

# MILITARY

- ELECTROMECHANICAL MECMASTS
- PNEUMATIC MASTS WITH LOCKING SYSTEMS
- PORTABLE FIELD SOLUTIONS





ENG



# FIRECO MILITARY

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# INTRODUCTION

# FIRECO MILITARY

Renowned for their reliability and robustness and at the same time easy to operate, Fireco masts are the perfect solution for the military sector. Thanks to the highly diversified range of different models, our masts can suit the most various military applications. Our portfolio might be subdivided into three major product lines: high precision electromechanical masts, controlled by PC or remote control - pneumatic masts with mechanical section lockings for long extension times - light masts with tripod for field use. In addition to our catalogue portfolio we also offer customised solutions able to meet even the most demanding requirements.





# ELECTROMECHANICAL MASTS

The MecMast offers a unique combination of impressive lifting strength, sturdiness, outstanding reliability and high precision. It is a screw-driven telescopic mast that has been designed to satisfy the specific demands of all kinds of applications in military, communication and surveillance fields.



### **THE MECMAST**

the need to carry out heavy duties is required and precise ed using various interface options such as PCs or laptops high accuracy is a critical factor. It also requires low mainte- and different remote controls. nance making it an ideal solution for military applications.

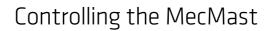
The MecMast is an excellent technical solution whenever The exact position and the desired height can be display-

### **KEY FEATURES**

- Supports heavy payloads up to 400kg
- Extended heights up to 25m
- Keeps the height and is operative at any interme-
- Great variety of "off-the-shelf" and customised
- Wide range of mounting options for installations on vehicles, shelters or on open grounds
- It can be kept extended while vehicle is moving
- Performance proven rugged design guarantees for high resistance to demanding and harsh

environment conditions including sand, dust, ice or snow

- Compliant with MIL-STD-810G, MIL-STD-461F, MIL-STD-1275E, MIL-STD-1686C and MIL-STD-464C
- Durable and reliable with minimum maintenance
- Different communication and control protocols are available, e.q. RS422, RS485, Ethernet, Can bus



The MecMast is controlled by a software loaded on a USB drive The software is available in different languages. In addition, supplied together with the mast. By installing it, the operator a simple remote control for up/down movements and a will be able to control the MecMast from a PC or a laptop. complete remote control with LCD display for all functi-The control screen will display the exact extended height, ons are also available. the turning degrees (for MecMast with electrically turnable base), the actual current consumption, the working cycles and possible warning messages.





ANTI-ROTATION KEY LOCKING MECHANISMS **GREASING HOLE** EMERGENCY STOP HOUR COUNTER MANUAL BACKUP MIL-STD CONNECTORS







C

SOFTWARE PROGRAM FOR LAPTOP/PC USE WITH ULL CONTROL OF THE SYSTEM

### MecMast tilting solutions

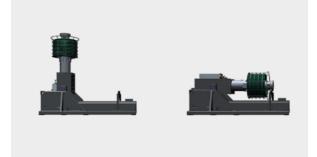
ting solutions which allow to move the mast assembly from zontal position facilitates the operators' access to the mast the horizontal to the vertical position and vice versa. This op- top and thus makes it easy to mount, dismount or modify tion renders the mast in the retracted state more compact and reduces the space that is necessary for its installation.

For the MecMast series Fireco has developed special moun- In addition, the possibility to tilt the mast down to the hori-

The **MecMast ROOF** is a compact palletised configuration suitable for installations on vehicle platforms such as military trailers or trucks. Fireco manufactures a light and a heavy version of this product, both designed to perfectly suit customers' needs.



LIGHT VERSION > PAYLOAD UP TO 100 KG



HEAVY VERSION > PAYLOAD UP TO 250 KG





(A) MANUALLY OPERATED WINCH (B) ELECTRICALLY OPERATED WINCH

### Electrically and manually turnable base

market, that is available with a manually or an electrically loss the system will always show to the operator the turnable base. With the electrically turnable base the posi- correct rotating angle of the mast, even if it has been tion can be preset and the degree of rotation can be displayed manually moved during the black-out. on the remote control (with LCD) or on your laptop,



MANUALLY TURNABLE BASE



The **90° TILT mechanism** is a unique device that is suitable for mounting the MecMast on the outside of a vehicle or on other structures. This mechanism allows the tilting of the mast from vertical to a position which is more accessible for the users. This permits to easily mount important payloads on the mast top without exposing the personnel to risky heights.

