

No. B.V-7/2013-14-C(QRs)-(10)
भारत सरकार/Government of India
गृह मंत्रालय/Ministry of Home Affairs
पुलिस आधुनिकीकरण प्रभाग /Police Modernization Division
संभरण-I डेस्क /Prov.I Desk

26, Man Singh Road, Jaisalmer House,
New Delhi, the 4 December, 2014

To,


The DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

Subject: QRs and Trial Directives of Pneumatic Telescopic Mast.

The undersigned is directed to refer to the subject mentioned above and to say that the QRs and Trial Directive in respect of Pneumatic Telescopic Mast as per Annex-I and Annex-II respectively have been approved by the competent authority in MHA.

2. Henceforth, all the CAPFs should trial evaluate and procure the above item, required by them, strictly as per the laid down QRs.
3. Concerned CAPF will be accountable for correctness of the QRs.

Yours faithfully,



(P. K. Srivastava)

Under Secretary to the Govt. of India

Encl: As above.

Copy forwarded for necessary action to:

SO (IT), MHA - with the request to host the QRs and Trial Directives of Pneumatic Telescopic Mast on official website of MHA (under the page of Organizational Set up, Police Modernization Division-Communication Equipments). Soft copy is being sent through email also.



(R. K. Soni)

Section officer (Prov-I)

Copy to: DDG (Procurement), MHA

Annex-I
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QRs/Specification for Pneumatic Telescopic Mast

Sl No.	Parameters	Specification for Ground Mounted Pneumatic Telescopic Mast	Specification for Vehicle Mounted Pneumatic Telescopic Mast
1.	Fully Erected Height	21 Meters \pm 0.2 Meter	9 Meters \pm 0.1 Meter
2.	Fully Retracted height	3.6 Meters \pm 0.1 Meter	2.4 Meters \pm 0.1 Meter
3.	Head Load	10 kg maximum	5 Kg maximum
4.	Diameter of body section (Main mast)	Not exceeding 135 mm	Not exceeding 105 mm
5.	Guy ropes stainless steel of diameter	4 mm	2 mm
6.	Guy radius	7 meters	5 meters
7.	Guy ropes stainless steel for three peg system	12 No. (3x4)	3 No. (1x3)
8.	Application	Ground Mounting	Vehicle Mounting
9.	Type of operation	Pneumatic- Foot pump operated	Pneumatic- Foot pump Operated
10.	Sway	\pm 3°	\pm 3°
11.	Rotation Azimuth	\pm 180° azimuth plain	\pm 180° azimuth plain
12.	Environmental Specs	MIL - STD 810F or JSS 55555	MIL - STD 810F or JSS 55555
13.	Weight of Mast	< 70 Kg	< 30 Kg
14.	Guy Anchor	3 Nos. of 900 mm (\pm 0.5 mm) long with arrangement for fitment 4 Nos. guy ropes	3 Nos. of 600 mm (\pm 0.5 mm) long with arrangement for fitment 3 Nos. guy ropes
15.	Base plate	Base Plate of 500 mm x 8mm (\pm 0.5mm) diameter with Cup & Nails of 600 mm x 16 mm (\pm .5mm) size (as per requirement)	As per user requirement.
16.	Standard Accessories		
	i) Hammer (5 lbs with wooden handle)		
	ii) Foot Pump: Double cylinder, max air volume: 650 cu cm per stroke with 2 meter long rubber pipe having brass nozzle at open end to match with pneumatic mast nozzle.		
	iii) Lightning Protector complete only for 21 Meter mast.		
	iv) Clamps for Mounting headload: - As per user requirement.		
17.	Description		
	i) The masts should be made of high strength heat treated aluminum alloy HE 30 -T6 tubes, light weight, and high tensile, along with precision machined guide , locking collars and guy holder. The mast should withstand the adverse environmental condition such as high and low temperature and difficult field condition.		
	ii) The mast should be erected by using a foot pump.		
	iii) The mast could with stand wind speed of up to 120Kms/hour for short duration and 80 Kms /hour for regular operation with the all guys ropes tightened.		
	iv) The mast should stay in erected condition without air pressure for long periods. Each tubes moves on Teflon bearing and high quality air seals.		
	v) Each section should be hard anodized & the body along with locking guide & guide collars is Olive Green spray painted/Powder coated.		
	vi) All mild steel parts should be a hot dip galvanized to with stand harsh environmental conditions.		

QRs/Specification for Pneumatic Telescopic Mast

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vii) The masts should be approved to rigorous MIL STD 810F or JSS-55555 for environmental standard for operation and storage.
viii) The complete mast system should be included all needed accessories for its erection, such as base plate, spikes, foot pump, pegs, Hammer, stainless steel guy ropes , guy tensioner, clamps etc.
ix) Base plate with cup, Nails (base spike), Pegs, guy tensioner & clamps etc should be made of hot dip Galvanized and of specification described above.
x) Arrangement for fitment of ground plain antennas on the top of the mast.




