

TRIAL DIRECTIVE OF WATER MIST & CAFs EXTINGUISHER 2x9/10 LTRS CAPACITY HIGH PRESSURE TYPE (MOTORCYCLE MOUNTED)

PART-I

Sl.	Technical Parameter	QRs/Specification	Trial Directive
1	Motor Cycle	Royal Enfield Electra, 5 speed 350 cc, self start, Disc brake, PO Red in color shall be procured separately. Temp registration, insurance etc shall be in the scope of motor cycle dealer/supplier.	To be checked by BOO according to vehicle manual and specification/QRs.

PART-II

Sl.	Technical Parameter	QRs/Specification	Trial Directive
1.	Nomenclature/ Name of product/gadget/equipment	High pressure water mist CAF fire extinguisher, back pack type, ultra light Carbon composite with PET liner Pressure Vessel 9/10 ltrs capacity and Air Cylinder mounted, two Nos. mounted on Motorcycle.	To be checked by the board at vender site.
2.	"Conformity	The Water Mist & CAF(Back Pack) high pressure extinguisher shall be confirmed to EN 3-7:2004+A1:2007 standards	Fire to submit certificate and board to be checked.
3.	Mounting type	Motor Cycle Mounted but excluding motorcycle	Fitment to be checked
4.	Configuration/Description	It shall be mounted on a sturdy frame suitable cushioned for comfort, provided with shoulder pads for carrying as backpack and a handle to be carried by hand. All materials used shall be of fire retardant type. Backpack shall be supplied with air cylinders.	To be checked by Board physically.

1. Bucey Singh AC/SSB
 2. [Signature] Team Comdr/NSG
 3. [Signature] AC/ITBP
 4. [Signature] AC/CRPF
 5. [Signature] DC/BSF
 6. [Signature] DO/DFS
 7. [Signature] SSO(T)BPR&D
 8. [Signature] AIG(Fire)(CISF)
 9. [Signature] DIG(Fire)/CISF
 10. [Signature] IG(Adm) CISF

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Sl.	Technical Parameter	QRs/Specification	Trial Directive
5	Model & Make	Model Number shall be permanently marked as declared in Accredited Laboratory Test Report.	Lab report to be provided by vendor.
6.	Main Components	Pressure vessel shall be hold the media with safety valve, compressed air cylinder coupled with a reducer, hose pipes for discharge of water mist media extinguishing gun.	To be checked physically by BOO.
7.	Air Cylinder Material	Ultra light Carbon composite with PET Liner	Firm to provide certificate
8.	Type of Foam	Special AFFF Compound conforming for higher fire rating A55, B233, Spreading coefficient for special AFFF Compound shall be +5 minimum, concentrations shall be 6%.	Firm to provide datasheet.
9	If special foam mention the composition	If special foam mention the composition/water 96% 1.2-Ethandiol	Firm to provide datasheet
10.	Commercial Brand Name of the Special foam (fire extinguishing medium) as per accredited laboratory test report wherein higher fire ratings i.e. A55, B233, E1000 V (Die Electric Suitability) achieved, to be declared	Commercial Brand Name of the Special foam (fire extinguishing medium) as per accredited laboratory test report wherein higher fire ratings i.e. A55, B233, E1000 V (Die Electric Suitability) achieved, to be declared.	Firm to provide certificate

1. Naresh Kumar AC/SSB 2. [Signature] Team Comdr/NSG 3. [Signature] AC/ITBP 4. [Signature] AC/CRPF 5. [Signature] DC/BSF

6. [Signature] DO/DFS 7. [Signature] SSO(T)BPR&D 8. [Signature] AIG/Fire(CISF) 9. [Signature] DIG(Fire)/CISF 10. [Signature] IG(Adm) CISF

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(MOTORCYCLE MOUNTED)(Contd..)

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Sl.	Technical Parameter	QRs/Specification	Trial Directive
11	Characteristics of extinguishing medium of AFFF Compound with infrared spectrogram (to be furnished).	Characteristics of extinguishing medium of special AFFF compound shall be Density : 1.04 (kg/cm ³ , Viscosity : 1.35 (m ² /s), pH factor 7.8, Refractive Index 1.34 @ 20 ±20C.	Firm to provide datasheet/accredited laboratory test report required.
12.	Pressure Vessel Material & capacity (Nominal charge)	Ultra light Carbon Composite with PET Liner having 9/10 ltrs capacity.	To be physically checked by the BOO.
13	Minimum wall thickness	Minimum wall thickness of pressure vessel should be 5mm	Firm to submit certificate.
14	Extinguishing gun material	Stainless Steel	To be checked physically by BOO
15.	Extinguishing gun weight(750 grams approx)	Shall not more than 750 +/-50 gram.	To be checked physically by BOO.
16.	Length of EN marked Hose 1.3 meter for backpack system	Hose shall be EN marked, not less than 1.3 meter for backpack system.	To be checked physically by BOO.
17.	Weight of fully charged Backpack system	Weight of fully charged Ultra light Carbon composite with PET Liner Backpack system shall be not more than 20kg.	To be checked physically by BOO.

