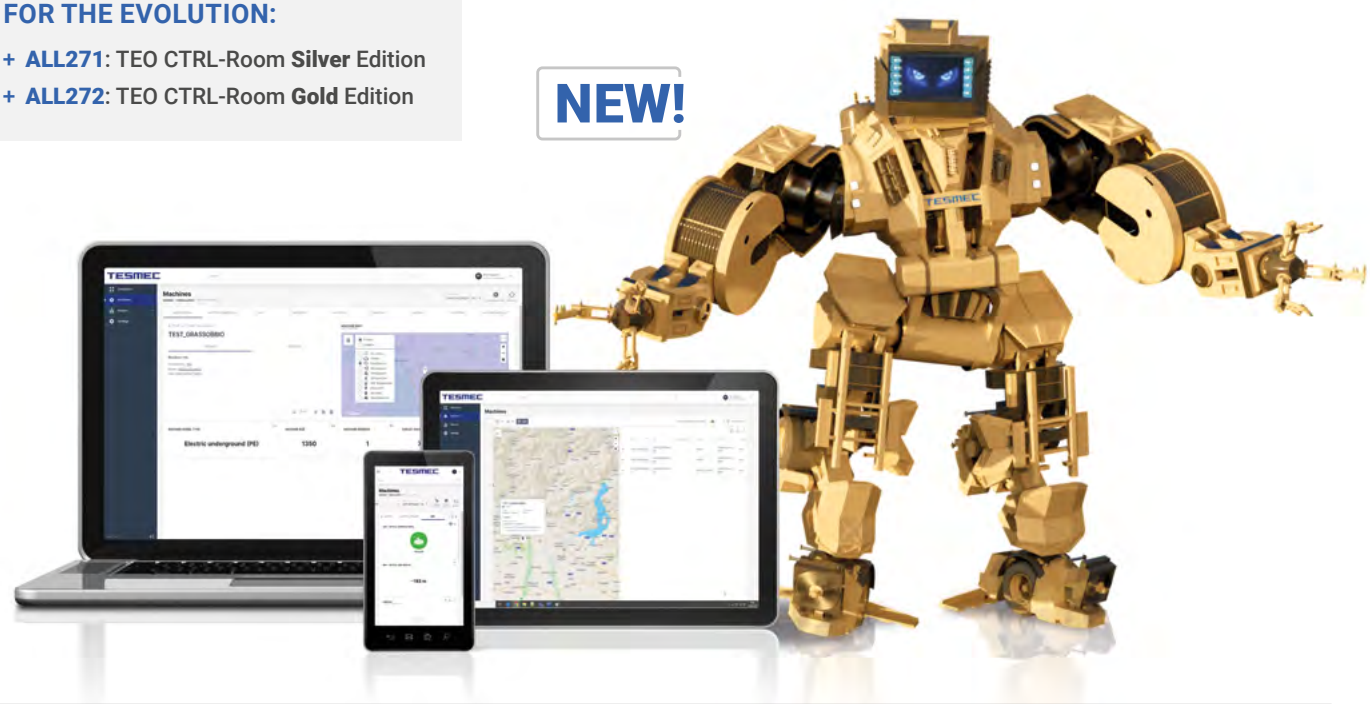
Teo is in continous improvement: many other services will be released soon.

Stay Tuned!

AVAILABLE DEVICES FOR THE EVOLUTION:

+ **ALL271**: TEO CTRL-Room **Silver** Edition
+ **ALL272**: TEO CTRL-Room **Gold** Edition

NEW!



NEW HUMAN INTERFACE (HMI)

The new control panel is drastically simplified. The innovative graphic display shows all the information, including diesel engine parameters, machine performance, and diagnostic output.

REMOTE CONTROL

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.

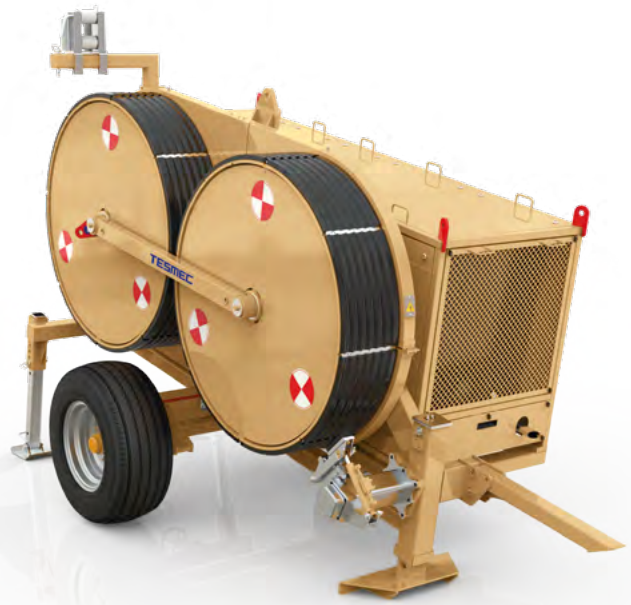
Digital puller tensioner

PT1250

max pull/tension
50 kN

max speed
5 km/h

max conductor diameter
42 mm

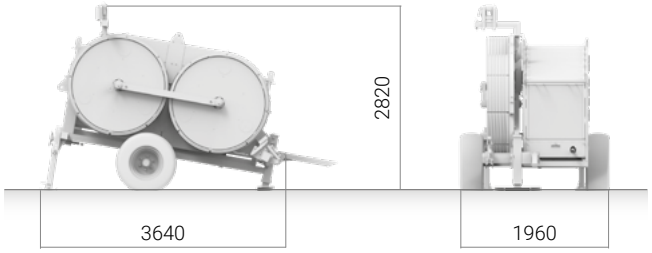


Performance

Max pull	50 kN
Speed at max pull	1.5 km/h
Max speed	5 km/h
Pull at max speed	12 kN

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	42 mm
Max rope diameter	16 mm
Weight	3450 Kg
Number of grooves	6
Suitable for	1 rope/conductor
Layout	Single



Engine

Diesel	55.4 kW (74 HP)
Cooling system	Water
Electrical system	12 V

Configuration

- Power pack to control 1 reel stand with hydraulic head or 1 reel winder.
- Gearbox with 3 operating positions:
  - Neutral position (with free bull-wheels for conductor loading and unloading)
  - Low tension position:
    - 2/12 kN as tensioner
    - 0/7 kN as puller
  - Nominal tension position

Available Devices

ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL087	Low tension device
ALL089	Electronic connection and synchronization between machines
ALL112	Trailer (80 km/h / EC type-approved / lighting system)
ALL261	External printer
ALL280	Automatic grease pump
ALL290	Ladder for access to the capstans
ALL001	Lighting system for the trailer
ALL002	Air brake system for the trailer

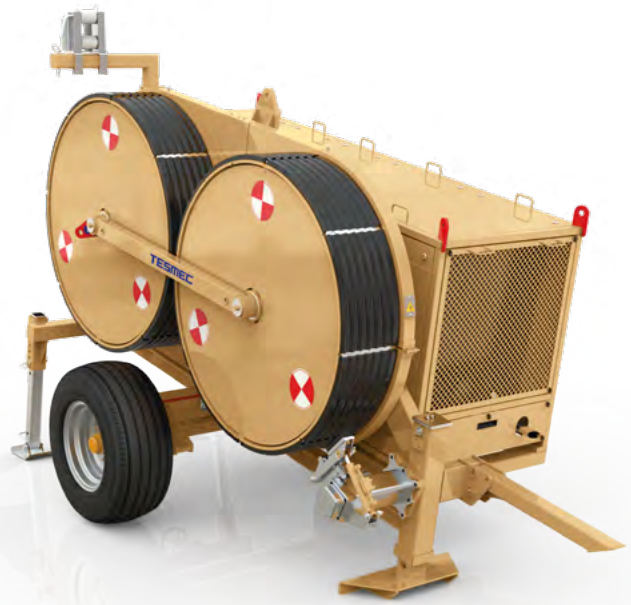
Digital puller tensioner

PT1252

max pull/tension
50 kN

max speed
5 km/h

max conductor diameter
51 mm

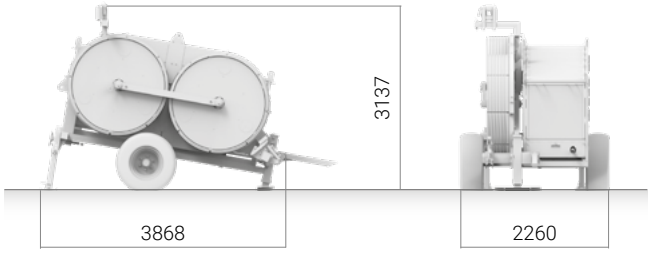


Performance

Max pull	50 kN
Speed at max pull	1.5 km/h
Max speed	5 km/h
Pull at max speed	15 kN

Characteristics

Bull-wheel diameter	1800 mm
Bull-wheel material	Nylon
Max conductor diameter	51 mm
Max rope diameter	28 mm
Weight	4400 Kg
Number of grooves	6
Suitable for	1 rope/conductor
Layout	Single



Engine

Diesel	55.4 kW (74 HP)
Cooling system	Water
Electrical system	12 V

Configuration

- Power pack to control 1 reel stand with hydraulic head or 1 reel winder.
- Gearbox with 3 operating positions:
  - Neutral position (with free bull-wheels for conductor loading and unloading)
  - Low tension position:
    - 2/12 kN as tensioner
    - 0/7 kN as puller
  - Nominal tension position

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL087	Low tension device
ALL089	Electronic connection and synchronization between machines
ALL112	Trailer (80 km/h / EC type-approved / lighting system)
ALL261	External printer
ALL280	Automatic grease pump
ALL290	Ladder for access to the capstans
ALL001	Lighting system for the trailer
ALL002	Air brake system for the trailer

Digital puller tensioner

PT1450

max pull/tension
100 kN

max speed
4.5 km/h

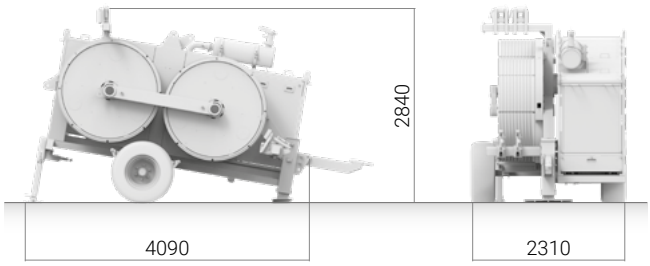
max conductor diameter
42 mm

Performance

Max pull	100 kN
Speed at max pull	2 km/h
Max speed	4.5 km/h
Pull at max speed	45 kN

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	42 mm
Max rope diameter	21 mm
Weight	5950 Kg
Number of grooves	10
Suitable for	2 rope/conductor
Layout	Single



Engine

Diesel	105 kW (140 HP)
Cooling system	Water
Electrical system	24 V

Configuration

Power pack to control 2 reel stands or 2 reel winders.

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL087	Low tension device
ALL089	Electronic connection and synchronization between machines
ALL112	Trailer (80 km/h / EC type-approved / lighting system)
ALL261	External printer
ALL280	Automatic grease pump
ALL290	Ladder for access to the capstans
ALL001	Lighting system for the trailer
ALL002	Air brake system for the trailer

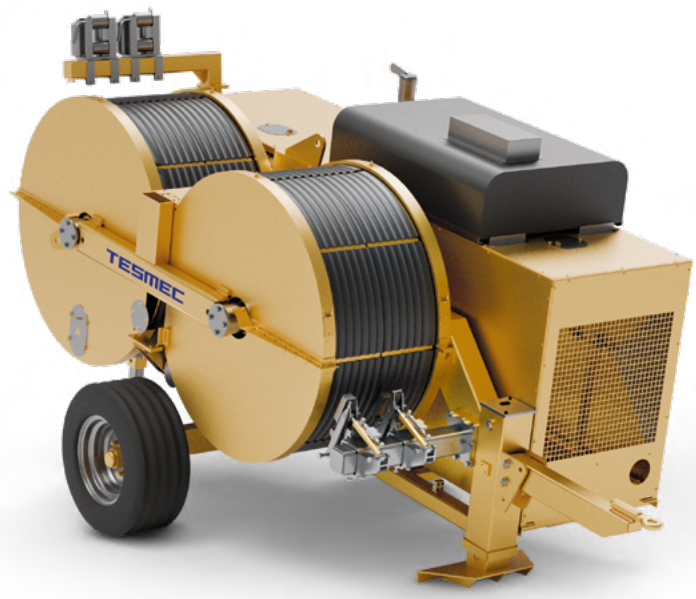
Digital puller tensioner

PT2451

max pull/tension
2x50 kN
1x100 kN

max speed
5 km/h

max conductor diameter
42 mm

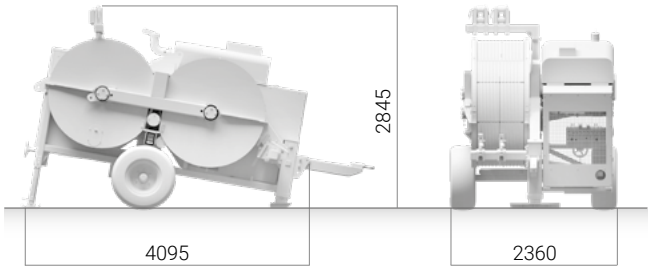


Performance

Max pull	2x50 kN 1x100 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	2x20 kN

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	42 mm
Max rope diameter	21 mm
Weight	7300 Kg
Number of grooves	12
Suitable for	2 rope/conductor
Layout	Twin



Engine

Diesel	105 kW (140 HP)
Cooling system	Water
Electrical system	24 V

Configuration

- Power pack to control 2 reel stands or 2 reel winders.
- Gearbox with 3 operating positions on 1 circuit:
  - Neutral position
    (with free bull-wheels for conductor loading and unloading)
  - Low tension position:
    - 4/17 kN as tensioner
    - 0/17 kN as puller
  - Nominal tension position

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL087	Low tension device
ALL089	Electronic connection and synchronization between machines
ALL112	Trailer (80 km/h - EC type-approved - lighting system)
ALL261	External printer
ALL280	Automatic grease pump
ALL290	Ladder for access to the capstans
ALL001	Lighting system for the trailer
ALL002	Air brake system for the trailer

Digital puller tensioner

PT1600

max pull/tension
140 kN

max speed
4.5 km/h

max conductor diameter
42 mm

Performance

Max pull	140 kN
Speed at max pull	1.5 km/h
Max speed	4.5 km/h
Pull at max speed	30 kN

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	42 mm
Max rope diameter	25 mm
Weight	9900 Kg
Number of grooves	16
Suitable for	4 rope/conductor
Layout	Single

Engine

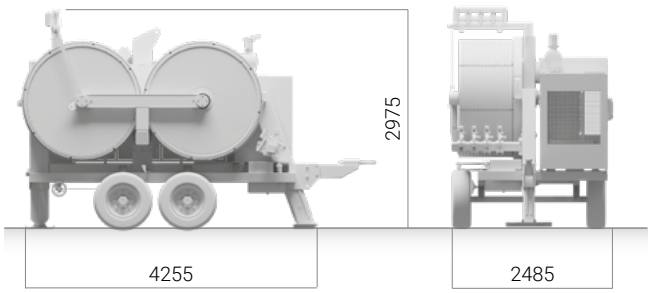
Diesel	129 kW (173 HP)
Cooling system	Water
Electrical system	24 V

Configuration

Power pack to control 4 reel stands or 4 reel winders.

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic connection and synchronization between machines
ALL112	Trailer (80 km/h - EC type-approved - lighting system)
ALL261	External printer
ALL280	Automatic grease pump



Digital puller tensioner

PT1601

max pull/tension
140 kN

max speed
4 km/h

max conductor diameter
51 mm

Performance

Max pull	140 kN
Speed at max pull	1.2 km/h
Max speed	4 km/h
Pull at max speed	30 kN

Characteristics

Bull-wheel diameter	1800 mm
Bull-wheel material	Nylon
Max conductor diameter	51 mm
Max rope diameter	25 mm
Weight	10500 Kg
Number of grooves	16
Suitable for	4 rope/conductor
Layout	Single

Engine

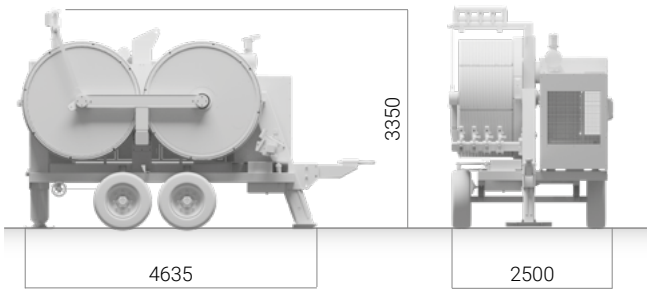
Diesel	129 kW (173 HP)
Cooling system	Water
Electrical system	24 V

Configuration

Power pack to control 4 reel stands or 4 reel winders.

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic connection and synchronization between machines
ALL112	Trailer (80 km/h - EC type-approved - lighting system)
ALL261	External printer
ALL280	Automatic grease pump



Digital puller tensioner

PT2601

max pull/tension
2x80 kN
1x160 kN

max speed
5 km/h

max conductor diameter
51 mm

Performance

Max pull	2x80 kN 1x160 kN
Speed at max pull	1.5 km/h
Max speed	5 km/h
Pull at max speed	2x45 kN

Characteristics

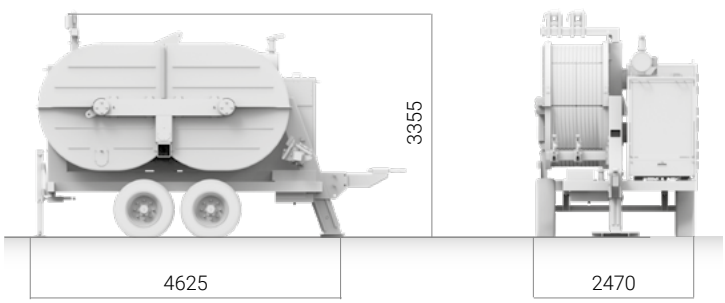
Bull-wheel diameter	1800 mm
Bull-wheel material	Nylon
Max conductor diameter	51 mm
Max rope diameter	28 mm
Weight	11750 Kg
Number of grooves	12
Suitable for	2 rope/conductor
Layout	Twin

Engine

Diesel	129 kW (173 HP)
Cooling system	Water
Electrical system	24 V

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic connection and synchronization between machines
ALL112	Trailer (80 km/h - EC type-approved - lighting system)
ALL261	External printer
ALL280	Automatic grease pump



Digital puller tensioner

PT2800

max pull/tension
2x100 kN
1x200 kN

max speed
5 km/h

max conductor diameter
51 mm

Performance

Max pull	2x100 kN 1x200 kN
Speed at max pull	1.5 km/h
Max speed	5 km/h
Pull at max speed	2x30 kN

Characteristics

Bull-wheel diameter	1800 mm
Bull-wheel material	Nylon
Max conductor diameter	51 mm
Max rope diameter	21 mm
Weight	17650 Kg
Number of grooves	20
Suitable for	4 rope/conductor
Layout	Twin

Engine

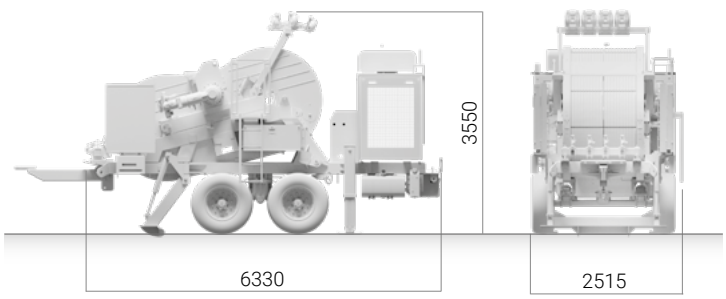
Diesel	210 kW (281 HP)
Cooling system	Water
Electrical system	24 V

Configuration

- Bogie 30 km/h
- Power pack to control 4 reel stands or 4 reel winders

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard (46 mm, four bundle conductor)
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic connection and synchronization between machines
ALL261	External printer
ALL280	Automatic grease pump



Digital puller tensioner

PT4750

max pull/tension
4x45 kN
2x90 kN

max speed
5 km/h

max conductor diameter
42 mm

Performance

Max pull	4x45 kN 2x90 kN
Speed at max pull	1.7 km/h
Max speed	5 km/h
Pull at max speed	4x10 kN oppure 2x20 kN oppure 1x40 kN

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Steel
Max conductor diameter	42 mm
Max rope diameter	24 mm
Weight	19250 Kg
Number of grooves	24
Suitable for	4 rope/conductor
Layout	Quad Bundle

Engine

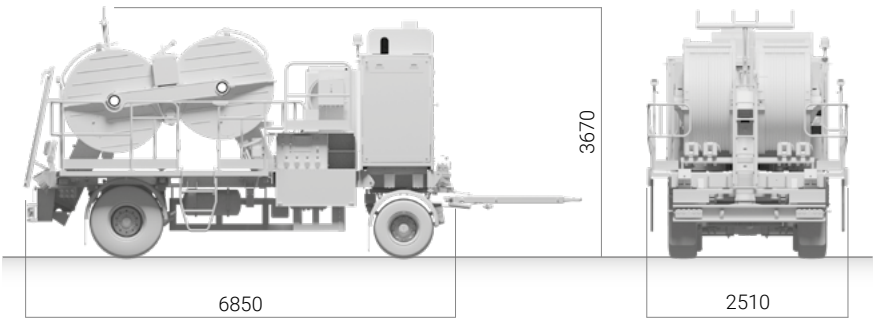
Diesel	210 kW (281 HP)
Cooling system	Water
Electrical system	24 V

Configuration

- Suspension axles for towing at max speed of 80km/hwith mechanical parking brake
- Power pack to control 4 reel stands or 4 reel winders

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic connection and synchronization between machines
ALL261	External printer



Digital puller

PL1150

max pull/tension
30 kN

max speed
3 km/h

max rope diameter
13 mm

Performance

Max pull	30 kN
Speed at max pull	1 km/h
Max speed	3 km/h
Pull at max speed	10 kN

Characteristics

Bull-wheel diameter	325 mm
Bull-wheel material	Steel
Max rope diameter	13 mm
Weight	1470 Kg
Number of grooves	7
Suitable for	1 rope
Layout	Single

Engine

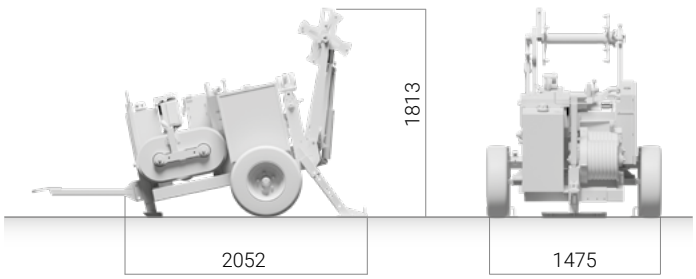
Diesel	18.9 kW (25 HP)
Cooling system	Water
Electrical system	12 V

Configuration

- Automatic reel winder
- On board automatic reel winder with level wind, for reel mod. BOF010 and BOF020
- Reel shaft AXR001

Available Devices

ALL059	Radio remote control kit (instrument not included)
ALL110	Deflection boom optional
ALL111	Swivel guide rope roller
ALL112	Trailer (80 km/h - EC type-approved - lighting system)
ALL261	External printer
ALL022	Hydraulic quick connectors to control a separate reel winder instead of the built-in one
AXR001	Extra shaft



Digital puller

PL1250

max pull/tension
50 kN

max speed
5 km/h

max rope diameter
16 mm

Performance

Max pull	50 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	20 kN

Characteristics

Bull-wheel diameter	400 mm
Bull-wheel material	Steel
Max rope diameter	16 mm
Weight	2450 Kg
Number of grooves	7
Suitable for	1 rope
Layout	Single

Engine

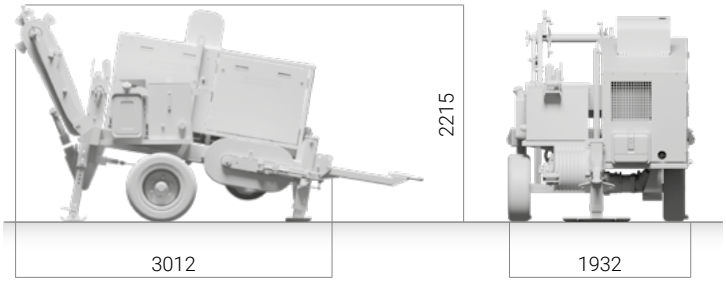
Diesel	55.4 kW (74 HP)
Cooling system	Water
Electrical system	12 V

Configuration

- Automatic reel winder
- On board automatic reel winder with level wind, for reel mod. BOF010 and BOF020
- Reel shaft AXR001

Available Devices

ALL037	Preheating device for use up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL111	Swivel guide rope roller
ALL261	External printer
ALL280	Automatic grease pump
AXR001	Extra shaft



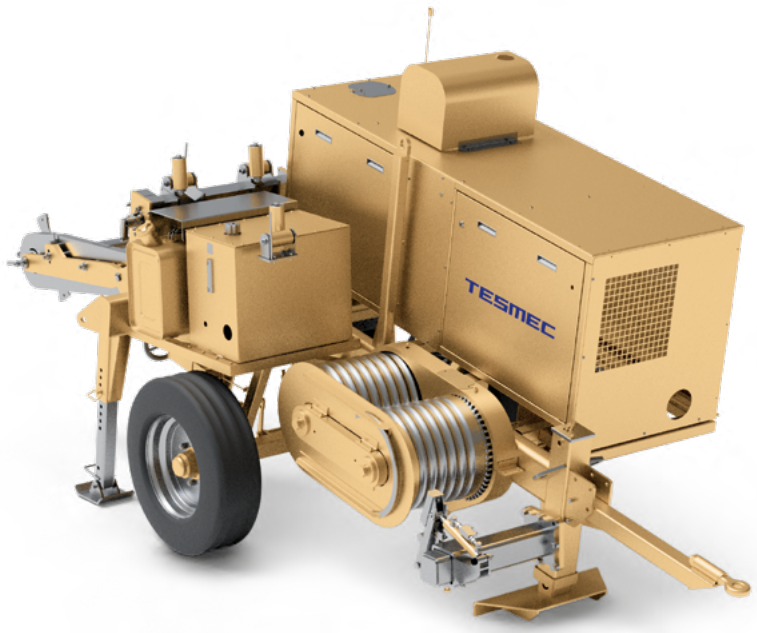
Digital puller

PL1351

max pull/tension
70 kN

max speed
4.2 km/h

max rope diameter
18 mm



Performance

Max pull	70 kN
Speed at max pull	1.1 km/h
Max speed	4.2 km/h
Pull at max speed	17 kN

Characteristics

Bull-wheel diameter	450 mm
Bull-wheel material	Steel
Max rope diameter	18 mm
Weight	3100 Kg
Number of grooves	8
Suitable for	1 rope
Layout	Single

Engine

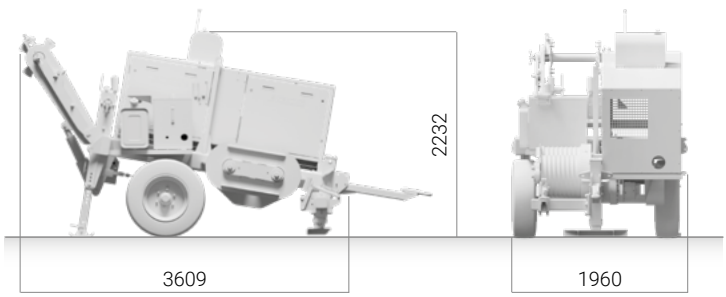
Diesel	55.4 kW (74 HP)
Cooling system	Water
Electrical system	12 V

Configuration

- Automatic reel winder
- On board automatic reel winder with level wind, for reel mod. BOF010 and BOF020
- Reel shaft AXR001

Available Devices

ALL037	Preheating device for use up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL111	Swivel guide rope roller
ALL261	External printer
ALL280	Automatic grease pump
AXR001	Extra shaft



Digital puller

PL1450

max pull/tension
100 kN

max speed
4.5 km/h

max rope diameter
21 mm

Performance

Max pull	100 kN
Speed at max pull	2 km/h
Max speed	4.5 km/h
Pull at max speed	45 kN

Characteristics

Bull-wheel diameter	525 mm
Bull-wheel material	Steel
Max rope diameter	21 mm
Weight	4600 Kg
Number of grooves	9
Suitable for	1 rope
Layout	Single

Engine

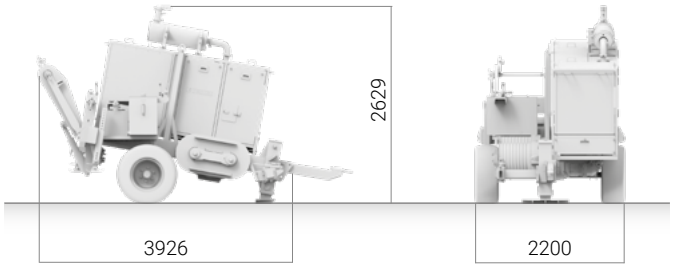
Diesel	105 kW (140 HP)
Cooling system	Water
Electrical system	24 V

Configuration

- Automatic reel winder
- On board automatic reel winder with level wind, for reel mod. BOF010 and BOF020
- Reel shaft AXR001

Available Devices

ALL037	Preheating device for use up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL111	Swivel guide rope roller
ALL261	External printer
ALL280	Automatic grease pump
AXR001	Extra shaft



Digital puller

PL1700

max pull/tension
160 kN

max speed
4.5 km/h

max rope diameter
28 mm

Performance

Max pull	160 kN
Speed at max pull	2.8 km/h
Max speed	4.5 km/h
Pull at max speed	105 kN

Characteristics

Bull-wheel diameter	700 mm
Bull-wheel material	Steel
Max rope diameter	28 mm
Weight	7500 Kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

Engine

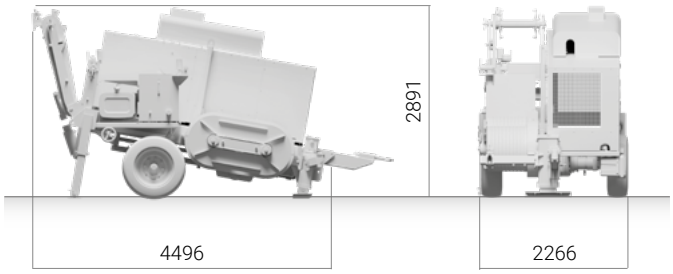
Diesel	210 kW (281 HP)
Cooling system	Water
Electrical system	24 V

Configuration

- Automatic reel winder
- On board automatic reel winder with level wind, for reel mod. BOF020 and BOF030
- Reel shaft AXR002

Available Devices

ALL037	Preheating device for use up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL111	Swivel guide rope roller
ALL261	External printer
ALL280	Automatic grease pump
AXR002	Extra shaft
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



Digital puller

PL1751

max pull/tension
190 kN

max speed
4.5 km/h

max rope diameter
28 mm

Performance

Max pull	190 kN
Speed at max pull	2.3 km/h
Max speed	4.5 km/h
Pull at max speed	105 kN

Characteristics

Bull-wheel diameter	700 mm
Bull-wheel material	Steel
Max rope diameter	28 mm
Weight	7500 Kg
Number of grooves	10
Suitable for	1 rope/conductor
Layout	Single

Engine

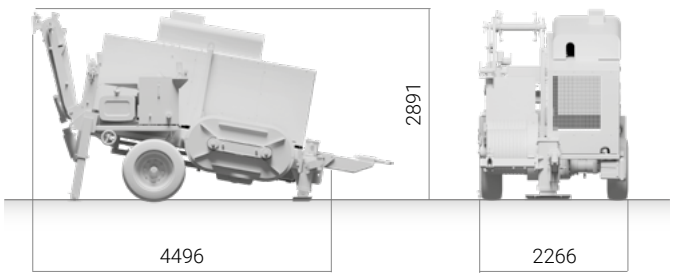
Diesel	210 kW (281 HP)
Cooling system	Water
Electrical system	24 V

Configuration

- Automatic reel winder
- On board automatic reel winder with level wind, for reel mod. BOF020 and BOF030
- Reel shaft AXR002

Available Devices

ALL037	Preheating device for use up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL111	Swivel guide rope roller
ALL261	External printer
ALL280	Automatic grease pump
AXR002	Extra shaft
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



Digital puller

PL1950

max pull/tension
280 kN

max speed
5 km/h

max rope diameter
38 mm

Performance

Max pull	280 kN
Speed at max pull	2.5 km/h
Max speed	5 km/h
Pull at max speed	150 kN

Characteristics

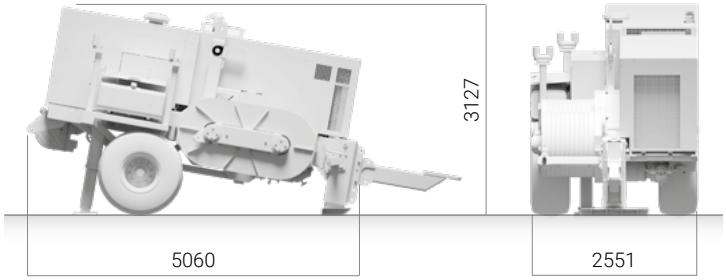
Bull-wheel diameter	1000 mm
Bull-wheel material	Steel
Max rope diameter	38 mm
Weight	13950 Kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

Engine

Diesel	315 kW (422 HP)
Cooling system	Water
Electrical system	24 V

Available Devices

ALL037	Preheating device for use up to -30°C
ALL089	Electronic connection and synchronization between machines
ALL261	External printer
ALL280	Automatic grease pump
ALL022	Hydraulic quick connectors to control a separate reel winder instead of the built-in one



Digital tensioner

TN1700

max pull/tension
160 kN

max speed
4.5 km/h

max conductor diameter
42 mm

Performance

Max tension	160 kN
Speed at max tension	3.3 km/h
Max speed	4.5 km/h
Max pull back	160 kN

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	42 mm
Weight	7600 Kg
Number of grooves	16
Suitable for	4 rope/conductor
Layout	Single

Engine

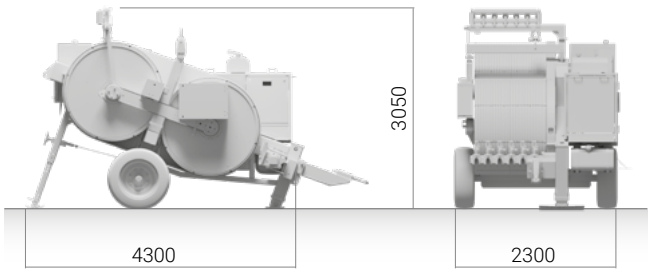
Diesel	55.4 kW (74 HP)
Cooling system	Water
Electrical system	24 V

Configuration

Hydraulic power pack to control 6 reel stands with hydraulic head or 6 reel winders.

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic connection and synchronization between machines
ALL261	External printer
ALL280	Automatic grease pump



Digital tensioner

TN1750

max pull/tension
180 kN

max speed
4.5 km/h

max conductor diameter
38 mm

Performance

Max tension	180 kN
Speed at max tension	2.5 km/h
Max speed	4.5 km/h
Max pull back	180 kN

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	38 mm
Weight	8900 Kg
Number of grooves	24
Suitable for	6 rope/conductor
Layout	Single

Engine

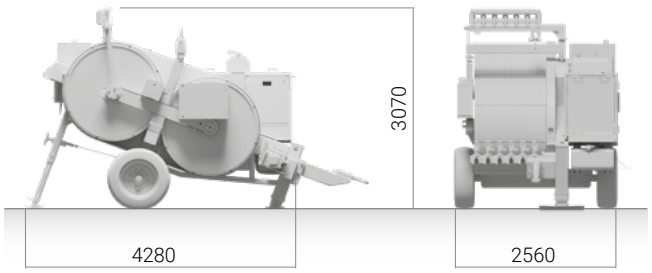
Diesel	55.4 kW (74 HP)
Cooling system	Water
Electrical system	24 V

Configuration

Hydraulic power pack to control 6 reel stands with hydraulic head or 6 reel winders.

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic connection and synchronization between machines
ALL261	External printer
ALL280	Automatic grease pump



HELICOPTER TENSIONERS

HELICOPTER MACHINE

Tesmec, as a worldwide **leader in stringing solutions for the past 70 years**, has developed, designed, and manufactured a range of several machines to face any work conditions.

Here you can find one of the most innovative, efficient, and successful solutions: **the Helicopter Machine**.

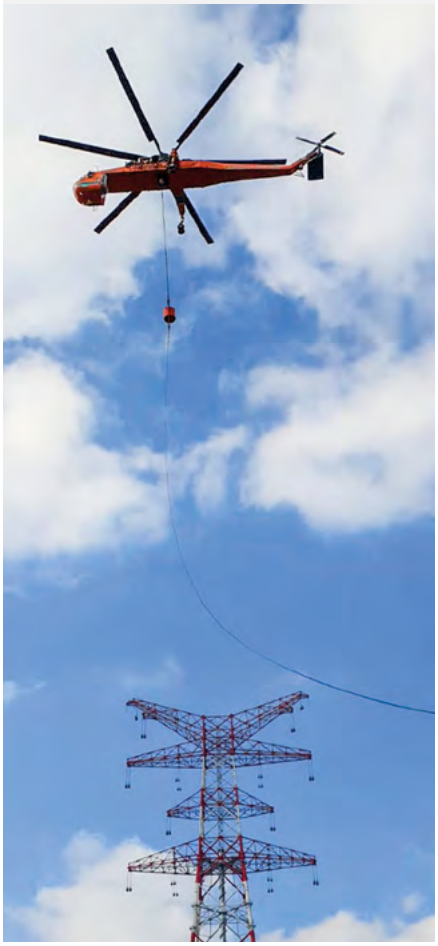
This system **protects the stringing cable in case of anomalies**, avoiding overloading and its damage and ensuring safety at the jobsite.

The TN1201 helicopter machine cannot operate without its CVR841 stand.

Our pride stems from the fact that Tesmec's tradition is more than just the passage of years; it is a driving force **that has propelled the field of modern stringing forward**.

