

MACHINES AND EQUIPMENT

HV TRANSMISSION LINES STRINGING

CATALOGUE T15
=ENGLISH=



1	HYDRAULIC PULLERS FOR STRINGING OVERHEAD CONDUCTORS
2	HYDRAULIC TENSIONERS
3	HYDRAULIC PULLER-TENSIONERS
4	HYDRAULIC SERVICE WINCHES
5	REEL-STANDS AND TRAILERS
6	REELS AND ROPES
7	PULLEY BLOCKS
8	EQUIPMENT
9	LIGHT ALLOY EQUIPMENTS

CONTROL INSTRUMENTS 10

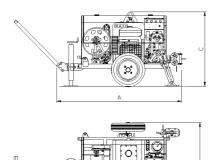


1

HYDRAULIC PULLERS FOR STRINGING
OVERHEAD CONDUCTORS

CMAC

Mod. F265.15







Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multi-grooved steel capstans fit for stringing one steel rope, with anti-fleeting rollers.
- Machine control panel with control instruments.
- Dynamometer and preselector of max pull force
- Mechanical metercounter.
- Safety negative hydraulic brake.
- Demountable axle with tires and drawbar for towing at low speed in workplace.
- Mechanical stabilisers on pull side and jack-arm with wheel on drawbar side.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Built-in reel-winder with automatic rope-winder and extractable reel.

OPTIONAL DEVICES

- 003 Damped axle for towing on road, with mechanical brake (homologation excluded).
- 027 Metallic coverage with doors.
- 028.3 Air cooled diesel engine (it adds 50 kg to the machine weight).
- 067 Telescopic rod to lay underground cables (art. F277).
- 069.2 Electronic device with USB port, to save the data of the pull supplied in a separate case.
- 069.3 Arrangement for electronic instrument opt. 069.2.
- 069.5 Printer with accessories.
- 083.1 Rope transmission pulley, 360° revolving, fit for pulling underground cables, predisposed to receive the telescopic bar mod. F 276 and F 279.

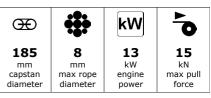
FEATURES	
Capstans	2 x Ø 185 mm
Max rope diameter	8 mm

ENGINE	
Feeding	gasoline
Power	18 hp / 13 kW
Cooling	air
Starting	electric with battery 12 V

PULL PERFORMANCES	
Max pull	15 kN
Speed at max pull	20 m/min
Max speed	65 m/min
Pull at max speed	3 kN

REEL	
Type	extractable
Capacity of steel rope Ø 8 mm	550 m

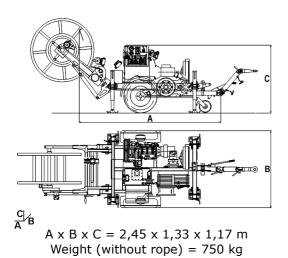
DIMENSIONS AND WEIGHT		
without axle or drawbar		
Dimensions	1,30 x 0,8	0 x 0,70 m
Weight (without ro	pe)	410 kg
with optional non-demountable axle		
and drawbar (opt.003)		
Dimensions	1,55 x 1,2	0 x 1,10 m
Weight (without ro	20)	520 ka





CNAC

Mod. F380.20





Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Mechanical metercounter.
- Safety negative hydraulic brake.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers and attachments for anchorage.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for reels dia. 1100 mm, with automatic ropewinder.

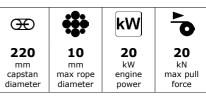
OPTIONAL DEVICES

- 007 Chassis with damped axle, overrun brake and drawbar for towing on road (homologation excluded).
- 026 PVC cloth cover.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.3 Manual clamp for rope.
- 067 Telescopic rod to lay underground cables (art. F277).
- 069.5 Printer with accessories, complete with case.
- 083.1 Rope transmission pulley, 360° revolving, fit for pulling underground cables, predisposed to receive the telescopic bar mod. F 276 and F 279.

FEATURES	
Capstans	2 x Ø 220 mm
Max rope diameter	10 mm

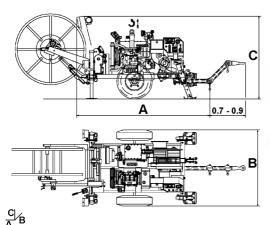
ENGINE	
Feeding	diesel
Power	27 hp / 20 kW
Cooling	water
Electric plant	12 V

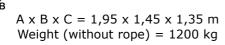
PULL PERFORMANCES	
Max pull	20 kN
Speed at max pull	18 m/min
Max speed	65 m/min
Pull at max speed	6 kN



CNAC

Mod. F275.30







Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Mechanical metercounter.
- Safety negative hydraulic brake.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hand-operated mechanical stabilisers
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1400-mm-dia reel, with automatic ropewinder.

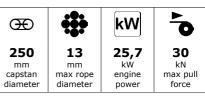
OPTIONAL DEVICES

- 007 Chassis with damped axle, overrun brake and drawbar for towing on road (homologation excluded).
- 026 PVC cloth cover.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.3 Manual clamp for rope.
- 051.3 Motorised rubber caterpillars.
- 038.C Radio-control for caterpillars.
- 067 Telescopic rod to lay underground cables (art. F277).
- 069.5 Printer with accessories, complete with case.
- 083.1 Rope transmission pulley, 360° revolving, fit for pulling underground cables, predisposed to receive the telescopic bar mod. F 276 and F 279.

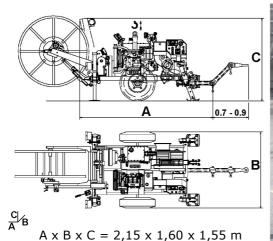
FEATURES	
Capstans	2 x Ø 250 mm
Grooves on the capstans	7 + 7
Max rope diameter	13 mm
Max joint diameter	40 mm

ENGINE	
Feeding	diesel
Power	35 hp / 25,7 kW
Cooling	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	30 kN
Speed at max pull	1,2 km/h
Max speed	3,8 km/h
Pull at max speed	12 kN



Mod. F280.35



Weight (without rope) = 1700 kg



Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Mechanical metercounter.
- Safety negative hydraulic brake.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic back stabilisers and manual front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1400-mm-dia reel, with automatic ropewinder.

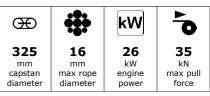
OPTIONAL DEVICES

- 007 -Chassis with damped axle, overrun brake and drawbar for towing on road (homologation excluded).
- 026 -PVC cloth cover.
- 037 -Remote control by cable, with 10 m of cable.
- Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- 051.3 Motorised rubber caterpillars.038.C Radio-control for caterpillars.
- 067 -Telescopic rod to lay underground cables (art. F277).
- 069.5 Printer with accessories, complete with case.
- Rope transmission pulley, 360° revolving, fit for pulling 083.1 underground cables, predisposed to receive the telescopic bar mod. F 276 and F 279.

FEATURES	
Capstans	2 x Ø 325 mm
Grooves on the capstans	7 + 7
Max rope diameter	16 mm
max Joint diameter	45 mm

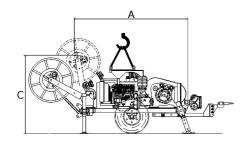
ENGINE	
Feeding	diesel
Power	35,2 hp / 26 kW
Cooling	water
Electric plant	12 V

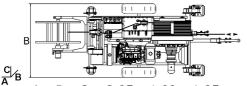
PULL PERFORMANCES	
Max pull	35 kN
Speed at max pull	1,2 km/h
Max speed	4,0 km/h
Pull at max speed	13 kN



CNAC ITALY

Mod. F230.45





 $A \times B \times C = 2,85 \times 1,80 \times 1,85 \text{ m}$ Weight (without rope) = 2100 kg



Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Safety negative hydraulic brake.
- Chassis with rigid axle, overrun brake and drawbar for towing at low speed on workplace.
- Hydraulic back stabilisers and manual front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1600-mm-dia reel, with automatic ropewinder.

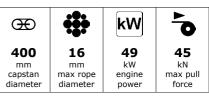
OPTIONAL DEVICES

- 007 Chassis with damped axle, overrun brake and drawbar for towing on road (homologation excluded).
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- 069.5 Printer with accessories, complete with case.
- 083.1 Rope transmission pulley, 360° revolving, fit for pulling underground cables, predisposed to receive the telescopic bar mod. F 276 and F 279.

FEATURES	
Capstans	2 x Ø 400 mm
Grooves on the capstans	7 + 7
Max rope diameter	16 mm
Max joint diameter	50 mm

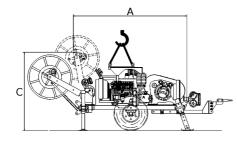
ENGINE	
Feeding	diesel
Power	67 hp / 49 kW
Cooling	water
Electric system	12 V

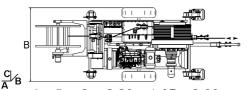
PULL PERFORMANCES	
Max pull	45 kN
Speed at max pull	2,2 km/h
Max speed	5,0 km/h
Pull at max speed	17 kN



SMAC ITALY

Mod. F230.70





A x B x C = $3,20 \times 1,95 \times 2,00 \text{ m}$ Weight (without rope) = 2400 kg



Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Metercounter and speedometer.
- Safety negative hydraulic brake.
- Chassis with rigid axle, overrun brake and drawbar for towing at low speed on workplace.
- Hydraulic back stabilisers and manual front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1600-mm-dia reel, with automatic ropewinder.

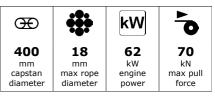
OPTIONAL DEVICES

- 007 Chassis with damped axle, overrun brake and drawbar for towing on road (homologation excluded).
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- 069.5 Printer with accessories, complete with case.
- 083.1 Rope transmission pulley, 360° revolving, fit for pulling underground cables, predisposed to receive the telescopic bar mod. F 276 and F 279.

FEATURES	
Capstans	2 x Ø 400 mm
Grooves on the capstans	8 + 8
Max rope diameter	18 mm
Max joint diameter	50 mm

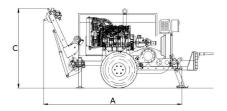
ENGINE	
Feeding	diesel
Power	84 hp / 62 kW
Cooling	water
Electric system	12 V

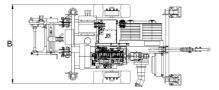
PULL PERFORMANCES	
Max pull	70 kN
Speed at max pull	1,8 km/h
Max speed	4,5 km/h
Pull at max sneed	32 kN



SMAC

Mod. F235.90





A x B x C = 3,70 x 2,15 x 2,10 m Weight (without rope) = 3900 kg



Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device for setting the pull force, that adjust the speed in order to maintain the force set.
- Safety negative hydraulic brake.
- Chassis with rigid axle, overrun brake and drawbar for towing at low speed on workplace.
- Hydraulic back stabilisers and manual front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1600-mm-dia reel, with automatic ropewinder.

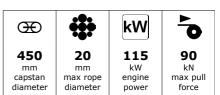
OPTIONAL DEVICES

- 008 Axle with leaf spring suspensions, drawbar, pneumatic braking system, tires and lights for towing on the road (without homologation).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- 047 Hydraulic front stabilisers.
- 069.5 Printer with accessories, complete with case.
- 084 Bigger reelwinder fit for a 1900-mm-dia reel.
- 115 Setting-up for pulling 2 ropes simultaneously.
- 014 Second reel-winder, ideal to complete the opt. 115.

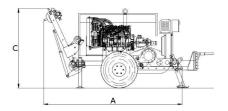
FEATURES	
Capstans	2 x Ø 450 mm
Grooves on the capstans	9 + 9
Max rope diameter	20 mm
Max joint diameter	60 mm

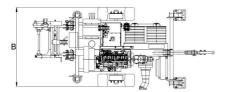
ENGINE	
Feeding	diesel
Power	156 hp / 115 kW
Cooling	water
Electric system	12 V

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



Mod. F260.120





 $A \times B \times C = 3,95 \times 2,40 \times 2,20 \text{ m}$ Weight (without rope) = 4500 kg



Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Metercounter and speedometer.
- Device for setting the pull force, that adjust the speed in order to maintain the force set.
- Safety negative hydraulic brake.
- Chassis with rigid axle, overrun brake and drawbar for towing at low speed on workplace.
- Hydraulic back stabilisers and manual front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1600-mm-dia reel, with automatic ropewinder.

OPTIONAL DEVICES

- 800 Axle with leaf spring suspensions, drawbar, pneumatic braking system, tires and lights for towing on the road (without homologation).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 026 -PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- Remote control by cable, with 10 m of cable. 037 -
- 038 -Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- Hydraulic front stabilisers. 047 -
- 069.5 Printer with accessories, complete with case.
- Bigger reelwinder fit for a 1900-mm-dia reel. 084 -
- 115 -Setting-up for pulling 2 ropes simultaneously.
- 014 -Second reel-winder, ideal to complete the opt. 115.

FEATURES	
Capstans	2 x Ø 600 mm
Grooves on the capstans	10 + 10
Max rope diameter	24 mm
Max joint diameter	60 mm

ENGINE	
Feeding	diesel
Power	185 hp / 136 kW
Cooling	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	120 kN
Speed at max pull	2,5 km/h
Max speed	5 km/h
Pull at max speed	60 kN





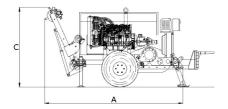


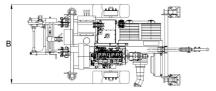
power



OMAC ITALY

Mod. F260.140





A x B x C = 3,95 x 2,40 x 2,20 m Weight (without rope) = 4900 kg



Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Metercounter and speedometer.
- Device for setting the pull force, that adjust the speed in order to maintain the force set.
- Safety negative hydraulic brake.
- Chassis with rigid axle, overrun brake and drawbar for towing at low speed on workplace.
- Hydraulic back stabilisers and manual front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1600-mm-dia reel, with automatic ropewinder.

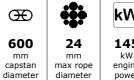
OPTIONAL DEVICES

- 008 Axle with leaf spring suspensions, drawbar, pneumatic braking system, tires and lights for towing on the road (without homologation).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- 047 Hydraulic front stabilisers.
- 069.5 Printer with accessories, complete with case.
- 084 Bigger reelwinder fit for a 1900-mm-dia reel.
- 115 Setting-up for pulling 2 ropes simultaneously.
- 014 Second reel-winder, ideal to complete the opt. 115.
- 174.1 Synchronising device for the connection of 2 machines to pull 2 ropes simultaneously, complete with cable-control (20 m).

2 x Ø 600 mm
10 + 10
24 mm
60 mm

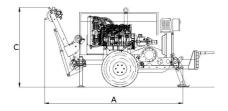
ENGINE	
Feeding	diesel
Power	197 hp / 145 kW
Cooling	water
Electric system	12 V

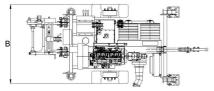
PULL PERFORMANCES	
Max pull	140 kN
Speed at max pull	2 km/h
Max speed	4,5 km/h
Pull at max speed	60 kN



CNAC ITALY

Mod. F260.160





A x B x C = 4,10 x 2,42 x 2,30 m Weight (without rope) = 5200 kg



Hydraulic puller fit to pull one rope in stringing operations of underground cables or overhead transmission lines. One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Safety negative hydraulic brake.
- Chassis with rigid axle, overrun brake and drawbar for towing at low speed on workplace.
- Hvdraulic back stabilisers and front share.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1400-mm-dia reel, with automatic ropewinder.

OPTIONAL DEVICES

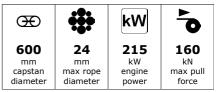
- 008 Axle with leaf spring suspensions, drawbar, pneumatic braking system, tires and lights for towing on the road (without homologation).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- 047 Hydraulic front stabilisers.
- 069.5 Printer with accessories, complete with case.
- 084 Bigger reelwinder fit for a 1900-mm-dia reel.
- 115 Setting-up for pulling 2 ropes simultaneosly.
- 014 Auxiliary hydraulic circuit to control an additional reel-winder
- 174.1 Synchroniser device for matching 2 machines to pull 2 ropes simultaneously, complete with remote control by cable(20 m) for controlling the 2 machines.

FEATURES	
Capstans	2 x Ø 600 mm
Grooves on the capstans	10 + 10
Max rope diameter	24 mm
Max joint diameter	60 mm

ENGINE	
Feeding	diesel
Power	290 hp / 215 kW
Cooling	water
Electric system	24 V

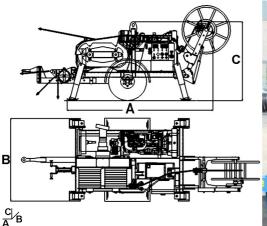
PULL PERFORMANCES	
Max pull	160 kN
Speed at max pull	2,5 km/h
Max speed	5 km/h
Pull at max speed	80 kN

also available mod. F260.190		
max pull	190 kN	
speed at max pull	2,2 km/h	
max speed	5 km/h	
pull at max speed	80 kN	



CNAC

Mod. F375.240





 $A \times B \times C = 5,10 \times 2,50 \times 3,00 \text{ m}$ Weight (without rope) = 9500 kg

Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

Device for pull programming that brings on the fixed value adjusting automatically the velocity in agree with the loads on the line (even at '0' speed).

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device for setting the pull force, that adjusts the speed in order to maintain the force set.
- Safety negative hydraulic brake.
- Chassis with rigid axle, overrun brake and drawbar for towing at low speed on workplace.
- Hydraulic back and front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1900-mm-dia reel, with automatic ropewinder.

OPTIONAL DEVICES

- 005.1 Chassis with tandem axle, drawbar, suspensions, air braking system, tires and lights for towing on the road (homologation excluded).
- 008 Axle with leaf spring suspensions, drawbar, pneumatic braking system, tires and lights for towing on the road (without homologation).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- 069.5 Printer with accessories, complete with case.
- 084 Bigger reelwinder fit for a 2250-mm-dia reel.
- 115 Setting-up for pulling 2 ropes simultaneosly.
- 014 Second reel-winder, ideal to complete the opt. 115.

FEATURES	
Capstans	2 x Ø 800 mm
Grooves on capstans	12 + 12
Max rope diameter	32 mm
Max joint diameter	80 mm

ENGINE	
Feeding	diesel
Power	380 hp / 280 kW
Cooling	water
Electric system	24 V

PULL PERFORMANCES	
Max pull	240 kN
Speed at max pull	2,5 km/h
Max speed	5,0 km/h
Pull at max speed	130 kN

800 32 mm max rope diameter

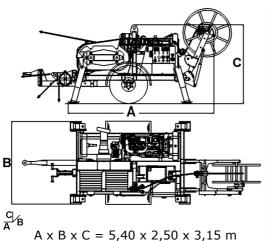
280 kW engine

power

240 kN max pull

SMAC ITALY

Mod. F250.280



Weight (without rope) = 13000 kg



Hydraulic puller fit to pull one rope in stringing operations of overhead transmission lines.

One hydraulic circuit lets to vary continuously the speed in both directions by operating one only control device.

Device for pull programming that brings on the fixed value adjusting automatically the velocity in agree with the loads on the line (even at '0' speed).

- One pair of multigrooved steel capstans fit for stringing one steel rope.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device for setting the pull force, that adjusts the speed in order to maintain the force set.
- Safety negative hydraulic brake.
- Chassis with rigid axle, overrun brake and drawbar for towing at low speed on workplace.
- Hydraulic back and front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Reelwinder fit for a 1900-mm-dia reel, with automatic ropewinder.

OPTIONAL DEVICES

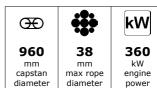
- 005.1 Chassis with tandem axle, drawbar, suspensions, air braking system, tires and lights for towing on the road (homologation excluded).
- 008 Axle with leaf spring suspensions, drawbar, pneumatic braking system, tires and lights for towing on the road (without homologation).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for rope.
- 045.3 Manual clamp for rope.
- 069.5 Printer with accessories, complete with case.
- 084 Bigger reelwinder fit for a 2250-mm-dia reel.
- 115 Setting-up for pulling 2 ropes simultaneously.
- 014 Second reel-winder, ideal to complete the opt. 115.

FEATURES	
Capstans	2 x Ø 960 mm
Grooves on capstans	12 + 12
Max rope diameter	38 mm
Max joint diameter	80 mm

ENGINE	
Feeding	diesel
Power	490 hp / 360 kW
Cooling	water
Electric system	24 V

PULL PERFORMANCES	
Max pull	280 kN
Speed at max pull	2,5 km/h
Max speed	5,0 km/h
Pull at max speed	140 kN

also available mod. F250.300		
max pull	300 kN	
speed at max pull	2,5 km/h	
max speed	4,5 km/h	
pull at max speed	155 kN	



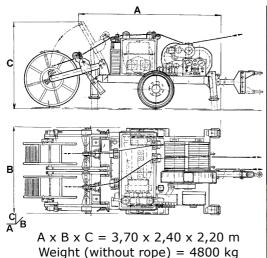


280

max pull

force

Mod. F260.80.22





Hydraulic puller fit to pull one or two ropes in stringing operations of overhead transmission lines.

Two hydraulic circuits let to vary continuously the speed in both directions by operating two independent control devices. The two circuits may also be matched and operated together by one only control device.

- Two pairs of multigrooved steel capstans fit for stringing two steel ropes.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Two devices for setting the pull force that adjust the speed in order to maintain the force set.
- Two safety negative hydraulic brakes.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic back stabilisers and front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Devices for coupling the two pairs of capstans, fit to obtain the max force of 8000 daN stringing one rope.
- Two reelwinders fit for 1400-mm-dia reels, with automatic ropewinder.

OPTIONAL DEVICES

- 005.1 Chassis with tandem axle, drawbar, suspensions, air braking system, tires and lights for towing on the road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- PVC cloth cover. 026 -
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 -Remote control by cable, with 10 m of cable.
- 038 -Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 ropes.
- 045.3 Manual clamp for 2 ropes.
- 069.5 Printer with accessories, complete with case.

FEATURES	
Capstans	4 x Ø 550 mm
Max rope diameter	2 x 18 mm
Max joint diameter	50 mm

ENGINE	
Feeding	diesel
Power	143 hp / 105 kW
Cooling	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	1 x 80 kN
	or 2 x 40 kN
Speed at max pull	2,5 km/h
Max speed	5 km/h
Pull at max speed	1 x 35 kN
	or 2 x 17,5 kN



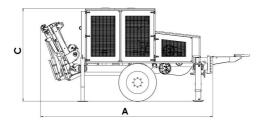


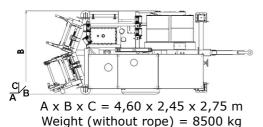






Mod. F260.150.22







Hydraulic puller fit to pull one or two ropes in stringing operations of overhead transmission lines.

Two hydraulic circuits let to vary continuously the speed in both directions by operating two independent control devices. The two circuits may also be matched and operated together by one only control device.

- Two pairs of multigrooved steel capstans fit for stringing two steel ropes.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Two devices for setting the pull force that adjust the speed in order to maintain the force set.
- Two safety negative hydraulic brakes.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic back and front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Devices for coupling the two pairs of capstans, fit to obtain the max force of 15000 daN stringing one rope.
- Two reelwinders fit for 1400-mm-dia reels, with automatic ropewinder.

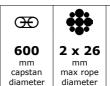
OPTIONAL DEVICES

- 005.1 Chassis with tandem axle, drawbar, suspensions, air braking system, tires and lights for towing on the road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- PVC cloth cover. 026 -
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 -Remote control by cable, with 10 m of cable.
- 038 -Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 ropes.
- 045.3 Manual clamp for 2 ropes.
- 069.5 Printer with accessories, complete with case.

FEATURES	
Capstans	4 x Ø 600 mm
Max rope diameter	2 x 26 mm
Max joint diameter	60 mm

ENGINE	
Feeding	diesel
Power	278 hp / 205 kW
Cooling	water
Electric system	24 V

PULL PERFORMANCES	
Max pull	1 x 150 kN
	2 x 75 kN
Speed at max pull	2,6 km/h
Max speed	4,6 km/h
Pull at max speed	1 x 90 kN
	2 x 45 kN



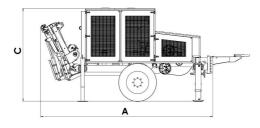


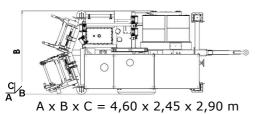


150 max pull



Mod. F260.180.22





Weight (without rope) = 8900 kg



Hydraulic puller fit to pull one or two ropes in stringing operations of overhead transmission lines.

Two hydraulic circuits let to vary continuously the speed in both directions by operating two independent control devices. The two circuits may also be matched and operated together by one only control device.

- Two pairs of multigrooved steel capstans fit for stringing two steel ropes.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Two devices for setting the pull force that adjust the speed in order to maintain the force set.
- Two safety negative hydraulic brakes.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic back and front stabilisers.
- Attachments for anchorage and for lifting.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Devices for coupling the two pairs of capstans, fit to obtain the max force of 18000 daN stringing one rope.
- Two reelwinders fit for 1400-mm-dia reels, with automatic ropewinder.

OPTIONAL DEVICES

- 005.1 Chassis with tandem axle, drawbar, suspensions, air braking system, tires and lights for towing on the road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 ropes.
- 045.3 Manual clamp for 2 ropes.
- 069.5 Printer with accessories, complete with case.

FEATURES	
Capstans	4 x Ø 600 mm
Max rope diameter	2 x 28 mm
Max joint diameter	60 mm

ENGINE	
Feeding	diesel
Power	292 hp / 215 kW
Cooling	water
Electric system	24 V

PULL PERFORMANCES	
Max pull	1 x 180 kN
	2 x 90 kN
Speed at max pull	2,3 km/h
Max speed	5,5 km/h
Pull at max speed	1 x 90 kN
	2 x 45 kN









engine ma power fo

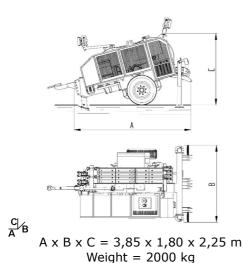


2

HYDRAULIC **TENSIONERS**

CNAC

Mod. F120.25





Hydraulic tensioner fit to tension one conductor or fiber optic cable.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with hydraulic dynamometer and mechanical metercounter.
- Device to control low-force tensions (min. 1 kN), specially fit for optical fibers.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Grounding connection point.

OPTIONAL DEVICES

- O10 Arrangement to use the machine as a puller (fed by a separated hydraulic power unit).
- 024.1 Aluminium sectors with grooves, fit for tripolar cable ELICORD 80-mm dia.
- 026 PVC cloth cover.
- 045.3 Manual clamp for conductor.

