

QUALITATIVE REQUIREMENT (QRs) OF WATER MIST EXTINGUISHER 09/10
LTRS CAPACITY (BACK PACK TYPE/HIGH PRESSURE)

Sl	Technical Parameter	Qualitative requirements (QRs)
1	Nomenclature/Name of product/gadget/equipment	High pressure water mist CAF fire extinguisher Back-pack type, ultra-light, Carbon composite with liner made of PET/PA/HDPE/Aluminium or any internationally accepted liner material, compliant with PED 97/23/EC, CE marking requirements and PESO approved pressure vessel 9/10 ltrs and air cylinder.
2	Conformity	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 Govt. 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	Backpack
4	Configuration/Description	It shall be mounted on a sturdy frame suitably cushioned for comfort, provided with shoulder pads for carrying as a backpack and a handle to be carried by hand. All materials used shall be of a 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.
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.

CONSTRUCTION: -

7.	Air Cylinder Material	Ultra light Carbon composite with liner made of PET/PA/HDPE/Aluminium or any internationally accepted liner material, compliant with PED 97/23/EC, CE marking requirements and PESO approval
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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%.
9	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.
10	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° C (accredited laboratory test report required)
11	Pressure Vessel Material & Capacity (Nominal Charge)	Ultra light Carbon Composite with liner made of PET/PA/HDPE/Aluminium or any internationally accepted liner material, compliant with PED 97/23/EC, CE marking requirements and PESO approved of 09/10 litre capacity.
12	Minimum wall thickness of pressure vessel (mm)	Minimum wall thickness of pressure vessel should be 5 mm
13	Extinguishing gun material	Stainless Steel
14	Weight of extinguishing gun.	Shall not more than 750+/- 50 gram.
15	Length of Standard of Hose for backpack system.	Hose shall be EN marked, not less than 1.3 meters for backpack system.
16	Weight of fully charged Backpack system	Weight of fully charged Ultra light Carbon composite with liner made of PET/PA/HDPE/Aluminium or any internationally accepted liner material, compliant with PED 97/23/EC, CE marking requirements and PESO approved Backpack system shall be not more than 20kg.

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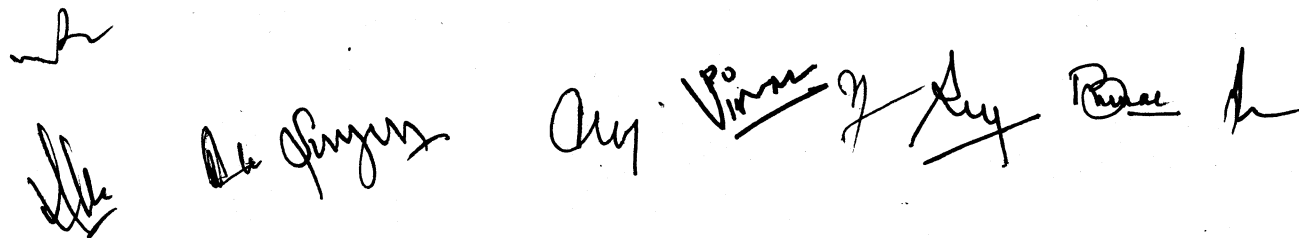
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PERFORMANCE:-

17	Air Cylinder Capacity (Ltrs)	2 litres
18	Air Cylinder pressure (Bar)	300 bar
19	High Pressure Type	High Pressure Type (Dynamic Operating pressure to be tested in the Govt. 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.) <u>> 37.6 Bar</u> for Ultra-light Carbon composite with liner made of PET/PA/HDPE/Aluminium or any internationally accepted liner material, compliant with PED 97/23/EC, CE marking requirements and PESO approved vessel.
20	Lancing Distance of Gun	More than 15 +/- 2 meter
21	Minimum operating time	25 +/- 2 second
22	Operating temperature	System shall be designed for 60°C or more and minimum 5° 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.
23	Fire Rating	Class A, Class B and Electrical Fire Rating with Special AFFF Compound for back pack 55A, 233B, E1000V (Die Electric suitability) with commercial brand name of fire extinguishing medium as per accredited laboratory test report for Backpack System.

CERTIFICATION:-

24	Approval	PED (Pressure Equipment Directives) approval as per 97/23/EC (Encumbrance Certificate)
25	Pressure Gauge	Pressure Vessel shall be fitted with a pressure gauge (CE-Marked)
26	NOC (No Objection Certificate)	No objection certificate (NOC) for Air cylinder and its valve & Pressure Vessel containing body No. from Petroleum and Explosives Safety Organization (PESO)/approval of CCE Nagpur is mandatory.
27	Pressure Vessel	Pressure Vessel shall be CE marked from Notified body.
28	Consent from 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.



29	Test Reports	Test Report No. should be declared/mentioned with date.
30	Declaration about Govt. Accredited Laboratory where Test Conducted	Name of NABL/Central Govt. Accredited Laboratory where Test Conducted is required.
31	Pre dispatch inspection	Pre Dispatch Inspection (PDI) of product shall be carried out by CISF Fire officers as per specifications, at the vendor site where all the testing facilities are available.


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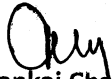

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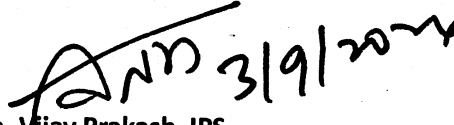

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