

भारत सरकार, गृह मंत्रालय
महानिदेशालय सीमा सुरक्षा बल
(रसद निदेशालय: आधुनिकीकरण सैल)
(Email-comdtord@bsf.nic.in)
(Fax: 011-24367683)

ब्लाक संख्या . 10,
सीजीओ काम्पलैक्स,

लोधी रोड, नई दिल्ली-03

दिनांक ____ फरवरी 2021

सेवा में,

उप महानिरीक्षक (रसद)
केन्द्रीय रिजर्व पुलिस बल,
ब्लाक नम्बर 1, केन्द्रीय कार्यालय परिसर
लोधी रोड, नई दिल्ली

विषय: अनुमोदित गुणात्मक आवश्यकता/परीक्षण निर्देशों का प्रेषण

तकनीकी विशेषज्ञों के उप समूह द्वारा सूत्रीकरण किए एवं महानिदेशक सीमा सुरक्षा बल द्वारा अनुमोदित "High Pressure Water Mist & CAF Fire Extinguisher capacity 50 L Trolley Mounted" के गुणात्मक आवश्यकता/परीक्षण निर्देशों को आपकी अग्रिम कार्यवाही हेतु प्रेषित किया जाता है।

संलग्न : उपरोक्तनुसार

(दिगेन्द्र सिंह पँवार)

उप कमांडेंट (आधुनिकीकरण)

प्रतिलिपि :-

1. तकनीकी निदेशक

The Technical Director
राष्ट्रीय सूचना-विज्ञान केन्द्र, नोर्थ ब्लाक,
गृह मंत्रालय, नई दिल्ली
NIC, North Block, MHA
New Delhi
(द्वारा ई-मेल)

(ई-मेल पता : mpsugandhi@nic.in)

2. SO (IT), North Block, MHA

(Through E-mail)

(E-mail address: soit@nic.in)

3. तकनीकी विंग, सीमा सुरक्षा बल

: आपसे अनुरोध है कि उक्त उपकरण के गुणात्मक आवश्यकता /परीक्षण निर्देशों को गृह मंत्रालय की वेबसाईट (पुलिस आधुनिकीकरण विभाग-गुणात्मक आवश्यकता) पर अपलोड करने का श्रम करें।


: आपसे अनुरोध है कि उक्त उपकरण के गुणात्मक आवश्यकता /परीक्षण निर्देशों को गृह मंत्रालय की वेबसाईट (पुलिस आधुनिकीकरण विभाग-गुणात्मक आवश्यकता) पर अपलोड करने का श्रम करें।


: आपसे अनुरोध है कि उक्त उपकरण के गुणात्मक आवश्यकता /परीक्षण निर्देशों को सीमा सुरक्षा बल की वेबसाईट पर अपलोड करने का श्रम करें।

(133)

**QUALITATIVE REQUIREMENTS AND TRIAL DIRECTIVES OF WATER MIST & CAF (HIGH PRESSURE)
FIRE EXTINGUISHER TROLLEY MOUNTED**


SL.NO.	PARAMETER	QRS/ SPECIFICATION	TRIAL DIRECTIVE
1.	GENERAL DESCRIPTION		
(a)	Nomenclature/ Name of product/ gadget/ equipment	Water Mist & CAF (High Pressure) Fire Extinguisher Trolley Mounted	To be Physically checked/measured by B.O.O (Board of Officers)
(b)	Equipment Life	10 years	Recommended
(c)	Model & make	Model Number & Make shall be permanently marked on the equipment as declared in Accredited Laboratory Test Reports.	To be Physically checked/measured by B.O.O (Board of Officers)
(d)	Shape & Size	As Required	
(e)	Weight (Ready in use state, Including Trolley)	120 Kg (Maximum)	
(f)	Filling Capacity	50 Liters	Certificate as per 4(i)
(g)	Supply/ Mounting Type	Trolley Mounted Supply System	To be Physically checked/measured by B.O.O (Board of Officers)