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	6 + 6
Max conductor diameter	34 mm

TENSION PERFORMANCE	ES
Max tension force	25 kN
Min tension force	1 kN
Max speed	5 km/h

ELICORD - with opt. 024.1	
Max diameter of elicord cable	80 mm

fit for three-polar cables **ELICORD**(with opt. 024.1)

1500 34 mm conductor max diam

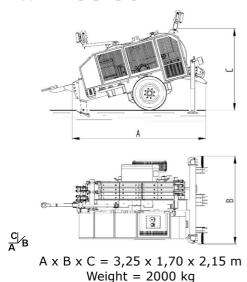


rev. 04:14 EN

www.omac-italy.it

SMAC

Mod. F200.30





Hydraulic tensioner fit to tension one conductor or fiber optic cable.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with hydraulic dynamometer and mechanical metercounter.
- Device to control low-force tensions (1,5-15 kN), specially fit for optical fibers.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Grounding connection point.

OPTIONAL DEVICES

- 010 Arrangement to use the machine as a puller (fed by a separated hydraulic power unit).
- 026 PVC cloth cover.
- 045.3 Manual clamp for conductor.

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	6 + 6
Max conductor diameter	34 mm

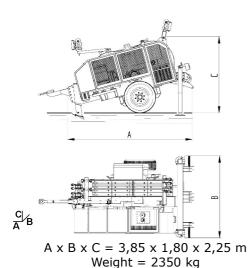
TENSION PERFORMANCES	
Max tension force	30 kN
Min. tension force	1,5 kN
Max speed	5 km/h

fit for fiber-optic (OPGW)

1200 34 30 kN capstan diameter max diam.

SMAC ITALY

Mod. F120.30





Hydraulic tensioner fit to string one conductor or fiber optic cable.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

Possibility to use the machine as a puller for recovering conductors.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (min. 1 kN), specially fit for optical fibers.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Auxiliary hydraulic circuit for controlling a reel-stand.
- Grounding connection point.

OPTIONAL DEVICES

- 008 Chassis with damped axle, pneumatic brake and drawbar for towing on road (homologation excluded).
- 024.1 Aluminium sectors with grooves, fit for tripolar cable ELICORD 80-mm dia.
- 026 PVC cloth cover.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for conductor.
- 045.3 Manual clamp for conductor.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	6 + 6
Max conductor diameter	34 mm

TENSION PERFORMANCES		
Max tension force	30 kN	
Min tension force	1 kN	
Max speed	5 km/h	

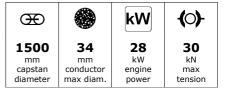
ENGINE	
Feeding	diesel
Power	38 hp / 28 kW
Cooling system	water
Electric system	12 V

PULL-BACK PERFORMANCES		
Max pull	30 kN	
Max speed	1 km/h	

fit for three-polar cables

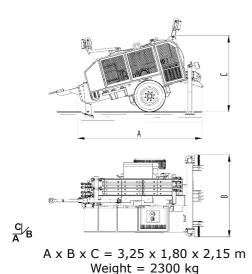
ELICORD Ø 80 mm

(with opt. 024.1)



CNAC

Mod. F200.35





Hydraulic tensioner fit to string one conductor or fiber optic cable.

In puller use, one close hydraulic circuit lets to vary continuously the speed in both directions.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (1-15 kN), fit for OPGW cables, with idle position.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Auxiliary hydraulic circuit for additional equipment (one reelstand or reel-winder).
- Grounding connection point.

OPTIONAL DEVICES

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 Reel-winder arm fit for a 1400-mm-dia. reel.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for conductor.
- 045.3 Manual clamp for conductor.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	6 + 6
Max conductor diameter	34 mm

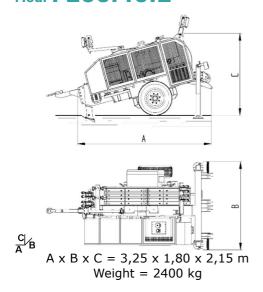
TENSION PERFORMANCES		
Max tension force	35 kN	
Min. tension force	1,5 kN	
Max speed	5 km/h	

ENGINE	
Feeding	diesel
Power	38 hp / 28 kW
Cooling system	water
electric plant	12V

PULL-BACK PERFORMANCES		
Max pull force	35 kN	
Max speed	0,9 km/h	

æ		kW	()
1200	34	28	35
mm	mm	kW	kN
capstan	conductor	engine	max
diameter	max diam.	power	tension

Mod. F200.40.2





Hydraulic tensioner fit to tension one or two conductors or optical fiber cables.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with hydraulic dynamometer and mechanical metercounter.
- Device to control low-force tensions (1,5-20 kN), specially fit for optical fibers.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Two back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Grounding connection point.

OPTIONAL DEVICES

- Arrangement to use the machine as a puller (fed by a separated hydraulic power unit).
- 026 -PVC cloth cover.
- 045.3 Manual clamp for 2 conductors.

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	6 + 6
Max conductor diameter	2 x 34 mm

TENSION PERFORMANCES	
Max tension force	40 kN
Min. tension force	1,5 kN
Max speed	5 km/h

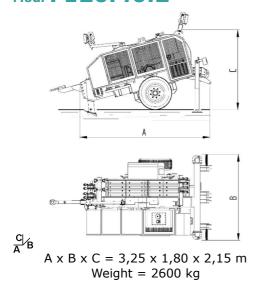
Œ 1200 capstan diameter

2 x 34 mm conductor

() 40 max

CMAC

Mod. F120.40.2





Hydraulic tensioner fit to tension one or two conductors or optical fiber cables.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with hydraulic dynamometer and mechanical metercounter.
- Device to control low-force tensions (2-20 kN), specially fit for optical fibers.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Two back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Grounding connection point.

OPTIONAL DEVICES

- O10 Arrangement to use the machine as a puller (fed by a separated hydraulic power unit).
- 026 PVC cloth cover.
- 045.3 Manual clamp for 2 conductors.

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	6 + 6
Max conductor diameter	2 x 34 mm

TENSION PERFORMANCES	
Max tension force	40 kN
Min. tension force	1,5 kN
Max speed	5 km/h

1500 2 mm capstan diameter ma

2 x 34
mm
conductor

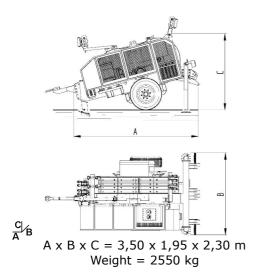
40 kN max

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rev. 07:14 EN

CNAC ITALY

Mod. F200.45.2





Hydraulic tensioner fit to string one or two conductors or optical fiber cables.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

Possibility to use the machine as a puller for recovering conductors.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (2-20 kN), specially fit for optical fibers.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Two back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Two auxiliary hydraulic circuits for controlling 1 or 2 reelstands.
- Grounding connection point

OPTIONAL DEVICES

- 008 Damped axle, air brake, drawbar and lights for towing on the road (homologation excluded).
- 026 PVC cloth cover.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 conductors.
- 045.3 Manual clamp for 2 conductors.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	6 + 6
Max conductor diameter	2 x 34 mm

TENSION PERFORMANCES	
Max tension force	45 kN
Min. tension force	2 kN
Max speed	5 km/h

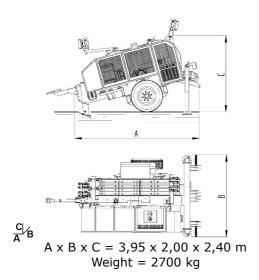
ENGINE	
Feeding	diesel
Power	38 hp / 28 kW
Cooling system	water
Electric system	12 V

PULL-BACK PERFORMANCES	
Pull force	45 kN
Max speed	0,8 km/h

 (\bigcirc) æ kW 1200 45 2 x 34 28 kΝ conductor engine capstan max diameter max diam. power tension

SMAC ITALY

Mod. F120.45.2





Hydraulic tensioner fit to string one or two conductors or optical fiber cables.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

Possibility to use the machine as a puller for recovering conductors.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (2-20 kN), specially fit for optical fibers.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Two back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Two auxiliary hydraulic circuits for controlling 1 or 2 reelstands.
- Grounding connection point.

OPTIONAL DEVICES

- 008 Damped axle, air brake, drawbar and lights for towing on the road (homologation excluded).
- 026 PVC cloth cover.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 conductors.
- 045.3 Manual clamp for 2 conductors.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	6 + 6
Max conductor diameter	2 x 34 mm
max conductor diameter	2 X 34 IIIIII

TENSION PERFORMANCES	
Max tension force	45 kN
Min. tension force	2 kN
Max speed	5 km/h

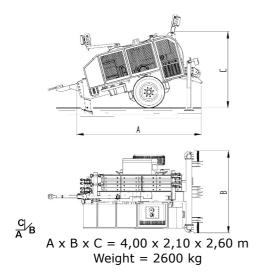
ENGINE	
Feeding	diesel
Power	38 hp / 28 kW
Cooling system	water
Electric system	12 V

PULL-BACK PERFORMANCES	
Pull force	45 kN
Max speed	0,8 km/h

1500 2 x 34 28 45
mm kW kN engine max diameter max diam. power tension

CNAC

Mod. F200.70.2





Hydraulic tensioner fit to tension one or two conductors or optical fiber cables.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with hydraulic dynamometer and mechanical metercounter.
- Device to control low-force tensions (4-30 kN), specially fit for fibre-optic cables.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Two back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Grounding connection point.

OPTIONAL DEVICES

- 010 Arrangement to use the machine as a puller (fed by a separated hydraulic power unit).
- 026 PVC cloth cover.
- 045.3 Manual clamp for 2 conductors.

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 38 mm

TENSION PERFORMANCES	
Max tension force	75 kN
Max speed	5 km/h

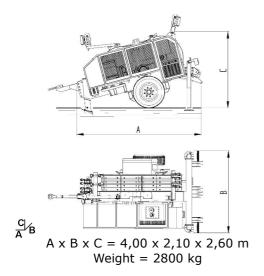
1200 mm capstan diameter

2 x 38

2 x 38 mm conductor max diam. 75 kN max tension

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Mod. F120.70.2





Hydraulic tensioner fit to tension one or two conductors or optical fiber cables.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with hydraulic dynamometer and mechanical metercounter.
- Device to control low-force tensions (4-30 kN), specially fit for fibre-optic cables.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Two back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Grounding connection point.

OPTIONAL DEVICES

- Arrangement to use the machine as a puller (fed by a separated hydraulic power unit).
- PVC cloth cover.
- 045.3 Manual clamp for 2 conductors.

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 42 mm

TENSION PERFORMANCES	
Max tension force	75 kN
Max speed	5 km/h

Œ 1500 mm capstan diameter

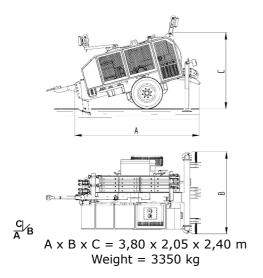
75 max tension

rev. 09:14 EN

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SMAC ITALY

Mod. F200.75.2





Hydraulic tensioner fit to tension one or two conductors or optical fiber cables.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

Possibility to use the machine as a puller for recovering conductors.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (4-25 kN), specially fit for fibre-optic cables.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Two back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Two auxiliary hydraulic circuits for controlling 1 or 2 reelstands.
- Grounding connection point.

OPTIONAL DEVICES

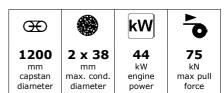
- 008 Damped axle, air brake, drawbar and lights for towing on the road (homologation excluded).
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 conductors.
- 045.3 Manual clamp for 2 conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 38 mm

TENSION PERFORMANCES		
Max tension	75 kN	
Min. tension	4 kN	
Max speed	5 km/h	

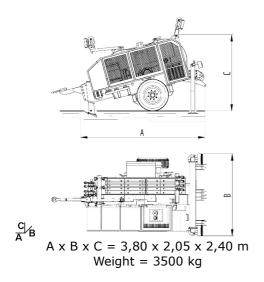
ENGINE	
Feeding	diesel
Power	60 hp / 44 kW
Cooling system	water
Electric system	12 V

PULL-BACK PERFORMANCES	
Max pull	75 kN
Max speed	1 km/h



CMAC ITALY

Mod. F120.75.2





Hydraulic tensioner fit to string one or two conductors or optical fiber cables.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

Possibility to use the machine as a puller for recovering conductors.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (4-30 kN), specially fit for fibre-optic cables.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Two back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Two auxiliary hydraulic circuits for controlling 1 or 2 reel-stands.
- Grounding connection point.

OPTIONAL DEVICES

- 008 Damped axle, air brake, drawbar and lights for towing on the road (homologation excluded).
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 conductors.
- 045.3 Manual clamp for 2 conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 42 mm

TENSION PERFORMANCES	
Max tension	75 kN
Min. tension	4 kN
Max speed	5 km/h

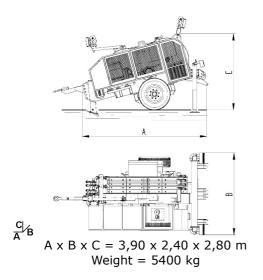
ENGINE	
Feeding	diesel
Power	60 hp / 44 kW
Cooling system	water
Electric system	12 V

PULL-BACK PERFORMANCES	
Max pull	75 kN
Max	1 km/h

1500 2 x 42 44 75 kW capstan diameter max. cond. diameter power force

CNAC ITALY

Mod. F120.100.22





Hydraulic tensioner fit to string one or two conductors.

Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

The machine is equipped with an engine for pull-back operations. In pulling-back usage, one hydraulic circuit lets to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both them matched.

- Two pairs of steel capstans lined with multi-grooved nylon sectors, fit for 2 conductors totally.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drivers (data processing software provided).
- Two safety negative hydraulic brakes.
- Back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Device for coupling the two pairs of capstans.
- Two auxiliary hydraulic circuits for controlling 1 or 2 reel-stands.
- Grounding connection point

- 005.1 Chassis with 2 damped axles (tandem), air braking system and
- 008 Damped axle, air brake, drawbar and lights for towing on the road (homologation excluded).
- 012 Predisposition of one hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 017 Hydraulic/mechanical device (n.1, on 1 circuit) to control low tension values (3-30 kN), fit to string fiber optics.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine at low temperatures (up to -30° C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 conductors.
- 045.3 Manual clamp for 2 conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

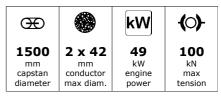
FEATURES	
Capstans	4 x Ø 1500 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 42 mm

TENSION PERFORMAN	CES
Max tension force	2 x 50 kN
or	1 x 100 kN
Max speed	5 km/h

ENGINE	
Feeding	diesel
Power	66 hp / 49 kW
Cooling	water
Electric system	12 V

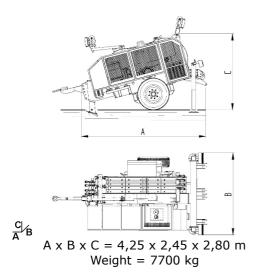
PULL-BACK PERFORMANCES		
Max pull force	2 x 50 kN	
or	1 x 100 kN	
Max speed	0.8 km/h	

also available mod. F120	0.90.22
max tension force	2 x 45 kN
or	1 x 90 kN
max speed	5 km/h
Max pull force	2 x 45 kN
or	1 x 90 kN
max speed	1 km/h



CMAC ITALY

Mod. F110.140.22





Hydraulic tensioner fit to string one or two conductors.

Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

The machine is equipped with an engine for pull-back operations. In pulling-back usage, one hydraulic circuit lets to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both them matched.

- Two pairs of steel capstans lined with multi-grooved nylon sectors, fit for 2 conductors totally.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Two safety negative hydraulic brakes.
- Back fix conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Devices for coupling the two pairs of capstans.
- Two auxiliary hydraulic circuits for controlling 1 or 2 reel-stands.
- Grounding connection point.

OPTIONAL DEVICES

- 005.1 Chassis with 2 damped axles (tandem), air braking system and
- 012 Predisposition of one hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 017 Hydraulic/mechanical device (n.1, on 1 circuit) to control low tension values (4-40 kN), fit to string fiber optics.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine at low temperatures (up to -30 °C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 2 conductors.
- 045.3 Manual clamp for 2 conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	4 x Ø 1700 mm
Capstan grooves	10 + 10
Max conductor diameter	2 x 46 mm
Max conductor diameter	2 x 46 mm

TENSION PERFORMAN	CES
Max tension force	2 x 70 kN
or	1 x 140 kN
Max speed	5 km/h

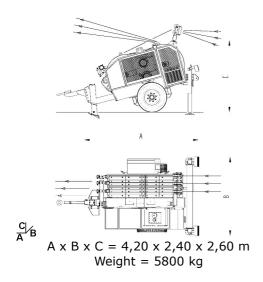
ENGINE	
Feeding	diesel
Power	87 hp / 64 kW
Cooling	water
Electric system	24 V

PULL-BACK PERFORMANCES	
Max pull force	2 x 70 kN
or	1 x 140 kN
Max speed	0,9 km/h

 (\bigcirc) æ kW 140 1700 2 x 46 64 kW conductor engine capstan max diameter power max diam tension

CMAC ITALY

Mod. F120.120.3





Hydraulic tensioner fit to string 1, 2 or 3 conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

Possibility to use the machine as a puller for recovering conductors.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Safety negative hydraulic brake.
- Three back fix conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Three auxiliary hydraulic circuits for controlling 1, 2 or 3 reelstands.
- Grounding connection point.

OPTIONAL DEVICES

- 005.4 Chassis with 2 rigid axles (tandem).
- 012 Predisposition of one hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 017 Device to control low-force tension values, specially fit for fibre-optic cables.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 3 conductors.
- 045.3 Manual clamp for 3 conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	12 + 12
Max conductor diameter	3 x 42 mm

TENSION PERFORMANCES	
Max tension	120 kN
Max speed	5 km/h

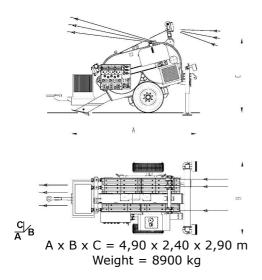
ENGINE	
Feeding	Diesel
Power	92 hp / 68 kW
Cooling system	water
Electric system	12 V

PULL-BACK PERFORMANCES	
Max pull	120 kN
Max speed	1 km/h

**Example 1500 **Exam

CNAC

Mod. F120.135.33





Hydraulic tensioner fit to string 1, 2 or 3 conductors.

Three hydraulic circuits let to tension at constant force even varying the speed of stringing. The three circuits can be used independently or simultaneously, with automatic partition of the forces.

The machine is equipped with an engine for pull-back operations. In pull-back usage, one hydraulic circuit lets to vary in continuously the speed in both directions, allowing to use one of the hydraulic circuits or all of them matched.

- Three pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 3 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Three safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Devices for coupling the three of pairs of capstans.
- Three auxiliary hydraulic circuits for controlling 1, 2 or 3 reelstands.
- Grounding connection point.

OPTIONAL DEVICES

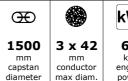
- 005.1 Chassis with 2 damped axles (tandem), air braking system and lights.
- 012 Predisposition of one hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 017 Hydraulic/mechanical device (no.1, on 1 circuit) to control low tension values, fit to string fiber optics.
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 3 conductors.
- 045.3 Manual clamp for 3 conductors.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	6 x Ø 1500 mm
Capstan grooves	5 (tot.30)
Max conductor diameter	3 x 42 mm

TENSION PERFORM	MANCES
Max tension force	3 x 45 kN
or	1 x 90 + 1 X 45 kN
Max speed	5 km/h

ENGINE	
Feeding	diesel
Power	87 hp / 64 kW
Cooling	water
Electric system	12 V

PULL-BACK PERFORMANCES	
Max pull force	3 x 45 kN
or	1 x 90 + 1 x 45 kN
Max speed	1,5 km/h



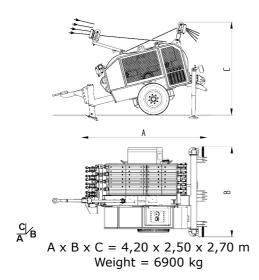
64 kN max power tension

rev. 05:15 EN

max tension

SMAC ITALY

Mod. F120.150.4





Hydraulic tensioner fit to string 1, 2, 3 or 4 (up to 6 on demand) conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

Possibility to use the machine as a puller for recovering conductors.

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 4 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Four auxiliary hydraulic circuits for controlling 1, 2, 3 or 4 reelstands.
- Grounding connection point.

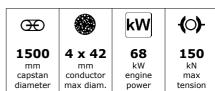
- 005.4 Chassis with 2 rigid axles (tandem).
- 012 Predisposition of one hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 017 Device to control low-force tension values, specially fit for fibre-optic cables.
- 020.3 Set of nylon sectors with grooves fit for 6 conductors Ømax 31,5 mm (instead of standard set), and 2 additional hydraulic circuits to control 2 extra reel-stands (total 6).
- 026 PVC cloth cover.
- 028.7 Device to start the diesel engine at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for conductors.
- 045.3 Manual clamp for conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	16 + 16
Max conductor diameter	4 x 42 mm

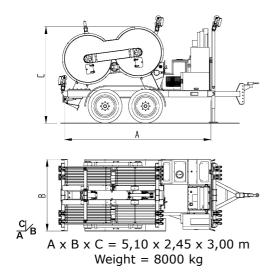
TENSION PERFORMANCES	
Max tension	150 kN
Max speed	5 km/h

ENGINE	
Feeding	Diesel
Power	92 hp / 68 kW
Cooling system	water
Electric system	24 V

PULL-BACK PERFORMANCES	
Max pull	150 kN
Max speed	1,6 km/h



Mod. F120.150.42





Hydraulic tensioner fit to string 1, 2, 3 or 4 conductors. Two hydraulic circuits let to tension at constant force even varying the

speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

The machine is equipped with an engine for pull-back operations. In pulling-back usage, one hydraulic circuit lets to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both them matched.

- Two pairs of steel capstans lined with multi-grooved nylon sectors, fit for 2 conductors totally.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Two safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers, for 4 cond.
- Chassis with two rigid axles (tandem), tires and drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Devices for coupling the two pairs of capstans.
- Four auxiliary hydraulic circuits for controlling 1, 2, 3 or 4 reel-stands.
- Grounding connection point.

OPTIONAL DEVICES

- 005.1 Chassis with 2 damped axles (tandem), air braking system and
- Predisposition of one hydraulic circuit to feed a press for high 012 pressure joints (max. 700 bar).
- 017 -Hydraulic/mechanical device (no.1, on 1 circuit) to control low tension values, fit to string fiber optics.
- 020.3 Set of nylon sectors with grooves fit for 6 conductors Ømax 31,5 mm (instead of standard set), and 2 additional hydraulic circuits to control 2 extra reel-stands (total 6).
- 028.7 Device to start the diesel engine at low temperatures (up to -30°C).
- 037 -Remote control by cable, with 10 m of cable.
- 038 -Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 4 conductors.
- 045.3 Manual clamp for 4 conductors.
- 069.5 Printer for the electronic recorder, with accessories.

x Ø 1500 mm
10 (tot.40)
4 x 42 mm

TENSION PERFORMANCES		
Max tension	$150 \text{ kN} = 2 \times 75 \text{ kN}$	
Max tension per cor	nductor 37,5 kN	
Max speed	5 km/h	

ENGINE	
Feeding	Diesel
Power	87 hp / 64 kW
Cooling system	water
Electric system	12 V

PULL-BACK PERFORMAN	NCES
Max pull	2 x 75 kN
Max speed	1 km/h

æ 1500 4×42 mm conductor capstan diameter max diam

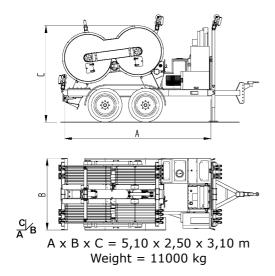
kW 64 kW engine power

 (\bigcirc) 150 max

tension

CNAC

Mod. F120.200.44





Hydraulic tensioner fit to string 1, 2, 3 or 4 conductors. Four hydraulic circuits let to tension at constant force even varying the speed of stringing. The 4 circuits can be used independently or simultaneously, with automatic partition of the forces.

The machine is equipped with an engine for pull-back operations. In pull-back usage, one hydraulic circuit lets to vary in continuously the speed in both directions, allowing to use one of the hydraulic circuits or all of them matched.

- Four pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 4 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Four safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers, for 4 cond.
- Chassis with two rigid axles (tandem), tires and drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Devices for coupling the two of pairs of capstans.
- Four auxiliary hydraulic circuits for controlling 1, 2, 3 or 4 reelstands.
- Grounding connection point.

- 005.1 Chassis with 2 damped axles (tandem), air braking system and lights.
- 012 Predisposition of one hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 017 Hydraulic/mechanical device (no.1, on 1 circuit) to control low tension values, fit to string fiber optics.
- 028.7 Device to start the diesel engine at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 045.2 Automatic clamp for 4 conductors.
- 045.3 Manual clamp for 4 conductors.
- 069.5 Printer for the electronic recorder, with accessories.

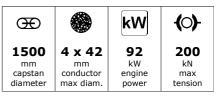
FEATURES	
Capstans	8 x Ø 1500 mm
Capstan grooves	5 (tot.40)
Max conductor diameter	4 x 42 mm
Max conductor diameter	4 x 42 mm

TENSION PERFORM	ANCES
Max tension	2 x 100 kN
or	$4 \times 50 \text{ kN}$
Max speed	5 km/h

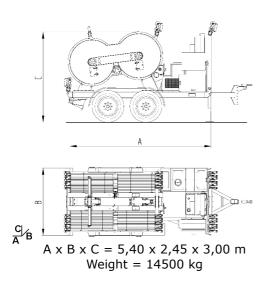
ENGINE	
Feeding	Diesel
Power	125 hp / 92 kW
Cooling system	water
Electric system	12 V

PULL-BACK PERFORMANCES		
Max pull	2 x 100 kN	
or	4 x 50 kN	
Max speed	1 km/h	

also available mod. F120.180.44			
Max tension force	2 x 90 kN		
or	4 x 45 kN		
Max speed	5,00 km/h		
Max pull force	2 x 90 kN		
or	4 x 45 kN		
Max speed	1,2 km/h		



Mod. F110.280.62





Hydraulic tensioner fit to string 1, 2, 3, 4 or 6 conductors. Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

The machine is equipped with an engine for pull-back operations. In pulling-back usage, one hydraulic circuit lets to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled.

