

F.no. IV-13018/17/2009-Prov.II 652  
Bharat Sarkar/Government of India  
Griha Mantralaya/Ministry of Home Affairs  
PM Division/Prov.II

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26, Man Singh Road, Jaisalmer House  
New Delhi. Dated : 24.05.2016

To

DsG : AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

Subject :- QRs and Trial Directives of 5.56 x 45mm Carbine (close quarter battle weapon with Holographic Reflex sight)

The undersigned is directed to refer to DG, NSG letter no. P/604/2015(389)/Pistol 9mm/NSG-1933 dated 26.02.2016 and to say that QRs and Trial Directives of 5.56 x 45mm Carbine (close quarter battle weapon with Holographic Reflex sight) (as per annexure) have been accepted by the competent authority in MHA subject to condition that no deviation will be made from the proposed QRs and Trial Directives without the permission of MHA.

2. Henceforth, all the CAPFs should procure the above item strictly as per the laid down Technical Specifications/QRs subject.

3. CAPFs concerned will be liable for correctness of the QRs.

Encl: A/a

Yours Faithfully,



(P.K. Srivastava)

Under Secretary to the Govt. of India  
Tele/Fax: 2338 1278

Copy forwarded for necessary action to:-

✓ The Section Officer (IT), MHA: it is requested to host the QRs (soft copy attached) on the MHA website (under the page of Organizational set up- Police Modernization Division- QRs under A & A items)



(P K Srivastava)

Section Officer (Prov.II)

Tel No: 2338 6034

Copy to DDG (Procurement), MHA, Jaisalmer House

QRs/SPECIFICATIONS OF 5.56 X 45 MM CARBINE (CLOSE QUARTER BATTLE  
WEAPON WITH HOLOGRAPHIC REFLEX SIGHT)

245

S/No.	Parameter	Specification
<b>OPERATIONAL PARAMETERS</b>		
1.	Caliber	5.56 x 45 mm NATO standard. Capable of firing indigenous OFB manufactured NATO ammunition without any alterations or replacement of working parts to the carbine.
2.	Weight of the Carbine	Weight without magazine, however with three picatinny rails and provision for UBGL attachment should not be more than 3.1 kgs.
3.	Firing Mode	(a) Single and Automatic. (b) Suitable change lever to select firing mode. (c) Change lever should be positively locked to ensure that weapon fires in desired mode only when it is in designated position.
4.	Effective Range	Trained soldier should be able to effectively engage human target at a range of 200 mtrs with aimed fire under normal conditions of visibility.
5.	Muzzle Velocity	Minimum 750 m/s.
6.	Rate of Fire	Minimum 600 rounds per minute cyclic rate of fire.
7.	Accuracy	(a) At 50 mtrs (single shot) – Group size should be within 8 cms x 8 cms. (b) At 50 mtrs (short burst of two/three rounds) – Minimum 50% of total number of rounds fired should hit within 30 cms x 30 cms area.
8.	Reliability	(a) 2000 rounds test will be carried out. (b) Total Stoppages in 2000 rounds – Maximum two stoppages (removable without the use of any tools).
9.	Adverse Condition Test	(a) Sand Test. (b) Water Test. (c) Mud Test. (d) Drop Test.
10.	Environmental Conditions	Carbine should be capable of trouble free operation after being stored under following conditions :  (a) Operating Temperature -40 Deg C to +50Deg C.  (b) Storage Temperature -40 Deg C to +50Deg C.  (c) Humidity 95% RH at 25 Deg C.
11.	Designed for right & left handed use	The weapon should be capable of ambidextrous usage without the use of any tool i.e provision of adjustment of the safety lever, magazine catch, fire selector and ejection port to suit both left hand & right hand firer.
12.	Color	Black/ Olive Green/Desert pattern, to be specified by the user at the time of tendering.