During the "direct stringing" (where the puller is replaced by the helicopter) it is crucial to ensure optimal performance along with the highest level of safety. With this goal in mind, Tesmec registered three patents from 2013 to 2015:

+ Unit for winding and unwinding cables:
  - EU 3.368.369
  - USA 10,584,013
  - Australia 2016344720
+ Cable-laying Equipment:
  - EU 3.368.368
  - Australia 2016344724
  - USA pending
+ Safety device:
  - EU 2.929.605
  - USA 9,556,919



Helicopter tensioners

CVR251

max pull/tension
5 kN

max speed
25 km/h

Performance

Performance puller	
Max pull (at medium diameter)	5 kN
Max speed	5 km/h
Performance tensioner	
Max pull	5 kN
Max continuous speed	20 km/h
Max speed	25 km/h

Characteristics

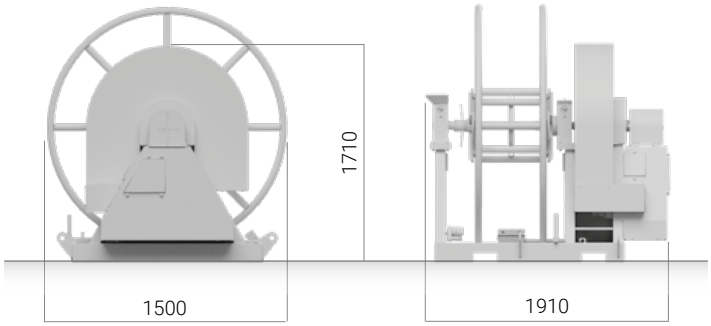
Max nylon rope diameter	6/24 mm
Max steel rope diameter	6/12 mm
Weight of power unit	730 Kg
Weight of reel stand unit	870 kg
Suitable for	x rope/conductor
Layout	Single

Engine

Diesel	18.9 kW (25 HP)
Cooling system	Water
Electrical system	12 V

Configuration

- Suited for reel mod. BOF010, BOF020 and BOF030
- Special reel shaft for standard tesmec reel



Helicopter tensioners

TN1201

max pull/tension
30 kN

max speed tension mode
25 km/h

max speed puller mode
1 km/h

max conductor diameter
42 mm

Performance

Max tension	30 kN
Speed at max tension	13.5 km/h
Max speed	25 km/h
Max pull back	30 kN

Characteristics

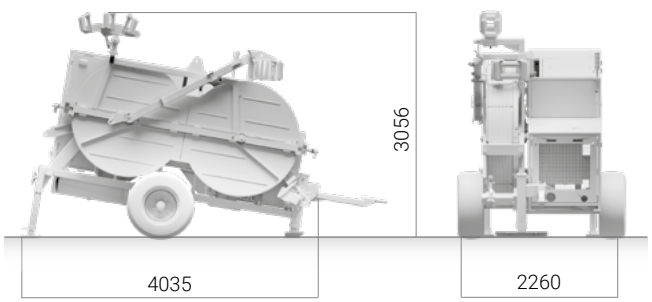
Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	42 mm
Weight	4300 Kg
Number of grooves	6
Suitable for	1 rope/conductor
Layout	Single

Engine

Diesel	55.4 kW (74 HP)
Cooling system	Water
Electrical system	24 V

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL261	External printer



Helicopter tensioners

CVR841

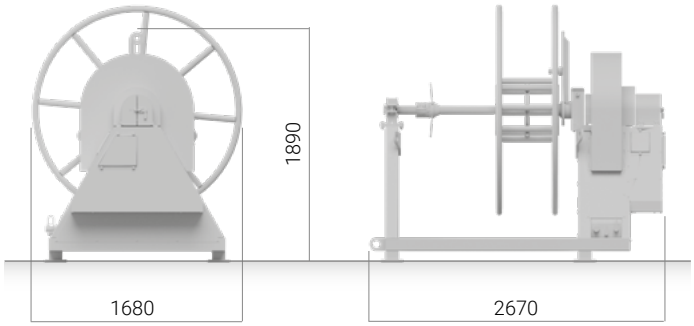
Drum stand coupled with TN1201

Performance

Max tension @1900 mm external reel diameter	5 kN
Max tensioning speed	25 km/h
Max recovery speed	1 km/h
Max tension in emergency mode @1200 mm average reel diameter	5 kN

Reel size and weight

Wooden reel- max. external diameter	1700 mm
Wooden reel - max. width	1100 mm
Max capacity	40 KN
External diameter BOF030	1900 mm
BOF030 width	570 mm
Weight (without reel)	1200 Kg



RECONDUCTORING EQUIPMENT

CONTINUOUS LINEAR PULLER (CLP501)

The new Continuous Line Puller (CLP501) offers an **effective solution for handling and recycling old conductors** during reconductoring projects.

The CLP **eliminates the need to place** old conductors on reels by effectively cutting the used conductor into small manageable pieces that are easy to transport and ready to recycle.

Hydraulic transmission

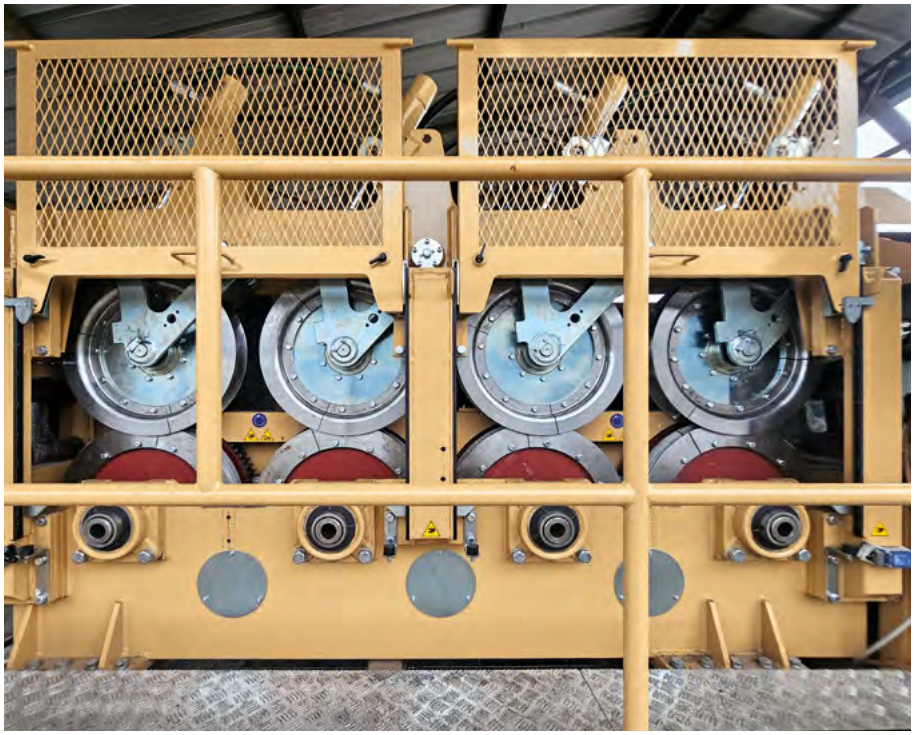
Closed hydraulic with pull pre-setting system that automatically adjusts pulling speed.

Configuration

A radio remote control for machine operations, complete with:

+ Setting for the pull value
+ Control of direction and speed
+ Display to check stringing parameters
+ Stop Operation push button
+ Conductor cutting module

+ **Steel enclosure with Lockable doors**
+ **Full electronic management**
+ **Auxiliary winch controls**
+ **Remote diagnostics with GPS**
+ **Fairlead for overhead and ground conductor recovery**
+ **Manual and automatic use**
+ **Suitable for truck or trailer mount configurations**



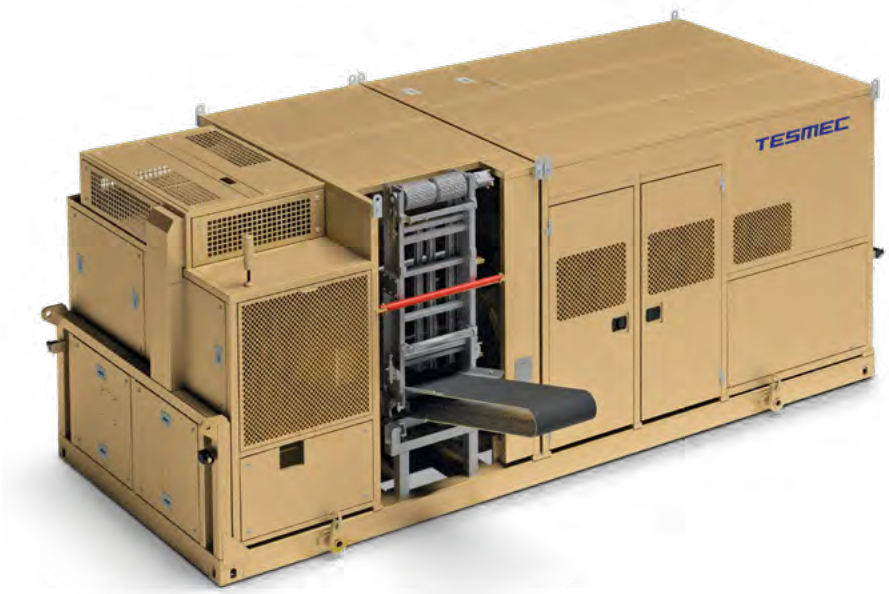
Continuous linear puller

CLP500

max pull
50 kN

max speed
3 km/h

max conductor diameter
40 mm



Performance

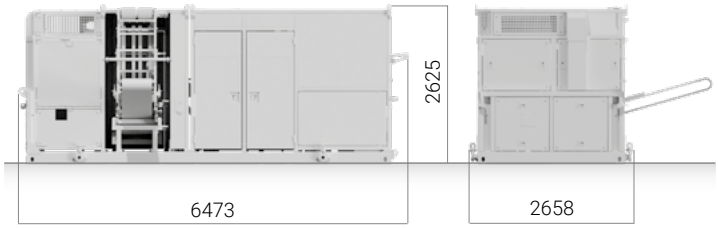
Max pull	50 kN
Speed at max pull	1.5 km/h
Max speed	3 km/h
Pull at max speed	30kN

Characteristics

Wheels groove	Different Set in function of conductor
Max conductor diameter	40 mm
Max midspan joint diameter	60 mm
Layout	Single
Weight	13000 kg

Engine

Diesel	160 kW (215 hp)
Cooling system	WATER
Electrical system	24 V



Cutting module

Max speed	3 km/h
Pull at max speed	17 kN
Suitable for	ACSR conductor
Max conductor diameter	40 mm
Max midspan joint diameter	60 mm
The module can be integrated with the magnetic sorting of aluminium and steel (ALL700/ALL750)	

Motorized conveyors

- Hydraulic driven conveyor
- Hydraulic conveyor deployment

Auxiliary winch

Max pulling force	50 kN
Speed at max pull	2.5 km/h
Max rope diameter	16 mm
Storage capacity	350 m

Available Devices

ALL261	External pull and speed printer
21035851	Trailer with stabilizer legs
ALL700	Motorized magnetic separation pulley embedded in the cutting module evacuation belt
ALL750	Additional motorized magnetic sorting belt

Continuous linear puller (without cutting module)

CLP501

max pull/tension
50 kN

max speed
3 km/h

max conductor diameter
40 mm

Performance

Max pull	50 kN
Speed at max pull	1.5 km/h
Max speed	3 km/h
Pull at max speed	30kN

Engine

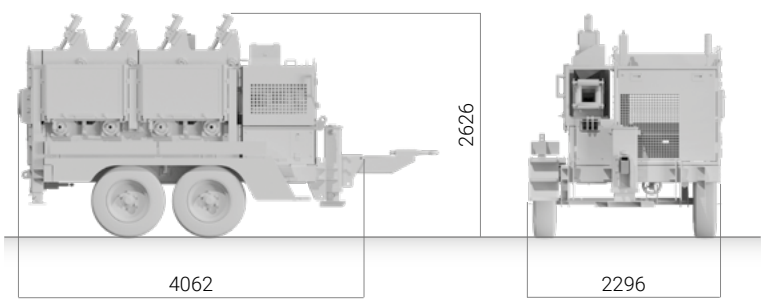
Diesel	75 kW (100 hp)
Cooling system	Water
Electrical system	12 V

Characteristics

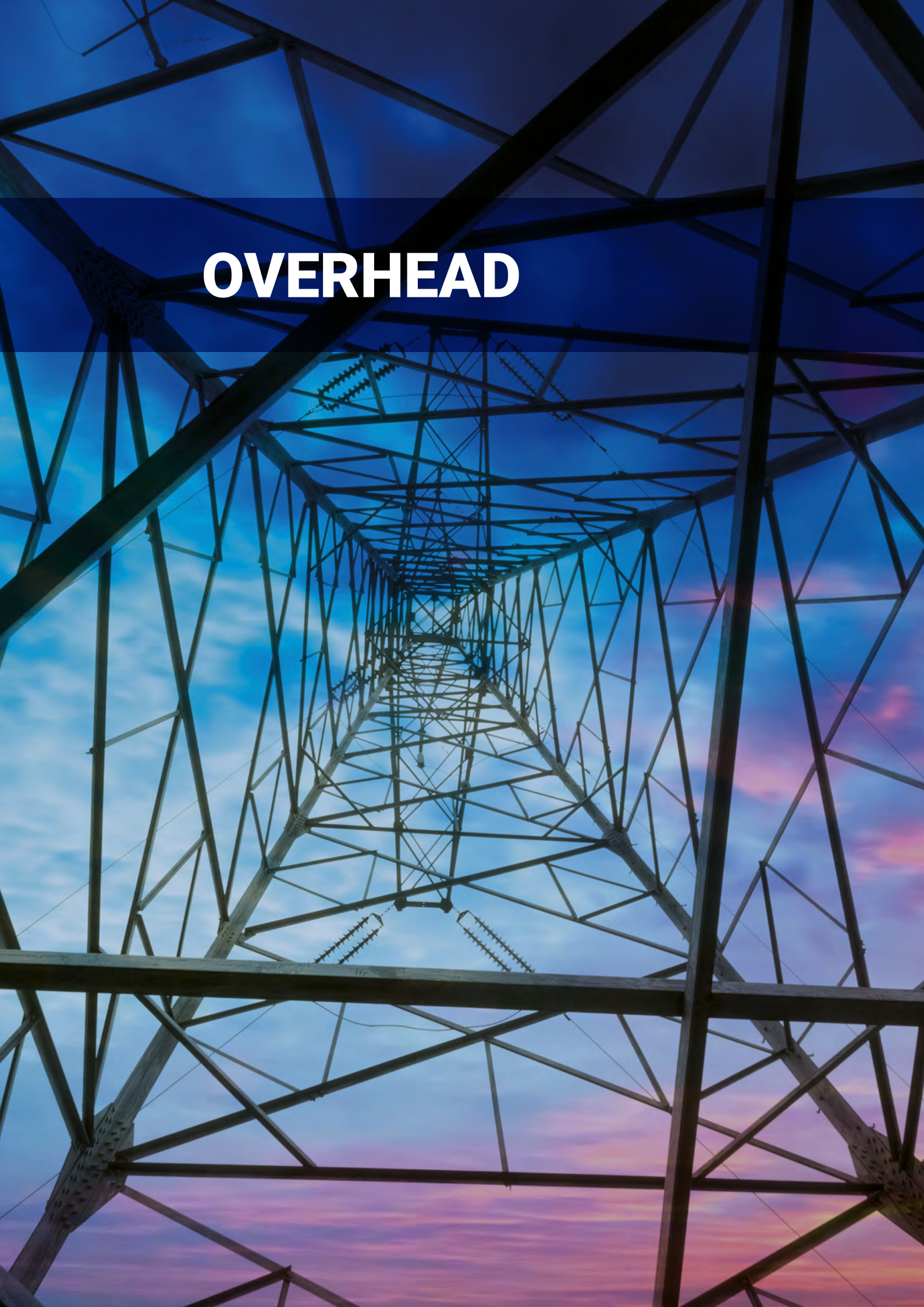
Wheels groove	Different Set in function of conductor
Max conductor diameter	40 mm
Max midspan joint diameter	60 mm
Layout	Single
Weight	6500 kg

Available Devices

ALL261	External pull and speed printer




TESMEC



OVERHEAD

1.2 ESSENTIAL MACHINES

THE **STANDARD SOLUTIONS**

ESSENTIAL MACHINES FOR ALL USES

The essential machines are **one of the solutions** provided **by Tesmec** for new line constructions.

This is the **most basic and light** solution, featuring few or no electronic components. However, their quality has been validated by several years of use on various jobsites, under all weather conditions from Russia to Saudi Arabia.

Besides the technological improvements developed to reach the **top quality level** of Stringing Machines 4.0, Tesmec keeps a light range of machines, mainly for extra CE & EPA Countries.
These machines are the example of a **reliable evergreen design.**

Their main characteristic is the absence or minimal use of electronic components, which translates to traditional operation and maintenance of the machines: a **basic and light range, simple and user friendly**.

Hydraulic puller

ARS200

max pull
15 kN

max speed
3.6 km/h

max rope diameter
8 mm

CPR202 - CPR203

Performance

Max pull	15 kN
Speed at max pull	0.7 km/h
Max speed	3.6 km/h
Pull at max speed	4 kN

Characteristics

Bull-wheel diameter	200 mm
Bull-wheel material	Steel
Max rope diameter	8 mm
Weight	500 Kg
Number of grooves	7
Suitable for	1 rope
Layout	Single

Engine

Diesel	13 kW (18 hp)
Cooling system	Water
Electrical system	12 V

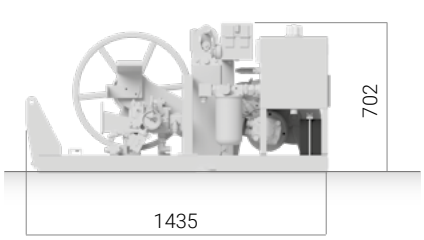
Configuration

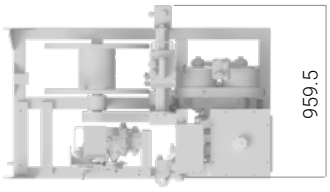
- On board automatic reel winder with level wind for mod. BOF370 for 500 m of D.8 mm rope

Available Devices

ALL102	Pulling rope locking device when capstan is used (compulsory for EC market)
ALL105	Rigid axle and towing bar detachable, for manual towing
ALL107	Capstan for lifting operations Max pul 10 kN Max speed 1.5 km/h Capstan diameter 220 mm
ALL111	Swivel guide rope roller
ALL112	Trailer 80 km/h. EC type-approved for road circulation with hook Ø 40 mm and lighting system

ARS200 WITH ALL111





Hydraulic puller

ARS405

max pull
30 kN

max speed
3 km/h

max rope diameter
13 mm

Performance

Max pull	30 kN
Speed at max pull	1 km/h
Max speed	3 km/h
Pull at max speed	10 kN

Characteristics

Bull-wheel diameter	325 mm
Bull-wheel material	Steel
Max rope diameter	13mm
Weight	980 Kg
Number of grooves	7
Suitable for	1 rope
Layout	Single

Engine

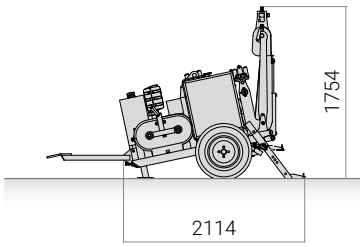
Diesel	18.8 kW (25 hp)
Cooling system	Water
Electrical system	12 V

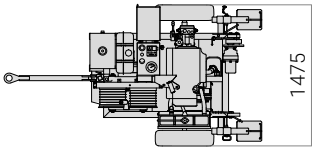
Configuration

- Control instruments for hydraulic system and Diesel engine
- Mechanical front stabiliser
- On board automatic reel winder with level wind, suitable for mod. BOF010 and BOF020
- Reel shaft AXR001
- Pull pre-setting system

Available Devices

ALL110	Underground cable pulling attachment
ALL111	Swivel guide rope roller
ALL112	Trailer 80 km/h. EC type-approved for road circulation with hook Ø 40 mm and lighting system
AXR001	Extra shaft





Hydraulic puller

ARS500

max pull
90 kN

max speed
5 km/h

max rope diameter
18 mm

Performance

Max pull	90 kN
Speed at max pull	2.4 km/h
Max speed	5 km/h
Pull at max speed	44 kN

Characteristics

Bull-wheel diameter	450 mm
Bull-wheel material	Steel
Max rope diameter	18 mm
Weight	3100 Kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

Engine

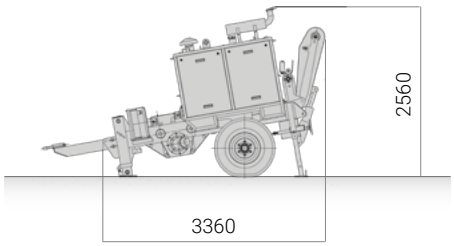
Diesel	104 kW (140 hp)
Cooling system	Water
Electrical system	12 V

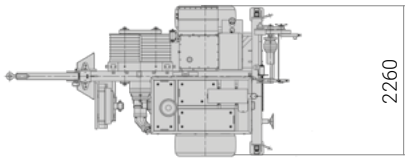
Configuration

- Control instruments for hydraulic system and Diesel engine
- On board reel winder with automatic level wind, suitable for standard reel mod. BOF010 and BOF020 (AXR001 included)
- Mechanical front stabiliser

Available Devices

ALL037	Preheating device for use up to -30°C
ALL051	Cable remote control kit (instrument not included)
AXC005	Cable remote control (15 m range)
ALL053	Electronic pull and speed recorder kit (instrument not included)
ALL059	Radio remote control kit (instrument not included)
AXH007	Radio remote control (150 m range)
ALL071	Hydraulic rope clamp for reel change operations
ALL089	Electronic arrangement for connection of multiple machines and for stringing synchronization
AXR001	Extra shaft
DLR300	Electronic pull and speed recorder





Hydraulic puller

ARS612

max pull
140 kN

max speed
4.5 km/h

max rope diameter
24 mm

Performance

Max pull	140 kN
Speed at max pull	2 km/h
Max speed	4.5 km/h
Pull at max speed	60 kN

Characteristics

Bull-wheel diameter	600 mm
Bull-wheel material	Steel
Max rope diameter	24 mm
Weight	5000 Kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

Engine

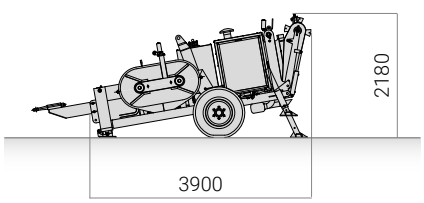
Diesel	129 kW (173 hp)
Cooling system	Water
Electrical system	12 V

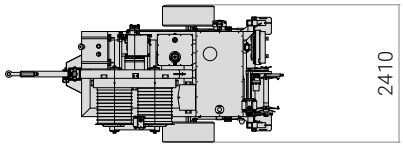
Configuration

- Control instruments for hydraulic system and Diesel engine
- On board reel winder with automatic level wind, suitable for standard reel mod. BOF010 BOF020 (AXR001 included)
- Electronic pull and speed recorder kit (instrument not included)
- Pull pre-setting system
- Hydraulic front stabiliser

Available Devices

ALL037	Preheating device for use up to -30°C
ALL051	Cable remote control kit (instrument not included)
AXC005	Cable remote control (15 m range)
ALL059	Radio remote control kit (instrument not included)
AXH007	Radio remote control (150 m range)
ALL071	Hydraulic rope clamp for reel change operations
ALL111	Swivel guide rope roller
AXR001	Extra shaft
DLR300	Electronic pull and speed recorder





Hydraulic puller

ARS802

max pull
240 kN

max speed
4.5 km/h

max rope diameter
32 mm

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

Characteristics

Bull-wheel diameter	800 mm
Bull-wheel material	Steel
Max rope diameter	32 mm
Weight	10000 Kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

Engine

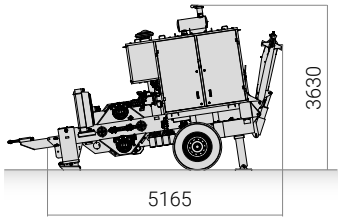
Diesel	280 kW (375 hp)
Cooling system	Water
Electrical system	24 V

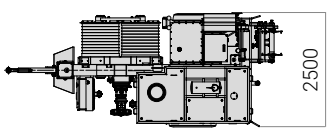
Configuration

- Control instruments for hydraulic system and Diesel engine
- On board reel winder with automatic level wind, suitable for standard reel mod. BOF010 BOF020 (AXR001 included)
- Electronic pull and speed recorder kit (instrument not included)
- Pull pre-setting system
- Hydraulic front stabiliser

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





Hydraulic tensioner

FRS301

max tension
25 kN

max speed
5 km/h

max conductor diameter
36 mm

Performance

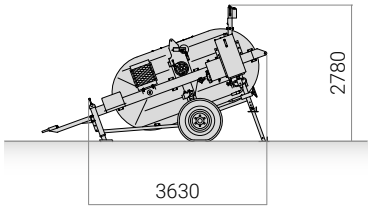
Max tension	25 kN
Max speed	5 km/h

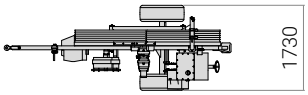
Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	36mm
Weight	1970 Kg
Number of grooves	5
Suitable for	1 rope or conductor
Layout	Single

Configuration

- Hydraulic oil cooling system
- Mechanical meter counter
- Gearbox with 3 operating positions:
  - Neutral position (with free bull-wheels for conductor loading and unloading)
  - Low tension position (1.5 ÷ 5 kN)
- Nominal tension position
- Mechanical front stabiliser





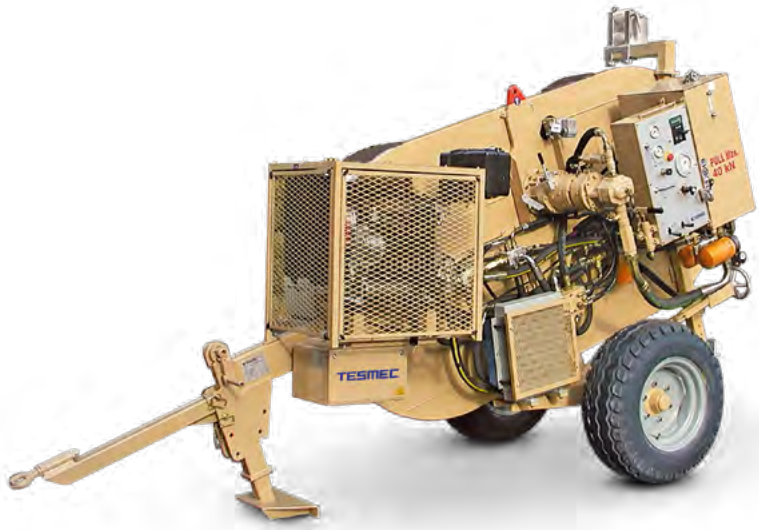
Hydraulic tensioner

FRS404

max tension
40 kN

max speed
5 km/h

max conductor diameter
34 mm



Performance

Max tension	40 kN
Max speed	5 km/h
Max pull-back	40 kN
Max pull-back speed	0.8 km/h

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	34 mm
Weight	2700 Kg
Number of grooves	8
Suitable for	1 or 2 rope or conductor
Layout	Single

Engine

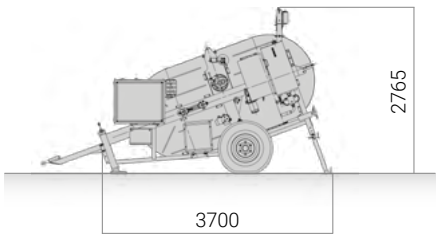
Diesel	25 kW (34 hp)
Cooling system	Water
Electrical system	12 V

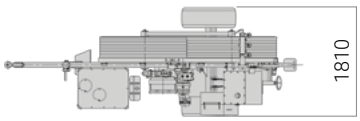
Configuration

- Mechanical meter counter
- Gearbox with 3 operating positions:
  - Neutral position
    (with free bull-wheels for conductor loading and unloading)
  - Low tension position (2 ÷ 6 kN)
  - Nominal tension position
- Hydraulic power pack to control up to 2 separate drum stands with hydraulic motor, not independent control
- Mechanical front stabiliser

Available Devices

ALL037	Preheating device for use up to -30°C
ALL071	Hydraulic rope clamp for reel change operations
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard





Hydraulic tensioner

FRS531

max tension
75 kN

max speed
5 km/h

max conductor diameter
34 mm

Performance

Max tension	75 kN
Max speed	5 km/h
Max pull-back	40 kN
Max pull-back speed	0.8 km/h

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	NYLON
Max conductor diameter	34 mm
Weight	3400 Kg
Number of grooves	10
Suitable for	1 or 2 ropes or conductor
Layout	Single

Engine

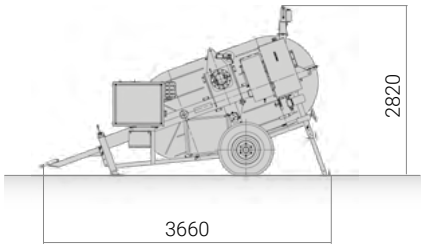
Diesel	25 kW (34 hp)
Cooling system	Water
Electrical system	12 V

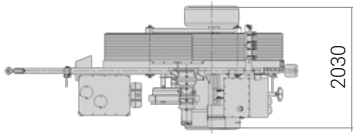
Configuration

- Mechanical meter counter
- Control instruments for hydraulic system and Diesel engine
- Gearbox with 3 operating positions:
  - neutral position
    (with free bull-wheels for conductor loading and unloading)
  - low tension position (5 ÷ 20 kN)
  - nominal tension position
- Hydraulic power pack to control up to 2 reel stands with hydraulic head, not independent control
- Mechanical front stabiliser

Available Devices

ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
ALL051	Cable remote control kit (instrument not included)
AXC005	Cable remote control (15 m range)
ALL059	Radio remote control kit (instrument not included)
AXH007	Radio remote control (150 m range)
ALL071	Hydraulic rope clamp for reel change operations
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic arrangement for connection of multiple machines and for stringing synchronization





Hydraulic tensioner

FRS615

max tension
140 kN

max speed
5 km/h

max conductor diameter
40 mm

Performance

Max tension	140 kN
Max speed	1.8 km/h
Max pull-back	140 kN
Max pull-back speed	5 km/h

Characteristics

Bull-wheel diameter	1500 mm
Bull-wheel material	Nylon
Max conductor diameter	40 mm
Weight	6600 Kg
Number of grooves	16
Suitable for	1, 2, 3 o 4 conductors
Layout	Single

Engine

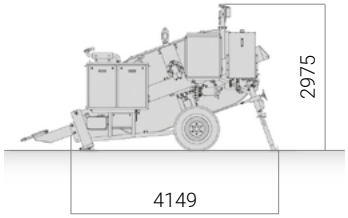
Diesel	55.4 kW (74 hp)
Cooling system	Water
Electrical system	12 V

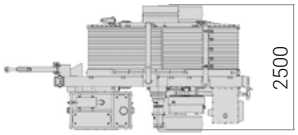
Configuration

- Digital meter counter
- Control instruments for hydraulic system and Diesel engine
- Hydraulic power pack to control up to 4 reel stands with hydraulic head, not independent control
- Hydraulic front stabiliser

Available Devices

ALL001	Lighting system for the trailer
ALL002	Air brake system for the trailer
ALL005	Hydraulic power for an external compressor
ALL037	Preheating device for use up to -30°C
AXC005	Cable remote control (15 m range)
ALL059	Radio remote control kit (instrument not included)
AXH007	Radio remote control (150 m range)
ALL071	Hydraulic rope clamp for reel change operations
ALL080	Special nylon sectors kit instead of the standard
ALL081	Special nylon sectors kit in addition of the standard
ALL089	Electronic arrangement for connection of multiple machines and for stringing synchronization





OVERHEAD

1.3 TOOLS

HYDRAULIC WINCHES: **TIME SAVING SOLUTION**

HYDRAULIC WINCHES

Hydraulic Winches, which can be used **for stringing operations** of low and medium voltage lines, are actually designed for lifting works, in particular for Tower Erection.

The entire range **is engineered to be as light** and compact as possible to facilitate easy maneuvering and positioning.

The machine's declared performances refer to the medium drum diameter.

Consequently, the maximum pull value **is higher than** the declared pull if measured at the internal drum diameter.

Similarly, the maximum speed value would be higher than the declared data if measured at the external drum diameter.

The use of these machines reduces the execution time and ensures a high level of safety:

+ **Closed hydraulic circuit allows to adjust speed while lifting loads**
+ **Negative self-active hydraulic brake stops the machine in case of overload**
+ **Integrated Gear-box in the drum structure maximizes efficiency**

Hydraulic winch

AMB200

max pull
12 kN

max speed
2.1 km/h

max rope diameter
8 mm

Performance*

Max pull	12 kN
Speed at max pull	0.8 km/h
Max speed	2.1 km/h
Pull at max speed	3 kN

* at 20°C and at sea level

Characteristics

Drum specifications	
External diameter	495 mm
Internal diameter	273 mm
Width	509 mm
Rope diameter	8 mm
Max capacity	900 mm
Capstan specifications	
Diameter	220 mm
Weight	350 kg

Engine

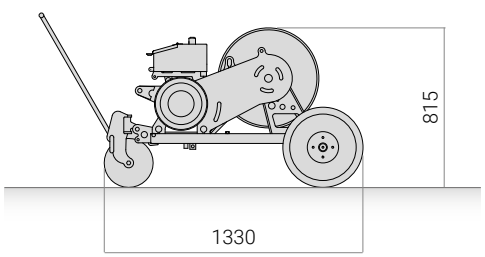
Diesel/Gasoline	5.1 kW (7 HP)
Cooling system	Air
Electrical system	none - by handle

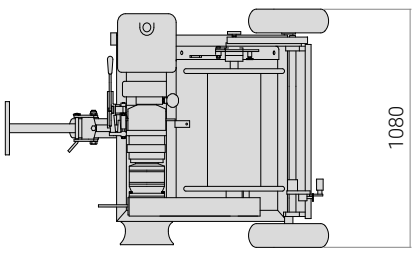
Configuration

- Capestan and drum with automatic level wind
- Negative self-acting hydraulic brake
- Mechanical device to idle the drum
- Rigid axle for manual towing

Available Devices

ALL100	Conical drum, one side detachable
ALL102	Pulling rope locking device when capstan is used (compulsory for EC market)
ALL103	Torque bar with set-point and automatic control of maximum pull
ALL112	Trailer 80 km/h. EC type-approved for road circulation with hook Ø 40 mm and lighting system





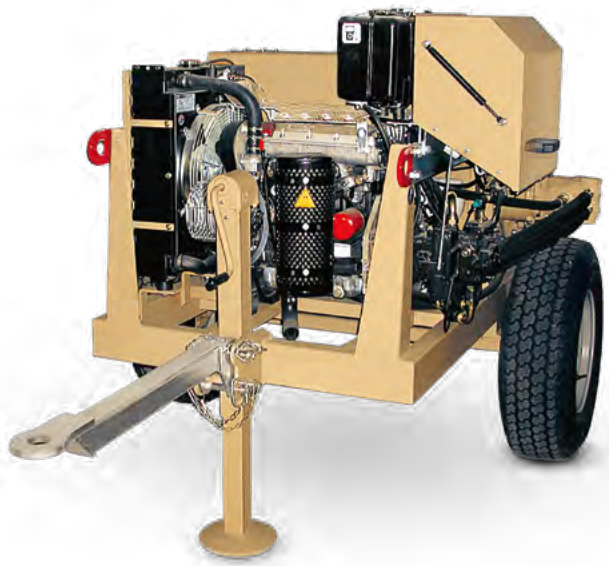
Hydraulic winch

AMC402

max pull
30 kN

max speed
3.5 km/h

max rope diameter
14 mm



Performance*

Max pull	30 kN
Speed at max pull	1.5 km/h
Max speed	5 km/h
Pull at max speed	8.5 kN

* at 20°C and at sea level

Characteristics

Drum specifications	
External diameter	530 mm
Internal diameter	355 mm
Width	700 mm
Rope diameter	14 mm
Max capacity	400 mm
Weight	1000 kg

Engine

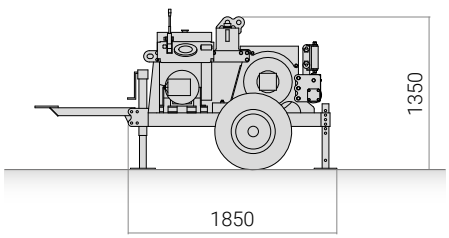
Diesel/Gasoline	25 kW (34 HP)
Cooling system	Water
Electrical system	12 V

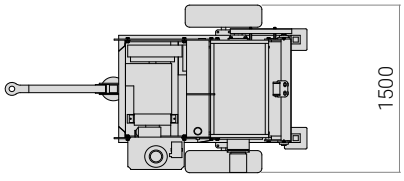
Configuration

- Drum with automatic level winder
- Negative self-acting hydraulic brake
- Hydraulic dynamometer with set-point and automatic control of max pull
- Rigid axles 30 km/h
- Towing shaft with adjusting height
- Mechanical front stabilizer

Available Devices

ALL102	Pulling rope locking device when capstan is used (compulsory for EC market)
ALL107	**Capstan for lifting operations** Max pul 10 kN Max speed 1.5 km/h Capstan diameter 220 mm
ALL112	Trailer 80 km/h. EC type-approved for road circulation with hook Ø 40 mm and lighting system





Hydraulic winch

AMC501

max pull
50 kN

max speed
5 km/h

max rope diameter
18 mm

Performance*

Max pull	50 kN
Speed at max pull	1.3 km/h
Max speed	6 km/h
Pull at max speed	10.5 kN

* at 20°C and at sea level

Characteristics

Drum specifications	
External diameter	700 mm
Internal diameter	457 mm
Width	700 mm
Rope diameter	18 mm
Max capacity	400 mm
Weight	1600 kg

Engine

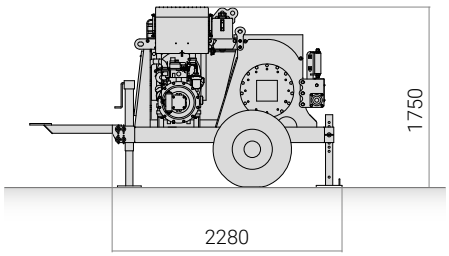
Diesel/Gasoline	34 kW (46 HP)
Cooling system	Water
Electrical system	12 V

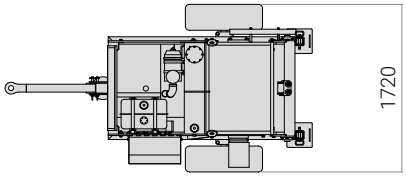
Configuration

- Drum with automatic level winder
- Negative self-acting hydraulic brake
- Hydraulic dynamometer with set-point ande automatic control of macimun pull
- Rigid axles 30 km/h
- Towing shaft with adjusting height
- Mechanical front stabilizer

Available Devices

ALL102	Pulling rope locking device when capstan is used (compulsory for EC market)
ALL107	**Capstan for lifting operations** Max pul 10 kN Max speed 1.5 km/h Capstan diameter 220 mm
ALL112	Trailer 80 km/h. EC type-approved for road circulation with hook Ø 40 mm and lighting system





DISCOVER OUR RANGE OF **DRUM STANDS** AND **REEL WINDERS: LIGHT, COMPACT** AND **VERSATILE**

Tesmec offers **"RV" reel winders** and **"CV" drum stands** for all overhead stringing needs and stand out for their compact design and ease of use.

The reel winders **work with any TESMEC** machine and synchronize perfectly with our pullers for high precision.

The drum stands offer a **wide choice of models**: light and compact "**CVC**" cradle-type, versatile and transportable "**CVI**", and sturdy "**CVR**" rigid-frame.

Moreover, there are many available devices to compose the best solution for your construction site.

Our products are **solid, accurate,** and based on **constant research** on our customers' needs. They ensure success for every stringing site.