The MecMast is the only electromechanical mast on the with a precision of 1°. Also in case of temporary power



ELECTRICALLY TURNABLE BASE

## Military standards

CE102 - Conducted emission: Power leads, 10 kHz to 10 MHz	
CS101 - Conducted susceptibility: Power leads, 30 Hz to 150 kHz	
CS114 - Conducted susceptibility: Bulk cable injection, 10 kHz to 200 MHz	
CS115 - Conducted susceptibility: Bulk cable injection, impulse excitation	
CS116 - Conducted susceptibility: Damped sinusoidal transients, cables and power leads, 10 kHz to 100 MHz	
RS101 - Radiated susceptibility: Magnetic field, 30 Hz to 100 kHz	
RS103 - Radiated susceptibility: Electric field, 2 MHz to 18 GHz	
MIL-STD-810G	
500.5 - Altitude: Sea level up to 15.000 ft (57,18 kPa)	
500.5 - Transportation Altitude: Sea level up to 15.000 ft (unpressurized)	
501.5 & 502.5 - Operating Temperature Ranges: -44° C to +55° C	
501.5 & 502.5 - Storage Temperature Ranges: -44° C to +70° C	
506.5 - Rain	
508.6 - Fungus	
509.5 - Salt Fog	
510.5 - Sand and Dust	
516.6 - Transit Drop and Crash Hazard	
521.3 - Ice and Freezing Rain	
MIL-STD-810F	
505.4 - Solar Radiation	
507.4 - Humidity	
514.5 - Vibration	
516.5 - Shock	
MIL-STD-1275E	
Steady State and Transient Voltage	

Electrostatic discharge

#### MIL-STD-464C

5.11.3 - Mechanical Interference

### Available models

#### MAIN TUBE Ø127mm - 4 SECTIONS - END TUBE Ø90mm

MODEL	DIMENS	IONS mm	DAVILOAD	MEIGUT
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.0404.SE	4021	1430	90 kg	70 kg
MM.0405.SE	5011	1700	90 kg	74 kg
MM.0406.SE	6011	1980	80 kg	81 kg
MM.0407.SE	7011	2260	80 kg	86 kg
MM.0408.SE	8011	2540	70 kg	91 kg
MM.0409.SE	9011	2820	70 kg	95 kg

#### MAIN TUBE Ø152mm - 4 SECTIONS - END TUBE Ø115mm

MODEL	DIMENS	DIMENSIONS mm		WEIGUT
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.2404.SE	4021	1430	150 kg	79 kg
MM.2405.SE	5011	1700	150 kg	87 kg
MM.2406.SE	6011	1980	140kg	93 kg
MM.2407.SE	7011	2260	140 kg	99 kg
MM.2408.SE	8011	2540	130 kg	105 kg
MM.2409.SE	9011	2820	130 kg	111 kg

#### MAIN TUBE Ø152mm - 5 SECTIONS - END TUBE Ø102mm

MODEL	DIMENSIONS mm		50// 045	
	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.2504.SE	4035	1270	130 kg	80 kg
MM.2505.SE	5025	1500	130 kg	86 kg
MM.2506.SE	6045	1720	120 kg	91 kg
MM.2507.SE	7035	1950	120 kg	98 kg
MM.2508.SE	8025	2180	110 kg	104 kg
MM.2509.SE	9045	2400	110 kg	109 kg
MM.2510.SE	10035	2630	100 kg	115 kg

#### MAIN TUBE Ø152mm - 6 SECTIONS - END TUBE Ø90mm

	DIMENSIONS mm		BAN/LOAD	MEICHT
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.2604.SE	4029	1200	110 kg	82 kg
MM.2605.SE	5009	1380	110 kg	87 kg
MM.2606.SE	6049	1570	100 kg	92 kg
MM.2607.SE	7049	1770	100 kg	98 kg
MM.2608.SE	8029	1950	90 kg	104 kg
MM.2609.SE	9009	2130	90 kg	109 kg
MM.2610.SE	10009	2330	80 kg	114 kg
MM.2611.SE	11049	2520	80 kg	119 kg
MM.2612.SE	12029	2700	70 kg	124 kg

#### DIMENSIONS OF MECMAST WITH MANUALLY TURNABLE BASE

For MecMast Ø200 - 250mm please add 204mm to mast dimensions. For MecMast Ø127 - 152mm please add 175mm to mast dimensions.



#### DIMENSIONS OF MECMAST WITH ELECTRICALLY TURNBALE BASE

For Mast Ø200 - 250mm please add 242mm to mast dimensions. For MecMast Ø127 - 152mm please add 203mm to mast dimensions.

