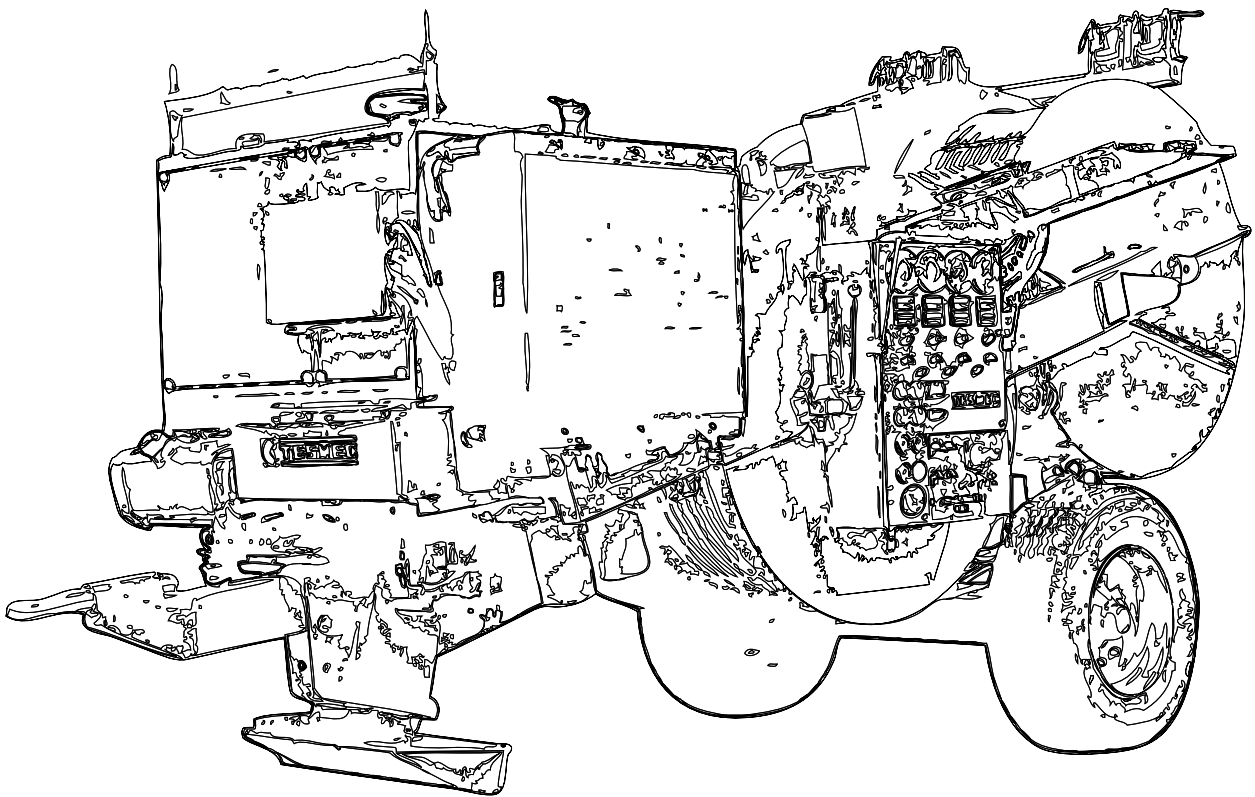
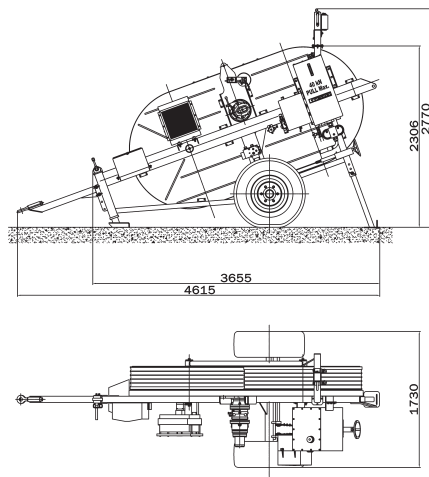