- Two pairs of steel capstans lined with multi-grooved nylon sectors, fit for 2 conductors totally.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Two safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers, for 6 cond.
- Chassis with two rigid axles (tandem), tires and drawbar for towing at low speed in workplace.
- Hydraulic share, hydraulic back stabilisers and eyes for anchoring and for lifting the machine.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Devices for coupling the two of pairs of capstans.
- Four auxiliary hydraulic circuits for controlling up to 4 reel-stands.
- Grounding connection point.

OPTIONAL DEVICES

- 005.1 Chassis with 2 damped axles (tandem), air braking system and
- 012 -Predisposition of one hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 020.3 Set of nylon sectors with grooves fit for 6 conductors Ømax 38,5 mm (instead of standard set).
- Set of nylon sectors with grooves fit for 4 conductors Ømax 46 mm (instead of standard set).
- 028.7 Device to start the diesel engine at low temperatures (up to -30°C).
- 037 -Remote control by cable, with 10 m of cable.
- Radio-control (max distance 50 m). 038 -
- 045.2 Automatic clamp for 6 conductors.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	4 x Ø 1800 mm
Max conductors diameter	2 x 51 mm

TENSION PERFORMANCES		
Max tension	$280 \text{ kN} = 2 \times 140 \text{ kN}$	
Max speed	5 km/h	

ENGINE	
Feeding	Diesel
Power	176 hp / 130 kW
Cooling system	water
Electric system	24 V

PULL-BACK PERFORMANCES		
Max pull	$280 \text{ kN} = 2 \times 140 \text{ kN}$	
Max speed	1 km/h	

æ 1800 2 x 51 mm conductor capstan diameter max diam

kW 130

 (\bigcirc) 280 engine power

rev. 01:15 EN



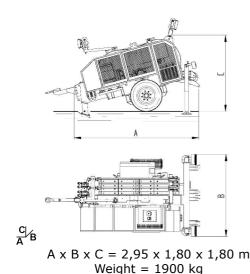


3

HYDRAULIC PULLER-TENSIONERS

CNAC ITALY

Mod. F104.AF.30





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one rope or conductor.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

In puller use, one closed hydraulic circuit lets to vary continuously the speed in both directions.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers.
- Back fix conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attacments for anchoring the machine.
- Oil cooling system.
- Auxiliary hydraulic circuit for additional equipment (one reelstand or reel-winder).
- Grounding connection point.

- 007 Damped axle, overrun braking system, drawbar and lights for towing on road (homologation excluded).
- 014 Reel-winder arms fit for a 1400-mm-dia. reel.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for rope/conductor.
- 045.3 Manual clamp for rope/conductor.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	2 x Ø 700 mm
Capstan grooves	4 + 4
Max conductor diameter	24 mm
Max rope diameter	13 mm

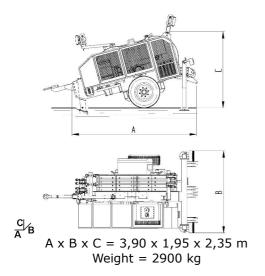
ENGINE	
Feeding	Diesel
Power	36 hp / 27 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	30 kN
Speed at max pull	1,5 km/h
Max speed	4,0 km/h
Pull at max speed	12 kN

TENSION PERFORMANCES		
Max tension	30 kN	
Max speed	5 km/h	

æ			kW	<u>_</u>
700	24	13	27	30
mm	mm	mm	kW	kN
capstan diameter	max. cond. diameter	max rope diameter	engine power	max pull force

Mod. F120.AF.30





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one rope or conductor.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

In puller use, one closed hydraulic circuit lets to vary continuously the speed in both directions.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (150-1000 daN), fit for OPGW.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers.
- Back fix conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Auxiliary hydraulic circuit for additional equipment (one reelstand or reel-winder).
- Grounding connection point

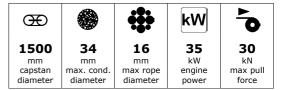
- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 014 Reel-winder arm fit for a 1400-mm-dia. reel.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for rope/conductor.
- 045.3 Manual clamp for rope/conductor.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	2 x Ø 1500 mm
capstan grooves	6 + 6
Max conductor diameter	34 mm
Max rope diameter	16 mm

ENGINE	
Feeding	Diesel
Power	47,6 hp / 35 kW
Cooling system	water
Electric system	12 V

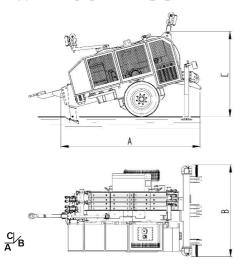
PULL PERFORMANCES	
Max pull	30 kN
Speed at max pull	1,9 km/h
Max speed	5 km/h
Pull at max speed	10 kN

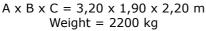
TENSION PERFORMANCES		
Max tension	30 kN	
Max speed	5 km/h	



CMAC

Mod. F200.AF.35







Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one rope or conductor.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

In puller use, one closed hydraulic circuit lets to vary continuously the speed in both directions.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (1-15 kN), fit for OPGW cables, with idle position.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers.
- Rigid axle, tires, hand brake and drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Auxiliary hydraulic circuit for additional equipment (one reelstand or reel-winder).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 014 Reel-winder arm fit for a 1400-mm-dia. reel.
- 037 Remote control by cable with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for rope/conductor.
- 045.3 Manual clamp for the rope/conductor.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	6 + 6
Max conductor diameter	34 mm
Max rope diameter	16 mm

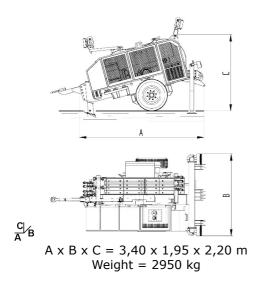
ENGINE	
Feeding	Diesel
Power	62 hp / 46 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	35 kN
Speed at max pull	2,5 km/h
Max speed	4,5 km/h
Pull at max speed	20 kN

TENSION PERFORMANCES	
Max tension	35 kN
Max speed	5 km/h

æ		•3•	kW	•
1200	34	16	46	35
mm	mm	mm	kW	kN
capstan diameter	max. cond. diameter	max rope diameter	engine power	max pull force

Mod. F200.AF.45.2





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

In puller use, one closed hydraulic circuit lets to vary continuously the speed in both directions.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (2-20 kN), fit for OPGW.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers for 2 cond.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attacments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reelwinders or reel-stands).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar)
- 014 Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 36 mm
Max rope diameter	16 mm
· ·	

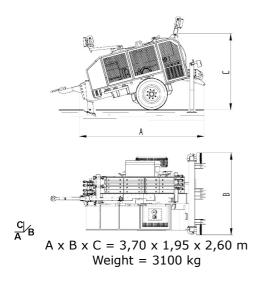
ENGINE	
Feeding	Diesel
Power	62 HP / 46 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	45 kN
Speed at max pull	2,2 km/h
Max speed	5,0 km/h
Pull at max speed	20 kN

TENSION PERFORMANCES	
Max tension	45 kN
Max speed	5 km/h

æ		•\$•	kW	•
1200 mm capstan diameter	2 x 36 mm max. cond. diameter	mm max rope diameter	46 kW engine power	45 kN max pull force

Mod. F120.AF.45.2





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

In puller use, one closed hydraulic circuit lets to vary continuously the speed in both directions.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (2-20 kN), fit for OPGW.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers for 2 cond.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attacments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reelwinders or reel-stands).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 014 Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 36 mm
Max rope diameter	16 mm
· ·	

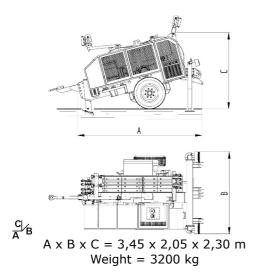
ENGINE	
Feeding	Diesel
Power	88 HP / 65 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	45 kN
Speed at max pull	2,7 km/h
Max speed	5,0 km/h
Pull at max speed	26 kN

TENSION PERFORMANCES		
Max tension	45 kN	
Max speed	5 km/h	

æ		•3•	kW	O
1500	2 x 36	16	65	45
mm	mm	mm	kW	kN
capstan diameter	max. cond. diameter	max rope diameter	engine power	max pull force

Mod. F200.AF.60.2





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reelwinders or reel-stands).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 014 Reel-winder arm fit for a 1600-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines, complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 40 mm
Max rope diameter	18 mm

ENGINE	
Feeding	Diesel
Power	88,5 HP / 65 kW
Cooling system	water
Electric system	12 V

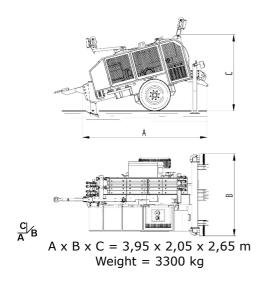
PULL PERFORMANCES	
Max pull	60 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	27 kN

TENSION PERFORMANCES	
Max tension	60 kN
Max speed	5 km/h

æ			kW	<u>_</u>
1200	2 x 40	18	65	60
mm	mm	mm	kW	kN
capstan diameter	max. cond. diameter	max rope diameter	engine power	max pull force



Mod. F120.AF.60.2





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 014 Reel-winder arm fit for a 1600-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines, complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 42 mm
Max rope diameter	18 mm

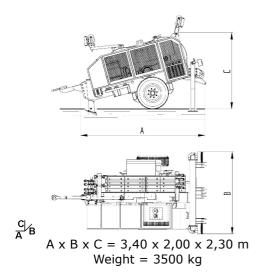
ENGINE	
Feeding	Diesel
Power	88,5 HP / 65 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	60 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	27 kN

TENSION PERFORMANCES	
Max tension	60 kN
Max speed	5 km/h

æ		•3•	kW	•
1500	2 x 42	18	65	60
mm	mm	mm	kW	kN
capstan diameter	max. cond. diameter	max rope diameter	engine power	max pull force

Mod. F200.AF.75.2





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reelwinders or reel-stands).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system
- 014 Reel-winder arm fit for a 1600-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 40 mm
Max rope diameter	18 mm

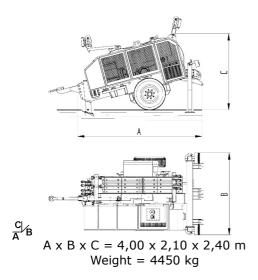
ENGINE	
Feeding	Diesel
Power	105 HP / 77 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	75 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	35 kN

TENSION PERFORMANCES	
Max tension	75 kN
Max speed	5 km/h

\oplus		•	kW	•
1200	2 x 40	18	77	75
mm	mm	mm	kW	kN
capstan	max. cond.	max rope	engine	max pull
diameter	diameter	diameter	power	force

Mod. F120.AF.75.2





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attacments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reelwinders or reel-stands).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 Reel-winder arm fit for a 1600-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 42 mm
Max rope diameter	18 mm

ENGINE	
Feeding	Diesel
Power	105 HP / 77 kW
Cooling system	water
Electric system	12 V

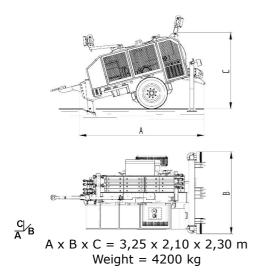
PULL PERFORMANCES	
Max pull	75 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	35 kN

TENSION PERFORMANCES	
Max tension	75 kN
Max speed	5 km/h

\oplus		•3•	kW	-
1500	2 x 42	18	77	75
mm	mm	mm	kW	kN
capstan	max. cond.	max rope	engine	max pull
diameter	diameter	diameter	nower	force

CNAC

Mod. F200.AF.90.2





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attacments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reelwinders or reel-stands).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 Reel-winder arm fit for a 1600-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1200 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 40 mm
Max rope diameter	18 mm

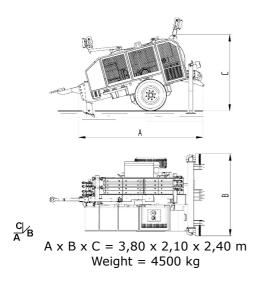
ENGINE	
Feeding	Diesel
Power	117 hp / 86 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	90 kN
Speed at max pull	2,0 km/h
Max speed	5,0 km/h
Pull at max speed	30 kN

TENSION PERFORMANCES	
Max tension	90 kN
Max speed	5 km/h

⊕	•	÷\$÷	kW	•
1200	2 x 40	18	86	90
mm	mm	mm	kW	kN
capstan	max. cond.	max rope	engine	max pull
diameter	diameter	diameter	power	force

Mod. F120.AF.90.2





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attacments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reelwinders or reel-stands).
- Grounding connection point.

- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 Reel-winder arm fit for a 1600-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines, complete with remote control by cable (20 m).

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 42 mm
Max rope diameter	18 mm

ENGINE	
Feeding	Diesel
Power	142 hp / 105 kW
Cooling system	water
Electric system	12 V

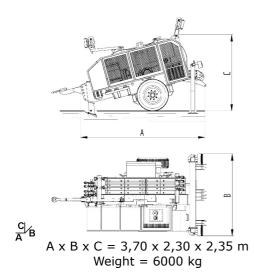
PULL PERFORMANCES	
Max pull	90 kN
Speed at max pull	2,4 km/h
Max speed	5,0 km/h
Pull at max speed	45 kN

TENSION PERFORMANCES		
Max tension	90 kN	
Max speed	5 km/h	

æ		÷\$;	kW	-0
1500	2 x 42	18	105	90
mm	mm	mm	kW	kN
capstan	max. cond.	max rope	engine	max pull
diameter	diameter	diameter	nower	force

SMAC ITALY

Mod. F200.AF.90.22





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

In puller use, 2 closed hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- Two pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Two safety negative hydraulic brakes.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Devices for coupling the two pairs of capstans.
- Two auxiliary hydraulic circuits for additional equipment.
- Grounding connection point.

OPTIONAL DEVICES

- 005.1 Chassis with 2 damped axles (tandem), air braking system and lights.
- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 har)
- 014 Reel-winder arms fit for a 1600-mm-dia. reel (1 or 2)
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).

FEATURES	
Capstans	4 x Ø 1200 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 40 mm
Max rope diameter	18 mm

ENGINE	
Feeding	Diesel
Power	142 hp / 105 kW
Cooling system	water
Electric system	12 V

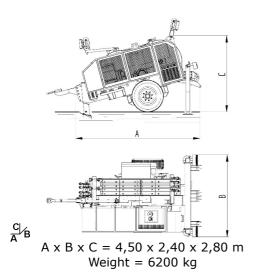
PULL PERFORMANCES	
Max pull	1 x 90 kN
	2 x 45 kN
Speed at max pull	2,5 km/h
Max speed	5 km/h
Pull at max speed	1 x 45 kN
·	2 x 22,5 kN

TENSION PERFORMANCES	5
Max tension	1 x 90 kN
	2 x 45 kN
Max speed	5 km/h

\mathfrak{X}		÷\$÷	kW	-
1200	2 x 40	18	105	90
mm	mm	mm	kW	kN
capstan	max. cond.	max rope	engine	max pull
diameter	diameter	diameter	power	force

OMAC s.n.c.

Mod. F120.AF.90.22





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

In puller use, 2 closed hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- Two pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Two safety negative hydraulic brakes.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Devices for coupling the two oairs of capstans.
- Two auxiliary hydraulic circuits for additional equipment.
- Grounding connection point

OPTIONAL DEVICES

- 005.1 Chassis with 2 damped axles (tandem), air braking system and lights.
- 008 Damped axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700
- 014 Reel-winder arms fit for a 1600-mm-dia. reel (1 or 2)
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines, complete with remote control by cable (20 m).

FEATURES	
Capstans	4 x Ø 1500 mm
Capstan grooves	8 + 8
Max conductor diameter	2 x 42 mm
Max rope diameter	18 mm

ENGINE	
Feeding	Diesel
Power	142 hp / 105 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES	
Max pull	1 x 90 kN
	2 x 45 kN
Speed at max pull	2,5 km/h
Max speed	5 km/h
Pull at max speed	1 x 45 kN
·	2 x 22,5 kN

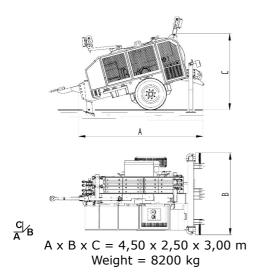
TENSION PERFORMANCES	
Max tension	1 x 90 kN
	2 x 45 kN
Max speed	5 km/h

æ		•3•	kW	•
1500	2 x 42	18	105	90
mm	mm	mm	kW	kN
capstan	max. cond.	max rope	engine	max pull
diameter	diameter	diameter	power	force

OMAC s.n.c.

CMAC I TA L Y

Mod. F110.AF.140.22





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

In puller use, 2 closed hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- Two pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Freewheeling disconnection (neutral) of capstans.
- Two safety negative hydraulic brakes.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic-control stabilisers and share, and attachments to anchor the machine.
- Oil cooling system.
- Devices for coupling the two pairs of the capstans.
- Two auxiliary hydraulic circuits for additional equipment.
- Grounding connection point.

- 005.1 Chassis with 2 damped axles (tandem), air braking system and lights.
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 017 Device to control low-force tensions (4-30 kN), fit for OPGW cables, with idle position applied on one or all two circuits.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 har)
- 014 Reel-winder arms fit for a 1600-mm-dia. reel (1 or 2)
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines, complete with remote control by cable (20 m).

FEATURES	
Capstans	4 x Ø 1800 mm
No.of grooves	10 + 10
Max conductor diameter	2 x 46 mm
Max rope diameter	24 mm

ENGINE	
Feeding	Diesel
Power	184 hp / 135kW
Cooling system	water
Electric system	24 V

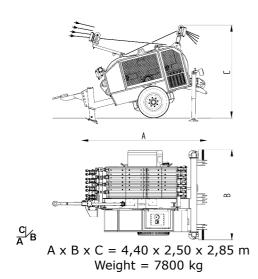
PULL PERFORMANCES	
Max pull	1 x 140 kN
	2 x 70 kN
Speed at max pull	2,1 km/h
Max	4,5 km/h
Pull at max speed	1 x 70 kN
	2 x 35 kN

TENSION PERFORM	ANCES
Max tension	1 x 140 kN
	2 x 70 kN
Max speed	5 km/h

æ			kW	<u>_</u>
1800	2 x 46	24	135	140
mm	mm	mm	kW	kN
capstan diameter	max. cond. diameter	max rope diameter	engine power	max pull force

CMAC

Mod. F120.AF.140.4





Hydraulic machine designed to operate either as a tensioner and a puller, fit to string 1, 2, 3 or 4 ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

In puller use, one closed hydraulic circuit lets to vary continuously the speed in both directions.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with built-in electronic instrument featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers for 4 cond.
- Back fix conductor-drivers with nylon rollers for 4 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Four auxiliary hydraulic circuits for additional equipment (reel-winders or reel-stands).
- Grounding connection point.

OPT	10	NAL	DEA	ICES

- 005.4 Chassis with 2 rigid axles (tandem).
- 006.1 Lights for towing on the road.
- 006.2 Pneumatic braking system.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 4 ropes/conductors.
- 045.3 Manual clamp for 4 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines complete with remote control by cable (20 m).
- 020.3 Set of nylon sectors with grooves fit for 6 conductors Ømax 31,5 mm (instead of standard set), and 2 additional hydraulic circuits to control 2 extra reel-stands (total 6).

FEATURES	
Capstans	2 x Ø 1500 mm
Capstan grooves	16 + 16
Max conductor diameter	4 x 42 mm
Max rope diameter	24 mm

ENGINE	
Feeding	Diesel
Power	177 hp / 130 kW
Cooling system	water
Electric system	12 V

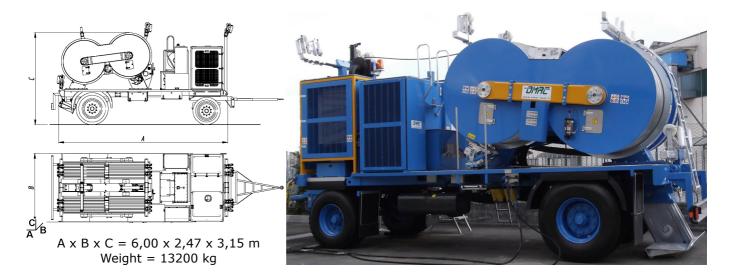
PULL PERFORMANCES	
Max pull	140 kN
Speed at max pull	1,8 km/h
Max speed	4,0 km/h
Pull at max speed	60 kN

TENSION PERFORMANCES	
Max tension	140 kN
Max speed	4.5 km/h

\oplus	•	•3•	kW	•
1500	4 x 42	24	130	140
mm	mm	mm	kW	kN
capstan diameter	max. cond. diameter	max rope diameter	engine power	max pull force



Mod. F120.AF.180.42



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string 1, 2, 3 or 4 ropes or conductors.

Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

In puller use, 2 closed hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed), on both the circuits.

- Two pairs of capstans with steel grooves thermally and chemically treated, high resistance, fit for steel wire ropes or conductors.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Two safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers for 4 cond.
- Frame with two axles, steering-one with drawbar, leaf spring suspensions and tires, fit for towing on the road at 60 km/h (homologation excluded).
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment.
- Grounding connection point.

- 005.1 Chassis with 2 damped axles (tandem), air braking system and lights.
- 006.3 Pneumatic braking system with ABS.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 4 ropes/conductors.
- 045.3 Manual clamp for 4 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	4 x Ø 1500 mm
Capstans grooves	10 (tot.40)
Max conductor diameter	4 x 45 mm
Max rope diameter	32 mm

TENSION PER	FORMANCES	
Max tension	1 x 180 kN	or 2 x 90 kN
Max tension per	conductor	45 kN
Max speed		5 km/h

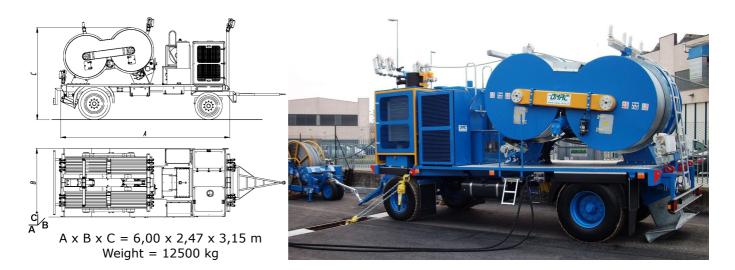
ENGINE	
Feeding	Diesel
Power	299 hp / 220 kW
Cooling system	water
Electric system	24 V

PULL PERFORMA	NCES
Max pull	1 x 180 kN or 2 x 90 kN
Speed at max pull	2,1 km/h
Max speed	5 km/h





Mod. F120.AF.150.42



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string 1, 2, 3 or 4 ropes or conductors.

Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

In puller use, 2 closed hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled.

- Two pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 2 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Two safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers for 4 cond.
- Frame with two axles, steering-one with drawbar, leaf spring suspensions and tires, fit for towing on the road at 60 km/h (homologation excluded).
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Devices for coupling the two pairs of capstans.
- Four auxiliary hydraulic circuits for additional equipment (i.e. motorised reel-stands).
- Grounding connection point.

OPTIONAL DEVICES	OP1	TION	IAL	DEV	ICES
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- 005.1 Chassis with 2 damped axles (tandem), air braking system and lights.
- 006.3 Pneumatic braking system with ABS.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 4 ropes/conductors.
- 045.3 Manual clamp for 4 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 Capstans with steel grooves chemically treated.
- 174.2 Synchronising device for the connection of 2 machines, complete with remote control by cable (20 m).

FEATURES	
Capstans	4 x Ø 1500 mm
Capstan grooves	10 (tot.40)
Max conductor diameter	4 x 45 mm
Max rope diameter	4 x 32 mm

TENSION PERF	ORMANCES	
Max tension	1 x 150 kN	l or 2 x 75 kN
Max tension per	conductor	37,5 kN
Max speed		5 km/h

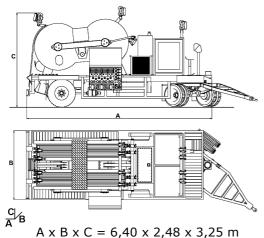
ENGINE	
Feeding	Diesel
Power	295 hp / 175 kW
Cooling system	water
Electric system	24 V

PULL PERFORM	IANCES
Max pull	1 x 150 kN or 2 x 75 kN
Speed at max pu	ıll 2 km/h
Max speed	5 km/h

 (\bigcirc) æ kW 1500 175 150 4 x 45 mm conductor engine capstan max diameter power max diam tension

OMAC ITALY

Mod. F120.AF.180.44



Weight = 15500 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string 1, 2, 3 or 4 ropes or conductors.

Four hydraulic circuits let to tension at constant force even varying the speed of stringing. The four circuits can be used independently or simultaneously, with automatic partition of the forces.

In puller use, the hydraulic circuits (close) let to vary in continuous the speed in both directions operating four control levers, allowing to use the circuits independently or simultaneously.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed), on all the four circuits.

- Four pairs of capstans with steel grooves thermally and chemically treated, high resistance, fit for steel wire ropes or conductors.
- Machine control panel equipped with 4 built-in electronic instruments featuring a large graphic color display and a USB port. Main functions include display of pull-force, speed and length of cable in real time, max pull force setting, display of working hours, data recording and storage on a pen-drive (data processing software provided).
- Four safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers for 4 cond.
- Frame with two axles, steering-one with drawbar, leaf spring suspensions and tires, fit for towing on the road at 60 km/h (homologation excluded).
- Stabilisers, share and attacments for anchoring the machine.
- Oil cooling system.
- Four auxiliary hydraulic circuits for additional equipment (i.e. motorised reel-stands).
- Grounding connection point.

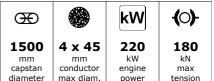
- 006.3 Pneumatic braking system with ABS.
- 012 Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 Remote control by cable, with 10 m of cable.
- 038 Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 4 ropes/conductors.
- 045.3 Manual clamp for 4 ropes/conductors.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES	
Capstans	8 x Ø 1500 mm
Capstan grooves	5 (tot.40 grooves)
Max conductor diameter	4 x 45 mm
Max rope diameter	38 mm

TENSION PER	FORMANCES
Max tension	1 x 180 kN or 2 x 90 kN
	or 4 x 45 kN
Max speed	5 km/h

ENGINE	
Feeding	Diesel
Power	299 hp /220 kW
Cooling system	water
Electric system	24 V

PULL PERFORM	MANCES
Max pull	1 x 180 kN or 2 x 90 kN
	or 4 x 45 kN
Speed at max pu	ull 1,9 km/h
Max speed	5 km/h



CMAC

remote controls







REC

Remote controls by cable.

REC.1 Compact remote control by cable. Fit for "puller" and "puller-tensioner" machines with 1 hydraulic circuit. Pull/release buttons and emergency stop button. Complete with 10 m of cable for connection to the machine.