### Available models

#### MAIN TUBE Ø200mm - 5 SECTIONS - END TUBE Ø140mm

MODEL	DIMENSIONS mm			
	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.3504.SE	4034	1270	210 kg	99 kg
MM.3505.SE	5024	1500	210 kg	108 kg
MM.3506.SE	6014	1730	200 kg	116 kg
MM.3507.SE	7004	1960	200 kg	127 kg
MM.3508.SE	8044	2200	190 kg	136 kg
MM.3509.SE	9014	2410	190 kg	144 kg
MM.3510.SE	10004	2640	180 kg	153 kg

#### MAIN TUBE Ø200mm - 6 SECTIONS - END TUBE Ø127mm

	DIMENS	IONS mm		
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.3604.SE	4006	1180	190 kg	101 kg
MM.3605.SE	5006	1380	190 kg	109 kg
MM.3606.SE	6046	1570	180 kg	116 kg
MM.3607.SE	7046	1770	180 kg	127 kg
MM.3608.SE	8026	1950	170 kg	134 kg
MM.3609.SE	9026	2150	170 kg	142 kg
MM.3610.SE	10006	2330	160 kg	150 kg
MM.3611.SE	11006	2530	160 kg	158 kg
MM.3612.SE	12046	2720	160 kg	165 kg

#### MAIN TUBE Ø200mm - 7 SECTIONS - END TUBE Ø115mm

MODEL	DIMENS	5IONS mm	BAN/LOAD	WEIGHT
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.3704.SE	4028	1130	170 kg	102 kg
MM.3705.SE	5028	1290	170 kg	109 kg
MM.3706.SE	6048	1470	160 kg	117 kg
MM.3707.SE	7048	1630	160 kg	124 kg
MM.3708.SE	8048	1790	150 kg	133 kg
MM.3709.SE	9048	1950	150 kg	140 kg
MM.3710.SE	10068	2130	140 kg	148 kg
MM.3711.SE	11068	2290	140 kg	155 kg
MM.3712.SE	12018	2460	130 kg	163 kg
MM.3713.SE	13018	2620	130 kg	170 kg

#### MAIN TUBE Ø200mm - 8 SECTIONS - END TUBE Ø102mm

MODEL	DIMENS	IONS mm	BANK GAD	WEIGHT
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.3805.SE	5000	1250	140 kg	110 kg
MM.3806.SE	6060	1400	140 kg	117 kg
MM.3807.5E	7040	1540	130 kg	124 kg
MM.3808.5E	8020	1680	130 kg	131 kg
MM.3809.SE	9000	1820	120 kg	138 kg
MM.3810.SE	10060	1970	120 kg	145 kg
MM.3811.SE	11040	2110	110 kg	152 kg
MM.3812.SE	12040	2270	110 kg	152 kg
MM.3813.SE	13020	2410	100 kg	166 kg
MM.3814.5E	14000	2550	100 kg	173 kg

### Available models

#### MAIN TUBE Ø200mm - 9 SECTIONS - END TUBE Ø90mm

	DIMENSIONS mm			
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.3905.SE	5012	1240	120 kg	112 kg
MM.3906.SE	6022	1370	120 kg	118 kg
MM.3907.SE	7012	1480	120 kg	123 kg
MM.3908.SE	8022	1610	110 kg	129 kg
MM.3909.SE	9072	1740	110 kg	137 kg
MM.3910.SE	10042	1870	100 kg	144 kg
MM.3911.SE	11052	2000	100 kg	150 kg
MM.3912.SE	12062	2130	90 kg	156 kg
MM.3913.SE	13072	2260	90 kg	163 kg
MM.3914.SE	14082	2390	80 kg	169 kg
MM.3915.SE	15002	2510	80 kg	175 kg
MM.3916.SE	16012	2640	80 kg	182 kg

#### MAIN TUBE Ø250mm - 6 SECTIONS - END TUBE Ø152mm

MODEL	DIMENS	IONS mm	BAN/LOAD	WEIGHT
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.4604.SE	4026	1200	240 kg	127 kg
MM.4605.SE	5026	1400	240 kg	138 kg
MM.4606.SE	6026	1600	220 kg	149 kg
MM.4607.SE	7026	1800	220 kg	164 kg
MM.4608.SE	8018	1980	200 kg	175 kg
MM.4609.SE	9006	2180	200 kg	187 kg
MM.4610.SE	10046	2370	180 kg	198 kg
MM.4611.SE	11046	2570	180 kg	209 kg
MM.4612.SE	12046	2770	180 kg	222 kg

#### MAIN TUBE Ø250mm - 7 SECTIONS - END TUBE Ø140mm

1005	DIMENS	IONS mm		
MODEL	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.4704.SE	4048	1150	220 kg	128 kg
MM.4705.SE	5048	1310	220 kg	137 kg
MM.4706.SE	6068	1490	210 kg	149 kg
MM.4707.SE	7018	1660	210 kg	159 kg
MM.4708.SE	8018	1820	200 kg	172 kg
MM.4709.SE	9018	1980	200 kg	182 kg
MM.4710.SE	10038	2160	190 kg	194 kg
MM.4711.SE	11038	2320	190 kg	204 kg
MM.4712.SE	12058	2500	170 kg	215 kg
MM.4713.SE	13058	2660	170 kg	225 kg

