

CLARK MASTS™ *Series 80 Mast System*



TELESCOPIC & SECTIONAL MAST SYSTEMS



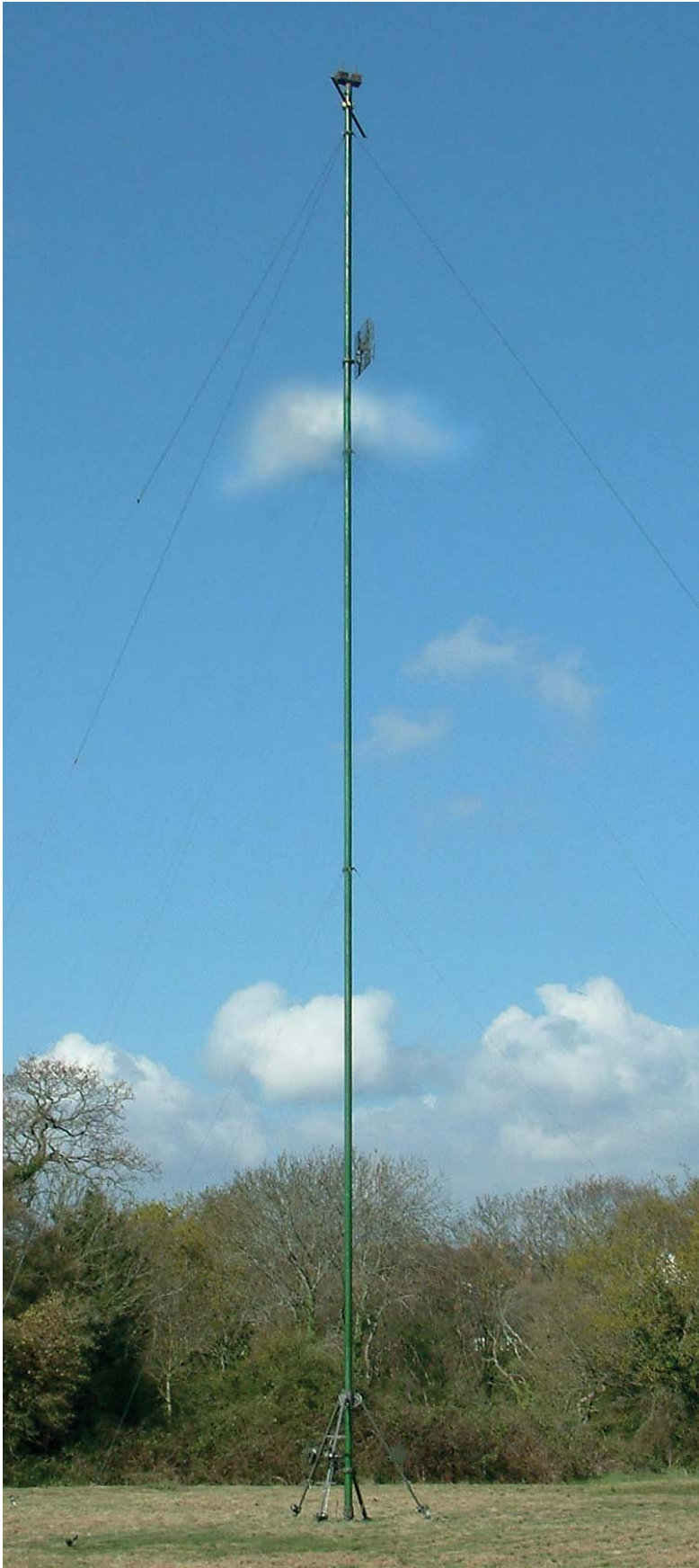
Clark Masts Systems has been designing and manufacturing telescopic and sectional mast systems for more than 50 years and has built up an extensive range of products that are used by civil and military authorities all around the world.

Design, development and testing are fundamental to the success of our organisation. This leaflet details our sectional Series Masts that are produced to our exacting standards of quality.

The standard range is available from 6 to 30 metres. Customised solutions offering variations in retracted and extended heights are available at no extra cost. Clark Masts are used by all of the world's largest system integrators.

Series 80 Mast System

General Description



- A range of heights up to 30 metres
- Headload capacity up to 125 kg.
- MIL STD 810C qualified.
- 5" diameter aircraft grade aluminium mast sections.
- Compact, man portable kit in canvas bags for transport.
- 3 legged erection gear.
- Two speed mechanical mast section lifting hoist.
- Guy winch controller system with stainless steel guy wire.
- Adjustable feet for sloping ground.
- Optional crane system available for heavy or bulky headloads.
- Optional anti-twist kit available for increased torsional stability.