TENSIONERS



The machine is suitable to string one rope and cable conductor with fibre-optical cables (OPGW). The bull-wheel grooves are made up of high resistance interchangeable nylon sectors



PERFORMANCE

Max tension	25 kN
Max speed	5 km/h

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

CHARACTERISTICS

Bull-wheel diameter	1500 mm
Max conductor diameter	36 mm
Mass	1950 kg

HYDRAULIC TRANSMISSION

Hydraulic open circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change

CONFIGURATION

- Negative self-acting hydraulic brake
- Hydraulic dynamometer
- Hydraulic oil cooling system
- Mechanical meter counter
- Rigid axle for towing at max speed of 30 km/h with mechanical parking brake
- 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 actuated front plough stabiliser
- Grounding device on board

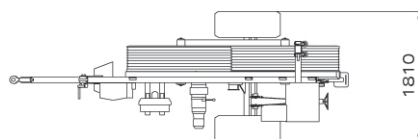
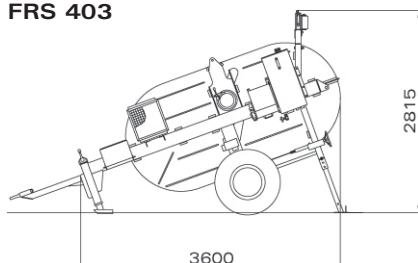
The machine is suitable to string one or two ropes or bundled conductors. The bull-wheel grooves are made up of high resistance interchangeable nylon sectors



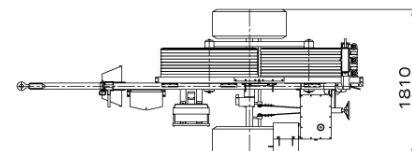
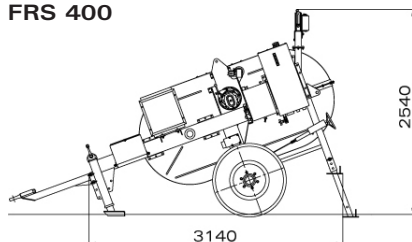
Certified Quality System
ISO 9001:2008



FRS 403



FRS 400



PERFORMANCE

Max tension 40 kN

Max speed 5 km/h

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

CHARACTERISTICS Mod. FRS 403

Bull-wheel diameter 1500 mm

Max conductor diameter 34 mm

Mass 2300 kg

CHARACTERISTICS Mod. FRS 400

Bull-wheel diameter 1200 mm

Max conductor diameter 34 mm

Mass 1900 kg

HYDRAULIC TRANSMISSION

Hydraulic open circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change

CONFIGURATION

Negative self-acting hydraulic brake

Hydraulic dynamometer

Hydraulic oil cooling system

Mechanical meter counter

Rigid axle for towing at max speed of 30 km/h with mechanical parking brake

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

Mechanical actuated front plough stabiliser

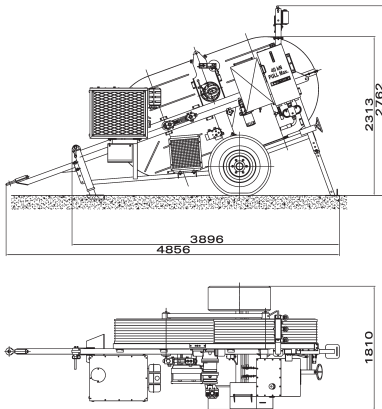
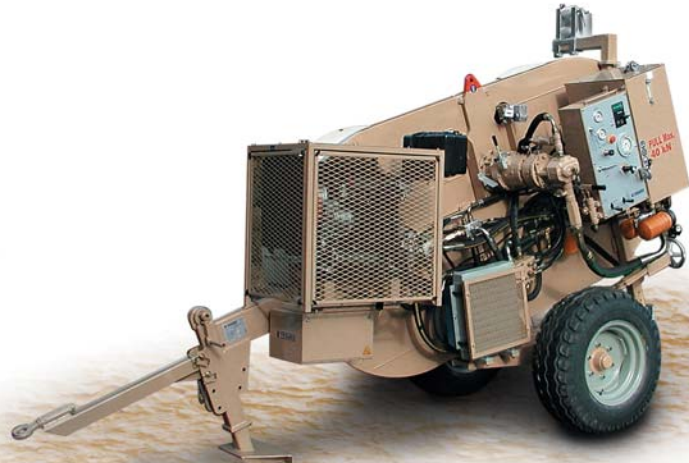
Grounding device on board

