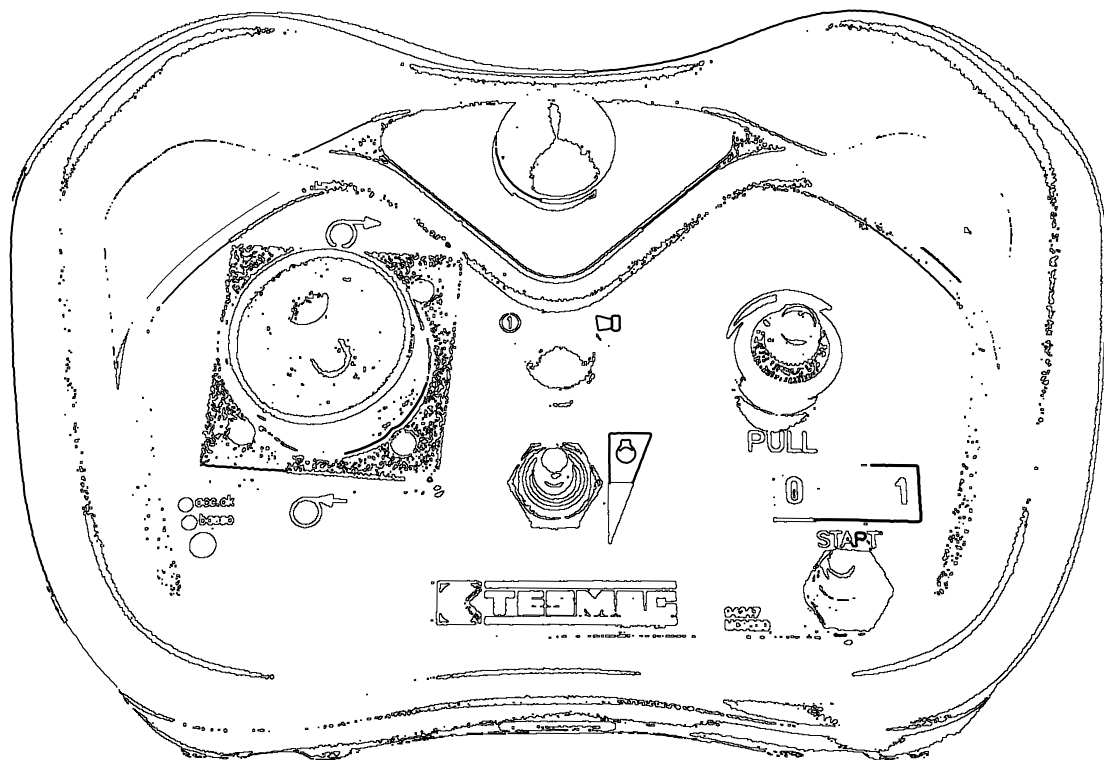


ADDITIONAL DEVICES



The control devices allow to operate same controls of the machine in a different position compared to the control panel. In particular the following controls are granted:

- setting of the pull/tensioning value
- control of direction and speed rotation of the bull wheels
- control of Diesel engine rpm
- stop all the functions of the machine



AXC 006



AXC - Cable remote control

TECHNICAL CHARACTERISTICS

These devices have the capacity to operate until a maximum distance of 15 meters.

The box is in a special anti-shock plastic and has a proof grade IP65

MASS

4.5 kg

Mod. AXC 005

This is a single cable control with the following devices:

- potentiometer for the pull regulation;
- electric joy-stick to control the bull wheels rotation;
- electric joy-stick to control the Diesel engine rpm;
- emergency stop button

Mod. AXC 006

This is a twin cable control device with the following devices:

- 2 potentiometers for the pull regulation
- 2 electric joy-sticks to control the bull wheels rotation
- electric joy-stick to control the Diesel engine rpm
- emergency stop button
- selector for the use as single/twin

AXH - Radio remote control

TECHNICAL CHARACTERISTICS

These devices have the capacity to operate until a maximum distance of 150 meters.

The box is in a special anti-shock plastic and has a proof grade IP65

MASS

2.1 kg

Mod. AXH 007

Single radio control without display and with the following devices:

- potentiometer for the pull regulation;
- electric joy-stick to control the bull wheels rotation;
- electric joy-stick to control the Diesel engine rpm;
- emergency stop button



Mod. AXH 008

This is a twin radio control without display and with the following devices:

- 2 potentiometers for the pull regulation;
- 2 electric joy-sticks to control the bull wheels rotation;
- electric joy-stick to control the Diesel engine rpm;
- emergency stop button;
- selector for the use as single/twin



Available also for three and four independent hydraulic circuits machines

TESMEC S.p.A.

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Manufacturing facilities

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NEW

Electronic device that allows the monitoring of stringing operations by collecting characteristics data:

- applied pull, with the exceeding control of a limit value;
- stringing speed;
- stringing length

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The unit can register the following information for any single laying:

- date and hour of monitoring start;
- value for the limiting control value;
- sampling distance time;
- date and hour of monitoring end

In addition there is a printer for monitoring printing, either in real time or later on; it is also possible to print a qualitative graphic of the carried out monitoring. It is possible to connect the unit to the PC for downloading the data or to download data on external Pen drive by using USB port on the unit.

The recorder is equipped by a rigid box for transport, connecting cables, software disk for PC connection and protecting case in PVC, electrical power adapter and adapter plugs for the machine connection

TECHNICAL CHARACTERISTICS

Voltage 10 ÷ 28 V

Display 2 rows with 16 digits

APPLICABILITY

The unit can be connected to all Tesmec machines preset with additional device 053

DIMENSIONS

345 x 200 x 65 mm

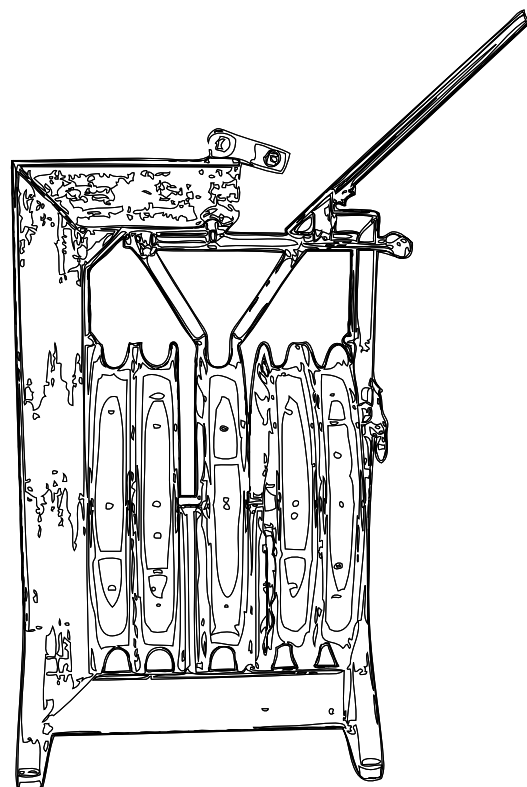
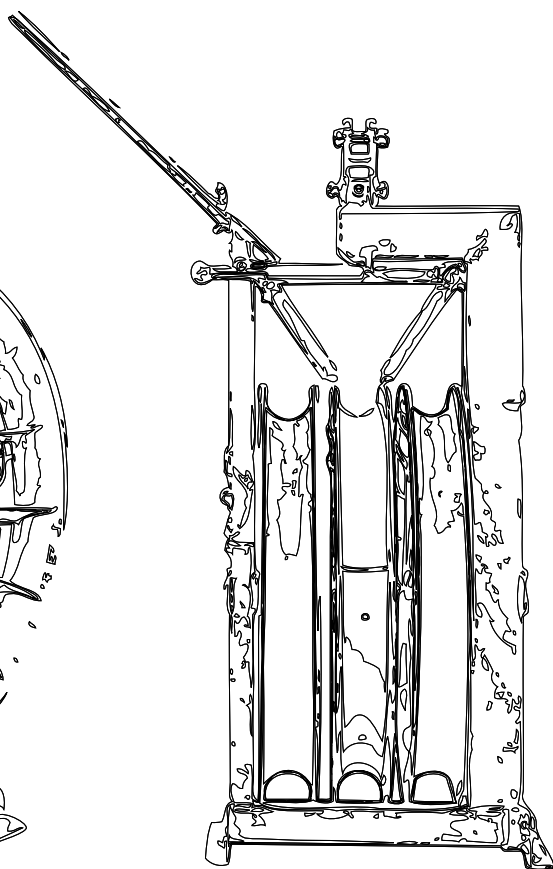
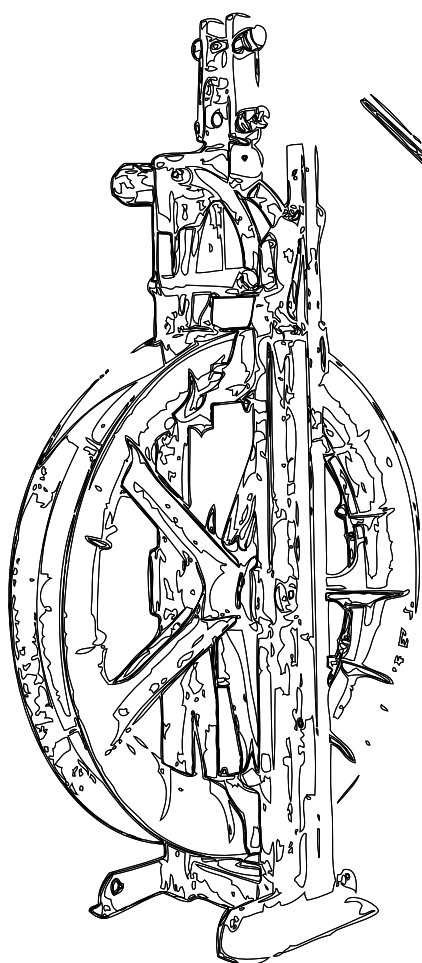
MASS

1,5 kg

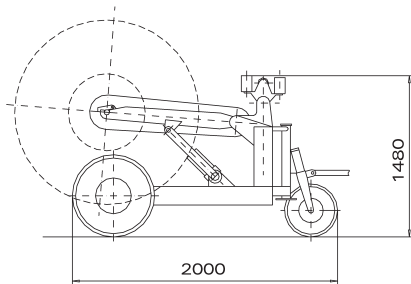
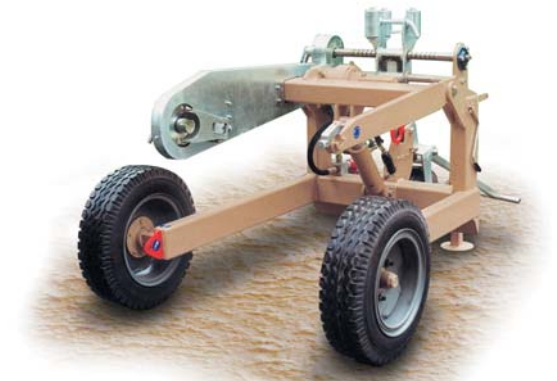
ADDITIONAL DEVICES

DLK 101 Stand support recorder

ACCESSORIES



The reel winders are suitable to work with any hydraulic power unit, in particular with pullers and puller-tensioners, and operate as separated winding systems. They are equipped with automatic level wind and negative self-acting hydraulic brake. The frame is made of welded steel with protective coating. The reel winders can lift the reel by hydraulic jacks powered by the same hydraulic source



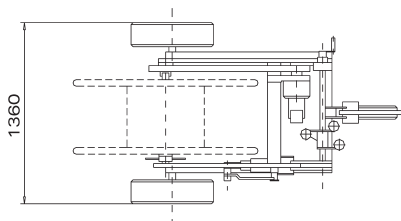
Mod. RVA 001

Model	Model capacity [kN]	Model torque [kNxm]	Model rotating speed [rpm]	Mass [kg]
RVA 001	20	1	50	525
RVB 600	70	2,7	35	1770

The reel winder mod. RVA 001 is also equipped with rigid semi-axles for manual towing and can operate with the standard reels mod. BOF 010 and BOF 020. The capacities are indicated in the following table

Kit of connecting hoses
(only for mod RVA 001)

TUT 001	length 7 m
TUT 002	length 10 m
TUT 003	length 15 m



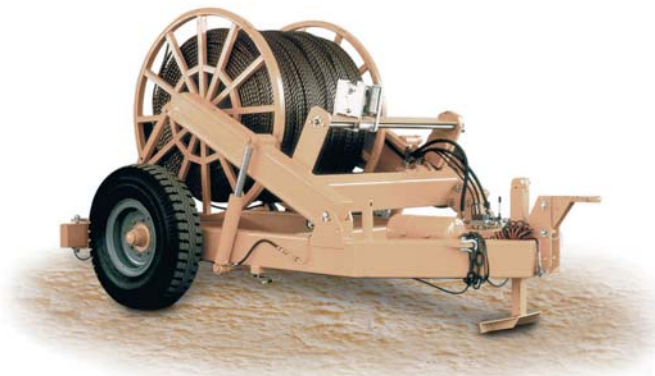
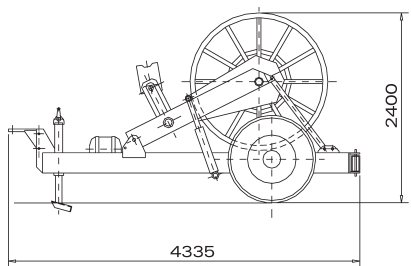
Reel mod. BOF 010

Ø rope [mm]	10	12	13	14	16	18	20	22	24
Rope capacity [m]	2400	1600	1600	1100	900	-	-	-	-

Reel mod. BOF 020

Ø rope [mm]	10	12	13	14	16	18	20	22	24
Rope capacity [m]	3600	2400	2400	2200	1800	1200	1000	900	800

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Mod. RVB 600

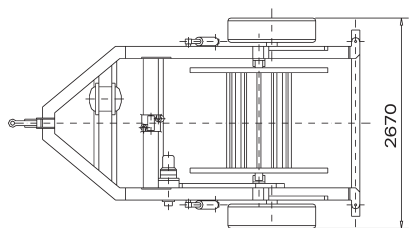
The reel winder mod. RVB 600 is also equipped with:

- steel reel mod. BOF 060 with capacity indicated in the following table
- manual front plough stabiliser
- connecting hoses kit 15 m length
- lighting system

- pneumatic brake system
- rigid semi-axles for towing at max speed of 30 km/h with mechanical parking brake

ADDITIONAL DEVICES

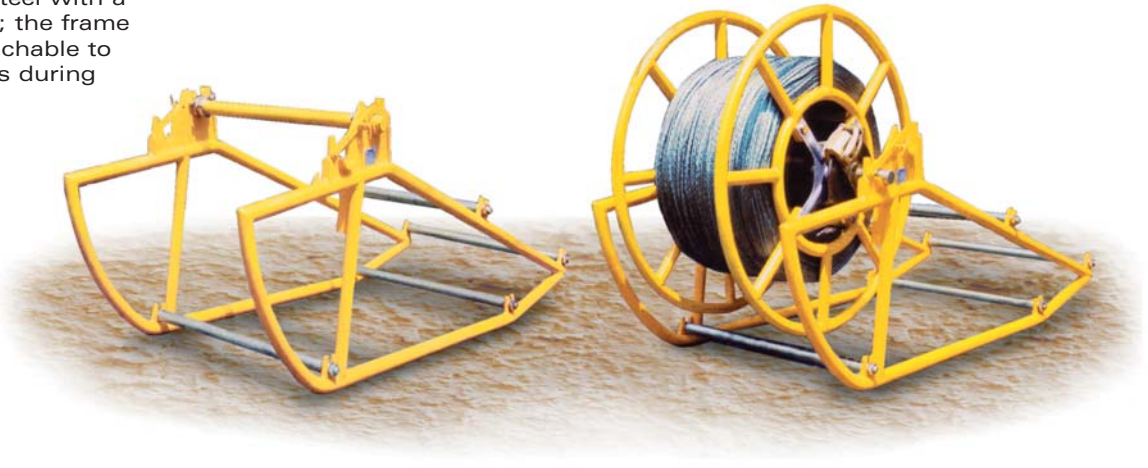
BOF 060 Reel full of pulling system



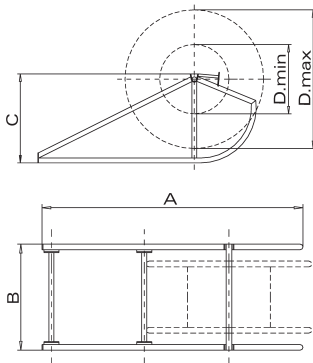
Built-in reel

Ø rope [mm]	10	12	13	14	16	18	20	22	24	26	28
Rope capacity [m]	19200	13600	11200	9600	7200	5600	4000	3600	3200	2100	2400

The cradle reel elevators are made of welded steel with a protective coating; the frame is completely detachable to reduce dimensions during transport.