The Series 80 mast is based on the Type 73 which has served military forces around the world since the 1970s and sets the standard for a modular mast system up to 30 metres in height and lifting headloads of up to 125 kg.

The mast sections have an outside diameter of 5 inches and are raised one at a time through the leg mounted mast guide box using the fail-safe hoist and cross-pin, giving the operator complete peace of mind.

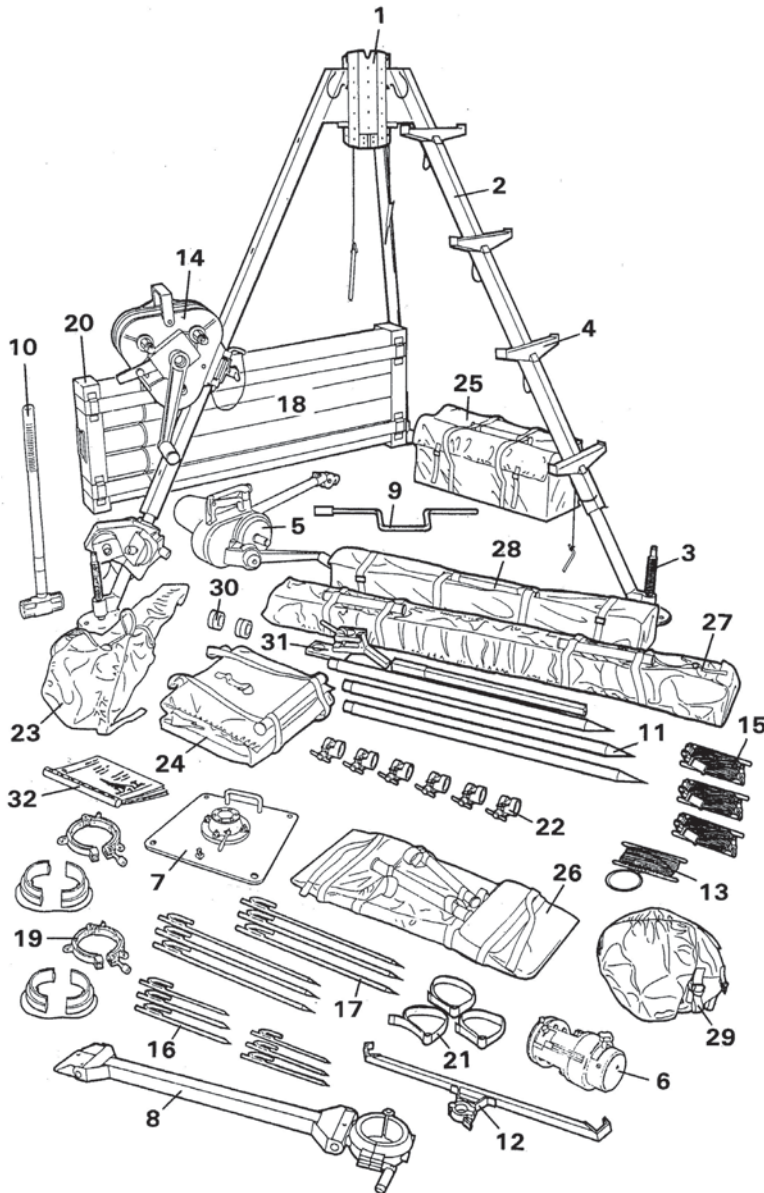
Tensioning of the guys is controlled by the guy controllers which keep the mast that is being raised vertical and under tension at all times.

Series 80 Mast System

Kit Components

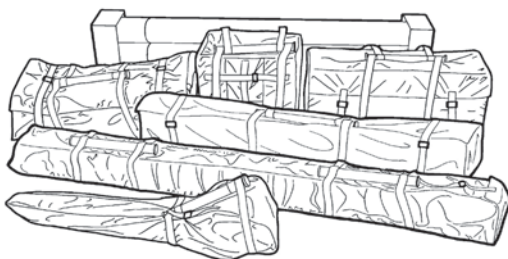
Standard Series 80 Kit Components

The Series 80 Kit shown below is a 6 metre mast Cat. No. 41785. The number of mast sections, mast section carriers, pickets, guy collars, spikes and other equipment in the kit varies according to the actual height of the mast to be erected.



