

CLARK MASTS™

PT Series



TELESCOPIC & SECTIONAL MAST SYSTEMS



Clark Masts Systems Ltd have been designing and manufacturing telescopic and sectional mast systems for more than 50 years and have 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 PT Series aluminium telescopic masts that are produced to our exacting standards of quality.

The standard range is available from 1.5 metres to 21 metres, customised solutions offering variation in retracted and extended heights are available at no extra cost. Clark Masts are used by all of the world's largest system integrators.



- **Extended Height Range 1.5 metre to 21 metres**
- **Headload Range 9.0kg to 120.0kg**
- **Vehicle and Shelter Options**
- **Ground and Field Mounting Options**
- **Internal Cable Options**
- **Approved to MIL STD 810F**

PT Series masts are made from 6082T6 Aircraft grade seamless drawn aluminium tube

Base tube diameter is 4.5" and can have a maximum of seven sections.

Full length machined keyway to prevent relative rotation of sections allowing the whole mast to be easily turned at the base if required.

Rotating and non rotating versions available.

Vehicle or shelter mounted either internally or externally.

Field mounted either with field legs or guys only.

Roof trolley versions for maximum height extensions.

Bearing surfaces fitted with nylon and PTFE for smooth and effortless extension.

Natural rubber seals for reliable operation in the most demanding climatic conditions.

Masts approved to **MIL STD 810F**.

Plain collar version for lowest collar stack height.

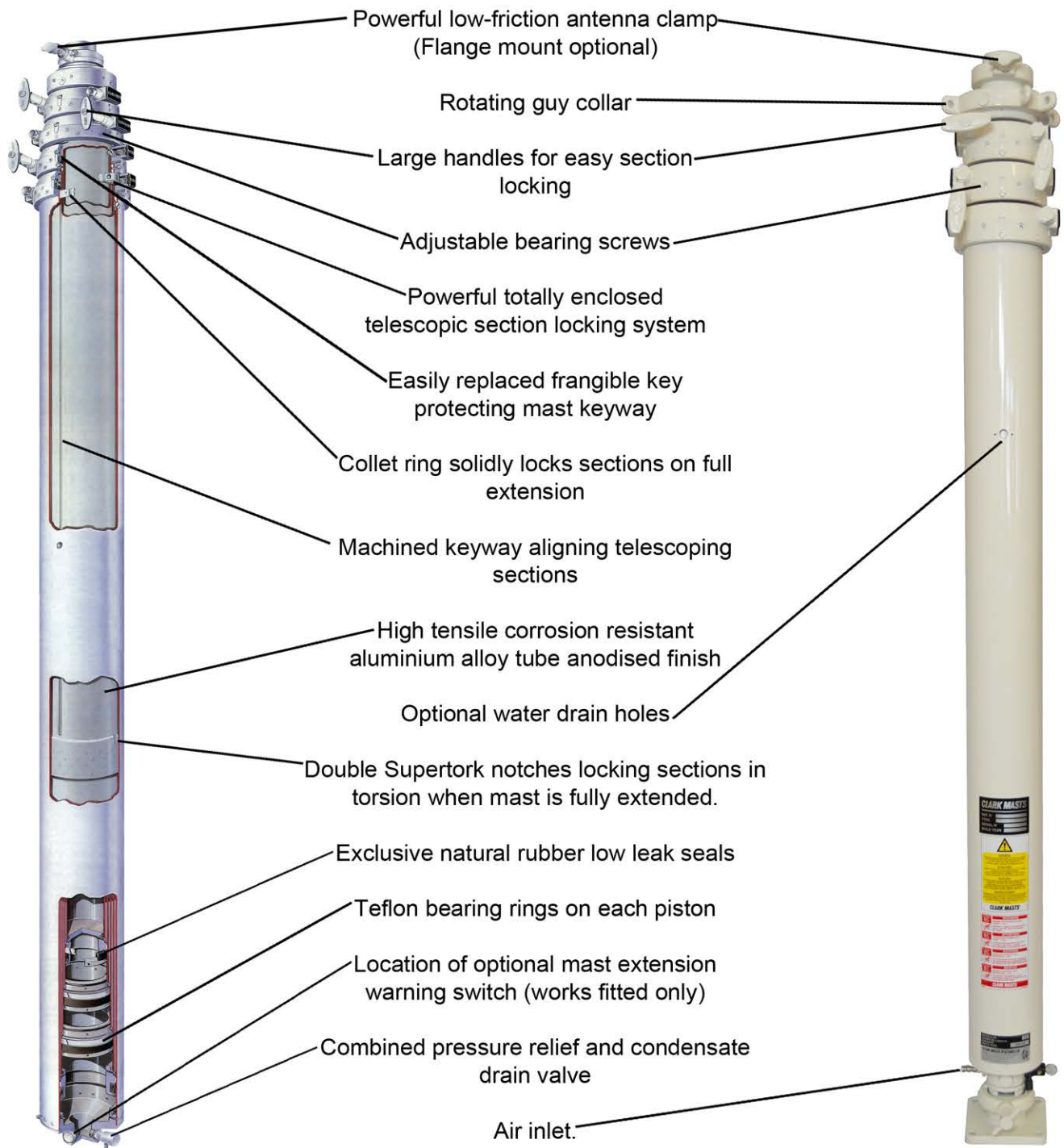
Locking collar version for long term unattended deployment.