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**QRs/SPECIFICATIONS OF 5.56 X 45 MM CARBINE (CLOSE QUARTER BATTLE  
WEAPON WITH HOLOGRAPHIC REFLEX SIGHT) (Contd.....)**

S/No.	Parameter	Specification
<b>PHYSICAL PARAMETERS</b>		
13.	Flash suppressor	The flash suppressor should be provided to suppress the flash.
14.	Length	(a) Overall Length (Folded/Retracted Butt) – Not more than 700 mm. (b) Overall Length (Extended Butt) – Not more than 850 mm (UBGL attached).
15.	Picatinny Rail	Mil Standard 1913 Picatinny Rail integrated with the weapon on at least 3 sides to provide interfaces for accessories (i.e. internationally available Holographic/Reflex sights and Tactical lights/LAD).
16.	<u>Barrel</u>	
	(a) Barrel type	Chrome plated rifled bore.
	(b) Barrel Length	Should not be more than 330 mm.
	(c) Barrel life	Barrel life should be of minimum 15,000 rounds.
17.	<u>Optical Sight</u>	
	(a) Type	The carbine should be provided with an integrated holographic reflex sight of weight not more than 300 gms alongwith on/off and retical brightness control.
	(b) Field of View	Minimum 160 with both eyes open.
	(c) Illumination	Reflex sight should be battery powered/self-illuminated.
	(d) Laser Pointers	Red dot and IR Laser (for covert ops).
18.	<u>Magazine</u>	
	(a) Capacity	Capacity of 20-30 rounds.
	(b) Material	(i) Magazine should be made of see through high strength polymer/composite magazine/metal magazine. (ii) Magazine should have side slots/provision to indicate remaining ammunition. (iii) Magazine should be robust enough to withstand regular field usage under various environmental conditions. (iv) Should not get deformed when subjected to heat during prolonged firing or in hot weather conditions. (v) In case of any damage or deformation due to heavy/rough usage. The magazine should still be functional.

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**QRs/SPECIFICATIONS OF 5.56 X 45 MM CARBINE (CLOSE QUARTER BATTLE  
WEAPON WITH HOLOGRAPHIC REFLEX SIGHT) (Contd.....)**

S/No.	Parameter	Specification
19.	Trigger Stage	Should have 2 stage pull.
20.	Butt	Butt of the weapon should be foldable/retractable.
21.	Furniture	Should be made up of high strength polymers/composite/reinforced scratch proof plastic of high strength enabling environmental stability.
22.	Fore Hand Grip	Fore Hand Grip should be present in the carbine.
23.	Steel Flip Up Sights	In addition to integrated reflex sight the carbine should have flip up fore sight & rear sight.
24.	Sling	Carbine should have adjustable and robust carrying sling with attachment facilitating quick detachment.
<b>MISCELLANEOUS PARAMETERS</b>		
25.	Safety	Both mechanical & applied safety.
26.	Field Stripping	Weapon should be easily stripped without any tools & all cleaning parts to be designed for field cleaning.
27.	Accessories	<p>Manufacturer should provide accessories to include:-</p> <ul style="list-style-type: none"> <li>(a) Tactical Light – One for each carbine.</li> <li>(b) Laser Aiming Device – One for each carbine.</li> <li>(c) Bayonet – One for each carbine.</li> <li>(d) Magazine – 3 with each carbine.</li> <li>(e) Field Cleaning kit (one with each carbine).</li> <li>(f) Standard weapon tool kit (to be specified by the user).</li> <li>(g) Measurement gauge (Go &amp; No go) (to be specified by the user).</li> <li>(h) Filler gauge (to be specified by the user).</li> <li>(j) Firing pin protrusion gauge (to be specified by the user).</li> <li>(k) Rigid water proof case for transit of weapon (one with each carbine).</li> <li>(l) Maintenance manual in English (to be specified by the user).</li> <li>(m) Technical literature in English (to be specified by the user).</li> <li>(n) Training manuals &amp; user hand book (to be specified by the user).</li> <li>(o) Manufacturers recommended list of spares duly priced (to be specified by the user).</li> <li>(p) Training slides, brochures, video films &amp; CDs (to be specified by the user).</li> </ul> <p><b>Note :-</b> The type and quantity of the accessories to be specified at the time of tendering by the user.</p>
28.	Training	In situ training for one week on operation, maintenance, fault finding and user level repairs.