Reel winders

RVA

- Suitable to work with any Tesmec machine
- Compact design and easy to handle

RVA001

RVA200

Performance

Model	Capacity [kN]	Torque [kNxm]	Rotating speed [rpm]	Weight [kg]	Max reel diameter [mm]
RVA001	20	1	50	525	1400
RVA200	30	1	50	850	1900

Reel model

BOF010	**BOF020**	**BOF030***	**BOC040**	**BOC050**

* Available only for RVA200

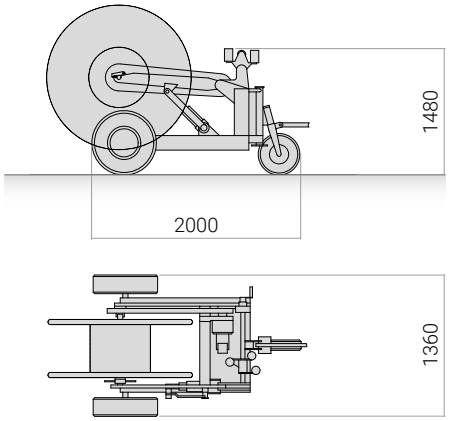
Kit of connecting hoses

TUT001	length 7 m
TUT002	length 10 m
TUT003	length 15 m

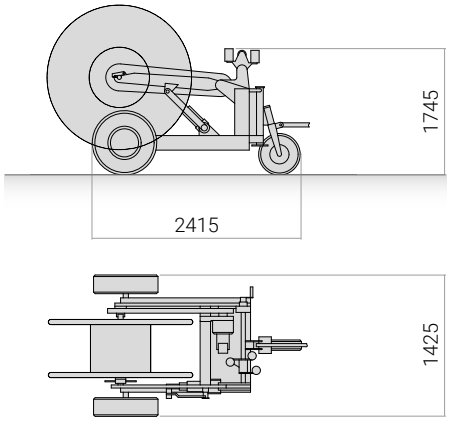
Configuration

- Automatic level wind
- Negative self-acting hydraulic brake
- Hydraulic jacks powered by the same hydraulic source
- Rigid semiaxles for manual towing
- Can operate with the standard reels mod. BOF010, BOF020, BOC040, BOC050 and BOC030
- Extra shaft AXR001 is included

RVA001



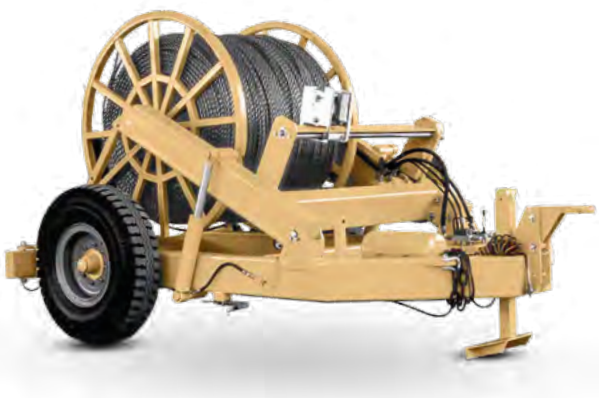
RVA200



Reel winders

RVB

- Suitable to work with any Tesmec machine



RVB600

Built-in reel

Ø rope [mm]	10	13	15	18	21	23	25	28
Rope capacity [m]	19200	12000	9000	6000	4400	3600	3200	2400

Performance

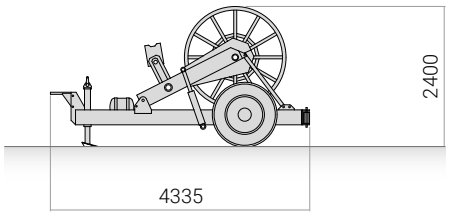
Capacity	70 kN
Torque	2.7 kNxm
Rotating speed	35 rpm
Weight	1770 kg

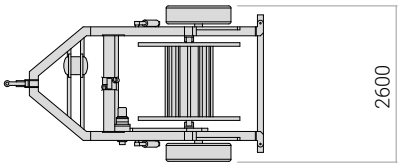
Configuration

- Automatic level wind
- Negative self-acting hydraulic brake
- Hydraulic jacks powered by the same hydraulic source
- Included steel reel mod. BOF060 with capacity indicated in the table below
- Manual front stabiliser
- Connecting hoses kit 15 m length
- Lighting system
- Air brake system
- Rigid axle for towing at max speed of 30 km/h with mechanical parking brake

Available Devices

BOF060	Additional special steel reel with support shaft

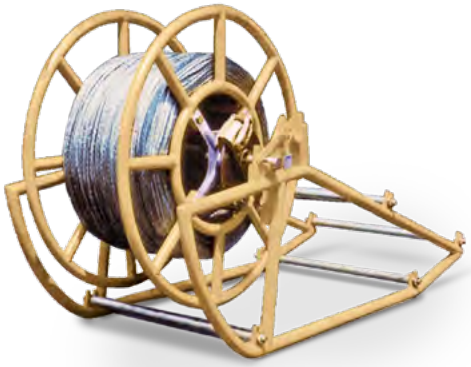




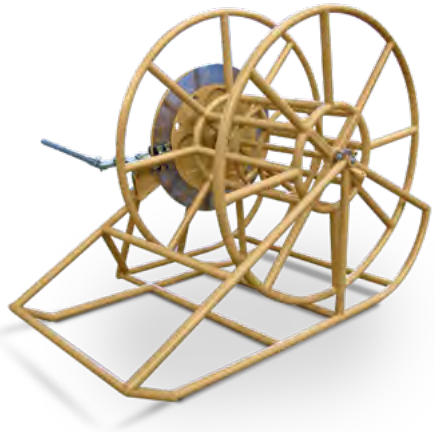
Cradle reel elevators

CVC

- Detachable frame
- Light design



CVC002 - CVC201



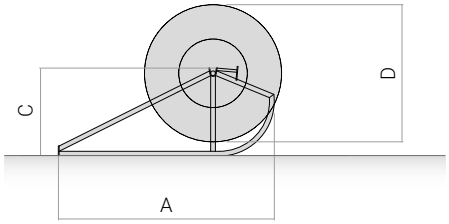
CVC004

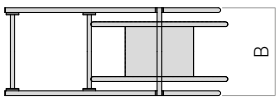
Characteristics

Model	Dimensions [mm]				Capacity [kN]	Weight [kg]
	A	B	C	D		
CVC002	2200	900	910	1400	20	58
CVC201	3020	1060	1130	1900	26	150
CVC004	2015	1442	1380	1400	30	390

Available Devices

CDF007	Disk brake device for model CVC002 (max torque 1.3 kN x m)
CDF008	Disk brake device for model CVC201 (max torque 2 kN x m)



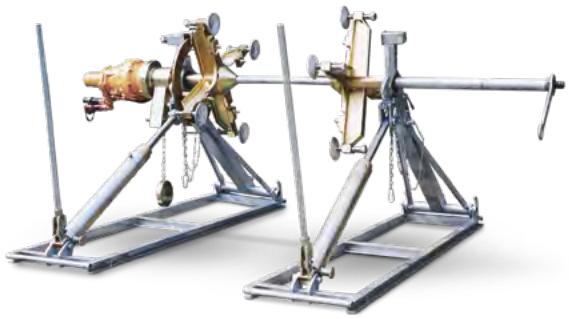


Hydraulic drum elevators light duty

CVI

- Detachable frame
- Easy transport

CVI400



CVI602 with TIH002

Characteristics

Model	Dimensions [mm]								Capacity [kN]	Weight [kg]
	A	B min	B max	C min	C max	D	E min	E max		
CVI400	1650	600	1500	500	1100	550	1100	2000	60	284
CVI602	2150	500	1500	500	1400	500	1500	2500	70	330

Configuration for CVI400

One mechanical disk brake and support for wooden drums of conductors as standard configuration

CVI: The traditional range

- Easy to install
- Compact for transportation

Configuration for CVI602

- One mechanical disk brake
- Support for wooden drums of conductors

Typical Available Devices for CVI602

TIH002	Fast assembling hydraulic motor for control of the drum winding and unwinding
TUT002	Kit of connecting hoses Length 10 m, Weight 15 Kg
CDA009	Adapter for steel rope standard reel (BOF010-BOF020-BOF030-BOC040-BOC050)
CDF051	Manual disk brake (Max torque 0,8 kN x m)

Hydraulic drum elevators light duty

CVI

- Detachable frame
- Easy transport

CVI600 with CDR002 and TIH001

CVI810 with CDR057 and CDF059

Characteristics

Model	Dimensions [mm]								Capacity [kN]	Weight [kg]
	A	B min	B max	C min	C max	D	E min	E max		
CVI600	2140	800	1500	580	1340	640	1200	2500	80 kN	305 kg
CVI810	2500	800	1850	720	1725	740	1500	3200	100 kN	550 kg

Configuration for CVI600

One manual disk brake CDF012 (max torque 1 kN x m)

Configuration for CVI810

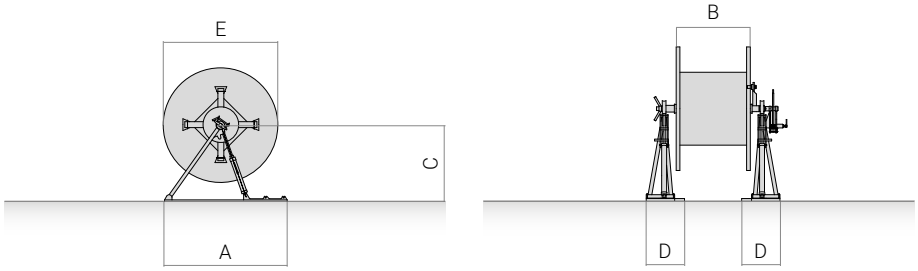
One manual disk brake CDF059 (max torque 2.3 kN x m)

Typical Available Devices for CVI600

CDR002	Supports with self-locking fixing wedges for wooden conductor drums Max reel hole diameter =125 mm
TIH001	Fast assembling hydraulic motor for control of the drum winding and unwinding
TIH006	Fast assembling hydraulic motor for control of the drum winding and unwinding
TUT002	Kit of connecting hoses Length 10 m, weight 15 Kg
CDF013	Manual disk brake (Max torque 2.3 kN x m)
CDA004	Adapter for steel rope standard reel (BOF010-BOF020-BOF030-BOC040-BOC050)

Typical Available Devices for CVI810

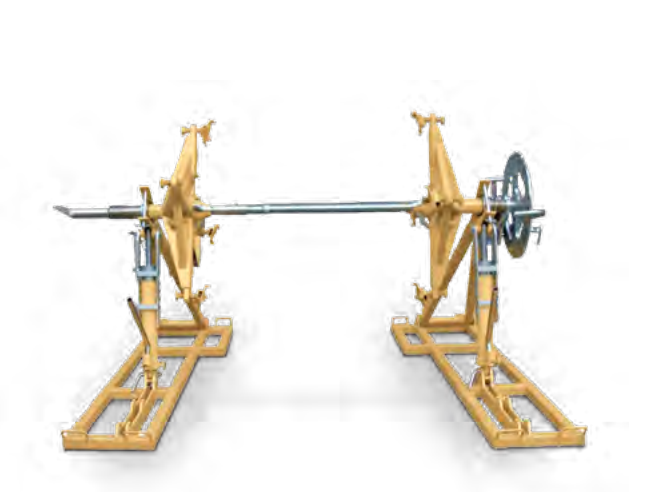
CDR057	Supports with self-locking fixing wedges for wooden conductor drums
TIH007	Fast assembling hydraulic motor for control of the drum winding and unwinding
TUT002	Kit of connecting hoses Length 10 m, weight 15 Kg
CDTXXX	Special driver with fixed wedges for steel conductor reels (reel drawing is required)
CDA060	Adapter for steel rope standard reel (BOF010-BOF020-BOF030-BOC040-BOC050)



Hydraulic drum elevators heavy duty

CVI

CVI814



CVI837

Characteristics

Model	Dimensions [mm]								Capacity [kN]	Weight [kg]
	A	B min	B max	C min	C max	D	E min	E max		
CVI814	2500	800	1850	720	1725	740	1500	3200	120	550
CVI837	2800	1500	2600	960	1770	900	2000	3400	160	900

Configuration for CVI814

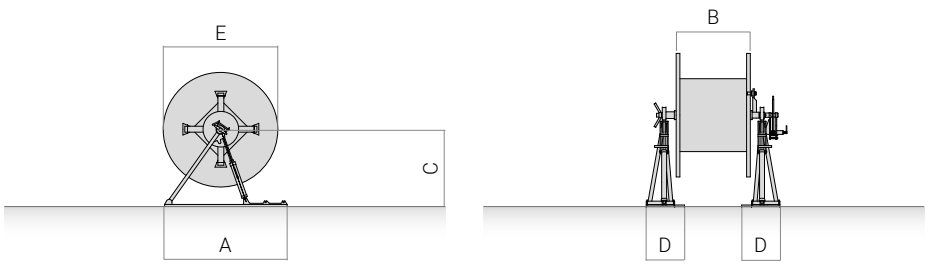
One manual disk brake CDF059 (max torque 2.3 kN x m)

Typical Available Devices for CVI814

CDR057	Supports with self-locking fixing wedges for wooden conductor drums
TIH007	Fast assembling hydraulic motor for control of the drum winding and unwinding
TUT002	Kit of connecting hoses Length 10 m, weight 15 Kg
CDTXXX	Special driver with fixed wedges for steel conductor reels (reel drawing is required)
CDA060	Adapter for steel rope standard reel (BOF010-BOF020-BOF030-BOC040-BOC050)

Typical Available Devices for CVI837

CDR222	Supports with self-locking fixing wedges for wooden conductor drums + one manual brake
TIH010	Fast assembling hydraulic motor for control of the drum winding and unwinding
TUT002	Kit of connecting hoses Length 10 m, weight 15 Kg
CDTXXX	Special driver with fixed wedges for steel conductor reels (reel drawing is required)



Drum stand

CVR

- Ready to use
- Suitable for different reel dimensions

CVR624

Heavy duty drum stand

- One piece system

CVR839

Characteristics

Model	Dimensions [mm]					Capacity [kN]	Weight [kg]
	A	B	C	D	E		
CVR624	2750	1700	1580	2170	2840	70	365
CVR839	2000	1650	1618	3057	3000	120	930

Configuration for CVR624

One manual disk brake CDF012 (max torque 1 kN x m)

Typical Available Devices for CVR624

CDR124	Support with fixed wedges for wooden conductor drums
CDT123	Special driver with fixed wedges for steel conductor reels
CDA125	Adapter for steel rope standard reels (BOF010-BOF020-BOF030-BOC040-BOC050)
TIH001	Fast assembling hydraulic motor for control of the drum winding and unwinding
TUT002	Kit of connecting hoses

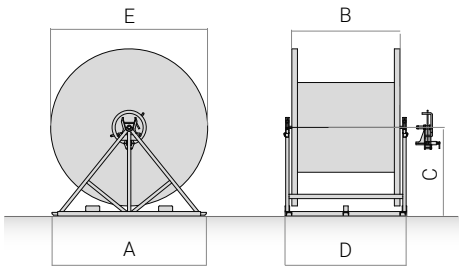
Configuration for CVR839

- Integrated hydraulic motor. Hydraulic transmission powered by existing machines. Universal drive shaft. Incorporated disk brake for emergency breaking in case of absence of hydraulic power (max Torque 2.3 kN x m)
- Simple drive transmission engagement by means of slide shaft. Rollers supported shaft

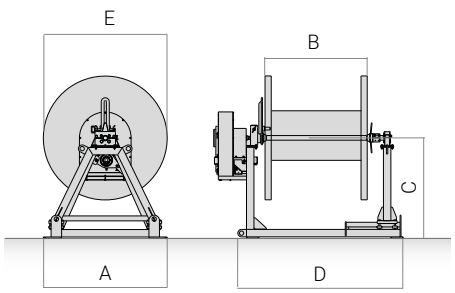
Typical Available Devices for CVR624

CDR124	Support with fixed wedges for wooden conductor drums
CDT123	Special driver with fixed wedges for steel conductor reels
CDA125	Adapter for steel rope standard reels (BOF010-BOF020-BOF030-BOC040-BOC050)

CVR624



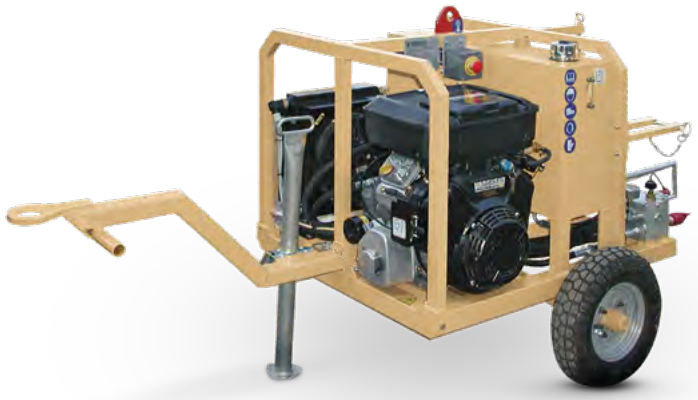
CVR839



Hydraulic power unit

CPR

- Compatible with all TIH hydraulic heads
- Easy transport



CPR202 - CPR203

Performance

Model	Oil flow [l/min]	Max pressure [bar]
CPR202	36	210
CPR203	20	210

Hydraulic transmission

Half open hydraulic circuit

Engine

Gasoline	13 kW (18 hp)
Cooling system	AIR
Electrical system	12 V

CPR202

These units have been designed to power drum stand equipped with hydraulic head for tensioning operation when the tensioner in use is passive type.

Configuration

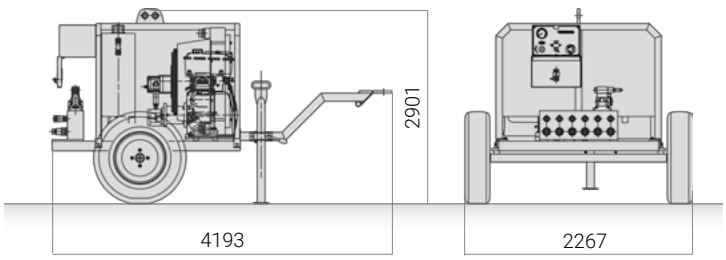
- Hydraulic oil cooling system
- Rigid axle for towing at max speed of 30 km/h
- Towing shaft with adjustable height

Kit of connecting hoses

TUT001	Length 7 m, Weight 11 Kg
TUT002	Length 10 m, Weight 15 Kg
TUT003	Length 15 m, Weight 23 Kg

Available devices

ALL112	Trailer for towing at max speed of 80 km/h with mechanical parking brake Towing shaft with inertial braking system Hook with Ø 40 mm eye Lighting system included EC type-approved for road circulation on demand



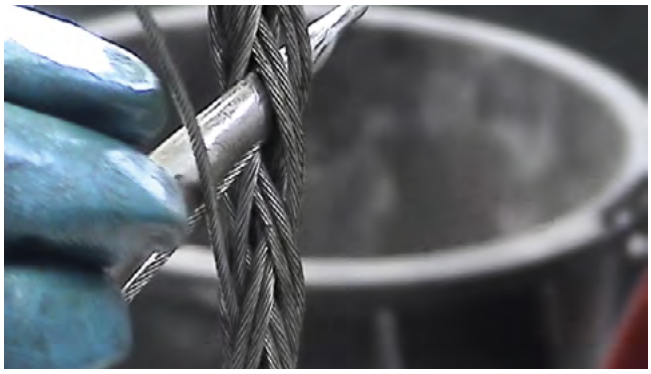

TESMEC

IT'S **NOT JUST** A **STEEL ROPE!**

original by **TESMEC**

FUA is an anti-twisting **galvanized steel rope**, made up of braided strands with several technical advantages:

+ **Steel Quality**: strong and flexible
+ **Elongation**: less than 2.5% to prevent a spring effect
+ **Galvanization**: each wire is galvanized, providing high resistance to corrosion
+ **Greasing**: strands are individually greased, ensuring a much longer lubrication effect
+ **Special Length**: available without joints or connectors
+ **Life cycle**: longer than any other rope on the market, potentially exceeding ten years with proper maintenance



FUH has the same technological advantages as FUA, but is made with **high tensile strength** steel strands allowing for higher working and breaking loads with the same linear mass.

The correct pairing of pullers and ropes is guaranteed by a safety factor of 3, meaning the breaking load is three times higher than the working load (as per IEC TR61328 rev.03:2017).

SWIVEL JOINTS: RESISTANT AND LIGHT

Tesmec swivel joints offer high ratio between resistance and weight. They are assembled with thrust bearings, allowing limited angular movement to adapt to the pulley's groove.

The two sections can freely rotate under tension, releasing the torsion accumulated on the line.

These swivel joints are made of high-tensile galvanized steel to ensure maximum performance and safety during use.

MESH SOCK JOINTS: HANDCRAFTED & RELIABLE

Tesmec mesh sock joints are handcrafted in Italy by using strands made by single galvanized wire.

Their specific formation provides excellent flexibility and performance. For this reason, they are reusable for multiple operations.

original by TESMEC

Anti twisting steel rope

FUA6

- High flexibility
- Complete stability to rotation
- 8 Strands with individual galvanized
- Elementary wires

Anti twisting steel rope high tensile

FUH

- High flexibility
- Complete stability to rotation
- 8 Strands with individual galvanized
- Elementary wires

FUA6

Model	Nominal diameter [mm]	Working load* (3:1) [kN]	Breaking load* [kN]	Linear weight [kg/m]	Standard length** [m]
FUA006	6	7.6	22.9	0.114	1800-3600
FUA008	8	14.2	42.6	0.22	1600
FUA611	11	25	75	0.359	1100
FUA613	13	35	105	0.502	800-1600
FUA615	15	50	150	0.712	900-1800
FUA618	18	75	225	1.072	1200
FUA621	21	100	300	1.429	900
FUA623	23	120	360	1.718	800
FUA625	25	140	420	2.004	700
FUA628	28	180	540	2.572	600

FUH

Model	Nominal diameter [mm]	Working load* (3:1) [kN]	Breaking load* [kN]	Linear weight [kg/m]	Standard length** [m]
FUH009	9	20	60	0.25	1500
FUH013	13	40.3	121	0.50	800-1600
FUH016	16	61	183	0.76	900-1800
FUH018	18	81	243	1.01	1200
FUH022	22	119.3	358	1.48	800
FUH025	25	160	480	1.72	700
FUH031	31	237.6	713	3.00	400

Note

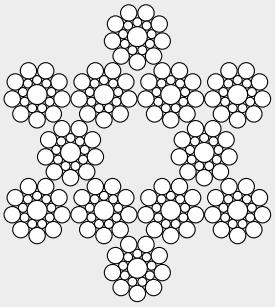
Sections are supplied with spliced eyes in the following models:
- ALF001 for diameters 06÷11 mm
- ALF002 for diameters 13÷18 mm
- ALF003 for diameters 21÷31 mm

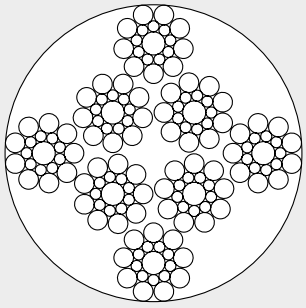
* This value is related to rope with spliced eyes and for stringing operation
** The rope is also available in different lengths and in continuous sections up to 7000 m

Anti twisting steel rope

FUA7

- High flexibility
- Complete stability to rotation
- Galvanized steel rope
- Elementary wires
- 12 Strands with individual galvanized





FUA7

Model	Nominal diameter [mm]	Working load* (3:1) [kN]	Breaking load* [kN]	Linear weight [kg/m]	Standard length** [m]
FUA707	7	12	36	0.17	2000
FUA709	9	18	55	0.27	2000
FUA711	11	25	75	0.4	1600
FUA713	13	35	105	0.57	2000
FUA715	15	50	150	0.79	1500
FUA718	18	75	225	1.03	1200
FUA722	22	107	320	1.48	900
FUA724	24	120	360	1.8	800
FUA726	26	140	420	2.22	700
FUA728	28	180	540	2.62	600

Reel capacity

ø Rope [mm]	Reel ø 1100 [m]	Reel ø 1400 [m]	Reel ø 1500 [m]
7	4950	9000	10600
9	3150	5700	6700
11	2200	4000	4700
13	1500	2750	3200
15	1100	2000	2350
18	800	1450	1750
22	600	1050	1250
24	-	850	1050
26	-	700	830
28	-	600	730

Polypropylene polyethylene rope

COH

- Uv resistent
- Water proofed
- Easily spliced

Nylon rope

COA

- Polyester mesh sock with high strength nylon core
- Special sewn eyes without breaking load loss

COH

Model	Nominal diameter [mm]	Working load* (5:1) [kN]	Breaking load* [kN]	Linear weight [kg/m]	Standard length** [m]
COH010	10	2.80	14	0.040	1000
COH012	12	4.60	23	0.060	1000
COH014	14	5.20	26	0.075	1000
COH016	16	6.40	32	0.092	1000
COH018	18	8.00	40	0.110	1000
COH020	20	10.20	51	0.150	1000
COH022	22	12.40	62	0.165	1000

Elongation with 20% of breaking load = 7%

Note

Available spliced eye ALC145.

If 2 eyes are needed, 2 ALC145 have to be ordered.

COA

Model	Nominal diameter [mm]	Working load* (5:1) [kN]	Breaking load* [kN]	Linear weight [kg/m]	Standard length** [m]
COA006	6	1.50	7.5	0.028	1000
COA008	8	2.40	12	0.046	1000
COA010	10	4.00	20	0.073	1000
COA012	12	7.00	35	0.120	1000
COA014	14	8.60	43	0.145	1000
COA016	16	10.00	50	0.196	1000
COA018	18	11.60	58	0.240	1000
COA020	20	13.00	65	0.295	1000
COA022	22	16.60	83	0.350	1000

Elongation with 30% of breaking load = 7.5%

Note

The eyes are available in the following models:
- ALC005 for diameters 08-10 mm
- ALC006 for diameters 12-14 mm
- ALC007 for diameters 16-20 mm

If 2 eyes are needed, 2 ALC have to be ordered.

Dielectric rope

COI

- 3 Strands rope made of high tenacity polypropylene
- Excellent dielectric and insulating properties
- No water uptake

Dyneema® Rope

COY

- 12 strands 100% Dyneema® (HMPE)
- Light and extremely resistant
- High tenacity Polyester protection

COI

Model*	Nominal diameter [mm]	Working load* (5:1) [kN]	Breaking load* [kN]	Linear weight [g/m]
COI106	6	1.05	5.27	20
COI108	8	1.82	9.11	30
COI110	10	2.78	13.94	50
COI112	12	4.14	20.71	70
COI114	14	5.69	28.47	90
COI116	16	6.83	34.16	120
COI118	18	9.08	45.41	150
COI120	20	10.96	54.80	180

* On request, it can be supplied with: Thimbles, Spliced eyes

Characteristics

- Specific gravity 0.93
- Flotability
- Low flexibility
- Good UV resistance additive
- Weak abrasion resistance
- Spliceable
- Additive treatment

Caution

We recommend to keep the rope clean and dry to assure the highest dielectric properties. If the material is not used in good conditions, we do not assure the highest dielectric protection.

COY

Model*	Nominal diameter [mm]	Working load* (5:1) [kN]	Breaking load* [kN]	Linear weight [g/m]
COY010	10	11.9	59.5	77
COY012	12	16.5	82.4	100
COY014	14	18.3	91.4	137
COY016	16	26.8	134.1	169
COY018	18	32.2	160.8	227
COY020	20	39.0	195.1	277
COY022	22	57.3	286.7	311
COY024	24	70.0	350.1	377

* On request, it can be supplied with: Thimbles, Spliced eyes

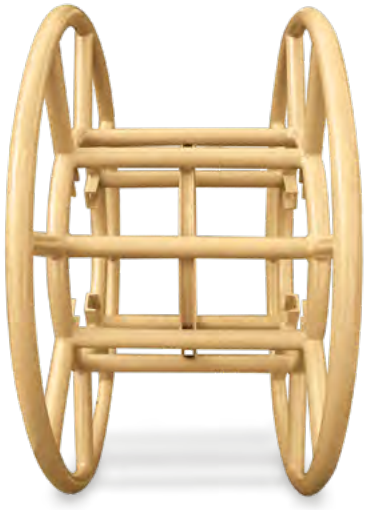
Characteristics

- (HMPE) and Polyester. (HT)
- Specific gravity 1.07
- Water absorption from 0.5 to 2%
- Non floating
- Good flexibility
- Spliceable
- Excellent UV resistance
- Excellent abrasion resistance
- Melting point 144-152° C
- Maximum working temperature 70° C
- Antigiratory

Standard reels

BOF

- Worldwide standard design
- Welded steel with protective coating



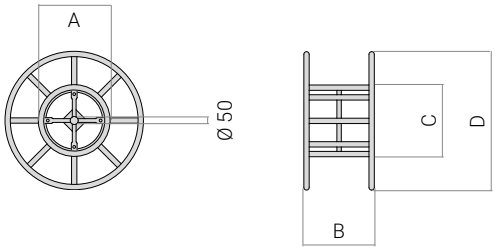
Cross Support

BOS360

- Two cross arms included
- Weight with bolts: 2.6 kg

Characteristics

Model	Dimensions [mm]				Weight [kg]
	A	B	C	D	
BOF010	420	560	570	1100	53
BOF020	420	560	570	1400	73
BOF030	420	560	570	1900	135



Reel max capacity for anti-twisting braided rope

ø Rope [mm]	Model [m]			
	BOF010	BOF020	BOF030	BOF330
6	6300	10000	22200	76000
8	3900	7100	13700	47000
9	3200	5900	11500	39200
11	2300	4300	8400	28800
13	1600	2850	5600	19400
15	1150	2000	4100	14550
16	1030	1900	3700	12400
18	800	1400	2800	9750
19	780	1400	2800	9300
21	-	1050	2150	7100
22	-	950	1900	6400
23	-	860	1750	6000
25	-	750	1550	5100
26	-	700	1400	4700
28	-	600	1150	4000
31	-	430	850	3100

Detachable reels

BOC

- Worldwide standard design
- Welded steel with protective coating

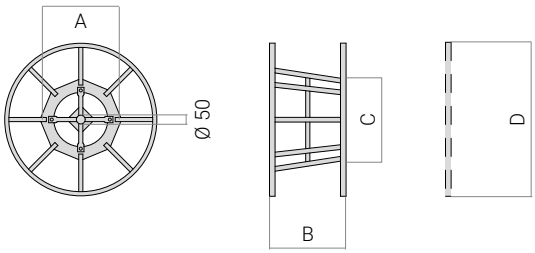
Cross Support

BOS360

- Two cross arms included
- Weight with bolts: 2.6 kg

Characteristics

Model	Dimensions [mm]				Weight [kg]
	A	B	C	D	
BOC040	420	560	590	1100	75
BOC050	420	560	590	1400	86
BOC310	420	890	626	1900	210
BOC320	420	1310	605	2050	250



Reel max capacity for anti-twisting braided rope

ø Rope [mm]	Model [m]			
	BOC040	**BOC050**	**BOC310**	**BOC320**
6	5600	10900	36000	63000
8	3500	6700	22200	38500
9	2850	5580	18200	32600
11	2150	4100	13300	23800
13	1400	2750	9000	16100
15	1100	2050	6800	11700
16	950	1750	6000	10600
18	700	1350	4500	7800
19	700	1300	4300	7800
21	-	1000	3400	6000
22	-	850	3000	5200
23	-	800	2800	4800
25	-	750	2400	4200
26	-	650	2100	3900
28	-	550	1900	3300
31	-	420	1450	2500

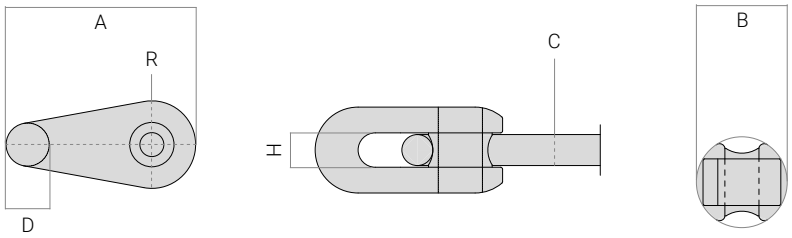
Connectors

GFT

- Highly tensile forged galvanized steel
- Compact shape for bull wheels grooves

Characteristics

Model	Dimensions [mm]			Working load [kN]	Weight [kg]
	A	B	C max		
GFT001	59	28	10	23	0.125
GFT010	74	40	13	37	0.325
GFT020	91	48	16	53	0.525
GFT030	102	54	18	73	0.75
GFT040	121	60	24	120	1.025
GFT050	174	75	28	250	3.025
GFT060	183	81	32	250	3.4



Standard swivel joints

GGT

- Highly tensile galvanized steel
- Resistant and light

Conductive swivel joints

GGT

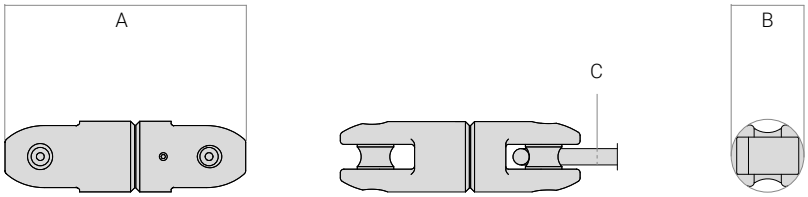
- They are suitable to work in live working condition
- Specification: t <100° with 225 a continuous flow for 1 h

Standard swivel joints

Model	Dimensions [mm]			Working load [kN]	Weight [kg]
	A	B	C max		
GGT001	106	28	10	23	0.3
GGT010	143	40	13	37	0.925
GGT020	184	54	18	73	2.15
GGT030	234	60	24	120	3.4
GGT040	322	77	28	250	8.2
GGT180	336	81	32	250	8.7
GGT260	403	104	38	330	19.5

Conductive swivel joints

Model	Dimensions [mm]			Working load [kN]	Weight [kg]
	A	B	C max		
GGT081	184	54	18	60	2
GGT170	243	60	24	97	3.4



Single head sock joints

GCT

- Flexible
- Reusable

Double head sock joints

GCT

- Flexible
- Reusable

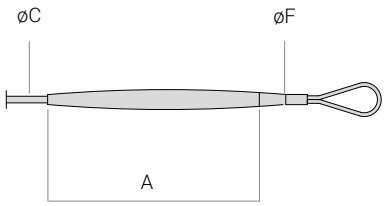
Single Head

Model	Suitable swivel	øC [mm]	Dimensions [mm]		Identifying colour	Working load [kN]	Weight [kg]
			A	øF			
GCT001	GGT001	8-17	1100	22	yellow	12	0.7
GCT010	GGT010	17-29	1360	28	red	28	1.3
GCT020	GGT020	29-38	1470	30	green	43	2.1
GCT030	GGT020 GGT030	38-50	1820	34	black	60	2.7

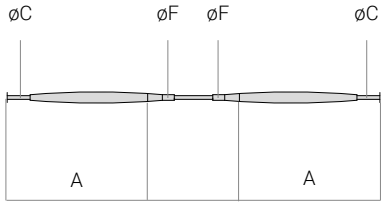
Double Head

Model	øC [mm]	Dimensions [mm]		Identifying colour	Working load [kN]	Weight [kg]
		A	øF			
GCT500	8-17	1100	22	yellow	12	1.15
GCT510	17-29	1360	28	red	28	2.3
GCT520	29-38	1470	30	green	43	3.6
GCT530	38-50	1820	34	black	60	4.8

Single head



Double head



A **WORLD** OF **CUSTOMIZED SOLUTIONS!**

STRINGING BLOCKS, PIVOTING ARRAY BLOCKS & HEAD BOARDS

Tesmec offers a variety of Stringing Blocks for **different cable-laying** needs and challenges.

Recently, particularly due to the advent of new-generation HTLS conductors, we have developed an **innovative solution** of pivoting array blocks.

To ensure the **highest level of safety** on jobsites the grounding devices available for all stringing blocks and pivoting array blocks models comply with the IEC TR61328: we continuously conduct tests on this equipment to certify its **quality and safety**.

STRINGING BLOCKS

Our pulleys, created with an innovative molding process, are made from a single solid piece without any joints, thus ensuring unparalleled strength and reliability.

The wheels are made of an aluminium alloy, mounted on ball bearings and the groove is lined by wear-proof interchangeable nylatron or aluminium sectors.

The frame is made of galvanized steel, and the stringing blocks are supplied with fixed connection.

Grounding devices or complete conductive shaves are available upon request.

+ Tailor made solutions
+ 5 different materials and types for lining
+ Available tandem and for helicopter stringing version of every standard model

Tesmec Grounding are suitable for fault currents, lightening strikes, induced voltages, and currents, rated at 20.000 A for 20 cycles.

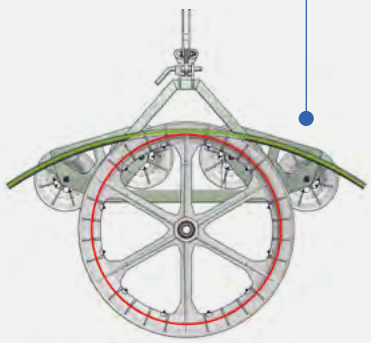
Available for drain current in equipotential system and for induced current.

Aluminium sectors with bearing conductive grease are also available as special solution for each standard model.

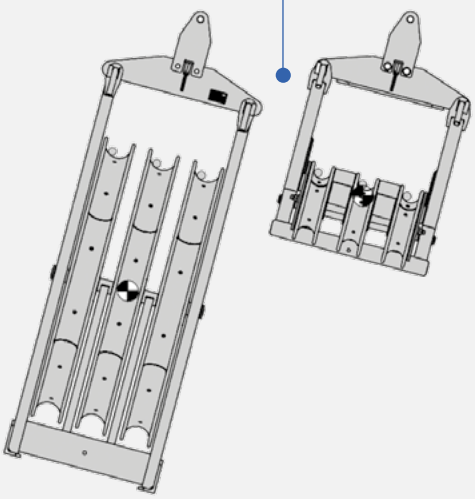
PIVOTING ARRAY BLOCKS

Array blocks are the solution for the need for a large bending radius while keeping dimensions, weight, and handling capability as easy as possible.

+ Light Weight & Dimension
+ Easy Handling & Transportation
+ No diameter limitation



+ Special Sectors
+ Integrated Earthing Device
+ Matchable with Standard Block
+ Fully Compatible
+ High Center of Gravity



ANTI-TORQUE DEVICES

Easy passage.

The combination of the OPGW anti-twisting device RFF and the clamp for fiber optic, model MOF, guarantees the best protection against torque, preventing all risks related to its damage. The RFF is specifically designed to connect the pulling rope with an OPGW: its two arched rods facilitate the passage over the blocks, and two counterweights prevent cable twisting. The clamp model MOF features special liners shaped to match the exact external diameter of the OPGW

TRACTION MACHINE

One system for two applications.

Traction machine is the ideal solution for live line replacement of Earth Wire/OPGW with OPGW and for installing safety nets on critical crossings. The key features of this machine are high speed and pulling capacity, which enable:

+ Heavy operations, such as safety nets and longer span.
+ Operating times reduction.