Double Supertork anti-twist system fitted as standard reducing torsional movement to +/- 1.5 degrees.

Internal cables available for many PT masts, either standard power cable or twisted pair screened cable for video use.

A range of cable management solutions are available.

Various top fittings to suit your requirements.



(Alternative bases available for field or vehicle installations, fixed or rotatable)



- Plain Collars



- Locking Collars



- Fixed Base



- Rotatable Base



- Field Base

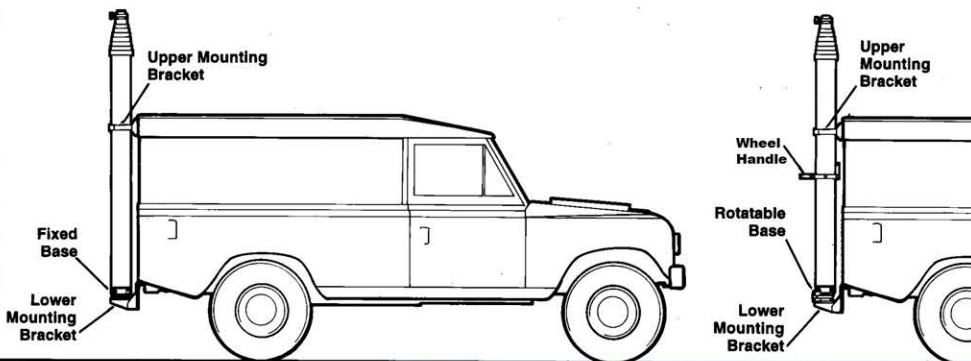


Examples of Externally Mounted Masts

Externally Mounted Mast

PT masts can be mounted on a vertical surface of a van or shelter using upper and lower mounting brackets. The mast can be rotated through 360 degrees and locked in position by clamping the rotatable base when required.

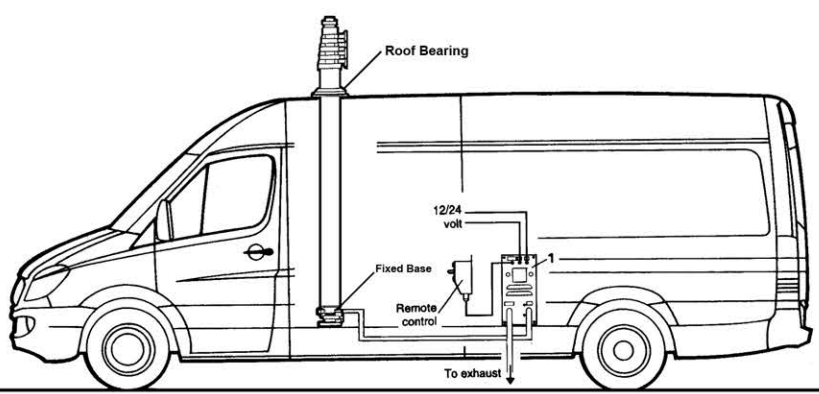
Wheel rotation handles fitted to the mast base tube allow the user to turn the whole mast when using directional headloads. Upper brackets are fitted with PTFE bearing pads. Brackets are normally supplied in a painted finish in the same colour as the mast.



Internally Mounted Mast

Normally the most popular way of mounting a Clark Mast on a vehicle, the internally mounted mast uses the weatherproof roof bearing to adapt the vehicle roof and allows the mast to be rotated through 360 degrees when fitted with the rotatable base.

The roof bearing consists of a whole outer ring that is bolted to the vehicle roof skin and bearing halves that are positioned around the mast base tube and then positioned over the fixed ring so any rain or condensation will run off. This roof bearing is fitted with PTFE rings and a weatherproof sealing ring. Roof bearings are supplied in a painted finish in the same colour as the mast.