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Model	Dimensions [mm]					Capacity [kN]	Mass [kg]
	A	B	C	Dmin	Dmax		
CVC 002	2550	1325	1060	1100	1400	20	58
CVC 201	3020	1060	1130	-	1900	26	150

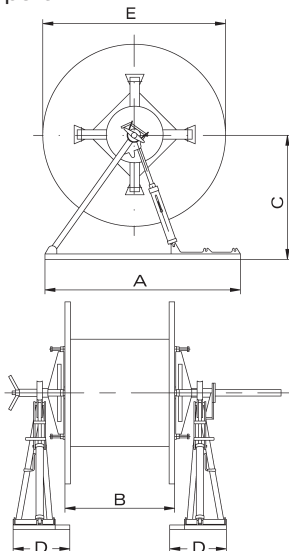
ADDITIONAL DEVICES

- CDF 007 Disk brake device for model CVC 002
 CDF 008 Disk brake device for model CVC 201

MECHANICAL DRUM ELEVATORS CVM 200

The drum elevators are made of welded steel with a protective coating; the frame is completely detachable to reduce dimensions during transport.

Each drum elevator is provided with a support with fixed wedges for wooden reels of conductors and with a mechanical disk braking system to control the drum when unwinding the conductor.



Model	Dimensions [mm]							Capacity [kN]	Mass [kg]	
	A	Bmin	Bmax	Cmin	Cmax	D	Emin			Emax
CVM 200	1600	1000	1400	700	1100	610	1450	2000	40	221

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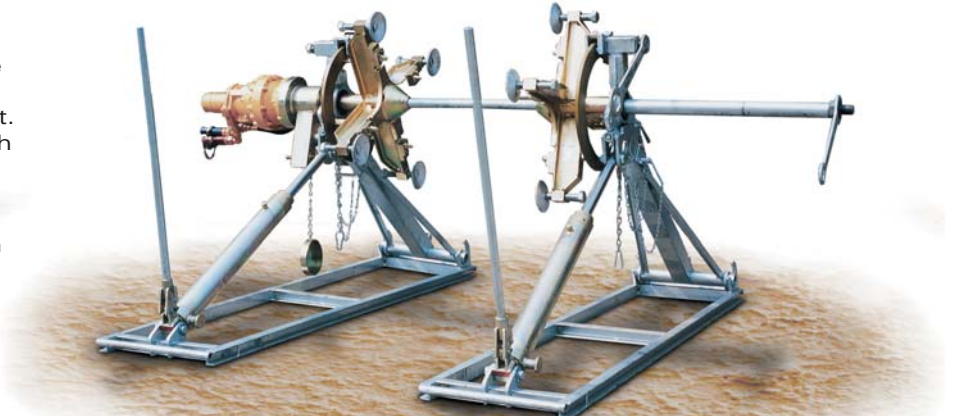
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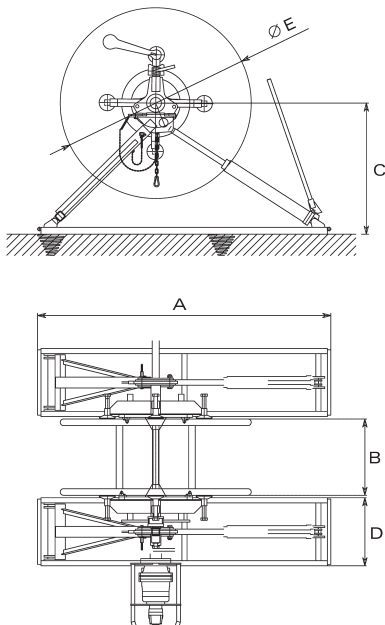
Manufacturing facilities
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 Fax: +39.031.853562

500 d

The drum elevators are made of welded steel (zincd for Mod. CVI 602), with a protective coating; the frame is completely detachable to reduce dimensions during transport. Each drum elevator is provided with a support with fixed wedges for wooden drums of conductors and with one mechanical disk braking system to control the drum when unwinding the conductor



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Model	Dimensions [mm]							Capacity [kN]	Mass [kg]	
	A	Bmin	Bmax	Cmin	Cmax	D	Emin			Emax
CVI 400	1650	600	1500	500	1100	550	1100	2000	60	284
CVI 602	2150	500	1500	500	1400	500	750	2500	70	330

Included in the Mod. CVI 602



TIH 002



ADDITIONAL DEVICES FOR CVI 602

- CDA 009** Adapter for steel rope standard reels
- TIH 002** Fast assembling hydraulic motor for control of the drum winding and unwinding
- CDF 051** Second disc brake

Max Torque [kNxm]	Max rotating speed [RPM]	Mass [kg]
1.8	45	78

Kit of connecting hoses

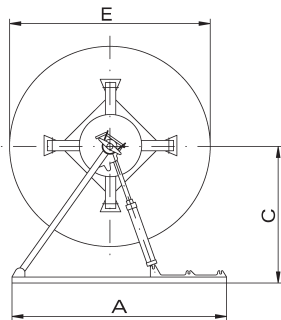
- TUT 001** length 7 m, mass 11 kg
- TUT 002** length 10 m, mass 15 kg
- TUT 003** length 15 m, mass 23 kg

The drum elevator is made of welded steel with a protective coating; the frame is completely detachable to reduce dimensions during transport. The drum elevator includes only the main frame with a mechanical disk braking system and should be completed with the additional devices CDR 002 or CDT

(The picture shows the CVI with the CDR and the TIH ADDITIONAL DEVICES)



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Dimensions [mm]								Capacity	Mass
A	Bmin	Bmax	Cmin	Cmax	D	Emin	Emax	[kN]	[kg]
2140	500	1500	580	1340	640	1200	2500	70	430

CONFIGURATION

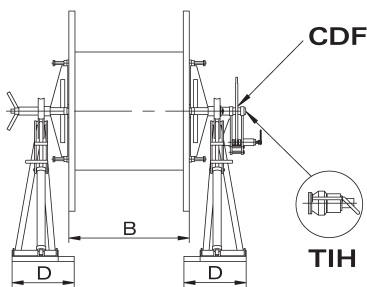
One manual disk brake CDF 012
(Max torque 1 kN x m)

Kit of connecting hoses

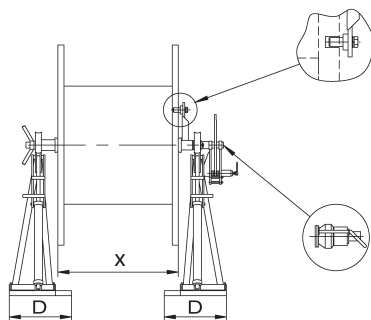
TUT 001 length 7 m, mass 11 kg
TUT 002 length 10 m, mass 15 kg
TUT 003 length 15 m, mass 23 kg

ADDITIONAL DEVICES

- CDR 001** Support with fixing wedges for wooden conductor drums
- CDR 002** Support with self-locking fixing wedges for wooden conductor drums
- CDT XXX** Special driver with fixed wedges for steel conductor reels (reel drawing is required for X dimension) (*)
- CDA 004** Adapter for steel rope standard reel
- CDD 005** Automatic level wind for standard steel rope reels (B = 560 mm)
- CDF 013** Manual disk brake (Max torque 2.3 kN x m)
- TIH** Fast assembling hydraulic motor for control of the drum winding and unwinding



CVI + CDR



CVI + CDT (*)

TIH



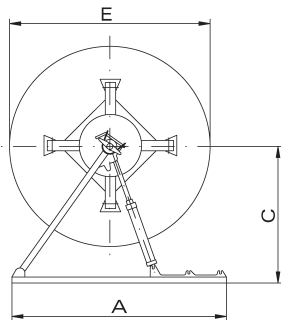
Model	Max Torque	Max rotating speed	Mass
	[kNxm]	[RPM]	[kg]
TIH 001	1,8	45	76
TIH 006	2,3	32	78

The drum elevator is made of welded steel with a protective coating; the frame is completely detachable to reduce dimensions during transport. The drum elevator includes only the main frame with a mechanical disk braking system and should be completed with the additional devices CDR 057 or CDT

(The picture shows the CVI with the CDR and the TIH ADDITIONAL DEVICES)



Certified Quality System
ISO 9001:2008



Dimensions [mm]								Capacity	Mass
A	Bmin	Bmax	Cmin	Cmax	D	Emin	Emax	[kN]	[kg]
2500	800	1850	720	1725	740	1500	3200	100	550

CONFIGURATION

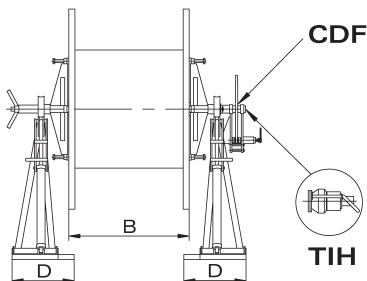
One manual disk brake CDF 059
(Max Torque 2.3 kN x m)

Kit of connecting hoses

TUT 001 length 7 m, mass 11 kg
TUT 002 length 10 m, mass 15 kg
TUT 003 length 15 m, mass 23 kg

ADDITIONAL DEVICES

- CDR 057** Support with self-locking fixing wedges for wooden conductor drums
- CDT XXX** Special driver with fixed wedges for steel conductor reels (reel drawing is required for X dimension) (*)
- CDA 060** Adapter for steel rope standard reel
- TIH 007** Fast assembling hydraulic motor for control of the drum winding and unwinding

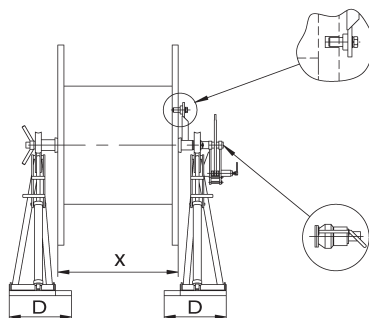


CVI + CDR

TIH



Max Torque	Max rotating speed	Mass
[kNxm]	[RPM]	[kg]
2,3	32	78

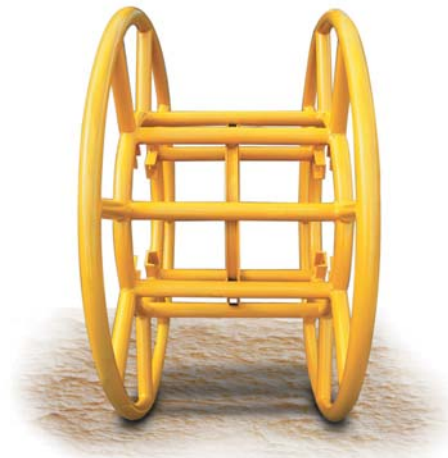


CVI + CDT (*)

The reels are made of welded steel with protective coating. Each reel is provided with two cross supports and related bolts in separate package

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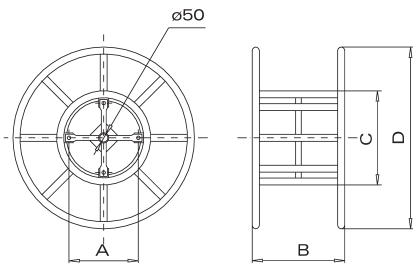
BOF



BOC



Standard reels

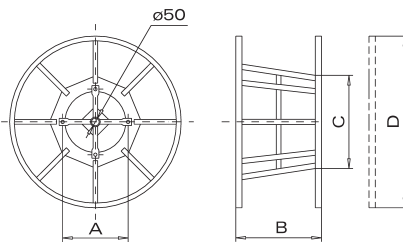


STANDARD REELS

Model	Dimensions [mm]				Mass [kg]
	A	B	C	D	
BOF 010	420	560	570	1100	53
BOF 020	420	560	570	1400	73
BOF 030	420	560	570	1900	135

The reels are made of welded steel with protective coating. A detachable side and the conical drum facilitate removal of rope or conductor coil

Detachable reels



DETACHABLE REELS

Model	Dimensions [mm]				Mass [kg]
	A	B	C	D	
BOC 040	420	560	590	1100	75
BOC 050	420	560	590	1400	86

Cross support BOS 360



Mass with bolts: 2.6 kg

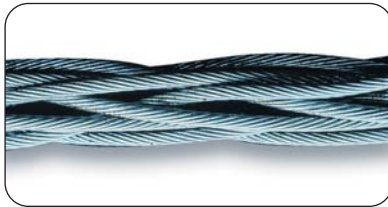
REEL CAPACITY FOR STANDARD SECTIONS OF ANTI-TWISTING BRAIDED ROPE [m] (SEE FUX PAGE 540)

Ø Rope	Reels		
	BOF 010 BOC 040	BOF 020 BOC 050	BOF 030
6	7200	14400	21600
8	3200	6400	9600
10	2400	3600	7200
12	1600	2400	7200
13	1600	2400	4800
14	800	1600	4000
16	900	1800	3600
18	-	800	2400
20	-	1000	2000
22	-	900	1800
24	-	800	1600
26	-	-	1400
28	-	-	1200

Anti-twisting galvanised steel rope,
made up of braiding strands.