#### MAIN TUBE Ø250mm - 8 SECTIONS - END TUBE Ø127mm

MODEL	DIMENS	ONS mm	PAYLOAD		
	EXTENDED	EXTENDED RETRACTED		WEIGHT	
MM.4805.SE	5020	1270	200 kg	139 kg	
MM.4806.SE	6000	1410	200 kg	148 kg	
MM.4807.SE	7060	1560	190 kg	157 kg	
MM.4808.SE	8060	1720	190 kg	170 kg	
MM.4809.SE	9040	1860	180 kg	180 kg	
MM.4810.SE	10020	2000	180 kg	189 kg	
MM.4811.SE	11000	2140	170 kg	199 kg	
MM.4812.SE	12000	2300	170 kg	209 kg	
MM.4813.SE	13060	2450	160 kg	219 kg	
MM.4814.SE	14040	2590	160 kg	229 kg	
MM.4815.SE	15034	2750	150 kg	240 kg	



## Available models

#### MAIN TUBE Ø250mm - 9 SECTIONS - END TUBE Ø115mm

MODEL	DIMENS	IONS mm	544 64 5	WEIGHT	
	EXTENDED	RETRACTED	PAYLOAD		
MM.4905.SE	5012	1240	180 kg	138 kg	
MM.4906.SE	6022	1370	180 kg	147 kg	
MM.4907.SE	7032	1500	180 kg	156 kg	
MM.4908.SE	8042	1630	170 kg	165 kg	
MM.4909.SE	9072	1780	170 kg	178 kg	
MM.4910.SE	10082	1910	160 kg	187 kg	
MM.4911.SE	11002	2030	160 kg	195 kg	
MM.4912.SE	12012	2160	150 kg	204 kg	
MM.4913.SE	13022	2290	150 kg	214 kg	
MM.4914.SE	14032	2420	140 kg	223 kg	
MM.4915.SE	15062	2570	140 kg	234 kg	
MM.4916.SE	16072	2700	130 kg	243 kg	

#### MAIN TUBE Ø250mm - 10 SECTIONS - END TUBE Ø102mm

MODEL	DIMENS	SIONS mm	50% 645	WEIGHT	
	EXTENDED	RETRACTED	PAYLOAD		
MM.5006.SE	6014	1340	160 kg	146 kg	
MM.5007.SE	7034	1460	160 kg	155 kg	
MM.5008.SE	8054	1580	150 kg	163 kg	
MM.5009.SE	9074	1700	150 kg	174 kg	
MM.5010.SE	10014	1830	140 kg	184 kg	
MM.5011.SE	11034	1950	140 kg	193 kg	
MM.5012.SE	12054	2070	130 kg	201 kg	
MM.5013.SE	13074	2190	130 kg	210 kg	
MM.5014.SE	14044	2305	120 kg	219 kg	
MM.5015.SE	15014	2420	120 kg	227 kg	
MM.5016.SE	16034	2540	110 kg	236 kg	
MM.5017.SE	17054	2660	110 kg	245 kg	

#### MAIN TUBE Ø250mm - 11 SECTIONS - END TUBE Ø90mm

MODEL	DIMENS	IONS mm	50// 045	
	EXTENDED	RETRACTED	PAYLOAD	WEIGHT
MM.5106.SE	6046	1340	140 kg	146 kg
MM.5107.SE	7031	1455	140 kg	155 kg
MM.5108.SE	8041	1565	130 kg	164 kg
MM.5109.SE	9051	1675	130 kg	172 kg
MM.5110.SE	10006	1780	120 kg	181 kg
MM.5111.SE	11016	1890	120 kg	189 kg
MM.5112.SE	12026	2000	110 kg	198 kg
MM.5113.SE	13036	2110	110 kg	206 kg
MM.5114.SE	14046	2220	100 kg	215 kg
MM.5115.SE	15056	2330	100 kg	223 kg
MM.5116.SE	16066	2440	90 kg	232 kg
MM.5117.SE	17021	2535	90 kg	240 kg
MM.5118.SE	18031	2655	80 kg	248 kg
MM.5120.SE	20051	2875	80 kg	265 kg



For special dimensions please do not hesitate to contact us.

It is possible to increase the payload by reducing the extension speed slightly.