An External and Internal view of an Internally Mounted Mast

2 SECTION MAST (4.5"/114.3mm DIAMETER BASE TUBE, 4"/101.6mm TOP TUBE, 40mm TOP FITTING)										
	PT15-2 Mast		PT25-2 Mast		PT35-2 Mast		PT45-2 Mast		PT55-2 Mast	
	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT
NP	1.00m	1.50m	1.50m	2.50m	2.00m	3.50m	2.50m	4.50m	3.00m	5.50m
TP	1.06m	1.50m	1.56m	2.50m	2.06m	3.50m	2.56m	4.50m	3.06m	5.50m
NC	1.06m	1.50m	1.56m	2.50m	2.06m	3.50m	2.56m	4.50m	3.06m	5.50m
TC	1.12m	1.50m	1.62m	2.50m	2.12m	3.50m	2.62m	4.50m	3.12m	5.50m
MAX. HEADLOAD	120.0kg		120.0kg		100.0kg		100.0kg		100.0kg	

3 SECTION MAST (4.5"/114.3mm DIAMETER BASE TUBE, 4.5"/114.3mm DIAMETER BASE TUBE, 3.5"/88.9mm TOP TUBE, 40mm TOP FITTING)										
	CAT. NO. 48000		CAT. NO. 48001		CAT. NO. 48002		CAT. NO. 48003		CAT. NO. 48004	
	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT
NP	1.00m	2.20m	1.50m	3.60m	2.00m	5.00m	2.50m	6.40m	3.00m	7.80m
TP	1.06m	2.20m	1.56m	3.60m	2.06m	5.00m	2.56m	6.40m	3.06m	7.80m
NC	1.17m	2.20m	1.61m	3.60m	2.11m	5.00m	2.61m	6.40m	3.11m	7.80m
TC	1.23m	2.20m	1.67m	3.60m	2.17m	5.00m	2.67m	6.40m	3.17m	7.80m
MAX. HEADLOAD	100.0kg		100.0kg		90.0kg		90.0kg		90.0kg	

4 SECTION MAST (4.5"/114.3mm DIAMETER BASE TUBE, 3"/76.2mm TOP TUBE, 40mm TOP FITTING)												
	CAT. NO. 40300		CAT. NO. 40301		CAT. NO. 40302		CAT. NO. 40303		CAT. NO. 40304		CAT. NO. 40305	
	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT
NP	1.19m	3.00m	1.31m	3.50m	1.47m	4.12m	1.69m	5.00m	1.82m	5.50m	2.07m	6.12m
TP	1.25m	3.00m	1.37m	3.50m	1.53m	4.17m	1.75m	5.00m	1.75m	5.50m	2.13m	6.17m
NC	1.26m	3.00m	1.38m	3.50m	1.53m	4.12m	1.75m	5.00m	1.88m	5.50m	2.13m	6.12m
TC	1.32m	3.00m	1.44m	3.50m	1.53m	4.17m	1.75m	5.00m	1.94m	5.50m	2.19m	6.17m
MAX. HEADLOAD	60.0kg		60.0kg		55.0kg		55.0kg		55.0kg		55.0kg	

5 SECTION MAST (4.5"/114.3mm DIAMETER BASE TUBE, 2.5"/63.5mm TOP TUBE, 40mm TOP FITTING)												
	CAT. NO. 40328		CAT. NO. 40329		CAT. NO. 40330		CAT. NO. 40331		CAT. NO. 40332		CAT. NO. 40333	
	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT
NP	1.35m	4.00m	1.40m	4.50m	1.49m	5.02m	1.55m	5.50m	1.82m	6.72m	2.00m	7.50m
TP	1.41m	4.00m	1.46m	4.50m	1.54m	5.07m	1.61m	5.50m	1.88m	6.77m	2.06m	7.50m
NC	1.43m	4.00m	1.48m	4.50m	1.57m	5.02m	1.63m	5.50m	1.90m	6.72m	2.08m	7.50m
TC	1.49m	4.00m	1.54m	4.50m	1.62m	5.07m	1.69m	5.50m	1.96m	6.77m	2.14m	7.50m
MAX. HEADLOAD	50.0kg		50.0kg		40.0kg		40.0kg		40.0kg		35.0kg	