M-VII


M-VI



M-V


M-IV


M-III


M-II


M-I


CHAIRMAN


M-XIV


M-XIII


M-XII


M-XI
1


M-X


M-IX


M-VIII

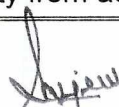
2.	CONSTRUCTION:		
(i)	Configuration/ Description	It shall be mounted on a trolley frame provided with sturdy Wheels for movement/use.	To be Physically checked/measured by B.O.O.
(ii)	Main Components:	(1) Main Vessel (Capacity – 50 Ltr) with pressure gauge (2) Compressed Air Cylinder (3) Air Supply Pipe (4) Water Mist Discharge Hose (5) Extinguishing Gun (6) Foam Compound (7) Trolley (8) Joints/Couplings & Pressure Gauge (9) Pressure reducer (Fitted on Compressed Air Cylinder outlet)	
(A)	MAIN VESSEL		
(i)	Vessel Material	Carbon Composite with Polyethylene Terephthalate (PET) Liner or Carbon Composite with Aluminum liner or Corrosion Free Aluminum Alloy	Certificate as per 4(i)
(ii)	Vessel Capacity	50 Liters	
(iii)	Pressure Gauge	One Pressure gauge should be fitted on vessel for measuring air pressure.	
(iv)	Safety Valve with Pressure Reducing Valve (PRV)	Pressure vessel must be fitted with safety Valve with PRV distinctly visible on vessel to hold media and to ensure safety from accidents.	


 M-VII


 M-VI


 M-V

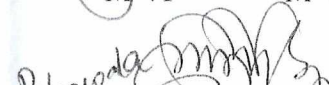

 M-IV


 M-III


 M-II


 M-I


 CHAIRMAN


 M-XIV

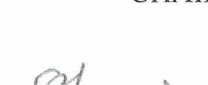

 M-XIII


 M-XII





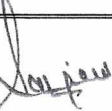


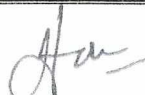

 M-XI

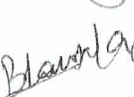





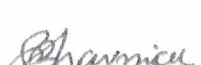

 M-X


 M-IX

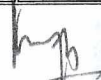

 M-VIII

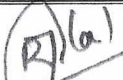
(B) AIR CYLINDER		
(i)	Material	Carbon Composite with Polyethylene Terephthalate (PET) Liner or Carbon Composite with Aluminum Liner
(ii)	Capacity	06 To 09 Liters at 300 bar
(C) AIR SUPPLY PIPE		
(i)	Hose Material	Any non combustible fire retardant material
(ii)	Hose Length	As Required
(iii)	Temperature Suitability	The air supply hose should be suitable to use for temperature range from - 40 ⁰ C to 100 ⁰ C
(D) WATER MIST DISCHARGE HOSE		
(i)	Hose Material	Any non combustible fire retardant material
(ii)	Temperature Suitability	The hose should be suitable to use for temperature range from 5 ⁰ C to 100 ⁰ C
(iii)	Hose Length	5.0 to 5.5 meters
(E) EXTINGUISHING GUN		
(i)	Extinguishing gun material	Stainless Steel
(ii)	Effective Range of gun/Lancing range	12-15 meters (From Discharge point of Gun)
(iii)	Average mean Droplet Size (Diameter)	150 – 750 microns (≥ 50%)
		Certificate as per 4(ii)
		Certificate as per 4(iv)
		To be Physically checked/measured by B.O.O.
		Certificate as per 4(iv)
		To be Physically checked/measured by B.O.O.
		Certificate as per 4(vii)

 M-VII
  M-VI
  M-V
  M-IV
  M-III
  M-II
  M-I
  CHAIRMAN

 M-XIV
  M-XIII
  M-XII
  M-XI
  M-X
  M-IX
  M-VIII

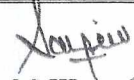
(F)	TROLLEY		
(i)	Shape of Trolley	Load carrying platform with four wheels for support during movement	Certificate as per 4(iv)
(ii)	Size of Trolley	As required	
(iii)	Material of Trolley	Stainless steel or Anti Corrosive Aluminum alloy	
(iv)	Wheels	Wheels should be sturdy as per structure requirement.	
(G)	FOAM COMPOUND/SOLUTION		
(i)	Type of Foam Compound	(a) AFFF Compound conforming for A55, IVB, E1000V as per EN standards. (b) Spreading coefficient for special AFFF Compound shall be 5±0.5 (minimum) (c) Concentrations shall be 3% - 6%.	Certificate as per 4(iii)
(ii)	Commercial Brand Name of the foam	Commercial Brand Name of foam compound as per laboratory test report should be declared.	To be Physically checked/measured by B.O.O.
(H)	COUPLINGS/JOINTS & PRESSURE GAUGE	(1) All coupling/crimping/Joints incorporated in the complete system should be of fire retardant material and shall function throughout the operating temperature range. (2) All pressure gauges incorporated in the complete system should be of PED (Pressure Equipment Directive) approved with CE markings.	(i) Certificate as per 4(iv). (ii) B.O.O should check CE marking on Pressure gauges.