Advantages:

- high flexibility
- complete stability to rotation
- homogeneous distribution of pressure between the elementary wires
- increased efficiency during stringing operations
- strands with individual galvanized elementary wires



Model	Nominal diameter [mm]	Indicative lubricated linear mass* [kg/m]	Minimum breaking load [kN]	Standard length** [m]
FUX 006	6	0.11	21.5	1800-3600
FUX 008	8	0.22	42.6	1600
FUX 010	10	0.35	68	1200
FUX 013	13	0.55	101	800-1600
FUX 016	16	0.84	160	900
FUX 018	18	1.21	212	800
FUX 020	20	1.24	262	1000
FUX 022	22	1.52	320	900
FUX 024	24	1.76	371	800
FUX 026	26	1.98	409	700
FUX 028	28	2.33	479	600

*According to production variations, the linear mass may change

HIGH TECH ANTI-TWISTING STEEL BRAIDED ROPE FUH

Rope having same technological advantages of FUX, but made with high tensile strength steel strands allowing higher working and breaking loads with the same linear mass

NEW

Model	Nominal diameter [mm]	Indicative lubricated linear mass [kg/m]	Minimum breaking load [kN]	Standard length** [m]
FUH 009	9	0.25	60	1600
FUH 013	13	0.50	121	800-1600
FUH 016	16	0.76	183	900
FUH 018	18	1.01	243	800
FUH 022	22	1.48	358	900
FUH 025	25	2.02	480	800
FUH 031	31	3.00	713	500

**The rope is also available in longer continuous sections (without connectors) up to 7000 m

Note: sections are supplied with spliced eyes in the following models:

- ALF 001 for diameters 06-10 mm
- ALF 002 for diameters 13-18 mm
- ALF 003 for diameters 20-31 mm

NEW

Innovative synthetic rope,
very light, wear and
UV resistant, floaty and
water proofed.
Made by braided strands,
it can be easily spliced



Model	Diameter [mm]	Rope mass [kg/m]	Elogation with 20% of breaking load [%]	Breaking load [kN]	Standard length [m]
COH 010	10	0.040	7	14	1000
COH 012	12	0.060	7	23	1000
COH 014	14	0.075	7	26	1000
COH 016	16	0.092	7	32	1000
COH 018	18	0.110	7	40	1000
COH 020	20	0.150	7	51	1000
COH 022	22	0.165	7	62	1000

Note: available spliced eyes **ALC 145**

Certified Quality System
ISO 9001:2008

The rope is made up of an
external polyester mesh sock
and a high strength nylon core



NYLON ROPE COA

Model	Diameter [mm]	Rope mass [kg/m]	Elogation with 30% of breaking load [%]	Breaking load* [kN]	Standard length [m]
COA 006	6	0.028	7.5	7.5	1000
COA 008	8	0.046	7.5	12	1000
COA 010	10	0.073	7.5	20	1000
COA 012	12	0.120	7.5	35	1000
COA 014	14	0.145	7.5	43	1000
COA 016	16	0.196	7.5	50	1000
COA 018	18	0.240	7.5	58	1000
COA 020	20	0.295	7.5	65	1000

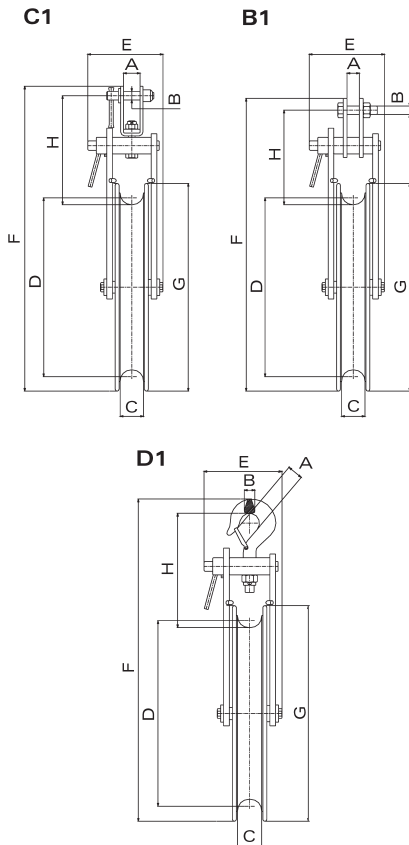
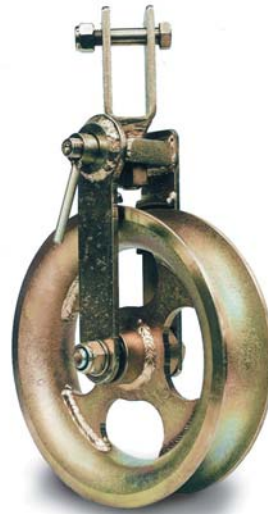
* There is 30-35% breaking load loss on eyes with clamp

Note: the eyes with clamp are available in the following models:

- **ALC 005** for diameters 08-10 mm
- **ALC 006** for diameters 12-14 mm
- **ALC 007** for diameters 16-20 mm

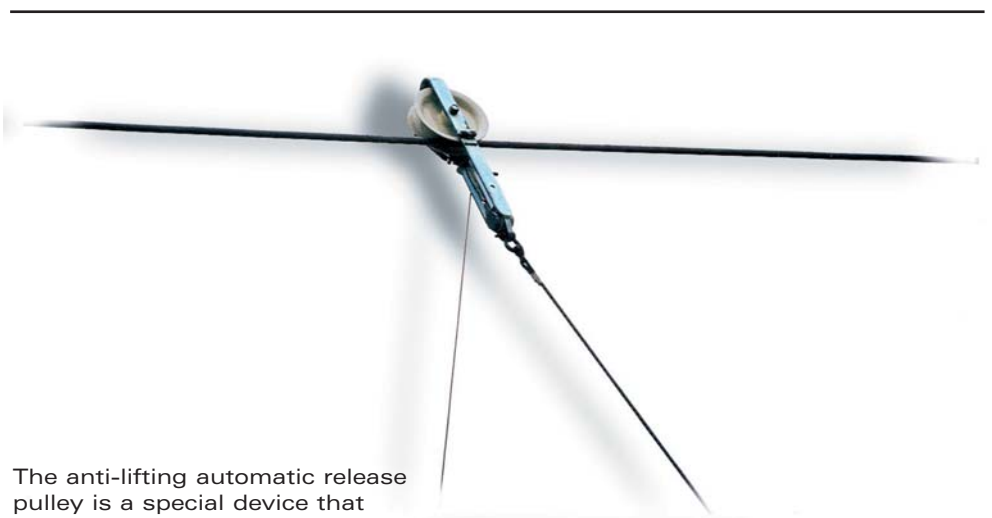
Special synthetic fiber ropes available on demand

The pulley wheels are made of galvanised steel and mounted on ball bearings; the pulley frames are made of galvanised steel. The pulleys can be supplied with three types of connections: fixed (B1) swivel-type (C1) or with hook provided with safety lock (D1)

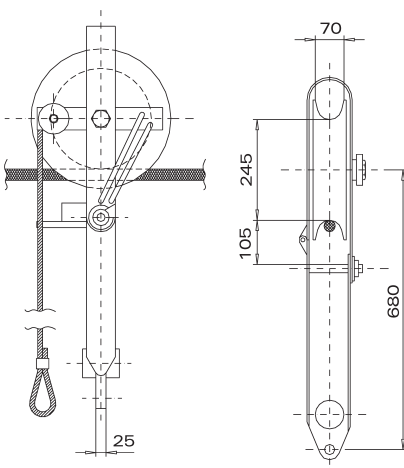


Model	Type of connection	Dimensions [mm]								Breaking load [kN]	Mass [kg]
		A	B	C	D	E	F	G	H		
CGA 200	B1	26	18	65	230	150	480	300	190	70	11
CGA 201	C1	35	18	65	230	150	510	300	220	70	11
CGA 202	D1	24	21	65	230	150	476	300	185	70	11

ANTI-LIFTING AUTOMATIC RELEASE PULLEY CAA 202



Certified Quality System
ISO 9001:2008



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

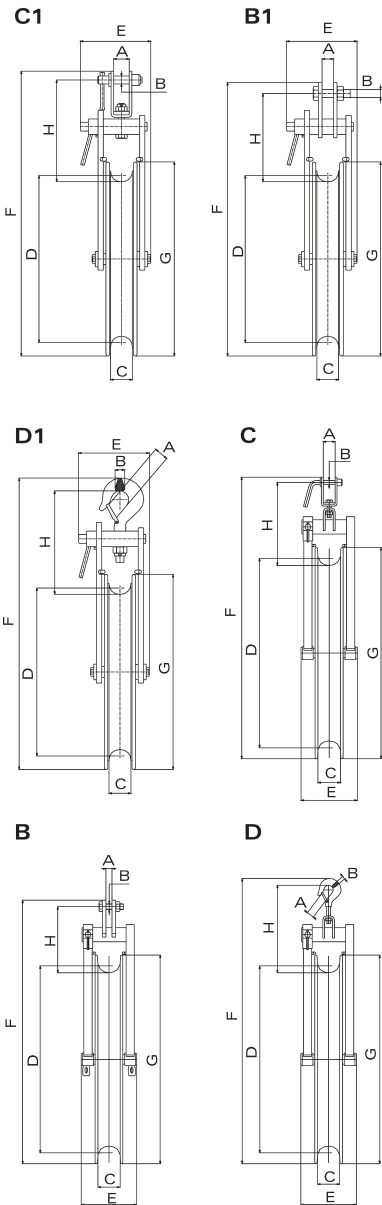
CHARACTERISTICS

Breaking load	80 kN
Mass	20 kg

The pulley wheels are made of aluminium alloy mounted on ball bearings; the groove is lined by a neoprene ring or by wear-proof interchangeable nylatron or aluminium sectors. The frame is made of galvanised steel. The pulleys can be supplied with three types of connections: fixed (B and B1), swivel-type (C and C1) or with a hook supplied with safety lock (D and D1). Grounding device or complete conductive sheaves can be supplied on demand

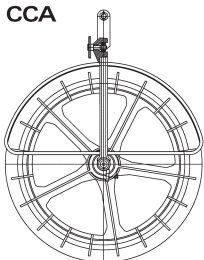


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Model	Type of connection			Dimensions [mm]							Breaking Mass load		
	Neoprene	Nylatron	Aluminium	A	B	C	D	E	F	G	H	[kN]	[kg]
CAS 200			C1	26	16	50	250	145	482	330	175	80	7
CAS 201			D1	25	19	50	250	145	490	330	175	80	7
CAS 300	CAS 301	CAS 308	B1	26	18	54	350	150	595	440	200	70	11
CAS 302	CAS 303	CAS 309	C1	35	18	54	350	150	640	440	225	70	12
CAS 304	CAS 305	CAS 310	D1	31	30	54	350	150	630	440	235	70	12
CAS 400		CAS 419	B	26	20	68	400	186	795	520	310	100	19
CAS 402		CAS 416	C	40	20	68	400	186	850	520	365	100	20
CAS 404		CAS 418	D	32	33	68	400	186	885	520	380	100	22
CAS 500	CAS 501	CAS 518	B	26	20	68	500	186	848	625	260	100	22
CAS 502	CAS 503	CAS 520	C	40	20	68	500	186	902	625	315	100	25
CAS 504	CAS 505	CAS 521	D	32	33	68	500	186	937	625	330	100	24
CAS 600	CAS 601	CAS 632	B	26	20	68	650	186	996	775	260	100	28
CAS 602	CAS 603	CAS 638	C	40	20	68	650	186	1052	775	315	100	29
CAS 604	CAS 605	CAS 639	D	32	33	68	650	286	1087	775	330	100	30
CAS 606	CAS 607	CAS 644	B	26	20	95	650	218	1010	775	275	120	32
CAS 608	CAS 609	CAS 645	C	40	20	95	650	218	1062	775	330	120	33
CAS 610	CAS 611	CAS 646	D	32	33	95	650	218	1097	775	345	120	34
CAS 800	CAS 801	CAS 843	B	26	20	68	800	186	1101	880	260	120	32
CAS 802	CAS 803	CAS 835	C	40	20	68	800	186	1157	880	315	120	33
CAS 804	CAS 805	CAS 836	D	32	33	68	800	186	1192	880	330	120	34
CAS 806	CAS 807	CAS 857	B	26	20	95	800	218	1125	893	275	120	38
CAS 808	CAS 809	CAS 852	C	40	20	95	800	218	1180	893	330	120	39
CAS 810	CAS 811	CAS 858	D	32	33	95	800	218	1215	893	345	120	40
	CAS 002	CAS 012	B	26	20	95	1000	218	1335	1100	275	120	49
	CAS 004	CAS 013	C	40	20	95	1000	218	1387	1100	330	120	50
	CAS 006	CAS 014	D	32	33	95	1000	218	1422	1100	345	120	51

CCA



ADDITIONAL DEVICES

Antifleeting devices for single pulleys

included for D=250
CCA300 for D=350

CCA400 for D=400

CCA500 for D=500

CCA600 for D=650

CCA800 for D=800

CCA000 for D=1000

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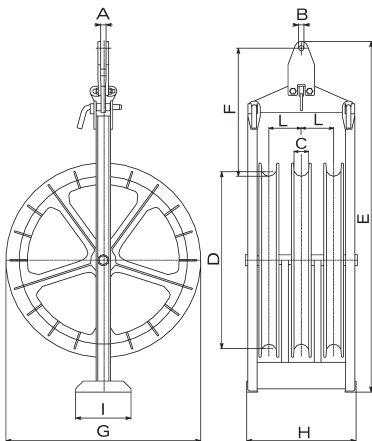
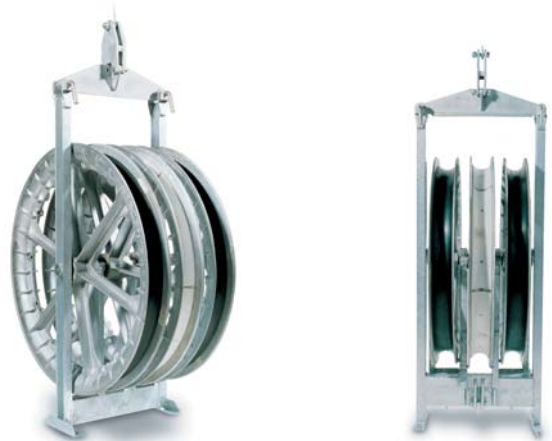
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570 e

The pulleys are suitable for stringing two or three bundled conductor lines. The wheels are made of aluminium alloy; the lateral ones are mounted on ball bearings with groove lined by a neoprene ring; the central one is mounted on double-row ball bearings with grooves made up of wear-proof interchangeable nylatron sectors. The frame is made of galvanised steel. The pulleys are supplied with fixed connection. Grounding device or complete conductive sheaves can be supplied on demand