REC.2 Remote control by cable. Fit for "puller" and "puller-tensioner" machines with 1 hydraulic circuit.

The control is complete with:

- control-stick controlling the rotation of the capstans
- speed adjustment control
- emergency stop button
- cable for connection to the machine, 10-m long.

OPTIONAL

- 01 Dynamometer to read the pulling force, metercounter and speedometer.
- 02 Engine start/stop.
- 03 Engine throttle.

REC.3 Remote control by cable. Fit for "puller" and "puller-tensioner" machines with 2 or more hydraulic circuits.

The control is complete with:

- control-stick controlling the rotation of the capstans
- speed adjustment control
- emergency stop button
- cable for connection to the machine, 10-m long.

OPTIONAL

- 01 Dynamometer to read the pulling force, metercounter and speedometer.
- 02 Engine start/stop.
- 03 Engine throttle.

RER

Remote radio-control fit for machines with 1,2,3 or 4 circuits.

Max operational distance: up to 100 m.

The radio-control is complete with:

- control-stick controlling the capstans rotation (puller)
- speed adjustment control (puller)
- tension force adjustment control (tensioner)
- emergency stop button
- back-up cable, for connecting the control to the machine in case of need (ie: low battery).
- Dynamometer to read the pulling force, metercounter and speedometer.

OPTIONAL

- 01 Dynamometer to read the pulling force, metercounter and speedometer (for winch).
- 02 Engine start/stop.
- 03 Engine throttle.

Mod. RER.1 Fit for 1 circuit.
Mod. RER.2 Fit for 2 circuits
Mod. RER.3 Fit for 3 circuits
Mod. RER.4 Fit for 4 circuits



Mod. RER.1 (for 1 circuit)



Mod. RER.2 (for 2 circuits)



Mod. RER.4 (for 4 circuits)





digital built-in data read-out





DEG

Electronic instrument for monitoring the working values. Fit for OMAC pullers, tensioners and puller-tensioners.

A must-have device installed on all OMAC machines as a standard.



FEATURES

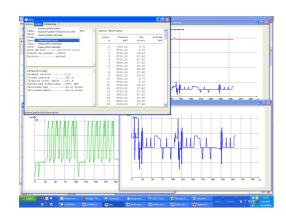
- Large screen (4,3"), allowing for excellent visibility from any angle.
- Graphic, color display.
- Integrated into the main control panel.
- High Capacity memory: over 200 km of line.
- High Accuracy and Reliability thanks to the load cells and encoder system.
- Equipped with USB port.
- Ease of use.

FUNCTIONS

- Reads and displays the pull-force, the speed and the length of cable in real time.
- Max-pull force setting.
- Display of working hours.
- Data recording.
- Data storage on a pen-drive.
- Software provided allows for handling the data stored.

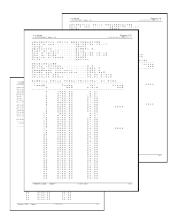
OPTIONAL 069.5

Portable printer c/w connection cable to be plugged to the machine.
 Fit for printing the recorded data directly in the job-site. Supplied in aluminium case.





Our software helps analyse and page the data monitored



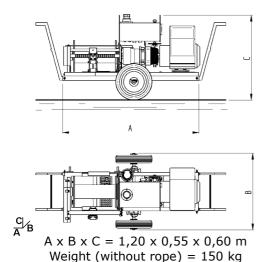


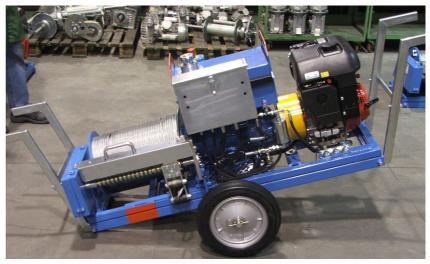
4

HYDRAULIC **SERVICE WINCHES**

CNAC ITALY

Mod. F203.10





Hydraulic winch fit to pull one rope in service operations like setting-ups and adjustment of transmission lines, and to lay underground cables. The winch is decomposable in 3 parts. One closed hydraulic circuit lets to vary continuously the speed in both directions by operating one control device.

- Steel drum.
- Automatic rope winder with idle device for manual operation.
- Safety hydraulic negative brake.
- Rigid axle with tires and drawbar fit for towing at low speed in workplace.
- Fittings for anchoring the machine.
- Rope-driver rollers fit for vertical and horizontal pull.

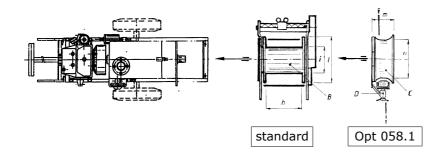
- 028.2 Diesel engine with rope starting.
- 034 Engine electric starting with battery 12 V.
- 053 Dynamometer for reading the pull force.
- 035 Preselector of max pull force to stop the engine in case of overpull.
- 045.5 Manual holdfast for locking the wire. It can be used with optional capstan (see opt. 058.1)
- 058.1 Large groove capstan to be mounted on the motorised hydraulic group (instead of the drum).

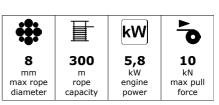
FEATURES OF THE DRUM	
Internal diameter	150 mm
External diameter	325 mm
Width	420 mm

DRUM CAPACITY	
Steel rope Ø 8 mm	300 m
Steel rope Ø 6 mm	600 m

ENGINE	
Feeding	gasoline
Power	8 hp / 5,8 kW
Cooling	air
Starting	by rope

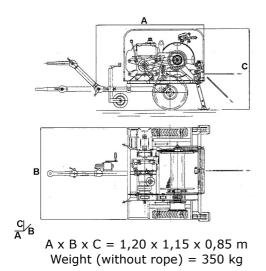
PULL PERFORMANCES	
Max pull	10 kN
Speed at max pull	17 m/min
Max speed	32 m/min





SMAC ITALY

Mod. F206.10





Hydraulic winch fit to pull one rope in service operations like setting-ups and adjustments of transmission lines and lay of underground cables.

One closed hydraulic circuit lets to vary continuously the speed in both directions by operating one control device.

- Detachable drum.
- Automatic swinging rope-winder with idle position for manual operation.
- Dynamometer for reading the pull force.
- Freewheeling of the drum.
- Safety hydraulic negative brake.
- Rigid axle with tires and drawbar fit for towing at low speed in workplace.
- Stabilisers and attachments for anchoring.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Rope-driver rollers fit for vertical and horizontal pull.

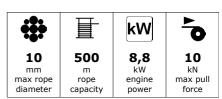
- 003 Axle with independent torsion bar suspensions and tires for towing on the road at 60 km/h, with mechanical parking brake.
- 026 PVC cloth cover.
- 028.2 Diesel engine with rope starting.
- 034 Engine electric starting with battery 12 V.
- 035 Preselector of max pull force to stop the engine in case of overpull.
- 056.4 Service steel capstan beside the drum.
- 065 Automatic clamp for rope on side capstan.
- 090 Monophase electric motor 220 V.
- 090.1 Three-phase electric motor.

FEATURES OF THE DRUM	
Internal diameter	200 mm
External diameter	500 mm
Width	500 mm

DRUM CAPACITY	
Rope Ø 8 mm	800 m
Rope Ø 10 mm	500 m

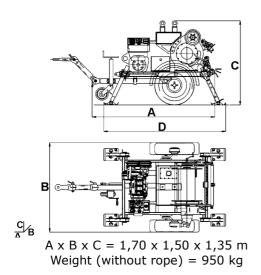
ENGINE	
Feeding	gasoline
Power	12 hp / 8,8 kW
Cooling	air
Starting	by rope

10 kN
15 m/min
40 m/min
4 kN
15 kN
10 m/min
30 m/min
5 kN



CMAC

Mod. F207.30





Hydraulic winch fit to pull one rope in service operations like setting-ups and adjustments of transmission lines and lay of underground cables.

One closed hydraulic circuit lets to vary continuously the speed in both directions by operating one control device.

- Drum equipped with neutral device for unwinding manually the rope.
- Automatic swinging rope-winder with idle position for manual operation.
- Machine control panel with dynamometer and preselector of max pull force.
- Safety hydraulic negative brake.
- Rigid axle with tires and drawbar fit for towing at low speed in workplace.
- Stabilisers and attachments for anchoring.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Rope-driver rollers fit for vertical and horizontal pull.

- 007 Damped axle, overrun brake and drawbar for towing on the road (homologation excluded).
- 026 PVC cloth cover.
- 027 Metallic coverage with doors.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 046.3 Rope-presser roller on the drum.
- 058 Service winch with large-groove capstan (\emptyset 160 or 200 mm) fed by the hydraulic circuit of the puller. Max pulling force 500 kg.
- 064 Device to control the load descent in case of diesel engine breakdown.
- 090.1 Three-phase electric motor.

FEATURES OF THE DRUM	
Internal diameter	270 mm
Width	500 mm

DRUM CAPACITY (*)	
Rope Ø 10 mm – max length	700 m
Rope Ø 10 mm – suggested length	500 m
Rope Ø 12 mm – suggested length 350 m	
(*)Approximate lengths	

ENGINE	
Feeding	diesel
Power	26 hp / 19 kW
Cooling	water
Electric system	12 V

PULL PERFORMANCES	
on the middle layer of rope	
Max pull	30 kN
Speed at max pull	15 m/min
Max speed	70 m/min
Pull at max speed	6 kN

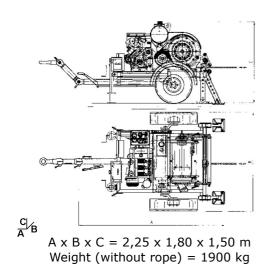


Opt. 027

÷\$;		kW	•
10	700	19	30 kN
max rope diameter	rope capacity	engine power	max pull force

CMAC I TALY

Mod. F210.50





Hydraulic winch fit to pull one rope in service operations like setting-ups and adjustments of transmission lines and lay of underground cables. Direct pull on the drum.

One closed hydraulic circuit lets to vary continuously the speed in both directions by operating one control device.

- Steel drum.
- Automatic swinging rope-winder with idle position for manual operation.
- Machine control panel with dynamometer and preselector of max pull force.
- Safety hydraulic negative brake.
- Rigid axle with tires and drawbar fit for towing at low speed in workplace.
- Stabilisers and attachments for anchoring.
- Heat exchanger to cool the oil in the hydraulic circuit.
- Rope-driver rollers fit for vertical and horizontal pull.

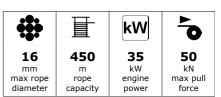
- 007 Damped axle, overrun brake and drawbar for towing on the road (homologation excluded).
- 026 PVC cloth cover.
- 027 Metallic coverage with doors.
- 037 Remote control by cable, with 10 m of cable.
- 038 Radio-control (max distance 50 m).
- 046.3 Rope-presser roller on the drum.
- 058 Service winch with large-groove capstan (\emptyset 160 or 200 mm) fed by the hydraulic circuit of the puller. Max pulling force 500 kg.
- 064 Braking device to control the descent of the load in the event of an engine breakdown.

FEATURES OF THE DRUM	
Internal diameter	400 mm
Width	700 mm

DRUM CAPACITY	
Steel rope Ø 16 mm	450 m
Steel rope Ø 14 mm	500 m

ENGINE	
Feeding	diesel
Power	47 hp / 35 kW
Cooling	water
Electric system	12 V

PULL PERFORMANCES		
on the middle la	ayer of rope	
Max pull	50 kN @ 21 m/min	
Pull	20 kN @ 60 m min	
Max speed	65 m/min	





5

REEL-STANDS AND **TRAILERS**

CMAC ITALY

reel-stands max load 70 to 180 kN

F155

Stands fit for steel or wooden reels, useful for lifting a reel and braking it while stringing the conductor. Optionally,

it even offers the possibility to hydraulically drive the reel by means of the power supplied by a hydraulic power unit.

- No. 1 self-braking disk brake.
- Each stand can be raised or lowered independently by a hydraulic hand pump.
- Mechanical safe-stops mounted on the jack arm.
- Lateral supports with ball joints.
- Spindle complete with accessories.
- Conical bushes for wooden reels (diameter on demand).
- Welded and painted steel framework with attachments to anchor the machine.
- Metallic tool box for the accessories.



the stands are supplied in pairs



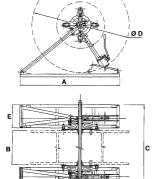
opt.408



opt.410.3

OPTIONAL

- 423 Additional disk brake (2 brakes in total).
- 410.3 No. 1 or 2 disc brakes with hydraulic clamp controlled by manual pump.
- 408 Hydraulic drive to control the reel rotation, either recovering or releasing the conductor (to be fed by hydraulic power unit).
- 401 Devices fit for steel reel, and bushes to centre the reel hole (diameter on demand).
- O78.1 Set of flexible hoses for feeding the drive unit, (lengths available: 5, 10, 15 m).
- 419.2 Automatic rope-winder, fit to stratify the different diameters of rope on the reels of different width (available for mod. F155.120 and bigger).



	Reel diameter min – max (¹)	Reel width max	Spindle diameter	Dimensions of each reel-stand	Weight of the pair of reel-stands (2)
	m	m	mm	m (A x E)	kg
F155.070	0,80 - 2,80	1,50	45	2,10 x 0,50	350
F155.100	1,50 - 3,20	1,70	55	2,40 x 0,55	540
F155.120	2,00 - 3,50	2,40	65	2,60 x 0,60	850
F155.150	2,00 - 4,00	3,00	95	3,10 x 0,60	1100
F155.180	2,00 - 4,00	3,00	95	3,10 x 0,60	1250

- $(^{1})$ on demand we can supply stands fit for reels with bigger diameter
- (2) weight of a pair of standard stands, with no optionals

PERFORMAN	CES						
		Braking torque	Braking torque	Braking torque	Performa	nces with drive	opt. 408
	Max load	with standard	with 2 brakes	with brake		Max recovery	Max
	of the pair	brake	opt. 423	opt. 410.3	torque	torque	speed (3)
	daN	daN m	daN m	daN m	daN m	daN m	km/h
F155.070	7000	150	300	_	225	180	5
F155.100	10000	230	460	600	280	230	5
F155.120	12000	230	460	800	280	230	5
F155.150	15000	230	460	1000	312	250	5
F155.180	18000	280	560	1200	375	300	5

(3) powered by hydraulic circuit of a tensioner and puller-tensioner or Omac power unit.

OMAC s.n.c.



OMAC ITALY

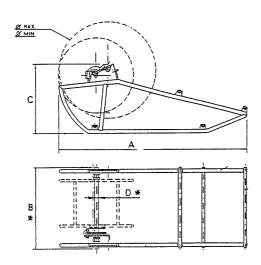
reel-stands

F157

Reel-cradle fit for lifting and unwinding a reel of wire. Made of welded and painted steel. Completely demountable for an easy transport. Complete with reel shaft.

OPTIONAL

- 410.1 Disc brake for braked unwinding.
- 410.4 Disc brake with high brake capacity.
- 402 Conical bushes for wooden reels.
- 405.1 Total galvanisation.







opt.410.1

	Reel diameter min - max	Overall dimensions (A x B x C)	Spindle (ØD)	Load	Weight
	m	m	mm	daN	kg
F157.14	1,10 - 1,40	2,10 × 0,90 × 0,88	50	1000	50
F157.14.S	1,10 - 1,40	2,50 x 1,10 x 0,95	50	2000	65
F157.19	up to 1,90	3,00 x 1,10 x 1,10	50	2600	160



SMAC ITALY

reel-winder trolleys

F106

Reel-winder trolley fit for reel transport and wire recovering/releasing, designed to be used with pullers, puller-tensioners

or hydraulic power units, from which it receives the transmission needed to move the reel.

It can even be fitted with own motorization.

- Bi-directional hydraulic engine, controlled directly by the machine panel through flexible pipes, fit for moving the reel by means of a reduction unit.
- Neutral device to unwind the rope easily.
- Hydraulically-lifted reel-carrier arm operated by manual pump.
- Automatic rope-winder complete with rope-driver rollers, fit for winding three different diameters of rope on the reel. The rope-winder may also be operated manually.
- Frame with three tires, one of them steering with drawbar, fit for shifting in the yard.
- Mechanical stabilisers and joints for anchoring and lifting the reel-winder.
- Devices for locking the reel rotation mechanically.

OPTIONAL

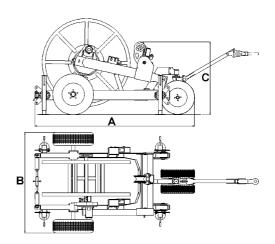
- 416 Negative safety brake that self-operates in case of pressure drop in the hydraulic circuit feeding.
- 417 Installation of a diesel engine that operates a hydraulic power unit, fit to make the reelwinder autonomous.
- 438.2 Device that allows to lift the reel by using the reel-rotation circuit.
- 078.1 Set of flexible hoses for feeding the drive unit (lengths available: 5, 10, 15 m).



F106.110

F106.140 F106.190





	Reel Ømax	Capacity	Rope Ø	Max pull (1)	Max speed (1)	Dimensions AxBxC	Weight
	mm	kg	mm	daN	km/h	m	kg
F106.110	1100	1200	10-13-16	150	4	1,70 x 1,25 x 1,00	450
F106.140	1600	2000	16-18-20	250	5	2,00 x 1,35 x 1,40	700
F106.190	1900	3000	18-20-24	300	5	2,50 x 1,80 x 1,40	1200

(1) performances obtained when connected to the hydraulic circuit of a puller or puller-tensioner

WITH AUTON	OMOUS DRI	VE (OPT.	417)				
	Engine	power	Max pull (²)	Speed at max pull (2)	Max speed	Dimensions AxBxC	Weight
	kW	hp	daN	m/min	m/min	m	kg
F106.110	4,4	6	200	30	65	2,00 x 1,25 x 1,00	540
F106.140	5,9	8	300	30	65	2,20 x 1,35 x 1,40	800
F106.190	7,3	10	400	30	65	2,50 x 1,40 x 1,40	1350

(2) on the middle layer



SNAC ITALY

reel-winder trolleys

F106.220

Reel-winder trolley designed for recovering/pulling and releasing ropes and conductors to/from steel

reels. The reel is operated by a hydraulic motor fed by a separated power unit or by the auxiliary hydraulic circuit of a puller, tensioner or puller/tensioner.

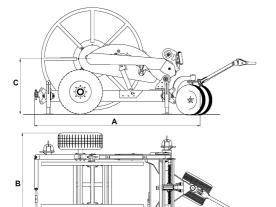
- Hydraulic motor with reduction group connected to the spindle.
- Negative safety brake self-operating in the event of hydraulic breakdown.
- Reel-carrier arms with hydraulic lifting of reel, operated through a manual pump.
- Rigid axle, tires, hand brake and drawbar for towing at low speed in workplace.
- Adjustable pivoting reel.
- Mechanical stabilisers and attachments for anchoring and lifting the machine.
- Reel arm fit for reels max diameter 2200 mm.
- Spindle with dragger and bushes for reels.
- Steel reel mod. F162.220
- Automatic rope-winder, fit to stratify the different diameters of rope on the reel. The rope-winder can also be operated manually.
- Set of flexible hoses for connection to the hydraulic power unit, length 15 m.



FEATURES	
Reel diameter (min/max)	1400/2200 mm
Reel width (max)	1560 mm
Max weight of the reel	8000 kg

PERFORMANCE	
Max pull	500 daN
Speed at max pull	2,5 km/h
Max speed	5 km/h
Pull at max speed	250 daN

(1) with rope wound up to layer diameter 2000 mm



OPTIONAL

- 005.1 Tandem axle with torsion bar suspensions, air braking system and lights.
- 006 Pneumatic braking system and lights.
- 059 Metallic reel F162.220
- 096.1 Hydraulic power unit with gasoline engine assembled on trolley, to control the reel-lifter and stabilisers.
- 417.1 Hydraulic power unit with diesel engine assembled on trolley or separate, placed on the trolley for autonomous usage in conductor braking and recovering.

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trailers for reels









F10.60

Trailer fit to transport and unwind reels of cable weighing up to 6000 kg.

- Framework made of welded steel sections.
- Hydraulic manual pump for lifting the reel.
- Spindle rotating on ball joints, with arm for close and drag the reel, and conical bushes for wooden reel.
- Safe mechanical locking in working position.
- Mechanical locking of the spindle rotation for safe transport.
- Mechanical back supports.
- Single rigid axles with manual brake.
- Adjustable pivoting wheel.
- Parking brake.

OPTIONAL DEVICES

- 007-A Class trailer, towing speed 60 km/h Complete with ABS system (damped axles).
- 007-B Class trailer, towing speed 80 km/h
 Complete with ABS system and Pneumatic suspensions
 (damped axles)
- 029.2 Electric start of the diesel/gasoline engine, with battery (Opt. 408.4).
- 038 Radio-control to control the rope winding/unwinding, max distance 50 m (opt.408.4 and 029.2 needed).
- 046.A Manual rope-winder to stratify the rope onto the reel.
- 401 Devices fit for using steel reels with the reel-elevator.
- 408.4 Hydraulic drive of the reel, with 2 rubber rollers and mechanical pushing device, for controlling the reel rotation both recovering and releasing cables, by control lever, complete with power unit and gasoline engine 13 hp.
- 410.1 Band brake on the spindle, for braking the unwinding of the cable.
- 447 Diesel engine for the power unit.
- 458 Hydraulic cylinders for lifting the reel, with control by hydraulic power unit (opt.408.4 needed).
- 460 Heat exchanger to cool the hydraulic oil in the power unit opt.408.4, for heavy works.
- 461 Device that allows to move the trailer through hydraulic wheels that operate the pneumatic tires of the trailer: forward/backward and large-ray bend (opt.408.4 needed).

DIMENSIONS OF THE REEL (1)				
Diameter max	3000 mm			
Width max	1810 mm			
Drum max weight	6000 kg			
(¹) the reel is not supplied with the trailer				

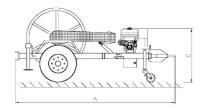
PERFORMANCES WITH OPTIONAL DRIVE (OPT. 408.4)				
Max pull force	0 - 9 kN			
Speed	0 - 60 m/min			

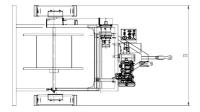
also available with different capacity



SNAC ITALY

motorized reel-trailers





C|B

A x B x C = $3,60 \times 2,20 \times 1,40 \text{ m}$ Weight (without rope or opts.) = 1750 kg



recovering and releasing ropes and conductors to/from

wooden or steel reels.

The reel, operated by a hydraulic motor, allows to recover the wire or conductor (puller use) and to release it (tensioner use).

- Hydraulic power unit made of electric motor or air cooled diesel engine with electric starting and a variable-delivery hydraulic pump, that lets to vary continuously and gradually the speed of rotation of the reel, in either directions, by operating one control handle only (puller use).
- Hydraulic circuit fit for braking the wire (tensioner use).
- Control panel with control and instruments for the machine and the engine.
- Dynamometer to check the pulling force, with possibility to set a maximum limit of the force.
- Hydraulic motor with reduction group connected to the spindle.
- Negative safety brake self-operating in the event of hydraulic breakdown.
- Reel-carrier arms with hydraulic lifting of reel, operated through the power unit.
- Rigid axle, tires, hand brake and drawbar for towing at low speed in workplace.
- Adjustable pivoting reel.
- Hydraulic-driven stabilisers on pull side, and attachments for anchoring and lifting the machine.
- Spindle with dragger and conical bushes for wooden reels (reel hole diameter to be specified).
- Dragger and cylindrical bushes for steel reels (reel hole diameter to be specified).

OPTIONAL DEVICES

- O07 Axle with independent torsion bar suspensions, adjustable drawbar, overrun braking system, sandy ground tyres and lights, for towing on road at 60 km/h (without homologation).
- 059 Steel cylindrical reel fit for reel wires and nylon ropes (Øext 1400 x 560 mm).
- 060 Conical metallic reels with opening side (\emptyset ext 1400 x 560 mm).
- 0601 Conical metallic reels with opening side (Øext 1400 x 800 mm).
- 419.2 Automatic rope-winder, fit to stratify the different diameters of rope on the reels of different width.

REEL TRANSPORT CAPACITY					
Transportable reel dimensions					
Diameter max	1800 mm				
Width max	1100 mm				
Weight max	2000 kg				

ENGINE	
Feeding	diesel or electric
Power	21 hp / 15,4 kW

PERFORMANCES					
Max pull/tension force	2000 daN				
Speed at max pull/tension	10 m/min				
Max speed	50 m/min				
the performances here above are referred to the					

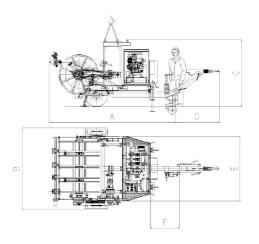
rope-layer diameter 500 mm

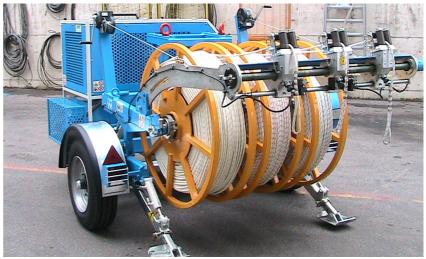




SNAC ITALY

motorized reel-trailers





F10.M

Trailer designed for transporting reels as well as for recovering and releasing ropes and conductors to/from wooden or steel reels.

The trailer can host up to 3 or 4 reels. The reels, operated by a hydraulic motor, allow to recover the wires (like a puller) and to release them (braked tension).

- Hydraulic power unit made of an air cooled diesel/gasoline engine with electric starting and a variable-delivery hydraulic pump, that lets to vary continuously and gradually the speed of rotation of the reel, in either directions, by operating one control handle only.
- Hydraulic circuit fit for braking the wire.
- Control panel with control and instruments for the machine and the engine.
- Dynamometer to check the pulling force, with possibility to set a maximum limit of the force.
- Hydraulic motor with reduction group connected to the spindle.
- Possibility to use one or more reels idling the others.
- Negative safety brake self-operating in the event of hydraulic breakdown.
- Reel-carrier arms with hydraulic lifting of reel, operated through the power unit.
- Rigid axle, tires, hand brake and drawbar for towing at low speed in workplace.
- Adjustable pivoting reel.
- Hydraulic stabilisers and attachments for anchoring

- and lifting the machine.
- Spindle with dragger and conical bushes for wooden reels (reel hole diameter to be specified).
- Dragger and cylindrical bushes for steel reels (reel hole diameter to be specified).
- Heat exchanger to cool the hydraulic oil.