Service snatch blocks

CZA

- Available open or closed types
- Wheels mounted on ball bearings
- Special models can be designed on demand

Service snatch blocks

CZL

- Available open or closed types
- Wheels mounted on ball bearings
- Special models can be designed on demand

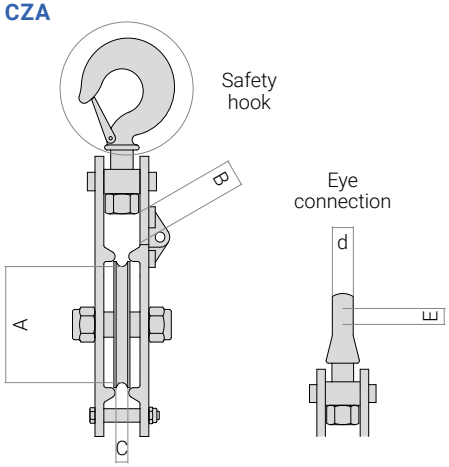
CZA - Steel service snatch blocks

Swivel connection			Dimensions [mm]					Working load [kN]	Weight [kg]	
Safety hook connection Closed type	Safety hook connection Open type	Eye connection (Open type)	A	B	C	D	E		Safety hook connection	Eye connection
CZA370	CZA010	CZA001	108	40	15	20	17	18	5	4.9
CZA033	CZA030	CZA020	138	40	15	27	21	36	8	8.5
CZA141	CZA140	CZA280	185	55	30	30	26	50	16	12

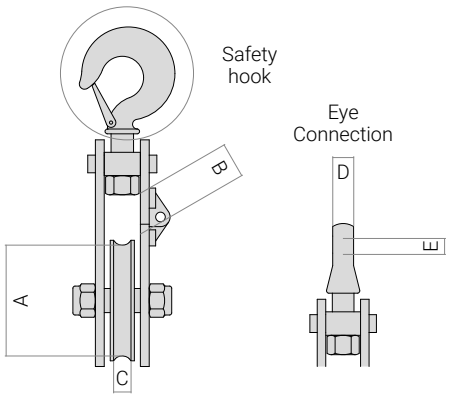
CZL - Aluminium alloy service snatch blocks

Swivel connection		Dimensions [mm]					Working load [kN]	Weight [kg]
Safety hook connection (Open type)	Eye connection (Open type)	A	B	C	D	E		Safety hook connection or Eye connection
CZL050	CZL040	100	30	22	14	18	6	1.6
CZL080	CZL070	140	40	25	16	18	12	2.8

CZA



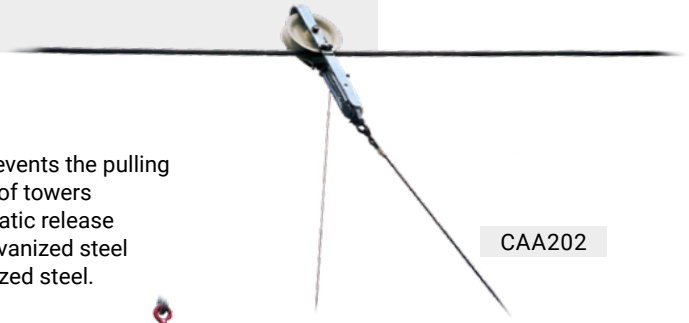
CZL



Anti-lifting automatic release pulley

CAA

The anti-lifting automatic release pulley is a special device that prevents the pulling rope lifting with respect to the theoretical line, specifically in case of towers with considerable height differences. It is equipped with an automatic release system to facilitate recovery operations. The wheel is made of galvanized steel and mounted on ball bearings; the pulley frame is made of galvanized steel.



CAA202

Lifting tackles

TAP

The lifting tackles are suitable for Ø 9 mm steel ropes;
the wheels are mounted on ball bearings.
The frame is made of galvanized steel.
Rope and swivel joint not included.

CAA - Characteristics

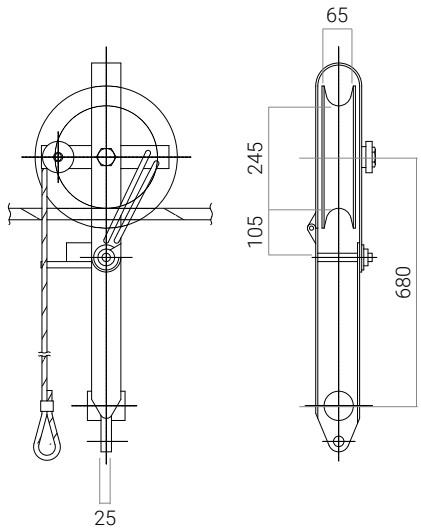
Working load	27 kN
Weight	20 kg

TAP - Characteristics

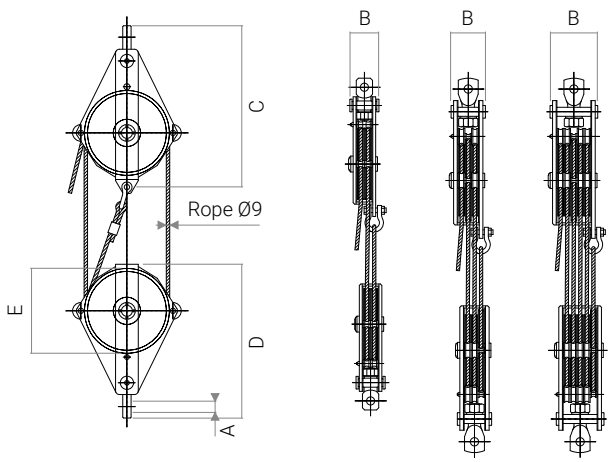
Model	Dimensions [mm]					Pulling force/ Lifting load	Working load [kN]	Weight [kg]
	A	B	C	D	E			
TAP001	20	67	353	331	180	1:4	30	17
TAP010	23	85	408	386	180	1:6	50	27
TAP020	26	120	440	415	180	1:10	80	42

Suitable rope Mod. FUZ009 diameter 9 mm Suitable swivel Model GGT001

CAA



TAP



Single conductor stringing blocks

CAS

Three types of connections available: fixed (B), swivel-type (C), and hook with safety lock (D)

Ground wire stringing blocks

CGA

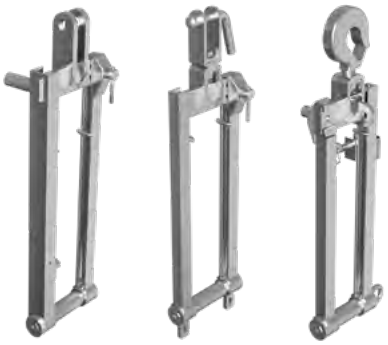
CAS

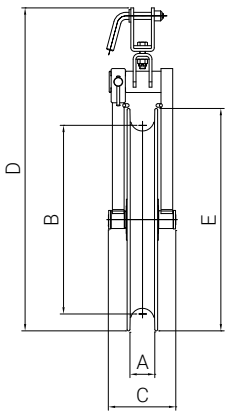
Model		Type of connection	Dimensions [mm]					Working load [kN]	Weight [kg]
Nylatron	Aluminium		A	B	C	D	E		
CAS200	CAS207	C	50	250	145	482	330	27	7
CAS201	CAS208	D	50	250	145	490	330	27	7
CAS301	CAS308	B	54	350	150	595	440	23	11
CAS303	CAS309	C	54	350	150	640	440	23	12
CAS305	CAS310	D	54	350	150	630	440	23	12
CAS601	CAS632	B	68	650	186	996	775	33	28
CAS603	CAS638	C	68	650	186	1052	775	33	29
CAS605	CAS639	D	68	650	186	1087	775	33	30
CAS607	CAS644	B	95	650	218	1010	775	40	32
CAS609	CAS645	C	95	650	218	1062	775	40	33
CAS611	CAS646	D	95	650	218	1097	775	40	34
CAS801	CAS843	B	68	800	186	1101	880	40	32
CAS803	CAS835	C	68	800	186	1157	880	40	33
CAS805	CAS836	D	68	800	186	1192	880	40	34
CAS807	CAS857	B	95	800	218	1125	893	40	38
CAS809	CAS852	C	95	800	218	1180	893	40	39
CAS811	CAS858	D	95	800	218	1215	893	40	40
CAS002	CAS012	B	95	1000	218	1335	1100	40	49
CAS004	CAS013	C	95	1000	218	1387	1100	40	50
CAS006	CAS014	D	95	1000	218	1422	1100	40	51
CAS027	-	B	130	1200	310	1824	1393	90	110
CAS034	-	B	130	1500	390	2124	1670	90	155

Sectors available in other materials (aluminium, cast iron) - pg 90

Type of connection:

B C D





CGA

Model	Type of connection	Dimensions [mm]					Working load [kN]	Weight [kg]
		A	B	C	D	E		
CGA200	B	65	230	150	480	300	23	11
CGA201	C	65	230	150	510	300	23	11
CGA202	D	65	230	150	476	300	23	11

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

Bundled conductors stringing blocks

CAT

Two or three bundled conductors

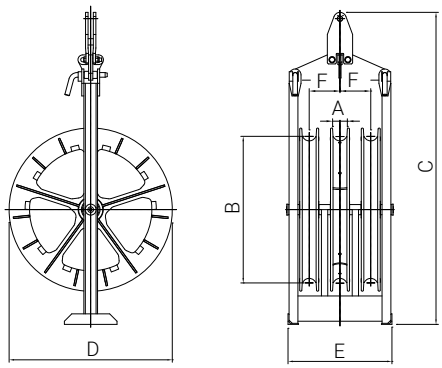
CAT

Model		Dimensions [mm]						Working load [kN]	Weight [kg]
Nylatron	Aluminium	A	B	C	D	E	F		
CAT648	**CAT622**	68	650	1430	775	500	145	50	110
CAT676	**CAT654**	95	650	1430	775	572	175	70	130
CAT912	**CAT894**	68	800	1530	880	500	145	70	125
CAT848	**CAT874**	95	800	1540	893	572	175	70	160
CAT007	-	95	1000	1740	1100	572	175	70	198
CAT029	-	133	1200	2060	1393	722	222	90	270
CAT035	-	133	1500	2330	1670	722	222	90	320

Sectors available in other materials (aluminium, cast iron) - pg 90

Characteristics

The central wheel is mounted on double-row ball bearings with grooves made up of wear-proof interchangeable nylatron sectors.
The stringing blocks are supplied with fixed connection. Grounding device or complete conductive sheaves are available on demand.



Bundled conductors stringing blocks

CAQ

Four & five bundled conductors

Bundled conductors stringing blocks

CAE

- Six bundled conductors
- Central sheave with cast iron sector

CAQ

Model		Dimensions [mm]							Working load [kN]	Weight [kg]
Nylatron	Aluminium	A	B	C	D	E	F	G		
CAQ666	CAQ623	68	650	1440	775	700	145	100	50	148
CAQ667	CAQ656	95	650	1440	775	826	175	130	70	190
CAQ818	CAQ856	68	800	1540	880	700	145	100	70	180
CAQ881	CAQ827	95	800	1540	893	826	175	130	70	225
CAQ008	-	95	1000	1750	1100	826	175	130	70	270
CAQ030	-	133	1200	2115	1393	1081	222	177	90	320
CAQ036	-	133	1500	2383	1670	1081	222	177	90	405

CAE

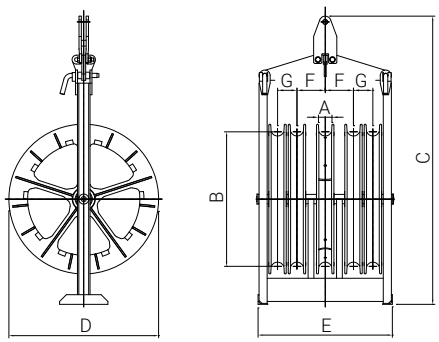
Model Cast iron/Nylatron	Dimensions [mm]							Working load [kN]	Weight [kg]
	A	B	C	D	E	F	G		
CAE905	95	800	1612	893	1100	175	130	60	280
CAE043	95	1000	1878	1100	1130	175	130	80	278

Sectors available in other materials (aluminium, cast iron) - pg 90

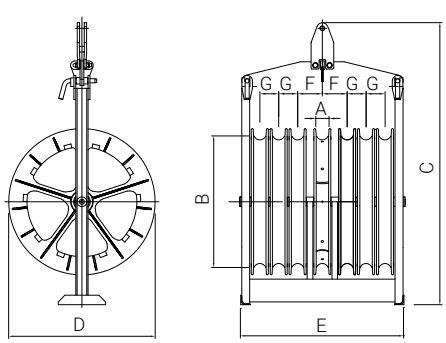
Characteristics

The central wheel is mounted on double-row ball bearings with grooves made up of wear-proof interchangeable nylatron sectors.
The stringing blocks are supplied with fixed connection. Grounding device or complete conductive sheaves are available on demand.

CAQ



CAE



Stringing blocks for helicopter stringing

CES

All aluminium single block for helicopter stringing

CES617

Aluminium frame

CES

Model Nylatron	Dimensions [mm]					Working load [kN]	Weight [kg]
	A	B	C	D	E		
CES600	68	650	1345	775	362	40	62
CES601	95	650	1345	775	376	40	68
CES800 CES811	68	800	1440	880	362	40	68
CES801 CES831	95	800	1460	893	376	40	74
CES001	95	1000	1665	1100	376	67	93
CES005	133	1200	2005	1393	462	90	180
CES008	133	1500	2310	1670	462	90	215

Sectors available in other materials (aluminium, cast iron) - pg 90

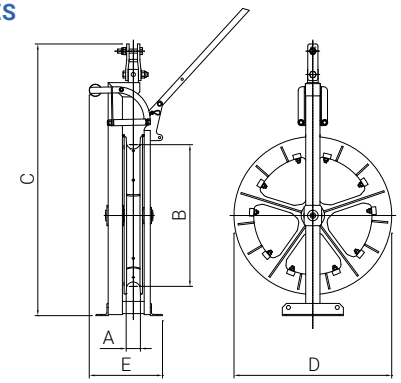
CES617

Model IEEE Nylatron lining	Dimensions [mm]					Working load [kN]	Weight [kg]
	A	B	C	D	E		
CES617	90	655	605	978	780	40	38

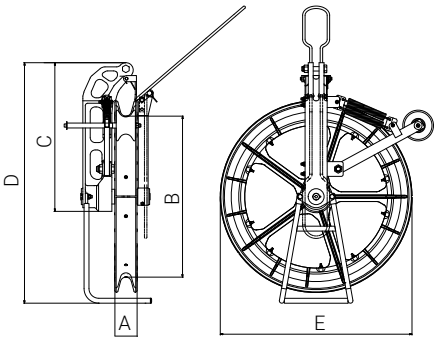
Characteristics

The pulleys are suitable for stringing the pilot rope by an helicopter. The pilot rope is automatically positioned in the (central) wheel.
Special guides ensure the correct positioning of the rope during stringing operations.
The wheels are made of aluminium alloy mounted on ball bearings. The lateral wheels have the groove lined by nylatron ring.
The central wheel has the groove made up of wear-proof interchangeable nylatron sectors.
The pulleys are supplied with fixed connection.
Grounding device or complete conductive sheaves are available upon request.

CES



CES617



Stringing blocks for helicopter stringing

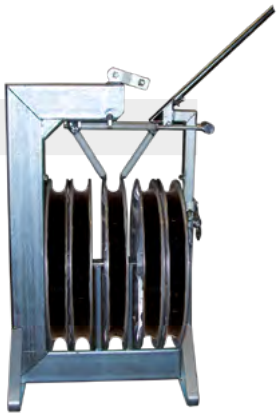
CET

Three bundled conductors

Stringing blocks for helicopter stringing

CEQ

Four bundled conductors



CET

Model Nylatron	Dimensions [mm]						Working load [kN]	Weight [kg]
	A	B	C	D	E	F		
CET621	68	650	1345	775	730	145	60	142
CET622	95	650	1430	775	810	175	60	164
CET821 **CET807***	68	800	1582	880	730	145	60	158
CET820 **CET812***	95	800	1582	893	810	175	60	179
CET002	95	1000	1805	1100	830	175	67	235
CET006	133	1200	2100	1393	1005	222	90	315
CET009	133	1500	2405	1670	1005	222	90	362

* All sheaves with IEEE sectors

CEQ

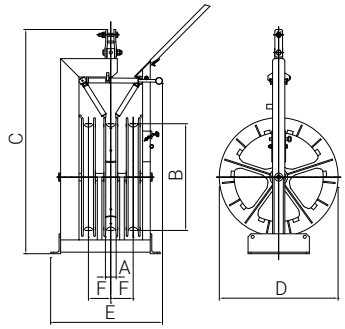
Model Nylatron	Dimensions [mm]							Working load [kN]	Weight [kg]
	A	B	C	D	E	F	G		
CEQ623	68	650	1580	775	906	145	100	60	228
CEQ624	95	650	1625	775	1130	175	130	60	258
CEQ813**	68	800	1750	880	910	145	100	60	250
CEQ819**	95	800	1750	893	1130	175	130	60	280
CEQ003	95	1000	1945	1100	1130	175	130	67	360

** Central nylatron - lateral nylatron IEEE.
Sectors available in other materials (aluminium, cast iron) - pg 90

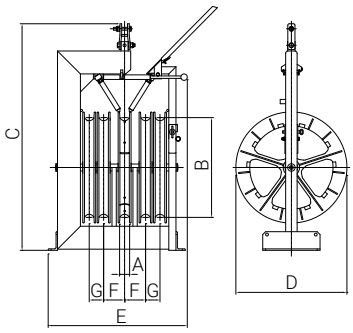
Characteristics

The pulleys are suitable for stringing the pilot rope by an helicopter.
The pilot rope is automatically positioned in the (central) wheel.
Special guides ensure the correct positioning of the rope during stringing operations.
The pulleys are supplied with fixed connection.
Grounding device or complete conductive sheaves are available upon request.

CET



CEQ



Two or three bundled conductors detachable stringing blocks

CST

Pulleys derived from the union of several single models

Four bundled conductors detachable stringing blocks

CSQ

Pulleys derived from the union of several single models

CST

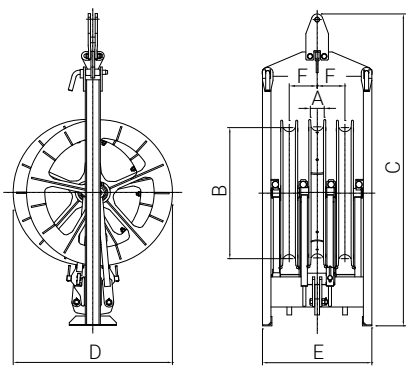
Model Nylatron	Dimensions [mm]						Working load [kN]	Weight [kg]
	A	B	C	D	E	F		
CST604	68	650	1563	846	580	148	40	151
CST606	95	650	1667	846	671	178	60	166
CST813	68	800	1758	951	580	148	60	166
CST808	95	800	1785	964	671	178	60	190
CST001	95	1000	1995	1171	671	178	67	228

CSQ

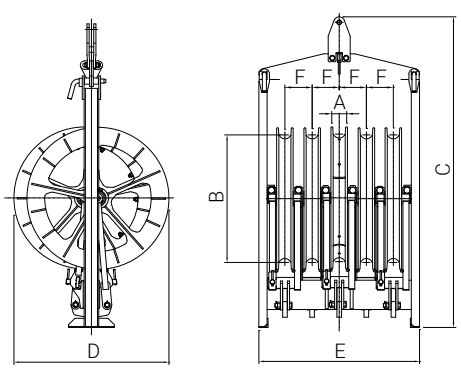
Model Nylatron	Dimensions [mm]						Working load [kN]	Weight [kg]
	A	B	C	D	E	F		
CSQ607	68	650	1653	846	880	148	40	235
CSQ608	95	650	1710	846	1027	178	60	258
CSQ814	68	800	1758	951	880	148	60	250
CSQ811	95	800	1830	964	1027	178	60	295
CSQ007	95	1000	2036	1171	1027	178	67	345

Sectors available in other materials (aluminium, cast iron) - pg 90

CST



CSQ



Tandem stringing blocks

CAM

Pulleys derived from the union of several single models

CAM015

CAM042

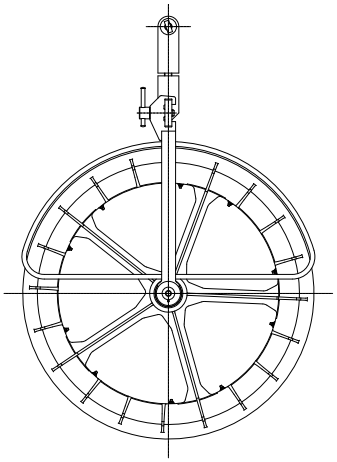
CAM055

CAM873

Antifleeting devices

CCA

Two or three bundled conductors



Antifleeting devices for single stringing blocks

included	for D=250
CCA300	for D=350
CCA600	for D=650
CCA400	for D=400
CCA500	for D=500
CCA800	for D=800
CCA000	for D=1000
CCA001	for D=1200
CCA009	for D=1500

Antifleeting devices for bundle stringing blocks

CCA601	For D=650
CCA801	For D=800
CCA007	For D=1000
CCA400	For D=1200
CCA500	For D=1500

For handling & storage

RACKS

- To facilitate transport, storage and warehousing of the blocks Tesmec supplies special racks in woods or steel, customized for every kind of model
- Our racks are thought to be easy to handle and the light structure guarantees the top safety level thanks to the high quality of materials
- The racks are designed specifically to be moved by forklifts, tower cranes and overhead cranes

NYLATRON LINING

- Interchangeable sectors made by nylatron (polyamide base PA66 with special added elements) applied on bottom of the groove.
- Easy replacement by means of connecting crews without to disassemble the sheave.
- Particularly recommended for HTLS conductors because the partial hardness combined with the reduced friction allows the conductor to easily self-adjust on the bottom of the groove.

IEEE COMPLY NYLATRON LINING

- Special version of interchangeable nylatron sectors that comply the IEEE requirements for groove radius and geometry limits.
- Available on demand for various models from 650 mm diameter.
- Special head-board for IEEE lining is required due to the geometry limitations.

ALUMINIUM LINING

- Interchangeable sector made by aluminium alloy, with shape equal to nylatron lining, and therefore applicable on all range as the nylatron ones.
- Particularly recommended in case of earthing or equipotential requirement for the whole stringing block, together with sheave bearing conductive grease.
- Also recommended in case of high wear conditions.

STEEL LINING

- Interchangeable sectors made by forged steel.
- Particularly recommend on central sheave of bundle blocks, where the antitwisting steel braided rope is passing, in case of extra wear conditions.

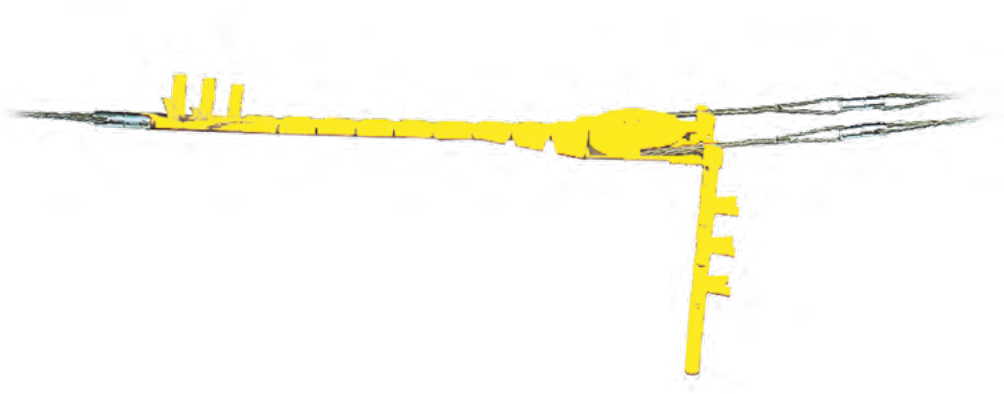
CAST IRON LINING

- Interchangeable sectors made by cast iron.
- Particularly recommend on central sheave of bundle blocks, where the antitwisting steel braided rope is passing, in case of extra load conditions.

Two or three bundled conductors fixed head boards

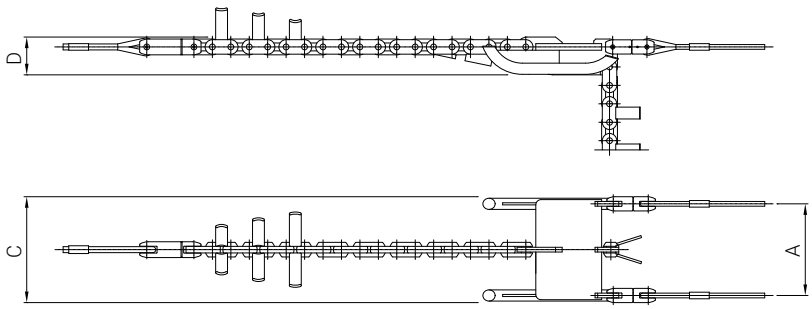
RF

- The equipment includes the necessary rope lengths and swivel joints
- Special models with different characteristics are available on demand.



RF

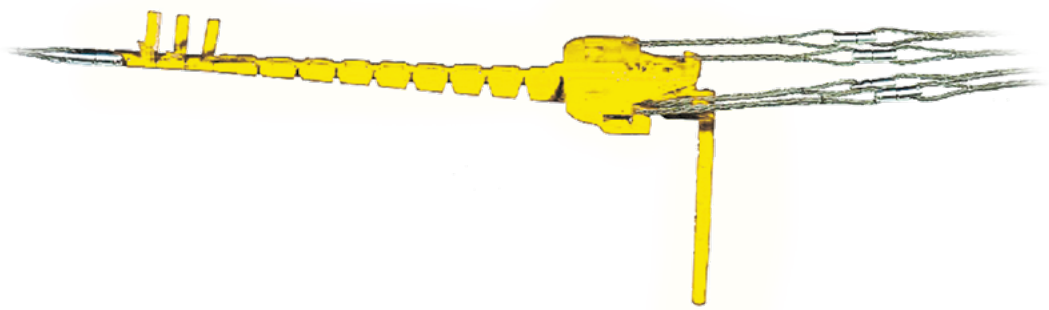
Model	Dimensions [mm]			Working load [kN]	Weight [kg]	For stringing blocks		Equipment			Phase type
								Swivel joints		Steel rope section	
	A	C	D			Standard	Helicopter	GGT020	GGT030	Ø 18	
RFB020	292	335	144	93	98	CAT506 CAT612 CAT812 CST500 CST600 CST800	CET602 CET802	2	1	No. 2-3.5 m	2 conductors
RFB370	292	335	144	120	100						
RFT030	292	335	144	93	104			3	1	No. 3-3.5 m	3 conductors
RFT380	292	335	144	120	107						
RFB040	348	390	144	93	100	CAT613 CAT813 CAT007 CST601 CST801 CST001	CET603 CET803 CET002	2	1	No. 2-3.5 m	2 conductors
RFB390	348	390	144	150	103				1 GGT040		
RFT050	348	390	144	93	107			3	1	No. 3-3.5 m	3 conductors
RFT400	348	390	144	150	110				1 GGT040		



Four or five bundled conductors fixed head boards

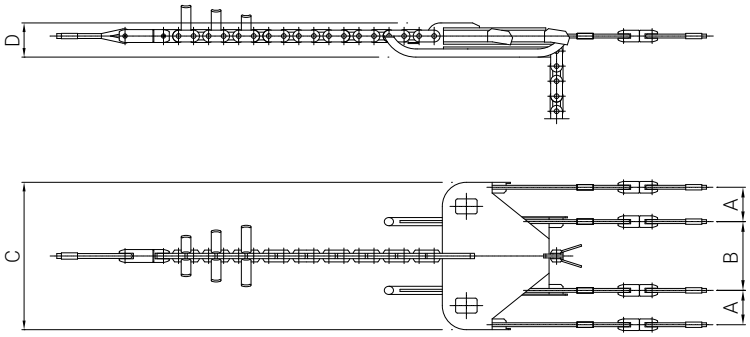
RF

- The equipment includes the necessary rope lengths and swivel joints
- Special models with different characteristics are available on demand.



RF

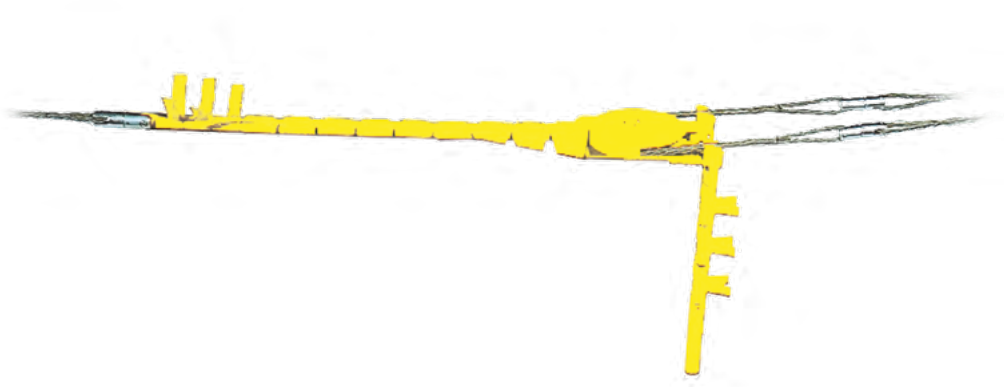
Model	Dimensions [mm]				Working load [kN]	Weight [kg]	For stringing blocks		Equipment		
									Swivel joints		Steel rope section
	A	B	C	D			Standard	Helicopter	GGT020	GGT030	Ø 18
RFQ060	100	292	535	144	93	125	**CAQ614** **CAQ814**	**CEQ609** **CEQ808**	4	1	No. 4-3.5 m
RFQ410	100	292	535	144	120	128					
RFQ070	130	340	643	144	93	133	**CAQ615** **CAQ815** **CAQ008**	**CEQ612** **CEQ809** **CEQ003**	4	1	No. 4-3.5 m
RFQ420	130	340	643	144	150	136					
RFQ080	148	298	637	144	93	132	**CSQ602** **CSQ802**	-	4	1	No. 4-3.5 m
RFQ430	148	298	637	144	120	135					
RFQ090	178	356	755	144	93	136	**CSQ603** **CSQ803** **CSQ002**	-	4	1	No. 4-3.5 m
RFQ440	178	356	755	144	150	140					
RFQ100	130	340	643	185	250	230	**CAQ615**	**CEQ612**	4	GGT040 1	No. 4-3.5 m
							CAQ815	**CEQ809**			
							CAQ008	**CEQ003**			



Two or three bundled conductors balancing head boards

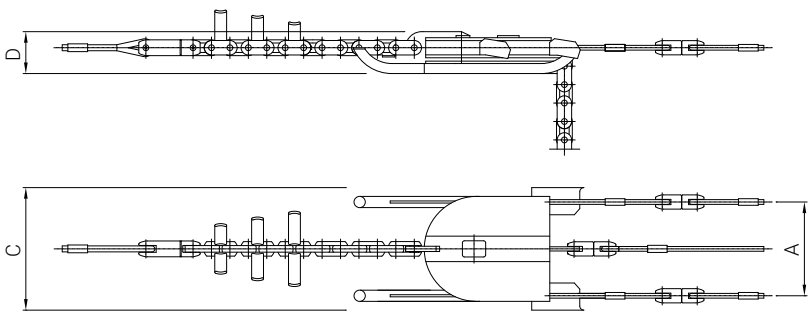
RB

- The equipment includes the necessary rope lengths and swivel joints
- Special models with different characteristics are available on demand.



RB

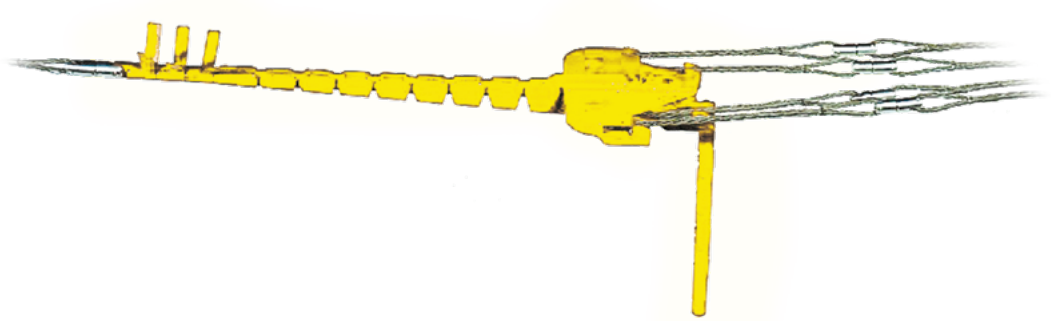
Model	Dimensions [mm]			Working load [kN]	Weight [kg]	For stringing blocks		Equipment			Phase type	Note
								Swivel joints		Steel rope section		
	A	C	D			Standard	Helicopter	GGT020	GGT030	Ø 18		
RBB001	292	365	160	93	135	CAT506 CAT612 CAT812 CST500 CST600 CST800	CET602 CET802	2	1	No. 1-30 m	2 conductors	
RBB580	292	365	160	120	140							
RBT010	292	365	160	93	157			3	1	No. 1-30 m No. 1-15 m	3 conductors	balan. 1-3
RBT590	292	365	160	120	162							
RBT260	292	365	160	93	157			3	1	No. 1-30 m No 1-15 m	3 conductors	balan. 1-2
RBT680	292	365	160	120	162							
RBB020	348	415	176	93	143	CAT613 CAT813 CAT007 CST601 CST801 CST001	CET603 CET803 CET002	2	1 1 GGT040	No. 1-30 m	2 conductors	
RBB690	348	415	176	150	148							
RBT030	348	415	176	93	165			3	1 1 GGT040	No. 1-30 m No 1-15 m	3 conductors	balan. 1-3
RBT560	348	415	176	150	170							
RBT140	348	415	176	93	165			3	1 1 GGT040	No. 1-30 m No 1-15 m	3 conductors	balan. 1-2
RBT700	348	415	176	150	170							



Four or five bundled conductors balancing head boards

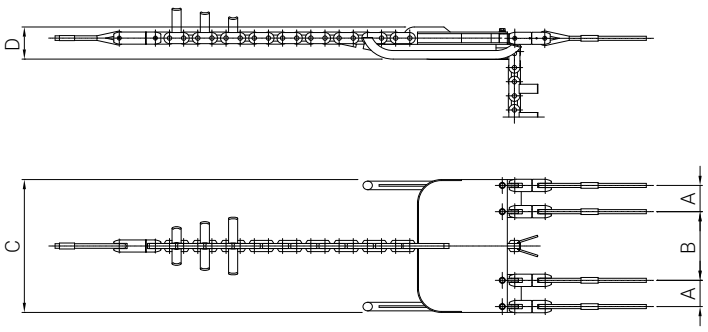
RB

- The equipment includes the necessary rope lengths and swivel joints
- Special models with different characteristics are available on demand.



RB

Model	Dimensions [mm]				Working load [kN]	Weight [kg]	For stringing blocks		Equipment		
									Swivel joints		Steel rope section
	A	B	C	D			Standard	Helicopter	GGT020	GGT030	Ø 18
RBQ040	100	292	560	150	93	190	**CAQ614** **CAQ814**	**CEQ609** **CEQ808**	4	1	No. 2-30 m
RBQ710	100	292	560	150	120	193					
RBQ050	130	340	670	160	93	205	**CAQ615** **CAQ815** **CAQ008**	**CEQ612** **CEQ809** **CEQ003**	4	1	No. 2-30 m
RBQ720	130	340	670	160	150	208				1 GGT040	
RBQ060	148	298	670	160	93	207	**CSQ602** **CSQ802**	-	4	1	No. 2-30 m
RBQ730	148	298	670	160	120	208					
RBQ070	178	356	770	160	93	210	**CSQ603** **CSQ803** **CSQ002**	-	4	1	No. 2-30 m
RBQ740	178	356	760	160	150	212				1 GGT040	
RBP230	100	292	560	150	93	193	**CAQ614** **CAQ814**	**CEQ609** **CEQ808**	5	1	No. 2-30 m
RBP750	100	292	560	150	120	195					No. 1-15 m
RBP450	130	340	670	160	93	211			5	1	No. 2-30 m
											No. 1-15 m
RBP760	130	340	680	160	150	209	**CAQ615** **CAQ815** **CAQ008**	**CEQ612** **CEQ809** **CEQ003**	4	1 GGT040	No. 2-30 m
RBQ080	130	340	680	185	250	286					
RBP770	130	340	680	185	250	250				1 GGT040	No. 2-30 m
RBE570	130	340	950	200	250	365			6	1	No. 2-15 m



Conductor nylon stringing blocks

CAS

Single conductor

CAT

Two or three bundled conductors

CAQ

Four or five bundled conductors

CAS

Model	Dimensions [mm]									Working load [kN]	Weight [kg]
	A	B	C	D	E	F	G	H	I		
CAS529	16	24	83	560	935	248	660	210	240	40	40
CAS702	16	33	88	710	1275	408	822	228	240	40	63

CAT

Model	Dimensions [mm]										Working load [kN]	Weight [kg]
	A	B	C	D	E	F	G	H	I	L		
CAT526	24	24	83	560	990	285	660	418	240	103	60	73
CAT700	32	33	88	710	1325	445	822	456	240	114	60	125

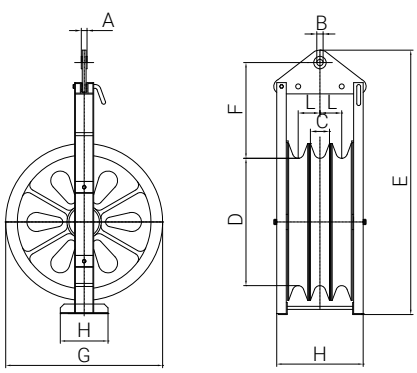
CAQ

Model	Dimensions [mm]										Working load [kN]	Weight [kg]
	A	B	C	D	E	F	G	H	I	L		
CAQ527	30	33	83	560	1175	445	660	628	250	103	60	162
CAQ701	32	33	88	710	1380	445	822	684	250	114	60	180

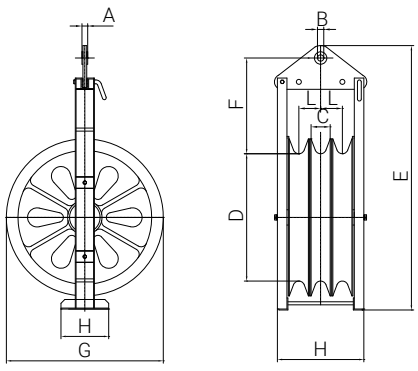
Characteristics

Pulley are assembled with new generation high tensile nylon wheels.
This material combines in the best way lightness, performance and price.
Groove is shaped in conformity to IEC 61328 regulation for worldwide market.
Frame is made of galvanized steel.
No gap between wheels increasing handling reducing dimension and weight.

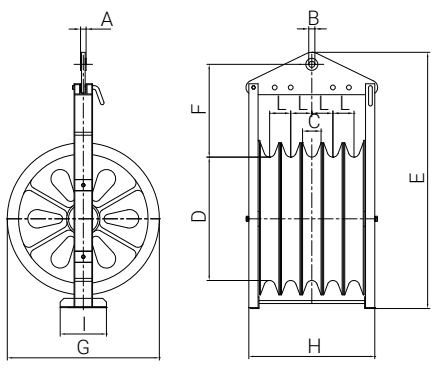
CAS



CAT



CAQ



Two or three bundled conductors balancing head boards for nylon blocks

RB

- The equipment includes the necessary rope lengths and swivel joints
- Special models with different characteristics are available on demand.

Two or three bundled conductors fixed head boards for nylon blocks

RF

- The equipment includes the necessary rope lengths and swivel joints
- Special models with different characteristics are available on demand.

