QUALITATIVE REQUIREMENT (QRs) AND TRIAL DIRECTIVE (TDs) OF SNIPER RIFLE (BOLT ACTION): 15 Jul 2025

SI.No	Parameters	Specification/QRs	Trial Directives (TDs)	
OPER	ATIONAL PARAM	IETERS		
1.	Caliber	7.62 X 51mm	To be physically checked by BOO with calibrated gauge provided by OEM. Calibration certificate to be checked by BOO.	
2.	Weight of the Sniper Rifle	Should not exceed 8 kgs without Magazine & Telescopic Sight	To be physically checked by BOO.	
3.	Length of weapon	Length of weapon with extended Butt including muzzle break OR flash suppressor should not exceed 1250mm.	To be physically checked by BOO.	
4.	Firing Mode	Single Shot Bolt Action	To be physically checked by the BOO.	
5.	Effective Range	800mtrs or better	 (a) Weapon should be able to penetrate 08mm plywood sheet at a range of 800mtrs and 4.2mm mild steel plate (hardness 120-150BHN) at a range of 550 mtrs. (b) Four rounds out of five should hit the target at 800 and 550 mtrs. (c) The plywood & metal plate mentioned above will be provided by the tendering agency on payment basis. 	
6.	Accuracy	Should be able to achieve group size of 3cm x 3cm for 5 shots at 100 meters.	(i) When 5 rounds of ammunition provided are fired by firer or from fixed mount	

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7.	Reliability	 (a) In firing of 100 rounds, it should not suffer from more than two 'Class-I' or 'Class-II' and NO 'Class-III' stoppages. The test is to be carried out as per TOP 3-2-045. (b) Stoppages are classified as under: - (i) Class I Stoppage – Can be removed by the firer within 10 seconds without use of any tools, equipment or spares by immediate action procedures. 	
		 (ii) Class II Stoppage – Can be removed by firer in 10 seconds to 10 minutes with tools, equipment or spares issued with the weapon. (iii) Class III Stoppage - Takes more time than 10 minutes or special tools/spares to rectify 	
8.	Operating & Storage temperature	defects and to resume firing by the firer. Sniper rifle should be capable of trouble free operation under following conditions: (a) Operating Temperature: -30° C to +55° C (b) Storage Temperature: -35° C to +55° C	(i) OEM to provide certificate from any NABL accredited lab/NFSU/ DRDO labs/DGQA/any Govt. lab/ 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 BOO. (ii) The certificate will remain valid for 05 years from the date of its
		(c) Humidity : 95% RH	issue.

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9.	Environmental Tests	Sniper Rifle should be robust as per relevant portions of JSG0131-2021. (a) Water Immersion Test. (b) Mud Test.	(i) OEM to provide certificate from any International/ NABL accredited lab/NFSU/ DRDO labs/DGQA/ Govt. lab. OEM to provide contact person details, phone number, address, email address & website of the lab. Authenticity of certificate to be confirmed by the BOO.
		(c) Sand & Dust Test.(d) Rain Test.(e) Drop Test.(f) Humidity Test.(g) Salt Water Test.	(ii) The certificate will remain valid for 05 years from the date of its issue.
10.	Designed for right & left handed use	Sniper should be capable of ambidextrous usage.	To be demonstrated by OEM and physically checked by the BOO.
11.	Color	Choice of Black, Olive Green or Desert pattern, to be specified by user at the time of tendering	To be physically checked by the BOO at the time of Pre Dispatch Inspection (PDI).
PHYS	ICAL PARAMETERS		
12.	Muzzle Break/ Flash suppressor (Optional- to be specified by user)	Sniper rifle should be equipped with integrated or detachable muzzle break/Flash suppressor. Accuracy of the sniper rifle will be evaluated separately with muzzle break/Flash suppressor if it is detachable.	To be physically checked by BOO.
13.	Sound Suppresser (Optional- To be specified by user) (a) Caliber	Sniper rifle should be equipped with integrated or detachable sound suppressor which conforms to the caliber of the weapon system	To be physically checked by BOO.