M-VII


M-VI

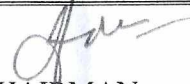

M-V



M-IV



M-III



M-II


M-I


CHAIRMAN


M-XIV



M-XIII


M-XII


M-XI





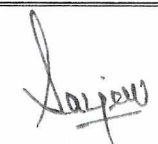


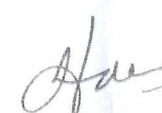
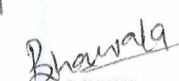







M-X


M-IX


M-VIII

(123)

(I)	PRESSURE REDUCER	Pressure Reducer should be of PED approved with CE markings.	B.O.O should check CE marking on Pressure reducer.
3.	PERFORMANCE PARAMETERS		
(A)	MAXIMUM EFFECTIVE DISCHARGE TIME	75 - 100 seconds.	To be Physically checked/measured by B.O.O.
(B)	FIRE RATING	(i) A55, IVB, E1000V as per EN standards. (ii) Fire rating should be clearly marked on the system	(i) Certificate as per 4(iv). (ii) To be physically checked/measured by B.O.O.
(C)	LANCING RANGE	12-15 meters.	To be Physically checked/measured by B.O.O.
(D)	MOBILITY	Trolley should allow easy mobility of the system.	To be Physically checked/measured by B.O.O.
4.	CERTIFICATION (All certificates/Test reports should be issued by government approved Lab or body.)		
(i)	Main Vessel	Main Vessel shall be tested & marked for claimed descriptions from Notified body. CE marking & certification may also be admissible.	All certificates To be Physically inspected by B.O.O. for Equipment name, model no. manufacturer details and test results pertaining to TDs mentioned above.
(ii)	NOC(No objection certificate)	No objection certificate (NOC) for Air cylinder and its Non returning valve(NRV) from Petroleum and Explosives Safety Organization (PESO), Nagpur is mandatory.	

 M-VII	 M-VI	 M-V	 M-IV	 M-III	 M-II	 M-I	 CHAIRMAN
 M-XIV	 M-XIII	 M-XII	 M-XI	 M-X	 M-IX	 M-VIII	

(iii)	Fire rating of FOAM compound	(i) A55, IVB, E1000V as per EN standards. (ii) Technical Report with Testing Certificate by any Central Govt. Lab such as CSIR-CBRI or CFEES or ILAC or by any other NABL accredited lab.	All certificates To be Physically inspected by B.O.O. for Equipment name, model no. manufacturer details and test results pertaining to TDs mentioned above.
(iv)	DIN Compliance Certification	Technical Report with Testing Certificate by any Central Govt. lab such as CSIR-CBRI or CFEES or ILAC or by any other NABL accredited lab for specific test as per Section 6 & 7 of DIN EN 1866-1: 2007-10.	
(v)	Declaration about Govt. Accredited Laboratory where Test Conducted	Names & addresses of all Central Govt. Labs such as CSIR-CBRI or CFEES or ILAC or any other NABL accredited Laboratory or any other approved bodies who issued the relevant technical reports with test certificate for equipment are required.	
(vi)	Fire Extinguisher performance Report	Complete system Experimental Performance Evaluation/Test report as per DIN EN 1866-1: 2007-10 from any Central Govt. Labs such as CSIR-CBRI or CFEES or ILAC or any other NABL accredited Laboratory accredited for these specific tests.	
(vii)	Water Mist Droplet Size/ Diameter Measurement	Water Mist Droplet Size Diameter measurement Technical evaluation test report from CSIR-CBRI or CFEES or ILAC or any other NABL accredited labs for these specific tests	

Neeraj Shahi,
AC, RAF Sector Hqr.
Member-IV

Sanjeev Hampal
Commandant
RAF Sector Hqr.
Member-III

Sandeep Gokel
DIG
RAF Sector Hqr.
Member-II

Radha Mohan Meena
IG, RAF
Member-I

Chairman

Deviender Singh
AC, CISF
Member-IX

S. P. Bhawmick
AC, ITBP
Member-VIII

Raj Ranjap
DC, SSB
Member-VII

Ramji Lal
DC, BSF
Member-VI

Harish Chander
Lt. Col., Assam Rifles
Member-V

Pradeep Kumar
Sr. Sci., FTRL
Member-XIV

R. S. Chimote
Chief Sci., CSIR-CBRI
Member-XIII

Dr. S. K. Tomar,
Delhi Fire Service
Member-XII

S. Arun Kumar
Sci D. CED BIS
Member-XI

Sushil Kumar
PSO(B&E), BPR&D
Member-X

APPROVED/NOT APPROVED
6 Rakesh Asthana

DG ACP