5 SECTION MAST (4.5"/114.3mm DIAMETER BASE TUBE, 2.5"/63.5mm TOP TUBE, 40mm TOP FITTING)										
	CAT. NO. 40334		CAT. NO. 40335		CAT. NO. 40336		CAT. NO. 40337		CAT. NO. 40338	
	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT
NP	2.20m	8.00m	2.30m	9.00m	3.40m	12.00m	4.30m	15.00m	4.84m	18.23m
TP	2.26m	8.00m	2.36m	9.00m	3.46m	12.00m	4.36m	15.00m	4.90m	18.37m
NC	2.28m	8.00m	2.38m	9.00m	3.48m	12.00m	4.38m	15.00m	4.90m	18.32m
TC	2.34m	8.00m	2.44m	9.00m	3.54m	12.00m	4.44m	15.00m	4.98m	18.37m
MAX. HEADLOAD	35.0kg		35.0kg		25.0kg		25.0kg		25.0kg	

Material Specifications

Mast Sections:
Seamless drawn aluminium 10 SWG ENAW6082T6.

Castings:
Die cast aluminium LM6.

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

Operating Temperatures:
-40°C to +55°C (dry air).

Air Pressure:
Maximum operating air pressure 30PSI 2BAR.

All PT masts have been tested to MIL STD 810F and have been used around the world in service by military and civil users for over fifty years.

NP = NON ROTATABLE PLAIN COLLAR

TP = ROTATABLE PLAIN COLLAR

NC = NON ROTATABLE LOCKING COLLAR

TC = ROTATABLE LOCKING COLLAR

6 SECTION MAST (4.5"/114.3mm DIAMETER BASE TUBE, 2"/50.8mm TOP TUBE, 40mm TOP FITTING)												
	PT50-6 Mast CAT. NO. 40372		PT16-6 Mast CAT. NO. 40373		PT14-6 Mast CAT. NO. 40374		PT90-6 Mast CAT. NO. 40375		PT11-6 Mast CAT. NO. 40376		PT4-6 Mast CAT. NO. 40377	
	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT
NP	1.45m	5.00M	1.57m	6.02M	1.80m	7.52M	2.00m	9.00M	2.28m	10.02M	2.74m	12.32M
TP	1.51m	5.00M	1.63m	6.07M	1.86m	7.57m	2.06m	9.00M	2.34m	10.07m	2.80m	12.37m
NC	1.55m	5.00M	1.67m	6.02M	1.90m	7.52M	2.10m	9.00M	3.38m	10.02M	2.84m	12.32M
TC	1.61m	5.00M	1.73m	6.07M	1.96m	7.57m	2.16m	9.00M	2.44m	10.07m	2.90m	12.37m
MAX. HEADLOAD	30.0kg		30.0kg		25.0kg		25.0kg		25.0kg		20.0kg	

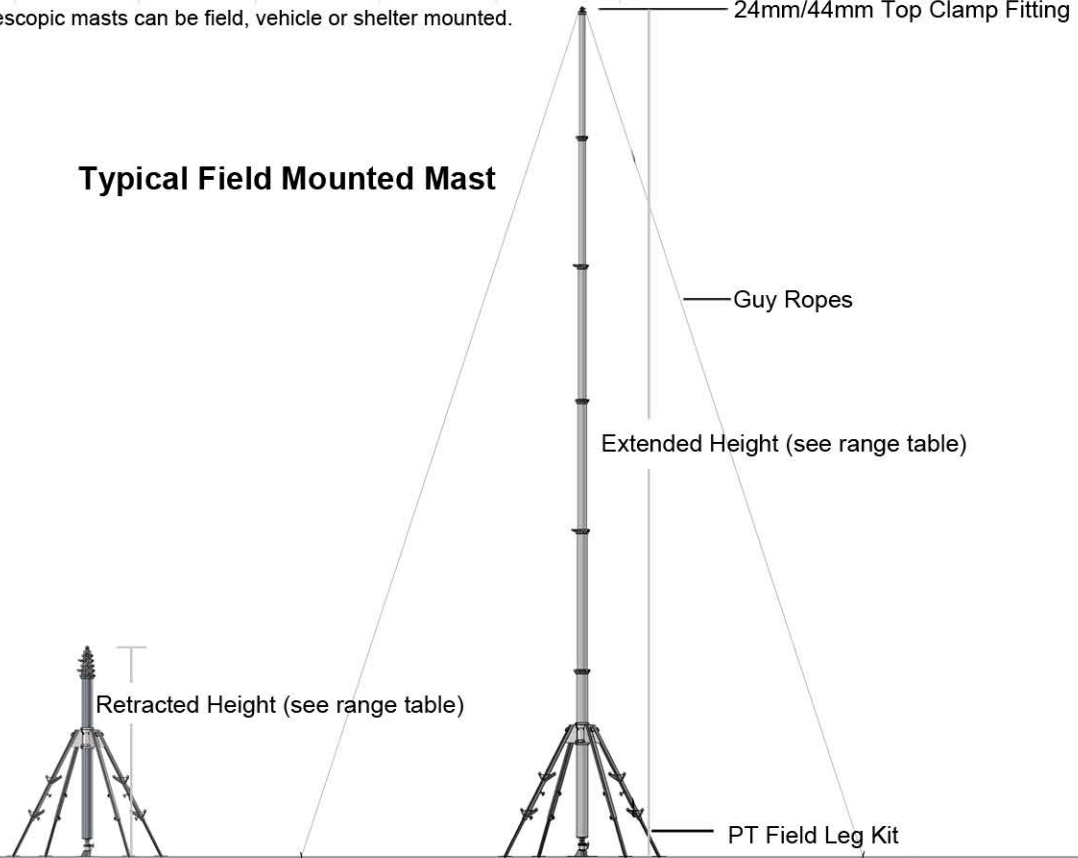
6 SECTION MAST		
PT8-6 Mast		
	RETRACTED HEIGHT	EXTENDED HEIGHT
NP	3.35m	15.32M
TP	3.41m	15.37m
NC	3.45m	15.32M
TC	3.51m	15.37m
MAX. HEADLOAD	20.0kg	