### MecMast accessories

**THE LEVELLING SYSTEM** is a manually operated device specially designed for vehicle mounted masts. Its purpose is to adjust the mast inclination when the vehicle is on a slope, in order to grant to the equipment mounted on the mast top a horizontal working condition.

It is composed by a lower regulating support bracket, equipped with two manual adjusting handles and an upper holding bracket equipped with an oscillating ring.



Besides the different remote controls, the MecMast can be equipped with various accessories. For example: guying set (including guying collars, ropes, pickets and carrying bag), Nycoil cable conduits, Nycoil baskets, protection

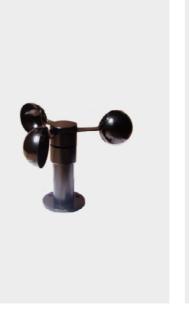
bellows against dust and sand in different colours, ice spacers for using the mast at low temperatures, anti-freeze liquid for preventing the creation of ice layers on the tubes and for melting it, etc.



#### NYCOIL

The Nycoil is made from flexible nylon Protection against dust and sand, and is resistant to many chemicals and available in different colours. petroleum based products making its use on vehicles safe and reliable.





#### ANEMOMETER

The anemometer is extremely accurate, The Mecmast box is available in has a low starting torque, a particularly robust design and is very durable.











ICE SPACERS

Against compressed ice and snow between the collars.



ELECTRONIC BOX WITH CONNECTORS

different versions with a wide range of military connectors.



# **PNEUMATIC MASTS WITH** LOCKING SYSTEMS

Whenever important payloads need to be elevated for The pneumatic masts with locking systems can be kept extended periods, our pneumatic masts with locking extended for long periods without internal air pressure. systems are the perfect solution. Designed specifically The SUPER STEADY FULL AUTOMATIC, SUPER STEADY for all kinds of industrial applications that require high SEMI-AUTOMATIC, SUPER STEADY and STEADY masts lifting capacities to be combined with long-lasting demeet the most demanding requirements of mobile comployment, Fireco's locking masts stand out for their high munications, intelligence, surveillance and security sysreliability and are easy to operate at the same time. tems for military applications.



## SUPER STEADY FULL AUTOMATIC

Super Steady in Full Automatic version is an innovative and patented telescopic mast with a locking system able to operate automatically and thus relieving the operator from the duty to manually unlock/lock each section. The operator can work at a safe distance and decide the height of the mast. The mechanical concept of the Full Automatic Super Steady has been paired to an electropneumatic driving system with integrated safety features, allowing operations via an electronic control box.

Depending on needs or on situations, the mast can work in two modes:

Automatic: for complete extension and retraction Manual: for a partial extension and retraction and as emergency backup mode.

The sections can be left in fully extended position without pressurised air inside the mast and the mast can support heavy payloads for long periods.

Backup: in the situation of a sudden power supply failure, the mast can be operated via an emergency backup mode, allowing trained personnel to retract the mast safely.



### **KEY FEATURES**

- It removes the need to follow some of the most critical safety procedures for operating the mast, allowing faster operations in deployment and
- It reduces training costs and improves the instal-
- Maintenance can be performed by skilled personnel with minor and fast efforts as main components are
- It can support heavy payloads up to 500kg

#### CONTROL BOX

The Full Automatic mast works with a control box that drives a set of electro-pneumatic valves installed in a box nearby the mast. The control box has an intuitive and simple interface, equipped with few clear commands.

#### LOCKING SYSTEM

The automatic locking technology is based on a subsystem fully enclosed inside each ring, giving an external surface that is free from possible undesired catch points.

#### ACTUATORS

The two pneumatic actuators on the mast open the locking keys on the outer section. They communicate directly with the control box and are both necessary for safety and to allow the correct operation of the Full Automatic system.

PNEUMATIC FEED SPLITTER

MICRO SWITCH

### SAFETY COLLAR







### ELECTRO-PNEUMATIC BOX

The electro-pneumatic box contains the core elements to drive the air in and out of the mast both during the regular operations and during the manual mode. It houses the delivery valves, all solenoids and the connections to feed both the current and the air to cylinders of the locking keys on the outer tube.



The bottom ring is equipped with pneumatic actuators which are directly driven by the control system. When the mast is extended, they automatically lock the section; when the mast has to be retracted, the section can't be unlocked if the air supply is missing or if the inner pressure has not reached the safety value. As soon as both conditions are met, the retraction sequence in both automatic and manual modes can be safely started.

## SUPER STEADY SEMI-AUTOMATIC

a semi-automatic locking system, that allows to unlock levers back into the locking position, as their movement both latches of each section by pulling a cord that moves is automatic; thus the operator can unlock the next stage both locking/unlocking levers.

It is possible to provide the SUPER STEADY masts with It is not necessary for the operator to manually move the more quickly.

