

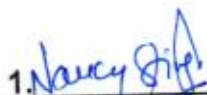

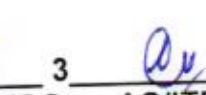
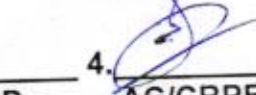

**TECHNICAL SPECIFICATIONS/ QRs OF WATER MIST & CAFs EXTINGUISHER
2x9/10 LTRS CAPACITY HIGH PRESSURE TYPE (MOTORCYCLE MOUNTED)**






PART-I

Sl.	Technical Parameter	QRs/Specification
1.	Motor Cycle	Royal Enfield Electra, 5 speed 350 cc, self start, Disc brake, PO Red in color. Temp registration, insurance etc. shall be in the scope of motor cycle dealer/supplier.

PART-II

Sl.	Technical Parameter	QRs/Specification
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.
2.	"Conformity National/International standard. to	The Water Mist & CAF(Back Pack) high pressure extinguisher shall be confirmed to EN 3-7:2004+A1:2007-08 standards The complete system shall be tested for compliance from an internationally/ nationally accredited laboratory for compliance to all 30 clauses (3.2, 3.15, 4.2, 4.3, 4.4, 4.5, 6.1, 6.2, 6.3, 7.1.1, 7.1.2, 7.2, 7.3, 7.4, 8.1, 8.2, 9.2, 10.1, 10.2, 10.3, 10.4, 10.5, 10.6.1 & 10.6.2, 14.1, 14.2, 15.2, 15.3, 16.1, 16.2) of EN 3 - 7:2004 + A1: 2007-08 (E) Standard mandatorily applicable for the complete system."
3.	Mounting type	Motor Cycle Mounted but excluding motorcycle
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.
5.	Model & Make	Model Number shall be permanently marked as declared in Accredited Laboratory Test Report.

1.  AC/SSB 2.  Team Comdr/NSG 3.  AC/ITBP 4.  AC/CRPF 5.  DC/BSF







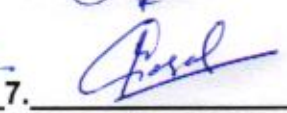



6.  DO/DFS 7.  SSO(T)BPR&D 8.  AIG/Fire(CISF) 9.  DIG(Fire)/CISF 10.  IG(Adm) CISF

**TECHNICAL SPECIFICATIONS/ QRs OF WATER MIST & CAFs EXTINGUISHER
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(Contd...)

CONSTRUCTION:

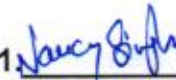

Sl.	Technical Parameter	QRs/Specification
6.	Main Components	Pressure vessel shall be hold the media with safety valve, compressed air cylinder coupled with a reducer, hose pipes for discharge of water mist media extinguishing gun.
7.	Operating temperature (max and minimum)	System shall be designed for 600C or more and minimum 50 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
8.	Make, Model, accessories and fittings of the motor cycle.	Configuration (Two backpacks each containing two air cylinder of 2 litre each shall be mounted on the motorcycle Royal Enfield Electra 5 Speed 350 cc (self start), PO Red in color, front windshield (2mm thick good quality transparent FRP), leg guard (made from 25mm dia 16 gauge nickel plated steel pipe), a Siren (12V 30 Amp audible at a distance of 200m), two blinking lights (12V 20W each red lights with flasher), First Aid Box (cotton absorbent 100gm, Band Aid 10 pcs, Burnol 2 pcs, Tincture Iodine 100 ml) and Gel blanket shall also be mounted on motorcycle. The motor cycle shall have space to store two air cylinders and breathing apparatus. The wind shield shall be duly marked with a logo as desired by the user.
9.	Model Number/ Laboratory Test Report etc.	Model Number shall be permanently marked as declared in Accredited Laboratory Test Report.
10.	Air Cylinder Capacity (Ltrs)	2 liters each
11.	No. of air Cylinder	4
12.	Air Cylinder pressure (Bar)	300 bar
13.	Air Cylinder Material	Ultra light Carbon composite with PET Liner

1.  2.  3.  4.  5. 
 6.  7.  8.  9.  10. 



**TECHNICAL SPECIFICATIONS/ QRs OF WATER MIST & CAFs EXTINGUISHER
2x9/10 LTRS CAPACITY HIGH PRESSURE TYPE (MOTORCYCLE MOUNTED)**

(Contd...)