"Choose from a wide range of models ranging from 1.5 metres to 21 metres in height."

7 SECTION MAST (4.5"/114.3mm DIAMETER BASE TUBE, 1.5"/38.1mm TOP TUBE, 40mm TOP FITTING)												
	PT40-7 Mast CAT. NO. 40400		PT50-7 Mast CAT. NO. 40401		PT60-7 Mast CAT. NO. 40402		PT54-7 Mast CAT. NO. 40403		PT9-7 Mast CAT. NO. 40404		PT1-7 Mast CAT. NO. 40405	
	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT
NP	1.35m	4.00m	1.42m	5.00m	1.545m	6.00m	1.50m	6.72m	1.84m	9.02m	2.15m	10.62m
TP	1.41m	4.00m	1.48m	5.00m	1.51m	6.00m	1.56m	6.77m	1.90m	9.07m	2.21m	10.67m
NC	1.47m	4.00m	1.54m	5.00m	1.57m	6.00m	1.62m	6.72m	1.96m	9.02m	2.27m	10.62m
TC	1.53m	4.00m	1.60m	5.00m	1.63m	6.00m	1.68m	6.77m	2.02m	9.07m	2.33m	10.67m
MAX. HEADLOAD	20.0kg		20.0kg		15.0kg		15.0kg		12.0kg		12.0kg	

7 SECTION MAST (4.5"/114.3mm DIAMETER BASE TUBE, 1.5"/38.1mm TOP TUBE, 40mm TOP FITTING)												
	PT120-7 Mast CAT. NO. 40406		PT150-7 Mast CAT. NO. 40407		PT3-7 Mast CAT. NO. 40408		PT6-7 Mast CAT. NO. 40409					
	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT	RETRACTED HEIGHT	EXTENDED HEIGHT				
NP	2.45m	12.00m	3.00m	15.00m	3.98m	18.32m	4.00m	21.02m				
TP	2.51m	12.00m	3.06m	15.00m	4.04m	18.37m	4.06m	21.07m				
NC	2.57m	12.00m	3.12m	15.00m	4.10m	18.32m	4.12m	21.02m				
TC	2.63m	12.00m	3.18m	15.00m	4.16m	18.37m	4.18m	21.07m				
MAX. HEADLOAD	10.0kg		10.0kg		10.0kg		10.0kg					

Standard range of PT series of telescopic masts can be field, vehicle or shelter mounted.





PT 6 Section Mast Kit

PT masts often need to be deployed for longer periods of time on the ground in varying weather conditions. Clark masts have a tested solution for this application.