ADDITIONAL DEVICES

080 Special nylon sectors kit

The machine is suitable to string one or two ropes or bundled conductors. The bull-wheel grooves are made up of high resistance interchangeable nylon sectors

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TENSIONER PERFORMANCE

Max tension	40 kN
Max speed	5 km/h

PULL-BACK PERFORMANCE

Max pull	40 kN
Max speed	0,8 km/h

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

CHARACTERISTICS

Bull-wheel diameter	1500 mm
Max conductor diameter	34 mm
Mass	2600 kg

ENGINE

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

HYDRAULIC TRANSMISSION

Hydraulic open circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change

CONFIGURATION

- Negative self-acting hydraulic brake
- Hydraulic dynamometer
- Hydraulic oil cooling system
- Mechanical meter counter
- Rigid axle for towing at max speed of 30 km/h with mechanical parking brake
- 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 actuated front plough stabiliser
- Grounding device on board

ADDITIONAL DEVICES

- 037** Preheating device for use up to -30° C
- 080** Special nylon sectors kit

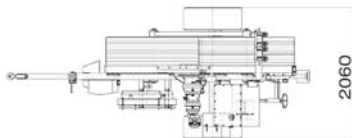
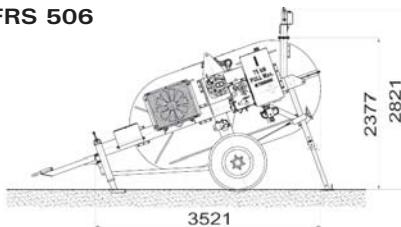
The machine is suitable to string one or two ropes or bundled conductors. The bull-wheel grooves are made up of high resistance interchangeable nylon sectors



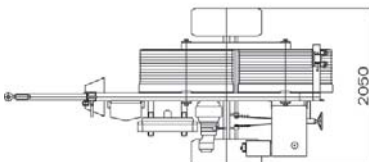
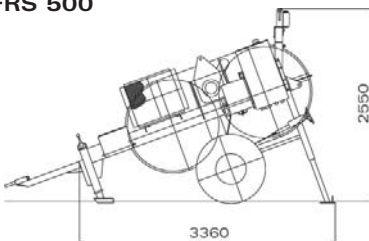
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ISO 9001:2008