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SI.	Parameters	Specification/QRs	Trial Directives (TDs)
No	(b) Capability	Suppressor should be able to suppress sound by at least 30dB.	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 BOO.
	(c) Accuracy Test	Accuracy of the sniper rifle will be carried out with & without suppressor. Point of impact shift when firing with the suppressor should not be more than 5 cm at 100m.	(i) Accuracy test method will be same as mentioned in Para 5 above.
			(iii) Then test will be conducted with the sound suppressor to ascertain the point of impact shift. Point of impact shift when firing with the suppressor should not be more than 5 cm at 100m.
	(d) Number of Suppressors	Number of suppressors to be supplied will be specified by the user at the time of tendering	
	(e) Weight	Weight of suppressor should not be more than 900 gms.	To be physically checked by BOO.
	(f) Color	Choice of Black, Desert pattern or Olive Green to be specified by user at the time of tendering.	To be physically checked by the BOO at the time of Pre Dispatch Inspection (PDI).
14.	Picatinny Rail	MIL STD 1913 Picatinny Rail integrated with the weapon on 12 & 6 'O' clock position for fitting either in-line sights (day/night) & to provide interfaces for accessories. Picatinny rail at 12 'O' clock position should have the provision for mounting clip-on sight in addition to the basic sight of the weapon.	To be physically checked by BOO.

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SI.	Parameters	Specification/QRs	Trial Directives (TDs)	
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15.	Service life of weapon	Sniper Rifle should have minimum service life of 15 years or 10000 rounds whichever is earlier.	OEM to provide self certificate for service life. OEM to provide undertaking for provision of spare support for the entire service life of the weapon.	
16.	Barrel: (a) Barrel Type	Rifle should have free floated barrel suitably fluted for heat dissipation. Muzzle should have adequate arrangement for easy & quick attachment of sound suppressor, and muzzle brake if required.		
	(b) Barrel Rifling	Barrel should be rifled	OEM to provide certificate regarding number of grooves and twist.	
	(c) Barrel life	Sniper rifle should have a barrel life of minimum 10,000 rounds.	 (i) OEM to provide certificate from any NABL/ international/DGQA/ NFSU/ Govt lab. (ii) OEM to provide contact person details, phone No, address, e-mail address and web site of the lab. (iii) Authenticity of the certificate must be confirmed by the BOO. 	
17.	Magazine (detachable)			
	(a) Capacity	Capacity of 5 rounds or more	To be physically checked by BOO.	
	(b) Material	Magazine should be made up of steel with non corrosive surface treatment/ Fiber Reinforced Plastic.	OEM to provide certificate.	
	(c) Weight	Weight of empty magazine should not be more than 70gms	To be physically checked by BOO.	
18.	<u>Trigger</u>			
	Stage	Should have 2 stage pull.	To be physically checked by the BOO. In addition OEM to provide certificate.	

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SI.	Parameters	Specification/QRs	Trial Directives (TDs)	
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19.	Butt	Butt of the rifle should be foldable or detachable with height adjustable cheek pad.		
20.	Bipod	Bipod should be quick detachable, adjustable in terms of height. Legs of the bipod should be foldable (front or rearwards) & should be cocked when folded.	To be physically checked by the BOO.	
21.	Monopod (Optional- User to specify)	Monopod should be present either as butt spike or integrated with pistol grip to enable the firer to rest the rifle and continue to aim/observe the target. The same should be adjustable for height.	To be physically checked by the BOO.	
22.	Bolt Configuration	Bolt should have minimum of two forward located locking lugs.	To be physically checked by the BOO.	
23.	Sling	Sniper rifle should have adjustable and robust carrying sling with attachment facilitating quick detachment. Attachment should support sling supported carrying/ shooting technique.		
24.		rifle should be provided with an integrated optical sight for w light condition. Both Day/Night sight should be integrated into		
		(i) Weight - Not more than 2kg.	To be physically checked by the BOO	
		(ii) Day Night shift through manual lever/switch.	To be physically checked by the BOO	
		(iii) Operating Temperature between -20° to +55° C	OEM to provide certificate from a national/international/NABL/Govt./ DGQA lab. To be physically checked by the BOO	