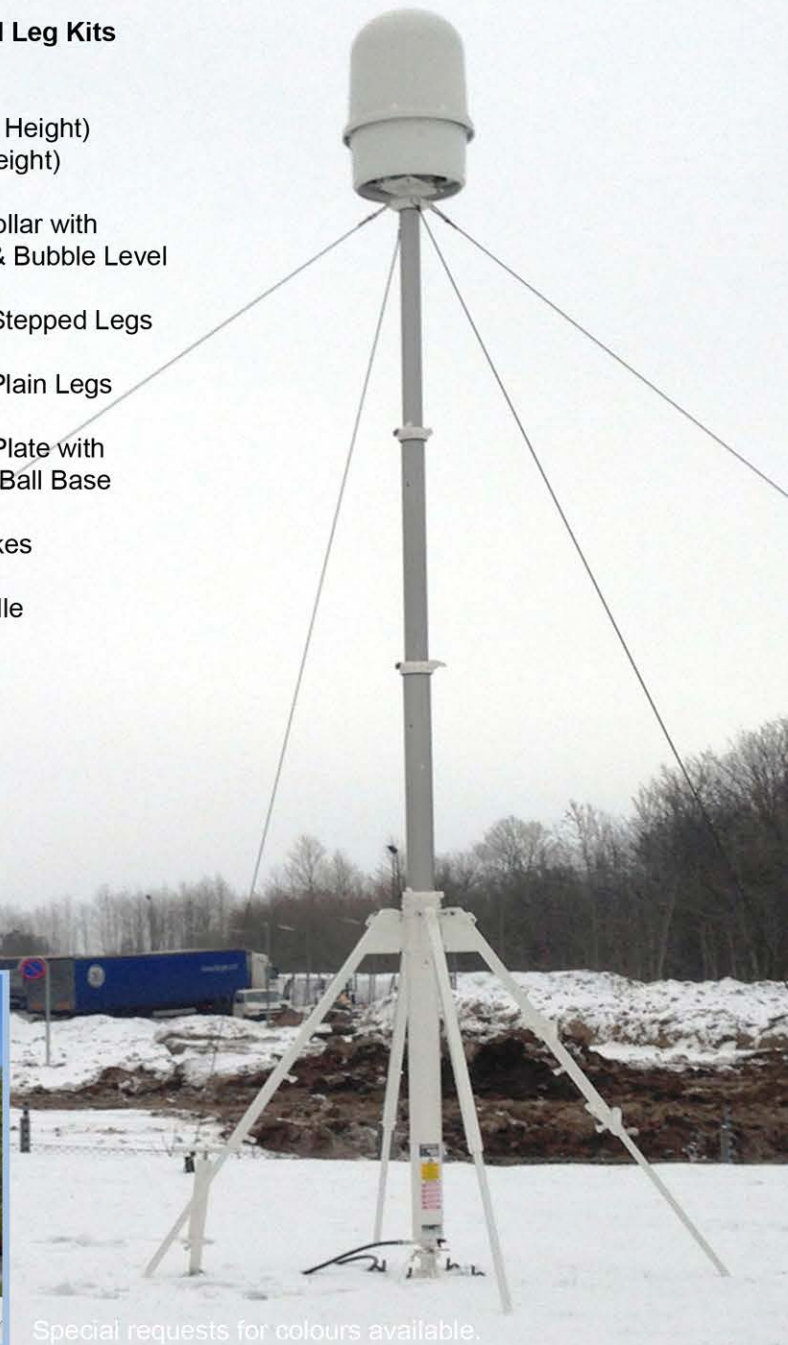
The PT Field leg set offers a very strong fully adjustable system that enables the mast to be set up on sloping ground allowing the mast to be adjusted to the vertical position for safe extension and retraction. The whole mast can be rotated through 360 degrees to position directional headloads, the base of the mast is attached to a field base which facilitates rotation and has a ball and socket that is clampable to lock the mast after rotating. Each set contains four adjustable legs, two of these are fitted with climbing steps to assist the user when attaching and removing headloads. Levelling is made simple using the standard bubble level.

PT Field Leg Kits

CAT. NO.

- 5316 (Standard Height)
- 19209 (Short Height)

