

VILLBEK EQUIPMENT AND LADDERS CATALOGUE BY TEMA



INDEX

SECTION 1

MACHINES AND EQUIPMENT FOR POLE/TOWER ERECTION AND STRINGING OPERATIONS

Hydraulic Winches	2
Hydraulic Pullers	12
Tensioners	34
Puller-Tensioners	70
Accessories	100
Power unit	104
Equipment for Live Line	108
Railways stringing machines	110

SECTION 2

AERIAL STRINGING CONDUCTORS ACCESSORIES

LV / MV conductor pulley-blocks	2
Single/bundled H.V. conductor pulleys-blocks	7
Groundwire pulley-blocks	13
OPGW pulley - blocks	13
Hold-down pulley-blocks	13
Non-rotating counterweight	14
Running-boards	15
Anti-twisting steel wire rope	18
Nylon rope (pilot rope)	18
Reels	20
Cradle type reel stands	21
Joint stiffeners	22
Turnbuckles	22
Conductor cutters	23
Dynamometers	23
Thermometers	24
Cable counter-meter device	24
Conductor sag scope	25
Punching Machines	25
Shackles	26
Slings	26
Lever hoists	27
LV Cable Tensioner	28
Tirvit	28
Pulling hand winch	28
Wire rope fix joints	29
Stocking Grips	30
Snatch-blocks	32
Tackle-blocks	34
Hydraulic compressor and accessories	35
Self gripping / come-along clamps	37
Temporary grounding sets	43
Mobile grounding device (running earth devices)	43



SECTION 3

ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

Suspension ladders	2
Horizontal platforms/ladders	3
Dead-end Working platform/sagging bridges	7
Ladder for circular and polygonal poles	8
Working platform	10
Crossing protection structures	11
Gin poles	12
Inspection Line Carts	15
Spacer Bicycle	24

SECTION 4

MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

Pullers	4
Pullers accessories	10
Swivel joints	12
Pulling heads	12
Drum lifting device	12
Reel stand	13
Coilers	16
Reel lifting beam	17
Reel/Drum trailer	17
Stocking grips	18
Rollers	20
Angle Rollers	20
Pipe entrance	21
Guide rollers	21
Cable protecting bends	23
Fiber glass snakes and accessories	24



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Hydraulic Winches	2
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HYDRAULIC WINCH

101A1

HYDRAULIC AXIAL DRUM WINCH 10 KN CAPACITY FOR STRINGING LV AND MV OVERHEAD LINES, HOISTING AND TOWER ERECTION OPERATIONS AS WELL AS UNDERGROUND CABLING AND SAGGING.





PERFORMANCE

Performance

Max pull	10 kN
Speed at max pull	0,8 km/h
Max speed	2,1 km/h

Characteristics

Drum Dimensions	ø 160 x 440 mm
Drum Capacity	300 m rope 8 mm
Weight without rope	190 kg

Engine

Petrol	(8,5 Hp) 6,3 kW
Cooling	Air
Starter	pull start

CHARACTERISTICS

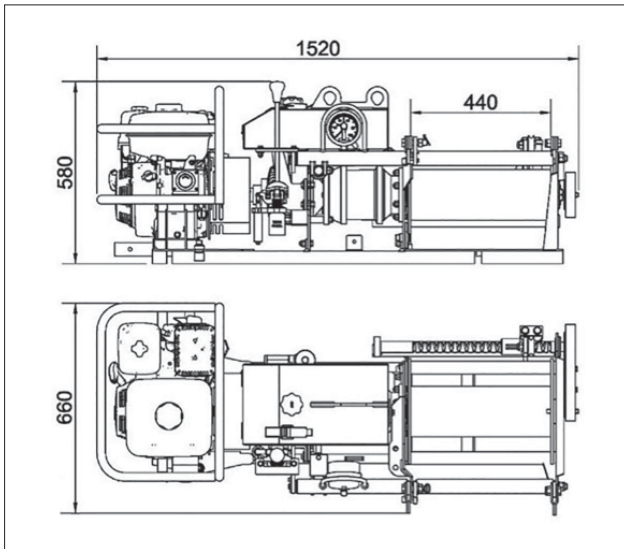
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Trailer kit with rigid axle for manual towing
- Balanced top lifting point and anchoring attachments

Optional equipment

- 14-PW Large groove capstan with rope holder clamp
- 17-PW Special drum with automatic automatic spooler device
 - A- Ø160x250 (200 m rope Ø8)
 - B- Ø160x560 (500 m rope Ø8)

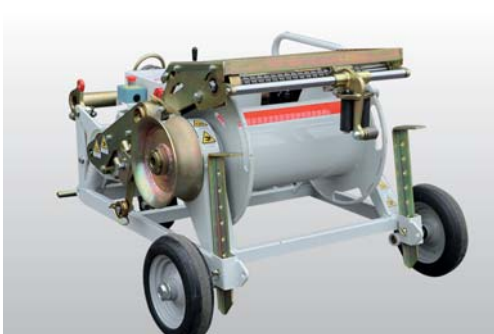
OVERALL DIMENSIONS



HYDRAULIC WINCH

101C1

HYDRAULIC DETACHABLE FRONT-DRUM WINCH 10 KN CAPACITY WITH LARGE GROOVE LATERAL CAPSTAN FOR STRINGING LV AND MV OVERHEAD LINES, HOISTING AND TOWER ERECTION AS WELL AS UNDERGROUND CABLING AND SAGGING.



large-groove capstan with rope holder clamp



PERFORMANCE & CHARACTERISTICS

Performance

Max pull	10 kN
Speed at max pull	0,8 km/h
Max speed	2,1 km/h
Pull at max speed	3,8 kN

Characteristics

Drum Dimensions	ø 270 x 520 mm
Drum Capacity	800 m rope 8 mm
Capstan bottom groove	ø 230 mm
Weight without rope	350 kg

Engine

Petrol	(8,5 Hp) 6,3 kW
Cooling	Air
Starter	pull start

FEATURES & OPTIONAL

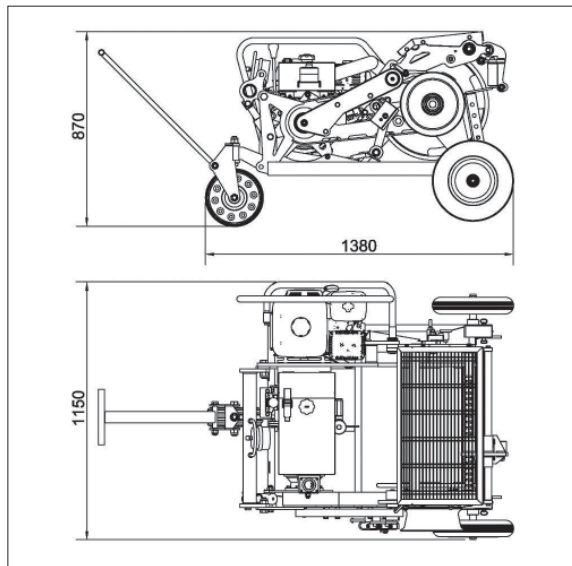
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- large-groove capstan with rope holder clamp
- Trailer kit with rigid axle for manual towing
- Balanced top lifting point and anchoring attachments

Optional equipment

- 11-PW Road trailer kit (80 km/h)
- 17-PW Special conical drum

OVERALL DIMENSIONS



HYDRAULIC WINCH

101S2

HYDRAULIC WINCH 20 KN CAPACITY WITH TWO LARGE-GROOVE SIDE CAPSTANS FOR HOISTING/TOWER ERECTION, SAGGING AS WELL AS MV/LV STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	20 kN
Speed at max pull	0,8 km/h
Max speed	2,1 km/h
Pull at max speed	7,6 kN

Characteristics

Capstan bottom groove (panel side)	ø 200 mm
Capstan bottom groove (other side)	ø 250 mm
Weight without rope	380 kg

Engine

Diesel	(19 Hp) 14 kW
Cooling	Air
Starter	Electrical

FEATURES & OPTIONAL

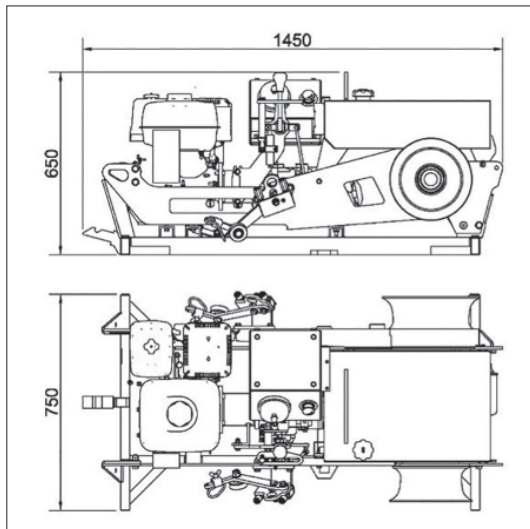
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Rope holder clamps for large-groove capstans
- Balanced top lifting point and anchoring attachments

Optional equipment

- 02-PW Trailer kit with rigid axle for manual towing
- 17-PW Special drum with automatic spooler device (rope capacity 200 m ø 8 mm)

OVERALL DIMENSIONS



HYDRAULIC WINCH

109T3

HYDRAULIC FRONT DRUM WINCH 35 KN CAPACITY FOR TOWER ERECTION, SAGGING AS WELL AS MV/LV STRINGING OPERATIONS OR UNDERGROUND CABLING.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	35 kN
Speed at max pull	1,5 km/h
Max speed	5 km/h
Pull at max speed	11 kN

Characteristics

Drum Dimensions	ø 450 x 700 mm
Drum Capacity	450 m rope 16 mm
Weight without rope	1100 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Independent mechanical stabilizers (front and rear)
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

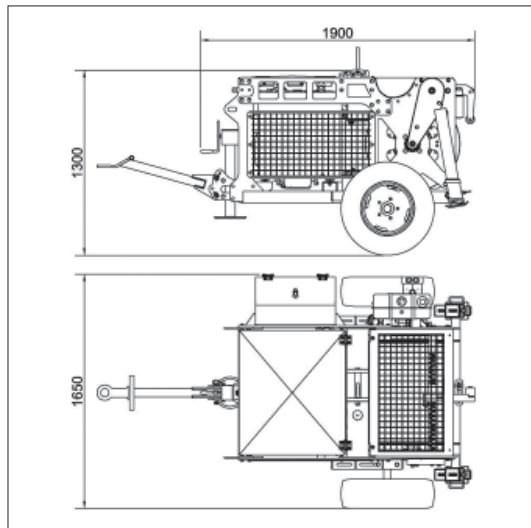
Optional equipment

11-PW	Road trailer kit (80 km/h)
14-PW	Large groove capstan with older clamp, version A - 10 kN Capacity version B - 30 kN Capacity

Special features upon request

03-PW	Wired remote control unit c/w console
04-PW	Wireless remote control unit c/w console

OVERALL DIMENSIONS



HYDRAULIC WINCH

109T5

HYDRAULIC FRONT DRUM WINCH 55 KN CAPACITY FOR TOWER ERECTION, SAGGING AS WELL AS MV/LV STRINGING OPERATIONS OR UNDERGROUND CABLING.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	55 kN
Speed at max pull	1 km/h
Max speed	5 km/h
Pull at max speed	11 kN

Characteristics

Drum Dimensions	ø 450 x 700 mm
Drum Capacity	350 m rope 18 mm
Weight without rope	1100 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

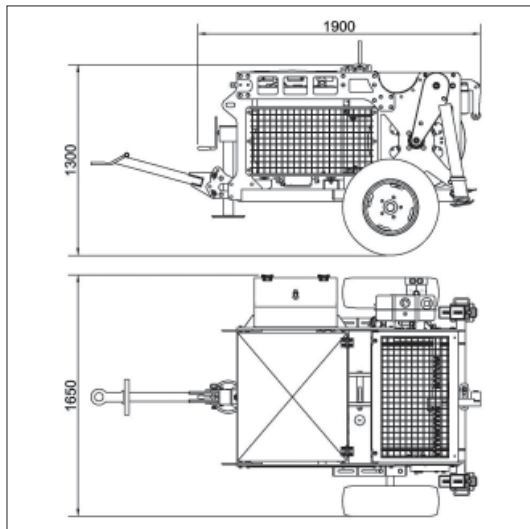
Optional equipment

11-PW	Road trailer kit (80 km/h)
14-PW	Large groove capstan with older clamp, version A - 10 kN Capacity version B - 30 kN Capacity

Special features upon request

03-PW	Wired remote control unit c/w console
04-PW	Wireless remote control unit c/w console

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R1

HYDRAULIC PULLER 15 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS AS WELL AS UNDERGROUND CABLING.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	15 kN
Speed at max pull	1 km/h
Max speed	2.7 km/h
Pull at max speed	5 kN

Characteristics

Bull-Wheels diameter	200 mm
Max rope diameter	10 mm
Steel reel dimension	∅ 200 x 220 mm
Steel reel capacity	500 m rope 9 mm
Weight without rope	440 kg

Engine

Petrol	(18 Hp) 13 kW
Cooling	Air
Starter	Electrical

FEATURES & OPTIONAL

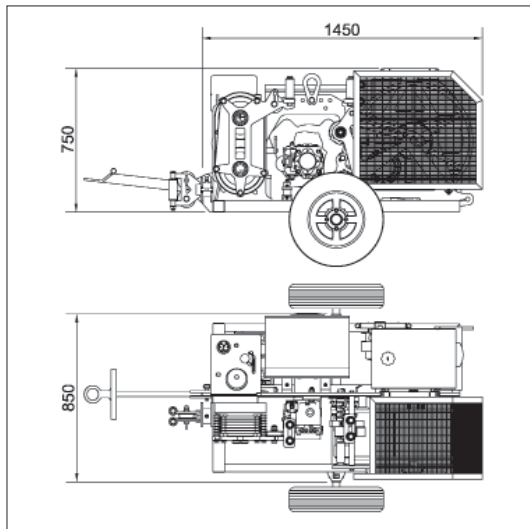
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder with rope spooler device
- Rear detachable steel reel
- Front pulley roller guided device for Underground cabling
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
11-PW	Road trailer kit (80 km/h)
18-PW	Digital counter-meter device

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R2

HYDRAULIC PULLER 25 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS AS WELL AS UNDERGROUND CABLING.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	25 kN
Speed at max pull	1,5 km/h
Max speed	5 km/h
Pull at max speed	7,5 kN

Characteristics

Bull-Wheels diameter	250 mm
Max rope diameter	10 mm
Weight	1000 kg

Engine

Diesel	(25 Hp) 18,6 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder suitable for steel reel 1100÷1400 mm
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

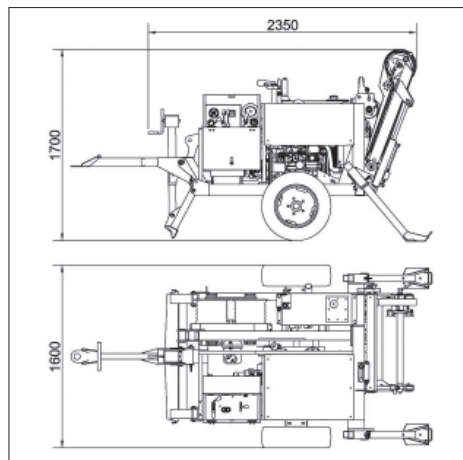
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
06-PW	Front pulley roller guided device for Underground cabling (Telescopic rod cod. AT1.3 on request)
07-PW	Hydraulic power take-off for remote reel-winder

Special features upon request

03-PW	Wired remote control unit c/w console
04-PW	Wireless remote control unit c/w console
05-PW	Rope holder clamp (hydraulic)
13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R3

HYDRAULIC PULLER 35 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS AS WELL AS UNDERGROUND CABLING.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	35 kN
Speed at max pull	1,5 km/h
Max speed	5,1 km/h
Pull at max speed	10 kN

Characteristics

Bull-Wheels diameter	300 mm
Max rope diameter	13 mm
Weight	1100 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder suitable for steel reel 1100÷1400 mm
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

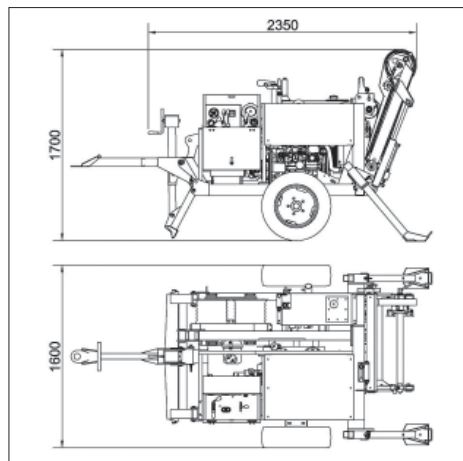
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
06-PW	Front pulley roller guided device for Underground cabling (Telescopic rod cod. AT1.3 on request)
07-PW	Hydraulic power take-off for remote reel-winder

Special features upon request

03-PW	Wired remote control unit c/w console
04-PW	Wireless remote control unit c/w console
05-PW	Rope holder clamp (hydraulic)
13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R4

HYDRAULIC PULLER 45 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS AS WELL AS UNDERGROUND CABLING.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	45 kN
Speed at max pull	2,5 km/h
Max speed	5 km/h
Pull at max speed	22 kN

Characteristics

Bull-Wheels diameter	400 mm
Max rope diameter	16 mm
Weight	1900 kg

Engine

Diesel	(69 Hp) 51 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder suitable for steel reel 1100÷1400 mm
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

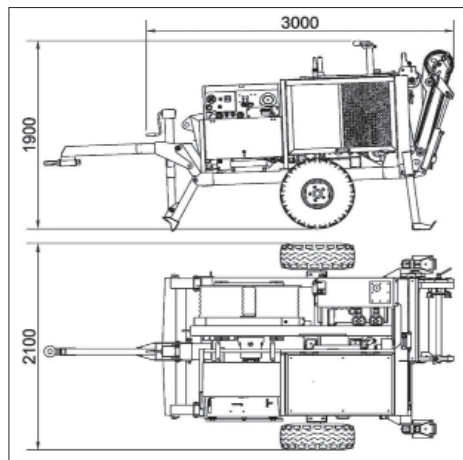
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
05-PW	Rope holder clamp (hydraulic)
06-PW	Roller guiding device for Underground laying
07-PW	Hydraulic power take-off for remote reel-winder

Special features upon request

03-PW	Wired remote control unit c/w console
04-PW	Wireless remote control unit c/w console
13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R6

HYDRAULIC PULLER 70 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS AS WELL AS UNDERGROUND CABLING.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	70 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	28 kN

Characteristics

Bull-Wheels diameter	600 mm
Max rope diameter	16 mm
Weight	2400 kg

Engine

Diesel	(85 Hp) 63,5 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder suitable for steel reel 1100÷1400 mm
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

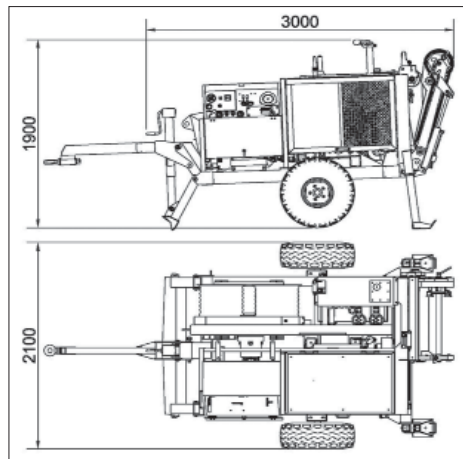
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
05-PW	Rope holder clamp (hydraulic)
06-PW	Roller guiding device for Underground laying
07-PW	Hydraulic power take-off for remote reel-winder

Special features upon request

03-PW	Wired remote control unit c/w console
04-PW	Wireless remote control unit c/w console
13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R8

HYDRAULIC PULLER 90 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS AS WELL AS UNDERGROUND CABLING.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	90 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	36 kN

Characteristics

Bull-Wheels diameter	600 mm
Max rope diameter	24 mm
Weight	3400 kg

Engine

Diesel	(125 Hp) 93 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder suitable for steel reel 1100÷1400 mm
- Wired remote control unit c/w console
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

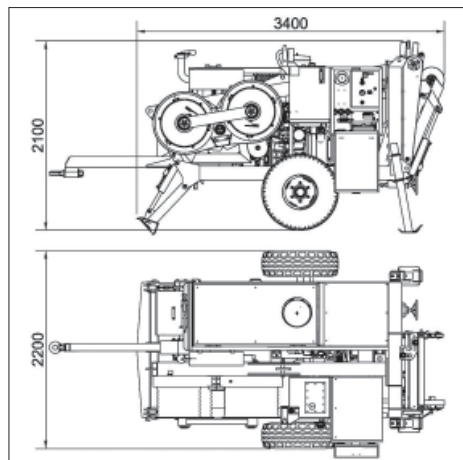
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
04-PW	Wireless remote control unit c/w console
05-PW	Rope holder clamp (hydraulic)
06-PW	Roller guiding device for Underground laying
07-PW	Hydraulic power take-off for remote reel-winder

Special features upon request

13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R14

HYDRAULIC PULLER 150 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	150 kN
Speed at max pull	1,8 km/h
Max speed	5 km/h
Pull at max speed	54 kN

Characteristics

Bull-Wheels diameter	600 mm
Max rope diameter	24 mm
Weight	5400 kg

Engine

Diesel	(175 Hp) 130 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder suitable for steel reel 1100÷1400 mm
- Wired remote control unit c/w console
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

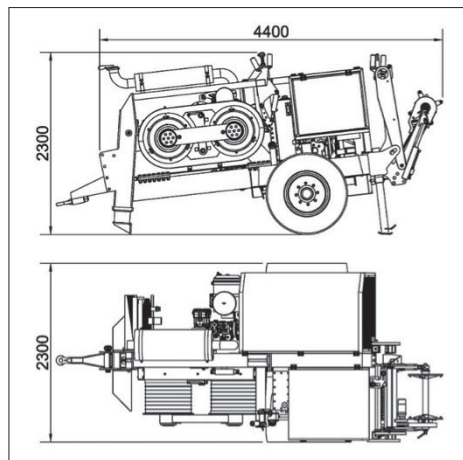
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
04-PW	Wireless remote control unit c/w console
05-PW	Rope holder clamp (hydraulic)
07-PW	Hydraulic power take-off for remote reel-winder

Special features upon request

13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R18

HYDRAULIC PULLER 190 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	190 kN	Speed at
max pull	2 km/h	
Max speed	5 km/h	
Pull at max speed	76 kN	

Characteristics

Bull-Wheels diameter	600 mm
Max rope diameter	24 mm
Weight	6900 kg

Engine

Diesel	(260 Hp) 194 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder suitable for steel reel 1100÷1400 mm
- Wired remote control unit c/w console
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

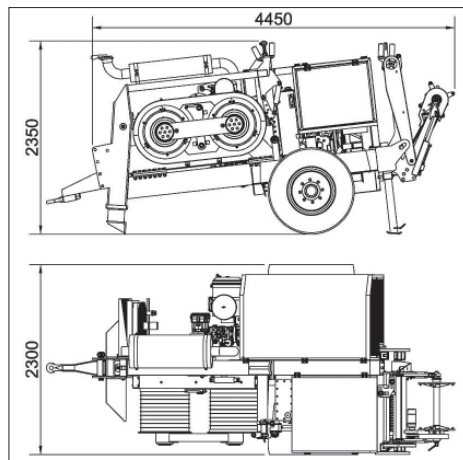
Optional equipment

- 01-PW Preset for digital data recorder, counter-meter and speedometer
- 04-PW Wireless remote control unit c/w console
- 05-PW Rope holder clamp (hydraulic)
- 07-PW Hydraulic power take-off for remote reel-winder

Special features upon request

- 13-PW Pre-heater (up to -30°C)
- 19-PW Built-in reel winder suitable for reels up to 1900 mm diameter
- 18-PW Counter-meter device
- 20-PW Dynamic speed pulling force control

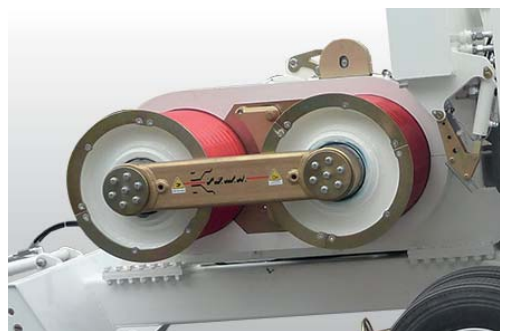
OVERALL DIMENSIONS



HYDRAULIC PULLER

107R24

HYDRAULIC PULLER 240 KN CAPACITY FOR SINGLE ROPE PULLING ON OVERHEAD STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	240 kN
Speed at max pull	2,2 km/h
Max speed	4,5 km/h
Pull at max speed	120 kN

Characteristics

Bull-Wheels diameter	800 mm
Max rope diameter	32 mm
Weight	9800 kg

Engine

Diesel	(365 Hp) 272 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device
- Thermally treated steel bull-wheels
- Automatic reel-winder suitable for steel reel 1100÷1400 mm
- Wired remote control unit c/w console
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

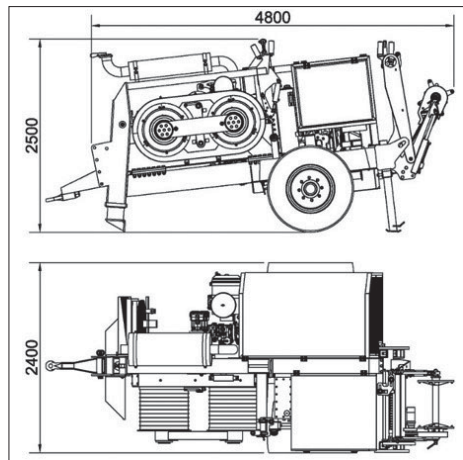
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
04-PW	Wireless remote control unit c/w console
05-PW	Rope holder clamp (hydraulic)
07-PW	Hydraulic power take -off for remote reel-winder

Special features upon request

13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

OVERALL DIMENSIONS



HYDRAULIC PULLER

107R4.2

HYDRAULIC PULLER 90 KN CAPACITY FOR ONE OR TWO ROPES ON OVERHEAD STRINGING OPERATIONS, DESIGNED TO BE USED AS A TWIN INDEPENDENT CAPSTANS PULLER (45+45 KN) AS WELL AS SINGLE 90 KN (COUPLED MODE).





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	2x45 or 1x90 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	2x18 or 1x36 kN

Characteristics

Bull-Wheels diameter	600 mm
Max rope diameter	24 mm
Weight	5400 kg

Engine

Diesel	(125 Hp) 93 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 2 hydraulic circuits with negative brake system
- 2 dynamometers for direct reading of pulling value with load-limiter devices
- Thermally treated steel bull-wheels
- 2 Automatic independent reel-winders for steel reel 1100÷1400 mm
- Wired remote control unit c/w console
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

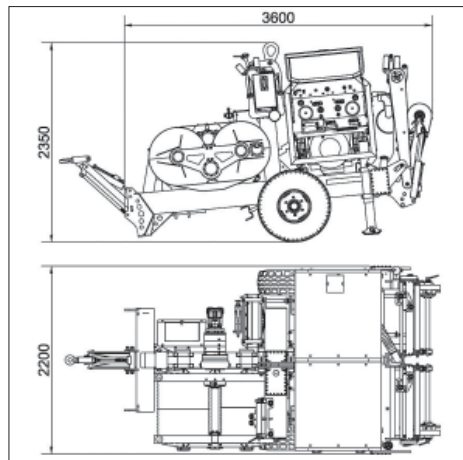
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
04-PW	Wireless remote control unit c/w console
05-PW	Rope holder clamp (hydraulic)
07-PW	Hydraulic power take-off for remote reel-winder

Special features upon request

13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

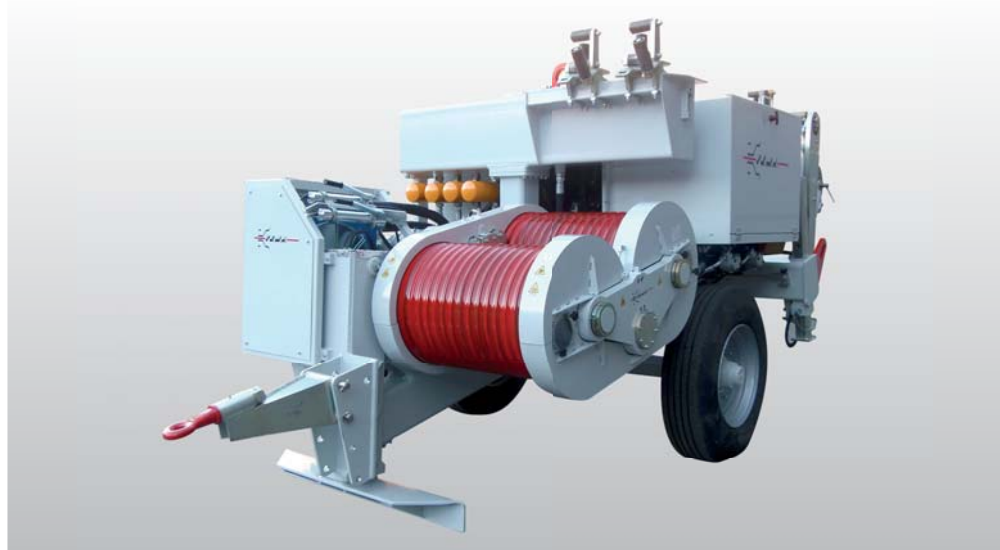
OVERALL DIMENSIONS



HYDRAULIC PULLER

107R7.2

HYDRAULIC PULLER 150 KN CAPACITY FOR ONE OR TWO ROPES ON OVERHEAD STRINGING OPERATIONS, DESIGNED TO BE USED AS A TWIN INDEPENDENT CAPSTANS PULLER (75+75 KN) AS WELL AS SINGLE 150 KN (COUPLED MODE).





PERFORMANCE & CHARACTERISTICS

Performance

Max pull	2x75 or 1x150 kN
Speed at max pull	1,8 km/h
Max speed	5 km/h
Pull at max speed	2x27 or 1x54 kN

Characteristics

Bull-Wheels diameter	600 mm
Max rope diameter	24 mm
Weight	6800 kg

Engine

Diesel	(175 Hp) 130 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 2 hydraulic circuits with negative brake system
- 2 dynamometers for direct reading of pulling value with load-limiter devices
- Thermally treated steel bull-wheels
- 2 Automatic independent reel-winders for steel reel 1100÷1400 mm
- Wired remote control unit c/w console
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

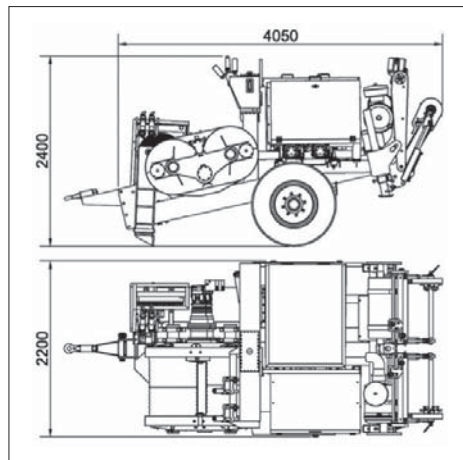
Optional equipment

01-PW	Preset for digital data recorder, counter-meter and speedometer
04-PW	Wireless remote control unit c/w console
05-PW	Rope holder clamp (hydraulic)
07-PW	Hydraulic power take-off for remote reel-winder

Special features upon request

13-PW	Pre-heater (up to -30°C)
18-PW	Counter-meter device
20-PW	Dynamic speed pulling force control

OVERALL DIMENSIONS



TENSIONER

P062.11

HYDRAULIC TENSIONER 25 KN CAPACITY FOR SINGLE CONDUCTOR STRINGING OPERATIONS.



PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	25 kN
Max speed	5 km/h

Characteristics

Adherence-wheels Diameter	660 mm
Max conductor diameter	23 mm
Weight	785 kg
Weight without transport kit	700 kg

FEATURES & OPTIONAL

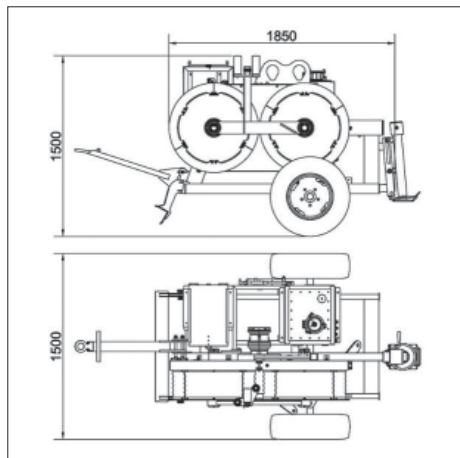
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of tensioning force
- 1 Counter-meter device
- Adherence wheels with interchangeable Nylon liners
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 14-PT Thermally treated steel adherence wheels

OVERALL DIMENSIONS



TENSIONER

P124.11

HYDRAULIC TENSIONER 45 KN CAPACITY FOR SINGLE CONDUCTOR STRINGING OPERATIONS.



PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	45 kN
Max speed	5 km/h

Characteristics

Adherence-wheels Diameter	1200 mm
Max conductor diameter	40 mm
Weight	2100 kg

FEATURES & OPTIONAL

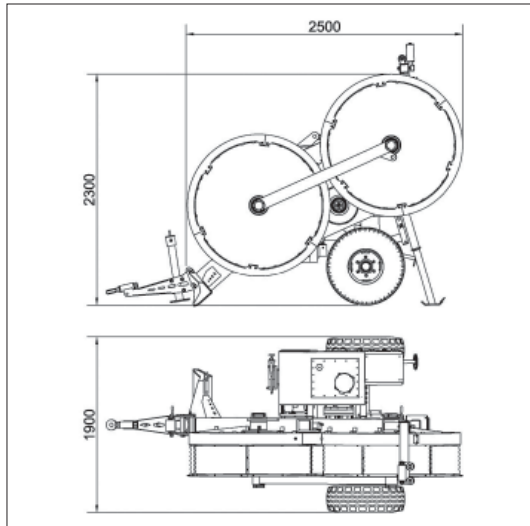
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of tensioning force
- 1 Counter-meter device
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 14-PT Thermally treated steel adherence wheels

OVERALL DIMENSIONS



TENSIONER

P128.12

HYDRAULIC TENSIONER 90 KN CAPACITY FOR OR SINGLE/BUNDLED CONDUCTORS STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	90 kN
Max speed	5 km/h

Characteristics

Adherence-wheels Diameter	1200 mm
Max conductor diameter	40 mm
Weight	2700 kg

FEATURES & OPTIONAL

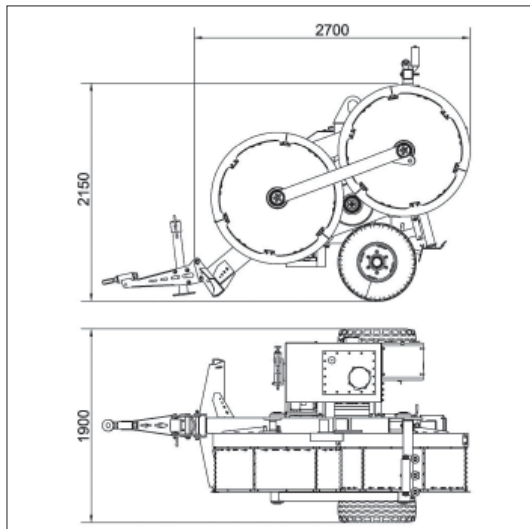
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of tensioning force
- 1 Counter-meter device
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 14-PT Thermally treated steel adherence wheels

OVERALL DIMENSIONS



TENSIONER

P152.11

HYDRAULIC TENSIONER 25 KN CAPACITY FOR SINGLE CONDUCTOR AS WELL AS OPGW CABLE STRINGING OPERATIONS.



PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	25 kN
Max speed	5 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	27 mm
Weight	1700 kg

FEATURES & OPTIONAL

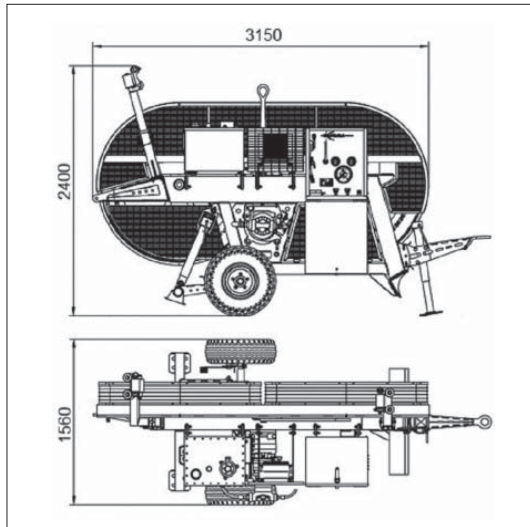
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of tensioning force
- 1 Counter-meter device
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 14-PT Thermally treated steel adherence wheels

OVERALL DIMENSIONS



TENSIONER

P154.12

HYDRAULIC TENSIONER 45 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS AS WELL AS OPGW CABLE STRINGING OPERATIONS.



PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	45 kN
Max speed	5 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	3100 kg

FEATURES & OPTIONAL

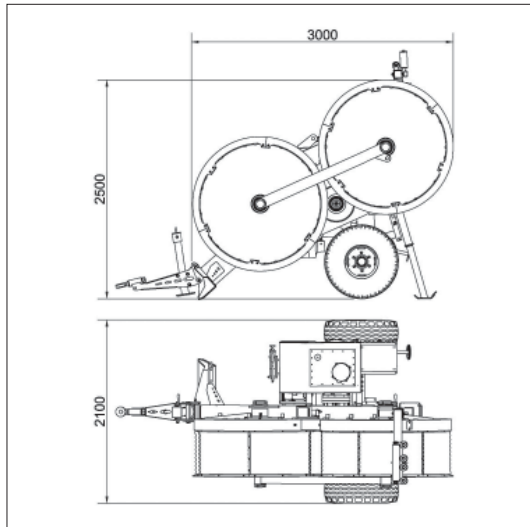
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of tensioning force
- 1 Counter-meter device
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 14-PT Thermally treated steel adherence wheels

OVERALL DIMENSIONS



TENSIONER

P158.12

INACTIVE HYDRAULIC TENSIONER 90 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS AS WELL AS OPGW CABLE STRINGING OPERATIONS.



PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	90 kN
Max speed	5 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	3500 kg

FEATURES & OPTIONAL

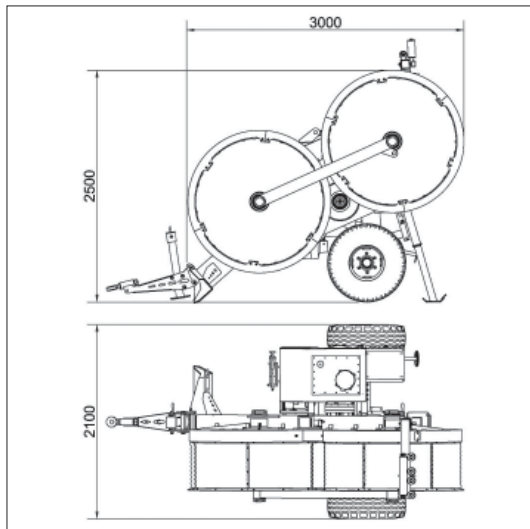
Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of tensioning force
- 1 Counter-meter device
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 14-PT Thermally treated steel adherence wheels

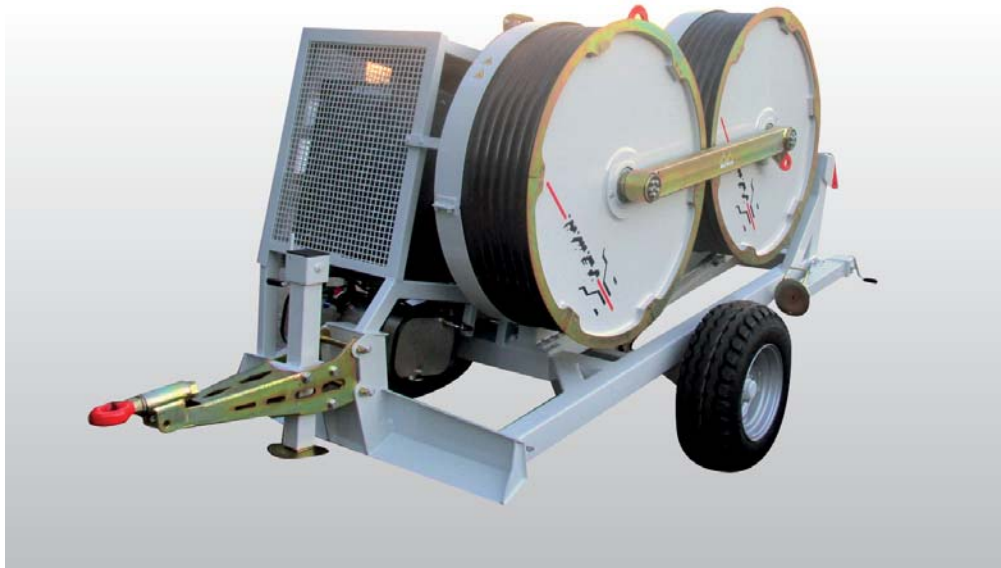
OVERALL DIMENSIONS



TENSIONER

FA124.11

HYDRAULIC TENSIONER-PULLER 45 KN CAPACITY FOR SINGLE CONDUCTOR STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	45 kN
Max speed	5 km/h

Pull-back Performance

Max pull	45 kN
Max speed	1,1 km/h

Characteristics

Adherence-wheels Diameter	1200 mm
Max conductor diameter	40 mm
Weight	2700 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 set of quick-release hydraulic connectors to drive 1 hydraulic driven reel-stand or 1 reel-winder unit
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

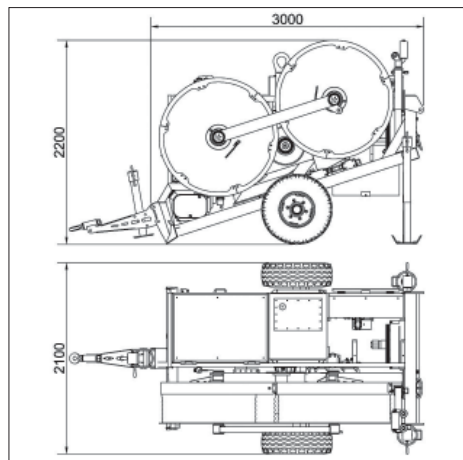
Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	Multiple connection preset

Special features upon request

20-PT	Pre-heater (up to -30°C)
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OVERALL DIMENSIONS



TENSIONER

FA126.11

HYDRAULIC TENSIONER-PULLER 70 KN CAPACITY FOR SINGLE CONDUCTOR STRINGING OPERATIONS.



PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	70 kN
Max speed	5 km/h

Pull-back Performance

Max pull	70 kN
Max speed	0,8 km/h

Characteristics

Adherence-wheels Diameter	1200 mm
Max conductor diameter	40 mm
Weight	2850 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 quick release hydraulic power take-off to feed 2 remote reel-stand or reel-winder arm with driven head equipped
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

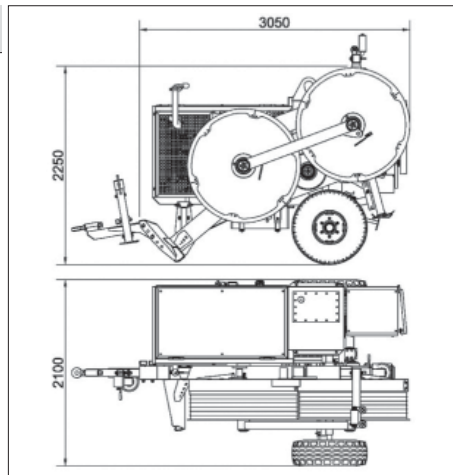
Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 14-PT Thermally treated steel adherence wheels
- 18-PT Multiple connection preset

Special features upon request

- 20-PT Pre-heater (up to -30°C)

OVERALL DIMENSIONS



TENSIONER

FA128.12

HYDRAULIC TENSIONER-PULLER 90 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTOR STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	90 kN
Max speed	5 km/h

Pull-back Performance

Max pull	90 kN
Max speed	0,6 km/h

Characteristics

Adherence-wheels Diameter	1200 mm
Max conductor diameter	40 mm
Weight	3450 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller – mode)
- 1 Counter-meter device
- 2 quick release hydraulic power take-off to feed 2 remote reel-stand or reel-winder arm with driven head equipped
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Rear independent hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

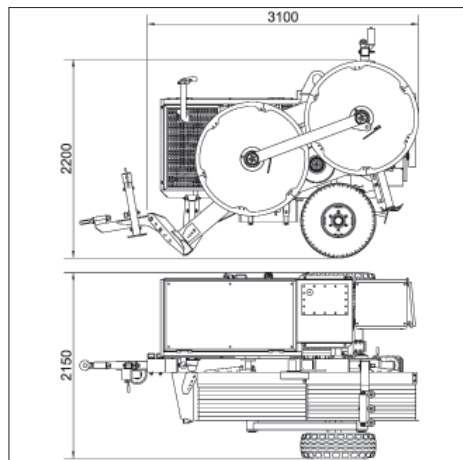
Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	Multiple connection preset

Special features upon request

20-PT	Pre-heater (up to -30°C)
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OVERALL DIMENSIONS



TENSIONER

FA154.12

HYDRAULIC TENSIONER-PULLER 45 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS AS WELL AS OPGW CABLE STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	45 kN
Max speed	5 km/h

Pull-back Performance

Max pull	45 kN
Max speed	1,2 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	3900 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 set of quick-release hydraulic connectors to drive up to 2 hydraulic driven reel-stands or 1 reel-winder unit
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

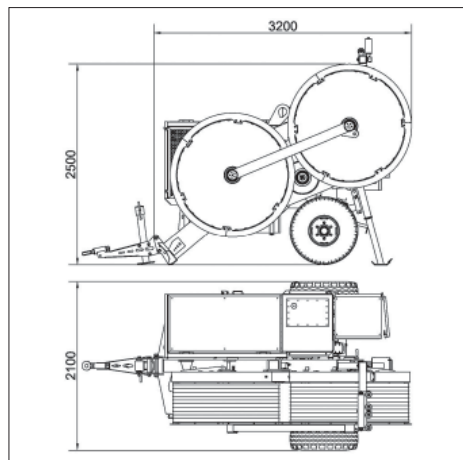
Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	Multiple connection preset

Special features upon request

20-PT	Pre-heater (up to -30°C)
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OVERALL DIMENSIONS



TENSIONER

FA156.12

HYDRAULIC TENSIONER-PULLER 70 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS AS WELL AS OPGW CABLE STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	70 kN
Max speed	5 km/h

Pull-back Performance

Max pull	70 kN
Max speed	0,8 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	4000 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 set of quick-release hydraulic connectors to drive up to 2 hydraulic driven reel-stands or 1 reel-winder unit
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

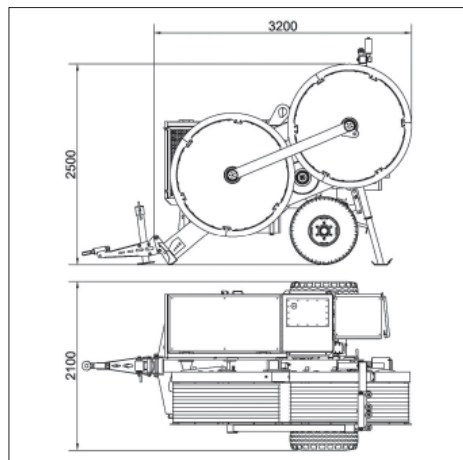
Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	Multiple connection preset

Special features upon request

20-PT	Pre-heater (up to -30°C)
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OVERALL DIMENSIONS



TENSIONER

FA158.12

HYDRAULIC TENSIONER-PULLER 90 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS AS WELL AS OPGW CABLE STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	90 kN
Max speed	5 km/h

Pull-back Performance

Max pull	90 kN
Max speed	0,6 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	4100 kg

Engine

Diesel	(36,5 Hp) 27 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller -mode)
- 1 Counter-meter device
- 1 set of quick-release hydraulic connectors to drive up to 2 hydraulic driven reel-stands or 1 reel-winder unit
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed)
- Independent mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

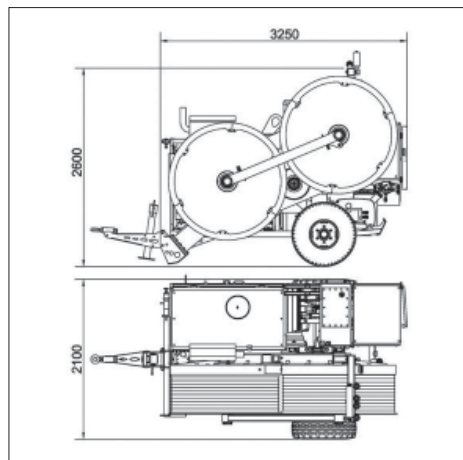
Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	Multiple connection preset

Special features upon request

20-PT	Pre-heater (up to -30°C)
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OVERALL DIMENSIONS



TENSIONER

FA154.22

HYDRAULIC TENSIONER-PULLER WITH TWO INDEPENDENT HYDRAULIC CIRCUITS,
2X45KN OR 1X90 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS AS WELL AS
OPGW CABLE STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	2x45 or 1x90 kN
Max speed	5 km/h

Pull-back Performance

Max pull	2x45 or 1x90 kN
Max speed	1,1 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	6700 kg

Engine

Diesel	(69 Hp) 51 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

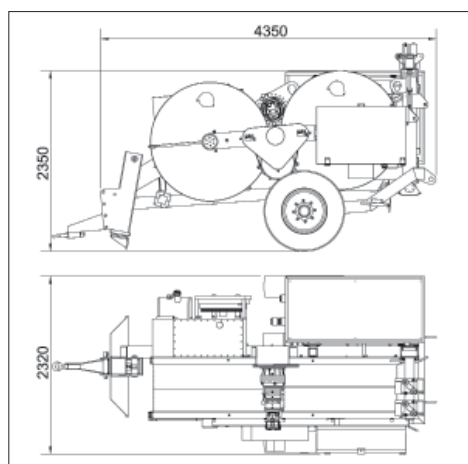
Standard features

- 2 hydraulic circuits with negative brake system
- Mechanical device to match between them the adherence wheels
- 2 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 2 Counter-meter device
- 2 quick release hydraulic power take-off to feed 2 remote reel-stand or reel-winder arm with driven head equipped
- Adherence wheels with interchangeable Nylon liners
- Gear box (2 speed) for 1 circuit
- Hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	Multiple connection preset

OVERALL DIMENSIONS



Special features upon request

05-PT	Additional hydraulic power take-off on reel-winder circuit
20-PT	Pre-heater (up to -30°C)
21-PT	Additional gear box (2 speed)

TENSIONER

FA1514.14

HYDRAULIC TENSIONER-PULLER 150 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	150 kN
Max speed	5 km/h

Pull-back Performance

Max pull	150 kN
Max speed	0,6 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	8800 kg

Engine

Diesel	(69 Hp) 51 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 set of quick-release hydraulic connectors to drive up to 4 hydraulic driven reel-stands or 1 reel-winder unit
- Adherence wheels with interchangeable Nylon liners
- Rear independent hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

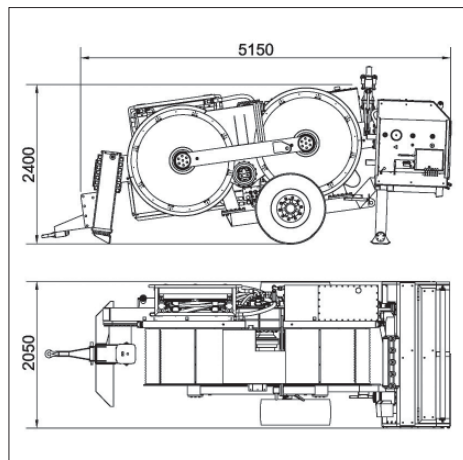
Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	Multiple connection preset

Special features upon request

20-PT	Pre-heater (up to -30°C)
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OVERALL DIMENSIONS



TENSIONER

FA157.24

HYDRAULIC TENSIONER-PULLER WITH TWO INDEPENDENT HYDRAULIC CIRCUITS,
2X75KN OR 1X150 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	2x75 kN
Max speed	5 km/h

Pull-back Performance

Max pull	2x75 kN
Max speed	0,6 km/h

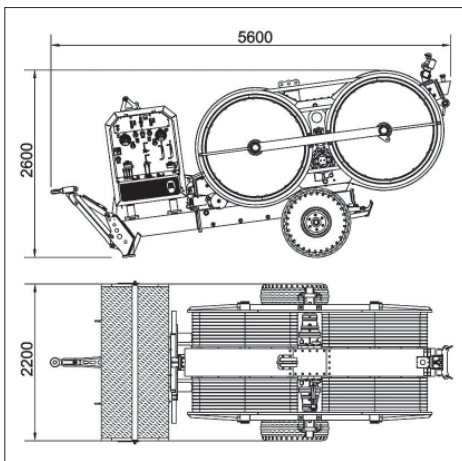
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	7900 kg

Engine

Diesel	(69 Hp) 51 kW
Cooling	liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 2 hydraulic circuits with negative brake system
- Mechanical device to match between them the adherence wheels
- 2 dynamometers for direct reading of pulling value with load-limiter device (puller – mode)
- 2 Counter-meters device
- 4 quick release hydraulic power take-off to feed 4 remote reel-stand or reel-winder arm with driven head equipped
- Adherence wheels with interchangeable Nylon liners
- Rear independent hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 14-PT Thermally treated steel adherence wheels
- 18-PT Multiple connection preset

Special features upon request

- 20-PT Pre-heater (up to -30°C)
- 21-PT Gear box (2 speed)

TENSIONER

FA1518.14

HYDRAULIC TENSIONER-PULLER 180 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTORS STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	180 kN
Max speed	5 km/h

Pull-back Performance

Max pull	150 kN
Max speed	0,7 km/h

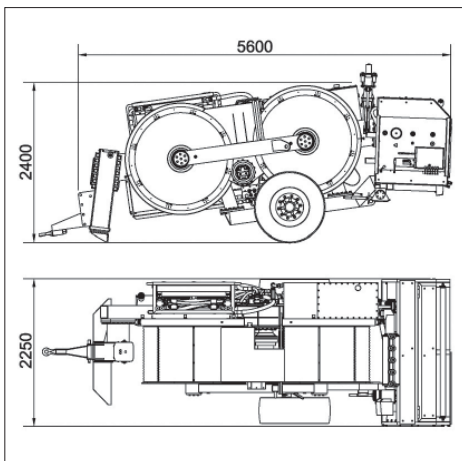
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	36 mm
Weight	11000 kg

Engine

Diesel	(85 Hp) 63 kW
Cooling	liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 set of quick-release hydraulic connectors to drive up to 4 hydraulic driven reel-stands or 1 reel-winder unit
- Adherence wheels with interchangeable Nylon liners
- Rear independent hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	Multiple connection preset

Special features upon request

05-PT	Additional hydraulic power take-off on reel-winder circuit
20-PT	Pre-heater (up to -30°C)
24-PT	Special set of interchangeable Nylon liners (Hexa bundle up to 29 mm diameter)

TENSIONER

FA159.24

HYDRAULIC TENSIONER-PULLER WITH TWO INDEPENDENT HYDRAULIC CIRCUITS
2X90KN OR 1X180 KN CAPACITY, FOR SINGLE/BUNDLED CONDUCTORS STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	2x90 kN
Max speed	5 km/h

Pull-back Performance

Max pull	2x90 kN
Max speed	0,6 km/h

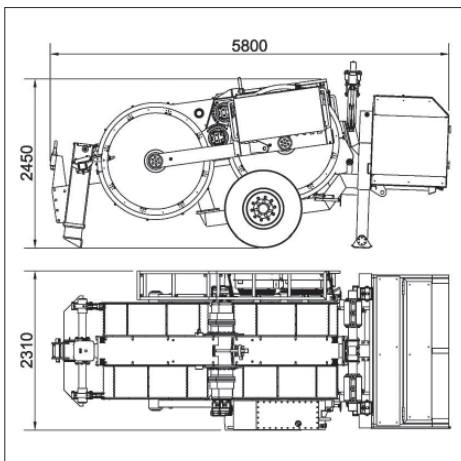
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	11900 kg

Engine

Diesel	(85 Hp) 63 kW
Cooling	liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 2 hydraulic circuit with negative brake system
- 2 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 2 Counter-meter device
- 4 quick release hydraulic power take-off to feed 4 remote reel-stand or reel-winder arm with driven head equipped
- Adherence wheels with interchangeable Nylon liners
- Rear independent hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels
18-PT	"Tandem-use" connection preset

Special features upon request

16-PT	Pull synchronizer clutch
20-PT	Pre-heater (up to -30°C)

TENSIONER

FA154.44

HYDRAULIC TENSIONER-PULLER WITH FOUR INDEPENDENT HYDRAULIC CIRCUITS, 4X45KN OR 2X90 KN CAPACITY, FOR SINGLE/BUNDLED CONDUCTORS STRINGING OPERATIONS.





PERFORMANCE & CHARACTERISTICS

Tensioner Performance

Max tension	4x45 or 2x90 kN
Max speed	5 km/h

Pull-back Performance

Max pull	4x45 or 2x90 kN
Max speed	0,5 km/h

Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Weight	11500 kg

Engine

Diesel	(69 Hp) 51 kW
Cooling	liquid
Starter	Electrical

FEATURES & OPTIONAL

Standard features

- 4 hydraulic circuit with negative brake system
- Mechanical device to match between them the adherence wheels
- 4 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 4 Counter-meter device
- 4 quick release hydraulic power take-off to feed 4 remote reel-stand or reel-winder arm with driven head equipped
- Adherence wheels with interchangeable Nylon liners
- Rear independent hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

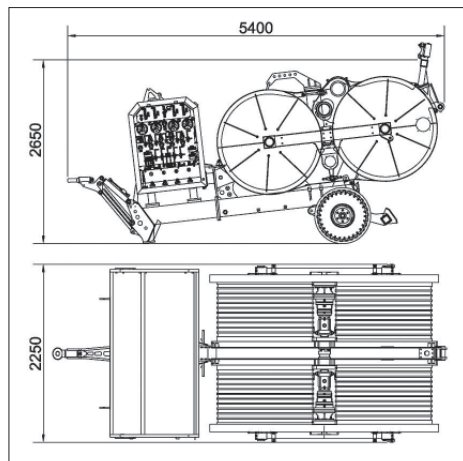
Optional equipment

01-PT	Preset for digital data recorder, counter-meter and speedometer
07-PT	Hydraulic power take-off for press
08-PT	Conductor/rope holder clamp (hydraulic)
14-PT	Thermally treated steel adherence wheels

Special features upon request

20-PT	Pre-heater (up to -30°C)
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OVERALL DIMENSIONS



PULLERS-TENSIONER

AF062.11

HYDRAULIC PULLER-TENSIONER 25 KN CAPACITY FOR SINGLE CONDUCTOR STRINGING OPERATIONS



Special self-propelled version



PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	25 kN
Speed at max pull	2,1 km/h
Max speed	5 km/h
Pull at max speed	10 kN

Tensioner Performance

Max tension	25 kN
Max speed	5 km/h

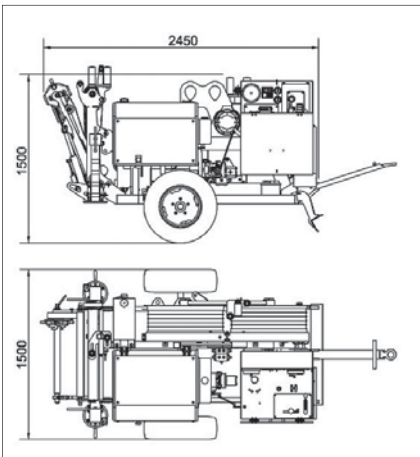
Characteristics

Adherence-wheels Diameter	660 mm
Max conductor diameter	23 mm
Max rope diameter	18 mm
Weight	1400 kg

Engine

Diesel	(40 Hp) 29,5 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

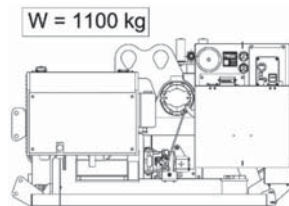
- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 quick release hydraulic power take-off to feed 1 remote reel-stand or reel-winder arm with driven head equipped
- Detachable reel-winder suitable for steel reel 1100÷1400 mm
- Thermally treated steel adherence wheels
- Mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 03-PT Wired remote control unit c/w console
- 04-PT Wireless remote control unit c/w console
- 08-PT Conductor/rope holder clamp (hydraulic)

Special features upon request

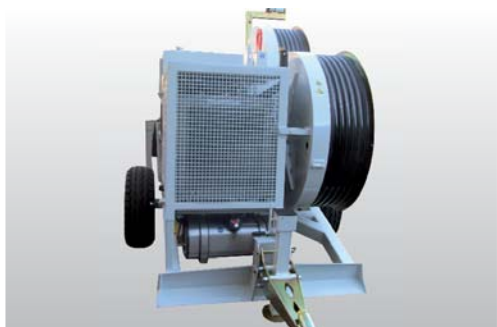
- 02-PT Dynamic speed pulling force control
- 13-PT Road trailer kit (80 km/h)
- 20-PT Pre-heater (up to -30°C)
- 26-PT Puller version



PULLERS-TENSIONER

AF124.11

HYDRAULIC PULLER-TENSIONER 45 KN CAPACITY FOR SINGLE CONDUCTOR STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	45 kN
Speed at max pull	2,2 km/h
Max speed	5 km/h
Pull at max speed	20 kN

Tensioner Performance

Max tension	45 kN
Max speed	5 km/h

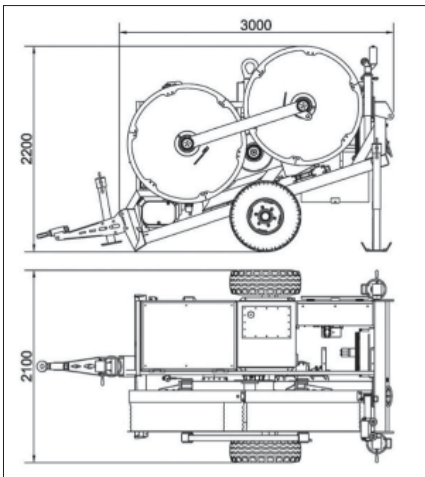
Characteristics

Adherence-wheels Diameter	1200 mm
Max conductor diameter	40 mm
Max rope diameter	18 mm
Weight	3000 kg

Engine

Diesel	(69 Hp) 51 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 set of quick-release hydraulic connectors to drive 1 hydraulic driven reel-stands or reel-winder unit
- Thermally treated wear-proof steel adherence wheels
- Gear box (2 speed)
- Wired remote control unit c/w console
- Mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 20-PT Pre-heater (up to -30°C)

PULLERS-TENSIONER

AF126.11

HYDRAULIC PULLER-TENSIONER 70 KN CAPACITY FOR SINGLE CONDUCTOR STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	70 kN
Speed at max pull	1,8 km/h
Max speed	5 km/h
Pull at max speed	25 kN

Tensioner Performance

Max tension	75 kN
Max speed	5 km/h

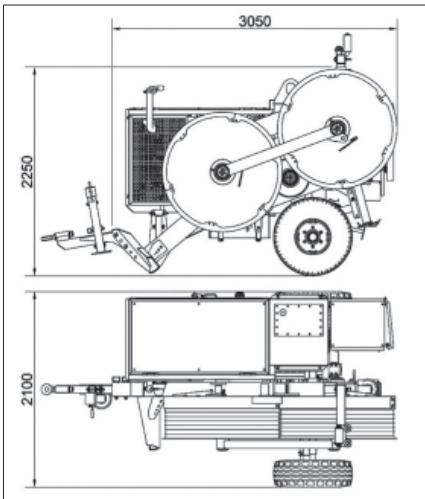
Characteristics

Adherence-wheels Diameter	1200 mm
Max conductor diameter	40 mm
Max rope diameter	18 mm
Weight	3300 kg

Engine

Diesel	(85 Hp) 63,5 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 set of quick-release hydraulic connectors to drive 1 hydraulic driven reel-stands or reel-winder unit
- Thermally treated wear-proof steel adherence wheels
- Gear box (2 speed)
- Wired remote control unit c/w console
- Mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 20-PT Pre-heater (up to -30°C)

PULLERS-TENSIONER

AF128.12

HYDRAULIC PULLER-TENSIONER 90 KN CAPACITY FOR SINGLE/BUNDLED CONDUCTOR STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	90 kN
Speed at max pull	2,2 km/h
Max speed	5 km/h
Pull at max speed	20 kN

Tensioner Performance

Max tension	90 kN
Max speed	5 km/h

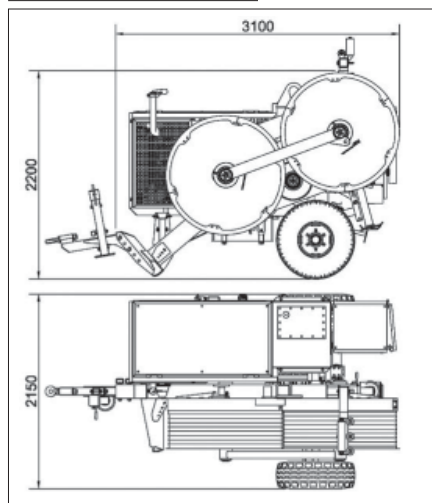
Characteristics

Adherence-wheels Diameter	1200 mm
Max conductor diameter	40 mm
Max rope diameter	24 mm
Weight	3900 kg

Engine

Diesel	(125 Hp) 93 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 2 sets of quick-release hydraulic connectors to drive up to 2 hydraulic driven reel-stands or reel-winder units
- Thermally treated wear-proof steel adherence wheels
- Gear box (2 speed)
- Wired remote control unit c/w console
- Mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 20-PT Pre-heater (up to -30°C)

PULLERS-TENSIONER

AF152.11

HYDRAULIC PULLER-TENSIONER 25 KN CAPACITY FOR SINGLE CONDUCTOR AS WELL AS OPGW CABLE STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	25 kN
Speed at max pull	1,6 km/h
Max speed	5 km/h
Pull at max speed	7 kN

Tensioner Performance

Max tension	25 kN
Max speed	5 km/h

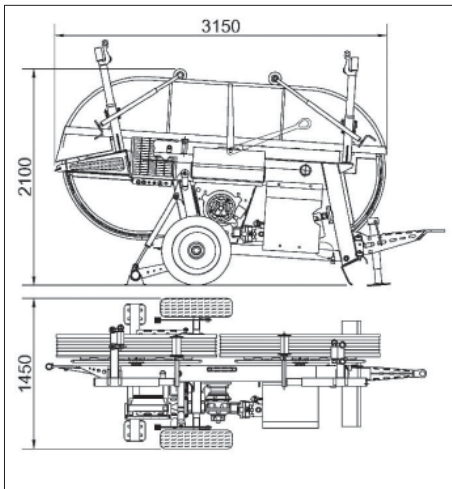
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	27 mm
Max rope diameter	13 mm
Weight	1900 kg

Engine

Diesel	(30 Hp) 22 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 1 quick release hydraulic power take-off to feed 1 remote reel-stand or reel-winder arm with driven head equipped
- Adherence wheels with interchangeable Nylon liners
- Hydraulic stabilizer
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 02-PT Dynamic speed pulling force control
- 07-PT Hydraulic power take-off for press

AF154.12

HYDRAULIC PULLER-TENSIONER 45 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	45 kN
Speed at max pull	2,1 km/h
Max speed	5 km/h
Pull at max speed	18 kN

Tensioner Performance

Max tension	45 kN
Max speed	5 km/h

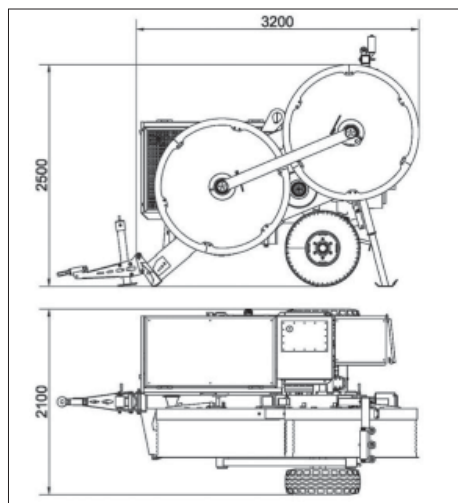
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	18 mm
Weight	3750 kg

Engine

Diesel	(69 Hp) 51 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 2 sets of quick-release hydraulic connectors to drive up to 2 hydraulic driven reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Gear box (2 speed)
- Wired remote control unit c/w console
- Mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 20-PT Pre-heater (up to -30°C)

AF156.12

HYDRAULIC PULLER-TENSIONER 70 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	70 kN
Speed at max pull	1,9 km/h
Max speed	5 km/h
Pull at max speed	26 kN

Tensioner Performance

Max tension	70 kN
Max speed	5 km/h

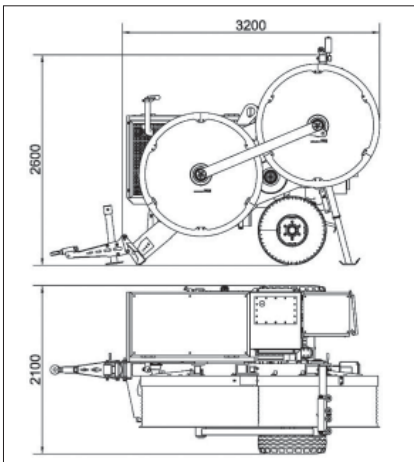
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	18 mm
Weight	4400 kg

Engine

Diesel	(85 Hp) 63 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 2 sets of quick release hydraulic connectors to feed up to 2 remote reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Gear box (2 speed)
- Wired remote control unit c/w console
- Mechanical stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 20-PT Pre-heater (up to -30°C)

PULLERS-TENSIONER

AF158.12

HYDRAULIC PULLER-TENSIONER 90 KN CAPACITY FOR BUNDLE CONDUCTOR
AS WELL AS OPGW CABLE STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	90 kN
Speed at max pull	2,2 km/h
Max speed	5 km/h
Pull at max speed	40 kN

Tensioner Performance

Max tension	90 kN
Max speed	5 km/h

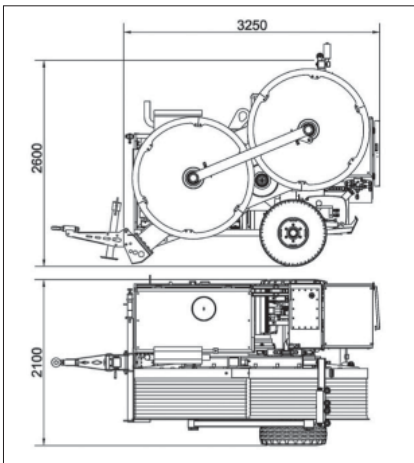
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	24 mm
Weight	5000 kg

Engine

Diesel	(125 Hp) 93 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 2 sets of quick-release hydraulic connectors to drive up to 2 hydraulic driven reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Gear box (2 speed)
- Wired remote control unit c/w console
- Hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 20-PT Pre-heater (up to -30°C)