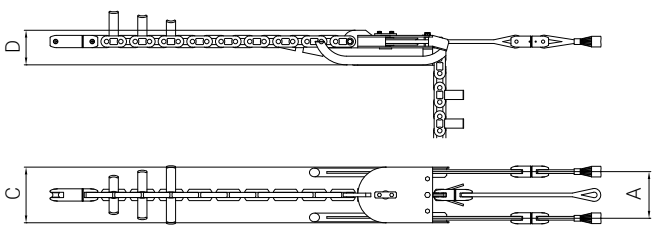
RB

Model	Dimensions [mm]			Working load [kN]	Weight [kg]	For stringing blocks	Equipment			Phase type	Note
							Swivel joints		Steel rope section		
	A	C	D			Standard	GGT020	GGT030	Ø 18		
RBB600	217	270	160	93	117	**CAT526 CAT700**	2	1	No. 1-30 m	2 conductors	
RBT610	217	270	160	93	137		3	1	No. 1-30 m No. 1-15 m	3 conductors	balan. 1-3
RBT620	217	270	160	93	130						balan. 1-2

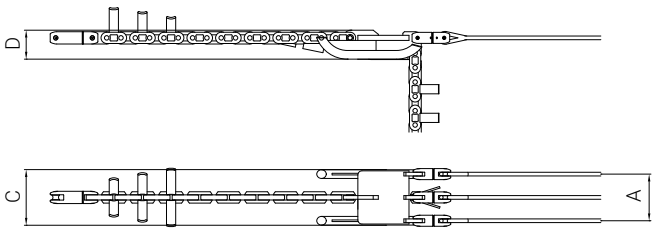
RF

Model	Dimensions [mm]			Working load	Weight	For stringing blocks	Equipment			Phase type
							Swivel joints		Steel rope section	
	A	C	D	[kN]	[kg]	Standard	GGT020	GGT030	Ø 18	
RFB600	217	260	145	93	92	**CAT526 CAT700**	2	1	No. 2-3.5 m	2 conductors
RFT610	217	260	145	93	100		3	1	No. 3-3.5 m	3 conductors

RB



RF



Four or five bundled conductors balancing head boards for nylon blocks

RB

- The equipment includes the necessary rope lengths and swivel joints
- Special models with different characteristics are available on demand.

Four or five bundled conductors fixed head boards for nylon blocks

RF

- The equipment includes the necessary rope lengths and swivel joints
- Special models with different characteristics are available on demand.

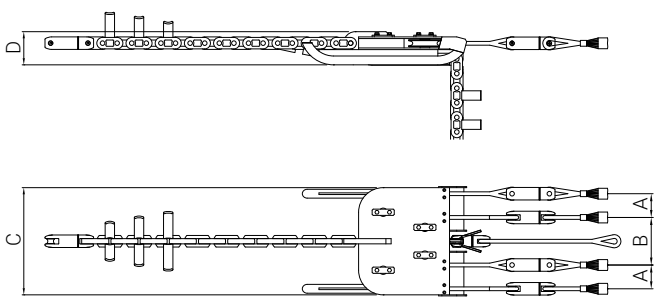
RB

Model	Dimensions [mm]				Working load [kN]	Weight [kg]	For stringing blocks	Equipment			Phase type	Note
								Swivel joints		Steel rope section		
	A	B	C	D			Standard	GGT020	GGT030	Ø 18		
RBQ640	109	218	490	160	93	180	**CAQ527 CAQ701**	4	1	No. 2-30 m	4 conductors	
RBP650	109	218	490	160	93	185		5	1	No. 2-30 m No. 1-15 m	5 conductors	balan. 1-2/4-5

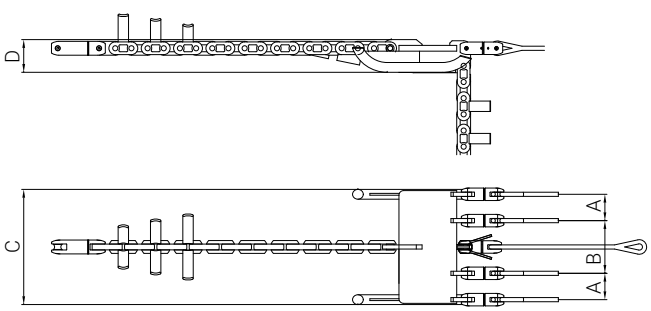
RF

Model	Dimensions [mm]				Working load	Weight	For stringing blocks	Equipment			Phase type
								Swivel joints		Steel rope section	
	A	B	C	D	[kN]	[kg]	Standard	GGT020	GGT030	Ø 18	
RFQ620	109	218	490	140	93	115	**CAQ527 CAQ701**	4	1	No. 4-3.5 m	4 conductors
RFP630	109	218	490	140	93	125		5	1	No. 5-3.5 m	5 conductors

RB



RF



Grounding for stringing blocks

MTX

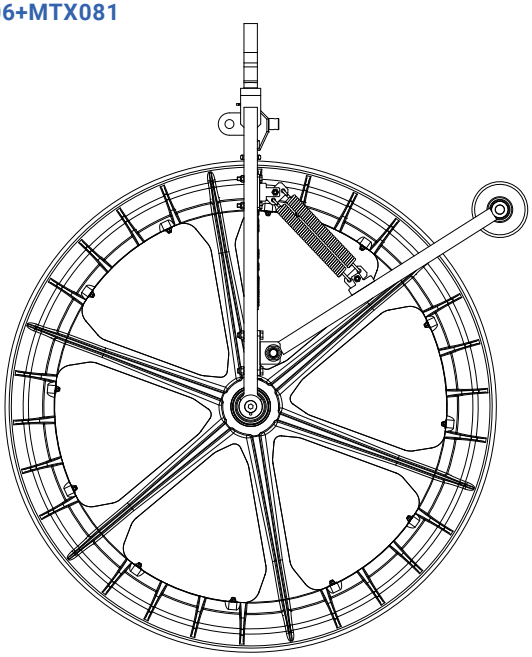
Grounding for stringing blocks

Stringing blocks model		Diameter 400	Diameter 500	Diameter 650		Diameter 800		Diameter 1000
		68 (Narrow groove)	68 (Narrow groove)	68 (Narrow groove)	95 (Wide groove)	68 (Narrow groove)	95 (Wide groove)	95 (Wide groove)
Standard CA	**CAS**	MTX120	MTX120	MTX079	MTX079	MTX079	MTX079	
	CAT			MTX165	MTX164	MTX171	MTX169	
	CAQ			MTX166	MTX158	MTX170	MTX168	MTX167
Helicopter CE	**CES**			MTX090	MTX090	MTX090	MTX090	MTX089
	CET			MTX107	MTX108	MTX134	MTX135	MTX109
	CEQ			MTX110	MTX111	MTX132	MTX133	MTX112

Nylon stringing blocks

Stringing blocks Model	Diameter 560	Diameter 700
CAS	MTX140	MTX143
CAT	MTX138	MTX141
CAQ	MTX139	MTX142

CAS006+MTX081



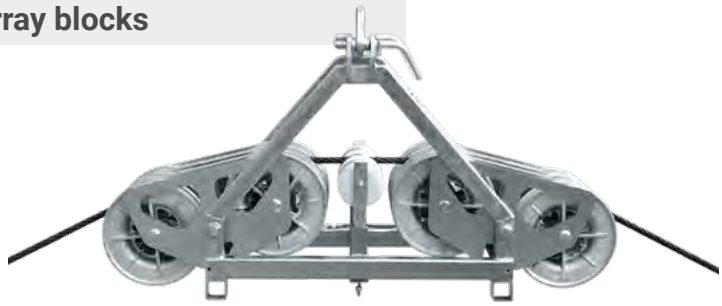
Single conductor pivoting array blocks

RUS

PATENT PENDING

Two or three bundled conductors pivoting array blocks

RUT



RUS

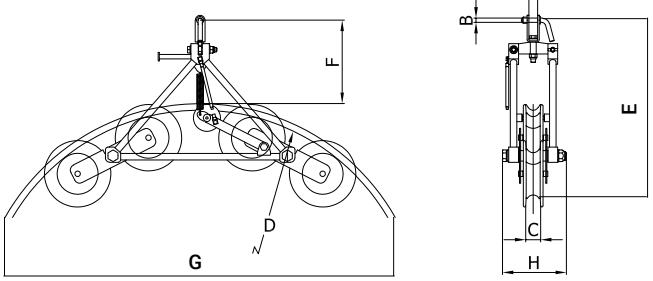
Model		Dimensions [mm]									Working load [kN]	Weight [kg]
fiberglass	aluminium	A	B	C	D	E	F	G	H	I		
RUS005	RUS026	40	20	68	1820	900	367	1470	295	305	40	42
RUS029	RUS030	40	20	95	1890	810	390	1580	320	325	40	51

RUT

Model		Dimensions [mm]										Working load [kN]	Weight [kg]
cast iron + fiberglass	cast iron + aluminium	A	B	C	D	E	F	G	H	I	L		
RUT013	RUT014	25	24	68	3120	1035	580	1495	560	305	145	60	183
RUT015	RUT016	25	24	95	3260	1035	580	1600	640	326	175	60	200

Light weight & compact
No diameter limitation
Easy handling & transportation
Sectors available in other materials (aluminium, cast iron) - pg 102

RUS



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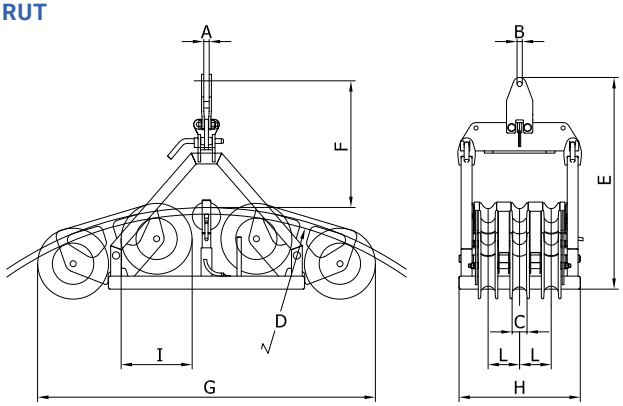


PATENT PENDING

Four or five conductors pivoting array blocks

RUQ

Two or three conductors pivoting array blocks for helicopter stringing

RET

RUQ

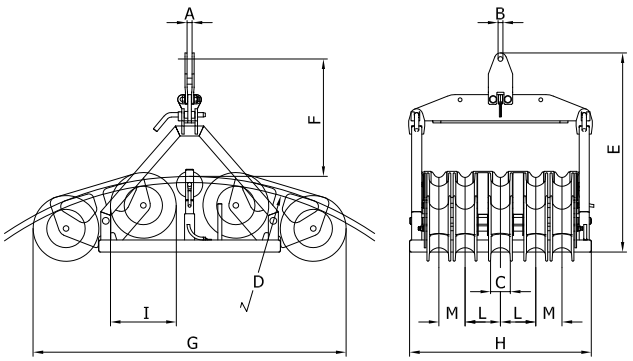
Model		Dimensions [mm]											Working load [kN]	Weight [kg]
cast iron + fiberglass	cast iron + aluminium	A	B	C	D	E	F	G	H	I	L	M		
RUQ017	RUQ018	25	24	68	3120	1035	580	1495	760	305	145	100	60	255
RUQ019	RUQ008	25	24	95	3260	1035	580	1600	900	326	175	130	60	280

RET

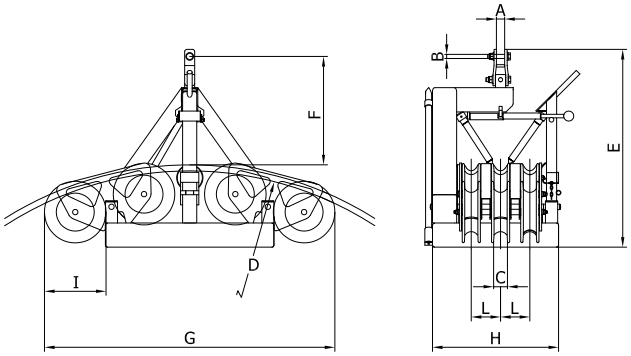
Model		Dimensions [mm]										Working load [kN]	Weight [kg]
cast iron + fiberglass	cast iron + aluminium	A	B	C	D	E	F	G	H	I	L		
RET002	RET003	40	21	68	3390	980	540	1445	665	305	145	60	196
RET004	RET005	40	21	95	3530	980	540	1550	745	326	175	60	215

Light weight & compact
No diameter limitation
Easy handling & transportation
Sectors available in other materials (aluminium, cast iron) - pg 102

RUS



RET



Grounding for stringing pivoting array blocks

MTX

Pivoting array blocks

Pivoting array blocks models		68 (Narrow groove)	95 (Wide groove)
Standard CA	**RUS**	MTX200	MTX201
	RUT	MTX202	MTX203
	RUQ	MTX204	MTX205
Helicopter CE	**RES**	MTX214	MTX214
	RET	MTX208	MTX209

NYLATRON REINFORCED WITH FIBERGLASS

- Interchangeable lining made by nylatron reinforced with fiberglass applied on bottom of the groove
- Easy replacement by means of connecting screw without to disassemble the sheave
- The material has been determined together with Politecnico Milano by means of numerical calculation of friction involved, experimental test and tribologic wear test
- Particularly recommended for HTLS conductor because the reduced friction allow the conductor to easily self-adjust on the bottom of the groove, minimizing traditionalò stress

CAST IRON

- Interchangeable linining made by cost iron, applied on the bottom of the groove
- Easy replacement by means of connecting screw without to disassemble the sheave
- Particularly recommend for central wheels of bundle rollers, where the antitwisting steel braided rope is passing

ALUMINIUM

- Interchangeable sector made by aluminium alloy, with shape equal to nylatron lining, and therefore applicable on all range as the nylatron ones
- Particularly recommended in case of earthing or equipotential requirement for the whole stringing block, together with sheave bearing conductive grease
- Also recommended in case of high wear conditions

Optical ground wire (OPGW) anti-torque devices - RFF

RFF

- Shaped for smooth operations
- Swivel included

Service snatch blocks

original by **TESMEC**

MOF470

Clamp for fiber OPTIC - MOF

RFF

Model	Dimensions [mm]		Working load [kN]	Weight [Kg]	For pulleys Ø [mm]
	L	R			
RFF001	3900	330	10	60	400
					500
					650
RFF010	4300	500	10	63	800
					1000

MOF470

Performance

Working load	10 kN

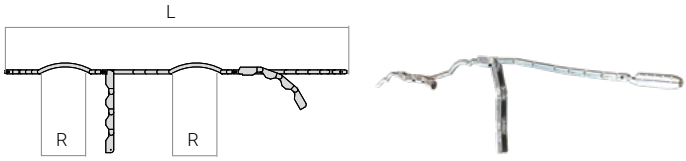
Characteristics

Diameter range	6÷23
Weight	4 Kg
Material	Hot forged steel

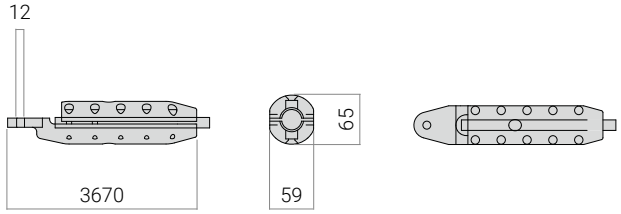
Configuration

Aluminium interchangeable jaws part number GTRXXX: conductor diameter to be specified on order.

RFF



MOF470



Traction machine

TMT020

- Highest Traction force available
- Can be pulled back in case of stop
- Up to 1000 m range with 2 remotes

TMT020

Performance

Max traction speed	33 m/min
Max traction force	110 kg
Max slope	20°

Remote control

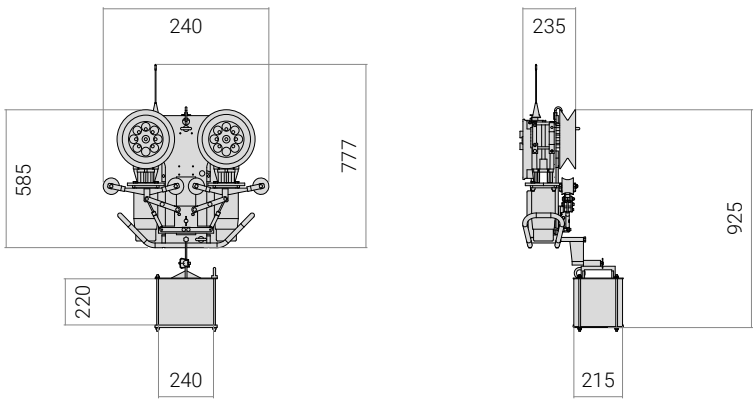
- Two compact radio remote control units with double push-button transmission
- Device operative range up to 1000 (m)

Available devices

ALL304	Extra battery

Characteristics

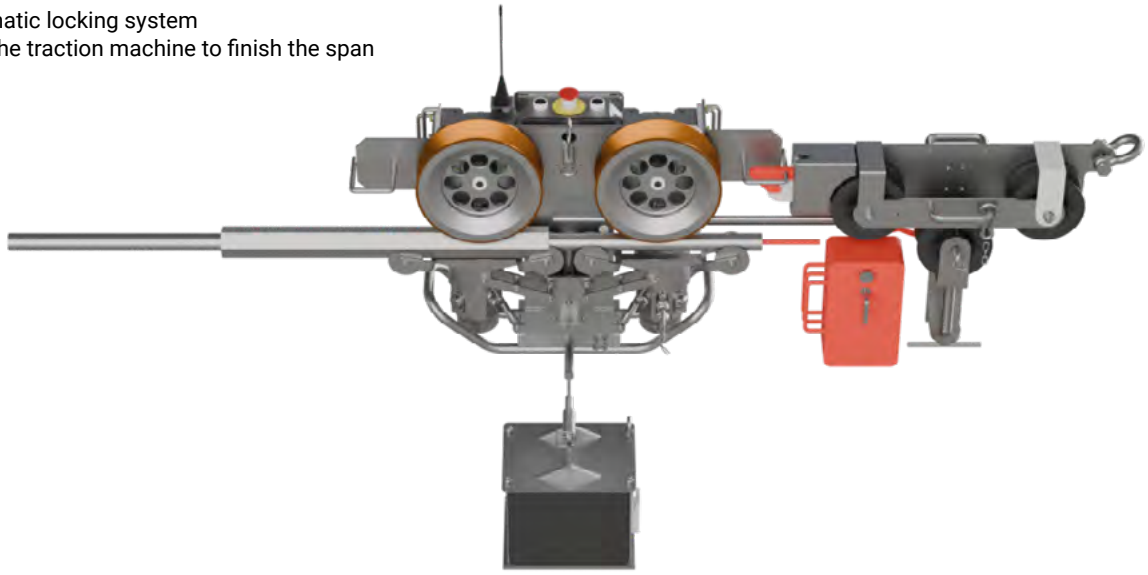
Weight	55 kg
Robot weight	40 kg
Battery weight	15 kg
Two electrical motors	24 V
Conductors diameter range	10÷46 mm
Material	Aluminium alloy
It can cross mid-span joint up to CH=60	
Vulcanized wheels	



Recovery device

TMR030

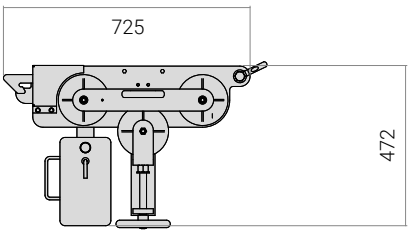
- Automatic locking system
- Drag the traction machine to finish the span



TMR030

Characteristics

Max weight	40 kg
Wheels material	Nylon
Detachable ballasts for easy lifting	20°



Braking device

ABR058

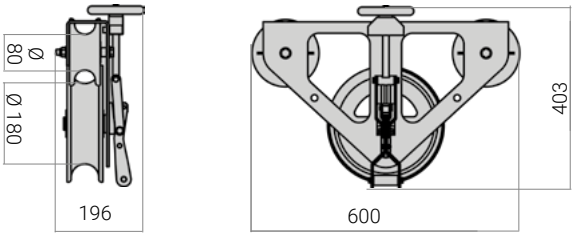
- Light and compact
- Allows the final recovery of the cradles

Performance

Working load	1.5 kN

Characteristics

Weight	4.5 kg
Conductors diameter range	10÷30 mm
Wheels material	Nylon
Frame material	Aluminium



Cradle block

ABR053

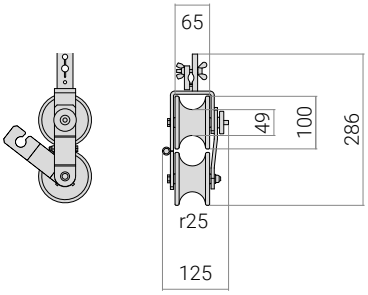
- Light and easy
- Adjustable for different diameters

Performance

Working load	1 kN

Characteristics

Weight	1.4 kg
Rollers material	Nylon
Frame material	Aluminium
Support rope diameter range	6÷19 mm



Cradle block

ABR045

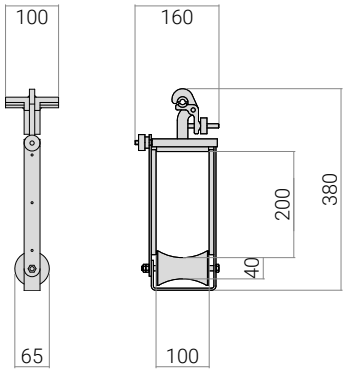
- Suitable also on midspan joints
- Adjustable for different diameters

Performance

Working load	2 kN

Characteristics

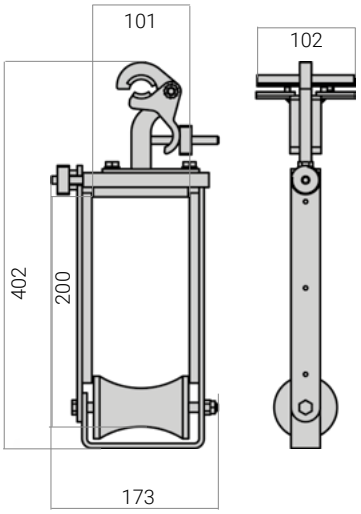
Weight	2 kg
Rollers material	Nylon
Frame material	Galvanized steel
Internal surface covered by nylon plates	
Support rope diameter range	10÷11 mm



Cradle block

ABR064

- Suitable also on midspan joints
- Adjustable for different diameters



Performance

Working load	2 kN

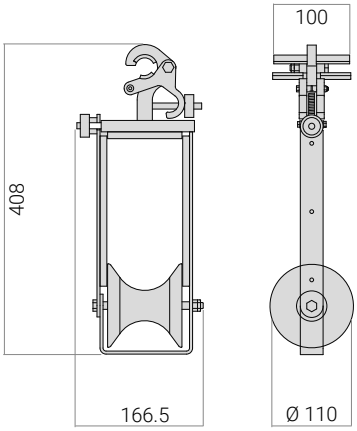
Characteristics

Weight	1.9 kg
Rollers material	Nylon
Frame material	Alluminium. Connection made of steel
Internal surface covered by nylon plates	
Support rope diameter range	6÷25 mm

Cradle block

ABR059

- Counterweight for easy rotation
- Quick open/close system



Performance

Working load	2 kN

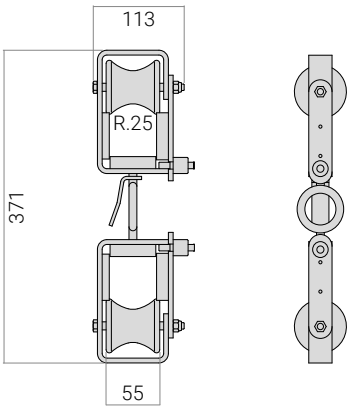
Characteristics

Weight	2 kg
Roller material	Nylon
Frame material	Galvanized steel
Internal surface covered by nylon plates	
Support rope diameter range	10÷16 mm

Cradle block

ABR021

- Earth wire grounded during the operations
- Quick locking system for guide rope



Performance

Working load	2 kN

Characteristics

Weight	1.8 kg
Rollers material	Nylon
Frame material	Galvanized steel
Internal surface covered by nylon plates	

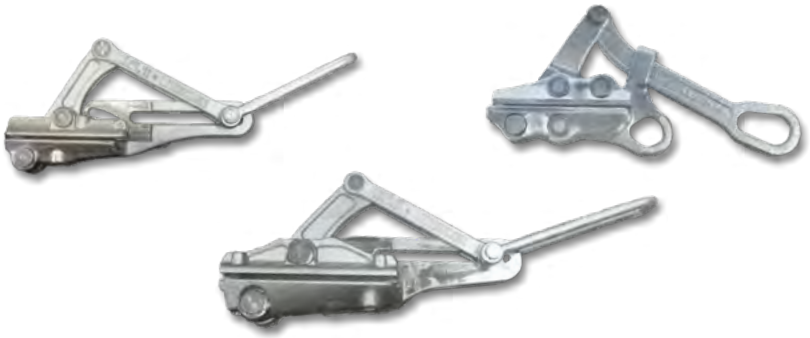
A **COMPLETE OFFER** DOWN TO THE **LAST DETAIL**

SELF-GRIPPING CLAMPS

Tesmec clamps can be used on conductors, ropes or optical ground wires of **different diameters** only by replacing the jaws, **reducing operating costs**.

The clamps can be provided **with machined body clamps** or with interchangeable jaws. The body is made of high strength **hot forged steel**, in order to minimize the ratio between weight and working load.

The galvanization treatment on the surface **protects from oxidation** ensuring safety and efficiency to every job.



NEW LIGHTWEIGHT HYDRAULIC COMPRESSOR

Simple and compact, double-acting hydraulic integrated distributor, this hydraulic compressor is **suitable for midspan** and dead-end joints.

It is the only compressor that can accommodate **different die holders** for using all existing main dies on the market! Dies can be replaced just by pushing a button, without tools.

The 100 tons model PRT510: **ease of use and handling** have been defined as two target features of this new project.

TOOLS FOR ANY NEED

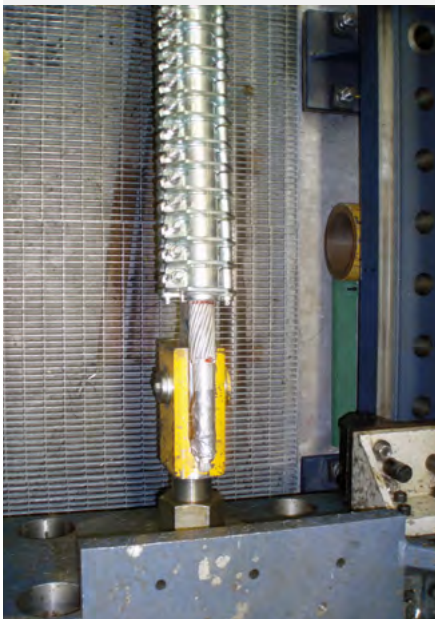
Tesmec **meets the needs of every custome**r offering a complete package of solutions.

The attention for **safety and efficiency** of the operations is always a guideline for Tesmec proposing a **complete catalogue** of accessories specifically selected for an **efficient jobsite**.

MOS BOLTED CLAMPS

Large range of clamps for any rope and conductor diameter, and for working load going from 40 to 200 kN.

Extreme testing process ensuring use of MOS clamps on HTLS avoiding marks and damage.



CUSTOMIZATION AND DESIGN **IMPROVEMENTS** FOR THE **HIGHEST LEVEL** OF **SAFETY**

Safety and reliability are the guidelines pursued by Tesmec **designing and manufacturing conductor** cars and bicycles for line maintenance and inspection.

The conductor cars and bicycles range is in **continuous improvement**, and today we are proud to introduce to the market **the new fast inspection** conductor car range, in two versions: CRM **for single conductor lines** and CRF suitable for two, three and four bundled conductor lines.

The new fast inspection range represents the **highest level of safety** according to the CE standard EN50374:2004 and its light design allows to climb efficiently over spacers and insulators.

OVERHEAD LINE BICYCLES

Tesmec bicycles are suitable for fitting aircraft warning spheres on single lines and to fit spacers on two, three and four bundled conductor lines.

These bicycles are made by certified EU aluminium, with a light structure allowing easy transportation on site.

When pedalling forward, the bicycle moves backward in order to provide the operator with necessary working space.

The cardan transmission grants high performances and comfort.

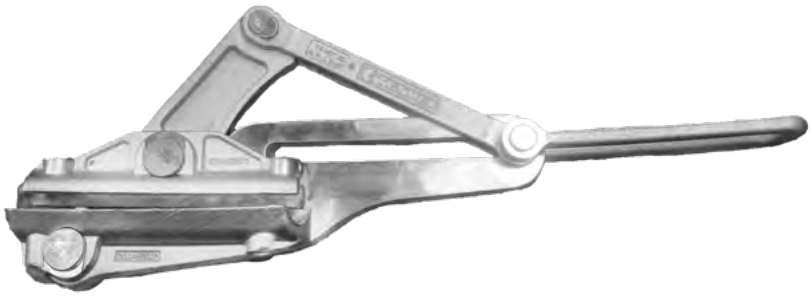
The bicycles are equipped with a disc brake on the driving wheel and with an additional safety clamp, which brakes directly on the conductor acting as a stationary system.

Meter counter and safety chains are also provided.

Self gripping clamps

MOT

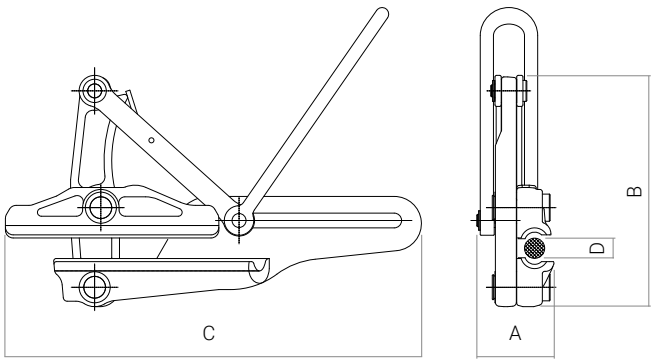
The self-gripping clamps can be used to anchor and to string conductors and steel rope.
The body is made of high strength hot forged steel, in order to minimise the ratio between weight and working load.
The galvanisation treatment on the surface protects from oxidation.
Tesmec clamps are provided with machined body clamps or with interchangeable jaws.



Machine body clamps for steel ropes

Model	Dimensions [mm]			Breaking load [kN]	Max working load* [kN]	Weight [kg]	Diameter range [mm] D
	A	B	C				
MOT140	80	225	380	125	42	7	8÷18
MOT170SF	108	300	535	225	75	15	18÷24
MOT170SF28	108	300	535	225	75	15	24÷28
MOT180SF	114	353	604	280	93	19.5	27÷32

Other models are also available upon request.
* Max working load may change according to local safety factor standards.



Warning: it is strictly forbidden to use jaws of different manufacturer.

Jaws for self gripping clamps

GT

Tesmec offers a wide range of interchangeable jaws in aluminum and aluminum - adiprene to be applied into its clamps.
Other jaws made with different materials and shapes are available on request.

GTO

GTY

Interchangeable jaws clamps for conductors & OPGW

Clamp Model	Dimensions [mm] A	B	C	Breaking load [kN]	Max working load* [kN]	Weight [kg]	Jaws Model	D [mm]	Use
MOT130GC	-	-	-	64	21	2.5	GTF110	7 ÷ 10	Aluminium conductor
							GTF113	10 ÷ 13	Aluminium conductor
							GTF116	13 ÷ 16	Aluminium conductor
MOT150GC	80	225	380	125	42	7	GTY117	14 ÷ 17	Aluminium conductor
							GTY120	17 ÷ 20	Aluminium conductor
							GTY123	20 ÷ 23	Aluminium conductor
							GTOxxx	06 ÷ 23	OPGW
MOT170GC	108	300	535	225	75	15	GTX220	17 ÷ 20	Aluminium conductor
							GTX223	20 ÷ 23	Aluminium conductor
							GTX226	22.8 ÷ 26	Aluminium conductor
							GTX229	26 ÷ 29	Aluminium conductor
							GTX232	29 ÷ 32	Aluminium conductor
							GTX233	30 ÷33	Aluminium conductor
MOT180GC	114	353	604	280	93	19.5	GTJ335	32 ÷ 35	Aluminium conductor
							GTJ338	35 ÷ 38	Aluminium conductor
							GTJ341	38 ÷ 41	Aluminium conductor
							GTJ344	41 ÷ 44	Aluminium conductor
							GTJ346	43 ÷ 46	Aluminium conductor

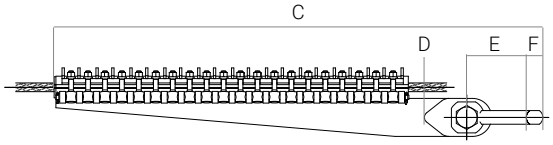
* Other models are also available upon request.

Radial locking clamps

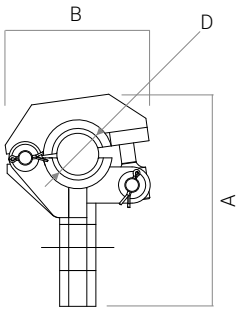
MOS

Designed for long period anchorage
Safe & gentle on conductors

Number of eyebolts	Standard diameter range [mm]									Max Working load [kN]	Weight min [kg]	Weight max [kg]
	20-30		30-40		40-56							
	Dimensions [mm]											
	A	B	A	B	A	B	C	E	F			
4	**MOS700** 158	143	**MOS701** 169	143	**MOS702** 178	158	605	75	26	40	18	19
6	**MOS710** 158	143	**MOS711** 169	143	**MOS712** 178	158	735	93	26	60	25	28
8	**MOS720** 158	143	**MOS721** 169	143	**MOS722** 178	158	852	93	26	80	30	33
10	**MOS730** 158	143	**MOS731** 169	143	**MOS732** 178	158	995	93	32	100	39	41
12	**MOS740** 158	143	**MOS741** 169	143	**MOS742** 178	158	1100	93	32	120	41	43
14	**MOS750** 158	143	**MOS751** 169	143	**MOS752** 178	158	1210	93	35	140	43	47
15	**MOS753** 158	143	**MOS754** 169	143	**MOS755** 178	158	1285	93	35	150	55	61
16	**MOS760** 158	143	**MOS761** 169	143	**MOS762** 178	158	1360	93	45	160	67	75
18	**MOS770** 158	143	**MOS771** 169	143	**MOS772** 178	158	1510	93	45	180	79	89
20	**MOS780** 158	143	**MOS781** 169	143	**MOS782** 221	158	1670	93	45	200	92	104



D = conductor diameter to be specified
Different jaws out of the standard diameter range are available upon request



The radial locking clamp can be used whenever a conductor or a rope made of aluminium, aluminium/steel, copper or steel has to be stretched.
The body is made of high-strength steel. It is made up of a series of hinged elements, which can be locked by nuts.
The interchangeable jaws are made of aluminium.
A special hook is provided at one end.
The galvanisation treatment on the surface protects from oxidation.

Hydraulic compressors

PRT

PRT510

PRT020

PRT060

Model	Piston return	Max compression force [kN]	Max pressure [bar]	Max stroke [mm]	Press weight [kg]	Die weight [kg]	Dimensions (bxlxh) [mm]
							480
PRT510	Hydraulic	1000	700	31	34.5	2	255
							387
							520
PRT060	Hydraulic	1200	700	34	52	2	280
							450
							600
PRT020	Hydraulic	1840	700	44	145	5.5	430
							600

The hydraulic compressors, mainly implemented in press forged steel, have the following characteristics:
excellent weight/power ratio very short pressing cycle (all the presses have an hydraulically-driven piston release)
each power unit or manual hydraulic pump (and hoses) is interchangeable with any hydraulic press

Measurements of hexagonal and circular matrices

Max hexagon “ch” for steel [mm]	Max hexagon “ch” for aluminium [mm]	Max circular “Ø” for steel [mm]	Max circular “Ø” for aluminium [mm]
29	60	40,5	69
35	65	40,5	69
54	90	62,5	75

Accessories for hydraulic compressors

CPP

HYDRAULIC POWER UNITS

MANUAL PUMP

CPP - Hydraulic power units

Model	Engine	Power [kW]	Max pressure [bar]	Max delivery [l/min.]	Tank capacity [l]	Weight [kg]	Dimensions (bxlxh) [mm]
CPP001	Gasoline	3.2	700	1.8	10	54	530
							340
							370
CPP004	Electrical 220V-50Hz	2.2	700	1.8	10	50	530
							340
							370

Note: the performance is calculated at 20°C and at sea level

PDP001 - Manual pump

Model	Max pressure [bar]	Delivery [cm³ / cycle]		Capacity [l]	Weight without oil [kg]	Dimensions (bxlxh) [mm]
		1st stage	2nd stage			
PDP001	700	17.5	2.7	3.4	8.5	550
						160
						170

TUP - Kit of connecting hoses

Model	Length [m]
TUP013	3
TUP014	6
TUP015	10
TUP016	15
TUP017	30

Dies

PDM
PDR

CIRCULAR PDM

HEXAGONAL PDM

PDM - Dies for conductors

Press Model	Joint material	Die model	
		Hexagonal	Circular
PRT510 (1000 kN)	Steel	PDM042	PDM048
	Aluminium	PDM043	PDM049
	Almelec	PDM044	-
PRT060 (1200 kN)	Copper	PDM038	-
	Steel	PDM042	PDM048
	Aluminium	PDM043	PDM049
	Almelec	PDM044	-
PRT020 (1840 kN)	Steel	PDM045	PDM054
	Aluminium	PDM046	PDM055
	Almelec	PDM047	-

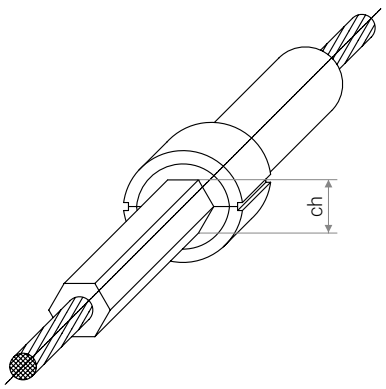
Dies for coupling

Model	Dies
PRT510	PDM026
PRT060	PDM026
PRT020	PDM027

Special dies are available upon request

PDR - Straightening joint devices

Model	Straightening joint device model
PRT510 (1000 KN)	PDR007
PRT060 (1200 KN)	PDR007
PRT020 (1840 KN)	PDR010



ch = hexagonal key dimension to be specified

Cover joints

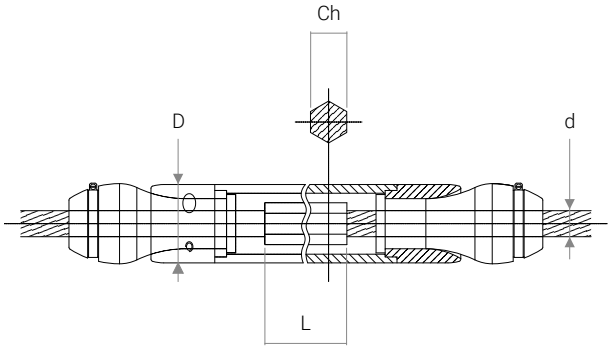
PG

The cover joints are specifically designed to protect the mid span joint, made at the “tensioner station”, during conductor stringing operations. The cover joints consist of two shells made of galvanized steel with shaped ends to house the rubber noses, which protect the mid span joint during the passage over the pulleys. The shells are coupled together by socket screws and the rubber noses are clipped together by belts.