FRS 506



FRS 500



PERFORMANCE

Max tension	75 kN
Max speed	5 km/h

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

CHARACTERISTICS Mod. FRS 506

Bull-wheel diameter	1500 mm
Max conductor diameter	34 mm
Mass	2900 kg

CHARACTERISTICS Mod. FRS 500

Bull-wheel diameter	1200 mm
Max conductor diameter	34 mm
Mass	2400 kg

HYDRAULIC TRANSMISSION

Hydraulic open circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change

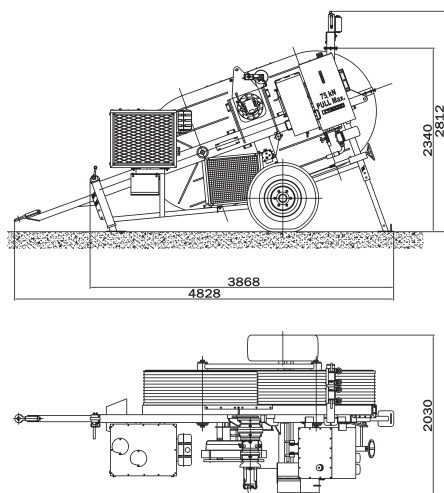
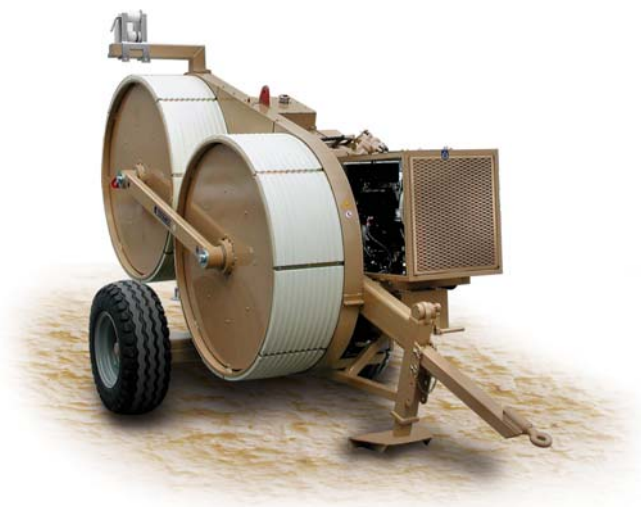
CONFIGURATION

- Negative self-acting hydraulic brake
- Hydraulic dynamometer
- Hydraulic oil cooling system
- Mechanical meter counter
- Rigid axle for towing at max speed of 30 km/h with mechanical parking brake
- 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
- Mechanical actuated front plough stabiliser
- Grounding device on board

ADDITIONAL DEVICES

- 080 Special nylon sectors kit

The machine is suitable to string one or two ropes or bundled conductors. The bull-wheel grooves are made up of high resistance interchangeable nylon sectors



TENSIONER PERFORMANCE

Max tension	75 kN
Max speed	5 km/h

PULL-BACK PERFORMANCE

Max pull	75 kN
Max speed	0,7 km/h

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

CHARACTERISTICS

Bull-wheel diameter	1500 mm
Max conductor diameter	34 mm
Mass	3100 kg

ENGINE

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

HYDRAULIC TRANSMISSION

Hydraulic open circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change

CONFIGURATION

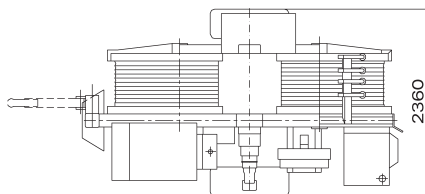
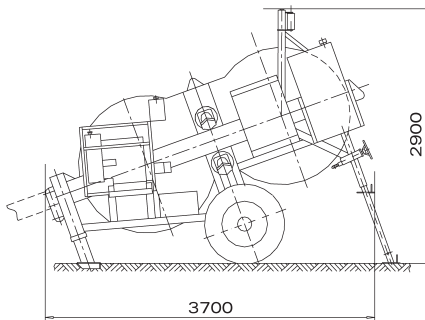
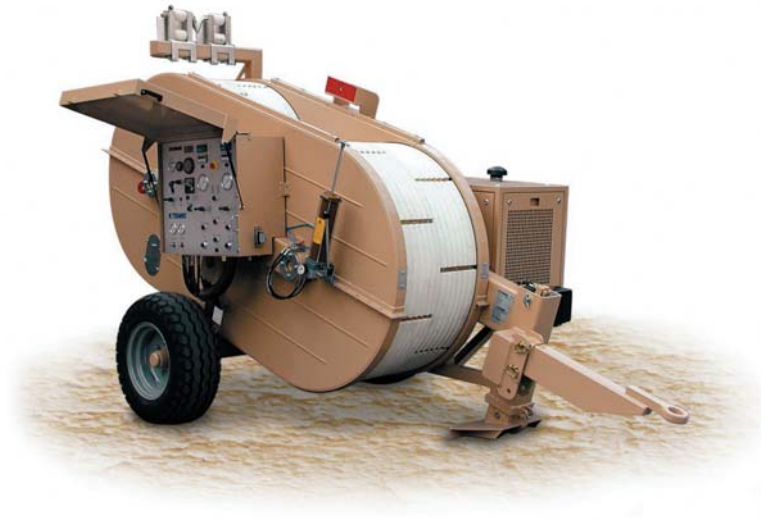
- Negative self-acting hydraulic brake
- Hydraulic dynamometer
- Hydraulic oil cooling system
- Mechanical meter counter
- Rigid axle for towing at max speed of 30 km/h with mechanical parking brake
- Gearbox with 3 operating positions:
 - neutral position (with free bull-wheels for conductor loading and unloading)
 - low tension position (5 ÷ 20 kN)
 - nominal tension position
- Hydraulic power pack to control up to 2 separate drum stands with hydraulic motor, not independent control
- Mechanical actuated front plough stabiliser
- Grounding device on board