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NSG

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DCRPF

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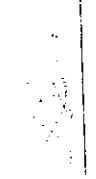




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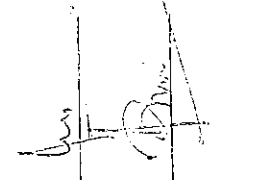
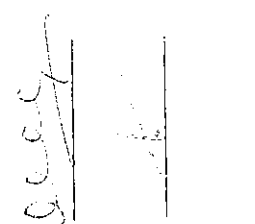
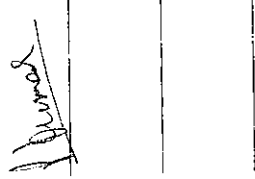
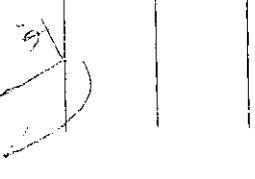
**TRIAL DIRECTIVES FOR 5.56 X 45 MM CARBINE(CLOSE QUARTER BATTLE WEAPON WITH HOLOGRAPHIC REFLEX SIGHT)**

Ser No	Specifications	Parameters	Trial Directives
<b>OPERATIONAL PARAMETERS</b>			
1.	Caliber	5.56 x 45 mm NATO standard. Capable of firing indigenous OFB manufactured NATO ammunition without any alterations or replacement of working parts to the carbine.	To be physically checked by BOO. Vendor to submit a certificate from a national / international accredited lab for the same. OEM to provide contact person details, phone number, address, e-mail address & website of the lab. Authenticity of certificate must be confirmed by the BOO.
2.	Weight of the Carbine	Weight without magazine, however with three picatinny rails and provision for UBGL attachment should not be more than 3.1 kgs.	To be physically checked by BOO
3.	Firing Mode	(a) Single and Automatic. (b) Suitable change lever to select firing mode. (c) Change lever should be positively locked to ensure that weapon fires in desired mode only when it is in designated position.	To be physically checked by BOO. Vendor to submit a certificate from a national / international accredited lab for the same. OEM to provide contact person details, phone number, address, e-mail address & website of the lab. Authenticity of certificate must be confirmed by the BOO.
4.	Effective Range	Trained soldier should be able to effectively engage human target at a range of 200mtrs with aimed fire under normal conditions of visibility.	Weapon should be able to penetrate 3mm mild steel plate (hardness 120-150 BHN) at a range of 200mtrs. The same will be checked by the BOO. The metal plate mentioned above will be provided by the vendor. Vendor to provide certificate from a NABL certified lab regarding the BHN metal plate and the same will be checked by the BOO.

TRIAL DIRECTIVES FOR 5.56 X 45 MM CARBINE(CLOSE QUARTER BATTLE WEAPON WITH HOLOGRAPHIC REFLEX SIGHT)(Contd....)

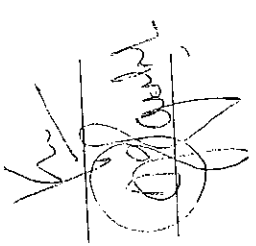
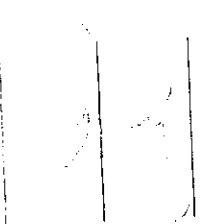

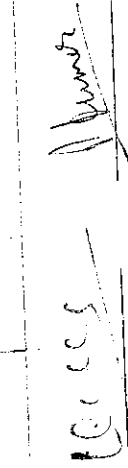

Ser No	Specifications	Parameters	Trial Directives
5.	Muzzle Velocity	Minimum 750 m/s	OEM to provide certificate from a national/international accredited lab. OEM to provide contact person details, phone number, address, e-mail address & website of the lab. Authenticity of certificate must be confirmed by the BOC.
6.	Rate of Fire	Minimum 600 rounds per minute cyclic rate of fire.	-do-
7.	Accuracy	<p>(a) At 50 mtrs (single shot) – Group size should be within 8 cms x 8 cms.</p> <p>(b) At 50 mtrs (short burst of two/three rounds) – Minimum 50% of total number of rounds fired should hit within 30 cms x 30 cms area.</p>	<p>(i) For testing accuracy figure 11 target (40 cm X 70 cm) will be used &amp; seven shots will be fired (in single shot mode) using the weapon (mounted on a fixed mount). Six shots will be considered out of seven. Group size should be within 8 cms x 8 cms area. Mount and vice to be provided by the vendor.</p> <p>(ii) For testing accuracy figure 11 target (40 cm X 70 cm) will be used &amp; 20 shots will be fired (short burst of two/three rounds in automatic mode) using the weapon (mounted on a fixed mount). Group size should be within 30cms x 30cms area.</p> <p>(iii) Accuracy test will be carried out during field functional trial &amp; the firing will be carried out by the firers of the OEM. Weapon will be fixed on a mount and fired. Accuracy test will be conducted by the OEM ammunition.</p>