Item	Clark Part No.	Title	Qty per Kit
1	28516	Mast Guide Box	1
2	18020	Leg Assembly	3
3	19225	Foot Assembly	3
4	29968	Step Assembly	4
5	30185	Hoist Assembly	1
6	28519	Lifting Block Assembly	1
7	28520	Base Assembly	1
8	28521	Brake Arm	1
9	5373	Foot Adjustment Brace	1
10	B12173	3.2 kg Hammer	1
11	18037	1 metre Picket	3
12	29775	Hoist Support Bar	1
13	41458	Picket Radius Line	1
14	41849	Guy Winch Kit (Leg Mounted)	1
15	19660	Kevlar Guy Assembly	3
16	6409	14" Spike	6
17	19228	24" Spike	6
18	28523	Mast Section	5
19	28526	Guy Collar Assembly	2
20	28531	Mast Section Carrier	1
21	28527	Feeder Cable Strap	3
22	18039	Picket Clamp	3
23	29776	Hoist Bag	1
24	18025	Winch Bag	1
25	28528	Equipment Bag	1
26	18031	Accessory Bag	1
27	18035	Leg Bag	1
28	18028	Picket Bag	1
29	18038	Winch Protection Cover	1
30	18034	Picket Driving Cap	2
31	18033	Picket Extractor	1
32	N/A	User's Handbook	1

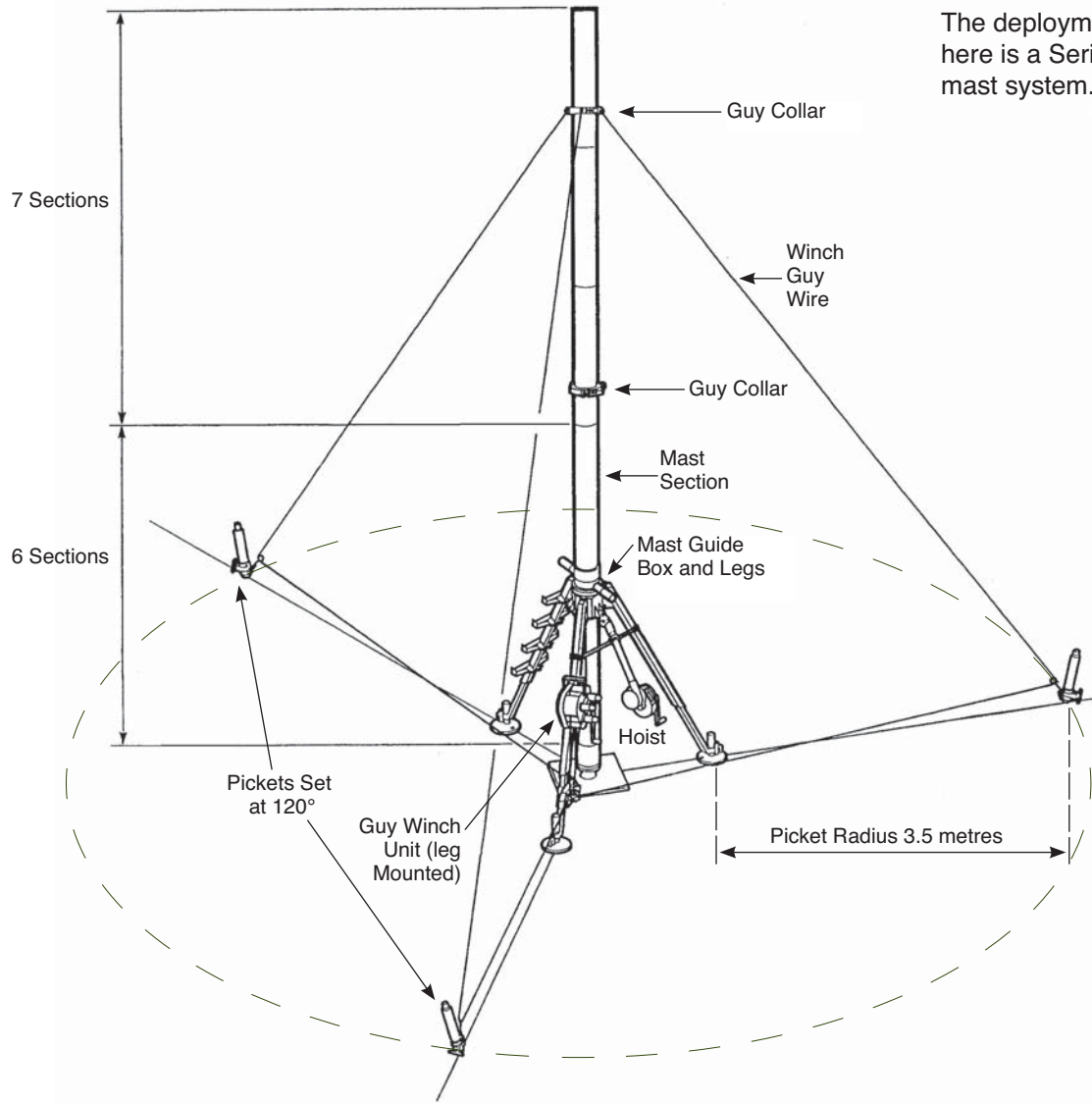
Packed Kit



Series 80 Mast System

Range Table

Series 80 Masts offer versatile heavy duty solutions for lifting headloads from 100 kg to 125 kg. Choose between a wide range of models to suit your application.