PULLERS-TENSIONER

AF154.22

HYDRAULIC PULLER-TENSIONER 90 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS, DESIGNED TO BE USED AS A TWIN INDEPENDENT ADHERENCE-WHEELS (45+45 KN)





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	2x45 or 1x90 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	36 kN

Tensioner Performance

Max tension	2x45 or 1x90 kN
Max speed	5 km/h

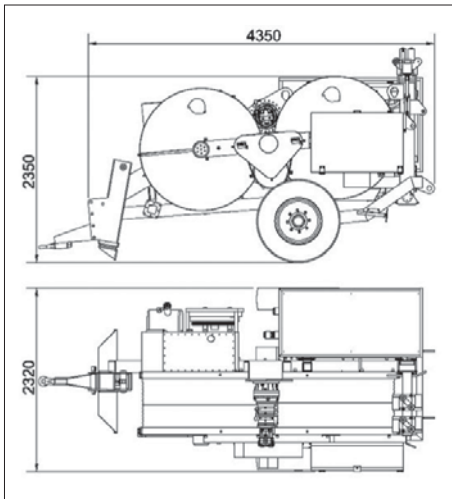
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	24 mm
Weight	6900 kg

Engine

Diesel	(125 Hp) 93 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 2 hydraulic circuit with negative brake system
- Mechanical Bull-wheel coupling system
- 2 dynamometers for direct reading of pulling value with load-limiter device (puller-mode)
- 2 Counter-meter device
- 2 sets of quick release hydraulic connectors to feed up to 2 remote reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Gear box (2 speed) on first circuit only
- Wired remote control unit c/w console
- Hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 16-PT Pull synchronizer clutch
- 17-PT Built-in reel winder (reels up to 1400 mm diameter)
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 20-PT Pre-heater (up to -30°C)
- 21-PT Additional gear box (2 speed)

PULLERS-TENSIONER

AF1514.14

HYDRAULIC PULLER-TENSIONER 150 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	150 kN
Speed at max pull	1,7 km/h
Max speed	5 km/h
Pull at max speed	50 kN

Tensioner Performance

Max tension	150 kN
Max speed	5 km/h

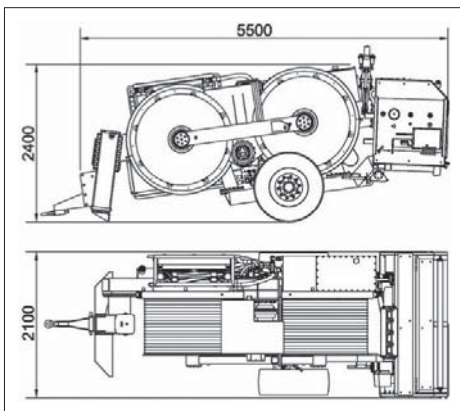
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	24 mm
Weight	9000 kg

Engine

Diesel	(175 Hp) 130 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 4 sets of quick release hydraulic connectors to feed up to 4 remote reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Wired remote control unit c/w console
- Rear independent hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 18-PT Multiple connection preset
- 20-PT Pre-heater (up to -30°C)

PULLERS-TENSIONER

AF157.24

HYDRAULIC PULLER-TENSIONER 150 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS, DESIGNED TO BE USED AS A TWIN INDEPENDENT ADHERENCE-WHEELS (75+75 KN)





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	2x75 or 1x150 kN
Speed at max pull	1,8 km/h
Max speed	5 km/h
Pull at max speed	54 kN

Tensioner Performance

Max tension	2x75 or 1x150 kN
Max speed	5 km/h

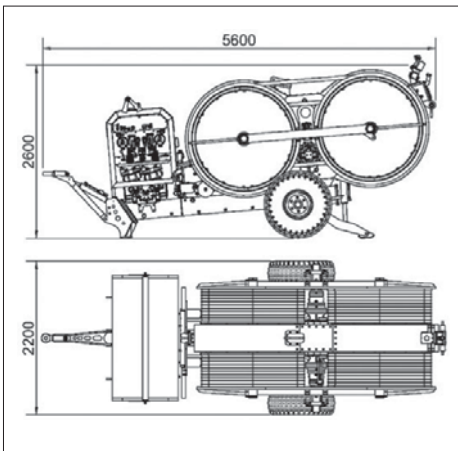
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	28 mm
Weight	8800 kg

Engine

Diesel	(175 Hp) 130 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 2 hydraulic circuit with negative brake system
- Mechanical Bull-wheel coupling system
- 2 dynamometers for direct reading of pulling value with load-limiter device (puller-mode)
- 2 Counter-meter device
- 4 sets of quick release hydraulic connectors to feed up to 4 remote reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Gear box (2 speed) on first circuit only
- Wired remote control unit c/w console
- Hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 16-PT Pull synchronizer clutch

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off for reel-winder unit
- 17-PT Built-in reel winder (reels up to 1400 mm diameter)
- 20-PT Pre-heater (up to -30°C)
- 21-PT Additional gear box (2 speed)

PULLERS-TENSIONER

AF1518.14

HYDRAULIC PULLER-TENSIONER 180 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	180 kN
Speed at max pull	2,1 km/h
Max speed	5 km/h
Pull at max speed	76 kN

Tensioner Performance

Max tension	180 kN
Max speed	5 km/h

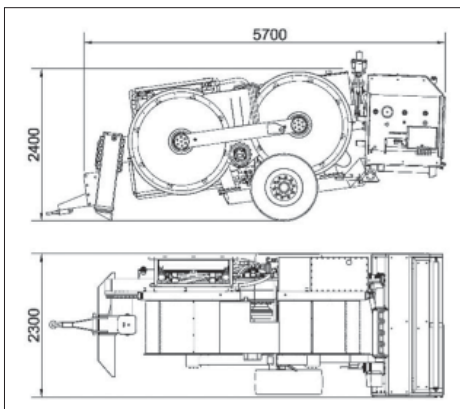
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	28 mm
Weight	12000 kg

Engine

Diesel	(260 Hp) 194 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 1 hydraulic circuit with negative brake system
- 1 dynamometer for direct reading of pulling value with load-limiter device (puller-mode)
- 1 Counter-meter device
- 4 sets of quick release hydraulic connectors to feed up to 4 remote reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Wired remote control unit c/w console
- Rear independent hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 18-PT Multiple connection preset
- 20-PT Pre-heater (up to -30°C)

PULLERS-TENSIONER

AF159.24

HYDRAULIC PULLER-TENSIONER 180 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS, DESIGNED TO BE USED AS A TWIN INDEPENDENT ADHERENCE-WHEELS (90+90 KN)





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	2x90 or 1x180 kN
Speed at max pull	1,9 km/h
Max speed	5 km/h
Pull at max speed	68 kN

Tensioner Performance

Max tension	2x90 or 1x180 kN
Max speed	5 km/h

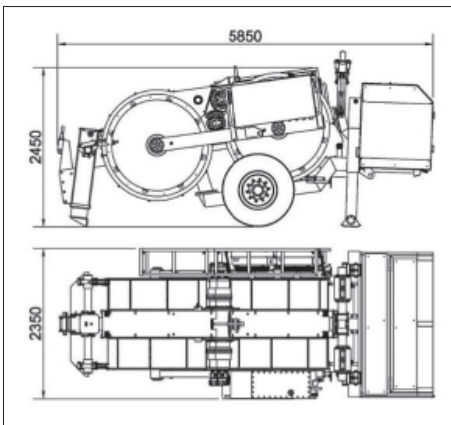
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	28 mm
Weight	12200 kg

Engine

Diesel	(260 Hp) 194 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 2 hydraulic circuit with negative brake system
- Mechanical Bull-wheel coupling system
- 2 dynamometers for direct reading of pulling value with load-limiter device (puller-mode)
- 2 Counter-meter device
- 4 sets of quick release hydraulic connectors to feed up to 4 remote reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Gear box (2 speed) on first circuit only
- Wired remote control unit c/w console
- Hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 16-PT Pull synchronizer clutch
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 20-PT Pre-heater (up to -30°C)
- 21-PT Additional gear box (2 speed)

PULLERS-TENSIONER

AF154.44

HYDRAULIC PULLER-TENSIONER 180 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS, DESIGNED TO BE USED AS A FOUR INDEPENDENT ADHERENCE-WHEELS (45+45+45+45 KN)





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	4x45 or 2x90 kN
Speed at max pull	2,5 km/h
Max speed	5 km/h
Pull at max speed	90 kN

Tensioner Performance

Max tension	4x45 or 2x90 kN
Max speed	5 km/h

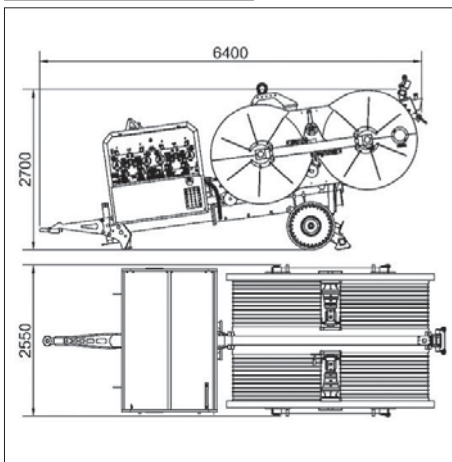
Characteristics

Adherence-wheels Diameter	1500 mm
Max conductor diameter	40 mm
Max rope diameter	28 mm
Weight	16500 kg

Engine

Diesel	(350 Hp) 260 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 4 hydraulic circuit with negative brake system
- Mechanical bull-wheel coupling system
- 4 dynamometers for direct reading of pulling value with load-limiter device (puller-mode)
- 4 Counter-meter device
- 4 sets of quick release hydraulic connectors to feed up to 4 remote reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Gear box (2 speed) on first circuit only
- Wired remote control unit c/w console
- Hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 16-PT Pull synchronizer clutch

Special features upon request

- 20-PT Pre-heater (up to -30°C)

AF179.22

HYDRAULIC PULLER-TENSIONER 180 KN CAPACITY FOR BUNDLE CONDUCTOR STRINGING OPERATIONS, DESIGNED TO BE USED AS A TWIN INDEPENDENT ADHERENCE-WHEELS (90+90 KN)





PERFORMANCE & CHARACTERISTICS

Puller Performance

Max pull	2x90 kN
Speed at max pull	1,9 km/h
Max speed	5 km/h
Pull at max speed	68 kN

Tensioner Performance

Max tension	2x90 kN
Max speed	5 km/h

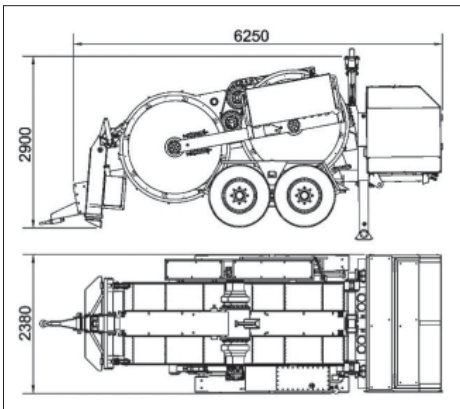
Characteristics

Adherence-wheels Diameter	1700 mm
Max conductor diameter	44 mm
Max rope diameter	24 mm
Weight	15500 kg

Engine

Diesel	(260 Hp) 194 kW
Cooling	Liquid
Starter	Electrical

OVERALL DIMENSIONS



FEATURES & OPTIONAL

Standard features

- 2 hydraulic circuit with negative brake system
- Mechanical Bull-wheel coupling system
- 2 dynamometers for direct reading of pulling value with load-limiter device (puller-mode)
- 2 Counter-meter device
- 4 sets of quick release hydraulic connectors to feed up to 4 remote reel-stands or reel-winder units
- Thermally treated steel adherence wheels
- Gear box (2 speed) on first circuit only
- Wired remote control unit c/w console
- Hydraulic stabilizers
- Rigid axle with tyres for towing up to 30 km/h
- Balanced top lifting point and anchoring attachments

Optional equipment

- 01-PT Preset for digital data recorder, counter-meter and speedometer
- 04-PT Wireless remote control unit c/w console
- 07-PT Hydraulic power take-off for press
- 08-PT Conductor/rope holder clamp (hydraulic)
- 15-PT Adherence wheels with interchangeable Nylon liners
- 16-PT Pull synchronizer clutch
- 18-PT Multiple connection preset

Special features upon request

- 02-PT Dynamic speed pulling force control
- 05-PT Additional hydraulic power take-off on reel-winder circuit
- 20-PT Pre-heater (up to -30°C)
- 21-PT Additional gear box (2 speed)

R4 HYDRAULIC DRIVEN REEL-WINDER WITH FOLDABLE ARM FOR EASE OF TRANSPORT AND STORAGE



MAIN FEATURES:

- Automatic reel-winder with foldable arm and spooler rope-guiding unit.
- Suitable for steel rope ranging from 8 to 24mm diameter and steel reels with 1100mm and 1400mm diameter.
- Hydraulically controlled lifting-arm and stabilizers.

SAFETY NOTE: Automatic negative brake engages every time the control lever on Tensioner/Puller is released.

- Hydraulic motor with quick release power in-lets
- Idle position for reel rotation and manual adjustment of spooler rope-guiding unit
- Standard connecting hoses set, 10 m length (other lengths upon request)
- Folding arm, wheels with extractable axle and towing bar for ease of transport.
- Upper lifting balanced attachment point and anchoring attachments
- Weight: 300 Kg.
- Overall dimensions: 760 x 1350 x 1480 mm
- Max torque: 100 daN m
- Operative pressure: 150 bar
- Max lifting capacity: 2000 Kg

Suitable to connect to every model of T.E.M.A. Tensioner/Puller or Puller/Tensioners

OPTIONAL: - Distributor group, transmission/lifting arm with control pressure valve and manometer.

040

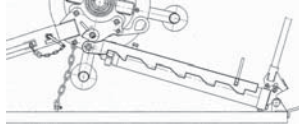
REEL-STAND

- Suitable for wooden or steel conductor drums
- Nr.2 mechanical disc brakes device to control and adjust the torque force and counter-pull while unwinding the conductor.
- Ease and quick loading system directly from the ground, it is not necessary to lift the drum/reel steel
- Hydraulic jacks on foldable galvanized steel frames for ease of transport
- Steel shaft on ball bearings with adjustment wedges
- Spindle devices with conical adaptors

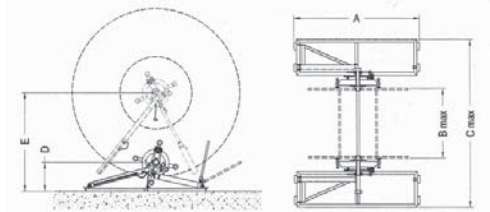
Optional Features:

- Hydraulic breaking system
- Mechanical locking system.
- Adaptor for steel drums

NOTE: Upon placing the purchase order, please provide us with specifications of the drum.



MODEL	LIFTING CAPACITY	DIMENSIONS mm						WEIGHT
	Kg	A	B	C	D	E	Kg	
CT0404-S0000	4000	1800	1400	2700	580	1400	230	
CT0407-S0000	7000	2000	1500	2800	550	1600	280	
CT04010-S0000	10000	2200	1500	3400	650	1800	500	



041

SPECIAL VERSION REEL-STAND

- With capacity upon request
- Variable width frame
- Hydraulic driven
- Available version with "built in" conical steel drum

NOTE: Upon placing the purchase order, please provide us with specifications of the drum.



040/T/...

HYDRAULIC-DRIVEN HEAD GROUP

Powered either by tensioner/puller machines or remote hydraulic-power unit, the hydraulic driven head guarantees a synchronized rotation in both directions, from the machine's control panel.

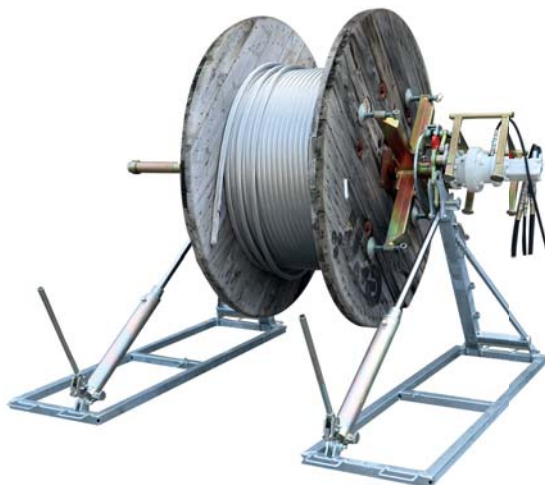
STANDARD supply features:

Hexagonal section ended Shaft for ease connection with driven head group and side supports with disc brakes.

Hydraulic driven head set with quick release hydraulic power inlet (Enhanced Capacity up to 160 daNm on request)

Side square plate adapter for pilot wire steel reels Mod. 062/CPA

Set of hydraulic hoses complete with quick release terminals – standard length 10m (Other length on request)



Hydraulic driven head group availability:



	MAX TORQUE	FEED PRESSURE	MAX SPEED ON SHAFT	HEAD GROUP WEIGHT
standard	300 daNm	150 bar	up to 32 r.p.m.	80 Kg
optional	300 and 160 daNm	150 bar	32 and 50 ^{*)} r.p.m.	80 Kg

^{*)} with engine up to 60 HP

AR 100

HYDRAULIC REEL WINDER DEVICE SUITABLE FOR CABLE RECOVERY

Powered by remote hydraulic-power unit.

CHARACTERISTICS and PERFORMANCES

DIRECT PULLING ON REEL: 1000 daN.

SPEED: Gradual and variable from 0 to 60 m/min in both directions.

SAFETY FEATURES: Automatic negative brake intervening when the control lever is released or in case of hydraulic failure.

REELWINDER: Equipped with spooling device.

REEL: Special reel, with automatic hydraulic opening system with retractile drum-pads, for ease of skein removal.

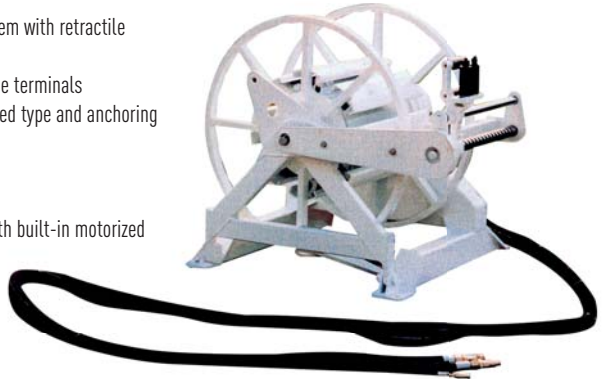
HOSES: Set of hydraulic hoses complete with quick release terminals

STEEL FRAME: With upper lifting attachment point balanced type and anchoring attachments

WEIGHT: Kg. 400.

DIMENSIONS: 1195 x 985 x 985 mm.

OPTIONAL: On request the reel winder can be equipped with built-in motorized hydraulic unit



REEL CAPACITY							
Cable dia. mm.	10	13	16	18	20	24	32
Length mt.	1900	1100	700	500	400	300	150

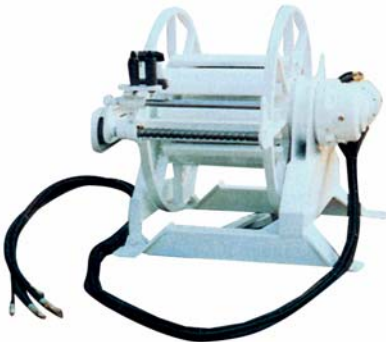
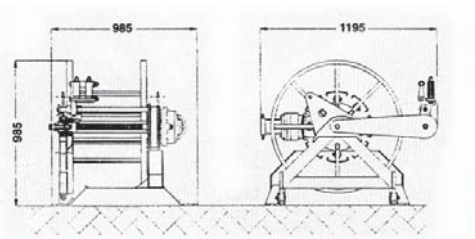
HOSES: Flexibles hoses with quick connections

STEEL FRAME: Upper lifting attachment point balanced type and anchoring attachments

WEIGHT: Kg. 400

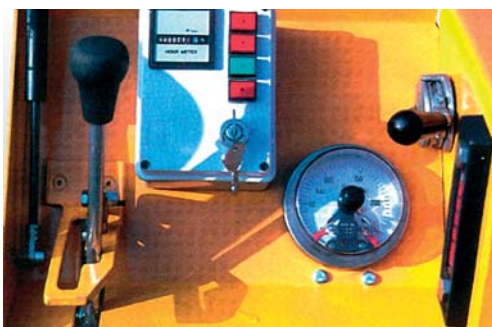
DIMENSIONS: 1195 x 985 x 985 mm

OPTIONAL: On request the reel winder can be equipped with external power unit.



CE100

HYDRAULIC POWER UNIT



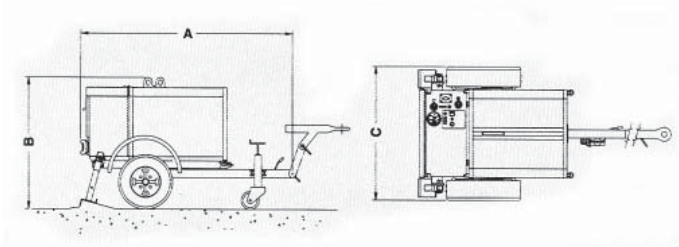
Suitable to supply power up to three devices by connection hoses.
 Compatible with TE.M.A. remote reel stands and drum stands with hydraulic driven head.

STANDARD FEATURES:

- Electric control panel
- Hydraulic distributor
- Quick release Hydraulic set
- Oil tank
- Flexible hydraulic hoses (on request)
- Metal cover
- Road Trailer Kit

NOTE: Different characteristics and performances are available on request.

	ENGINE			PUMP		HYDRAULIC OUT PUT	WEIGHT	DIMENSIONS mm		
	Fuel	HP	Cooling	Flow CC	Pressure bar	N°	Kg	A	B	C
standard	Diesel	21	Air	28	250	2	300	1000	800	650
optional	Diesel	60	Liquid	65	250	3	1150	2350	1500	1450



101/RBT

REMOTE CONTROL PULL /DRAG UNIT SUITABLE FOR REPLACING CABLE /GROUND WIRE IN LIVE-LINE CONDITIONS

PERFORMANCES:

Speed: 20 m/min' in both directions

Pull / drag capacity: 150 Kg

Weight: 46 Kg. approx.

CHARACTERISTICS AND FEATURES:

Remote-controlled Pull/Drag unit with self-balancing aluminum Alloy frame, rubber-lined aluminum wheels and chain safety latch.

The system maintains its up-right position on the cable, thanks to a balancing counter-weight.

Mechanical brake device to prevent uncontrolled reverse motion.

Suitable to operate on conductor diameters ranging from 12 to 36 mm and passage on mid-span joints up to 44mm (Hexagonal section).

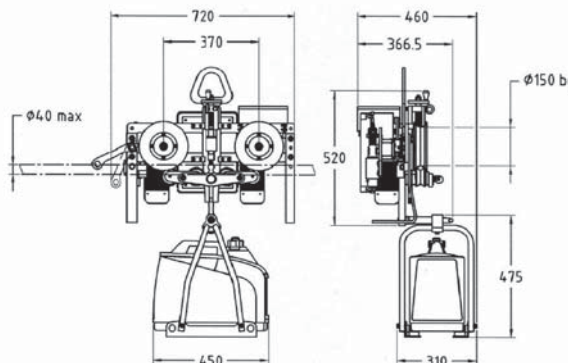
Equipped with a petrol engine (1,8 Hp) electric generator that supplies power to the system.

Complete with lifting and towing attachments.

Remote controlled by wireless radio-control unit IP 67 (weight 100 g) with FORWARD / REVERSE and BREAKING control buttons, with 400m range.

Upon Request:

Battery operated version



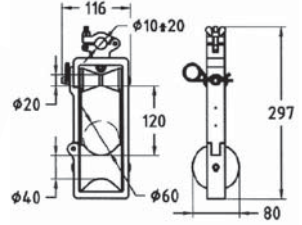


026RBTV6

SUPPORTING / CABLE-REPLACING ROLLER

Suitable to be used with Remote controlled pull/drag unit model AT101RBT-S0001 to replace existing earth wire with OPGW cable. Head clamp to suit 10 to 20 mm diameter rope. Main nylon sheaves on ball-bearings, aluminum frame with nylon protection plates.

W.L. 200 daN - B.L. 1000 daN - Weight: 1.2 Kg.

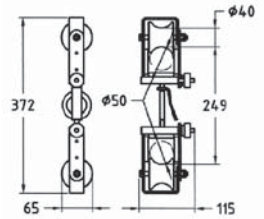


026RBT2

SUPPORTING / CABLE-REPLACING ROLLER

Suitable to be used with Remote controlled pull/drag unit model AT101RBT-S0001 to replace existing earth wire with OPGW cable. Nylon sheaves on ball-bearings, galvanized steel frame with nylon protection plates.

W.L. 200 daN - B.L. 1000 daN - Weight: 1.8 Kg.

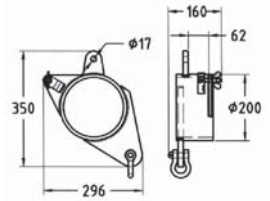


BF-RBT

ANCHORING CAPSTAN DEVICE

Suitable for anchoring pulling ropes as well as supporting ropes to the tower Complete with rope clamp to suit 10 to 20 mm dia. Rope. Aluminum alloy frame.

W.L. 500 daN - B.L. 1500 daN - Weight: 3,3 Kg

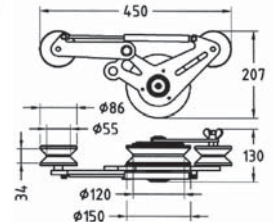


FR-RBT

BRAKER DEVICE

This device is positioned behind supporting rollers chain to maintain the desired distance between one supporting roller and one other. Aluminum Alloy frame, nylon and aluminum rubber-lined sheaves on ball bearings.

W.L. 150 daN - Weight: 4 Kg

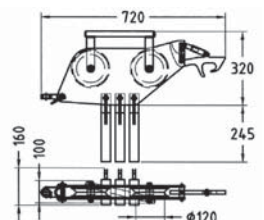


101/REC

RECOVERING DEVICE

Designed to recover the remote controlled pull/drag unit when operating in steep incline span conditions. Towing system by rope, with removable counterweights. Aluminum Alloy frame, aluminum sheaves on ball bearings.

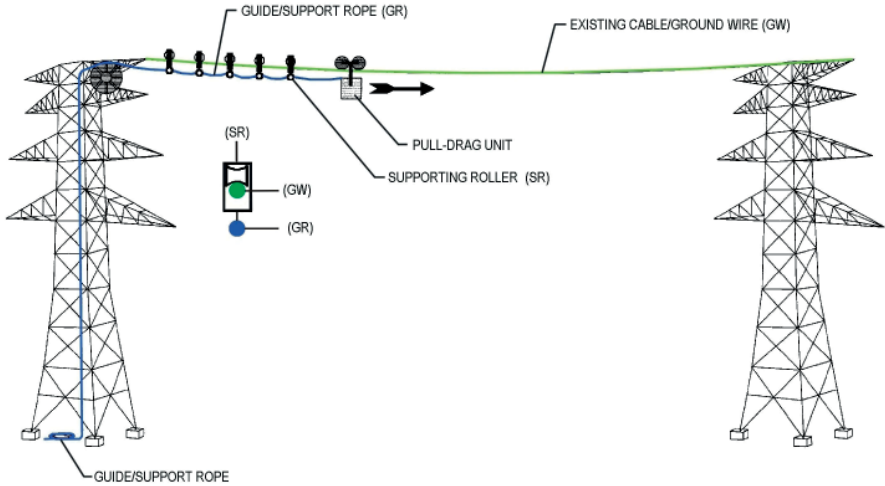
3 Galvanized steel counter-weights (8,8 Kg each).
W.L. 150 daN - Weight: 8.3 Kg (counter-weights excluded)



LIVE-LINE O.P.G.W. CABLE/CONDUCTOR INSTALLATION EQUIPMENT

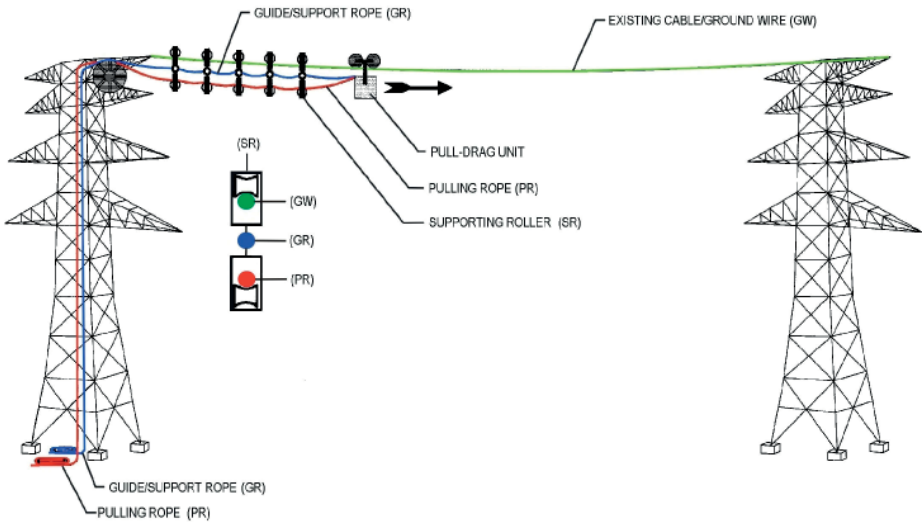
METHOD "A"

For replacing the existing cable/ground wire without power outage, using the existing cable/ground wire as a pulling rope.



METHOD "B"

For replacing the existing cable/ground wire without power outage, using a further rope.



REMOTE CONTROL PULL/DRAW UNIT ON WORK



RAILWAY CATENARY INSTALLATION STRINGING MACHINES

C0088-09

RAILWAYS STRINGING MACHINE



CHARACTERISTICS AND PERFORMANCES:

- Suitable for stringing catenary lines on railways
- Low-friction adherence wheels made of steel
- 4 pairs of independent bull-wheels suitable for stringing one load-bearing wire /contact wire each.
- 2 Telescopic rope-guider rollers, hydraulically controlled
- Powered by 66 HP/ 45 kW diesel engine air cooling with electrical starter
- Control panel with tensioning control valves
- Dynamometer with presetting of tensioning values available for each circuit
- Hydraulic plant manometers are placed inside the protecting cabin
- 4 Reel stand suitable for reels up to 2.500 Kg weight, 2000 mm diameter and 900 mm width, complete of hydraulic driven head group
- 2 Groups of cable-guide rollers
- Dimensions 8500 X 2500 X 3050 mm - Weight 13000+4000 Kg.

PERFORMANCES independents circuits	TENSIONING	PULLING
Max continuous capacity:	2.500 daN for 4 wires	2.500 daN for 4 wires
Max intermittent capacity:	2.700 daN for 4 wires	2.700 daN for 4 wires
Maximum speed:	4 km/h	1 km/h

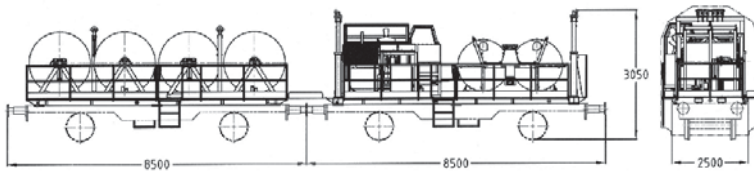
- It's available a mechanical and hydraulic matching device between pairs of adherence wheels, admitting to increase the capacity (redoubling the capacity at one side)

PERFORMANCES matched circuits	TENSIONING	PULLING
Max continuous capacity:	3000 daN for 2 wires	3000 daN for 2 wires
Max intermittent capacity:	3200 daN for 2 wires	3200 daN for 2 wires
Maximum speed:	4 km/h	1 km/h

OPTIONALS:

- 1- Electronic recorder device to monitoring and printing the happened tensioning/pulling values
- 2- Water muffler for diesel engine emission

Our technical office it's at client's disposal for special requirements



Weatherproof
engineering
technology...





...At your fingers





SECTION 2

AERIAL STRINGING CONDUCTORS ACCESSORIES

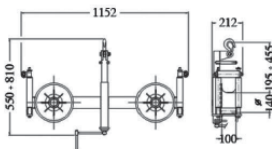
LV / MV conductor pulley-blocks	2	Conductor sag scope	25
Single/bundled H.V. conductor pulleys-blocks	7	Punching Machines	25
Groundwire pulley-blocks	13	Shackles	26
OPGW pulley-blocks	13	Slings	26
Hold-down pulley-blocks	13	Lever hoists	27
Non-rotating counterweight	14	LV Cable Tensioner	28
Running-boards	15	Tirvit	28
Anti-twisting steel wire rope	18	Pulling hand winch	28
Nylon rope (pilot rope)	18	Wire rope fix joints	29
Reels	20	Stocking Grips	30
Cradle type reel stands	21	Snatch-blocks	32
Joint stiffeners	22	Tackle-blocks	34
Turnbuckles	22	Hydraulic compressor and accessories	35
Conductor cutters	23	Self gripping / come-along clamps	37
Dynamometers	23	Temporary grounding sets	43
Thermometers	24	Mobile grounding device (running earth devices)	43
Cable counter-meter device	24		

AERIAL STRINGING CONDUCTORS ACCESSORIES

5000

M.V. PREFORMED CABLE STRINGING PULLEY-BLOCK

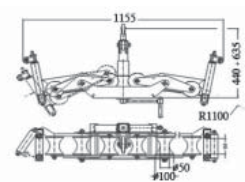
Nylon sheaves, mounted on ball-bearings,
Galvanized steel frame with height - adjustable
attachment point. Rollers cable guide.
W.L. 1000 daN. - Weight: 25 Kg.
Enel Code: EA0232



5001

MULTIPLE ROLLERS PULLEY-BLOCK

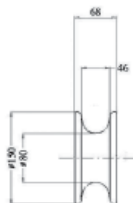
For "Dead ends" poles. N° 6 aluminum rollers on ball-bearings (1100mm bending radius). Roller cables guides. Galvanized steel frame with height - adjustable attachment point.
W.L. 2000 daN. - Weight: 47 Kg.
Enel Code: EA0234



5003

LIFTING BRACKET WITH NYLON ROLLER

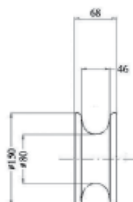
For "suspension" poles. Nylon sheave on ball bearing.
Galvanized steel frame.
W.L. 100 daN. - Weight: 5 Kg.
Enel Code: EA0230



5004

LIFTING BRACKET WITH NYLON ROLLER

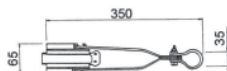
For "Dead ends" poles. Nylon sheave on ball bearing.
Galvanized steel frame.
A) W.L. 100 daN.
B) W.L. 1000 daN.
Weight: 7 Kg.
Enel Code: EA0236



5011

WEDGE CLAMP FOR TEMPORARY WIRE ROPE CONNECTION

Wire rope diam. 9mm
Weight: 3 Kg.
Cod. ENEL: EA0256



5005

SERVICE BRACKET

Galvanized steel frame.
W.L. 1000 daN. - Weight: 7 Kg.
Enel Code: EA0240



5006

SUPPORT BRACKET

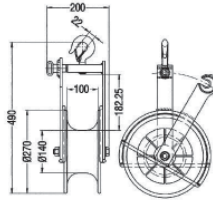
Galvanized steel frame.
With chain and turnbuckle.
W.L. 200 daN. - Weight: 3 Kg.



5007

M.V. PREFORMED CABLE STRINGING PULLEY-BLOCK

Nylon sheave, mounted on ball-bearings, galvanized steel frame swivel hook. Complete of rope-holding profile.
W.L. 1.000 daN. - B.L. 5.000 daN.
Weight: 8 Kg.



5008/1

STOCKING PULLING GRIPS FOR M.T.