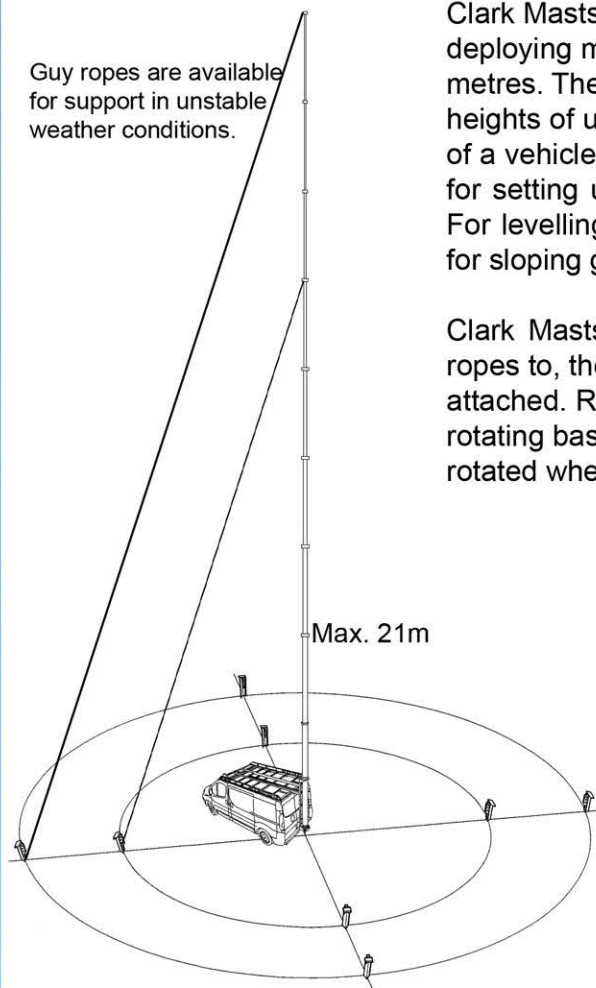
- 1 x Field Leg Collar with Support Rings & Bubble Level
- 2 x Adjustable Stepped Legs
- 2 x Adjustable Plain Legs
- 1 x Field Base Plate with Locking Ring & Ball Base
- 4 x Ground Spikes
- 1 x Wheel Handle



Special requests for colours available.

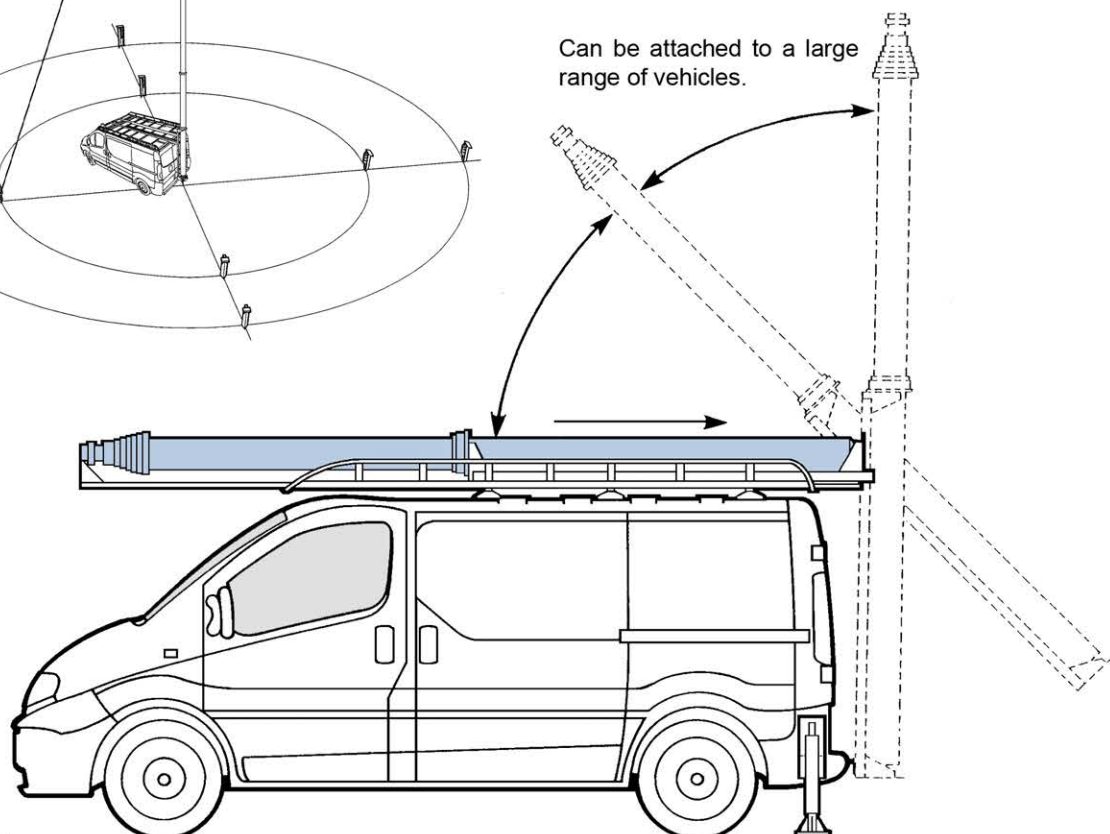


Guy ropes are available for support in unstable weather conditions.



Clark Masts have developed a system for transporting and deploying masts with increased extended heights up to 21 metres. The roof trolley system allows masts with retracted heights of up to 5.5 metres to be safely carried on the roof of a vehicle and then deployed providing a stable platform for setting up the mast prior to and when fully extended. For levelling the vehicle a vehicle stabilising kit is offered for sloping ground.