Cat. No.	Model	Extended Height	Number of Sections	Maximum Vertical Headload	Cat. No.	Model	Extended Height	Number of Sections	Maximum Vertical Headload
41785	80-6	6.00 m	5	125.00 kg	29769	80-18	18.00 m	15	120.00 kg
29766	80-10	10.00 m	8	125.00 kg	29770	80-20	20.00 m	17	120.00 kg
29767	80-12	12.00 m	10	125.00 kg	29771	80-25	25.00 m	20	110.00 kg
29768	80-16	16.00 m	13	120.00 kg	29722	80-30	30.00 m	25	100.00 kg

Operational Information

	80-6 41785	80-10 29766	80-12 29767	80-16 29768	80-18 29769	80-20 29770	80-25 29771	80-30 29772
Number of Winches	1	1	1	2	2	2	3	4
Total Weight of Mast Kit	213 kg	235 kg	252 kg	309 kg	320 kg	329 kg	397 kg	455 kg
Minimum number of operators required for normal erection	2	2	2	3	3	3	3	4
Typical time to erect the mast with the above team of operators	22 mins	32 mins	34 mins	40 mins	44 mins	50 mins	70 mins	80 mins
Typical time to lower and pack the mast with the above team of operators	16 mins	18 mins	20 mins	22 mins	24 mins	35 mins	45 mins	50 mins



Tubular picket with guy pulley attached. Tubular pickets can be driven into the ground and the guy wire is attached at the best height regardless of ground conditions.



Guy winch unit (shown leg mounted but can also be ground mounted). This allows control of three guys by one person simultaneously or individually.



The brake arm assembly secures the mast assembly in the desired direction.



The mast hoist for raising the mast sections has two gears for heavier headloads. The hoist is only reversed by push-button brake with automatic centrifugal descent control.

Materials Specifications

Mast Sections: Seamless drawn aluminium 10 SWG ENAW6082T6.

Paint: Desert Sand or NATO Green

Canvas Covers and Bags: Cloth-coated polyurethane, olive drab to MoD Spec UK/SC/3501A.

Winch Guy Cables: Stainless steel.

Castings: Aluminium alloy, gravity die cast using ingots to BS 1490 grade LM6.

Finishes: Mast sections are anodised and dyed to a choice of colours. The steel fittings are zinc plated and passivated.

Erection Site Requirements

Maximum Slope of Ground: Slope should not exceed 24°.

Operating Temperature Range: -40°C to +55°.

All Series 80 masts are MIL STD 810C Qualified and have been in military use since introduction.

Series 80 Mast System

Accessories



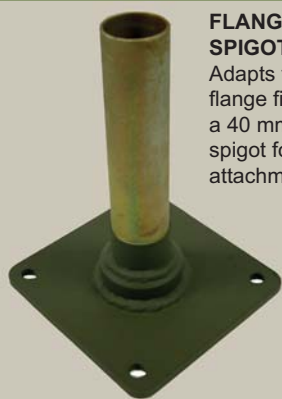
Cat. No. 28527
FEEDER CABLE STRAP
A simple and effective way of securing feeder cables to the mast.



Cat. No. 48753
SIDE MOUNTING ADAPTOR
A general purpose attachment. The Adaptor clamps directly round the mast section. Standard antenna spigot 40 mm diameter.



Cat. No. 29746
MAST TOP FLANGE FITTING
Fits over the top section of the mast giving a mounting flange 152 mm Square.



FLANGED ANTENNA SPIGOT
Adapts the mast top flange fitting to give a 40 mm diameter spigot for antenna attachment.



Cat. No. 48752
ANTENNA ROTATOR
Fits on the mast top and is operated from ground by ball rope. 360° rotation. Essential if a mast carries two antennas which need to be pointed independently.



Cat. No. 18038
WINCH PROTECTION COVER
When fitted protects the guy winch unit from rain, snow and ice.



ANTENNA TILT UNIT
A mast head fitting operated from the ground by a special ball rope to tilt antennas up or down 20°.



GROUND MOUNTED WINCH
Used with 30 metre masts to control the top level guying in conjunction with leg mounted winches.



LIGHTNING PROTECTION KIT
A range of solutions are available to suit customer requirements.



ANTI-TWIST KIT
The optional anti-twist kit which is fitted to the mast head, greatly reduces torsional movement using additional guys and the special mast head attachment.





**CLARK
MASTSTM**

All details given in this publication are approximate and may be subject to change without notice.

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