ADDITIONAL DEVICES

- 037** Preheating device for use up to -30° C
- 080** Special nylon sectors kit

The machine is suitable to string one or two ropes or bundled conductors with two pairs of bull-wheels with completely independent controls.

The bull-wheel grooves are made up of high resistance interchangeable nylon sectors. The machine is completely electronically controlled



TENSIONER PERFORMANCE

Max tension	2 x 50 kN or 1 x 100 kN
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Max speed	5 km/h
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PULL-BACK PERFORMANCE

Max pull	2 x 50 kN or 1 x 100 kN
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Max speed	2 x 0.5 km/h
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Note: the basic machine performance is calculated at 20°C and at sea level

CHARACTERISTICS

Bull-wheel diameter	1500 mm
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Max conductor diameter	40 mm
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Mass	5200 kg
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ENGINE

Diesel	36 kW (48 hp)
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Cooling system	water
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Electrical system	12 V
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HYDRAULIC TRANSMISSION

2 hydraulic half-closed circuits that allow very sensitive tensioning control and negligible deviations of tension in case of speed change. The machine is provided with tension pre-setting system

CONFIGURATION

2 negative self-acting hydraulic brakes

2 hydraulic dynamometers

Hydraulic oil cooling system

2 digital meter counters

2 digital speed meters

Control instruments for hydraulic system and Diesel engine

Rigid axle for towing at max speed of 30 km/h with mechanical parking brake

Hydraulic power pack to control up to 2 separate drum stands with hydraulic motor

Electrical negative brakes opening system on connected machines

Hydraulically actuated front plough stabiliser

Grounding device on board

ADDITIONAL DEVICES

001 Lighting system for the trailer

002 Pneumatic brake system for the trailer

005 Hydraulic power take off to power a hydraulic press

037 Preheating device for use up to -30° C

071 2 hydraulically actuated pulling conductor clamps for drum change operation

080 Special nylon sectors kit

084 2 gearboxes with 3 operating positions:

- neutral position (with free bull-wheels for conductor loading and unloading)
- low tension position (3 ÷ 12 kN)
- nominal tension position

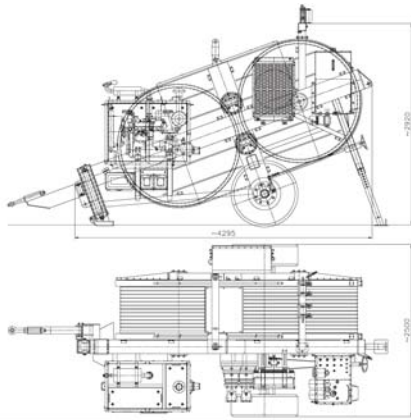
The machine is suitable to string one or two ropes or bundled conductors with two pairs of bull-wheels with completely independent controls.

The bull-wheel grooves are made up of high resistance interchangeable nylon sectors. The machine is completely electronically controlled

NEW



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ISO 9001:2008



TENSIONER PERFORMANCE

Max tension	2 x 70 kN or 1 x 140 kN
Max speed	5 km/h

PULL-BACK PERFORMANCE

Max pull	2 x 70 kN or 1 x 140 kN
Max speed	2 x 0.7 km/h

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

CHARACTERISTICS

Bull-wheel diameter	1700 mm
Max conductor diameter	46 mm
Mass	7600 kg

ENGINE

Diesel	48 kW (64 hp)
Cooling system	water
Electrical system	24 V

HYDRAULIC TRANSMISSION

2 hydraulic half-closed circuits that allow very sensitive tensioning control and negligible deviations of tension in case of speed change. The machine is provided with tension pre-setting system