Charan Singh
(SI/RO, CISF)



Jai Singh Yadav
(AC(Tel), ITBP)



Rajeev Kumar
(Major, NSG)



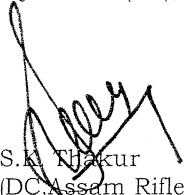
Neeraj Bhogata
Dy. Comdt(TC), NSG



P. K. Bhatt
(DC (Com), SSB)



Rajesh Kumar
(DC (Com), BSF)



S. K. Bhakur
(DC, Assam Rifle)



Hem Pushap Sharma
(DC, CRPF)



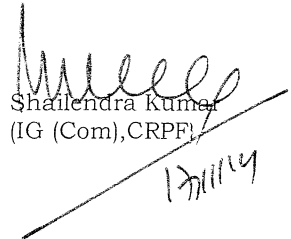
Amarjeet Singh
(E. Asst. Dir, DCPW)



Sumit Gupta
(PSO(E), BPR&D)

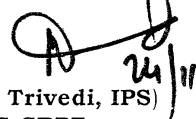


Jasbir Singh Sandhu
(DIG(Eqpt.) CRPF)



Shailendra Kumar
(IG (Com), CRPF)

Approved/Not Approved



(Dilip Trivedi, IPS)
DG CRPF

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(49) Annex-II

TRIAL DIRECTIVE OF PNEUMATIC TELESCOPIC MAST

Trial of Pneumatic Telescopic Mast will be conducted by a Board of Officers in the presence of Vendor or representative of Vendor/Firms to assess actual performance of the Pneumatic Telescopic Mast.

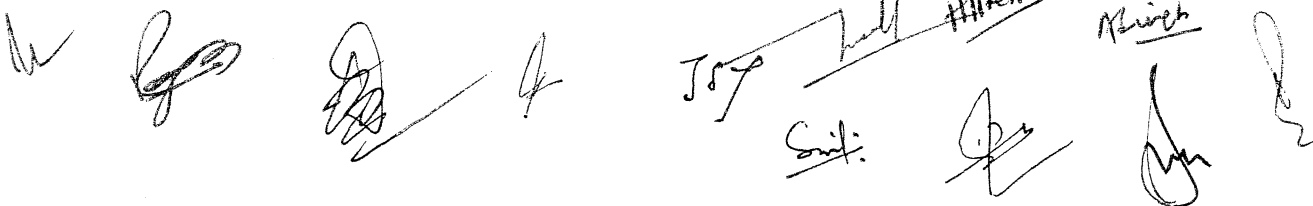
2. All parameter / Specifications mentioned in the QRs will be checked by board of officers by ascertaining /verifying following checks.

Physical Checks: In this category specifications of the equipment will be checked physically as per QRs.

Functional Check:- The vendors will show all features/ configuration of the equipment to the board of officers during technical evaluation.

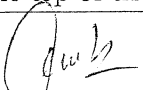
Submission of certificates: - Specification which can not be checked due to lack of testing facilities/ expertise, a certificate of test shown against each will be provided by vendor/firm during physical trial.

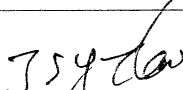
Sl No	Parameters	Specification for Ground Mounted Pneumatic Telescopic Mast	Specification for Vehicle Mounted Pneumatic Telescopic Mast	Trial Directive
1.	Fully Erected Height	21 Meters ± 0.2 Meter	9 Meters ± 0.1 Meter	Board will check height of mast with suitable measuring instrument after erecting it.
2.	Fully Retracted height	3.6 Meters ± 0.1 Meter	2.4 Meters ± 0.1 Meter	Board will check retracted height with suitable measuring instrument.
3.	Head Load	10 kg max.	5 Kg max.	Board will check it practically by erecting pneumatic mast and placing head load on it as per requirement i.e.10 Kg for 21 Meter and 5 Kg for 9 Meter. Pneumatic mast should be capable to hold head load in normal climatic condition.
4.	Diameter of body section (Main mast)	Not exceeding 135 mm	Not exceeding 105 mm	Board will measure diameter of section by suitable measuring instrument.
5.	Guy ropes stainless steel of diameter	4 mm	2 mm	Board will measure diameter of guy ropes by suitable measuring instrument.
6.	Guy radius	7 meters	5 meters	Board will measure radius of Guy ropes practically.
7.	Guy ropes stainless steel for three peg system	12 No. (3x4)	3 No. (1x3)	Board will check practically guy ropes.
8.	Application	Ground Mounting	Vehicle Mounting	Board will check it practically by mounting on ground /vehicle.
9.	Type of operation	Pneumatic - Foot pump operated	Pneumatic- Foot pump Operated	Board will check it practically by installing with the help of foot pump.
10.	Sway	± 3°	± 3°	Vendor will give written undertaking in this regard.
11.	Rotation Azimuth	± 180° azimuth plain	± 180° azimuth plain	Board will check it practically by rotating pneumatic mast during installed condition.