OPTIONAL DEVICES

- 007 Axle with suspensions, drawbar, overrun brake, lights and tires for towing on the road at 60 km/h. (homologation excluded)
- 008 Axle with leaf spring suspensions, drawbar, pneumatic braking system, tyres and lights for towing on the road at 60 km/h.
- 026 Protective PVC cloth.
- 028.1 Water cooled diesel engine, complying with EEC standards.
- 046.B No. 3 or 4 rope-winders fit to stratify various diameters of wires on the reels, adjustable, with neutral position.
- 060 No. 3 or 4 conical metallic reels with opening side.
- 061 No. 3 or 4 metallic reels fit for 1500 m of rope dia. 10 mm.
- 060.1 No. 1 steel reel fit for 2500 m of rope diam. 14 mm.
- 074.2 Antitwisting steel wire rope, diameter and length on demand.
- 129 Nylon rope, diameter and length on demand.

TRAILER FOR REELS	F10.M.10.10.3	F10.M.15.30.3	F10.M.20.30.4
Max number of reel hosted	3	3	4
Reel diameter (max)	1200 mm	1200 mm	1400 mm
Reel width (max)	1100 mm	1100 mm	1400 mm
Max pulling/braking force (1)	20 kN @ 20 m/min	30 kN @ 20 m/min	30 kN @ 25 m/min
Max speed at low force (2)	100 m/min	100 m/min	70 m/min
Engine power	18 hp (13,2 kW)	27 hp (19,8 kW)	30 hp (22 kW)
Max reel weight	1000 kg	1600 kg	2000 kg
Dimensions (A+D x B x C)	3,4+1,2x2,3x1,7 m	3,6+1,2x2,3x1,8 m	4,3+1,2x2,4x2,0 m
Weight (without optionals)	1000 kg	1800 kg	2000 kg

(¹) values referred to the medium layer of rope (²) values referred to the very external diameter of rope (reel full)







6

REELS AND ROPES

SMAC ITALY

non-twisting steel ropes

21.12

Antitwisting galvanised steel rope specifically designed for stringing operations.

Made up of 12 braided strands. High resistant

to break, antitwisting, flexible, safe and easy to handle. The linear contact between the braided strands grants a low stress of the rope.

Supplied wound up on steel or wooden reels.



21 12

OPTIONAL

- 146.2 Spliced eyes at both the ends.
- 146.3 Clamped eyes at both the ends.







	Nominal diameter	Construction	Breaking load	Weight	Typical lengths (*)
	mm	no. strands	kN	kg/m	m
21.12.08	8	12	44	0,22	1000
21.12.10	10	12	72	0,35	1000
21.12.13	13	12	105	0,55	1000
21.12.16	16	12	163	0,80	900
21.12.18	18	12	235	1,07	800
21.12.20	20	12	268	1,24	1000
21.12.22	22	12	330	1,56	900
21.12.24	24	12	380	1,76	800
21.12.28	28	12	479	2,57	600
21.12.30	30	12	480	3,12	500

(*) other lengths on request



CNAC

ropes

22...1

Pilot rope made of an external polyester mesh stocking and a hitenacity nylon core. Double torsion. Highly resistant to wear and UV

rays. Colour white.

Supplied wound up on wooden reels, or in coils.

OPTIONAL

- Clamped eyes with metallic collars at the ends (note: the clamped eyes have breaking load 30-35% lower than the rope).
- Sewn eyes (note: available up to Ø18 mm. The breaking load of the clamped eyes is the same as the breaking load of the rope).







	Nominal diam.	Elongation u	nder tension	Breaking load	Weight		Stand	dard le	ngths	
	mm	at 10% BL (1)	at 30% BL (2)	daN	kg/m			m		
22.06.1	6	4%	7,5%	750	0,027	500	1000	1500	2000	3000
22.08.1	8	4%	7,5%	1.200	0,045	500	1000	1500	2000	3000
22.10.1	10	4%	7,5%	2.000	0,073	500	1000	1500	2000	3000
22.12.1	12	4%	7,5%	3.500	0,115	500	1000	1500	2000	3000
22.14.1	14	4%	7,5%	4.300	0,142	500	1000	1500	2000	
22.16.1	16	4%	7,5%	5.000	0,195	500	1000	1500	2000	
22.18.1	18	4%	7,5%	5.800	0,240	500	1000	1500		
22.20.1	20	4%	7,5%	6.500	0,295	500	1000	1500		
22.22.1	22	4%	7,5%	8.300	0,350	500	900			
22.24.1	24	4%	7,5%	9.500	0,410	500	800			

⁽¹⁾ elongation rate at 10% of breaking load

Pilot rope made of polypropylene and polyester hi-tenacity 12-fuses mesh. Light, manageable, waterproof and UV resistant. Easy to splice without any special tool. Colour green.

Supplied wound up on wooden reels, or in coils

OPTIONAL

Hand-spliced ends.

22...2





	Nominal diam.	Elongation under tension (at 50% BL)	Breaking load	Weight	Standard lengths
	mm	%	daN	kg/m	m
22.10.2	10	5%	1.500	0,040	1000
22.12.2	12	5%	2.300	0,060	1000
22.14.2	14	5%	2.800	0,075	1000
22.16.2	16	5%	3.300	0,088	1000
22.18.2	18	5%	4.500	0,120	1000
22.20.2	20	5%	5.500	0,150	1000
22.22.2	22	5%	6.200	0,165	800
22.24.2	24	5%	8.500	0,240	800



⁽²⁾ elongation rate at 30% of breaking load

SNAC ITALY

ropes

23...P

Rope with Dyneema-core and polyester covering.

Supplied wound up on wooden reels, or in coils. (on request, supplied on metal reels opt. 04)

OPTIONAL

- 01 Clamped eyes with metallic collars at the ends (note: the clamped eyes have breaking load 30-35% lower than the rone).
- 02 Hand-spliced eye.
- 03 Head stocking-grip with eye.
- 04 Steel reel Ø 1100, 1400 or 1600 mm.





	Nominal diam.	Elongation under tension	Breaking load	Weight	Standard lengths
	mm	%	daN	kg/m	m
23.05.P	5	3%	950	0,020	500 1000 1500 2000 3000
23.06.P	6	3%	1.400	0,025	500 1000 1500 2000 3000
23.08.P	8	3%	2.800	0,040	500 1000 1500 2000 3000
23.10.P	10	3%	3.800	0,065	500 1000 1500 2000 3000
23.12.P	12	3%	5.800	0,095	500 1000 1500 2000
23.14.P	14	3%	7.600	0,115	500 1000 1500 2000
23.16.P	16	3%	10.500	0,155	500 1000

(2) elongation rate at 8% of breaking load

23...D

Dyneema rope totally high resistance. Good resistance to abrasion.

Supplied wound up on wooden reels, or in coils. (on request, provided on metal reels opt. 04)

OPTIONAL

- O1 Clamped eyes with metallic collars at the ends (note: the clamped eyes have breaking load 30-35% lower than the rope).
- 02 Hand-spliced eye.
- 03 Head stocking-grip with eye.
- 04 Steel reel Ø 1100, 1400 or 1600 mm.





	Nominal diam.	Elongation under tension (2%)	Breaking load	Weight	Standard lengths
	mm	%	daN	kg/m	m
23.06.D	6	3%	3.00	0,02	500 1000 1500 2000 3000
23.08.D	8	3%	4.800	0,03	500 1000 1500 2000 3000
23.10.D	10	3%	8.200	0,05	500 1000 1500 2000 3000
23.12.D	12	3%	10.000	0,07	500 1000 1500 2000
23.14.D	14	3%	14.000	0,08	500 1000 1500 2000
23.16.D	16	3%	17.000	0,12	500 1000 1500 2000
23.18.D	18	3%	22.000	0,17	500 800 1000
23.20.D	20	3%	26.500	0,20	500 800 1000





bright steel rope

Bright steel rope 216 wires + steel core.Construction 6 (14+7/7+7+1) WS+WR. Right and left crossed. UNI 7297-74. Resistance of wires: 180 kg/mm²





OPTIONAL

Galvanization

Nominal	Wires	Breaking	Weight
diameter	diameter	load	
mm	mm	kN	kg/m
6	0,38	27,2	0,15
8	0,50	47,3	0,28
10	0,62	75	0,43
11	0,68	89	0,52
12	0,75	108	0,62
14	0,77	131	0,82
16	0,88	168	1,07
18	0,99	220	1,35
20	1,10	270	1,68
22	1,22	320	2,03
24	1,33	380	2,40
26	1,44	450	2,83
28	1,55	504	3,30
30	1,66	600	3,80
32	1,77	670	4,33

Bright steel rope 216 wires + textile core. Construction 6(14 + 7/7 + 7 + 1)WS + FC Right crossed. UNI 7297-74. Resistance of wires: 180 kg/mm².



C02...AL

Nominal	Wires diameter	Breaking load	Weight
diameter	diameter	ioau	_
mm	mm	kN	kg/m
6	0,33	21,5	0,14
8	0,44	38	0,24
10	0,57	60	0,38
11	0,63	72,5	0,46
12	0,68	86	0,55
14	0,80	120	0,74
16	0,90	158	0,96
18	1,00	200	1,20
20	1,12	248	1,49
22	1,24	299	1,82
24	1,34	350	2,14
26	1,43	410	2,48
28	1,55	490	2,99
30	1,66	569	3,45

Bright steel rope 133 wires. Construction 19x7. Lang lay or regular Resistance of wires 200 kg/mm².



C02...LR

OPTIONAL

Galvanization

Rope diam.	Wires diam.	Sect.	Wght		
mm	mm	mm^2	kN	kN (1)	kg/m
		Lan	g lay		
6	0,38	16,5	26	26	0,15
8	0,51	29,3	48,1	46,1	0,27
10	0,64	45,7	72,1	72,1	0,41
11	0,70	55,3	87,2	87,2	0,50
12	0,76	65,8	104	104	0,60
13	0,83	77,3	122	122	0,70
14	0,89	89,6	141	141	0,81
16	1,02	117	185	185	1,06
18	1,15	148	234	234	1,34
		Regu	lar lay		
20	1,27	183	288	281	1,66
22	1,40	221	349	340	2,01
24	1,53	263	415	405	2,39
26	1,65	309	487	475	2,81

(1) galvanized type

Bright or galvanised steel rope 216 wires "compacted strands", high resistance, with metal core. Resistance of wires: 220 kg/mm²



C02...AR

Nominal diameter	Wires diameter	Breaking load	Weight
mm	mm	kN	kg/m
10	0,59	90,2	455
11	0,66	111	550
12	0,72	132	670
13	0,78	153	780
14	0,84	176	900
16	0,96	240	1.180
18	1,08	294	1.480
20	1,20	367	1.850
22	1,32	443	2.250
24	1,41	525	2.500
26	1,53	613	3.040
28	1,64	704	3.640
30	1,76	809	4.200

CNAC ITALY

steel reels for ropes

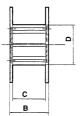
F162

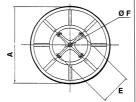
Painted steel reel for wire, complete with demountable central dial

and bolts.

OPTIONAL

- 01. Total galvanization.
- 02. Pair of standard dials.
- 03. Pair of dials equipped with ball bearings.
- 04. Reinforced reel, made of square tubular (30% heavier than the standard version).





F164

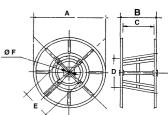
Painted steel conical reel with openable side. The openable side

and the drum shaped as a frustum of cone let to take off easily the coil of wire. Complete with demountable dial and bolts.



OPTIONAL

- 01. Total galvanization.
- 02. Pair of standard dials.
- 03. Pair of dials equipped with ball bearings.
- 05. Drum core covered with sheet steel.



			Dimer	nsions			Weight (without rope)
Fix type	Α	В	С	D	E	F	F162
	mm	mm	mm	mm	mm	mm	kg
F162.060	700	530	460	219		50	27
F162.110	1100	560	460	570	420	50	66
F162.140	1400	560	460	570	420	50	105
F162.160	1600	560	460	570	420	50	120
F162.190	1900	560	460	570	420	50	140
F162.190.1	1900	890	770	630	420	50	280
F162.220	2200	1560	1400	1010	420	100	950

Openable		Dimensions Weight (wi											
Туре	Α	В	С	D	Е	F	F164						
	mm	mm	mm	mm	mm	mm	kg						
F164.060	700	530	460	219		50	40						
F164.110	1100	560	460	570	420	50	85						
F164.140	1400	560	460	570	420	50	115						
F164.160	1600	560	460	570	420	50	130						
F164.190	1900	560	460	570	420	50	220						
F164.190.1	1900	890	770	630	420	50	280						
F164.205	2050	1310	1170	630	420	50	550						
F164.220	2200	1310	1170	1010	420	100	1050						



REEL CAPACIT	TY (meters of	rope)				
Rope diameter	F162.060	F162.110	F162.140	F162.160	F162.190	F162.220
(mm)	F164.060	F164.110	F164.140	F164.160	F164.190	F164.220
6	2000	6300	13000	17000	25000	-
7	1500	4500	9000	12000	18000	-
8	1200	3500	6000	5500	14000	=
9	900	2800	5400	7500	11000	=
10	800	2300	4400	6000	9000	33000
11	500	1900	3600	5000	7500	31000
12	450	1600	3000	4200	6000	22000
13	400	1400	2600	3600	5400	19000
14	300	1250	2200	3000	4600	16000
16	250	1000	1700	2400	3500	13000
18	-	800	1300	1900	2800	10000
20	-	650	1100	1600	2200	8000
22	-	500	900	1200	1900	6000
24	-	=	750	1000	1500	5000
26	-	=	650	900	1300	4500
28	-	-	560	800	1100	4000
30	-	-	490	700	1000	3500
32	-	-	430	600	850	3000

Note: the above capacities are indicative only and may vary according to the type of rope



Via Pizzo Camino, 13 24060 Chiuduno (BG) – Italy www.omac-italy.it tel. +39 035 838 092 fax +39 035 839 323 omac@omac-italy.it Performances of the machine without optional devices, at sea level and temperature 20°C. Dimensions and weights are without optional devices. All data may change without notice. Images and drawings are indicative only.





7

PULLEY BLOCKS

SMAC ITALY

running out blocks

F144

F150

Single sheave running out block fit for stringing overhead conductors. Aluminium sheave mounted on sealed ball bearings. Groove lined with nylon sectors. Openable galvanised steel frame with non-fleeting device. Standard swivelling fork attachment.

SPECIAL FOR OPGW: the running out block mod. **F144.100.60** is properly designed for fiber optics conductors

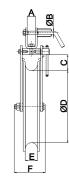
OPTIONAL

- 301.2 Fix hook (code FT).
- 301.1 Swivelling hook attachment (code GG).
- 314 Bottom groove lined with aluminium sectors (only for sheaves with groove width E= 60, 68 and 95 mm).
- 327 Non-fleeting device as big as half wheel circumference (standard on mod. F150).
- 326 Ground device (only for shaves with groove width E= 60, 68 and 95 mm; opt.314 needed).
- 329 Copper cable, 6-m long, with transparent PVC protection, with a clamp for tower and a terminal for the running out block (for opt.326 and 326.1).
- 328 Special U-shaped frame.
- 320 Box for transport and stocking.

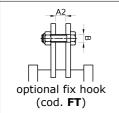






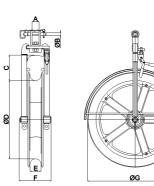








F144 with opt.327





F144 with opt.326+328

					Breaking load upper than	Weight					
	Α	A1	A2	В	С	D	E	F	G	daN	kg
F150.23.1	25	25	26	14	110	230	50	150	300	8.000	8,0
F150.35	30	27	26	16	110	350	60	170	440	9.000	11,5
F144.50.70	40	27	27	20	150	500	68	188	630	12.000	25
F144.65.70	40	33	27	20	160	650	68	188	770	12.000	30
F144.65.95	40	33	27	20	150	650	95	210	770	12.000	35
F144.80.70	45	33	27	20	160	800	68	188	900	12.000	35
F144.80.95	45	33	27	20	150	800	95	210	900	12.000	41
F144.100.95	45	37	27	25	150	1000	95	230	1120	12.000	50
F144.100.60	40	27	27	20	160	1000	60	190	1080	9.000	38

CNAC ITALY

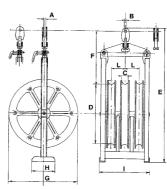
running out blocks

F145

Three-sheaves running out block fit for stringing two- three-bundled conductors. Aluminium sheaves mounted on sealed ball bearings. Grooves lined with nylon. Galvanised steel frame with non-fleeting devices on lateral sheaves. Demountable attachment revolving at 90°.

OPTIONAL

- 314 Sheaves lined with aluminium sectors.
- 320 Cage for stocking and transport.
- 326 Ground device (opt.314 needed).
- 329 Copper cable, 6-m long, with transparent PVC protection, with a clamp for tower and a terminal for the running out block (for opt.326 and 326.1).
- 325 Reinforced central sheave with total breaking load 25.000 daN (for mod. F145.100.95 only).
- 330 Central sheave with groove width 95 mm (for models F145.xx.68 e F149.xx.68).





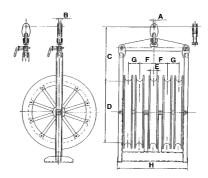
					Breaking load upper than	Weight						
	Α	В	С	D	Е	F	G	Н	I	L	daN	kg
F145.35.60	20	21	60	350	900	400	440	200	400	100	8.000 daN	40 kg
F145.50.68	25	25	68	500	1250	550	630	280	500	145	12.000 daN	93 kg
F145.65.68	25	25	68	650	1400	550	770	280	500	145	14.000 daN	112 kg
F145.65.95	25	30	95	650	1400	550	770	280	590	175	18.000 daN	125 kg
F145.80.68	25	25	68	800	1500	550	900	280	500	145	18.000 daN	128 kg
F145.80.95	25	30	95	800	1550	550	900	300	590	175	18.000 daN	156 kg
F145.100.95	25	30	95	1000	1750	550	1100	300	590	175	20.000 daN	200 kg

Larger diameters on demand

F149

Five-sheaves running out block fit for stringing four-bundled conductors. Aluminium sheaves mounted on sealed ball

bearings. Grooves lined with nylon. Galvanised steel frame with non-fleeting devices on lateral sheaves. Demountable attachment revolving at 90°.





OPTIONAL

- 314 Sheaves lined with aluminium sectors.
- 320 Cage for stocking and transport.
- 326 Ground device (opt.314 needed).
- 329 Copper cable, 6-m long, with transparent PVC protection, with a clamp for tower and a terminal for the running out block (for opt.326 and 326.1).
- 325 Reinforced central sheave with total breaking load 25.000 daN (for mod. F145.100.95 only).
- 330 Central sheave with groove width 95 mm (for models F145.xx.68 e F149.xx.68).

				Dime	nsions	(mm)				Breaking load upper than	Weight
	Α	В	С	D	Е	F	G	Н	L	daN	kg
F149.50.68	25	25	520	500	68	145	100	700	1250	12.000 daN	128
F149.65.68	25	25	590	650	68	145	100	700	1400	14.000 daN	147
F149.65.95	25	30	590	650	95	175	130	820	1400	18.000 daN	185
F149.80.68	25	25	590	800	68	145	100	700	1560	18.000 daN	180
F149.80.95	25	30	590	800	95	175	130	820	1560	18.000 daN	220
F149.100.95	30	30	590	1000	95	175	130	820	1800	20.000 daN	272

Larger diameters on demand



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CNAC I TALY

running out blocks

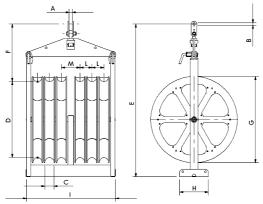
F188

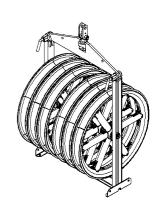
Six-sheaves running out block for six-bundled conductors, fit for stringing 6 conductors by using 2 pilot ropes. Aluminium

sheaves mounted on sealed ball bearings. Grooves lined with nylon. Steel frame with non-fleeting devices on lateral sheaves. Demountable attachment revolving at 90°.

OPTIONAL

- 314 Sheaves lined with aluminium sectors.
- 326 Ground device (opt.314 needed).
- 329 Copper cable, 6-m long, with transparent PVC protection, with a clamp for tower and a terminal for the running out block (for opt.326).





					Breaking load upper than	Weight							
	Α	В	С	D	Е	F	G	Н	I	L	М	daN	kg
F188.65.68	30	30	68	650	1400	550	770	400	750	100	145	18.000	180
F188.65.95	30	30	95	650	1400	550	770	400	880	125	170	20.000	207
F188.80.68	30	30	68	800	1500	550	900	500	750	100	145	18.000	204
F188.80.95	30	30	95	800	1550	550	900	500	880	125	170	20.000	240

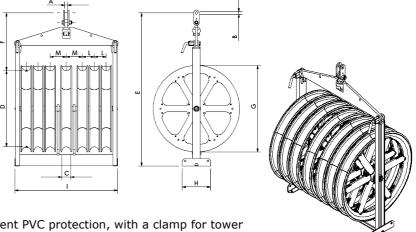
F189

Seven-sheaves running out block for four- or six-bundled conductors, fit for stringing 4 or 6 conductors by using 1 or

2 pilot ropes. Aluminium sheaves mounted on sealed ball bearings. Grooves lined with nylon. Steel frame with non-fleeting devices on lateral sheaves. Demountable attachment revolving at 90°.

OPTIONAL

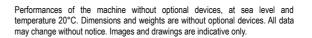
- 314 Sheaves lined with aluminium sectors.
- 325 Central sheave lined with steel sectors.
- 326 Ground device (opt.314 needed).
- 329 Copper cable, 6-m long, with transparent PVC protection, with a clamp for tower and a terminal for the running out block (for opt.326).



	Dimensions (mm)												Weight
	Α	В	С	D	Е	F	G	Н	I	L	М	daN	kg
F189.65.68	30	30	68	650	1400	590	100	400	930	100	145	18.000	195
F189.65.95	30	30	95	650	1400	590	125	400	1100	125	170	20.000	235
F189.80.68	30	30	68	800	1560	590	100	500	930	100	145	18.000	240
F189.80.95	30	30	95	800	1560	590	125	500	1100	125	170	20.000	295



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running out blocks



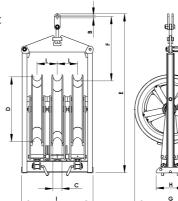
F 145.S

Decomposable threesheaves running out block fit for stringing two- threebundled conductors. The

frame contains 3 running-out blocks that can be used singularly. Aluminium sheaves mounted on sealed ball bearings. Grooves lined with nylon sectors. Galvanised steel frame. Central sheave mounted on double bearings. Demountable attachment revolving 90°.

OPTIONAL

- 314 Sheaves lined with aluminium sectors.
- 326 Ground device (opt.314 needed).
- 329 Copper cable with transparent PVC protection, with a clamp for tower and a terminal for the running out block (6 m in length).





	Dimensions (mm)											
	Α	В	С	D	Е	F	G	Н	I	L	daN	kg
F 145.S.50.68	25	25	68	500	1480	600	630	280	590	148	12.000 daN	122 kg
F 145.S.65.68	25	25	68	650	1550	600	770	280	590	148	14.000 daN	145 kg
F 145.S.65.95	25	30	95	650	1650	600	770	280	670	178	18.000 daN	165 kg
F 145.S.80.68	25	25	68	800	1750	600	900	280	590	148	18.000 daN	167 kg
F 145.S.80.95	25	30	95	800	1750	600	900	300	670	178	18.000 daN	190 kg
F 145.S.100.95	30	30	95	1000	1980	600	1100	300	700	178	20.000 daN	230 kg

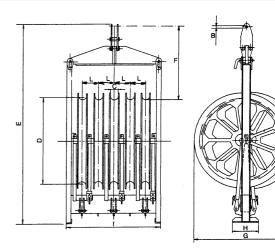
F 149.S

Decomposable five-sheaves running out block fit for stringing four-bundled conductors. The frame contains 5 running-out blocks that can be used singularly. Aluminium

sheaves mounted on sealed ball bearings. Grooves lined with nylon sectors. Galvanised steel frame. Central sheave mounted on double bearings. Demountable attachment revolving at 90°.

OPTIONAL

- 314 Sheaves lined with aluminium sectors.
- 326 Ground device (opt.314 needed).
- 329 Copper cable with transparent PVC protection, with a clamp for tower and a terminal for the running out block (6 m in length).



				D	imensio	ns (mr	n)				Breaking load upper than	Weight
	Α	В	С	D	Е	F	G	Н	I	L	daN	kg
F 149.S.50.68	25	25	68	500	1480	600	630	280	890	148	12.000 daN	185
F 149.S.65.68	25	148	14.000 daN	210								
F 149.S.65.95	25	30	95	650	1650	600	770	280	1050	178	18.000 daN	245
F 149.S.80.68	25	25	68	800	1750	600	900	280	890	148	18.000 daN	249
F 149.S.80.95	25	30	95	800	1750	600	900	300	1050	178	18.000 daN	300
F 149.S.100.95	30	30	95	1000	1980	600	1100	300	1070	178	20.000 daN	328

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CNAC ITALY

running-out block

Single sheave block fit for stringing a pilot rope by helicopter. Proper devices allow to position the pulling rope in the sheave groove, and prevent it from slipping out. The sheave is made with cast aluminum alloy, and it is mounted on waterproof bearings. Groove lined with interchangeable nylon sectors. Galvanized steel frame. Fix fitting.

OPTIONAL

- 314 Bottom groove lined in aluminum (only for sheaves with groove width C= 60, 68 or 95 mm).
- 326 Grounding device (only for sheaves with groove width C= 60, 68 or 95 mm; opt.314 needed).
- 327 Non-fleeting device an half wheel circumference.
- 329 Copper cable, 6-m long, with transparent PVC protection, with a clamp for tower and a terminal for the running out block (for opt.326).