Model	Application	Ch max [mm]	Max diameter [mm]	L max (std) ** [mm]	Working load * (at the edges) [kN]
PGC	For pulley with 54 mm groove	28	18	600	2.5 ÷ 5
PGS	For pulley with 68 mm groove	37	25	1000	4 ÷ 6.5
PGM	For pulley with 68 mm groove	48	31.5	1050	2÷ 5
PGL	For pulley with 95 mm groove	56	47	1300	max 6.5
PGX	For pulley with 130 mm groove	82	54	2000	5

*changes with length
**different lengths are available upon request

Following data to be specified:
1) L = joint length after compression
2) d = conductor diameter
3) ch = the hexagon dimension of mid span joint after compression



Shackles

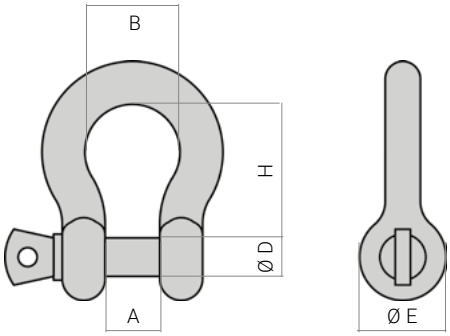
ALG

- Pin type according to federal specification RRC-271D type iva, grade A, class 2.
- Bolt type according to federal specification RR-C-271D type iva, grade A, class 3.

PIN TYPE 209

BOLT TYPE 2130

Model	AI AIB working load limit [kN]	Nominal shakle size [in]	Dimensions [mm]							Weight [kg]	
			Inside length [H]	Inside width		Diameter		Tolerance plus of minus			
				A	B	Ø D	Ø E	Minus	Width	Screw pin type 209	Bolt type 2130
ALG050	5	1/4	28.6	12.7	19.8	7.94	17.5	1.59	1.59	0.05	
ALG051	7.5	5/16	31	13.5	21.4	9.53	20.6	1.59	1.59	0.08	
ALG052	10	3/8	36.5	16.7	26.2	11.1	24.7	3.18	1.59	0.14	
ALG053	15	7/16	42.8	18.3	29.4	12.7	27	3.18	1.59	0.20	
ALG054	20	1/2	47.6	20.6	33.3	15.9	30.2	3.18	1.59	0.29	
ALG055	32.5	5/8	60	27	42.9	19.1	39.7	3.18	1.59	0.60	
ALG056	47.5	3/4	71	31.8	51	22.2	47.6	6.35	1.59	1.05	
ALG057	65	7/8	84	36.5	58	25.4	54	6.35	1.59	1.54	
ALG058	85	1	95	42.9	68	28.6	60	6.35	1.59	2.35	
ALG059	15	7/16	42.8	18.3	29.4	12.7	27	3.18	1.59		0.36
ALG060	32.5	5/8	60	27	42.9	19.1	39.7	3.18	1.59		0.73
ALG061	47.5	3/4	71	31.8	51	22.2	47.6	6.35	1.59		1.23
ALG062	65	7/8	84	36.5	58	25.4	54	6.35	1.59		1.79
ALG063	85	1	95	42.9	68	28.6	60	6.35	1.59		3.75
ALG064	120	1 1/4	119	52	83	34.9	76	6.35	1.59		5.31
ALG065	135	1 3/8	132	57	89	38.1	84	6.35	3.18		7.18



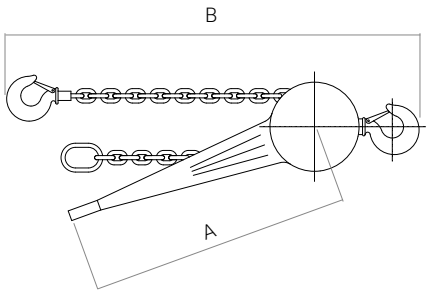
Lifting hoists

PAX

The lifting hoists are made of steel and equipped with mechanical brake; they are designed to facilitate and accelerate chain positioning operations. Chains with different lengths are available upon request.

Machine body clamps for steel ropes

Model	Dimensions [mm]		Chain length [m]	Capacity [kN]	Weight [kg]
	A	B min			
PAX260	340	330	1.5	7.5	6.5
PAX270	408	365	1.5	15	11.3
PAX280	418	490	1.5	30	19.3
PAX290	418	620	1.5	60	31.3



Manual winches

TFX

Manual winches are designed to pull or lift ropes, conductors or loads.

Standard Quality

Model	Rope Ø [mm]	Length [mm]	Width [mm]	Working Load [kN]	Weight [kg]
TFX100	8.3	428	260	8	6
TFX110	11	545	260	16	12
TFX120	16	660	320	32	22

Rope - TDF

Model	Rope length [m]		
	20	30	40
TFX100	**TDF048**	**TDF049**	**TDF050**
TFX110	**TDF051**	**TDF052**	**TDF053**
TFX120	**TDF054**	**TDF055**	**TDF056**

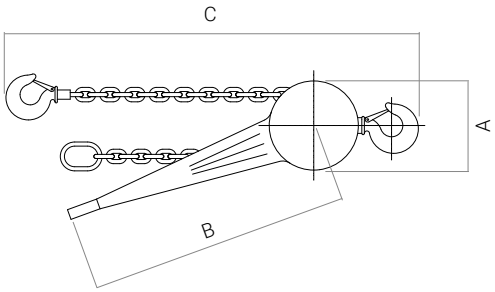
Lifting hoists

PAX

The lifting hoists are made of steel and equipped with mechanical brake; they are designed to facilitate and accelerate chain positioning operations. Chains with different lengths are available upon request.

Machine body clamps for steel ropes

Model	Dimensions [mm]			Chain length [m]	Capacity [kN]	Weight [kg]
	A	B	C min			
PAX001	153	290	303	1.5	7.5	7
PAX002	153	290	303	3	7.5	9
PAX003	153	290	303	6	7.5	14
PAX010	160	410	365	1.5	15	11
PAX011	160	410	365	3	15	14
PAX012	160	410	365	6	15	20
PAX020	185	410	485	1.5	30	20
PAX021	185	410	485	3	30	27
PAX022	185	410	485	6	30	42
PAX030	230	410	600	1.5	60	30
PAX031	230	410	600	3	60	37
PAX032	230	410	600	6	60	52



Manual winches

TFX

Manual winches are designed to pull or lift ropes, conductors or loads.

TIRFOR®

TIRFOR®

Premium quality - Tirfor®

Model	Rope Ø [mm]	Length [mm]	Width [mm]	Working Load [kN]	Weight [kg]
TFX060	8.3	530	284	8	8.4
TFX070	11.5	558	315	16	20
TFX080	16.3	680	360	32	27

Rope - TDF

Model	Rope length [m]			
	10	20	30	40
TFX060	**TDF001**	**TDF004**	**TDF007**	**TDF010**
TFX070	**TDF002**	**TDF005**	**TDF008**	**TDF011**
TFX080	**TDF003**	**TDF006**	**TDF009**	**TDF012**

Running earths

MTR

Grounding device designed for ropes and conductors during stringing operations.
It is equipped with a copper grounding wire (50 mm² section, 6 m long) for connection to the ground.
Designed for 10 kA eff / 0.4 s short circuit level.

MTR001

MTR052

Characteristics

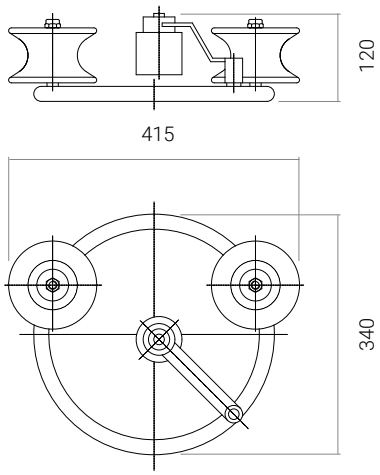
Weight	6 Kg
Groove width	55 mm

Characteristics

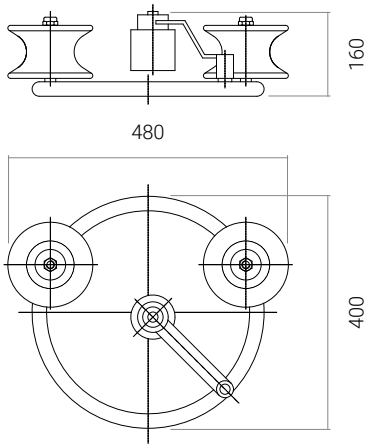
Weight	16 Kg
Groove width	70 mm

Suitable for anti-twisting device model RFF001

MTR001

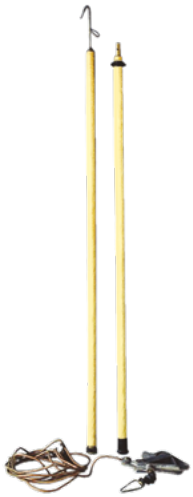


MTR052



Grounding devices

MTF



MTF015

MTF035

MTF015

For high voltage lines (130/220 kV)

The device is made of:
- 3 light aluminium alloy screw pliers for clamping conductors with diameter 5÷30 mm
- 3 copper wires insulated with transparent thermoplastic material, section 1x50 mm^2, total length 6 m each
- 3 ground clamps
- 1 high insulating fibre glass stick, total length 3 m
- designed for 11.25 kA eff / 1 s short cicuit level

MTF016

For extra high voltage lines (400/500 kV)

The device is made of:
- 3 Light aluminium alloy screw pliers for clamping conductors with diameter 5÷30 mm
- 3 Copper wires insulated with transparent thermoplastic material, section 1x50 mm^2, total length 6 m each
- 3 Ground clamps
- 1 High insulating fibre glass stick, total length 3 m
- Designed for 11.25 Ka eff / 1 s short cicuit level

MTF035

For high voltage lines (60 kV)

The device is made of:
- 3 light aluminium alloy screw pliers for clamping conductors with diameter 3 ÷ 32 mm
- 2 copper wire insulated with transparent thermoplastic material, section 35 mm^2, total length 2.5 m each
- 1 ground clamp
- 1 high insulating fiber glass stick, total length 3 m
- designed for 8.6 kA eff/ 1 s short cicuit level
- 1 ground cable copper wire insulated with transparent thermoplastic material, section 16 mm^2 , total length 16 m
- Metallic box

Cable cutters

TN

These devices are suitable for cutting ropes or conductors.

TNM

TNI

Model	Ø max steel ropes R = 1.8 kN/mm² [mm]	Ø max conductors aluminium-steel / aluminium / copper [mm]	Type
TNM010	10	31	Mechanical
TNI030	18	25	Hydraulic
TNI001	18	45	Hydraulic

Zoom sag-scope

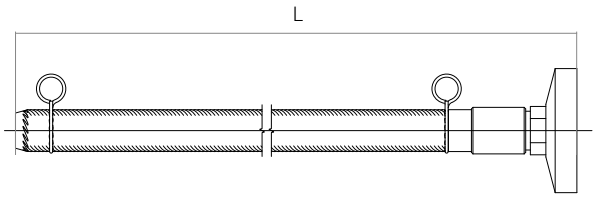
TGP001

Suitable for accurate conductor sag measurements.
Equipped with a special anchoring support for steel tower.

Thermometers

TET

The thermometers are made of an aluminium bulb reproducing the conductor's surface.



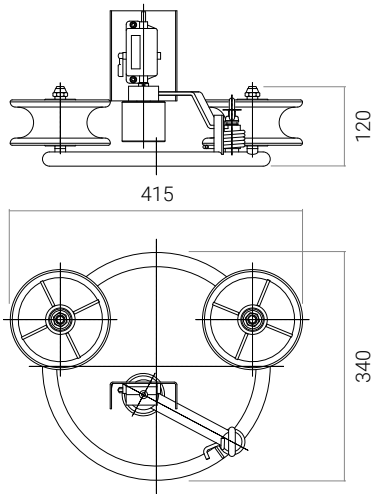
Model	Length [mm]	Weight (indicative) [kg]
TET060	0.49	0.6÷1

Diameter "d" of the conductor to be specified

Meter counter device

DLC001

This device is suitable to measure the length in meters of the conductors or the stringing ropes (available model DLC002 with measure in feet).



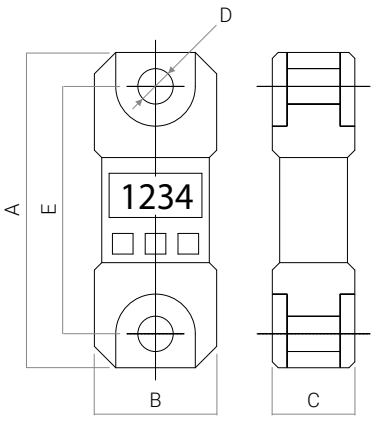
Characteristics

Weight	6 Kg

Electronic dynamometers

DLE

These devices are suitable for accurate measure of the pull value.
Precision 0.2%.



Characteristics

Model nylon	Capacity [kN]	Dimensions [mm]					Weight [kg]
		A	B	C	D	E	
DLE290	2.5	192	85	54	15	142	1.1
DLE300	5	220/192	90/85	47.5/54	14/15	182/142	1.1
DLE310	12.5	192	85	54	15	142	1.1
DLE210	25	218	90	56	21	160	1.3
DLE220	50	230	90	56	27	165	1.85
DLE230	100	310	110	58	47	196	3.8
DLE240	125	218	100	59	38	200	3.6

Positioning belt

DPC

Positioning belt for stationary work. This product is not designed for use as a fall arrest device.
Features:
- 3 buckles for connecting a tool bag
- side anchoring: 2 stainless steel “D” rings

DPC440

DPFXXX

Available devices

DPF460	Positioning rope 2 m
DPFXXX	Positioning rope 1.5 m
DPFXXX	Positioning rope 2 m

Safety harness

DPI

Harness with:
- a back anchor point
- a chest anchor point
- adjustable thoracic webbing with quick fitting buckle

DPEXXX

DPI480

DPM430

DPPXXX

Available devices

DPM430	Fall arrest device including 0.3 m rope
DPF470	Standard Rope: 20 m Ø 14 mm 3-strand Polyamide fibre rope
DPB450	Nylon Bag
DPA490	Connector
DPEXXX	Safety Helmet
DPPXXX	Anti-Fall Stick

DPF470

DPA490

DPB450

DPM430 Applications

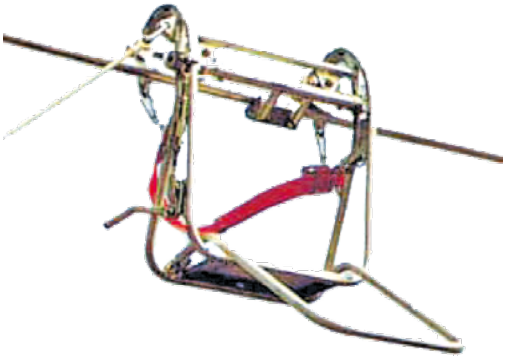
Individual, vertical, sliding fall arrest device. It ensures protection against falls when a user moves vertically along an anchorage line (textile rope).

Description and principle

Fall arrest device; free vertical movement at normal speed. Housing may be opened by using the captive screw and flat bolt.
Locking is due to the differential speed which engages an eccentric cam during the fall, between the user and the device on its support. The energy is absorbed by the lengthening of the support (>10%) and by the sliding movement along it. The device has a locking ring which prevents attachment to the support upside down. An arrow indicates the correct direction of movement and position for attachment to the support.

Construction conductor cars for single conductor lines

CRS820



CRS010 Configuration

This construction conductor car is made of light aluminium alloy and allows one person to cross or to inspect single conductor lines. The Mod. CRS820 is complete with two aluminium neoprene lined, meter counter and stationary brake.

Characteristics

Capacity	100 kg
Weight	13 kg

CRS320

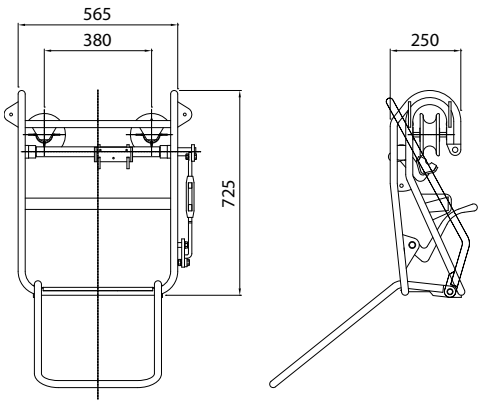
CRS320 Configuration

This construction conductor car is made of light aluminium alloy and allows one person to cross or to inspect single conductor lines. Complete with two aluminium neoprene lined, meter counter and stationary brake.

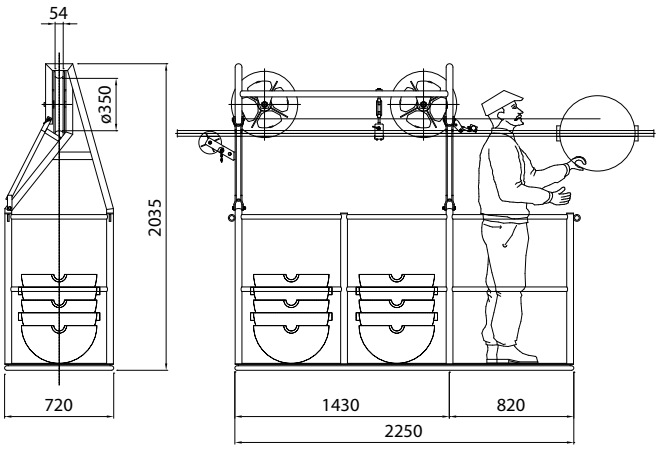
Characteristics

Capacity	150 kg
Weight	75 kg

CRS010



CRS320



Construction conductor car for bundled conductor lines

CRB300

According to EN50374:2004

CRB300 Configuration

This construction conductor car is made of light aluminium alloy for 2 bundled conductors - 2 rigid axles - conductive wheels - one lineman.

Characteristics

Capacity	100 kg
Weight	30 kg
Spacing	400 / 450 mm

CRT290

According to EN50374:2004

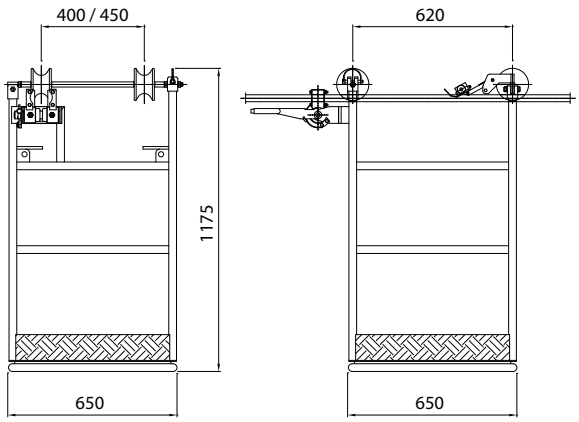
CRT290 Configuration

This construction conductor car is made of light aluminium alloy for 2-3 bundled conductors - indipendent wheels - conductive wheels - one lineman.

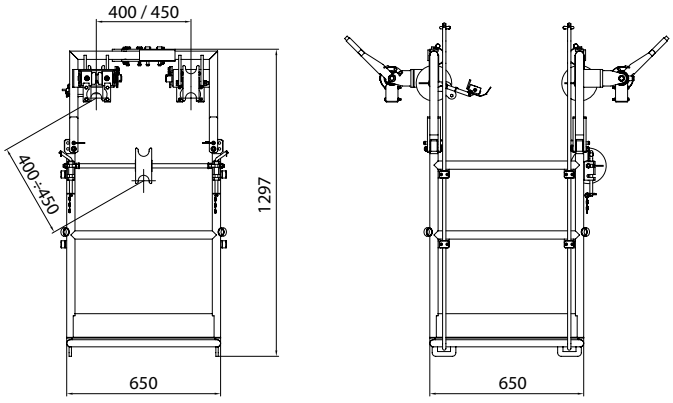
Characteristics

Capacity	120 kg
Weight	35 kg
Spacing	400 / 450 mm

CRB300



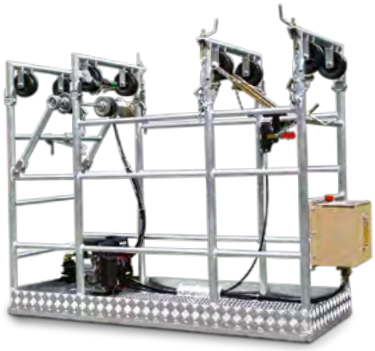
CRT290



Inspection conductor cars

CR

Wide range for every need spacer overcoming in safety conditions.



CRB060

CRT160

CRQ140

CRB060

Inspection conductor cars for two bundled conductors lines, motorised version

Capacity	250 kg
Weight	110 kg
Spacing	400 mm
Engine gasoline	3 kw
Cooling system	air
Starting system	by handle

CRT160

Inspection conductor cars for three bundled conductors lines, motorised version

Capacity	250 kg
Weight	120 kg
Spacing	400 mm
Engine gasoline	3 kw
Cooling system	air
Starting system	by handle

CRQ140

Inspection conductor cars for four bundled conductors lines, motorised version

Capacity	250 kg
Weight	125 kg
Spacing	400 mm
Engine gasoline	3 kw
Cooling system	air
Starting system	by handle

CRB061

Inspection conductor cars for two bundled conductors lines

Capacity	250 kg
Weight	80 kg
Spacing	400 mm

CRT161

Inspection conductor cars for three bundled conductors lines

Capacity	250 kg
Weight	84 kg
Spacing	400 mm

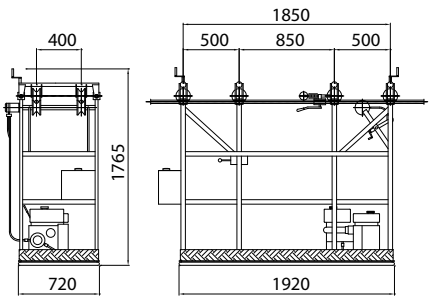
CRQ141

Inspection conductor cars for four bundled conductors lines

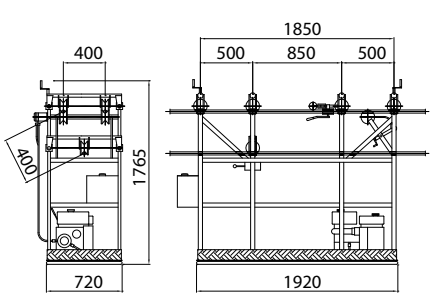
Capacity	250 kg
Weight	95 kg
Spacing	400 mm

Aluminium alloy inspection conductor cars that allow two people standing upright to inspect two, three and four bundled conductor lines.
The conductor cars are equipped with spacers and insulators surmounting device, stationary brakes, meter counter.
Special models with different characteristics are available upon request.

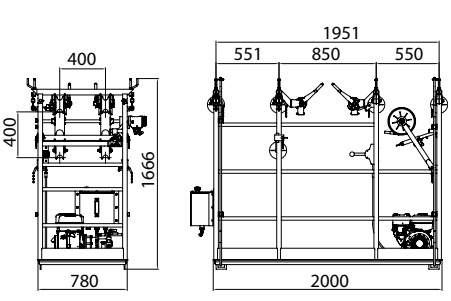
CRB060



CRT160



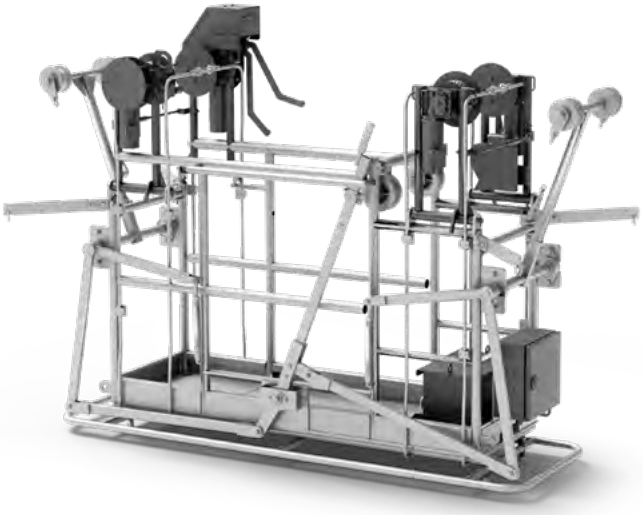
CRQ140



Inspection conductor car

CRQ850

According to EN50374:2004



CRQ850

Inspection conductor cars for four bundled conductors lines, motorised version

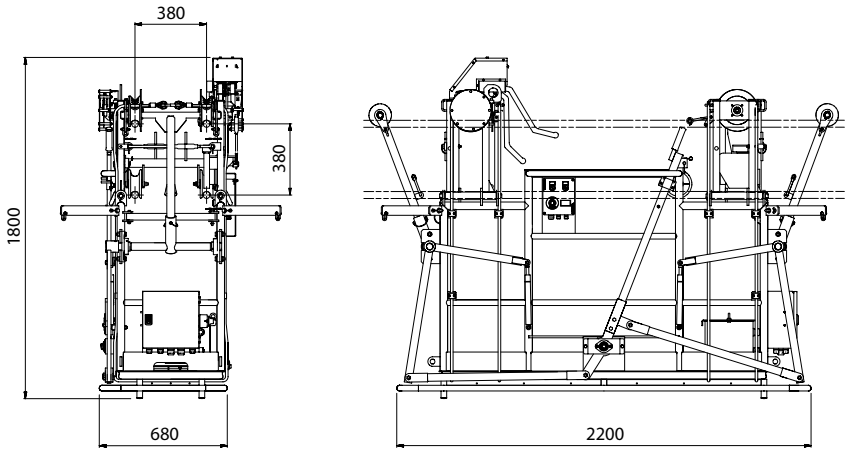
Capacity	250 kg
Weight	195 kg
Spacing	380 mm
Electrical motor	8 kW
Battery	24V

Configuration

Alluminium alloy inspection conductor car for two or four boundled conductor lines.

Conductor car is equipped with spacer and insulator surmounting devices, negative brakes , stationary brakes, meter counter and protection net.

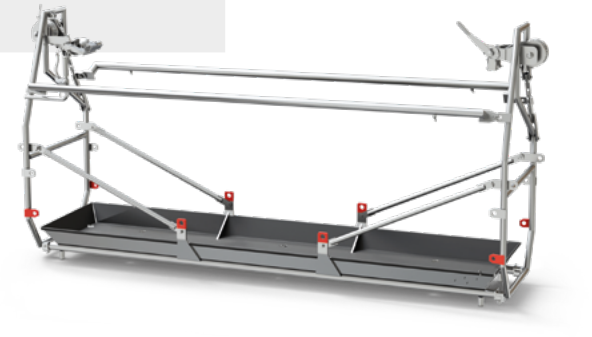
CRQ850



Fast inspection conductor car for single conductor line

CRM

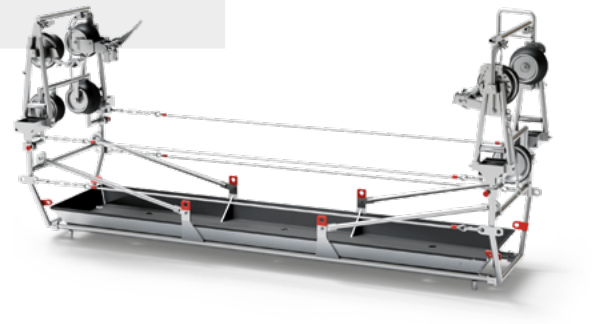
According to EN50374:2004



Fast inspection conductor car for bundled conductor line

CRF

According to EN50374:2004



CRM - for single conductor lines

Sides	Platforms	Dimensions [mm]			Weight [kg]
		B	H	L	
CRM610+CRM620	CRC630	745	1565	3443	74
	CRC650	745	1565	5443	96
	CRC670	745	1565	7483	125

CRF - for bundled conductor lines

Sides	Platforms	Dimensions [mm]			Weight [kg]
		B	H	L	
CRF660+CRF640	CRC630	986	1368	3300	113
	CRC650	986	1368	5300	124
	CRC670	986	1368	7340	163

Configuration for CRF

Front and rear ends CRF640 and CRF660 can be easily adjusted to different configuration

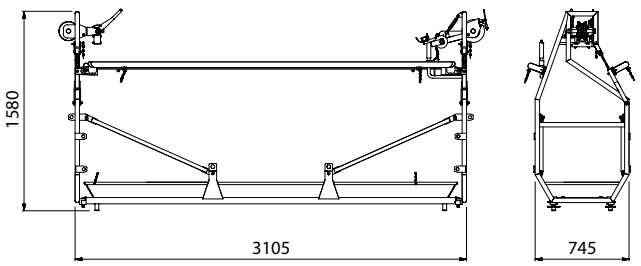
- Two bundled conductor lines spacing 400 and 600 mm
- Three bundled conductors line spacing 600 mm
- Four bundled conductors line spacing 400 mm

Conductor car is suitable to surmount spacer and warning sphere.
It is provided with two independent dynamic disk brake and stationary brake

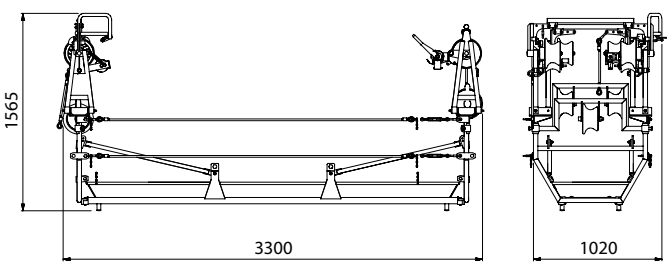
- Working load: 265 kg

Detachable conductor cars suitable for construction and inspection of different configuration line.
They are made of light aluminium alloy. Design has been defined in accordance with the end users. conductor car has a detachable structure composed by two sides and a central platform. Single line conductor cars and bundled line conductor cars can be assembled with three different length of platform. Each platform is fully interchangeable with both configurations to assure maximum flexibility. Any part can be provided separately. Conductor cars can be assembled by one operator alone even on job site. Long platforms assure comfort and space to work on line fittings.
Conductor car are provided with dynamic disk brake and stationary brake, meter counter and grounding device

CRM



CRF



Overhead lines bicycles

BI

- Light weight
- Comfort and safety

BIS002

BIB011

BIQ031

BIS002

In aluminium alloy for single lines	
Capacity	100 kg
Weight	26 kg
Available Devices **BDC002** - Basket for working devices	

BIB011

In aluminium alloy for two bundled conductor lines	
Capacity	100 kg
Weight	34 kg
Available Devices **BDC003** - Basket for working devices	

BIT023

In aluminium alloy for three bundled conductor lines	
Capacity	100 kg
Weight	38 kg
Available Devices **BDC004** - Basket for working devices Note: distance between conductors to be specified	

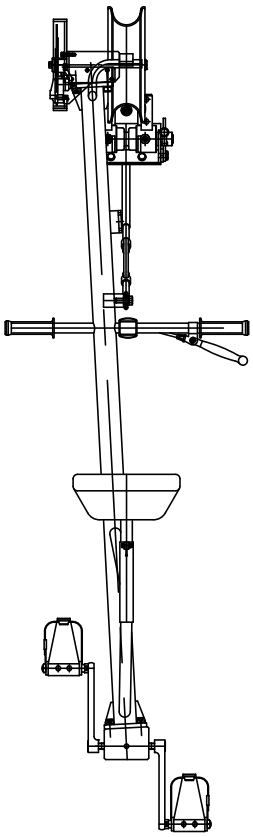
BIQ031

In aluminium alloy for four bundled conductor lines	
Capacity	100 kg
Weight	42 kg
Available Devices **BDC005** - Basket for working devices	

Configuration

The bicycles are suitable to fit aircraft warning spheres on single lines and to fit spacers on two, three and four bundled conductor lines. By pedalling forward the bicycle moves backward in order to provide the operator with necessary working space.
The bicycles are equipped with a disc brake on the driving wheel and with an additional safety clamp, which brakes directly on the conductor. A meter counter and safety chains are also provided. For models BIB011 and BIQ031 the distance between conductors can be set adjusted with pitch of 50 mm.
Special models with different characteristics are available upon request.
For bundled conductors, the conductor spacing range is 350 mm to 550 mm.

BIS002



THE **TOP WELDING EXPERTS** AT YOUR **DISPOSAL**

Tesmec aluminium structures **are a product of excellence**: completely hand welded by certified workers **using only top quality anticorodal aluminium** of 6000 class certified exclusively in Europe.

HAND-MADE FOR THE TOP SAFETY LEVEL

The Working Platform PLL is an equipment **used to allow the access to the insulator area** and the conductor's dead end joints on anchoring towers.

Thanks to the single side anti-fall barrier, provided with all the platforms, **Tesmec guarantees the highest safety** on jobsite.

LIGHT ALUMINIUM ALLOY LADDERS

Ladder and anti-fall device are **a complex of individual protective devices**, certified by a third party organization.

The ladders, designed in accordance with the Italian TSO Terna, are tested and used in all conditions **since more than 70 years on job sites around the world**.

Operator safety is always a priority. From 2013 not only the anti-fall devices SDA021 / SDA022 but the ladder itself is certified in compliance with the PPE Directive.

DERRICKS: EASY AND SAFE

Top European aluminium alloy and state of the art hand-made weldings ensure the highest quality and safety.

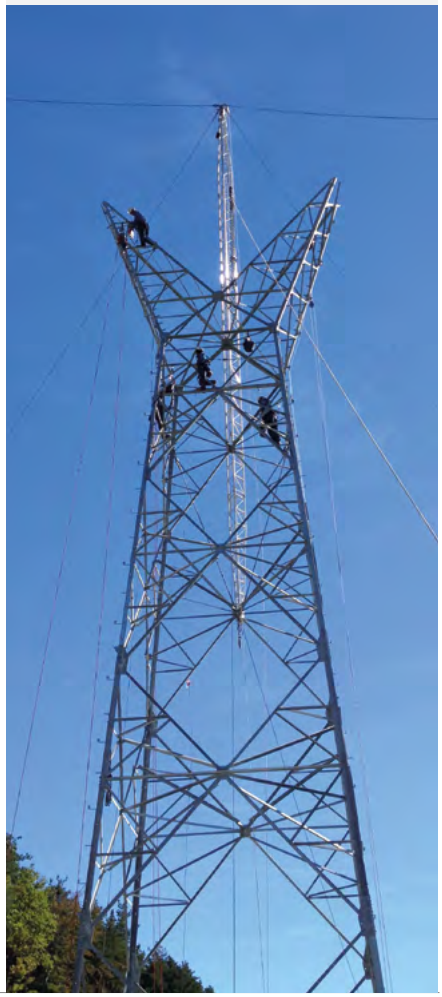
Thanks to the modular design, all derrick models are easy to handle. Each section is light and short, allowing for easy movement even in tough conditions.

Every model is designed with a special base to simplify the derricks tilting.

Furthermore, the swivel head of these structures makes the anchorage process straightforward.

The standard Tesmec is supplied with an external rope passage, typically used when hooked to the towers.

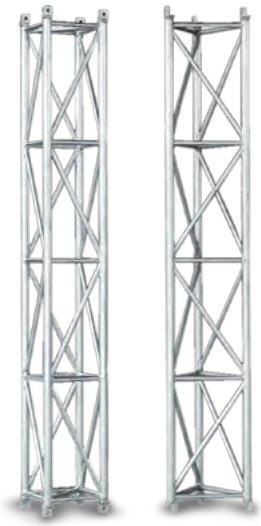
However, upon request, each model can be equipped with an internal rope passage, which is usually preferred for suspending the derricks within the tower's structure.



Support structures

PIL

- Light aluminium alloy supporting structure for erection of protections for roads, railways, channels and line crossings.
- Modular light & strong



PIL

PXT004

PXT002

PXB006

Characteristics

Model	Length [mm]	Section	Capacity [kN]	Mass [kg]
PIL100	2000	Triangular	10	7.5
PIL101	4000	Triangular	10	14
PIL500	2000	Square	10	9.5
PIL501	4000	Square	10	18.5

Option

Description	For square section	For triangular Section
Swivel light aluminium alloy head with pulley diameter 650 mm	**PXT001**	**PXT002**
Steel head designed to carry wooden beams suitable for crossing operations	**PXT003**	**PXT004**
Steel base	**PXB005**	**PXB006**

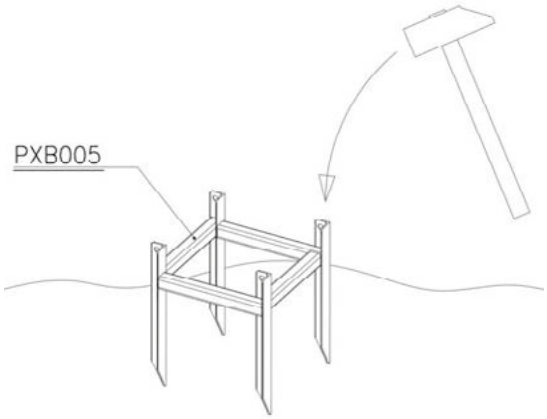


FIG.1

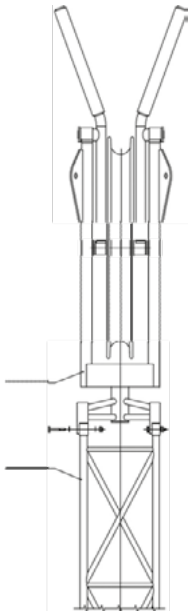


FIG.2

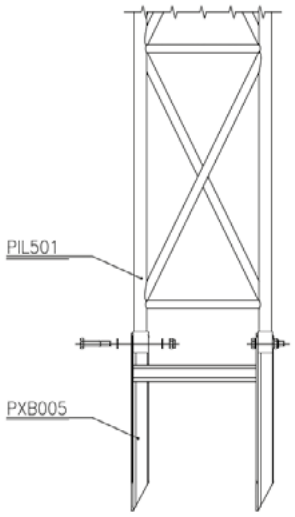


FIG.3

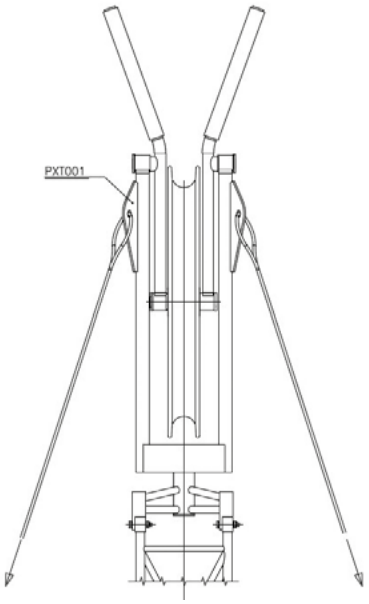


FIG.4

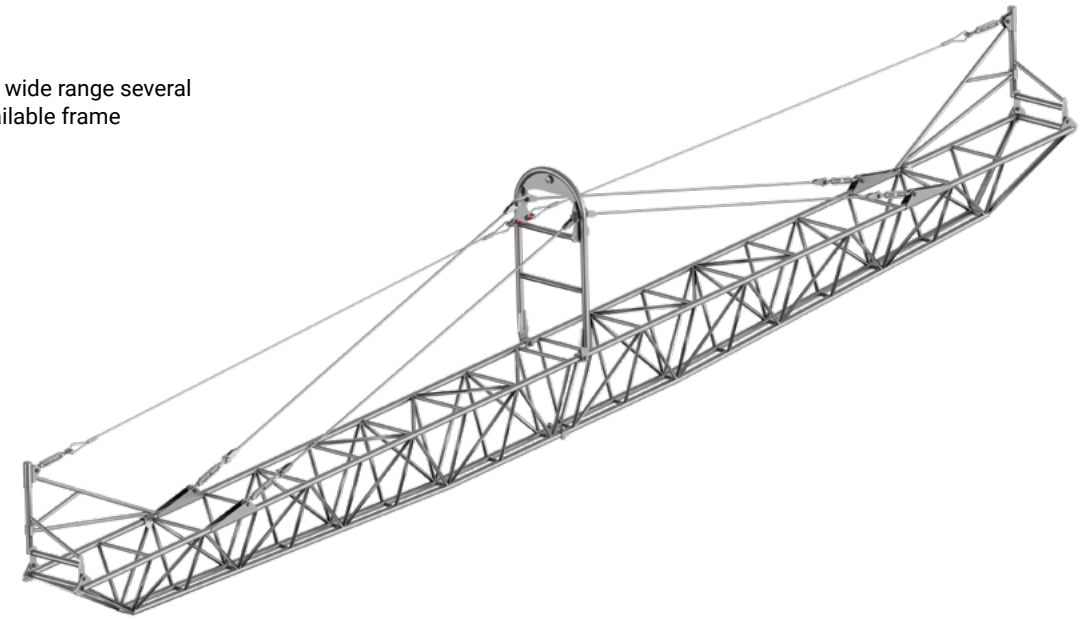
Assembly operations for PIL500, PXT001, PXB005

- First operation: stake out the base chip PXB005 on the ground by hammer. **FIG.1**
- Second operation: join PIL501 part with PXT001 part by bolts and nuts. Make these operations with components laid on the floor. **FIG.2**
- Third operation: lift components and join PXB005+PXT001 parts with PIL501 part by bolts and nuts. **FIG.3**
- Fourth operation: fix the steel wire guys from the PXT001 holes to supports on the floor. **FIG.4**

Working platforms

PLL

- Detachable wide range several options available frame



Characteristics

Model	Total length [m]	Lateral section length [m]	Central section length [m]	Intermediate section length [m]	Working load at the two ends [kg]	Mass [kg]
PLL004	7	3.5+3.5	-	-	300	65
PLL302	8	4+4	-	-	300	75
PLL308	9	4.5+ 4.5	-	-	300	85
PLL306	10	5+5	-	-	300	95
PLL303	11	5.5 +5.5	-	-	300	105
PLL311	12	6+6	-	-	300	107
PLL300	12	3.5+3.5	5	-	300	110
PLL600	16	3.5+3.5	5	2+2	300	150
PLL901	18	4.5+4.5	4.5+4.5	-	300	180
PLL909	20	5+5	5+5	-	300	190
PLL900	22	5.5+5.5	5.5+5.5	-	300	200
PLL905	24	6+6	6+6	-	300	228
PLL907	26	5+5+5+5	6	-	300	240

High voltage tubular tower's equipment

HIGH VOLTAGE TUBULAR TOWER'S EQUIPMENT

Tesmec has developed a new range of equipment for high voltage new generation tubular towers. This type of structures requires less space and reduce environmental impact however, in comparison with a traditional tower, the linemen here have no anchoring points or standing area.

