

QRs OF PNEUMATIC TELESCOPIC MAST (Annexure "A")		
S. No	Parameters	specification
1	Fully erected Height	21 meters \pm 0.2 meter
2	Fully retracted height	3.6 meters \pm 0.1 Meter
3	Head load	10 Kg maximum
4	Diameter of body section (main mast)	not exceeding 135 mm
5	Guy ropes stainless steel of diameter	4 mm
6	Guy radius	7 meters
7	Guy ropes stainless steel for three peg system	12 No. (3X4)
8	Application	Ground Mounting
9	Type of operation	Pneumatic-Foot pump operated
10	Sway	\pm 3°
11	Rotation Azimuth	\pm 180° azimuth plain
12	Environmental specs	MIL-STD 810F or JSS 55555
13	Weight of mast	< 70 Kg
14	Guy Anchor	3 Nos of 900 mm (\pm 0.5 mm) long with arrangement for fitment 4 Nos. guy ropes
15	Base plate	Base plate of 500 mm x 8 mm (\pm 0.5 mm) diameter with Cup & Nails of 600 mm x 16 mm (\pm 0.5 mm) size (as per 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)	Lighting protector complete only for 21 Meter mast	
(iv)	Clamps for mounting headload: As per user requirement	
17	Description	
(i)	The mast should be made of high strength heat treated aluminium alloy HE 30-T6/ HE 9-6063- T6, light weight and high tensile along with precision machine guide, locking collars and guy holder. The mast should withstand the adverse environmental standards such as high and low temperature and difficult field conditions.	
(ii)	The mast should be erected by using a foot pump.	
(iii)	The mast could with stand wind speed of up to 120 Kms/ hour for short duration and 80 Kms / hour for regular operation with the all guys ropes tightened	

S. No	Parameters	specification
(iv)	The mast should stay in erected conditions 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	
(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 and 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	

TRIAL DIRECTIVES OF PNEUMATIC TELESCOPIC MAST

S. No	Parameters	specification	Trial Directives
1	Fully erected Height	21 meters \pm 0.2 meter	Board will check height of mast with suitable measuring instrument after erecting it.
2	Fully retracted height	3.6 meters \pm 0.1 Meter	Board will check retracted height with suitable measuring instruments.
3	Head load	10 Kg maximum	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	Board will measure diameter of section by suitable measuring instruments.
5	Guy ropes stainless steel of diameter	4 mm	Board will measure diameter of guy ropes by suitable measuring instrument
6	Guy radius	7 meters	Board will measure radius of Guy ropes practically.
7	Guy ropes stainless steel for three peg system	12 No. (3X4)	Board will check practically guy ropes
8	Application	Ground Mounting	board will check it practically by mounting on ground
9	Type of operation	Pneumatic-Foot pump operated	board will check it practically by installing with the help of foot pump
10	Sway	\pm 3°	Vendor will give written under taking in this regard.
11	Rotation Azimuth	\pm 180° azimuth plain	Board will check it practically by rotating pneumatic mast during installed condition.

S. No	Parameters	specification	Trial Directives
12	Environmental specs	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	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	Board will check it practically by suitable measuring instrument.
15	Base plate	Base plate of 500 mm x 8 mm (\pm 0.5 mm) diameter with Cup & Nails of 600 mm x 16 mm (\pm 0.5 mm) size (as per 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)	Lighting 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.

S. No	Parameters	specification	Trial Directives
17	Description		
(i)	The mast should be made of high strength heat treated aluminium alloy HE 30-T6/ HE 9-6063- T6, light weight and high tensile along with precision machine guide, locking collars and guy holder. The mast should withstand the adverse environmental standards such as high and low temperature and difficult field conditions.		Firm will provide certificate from any Government laboratory or NABL or ILAC accredited laboratory.
(ii)	The mast should be erected by using a foot pump.		Board will check it practically.
(iii)	The mast could with stand wind speed of up to 120 Kms/ hour for short duration and 80 Kms / hour for regular operation with the all guys ropes tightened		Firm will provide certificate from any Government authorised 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 conditions 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 trial to the board of officer
(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 authorised laboratory or NABL approved laboratory or ILAC approved laboratory in this regard during trial to the board.

S. No	Parameters	specification	Trial Directives
(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 and 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		