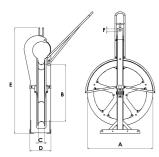
opt. 314 326 327 329











Model		D	imensic	ns in mi	m		Breaking load	Weight
	Α	В	С	D	Е	F	upper than	
F150.23.50.E	300	230	50	220	550	25	8000 daN	15 kg
F150.35.60.E	440	350	60	240	680	25	9000 daN	22 kg
F144.50.70.E	630	500	68	340	980	25	12000 daN	49 kg
F144.65.70.E	770	650	68	340	1220	25	12000 daN	52 kg
F144.65.95.E	770	650	95	370	1220	25	12000 daN	61 kg
F144.80.70.E	900	800	68	340	1320	25	12000 daN	64 kg
F144.80.95.E	900	800	95	380	1320	25	12000 daN	68 kg
F144.100.95.E	1120	1000	95	380	1560	25	20000 daN	85 kg

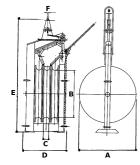
Three sheave block fit for stringing a pilot rope by helicopter. Proper devices allow to position the pulling rope in the sheave groove, and prevent it from slipping out. The sheave is made with cast aluminum alloy, and it is mounted on waterproof bearings. Groove lined with interchangeable nylon sectors. Galvanized steel frame. Fix fitting.

OPTIONAL

- 314 Bottom groove lined with aluminum.
- 326 Grounding device (opt.314 needed).
- 329 Copper cable, 6-m long, with transparent PVC protection, with a clamp for tower and a terminal for the running out block (for opt.326).







Model		D	imensic	ns in mi	n		Breaking load	Weight
	Α	В	С	D	Е	F	upper than	
F145.50.70.E	630	500	68	670	1080	25	18000 daN	120 kg
F145.65.70.E	770	650	68	670	1320	25	18000 daN	160 kg
F145.65.95.E	770	650	95	780	1320	25	18000 daN	170 kg
F145.80.70.E	900	800	68	670	1420	25	18000 daN	175 kg
F145.80.95.E	900	800	95	800	1420	25	18000 daN	196 kg
F145.100.95.E	1120	1000	95	800	1640	25	20000 daN	250 kg

SNAC ITALY

running out blocks

Counter-pull running-out block

 Galvanised steel frame, openable, with swivelling hooks on the ends.

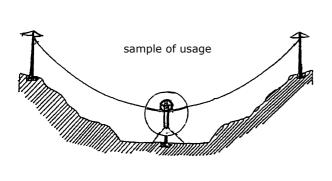
Automatic disengaging device for recovering the unit.

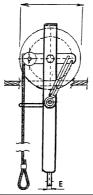
vers. AS Galvanised steel pulley mounted on ball bearings.

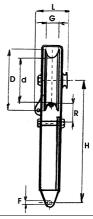
vers. BS Aluminium pulley lined with interchangeable nylon ring.

F151.235









	-			Dimensio	ons (mm))			Breaking load higher than	Weight
	d	D	E	F	G	Н	L	R	daN	kg
F151.235.AS	240	300	25	25	65	600	170	95	8500	21
F151.235.BS	235	300	25	25	50	550	150	95	6500	20

F308.100.98

Rollers/pulley

designed for stringing conductors up to diameter 60 mm. Made of

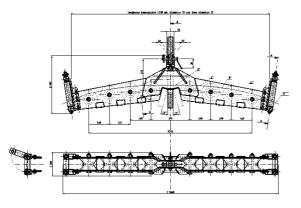
electrowelded and galvanized steel. Nylon rollers turning on

bearings. Flexible fittings.
Breaking load: 18000 daN
Bending radius: 1500 mm
Rollers-groove width: 70 mm
Dimensions: 1660 x 180 x 450 mm

Weight: 35 kg

OPTIONAL

- 01- Antifleeting framework made of nylon rollers, with openable upper roller.
- 02- Groove width 100 mm.









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running out block

F151

Running out block fit for stringing shield wires. Galvanized steel sheave

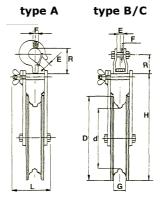
mounted on ball bearings. Galvanized steel frame with non-fleeting device.

Two different attachments available:

A - swivel hook.

B - swivel fork. C - fix hook.

Blocks with different dimensions can be built on demand.





	Attachment type			D	imensic	ns (mı	n)			Breaking load	Weight
		d	D	E	F	G	Н	L	R	daN	kg
F151.235.A	А	230	300	25	22	65	400	155	100	8000	13
F151.235.B	B/C	230	300	35	20	65	70	8000	13		

F152

Snatch block. Steel sheave mounted on ball bearings. Galvanized steel frame

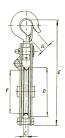
with openable side. Standard blocks with attachment Type "B".

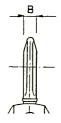
OPTIONALS

01 - Non-fleeting device 02 - Swivel hook Type "A"

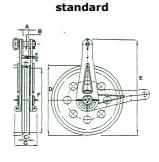
Blocks with different dimensions can be built on demand.

type "A" Opt.02





Opt.01



type "B"



	Attachment type			Dime	nsions (mm)			Breaking load	Max load	Weight
		Α	В	С	D	Е	F	G	daN	daN	kg
F152.2	В	25	25	40	290	400	250	110	30.000	10.000	20
F152.3	В	30	30	50	350	500	300	160	45.000	15.000	40
F152.4	В	45	35	60	450	600	400	180	60.000	20.000	55
F152.5	В	50	50	60	600	800	550	190	90.000	30.000	75
F152.6	В	60	60	80	720	950	650	250	200.000	50.000	120



snatch-blocks

C86.ST

Openable snatch block.

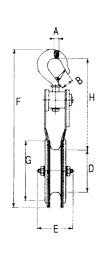
Galvanised steel sheave mounted on ball bearings.

Galvanised steel frame with openable side. Standard hook attachment.

OPTIONALS

eye attachment A2







	Capacity	Breaking load	Max rope			Dime	nsions	(mm)			Weight
	daN	kN	Ø	Α	В	D	Е	F	G	Н	kg
C86.ST.20	1600	90	14	23	28	102	75	400	138	210	5
C86.ST.40	3200	180	18	30	34	137	80	440	170	235	9,2
C86.ST.50	5000	250	24	39	43	185	95	500	215	285	12

Also available with capacity 2000, 4000 and 6000

C86.AL

Openable snatch block. Aluminium sheave mounted on ball

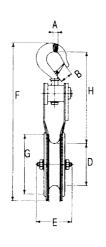
bearings.

Aluminium frame with openable side. Standard steel hook attachment.

OPTIONALS

eye attachment A2







	Capacity	Breaking load	Max rope			Dime	nsions	(mm)			Weight
	daN	kN	Ø	Α	В	D	E	F	G	Н	kg
C86.AL.6	800	30	16	16	16	98	72	300	120	160	1,6
C86.AL.12	1600	60	20	18	25	130	75	320	155	180	2,8

CMAC ITALY

C87

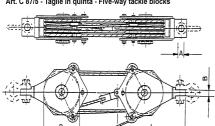
C88

snatch-blocks

Art. C 87/3 - Taglie in terza - Three-way tackle blocks

Art. C 87/3 - Taglie in terza - Three-way tackle blocks

Art. C 87/5 - Taglie in quinta - Five-way tackle blocks



Snatch block for wire ropes. Galvanised steel frame with 2, 3 or 5 steel sheaves mounted on waterproof ball bearings.

The snatch blocks are supplied in pairs.

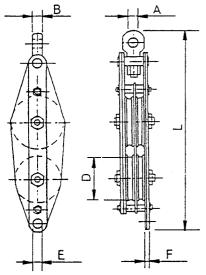
OPTIONAL

- O1 Shackle, swivel joint and wire rope (length and diameter of the rope to be specified)
- 02 Anti-fleeting bars.



	Sheaves		Dir	nensions (mi	m)		Max load	Breaking load	Weight per pair
	no.	D (1)	rope Ø	L max	Α	В	kN	kN	kg
C87.2.025	2	160	8	380	22	22	25	120	20
C87.3.035	3	160	8	450	25	22	35	170	27
C87.5.055	5	160	8	500	29	22	55	270	45
C87.2.030	2	180	9	370	22	22	30	150	25
C87.3.045	3	180	9	430	25	22	45	220	30
C87.5.070	5	180	9	470	29	22	70	350	45

(1) bottom groove diameter



Tackle block for high voltage lines. Steel frame with 4 or 6 steel sheaves mounted on waterproofed ball bearings. Supplied in pairs.

OPTIONAL

01 Aluminium sheaves.



	Sheaves			Dime	ensions (mm)			Max load	Breaking load	Weight per pair
	no.	D min	Ø rope	L max	Α	В	E min	F max	kN	kN	kg
C88.4.025	4	120	6	500	23	23	11	11	25	120	25
C88.4.045	4	160	8	650	25	23	11	11	45	220	45
C88.6.065	6	160	8	680	27	35	11	11	65	320	70
C88.6.095	6	200	10	800	36	45	12	13	95	470	100
C88.6.120	6	240	12	940	38	48	14	14	120	600	130

NOTE: the load capacity is lower with aluminium sheaves

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running boards for bundle conductors

F153.2 Running board for 2-bundle conductor, fit for connecting the pulling rope to 2 conductors.

The running board is made up of:

- 1 sheave with balancing counterweights
- 1 swivel joint for the pulling rope
- 2 swivel joints for the conductors
- 1 length of antitwisting steel rope for the conductors

F153.3 Running board for 3-bundle conductors, fit for connecting the pulling rope to 3 conductors (phases). The running board is made up of:

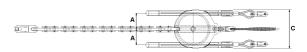
- 1 sheave with balancing counterweights
- 1 swivel joint for the pulling rope
- 3 swivel joints for the conductors
- 2 lengths of antitwisting steel rope: 1 for the lateral conductors and 1 for the central conductor



F153

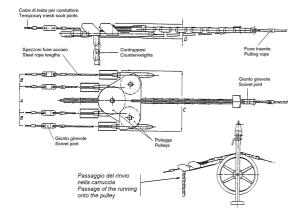






	Cond.	Dime	nsions	(mm)	Joints ((model)	Rope	e for condu	ctors	B.L. (g)	Weight
	(a)	Α	В	С	(b)	(c)	Ø mm	(e) m	(f) m	kN	kg
F153.2.1	2	146	160	360	F250.24	F250.16	16	30	_	300	140
F153.2.2	2	174	170	410	F250.24	F250.16	16	30	_	300	155
F153.2.6	2	100	125	245	F250.18	F250.13	12	15	_	200	85
F153.3.1	3	146	160	360	F250.24	F250.18	18	30	15	300	155
F153.3.2	3	174	170	410	F250.24	F250.18	18	30	15	300	175
F153.3.6	3	100	125	245	F250.18	F250.13	12	15	7	200	90

(a) number of conductors - (b) joint for pulling rope - (c) joint for conductors - (e) rope length for external conductors -(f) rope length for central conductor - (g) minimum breaking load



F154

Running board for 4-bundle conductors fit for connecting the pulling rope to 4 conductors.

The running board is made up of:

- 3 sheaves with balancing counterweights
- 1 swivel joint for the pulling rope
- 4 swivel joints for the conductors
- 2 lengths of antitwisting steel rope for the conductors



	Cond.	Dir	mensio	ns (mr	n)	Joints (model)	Rope	for conduc	ctors	B.L. (g)	Weight
	(a)	Α	В	С	D	(b)	(c)	Ø mm	(e) m	(f) m	kN	kg
F154.4.1	4	290	100	540	160	F250.24	F250.18	18	30	30	300	200
F154.4.2	4	340	130	640	160	F250.24	F250.18	18	30	30	300	220
F154.4.5	4	296	148	640	160	F250.24	F250.18	18	30	30	300	220
F154.4.6	4	356	178	760	160	F250.24	F250.18	18	30	30	300	240
F154.4.8	4	340	130	640	180	F250.28	F250.24	18	30	30	750	270

(a) number of conductors - (b) joint for pulling rope - (c) joint for conductors - (e) rope length for external conductors -(f) rope length for central conductors – (g) minimum breaking load





CNAC ITALY

running boards for bundle conductors

F153.2...F Fix-type running board for 2-bundle

conductor, fit for connecting the pulling rope to 2 conductors.

The running board is made up of:

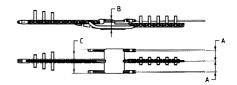
- 1 swivel joint for the pulling rope
- 2 swivel joints for the conductors
- 2 lengths of antitwisting steel rope for the conductors

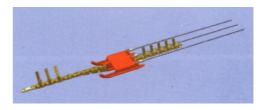
F153.3...F Fix-type running board for 3-bundle conductors, fit for connecting the pulling rope to 3 conductors (phases).

The running board is made up of:

- 1 swivel joint for the pulling rope
- 3 swivel joints for the conductors
- 3 lengths of antitwisting steel rope for the conductors

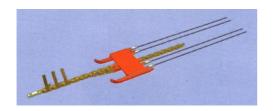
F153...F





	Cond.	Dime	nsions	(mm)	Joints (model)		Rope for (conductors	Breaking load	Weight
	(a)	Α	В	С	(b)	(c)	Ø mm	length m	kN	kg
F153.2.3.F	2	100	130	250	250.16	250.18	12	3	200	70
F153.2.1.F	2	146	160	360	250.24	250.18	16	3,5	300	135
F153.2.2.F	2	174	170	410	250.24	250.18	16	3,5	300	150
F153.3.3.F	3	100	130	250	250.16	250.18	12	3	200	75
F153.3.1.F	3	146	160	360	250.24	250.18	18	3,5	300	150
F153.3.2.F	3	174	170	410	250.24	250.18	18	3,5	300	170

(a) number of conductors – (b) joint for pulling rope – (c) joint for conductors

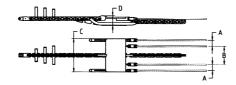


F154...F

Fix-type running board for 4-bundle conductors fit for connecting

the pulling rope to 4 conductors. The running board is made up of:

- 1 swivel joint for the pulling rope
- 4 swivel joints for the conductors
- 4 lengths of antitwisting steel rope for the conductors



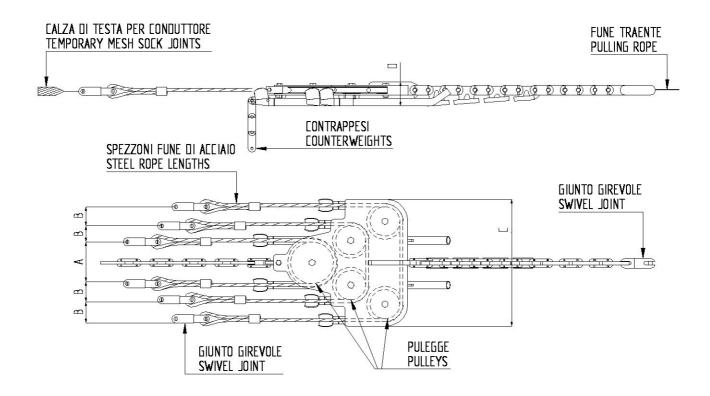
	Cond.	Dimensions (mm)		Joints (model)		Rope for	conductors	Breaking load	Weight		
	(a)	Α	В	С	D	(b)	(c)	Ø mm	length m	kN	kg
F154.4.1.F	4	100	290	540	160	250.24	250.18	18	3,5	300	190
F154.4.2.F	4	130	340	640	160	250.24	250.18	18	3,5	300	210
F154.4.5.F	4	148	296	640	160	250.24	250.18	18	3,5	300	210
F154.4.6.F	4	178	356	760	160	250.24	250.18	18	3,5	300	230
F154.4.8.F	4	130	340	640	180	250.28	250.24	18	3,5	750	265

(a) number of conductors – (b) joint for pulling rope – (c) joint for conductors



CMAC

running boards for bundle conductors



F154.6

Running board for 6-bundle conductors fit for connecting the pulling rope to 6 conductors

(phases).

The running board is made up of:

- 5 sheaves with balancing counterweights
- 1 swivel joint for the pulling rope
- 6 swivel joints for the conductors
- 3 lengths of antitwisting steel rope for the conductors

F154.6..F

Fix-type running board for 6-bundle conductors fit for connecting the pulling rope to 6 conductors

(phases).

The running board is made up of:

- 1 swivel joint for the pulling rope
- 6 swivel joints for the conductors
- 6 lengths of antitwisting steel rope for the conductors

Running board fit for pulley mod. F189

	Dimensions (mm)			Joints (model)		Rope for conductors		Breaking load	Weight	
	Α	В	С	D	(a)	(b)	Ø mm	length m	daN	kg
F154.6.1 F154.6.1.F	290	100	820	175	250.28	250.18	18	3 m	45000	320
F154.6.2 F154.6.2.F	340	125	1000	175	250.28	250.18	18	3 m	45000	350

(a) joint for pulling rope – (b) joints for conductors





CNAC ITALY

stringing equipment

F166

Joint protector made up of two galvanised steel shells. The ends are shaped to host the rubber protections. It is fit to limit the bending radius of the

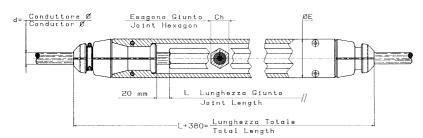
conductor during the passage in the running out blocks.

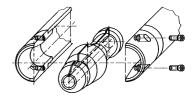
Note: in the purchase order, please specify the following dimensions:

L = length of the joint after pressing

d = conductor diameter

ch = hexagon dimension of the joint after pressing

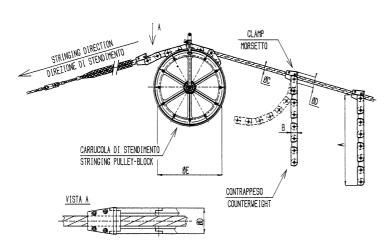




	for pulleys with groove	joint protector external diam. ØE	conductor diam. Ød	L max (¹)	Hexagon Ch max	breaking load	Weight
	mm	mm	mm	mm	mm	kN	kg
F166.40	54/60	50	18	700	28	8 - 16	10
F166.60	68	62	28	1000	40	12 - 20	16
F166.65 *	68	65	32	1050	48	7 - 16	18
F166.92 *	95	90	50	1300	60	18 - 20	32

^{*} special

⁽¹⁾different lengths on request



Antitwisting counterweight fit for stringing overhead fiber optics cables (OPGW). The

F198

counterweight allows to prevent the cable from twisting during the passage in the running out blocks. Its shape is designed for passing in the grooves of the running out blocks without damaging the cable.

A pair of nylon liners prevent damages to the conductor.

Supplied in metallic case.

Note: the counterweights F198 must always be used in pairs.

In the purchase order, please specify the conductor diameter.

					Conductor	or Running out block	
	Dimensions in mm		weight(1)	diameter ØC	diameter ØE	groove width	
	ØD	A(2)	В	kg	mm	mm	mm
F198.50	50	1000	35	22	9 - 15	350/500	60/68
F198.60	60	1300	40	26	16 - 23	500/800	68
F198.88	80	1800	60	46	24 - 30	650/800	95

⁽¹⁾weight on couple

OMAC s.n.c.



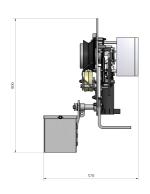
⁽²)indicative length

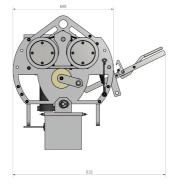
pulling robot for replacing conductors











F405.10.B

Pulling robot made of light alloy. Moved by two electric motors that

control two aluminium drive wheels lined with vulcolan. The motors are powered by an interchangeable and rechargeable battery.

Device for unlocking and recovering the robot in case of stop while working.

Radiocontrol for controlling the movement.

The robot can ride any rope/conductor. The lower wheels allow it to overpass little obstacles, like conductor joints. Supplied in metallic box $(0.90 \times 0.60 \times 0.80 \text{ m})$.

RADIO-CONTROL

Radiocontrol with forward/backward and stop control keys, max distance 400 m (the real capacity may be reduced in particular weather conditions).

Complete with receiving unit, battery charger and 2 extractable and rechargeable batteries. Protection IP67.

OPTIONAL

Battery-charger for the battery of the motors, complete with 230 V trasformer.

PERFORMANCES	
Max pull force	1 kN
Max inclination	15°
Max pull speed	20 m/min
Min. pull speed	15 m/min

FEATURES	
Wheels diameter (external)	190 mm
Wheels diameter (internal)	140 mm
Wheel groove width	55 mm
Dimensions (LxWxH) 0,80 x 0,5	50 x 0,70 m
Weight	40 kg

MOTORS FOR THE MOVE	MENT
Feeding	electric
Power (each motor)	0,15 kW
Flectric plant	12 V

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pulling robot for replacing conductors

F405.15.S



Pulling robot made of light alloy. Moved by two electric motors that

control two aluminium drive wheels lined with vulcolan. The motors are powered by an electric power unit with gasoline engine transported by the robot itself.

Device for unlocking and recovering the robot in case of stop while working.

Radiocontrol for controlling the movement.

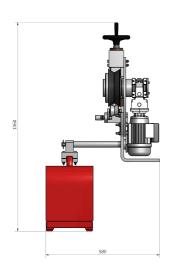
The robot can ride any rope/conductor. The lower wheels allow it to overpass little obstacles, like conductor joints. Supplied in metallic box $(1,00 \times 0,60 \times 0,90 \text{ m})$.

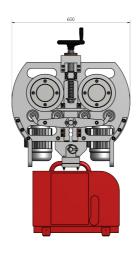
RADIO-CONTROL

Radiocontrol with forward/backward and stop control keys, max distance 400 m (the real capacity may be reduced in particular weather conditions).

Complete with receiving unit, battery charger and 2 extractable and rechargeable batteries. Protection IP67.







PERFORMANCES	
Max pull force	1,5 kN
Max inclination	20°
Max pull speed	20 m/min
Min. pull speed	12 m/min

Wheels diameter (external) 100 mm Wheels diameter (internal) 60 mm Wheel groove width 50 mm Dimensions (LxWxH) 0,90 x 0,60 x 0,80 m		
Wheels diameter (internal) 60 mm Wheel groove width 50 mm Dimensions (LxWxH) 0,90 x 0,60 x 0,80 m	FEATURES	
Wheel groove width 50 mm Dimensions (LxWxH) 0,90 x 0,60 x 0,80 m	Wheels diameter (external)	100 mm
Dimensions (LxWxH) 0,90 x 0,60 x 0,80 m	Wheels diameter (internal)	60 mm
	Wheel groove width	50 mm
	Dimensions (LxWxH) 0,90 x	0,60 x 0,80 m
Weight 45 kg	Weight	45 kg

MOTORS FOR THE MOVEM	IENT
Feeding	electric
Power (each motor)	0,15 kW
Electric plant	12 V

ENGINE OF THE POWER UNIT	
Feeding	gasoline
Electric power unit	12 V
Autonomy	4 hours
Power	1,8 hp
Cooling system	air

equipment for replacing conductors

F183.2.70

Cradle block designed for replacing the existing ground wire (GW) with optical grounding wire (OPGW) cables. It's made of two galvanized steel half-frames linked by a

ring with swivel plate.

Each half-frame is complete with:

- one grooved nylon wheel mounted on ball bearings
- three nylon plates to protect the OPGW cable
- easy-to-open side

The frame is designed to avoid the contact between cable and metallic parts.

Working load 200 daN. Breaking load 1000 daN

Wheel diameter: 70 mm (external), 40 mm (bottom groove)

Groove width 40 mm

Dimensions: 3403x65x118 mm. Weight 1,95 kg

OPTIONAL

01 - Metallic box for 50 blocks (dimensions 800x600x600 mm)

F183.2.70.A - complete with ring and rope block device. F183.2.70.B - complete with lateral rope block clamp. **F183.2.70.C** – complete with upper rope block clamp.

F183.3.70

Cradle block for replacing existing cables, with head clamp for ropes diameter from 10 to 20 mm.

Nylon main wheel mounted on ball-bearings, second wheel and aluminium frame with protective nylon.

Working load: 200 daN Breaking load: 1000 daN Dimensions: 364x99x160

Weight: 1,2 kg **OPTIONAL**

01 - Metallic box for 50 blocks (dimensions 600x600x600)

F183.4.70

Cradle block for replacing existing cables, with clamp for ropes diameter from 10 to 20 mm. Nylon wheels and aluminium frame.

Working load: 150 daN Breaking load: 750 daN

Dimensions: 360x99x150 mm

Weight: 1,1 kg **OPTIONAL**

01 - Metallic box for 50 blocks (dimensions 600x600x600 mm)

F405.15.FR

Braking device for cradle blocks. Positioned behind the sequence of cradles, it

aids to keeps the distance between

the cradles.

Aluminium frame and aluminium and rubber wheels mounted on ball-bearings.

Working load: 150 daN. Weight: 4 kg

OPTIONAL

01 - Plastic box (dimensions 600x400x200 mm)

F405.15.RR

Recovering device to hook the robot in case of particularly conditions of extreme inclination. Towing system by rope with

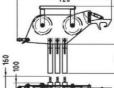
extractable counterweights. Aluminium frame and wheels mounted on ball bearings and galvanised steel counterweights. Working load: 150 daN.

Weight: 8,3 kg (counterweights excluded)

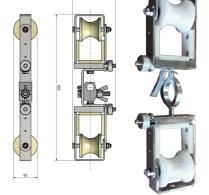
Counterweights: 3 x 8,8 kg each

OPTIONAL

01 - Metallic box (dimensions 600x800x300 mm)

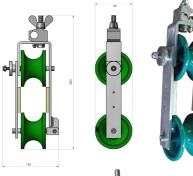






F183.2.70.B

F183.2.70.A









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Performances of the machine without optional devices, at sea level and temperature 20°C. Dimensions and weights are without optional devices. All data may change without notice. Images and drawings are indicative only

Ø120

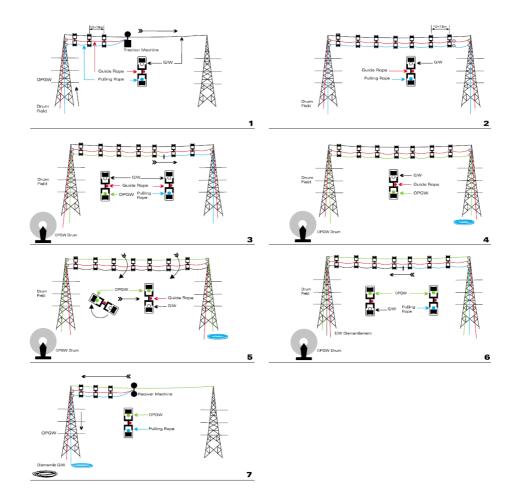




pulling robot for replacing conductors

Usage of the pulling robot for replacing conductors:

- 1. Step I: the cradle blocks are positioned on the existing GW cable by means of a guide rope pulled by traction robot OMAC F405. A pulling rope passes in the lower wheels of the cradle blocks.
- 2. Situation at the end of the step I
- 3. Step II: the new OPGW cable replaces the pulling rope
- 4. Situation at the end of the step II
- 5. Step III: the cradle blocks rotate upside down and the old GW cable is replaced by the OPGW cable
- 6. Step IV: the pulling rope replaces the old GW cable
- 7. Step V: the cradle blocks are recovered

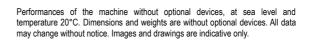




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8

EQUIPMENT

joints for ropes



Joint made of galvanised high tensile steel, fit for connecting lengths of pilot and pulling ropes. Designed to pass on the capstan grooves of pullers.