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**TRIAL DIRECTIVES FOR 5.56 X 45 MM CARBINE(CLOSE QUARTER BATTLE WEAPON WITH HOLOGRAPHIC REFLEX SIGHT)**  
(Contd....)

Ser No	Specifications	Parameters	Trial Directives
8.	Reliability	(a) 2000 rounds test will be carried out. (b) Total Stoppages in 2000 rounds - Maximum two stoppages (removable without the use of any tools).	(i) Total of 2000 rounds will be fired in five cycles with 400 rounds each. The firing will be carried out in auto mode. (ii) Cleaning and oiling after firing 2000 rounds. Tests will be carried out during field functional trial & the firing will be carried out by the firers of the OEM. Weapon will be fixed on a mount and fired. Reliability test will be conducted by the OEM ammunition.
9.	Adverse Condition Test	(a) Sand Test.  (b) Water Test.	(i) Weapon loaded and cocked with full magazine (20/30 rounds) will be buried and fully covered in sand for 10 minutes. Remove from sand and fire. The carbine should be able to fire 5 rounds (single shot) and remaining of the rounds in three/five bursts without any stoppages. (ii) While testing the muzzle and the breach end should be plugged. One round should be in the chamber (iii) Weapon loaded and cocked with full magazine (20/30 rounds) will be fully submerged in water for 10 minutes. Withdraw the weapon and fire (burst) within 3/5 seconds without cocking or draining the weapon. The carbine should be able to fire without any stoppages. (iv) While testing the muzzle should be covered with a muzzle cap or taped. One round should be in the chamber.

**TRIAL DIRECTIVES FOR 5.56 X 45 MM CARBINE(CLOSE QUARTER BATTLE WEAPON WITH HOLOGRAPHIC REFLEX SIGHT)**  
(Contd....)

Ser No	Specifications	Parameters	Trial Directives
		(c) Mud Test.	(v) Weapon loaded and cocked with full magazine (20/30 rounds) will be fully submerged in mud for 10 minutes. Withdraw the weapon and fire (burst) within 3/5 seconds without cocking or draining the weapon. The carbine should be able to fire without any stoppages. (vi) While testing the muzzle and the breach end should be plugged. One round should be in the chamber. (vii) Drop the weapon with the primed cartridge (bullet and powder removed) from a height of 1.5 mtrs on a hard surface. Drop should be carried out on each face (butt/barrel/left/right/top) each time with empty magazine and cartridge with primer in chamber. Primer to be checked if functional. Load filled magazine and fire to check if carbine is functional.
10.	Environmental Conditions (a) Operating Temperature (b) Storage Temperature (c) Humidity	Carbine should be capable of trouble free operation after being stored under following conditions: -40 Deg C to +50Deg C. -40 Deg C to +50Deg C. 95% RH at 25 Deg C.	(viii) OEM to provide ammunition and muzzle caps for above tests. OEM to provide certificate from a national/international accredited lab. OEM to provide contact person details, phone number, address, e-mail address & website of the lab. Authenticity of certificate must be confirmed by the POC.



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TRIAL DIRECTIVES FOR 5.56 X 45 MM CARBINE(CLOSE QUARTER BATTLE WEAPON WITH HOLOGRAPHIC REFLEX SIGHT)

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Specifications		Parameters	Trial Directives
Ser No	11.	Designed for right & left handed use	The weapon should be capable of ambidextrous usage without the use of any tool i.e provision of adjustment of the safety lever, magazine catch, fire selector and ejection port to suit both left hand & right hand firer.
	12.	Color	Black/ Olive Green/Desert pattern, to be specified by the user at the time of tendering.
PHYSICAL PARAMETERS			
13.	Flash	The flash suppressor should be provided to suppress the flash.	To be physically checked by BOO.
14.	Length	(a) Overall Length (Folded/Retracted Butt) – Not more than 700 mm. (b) Overall Length (Extended Butt) – Not more than 850 mm (UBGL attached).	To be physically checked by BOO.
15.	Picatinny Rail	Mil Standard 1913 Picatinny Rail integrated with the weapon on at least 3 sides to provide interfaces for accessories (i.e internationally available Holographic/Reflex sights and Tactical lights/LAD).	To be physically checked by BOO.

