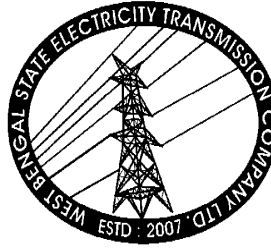


# WATER MIST & CAF FIRE EXTINGUISHING SYSTEM

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**December 2019**

*Engineering Department*

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## **Technical Specification of Portable High Pressure Water Mist & CAF Fire Extinguishing System**

Conformity 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.
Type of Foam	Special AFFF Compound conforming to manufacturer own specification for higher Fire rating A55, B233, E1000 V (Die Electric Suitability, Spreading coefficient for special AFFF Compound shall be +5 minimum, concentration shall be 6%
Pressure Vessel Material & Capacity (Nominal Charge)	Ultralite Carbon Composite with PET Liner of 9 liter capacity
Air Cylinder Material	Ultralite Carbon composite with PET Liner
Mounting type	Backpack
Configuration	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 fire retardant type. Backpack shall be supplied with two air cylinders.
Main Components	Pressure vessel to hold the media with safety valve, compressed air cylinder coupled with a reducer, hose pipes for discharge of water mist media, extinguishing gun.
Characteristics of extinguishing medium of Special AFFF Compound (manufacturer own specifications) with infrared spectrogram to be furnished as per accredited Laboratory test report	Density in kg/dm <sup>3</sup> , Viscosity in mm <sup>2</sup> /s, pH factor, Refractive index to be declared
Extinguishing gun material	Stainless Steel
Extinguishing gun weight	750 gram (+/- 5%)

Length of EN marked Hose	1.3 meter for backpack system
Weight of fully charged Backpack system having Ultralite Carbon Composite with PET Liner	20 kg (+/- 5%)
Air Cylinder Capacity (Ltrs)	2 liter Ultralite Carbon composite with PET Liner
Air Cylinder pressure (Bar)	300 bar
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.), $\geq 35$ for Ultralight Carbon composite with PET Linervessel (Bar)	$\geq 35$ bar
Lancing Distance of Gun	More than 14 meter
AIR HOSE	shall be suitable for minus 40 deg C to 100 Deg C temperature and EN mark on hose
Minimum operating time in full throttle for Ultralight Carbon composite with PET Liner vessel	25 sec or more
System design	Maximum operating temperature TS max and minimum operating temperature TS min of 60 deg C or more and 5 Deg C or less respectively and certified by the manufacturer accordingly as per Clause 7.4 of EN 3-7:2004+A1:2007-08 standards as per the accredited test report for backpack system.
Fire Rating	55 A, 233B, 1000V with Special AFFF Compound as per manufacturer own spec
Approval for pressure vessel	Under pressure equipment directive 97/23/EC or 2014/68/EU for Module B or Module C1 with CE Marking followed by notified body no. to verify the above applicable modules under the pressure equipment directive [PED]). (EC Type examination).
Pressure Gauge	Fitted on Pressure Vessel
No objection certificate	(NOC) for Pressure Vessel from Petroleum and Explosives Safety Organization (PESO) Nagpur
Test Report	ILAC / Central Govt. accredited Lab / NABL accredited lab where test conducted.