Tesmec R&D department has developed a complete set of equipment easy to transport and to install, ensuring operations with the traditional safety level.

Available Devices

PYB001	Special track for hydraulic press trolley
PYC002	Hydraulic press trolley
PYDxxx	Double side anti-fall barrier

Configuration

- The working platforms have trapezoidal section and they are made of light aluminium alloy.
  For modular use of the platforms extra sling and anti-fall barrier kit are required for each specific length.
  All the platforms are provided with single side anti-fall barrier.
- Special working platforms are available upon request.

PYC002 + PRT060

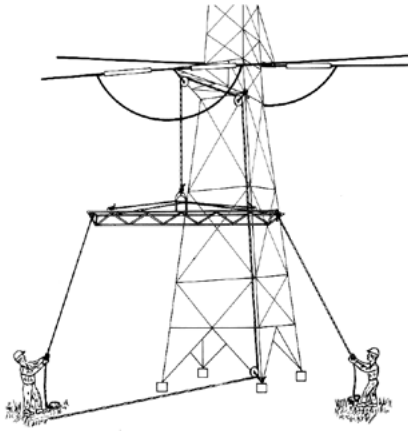


FIG.1

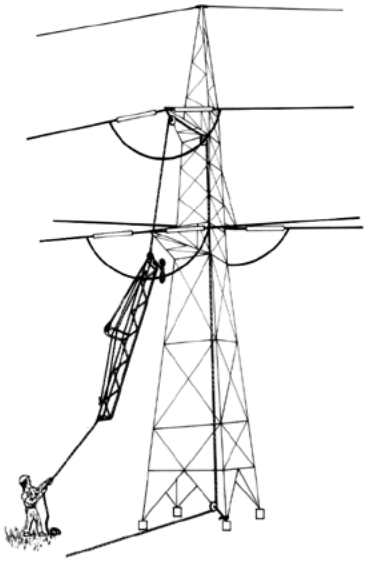


FIG.2

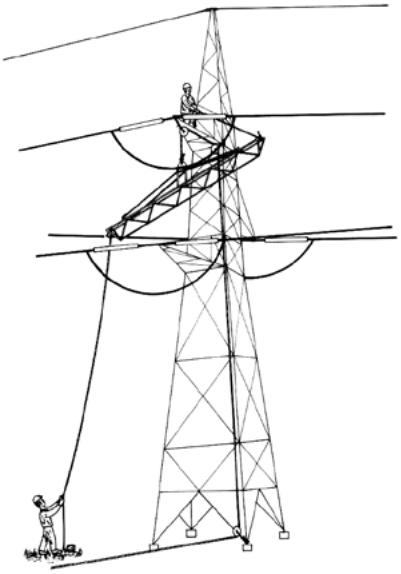


FIG.3

Use instructions for working platform PLL

- Installation on bottom cross arm, for standard or delta towers. **FIG.1**
- Installation on top cross arm: lifting operation. **FIG.2**
- Installation on top cross arm: twist to final position. **FIG.3**
- Stability: example of anchoring. **FIG.4**

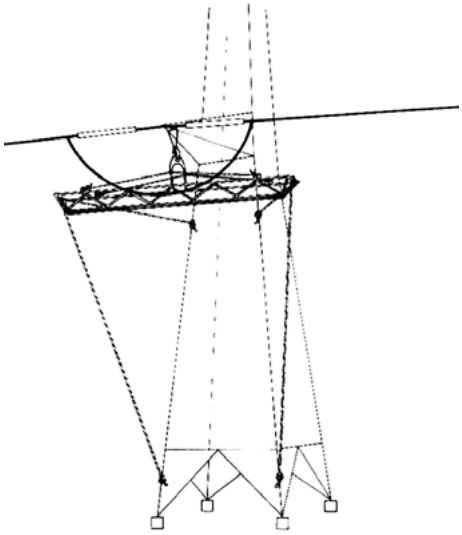
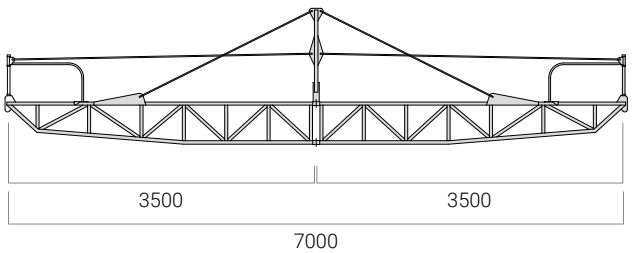
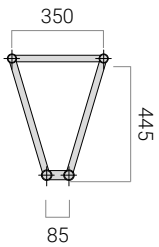
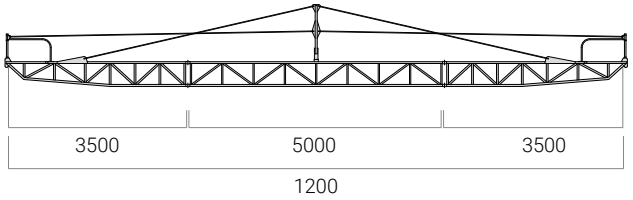
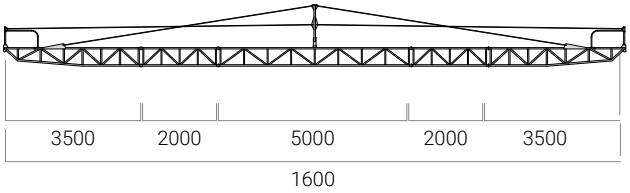


FIG.4









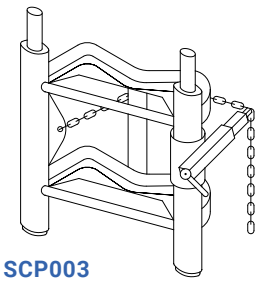
Monopole ladders

SCP

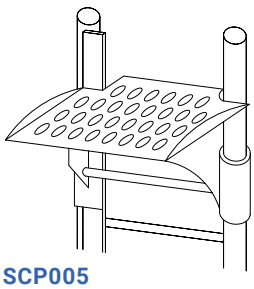
- Perfect fit
- Sliding system

Characteristics

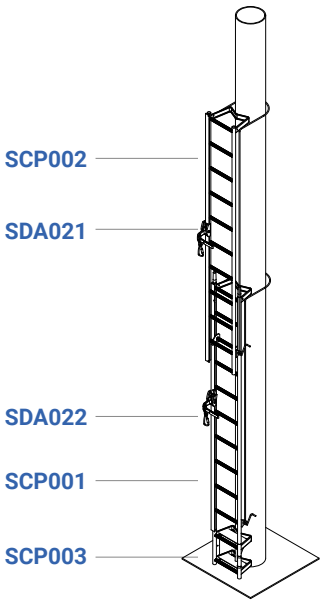
Model	Description	Section length [m]	Working load [kg]	Mass [kg]	Anti-fall device model
SCP001	Standard section	2.5	100	6.6	**SDA022** (not included)
SCP002	Terminal section	2.5	100	7	**SDA021** (included)
SCP003 or **SCP004**	Self-supporting base	-	100	5	-
	Self-supporting base section	2.5	100	7	Use the one of the standard section
SCP005	Working platform	-	100	1.2	-



SCP003



SCP005



SCP

Configuration

Specifically designed for climbing poles of circular or polygonal section. Standard lengths can be assembled to create the total length required. The ladder is made of light aluminium alloy, provided with anti-slippery rungs and with special tracks for the anti-fall device.

The ladder can be composed by using the following elements:

A. Several standard sections: quantity according to the total required height (**SCP001**)

B1. One self-supporting base for fixing the ladder to the pole without additionalground support (**SCP003**)

or

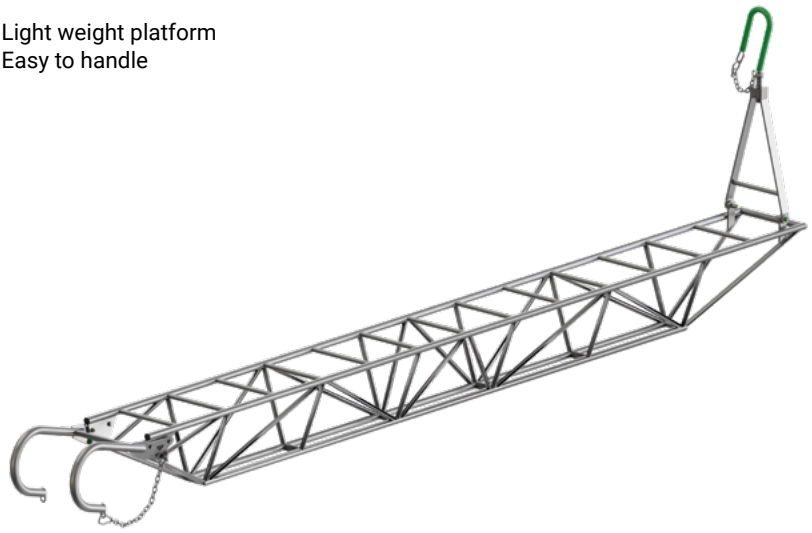
B2. One self-supporting base section for fixing the ladder to the pole without additional ground support (**SCP004**)

C. One terminal section, complete with anti-fall device, to be connected to any of the rungs of the last standard section, in order to adjust the final ladder length (**SCP002**)
As an option available the working platform applicable to the ladder at the required height (**SCP005**)

Anchoring ladders

SCA

- Light weight platform
- Easy to handle



SDG010

SDG009

SDG018

SDG025

SDG019

Characteristics

Model	Length [m]	Section length [m]	Working load [kg]	Linear mass [kg/m]	Section
SCA700	4	4	150	4	Triangular
SCA800	6	6	150	4	Triangular
SCA801	6	4+2	150	4	Triangular
SCA900	8	4+4	150	4	Triangular
SCA400	3.5	3.5	300	4.7	Trapezoidal
SCA401	4.5	4.5	300	4.7	Trapezoidal
SCA500	6.5	4.5+2	300	4.7	Trapezoidal
SCA600	8	4+4	300	4.7	Trapezoidal

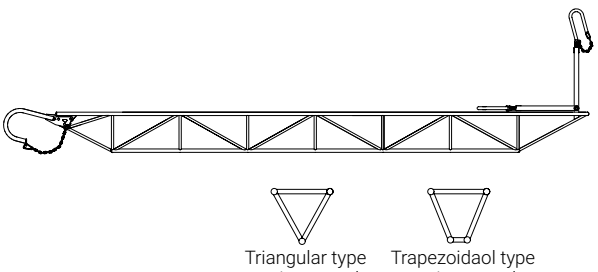
Special models with different lengths are available upon request

Model	
SDG010	Standard swivel hook conductor side
SDG009	Standard swivel hook with roller (conductor side)
SDG018	Swivel suspension hook (tower side)
SDG025	Double swivel suspension hook (tower side)
SDG019	Double hook swivel (conductor side)

Configuration

Specifically designed for anchoring works.
The ladders are made of light aluminium alloy, with anti-slippery rungs and with galvanized steel suspension hooks.
The ladders are supplied with a supplementary swivel hook to be located on the conductor, which allows the ladder to be used in horizontal position.
The ladders are available with triangular or trapezoidal section.
Complies with European standards.

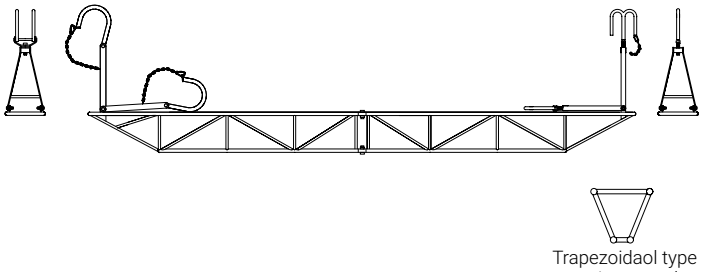
SCA with standard hooks SDG010



Triangular type section sample

Trapezoidaol type section sample

SCA with special double swivel suspension hooks SDG018 SDG019



Trapezoidaol type section sample

Suspension ladders

SCS-SDA

- PPE system
- Modular and light weight

SCS - Suspension ladders

Specifically designed for suspension works. The ladder is made of light aluminium alloy, fitted with anti-slippery rungs, with a special track for the anti-fall device and with a galvanized steel supporting hook.

Model	Length [m]	Section length [m]	Working load [kg]	Linear mass [kg/m]	Anti-fall device model not included
SCS100	3.5	3.5	300	3.8	SDA021
SCS200	4.5	4.5	300	3.8	SDA021
SCS306	5	5	300	3.8	SDA021
SCS300	6	6	300	3.8	SDA021
SCS301	6	4+2	300	3.8	SDA021
SCS302	8	4+4	300	3.8	SDA021

Available Devices

SDG015	Double swivel hook

Special models with different lengths are available upon request.
Only extra CE

SDG015
Only extra CE

SDA - Anti-fall devices

They are individual protective devices to prevent the operator from falling down; they are self-guided and self-locking devices running on a special rigid track and made of light aluminium alloy. They are provided with a polyamide mini energy-absorber and safety spring catch to connect it to the safety harness; the use of the safety harness is compulsory. They allow the proper movement of the operator along the ladder and, at the same time, they protect him from falling down. End stroke devices are provided in order to avoid that the anti-fall device run away from the anchoring track. These devices comply with the 89/686/CEE European Standard related to the individual protective devices.

Model	Working load [kg]	Nylon rope length [mm]	Mass [kg]
SDA021	100	300	1
SDA022	100	300	1

Complete range for maintenance of HV tubular tower

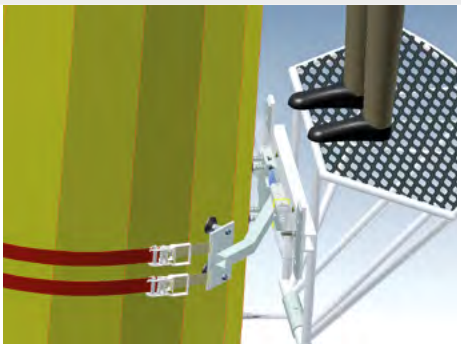
TUBULAR TOWER'S EQUIPMENT

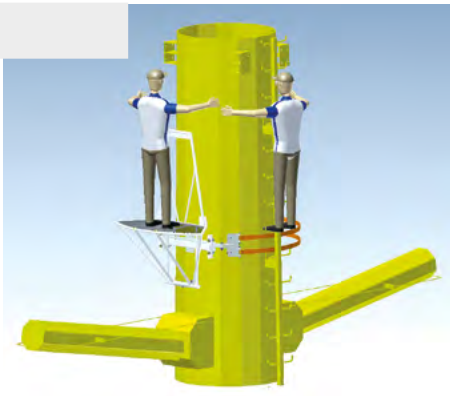
Designed and tested for italian 380 kv new towers

Support platform

PLS952

This equipment allows a lineman to move away from tower's ladder, giving him a confortable area to perform different operations.
It can be positioned on each part of the tower thanks to its self-adap ting locking system.
This equipment does not require anchoring devices on tower.
The platform is made of light aluminum alloy for an easy handling and it is provided with anti-slipering floor and a positioning connection for the operator.





Characteristics

Working load	120 kg
Tower Diameter range	560÷1700 mm

Guard rope pulley support

ABS060

This an equipment provides a support to a pulley on the top of the tower for guard rope or OPGW stringing. It is provided with a self-adjusting support designed to self adapt to the different tower diameters.
The arm is provided with an anchoring point for service blocks.

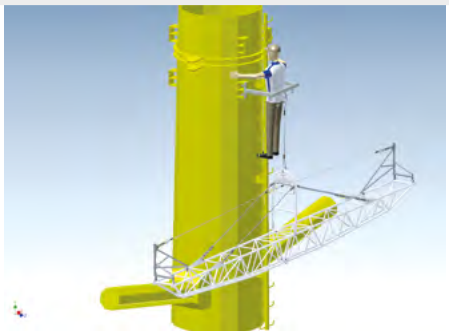
Characteristics

Working load	14 kN
Tower Diameter range	400÷700 mm

Support for working platform

ABS061

This equipment which is a support structure to connect a working platform onto the tower.
It is provided with a self-support base and doesn't require anchoring devices on tower.
It can be placed in every position on the tower.
The device is designed to self adapt to the tower shape.
It can support the weight of three operators.



Characteristics

Working load	500 kg
Tower Diameter range	450÷1700 mm

Horizontal ladder

SCA407

It's a device used to offer an easy passage from tower to the end of the tower's arms.
It is provided with universal hook and a stabilizing system.
The ladder is made of light aluminum alloy and can be detached in two section 3 + 1.5 m

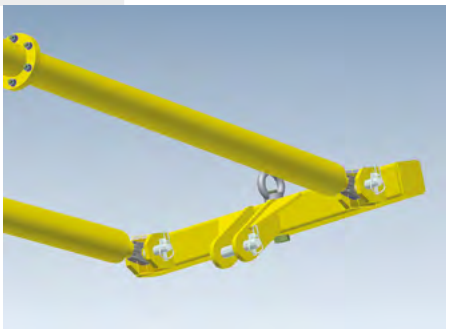
Characteristics

Working load	400 kg
Length	4.5 m (3+1.5)

Hydraulic jack for insulator maintenance

AVZ

This device is composed by two hydraulic jacks and byconnection devices.
It is designed to unload horizontal insulator without detaching the conductors from their connection points.
Power is provided by an external power unit.
Horizontal arms are made of light aluminum alloy to save weight. This device is suitable also for cornering tower.
Hydraulic jacks are double effect and can push or pull conductors with the same force.



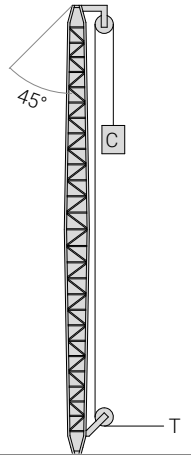
Characteristics

Working load	35 kN

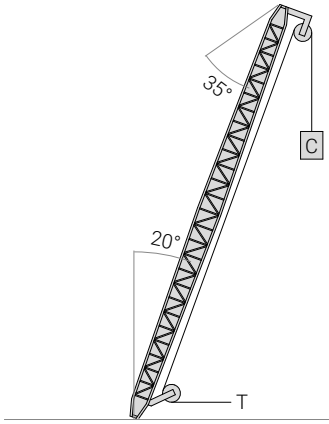
Aluminium derricks

FAL

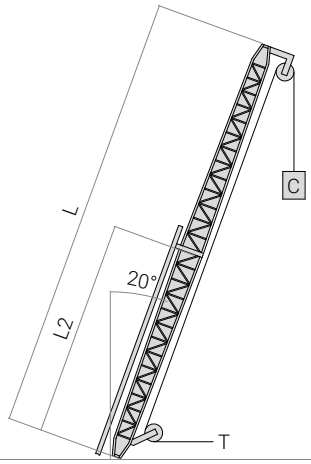
- Light design
- Swivel head and base
- Special models can be designed on demand



POS. 1



POS. 2



POS. 3

Model	Total Length [m]	Section lengths [m]	Max Lifting Load [kN]			Weight [kg]	Snatch Blocks (not included)		Anchoring ropes
			Pos. 1 0°	Pos. 2 20°	Pos. 3 20°		Upper service snatch blocks	Lower service snatch blocks	(n° 4 for each)
FAL001	8	4+4	6,5	5	1,5	40	**CZA010**	**CZA010**	**ALT046**
FAL010	12	4+4+4	6,5	5	1,5	65	**CZA010**	**CZA010**	**ALT047**
FAL020	8	4+4	10	8	2	45	**CZA010**	**CZA010**	**ALT046**
FAL030	10	4+2+4	10	8	2	60	**CZA010**	**CZA010**	**ALT046**
FAL040	12	4+4+4	10	8	2	70	**CZA010**	**CZA010**	**ALT047**
FAL050	8	3+2+3	12,5	10	2,5	50	**CZA030**	**CZA010**	**ALT046**
FAL060	12	4+4+4	12,5	10	2,5	80	**CZA030**	**CZA010**	**ALT047**
FAL070	16	5+6+5	12,5	10	2,5	110	**CZA030**	**CZA010**	**ALT048**
FAL080	12	4+4+4	19	15	3,5	100	**CZA140**	**CZA030**	**ALT043**
FAL090	16	5+6+5	19	15	3,5	130	**CZA140**	**CZA030**	**ALT044**
FAL100	18	6+6+6	19	15	3,5	180	**CZA140**	**CZA030**	**ALT045**
FAL110	20	5+5+5+5	19	15	3,5	200	**CZA140**	**CZA030**	**ALT045**
FAL120	12	4+4+4	25	20	4	120	**CZA140**	**CZA030**	**ALT156**
FAL130	16	4+4+4+4	25	20	4	160	**CZA140**	**CZA030**	**ALT147**
FAL140	20	5+5+5+5	25	20	4	220	**CZA140**	**CZA030**	**ALT015**
FAL150	12	6+6	31	25	5	150	**CZA380**	**CZA140**	**ALT156**
FAL160	16	5+6+5	31	25	5	200	**CZA380**	**CZA140**	**ALT147**
FAL170	18	6+6+6	31	25	5	230	**CZA380**	**CZA140**	**ALT015**
FAL180	20	5+5+5+5	31	25	5	250	**CZA380**	**CZA140**	**ALT015**
FAL190	16	5+6+5	50	40	8	300	**CZA350**	**CZA340**	**ALT155**
FAL200	18	6+6+6	50	40	8	330	**CZA350**	**CZA340**	**ALT155**
FAL210	22	5+6+6+5	50	40	8	400	**CZA350**	**CZA340**	**ALT017**

Standard derricks with external rope passage, available on demand with internal rope passage.

Aluminium derricks

FIG. 1

FIG. 2

FIG. 3

FIG. 4

ERP - EXTERNAL ROPE PASSAGE

The derricks with ERP have the lifting rope outside the body structure. This kind of derricks are suitable for every use, even if for center pole use it is suggested the IRP type.

The base (**Fig. 1**) which is a structure manufactured in welded steel, allows the inclination of the derrick and the use on the ground. The hook allows the use of the derricks anchored on the support trestles of the towers.

The head (**Fig. 2**), also made from a welded steel structure, has a swivel plate with 4 holes for the connection of the guy ropes to the ground.

In case of ERP it is always required to have on top and on the base a suitable snatch block or hackle.

IRP - INTERNAL ROPE PASSAGE

In case of use inside the tower it is preferable to use a derrick with IRP.

In this case the base (**Fig. 3**) and the head (**Fig. 4**) are different in order to guide the rope internally.

Furthermore, the base has a basket to support the structure, with 4 holes for the connection of 4 guy ropes to the tower.

2. UNDERGROUND

UNDERGROUND

2.1 DIGITAL MACHINES

UNDERGROUND MACHINES.

Tesmec offers a complete range of machines to face every jobsite condition for any underground application. We propose:

+ Digital machines for the latest innovation in control and precision
+ Full electric machines for urban or tunneling projects

THE NEW DIGITAL STRINGING MACHINES ARE

USER FRIENDLY

SAFE

RELIABLE

FULL OPTIONAL CONFIGURATION AS A STANDARD

INCLUDED IN EVERY DIGITAL STRINGING MACHINE

+ Closed hydraulic circuit for stepless speed variation in both rotating direction
+ 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
+ Free wheel device
+ Electronic pull value limitation control

full electric MACHINES

+ Zero emission
+ Full electric machines with battery storage (LiFePO4) and plug-in charging system
+ Designed for urban projects of cable laying and pipe rehabilitation
+ The machine does not make noise thanks to the absence of the diesel engine
+ Less maintenance due to the absence of any hydraulic component (motors, pumps, valves..)

MAIN FEATURES

Teo
Tesmec Evolution Onwards

A COMPLETE AFTER-SALES EXPERIENCE: ALL IN ONE SUITE, MULTIPLE SERVICES.

Teo
CTRL Room

A breakthrough in the after-sales offer that speeds up the remote support and offers a full overview on the stringing equipment.

It allows monitoring in real time:

+ the performance at the jobsite
+ the global equipment status
+ the geolocalisation of the equipment

+
Connected jobsite

Teo is in continous improvement: many other services will be released soon.

Stay Tuned!

AVAILABLE DEVICES FOR THE EVOLUTION:

+ **ALL271**: TEO CTRL-Room **Silver** Edition
+ **ALL272**: TEO CTRL-Room **Gold** Edition

NEW!

NEW HUMAN INTERFACE (HMI)

The new control panel is drastically simplified. The innovative graphic display shows all the information, including diesel engine parameters, machine performance, and diagnostic output.

REMOTE CONTROL

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.

Digital puller

PM1250

max pull
50 kN

max speed
50 m/min

max rope diameter
14 mm

Performance *

Max pull	50 kN
Speed at max pull	17 m/min
Max speed	70 m/min
Pull at max speed	12 kN
Free wheel max speed	150 m/min

* at 20°C and at sea level

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.	

Characteristics

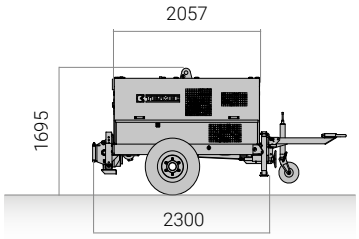
Weight (without rope)	1800 kg
Max rope diameter	14 mm
Bull-wheel diameter	350 mm
Number of grooves	7

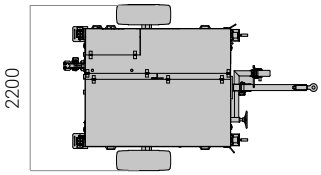
Available Devices

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
ALL400	Reel-winder preset for different rope diameter

Reel winder

On board reel winder with automatic level wind and reel for 700 m of d. 14 mm rope.





Digital puller

PM1450

max pull
100 kN

max speed
33 m/min

max rope diameter
16 mm

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

Characteristics

Weight (without rope)	3100 kg
Max rope diameter	16 mm
Bull-wheel diameter	400 mm
Number of grooves	8

Reel winder

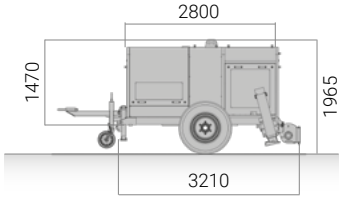
On board reel winder with automatic level wind and reel for 1500 m of d. 16 mm rope.

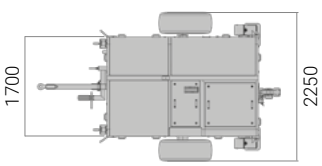
Engine

Diesel	55 kW (73 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.	

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
ALL280	Automatic grease pump
ALL400	Reel-winder preset for different rope diameter





Full electric puller

full electric MACHINES

PE1151

max pull
30 kN

max speed
70 m/min

max rope diameter
11 mm

Performance *

Max pull	30 kN
Speed at max pull	6 m/min
Max speed	50 m/min
Pull at max speed	4 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)	1300 kg
Number of grooves	8

Electrical power pack

Battery pack	48 V
Charge time	5H 230 V 50 Hz 10H 120 V 60 Hz
1 PH+N+PE	
Power engine:	4.1 kW

Reel winder

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

Configuration

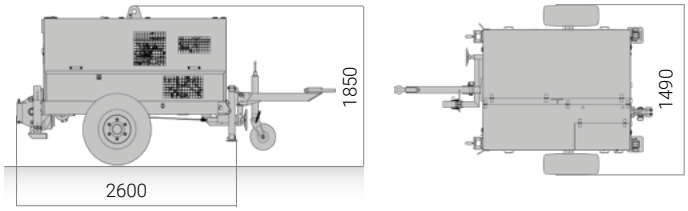
- Integrated warm-up system
- Battery swap
- Teo system offered as a standar

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
ALL280	Automatic grease pump
ALL400	Reel-winder preset for different rope diameter



Full electric puller

full electric MACHINES

PE1250

max pull
50 kN

max speed
70 m/min

max rope diameter
15 mm

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

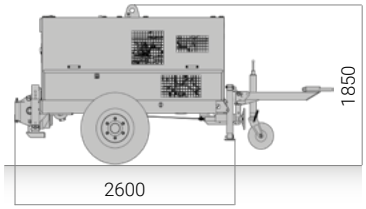
Characteristics

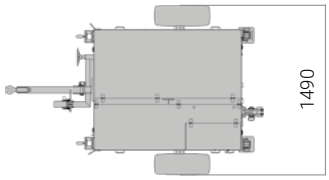
Bull-wheel diameter	300 mm
Max rope diameter	15 mm
Weight (without rope)	2500 kg
Number of grooves	8
Suitable for	1 rope
Layout	Single

Electrical power pack

Battery pack	350 V
Charge time	4H Δ 208 V US* 4H Y 400 V EU*
Power engine:	10 kW

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





Reel winder

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

Configuration

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
ALL280	Automatic grease pump
ALL400	Reel-winder preset for different rope diameter

Full electric puller

full electric MACHINES

PE1350

max pull
70 kN

max speed
70 m/min

max rope diameter
15 mm

Performance *

Max pull	70 kN
Speed at max pull	6.7 m/min
Max speed	70 m/min
Pull at max speed	7 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 fune
Layout	Singola

Electrical power pack

Battery pack	350 V
Charge time	4H Δ 208 V US* 4H Y 400 V EU*
Power engine	10 kW

* 3PH+N+PE, US: 3PH+PE

Reel winder

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

Configuration

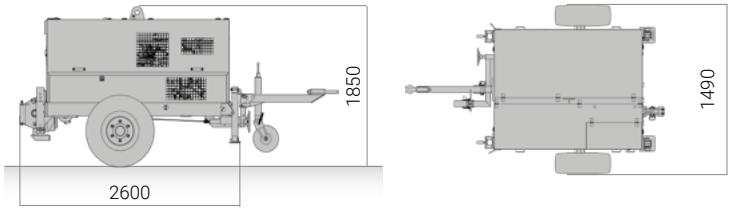
Integrated warm-up system

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
ALL280	Automatic grease pump
ALL400	Reel-winder preset for different rope diameter




TESMEC

PES500 ELECTRIC PULLER TENSIONER

With an electric motor, the PES500 eliminates the need for hydraulic components such as hydraulic motors, pumps and valves.

The unit's silent operation makes it ideal for almost any location, while the electric power system generates zero emissions.
The PES500 delivers a maximum pull force of 5,000 lbf (22 kN) and offers an advanced user interface and remote control.

Also included is the new digital interface with a 7-inch color display and integrated pull and speed recorder. The PES500 can be operated with a radio remote control that integrates with the new digital HMI, providing automatic power management and full safety controls.

THE NEW DIGITAL STRINGING MACHINES ARE

- **USER FRIENDLY**
- **SAFE**
- **RELIABLE**

- + Electrical Free Wheel
- + Fairlead system
- + Control panel and radio remote control
- + Negative self-acting electrical brake
- + Grounding connection point
- + Electronic pull value limitation control
- + Integrated warm-up system

Full electric puller tensioner

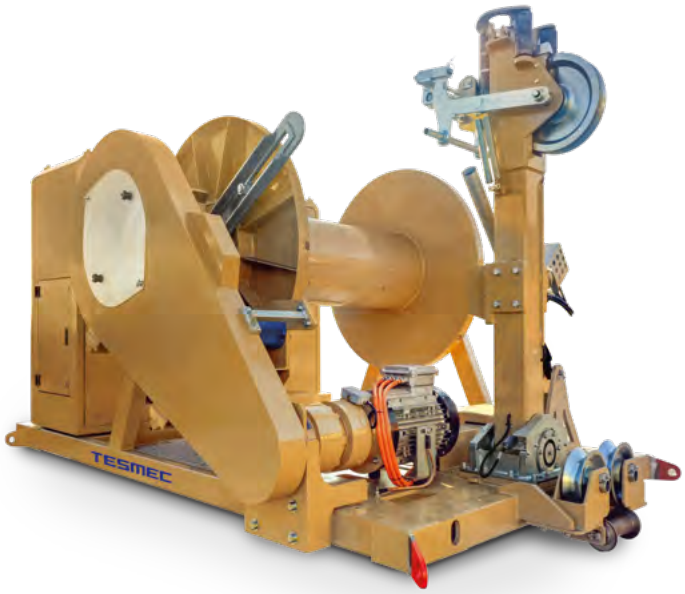
full electric MACHINES

PES500

max pull
20 kN

max speed
1.60 km/h

max rope diameter
16 mm



Performance *

Max pull	22.24 kN @ 900 mm (5000 lbs @ 35.43”)
Speed at max pull	1.61 km/h (1 mph)
Max speed	6.44 km/h (4 mph)
Free wheel max speed	6.44 km/h (4 mph)

* at 20°C and at sea level

Characteristics

Max rope diameter	16 mm (5/8”)
Weight	3100 kg (6834 lb)

Electrical power pack

Lithium batteries	96 V
Charging system	115/230 V
Charge time	115 V - 14 hours 320 V - 6 hours
Power engine	20 kW (26 hp)

Battery storage capacity

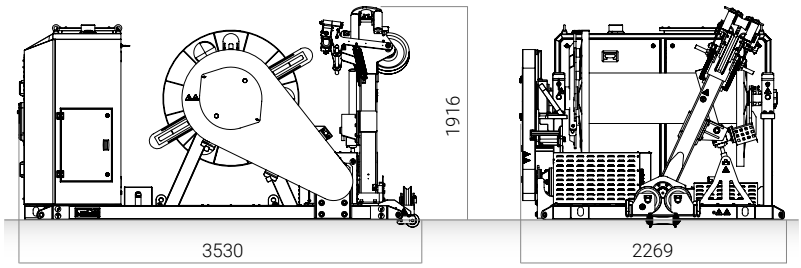
Rope length recovered		
Working Cycle	Average	6000 m (19583 ft)
	Max pulling force	3000 m (9842 ft)

Removable reel

Standard reel on board	
External diameter	1067 mm(42”)
Internal diameter	457 mm (18”)
Width	1295 mm (51”)
Reel capacity	3200 m (10500 ft)
Max dimensions of the reel	
External diameter	1828 mm (72”)
Internal diameter	1422 mm (56”)
Max Weight	2540 kg (5600 lbs)
Shaft diameter	67 mm (2.75”)

Available Devices

ALL261	External printer



UNDERGROUND

2.2 TOOLS

THE HISTORICAL OVERHEAD TRADITION MEETS THE NEW UNDERGROUND APPLICATIONS

UNDERGROUND DRUM ELEVATORS

Tesmec **offers an extensive range** of machines for drum handling:
+ Mechanical models for standard projects
+ Hydraulic jacks and elevators for heavy duty applications
+ A wide range of trailers to facilitate the logistics of drum transportation

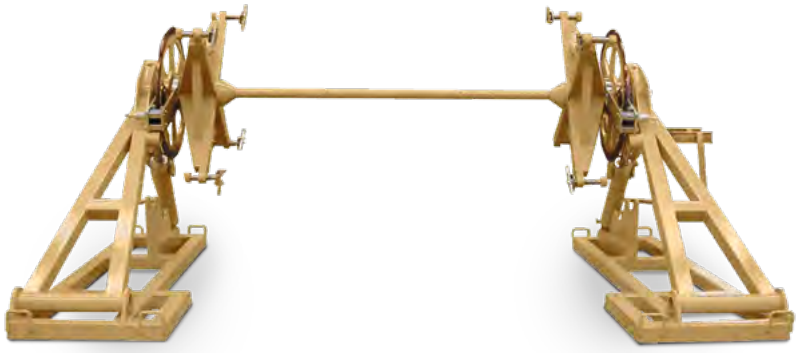
TRAILERS

CVT: Trailer solution
+ Hydraulic lifting system
+ Mechanical breaking system or hydraulic with on board engine option
+ A vast selection of models tailored to the size and weight of the reels

The optimal choice for underground projects, including several models that are EU type-approved.

ELEVATORS

CVI: detachable frame for easy transport
A showcase with a lot of models.
Customized models available on demand.



ROPES

Tesmec suggest two types of ropes dedicated exclusively for underground stringing: a **standard version** and a **premium version**, both with a resistance of **2160 N/mm**.
All Overhead ropes can be adapted for underground operations.

OTHER TOOLS

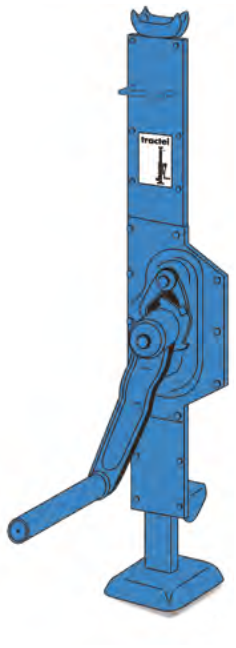
To complete the underground set equipment, Tesmec **offers a wide range of tools** and accessories, such as:
+ Socks;
+ Cable rollers;
+ Corner rollers;
+ Cable guiding devices;
+ Fiberglass rods;
+ Accessories for fiberglass rods;
+ Pulling eyes.