GF...00

Ø A	В
T	C Ø max fune / max rope dia

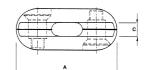
		Dime	ensions	mm		for rope	B.L. (1)	Weigth
	Α	Н	В	Ø	R	Ø mm	kN	kg
GF.10.00	68	14	36	17	13	10/12	70	0,20
GF.13.00	76	17	37	21	15	13/14	110	0,30
GF.16.00	96	19	50	22	20	16	160	0,60
GF.18.00	110	25	56	24	22	18/20	220	0,90
GF.24.00	125	26,5	60	28	24	22/24	360	1,30
GF.26.00	168	30	72	38	30	26/28	750	3,00
GF.32.00	178	35	80	44	34	28/32	850	3,50

(1) minimum breaking load

F82

Fix joint for ropes. Designed for joining lengths of pulling rope. Fit for the passage over the puller capstans. Its shape reduces the stress of the eyes during the passage over the

capstans: the eyes work on special swivelling pins. Easy to open. Made of galvanised high tensile steel.

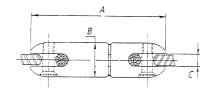






	Dime	nsions	mm	for rope (1)	B.L. (²)	Weight
	Α	В	С	Ø max mm	kN	kg
F82.10	66	28	12	10	130	0,25
F82.13	86	36	17	16	190	0,50
F82.16	102	45	19	18	260	0,80
F82.18	115	50	21	20	320	1,15
F82.24	140	60	27	24	480	1,60
F82.28	160	73	32	30	880	3,45
F82.32	180	80	35	32	950	3,95

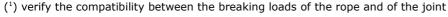
- (1) verify the compatibility between the breaking loads of the rope and of the joint
- (2) minimum breaking load



Swivelling joint for ropes. Fit for either ropes and conductors. Designed to avoid accumulations of torsion. Made of galvanised steel, it incorporates an axial bearing for an easy rotation.

F250.R

	Dimensions			for rope	Min breaking	\\\aiabt	
	Α	В	C (1)		load	Weight	
	mm	mm	mm	Ø max mm	kN	kg	
F250.R.06	60	18	8,5	7	12	0,10	
F250.R.08	95	25	10	9	25	0,36	
F250.R.12	118	33	15	14	80	0,60	
F250.R.13	130	40	17	16	120	0,90	
F250.R.16	165	45	20	18	190	1,50	
F250.R.18	180	50	22	22	245	2,30	
F250.R.24	230	60	28	26	395	3,10	
F250.R.28	310	80	36	32	780	7,00	
F250.R.32	345	85	42	38	850	10,50	





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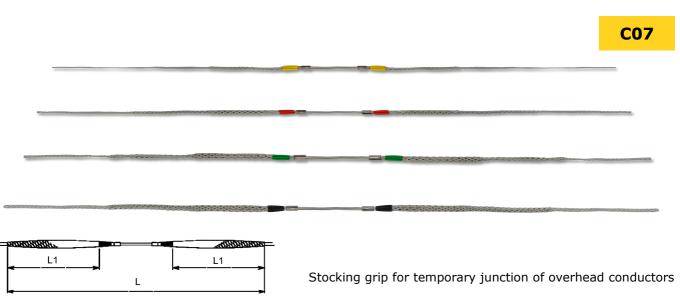


SNAC ITALY

cable pulling stocking-grips



	Conductor diameter	Identifying colour	Useful length (L1)	Total length (L)	Breaking load	Weight
	mm		mm	mm	daN	kg
C06.S.1	8-17	YELLOW	1100	1400	3500	0,70
C06.S.2	17-29	RED	1360	1700	8500	1,30
C06.S.3	29-38	GREEN	1470	1900	13500	2,10
C06.S.4	38-50	BLACK	1820	2270	18500	2,70



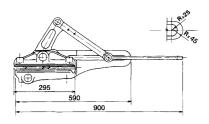
	Conductor diameter	Identifying colour	Useful length (L1)	Total length (L)	Breaking load	Weight
	mm		mm	mm	daN	kg
C07.S.1	8-17	YELLOW	1100	2680	3500	1,15
C07.S.2	17-29	RED	1360	3240	8500	2,30
C07.S.3	29-38	GREEN	1470	3540	13500	3,60
C07.S.4	38-50	BLACK	1820	4240	18500	4,80



OMAC ITALY

self-gripping clamps

Self-gripping clamps made of high tensile steel, hot forged, heat treated, finely machined and cadmium plated. Designed to tension cables and conductors of various materials and different diameters.

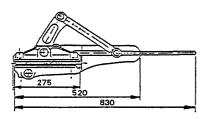


Self-gripping clamps fit for aluminium, ACSR, copper, steel conductors and steel ropes 45 to 57 mm. Interchangeable liners made on request according to conductor type and diameter.

Maximum safety load: 140 kN Minimum breaking load: 420 kN

Weight: 26 kg





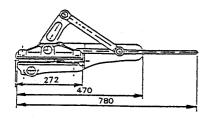
Self-gripping clamps fit for:

- aluminium, ACSR, copper conductor 10-45 mm
- steel cond. and ground wire 10-34 mm
- steel rope 8-28 mm

Interchangeable liners (type **G04**) Maximum safety load: 117 kN Minimum breaking load: 310 kN

Weight: 17 kg





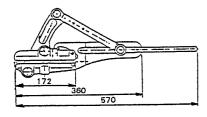
Self-gripping clamps fit for:

- aluminium, ACSR, copper conductor 8-35,2 mm
- steel cond. and ground wire 8-22 mm
- steel rope 8-24 mm

Interchangeable liners (type **G05**) Maximum safety load: 88 kN Minimum breaking load: 275 kN

Weight: 13,5 kg





Self-gripping clamps fit for:

- aluminium, ACSR, copper conductor 6-23 mm
- steel cond. and ground wire 6-16 mm
- steel rope 6-16 mm

Interchangeable liners (type **G07**) Maximum safety load: 49 kN Minimum breaking load: 180 kN

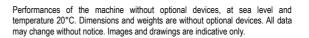
Weight: 7 kg





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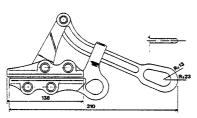






self-gripping clamps

Self-gripping clamps made of high tensile steel, hot forged, heat treated, finely machined and cadmium plated. Designed to tension cables and conductors of various materials and different diameters.



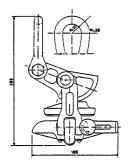
Self-gripping clamps fit for:

- aluminium, ACSR, copper conductor 7-16 mm
- steel cond. and ground wire 7-13 mm
- steel rope 7-13 mm

Interchangeable liners (type **G11**) Maximum safety load: 21,2 kN Minimum breaking load: 64 kN

Weight: 2,5 kg

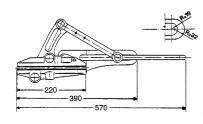




Self-gripping clamps fit for conductors in suspension 7-38 mm Interchangeable liners (type G08A) Maximum safety load: 39,2 kN Minimum breaking load: 110 kN

Weight: 5,5 kg





Self-gripping clamps fit for ground wires with optical fiber (OPGW) with external diameter 6-23 mm

Interchangeable liners (type G12TA) Maximum safety load: 49 kN Minimum breaking load: 180 kN

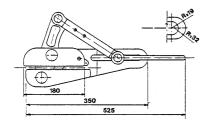
Weight: 7 kg

G12TA Interchangeable liners in Teflon and aluminium, on demand according to

OPGW diameter







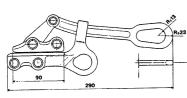
Self-gripping clamps fit for:

- copper conductor 7,5 -18 mm
- steel cond. and ground wire 7,5-18 mm
- steel rope 7,5-18 mm Maximum safety load: 50 kN

Minimum breaking load: 125 kN

Weight: 7 kg





Self-gripping clamps fit for:

- copper conductor 2,5-15 mm
- steel cond. and ground wire 2,5-15

Maximum safety load: 19,6 kN Minimum breaking load: 49 kN

Weight: 1,5 kg





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self-gripping clamps

G04 Interchangeable liners for clamps **3104**

Carada atau Kana				
G04Q	bronze liners for square-section steel wire ropes Ø 8-28 mm (exact size on demand)			
G04V	bronze liners for round-section steel wire ropes Ø 10-34 mm (exact size on demand)			
G04B	D4B bronze liners for copper conductors Ø 10-45 mm (see below)			
G04A		iners for aluminiun n (see below)	n conductors	

Conductor Ø mm	G04A	G04B
10 - 22,5	on de	mand
22,5 - 24,0	G04A.225	G04B.225
24,0 - 25,5	G04A.240	G04B.240
25,5 - 27,0	G04A.255	G04B.255
27,0 - 28,5	G04A.270	G04B.270
28,5 - 30,0	G04A.285	G04B.285
30,0 - 31,5	G04A.300	G04B.300
31,5 - 33,0	G04A.315	G04B.315
33,0 - 34,5	G04A.330	G04B.330
34,5 - 36,0	G04A.345	G04B.345
36,0 - 37,5	G04A.360	G04B.360
37,5 - 39,0	G04A.375	G04B.375
39,0 - 40,5	G04A.390	G04B.390
40,5 45	on de	mand

G05 Interchangeable liners for clamps **3105**

G05A	aluminium liners for aluminium conductors Ø 8-35,2 mm (see below)
G05B	bronze liners for copper conductors Ø 8-35,2 mm (see below)
G05V	bronze liners for round-section steel wire ropes Ø 8-22 mm (exact size on demand)
G05Q	bronze liners for square-section steel wire ropes \emptyset 8-24 mm (exact size on demand)

	Ø 0 2 4 111111	(exact size on deme	and)			
	Conductor Ø mm	G05A	G05B			
8 - 12		on demand				
	12,0 - 13,5	G05A.120	G05B.120			
	13,5 - 15,0	G05A.135	G05B.135			
	15,0 - 16,5	G05A.150	G05B.150			
	16,5 - 18,0	G05A.165	G05B.165			
	18,0 - 19,5	G05A.180	G05B.180			
	19,5 - 21,0	G05A.195	G05B.195			
	21,0 - 22,5	G05A.210	G05B.210			
	22,5 - 24,0	G05A.225	G05B.225			
	24,0 - 25,5	G05A.240	G05B.240			
	25,5 - 27,0	G05A.255	G05B.255			
	27,0 - 28,5	G05A.270	G05B.270			
	28,5 - 30,0	G05A.285	G05B.285			
	30,0 - 31,5	G05A.300	G05B.300			
	31,5 - 35,2	on de	emand			

G07 Interchangeable liners for clamps **3107**

G07A	aluminium liners for aluminium conductors Ø 6-23 mm (see below)
G07B	bronze liners for copper conductors Ø 6-23 mm (see below)
G07V	bronze liners for round-section steel wire ropes \emptyset 6-16 mm (exact size on demand)
G07Q	bronze liners for square-section steel wire ropes \emptyset 6-16 mm (exact size on demand)

Conductor Ø mm	G07A	G07B
6 - 6,5	G07A.060	G07B.060
6,5 - 8,0	G07A.065	G07B.065
8,0 - 9,5	G07A.080	G07B.080
9,5 - 11,0	G07A.095	G07B.095
11,0 - 12,5	G07A.110	G07B.110
12,5 - 14,0	G07A.125	G07B.125
14,0 - 15,5	G07A.140	G07B.140
15,5 - 17,0	G07A.155	G07B.155
17,0 - 18,5	G07A.170	G07B.170
18,5 - 20,0	G07A.185	G07B.185
20,0 - 21,5	G07A.200	G07B.200
21,5 - 23,0	G07A.215	G07B.215

G08 Interchangeable liners for clamps **3108**

G08A aluminium l	iners for aluminium conductors
Conductor Ø mm	G08A
7 - 11	G08A.070
9 - 12	G08A.090
12 - 16	G08A.120
15 - 23	G08A.150
22 - 36	G08A.220
30 - 38	G08A.300

G11 Interchangeable liners for clamps **3111**

G11A		aluminium liners for aluminium conductors Ø 7-16 mm (see below)						
G11B		s for copper conduc (see below)	tors					
G11V		s for round-section (exact size on dema						
G11Q		bronze liners for square-section steel wire ropes Ø 7-13 mm (exact size on demand)						
Condu	ıctor Ø mm	G11A	G11B					
7,	0 - 8,5	G11A.070	G11B.070					
8,5	5 - 10,0	G11A.085	G11B.085					
10,	0 - 11,5	G11A.100	G11B.100					
11,	5 - 13,0	G11A.115	G11B.115					

G11A.130

G11A.145



13,0 - 14,5

14,5 - 16,0

G11B.130

G11B.145

come-along clamps

C24

Multi-unit come-along clamp fit for pulling and anchoring overhead conductors and steel wire ropes. Made of steel elements, with aluminium

liners for conductors. On request: bronze liners for wire ropes.

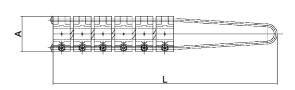
Note: please specify the diameter , type of conductor or rope

OPTIONAL

001 - Bronze liners fit for anti twisting steel wire ropes (rope diameter to be specified).







	Elements	Dimensions A x B x L	For rope up to diameter	For conductors up to diameter	Breaking load	Weight
		mm	mm	mm	kN	kg
C24.4	4	105 x 70 x 520	14	16	50	6
C24.5	5	140 x 90 x 680	16	18	60	12
C24.6	6	140 x 90 x 740	20	22	70	14
C24.7	7	140 x 90 x 800	24	26	80	16
C24.8	8	140 x 90 x 860	26	30	100	18

Warning: please check the breaking load needed according to the type of rope and conductor end to the safety factor

Radial come-along clamp for conductors. Made of electrowelded and galvanised steel elements, with aluminium liners for conductors. On request: bronze liners for wire ropes. Fit for aluminium conductors and steel shield-wires with diameter up to 60 mm.

Note: please specify the diameter , type of conductor or rope

C24.1

OPTIONAL

001 - Bronze liners fit for anti twisting steel wire ropes (rope diameter to be specified).

	Elements	Dimensions A x B x L	For rope up to diameter	For conductors up to diameter	Breaking load	Weight
		mm	mm	mm	kN	kg
C24.1.4	4	150 x 150 x 390	20	15/26	120	18
C24.1.6	6	150 x 150 x 510	24	20/35	180	27
C24.1.7	7	150 x 150 x 580	28	20/35	200	32
C24.1.8	8	150 x 150 x 650	30	30/40	240	37
C24.1.10	10	150 x 150 x 800	30	30/40	300	42
C24.1.12	12	150 x 150 x 950	36	30/40	380	49
C24.1.14	14	150 x 150 x 1100	40	30/40	450	65
C24.1.16	16	150 x 150 x 1250	45	35/50	500	77
C24.1.20	20	160 x 200 x 1400	50	40/60	600	110

Warning: please check the breaking load needed according to the type of rope and conductor end to the safety factor



hydraulic presses

F39

Hydraulic presses made of steel. For working, they need to be powered by a power pack unit or a hand pump.

- Press-cycle time very short thanks to the hydraulic return of the cylinder (for all the presses).
- Maximum flexibility: each press can be used with power unit or hand pump.
- Adjustable pressure-control valve for die closing/opening, with manometer ('SV' version is without this valve).
- Quick couplings connecting the flex hoses.
- Die-holder for semicircular dies.
- Base with handles.
- Press body rotatable by 360° compared to the base.
- Metallic box with handles for transport.

OPTIONAL

- opt.701 Trailer for press and control hydraulic unit mod CIS.01 with rigid axle and drawbar for towing in yard.
- opt.026 Frame with PVC-cloth for opt.701.
- opt.027 Metallic coverage for opt.701.

version .SV press supplied without closing/opening control valve (read note ¹)





	Max compression force		Max pressure	Max hexagon	Max stroke	Dimensions I x w x h	Weight	Model without valve (1)	Weight (¹)
	kN	ton	bar	mm	mm	mm	kg		kg
F39.70	700	70	700	52	30	500x210x400	29	F39.70.SV	22
F39.100(*)	1000	100	700	65	35	500x230x400	36	F39.100.SV	40
F39.120	1200	120	700	65	40	600x260x450	51	F39.120.SV	43
F39.180(*)	1800	180	700	90	50	600x450x700	120	-	-

(1) the valve is mounted on the power unit mod. CIS, CID, CIE. (*)models on request

Dies and straighteners for presses F39



Die for joints

Press	Joint	Die						
		C	ompression ty	Dimensions	Weight			
	material	hexagonal	round	tallurit	mm	kg		
F39.70	steel-copper	F39.2585	F39.2587		Ø 90 x 76	2		
F39.70 -	aluminum	F39.2586	F39.2588	F39.4949A	Ø 90 X 70	2		
F39.120	steel-copper	F39.2570	F39.2558		Ø 90 x 80	2		
F39.120	aluminum	F39.2566	F39.2554	F39.4648T	Ø 90 x 80	2		
F20 400	steel-copper	F39.2571	F39.2559		Ø 90 x 80	2		
F39.180 -	aluminum	F39.2567	F39.2555	F39.4648G	or Ø 130 x 120	6		

Press	Jo	Joint-straighteners							
	Code	Code Dimensions							
		mm	kg						
F39.70	F39.2582	Ø 90 x 170	7						
F39.120	F39.2573	Ø 90 x 230	11						
F39.180	F39.2575	Ø 90 x 230 Ø 130 x 300	11 31						







dimension (CH)



SNAC ITALY

equipment for hydraulic presses

CID CIS CIE

Hydraulic power pack for supplying power to hydraulic presses.

- Base and protection frame.
- Metallic box with handles for transport.
- 2-stage pump for a faster return of the press cylinder (except model CIS.02 single-stage)
- Quick couplings for connecting the flexible hoses.
- Exhaust valve
- CIS.02 model equipped with heat exchanger for cooling the hydraulic oil

OPTIONAL

- 01 Control valve for presses mounted on power unit instead of the press
- 02 Single phase electric motor (for model CIE.01).
- 03 Oil reservoir with capacity 25 lt (only for model CIS.01 and CID.01)
- 04 Increased capacity of the pump at 8 2 liters/minute
- 05 Base frame with wheels and handles for towing and lifting



	Engine	Power	Max pressure	Max flow	Tank capacity	Dimensions I x w x h	Weight
		kW	bar	l/min	I	mm	kg
CIS.01	gasoline	4,5	700	4,7 - 1,8	10	530 x 340 x 370	51
CIS.02(*)	gasoline	4,5	700	3	10	520 x 400 x 400	42
CID.01	diesel	5	700	4,7 - 1,8	10	550 x 400 x 450	60
CIE.01	three phase Electric	2,2	700	4,7 - 1,8	10	530 x 340 x 370	46



CIS.02

PL

Hand pump for presses.

- 2-stage pump for a faster return of the press cylinder.
- Light-alloy construction.
- Quick couplings for connecting the flexible hoses.



	May proceuro	Displacement		Tank	Dimensions	Weight
	Max pressure	1 st stage	2 nd stage	capacity	lxwxh	weight
	bar	cm ³	cm³	1	mm	kg
PL.262	700	13	3	2,5	565 x 125 x 170	8



Kit of flexible hoses with quick couplings.

Lengths: 3, 6, 10, 15, 20, 30, 40, 50,

60 m (specify the length needed).



Quick couplings for connecting two flexible hoses.









SMAC ITALY

ground devices

C35

Ground device to be used while stringing overhead bare conductors or pulling ropes. Aluminium alloy sheaves with bushes incorporated grant a good sliding and electric continuity even on junction points. Contrast spring for a safe contact on conductors with junction clamp .

Supplied with:

- Copper cable section 50 mm² lined with high-insulating coverage, length 6 m.
- Brass clamp, clamping capacity 0 40 mm.
- Metallic box for storage (mod. C35.2 and C35.1).
- Plastic box for storage (mod. C35.3).

C35.1

Short-circuit current: 10 kA for 0,4 second.

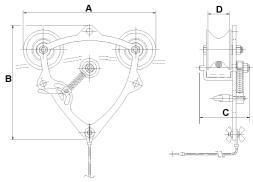
Fit for conductor Ø 35 - 65 mm.

Dimensions: A x B x C x D= $500 \times 420 \times 180 \times 85 \text{ mm}$.

Weight: 17 kg.

Metallic box dimensions: 600 x 600 x 250 mm.

Metallic box weight: 17 kg



C35.1 and C35.2

C35.2

Short-circuit current: 10 kA for 0,4 second.

Fit for conductor Ø 10 - 50 mm.

Dimensions: A x B x C x D = $430 \times 370 \times 150 \times 65 \text{ mm}$.

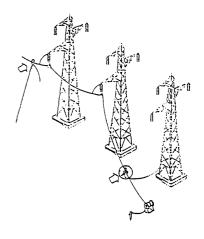
Weight: 6,5 kg.

Metallic box dimensions: 500 x 500 x 200 mm.

Metallic box weight: 14 kg











SMAC ITALY

grounding equipment

Short circuiting and grounding equipment for H.V. overhead lines up to 400 kV. Certified in conformity with the International Standard CEI EN 61230 (IEC 1230).

C37.AT

C37.AT.50 with cable section 50 mm 2 - Icc: 11,25 kA eff / 1 s. **C37.AT.70** with cable section 70 mm 2 - Icc: 15,1 kA eff / 1 s. **C37.AT.95** with cable section 95 mm 2 - Icc: 23,9 kA eff / 1 s. **C37.AT.120** with cable section 120 mm 2 - Icc: 30,7 kA eff / 1 s.

- 3 screw type contact clamps made by light alloy. Clamping capacity: conductors 5-60 mm diameter. Suitable for use on oxidized conductors. Lower ring for fastening and unfastening.
- 3 extraflexible electrolytic copper cables covered by transparent plastic sheath (length to be specified on demand).
- 3 ground clamps made by press forged brass. Clamping capacity: round conductors and bars up to 33 mm.
- Metallic case.
- Insulating fiberglass rod made by synthetic resin reinforced by fiberglass, in two or three elements. Length 1,5 or 2 m each, with quick coupler and top hook for maneuvering the clamps. Total length to be specified on demand.
- Heavy fabric bag for the insulating rod.



Short circuiting and grounding equipment for M.V. overhead bare conductors. Certified in conformity with the International Standard CEI EN 61230 (IEC 1230).

C37.MT

C37.MT.25 short circuit cables section 25 mm 2 - short circuit test 13,77 kA / 0,25 s. short circuit cables section 35 mm 2 - short circuit test 8,05 kA / 1 s.

- 3 light alloy contact clamps with automatic tightening. Clamping capacity: conductors 3-20 mm diameter. Tang suitable for fitting on clamp holder head.
- Light alloy clamp holder head, complete of steel recover hook and threaded tang for screwing on the head of the insulating rod.
- 2 short circuit extraflexible electrolytic copper cables, covered by transparent plastic sheath, length 2,5 m (different lengths on demand).
- Ground cable, characteristics as above, section 16 mm², length 16 m (different lengths on demand), rolled up on cable coiler.
- Earthing rod.
- Insulating fiberglass rod made by epoxy resin reinforced by fiberglass. Total length 3 m in two
 elements each length 1,5 m, with fast joint and threaded M10 attack suitable for fitting on
 clamp holder head.
- Metallic case for the equipment, heavy fabric bag for the rod.





lifting equipment

Chain lever hoist (ALZATIRA). Fit for lifting and tensioning, with high strength chain. Swivelling hooks with safe-lock device.

C55



Run of the hook: 1,5 m (variable on demand). Load capacity: 750, 1500, 3000, 6000 and 9000 daN.



	Capacity	Force on handle at max load	Handle length	Chain length (¹)	Chain falls	Dimensions width x thick	Net weight
	kN	kN	mm	m		mm	kg
C55.075	7,5	0,14	280	1,5	1	148 x 136	7
C55.150	15	0,22	410	1,5	1	172 x 160	11
C55.300	30	0,32	410	1,5	1	200 x 180	21
C55.600	60	0,34	410	1,5	2	200 x 235	31
C55.900	90	0,36	410	1,5	3	200 x 320	46

(1) standard length, different lenths on request

Rope hoist (TIRFOR). Fit for lifting and tensioning, with endless run.

C60



C60.C wire ropes for hoist mod. C60, fitted with hook, various lengths available.



	Nominal lift capacity	Breaking load	Weight (without rope)	Overall dimensions	Rope diameter	Handle length
	daN	kN	kg	mm	mm	mm
C60.08	8	48	6	428 x 65 x 260	8	800
C60.16	16	56	11	545 x 97 x 280	11,3	1200
C60.32	32	192	22	660 x 116 x 320	16,3	1200

Wire ropes for hoists

•	Fit for hoist	Diameter	Breaking load	Mass	Lengths
		mm	kN	kg/m	
C60.C.08	C60.08	8	48	0,25	
C60.C.16	C60.16	11,3	96	0,55	10m, 20m, 30m, 40m, different lengths on demand
C60.C.32	C60.32	16,3	192	0,98	different lengths on demand





cutters





C15.25

Dimensions: 382 x 129 mm Weight: 3,2 kg C15.40

Dimensions: 550 x 144 mm Weight: 5,8 kg Hand operated hydraulic cutters fit for cutting copper, aluminum, aldrey, steel and steel-aluminum ropes and conductors.

C15

- Two speeds action: high speed to approach quickly the blade to the conductor, and low speed for cutting.
- Blades made of high strength special steel.
- Openable head, with quick locking device, to cut running cables.
- The head can rotate 90° to let the operator work in the most comfortable position.
- Safety valve that automatically bypasses oil when reaching the max pressure.
- Release device that can be operated at any stage of the operation.
- C 15.40.L pair of spare blades.