Set composed of:
- Nr.1 swiveling joint
- Nr.1 stocking pulling grip for wire rope
- Nr.1 stocking pulling grip for cable bundle
Weight: 3 Kg.
Enel Code: EA0248



5010

EXTRACTION SET FOR M.T. SUPPORTING WIRE ROPE

Set composed of:
- Nr.2 nylon wedges
- Nr.2 extractors
Weight: 2 Kg.



026/1

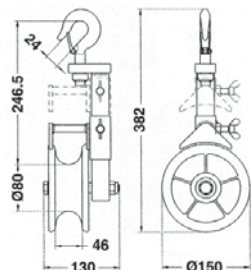
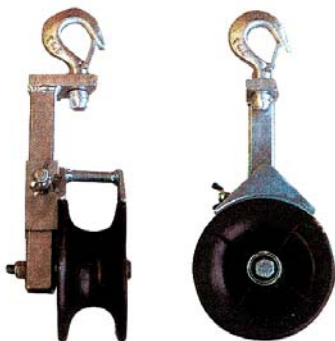
BARE AND L.V. PERFORMED CABLE STRINGING PULLEY-BLOCK

High tenacity nylon sheaves, mounted on ball-bearings, galvanized steel frame. Swivel hook and telescopic rope-holding bracket.

W.L. 200 daN.

B.L. 1.000 daN.

Weight 2,5 Kg.



026/2

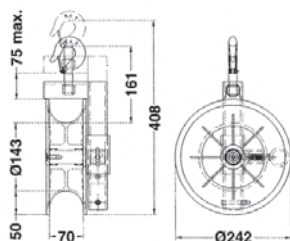
L.V. PREFORMED CABLE STRINGING PULLEY-BLOCK

Nylon sheave, mounted on ball-bearings, galvanized steel frame swivel hook and telescopic rope-holding bracket.

W.L. 500 daN.

B.L. 2.500 daN.

Weight 4 Kg.



026/A

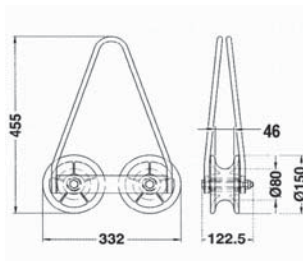
TWIN SHEAVES CABLE PULLEY-BLOCK

High tenacity nylon sheaves, mounted on ball-bearings, galvanized steel frame.

W.L. 1.000 daN.

B.L. 5.000 daN.

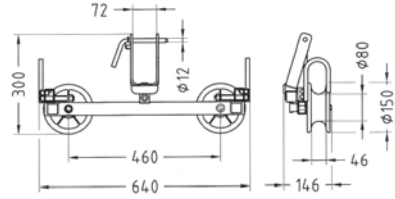
Weight 6 Kg.



029

L.V. PREFORMED CABLE STRINGING PULLEY-BLOCK

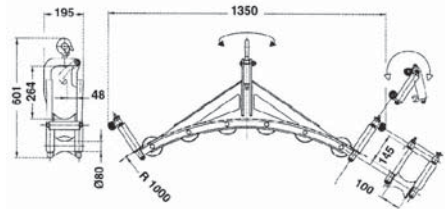
Rope-holding brackets on both sheaves.
 Overall dia. sheave 150 mm.
 W.L. 200 daN.
 B.L. 1.000 daN.
 Weight 6 Kg.



5001/FO

MULTIPLE ROLLERS PULLEY-BLOCK FOR O.P.G.W. CABLES

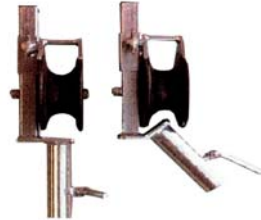
N° 6 aluminum rollers on ball-bearings (2000mm bending radius)
 Opening rope-holding bracket device, nylon roller cables guides.
 Galvanized steel frame with swiveling hook attachment.
 W.L. 1.000 daN.
 B.L. 3.000 daN.
 Weight: 28 Kg .



026/5

CABLE PULLEY-BLOCK (straight)

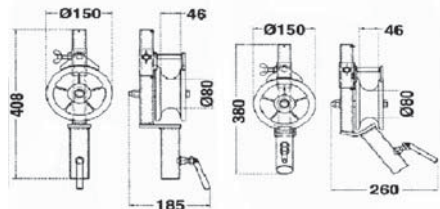
Suitable to be mounted on insulators pins on straight lines.
 High tenacity nylon sheave, mounted on ball-bearings,
 galvanized steel frame telescopic rope-holding bracket
 device. Overall dia. sheave: 150 mm.



026/6

CABLE PULLEY-BLOCK (angle)

Suitable to be mounted on insulators pins on crooked lines.
 For both: W.L. 200 daN. - B.L. 600 daN. - Weight 2.5 Kg.



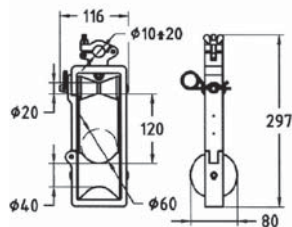
026RBT6

SUPPORTING / CABLE-REPLACING ROLLER

Suitable to be used with Remote controlled pull/drag unit model 101RBT to replace existing earth wire with OPGW cable. Head clamp to suit 10 to 20 mm diameter rope. Main nylon sheaves on ball-bearings, aluminum frame with nylon protection plates.

W.L. 200 daN - B.L. 1000 daN

Weight: 1.2 Kg.



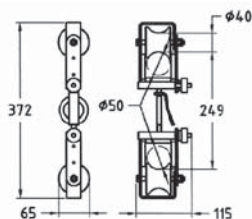
026RBT2

SUPPORTING / CABLE-REPLACING ROLLER

Suitable to be used with Remote controlled pull/drag unit model 101RBT to replace existing earth wire with OPGW cable. Nylon sheaves on ball-bearings, galvanized steel frame with nylon protection plates.

W.L. 200 daN - B.L. 1000 daN

Weight: 1.8 Kg.



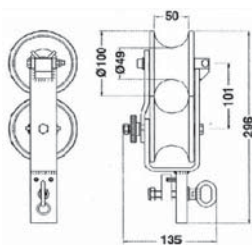
026RBTV2

SUPPORTING / CABLE-REPLACING ROLLER

Suitable to be used with Remote controlled pull/drag unit model 101RBT to replace existing earth wire with OPGW cable. Self-lubricating nylon sheaves and aluminum alloy frame.

W.L. 100 daN. - B.L. 500 daN.

Weight 0.950 Kg.



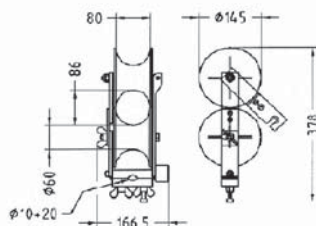
026RBT

SUPPORTING / CABLE-REPLACING ROLLER

Suitable to be used with Remote controlled pull/drag unit model 101RBT to replace existing earth wire with OPGW cable. Head clamp to suit 10 to 20 mm diameter rope. Self-lubricating nylon sheaves and aluminum alloy frame.

W.L. 200 daN. - B.L. 1000 daN.

Weight 2.3 Kg.

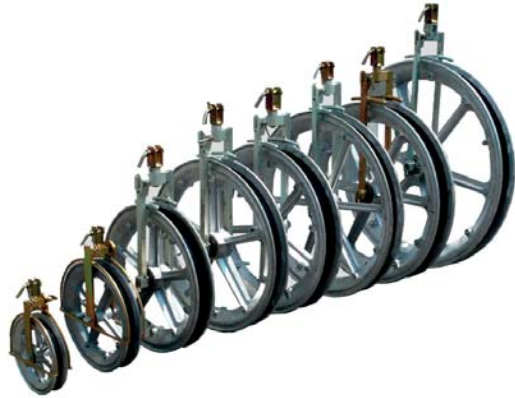


025/...

SINGLE PULLEY-BLOCK

Molded aluminum alloy sheave on ball-bearings, interchangeable nylon lining (aluminum) sectors for conductor protection.

Galvanized steel frame with clevis attachment.



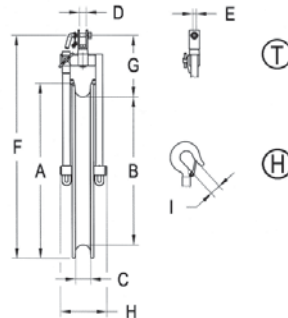
MODEL	DIMENSIONS mm									WORKING LOAD	WEIGHT
	A	B	C	D	E	F	G	H	I	kN	kg
025/1/...	300	228	38	21	12	420	155	135	25	20	6
025/2/...	440	350	48	21	12	565	168,5	155	25	20	9,7
025/5/...	620	500	68	30	16	837	277	203	-	33	21,5
025/3/...	755	635	68	30	16	969	271	203	-	40	26
025/3L/...	775	635	95	41	18	1030	305	231	-	40	33
025/4/...	890	770	68	30	16	1104	274	198	-	40	37
025/4L/...	910	770	95	41	18	1173	338	228	-	40	47
025/6L/...	1150	1000	95	41	18	1420	345	250	-	60	58

Type attachment: Turnable clevis Mod. 025/... /T (standard supplying model)

Turnable hook Mod. 025/... /H (available for size 1 and 2)

Available on request:

- Grounding sheave device with 50 sq mm insulated copper cable, 6m with grounding clamp Mod. 025/.../... MT. (Other lengths or section upon request)
- Rotating rope-holding bracket (anti-fleeting device)
- Interchangeable nylon lining sectors kit, for spare parts Mod. NYR/...
- Interchangeable aluminum lining sectors kit Mod. ALR/...



AERIAL STRINGING CONDUCTORS ACCESSORIES

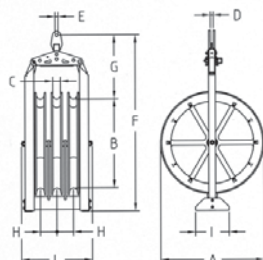
025/...

PULLEY-BLOCKS FIX FRAME

For 2 or 3 bundled conductors stringing operations. Molded aluminum alloy sheaves on ball-bearings, interchangeable nylon lining sectors for conductor protection. Galvanized steel frame with 90° orientable clevis attachment.

Available on request:

- Grounding sheave device with 50 sqmm insulated copper cable, 6m with grounding clamp Mod. 025/.../... MT. (Other lengths or section upon request)
- Interchangeable nylon lining sectors kit, for spare parts Mod. NYR/...
- Interchangeable aluminum lining sectors kit Mod. ALR/...
- Different spacing between sheave centers.



MODEL	DIMENSIONS mm									WORKING LOAD	
	A	B	C	D	E	F	G	H	I	kN	Kg
025/5/5	620	500	68	26	25	1330	612	145	300	40	90
025/3/1	755	635	68	26	25	1430	582	145	300	60	105
025/3/1	775	635	95	26	25	1450	627	175	300	60	130
025/4/3	890	770	68	26	25	1580	630	145	500	60	120
025/4/3L	910	770	95	26	25	1620	658	175	500	60	175
025/6/3L	1150	1000	95	26	25	1830	600	175	500	66	210

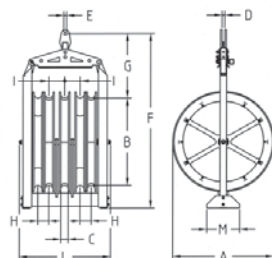
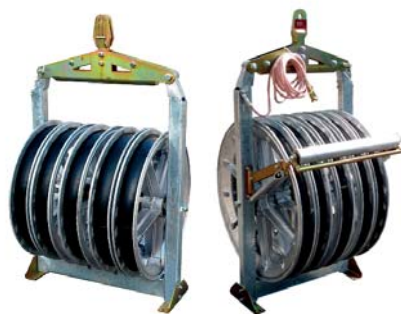
025/...

PULLEY-BLOCKS FIX FRAME

Designed for 4 bundled conductors stringing operations. Molded aluminum alloy sheaves on ball-bearings, interchangeable nylon lining sectors for conductor protection. Galvanized steel frame with 90° orientable clevis attachment.

Available on request:

- Interchangeable nylon lining sectors kit, for spare parts Mod. NYR/...
- Interchangeable aluminum lining sectors kit Mod. ALR/...
- Grounding sheave device with 50 sqmm insulated copper cable, 6m with grounding clamp Mod. 025/.../... MT. (Other lengths or section upon request)
- Different spacing between sheave centers.

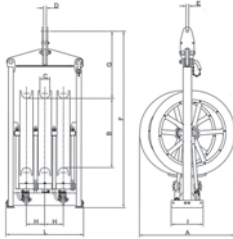
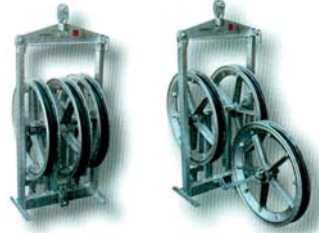


MODEL	DIMENSIONS mm										WORKING LOAD		
	A	B	C	D	E	F	G	H	I	L	M	kN	Kg
025/5/6	620	500	68	26	25	1330	612	100	145	830	300	40	130
025/3/2	755	635	68	26	25	1450	590	100	145	830	300	60	155
025/3/2L	775	635	95	26	25	1500	620	145	175	975	300	60	190
025/4/4	890	770	68	26	25	1600	590	100	145	830	500	60	175
025/4/4L	910	770	95	26	25	1650	673	145	175	922	500	60	255
025/6/4L	1150	1000	95	26	25	1850	630	145	175	1035	500	66	280

025/... SC

PULLEY-BLOCKS DETACHABLE FRAME

Designed for 2 or 3 bundled conductors stringing operations. Molded aluminum alloy sheaves on ball-bearings, interchangeable nylon lining sectors for conductor protection, galvanized steel frame suitable to contain pulley-blocks Mod. 025/..., with orientable 90° clevis attachment.



MODEL	DIMENSIONS mm										WORKING LOAD		WEIGHT
	A	B	C	D	E	F	G	H	I	L	kN	kg	
025/5/5 SC	715	500	68	26	25	1340	505	145	300	705	40	120	
025/3/1 SC	869	635	68	26	25	1565	585	145	300	705	60	143	
025/3/1L SC	885	635	95	26	25	1620	645	175	300	733	60	160	
025/4/3 SC	1000	770	68	26	25	1804	653	145	500	653	60	150	
025/4/3L SC	1020	770	95	26	25	1862	643	175	500	736	60	205	
025/6/3L SC	1285	1000	95	26	25	2020	641	175	500	740	66	240	

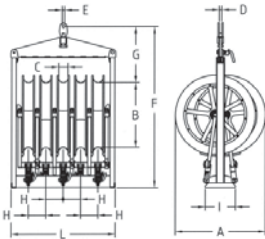
Available on request:

- Interchangeable nylon lining sectors kit, for spare parts Mod. NYR/...
- Interchangeable aluminum lining sectors kit Mod. ALR/...
- Grounding sheave device with 50 sqmm insulated copper cable, 6m with grounding clamp Mod. 025/.../... MT.
- Different spacing between sheave centers.

025/... SC

PULLEY-BLOCKS DETACHABLE FRAME

Designed for 4 bundled conductors stringing operations. Molded aluminum alloy sheaves on ball-bearings, interchangeable nylon lining sectors for conductor protection, galvanized steel frame suitable to contain pulley-blocks Mod. 025/..., with orientable 90° clevis attachment.



MODEL	DIMENSIONS mm										WORKING LOAD		WEIGHT
	A	B	C	D	E	F	G	H	I	L	kN	Kg	
025/5/6 SC	715	500	68	26	25	1340	505	145	300	1000	40	175	
025/3/2 SC	869	635	68	26	25	1565	585	145	300	1000	60	200	
025/3/2L SC	885	635	95	26	25	1620	585	175	300	1130	60	235	
025/4/4 SC	1000	770	68	26	25	1690	550	145	500	1000	60	220	
025/4/4L SC	1020	770	95	26	25	1820	585	175	500	1230	60	300	
025/6/4L SC	1285	1000	95	26	25	2020	585	175	500	1230	66	325	

Available on request:

- Interchangeable nylon lining sectors kit, for spare parts Mod. NYR/...
- Interchangeable aluminum lining sectors kit Mod. ALR/...
- Grounding sheave device with 50 sqmm insulated copper cable, 6m with grounding clamp Mod. 025/.../... MT.
- Different spacing between sheave centers.

025/...

“TANDEM” configuration for SINGLE or MULTIPLE PULLEY BLOCKS

“Tandem” configuration is obtained by connecting 2 standard pulleys (Single or multiple, standard or for Helicopter use) with a dedicated galvanized steel frame KIT.

“Tandem” configuration KIT is available for the full range of pulley blocks.

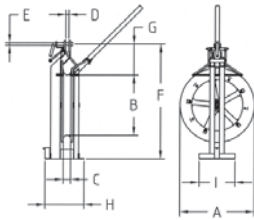
Also available on request tandem pulley with integrated frame (Fixed frame).



025/... E

HELICOPTER BLOCKS - SINGLE CONDUCTOR

Designed for HELICOPTER pilot wire laying operations. Molded aluminum alloy sheaves on ball-bearings, interchangeable nylon lining sectors for conductor protection, galvanized steel frame with clevis attachment. Complete with pilot wire holding bracket and detachable wire-guide rod.



MODEL	DIMENSIONS mm									WORKING LOAD	WEIGHT
	A	B	C	D	E	F	G	H	I	kN	kg
025/1 E	300	230	38	20	16	560	215	200	300	26	12
025/2 E	440	350	48	20	16	700	235	230	300	26	20
025/5 E	620	500	68	26	20	960	260	325	300	33	45
025/3 E	755	635	68	26	20	1115	300	325	300	40	50
025/3L E	775	635	95	26	20	1115	300	360	300	40	60
025/4 E	890	770	68	26	20	1401	406	283	500	40	57
025/4L E	910	770	95	26	20	1345	320	360	500	40	65

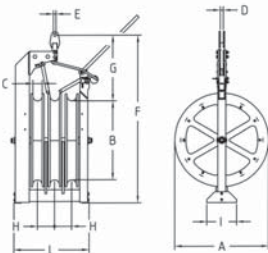
Available on request:

- Interchangeable nylon lining sectors kit, for spare parts Mod. NVR/...
- Interchangeable aluminum lining sectors kit Mod. ALR/...
- Grounding sheave device with 50sqmm insulated copper cable, 6m with grounding clamp Mod. 025/.../...MT.

025/... E

HELICOPTER BLOCKS - BUNDLED CONDUCTORS

Designed for HELICOPTER pilot wire laying operations, for 2 or 3 bundled conductors stringing operations. Molded aluminum alloy sheaves on ball-bearings, interchangeable nylon lining sectors for conductor protection, galvanized steel frame with clevis attachment. Complete with pilot wire holding bracket and detachable wire-guide rod.



MODEL	DIMENSIONS mm										WORKING LOAD	WEIGHT
	A	B	C	D	E	F	G	H	I	L	kN	kg
025/5/5 E	620	500	68	25	26	1350	600	145	300	605	40	115
025/3/1 E	755	635	68	25	26	1500	674	145	300	654	60	160
025/3/1L E	775	635	95	25	26	1550	709	175	300	824	60	176
025/4/3 E	890	770	68	25	26	1678	674	145	500	672	60	180
025/4/3L E	910	770	95	25	26	1791	709	175	500	824	60	240

Available on request:

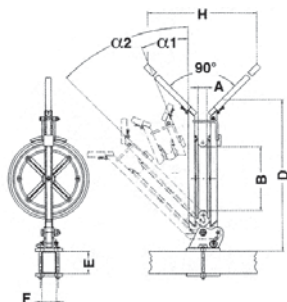
- Interchangeable nylon lining sectors kit, for spare parts Mod. NVR/...
- Interchangeable aluminum lining sectors kit Mod. ALR/...
- Grounding sheave device with 50 sqmm insulated copper cable, 6m with grounding clamp Mod. 025/.../... MT.
- Different spacing between sheave centers.

Weights, dimensions and drawings may vary without notice

026/...EL

HELICOPTER BLOCK - SINGLE CONDUCTOR (ADJUSTABLE ANGLE)

Designed for HELICOPTER pilot wire laying operations, complete with adjustable angle support for cross-arm. Molded aluminum alloy sheaves on ball-bearings, interchangeable nylon lining sectors for conductor protection, galvanized steel frame with clevis attachment. Complete with pilot wire holding bracket and detachable wire-guide rod. Breaking load: 6000 daN.



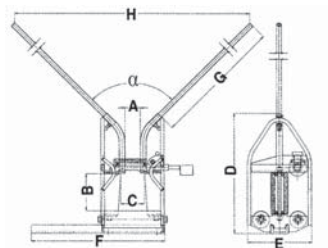
MODEL	DIMENSIONS mm										WEIGHT Kg
	A	B	C	D	E	F	G	H	$\alpha 1$	$\alpha 2$	
026/10 EL	30	230	300	590	*	*	800	1200	22.5°	45°	10
026/11 EL	48	350	440	830	*	*	800	1250	22.5°	45°	14

(*) On request referring a cross-arm dimensions.

026/...

TOWER-TOP PILOT WIRE RUNNING - OUT ROLLERS

Suitable for HELICOPTER pilot wire laying operations. Nylon rollers on ball-bearings, galvanized steel frame complete with "V" shape detachable rope-guide and tower-top mounting brackets.



MODEL	DIMENSIONS mm									WEIGHT Kg
	A	B	C	D	E	F	G	H	α°	
026/10	55	130	85	415	230	460	1000	1600	22.5°	12



025/1 FG ...

GROUND WIRE PULLEY-BLOCK

Suitable for galvanized steel ground wire,
galvanized steel frame and sheave on ball-bearings.

W.L.: 23 KN

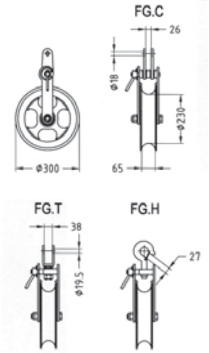
Weight: 14 Kg.

Available types of attachment:

Fix clevis Mod. **025/1 FG.C** (Standard type)

Swiveling clevis Mod. **025/1 FG.T**

Swiveling hook Mod. **025/1 FG.H**



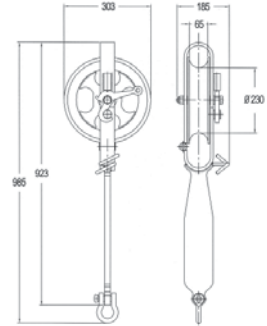
0251AS

PULL-DOWN PULLEY BLOCK

Designed to keep the pilot rope as well as
conductor in the proper position while stringing
between towers having a substantial height
difference. Automatic quick-release device;
Galvanized steel frame and wheel on ball bearing.

W.L.: 26 KN

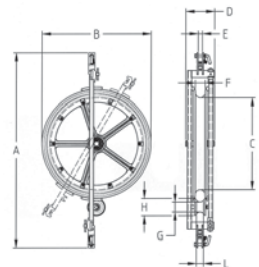
Weight: 20 Kg.



025...AS

HOLD-DOWN PULLEY-BLOCK

Suitable for conductor stringing operations on tower
top position when operating on towers with significant
height difference. Molded aluminum alloy sheave on
ball-bearings, interchangeable nylon lining sectors for
conductor protection. Opening galvanized steel frame
with top and bottom swiveling clevis attachment.



MODEL	DIMENSIONS mm									BREAKING LOAD	BREAKING LOAD	WEIGHT
	A	B Ø	C Ø	D	E	F	G Ø	H Ø	L	kN	kN (small sheave)	Kg
0255AS	1290	620	500	220	30	68	80	150	30	100	25	31
0253AS	1380	770	650	205	30	68	70	125	30	100	25	38
0254LAS	1680	950	800	245	41	95	83	133	41	120	25	62

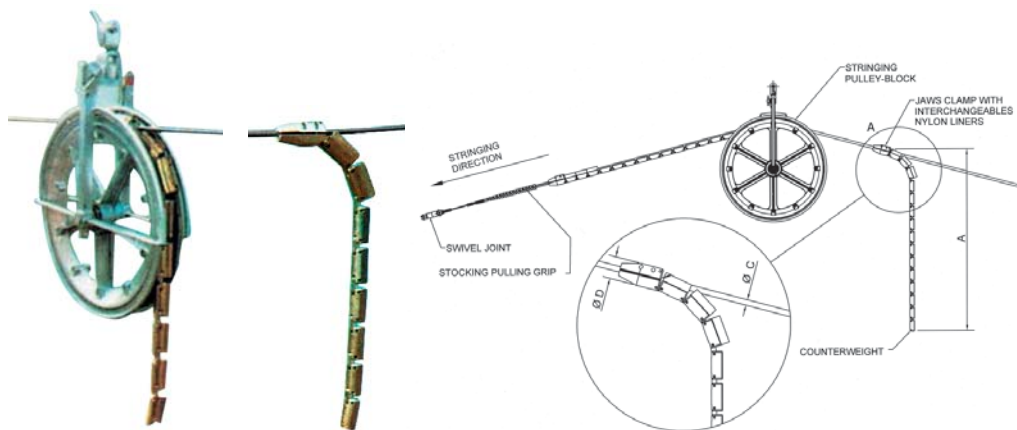
AERIAL STRINGING CONDUCTORS ACCESSORIES

CO 60/...

NON-ROTATING COUNTERWEIGHT DEVICE FOR OPGW CABLES STRINGING OPERATIONS

Upon placing the Purchase Order please specify exact conductor overall diameter.

NOTE: One set is composed of two pieces.



MODEL	COUNTERWEIGHT mm			CABLE "C" mm. dia	QUANTITY per set(*)
	Ø "D" mm	"A" mm approx.	WEIGHT Kg		
CO 60/9	60	990	8	10 to 17	2
CO 60/12	60	1320	10.5	17 to 23	2
CO 80/12	60	1800	24	23 to 30	2

With a purchase order please specify:

- Bottom groove dia. of pulley-block used
- Groove width of pulley block used
- Exact overall dia. of O.P.G.W. cable "C"



Interchangeable nylon liner kit

Mod. CO60GN...

In P/O specify overall cable dia.

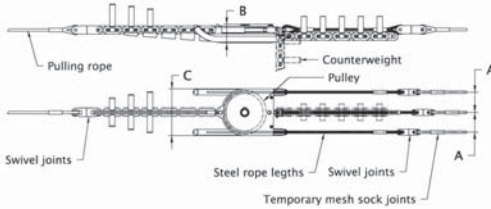
(*) NOTE: for obtain the correct performances the device must be used in pairs.

CO...

BALANCING HEAD BOARD FOR BUNDLED CONDUCTORS

Suitable to connect 2 - 3 or 4 conductors per phase, to the pulling rope
Complete with swivel joints and steel ropes. Please refer to below table:

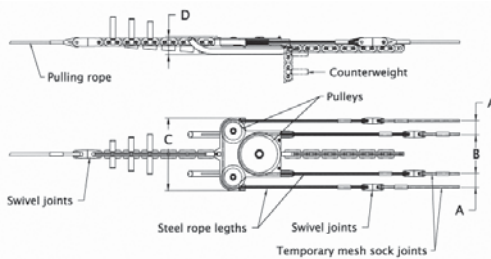
TWIN and TRIPLE BUNDLE HEADBOARDS



MODEL	CONDUCTORS N°	DIMENSIONS mm				N° SWIVEL JOINTS		ROPE LENGTHS Ø16 mm*	FOR PULLEYS	W.L. kN	WEIGHT Kg
		A	B	C		250/B/C/R	250/D/R		Mod.		
CO B1	2	145	160	360		2	1	1x30 m	025/5/5 - 025/5/5SC - 025/5/5E 025/3/1 - 025/3/1SC - 025/3/1E 025/4/3 - 025/4/3SC - 025/4/3E	100	140
CO T1	3	145	160	360		3	1	1x30 ÷ 1x15 m		100	155
CO B2	2	175	170	410		2	1	1x30 m	025/3/1L - 025/3/1LSC - 025/3/1LE 025/4/3L - 025/4/3LSC - 025/4/3LE 025/6/3L - 025/6/3LSC	100	155
CO T2	3	175	170	410		3	1	1x30 ÷ 1x15 m		100	175

* Rope Ø18 mm on request.

QUAD BUNDLE HEADBOARDS



MODEL	CONDUCTORS N°	DIMENSIONS mm				N° SWIVEL JOINTS		ROPE LENGTHS Ø16 mm*	FOR PULLEYS	W.L. kN	WEIGHT kg
		A	B	C	C	250/B/C/R	250/D/R		Mod.		
CO Q1	4	100	292	540	160	4	1	2x30 m	025/5/6 - 025/3/2 - 025/4/4	100	200
CO Q2	4	145	356	650	160	4	1	2x30 m	025/3/2L - 025/4/4L - 025/6/4L	100	220
CO Q3	4	145	292	640	160	4	1	2x30 m	025/5/6SC - 025/3/2SC / 025/4/4SC	100	220
CO Q4	4	175	356	760	160	4	1	2x30 m	025/3/2LSC - 025/4/4LSC - 025/6/4LSC	100	240

* Rope Ø18 mm on request.

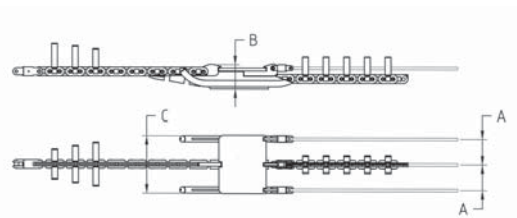
AERIAL STRINGING CONDUCTORS ACCESSORIES

CO...

“FIX” TYPE HEADBOARD FOR BUNDLED CONDUCTORS

Suitable to connect 2 -3 or 4 conductors per phase to the pulling rope.
Suggested when operating with tensioners with tensioner machines with two or more independent hydraulic circuits.

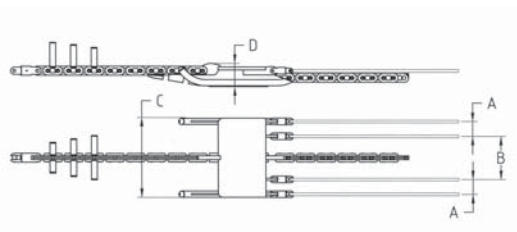
TWIN and TRIPLE BUNDLE HEADBOARDS



MODEL	CONDUCTORS N°	DIMENSIONS mm			N° SWIVEL JOINTS		ROPE LENGTHS Ø16mm*	FOR PULLEYS	W.L. kN	WEIGHT Kg
		A	B	C	250/B/C/R	250/D/R		Mod.		
CO B1 F	2	145	170	335	2	1	2x3,5 m	025/5/5 - 025/5/5SC - 025/5/5E 025/3/1 - 025/3/1SC - 025/3/1E	93	98
CO T1 F	3	145	170	335	3	1	3x3,5 m	025/4/3 - 025/4/3SC - 025/4/3E	93	105
CO B2 F	2	175	170	390	2	1	2x3,5 m	025/3/1L - 025/3/1LSC - 025/3/1LE	93	100
CO T2 F	3	175	170	390	3	1	3x3,5 m	025/4/3L - 025/4/3LSC - 025/4/3LE 025/6/3L - 025/6/3LSC	93	108

* Rope Ø18 mm on request.

QUAD BUNDLE HEADBOARDS



MODEL	CONDUCTORS N°	DIMENSIONS mm				N° SWIVEL JOINTS		ROPE LENGTHS Ø16 mm*	FOR PULLEYS	W.L. kN	WEIGHT Kg
		A	B	C	C	250/B/C/R	250/D/R		Mod.		
CO Q1 F	4	100	290	535	170	4	1	4x3,5 m	025/5/6 - 025/3/2 - 025/4/4	93	122
CO Q2 F	4	145	350	643	170	4	1	4x3,5 m	025/3/2L - 025/4/4L - 025/6/4L	93	130
CO Q3 F	4	145	290	635	170	4	1	4x3,5 m	025/5/6SC - 025/3/2SC - 025/4/4SC	93	130
CO Q4 F	4	175	350	755	170	4	1	4x3,5 m	025/3/2LSC - 025/4/4LSC - 025/6/4LSC	93	137

* Rope Ø18 mm on request.



ANTITWISTING WIRE ROPE

GALVANIZED STEEL “ANTITWISTING” WIRE ROPE 12 STRANDS BRAIDED TYPE

This type of rope has been specially created to overcome the problems deriving from the accumulation of tensions created during stringing operations. This is particularly true in case of very long spans.

The interwoven structure of 12 strands, offers extraordinary flexibility along with a round section that guarantees the correct distribution of friction stress.

The wide variety of diameters available guarantees the use with all types of conductors.

Te.M.A. anti-twisting rope is supplied with spliced eye at each end to be ready to use.

Each lot of anti-twisting rope, is supplied with a Corporate Test Certificate that guarantees composition and mechanical performances.



AERIAL STRINGING CONDUCTORS ACCESSORIES

21.12 ...

GALVANIZED STEEL ANTI-TWISTING WIRE ROPE 12 STRANDS BRAIDED TYPE

Standard supplied with spliced eyes and totally wound on steel reel.



MODEL	OVERALL DIAM.	STRANDS NUMB.	WEIGHT	MINIMUM B.L.	MINIMUM W.L.	STANDARD LENGHT*
	Ø mm	N°	Kg/m	kN	kN	m
21.12.8	8	12	0,22	39,2	13,1	1000
21.12.9	9	12	0,25	49,0	16,3	500-1000
21.12.11	11	12	0,42	84,0	28,0	1000
21.12.13	13	12	0,48	105,0	35,0	800-1600
21.12.16	16	12	0,76	160,0	53,3	1000
21.12.18	18	12	1,01	212,0	70,6	1000
21.12.20	20	12	1,24	265,0	88,3	1000
21.12.22	22	12	1,51	320,0	106,6	900
21.12.24	24	12	1,77	375,0	125,0	800
21.12.26	26	12	2,08	409,0	136,3	600
21.12.28	28	12	2,41	479,0	159,6	600

* Different dia. and lengths on request

22. ...

NYLON PILOT ROPE FOR CONDUCTOR AND CABLE STRINGING

Anti-twisting braided type polyester pulling rope with high tenacity nylon core. Standard delivered with stitched eyes.



MODEL	ROPE	WEIGHT	ELUNGATION WITH 35% OF BREAKING LOAD	BREAKING LOAD	STANDARD LENGHT*
	Ø mm	Kg/m	%	kN	m
22.8	8	0.046	5	12	500 -1000 -2000
22.10	10	0.075	5	20	1000-1600-2000
22.12	12	0.120	5	35	1000-1600-2000
22.14	14	0.160	5	43	1000-1600-2000
22.16	16	0.200	5	50	1000
22.18	18	0.230	5	58	1000
22.20	20	0.280	5	65	1000

* Different lengths on request.



22.TR ...

MODIFIED POLYPROPYLENE ROPE

Wire rope ANTI-TWISTING braided type, for conductor stringing operation.
 Braided type structure to assure high stability.
 Easy-Splicing method that guarantees 100% of rated Breaking load on eyes.
 High level of Abrasion resistivity.
 Resistant to acid and alkaline solutions.
 High UVA stability.
 Water repellent and floating in water.
 Color: Green.



MODEL	ROPE	WEIGHT	ELUNGATION WITH 50% OF BREAKING LOAD	BREAKING LOAD	STANDARD LENGHT* ON 1400 mm dia. STANDARD BOBBIN
	Ø mm	Kg/m	%	kN	m
22.TR.10	10	0.040	10	14	2400
22.TR.12	12	0.060	10	23	2000
22.TR.14	14	0.075	10	26,5	1500
22.TR.16	16	0.092	10	32	1000
22.TR.18	18	0.110	10	40,5	800-1000
22.TR.20	20	0.140	10	51,5	750
22.TR.22	22	0.165	10	62	500

23 ...