1. Navay Singh AC/SSB 2. [Signature] Team Comdr/NSG 3. [Signature] AC/ITBP 4. [Signature] AC/CRPF 5. [Signature] DC/BSF
6. [Signature] DO/DFS 7. [Signature] SSO(T)BPR&D 8. [Signature] AIG/Fire(CISF) 9. [Signature] DIG(Fire)/CISF 10. [Signature] IG(Adm) CISF

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PERFORMANCE:-

Sl.	Technical Parameter	QRs/Specification	Trial Directive
18	Air Cylinder Capacity(Ltrs)	2litre	To be physically checked by BOO.
19	Air Cylinder pressure (Bar)	300bar	To be checked physically by BOO.
20.	High Pressure Type	High Pressure Type (Dynamic Operating pressure to be tested in the accredited laboratory test report which will be considered as high pressure for as per clause No. 3.15 of EN 3 - 7:2004 + A1: 2007-08 (E) Standard.) \geq 37.6 Bar for Ultra light Carbon composite with PET Liner vessel .	Firm to submit lab certificate
21.	Lancing Distance of Gun	More than 15 +/-2 meter	To be checked by BOO physically and on trial
22.	Minimum operating time	Less than 25 second	
23	Operating temperature	System shall be designed for 6 ^o C or more and minimum 5 ^o C or less and certified by the manufacturer as per clause 7.4 of EN 3-7:2004+A1:2007-08 standards as per the accredited test report for backpack system.	Firm to submit certificate lab report.
24.	Fire Rating	55 A, 233B, 1000V with AFFF Compound as per EN.	Board to check for fitment and functional aspects.

1. Manoj Singh AC/SSB 2. Tejendra Team Condrr/NSG 3. Prakash AC/ITBP 4. Prakash AC/CRPF 5. Prakash DC/BSF

6. Prakash DO/DFS 7. Prakash SSO(T)BPR&D 8. Prakash AIG/Fire(CISF) 9. Prakash DIG(Fire)/CISF 10. Prakash IG(Adm) CISF

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CERTIFICATION:-

Sl.	Technical Parameter	QRs/Specification	Trial Directive
25	Approval	PED (Pressure Equipment Directive) approval as per 97/23/EC (Encumbrance Certificate)	Fire to submit certificate
26.	Pressure gauge	Pressure Vessel shall include a pressure gauge fitted on the vessel (CE Marked).	To be physically checked by BOO.
27.	"No objection certificate (NOC)	No objection certificate (NOC) for Air cylinder and its valve Pressure Vessel from Petroleum and Explosives Safety Organization (PESO)/Nagpur.	Firm has to provide certificate.
28.	Pressure Vessel.	Pressure vessel shall be CE marked from notified body.	To be checked physically by BOO.
29.	Consent of the OEM	Specific consent of the OEM for the value additions made along with a confirmation that fire ratings of the equipment would not be affected by these value additions	Firm has to provide certificate from OEM.
30	Test Report	Test Report number should be declared/mentioned with date.	Firm should provide a certificate of confirmation.
31	Declaration about accredited Laboratory where Test Conducted	Name of ILAC/NABL/ Central Govt. Laboratory where Test Conducted is required	Fire to submit certificate from NABL/International lab for confirming.

1. Navey Singh AC/SSB 2. [Signature] Team Comdr/NSG 3. [Signature] AC/ITBP 4. [Signature] AC/CRPF 5. [Signature] DC/BSF

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Sl.	Technical Parameter	QRs/Specification	Trial Directive
32	RTO fitness	The vehicle shall pass all fitness criteria of RTO required for registration	Firm has to provide certificate from OEM that there will no adverse effect on engine or chassis after modification and to be checked physically by BOO.
33	Pre dispatch inspection	Pre Dispatch Inspection (PDI) of product shall be carried out by CISF Fire officer as per specification, at the vendor site where all the testing facilities are available.	To be conducted by BOO.

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|-----------------------------|--------------------------------------|----------------------------------|---------------------------------------|---------------------------------------|
| 1. (Nancy Singla)
AC/SSB | 2. (Dayavir Singh)
Team Comdr/NSG | 3. (Naresh Namdev)
AC/ITBP | 4. (Neeraj Shahi)
AC/CRPF | 5. (Kailash Yadav)
DC/BSF |
| 6. (S.K. Tomar)
DO/DFS | 7. (Dr. M.M. Gosal)
SSO(T)/BPR&D | 8. (N.H. Rout)
AIG/Fire(CISF) | 9. (Rajinath Singh)
DIG(Fire)/CISF | 10. (Udayan Banerjee)
IG(Adm) CISF |