Clark Masts are fitted with guy collars for attaching guy ropes to, these allow the mast to be rotated whilst still attached. Roof Trolleys are fitted with roof bearings and rotating bases as standard to allow masts to be fully rotated when in use.



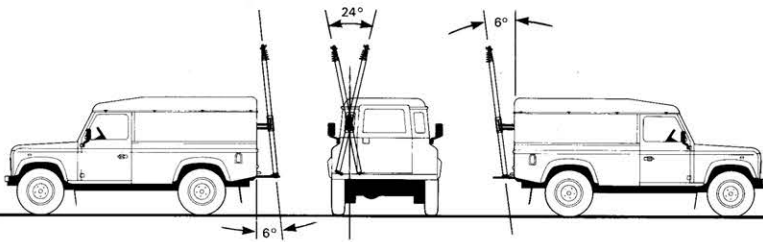
CAT. NO.	DESCRIPTION	FOR PT MAST MODEL
7752	PT Short Roof Trolley	Retracted Height 1500mm - 2500mm
7753	PT Medium Roof Trolley	Retracted Height 2600mm - 3500mm
7754	PT Long Roof Trolley	Retracted Height 3700mm - 4900mm

PT Series

Guying Systems

Vehicle Bracket Set CAT. NO. 48050

Comprising an upper mounting bracket which accepts a special PT mounting collar and an adjustable lower mounting bracket which allows the mast to be positioned vertically on sloping ground as shown.



Vehicle Bracket Set

Lower Mounting Bracket. 13664



Upper Mounting Bracket. 13665



Guying Kits

Top Guy Kit. 40441

PT masts up to 12 metres extended



- 4 x 2484, 24" Guy Picket
- 4 x 25383, Guy Assembly
- 1 x 2932, Accessory Bag
- 1 x B2621, 1.8kg Hammer

Top/Middle Guy Kit. 40442

PT Masts 13 metres - 21 metres extended



- 1 x 18028, Picket Bag
- 8 x 2484, 24" Guy Picket
- 4 x 25374, Guy Assembly
- 4 x 25382, Guy Assembly
- 1 x 2932, Accessory Bag
- 1 x B2621, 1.8kg Hammer

Lower Field Guy Set. 40440



PT masts can also be field mounted with out field legs by using the Lower Field Guy Set in conjunction with the guy kits shown.



CAT NO. 14049
Upper Mounting Bracket
 Used to mount mast externally on a wall or shelter. Allows the mast to rotate 360 and fitted with PTFE bearing pads
 Weight : 2.27kg



CAT NO. 14050
Lower Mounting Bracket
 Used for externally mounting a PT mast on a vertical surface of a vehicle or shelter.
 Weight: 1.61kg



CAT NO. 14048
Roof Bearing
 Used when fitting a PT mast through the roof of a vehicle allows 360 degree rotation and is fitted with PTFE bearings and a weather proof ring.
 Weight: 1.26kg



CAT NO. 1303
Saddle Clamp
 Allows PT Mast to be mounted on vertical or horizontal surfaces and to be quickly released when required.
 Weight: 1.00kg



CAT NO. 13272
Wheel Handle
 This solid aluminium handle is fitted to the 4.5" base tube of the PT mast when rotation is required.
 Weight: 1.16Kg



CAT. NO. 12994
Graduated Collar
 Used for PT masts requiring directional bearing references. Indexed 0 to 360°.
 Weight: 0.40kg



CAT NO.
Spreader Bar
 Used to hold 'Nycoil' cable management system.
 Weight: 3.0kg



Internal Extension Mast-up Warning Switch
 Factory installed when mast is built, this switch is connected to a circuit to provide a mast up warning when installed in the vehicle. Shown fitted to a rotatable base with static air entry
 CAT. NO. 13914.



CAT NO. 29269
SCAM Handpump
 Self contained lightweight aluminium handpump, will extend any PT mast quickly without any auxillary power. Supplied with 3 metres of hose and connector.
 Weight: 3.05kg



Model 40 Compressor Range
 Available in 12v (CAT. NO. 33646) and 24v (CAT. NO. 33648). This self contained power pack compressor is an all in one system for controlling the extension and retraction of PT masts when installed in a vehicle, Field versions can be supplied in conjunction with battery packs.



Internal Extendable Cables
 PT masts can be fitted with an internal extendable cable up to 8 metres in height. Cable entry and junction is provided by base housing and top housing. A choice of electrical and screen cables can be supplied.



**CLARK
MASTS™**

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Distributor:

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