Mechanical lifting jacks

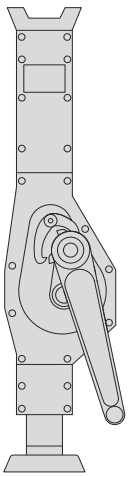
CVM

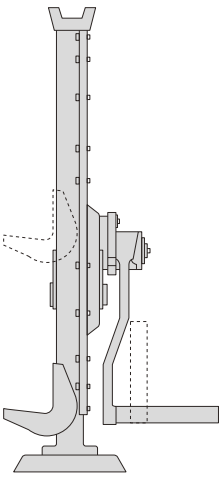
- The pinion and the crow gear are made by high quality forged steel.
- The lifting system is made by a ratchet wheel with a double retaining catch.
- The load can be applied on both end.
- Racks are totally maintenance free.

Note: the item is equipped with 1 mechanical lifting jack. 2 CVM are required for reel lifting.



Model	Capacity [kN]	Standard lifting [mm]	Effort on handle [kg]	Height closed rack [mm]	Min. lifting height [mm]	Lifting toe length [mm]	Crank handle length [mm]	Mass [kg]
CVM212	30	355	35	735	70	61	250	20
CVM410	50	345	40	735	80	71	250	28
CVM805	100	390	58	800	100	86	300	46





Mechanical drum elevator

CVM

- Mechanical drum trestles with adjustable position.
- Each jacks lift by a screw operated by a crank handle.
- Wide base support assures the reel stability.
- The length of screw is suitable to different reel dimensions.
- Made of highly galvanized steel to lift reels of diameter between 400 and 3000 mm.

Note: the item is equipped with 2 mechanical drum trestles.

Model	Capacity [kg]	Reel diameter [mm]	Height [mm]	Mass [kg]
CVM007	1500	400 - 1800	74	30
CVM205	3000	700 - 2600	100	64
CVM407	5000	930 - 3000	130	70
CVM802	10000	1160 - 3000	130	88

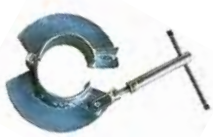
ACCESSORIES

Alloy tubular shaft with bearings

Model	Length [mm]	Ø [mm]	Capacity [kg]	Mass [kg]
CDS031	1800	90	10000	22.2
CDS032	2050	90	10000	25.3
CDS027	1500	75	5000	14.6
CDS028	1800	75	5000	18.5
CDS029	2050	75	5000	19.6

Galvanised steel tubular shaft with ball-bearing

Model	Length [mm]	Ø [mm]	Capacity [kg]	Mass [kg]
CDS038	1800	90	10000	22.2
CDS039	2050	90	10000	25.3
CDS033	1500	60	3000	18
CDS034	1500	75	5000	14.6
CDS035	1800	75	5000	18.5
CDS036	2050	75	5000	19.6



Galvanised collar

Model	Axle Ø [mm]	Mass [kg]
CDO040	60	1.2
CDO041	75	1.5
CDO042	90	1.7

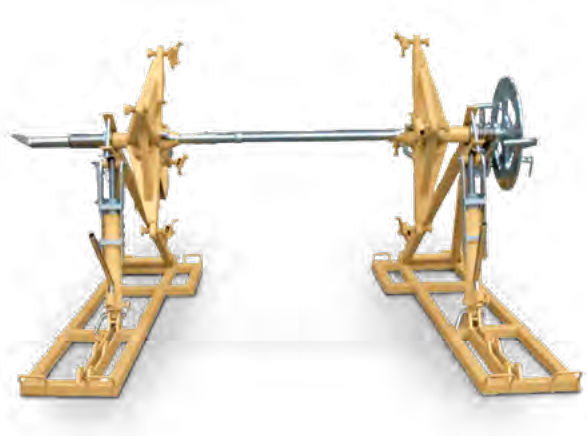
Couple of galvanised fixing cones

Model	Ø [mm]	Axle Ø [mm]	Mass [kg]
CDO044	85 - 130	75	7
CDO045	110 - 150	90	8.5
CDO043	65 - 115	60	3

Hydraulic drum elevators heavy duty

CVI

- Detachable frame
- Easy transport



CVI816+CDR

CVI830

Characteristics

Model	Dimensions [mm]								Shaft Ø [mm]	Capacity [kN]	Weight [kg]
	A	B min	B max	C min	C max	D	E min	E max			
CVI816	2800	1500	2600	960	1770	900	2000	3400	70	160	1340
CVI830 CVI831	3000	1600	2800	1800	2150	600	3700	4450	140	300	1600

Configuration for CVI816

Two manual disk brakes (max torque 6 kN x m).
Support with self locking fixing wedges for wooden conductor reels.
The drum elevator can be completed with the optional CDT for steel rope

Typical available devices for CVI816

TIH010	Fast assembling hydraulic motor for control of the drum winding and unwinding.
TUT002	Kit of connecting hoses. Length 10 m, weight 15 kg.

Configuration for CVI830

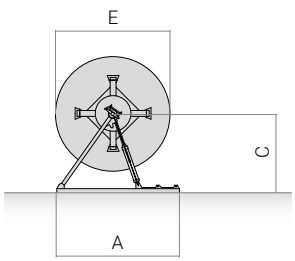
Two manual disk brakes (max torque 3.5 kN x m).
Support for wooden or steel made reels.

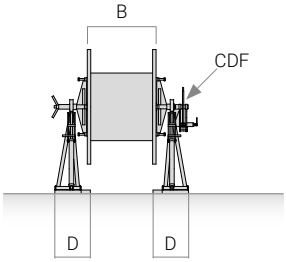
Configuration for CVI831

One manual disk brake.
Connection for hydraulic motor.

Typical available devices for CVI831

TIH013	Fast assembling hydraulic motor for control of the drum winding and unwinding.
TUT002	Kit of connecting hoses. Length 10 m, weight 15 kg.

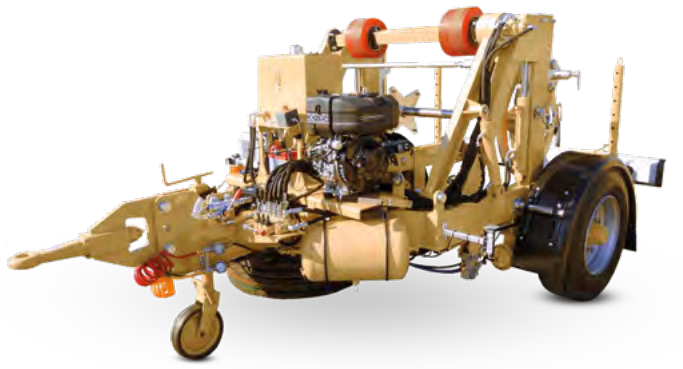




Reel carrier trailers

CVT

- Special models can be designed on demand
- EC type-approved



CVT234

CVT415

Motorized model equipped with hydraulic winding system

Model	Max capacity [kN]	Engine [kW]	Reel dimensions [mm]			Max towing Speed [km/h]	Overall dimensions [mm]			Weight [kg]
			Ø max	Ø min	Width		Length	Width	Height	
CVT234*	30	8	3000	1400	1300	90	4300	2200	2000	1700

* EC type-approved for road circulation

Typical available devices for CVT234

BOC310	Detachable reel

Standard model

Model	Max capacity [kN]	Reel dimensions [mm]			Max towing Speed [km/h]	Overall dimensions [mm]			Weight [kg]
		Ø max	Ø min	Width		Length	Width	Height	
CVT415*	43	3000	1400	1500	90	4950	2500	2150	1700

*EC type-approved for road circulation

Configuration

Two hydraulic jacks powered by a manual pump
are used to lift the reel.
One disc brake acting on the reel shaft is designed to control
the unwinding tension.
Manual front plough stabiliser.
Lighting system.
Air brake system.
Amortized semiaxles with mechanical parking brake.

Reel carrier trailers

CVT

- Special models can be designed on demand
- Essential line

CVT249

CVT416

Motorized model equipped with hydraulic winding system

Model	Capacity [kN]	Reel dimensions [mm]			Max Towing Speed [km/h]	Dimensions [mm]			Weight [kg]
		Ø max	Ø min	Width		Length	Width	Height *	
CVT249	26	2500	1000	1400	80	4100	2500	2020	870

***** Reel excluded

Standard model

Model	Capacity [kN]	Reel dimensions [mm]			Max towing Speed [km/h]	Dimensions [mm]			Weight [kg]
		Ø max	Ø min	Width		Length	Width	Height *	
CVT416	61	3200	1700	1600	80	4500	2550	2250	1350

***** Reel excluded
Diesel drive on demand.

Configuration

Two hydraulic jacks powered by a manual pump
are used to lift the reel.
Manual front plough stabiliser.
Air brake system.
Amortized semiaxles with mechanical parking brake.

Reel carrier trailers

CVT610

- Special models can be designed on demand
- Detachable standard hydraulic motor

Characteristics

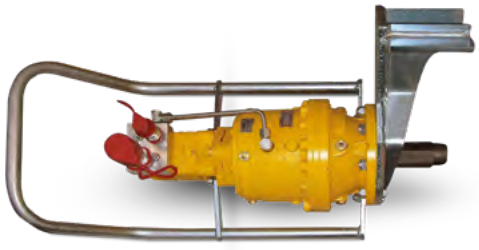
Model	Capacity [kN]	Reel dimensions [mm]			Max Towing Speed [km/h]	Dimensions [mm]			Weight [kg]
		Ø max	Ø min	Width		Length	Width	Height *	
CVT610	70	2400	1200	1600	20	4550	2550	1600	1800

* Reel excluded

Reel carrier trailers

TIH

Fast assembling hydraulic motor for control of the drum winding and unwinding



TIH001

Characteristics

Model	Max Torque [kN x m]	Max rotating speed [rpm]	Weight [kg]
TIH001	1.8	45	76

Reel carrier trailers

CVT

- Special models can be designed on demand
- Detachable standard hydraulic motor

CVT833

CVT835

Standard model

Model	Capacity [kN]	Reel dimensions [mm]			Max Towing Speed [km/h]	Dimensions [mm]			Weight [kg]
		Ø max	Ø min	Width		Length	Width	Height *	
CVT833	100	3200	1700	1600	-	4935	2550	2200	1300
CVT835	140 150	3600	2200	1600	20 15	4700	2900	2600	2600

* Reel excluded
Diesel drive on demand

Motorized model equipped with hydraulic winding system

Model	Capacity [kN]	Reel dimensions [mm]			Max Towing Speed [km/h]	Dimensions [mm]			Weight [kg]
		Ø max	Ø min	Width		Length	Width	Height *	
CVT836	200	5000	2500	2700	25 km/h	7300	3800	2720	4500

* Reel excluded

Detachable for transport

Steel rope

FUF Basic

- High breaking load and flexibility
- Galvanized steel rope
- Class 19x7 133 wires
- Right lang lay
- Tensile rope grade 1960 N/mm²

FUF Premium

- High breaking load and flexibility
- Galvanized steel rope
- Class 26 x 7 196 wires
- Compacted strands
- Right lang lay
- Left lang lay
- Tensile rope grade 2160 N/mm²

FUF Basic

Model	Diameter [mm]	Working load (2:1) [kN]	Breaking load [kN]	Weight [kg/m]
FUF108	8	23.75	47.5	0.500
FUF109	9	29.30	58.6	0.560
FUF110	10	36.00	72	0.630
FUF111	11	42.75	85.5	0.690
FUF112	12	52.00	104	0.750
FUF113	13	58.00	116	0.810
FUF114	14	71.50	143	0.880
FUF116	16	91.00	182	1.010
FUF118	18	113.50	227	1.150
FUF120*	20	167.50	335	1.670
FUF121*	21	184.00	368	1.890
FUF122*	22	207.50	415	2.090

* Class 24x7 - 168 wires; Right lang lay, left rang lay, tensile rope grade 2160 N/mm²

FUF Premium

Model	Diameter [mm]	Working load (2:1) [kN]	Breaking load [kN]	Weight [kg/m]
FUF310	10	49.50	99	0.490
FUF311	11	59.50	119	0.590
FUF312	12	71.25	142.5	0.710
FUF313	13	83.50	167	0.830
FUF314	14	97.00	194	0.960
FUF315	15	111.25	222.5	1.100
FUF316	16	126.50	253	1.250
FUF317	17	143.00	286	1.420
FUF318*	18	158.75	317.5	1.590
FUF319*	19	176.75	353.5	1.770
FUF320*	20	196.00	392	1.960
FUF321*	21	216.00	432	2.160
FUF322*	22	237.25	474.5	2.380

* Class 32x7 - 224 wires

Head type sock joints

GCL-GCT

Specifically designed to temporally connect the cable to the pulling rope.
They consist of steel wire which effectively distribute the grip effect on the cable.

GCL - Head type sock joint with 1 Loop-Long

Model	Cable Ø [mm]	Net length [mm]	Working load (3:1) [kN]	Breaking load [kN]
GCL110	10-14	900	6.6	20
GCL120	15-20	900	6.6	20
GCL130	21-25	1000	8.3	25
GCL140	26-30	1200	10	30
GCL150	26-45	1500	16.6	50
GCL160	31-40	1500	15	45
GCL170	41-50	1500	16.6	50
GCL180	46-60	1600	16.6	70
GCL190	61-80	1800	26.6	80
GCL200	81-100	2000	33.3	100
GCL210	101-140	2000	33.3	100
GCL220	141-170	2000	33.3	100
GCL230	171-200	2000	33.3	100
GCL221	150-180	2000	66.6	200
GCL231	180-210	2000	66.6	200

GCT - Head type sock joint with 1 Loop-Short

Model	Cable Ø [mm]	Net length [mm]	Working load (3:1) [kN]	Breaking load [kN]
GCT380	11-14	600	6.6	20
GCT390	15-20	600	6.6	20
GCT400	21-25	600	8.3	25
GCT410	26-30	600	10	30
GCT420	31-40	700	15	45
GCT430	26-45	700	16.6	50
GCT440	41-50	800	16.6	50
GCT450	46-60	800	16.6	50
GCT460	61-80	800	26.6	80
GCT470	81-100	1000	33.3	100
GCT480	101-140	1200	33.3	100
GCT490	141-170	1200	33.3	100
GCT495	171-200	1200	33.3	100

Sock joints

GCP

Specifically designed to temporally connect the cable to the pulling rope.
They consist of steel wire which effectively distribute the grip effect on the cable.
Also available in open version.

Sock joint with 2 loops Mod. GCP/GCA

Model		Cable Ø [mm]	Net length [mm]	Working load (3:1) [kN]	Breaking load [kN]
Passing	Open				
GCP241	**GCA240**	10-14	800	6.6	20
GCP252	**GCA250**	15-20	800	6.6	20
GCP262	**GCA260**	21-25	800	8.3	25
GCP271	**GCA270**	26-30	800	10	30
GCP281	**GCA280**	26-45	1000	16.6	50
GCP292	**GCA290**	31-40	1000	16.6	45
GCP301	**GCA300**	41-50	1000	16.6	50
GCP311	**GCA310**	46-60	1000	16.6	50
GCP326	**GCA320**	61-80	1000	26.6	80
GCP332	**GCA330**	81-100	1200	33.3	100
GCP341	**GCA340**	101-140	1400	33.3	100
GCP351	**GCA350**	141-170	1400	33.3	100
GCP361	**GCA360**	171-200	1400	33.3	100

Sock joints

GCA-GCS

Specifically designed to temporally connect two lengths of cable.
They consist of steel wire which effectively distribute the grip effect on the cable.

Double head type sock joint Mod. GCS

Model	Cable Ø [mm]	Net length [mm]	Working load (3:1) [kN]	Breaking load [kN]
GCS620	11-14	1200	6.6	20
GCS630	15-20	1200	6.6	20
GCS640	21-25	1200	8.3	25
GCS650	26-30	1200	10	30
GCS660	26-45	1400	16.6	50
GCS670	31-40	1400	15	45
GCS680	41-50	1600	16.6	50
GCS690	46-60	1600	16.6	50
GCS700	61-80	1600	26.6	80
GCS710	81-100	2000	33.3	100
GCS720	101-140	2400	33.3	100
GCS730	141-170	2400	33.3	100
GCS740	171-200	2400	33.3	100
GCS731	150-180	4000	66.6	200
GCS741	180-210	4000	66.6	200

Cable rollers

ACR STANDARD

- Made of galvanized steel and mounted on protected ball bearings, suitable for cables up to Ø 135 mm
- Also available with Al roller (model ACR191)

ACR001

ACR191

Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR001	300x240x250	185x105x76	200	3.6
ACR191	300x235x255	180x125x76	250	3.7

Cable rollers

ACR HEAVY DUTY

- Specifically designed for heavy and thick cables up to Ø 180 mm
- Made of galvanized steel and mounted on protected and heavy-duty ball bearings

Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR192	350x300x260	280x80x80	300	6.7

Cable rollers

ACR THREE-ROLLERS

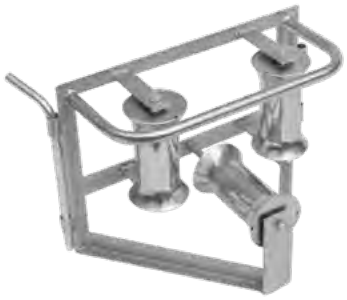
- Roller for straight and slightly bended sections, suitable for cables up to Ø 180 mm
- Frame made of galvanised steel, rollers of Al

Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR193	270x250x250	100x60x55	200	6.3

Corner rollers

ACR ANGLE ROLLER

- Made of galvanized steel and mounted on protected ball bearings, suitable for cables up to Ø 135 mm
- Corner rollers can be attached one to the other as to obtain different bending radius
- Also available with Al rollers (model ACR194)



Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR002	510x370x375	185x107x76	200	10.5
ACR194	480x350x345	180x125x76	250	13

Corner rollers

ACR ADJUSTABLE

- Made of galvanized steel and mounted on protected ball bearings, suitable for cables up to Ø 140 mm
- Corner rollers can be attached one to the other as to obtain different bending radius

Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR195	330x350x410	200x80x80	250	17

Cable rollers

ACR ADJUSTABLE HEAVY DUTY

- Specifically designed for heavy and thickcables up to Ø 180 mm
- Made of galvanized steel and mounted on protected ball bearings

Model	Max working load [daN]	Weight [kg]
ACR196	300	33.5

Cable guiding devices

ACR RUN-OFF FRAME

- Made of galvanized steel
- The rollers are mounted on protected ball bearings
- It is specifically designed to guide the cable just after coming out from the drum, in order to guarantee the cable to be in the right position when being used with the next rollers

Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR005	1000x510x480	620x40x40	200	13.5

Cable guiding devices

ACR RUN OF FRAME (PIPES)

- Made of galvanized steel
- The rollers are mounted on protected ball bearings

Model	Max pipe diameter [mm]	Max working load [daN]	Weight [kg]
ACR197	500	500	17
ACR198	750	1000	34

Cable guiding devices

ACR GUIDE ROLLERS

- Made of galvanized steel, suitable for cables up to Ø 160 mm
- Three rollers assembled on protected ball bearings
- Specifically designed to be used along with the rims of manhole and trench
- Also available with Al rollers (model ACR200)

Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR004	490x240x240	185x107x76	300	10
ACR200	490x240x400	180x125x76	350	15

Cable guiding devices

ACR ROLLERS CHAIN

- Made of galvanized steel, suitable for cables up to Ø 100 mm
- The rollers chain is composed by 12 jointed rollers
- It is specifically designed to guide the cable along bends

Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR182	1420x200x200	200x35x35	200	10

Cable guiding devices

ACR CABLE GUIDING RUN-OFF FRAME

- Composed by 4 rollers mounted on a sturdy frame.
- Made of galvanized steel, suitable for cables up to Ø 175 mm

Model	Dimensions (L x W x H) [mm]	Rollers dimensions (L x Ø x Ø) [mm]	Max working load [daN]	Weight [kg]
ACR075	520x130x470	238x60x60	150	28

Cable guiding devices

ACR CABLE ROLLER - ADJUSTABLE BOOM

- Made of galvanized steel, suitable for cables up to ø 100 mm
- Specifically designed to be used in open trench in case there are obstacles to be avoided

Model	Dimensions (L x W x H) [mm]	Dimensions of the boom stroke [mm]	Max working load [daN]	Weight [kg]
ACR183	324x205x205	324-500	250	9.5
ACR184	503x205x205	500-720	250	10
ACR071	600x205x205	600-960	250	13
ACR072	1000x205x205	1000-1485	250	16
ACR073	190x205x205	1390-1930	250	18
ACR074	1390x205x205	1390-2290	250	23

Cable guiding devices

ACR ROLLER ENTRY TOOL

- Made of galvanized steel with an opening frame on head and four rollers assembled on bearings. This tool provides easy cable entry into pipe irrespective of angle and direction.
- Also available with double protection.

Single protection model	Double protection model	Ø of the roller entry [mm]	Ø conduct [mm]
ACR009	**ACR203**	70-76	76-86
ACR010	**ACR204**	83-89	89-99
ACR011	**ACR205**	106-114	114-124
ACR012	**ACR206**	125-133	133-143
ACR013	**ACR207**	132-140	140-141
ACR014	**ACR208**	144-152	152-162

Single protection model	Double protection model	Ø of the roller entry [mm]	Ø conduct [mm]
ACR201	**ACR209**	158-168	168-178
ACR202	**ACR210**	184-194	194-204
ACR...	**ACR...**	108-220	220-230
ACR...	**ACR...**	232-244	244-254
ACR...	**ACR...**	261-273	273-283

Cable guiding devices

ACR SIMPLE / BENT CABLE ENTRY TOOL

- Made of galvanized steel.
- Specifically designed to protect the cable in presence of sharp edges.

Streight end model	Bent end model	Ø of the roller entry [mm]	Ø conduct [mm]
ACR015	**ACR021**	70-76	76-86
ACR016	**ACR022**	83-89	89-99
ACR017	**ACR023**	106-114	114-124
ACR019	**ACR151**	132-140	133-143

Available up to D283mm

Cable guiding devices

ACR SHORT AND LONG RADIUS CABLE ENTRY TOOL

- Made of galvanized steel with three (R=420 mm) or four (R=1000 mm) rollers assembled on protected ball bearings and entry device for pipes.
- Particularly suitable to connect cable's change of directions inside manholes.

Model	Bending radius [mm]	Ø ext [mm]
ACR082	460	76
ACR083	460	89
ACR084	460	114
ACR213	460	133
ACR214	460	152
ACR215	460	169
ACR216	460	196

Model	Bending radius [mm]	Ø ext [mm]
ACR086	700	76
ACR087	700	90
ACR088	700	114
ACR217	700	133
ACR218	700	152
ACR219	700	169
ACR220	700	196

Cable guiding devices

ACR SPARE DEVICE FOR CABLE ENTRY TOOL

Made of galvanized steel.

Model	Ø int [mm]	Ø ext [mm]
ACR090	72	76
ACR091	82.9	89
ACR092	110	116
ACR221	135	141
ACR222	146	154
ACR223	161	169
ACR224	188	188

Fiberglass rods

ACV

Rod diameter 4.5, 6, 9, 11 and 15 mm, made with a central part in fibreglass and an external abrasion-proof coating.
It can be supplied wound up on galvanized steel vertical or horizontal reel frame. It comes complete with starting/ending threaded end and with a starting spinner. You can also select the frames and fiberglass rods individually.

ACV free snakes

Model	Ø [mm]	Length [m]
ACV252	4.5	20
ACV253	4.5	30
ACV254	4.5	40
ACV255	4.5	50
ACV256	4.5	60
ACV257	4.5	70
ACV258	4.5	80
ACV259	6	30
ACV260	6	40
ACV261	6	50
ACV262	6	60
ACV263	6	70
ACV264	6	80
ACV265	9	30
ACV266	9	40
ACV267	9	50
ACV268	9	60
ACV269	9	70

Model	Ø [mm]	Length [m]
ACV270	9	80
ACV271	9	100
ACV272	9	120
ACV273	9	150
ACV274	11	100
ACV275	11	120
ACV276	11	150
ACV277	11	200
ACV278	11	250
ACV279	11	300
ACV...	11	350
ACV...	15	150
ACV...	15	200
ACV...	15	250
ACV...	15	300
ACV...	15	350
ACV...	15	400
ACV...	15	450

ACV reels

Model	For rod Ø [mm]	Frame configuration
ACV280	4.5	vertical
ACV281	6	vertical
ACV282	6	horizontal
ACV283	9	vertical
ACV284	9	vertical t.m.
ACV285	11	vertical t.m.

Model	For rod Ø [mm]	Frame configuration
ACV286	11	vertical, high storage capacity
ACV...	15	vertical t.m.
ACV...	15	vertical, high storage capacity

Accessories for fiberglass rods

ACV

Starting/Ending threaded junctions

Model	Description
ACV287	for rod ø 4.5 mm, thread M5
ACV185	for rod ø 6 mm, thread M6
ACV057	for rod ø 9 mm, thread M12
ACV058	for rod ø 11 mm, thread M12
ACV...	for rod Ø15mm, thread M12

Coupling joint for rods repairing

Model	Description
ACV288	for rod ø 4.5 mm
ACV186	for rod ø 6 mm
ACV055	for rod ø 9 mm
ACV056	for rod ø 11 mm
ACV...	for rod Ø15mm

Starting spinner

Model	Description
ACV289	for rod ø 4.5 mm, thread M5
ACV290	for rod ø 6 mm, thread M6

Starting spinner with shackle

Model	Description
ACV187	for rod ø 6 mm, thread M6
ACV052	for rod ø 9 and 11 mm, thread M12
ACV...	for rod Ø15mm, thread M12

Starting roller

Model	Description
ACV188	for rod ø 6 mm, thread M6
ACV054	for rod ø 9 and 11 mm, thread M12
ACV...	for rod Ø15mm, thread M12

Connecting device

Model	Description
ACV291	for rod ø 6 mm, thread M6
ACV051	for rod ø 9 and 11 mm, thread M12
ACV...	for rod Ø15mm, thread M12

Catch hooks

Model	Description
ACV189	thread M12, pipe ø 80-100 mm
ACV190	thread M12, pipe ø 100-120 mm
ACV180	thread M12, pipe ø 125-200 mm

Glue for repairing fiberglass rods

Model	Description
ACV292	glue, 150 gr

Pulling eyes

CX PULLING EYES FOR PIPES

Reusable power pulling eyes, fixed head specifically designed to pull pipes.

Model	Nominal size [in]	Pipe diameter [mm]	Max O.D. [mm]	Hole Ø [mm]	Eye Ø [mm]	Eye Thickness [mm]
CX08913400	0.75	18-22	32	6	13	10
CX08913320	1	24-27	31	6	13	6
CX08913410	1.25	27-37	44	11	13	13
CX08913411	1.5	35-43	51	11	13	13
CX08913322	1.75	43-46	57	10	13	13
CX08913412	2	49-54	62	11	13	13

Pulling eyes

CX PULLING EYES FOR PE & PVC PIPES

Reusable power pulling eyes, fixed head specifically designed to pull PE & PVC pipes.

Model	Nominal size [in]	Pipe diameter [mm]	Length [mm]	Lead cone O.D [mm]
CX08220020	2	48-55	206	60
CX08220030	3	68-79	302	89
CX08220611	4	89-106	358	122
CX08220050	5	108-129	469	141
CX08220060	6	129-152	498	168

AVAILABLE DEVICES

Available devices

Description	Available for	Code
Trailer with stabilizer legs	CLP500	**21035851**
Lighting system for the trailer	PT1250 - PT1252 - PT1450 - PT2451 - ARS802 - FRS615	**ALL001**
Air brake system for the trailer	PT1250 - PT1252 - PT1450 - PT2451 - ARS802 - FRS615	**ALL002**
Hydraulic power for compressor	PT1252 - PT1450 - PT2451 - PT1600 - PT1601 - PT2601 - PT2800 - PT4750 - TN1700 - TN1750 - TN1201 - FRS531 - FRS615	**ALL005**
Hydraulic power pack to control a separate reel winder	PL1700 - PL1751 - ARS802	**ALL010**
Hydraulic quick connectors to control a separate reel winder instead of the built-in one	PL1150 - PL1700 - PL1751 - PL1950 - ARS802	**ALL022**
Preheating device up to -30°C	PT1250 - PT1252 - PT1450 - PT2451 - PT1600 - PT1601 - PT2601 - PT2800 - PT4750 - PL1250 - PL1351 - PL1450 - PL1700 - PL1751 - PL1950 - TN1700 - TN1750 - TN1201 - ARS500 - ARS612 - ARS802 - FRS404 - FRS531 - FRS615 - PM1250 - PM1450	**ALL037**
Cable remote control kit	ARS500 - ARS612 - ARS802 - FRS531	**ALL051**
Electronic pull and speed recorder kit	ARS500 - ARS802	**ALL053**
Radio remote control kit	PL1150 - ARS500 - ARS612 - ARS802 - FRS531 - FRS615	**ALL059**
Self-propulsion movement with caterpillar system	PM1450	**ALL065**
Extra rollers for an additional pilot rope	ARS802	**ALL070**
Hydraulic rope clamp	ARS500 - ARS612 - ARS802 - FRS404 - FRS531 - FRS615	**ALL071**
Special nylon sectors kit instead of the standard	PT1250 - PT1252 - PT1450 - PT2451 PT1600 - PT1601 - PT2601 - PT2800 PT4750 - TN1700 - TN1750 - TN1201 FRS404 - FRS531 - FRS615	**ALL080**

Description	Available for	Code
Special nylon sectors kit in addition of the standard	PT1250 - PT1252 - PT1450 - PT2451 - PT1600 PT1601 - PT2601 - PT2800 - PT4750 - TN1700 TN1750 - TN1201 - FRS404 - FRS531 - FRS615	**ALL081**
Low tension device	PT1250 - PT1252 - PT1450 - PT2451	**ALL087**
Electronic connection and synchronization between machines	PT1250 - PT1252 - PT1450 - PT2451 - PT1600 PT1601 - PT2601 - PT2800 - PT4750 - PL1250 PL1351 - PL1450 - PL1700 - PL1751 - PL1950 - TN1700 - TN1750 - ARS500 - ARS802 - FRS531 FRS615	**ALL089**
Conical drum, one side detachable	AMB200	**ALL100**
Pulling rope locking device when capstan is used (compulsory for EC market)	ARS200 - AMB200 - AMC402 - AMC501	**ALL102**
Torque bar with set-point and automatic control of maximum pull	AMB200	**ALL103**
Rigid axle and towing bar detachable, for manual towing.	ARS200	**ALL105**
Capstan for lifting operations	ARS200 - AMC402 - AMC501	**ALL107**
Deflection boom optional	PL1150 - ARS405 - PM1250 - PM1450 - PE1151 - PE1250 - PE1350	**ALL110**
Swivel guide rope roller	PL1150 - PL1250 - PL1351 - PL1450 - PL1700 - PL1751 - ARS200 - ARS405 - ARS612	**ALL111**
Trailer 80 km/h. EC type-approved for road circulation with hook Ø 40 mm and lighting system	PT1250 - PT1252 - PT1450 - PT2451 - PT1600 - PT1601 - PT2601 - PL1150 - ARS200 - ARS405 - AMB200 - AMC402 - AMC501 - Hydraulic Power Unit (CPR) - PM1250 - PM1450 - PE1151 - PE1250 - PE1350	**ALL112**
External printer	PT1250 - PT1252 - PT1450 - PT2451 - PT1600 - PT1601 - PT2601 - PT2800 - PT4750 - PL1150 - PL1250 - PL1351 - PL1450 - PL1700 - PL1751 - PL1950 - TN1700 - TN1750 - TN1201 - CLP500 - CLP501 - PM1250 - PM1450 - PE1151 - PE1250 - PE1350 - PES500	**ALL261**

Available devices

Description	Available for	Code
Remote monitoring system with GPS localisation and diagnostic features. Subscription 2 years	PT1250 - PT1252 - PT1450 - PT2451 - PT1600 - PT1601 - PT2601 - PT2800 - PT4750 - PL1150 - PL1250 - PL1351 - PL1450 - PL1700 - PL1751 - PL1950 - TN1700 - TN1750 - CVR251 - TN1201 - CLP500 - CLP501	**ALL271**
Remote monitoring system with GPS localisation and diagnostic features. Subscription 5 years	PT1250 - PT1252 - PT1450 - PT2451 - PT1600 - PT1601 - PT2601 - PT2800 - PT4750 - PL1150 - PL1250 - PL1351 - PL1450 - PL1700 - PL1751 - PL1950 - TN1700 - TN1750 - CVR251 - TN1201 - CLP500 - CLP501	**ALL272**
Automatic grease pump	PT1250 - PT1252 - PT1450 - PT2451 - PT1600 - PT1601 - PT2601 - PT2800 - PT4750 - PL1250 - PL1351 - PL1450 - PL1700 - PL1751 - PL1950 - TN1700 - TN1750 - PM1450 - PE1151 - PE1250 - PE1350	**ALL280**
Ladder for access to the capstans	PT1250 - PT1252 - PT1450 - PT2451	**ALL290**
Extra battery	Traction machine (TMT020)	**ALL304**
Reel-winder preset for different rope diameter	PM1250 - PM1450 - PE1151 - PE1250 - PE1350	**ALL400**
Motorized magnetic separation pulley embedded in the cutting module evacuation belt	CLP500	**ALL700**
Additional motorized magnetic sorting belt	CLP500	**ALL750**
Cable remote control (15 m range)	ARS500 - ARS612 - FRS531 - FRS615	**AXC005**
Radio remote control (150 m range)	ARS500 - ARS612 - FRS531 - FRS615	**AXH007**
Extra shaft (for BOF010 and BOF020, with diameter 1100 and 1400 mm)	PL1150 - PL1250 - PL1351 - PL1450 - ARS500 - ARS612	**AXR001**
Extra shaft (for BOF030, with diameter 1900 mm)	PL1700 - PL1751 - ARS802	**AXR002**
Additional special steel reel with support shaft	Reel Winders (RVB)	**BOF060**
Adapter for steel rope standard reels (BOF010-BOF020-BOF030-BOC040-BOC050)	Drum Stand (CVR)	**CDA**

Description	Available for	Code
Disk brake device	Cradle Reel Elevators (CVC) Hydraulic Drum Elevators (CVI)	**CDF**
Support with fixed wedges for wooden conductor drums	Hydraulic Drum Elevators (CVI) Drum Stand (CVR)	**CDR**
Special driver with fixed wedges for steel reels conductor (Special models available on request)	Drum Stand (CVR) Hydraulic Drum Elevators (CVI)	**CDT**
Electronic pull and speed recorder	ARS500 - ARS612 - ARS802	**DLR300**
Double swivel hook	Suspension ladders (SCS-SDA) Anchoring ladders (SCA)	**SDG** (*)
Fast assembling hydraulic motor for control of the drum winding and unwinding	Hydraulic Drum Elevators (CVI) Drum Stand (CVR)	**TIH** (**)
Kit of connecting hoses	Reel Winders (RVA) Hydraulic Drum Elevators (CVI) Drum Stand (CVR)	**TUT** (***)

(*)
Available for SCA:
SDG009 Standard swivel hook with roller (conductor side)
SDG010 Standard swivel hook conductor side
SDG018 Swivel suspension hook (tower side)
SDG019 Double hook swivel (conductor side)
SDG025 Double swivel suspension hook (tower side)

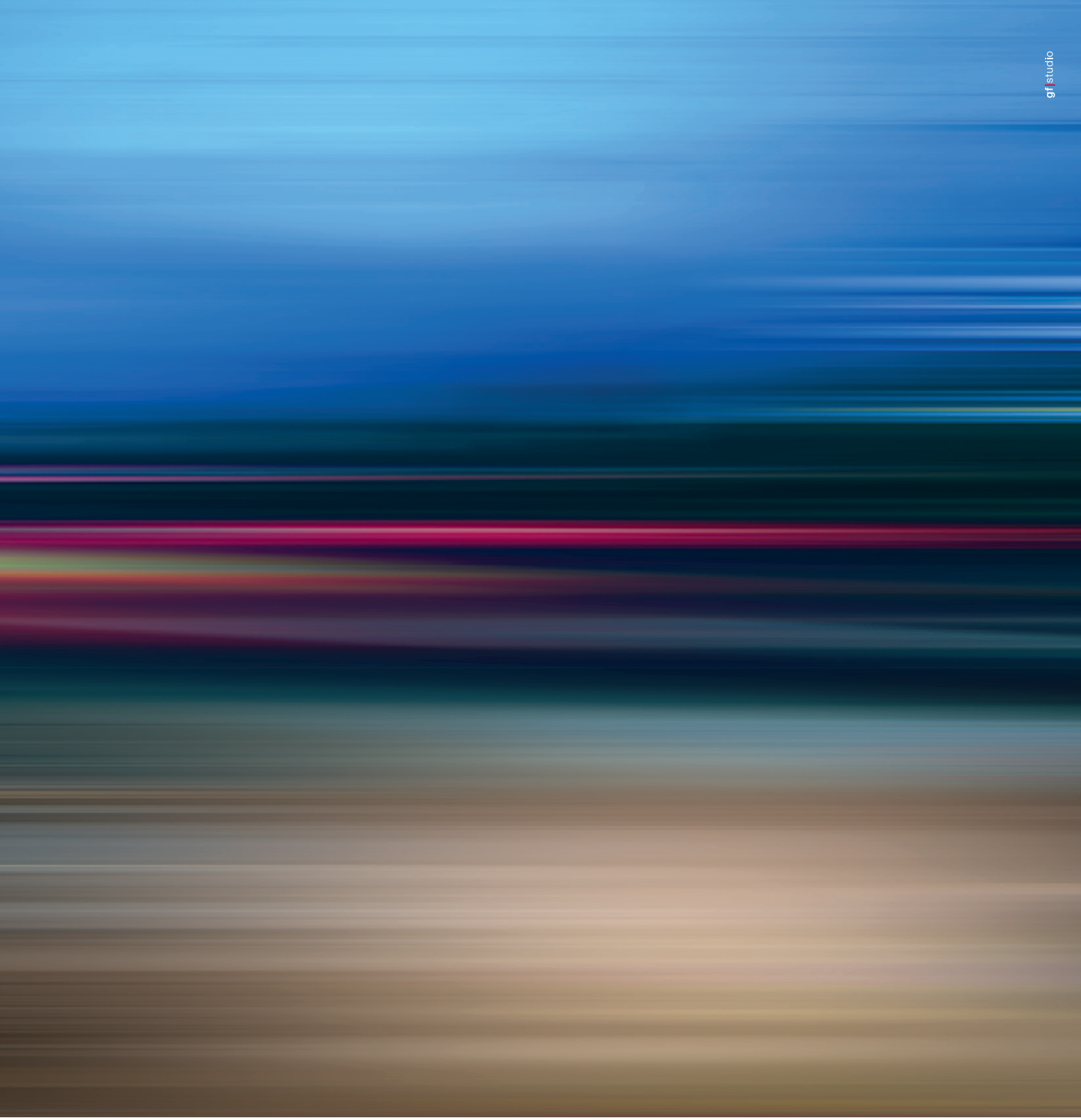
Available for SCS - SDA:
SDG015 Swivel suspension hook

(***)

Model	Length [m]	Weight [kg]
TUT001	7	11
TUT002	10	15
TUT003	15	23

(**)

Model	Max torque [kN x m]	Max Rotating Speed [rpm]	Weight [kg]
TIH001 for CVI600 and CVR824	1.8	45	76
TIH002 for CVI602	1.8	45	78
TIH006 for CVI600	2.3	32	78
TIH007 for CVI810	2.3	37	78
TIH010 for CVI816	5	30	120
TIH013 for CVI831	2.4	35	500



gf studio

TESMEC

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