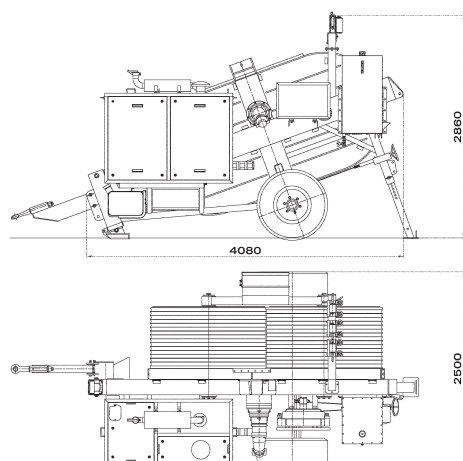
CONFIGURATION

- 2 negative self-acting hydraulic brakes
 - 2 hydraulic dynamometers
 - Hydraulic oil cooling system
 - 2 digital meter counters
 - 2 digital speed meters
 - Control instruments for hydraulic system and Diesel engine
 - Rigid axle for towing at max speed of 30 km/h with mechanical parking brake
 - Hydraulic power pack to control up to 2 separate drum stands with hydraulic motor
 - Electrical negative brakes opening system on connected machines
 - Hydraulically actuated front plough stabiliser
 - Grounding device on board
- ## ADDITIONAL DEVICES
- 001** Lighting system for the trailer
 - 002** Pneumatic brake system for the trailer
 - 005** Hydraulic power take off to power a hydraulic press
 - 037** Preheating device for use up to -30° C
 - 071** 2 hydraulically actuated pulling conductor clamps for drum change operation
 - 084** 2 gearboxes with 3 operating positions:
 - neutral position (with free bull-wheels for conductor loading and unloading)
 - low tension position (5 ÷ 20 kN)
 - nominal tension position
 - 089** Connection of multiple machines and electronic speed synchronizing system

The machine is suitable to string one, two, three or four bundled conductors.

The bull-wheel grooves are made up of high resistance interchangeable nylon sectors.

The machine is completely electronically controlled



TENSIONER PERFORMANCE

Max tension 140 kN

Max speed 5 km/h

PULL-BACK PERFORMANCE

Max pull 140 kN

Max speed 1,8 km/h

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

CHARACTERISTICS

Bull-wheel diameter 1500 mm

Max conductor diameter 40 mm

Mass 6200 kg

ENGINE

Diesel 48 kW (64 hp)

Cooling system water

Electrical system 24 V

HYDRAULIC TRANSMISSION

Hydraulic circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change

CONFIGURATION

Negative self-acting hydraulic brake

Hydraulic dynamometer with set-point and automatic control of maximum pull

Hydraulic oil cooling system

Electronic meter counter

Control instruments for hydraulic system and Diesel engine

Rigid axle for towing at max speed of 30 km/h with mechanical parking brake

Hydraulic power pack to control up to 4 reel stands with hydraulic head, not independent control