DIELECTRIC POLYPROPYLENE ROPE

12 strands rope made of High Tenacity Polypropilene Monofilament fiber.
 It is a great rope for applications that require maximum insulation properties with high antigratory features. During the manufacturing process, different additives are applied in order to confer excellent dielectric properties.
 It is produced from 10mm up to 28mm.

Application: Overhead electrical lines, Underground laying, Optical fiber

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

Main key features: No water uptake, Flotability, Good flexibility
 Good resistance to UV exposure, Weak abrasion resistance,
 Spliceable, Antigratory

Colour: Yellow or Red

Certifications: Manufactured according to IEC62192

Approved form EDF (France) ref. ST-HTB-71B-2

Caution: It is recommended to keep the rope clean and dry to assure the highest dielectric properties. If the material is not used in good conditions, the manufacturer does not assure the highest dielectric protection.



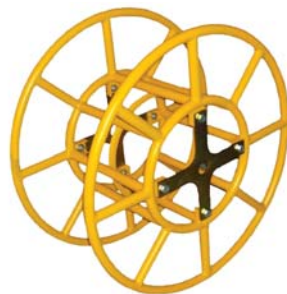
MODEL	OVERALL DIAM.	WEIGHT	BREAKING LOAD
	Ø mm	gr/m	kN
23.10	10	45	14,34
23.12	12	65	20,76
23.14	14	88	28,38
23.16	16	115	37,21
23.18	18	145	47,26
23.20	20	180	58,53
23.22	22	217	71,02
23.24	24	259	84,74
23.26	26	304	99,69
23.28	28	352	115,88

AERIAL STRINGING CONDUCTORS ACCESSORIES

062/...

STEEL REEL FOR PILOT ROPES

Suitable to be used with puller's reel winder device.
Made of painted steel pipes. (Supplied complete with Mod. 062/CP).



MODEL	DIMENSIONS mm				WEIGHT Kg
	A	B	C	D	
062/1 SV1	160	410	220	630	30
062/2	420	560	570	1100	60
062/3	420	560	570	1400	90
062/4	420	560	570	1900	135



Kit of SIDE CROSS

Mod: 062/CPA

Plates adapter for reel stand

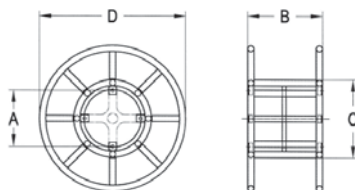
Mod: 040/...



Kit of SIDE SQUARE PLATES ADAPTER

Mod: 062/CP

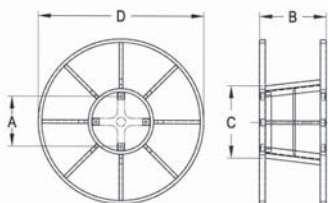
for standard and conical steel reels



063/...

STEEL REEL FOR PILOT ROPES

With side opening suitable to be used with puller's reel winder device.
Made of painted steel pipes. (Supplied complete of Mod. 062/CP)



MODEL	DIMENSIONS mm				WEIGHT Kg
	A	B	C	D	
063/1 SV1	270	524	209	630	27
063/2	720	560	610	1100	73
063/3	720	560	610	1400	88
063/4	720	560	610	1900	127

REEL CAPACITY IN METERS FOR STANDARD LENGTH OF PILOT WIRE

REEL	ROPE DIAMETER														
	6	7	8	9/10	11/12	13	14	16	18	20	22	24	26	28	30
062/1 SV1	1800	1500	1100	800											
062/2 063/2	7200	600	3200	2400	1600	1600	1100	900							
062/3 063/3	14400	12000	6400	3600	2400	2400	2200	1800	1200	1000	900	800			
062/4	21600	18000	9600	7200	7200	4800	4400	3600	2400	2000	1800	1600	1400	1200	1060



061/...

“CRADLE” TYPE TILTING AND LIFTING REEL STAND

Hot dip galvanized steel frame, detachable type, suitable for standard reels as follows:

MODEL	DIMENSIONS mm					CAPACITY	WEIGHT
	A	B	C	D min	D max	kN	Kg
061/1	2320	900	835	700	1400	20	65
061/4	3120	960	1150		1900	26	145



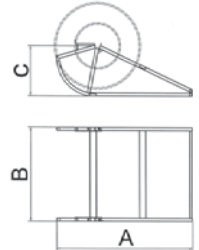
061/... FR

“CRADLE” TYPE TILTING AND LIFTING REEL STAND C/W braking system

Hot dip galvanized steel frame, detachable type, complete with disc brake device suitable for standard reels.

061/1... FR Weight: 103 Kg

061/4... FR Weight: 183 Kg



041/FR

PILOT WIRE REEL STAND FOR HELICOPTER STRINGING

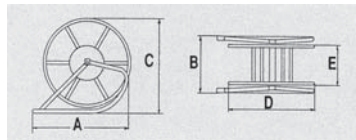
Pilot rope reel stand suitable for helicopter. Galvanized steel frame with mechanical “band” braking system and pickets. Suitable for steel standard reel Mod. 062/ ... 063/ ...
Max reel dia. 1400 mm
Max lifting capacity 2000 Kg
Weight 190 Kg



060/...

PILOT ROPE REELS WITH TILTING STAND

Made of painted steel pipes.



MODEL	DIMENSIONS mm					CAPACITY CABLE	CAPACITY CABLE	WEIGHT
	A	B	C	D	E	8 mm dia - m	12 mm dia - m	Kg
060/1	700	500	530	450	420	700		20
060/2	790	465	800	700	350	1200	560	27
060/3	970	570	1000	900	450	2500	1100	50

AERIAL STRINGING CONDUCTORS ACCESSORIES

PG...

JOINT STIFFENER

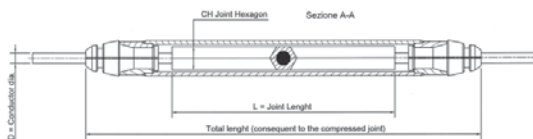
Suitable for protecting the mid-span joint while passing on pulley-blocks during conductor stringing operations.

Upon placing the purchase order, please specify:

L = Joint length after compression

D = Conductor dia.

CH = Hexagonal key (joint dimension after compression)



RUBBER ENDS (interchangeable)

Mod. **PG 60/R...**

Mod. **PG 80/R...**

Mod. **PG 90/R...**

Upon placing the purchase order, please specify Conductor Overall Diameter

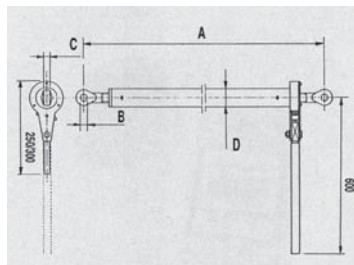


MODEL	APPLICATION	CH	BREAKING LOAD
	pulley's groove width - mm	max	KN at the edges
PG 60	68	40	20
PG 80	95	56	20
PG 90	95	65	20

TC/...

RATCHET TYPE TURNBUCKLE

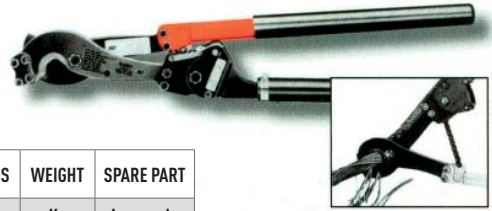
Suitable for anchoring TSE machines to anchor ballast during stringing operations.



MODEL	DIMENSIONS mm					W.L. Kg	B.L. Kg	WEIGHT Kg
	A min	A max	B	C	D			
TC 30	600	900	18	20	50	3000	9000	10
TC 50	650	1050	22	20	54	6000	18000	14
TC 100	950	1550	24	24	60	10000	30000	18

654/...

RATCHET TYPE CONDUCTOR CUTTER



MODEL	SUITABLE FOR BARE CONDUCTORS STEEL EARTHWIRES	CUTTING	DIMENSIONS	WEIGHT	SPARE PART
		dia. up to mm	length mm	Kg	jaws code
654/1	ACSR, AAC, AAAC Copper	31	740	5	654/3
654/2	Galvanized steel	11	711	4	654/4

655/...

HAND OPERATED HYDRAULIC CONDUCTOR CUTTER



MODEL	CUTTING dia. up to mm		DIMENSIONS	WEIGHT	SPARE PART
	Steel wires	Bare (*) conductors	mm	kg	jaws code
655/1	13	24	370x130	2.7	655/1L
655/2A	18	45	550x145	7	655/2L

Note: - (*) ACSR- AAC- AAAC and copper
- Supplied in storage case

658/...

ELECTRONIC DYNAMOMETERS

Digital reading display.
2500 and 5000 daN capacity
with two shackles included.



MODEL	2500	5000	10000	MODEL	12.5	25	50
Capacity ton	2.5	5	10	Capacity ton	12.5	25	50
Accuracy Kg	3.75	7.5	15	Accuracy Kg	25	50	100
Reading min. Kg	0.5	1	2	Reading min. Kg	5	10	20
Weight Kg	1.35	1.85	3.60	Weight Kg	3.8	6.6	3.60
Dimensions mm	218x90x56	230x90x56	315x110x59	Dimensions mm	310x110x58	600x134x68	440x164x98

2,5 and 5 Ton capacity complete with two shackles.

TE/900

IMAGE CONDUCTOR THERMOMETER

Mercury thermometer bulb fitted into an aluminum rod reproducing overall diameter and surface of the actual conductor.

Temperature range: -30°C - $+60^{\circ}\text{C}$

Weight 0.5 to 1 Kg

NOTE: Upon placing the purchase order, please specify Conductor's overall diameter.



TE/901...

DIAL IMAGE CONDUCTOR THERMOMETER

Circular Dial Thermometer fitted into an aluminum rod reproducing overall diameter and surface of the actual conductor.

NOTE: Upon placing the purchase order, please specify Conductor's overall diameter.



CO 04

CABLE COUNTER-METER DEVICE

Suitable to measure the length of conductors or ropes during stringing operations.

Weight: 3.5 Kg



MT 400

MOBILE EARTHING DEVICE

Suitable to discharge inducted or static currents on cables, during stringing operations. Consisting of 3 aluminum sheaves mounted on ball-bearings, insulated flexible copper cable, earthing clamp and metal store box. Copper cable (Standard): Length, 6 m, section 50 mm².

Weight: 8.5 Kg

Weight store box: 7.3 Kg

Available upon request: different cable lengths and sections.



SAG/900

CONDUCTOR SAGGING DEVICE "SAG-SCOPE"

4x40 monocular telescope, for an accurate conductor sag measurement supplied with:

- Special anchoring support to suit tower leg profile
- PVC store case

Weight: 5.5 Kg



TR01...

ACSR CABLE TRIMMER

For a fast and accurate cable trimming
Standard set composed of Nr.1 cutter, Nr.1 bush-support, Nr.3 bushes and Nr.1 plastic transport case.

NOTE: Upon placing the purchase order, please specify Conductor's overall diameter.



754 G...

DUPLEX PUNCHING MACHINE

SIZE		17
Punch mild iron up to (R. 45 Kg/mm²)	Ø mm	9-11-13-15-17
Punch mild iron with thickness up to	mm	12
Depth	mm	50
Weight	Kg	19

For material with strength (R. Kg/mm²)	60	75	90
reduce max capacities of	25%	40%	50%



SPARE KIT punches / dies (n°5 units) Mod. CC755 G SPM

AERIAL STRINGING CONDUCTORS ACCESSORIES

754 G...

HYDRAULIC PUNCHING MACHINE

Powerful perforations in 13mm thick mild steel with a 20.5mm maximum diameter hole with no burs.

Specifications:

Throat Depth: 70mm

Oil volume required: 82cc

Output force: 304kN

Size: 360 (H) x 210 (W) x 95(D) mm

Weight: 13kg

Accessories: mm size punch sets are available for Copper & Aluminium on request Cu6, 7, 8, 9, 10, 10.5, 11, 12, 13.5, 17.5 & 20.5.

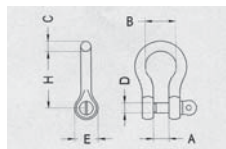
Note: For Hydraulic power unit please refer to Model CM8000F



209...

SHACKLE

High Carbon Steel Shackles with High Alloy Steel pin.



MODEL	CAPACITY daN	DIMENSIONS mm.						TOLERANCE H	WEIGHT Kg
		A	B	C	D	E	H		
209 0050	500	12	20	6	8	18	32	2	0.05
209 0075	750	13	21	8	10	21	36	2	0.08
209 0100	1000	16	26	10	11	25	42	3	0.1
209 0150	1500	18	29	11	13	27	49	3	0.2
209 0200	2000	20	33	13	16	31	55	3	0.3
209 0325	3250	27	43	16	19	40	70	3	0.7
209 0475	4750	32	51	19	22	48	82	6	1.0
209 0650	6500	37	58	22	25	55	97	6	1.5
209 0850	8500	43	68	26	28	61	109	6	2.4
209 0950	9500	46	74	29	32	67	124	6	3.2
2091200	12000	52	83	32	35	76	137	6	4.4
2091350	13500	57	92	35	38	84	153	6	5.7
2091700	17000	60	98	38	41	92	166	6	7.8
209 2500	25000	73	127	41	51	110	204	20	12.6
209 3500	35000	83	146	51	57	127	225	20	18.6
209 5500	55000	105	184	64	70	153	302	20	41.0

309 AA...

GALVANIZED STEEL SLINGS

With thimble eye both ends.

On request:

- Slings supplied with metallic core
- Slings with redancia at each ends
- Slings with rubber protection



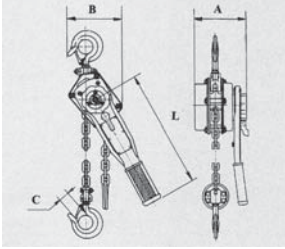
MODEL	WIRE ROPE Ø mm	CAPACITIES (Kg) referring the use modalities				EYE Ax B mm
309AA08...	8	700	1400	1210	990	64x128
309AA10...	10	1100	2140	1850	1510	80x160
309AA12...	12	1600	3200	2770	2260	96x192
309AA14...	14	2100	4160	3600	2940	112x224
309AA16...	16	2750	5460	4720	3860	128x256
309AA18...	18	3500	7000	6050	4950	144x288
309AA20...	20	4300	8560	7400	6050	160x320
309AA22...	22	5200	10300	8910	7280	176x352
309AA24...	24	6200	12400	10640	8690	192x384

650/...

CHAIN LEVER HOIST

On request:

- Different chain lengths
- Load limiter



MODEL	CAPACITY	STANDARD LIFTING HOOK RUN	DIMENSIONS mm				WEIGHT Kg	WEIGHT OF FURTHER CHAIN LENGTH Kg/m
	daN		m	A	B	C		
650/1	750	1.5	148	136	34	280	7	0.800
650/2	1500	1.5	172	160	38	410	11	1.240
650/3	3000	1.5	200	180	48	410	21	2.200
650/4	6000	1.5	200	235	52	410	31	4.400
650/5	9000	1.5	200	320	58	410	46	6.600

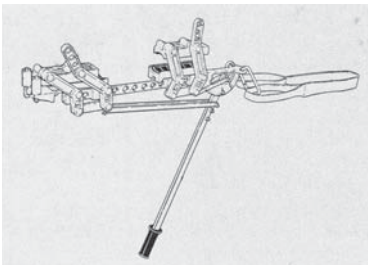
651

LOW VOLTAGE PREFORMED INSULATED CABLE TENSIONER

With rubber lined self-locking clamps,
complete with nylon straps.

Range of cable diameter: 12 to 39 mm

- Max pulling capacity 400 daN
- Cable stretching speed 3 to 4 m/min
- Overall dimensions: 780x650x75 mm
- Weight: 6 Kg



AERIAL STRINGING CONDUCTORS ACCESSORIES

652/...

TIRVIT WIRE STRAINER

Universal light alloy wire-strainer.

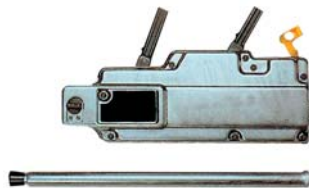
MODEL	FOR CABLES	PULLING CAPACITY	WEIGHT
	mm. Ø	Kg	Kg
652/1	2÷8	400	3.60
652/2	7÷14	600	4.80
652/3	15÷19	800	5.70



653/...

PULLING HAND WINCH

MODEL	CAPACITY	STEEL CABLE	DIMENSIONS TOOL	LEVER	WEIGHT
	daN	Ø mm	Ø mm	length mm	kg
653/1	800	8,3	440x265x63	405/609	9,0
653/2	1600	11,0	540x290x130	648/1147	16,0
653/3	3200	16,0	670x360x290	648/1147	31,0



NOTE: Galvanized steel standard type

653/...

GALVANIZED STEEL CABLES

Suitable for PULLING HAND WINCHES.

MODEL	LENGTH CABLE	CABLE	BREAKING LOAD
	mt	Ø mm	Kg
653/1/1	10	8.3 ----- 0.35 Kg/m	4800
653/1/2	20		
653/1/3	30		
653/1/4	40		
653/2/1	10	11.0 ----- 0.6 Kg/m	9600
653/2/2	20		
653/2/3	30		
653/2/4	40		
653/3/1	10	16.0 ----- 1.1 Kg/m	19200
653/3/2	20		
653/3/3	30		
653/3/4	40		



NOTE:

- On steel reels
- Different lengths on request

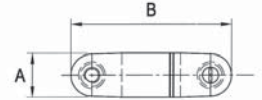


250... R

STIFF SWIVEL JOINT

Made of high tensile, galvanized steel, suitable as junction element between pulling rope and conductor.

MODEL	A	B	ROPE	CAPACITY	BREAKING LOAD	WEIGHT
	Ø mm	mm	Ø mm	kN	kN	Kg
250 AR	32	120	15	26.7	80	0.500
250 BCR	45	170	19	60	180	1.200
250 DR	60	220	24	120	360	3.000
250 ER	77	330	28	250	750	8.200

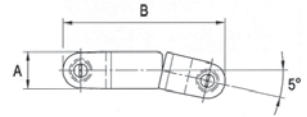


250...

ARTICULATED SWIVEL JOINT

Made of high tensile, galvanized steel, suitable as junction element between pulling rope and conductor.

MODEL	A	B	ROPE	CAPACITY	BREAKING LOAD	WEIGHT
	Ø mm	mm	Ø mm	kN	kN	Kg
250	20	62	6	8,3	25	0.100
250 A	32	125	10	20	60	0.500
250 B	45	195	15	40	120	1.400

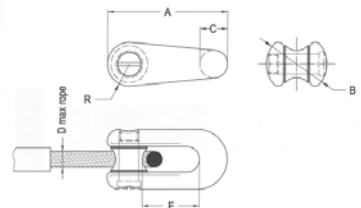


GF...

FIXED JOINT, "U" TYPE PILOT WIRE CONNECTOR

Made of high tensile, galvanized steel, suitable as junction element between two lengths of pilot wire. This joint is designed for use on puller machines bull-wheels.

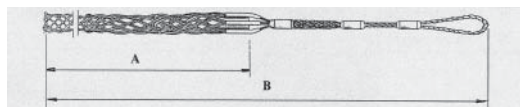
MODEL	DIMENSIONS mm						CAPACITY	BREAKING LOAD	WEIGHT
	A	B	C	D	E	R	kN	kN	Kg
GF 10	55	28	15	10	22.5	12	20	60	0.150
GF 13	68	40	19.5	13	26	16	33	100	0.350
GF 16	86	48	20	16	41	19	53	160	0.600
GF 18	97	54	22	18	47.5	21	70	210	0.750
GF 24	121	60	27	24	60	22	120	360	1.100
GF 28	175	76	42	28	65	32.5	250	750	3.100
GF 30	183	81	44	32	70	34.5	250	750	3.400



CT ...

SINGLE END STOKING TYPE PULLING GRIPS

"Head" type temporary mesh sock joints suitable for pilot wire-to-conductor connections.

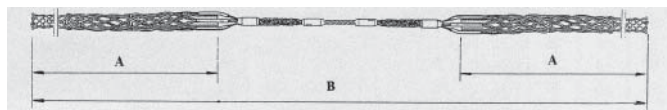


MODEL	COND. Ø	DIMENSIONS mm		WORKING LOAD kN	WEIGHT Kg
	mm	A	B		
CT 0	7-11	900	1500	7	0.45
CT 1	11-14	1000	1600	8	0.6
CT 2	14-17	1050	1700	10	0.6
CT 3	17-23	1150	1800	17	0.8
CT 4	23-29	1300	2200	27	1.7
CT 5	29-38	1550	2400	40	3.0
CT 6	38-50	1650	2800	60	4.5

CT ...

DOUBLE END STOKING TYPE PULLING GRIPS

"Connection" type temporary mesh sock joints suitable for wire/conductor-to-conductor connections.

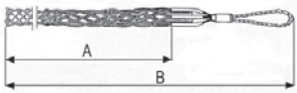


MODEL	COND. Ø	DIMENSIONS mm		WORKING LOAD kN	WEIGHT Kg
	mm	A	B		
CT 00	7-11	900	2300	7	0.7
CT 7	11-14	1000	2600	8	0.8
CT 8	14-17	1050	2800	10	0.8
CT 9	17-23	1150	3000	17	1.2
CT 10	23-29	1300	3500	27	3.3
CT 11	29-38	1550	4100	40	5.0
CT 12	38-50	1650	4300	60	8.7

CTT ...

STOCKING TYPE PULLING GRIPS

"Head" type temporary mesh sock joints suitable for pilot wire-to-conductor connections.



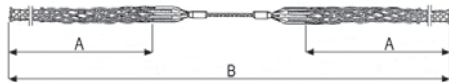
MODEL	COND. Ø	DIMENSIONS mm		WORKING LOAD kN	WEIGHT Kg
	mm	A	B		
CTT 00	8-17	1100	1400	12	0.7
CTT 00 R				17	0.9
CTT 01	17-29	1360	1700	28	1.30
CTT 01 R				33	1.50
CTT 02	29-38	1470	1900	43	2.10
CTT 02 R				50	2.50
CTT 03	38-50	1820	2270	60	2.70
CTT 03 R				70	3.00

R: Reinforced version

CTG ...

DOUBLE END STOKING TYPE PULLING GRIPS

"Connection" type temporary mesh sock joints suitable for wire/conductor-to-conductor connections.



MODEL	COND. Ø	DIMENSIONS mm		WORKING LOAD kN	WEIGHT Kg
	mm	A x2	B		
CTG 00	8-17	1100	2680	12	1.15
CTG 00 R				17	1.25
CTG 01	17-29	1360	3240	28	2.30
CTG 01 R				33	2.50
CTG 02	29-38	1470	3540	43	3.60
CTG 02 R				50	3.80
CTG 03	38-50	1820	4240	60	4.80
CTG 03 R				70	5.00

R: Reinforced version

AERIAL STRINGING CONDUCTORS ACCESSORIES

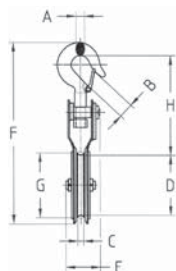
020/.../N

SNATCH BLOCKS

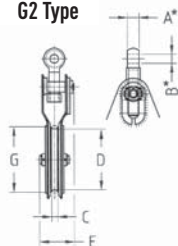
With side frame rotation opening system, nylon sheave on ball-bearing, galvanized steel frame, twisting hook attachment (standard supply G1 type) with safety latch.



G1 Type



G2 Type



MODEL	DIMENSIONS (mm)								WORKING LOAD	WEIGHT
	A	B	C	D	E	F	G	H	kN	Kg
020/005/N	16	20	18	102	72	305	120	160	5	1.6
020/010/N	18	23	18	102	73	315	120	170	10	1.7
020/015/N	18	25	20	102	75	330	120	180	15	2.0

Note: "G2" or "G4" attachment type available on request.

020/.../A

HEAVY DUTY SNATCH BLOCKS

With side frame rotation opening system, steel sheave on ball-bearing, galvanized steel frame, twisting hook attachment (standard supply G1 type) with safety latch.

MODEL	DIMENSIONS (mm)								WORKING LOAD	WEIGHT
	A	B	C	D	E	F	G	H	kN	Kg
020/015/A	18	25	20	105	75	340	120	180	15	3.4
020/020/A	23	28	25	135	85	410	150	220	20	6.6
020/030/A	30	34	25	135	90	440	150	240	30	7.2
020/050/A	39	43	30	185	95	510	200	290	50	13.0
020/070/A (*)	32	32	30	205	100	470	235	210	70	33
020/100/A (*)	41	35	32	240	110	545	277	240	100	36

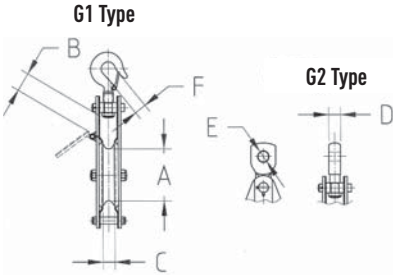
Note: "G2" or "G4" attachment type available on request.

-(*) Swiveling eye attachment "G2" standard supply, "G1" not available

020/P.../AA

HAVY DUTY SNATCH BLOCKS – OPEN TYPE

With hinged side flap opening system, galvanized steel sheave on ball-bearing, galvanized steel frame, swiveling hook G1 attachment (standard supply) with safety latch.



MODEL	DIMENSIONS (mm)						WORKING LOAD	WEIGHT
	A	B	C	D	E	F	kN	Kg
020/P/090/AA	108	40	15	20	17	28	18	5.0
020/P/180/AA	138	40	15	27	21	32	36	9.5
020/P/250/AA	185	55	30	30	26	42	50	12.0

Note: Swiveling eye attachment "G2" available on request

020/P.../LL

ALUMINIUM ALLOY SNATCH BLOCKS – OPEN TYPE

With hinged side flap opening system, aluminum sheave on ball-bearing and aluminum frame, swiveling hook attachment (standard supply) with safety latch.



MODEL	DIMENSIONS (mm)						WORKING LOAD	WEIGHT
	A	B	C	D	E	F	kN	Kg
020/P/030/LL	108	40	15	20	17	28	18	5.0
020/P/060/LL	138	40	15	27	21	32	36	9.5

Note: Swiveling eye attachment "G2" available on request

Weights, dimensions and drawings may vary without notice

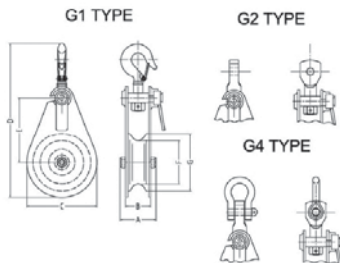
AERIAL STRINGING CONDUCTORS ACCESSORIES

020/L.../LL

ALUMINIUM ALLOY SNATCH BLOCKS – OPEN TYPE

With side frame rotation opening system, aluminium sheave on ball-bearing, aluminium frame, twisting hook attachment (standard supply G1 type) with safety latch.

Note: "G2" or "G4" attachment type available on request

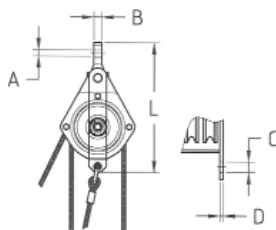


MODEL	DIMENSIONS (mm)							WORKING LOAD	WEIGHT
	A	B	C	D	E	F	G	kN	Kg
020/L/015/LL	80	46	130	300	130	84	120	3	1.7
020/L/045/LL	90	50	130	310	130	84	120	9	2.4
020/L/090/LL	100	54	130	340	130	84	120	18	3.5
020/L/150/LL	110	70	160	460	165	110	150	30	5.5

028/...

TACKLE BLOCKS

Lifting/pulling Tackles with steel sheaves mounted on ball-bearings, galvanized steel frame, suitable for 9mm steel wire. Each set consists of two blocks (one pair).



MODEL	N° OF SHEAVES	DIMENSIONS (mm)							WORKING LOAD	WEIGHT PER PAIR
		Sheave dia.	Rope dia.	L max	A	B	C	D	kN	Kg
028/2/25	2	160	9	380	22	22	11	10	25	20
028/2/30	2	180	9	370	22	22	11	10	30	25
028/3/35	3	160	9	450	25	22	11	10	35	27
028/3/45	3	180	9	410	25	22	11	10	45	30
028/4/70	4	180	9	440	26	22	13	12	70	42
028/5/100	5	208	12	500	35	32	13	12	100	56



P 8120

HYDRAULIC PRESS (120 Ton)

Hydraulic press 120 Ton capacity, suitable for compression of conductors and ground wire joints.

Max. compression force: 120 Tons at 700 bar

Quick-connectors

Press weight: 52 Kg

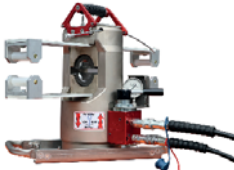
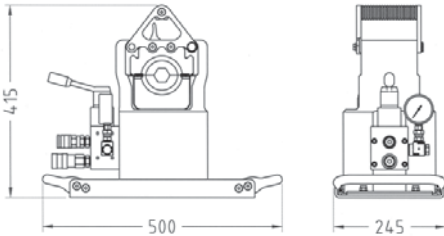
Compression dies weight: 2.5 Kg approx.

Max. hexagonal key: 65 mm

Press dimensions: 500x245x415 mm

Steel case weight: 26 Kg

Steel case dimensions: 470x770x675 mm



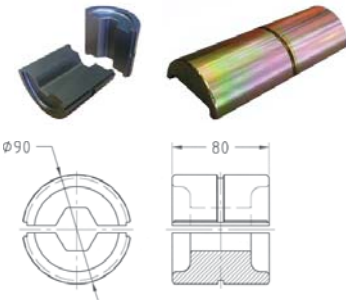
Optional middle span joint support



Turnable 360° head on handling base





Suspension working attachment



Head dies circular comping, available to accept every dies with 90 mm nominal dia.

Weights, dimensions and drawings may vary without notice

TOOLS AND DIES

			
Press	Joints to be compressed made of:	For hexagonal compression	Tool for straightening joints
P 8120	Steel	S 8120B/...	RD 8120
	Aluminium	S 8120A/...	

AERIAL STRINGING CONDUCTORS ACCESSORIES

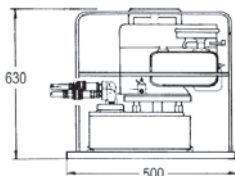
CM 8000

MOTORIZED HYDRAULIC POWER UNIT

Petrol Engine driven hydraulic pump. Complete with quick-connection type power take-off and protection frame.
Suitable for use with press Model **P 8120**.

Technical features:

Four stroke petrol engine of 5.5 HP (Honda)
Flow: 1.51t/min
Max. oil pressure: 700 bar
Oil tank capacity: 10 liters
Dimension: 400x500x630 mm
Weight: 49 Kg
Steel case weight: 26 Kg
Steel case dimensions: 470x770x675 mm



PB 8000

HYDRAULIC HAND PUMP

Two stages hand pump with pressure relief valve, and quick connectors.
Suitable for connection to presses **P 8120** and hydraulic punching machine 754H.

Technical features:

Max. oil pressure: 700 bar
Oil delivery volume per pumping: 1st stage 17.5 cm³ - 2nd stage: 2.7 cm³
Oil tank capacity: 2.2 lt
Weight: 8.5 Kg
Case dimensions: 80x27x23 cm



T8120...

HYDRAULIC HOSES SET

Low and high pressure with quick-connectors.



MODEL	LENGTH (M)
T8120.003	3
T8120.006	6
T8120.010	10
T8120.015	15
T8120.030	30

KTC8120

QUICK-CONNECTION TYPE JOINTS

Suitable for jointing hoses of different lengths together.



400/04 - 400/05 - 400/07

CONDUCTORS SELF-GRIPPING CLAMPS

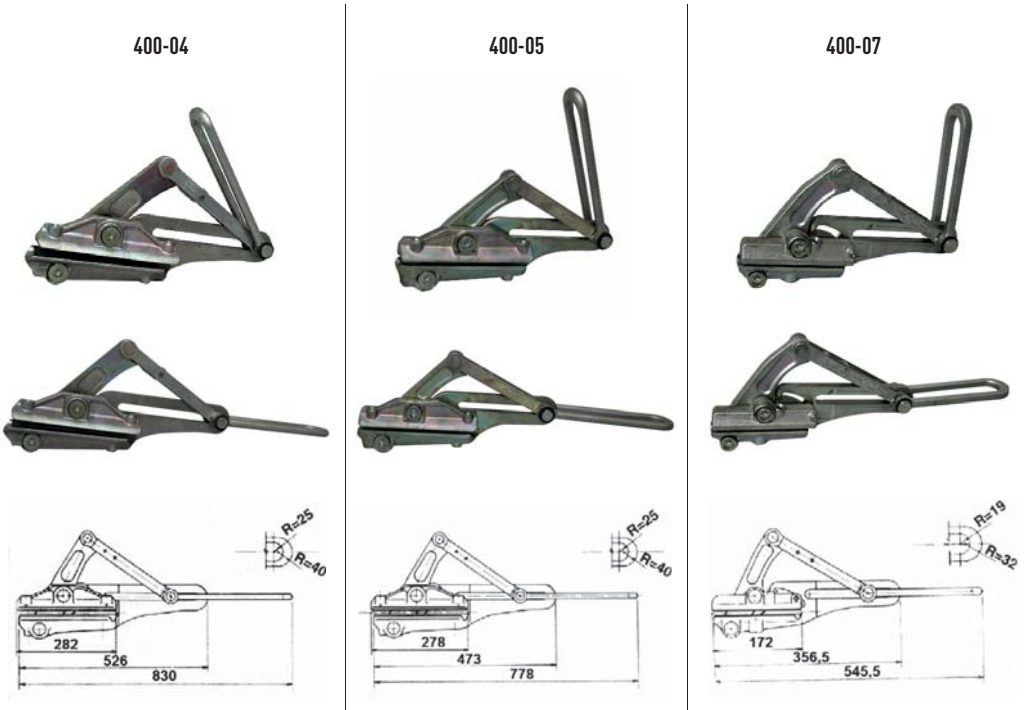
Suitable for A.C - AAC - ACSR and copper conductors.

Made of hot forged, heat treated, and cadmium plated high tensile alloy steel.

A complete range of interchangeable aluminum liners allows the clamp to fit the exact conductor diameter.

Each model of Clamp is suitable for a wide range of conductors, therefore, the same clamp can be used for different projects only by replacing aluminum liners.

NOTE: Upon placing the purchase order, please specify Conductor's overall diameter.



With a P/O please to specify the liner size or the exact overall conductor dia.

MODEL	CONDUCTOR RANGE	MAX WORKING LOAD	MAX SAFETY LOAD	MIN. BREAKING LOAD	WEIGHT
	mm dia	daN	daN	daN	Kg
400-04	30÷45	5500	11700	28500	17.0
400-05	18÷32	4700	8800	23500	13.5
400-07	8÷24,5	3000	4900	15000	7.0

AERIAL STRINGING CONDUCTORS ACCESSORIES

410/04 - 410/05 - 410/07

LINERS FOR CONDUCTORS CLAMPS

LINERS FOR 400/04			
Conductor diameters (mm)	Liner for aluminium conductor	Liner for circulare steel rope	Liner for square pilot steel rope
30-31,5	410-04-13	For range 16-32 mm, liners are produced in according to the exact rope diameter	For range 16-28 mm, liners are produced in according to the exact rope diameter
31,5-33,0	410-04-14		
33-34,5	410-04-15		
34,5-36	410-04-16		
36-37,5	410-04-17		
37,5-39	410-04-18		
39-40,5	410-04-19		
From 41 to 45 specify the exact cond. Diam.			