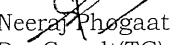
TRIAL DIRECTIVE OF PNEUMATIC TELESCOPIC MAST				
Sl No	Parameters	Specification for Ground Mounted Pneumatic Telescopic Mast	Specification for Vehicle Mounted Pneumatic Telescopic Mast	Trial Directive
12	Environmental Specs	MIL-STD 810F or JSS 55555	MIL-STD 810F or JSS 55555	Firm will provide certificate of any government authorized laboratory or National Accreditation Board for Testing and Calibration Laboratories (NABL) approved laboratory or International Laboratory Accreditation Corporation (ILAC) approved laboratory.
13	Weight of Mast	< 70 Kg	< 30 Kg	Board will measure weight of mast with the help of weighing machine.
14	Guy Anchor	3 Nos. of 900 mm (\pm 0.5 mm) long with arrangement for fitment 4 Nos. guy ropes	3 Nos. of 600 mm (\pm 0.5 mm) long with arrangement for fitment 3 Nos. guy ropes	Board will check it practically by suitable measuring instrument.
15	Base plate	Base Plate of 500 mm x 8mm (\pm 0.5mm) diameter with Cup & Nails of 600 mm x 16 mm (\pm .5mm) size (as per requirement)	As per user requirement	Board will check it practically by suitable measuring instrument.
16	Standard Accessories			
	i) Hammer (5 lbs with wooden handle)			Board will measure weight of hammer with wooden handle with suitable measuring instrument.
	ii) Foot Pump: Double cylinder, max air volume: 650 cu cm per stroke with 2 meter long rubber pipe having brass nozzle at open end to match with pneumatic mast nozzle.			Board will check specs of foot pump physically/practically and Firm will provide certificate from any government authorized laboratory or NABL approved laboratory or ILAC approved laboratory regarding max air volume per stroke.
	iii) Lightning Protector complete only for 21 Meter mast.			B.O.O will physically check.
	iv) Clamps for Mounting headload: - As per user requirement.			B.O.O will physically check.
17	Description			
	i) The masts should be made of high strength heat treated aluminum alloy HE 30 -T6 tubes, light weight, and high tensile, along with precision machined guide , locking collars and guy holder. The mast should withstand the adverse environmental condition such as high and low temperature and difficult field condition.			Firm will provide certificate from any government authorized laboratory or NABL approved laboratory or ILAC approved laboratory that mast is made from aluminum alloy HE 30-T6 tubes.
	ii) The mast should be erected by using a foot pump.			Board will check it practically.

TRIAL DIRECTIVE OF PNEUMATIC TELESCOPIC MAST		
17	Description	Trial Directive
	iii) The mast could with stand wind speed of up to 120Kms/hour for short duration and 80 Kms /hour for regular operation with the all guys ropes tightened.	Firm will provide certificate from any government authorized laboratory or NABL approved laboratory or ILAC approved laboratory that mast can with stand wind speed of 120 Km/Hour for short duration and 80 Km/Hour for regular operation with all guy ropes tightened.
	iv) The mast should stay in erected condition without air pressure for long periods. Each tubes moves on Teflon bearing and high quality air seals.	Board will check it practically by erecting mast.
	v) Each section should be hard anodized & the body along with locking guide & guide collars is Olive Green spray painted/Powder coated.	Firm will provide certificate in this regard during trial to the Board
	vi) All mild steel parts should be a hot dip galvanized to with stand harsh environmental conditions.	Firm will provide certificate in this regard to the B.O.O
	vii) The masts should be approved to rigorous MIL STD 810F or JSS- 55555 for environmental standard for operation and storage.	Firm will provide certificate from Government authorized laboratory or NABL approved laboratory or ILAC approved laboratory in this regard during trial to the board.
	viii) The complete mast system should be included all needed accessories for its erection, such as base plate, spikes, foot pump, pegs, Hammer, stainless steel guy ropes , guy tensioner, clamps etc.	Board will check all items physically/practically by installing mast.
	ix) Base plate with cup, Nails (base spike), Pegs, guy tensioner & clamps etc should be made of hot dip Galvanized and of specification described above.	
	x) Arrangement for fitment of ground plain antennas on the top of the mast.	


Charan Singh
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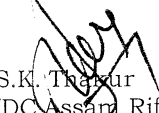

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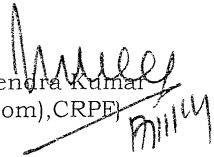

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Sumit Gupta
(PSO(E), BPR&D)


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Approved/Not Approved


(Dilip Trivedi, IPS)
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