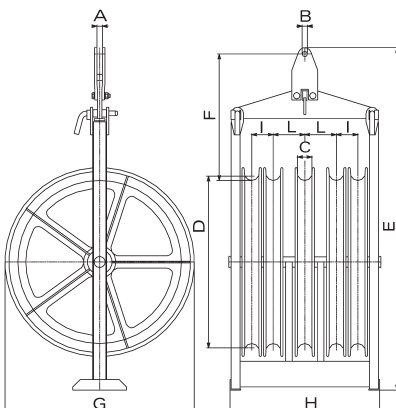
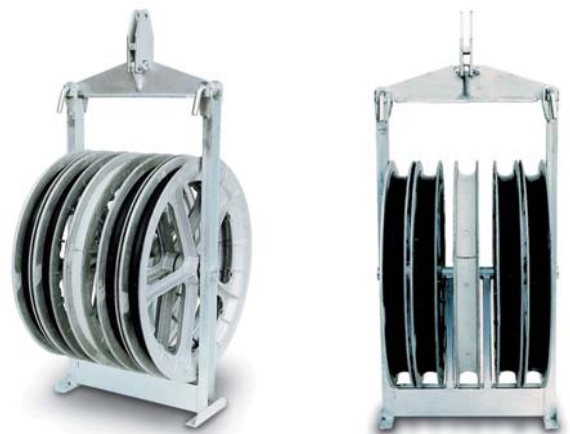
Model	Dimensions [mm]											Breaking load [kN]	Mass [kg]
	A	B	C	D	E	F	G	H	I	L			
CAT 506	25	24	68	500	1280	580	628	500	250	145	120	95	
CAT 612	25	24	68	650	1430	580	775	500	250	145	120	110	
CAT 613	25	24	95	650	1430	580	775	572	250	170	180	130	
CAT 812	25	24	68	800	1530	580	880	500	250	145	180	125	
CAT 813	25	24	95	800	1540	580	893	572	250	170	180	160	
CAT 007*	25	24	95	1000	1740	580	1100	572	250	170	200	198	

* Lateral wheels with nylatron lining

FOUR BUNDLED CONDUCTORS PULLEYS CAQ

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The pulleys are suitable for stringing four bundled conductor lines. The wheels are made of aluminium alloy; the lateral ones are mounted on ball bearings with groove lined by a neoprene ring; the central one is mounted on double-row ball bearings with grooves made up of wear-proof interchangeable nylatron sectors. The frame is made of galvanised steel. The pulleys are supplied with fixed connection. Grounding device or complete conductive sheaves can be supplied on demand



Model	Dimensions [mm]											Breaking load [kN]	Mass [kg]
	A	B	C	D	E	F	G	H	I	L			
CAQ 507	25	24	68	500	1290	595	628	700	100	145.5	120	132	
CAQ 614	25	24	68	650	1440	595	775	700	100	145.5	120	155	
CAQ 615	25	24	95	650	1440	595	775	826	130	170	180	190	
CAQ 814	25	24	68	800	1540	595	880	700	100	145.5	180	180	
CAQ 815	25	24	95	800	1540	595	893	826	130	170	180	225	
CAQ 008*	25	24	95	1000	1750	595	1100	826	130	170	200	270	

* Lateral wheels with nylatron lining

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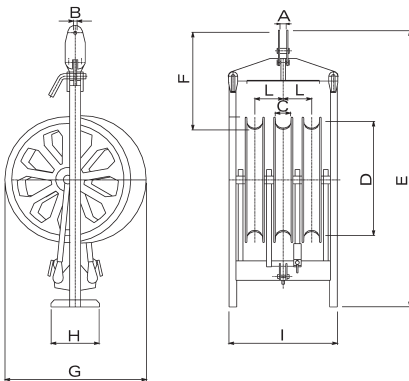
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580 b

The pulleys are suitable for stringing two or three bundled conductor lines. The pulleys are made up of a special galvanised steel frame and three single pulleys. The single pulleys can be used separately.

The wheels are made of aluminium alloy mounted on ball bearings; the lateral ones have the groove lined by a neoprene ring; the central one has the groove made up of wear-proof interchangeable nylatron sectors. The pulleys are supplied with fixed connection. Grounding device or complete conductive sheaves can be supplied on demand



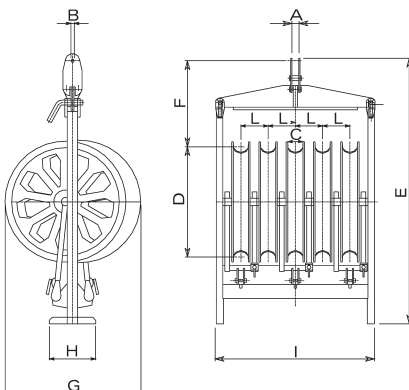
Model	Dimensions [mm]											Breaking load [kN]	Mass [kg]
	A	B	C	D	E	F	G	H	I	L			
CST 500	25	24	68	500	1506	600	699	250	580	148	120	136	
CST 600	25	24	68	650	1563	600	846	250	580	148	120	151	
CST 601	25	24	95	650	1667	600	846	250	671	178	180	166	
CST 800	25	24	68	800	1758	600	951	250	580	148	180	166	
CST 801	25	24	95	800	1785	600	964	250	671	178	180	190	
CST 001*	25	24	95	1000	1995	600	1171	250	671	178	200	228	

* Lateral wheels with nylatron lining



FOUR BUNDLED CONDUCTORS DETACHABLE PULLEYS CSQ

The pulleys are suitable for stringing four bundled conductor lines. The pulleys are made up of a special galvanised steel frame and five single pulleys. The single pulleys can be used separately. The wheels are made of aluminium alloy mounted on ball bearings; the lateral ones have the groove lined by a neoprene ring; the central one has the groove made up of wear-proof interchangeable nylatron sectors. The pulleys are supplied with fixed connection. Grounding device or complete conductive sheaves can be supplied on demand



Model	Dimensions [mm]											Breaking load [kN]	Mass [kg]
	A	B	C	D	E	F	G	H	I	L			
CSQ 501	25	24	68	500	1506	600	699	250	880	148	120	212	
CSQ 602	25	24	68	650	1653	600	846	250	880	148	120	235	
CSQ 603	25	24	95	650	1710	600	846	250	1027	178	180	258	
CSQ 802	25	24	68	800	1758	600	951	250	880	148	180	250	
CSQ 803	25	24	95	800	1830	600	964	250	1027	178	180	295	
CSQ 002*	25	24	95	1000	2036	600	1171	250	1027	178	200	345	

* Lateral wheels with nylatron lining

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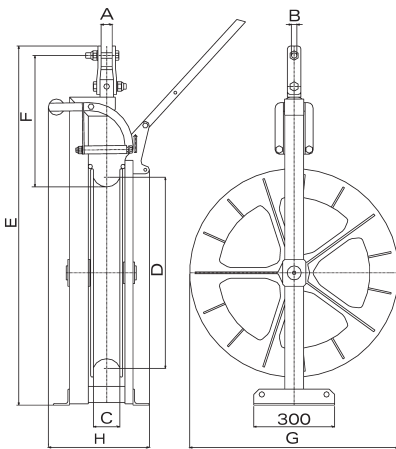
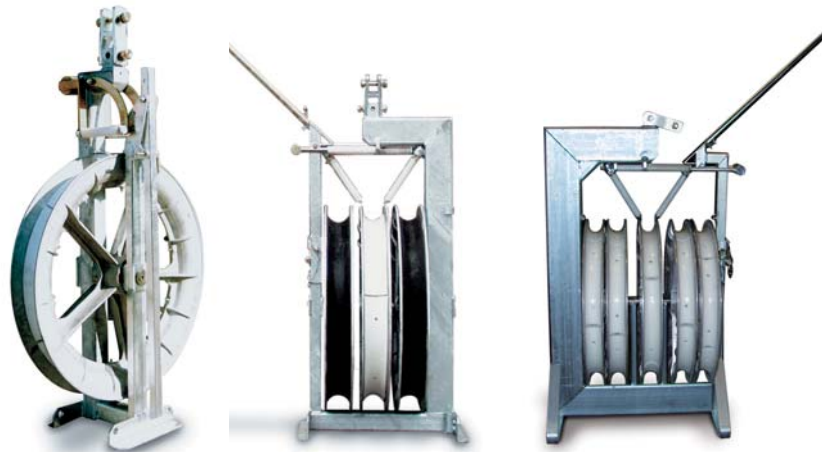
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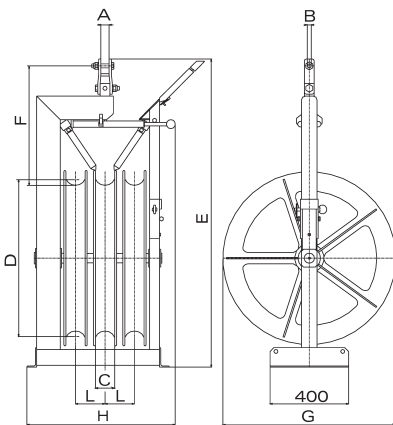
The pulleys are suitable for stringing the pilot rope by an helicopter. The pilot rope is automatically positioned in the (central) wheel. Special guides ensure the correct positioning of the rope during stringing operations. The wheels are made of aluminium alloy mounted on ball bearings; the lateral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



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SINGLE PULLEYS Mod. CES

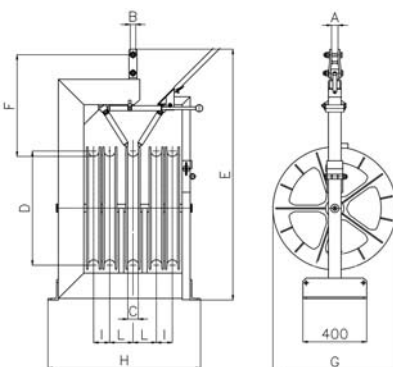
Model	Dimensions [mm]								Breaking load [kN]	Mass [kg]
	A	B	C	D	E	F	G	H		
CES 600	25	24	68	650	1270	420	775	359	120	48
CES 601	25	24	95	650	1270	420	775	375	120	62
CES 800	25	24	68	800	1390	420	893	359	120	65
CES 801	25	24	95	800	1390	420	893	375	120	70
CES 001	25	24	95	1000	1590	420	1100	375	200	85



TWO OR THREE BUNDLED CONDUCTORS PULLEYS Mod. CET

Model	Dimensions [mm]									Breaking load [kN]	Mass [kg]
	A	B	C	D	E	F	G	L	H		
CET 602	25	24	68	650	1655	765	775	145	729	180	160
CET 603	25	24	95	650	1655	765	775	170	805	180	176
CET 802	25	24	68	800	1775	765	893	145	729	180	178
CET 803	25	24	95	800	1775	765	893	170	805	180	198
CET 002*	25	24	95	1000	1980	765	1100	170	805	200	234

* Lateral wheels with nylatron lining



FOUR BUNDLED CONDUCTORS PULLEYS Mod. CEQ

Model	Dimensions [mm]										Breaking load [kN]	Mass [kg]
	A	B	C	D	E	F	G	I	L	H		
CEQ 609	25	24	68	650	1580	676	775	100	145	957	180	232
CEQ 612	25	24	95	650	1580	676	775	130	170	1083	180	260
CEQ 808	25	24	68	800	1680	676	880	100	145	957	180	275
CEQ 809	25	24	95	800	1680	676	893	130	170	1083	180	325
CEQ 003*	25	24	95	1000	1880	676	1100	130	170	1083	200	390

* Lateral wheels with nylatron lining

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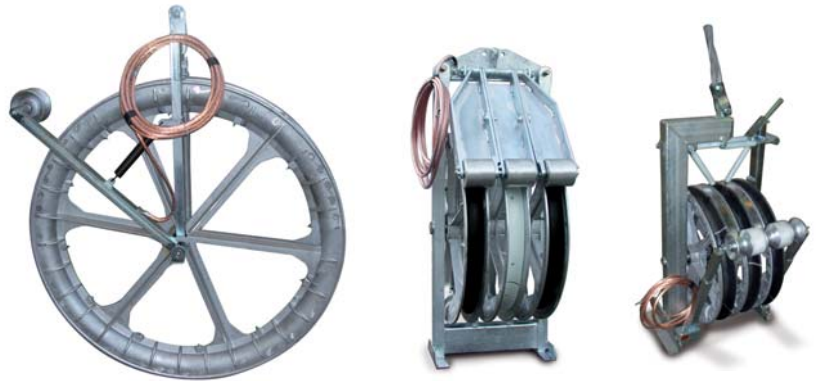
600 d

The pulleys are suitable for stringing or reconducting six bundled conductor lines. They are made up of a special galvanised steel frame and wheels made of aluminium alloy mounted on ball bearings; the wheels can be supplied with groove lined by a neoprene ring, wear-proof interchangeable nylatron sectors or aluminium conductive sectors. The pulleys are supplied with fixed connection. Special application can be supplied on demand



EARTHING DEVICES FOR PULLEYS MTX

Earthing devices can be supplied on single, bundle and helicopter wheels manufactured by Tesmec. In case of bundle conductor wheels, the earthing device is provided with independent movement of each contact roller, to allow a fully and permanent grounding effect on each conductor. Earthing devices are provided with 6 meters length ground cable 50 mm² section. Special application available on demand



IEEE COMPLY NYLATRON SECTORS

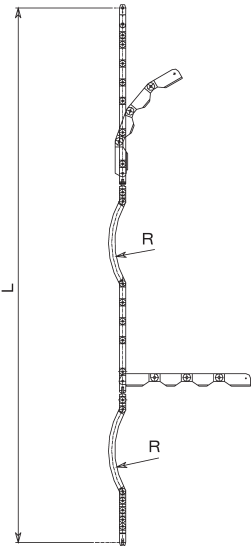
Special nylatron interchangeable sectors comply to IEEE requirements for groove radius limit and complete protection of groove side and top edge. Available on demand for all blocks from 500 mm diameter



Specifically designed to connect the pulling rope with a fibre optical cable. They are composed of several jointed rods and two arched rods (to facilitate the passage on the pulley), and two drawback counterweights (to avoid cable twisting)



Model	Dimensions [mm]		Breaking load [kN]	Mass [kg]	For pulleys Ø [mm]
	L	R			
RFF 001	3900	330	30	60	400 500 650
RFF 010	4300	500	30	53	800 1000



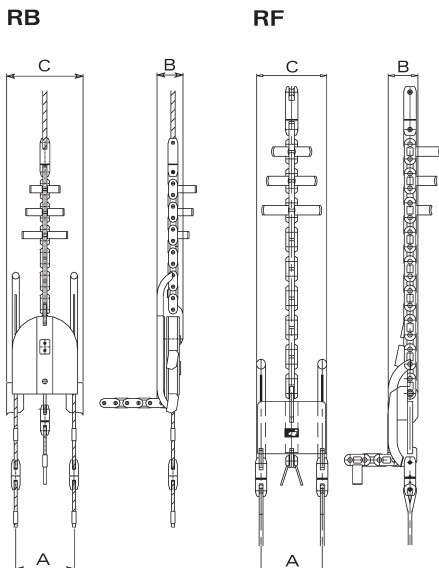
TWO OR THREE BUNDLED CONDUCTORS HEAD BOARDS RB-RF