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SI. No	Parameters	Specification/QRs	Trial Directives (TDs)
	(iv) Range finder with minimum 1000m ra		OEM to provide certificate from a national/ international/ NABL/Govt./ DGQA lab. To be physically checked by the BOO
		(v) Bright source protection	To be physically checked by the BOO
		(vi) Power source-3 Volt Lithium ion battery	To be physically checked by the BOO
		(vii) Low voltage Battery indicator in FoV	To be physically checked by the BOO
		(viii) Battery life- Min 30 Hour	To be physically checked by the BOO
		(ix) Water Resistant	OEM to provide certificate from a national/international/ NABL/Govt./ DGQA lab. To be physically checked by the BOO
		(x) Colour- Olive Green/Black	To be physically checked by the BOO
		(xi) Rugged construction to withstand use in field conditions	To be physically checked by the BOO
		(xii) Rugged FRP carrying case	OEM to provide certificate from a national/international NABL/Govt./ DGQA lab. To be physically checked by the BOC
[2] [1] [1] [2] [2] [2] [2] [2] [2] [2] [2] [2] [2		(xiii) Defecating chamber/assembly for prevention of moisture.	To be physically checked by the BOO
		(xiv) Reticule- Cross or dot	To be physically checked by the BOO
	(b) Day Sight shou	ld have/be:-	
		(i) Eye relief- 60mm min	To be demonstrated by OEM & physically checked by the BOC
		(ii) Diopter adjustment- ± 5dpt	To be physically checked by the BOO
		(iii) Field of view- 1.5° to 3°	OEM to provide certificate from a national/international/ NABL/Govt./ DGQA lab. To be physically checked by the BOO
		(iv) Magnification- 8 x or more	OEM to provide certificate from a national/international/ NABL/Govt./ DGQA lab. To be physically checked by the BOO
		(v) Range focus- 25m to infinity	To be demonstrated by OEM & physically checked by the BOO
		(vi) Repurgeable and nitrogen filled	To be demonstrated by OEM & physically checked by the BOO

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SI. No	Parameters	Specification/QRs	Trial Directives (TDs)	
	(c) Night Sight	nt should have/be:-		
		(i) Image Intensifier Tube- Supergen or better	OEM to provide certificate from a national/international/ NABL/Govt./ DGQA lab. To be physically checked by the BOO	
		(ii) Detection Range- 200M min	To be demonstrated by OEM & physically checked by the BOO	
		(iii) Recognition Range- 150M min	To be demonstrated by OEM & physically checked by the BOO	
	(iv) Magnification- Min 8x		OEM to provide certificate from a national/international/ NABL/Govt./ DGQA lab. To be physically checked by the BOO	
		(v) Field of view- 1.5° to 3°	OEM to provide certificate from a national/international/ NABL/Govt./ DGQA lab. To be physically checked by the BOO	
		(vi) Diopter adjustment- ± 5dpt	To be physically checked by the BOO	
	10000000	(vii) Range focus- 25m to infinity	To be demonstrated by OEM & physically checked by the BOO	
		(viii) Repurgeable and nitrogen filled	To be demonstrated by OEM & physically checked by the BOO	
		(ix) Eye relief- 60mm min	To be demonstrated by OEM & physically checked by the BOO	
MISCI	ELLANEOUS P	ARAMETERS		
25.	Safety	Both mechanical & applied safety	To be demonstrated by OEM and physically checked by the BOO.	
26.	Field Stripping	Rifle should be easy to strip without any tools or with minimum tools & all cleaning parts to be designed for field cleaning.	ny To be demonstrated by OEM and physically checked by the BOO.	

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SI. No	Parameters	Specification/QRs	Trial Directives (TDs)
27.	Accessories	Manufacturer of the sniper rifle should provide accessories to include:-	Individual accessories to be
		(a) Two spare magazine.	demonstrated by OEM and
		(b) Sound Suppresser cleaning kit (one with each suppressor – Optional) (user to specify)	physically checked by the BOO.
		(c) Field cleaning kit (one with each rifle)	
		(d) CHS, Barrel bore, Barrel straightness and Firing pin protrusion gauge (GO & NO GO) to be provided.	
		(Quantity to be specified by the user)	
		(e) Rigid water resistant case for transit of weapon (one with each rifle.	
		(f) Drag bag (one with each rifle)	
		(g) Training manuals & user hand book in Hindi and English (one with each rifle).	
		(h) Manufacturers recommended list of spares duly priced	
		(j) Training slides, brochures, video films & CDs (to be specified by the user)	

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