Electrical negative brakes opening system on connected machines

Hydraulically actuated front plough stabiliser

Grounding device on board

ADDITIONAL DEVICES

001 Lighting system for the trailer

002 Pneumatic brake system for the trailer

005 Hydraulic power take off to power a hydraulic press

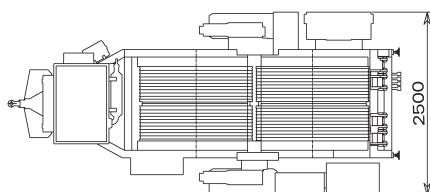
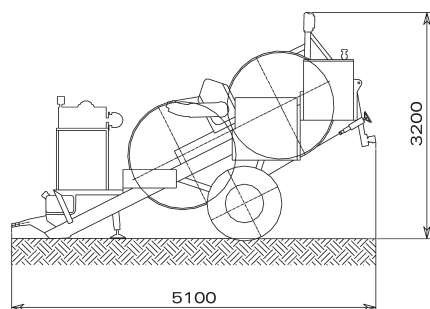
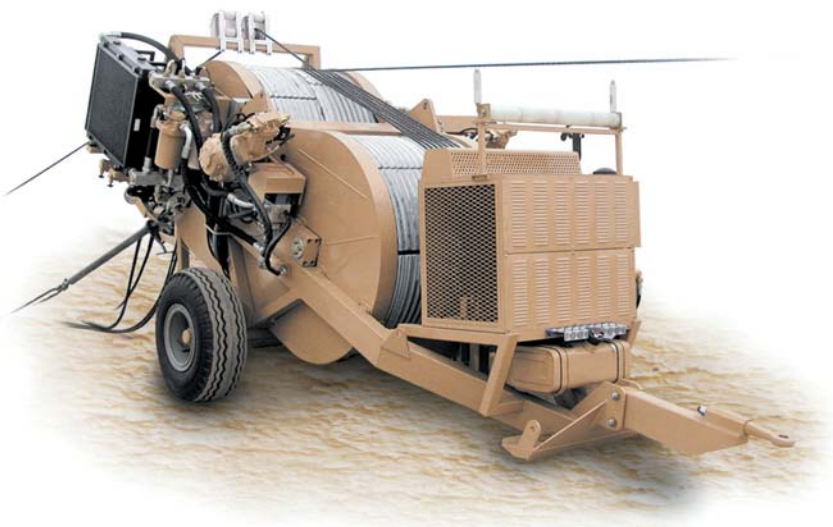
037 Preheating device for use up to -30° C

080 Special nylon sectors kit

The machine is suitable to string one, two, three or four ropes or bundled conductors with two pairs of bull-wheels with completely independent controls.

The bull-wheel grooves are made up of high resistance interchangeable nylon sectors.

The machine is completely electronically controlled



TENSIONER PERFORMANCE

Max tension 2 x 75 kN

Max speed 5 km/h

PULL-BACK PERFORMANCE

Max pull 2 x 75 kN

Max speed 0.6 km/h

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

CHARACTERISTICS

Bull-wheel diameter 1500 mm

Max conductor diameter 38 mm

Mass 7500 kg

ENGINE

Diesel 48 kW (64 hp)

Cooling system water

Electrical system 24 V

HYDRAULIC TRANSMISSION

2 hydraulic half-closed circuits that allow very sensitive tensioning control and negligible deviations of tension in case of speed change. The machine is provided with tension pre-setting system

CONFIGURATION

2 negative self-acting hydraulic brakes

2 hydraulic dynamometers

Hydraulic oil cooling system

2 digital meter counters

2 digital speed-meters

Control instruments for hydraulic system and Diesel engine

Rigid axle for towing at max speed of 30 km/h with mechanical parking brake

Hydraulic power pack to control up to 4 separate drum stands with hydraulic motor with 2 independent controls

Hydraulically actuated front plough stabiliser

Grounding device on board

ADDITIONAL DEVICES

001 Lighting system for the trailer

002 Pneumatic brake system for the trailer

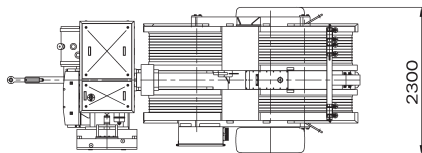
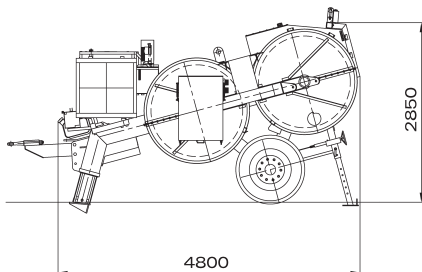
005 Hydraulic power take off to power a hydraulic press

037 Preheating device for use up to -30° C

071 4 hydraulically actuated pulling conductor clamps for drum change operation

080 Special nylon sectors kit

This machine is suitable to string one, two, three ropes or bundled conductors with three pairs of bull-wheels with completely independent controls.
The bull-wheel grooves are made up of high resistance interchangeable nylon sectors.
The machine is completely electronically controlled