BALANCING HEAD BOARDS Mod. RB

Model	Dimensions [mm]			Breaking load [kN]	Mass [kg]	For pulleys mod.	Equipment			Phase type	Note
	A	B	C				Swivel joints	Steel rope section Ø18			
RBB 001	292	160	365	280	135	CAT 506 CAT 612	2	1	No. 1-30 m	2 conductors	
RBT 010	292	160	365	280	157	CAT 812 CST 500 CST 600 CST 800	3	1	No. 1-30 m No. 1-15 m	3 conductors	balan. 1-3
RBT 260	292	160	365	280	157	CST 800	3	1	No. 1-30 m No. 1-15 m	3 conductors	balan. 1-2
RBB 020	348	176	415	280	143	CAT 613 CAT 813	2	1	No. 1-30 m	2 conductors	
RBT 030	348	176	415	280	165	CAT 007 CST 601 CST 801	3	1	No. 1-30 m No. 1-15 m	3 conductors	balan. 1-3
RBT 140	348	176	415	280	165	CST 001	3	1	No. 1-30 m No. 1-15 m	3 conductors	balan. 1-2

Specifically designed to connect the pulling rope, max 24 mm diameter, with 2 or 3 bundled conductors. The equipment includes the necessary rope lengths and swivel joints; quantity and models are indicated in the following tables. Special models with different characteristics can be designed according to customer's needs



FIXED HEAD BOARDS Mod. RF

Model	Dimensions [mm]			Breaking load [kN]	Mass [kg]	For pulleys mod.	Equipment			Phase type
	A	B	C				Swivel joints	Steel rope section Ø18		
RFB 020	292	144	335	280	98	CAT 506 CAT 612 CAT 812 CST 500 CST 600 CST 800	2	1	No. 2-3.5 m	2 conductors
RFT 030	292	144	335	280	104	CST 600 CST 800	3	1	No. 3-3.5 m	3 conductors
RFB 040	348	144	390	280	100	CAT 613 CAT 813 CAT 007 CST 601 CST 801 CST 001	2	1	No. 2-3.5 m	2 conductors
RFT 050	348	144	390	280	107	CST 801 CST 001	3	1	No. 3-3.5 m	3 conductors

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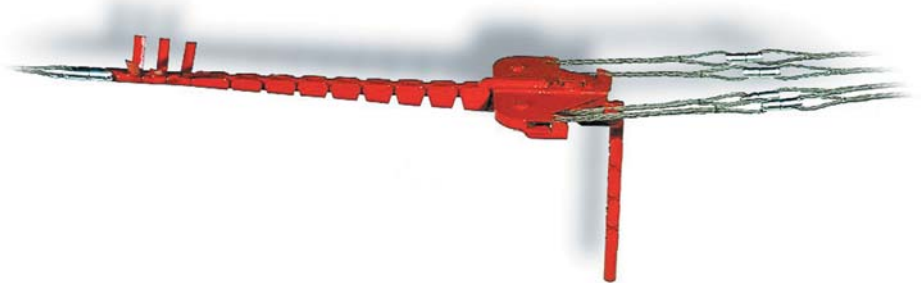
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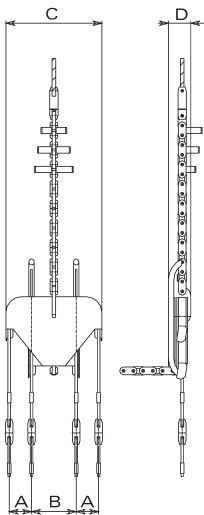
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Specifically designed to connect the pulling rope, max 28 mm diameter, with 4 bundled conductors.

The equipment includes the necessary rope lengths and swivel joints; quantity and models are indicated in the following tables. Special models with different characteristics can be designed according to customer's needs.



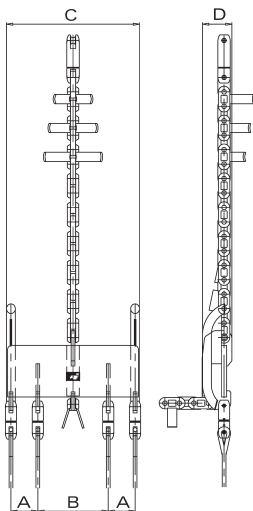
RB



BALANCING HEAD BOARDS Mod. RB

Model	Dimensions [mm]				Breaking load [kN]	Mass [kg]	For pulleys mod.	Equipment		Steel rope section Ø18
	A	B	C	D				Swivel joints	GGT 020 GGT 030	
RBQ 040	100	292	540	160	280	190	CAQ 507	4	1	No. 2-30 m
							CAQ 614			
							CAQ 814			
RBQ 050	130	340	648	160	280	205	CAQ 615	4	1	No. 2-30 m
							CAQ 815			
							CAQ 008			
RBQ 060	148	298	640	160	280	205	CSQ 501	4	1	No. 2-30 m
							CSQ 602			
							CSQ 802			
RBQ 070	178	356	760	160	280	210	CSQ 603	4	1	No. 2-30 m
							CSQ 803			
							CSQ 002			
RBQ 080	130	340	650	175	750	240	CAQ 615	4	GGT 040	No. 2-30 m
							CAQ 815			
							CAQ 008		1	

RF

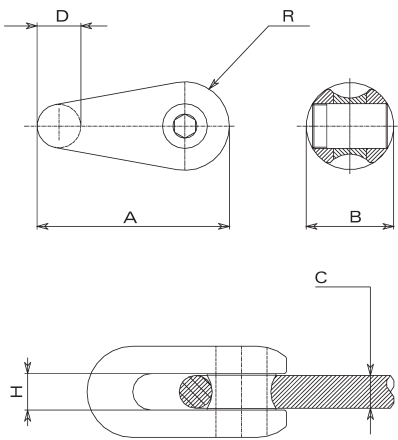


FIXED HEAD BOARDS Mod. RF

Model	Dimensions [mm]				Breaking load [kN]	Mass [kg]	For pulleys mod.	Equipment		Steel rope section Ø18
	A	B	C	D				Swivel joints	GGT 020 GGT 030	
RFQ 060	100	292	535	144	280	125	CAQ 507	4	1	No. 4-3.5 m
							CAQ 614			
							CAQ 814			
RFQ 070	130	340	643	144	280	133	CAQ 615	4	1	No. 4-3.5 m
							CAQ 815			
							CAQ 008			
RFQ 080	148	298	637	144	280	132	CSQ 501	4	1	No. 4-3.5 m
							CSQ 602			
							CSQ 802			
RFQ 090	178	356	755	144	280	136	CSQ 603	4	1	No. 4-3.5 m
							CSQ 803			
							CSQ 002			
RFQ 100	130	340	650	175	750	230	CAQ 615	4	GGT 040	No. 4-3.5 m
							CAQ 815			
							CAQ 008		1	

The connectors are specifically designed to connect pilot rope lengths or pulling rope lengths and to pass over the puller or puller-tensioner bull wheels. The special profile minimises the overload on the rope spliced eyes during this passage. They are made of highly tensile galvanised steel

Certified Quality System
ISO 9001:2008

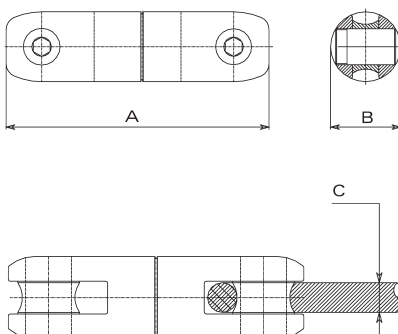


CONNECTORS Mod. GFT

Model	Dimensions [mm]						Breaking load [kN]	Mass [kg]
	A	B	C max	D	H	R		
GFT 001	59	28	10	15	11	11	70	0,125
GFT 010	74	40	13	19.5	14	15	110	0,325
GFT 020	91	48	16	20	19	18	160	0,525
GFT 030	102	54	18	22	19	20	220	0,75
GFT 040	121	60	24	27	26	22	360	1,025
GFT 050	174	75	28	42	30	32	750	3,025
GFT 060	183	81	32	42	34	34.5	750	3,4



The swivel joints are suitable to connect the pulling rope to the mesh sock joint mounted on the conductor; they are mounted on thrust bearings and they are designed to avoid torsion strain accumulation. They are made of highly tensile galvanised steel; the special design can bear the high radial loads, which occur during the passage over the pulleys



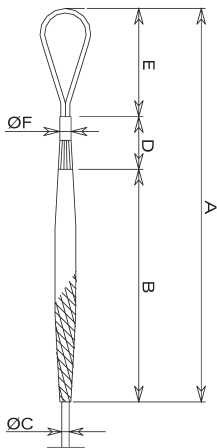
SWIVEL JOINTS Mod. GGT

Model	Dimensions [mm]			Breaking load [kN]	Mass [kg]
	A	B	C max		
GGT 001	106	28	10	70	0,3
GGT 010	143	40	13	110	0,925
GGT 020	184	54	18	220	2,15
GGT 030	234	60	24	360	3,4
GGT 040	322	77	28	750	8,2
GGT 180	336	81	32	750	8,7



The head-type temporary mesh sock joints are specifically designed to temporarily connect the aluminium, steel or copper conductor to the pulling rope. They consist of variable pitch steel wires, which effectively distribute the gripping effect on the conductor

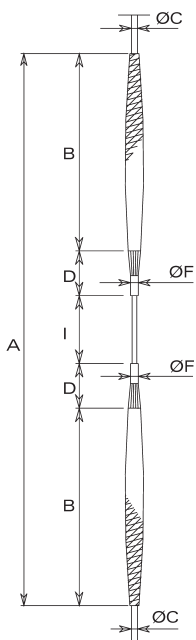
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HEAD-TYPE TEMPORARY MESH SOCK JOINTS

Model	Suitable swivel	Ø C Conductor [mm]	Dimensions [mm]					Identifying colour	Breaking load [kN]	Mass [kg]
			A	B	D	E	F			
GCT 001	GGT 001	8 - 17	1400	1100	140	160	22	yellow	35	0.7
GCT 010	GGT 010	17 - 29	1700	1360	160	180	28	red	85	1.3
GCT 020	GGT 020	29 - 38	1900	1470	200	230	30	green	130	2.1
GCT 030	GGT 020 GGT 030	38 - 50	2270	1820	200	250	34	black	180	2.7

The double head-type temporary mesh sock joints are specifically designed to temporarily connect the aluminium, steel or copper conductors. They consist of variable pitch steel wires, which effectively distribute the gripping effect on the conductor



DOUBLE HEAD-TYPE TEMPORARY MESH SOCK JOINTS

Model	Ø C Conductor [mm]	Dimensions [mm]					Identifying colour	Breaking load [kN]	Mass [kg]
		A	B	D	F	I			
GCT 500	8 - 17	2680	1100	140	22	200	yellow	35	1.15
GCT 510	17 - 29	3240	1360	160	28	200	red	85	2.3
GCT 520	29 - 38	3540	1470	200	30	200	green	130	3.6
GCT 530	38 - 50	4240	1820	200	34	200	black	180	4.8

The self-gripping clamps can be used whenever a conductor, a cable or a rope made of aluminium, aluminium/steel, copper or steel, even if insulated, has to be stretched. The body is made of high-strength hot forged steel, in order to minimise weight in comparison with the working load.

The galvanisation treatment on the surface protects from oxidation.

According to the final model, the clamps are made with machined body clamps or body clamps sizes on demand, as per the following tables.

The most important characteristic of the clamp with interchangeable jaws is the possibility to use the same clamp for working on conductors or ropes or fiber optic cable of different diameters only by changing the jaws; this feature makes it possible to reduce the operating costs.

The characteristic of this new Tesmec clamp is to allow a large range of ropes and conductors diameters by using a small number of interchangeable or machined jaws.

Special clamp models without jaws are available also for use on conductors

MOT 130



MOT 140



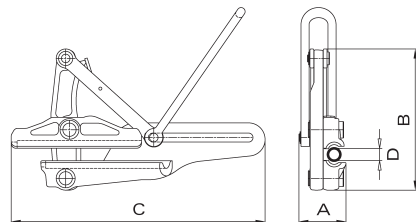
MOT 150



MOT 170



MOT 180



Model	Dimensions [mm]			Breaking load [kN]	Max Working load* [kN]	Mass [kg]	Use		Diameter range [mm] D
	A	B	C				Steel rope	Conductor Interchangeable Jaws	
MOT 130 GC	-	-	-	64	21	2.5	no	yes	7 ÷ 16
MOT 140	80	225	380	125	42	7	yes	no	8 ÷ 18
MOT 150 GC	80	225	380	125	42	7	no	yes	14 ÷ 23
MOT 170 SF	100	300	535	225	75	15	yes	no	18 ÷ 24
MOT 170 GC	100	300	535	225	75	15	no	yes	22.8 ÷ 32
MOT 180 GC	114	353	604	280	90	19.5	no	yes	32 ÷ 46

* Max admissible working load could be different depending on local legislation about safety factor

INTERCHANGEABLE JAWS FOR MOT CLAMPS

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Warning: it is strictly forbidden to use jaws of different manufacturer or origin from the specific jaws suggested by Tesmec S.p.A. for each type of clamp. The use of jaws of different manufacturer/origin doesn't guarantee the full functioning of Tesmec product on its all

Clamp Model	Jaws Model	D [mm]	Use
MOT 130 GC	GTF 110	7 ÷ 10	Aluminium conductor
	GTF 113	10 ÷ 13	Aluminium conductor
	GTF 116	13 ÷ 16	Aluminium conductor
MOT 150 GC	GTY 117	14 ÷ 17	Aluminium conductor
	GTY 120	17 ÷ 20	Aluminium conductor
	GTY 123	20 ÷ 23	Aluminium conductor
	GTO xxx	06 ÷ 23	Aluminium conductor OPGW
MOT 170 GC	GTX 226	22.8 ÷ 26	Aluminium conductor
	GTX 229	26 ÷ 29	Aluminium conductor
	GTX 232	29 ÷ 32	Aluminium conductor
MOT 180 GC	GTJ 335	32 ÷ 35	Aluminium conductor
	GTJ 338	35 ÷ 38	Aluminium conductor
	GTJ 341	38 ÷ 41	Aluminium conductor
	GTJ 344	41 ÷ 44	Aluminium conductor
	GTJ 346	44 ÷ 46	Aluminium conductor

xxx Specify the diameter on the order

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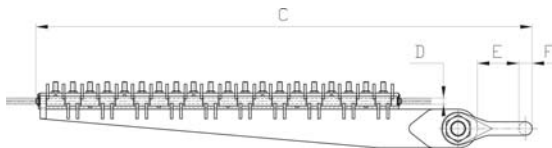
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650 g