Material	Tensile strength	C15.25	C15.40
T lacel la	(daN/mm²)	max cutting diameter (mm)	max cutting diameter (mm)
CABLES AND WIRI	E ROPES		
copper	≤41	25	40
aluminum	≤20	25	40
aldrey	≤34	25	40
		samples	samples
steel	≤180	7x3.0 : Øest 9.0	7x3.0 : Øest 9.0
31661	2100	19x2.1 : Øest 10.5	19x2.1 : Øest 10.5
		19x2.3 : Øest 11.5	19x2.3 : Øest 11.5
multi-strand steel (n. of wires ≥200)	≤180	18	18
		25	40 samples
aluminum-steel	≤180	samples 26x2.50+7x1.95 : Øest 15.85 26x3.06+7x2.38 : Øest 19.38 26x3.60+7x2.80 : Øest 22.80	26x2.50+7x1.95 : Øest 15.85 26x3.06+7x2.38 : Øest 19.38 26x3.60+7x2.80 : Øest 22.80 54x3.50+19x2.10 : Øest 31.50 54x4.36+19x2.62 : Øest 39.20
RODS			
stool	≤60	13	18
steel	≤42	16	20
	≤30	20	30
copper	≤25	23	32
aluminum	≤16	25	40

Ratchet cutters fit for conductors, cables and shield wires. The chain ratchet allows to cut the wire progressively with minimum effort. Insulated handles tested at 20.000 V.

C 12 Cutter for ACSR and ACAR conductors. Cutting capacity up to Ø 31 mm. Length 750 mm. **C 12.L** pair of spare blades.

C 13 Cutter for electric and telephonic cables. Cutting capacity up to Ø 31 mm Not fit for ACSC conductors. Length 700 mm. **C 13.L** pair of spare blades.

C 13.1 Cutter for shield wires. Cutting capacity up to Ø 11 mm. Length 720 mm. **C 13.1.L** pair of spare blades.













LIGHT ALLOY EQUIPMENT

Overhead lines bicycles

C175

Cable-bicycle for single, twin, 3- and 4-bundle conductor electric lines. Nylon wheels mounted on ballbearings. Fit for moving on cables by pedaling like with

common bicycles. Equipped with negative-type disc brake and a safety brake clamping the conductor, safety belt, and metercounter, max gradient percentage 25%.

In models C175.2 C175.3 and C175.4, the wheel-distance is adjustable 35 to 500 mm.

On demand

- 01. Bag for spacers.
- 02. Electric motor with battery, speed 15 m/min, 3-hours autonomy circa, weight 19 kg (1).
- 03. Wheel-distance adjustable up to 600 mm (1).
- 04. Gasoline engine 2 hp, speed 0 to 20 m/min max, weight 15 kg (¹).
- 05. Container for transporting and storing.
- (1) available for mod. C175.2 C175.3 and C175.4





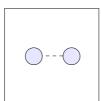


C175.1 for single

condutor lines

Capacity: 100 daN Dim.: 1,15x0,50x1,81 m Weight: 26 kg

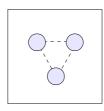
C175.2 for twin conductor lines (1)



Capacity: 100 daN Dim.: 0,75x0,70x1,40 m

Weight: 34 kg

C175.3 for 3-bundle conductor lines (1)

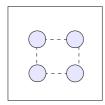


Capacity: 100 daN Dim.: 0,70x0,60x1,40 m

Weight: 40 kg

C175.4 for 4-bundle conductor lines (1)

C175.2



Capacity: 100 daN Dim.: 1,60x0,70x1,50 m

Weight: 49 kg

(1) distance between conductors to be specified on the purchase order



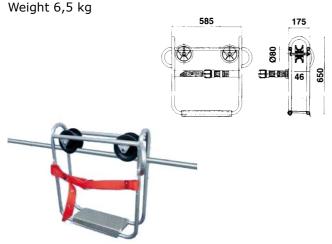
OMAC ITALY

line cars

C150.10

Single-seat line car fit for single-conductor electric lines. Translation by towing. Aluminium alloy

structure with nylon wheels mounted on ballbearings. Nylon band for back support. Capacity 100 daN

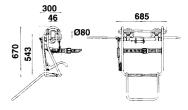


C150.11

Single-seat line car fit for single-conductor electric lines. Translation by towing. Aluminium alloy

structure with nylon wheels mounted on ballbearings. Parking brake. Nylon band for back

support. Foot rest. Capacity 100 daN Weight 11 kg



OPTIONAL

CM01 Metercounter
PS01 Line-car with
capacity 150 daN





C155.10

Line car for single-conductor electric lines. Fit for 1 or 2 people. Translation by towing. Aluminium

alloy structure with nylon wheels mounted on ballbearings. Parking brake. Equipped with metercounter.

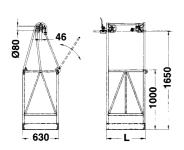
C155.10.A L=650 mm, fit for 1 person, capacity 100 kg, weight 28 kg

C155.10.B L=1000 mm, fit for 2 people, capacity 200 kg, weight 40 kg

OPTIONALS

707 - negative disc brake manualy controlled

709 – Device for angle adjustment cart (only for mod. C155.10.B).





C155.11

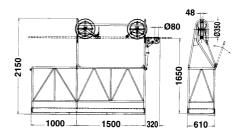
Line car for single-conductor electric lines. Fit for 2 people.

Translation by towing. Aluminium

alloy structure with nylon wheels mounted on ball-bearings. Parking

brake. Equipped with metercounter. Capacity 200 daN Weight 82 kg.





line cars

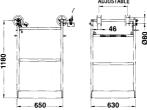
C155.A.2

Cable-car for twin conductor electric lines (2 cond.). Towing translation. Made of light alloy

structure with nylon wheels mounted on ballbearings. Stationary brake and metercounter. Adjustable distance between wheels: 400 to 500 mm.

Max load 100 daN Weight 34 kg







707 - Negative disk brake, with manual opening.

Also available for 3-bundle lines (3 conductors): mod. **C155.A.3**

C155.AM.2

Motorized Cable-car for twin conductor electric lines (2 cond.). Made of light alloy structure with

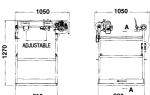
nylon wheels mounted on ball-bearings. Transmission

axle with high adherence rubber wheels. Stationary brake and metercounter. Adjustable distance between wheels: 400 to 500 mm.

Gasoline engine 2,4 hp, 2 strokes, 48 cc. Translation speed 0-20 m/min, max inclination 25%. Mechanical transmission with idle device.

Max load 100 daN Weight 56 kg

Also available for 3bundle lines (3 cond.): mod. **C155.AM.3**





C151.2

Double-seat cable car for twin electric lines (2 conductors). Towing translation. Made of light alloy structure with nylon

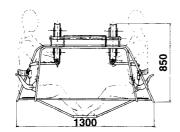
wheels mounted on ball-bearings. Stationary brake. Nylon strap for back support. Footrest.

Max spam between conductors: 500 mm (exact spam to be specified on purchase order).

Max load 300 daN Weight 41 kg

Optional: metercounter





Also available

C151.3 for 3-bundle lines (3 conductors) C151.4 for 4-bundle lines (4 conductors)

CMAC

line cars

C155.B

Line-car for 2 people, fit for 2-, 3- or 4-bundle conductor electric lines. Driven translation.

Made of light alloy structure with nylon wheels mounted on ball-bearings. Stationary brake and metercounter.

Ma load 200 daN

Optional

707 - Negative disk brake, with manual opening.

C155.BM

Motorized line-car for 2 people, fit for 2-, 3- or 4-bundle conductor electric lines. Light alloy structure.

Aluminum wheels mounted on ball-bearings. Drive wheels lined with polyurethane with high coefficient of friction. Transmission axle with high adherence rubber wheels. Stationary brake and metercounter.

Gasoline engine 5 hp, 48 cc with hydraulic power unit. Translation speed 0-30 m/min, max inclination 40%. Removable engine and hydraulic transmission group.

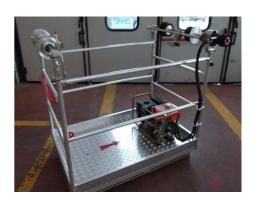
Max load 200 daN

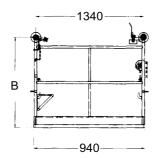












n. of conductors of the line: height 'B'

line car without engine

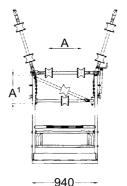
line car with engine



2 conductors B = 1200 mm

C155.B.2 weight 45 kg

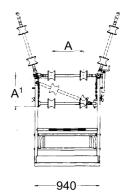
C155.BM.2 weight 115 kg



3 conductors B = 1550 mm

C155.B.3 weight 50 kg

C155.BM.3 weight 125 kg



4 conductors B = 1550 mm

C155.B.4 weight 55 kg

C155.BM.4 weight 140 kg

Note: dimensions A and A' are adjustable 400-457-500-600 mm Line cars with different dimensions can be produced on request

SNAC ITALY

line cars

C155.C

C155.D

Line-car for 2 people, fit for 2-, 3- or 4-bundle conductor electric lines translation by towing.

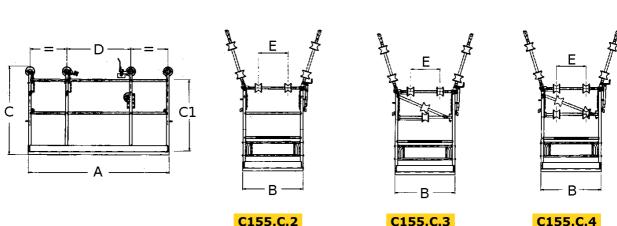
- Light aluminium-alloy structure welded TIG-system.
- Four openable arms for wheels, fit for passing obstacles.
- Aluminium wheels mounted on bearings.
- Parking brake acting on the conductor.
- Metercounter.
- Service platform.
- Fit for 2 operators.

OPTIONAL

- 01- Nylon wheels mounted on bearings.
- 02- Negative disk brake, with manual opening.
- 03- Arms for wheels openable with horizontal rotation.







-	Line type	Max load	Dimensions (mm)						
		kN	Α	В	С	C1	D	E	kg
C155.C.2	2 cond.								80
C155.C.3	3 cond.	2,5	1900	850	1250	1100	865	400-500	83
C155.C.4	4 cond.								85
C155.D.2	2 cond.								87
C155.D.3	3 cond.	2,5	1900	950	1350	1200	865	400-600	90
C155.D.4	4 cond.								95

C155.D.2



C155.D.3



C155.D.4

SNAC ITALY

line cars

C155.CM

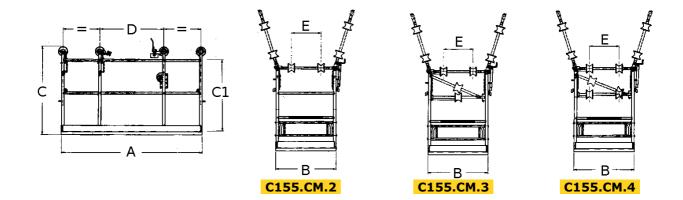
Motorised line-car for 2 people, fit for 2-, 3- or 4-bundle conductor electric lines.

- Light aluminium-alloy structure welded TIG-system.
- Four openable arms for wheels, fit for passing obstacles.
- Aluminium wheels lined with hi-adherence rubber.
- Parking brake acting on the conductor.
- Metercounter.
- Service platform.
- Fit for 2 operators.
- Hydraulic power pack transmitting the motion to the openable driven wheels.
- Gasoline engine 4 hp.
- Variable speed 0 to 30 m/min in both senses.
- Max inclination allowed: 40%.
- Power pack removable.

OPTIONAL

- 03- Arms for wheels openable with horizontal rotation.
- 04- Earthing device.



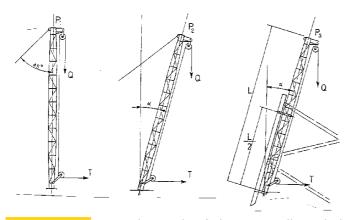


	Line type	Max load		Dimensions (mm)					Weight
		kg	Α	В	С	C1	D	E	kg
C155.CM.2	2 cond.				1250	1100			158
C155.CM.3	3 cond.	200	1900	950	1650	1500	865	400-600	167
C155.CM.4	4 cond.				1650	1500			175



SNAC I TA L Y

gin poles



C 158

Gin poles made of aluminium alloy tubular structure welded with TIG system. Made of two or more separated parts.

Working Capacity 1000 to 10000 daN (note: the real capacity depends on the angle of usage).

Standard lengths 6 to 20 m. Available in two versions: with external wire-rope passage (standard) or internal wire-rope passage (optional).

Complete of swivelling head, base with ground plate and base hook for tower attachment.



Swivelling head (standard)



Swivelling lower hook (standard)









Base plate

Swivelling head (opt.INT)

Swivelling lower hook (opt.INT)

OPTIONAL

.INT - Device for internal wire-rope passage, available for gin poles long 12 m or more. Ordering code will be:

C158INT ((ie: C158.1	.00.062.II	NT).						
	Capa	city (P = Q	(+ T)	Total	S	ections	Weigl	nt (¹)	Weight
	P_1	P_2	P_3	length	Number	Lengths	standard	.INT	of the
	a=0°	a=20°	a=20°	ichigan	Number	Lenguis	version	version	base
	daN	daN	daN	m		m	kg	kg	kg
C158.100.062	1000	600	250	6	2	3+3	48	58	10
C158.100.082	1000		230	8	2	4+4	60	71	10
C158.150.082				8	2	4+4	66	75	
C158.150.102	1500	900	350	10	2	5+5	78	87	10
C158.150.123				12	3	4+4+4	88	97	
C158.200.082				8	2	4+4	70	78	
C158.200.103	2000	1200	500	10	3	4+2+4	85	93	10
C158.200.123				12	3	4+4+4	95	103	
C158.300.082				8	2	4+4	78	85	
C158.300.123	3000	1800	700	12	3	4+4+4	110	120	19
C158.300.163	3000	1600	700	16	4	5+6+5	125	134	19
C158.300.183				18	3	6+6+6	140	150	
C158.400.102				10	3	5+5	100	115	
C158.400.122				12	3	6+6	115	135	
C158.400.123	4000	3000	1000	12	3	4+4+4	125	145	19
C158.400.163				16	4	5+6+5	170	185	
C158.400.204				20	4	5+5+5+5	210	225	
C158.500.123				12	3	4+4+4	140	155	
C158.500.164	5000	3000	1200	16	4	4+4+4+4	210	225	19
C158.500.204				20	4	5+5+5+5	270	285	
C158.700.122				12	2	6+6 (²)	165	205	
C158.700.163	7000	4500	1700	16	3	5+6+5 (²)	215	255	20
C158.700.164	7000	4500	1/00	16	4	4+4+4+4	215	255	29
C158.700.204				20	4	5+5+5+5	250	290	
C158.1000.163				16	3	5+6+5 (²)	245	282	
C158.1000.204	10000	7000	2400	20	4	5+5+5+5	298	335	60
C158.1000.244				24	4	6+6+6+6	350	385	

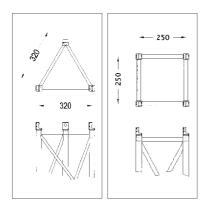
(1) weight of gin pole complete with swivelling head and swivelling hook, but without base

(2) it is possible to build sections with different lengths



SMAC ITALY

pole structures



F121Aluminum pole structure used during constructions and maintenance of electric lines over roads, railways,

channels or towns. Made of light aluminum-alloy. Supplied quadrangular or triangular section modules.

	Section	Length	Weight
		m	kg
F121.Q.2	QUADR	2	9
F121.Q.4	QUADR	4	18
F121.T.2	TRIANG	2	7
F121.T.4	TRIANG	4	14





AC Top sheave. Aluminum wheel lined with plastic material. Swiveling and swinging. Frame fit for top of pole structures **F121**.

F121.Q.AC top sheave for quadrangular-section pole structures **F121.T.AC** top sheave for triangular-section pole structures



Top support. Galvanized steel support for fastening poles on the top of pole structures **F121**. Fit for support wooden beams.

F121.Q.AT top support for quadrangular-section pole structures **F121.T.AT** top support for triangular-section pole structures





BR

Base for structure pole complete with steel picket for ground anchorage. Galvanized steel construction. Fit for pole structures **F121**

F121.Q.BR F121.T.BR F121.Q.BF F121.T.BF revolving base for quadrangular-section pole structures fix base for triangular-section pole structures revolving base for quadrangular-section pole structures fix base for triangular-section pole structures



Intermediate attachment complete with eyes for anchorage. Galvanized steel construction. Fit for pole structures **F121**.

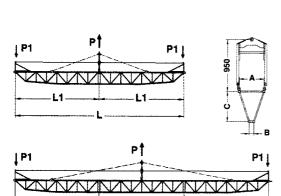
F121.Q.AI intermediate attachment for quadrangular-section pole structures

F121.T.AI intermediate attachment for triangular-section pole structures





suspension platforms

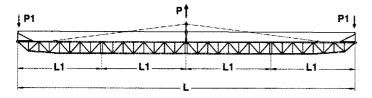






opt.701 and 703







Opt.704 and 704.1

F127 Suspension platform for overhead line works. Aluminium alloy structure. Made of two or more trapezoidal sections, with central fitting and lateral hooks for anchoring. Complete with wire ropes and turnbuckles for cable-staying.

OPTIONAL

- 701 Trolley for press, swivelling 360°.
- 703 Rail for press-trolley .
- 704 Double-side antifall protection.
- 704.1 Single-side antifall protection.

On demand, we build suspension platforms with higher capacities or different lengths



	Total length L	Length of each section L1	Working load P1	Total working load P1+P1 (P)	Breaking load	Dime	ensions (mm)	Weight (¹)
	m	m	daN	daN	daN	Α	В	С	kg
F127.4	4	4	300	600	1800	350	90	400	50
F127.5	5	5	300	600	1800	350	90	400	59
F127.6 (²)	6	6	300	600	1800	350	90	400	64
F127.6.2	6	3+3	300	600	1800	350	90	400	69
F127.8.2	8	4+4	300	600	1800	350	90	450	85
F127.12.2 (²)	12	6+6	300	600	1800	350	90	450	115
F127.14.3	14	5+4+5	300	600	1800	350	90	450	130
F127.16.3 (²)	16	5+6+5	300	600	1800	350	90	450	140
F127.18.3	18	6+6+6	300	600	1800	350	90	450	164
F127.20.4 (²)	20	5+5+5+5	300	600	1800	450	90	550	198

(1) weight including 1 single antifall device opt.704.1; (2) standard length



OMAC ITALY

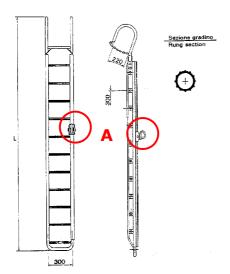
suspension ladders

C167

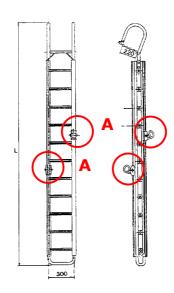
Ladder fit for vertical suspension, for working on transmission towers. Aluminium alloy construction, TIG welded, in one piece or more separated pieces to facilitate the transport. Hook complete with steel safety cable.

C167.AS : ladder with one guide for antifall device type DA1 or DA2 : ladder with two guides for antifall devices type DA1 or DA2

Working Capacity 300 daN



version AS with single antifall device



version AD with double antifall device



antifall device type DA1

OPTIONAL

DA1 - Antifall device complete with fall absorber, nylon tape and carabiner (part 'A').

AGM - Wider hook opening (220 to 400 mm).



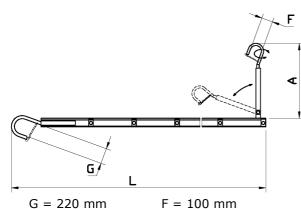
Version AS	Version AD	Total length (L)	Sections	Weight (ver. AS)	Weight (ver. AD)
		m	No.	kg	kg
C167.AS.251	C167.AD.251	2,5	1	9,5	11
C167.AS.351 (1)	C167.AD.351 (1)	3,5	1	12,5	15
C167.AS.451 (1)	C167.AD.451 (1)	4,5	1	15	18
C167.AS.501	C167.AD.501	5	1	18	21
C167.AS.601 (1)	C167.AD.601 (1)	6	1	19,5	23
C167.AS.602 (1)	C167.AD.602 (1)	6 (4+2)	2	21	24
C167.AS.802	C167.AD.802	8 (4+4)	2	30	35

(1) standard length



C167.F

suspension ladders



B = 1000 mm

Suspension ladder fit for vertical or horizontal use. Aluminum alloy structure welded with TIG system, complete with T profile for anti-fall device.

Interchangeable tower hook made of galvanized steel. The

foldable end with conductor hook allows to use the ladder as a horizontal platform.

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



- 01- Conductor hook complete with nylon sheave.
- 02- Special structure with horizontal working load of 200 daN (code becomes C167.F...S)





opt.01





A = 900 mm

opt.DA1

Total length (L) No. of parts Weight C167.F.301 3 1 16,5 4 20 C167.F.401 1 C167.F.601 6 1 29,5

C167.G

Suspension ladder fit for vertical and horizontal use. Aluminum alloy structure welded with TIG system, complete with T

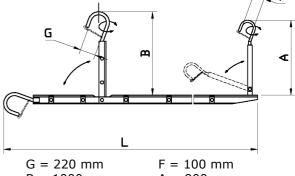
profile for anti-fall device. The two foldable ends, fitted with hooks for tower and for conductor, allow to use the ladder as a horizontal platform.

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

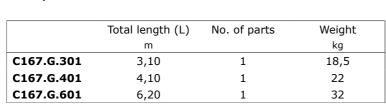


OPTIONAL

- 01- Conductor hook complete with nylon
- 02- Special structure with horizontal working load of 200 daN. (code becomes C167.G...S)
- DA1- Antifall device.



B = 1000 mmA = 900 mm





SMAC ITALY

anchoring ladders



Anchoring ladder made of light aluminum alloy, with steps made of antislipping material and suspension hooks in hot-dip galvanized steel.

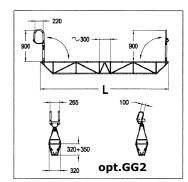
C161

The ladder is complete with a fix hook for tower, 220 mm opening, and a swivel hook for leaning on the conductor, to use the ladder in horizontal position.

The ladders have trapezoidal shape.

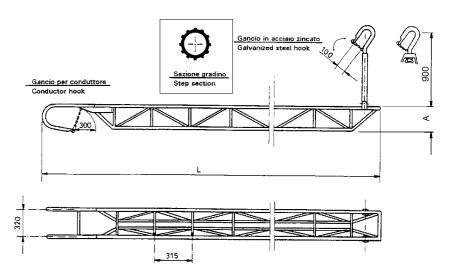
OPTIONAL

- GG2 Swivel and folding hook for tower, 220 mm opening, replacing the fix hook.
- 01 Hook for conductor complete with nylon pulley.
- AS Single guide for antifall device DA1
- DA1 Antifall device complete with fall absorber, nylon tape and carabiner





use in vertical position





use in horizontal position



DA1



opt.01



opt.GG2

	Total length (L)	Length of each part	Dimension A	Min. breaking load	Max (²) horizontal working load	Max vertical working load	Weight
	m	No.	mm	kN	kN	kN	kg
C161.TP.351 (1)	3,5	3,5	320	15	3	3	17
C161.TP.401	4,0	4,0	320	15	3	3	20
C161.TP.451 ⁽¹⁾	4,5	4,5	320	15	3	3	22
C161.TP.501	5	5	320	15	3	3	24,5
C161.TP.601 (1)	6	6	350	15	3	3	27,5
C161.TP.652	6,5	4,5 + 2	350	15	3	3	31
C161.TP.702	7	4 + 3	350	15	3	3	35
C161.TP.802	8	4 + 4	350	15	3	3	40

(1) standard length (2) max horizontal working load with safety factor 1:5

OMAC s.n.c.



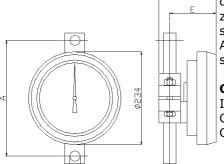


10

CONTROL INSTRUMENTS

CMAC

Dynamometers



Mechanical dynamometer type DIN13 with built-in dampener. Dial diameter: 200 mm. Manual regulation of zero (tare). Overload protection up to 180% over the full scale value. Working temperature range: -30 to +60 °C. Accuracy: $\pm 1\%$ of full scale value. Fittings for omega shackles. Safety factor:5.

OPTIONAL

IMAX - Index of max GRO - Omega shackles

GAS - Hinged hook with connection for shackles





	Capacity	Sensitivity	Dimensions (mm)					
	kg	kg	Α	В	С	D	E	kg
C40.4.10	1000	2	268	25	20	155	134	9
C40.4.20	2000	5	268	25	20	155	134	9
C40.4.30	3000	10	268	25	20	155	134	9
C40.4.60	6000	20	282	35	26	179	158	13
C40.4.100	10000	20	298	50	36	179	158	13

High precision digital electronic dynamometer. Tare zeroing and weight restore. Locking/unlocking of the displayed weight. Peak holding function. Visualization of gross, net and tare weights. Selection of the measuring unit (kg, t, ton, Lbs, kN). Selection of the speed of reading. Auto power-off enabling function. Calibration of zero and weight. Accuracy: ±0,15% of full scale value. Working temperature range: -10 to +55 °C. Max overload admitted: 200% of full scale value. Protection factor: IP65. 5-digit 17 mm display. Power supply: 9 V with standard battery. Autonomy: 200 hours circa.

OPTIONAL

- O1 -No. 1 pair of high-resistance eyebolts.
- O2 No. 2 sets of spare batteries.

	Capacity	Sensitivity	Dimensions	Weight
	kg	kg	mm	kg
C43.4.25	2500	1	218 x 90 x 56	1,35
C43.4.50	5000	2	230 x 90 x 56	1,85
C43.4.100	10000	5	315 x 110 x 59	3,60
C43.4.125	12500	5	315 x 110 x 59	3,60
C43.4.250	25000	10	350 x 126 x 70	5,50







metercounter, sag-scope and thermometers for conductors



Device for measuring the length of ropes and cables. Measuring wheel made of steel. Idle wheels made of aluminum or nylon. Fit for ropes with diameter up to 50 mm. Dimensions: A x B x C = $430 \times 370 \times 255 \text{ mm}$;

D = 70 mm

Mass: 5,5 kg

F77

C120

Sagging scope for conductors,

complete with fittings for tower legs.

Supplied with protective case.

Dimensions: 400 x 300 x

180 mm Weight: 12 kg



OPTIONAL

001 -Device for anchorage on round poles up to 600 mm diameter.

002 -Stadia for easier and more precise sagging operation. Equipped with level for horizontal alignment. Supplied with case.



opt. 001



opt. 002

Thermometer for conductors, F196.A made up of a bulb shaped and dimensioned like a conductor. Column reading, scale in Celsius degrees (°C). length 600 mm, weight 0,5 to 1 kg. NOTE: in order, please specify the diameter of the conductor. Supplied with case.



Thermometer for conductors. The F196.C dial diameter 80 mm, with sensor incorporated, can be fixed easily

on the conductor by means of its elastic clamp. Double scale (°C and °F).

Supplied with case.