LINERS FOR 400/05			
Conductor diameters (mm)	Liner for aluminium conductor	Liner for circulare steel rope	Liner for square pilot steel rope
18-19,5	410-05-05	For range 13-22 mm, liners are produced in according to the exact rope diameter	For range 13-24 mm, liners are produced in according to the exact rope diameter
19,5-21	410-05-06		
21-22,5	410-05-07		
22,5-24	410-05-08		
24-25,5	410-05-09		
25,5-27	410-05-10		
27-28,5	410-05-11		
28,5-30	410-05-12		
30-31,5	410-05-13		
31,5-32	410-05-14		



LINERS FOR 400/07			
Conductor diameters (mm)	Liner for aluminium conductor	Liner for circulare steel rope	Liner for square pilot steel rope
8-9,5	410-07-03	For range 8-13 mm, liners are produced in according to the exact rope diameter	For range 8-13 mm, liners are produced in according to the exact rope diameter
9,5-11	410-07-04		
11-12,5	410-07-05		
12,5-14	410-07-06		
14-15,5	410-07-07		
15,5-17	410-07-08		
17-18,5	410-07-09		
18,5-20	410-07-10		
20-21,5	410-07-11		
21,5-23	410-07-12		



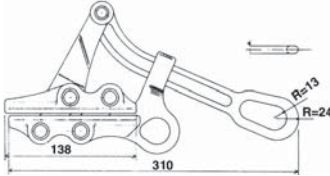
400/11

CONDUCTOR SELF-GRIPPING CLAMPS

Self-gripping clamps with interchangeable liners suitable for aluminum, aluminum-steel, copper conductors and steel wires from 7 to 16 mm diameter.

Made of hot forged, heat treated, and cadmium plated high tensile alloy steel.

- Maximum working load 1280 daN
- Maximum safety load 2120 daN
- Maximum breaking load 6400 daN
- Weight 2,5 Kg.



LINERS FOR 400/11

Conductor diameters (mm)	Liner profile for aluminium conductor	Liner profile for copper conductor	Liner profile for rope and copper bare wire
7-8,5	410-11-01	410-11-R01	
8,5-10	410-11-02	410-11-R02	
10-11,5	410-11-03	410-11-R03	
11,5-13	410-11-04	410-11-R04	
13-14,5	410-11-05	410-11-R05	
14,5-16	410-11-06	410-11-R06	
8			410-11-A07
9			410-11-A08
10			410-11-A09
13			410-11-A10

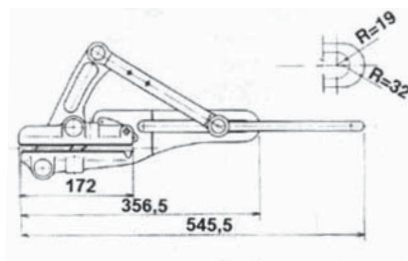
400/12

OPTICAL GROUND WIRE "OPGW" SELF-GRIPPING CLAMPS

Self-gripping clamps with interchangeable liners suitable for OPGW cables from 6 to 23 mm diameter.

Made of hot forged, heat treated, and cadmium plated high tensile alloy steel.

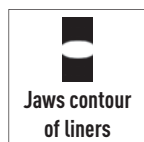
- Maximum working load 3000 daN
- Maximum safety load 4900 daN
- Maximum breaking load 15000 daN
- Weight 7 Kg



410/12/...

OPTICAL GROUND WIRE "OPGW" CABLE LINERS

OPGW liners have been specifically designed to protect the optical fiber from any damage. One set of liners consists of a lower liner made of Polyurethane and an upper liner made of aluminum alloy. Liners are supplied in any size between diameters 6 and 23 mm.

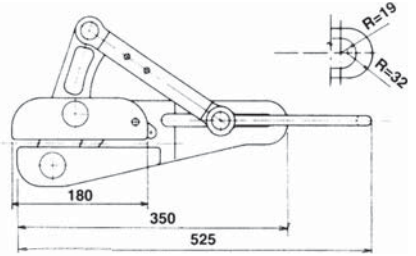


400/06

WIRE ROPE AND STEEL GROUNDWIRE SELF-GRIPPING CLAMPS

Self-gripping clamps with fix jaws.
 Suitable for wire ropes and ground-wires with diameters ranging from 7,5 to 18 mm.
 Made of hot forged, heat treated, and cadmium plated high tensile alloy steel.

- Maximum working load 2500 daN
- Maximum safety load 5000 daN
- Maximum breaking load 12500 daN
- Weight 7 Kg.

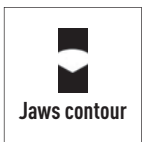
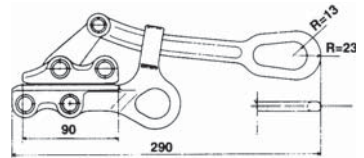


400/09

WIRE ROPE SELF-GRIPPING CLAMPS

Self-gripping clamps with fix jaws.
 Suitable for copper conductor and wire ropes with diameters ranging from 3 to 15 mm.
 Made of hot forged, heat treated, and cadmium plated high tensile alloy steel.

- Maximum working load 980 daN
- Maximum safety load 1960 daN
- Maximum breaking load 4900 daN
- Weight 1.5 Kg.



AERIAL STRINGING CONDUCTORS ACCESSORIES

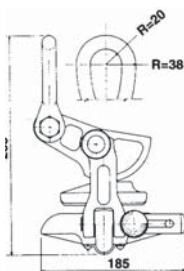
400/08

SELF-GRIPPING CLAMPS FOR LIFTING CONDUCTOR IN SUSPENSION

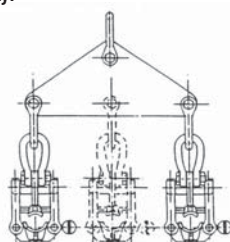
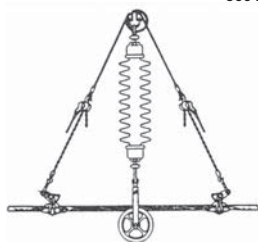
Self-gripping clamps with interchangeable liners suitable for lifting conductors with an overall diameter ranging from 7 to 38 mm.

Made of hot forged, heat treated, and cadmium plated high tensile alloy steel.

- Maximum working load 1960 daN
- Maximum safety load 3920 daN
- Maximum breaking load 9800 daN
- Weight 5.5 Kg.



Use modality:



LINERS FOR 400/08

Conductor diameters (mm)	Liner profile for aluminium conductor
7-11	410-08-01
9-12	410-08-02
12-16	410-08-03
16-23	410-08-04
22-36	410-08-05
30-38	410-08-06

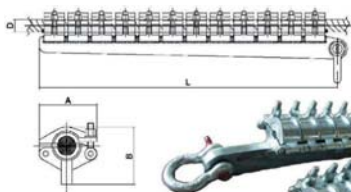
Special liners can be supplied on request

402

RADIAL LOCKING / BOLTED CLAMPS

Made of galvanized steel, supplied with aluminum liners to suit A.C - AAC - ACSR and AAAC conductors or bronze liners to suit steel wire ropes.

NOTE: Upon placing the purchase order, please specify Conductor's overall diameter.



MODEL	ELEMENTS	DIMENSIONS (approx)	FOR ROPES WITH DIA. UP TO	FOR CONDUCTORS WITH DIA. UP TO	WORKING LOAD
		A x B x L mm	mm	mm	kN
40204	4	150 x 150 x 390	20	15 ÷ 26	40
40206	6	150 x 150 x 510	24	20 ÷ 35	60
40207	7	150 x 150 x 580	28	20 ÷ 35	67
40208	8	150 x 150 x 650	30	30 ÷ 40	80
40210	10	150 x 150 x 800	30	30 ÷ 40	100
40212	12	150 x 150 x 950	36	30 ÷ 40	127
40214	14	150 x 150 x 1100	40	30 ÷ 40	150
40216	16	150 x 150 x 1250	45	35 ÷ 50	167
40220	20	160 x 200 x 1400	50	40 ÷ 60	200

490...

TEMPORARY GROUNDING DEVICE FOR OVERHEAD LINES

150; 220; 400 KV

Completed with:

3 Conductor clamps made of light aluminum alloy suitable for range of diameters from 5 to 60 mm, with screwing type closure and eye connection for insulated rod;

3 insulated copper cables coated with transparent thermoplastic material, 50 or 95 sqmm section, 6 m each;

3 Tower grounding clamp made of molded brass, adjustable opening up to 33 mm.

1 Insulated fiberglass rod, with coupling screw type, hand protection and "G" type hook, suitable for conductor clamp.

Complete set with metal storage box and bag for stick.

Upon request:

- Different copper sections
- Different cable lengths
- Different insulated rod lengths



Hook type "G"

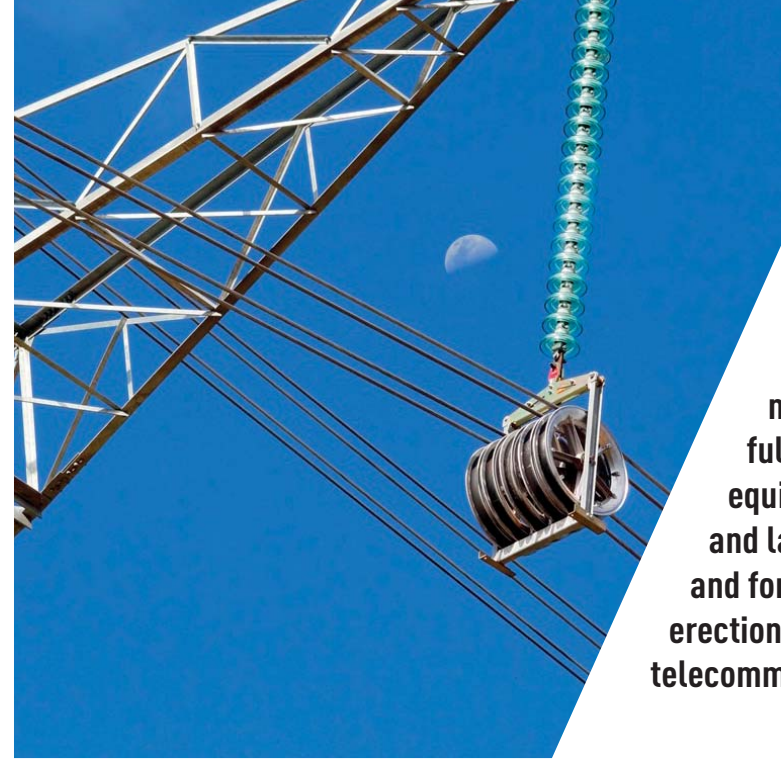


Note: Different cable lengths upon request

MODEL	FOR CONDUCTORS	INSULATING STICK		INSULATED COPPER CABLE SECTIONS SUGGESTED	SUITABLE FOR LINES UP TO KV
	mm. dia.	Length m	Section N°	mm ²	
490150...	5 to 60	4.5	3	50	150
490220...	5 to 60	4.5	3	50-95	220
490400...	5 to 60	6 or 4.5	3	95	400

**Machinery
in motion**





Engineering and manufacturing a full range of specific equipment for stringing and laying conductors and for towers/poles erection of electrical and telecommunication lines.





SECTION 3

ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

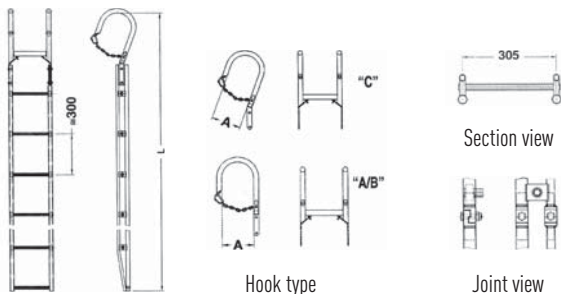
Suspension ladders	2
Horizontal platforms/ladders	3
Dead-end Working platform/sagging bridges	7
Ladder for circular and polygonal poles	8
Working platform	10
Crossing protection structures	11
Gin poles	12
Inspection Line Carts	15
Spacer Bicycle	24

ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

011/...

SUSPENSION LADDER

Suitable for operations on over head transmission lines.
Light Aluminum alloy, welded (Certified TIG system)
with skid-proof rungs and interchangeable galvanized
steel hook with safety chain.
Vertical working load 300 daN.



On request:

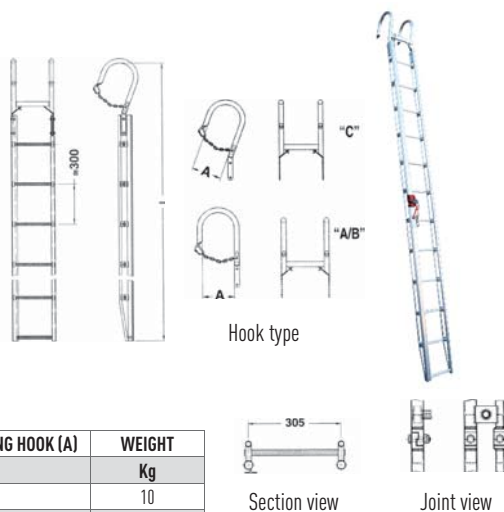
- Hooks C and A/B available up to 400 mm opening
- Different ladder lengths

MODEL	SECTION NUMBER	LENGTH (L)	STANDARD OPENING HOOK (A)	WEIGHT
		m	mm	Kg
011/2,5	1	2,5	220	9.2
011/3	1	3	220	10.3
011/3,5	1	3,5	220	11.2
011/4	1	4	220	12.3
011/5	1	5	220	14.8
011/6	1	6	220	17.2
011/6.2	2	6 (4+2)	220	17.8
011/8.2	2	8 (4+4)	220	22.6
011/10.2	2	10 (5+5)	220	27.5

011/A...

SUSPENSION LADDER

Suitable for operations on over head transmission lines.
Light Aluminum alloy, welded (Certified TIG system)
with skid-proof rungs, interchangeable galvanized steel
hook with safety chain and anti-fall rail (to be used with
anti-fall device model. MA 29/1).



MODEL	SECTION NUMBER	LENGTH (L)	STANDARD OPENING HOOK (A)	WEIGHT
		m	mm	Kg
011/A 2,5	1	2.5	220	10
011/A 3	1	3	220	11.5
011/A 3,5	1	3,5	220	12.4
011/A 4	1	4	220	13.8
011/A 5	1	5	220	17
011/A 6	1	6	220	20
011/A 6.2	2	6 (4+2)	220	20.4
011/A 8.2	2	8 (4+4)	220	26.4
011/A 10.2	2	10 (5+5)	220	32.3

On request:

- Hooks C and A/B available up to 400 mm opening
- Different ladder lengths
- Ladder suitable for two linemen (2 antifall opposite profile) Art. 011/B...

011/G...

SUSPENSION LADDER/PLATFORM

Suitable for operations on vertical as well as horizontal insulator strings in tension or suspension towers.

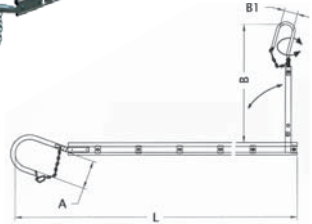
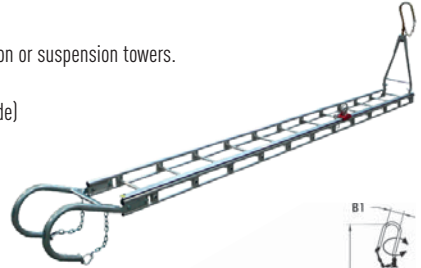
Light Aluminum alloy, welded (TIG system) with skid-proof rungs.

Complete with interchangeable galvanized steel hook with safety chain (tower side) and swiveling/foldable hook model AG/SS (conductor side).

- Vertical working load 300 daN.
- Horizontal working load 100 daN.

On request:

- Conductor-side swiveling/foldable hook with nylon sheave Mod. AG/SS-R
- Reinforced type structure with horizontal working load capacity of 200 daN



MODEL	SECTION NUMBER	LENGTH (L)	(A)	(B)	(B1)	WEIGHT
		m	mm	mm	mm	
011/G 2,5	1	2,5	220	900	100	12.2
011/G 3	1	3	220	900	100	13.5
011/G 3,5	1	3,5	220	900	100	14.8
011/G 4	1	4	220	900	100	16.2
011/G 5	1	5	220	900	100	18.8
011/G 6	1	6	220	900	100	21.5
011 /G 6.2	2	6 (4+2)	220	900	100	22.5

011/AG...

SUSPENSION LADDER/PLATFORM

Suitable for operations on vertical as well as horizontal insulator strings in tension or suspension towers

Light Aluminum alloy, welded (TIG system) with skid-proof rungs

Complete with interchangeable galvanized steel hook with safety chain (tower side) and swiveling/foldable hook model AG/SS (conductor side).

- Vertical working load 300 daN.
- Horizontal working load 100 daN.

On request:

- Conductor-side swiveling/foldable hook with nylon sheave Mod. AG/SS-R.
- Reinforced type structure with horizontal working load capacity of 200 daN.

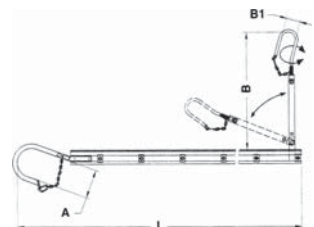


Mod. AG/SS



Mod. AG/SS-R

MODEL	SECTION NUMBER	LENGTH (L)	(A)	(B)	(B1)	WEIGHT
		m	mm	mm	mm	
011/AG 2,5	1	2,5	220	900	100	13.2
011/AG 3	1	3	220	900	100	14.8
011/AG 3,5	1	3,5	220	900	100	16.3
011/AG 4	1	4	220	900	100	17.9
011/AG 5	1	5	220	900	100	21.1
011/AG 6	1	6	220	900	100	24.2
011 /AG 6.2	2	6 (4+2)	220	900	100	25.2



ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

011/AGG...

SUSPENSION LADDER/PLATFORM

Suitable for operations on vertical as well as horizontal insulator strings in tension or suspension towers. Light Aluminum alloy, welded (TIG system) with skid-proof rungs and anti-fall rail (to be used with anti-fall device model. MA 29/1).

Complete with swiveling/foldable steel hook with safety chain (tower side) and swiveling/foldable hook model AG/SS (conductor side).

- Vertical working load 300 daN.
- Horizontal working load 100 daN.

On request:

- Conductor-side swiveling/foldable hook with nylon sheave Mod. AG/SS-R.
- Reinforced type structure with horizontal working load capacity of 200 daN.



MODEL	SECTION NUMBER	LENGTH (L)	(A)	(A1)	(B)	(B1)	WEIGHT
		m	mm	mm	mm	mm	kg
011/AGG 3	1	3,13	220	1000	900	100	19
011/AGG 3,5	1	3,6	220	1000	900	100	21
011/AGG 4	1	4,16	220	1000	900	100	22.5
011/AGG 5	1	5,03	220	1000	900	100	26.5
011/AGG 6	1	6,25	220	1000	900	100	32.5
011/AGG 6.2	2	6,25 (4.25+2)	220	1000	900	100	33.5

MA29/...

ANTI-FALL DEVICE

Anti-fall device suitable for models 011/A, 011/AG, 011/AGG and 014.

Complete with safety belt connector (carabiners) and shock absorber nylon strap in compliance with 89/686/CEE standard.

MODEL	"T" PROFILE	WORKING LOAD	WEIGHT	FOR LADDERS MODEL
	mm	daN	kg	
MA29/1	40	100	1.03	011/A... 011/B... 011/AG... 011/AGG... 014 ...
MA29/1.L	40	100	1.08	014 ...
MA29/1.R	40	100	1.03	010/...

MA 29/1

MA 29/1.L



013/G...

TRIANGULAR SECTION HORIZONTAL PLATFORM STRUCTURE

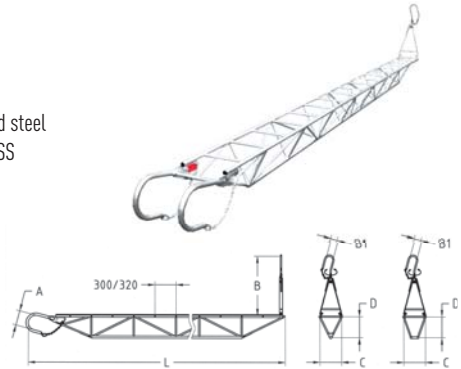
Suitable to be used on vertical as well as horizontal position.

Light Aluminum alloy, welded (TIG system) with skid-proof rungs galvanized steel hook with safety chain (tower side) and swiveling/foldable hook model AG/SS (conductor side).

- Horizontal working load 200 daN.
- Vertical working load 300 daN.

On request:

- Conductor side twisting hook complete of nylon sheave Mod. AG/SS/R
- Tower side hook available up to 400mm opening
- Different lengths and composition



MODEL	SECTION NUMBER	LENGTH (L)	(A)	(B)	(B1)	C	D	WEIGHT
		m	mm	mm	mm	mm	mm	kg
013/G 3,5	1	3,5	220	900	100	320	320	17
013/G 4	1	4	220	900	100	320	320	18.5
013/G 4,5	1	4,5	220	900	100	320	320	20
013/G 5	1	5	220	900	100	320	320	21.5
013/G 6	1	6	220	900	100	320	350	24.5
013/G 6.2	2	6 (4+2)	220	900	100	320	350	26
013/G 7.2	2	7 (4+3)	220	900	100	320	350	30.5
013/G 8.2	2	8 (4+4)	220	900	100	320	350	34

013/TP...

TRAPEZOIDAL SECTION HORIZONTAL PLATFORM STRUCTURE

Suitable to be used on vertical as well as horizontal position.

Light Aluminum alloy, welded (TIG system) with skid-proof rungs galvanized steel hook with safety chain (tower side) and swiveling/foldable hook model AG/SS (conductor side).

- Horizontal working load 300 daN.
- Vertical working load 300 daN.

On request:

- Conductor side twisting hook complete of nylon sheave Mod. AG/SS/R
- Tower side hook available up to 400mm opening
- Different lengths and composition



MODEL	SECTION NUMBER	LENGTH (L)	(A)	(B)	(B1)	C	D	WEIGHT
		m	mm	mm	mm	mm	mm	kg
013/TP 3,5	1	3,5	220	900	100	320	320	19
013/TP 4	1	4	220	900	100	320	320	21
013/TP 4,5	1	4,5	220	900	100	320	320	23
013/TP 5	1	5	220	900	100	320	320	24.5
013/TP 6	1	6	220	900	100	320	350	28
013/TP 6.2	2	6 (4+2)	220	900	100	320	350	29.5
013/TP 7.2	2	7 (4+3)	220	900	100	320	350	34.5
013/TP 8.2	2	8 (4+4)	220	900	100	320	350	39

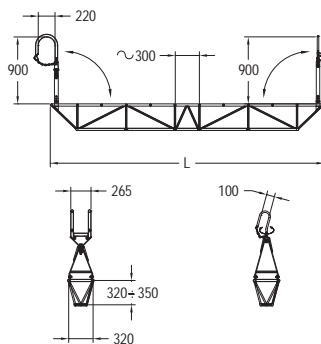
013/G.GG... or 013/TP.GG...

TRIANGULAR/TRAPEZOIDAL SECTION HORIZONTAL PLATFORM STRUCTURE

Suitable to be used on vertical as well as horizontal position.

Light Aluminum alloy, welded (TIG system) with skid-proof rungs galvanized foldable and twisting hook Mod. AGG/SS (tower side) and swiveling/foldable hook model AG/SS (conductor side).

- Horizontal working load 200 daN (triangular) or 300 daN (trapezoidal).
- Vertical working load 300 daN.



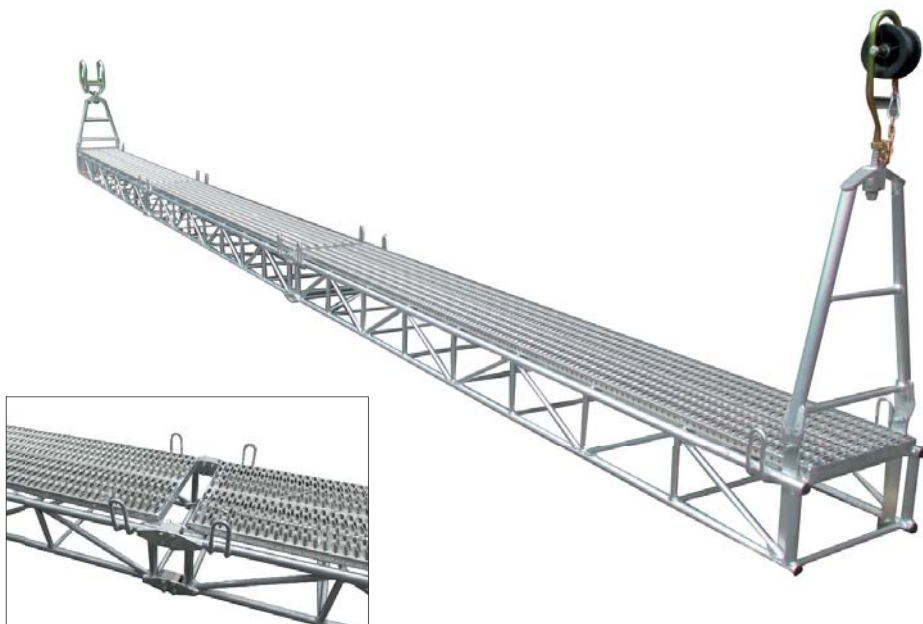
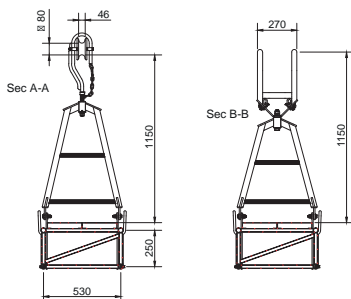
017

RECTANGULAR SECTION HORIZONTAL PLATFORM STRUCTURE

Suitable to be used on vertical as well as horizontal position.

Light Aluminum alloy, welded (TIG system) with skid-proof floor "Graepel Gripp system". galvanized foldable and twisting hooks; double swivel hook (tower side), single hook with nylon roller (conductor side).

- Standard length 12m (4+4+4), other lengths upon request.
- Horizontal working load 300 daN.
- Weight 153 Kg.

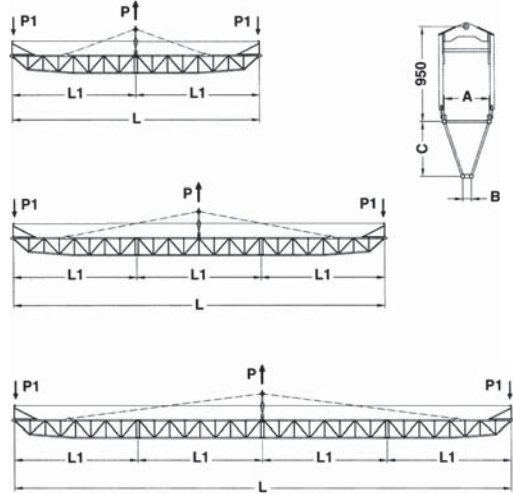




070/...

DEAD-END WORKING PLATFORM

Light Aluminum alloy, welded (TIG system) modular structure, complete with balanced hanging point, stay rod assembly (to suit different compositions and lengths) and galvanized steel life-line (anti-fall barrier).



On request:

- Press trolley track Mod. 070/BP
- Press trolley 360° angle rotation Mod. 070/BPC (weight 12 kg)
- Additional anti-fall barrier Mod. 070/BAC
- Tailor made lengths and compositions.

MODEL	WORKING LOAD P (Max P1=300 daN)	BREAKING LOAD	TOTAL LENGTH (L)	LENGTH AND COMPOSITION (L1)	DIMENSIONS (mm)			WEIGHT ANTIFALL BARRIER ENCLOSED
		daN	m	m	A	B	C	kg
070/4	600	1800	4	4	350	85	390	50
070/5	600	1800	5	5	350	85	390	56
070/6	600	1800	6	6	350	85	390	62
070/6.2	600	1800	6	3+3	350	85	390	65
070/7.2	600	1800	7	3,5+3,5	350	85	446	77
070/8.2	600	1800	8	4+4	350	85	446	86
070/10.3	600	1800	10	4+2+4	350	85	446	103
070/12.3	600	1800	12	4+4+4	350	85	446	115
070/14.3	600	1800	14	5+4+5	350	85	446	126
070/16.4	600	1800	16	4+4+4+4	350	85	446	144
070/18.3	600	1800	18	6+6+6	350	85	446	160
070/20.4	600	1800	20	5+5+5+5	450	85	550	200
070/24.4	600	1800	24	6+6+6+6	450	85	550	254



Antifall barrier view Mod. DT070BAC...
(Homologated as "ANTI-FALL HORIZONTAL LIFE LINE" EN 795 standard by ANCCP INSTITUTE)



Rail ways profiles Mod. DT070BP...

Press trolley Mod. DT070BPC...

014

ALUMINIUM LADDER WITH SAFETY DEVICE FOR STEEL AND CONCRETE POLE CLIMBING

Suitable for climbing circular and polygonal poles. For quadrangular poles a special configuration is available upon request.

A special attachment allows the operator to climb in safe conditions.

Made of welded (TIG system) light Aluminum alloy, with skid-proof rungs.

Modular structure with base and top sections and as many intermediate element as needed to reach the desired length (up to 30m).

The ladder is equipped with two anti-fall devices with anchoring points for operator's safety belt.

An Aluminum Alloy service platform for the operator is also available upon request.

Note:

- To prevent undesired torsions on the structure while operating on high poles (above 30m), a chain-locking device is also available on request. (Mod. 014/BIP).

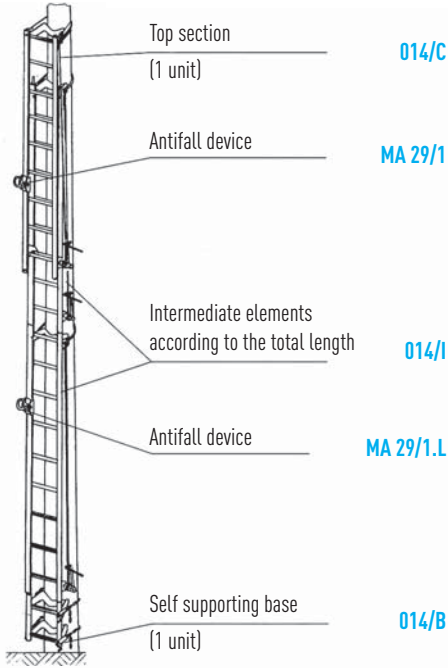
Weights with standard accessories:

- | | |
|------------------------------|----------|
| - Base 014/B | - 5.5 Kg |
| - Intermediate section 014/I | - 6 Kg |
| - Top section 014/C | - 6.5 Kg |
| - Small platform 014/PL | - 1 Kg |





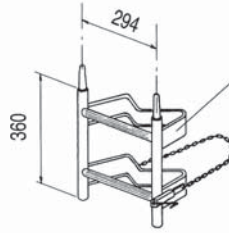
EXAMPLE OF COMPOSITION



ACCESSORIES

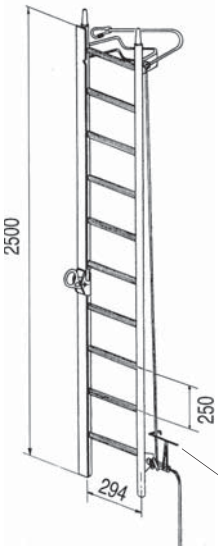


1) Ladder utility platform
014/PL



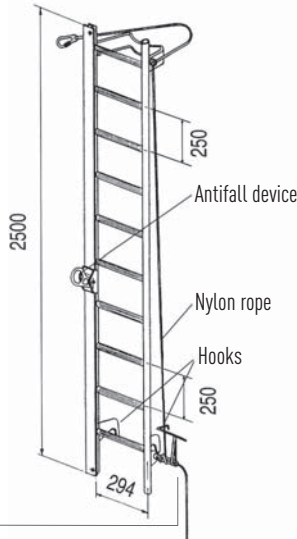
2) Set supporting base with chain
014/B

Intermediate section **014/I**



Handle winch
Dimensions may vary without notice

Top section **014/C**



MA 29/1
Antifall device
for top section

MA 29/1.L
Antifall device
for intermediate
sections



010/...

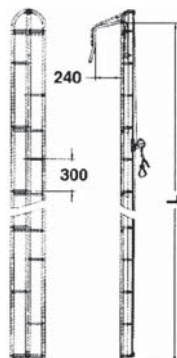
TOWER CLIMBING LADDER

Suitable to climb towers in safe conditions.
Light Aluminum alloy, welded (TIG system) with skid-proof rungs and anti-fall rail (to be used with anti-fall device model. MA 19/1R).

- Vertical working load 100 daN.

MODEL	LENGHT (L)	WEIGHT
	m	kg
010/1	3.7	9
010/2	4.7	11

On request: other lenght



071/EL...

POLE WORKING PLATFORM (Rectangular shape)

Suitable for circular/polygonal poles.
Made of welded light Aluminum alloy (TIG system), with skid-proof flooring complete with nylon strap locking device.

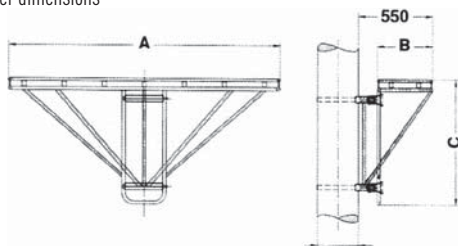
- Working load 100 daN.

MODEL	DIMENSIONS (mm)			WEIGHT
	A	B	C	Kg
071/EL	684	410	488	8.5
071/EL 1.5	1500	410	925	13.5
071/EL 2.5	2500	410	925	17

On request:

- Working load 150 daN

- Other dimensions



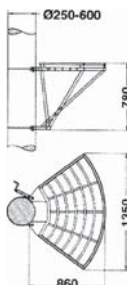
071V...

POLE WORKING PLATFORM (Semi-circular shape)

Suitable for circular/polygonal poles.
Made of welded light Aluminum alloy (TIG system), with skid-proof pipe flooring, complete with chain locking device.

- Weight 14 Kg.

- Working load 200 daN.



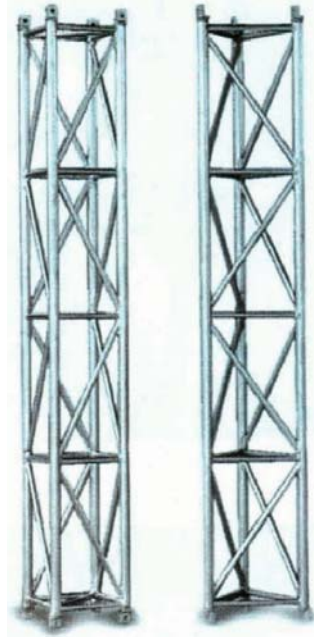
ALUMINIUM POLE STRUCTURE FOR CONDUCTOR CROSSING PROTECTION

Suitable for road/existing lines crossing operations.
Triangular or square section modular (2 or 3 meter) elements,
made of TIG welded light Aluminum alloy.
Complete with galvanized steel accessories.

MODEL	LENGHT	SECTION STRUCTURE	WEIGHT
	m		
057/AL 2	2	TRIANGULAR	6.6
057/AL 4	4	TRIANGULAR	13.2
058/AL 2	2	QUAD	8.6
058/AL 4	4	QUAD	17.2

ACCESSORIES

DESCRIPTION	MODEL FOR TRIANGULAR SECTION	MODEL FOR QUAD SECTION
V Top device for wooden bar support in galvanized steel	057/PT	058/PT
Earth base with picket in galvanized steel	057/B	058/B
Intermediate anchoring attachment in galvanized steel	057/IA	058/IA



ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

050 /...

ALUMINIUM GIN POLE

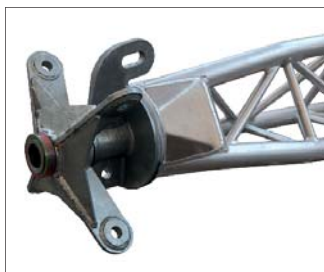
Aluminum gin pole for tower erection and hoisting operations. Modular lattice structures made of TIG welded light Aluminum alloy pipes.