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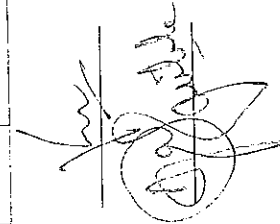
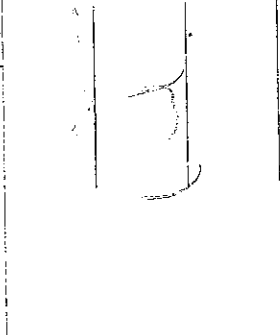
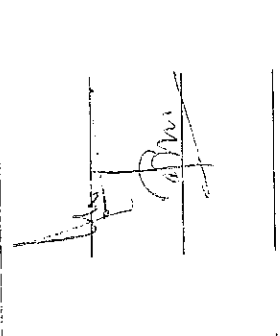
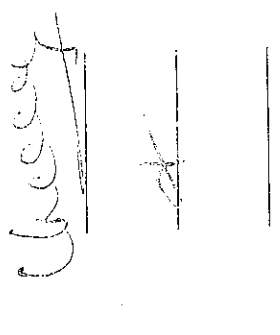
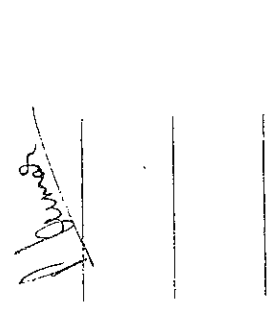
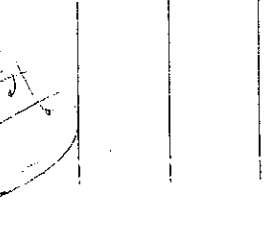
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TRIAL DIRECTIVES FOR 5.56 X 45 MM CARBINE[CLOSE QUARTER BATTLE WEAPON WITH HOLOGRAPHIC REFLEX SIGHT]

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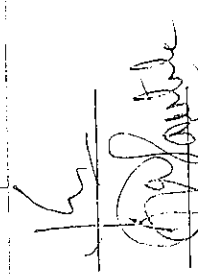
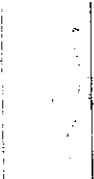
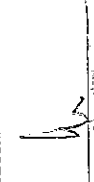
Ser No	Specifications	Parameters	Trial Directives
16.	<u>Barrel</u> (a) Barrel type (b) Barrel Length (c) Barrel life	Chrome plated rifled bore.  Should not be more than 330 mm.  Barrel life should be of minimum 15,000 rounds.	To be physically checked by the BOC. OEM to provide certificate from a national/international accredited lab. OEM to provide contact person details, phone number, address, e-mail address & website of the lab. Authenticity of certificate must be confirmed by the BOC. (Note: Warranty clause to be added during tendering by the user stating a warranty from the OEM to replace the barrel in case not complying to the parameter of barrel life).
17.	<u>Optical Sight</u> (a) Type  (b) Field of View  (c) Illumination  (d) Laser Pointers	The carbine should be provided with an integrated holographic reflex sight of weight not more than 300 gms alongwith on/off and retical brightness control.  Minimum 160 with both eyes open.  Reflex sight should be battery powered/self-illuminated.  Red dot and iR Laser (for covert ops).	OEM to provide certificate from a national/international accredited lab. OEM to provide contact person details, phone number, address, e-mail address & website of the lab. Authenticity of certificate must be confirmed by the BOC.

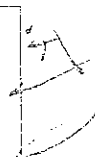
TRIAL DIRECTIVES FOR 5.56 X 45 MM CARBINE(CLOSE QUARTER BATTLE WEAPON WITH HOLOGRAPHIC REFLEX SIGHT)

(Contd....)