TENSIONER PERFORMANCE

Max tension $3 \times 45 \text{ kN}$
or $1 \times 90 \text{ kN} + 1 \times 45 \text{ kN}$

Max speed 5 km/h

PULL-BACK PERFORMANCE

Max pull $3 \times 45 \text{ kN}$
or $1 \times 90 \text{ kN} + 1 \times 45 \text{ kN}$

Max speed $3 \times 1.3 \text{ km/h}$

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

CHARACTERISTICS

Bull-wheel diameter 1500 mm

Max conductor diameter 40 mm

Mass 8700 kg

ENGINE

Diesel 48 kW (64 hp)

Cooling system water

Electrical system 24 V

HYDRAULIC TRANSMISSION

3 half-closed hydraulic circuits that allow very sensitive tensioning control and negligible deviations of tension in case of speed change.
The machine is provided with tension pre-setting system

CONFIGURATION

3 negative self-acting hydraulic brakes

3 hydraulic dynamometers

Hydraulic oil cooling system

3 digital meter counters

3 digital speed-meters

Control instruments for hydraulic system and Diesel engine

Rigid axle for towing at max speed of 30 km/h with mechanical parking brake

Hydraulic power pack to control up to 3 separate drum stands with hydraulic motor

Hydraulically actuated front plough stabiliser

Grounding device on board

ADDITIONAL DEVICES

001 Lighting system for the trailer

002 Pneumatic brake system for the trailer

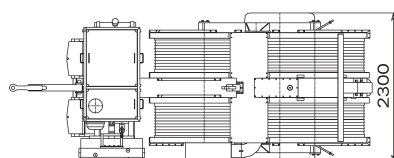
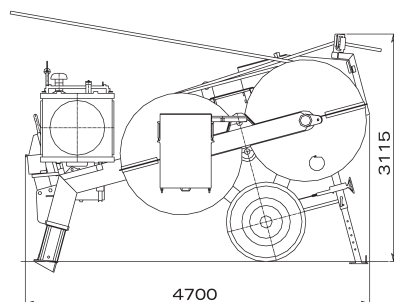
005 Hydraulic power take off to power a hydraulic press

037 Preheating device for use up to -30°C

071 3 hydraulically actuated pulling conductor clamps for drum change operation

The machine is suitable to string one, two, three or four ropes or bundled conductors with four pairs of bull-wheels with completely independent controls. The bull-wheel grooves are made up of high resistance interchangeable nylon sectors. The machine makes it possible to recover the pulling rope when stringing a line with three bundled conductors by using a ring system. The machine is completely electronically controlled.

Certified Quality System
ISO 9001:2008



TENSIONER PERFORMANCE

Max tension	4 x 50 kN or 2 x 100 kN
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Max speed	5 km/h
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PULL-BACK PERFORMANCE

Max pull	4 x 50 kN or 2 x 100 kN
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Max speed	4 x 0.9 km/h
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Note: the basic machine performance is calculated at 20°C and at sea level

CHARACTERISTICS

Bull-wheel diameter	1500 mm
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Max conductor diameter	40 mm
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Mass	10500 kg
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ENGINE

Diesel	86 kW (115 hp)
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Cooling system	water
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Electrical system	24 V
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HYDRAULIC TRANSMISSION

4 half-closed hydraulic circuits that provide very sensitive tensioning control and negligible deviations of tension in case of speed change. The machine is provided with tension pre-setting system

CONFIGURATION

4 negative self-acting hydraulic brakes

4 hydraulic dynamometers

Hydraulic oil cooling system

4 digital meter counters

4 digital speed-meters

Control instruments for hydraulic system and Diesel engine

Rigid axle for towing at max speed of 30 km/h with mechanical parking brake

Hydraulic power pack to control up to 4 separate drum stands with hydraulic motor

Hydraulically actuated front plough stabiliser

Grounding device on board

ADDITIONAL DEVICES

001 Lighting system for the trailer

002 Pneumatic brake system for the trailer

005 Hydraulic power take off to power a hydraulic press

037 Preheating device for use up to -30° C

071 4 hydraulically actuated pulling conductor clamps for drum change operation