Sl.	Technical Parameter	QRs/Specification
14.	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%.
15.	Composition of foam	If special foam, mention the composition/ Water 96% 1,2-Ethandiol
16.	Commercial Brand Name, laboratory test report/ fire ratings with foam	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.
17.	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 ±2 ⁰ C (accredited laboratory test report required).
18.	Fire ratings etc.	Class A, Class B and Electrical Fire Rating with Special AFFF Compound for backpack 55A, 233B, E1000V (Die Electric suitability) with commercial brand name of fire extinguishing medium as per accredited laboratory test report for Backpack System
19.	Pressure Vessel Material & capacity (Nominal charge)	Pressure vessel material should be Ultralite Carbon Composite with PET Liner having capacity 9/10 ltrs.
20.	Capacity (Nominal Charge)	9 liters each
21.	Extinguishing gun material	Stainless Steel
22.	Extinguishing gun weight	Shall not more than 750 ±50 gram.
23.	Length and standard of Hose	Hose shall be EN marked, not less than 1.3 meter for backpack system.

1.  2. 
AC/SSB Team Comdr/NSG

3.  4.  5. 
AC/ITBP AC/CRPF DC/BSF

6.  7. 
DO/ DFS SSO(T)BPR&D

8.  9.  10. 
AIG/Fire(CISF) DIG(Fire)/CISF IG(Adm) CISF

**TECHNICAL SPECIFICATIONS/ QRs OF WATER MIST & CAFs EXTINGUISHER
2x9/10 LTRS CAPACITY HIGH PRESSURE TYPE (MOTORCYCLE MOUNTED)
(Contd...)**

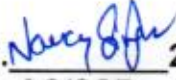









Sl.	Technical Parameter	QRs/Specification
24.	Weight of fully charged Backpack system vessel having Ultralite Carbon Composite with PET Liner Vessel.	Weight of each fully charged Backpack system having Ultralite Carbon Composite with PET Liner Vessel shall not be more than 20 kg.
25.	Overall weight of the Two wheeler	The gross weight of the Two wheeler shall not be more than the permissible limit of the RTO carrying with Two pillions.

PERFORMANCE :-

26.	High Pressure Type Dynamic Operating pressure type, report etc. for Ultralite Carbon Composite with PET Liner vessel	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 .
27.	Lancing Distance of Gun	More than 15 \pm 2 meter
28.	Temperature sustainability and standard	The air hoses shall be suitable for minus 40 ⁰ C to 100 ⁰ C temperature and EN mark on hose.
29.	Minimum operating time	Less than 25 second
30.	Fire Rating	55 A, 233B, 1000V with AFFF Compound as per EN.

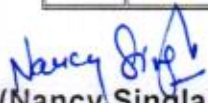



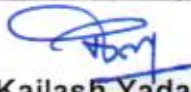
CERTIFICATION:-

31.	PED approval as per Directive 97/23/EC	PED (Pressure Equipment Directives) approval as per 97/23/EC (Encumbrance Certificate).
32.	Pressure gauge	Pressure Vessel shall include a pressure gauge fitted on the vessel (CE Marked from notified body) to measure the air cylinder pressure.

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 AC/SSB Team Comdr/NSG AC/TBP AC/CRPF DC/BSF
 6.  7.  8.  9.  10. 
 DO/DFS SSO(T)BPR&D AIG/Fire(CISF) DIG(Fire)/CISF IG(Adm) CISF

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(Contd...)**

Sl.	Technical Parameter	QRs/Specification
33.	"No objection certificate (NOC) for Pressure Vessel from Petroleum and Explosives Safety Organization (PESO) Nagpur."	No objection certificate (NOC) for Air cylinder and its valve Pressure Vessel from Petroleum and Explosives Safety Organization (PESO)/ approval from CCE Nagpur is mandatory.
34.	Pressure Vessel should have CE Marking from Notified body	Pressure vessel shall be CE marked from notified body.
35.	The air cylinders shall have PESO, Nagpur approval	The air cylinder shall be approved by PESO, Nagpur. Certificate containing body No. shall be produced at the time of delivery (PDI).
36.	Specific consent of the OEM for the value additions	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
37.	Test Report as per EN Standard (serial number 1 above)	Test Report as per EN Standard serial number 1 above shall be produced.
38.	Test Report No.	Test Report No. should be declared
39.	Test Report Date	Test Report date should be declared
40.	Name of NABL/ILAC/Central Govt Accredited Laboratory where Test Conducted	Name of ILAC/NABL/Central Govt. Accredited laboratory where test conducted is required.
41.	NOC Letter No. Date of PESO Nagpur for Pressure Vessel	NOC Letter No. and date should be mentioned.
42.	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.

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.  (Rajnath Singh) DIG(Fire)/CISF
 10.  (Udayan Banerjee) IG(Adm) CISF