### **KEY FEATURES**

- Operating at a safe distance
- One single operator
- Automatic locking of each section by reaching the correct position
- Can be operated from the ground, without access plattform















### SUPER STEADY

The SUPER STEADY series is equipped with mechanical locking devices. Each section is provided with two lever handles which will insert two bullet latches into the corresponding slots on the mast tube.

- Super Steady masts available with base diameters from 115mm up to 340mm
- Solutions with external cables with different types of cable guides or with internal cabling on request
- Permits to mount Dyneema ropes, which grant a better wind speed resistance
- Sturdier lockings
- The Ø340mm mast permits to carry particulary huge top loads





#### PRESSURE GAUGE

On the collar of the main tube there is a pressure gauge that allows to control the internal air pressure on the mast. In order to permit to the user, before retracting the mast, to check and restore the correct internal pressure.

### KEY FEATURES FOR SUPER STEADY AND STEADY MASTS

- Extended heights available up to 40m
- Great variety of "off-the-shelf" solutions as well as
- Wide range of available mounting and guying
- Optional special sand scraper rings for dusty and/ or harsh environments

### STEADY

The STEADY series is equipped with metal bands which embrace each mast section. These bands can be tightened so to keep the sections locked by friction.



#### OPTIONAL PNEUMATIC LEVER LOCKING KIT

Its functioning principle is to impede the accidental opening of the locking levers when the air pressure on the mast is not sufficient. In this way one can avoid the risk of a sudden vertical descent of the mast sections.

It is basically composed by two pneumatic cylinders installed in correspondence with the lowest locking ring (coupled with the last mobile tube). When there is no internal air pressure on the mast the cylinders are in an extended position thus impeding the opening of the locking levers of the last mobile tube.

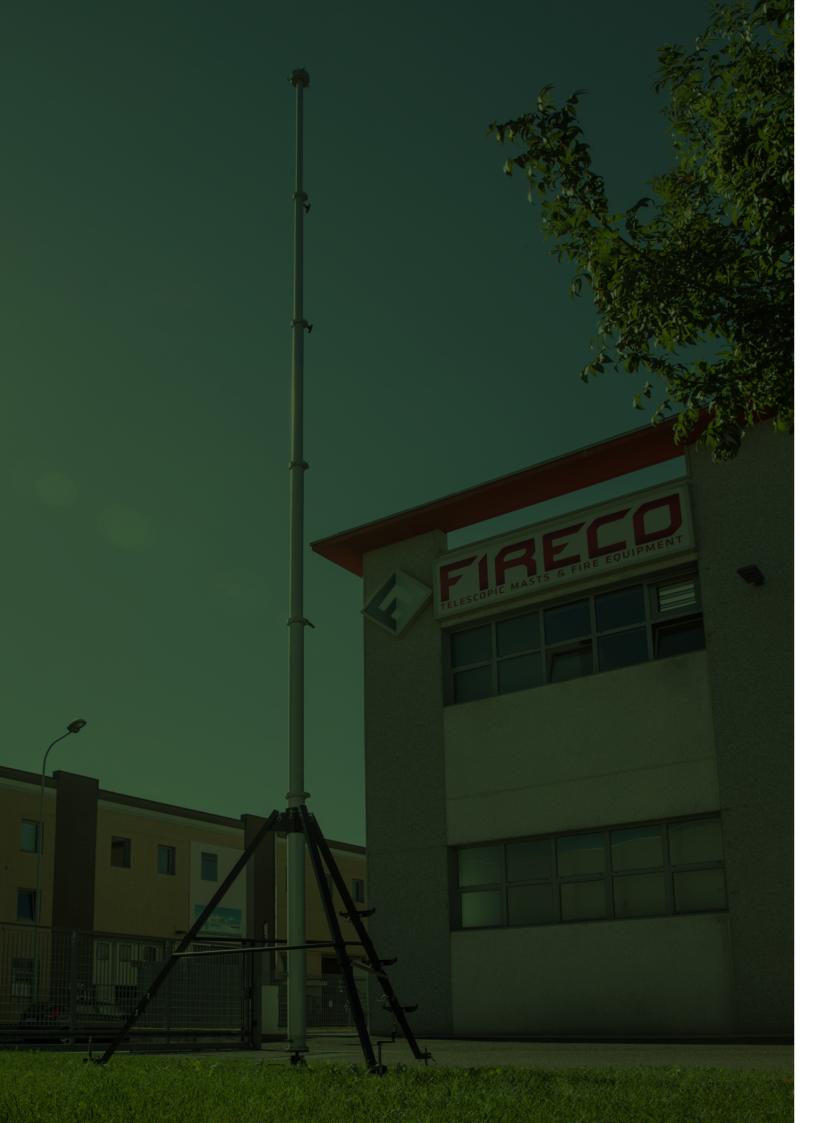




- Very low maintenance requirements
- Customised protection bellows
- Customised hole pattern for payload top plate