NEW

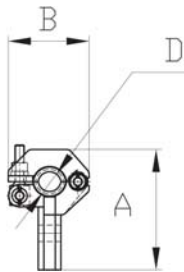
The radial locking clamp can be used whenever a conductor or a rope made of aluminium, aluminium/steel, copper or steel has to be stretched. The body is made of high-strength steel. It is made up of a series of hinged elements, which can be locked by nuts. The interchangeable jaws are made of aluminium.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



Specify the following data on the order:

D = conductor diameter

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Max Breaking load [kN]	Number of eyebolts	Standard diameter range [mm] D						C	E	F	Mass min [kg]	Mass max [kg]
		20-30		30-40		40-56						
		Dimensions [mm]										
		A	B	A	B	A	B					
120	4	MOS 700 158 143		MOS 701 169 143		MOS 702 178 158		605	75	26	18	19
180	6	MOS 710 158 143		MOS 711 169 143		MOS 712 178 158		735	93	26	25	28
240	8	MOS 720 158 143		MOS 721 169 143		MOS 722 178 158		852	93	26	30	33
300	10	MOS 730 158 143		MOS 731 169 143		MOS 732 178 158		995	93	32	39	41
360	12	MOS 740 158 143		MOS 741 169 143		MOS 742 178 158		1100	93	32	41	43
420	14	MOS 750 158 143		MOS 751 169 143		MOS 752 178 158		1210	93	35	43	47
450	15	MOS 753 158 143		MOS 754 169 143		MOS 755 178 158		1285	93	35	55	61
480	16	MOS 760 158 143		MOS 761 169 143		MOS 762 178 158		1360	93	45	67	75
540	18	MOS 770 158 143		MOS 771 169 143		MOS 772 178 158		1510	93	45	79	89
600	20	MOS 780 158 143		MOS 781 169 143		MOS 782 221 158		1670	93	45	92	104

Different jaws can be supplied for each single MOS according to the diameter range

The hydraulic compressors, mainly implemented in press forged steel, have the following characteristics:

- excellent weight/power ratio
- very short pressing cycle (all the presses have an hydraulically-driven piston release)
- each power unit or manual hydraulic pump (and hoses) is interchangeable with any hydraulic press

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PRT 001



PRT 020



Model	Piston return	Max compression force [kN]	Max pressure [bar]	Max hexagon "ch" [mm]	Max stroke [mm]	Press mass [kg]	Die mass [kg]	Dimensions (bxlxh) [mm]
PRT 001	Hydraulic	640	700	44	27	26	1	350 180 410
PRT 060	Hydraulic	1200	700	65	34	52	2	520 280 450
PRT 020	Hydraulic	1840	700	90	44	145	5,5	600 430 600

PRT 060



The hydraulic compressors, implemented in press forged steel, has the following characteristics:

- excellent weight/power ratio additionally improved as compared to the previous version
- very short pressing cycle thanks to the hydraulically-driven piston release
- each die, power unit and manual hydraulic pump (and hoses) are interchangeable with previous Tesmec version

Hydraulic power unit



HYDRAULIC POWER UNITS Mod. CPP

Model	Engine	Power [kW]	Max pressure [bar]	Max delivery [l/min.]	Tank capacity [l]	Mass [kg]	Dimensions (b x l x h) [mm]
CPP 001	Gasoline	4.5	700	1.8	10	54	530 340 370
CPP 004	Electrical 220V-50Hz	2.2	700	1.8	10	50	530 340 370

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

Manual pump



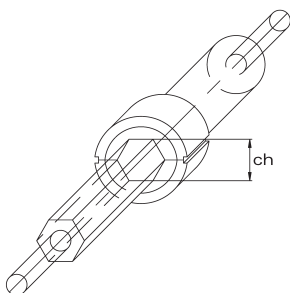
MANUAL PUMP Mod. PDP 001

Model	Max pressure [bar]	Delivery [cm ³ / cycle] 1 st stage	2 nd stage	Capacity [l]	Mass without oil [kg]	Dimensions (b x l x h) [mm]
PDP 001	700	13.5	2.8	2.0	8.5	550 160 170

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KIT OF CONNECTING HOSES Mod. TUP

Model	Length [m]
TUP 013	3
TUP 014	6
TUP 015	10
TUP 016	15
TUP 017	30



DIES FOR CONDUCTORS Mod. PDM

Press Model	Joint material	Die model	
		Hexagonal	Circular
PRT 001 (640 kN)	Steel	PDM 039	-
	Aluminium	PDM 040	-
PRT 060 (1200 kN)	Steel	PDM 042	PDM 048
	Aluminium	PDM 043	PDM 049
PRT 020 (1840 kN)	Steel	PDM 045	PDM 054
	Aluminium	PDM 046	PDM 055

Specify the following data on the order:

ch = hexagonal key dimension

DIES FOR COUPLING Mod. PDM

Model	Dies
PRT 001	/
PRT 060	PDM 026
PRT 020	PDM 027

STRAIGHTENING JOINT DEVICES Mod. PDR

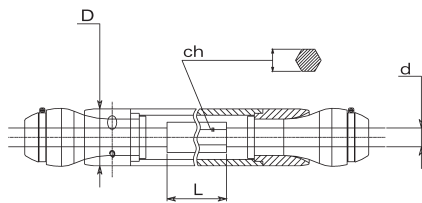
Press Model	Straightening joint device model
PRT 001 (640 kN)	PDR 004
PRT 060 (1200 kN)	PDR 007
PRT 020 (1840 kN)	PDR 010

*Special dies available on demand

The cover joints are specifically designed to protect the mid span joint, made at the "tensioner station", during conductor stringing operations.

The cover joints consist of two shells made of galvanised steel with shaped ends to house the rubber noses, which protect the mid span joint during the passage over the pulleys.

The shells are coupled together by socket screws and the rubber noses are clipped together by belts



Model	Application	ch max [mm]	L max (std) ** [mm]	Breaking load * (at the edges) [kN]
PGC	For pulley with 54 mm groove	28	600	8 ÷ 16
PGS	For pulley with 68 mm groove	37	1000	12 ÷ 20
PGM	For pulley with 68 mm groove	48	1050	7 ÷ 16
PGL	For pulley with 95 mm groove	56	1300	min 20

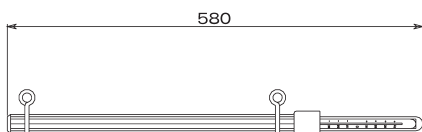
* changes with length
** different lengths on request

Specify the following data on the order:

- 1) L = joint length after compression
- 2) d = conductor diameter
- 3) ch = the hexagon dimension of mid span joint after compression

THERMOMETERS TET

The thermometers are made of an aluminium bulb that reproduces the conductor's surface



GENERAL CHARACTERISTICS

Mass (indicative)	0.6 ÷ 1 kg
Length	0.58 m



Specify the diameter "d" of the conductor on the order

Mod. CRS

The inspection trolley is made of light aluminium alloy and allows one person to inspect single conductor lines. The Mod. CRS 010 is provided with a footrest a stationary brake a meter counter and a safety belt

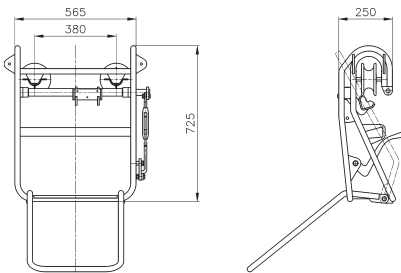
CHARACTERISTICS

	CRS 310	CRS 010
Capacity	100 kg	100 kg
Mass	6 kg	13 kg

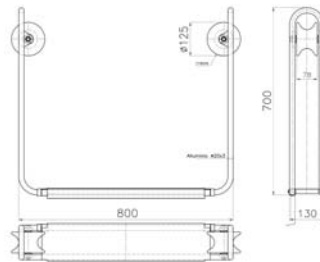
CRS 010



CRS 010



CRS 310



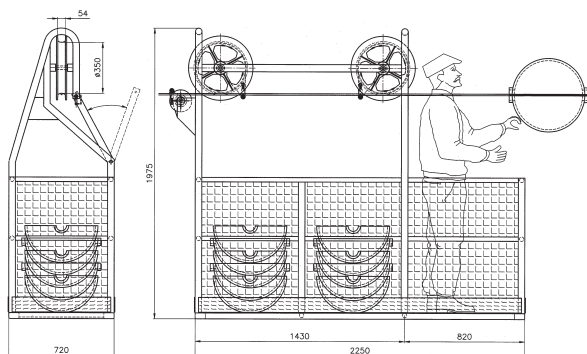
Mod. CRS 270

The inspection trolley is made of light aluminium alloy and allows one or two person to inspect single conductor lines. Complete with two aluminium nylon lined and one nylon wheels on ball bearings, meter counter and stationary brake

CHARACTERISTICS

Capacity	200 kg
Mass	85 kg

CRS 270



Mod. CRB 020

The inspection trolley is made of light aluminium alloy and allows two persons to inspect two bundled conductor lines. It is provided with a footrest and a stationary brake.

Note: Specify the distance between the conductors on the order.

CHARACTERISTICS

Capacity	200 kg
Mass	43 kg

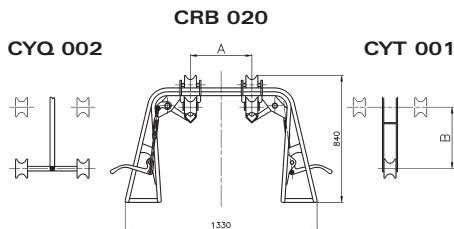
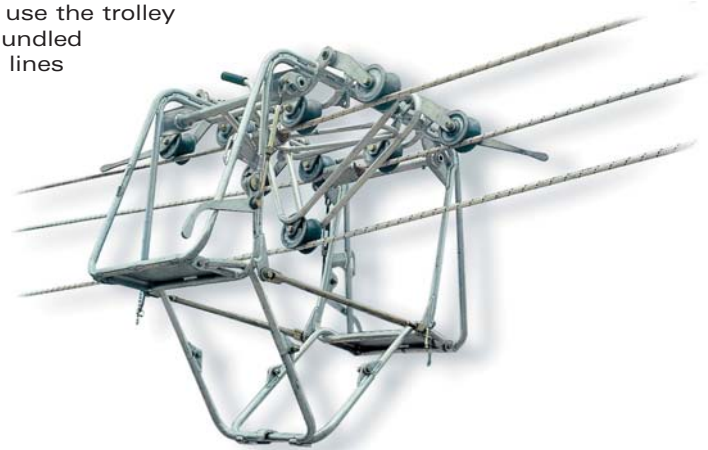
ADDITIONAL DEVICES

CYT 001 Device that makes possible to use the trolley with three bundled conductors lines

CYQ 002 Device that makes possible to use the trolley with four bundled conductors lines

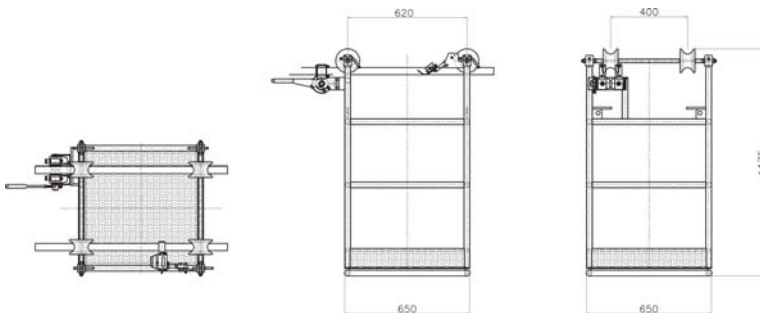


CRB 020 + CYT 001



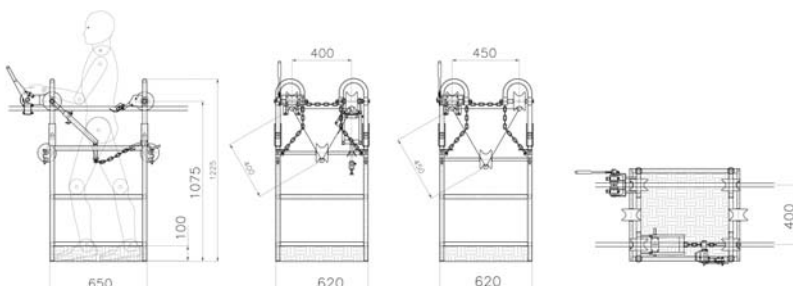
Mod. CRB 300

Inspection Trolley light weight for 2 bundled conductors - 2 rigid axles - conductive wheels - one lineman - capacity 100 kg



Mod. CRT 290

Inspection Trolley light weight for 2-3 bundled conductors - independent wheels - conductive wheels - one lineman - capacity 120 kg - mass 35 kg



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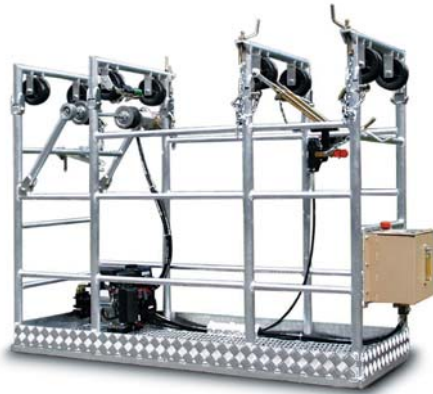
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CRB 060



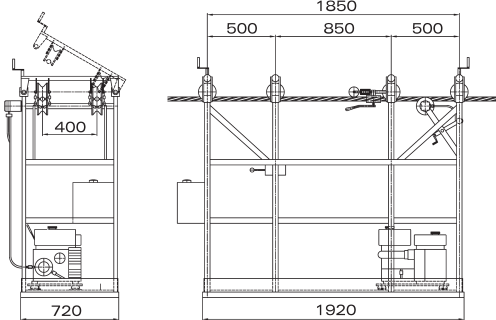
CRT 160



CRQ 140



CRB 060



Aluminium alloy inspection trolleys that allow two persons in erected position to inspect two, three and four bundled conductor lines.

The trolleys are equipped with spacer and insulators surmounting device, stationary brakes, meter counter.