Ser No	Specifications	Parameters	Trial Directives
18.	<u>Magazine</u> (a) Capacity (b) Material	Capacity of 20-30 rounds. (i) Magazine should be made ofsee through high strength polymer/composite magazine/metal magazine. (ii) Magazine should have side slots/provisionto indicate remaining ammunition. (iii) Magazine should be robust enough to withstand regular field usage under various environmental conditions. (iv) Should not get deformed when subjected to heat during prolonged firing or in hot weather conditions. (v) In case of any damage or deformation due to heavy/rough usage. The magazine should still be functional.	OEM to provide certificate from a national/international accredited lab. OEM to provide contact person details, phone number, address, e-mail address & website of the lab. Authenticity of certificate must be confirmed by the BCO.
19.	<u>Trigger:</u> Stage	Should have 2 stage pull.	OEM to provide certificate from a national/international accredited lab. OEM to provide contact person details, phone number, address, e-mail address & website of the lab. Authenticity of certificate must be confirmed by the BCO. To be physically checked by the BCO.
20.	<u>Butt</u>	Butt of the weapon should be foldable/retractable.	

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Ser No	Specifications	Parameters	Trial Directives
21.	Furniture	Should be made up of high strength polymers/composite/reinforced scratch proof plastic of high strength enabling environmental stability. Fore Hand Grip should be present in the carbine.	To be physically checked by the BOO.
22.	Fore Hand Grip	In addition to integrated reflex sight the carbine should have flip up fore sight & rear sight.	To be physically checked by the BOO.
23.	Steel Flip Up Sights	Carbine should have adjustable and robust carrying sling with attachment facilitating quick detachment.	To be demonstrated by OEM & physically checked by the BOO.
24.	Sling		
<b>MISCELLANEOUS PARAMETERS</b>			
25.	Safety	Both mechanical & applied safety.	To be demonstrated by OEM & physically checked by BOO.
26.	Field Stripping	Weapon should be easily stripped without any tools or with minimum tools, & all cleaning parts to be designed for field cleaning.	To be demonstrated by OEM & physically checked by BOO.

MISCELLANEOUS PARAMETERS

25. Safety

26	Field Stripping
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Both mechanical & applied safety.

Weapon should be easily stripped without any tools or with minimum tools, & all cleaning parts to be designed for field cleaning.

To be demonstrated by OEM & physically checked by BOO

To be demonstrated by OEM & physically checked by BOO.

**TRIAL DIRECTIVES FOR 5.56 X 45 MM CARBINE(CLOSE QUARTER BATTLE WEAPON WITH HOLOGRAPHIC REFLEX SIGHT)**

(Contd....)

Ser No	Specifications	Parameters	Trial Directives
27.	Accessories	<p>Manufacturer of the should provide accessories to include:-</p> <p>(a) Tactical Light – One for each carbine.</p> <p>(b) Laser Aiming Device – One for each carbine.</p> <p>(c) Bayonet – One for each carbine.</p> <p>(d) Magazine – 3 with each carbine.</p> <p>(e) Field Cleaning kit (one with each carbine).</p> <p>(f) Standard weapon tool kit (to be specified by the user).</p> <p>(g) Measurement gauge (Go &amp; No go) (to be specified by the user).</p> <p>(h) Filler gauge (to be specified by the user).</p> <p>(i) Firing pin protrusion gauge (to be specified by the user).</p> <p>(k) Rigid water proof case for transit of weapon (one with each carbine).</p> <p>(l) Maintenance manual in English (to be specified by the user).</p> <p>(m) Technical literature in English (to be specified by the user).</p> <p>(n) Training manuals &amp; user hand book (to be specified by the user).</p> <p>(o) Manufacturers recommended list of spares duly priced (to be specified by the user).</p> <p>(p) Training slides, brochures, video films &amp; CDs (to be specified by the user).</p> <p><b>Note :-</b> The type and quantity of the accessories to be specified at the time of tendering by the user.</p>	Individual accessories to be demonstrated by OEM & physically checked by the BOO.
28.	Training	<p>In situ training for one week on operation, maintenance, fault finding and user level repairs.</p>	OEM to provide certificate for the same.

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