- Steady masts available with base diameters from 77mm up to 250mm
- Solutions with internal cable or with different types of external cable guides
- Can be locked at every intermediate height





# PORTABLE FIELD SOLUTIONS

Our portable masts, manual or pneumatic, and the wide range of mounting options are essential pieces of equipment in the military field. Our portable systems are easily and quickly deployable by a single operator, with the mast that can be extended manually, with a hand pump or with a small compressor. Portable masts are usually fitted to a tripod or a 4-legs assembly and all can be carried conveniently in protective bags. The masts can be equipped with guying ropes for a better wind resistance.



## PORTABLE SOLUTIONS

Here some examples of our manual telescopic masts, equipped with manual lockings on each section.

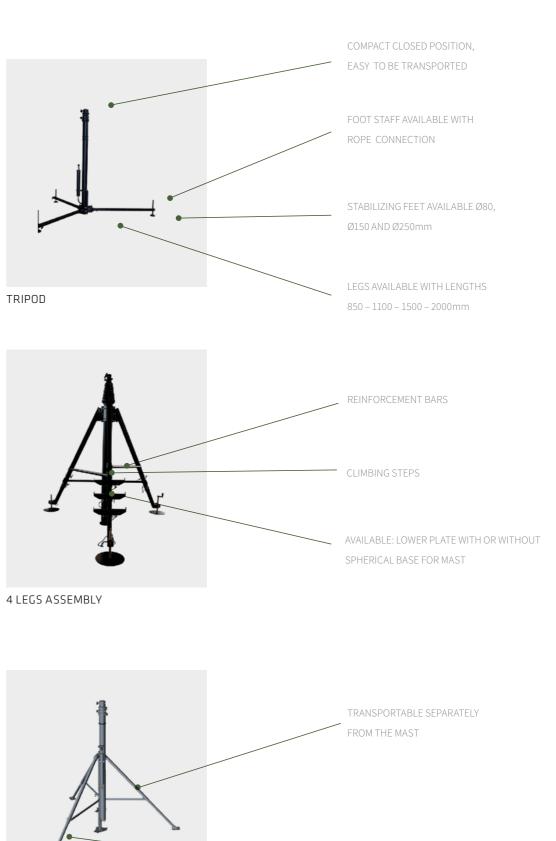
This is a small extract of our complete range. Please contact us if you would like to receive more information.

### LIGHTWEIGHT MASTS WITH INTERNAL CABLE

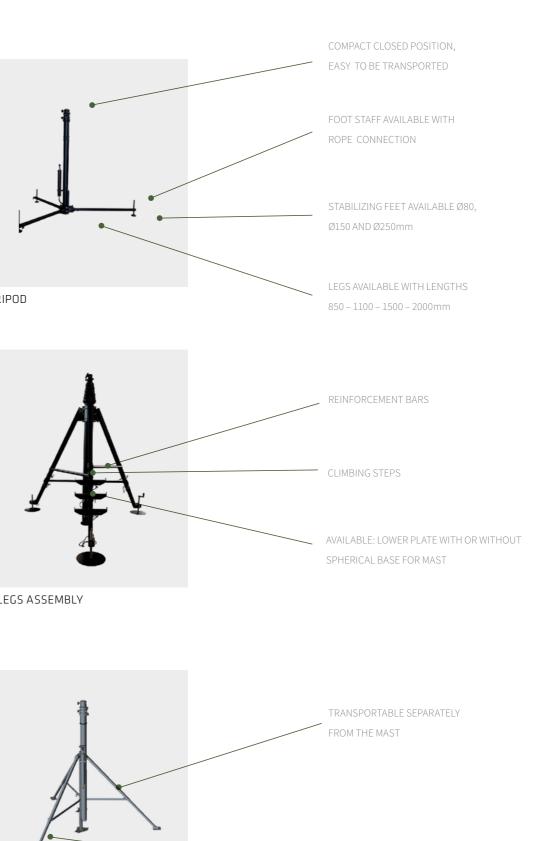
маст	MODEL	DIMENSIONS		DIAMETER	CECTIONS		WEIGUT
MAST		EXTENDED	RETRACTED	DIAMETER	SECTIONS	PAYLOAD	WEIGHT
ENTRY	CN.5211.P	2004 mm	1200 mm	66 mm	2	23 kg	4,5 kg
	CN.5304.P	3963 mm	1135 mm		3	20 kg	7 kg
SUPER ENTRY	CO.5436.P	3499 mm	1240 mm	80 mm	4	26 kg	6 kg
	CO.5515.P	6000 mm	1714 mm		5	20 kg	11,5 kg