Special models with different characteristics can be designed according to customer's needs

Mod. CRT 161

Inspection trolleys for three bundled conductors lines

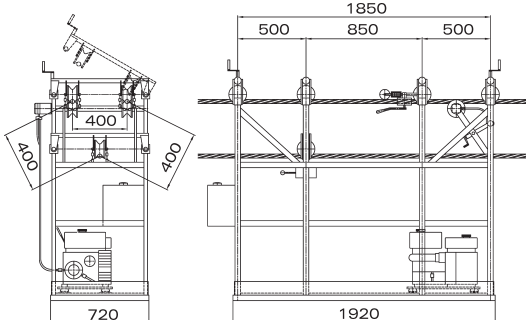
Spacing	400 mm
Capacity	2.5 kN
Mass	90 kg

Mod. CRT 160

Inspection trolleys for three bundled conductors lines, motorised version

Mass	120 kg
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CRT 160



Mod. CRB 061

Inspection trolleys for two bundled conductors lines

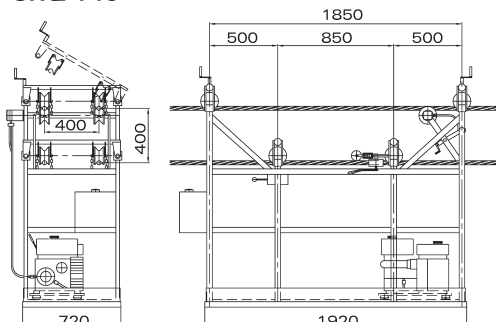
Spacing	400 mm
Capacity	2.5 kN
Mass	80 kg

Mod. CRB 060

Inspection trolleys for two bundled conductors lines, motorised version

Mass	110 kg
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CRQ 140



ENGINE

Gasoline	3 kW
Cooling system	air
Starting system	by handle

Mod. CRQ 141

Inspection trolleys for four bundled conductors lines

Spacing	400 mm
Capacity	2.5 kN
Mass	95 kg

Mod. CRQ 140

Inspection trolleys for four bundled conductors lines, motorised version

Mass	125 kg
------	--------

ENGINE

Gasoline	3 kW
Cooling system	air
Starting system	by handle

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

By pedalling forward the bicycle moves backward in order to provide the operator with necessary working space. The bicycles are equipped with a disc brake on the driving wheel and with an additional safety clamp, which brakes directly on the conductor.

A meter counter and safety chains are also provided.

For model BIB 011 and BIQ the distance between conductors can be set from 350 mm up to 600 mm with pitch of 50 mm.

Special models with different characteristics can be designed on demand

BIS 002



BIB 011



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Mod. BIS 002

In aluminium alloy for single lines

Mass 19 kg

ADDITIONAL DEVICES

BDC 002 Basket for working devices

Mod. BIB 011

In aluminium alloy for two bundled conductor lines

Mass 34 kg

ADDITIONAL DEVICES

BDC 003 Basket for working devices

Mod. BIT 023

In aluminium alloy for three bundled conductor lines

Note: distance between conductors to be specified

Mass 38 kg

ADDITIONAL DEVICES

BDC 004 Basket for working devices

Mod. BIQ 031

In aluminium alloy for four bundled conductor lines

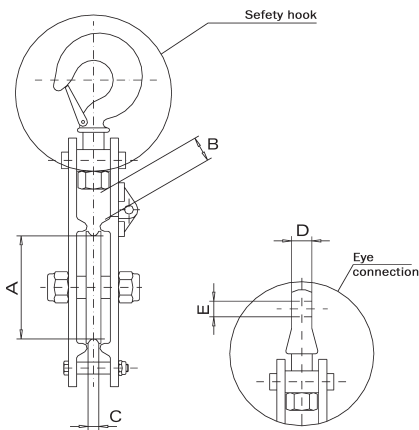
Mass 42 kg

ADDITIONAL DEVICES

BDC 005 Basket for working devices

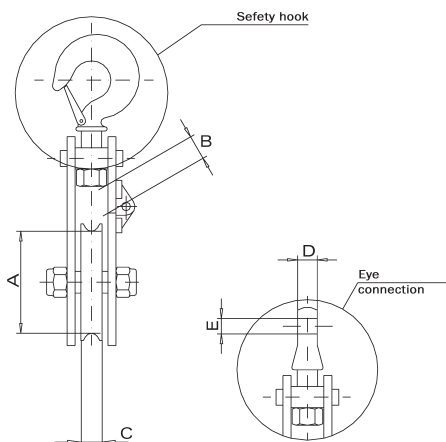
The service snatch blocks can be opened at one side. The wheels are mounted on ball bearings

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STEEL SERVICE SNATCH BLOCKS Mod. CZA

Swivel connection		Dimensions [mm]					Breaking load [kN]	Mass [kg]	
Safety hook connection	Eye connection	A	B	C	D	E		Safety hook connection	Eye connection
CZA 010	CZA 001	108	40	15	20	17	90	5	4.9
CZA 030	CZA 020	138	40	15	27	21	180	9.5	8.5
CZA 140	CZA 280	185	55	30	30	26	250	12	12



ALUMINIUM ALLOY SERVICE SNATCH BLOCKS Mod. CZL

Swivel connection		Dimensions [mm]					Breaking load [kN]	Mass [kg]
Safety hook connection	Eye connection	A	B	C	D	E		Safety hook and eye connection
CZL 050	CZL 040	100	30	22	14	18	30	1.6
CZL 080	CZL 070	140	40	25	16	18	60	2.8

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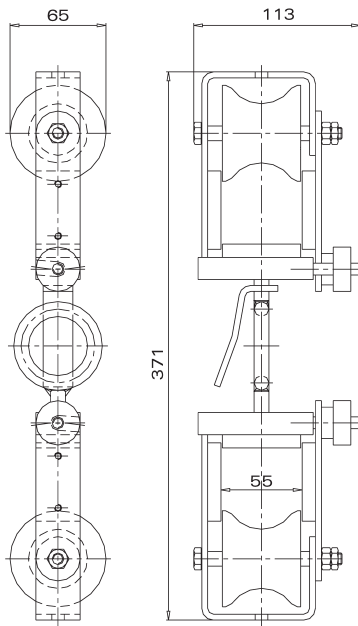
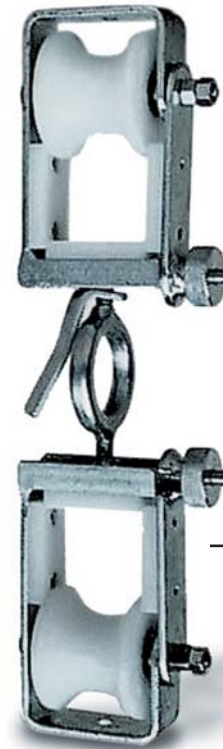
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This device is specifically designed for replacement of an existing ground wire (G.W.) with OPGW (Optical Grounding Wire). It is composed by two galvanised steel half frames linked by a ring with a swivel plate.

In each frame are fitted:

- one grooved nylon roller with two ball bearings
- three nylon plates to guarantee the OPGW protection

One side of each frame can be easily opened by a knurled nut. The frame have been designed in order to avoid any contact of the OPGW with the steel part

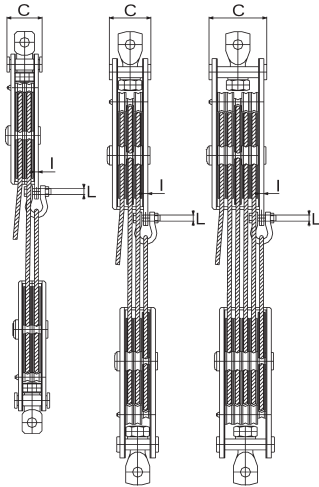


PERFORMANCE

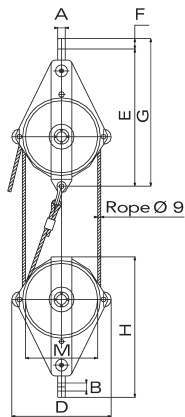
Working load	2 kN
Breaking load	10 kN

CHARACTERISTICS

Mass	1.8 kg
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The lifting tackles are suitable for $\varnothing 9$ mm steel ropes; the wheels are mounted on ball bearings. The frame is made of galvanised steel. Rope and joint not included

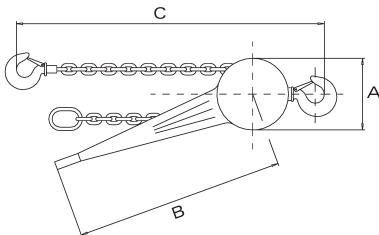


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Model	Dimensions [mm]											Breaking load [kN]	Mass [kg]
	A	B	C	D	E	F	G	H	I	L	M		
TAP 001	22	20	67	242	333	20	353	331	8	10,5	180	150	17
TAP 010	22	23	85	294	380	28	408	386	10	16	180	250	27
TAP 020	22	26	120	294	405	35	440	415	10	10,5	180	400	42

LIFTING HOIST PAX

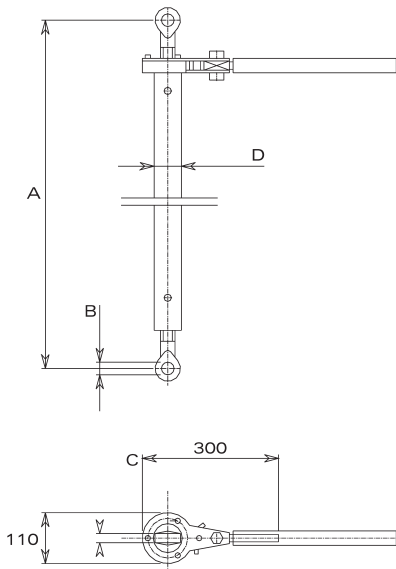


The lifting hoists are made of steel and equipped with mechanical brake; they are designed to facilitate and accelerate chain positioning operations. Chains with different lengths are available on request

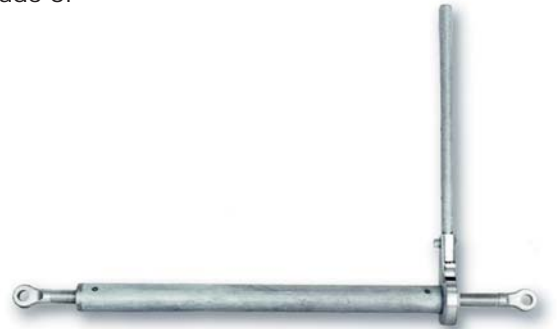
Model	Dimensions [mm]			Hook travel [m]	Pulling force with full load [kN]	Capacity [kN]	Mass [kg]
	A	B	C min				
PAX 001	153	290	303	1.5	0.2	7.5	7
PAX 002	153	290	303	3	0.2	7.5	9
PAX 003	153	290	303	6	0.2	7.5	14
PAX 010	160	410	365	1.5	0.21	15	11
PAX 011	160	410	365	3	0.21	15	14
PAX 012	160	410	365	6	0.21	15	20
PAX 020	185	410	485	1.5	0.33	30	20
PAX 021	185	410	485	3	0.33	30	27
PAX 022	185	410	485	6	0.33	30	42
PAX 030	230	410	600	1.5	0.35	60	30
PAX 031	230	410	600	3	0.35	60	37
PAX 032	230	410	600	6	0.35	60	52



The ratchet turnbuckles are made of galvanised steel



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Model	Dimensions [mm]					Breaking load [kN]	Mass [kg]
	A min	A max	B	C	D		
TCT 001	600	930	17	20	51	90	9
TCT 010	670	1070	21	24	54	180	12
TCT 020	964	1564	23	23	60	300	15
TCT 030	1384	2404	23	23	60	300	22

TIRFOR TFX



The Tifor units are designed to stretch or lift ropes, conductors or weights

Model	Lifting capacity [kN]	Pulling capacity [kN]	Rope Ø [mm]	A [mm]	B [mm]	Breaking load [kN]	Mass [kg]
TFX 060	8	12.5	8.3	530	284	48	6.9
TFX 070	16	25	11.5	558	315	96	13.5
TFX 080	32	50	16.3	680	360	192	23.5

ROPE FOR TIRFOR TDF

Model	Rope length [m]	Rope Ø [mm]	Breaking load [kN]
TDF 001	10	8.3	48
TDF 002	10	11.5	96
TDF 003	10	16.3	192
TDF 004	20	8.3	48
TDF 005	20	11.5	96
TDF 006	20	16.3	192
TDF 007	30	8.3	48
TDF 008	30	11.5	96
TDF 009	30	16.3	192
TDF 010	40	8.3	48
TDF 011	40	11.5	96
TDF 012	40	16.3	192

These devices are suitable for cutting ropes or conductors

Model	Ø max steel ropes R = 1.8 kN/mm ² [mm]	Ø max conductors aluminium-steel/aluminium/copper [mm]	Type
TNM 010	10	31	Mechanical
TNI 030	18	25	Hydraulic
TNI 001	18	40	Hydraulic

TNM



TNI

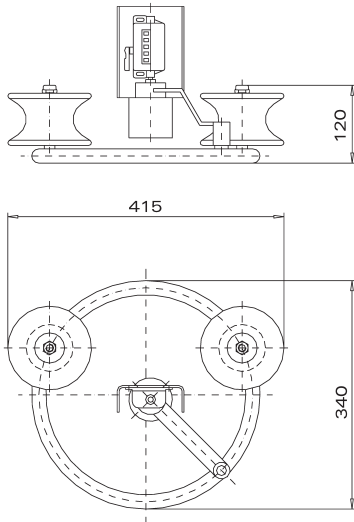


ZOOM SAG-SCOPE TGP 001

Suitable for accurate conductor sag measurements

Equipped with a special anchoring support for steel tower





This device is suitable to measure the length in meters of the conductors or the stringing ropes (available model DLC 002 with measure in feet)

CHARACTERISTICS

Mass 6 kg

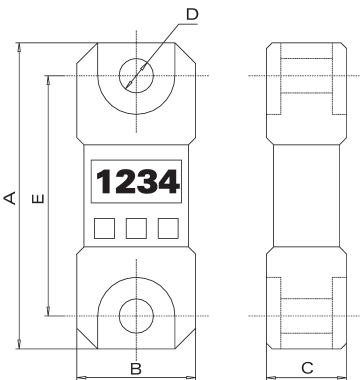


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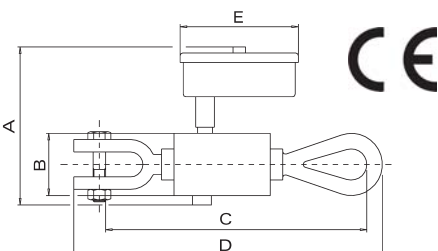
ELECTRONIC DYNAMOMETERS DLE

These devices are suitable to measure the force accurately

Model	Capacity [kN]	Dimensions [mm]					Mass [kg]
		A	B	C	D	E	
DLE 010	5	190	83	56	16	150	1,1
DLE 020	12.5	190	83	56	16	150	1,1
DLE 030/210	25	214	83	56	24	160	1,4
DLE 040/220	50	226	90	56	32	165	1,9
DLE 230	100	310	110	58	47	196	3,8
DLE 050/240	125	310	110	58	47	196	3,8
DLE 060	250	360	134	68	56	216	6,6
DLE 070	500	440	164	98	72	260	15,1



HYDRAULIC DYNAMOMETER DLI 080



This device is suitable to measure the force accurately

Model	Capacity [kN]	Dimensions [mm]					Mass [kg]
		A	B	C	D	E	
DLI 080	55	127	51	210	248	94	4,4