Rated capacity (PN) at 0° inclination ranging from 1000 to 15000 daN.

Complete with swiveling head and base and ground base plate. Available in two configurations: Internal or external rope-passage arrangement.

On request:

- Different lengths and capacities are available upon request.
- Specialty Steel Gin poles available on request



Swivelling head EXTERNAL rope passage



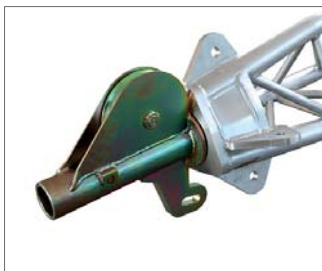
Swivelling base EXTERNAL rope passage



Swivelling base with hook EXTERNAL rope passage



Swivelling head with incorporate sheave for INTERNAL rope passage



Swivelling base with incorporate sheave for INTERNAL rope passage



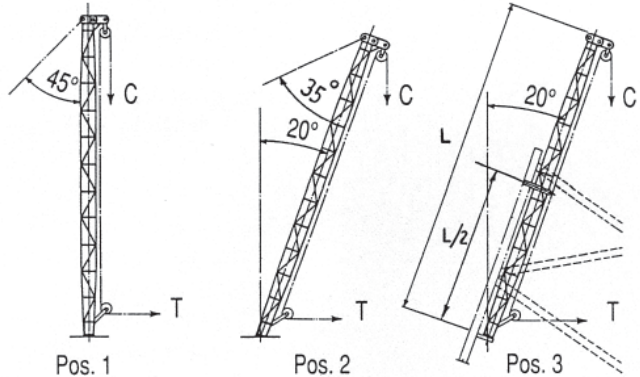
Ground base



PN = T + C

Rated capacity of each gin-pole varies upon inclination and anchoring position At 0° inclination, it is defined by the formula $PN=T+C$ where "T" is the pulling force (i.e. applied by the winch machine) and "C" is the weight lifted. In other configurations, rated capacity has to be assessed on a case-by-case basis.

Please refer to this formula and below sketch to identify the correct model of gin pole to suit your requirement and calculating desired lifting capacity.



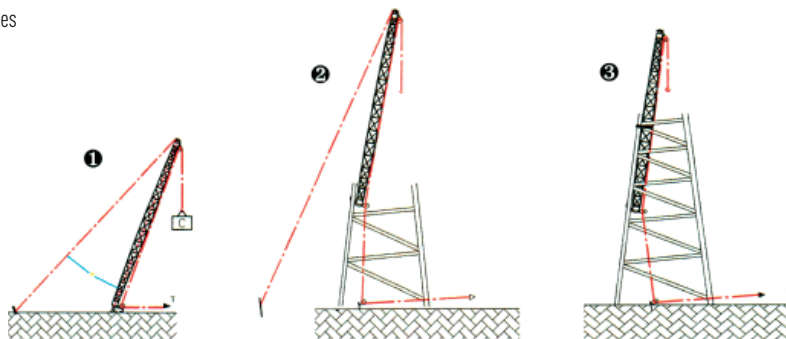
MODEL	CAPACITY "PN" = T+C (daN)			TOTAL LENGTH	STANDARD NUMBERS OF SECTIONS AND LENGTH	WEIGHT EXTERNAL PASSAGE STRUCTURE	WEIGHT INTERNAL PASSAGE STRUCTURE	WEIGHT GROUND BASE
	PN 1 POS. 1 $\alpha=0^\circ$	PN 2 POS. 2 $\alpha=20^\circ$	PN 3 POS. 3 $\alpha=20^\circ$					
050/1/6.2	1000	600	240	6	3+3	43	54	11.5
050/1/8.2	1000	600	240	8	4+4	54	66	
050/1,5/8.2	1500	900	360	8	4+4	65	74	16
050/1,5/10.2	1500	900	360	10	5+5	76	87	
050/1,5/12.3	1500	900	360	12	4+4+4	86	98	16
050/2/8.2	2000	1200	480	8	4+4	67	75	
050/2/10.3	2000	1200	480	10	4+2+4	80	88	16
050/2/12.3	2000	1200	480	12	4+4+4	91	99	
050/3/8.2	3000	1800	720	8	4+4	74	79	25
050/3/12.3	3000	1800	720	12	4+4+4	109	117	
050/3/16.4	3000	1800	720	16	4+4+4+4	146	155	25
050/3/18.3	3000	1800	720	18	6+6+6	162	170	
050/4/10.3	4000	2400	960	10	4+2+4	98	116	25
050/4/12.3	4000	2400	960	12	4+4+4	113	131	
050/4/16.4	4000	2400	960	16	4+4+4+4	166	182	25
050/4/20.4	4000	2400	960	20	5+5+5+5	208	225	
050/5/12.3	5000	3000	1200	12	4+4+4	139	152	35
050/5/16.4	5000	3000	1200	16	4+4+4+4	208	221	
050/5/20.4	5000	3000	1200	20	5+5+5+5	266	278	35
050/7/12.3	7000	4200	1680	12	4+4+4	160	198	
050/7/16.4	7000	4200	1680	16	4+4+4+4	210	245	76
050/7/20.4	7000	4200	1680	20	5+5+5+5	245	283	
050/10/16.4	10000	6000	2400	16	4+4+4+4	241	278	76
050/10/20.4	10000	6000	2400	20	5+5+5+5	291	325	

Model of EXTERNAL wire rope passage Art. 050/... /...

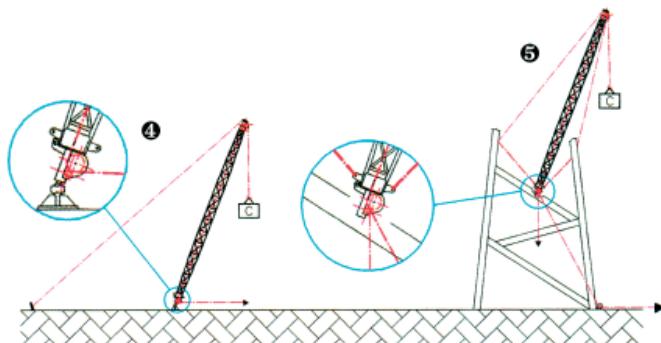
Model of INTERNAL wire rope passage Art. 050/.../... I

ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

Some "CORRECT" use modalities
"EXTERNAL" rope passage



Some "CORRECT" use modalities
"INTERNAL" rope passage



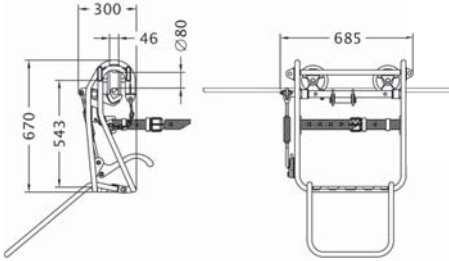
032

“SEAT TYPE” LINE CART / INSPECTION TROLLEY FOR SINGLE CONDUCTOR

1 lineman towable trolley complete of nylon wheels on ball-bearings, stationary brake, footrest and nylon straps for back support.
Made of welded aluminum alloy (TIG SYSTEM).
Payload: 100 daN
Weight: 12 Kg

Optional features:

- 1) Counter meter device
- 2) Aluminium wheels



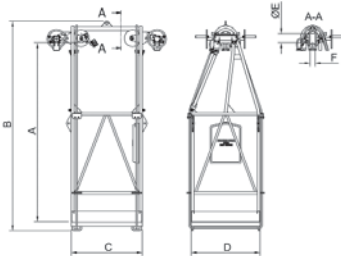
035

LINE CART / INSPECTION TROLLEY FOR SINGLE CONDUCTOR

1 or 2 linemen towable trolley, complete of aluminum wheels on ball-bearings, anti-slip floor, n°2 stationary brakes, safety frame ropes and counter meter device.
Made of welded aluminum alloy (TIG SYSTEM).

Optional features:

- 1) Dynamic disc brake device
- 2) Nylon wheels
- 3) Earthing device
- 4) "Tailor-made" size available



MODEL	N° LINEMEN	DIMENSIONS (mm)						WEIGHT	PAYLOAD
		A	B	C	D	E	F	kg	daN
035-A	1	1650	1920	650	630	80	46	42	100
035-B	2	1650	1920	1000	630	80	46	46	200

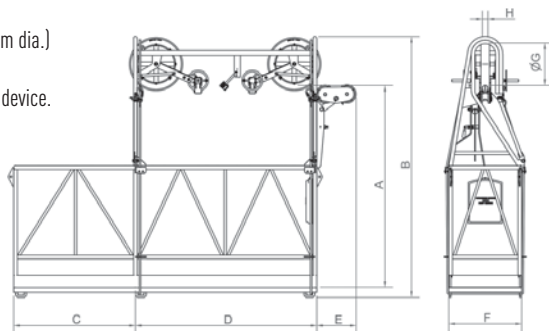
035/L

LINE CART / INSPECTION TROLLEY FOR SINGLE CONDUCTOR

2 linemen towable trolley with large aluminum wheels (350mm dia.) on ball-bearings with Nylon liners, anti-slip floor. n°2 stationary brakes, safety frame ropes and counter meter device. Made of welded Aluminum alloy (TIG SYSTEM). Completed with balancing wheels to allow the operator to work on the cantilever (so called "balcony").

Optional features:

- 1) Dynamic disc brake device
- 2) Earthing device
- 3) "Tailor-made" size available



MODEL	DIMENSIONS (mm)								WEIGHT	PAYLOAD
	A	B	C	D	E	F	G	H	kg	daN
035/L-A	1650	2150	1000	1500	330	600	350	48	90	200



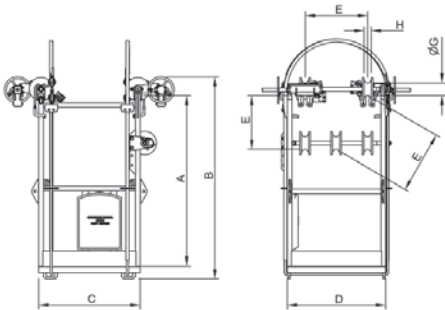
036

LINE CARTS / INSPECTION TROLLEYS FOR BUNDLED CONDUCTORS

Suitable for 2, 3 or 4 bundled conductors configurations.
1 lineman towable trolley, with two cross-arms and a positioning bar complete with aluminum wheels on ball-bearings, anti-slip floor n°2 stationary brakes, safety frame ropes and counter-meter device.
Made of welded aluminum alloy (TIG SYSTEM).

Optional features:

- 1) Nylon wheels
- 2) Earthing device
- 3) "Tailor-made" size available



MODEL	N° LINEMEN	DIMENSIONS (mm)							WEIGHT kg	PAYLOAD daN	BUNDLE CONFIGURATION
		A	B	C	D	E	G	H			
036-A	1	1095	1300	650	630	400÷457	80	46	43	100	
036-B	1	1095	1300	650	630	400÷457	80	46	49	100	
036-C	1	1095	1300	650	815	400÷600	80	46	50	100	
036-D	1	1095	1300	650	815	400÷600	80	46	53	100	

ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

036/M

MOTORIZED LINE CARTS / INSPECTION TROLLEYS FOR BUNDLED CONDUCTORS

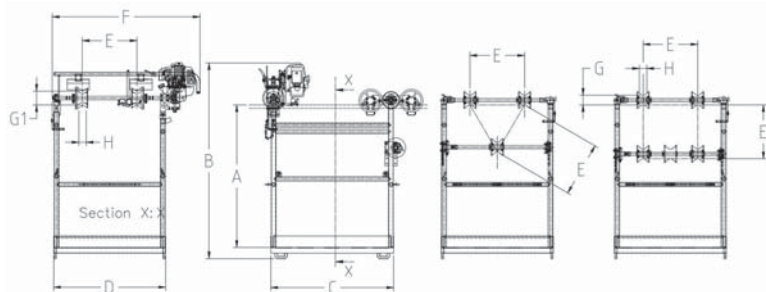
Available for 2,3 or 4 bundled conductors configurations
 1 linemen with mechanical driven translation system
 Made in tubular aluminium alloy welded structure (TIG SYSTEM)

Features and performances:

- 2 stroke 50cc gasoline engine 2.4 HP (1.8 kW)
- Max speed 20 m/min (both directions)
- Max slope 25% (15°)
- mechanical transmission, reversing drive direction with idle position
- transmission axle with rubber wheels for high adherence
- supporting and positioning cross-arms with aluminum wheels on ball-bearings
- n. 2 stationary brakes, safety frame ropes and counter meter device.

Optional features:

- 1) Nylon wheels
- 2) Earthing device
- 3) "Tailor-made" size available



MODEL	N° LINEMEN	DIMENSIONS (mm)							WEIGHT kg	PAYLOAD daN	BUNDLE CONFIGURATION
		A	B	C	D	E	G	H			
036/M-A	1	1042	1450	900	815	400÷500	70	55	67	100	
036/M-B	1	1042	1450	900	815	400÷500	70	55	73	100	
036/M-C	1	1042	1450	900	915	400÷600	70	55	73	100	
036/M-D	1	1042	1450	900	915	400÷600	70	55	79	100	

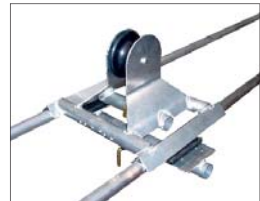
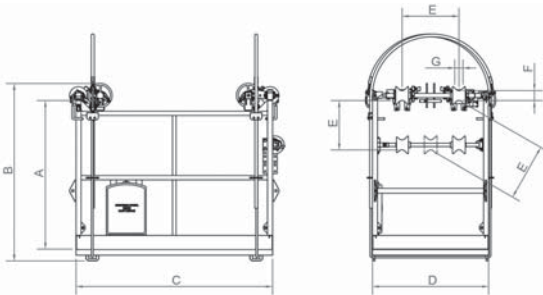
034/2

LINE CARTS / INSPECTION TROLLEYS FOR BUNDLED CONDUCTORS

Suitable for 2,3 or 4 bundled conductors configurations.
2 linemen towable trolley, with two cross-arms and a positioning bar complete with aluminum wheels on ball-bearings, anti-slip floor n°2 stationary brakes, safety frame ropes and counter-meter device.
Made of welded aluminum alloy (TIG SYSTEM).

Optional features:

- 1) Nylon wheels
- 2) Earthing device
- 3) Hoisting pulley device Art. DT034MDSR-S0000
- 4) "Tailor-made" size available



Art. DT034MDSR-S0000

MODEL	N° LINEMEN	DIMENSIONS (mm)							WEIGHT kg	PAYLOAD daN	BUNDLE CONFIGURATION
		A	B	C	D	E	G	H			
034/2-A	2	1042	1250	1380	915	400÷600	70	55	64	200	
034/2-B	2	1042	1250	1380	915	400÷600	70	55	69	200	
034/2-C	2	1042	1250	1700	915	400÷600	70	55	68	200	
034/2-D	2	1042	1250	1700	915	400÷600	70	55	74	200	

ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

034/M/2

MOTORIZED LINE CARTS / INSPECTION TROLLEYS FOR BUNDLED CONDUCTORS

Hydraulic driven transmission, aluminum traction wheels with rubber liners.

Suitable for 2,3 or 4 bundled conductors configurations.

2 linemen, with two cross-arms, positioning bar and anti-slip floor. n°2 stationary brakes, safety frame ropes and counter-meter device.

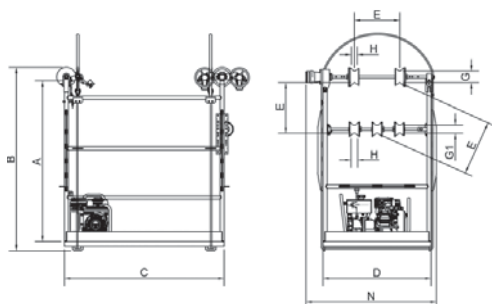
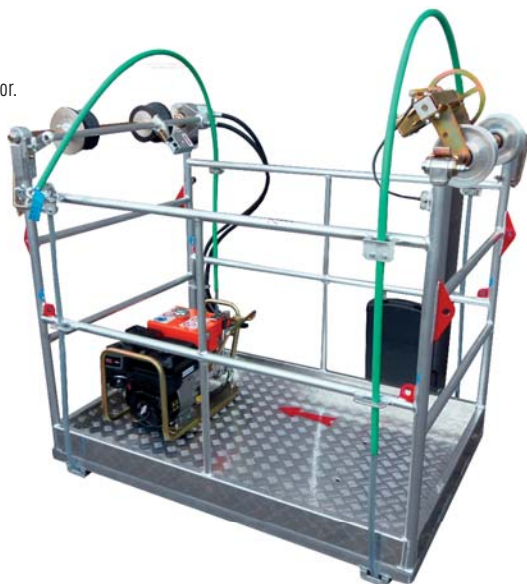
Made of welded aluminum alloy (TIG SYSTEM).

Features and performances:

- 4 stroke gasoline engine – 4 hp (2.95 kW)
- Max Speed 30 m/min (both directions)
- Maximum slope 40% (22°)

Optional features:

- 1) Nylon wheels
- 2) Earthing device
- 3) Hoisting pulley device Art. DT034MDSR-S0000
- 4) "Tailor-made" size available



Art. DT034MDSR-S0000

MODEL	N° LINEMEN	DIMENSIONS (mm)									WEIGHT kg	PAYLOAD daN	BUNDLE CONFIGURATION
		A	B	C	D	E	G	G1	H	N			
034/M/2-A	2	1075	1300	1380	940	400÷600	100	70	55	1150	116	200	
034/M/2-B	2	1365	1590	1380	940	400÷600	100	70	55	1150	136	200	

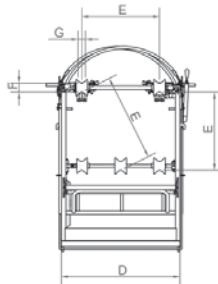
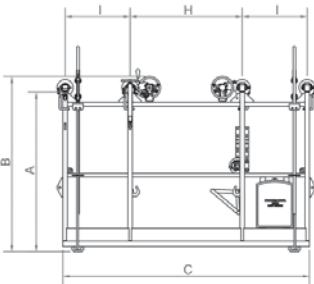
034/4

LINE CARTS / INSPECTION TROLLEYS FOR BUNDLED CONDUCTORS

This model is designed for overpassing existing spacers. Suitable for 2,3 or 4 bundled conductors configurations. 2 linemen towable trolley, with four cross-arms and a positioning bar complete with aluminum wheels on ball-bearings and anti-slip floor. n°2 stationary brakes, safety frame ropes and counter-meter device. Made of welded aluminum alloy (TIG SYSTEM).

Optional features:

- 1) Nylon wheels
- 2) Earthing device
- 3) Horizontal rotation of all cross-arms
- 4) Hoisting pulley device
- 5) "Tailor-made" size available



MODEL	N° LINEMEN	DIMENSIONS (mm)									WEIGHT kg	PAYLOAD daN	BUNDLE CONFIGURATION
		A	B	C	D	E	F	G	H	I			
034/4-A	2	1042	1250	1900	915	400÷600	70	55	865	500	105	200	
034/4-B	2	1142	1350	1900	915	400÷600	70	55	865	500	112	200	

ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

034/M/4

MOTORIZED LINE CARTS / INSPECTION TROLLEYS FOR BUNDLED CONDUCTORS

Hydraulic driven transmission, aluminum traction wheels with rubber liners.

This model is designed for overpassing existing spacers.

Suitable for 2,3 or 4 bundled conductors configurations.

2 linemen, with four cross-arms, positioning bar and anti-slip floor.

n°2 stationary brakes, safety frame ropes and counter-meter device.

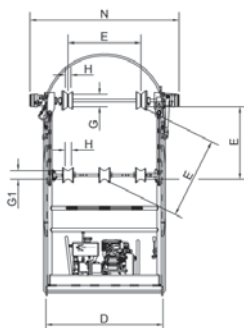
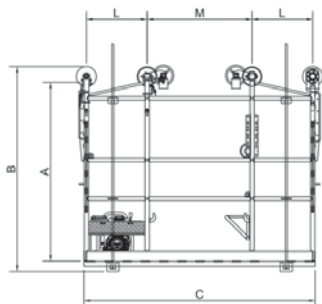
Made of welded aluminum alloy (TIG SYSTEM).

Features and performances:

- 4 stroke gasoline engine – 4 hp (2.95 kW)
- Max Speed 30 m/min (both directions)
- Maximum slope 40% (22°)

Optional features:

- 1) Nylon wheels
- 2) Earthing device
- 3) Horizontal rotation of all cross-arms
- 4) Hoisting pulley device Art. DT034MDSR-S0000
- 5) "Tailor-made" size available



Art. DT034MDSR-S0000



MODEL	N° LINEMEN	DIMENSIONS (mm)									WEIGHT kg	PAYLOAD daN	BUNDLE CONFIGURATION
		A	B	C	D	E	G	G1	H	N			
034/M/4	2	1470	1700	1900	940	400÷600	100	70	55	12 50	218	200	

034/D + 034/E

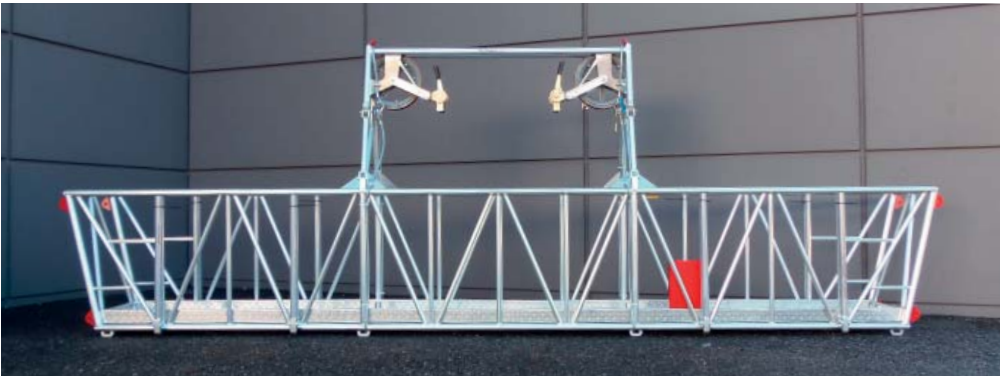
SPECIAL BUNDLED CONFIGURATIONS AND SPECIAL FEATURES



HEXA CONFIGURATION



QUAD-DIAMOND CONFIGURATION



BCN 038/...

BICYCLE TYPE TROLLEY

Suitable for warning spheres and spacers installation on single or bundled conductor overhead lines.

Made of TIG welded light Aluminum alloy

Main features:

- Cardan joint transmission system
- Dynamic Negative brake system
- Low transmission ratio to reduce effort on pedals
- Maximum (recommended) span inclination up to 30%
- Adjustable seat
- High tenacity nylon sheaves with "adiprene" groove lining on ball-bearing
- Stationary brake device
- Adjustable spacing distance: 400, 457, and 500 mm for Twin and Quad bundle configuration 400, (457, 500 mm on request) for Triple bundle configuration
- Counter meter device

Optional for all models:

- Motor drive device
Mod. BCN 038/...M
- 2 stroke engine 48 cc 2.4 HP
- Speed 0 to 20 m/1'
- Inclination up to 25% max.
- Idle device for pedalling option
- Weight 12 Kg.
to add the standard models



Dynamic negative brake and counter-meter device

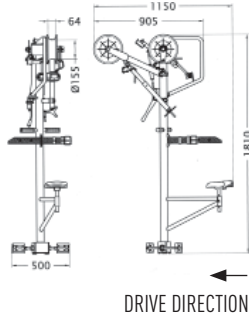


Stationary brake device

038/1

BICYCLE FOR SINGLE CONDUCTOR

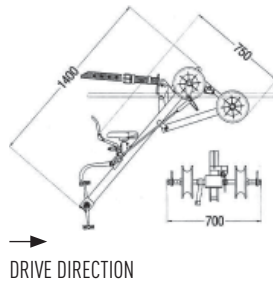
Weight: 25 Kg.
Payload 100 daN.



038/2

BICYCLE FOR TWIN BUNDLE CONDUCTORS

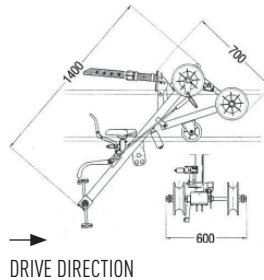
Weight: 32 Kg.
Payload 100 daN.



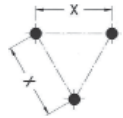
038/3

BICYCLE FOR TRIPLE BUNDLE CONDUCTORS

Weight: 38 Kg.
Payload 100 daN.



X = to be specified
(400 to 500
admitted)



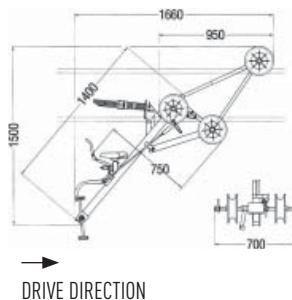
038/4

BICYCLE FOR QUAD BUNDLE CONDUCTORS

Weight: 42 Kg.
Payload 100 daN.

Optional:

Device for transform a twin model
in Quad model Art. BCN 038/2-4



038/1C

ALUMINUM ALLOY EQUIPMENT FOR OVERHEAD TRANSMISSION LINES

Cart version, suitable for warning spheres installation or inspection on single conductor overhead lines.

Made of TIG welded light Aluminum alloy

Main features:

- Cardan joint transmission system
- Negative brake system
- Stationary brake system
- Low transmission ratio to reduce effort on pedals
- Maximum (recommended) span inclination up to 30%
- Adjustable seat
- High tenacity nylon sheaves with "adiprene" groove lining on ball-bearing
- Counter meter device



VARIOUS APPLICATION VIEW



POLES FOR ENVIRONMENTAL MONITORING INSTRUMENTS



EMERGENCY RESTORATION SYSTEMS



POLES FOR TELECOMMUNICATION REPEATERS

**Wherever your
needs take you...**





**...You can go
with us**





SECTION 4

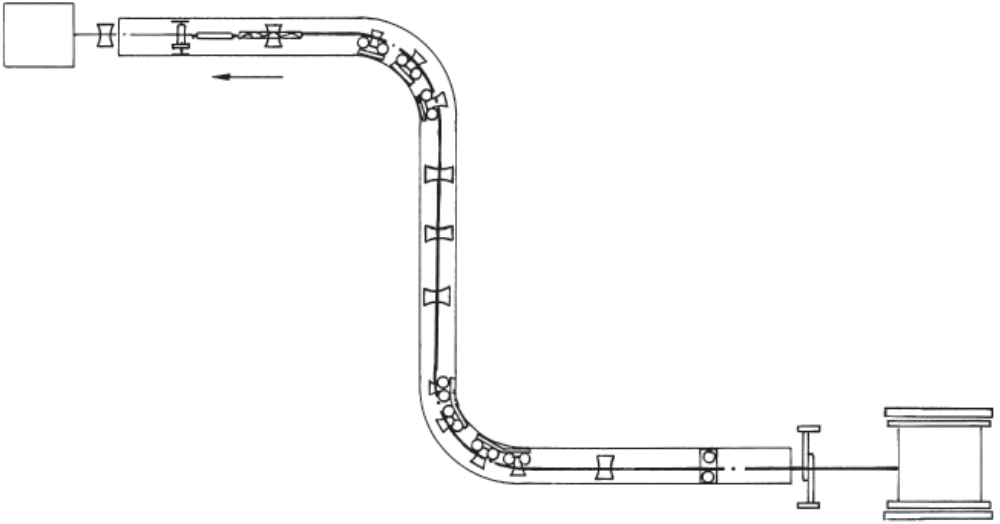
MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

Pullers	4
Pullers accessories	10
Swivel joints	12
Pulling heads	12
Drum lifting device	12
Reel stand	13
Coilers	16
Reel lifting beam	16
Reel/Drum trailer	17
Stocking grips	18
Rollers	20
Angle Rollers	20
Pipe entrance	21
Guide rollers	21
Cable protecting bends	23
Fiber glass snacks and accessories	24

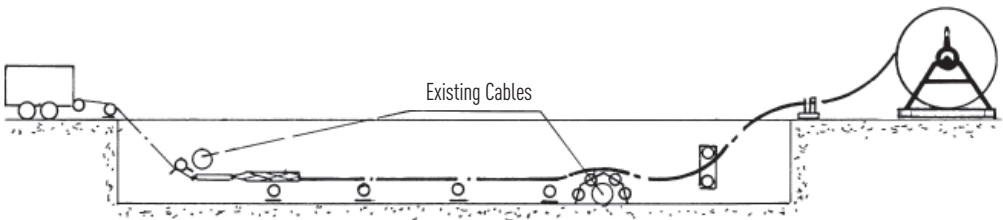
UNDERGROUND LAYING CABLES IN TRENCH

ILLUSTRATION OF THE BASIC METHOD

UPPER VIEW



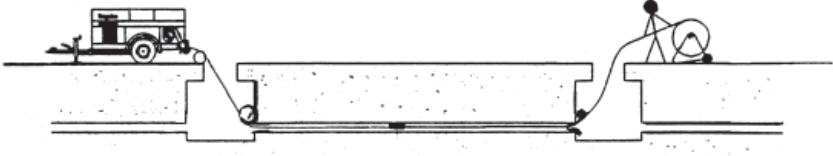
SIDE SECTION



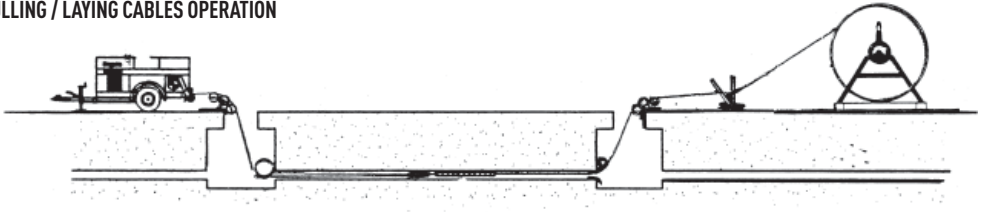
UNDERGROUND LAYING CABLES IN DUCTS

ILLUSTRATION OF THE BASIC METHOD

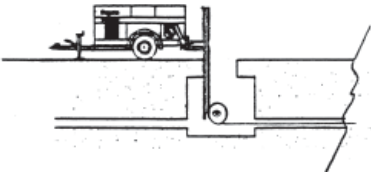
PULLING WIRE LAYING BY SNAKE



PULLING / LAYING CABLES OPERATION

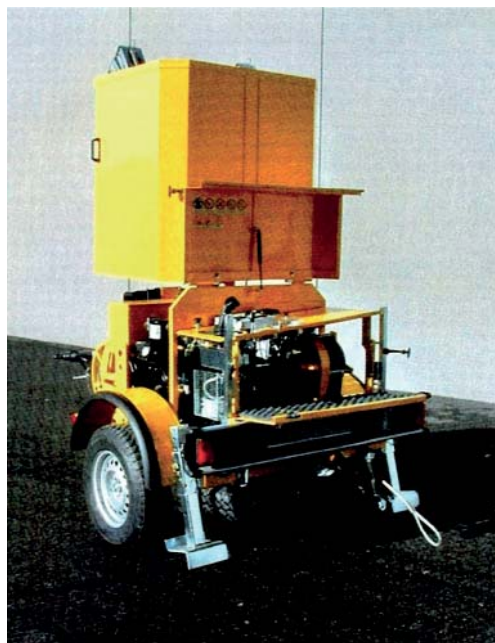


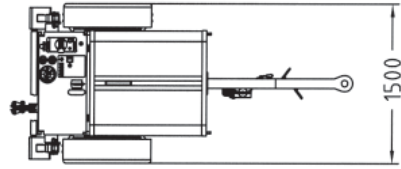
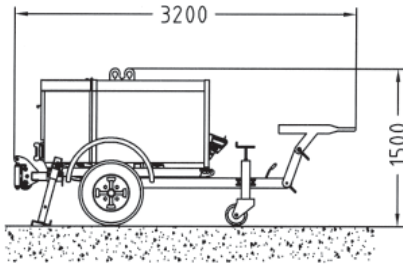
PULLING / LAYING CABLES OPERATION UNDER PULLER BY DEPT ROD SYSTEM



104/3/RTD

HYDRAULIC PULLER WITH AUTOMATIC REEL-WINDER
SUITABLE FOR LAYING UNDERGROUND CABLES





Characteristics and performances:

MAX PULLING CAPACITY: 35 kN

SPEED: Gradual and variable
- kN 35 from 0 to 10 m/min'
- kN 5 from 0 to 50 m/min'

CHARACTERISTICS: - Hydraulic circuit with negative brake system

INSTRUMENTATION: - Dynamometer for direct reading of pulling value with presetting load set-up device
- Gauges for hydraulic system and power engine lights
- Control lever
- Emergency stop button
- Counter-meter device

BULL-WHEELS: - n° 2 capstans thermally treated steel with 6 grooves each 250 mm bottom dia.
max. rope 16 mm dia.

REEL-WINDER: - Automatic reel-winder and level wind in synchronism of pulling direction and speed with rope tension adjustment device, "extractable" steel reel capable to wind up to 300 m of max. rope dia. as above.

ENGINE: - Diesel engine 26,5 HP / 19,5 kW liquid cooling version with electrical starter device

FEATURES: - Heat exchanger for oil cooling, mechanical stabilizers, rope transmission pulley 360° revolving for telescopic vertical rod, protection metallic work bone.

TRANSPORT: - Axle with tyres overrun breaking system and lights bar for towing on the road up to 80 km/h
With supporting turnable wheel on draw bar.

LIFTING: - Upper lifting attachment point balanced type and anchoring attachments

WEIGHT: 1000 Kg approx

DIMENSIONS: 3200x1500x1500 mm

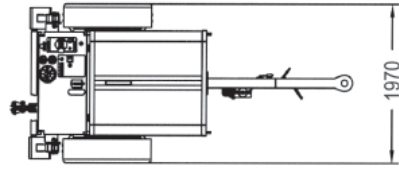
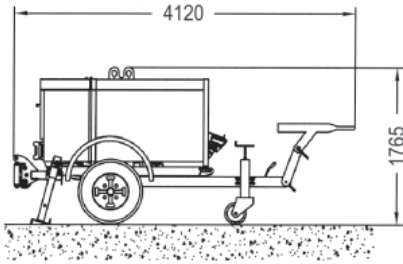
Weights, dimensions and drawings may vary without notice

MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

105/4/RS

HYDRAULIC PULLER WITH AUTOMATIC REEL-WINDER
SUITABLE FOR LAYING UNDERGROUND CABLES





Characteristics and performances:

MAX PULLING CAPACITY: 45 kN

SPEED: Gradual and variable
- kN 45 from 0 to 13 m/min'
- kN 10 from 0 to 54 m/min'

CHARACTERISTICS: - Hydraulic circuit with negative brake system

INSTRUMENTATION: - Dynamometer for direct reading of pulling value with presetting load set-up device
- Gauges for hydraulic system and power engine lights
- Control lever
- Emergency stop button
- Counter-meter device

BULL-WHEELS: - n° 2 capstans thermally treated steel with 7 grooves each 265 mm bottom dia.
max. rope 16 mm dia.

REEL-WINDER: - Automatic reel-winder and level wind in synchronism of pulling direction and speed with rope tension adjustment device, "extractable" steel reel capable to wind up to 800 m of max. rope dia. as above.

ENGINE: - Diesel engine 40 HP / 29,5 kW liquid cooling version with electrical starter device

FEATURES: - Heat exchanger for oil cooling, mechanical stabilizers, rope transmission pulley 360° revolving for telescopic vertical rod, protection metallic work bone.

TRANSPORT: - Axle with tyres overrun breaking system and lights bar for towing on the road up to 80 km/h
With supporting turnable wheel on draw bar.