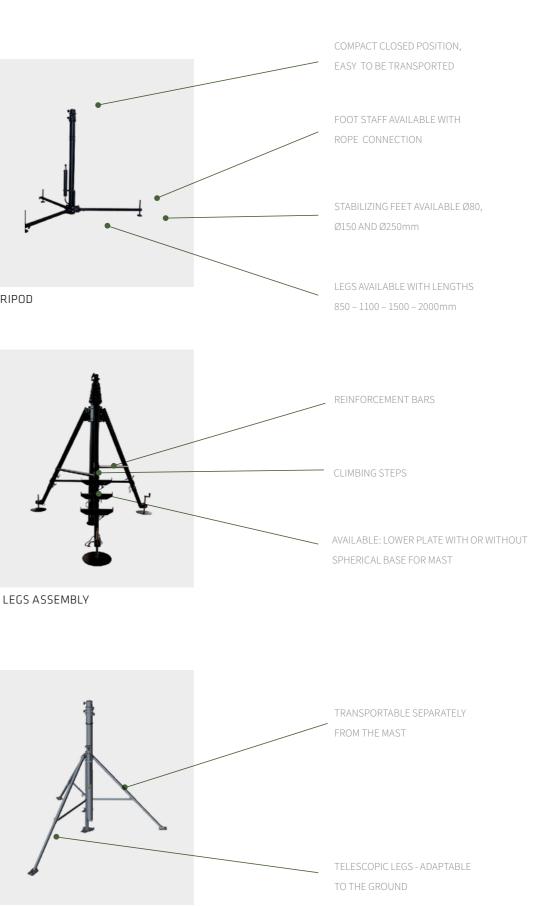
#### LIGHTWEIGHT MASTS WITHOUT INTERNAL CABLE

MAST	MODEL	DIMENSIONS		DIAMETER	CECTION C		MEICHT
		EXTENDED	RETRACTED	DIAMETER	SECTIONS	PAYLOAD	WEIGHT
STAR	CA.5221.P	1930 mm	1120 mm	66 mm	2	23 kg	4,5 kg
	CA.5503.P	4940 mm	1370 mm		5	12 kg	8 kg
PRIMO	CP.5411.P	2963 mm	1070 mm	66 mm	4	16 kg	6 kg
	CP.5608.P	9080 mm	1960 mm		6	6 kg	11,5 kg
SUPER PRIMO	CO.5426.P	4983 mm	1650 mm	80 mm	4	24 kg	10,5 kg
	CO.5806.P	5799 mm	1200 mm		8	9 kg	18,9 kg
MAXI PRIMO	CM.5701.P	7476 mm	1575 mm	101 mm	7	22 kg	19,6 kg
	CM.5106.P	12455 mm	1810 mm		11	6 kg	25,6 kg









TRIPOD



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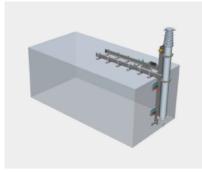


# ACCESSORIES & **ALTERNATIVE COATINGS**

Many accessories and add-ons round off our product porfolio and give you the possibility to perfectly adapt every single mast model to the particular requirements of your specific application. In addition to that, for all our masts we offer a great variety of anodised coatings and painting finishes in different colours.



## ACCESSORIES



#### ROOF TROLLEY

The ROOF TROLLEY is specially designed to securely transport the mast on any kind of vehicle roofs. When needed, the mast can be unlocked and easily slid on its special sturdy frame from the top to the back of the vehicle and slowly swivelled to the vertical position.

The mast is secured with a specially designed locking system allowing a safe and fast deployment. All the operations can be easily and quickly carried out by a single operator.

## ALTERNATIVE COATINGS

#### THIS TREATMENT GUARANTEES FOR:

- improved corrosion resistance
- increased surface hardness
- increased wear and abrasion resistance
- moderate heat insulation

Hard anodisation is also available as well as a wide variety of different anodisation and painting colours, some examples of which you will find below:



DIFFERENT CARRYING BAGS ARE AVAILABLE IN BLACK OR GREEN COLOUR



PICKETS FOR GUY ROPE ANCHORING TO THE GROUND



GUYING ROPES OF DIFFERENT LENGTHS - ALSO AVAILABLE IN DYNEEMA





For enquiries, requests or questions of any kind, please don't hesitate to contact us. You will find our contact details on the back of this brochure.



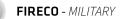


SAND SCRAPER RINGS

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Credits

CONCEPT AND GRAPHIC DESIGN: ALLCREATIVE.AGENCY PRINT:

COLOR ART

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