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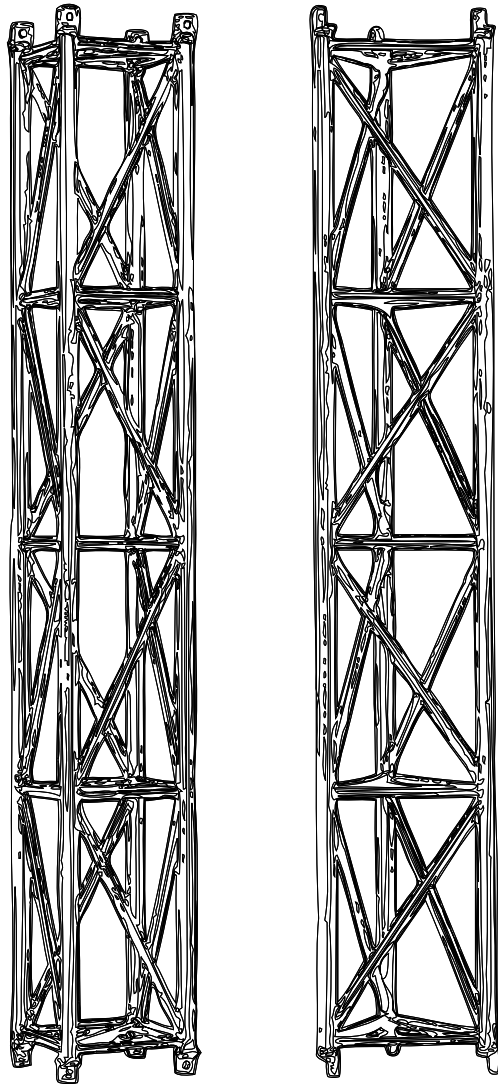
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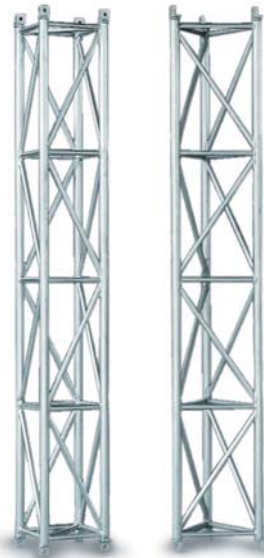
780 a

LIGHT ALLOY STRUCTURES



Supporting structure for erection of protections for road, railways, channel and existing line crossings

PIL



PXT 002



PXT 004



PXB 006



Model	Length [mm]	Material	Mass [kg]	Section
PIL 100	2000	Light aluminium alloy	7.5	Triangular
PIL 101	4000	Light aluminium alloy	14	Triangular
PIL 500	2000	Light aluminium alloy	9.5	Square
PIL 501	4000	Light aluminium alloy	18.5	Square

OPTION

Description	Model for square section supports	Model for triangular section supports
Swivel light aluminium alloy head with pulley diameter 650 mm	PXT 001	PXT 002
Steel head designed to carry wooden beams suitable for crossing operations	PXT 003	PXT 004
Steel base	PXB 005	PXB 006

SEMICIRCULAR WORKING PLATFORM PLS 950

Specifically designed for maintenance works on anchoring and suspension poles for low and medium voltage overhead lines.

Made of light aluminium alloy with a foot platform made of anti-slippery material. It is sustained by two adjustable and self-supporting anchors connected to the pole with clearance for the cable

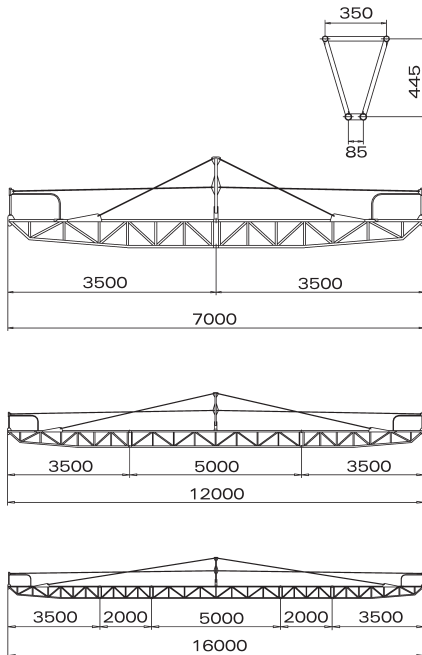
CHARACTERISTICS

Breaking load	10 kN
Suggested working load	2 kN
Mass	13.5 kg



The working platforms have trapezoidal section and they are made of light aluminium alloy. For modular use of the platforms extra sling and anti-fall barrier kit are required for each specific length.

Special working platforms are supplied on demand



Model	Lateral section length (PLL 001)	Central section length (PLL 002)	Intermediate section length (PLL 003)	Total length	Bending breaking load at the two ends	Suggested working load at the two ends	Mass
	[m]	[m]	[m]	[m]	[kN]	[kN]	[kg]
PLL 004	3.5 + 3.5	-	-	7	15	3	65
PLL 300	3.5 + 3.5	5	-	12	15	3	110
PLL 600	3.5 + 3.5	5	2 + 2	16	15	3	150

ADDITIONAL DEVICES

PYB 001 Special track for hydraulic press trolley

PYC 002 Hydraulic press trolley

ADDITIONAL DEVICES PLL 004

PYS 017 Single side anti-fall barrier

PYD 020 Double side anti-fall barrier

ADDITIONAL DEVICES PLL 300

PYS 018 Single side anti-fall barrier

PYD 021 Double side anti-fall barrier

ADDITIONAL DEVICES PLL 600

PYS 019 Single side anti-fall barrier

PYD 022 Double side anti-fall barrier

Specifically designed for climbing poles of circular or polygonal section. Standard lengths can be assembled to create the total length required.

The ladder is made of light aluminium alloy, provided with anti-slippery rungs and with special tracks for the anti-fall device

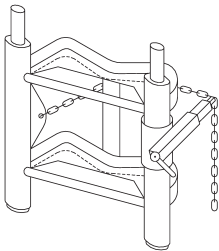
The ladder can be composed by using the following elements:

- Standard section
- Self-supporting base for fixing the ladder to the pole without additional ground support or, alternatively:

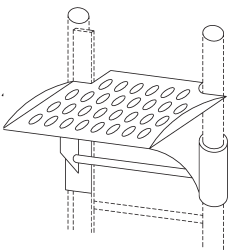
- Self-supporting base section for fixing the ladder to the pole without additional ground support
- Terminal section, complete with anti-fall device, to be connected to any of the rungs of the last standard section, in order to adjust the final ladder length
- Working platform applicable to the ladder at the required height



SCP 003



SCP 005



LADDERS FOR CIRCULAR AND POLYGONAL SECTION POLES Mod. SCP

Model	Description	Traction breaking load [kN]	Suggested working load [kN]	Section length [m]	Mass [kg]	Anti-fall device (model)
SCP 001	Standard section	5	1	2.5	6.6	SDA 002 (not included)
SCP 002	Terminal section	5	1	2.5	7	SDA 001 (included)
SCP 003	Self-supporting base	5	1	/	5	-
SCP 004	Self-supporting base section	5	1	2.5	7	Use that of the std section
SCP 005	Working platform	5	1	/	1.2	-

TRIANGULAR SECTION LADDER FOR TOWERS SCT 950

Specifically designed for tower climbing complete with anti-fall device and rope returning system. The ladder is made of light aluminium alloy, fitted with anti-slippery rungs, with a special track for the anti-fall device and with a galvanised steel supporting hook



Model	Traction breaking load [kN]	Suggested working load [kN]	Length [m]	Section length [m]	Mass [kg]	Anti-fall device (model)
SCT 950	5	1	4.7	4.7	11.5	SDA 003 (included)



SUSPENSION LADDERS Mod. SCS

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

and with a galvanised steel supporting hook

Model	Traction breaking load [kN]	Suggested working load [kN]	Length [m]	Section length [m]	Linear mass [kg/m]	Anti-fall device (model) (not included)
SCS 100	15	3	3.5	3.5	3.8	SDA 001
SCS 200	15	3	4.5	4.5	3.8	SDA 001
SCS 300	15	3	6	6	3.8	SDA 001
SCS 301	15	3	6	4+2	3.8	SDA 001

Special models with different lengths can be designed according to customer's needs

ADDITIONAL DEVICES

SDG 015 Double swivel hook



ANCHORING LADDERS Mod. SCA

Specifically designed for anchoring works. The ladders are made of light aluminium alloy, with anti-slippery rungs and with galvanised steel suspension hooks. The ladders are supplied with a supplementary

swivel hook to be located on the conductor, which allows the ladder to be used in horizontal position. The ladders are available with triangular or trapezoidal section

Model	Bending breaking load [kN]	Suggested working load [kN]	Length [m]	Section length [m]	Linear mass [kg/m]	Section
SCA 700	7.5	1.5	4	4	4	Triangular
SCA 800	7.5	1.5	6	6	4	Triangular
SCA 801	7.5	1.5	6	4+2	4	Triangular
SCA 400	15	3	3.5	3.5	4.7	Trapezoidal
SCA 401	15	3	4.5	4.5	4.7	Trapezoidal
SCA 500	15	3	6.5	4.5+2	4.7	Trapezoidal

Special models with different lengths can be designed according to customer's needs

Certified Quality System
ISO 9001:2008



ANTI-FALL DEVICES SDA

They are individual protective devices to prevent the operator from falling down; they are self-guided and self-locking devices running on a special rigid track and made of light aluminium alloy. They are provided with a polyamide mini energy-absorber and safety spring catch to connect it to the safety harness; the use of the safety harness is compulsory.

They allow the proper movement of the operator along the ladder and, at the same time, they protect him from falling down. End stroke devices are provided in order to avoid that the anti-fall device run away from the anchoring track. These devices comply with the 89/686/CEE European Standard related to the individual protective devices

Model	Breaking load [kN]	Suggested working load [kN]	Nylon rope length [mm]	Mass [kg]
SDA 001	20	1.5	300	0.8
SDA 002	20	1.5	300	0.8
SDA 003	20	1.5	300	0.8

The derricks have been specifically designed for installation of towers, poles and vertical structures and they are manufactured in tubular welded light aluminium alloy reticular structures.

They are available in sections of different lengths (see table 2 on next page) to be connected to reach the required total length. The derricks have swivel head and swivel base and they are pre-set for external rope passage.

To choose the correct derrick it is necessary to specify:

1. derrick total length required
2. derrick working position (see next page)
3. lifting load required "C"

Check in tab.1 the total capacity required according to the lifting tackle type to be used and the "C" lifting load required.

Identify, from tab. 2 on the next page, the correct derrick type according to the total capacity, the length and the working position required.

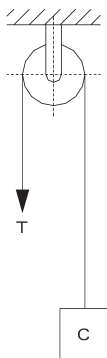
Special design derricks are supplied on request (e.g. in case of not standard lengths, internal rope passage with special suspended working position attachment, etc)



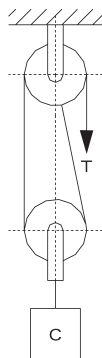
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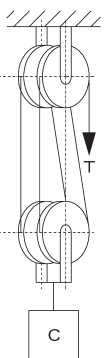
Pos. A



Pos. B



Pos. C



Pos. D

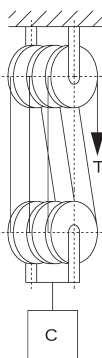


TABLE 1

Total capacity [kN]	Lifting load C [kN]			
	Pos. A	Pos. B	Pos. C	Pos. D
3	1.5	2	2.4	2.55
4	2	2.65	3.2	3.4
5	2.5	3.3	4	4.3
7	3.5	4.6	5.6	6
8	4	5.3	6.4	6.85
10	5	6.6	8	8.2.55
13	6.5	8.6	10.4	11.15
16	8	10.65	12.8	13.7
20	10	13	16	17.15
25	12.5	16.6	20	21.4
30	15	20	24	25.7
38	19	25.3	30.4	32.55
40	20	26.65	32	34.25
50	25	33.3	40	42.85
62	31	41.3	49.6	53.15
80	40	53.3	64	68.5
100	50	66.6	80	85.7

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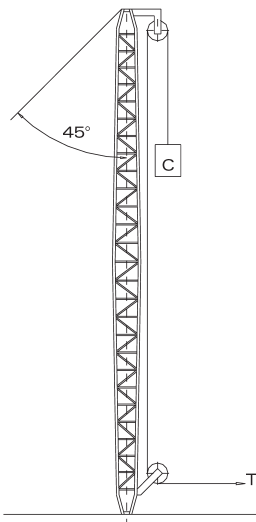
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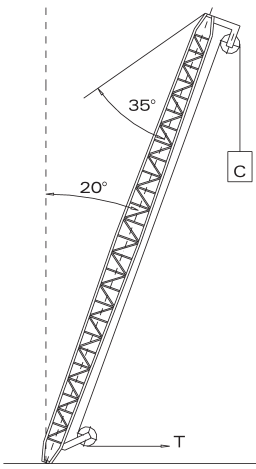
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Pos. E



Pos. F



Pos. G

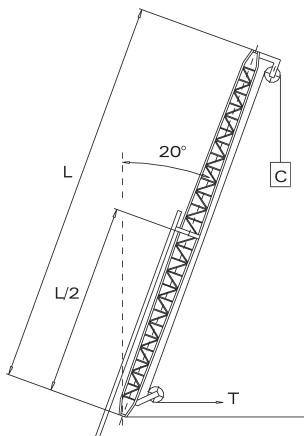


TABLE 2
LIGHT ALUMINIUM ALLOY DERRICKS

Model	Total capacity [kN]			Total length [m]	Section length [m]	Mass [kg]
	Pos. E 0°	Pos. F 20°	Pos. G 20°			
FAL 001	13	10	3	8	4+4	40
FAL 010	13	10	3	12	4+4+4	65
FAL 020	20	16	4	8	4+4	45
FAL 030	20	16	4	10	4+2+4	60
FAL 040	20	16	4	12	4+4+4	70
FAL 050	25	20	5	8	3+2+3	50
FAL 060	25	20	5	12	4+4+4	80
FAL 070	25	20	5	16	5+6+5	110
FAL 080	38	30	7	12	4+4+4	100
FAL 090	38	30	7	16	5+6+5	130
FAL 100	38	30	7	18	6+6+6	180
FAL 110	38	30	7	20	5+5+5+5	200
FAL 120	50	40	8	12	4+4+4	120
FAL 130	50	40	8	16	4+4+4+4	160
FAL 140	50	40	8	20	5+5+5+5	220
FAL 150	62	50	10	12	6+6	150
FAL 160	62	50	10	16	5+6+5	200
FAL 170	62	50	10	18	6+6+6	230
FAL 180	62	50	10	20	5+5+5+5	250
FAL 190	100	80	16	16	5+6+5	300
FAL 200	100	80	16	18	6+6+6	330
FAL 210	100	80	16	22	5+6+6+5	400

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