LIFTING: - Upper lifting attachment point balanced type and anchoring attachments

WEIGHT: 1350 Kg approx

DIMENSIONS: 4120x1970x1765 mm

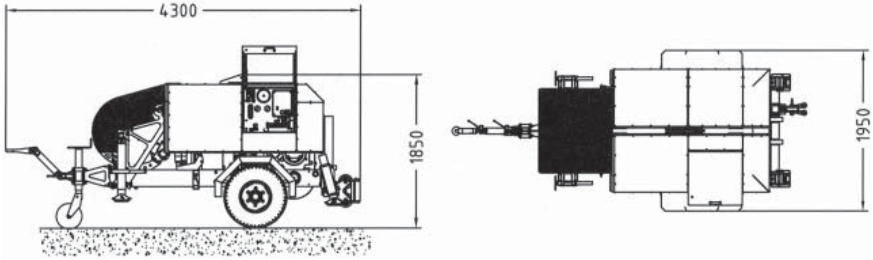
Weights, dimensions and drawings may vary without notice

MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

105/6/RS

HYDRAULIC PULLER WITH AUTOMATIC REEL-WINDER
SUITABLE FOR LAYING UNDERGROUND CABLES





Characteristics and performances:

MAX PULLING CAPACITY: 65 kN

SPEED: Gradual and variable
- kN 65 from 0 to 20 m/min'
- kN 15 from 0 to 80 m/min'

CHARACTERISTICS: - Hydraulic circuit with negative brake system

INSTRUMENTATION: - Dynamometer for direct reading of pulling value with presetting load set-up device
- Gauges for hydraulic system and power engine lights
- Control lever
- Emergency stop button
- Counter-meter device

BULL-WHEELS: - n° 2 capstans thermally treated steel with 7 grooves each 380 mm bottom dia.
max. rope 18 mm dia.

REEL-WINDER: - Automatic reel-winder and level wind in synchronism of pulling direction and speed with rope tension adjustment device, "extractable" steel reel capable to wind up to 700 m of max. rope dia. as above.

ENGINE: - Diesel engine 64 HP / 47 kW liquid cooling version with electrical starter device

FEATURES: - Heat exchanger for oil cooling, mechanical stabilizers, rope transmission pulley 360° revolving for telescopic vertical rod, protection metallic work bone.

TRANSPORT: - Axle with tyres overrun breaking system and lights bar for towing on the road up to 80 km/h
With supporting turnable wheel on draw bar.

LIFTING: - Upper lifting attachment point balanced type and anchoring attachments

WEIGHT: 2650 Kg approx

DIMENSIONS: 4300x1950x1850 mm

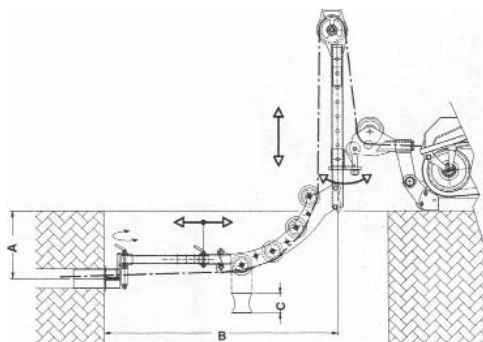
MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

AT 1...

PULLER DEPTH ROD

Suitable for pulling capacities up to 5000 daN it permits to guide and maintain correctly the line pull in conduits during the cable laying operations.

Depth rod adjustable in height with tournable rollers part, supplied with interchangeable sleeve for conduits up to 150 mm. dia.



MODEL	CAPACITY daN	SUITABLE FOR PULLERS ART.	DIMENSIONS (mm)						WEIGHT Kg
			A		B		C		
	min		max	min	max				
AT 1.30	2000 ÷ 3000	104/3/RTD	385	925	1100	1480	115	80	
		106/2/RTD (*)	425	965	1100	1480			
		103/3/RTD (*)	425	965	1100	1480			
AT 1.50	4000 ÷ 6000	105/4/RS	500	1040	1380	1640	115	110	
		105/6/RS	500	1040	1380	1640			

(*) Pullers studied for aerial stringing jobs, useful also for underground laying cables



Machines general optional list (on demand)

PULLER Code 105/...

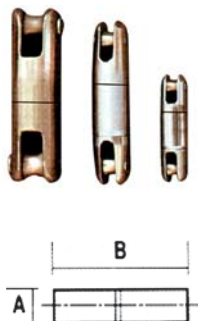
- 01 PW) - Pre-arrangement (PR / TER 301.01) for electronic recorder simple circuit coupling (TER 301.01)
- 03 PW) - Remote control panel (RCW 000...) by "wire version" and shoulder strap console
- 04 PW) - Remote control panel (RCR 000...) by "Radio control wireless version" and shoulder strap console
- 13 PW) - Vertical telescopic dept rod with 180° revolving pulley (see Mod. AT1.30 AT1.50)

250... R

STIFF SWIVEL JOINT

Made of high tensile, galvanized steel, suitable to be used as junction element between the pulling rope and the conductor in order to avoid torsional strain accumulation, rotation on balls.

MODEL	A	B	ROPE	BREAKING LOAD	WEIGHT
	dia.		mm. dia.	kN	Kg
250 AR	32	120	15	80	0,5
250 BCR	45	170	19	180	1,2
250 DR	60	220	24	360	3



461/...

PULLING HEAD FOR UNDERGROUND LAYING UNIPOLAR INSULATED CABLES

Galvanized steel body with eye attachment complete of inside special shooting interchangeable conical jaws (fasten on metallic part of cable) supplied in metallic box with special keys for screwing body and locking jaws.

MODEL	SUITABLE FOR CABLES		N. OF JAWS PER SET	HEAD EXT. dia. mm	BREAKING LOAD kN	WEIGHT Kg
	Section mm ²	dia. mm				
461/240	95/150/240	12/14/20	3	60	28	0,5
461/1000	400/600/1000	23/29/36	3	105	50	1,2
461/1600	1600	49	1	110	80	3

On request: Special jaws Code 461/... G



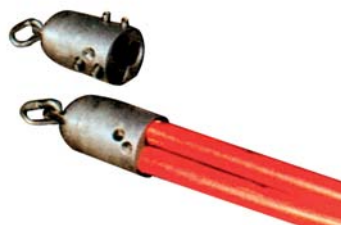
465

HEAD FOR UNDERGROUND INSULATED PERFORMED CABLES

3x(1x95 mm²), 3x(1x150 mm²) and 3x(1x240 mm²).

Made of aluminium and provided of swivelling antitorsion head, it is fastened directly to the cables without their unheating.

Each set is supplied in metal box complete of two heads (95 -150) and (150-240), reversible ratchet key set spare screw for cable fastening.



463/...

CABLE DRUM LIFTING DEVICE

Galvanized steel construction, suitable for lifting of cable drums in "HORIZONTAL".

MODEL	LIFTING CAPACITY	HOLE DRUM min/max	WEIGHT DEVICE
	kg	mm	Kg
463/2000	2000	60/140	8,5
463/5000	5000	90/160	18





F21...

CABLE REEL STAND

Cable reel stand with worm screw lifting by handle, steel reinforced base tough bearings rollers for easy reel rotation.

REEL STAND TYPE	Mod. 40	Mod. 70
Capacity per air	Kg. 4.000	Kg. 7.000
Minimum height	cm. 60	cm. 83
Maximum height	cm. 85	cm. 108
Weight per pair	Kg. 72	Kg. 124
Base overall dimensions	cm. 68x48	cm. 88x62



040/...

REEL STAND WITH DISC BRAKES

Suitable for paying out cables during laying operations, tubular steel construction, folding up for easy transport reel lifting by hydraulic jack. Disc brakes with interchangeable pads support with oscillating shielded ball-bearings.

ARTICLE	LIFTING CAPACITY	SUITABLE FOR REEL	WEIGHT
	kg	dia. mm	Kg
CT0404-S0000	4000	800 to 2800	230
CT0407-S0000	7000	1000 to 2800	280
CT04010-S0000	10000	1500 to 3200	500



043

REEL STAND

Reel stand lifting by hydraulic foot jacks steel frame with rubber wheels.

ARTICLE	AVAILABLE FOR REEL	CAPACITY PER PAIR	WEIGHT PER PAIR
	dia. mm	Kg	Kg
043/1	900 to 2100	3000	55
043/2	1000 to 3600	5000	80
043/3	1000 to 3600	10000	110



043/4/... - 043/4/...1...

CABLE DRUM SHAFTS AND ACCESSORIES

Made on aluminium alloy, with roller-bearings each extremity complete of collar purpose to avoid the drum displacement during the rotation.

ARTICLE	SHAFT	SHAFT	WEIGHT
	dia. mm	length mm	Kg
043/4/75.15	75	1500	14,6
043/4/75.18	75	1800	18,6
043/4/75.20	75	2050	19,6
043/4/90.15	90	1500	18,5
043/4/90.18	90	1800	22,2
043/4/90.20	90	2050	25,3



ARTICLE	COLLAR TYPE	CONE TYPE
	WEIGHT Kg	WEIGHT Kg
043/4/C/75	1,5	-
043/4/C/90	1,7	-
043/4/CN/75	-	2,2
043/4/CN/90	-	4,8

MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

042

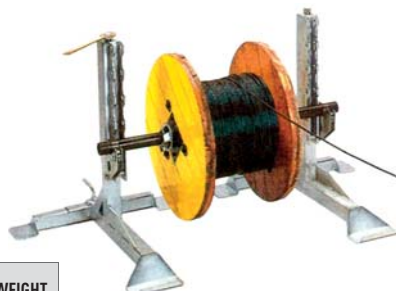
REEL STAND

Mechanical lifting reel stand. rolling shaft on radial ball-bearings, holder bracket distance 100 mm, galvanized steel structure with removable rear foot.

Optional:

Mod. 042/AP

Steel shaft complete 2 fixing cones.



MODEL	CAPACITY PER PAIR	ENCOMBREMENT	AVAILABLE FOR REEL	LIFTING RUNNING LENGTH	WEIGHT
	kg				
042	1600	740x560x400	600 to 1800	200	27
042/AP	1600	1400x48 dia.	600 to 1800	-	10

042/SI

REEL STAND

Hydraulic lifting reel stand. roll ing shaft on radial ball-bearings. holder bracket distance 100 mm, galvanized steel structure with rubber wheels for easy displacement.

Optional:

Mod. 042/SVAP

Steel shaft complete 2 fixing cones.



MODEL	CAPACITY PER PAIR	ENCOMBREMENT	AVAILABLE FOR REEL	LIFTING RUNNING LENGTH	WEIGHT
	kg				
042/SI	5000	1240x700x500	800 to 2800	200	82
042/SI/AP	5000	1800x76 dia.	800 to 2800	-	28

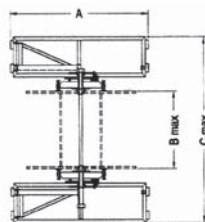
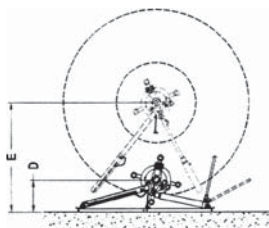
040/...

REEL STAND

Suitable for lifting the drum and paying out cable with a control of inertial rotation moment by discs brake device with hydraulically control jaws looking and oscillating side support for steel drums it's considered.

(In p/o must be specified us a side drums configuration).

MODEL	LIFTING CAPACITY	DIMENSIONS (mm)					WEIGHT
	kg	A	B	C	D	E	Kg
CT04012-S0000	12000	2800	1850	3400	1000	1900	1100
CT04015-S0000	15000	2800	1850	3400	1000	1900	1200
CT04018-S0000	18000	2800	1850	3400	1000	1900	1400

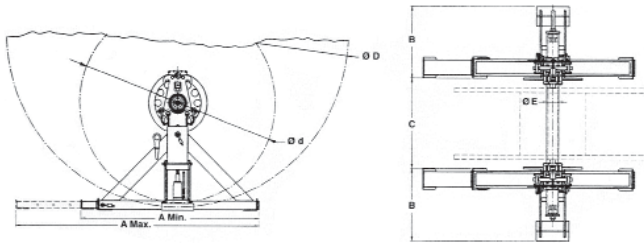
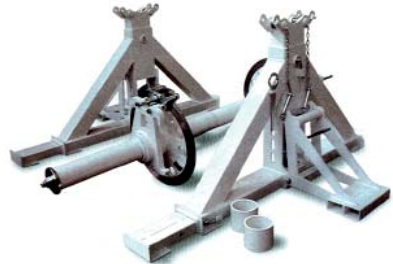


Hydraulic braking jaws coupling view

043/...

REEL STAND

Reel stand elevator with hydraulic lifting jacks and mechanical rest, painted steel structure, suitable for wooden and steel reels, specially used in underground laying cable operations with a "lower pay-out cable" complete of disc brake system on shaft, by hydraulically controlled.



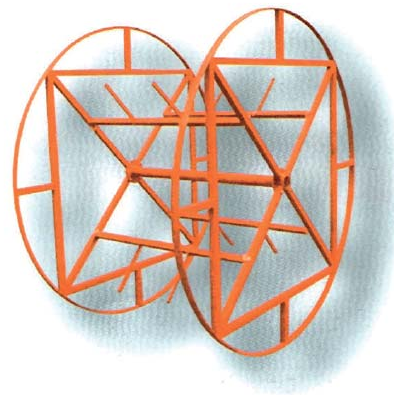
MODEL	LIFTING CAPACITY	DIMENSIONS (mm)						REEL STAND PER PAIR	WEIGHT
	kg	A min	A max	B	C max	Ø d / Ø D	Ø E	Kg approx	Kg
043/20	20000	1800	2500	600	1600	2000 / 3200	95	900	400
043/25	25000	2200	3000	875	1800	2500 / 3500	108	1000	400
043/30	30000	2200	3000	875	2000	2500 / 4000	147	1200	400
043/35	35000	2380	3380	875	2600	2900 / 4700	147	1350	400

Note: in a P/O please specify the exact reel hole dia. and width and reel material as steel or wood.

2400/F.O

COILER FOR F.O. MULTIPLE PIPES

Suitable to coil bundle multiple and single pipes for fiber-optic cables underground lines, painted welded steel structure with demountable sides tor to facilitate the insertion of bundle/single pipes.

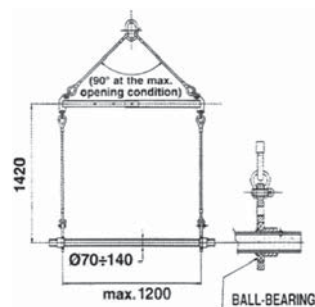
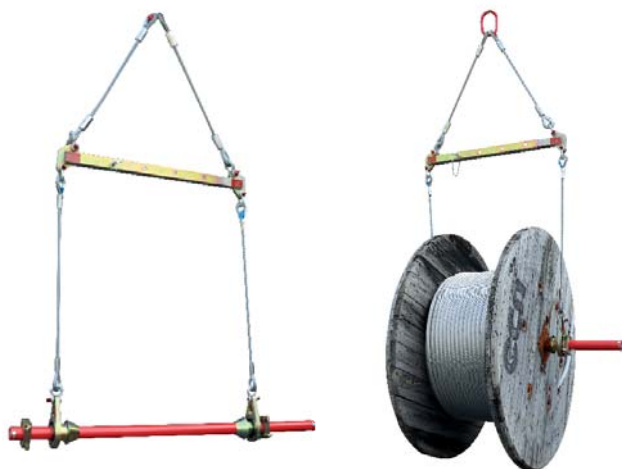


MODEL	EXTERNAL	DRUM	WIDTH	HOLE	WEIGHT
	dia. mm	dia. mm	mm	dia. mm	Kg
2400/F.O.	2420	1350	1300	80	200

464/6

CABLE REEL LIFTING BEAM

Suitable tor loading/unloading cable/conductor reels, galvanized steel structure complete of galvanized steel wires slings, rug and schackles and shalt on ball-bearing.



MODEL	LIFTING CAPACITY	AVAILABLE FOR REEL		REEL HOLE	WEIGHT
	Kg	dia. mm	WIDTH mm	dia. mm	Kg
464/6	6000	1000 to 3500	max 1200	70 to 140	60

PR 200.70

REEL TRAILER

Reel trailer suitable to transport and pay out cable of the cable reels.

Characteristics and features:

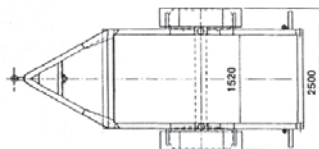
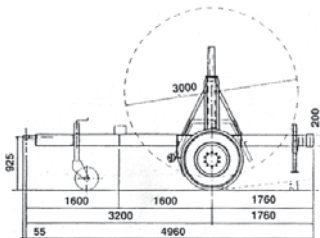
- Chassis, in steel structure with front towing bar protected by anti-rust primer coated treatment and painted
- Trailer axle by 2 independent axles shaft on leaf spring with tires mod. 12.00.20 PR 16 with mud guard and parking brake device
- Twisting and height-adjustable solid wheel on front towing bar
- Towing eye attachment 45 mm. dia. hole
- Pneumatic braking plant (according CE regulations)
- Rear lights 3 section 24 V electric plant and indicators and reflectors for road safety (according CE regulations)
- Max permissible speed 25 Km/h with full weight 60 Km/h without pay load
- Body with 2 lifting drum jacks with independent lifting by manual pumps
- 2 rear mechanical stabiliser
- Drum axle 70-90 mm. dia. complete of cones and accessories

Dimensions and weights:

- Max. drum dia: 3000 mm
- Max. drum width: 1500 mm
- Pay load: 7000 Kg
- Trailer length: 4960 mm
- Trailer width: 2600 mm
- Trailer weight: 1800 Kg (void)

Optional:

- Cable reel winding/unwinding device, driven by explosion engine gear unit Mod. PR 200.70.R



MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

STOCKING TYPE PULLING GRIPS "SINGLE EYE"



MODEL	CABLE	STANDARD LENGTH TYPE	LONG LENGTH TYPE	STANDARD LENGTH	LONG LENGTH	BREAKING LOAD
	dia. mm	mm	mm	Kg	Kg	kN
CT13	10 - 15	600	900	0,100	0,220	20
CT14	15 - 20	600	900	0,180	0,250	20
CT15	20 - 25	600	1000	0,250	0,450	25
CT16	25 - 30	600	1200	0,270	0,500	30
CT17	30 - 40	700	1500	0,300	0,550	45
CT18	25 - 45	700	1500	0,350	0,600	50
CT19	40 - 50	800	1500	0,600	1,200	50
CT20	45 - 60	800	1600	0,700	1,250	50
CT21	60 - 80	800	1800	0,900	1,800	80
CT22	80 - 100	1000	2000	1,000	1,900	100
CT23	100 - 140	1200	2000	1,100	2,000	100
CT24	140 - 170	1200	2000	1,700	2,800	100
CT25	170 - 200	1200	2000	2,200	3,500	100

Note:

- The long length type take a code: CT...L
- Eye with "radancia" will be supplied on request and take a code "R".

STOCKING TYPE PULLING GRIPS "DOUBLE CONNECTION TYPE"



MODEL	CABLE	TOTAL LENGTH	WEIGHT	BREAKING LOAD
	dia. mm	mm	Kg	kN
CT26	10 - 15	1200	0,180	20
CT27	15 - 20	1200	0,300	20
CT28	20 - 25	1200	0,450	25
CT29	25 - 30	1200	0,500	30
CT30	30 - 40	1400	0,550	45
CT31	25 - 45	1400	0,600	50
CT32	40 - 50	1600	1,200	50
CT33	45 - 60	1600	1,250	50
CT34	60 - 80	1600	1,700	80
CT35	80 - 100	2000	1,850	100
CT36	100 - 140	2400	2,000	100
CT37	140 - 170	2400	3,000	100
CT38	170 - 200	2400	4,000	100

STOCKING TYPE PULLING GRIPS “DOUBLE EYES” OPEN HEAD TYPE



MODEL	CABLE	TOTAL LENGTH	WEIGHT	BREAKING LOAD
	dia. mm	mm	Kg	kN
CT39	10 - 15	800	0,200	20
CT40	15 - 20	800	0,230	20
CT41	20 - 25	800	0,350	25
CT42	25 - 30	800	0,400	30
CT43	30 - 40	1000	0,450	45
CT44	25 - 45	1000	0,500	50
CT45	40 - 50	1000	0,800	50
CT46	45 - 60	1000	0,950	50
CT47	60 - 80	1000	1,100	80
CT48	80 - 100	1200	1,300	100
CT49	100 - 140	1400	1,700	100
CT50	140 - 170	1400	2,100	100
CT51	170 - 200	1400	2,800	100

STOCKING TYPE PULLING GRIPS “DOUBLE EYES” OPEN SIDE TYPE WITH LACE



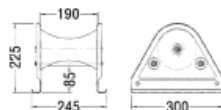
MODEL	CABLE	TOTAL LENGTH	WEIGHT	BREAKING LOAD
	dia. mm	mm	Kg	kN
CT52	10 - 15	800	0,200	20
CT53	15 - 20	800	0,230	20
CT54	20 - 25	800	0,350	25
CT55	25 - 30	800	0,400	30
CT56	30 - 40	1000	0,450	45
CT57	25 - 45	1000	0,500	50
CT58	40 - 50	1000	0,800	50
CT59	45 - 60	1000	0,950	50
CT60	60 - 80	1000	1,100	80
CT61	80 - 100	1200	1,300	100
CT62	100 - 140	1400	1,700	100
CT63	140 - 170	1400	2,100	100
CT64	170 - 200	1400	2,800	100

MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

500/AL

STRAIGHT ROLLER

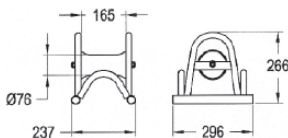
Aluminium casting roller on ball-bearings with galvanized steel frame available to place it on already laid cables.
Weight 5 Kg



500/AC

STRAIGHT ROLLER

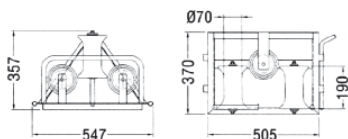
Galvanized steel casting roller on ball-bearings with galvanized steel frame available to place it on already laid cables.
Weight 3,5 Kg



503/AL

ANGLE ROLLERS

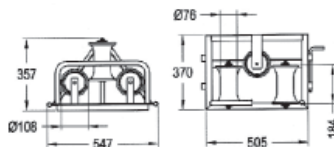
Aluminium casting rollers on ball-bearings with galvanized steel frame each complete of hinge for bend composition.
Weight 15 Kg



503/AC

ANGLE ROLLERS

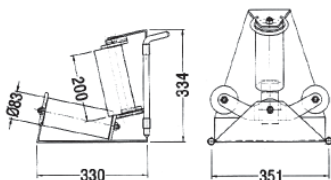
Galvanized steel casting roller on ball-bearings with galvanized steel frame each complete of hinge for bend composition.
Weight 10,5 Kg



609

ANGLE ROLLERS

Galvanized steel rollers on ball-bearings (verticals by oscillating system) with galvanized steel frame each complete of hinge for bend composition.
Weight 17 Kg





608/...

CABLE DUCT ENTRANCE DEVICE

Opening rollers frame in galvanized steel an ball-bearings with half fix sleeve.



ARTICLE	FOR DUCT MOUTH INTERNAL	WEIGHT
	dia. mm	Kg
608/1 (*)	60	3,4
608/2	80	3,8
608/3	100	4,6
608/4	120	5
608/5	140	6
608/6	160	6,5
608/7	180	7
608/8	200	8

(*) Size on request

608/... C

CABLE DUCT ENTRANCE DEVICE

Opening rollers frame as above but with complete version opening sleeve with locking screw system.



ARTICLE	FOR DUCT MOUTH INTERNAL	WEIGHT
	dia. mm	Kg
608/1 C (*)	60	4
608/2 C	80	4,4
608/3 C	100	5,5
608/4 C	120	6
608/5 C	140	6,8
608/6 C	160	7,5
608/7 C	180	8,5
608/8 C	200	9,8

(*) Size on request

508/AL...

CABLE DUCT ENTRANCE DEVICE

One aluminium casting roller on ball-bearings with complete opening sleeve and adjusting/locking screw system.



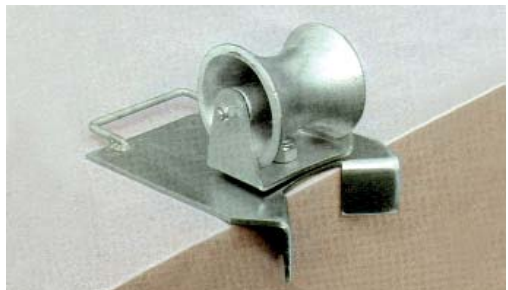
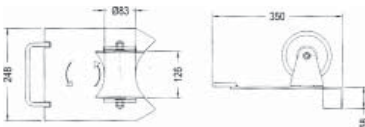
ARTICLE	FOR DUCT MOUTH INTERNAL	WEIGHT
	dia. mm	Kg
508/AL 1 (*)	60	4
508/AL 2	80	4,5
508/AL 3	100	5
508/AL 4	120	6
508/AL 5	140	7
508/AL 6	160	7,5
508/AL 7	180	8,8
508/AL 8	200	10

(*) Size on request

601/AL

MANHOLE CABLE GUIDE ROLLER

Twisting aluminium casting roller on ball-bearing with galvanized steel frame suitable for entry/exit cables from manholes.



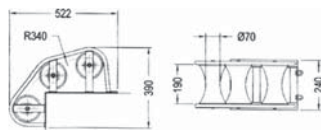
Weights, dimensions and drawings may vary without notice

MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

605/AL

MANHOLE CABLE GUIDE ROLLERS

Aluminium casting rollers on ball-bearings with galvanized steel frame suitable for entry/exit cables from manholes.

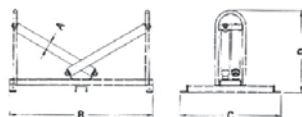


505/...

CABLE GUIDE DRUM ROLLER STAND

Galvanized steel rollers on ball-bearings and galvanized steel frame suitable to guide a pay-out cable from the drum to the trench.

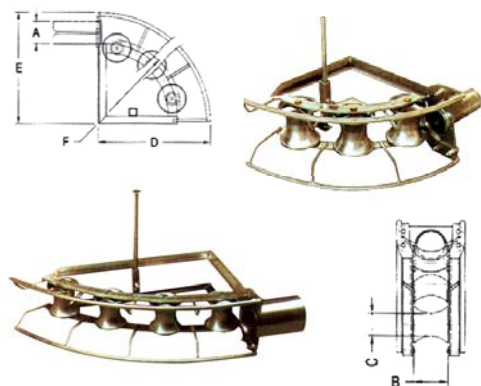
ARTICLE	PAYLOAD	A	B	C	D	WEIGHT
	daN	mm	mm	mm	mm	Kg
505	200	35	1000	500	500	12
505/R	500	60	1000	700	565	22



603 AL... - 604 AL...

ANGLE ROLLERS DUCT ENTRANCE

Aluminium casting rollers on ball-bearings with galvanized steel frame and interchangeable galvanized steel sleeves.



ARTICLE	FOR DUCTMOUTH INTERNAL dia. A	B	C	D	E	F	WEIGHT
	mm	mm	dia. mm	mm	mm	mm	Kg
603 AL/1	80	126	83	505	500	340	18
603 AL/2	100	126	83	505	500	340	18,5
603 AL/3	120	126	83	505	500	340	19
603 AL/4	140	126	83	505	500	340	20

ARTICLE	FOR DUCTMOUTH INTERNAL dia. A	B	C	D	E	F	WEIGHT
	mm	mm	dia. mm	mm	mm	mm	Kg
604 AL/1	80	126	83	900	550	840	24
604 AL/2	100	126	83	900	550	840	24,5
604 AL/3	120	126	83	900	550	840	25
604 AL/4	140	126	83	900	550	840	26

Mod. B...

INTERCHANGEABLES SLEEVES IN GALVANIZED STEEL FOR AS ABOVE DEVICE

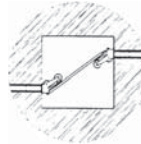
ARTICLE	FOR DUCTMOUTH INTERNAL dia.
	mm
B1	80
B2	100
B3	120
B4	140



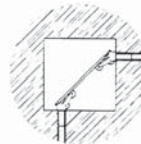
607 AL/

MANHOLE CABLE GUIDING DEVICE

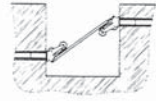
Aluminium casting rollers on ball-bearings with telescopic rod available for guiding entry/exit cables with deviation and difference in height frame in galvanized steel.



Deviation

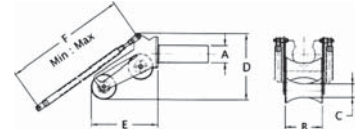


Deviation



Difference in height

ARTICLE	FOR DUCTMOUTH INTERNAL dia. A	B	C	D	E	F	WEIGHT
	mm	mm	dia. mm	mm	mm	min-max mm	Kg
607 AL/2	100	190	83	350	370	1200-2100	26
607 AL/3	120	190	83	350	370	1200-2100	28
607 AL/4	150	190	83	350	370	1200-2100	30



700

CABLE PROTECTING BENDS SIMPLE TYPE

Galvanized steel suitable for ductmouth internal dia. 100 mm.
Weight 1 Kg



701

CABLE PROTECTING BENDS TYPE WITH CHOCK

Galvanized steel suitable for ductmouth internal dia. 100 mm.
Weight 2,2 Kg



506

CABLE PROTECTING BENDS STRIPE TYPE

Galvanized steel with corner support suitable for entry/exit cables from manholes.
Weight 2,5 Kg



MACHINES AND ACCESSORIES FOR UNDERGROUND LAYING CABLES

507 STRAIGHT TYPE

CABLE PROTECTING ENTRY SLEEVES FOR DUCTMOUTHS

Cable protecting entry sleeves for ductmouths of galvanized sheet steel. made in two parts easily opening.

ARTICLE	dia.	WEIGHT
	mm	Kg
507/1	80	1,7
507/2	100	2
507/3	120	2,5
507/4	140	2,8



SOM 6...

FIBERGLASS ROD CONDUIT SNAKES

Fiberglass rod conduit snakes positioned on galvanized steel frame for horizontal or vertical use, supplied with guide tip and shackle.

ARTICLE	LENGHT	ROD	FRAME	WEIGHT
	mt	mm dia.	mm dia.	Kg
SOM 6.30	30	6	550	5,8
SOM 6.50	50	6	550	6,8
SOM 6.60	60	6	550	7,3
SOM 6.80	80	6	550	8,4



SOM V 6...

FIBERGLASS ROD CONDUIT SNAKES

Fiberglass rod conduit snakes positioned on galvanized steel frame for horizontal or vertical use, supplied with guide tip and shackle.

ARTICLE	LENGHT	ROD	FRAME	WEIGHT
	mt	mm dia.	mm dia.	Kg
SOM V 6.30	30	6	550	6,8
SOM V 6.50	50	6	550	7,8
SOM V 6.60	60	6	550	8,3
SOM V 6.80	80	6	550	9,4

Fiberglass spare rod Art. SOM 6F/...

SOM... WITHOUT COPPER CORE

FIBERGLASS ROD CONDUIT SNAKES

Fiberglass rod conduit snakes positioned on galvanized steel frame for vertical use, with rubber wheels on ball-bearings supplied with guide tip and shackle.



ARTICLE	LENGHT	ROD	FRAME	WEIGHT
	mt	mm dia.	mm dia.	Kg
SOM 9.60	60	9	700	20
SOM 9.80	80	9	700	22
SOM 9.100	100	9	1000	24
SOM 9.120	120	9	1000	25
SOM 9.150	150	9	1000	28
SOM 11.100	100	11	1000	35
SOM 11.120	120	11	1000	38
SOM 11.150	150	11	1000	43
SOM 11.200	200	11	1000	50
SOM 11.250	250	11	1000	58
SOM 11.300	300	11	1000	66

Fiberglass spare rod Art. SOM 9F/... or SOM 11F/...

Optional:

Art. SOM R...

Fiberglass rod with copper wire core (on request) Art. SOMR...



SOM 14... G

Guide tip with shackle for fiberglass rod conduit snakes 6-9 and 11 mm for threaded terminal attachment.



SOM 16.6 - Mod. SOM 16.9 - 11

Aluminium alloy spheric roller guide tip for fiberglass rod conduit snakes 6-9 and 11 mm for threaded terminal attachment.



SOM 13.6 - .9- .11

Swivel joint for connection fiberglass rod conduit snakes 6-9 and 11 mm for threaded terminal attachment.



SOM 17.6 - .9- .11

Stift joint for connection fiberglass rod conduit snakes 6-9 and 11 mm.



SOM 18.6 - .9- .11

Terminal attachment for fiberglass rod conduit snakes 6-9 and 11 mm.



SOM 19 C

Glue for fiberglass rod conduit snakes.

Note: Repair kit for fiberglass rod conduit snakes composed of SOM 17... + SOM 19 C



SOM/A 20...

Coupler device between 2 fiberglass rods for pipes up to 80 mm. dia.
for pipes up to 125 mm. dia.
for pipes up to 200 mm. dia.

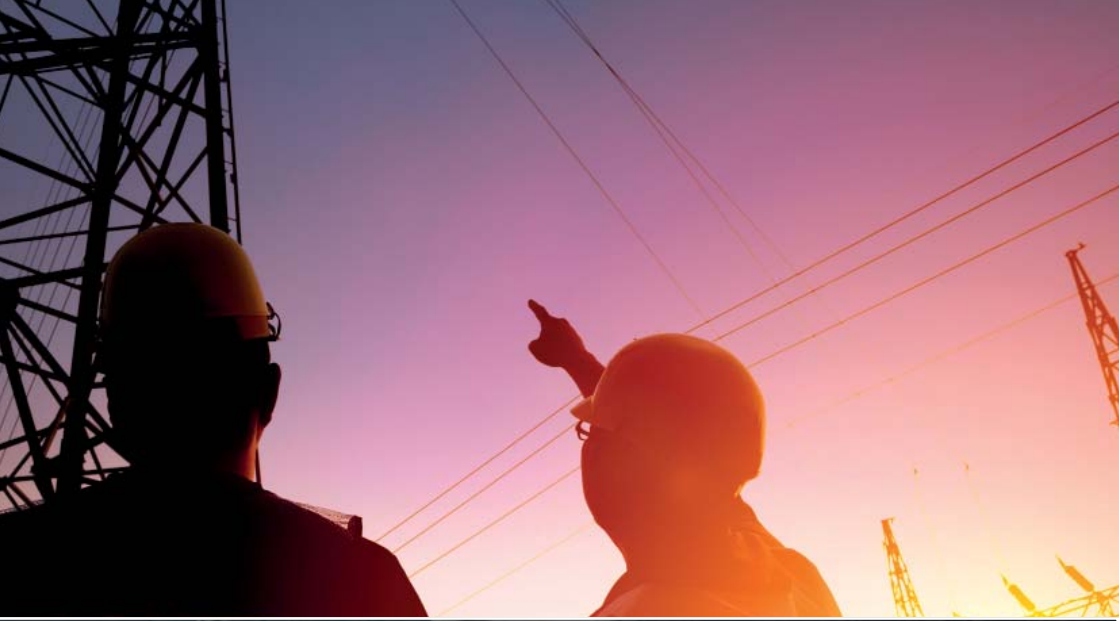


SOM 21/...

NYLON CLEANING CONDUIT BRUSHES

- .../80 for pipes up to 80 mm
- .../100 for pipes up to 100 mm
- .../120 for pipes up to 120 mm
- .../140 for pipes up to 140 mm
- .../160 for pipes up to 160 mm
- .../180 for pipes up to 180 mm
- .../200 for pipes up to 200 mm
- .../220 for pipes up to 220 mm





**VILLBEK EQUIPMENT
AND LADDERS
CATALOGUE BY TEMA**

