

Bharat Sarkar/Government of India
Grihas Mantralaya/Ministry of Home Affairs
PM Division/Prov.II

HO DG PSF N. DELHI
Office of IG (Prov)
Dy No. 2055
Date 2-9-16

DG
20/9/16

26, Man Singh Road, Jaisalmer House,
New Delhi. Dated 31.08.2016

OFFICE OF DG BSF
Dy. No. To 9494
Date: 01/9/16
RECEIVED

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

Office of DIG (Prov)
Diary No. 977
Date 2-9-16

Subject :- QRs and TDs for REFLEX SIGHT.

The QRs and trial directives of REFLEX SIGHT 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.

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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.

DIG (Prov)
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Encl: A/a

Yours Faithfully,

(Handwritten Signature)

(Ram Raj)

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)

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Pls- update

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DIRECTORATE GENERAL BORDER SECURITY FORCE
(Prov Dte: Mod Cell)

The Sub-group of technical experts on surveillance equipment constituted by MHA vide their letter No. IV-17017/18/2001-Prov-I dated 05 Jul 2002 held its meeting at BSF HQ 26th Nov 2014, 17th Feb 2015, 22nd May 2015, 23rd June 2015, 03rd July 2015, 29th July 2015, 02nd Sep 2015, 05th Oct 2015, 1st Feb 2016 & 28th March 2016 to finalize the QRs of Reflex Sight. The QRs of Reflex Sight are as under:-

QUALITATIVE REQUIREMENTS – REFLEX SIGHT

S.No.	Parameters	Requirement
1	Weight:	Not more than 400 grams including battery and mounting arrangements. Type of adapter will be specified by the user.
2	Optics & Body	Lens should have anti reflection coating, scratch & chemical resistant. Body should have mat-black finish and it should be rust and corrosion proof. The sight should be free of any optical aberration such as Parallax etc.
3	Magnification	1X
4	Range	300 Mtrs
5	Aiming DOT	i. Should have the aiming point in form of a Red-dot. ii. The size of aiming dot should be not more than 3 MOA. iii. Should have a provision for vertical and horizontal adjustment of Red dot.
6	Brightness	Should have provision to adjust brightness of the Red DOT.
7	Battery	i) Non rechargeable, replaceable battery. ii) Operating temperature -20 ^o C to + 55 ^o C. iii) Battery should be commercially/readily available.
8	Zeroing	The zeroing of sight should not get disturbed by continuous firing of 100 rounds on user specified weapon.
9	Adapter	Should have adapter to mount (Picatinny or dovetail) on user specified weapon.
10	Compatibility	Should be compatible with the night vision sights when used in tandem.
11	Ruggedness	The Reflex Sight should be ruggedized as per latest Mil STD or JSS 55555 in the respect of high and low temperature, humidity shock, vibration and rain.
12	Operating Temperature:	-20 ^o C to + 55 ^o C
13	Storage Temperature	-30 ^o C to + 60 ^o C
14	MTBF	More than 10,000 hours
15	Material	Reflex Sight should not have any Radioactive or hazardous material.

16	Miscellaneous	<p>Inspection and maintenance manuals, tools, user hand book (In English or Hindi language), illustration on various parts, guides on handling the equipments etc., as applicable to be provided.</p> <p>Packing: Impact resistant hard transportation box in commensuration with Mil-Standard should be provided. It should have provision to accommodate complete accessories.</p>
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(B. C. Joshi, DIG, SIW)

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(Satinder Singh)
AC ITBP

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Ravi Kant
INSP/Exec, CIBP/AD

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Maj. P. S. P. Singh
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(K K SHARMA) IPS
DIRECTOR GENERAL
BORDER SECURITY FORCE

TRIAL DIRECTIVES FOR REFLEX SIGHT

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S No	PARAMETERS	Trial procedure suggested for Board of Officers	Result expected / desired	Complied /Not Complied
1	<p>Weight: - Not more than 400 grams including battery and mounting arrangements. Type of adapter will be specified by the user.</p>	<ul style="list-style-type: none"> ➤ Measure the weight of the Reflex sight including battery and mounting arrangements / adaptors. ➤ Check the compatibility of the adaptor/mounting provided for a specific weapon. 	<ul style="list-style-type: none"> ➤ The weight of the Reflex sight must not be more than 400 gms including battery and mounting arrangements/ adaptors. ➤ Type of adaptor must be in accordance with the adaptor specified in the tender documents and it must be compatible with weapon 	
2.	<p>Optics & Body: Lens should have anti reflection coating, scratch & chemical resistant. Body should have mat-black finish and it should be rust and corrosion proof. The sight should be free of any optical aberration such as Parallax etc.</p>	<ul style="list-style-type: none"> ➤ Check the optical parts of Reflex sight for Anti reflection coating, scratch & chemical (like weapon cleaners, lubricants, oil or insect Repellents) resistant ➤ Check the body of the sight for mat-black finish. ➤ Fix the equipment on Instrument Testing Scale of Integrated test equipment and see the image of the sight 	<ul style="list-style-type: none"> ➤ The lens must be of Anti reflection coating, scratch & chemical resistant. ➤ Body of the Sight must be mat black finish. ➤ Target must be parallax free. 	
3	<p>Magnification: 1x</p>	<p>Fix the equipment on Instrument Testing Scale of Integrated test equipment and measure the magnification of the Reflex sight as per the procedure.</p>	<p>The magnification must be 1x.</p>	
4.	<p>Range: More than 300 Mtrs.</p>	<p>To be physically checked by the BOO. Place the target at 300 Mtrs and aim through the device.</p>	<p>Target must be detected at 300 meters.</p>	

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Aiming DOT

<p>i. Should have the aiming point in form of a Red-dot.</p>	<p>Check the Reflex sight for the aiming point.</p>	<p>The Reflex sight must have aiming point in the form of Red-dot.</p>	
<p>ii. The size of aiming dot should be not more than 3 MOA.</p>	<p>➤ Place a target at 100 meters and paste a circle of diameter 5.08 cm on the target centre. Mount the sight on the weapon and switch it 'ON'. See through the Reflex sight and coincide the Dot on the circle. ➤ Similarly, it should also be checked at 200 and 300 meters.</p>	<p>The dot must cover the circle. The appearance of the marked circle behind the dot at 100 meters, 200 & 300 meters confirms the non compliance of the parameter.</p>	
<p>iii. Should have a provision for vertical and horizontal adjustment of Red dot.</p>	<p>Check the sight for the provision of vertical & horizontal adjustment of red dot in a pre-defined calibrated manner.</p>	<p>The Reflex sight must have a provision for vertical and horizontal adjustment of red dot.</p>	
<p>iv. Should have provision to adjust brightness of the Red DOT</p>	<p>To be physically checked by the BOO</p>	<p>The Reflex sight must have the provision to adjust the brightness control of Red Dot.</p>	
<p>7. Battery :- i) Non rechargeable, replaceable battery. ii) Operating temperature -20° C to +55° C iii) Battery should be commercially/readily available.</p>	<p>i) To be physically checked by BOO ii) Check the National / International accredited Lab test report/certificate submitted by the firm in r/o Operating Temperature. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab. iii) Certificate to be provided by the firm.</p>	<p>i) Battery should be replaceable. ii) Operating temperature should be -20°C to +55°C. iii) Battery should be commercially/readily available</p>	
<p>8. Zeroing : The zeroing of sight should not get disturbed by continuous firing of 100 rounds on user specified weapons.</p>	<p>Zero the reflex sight with the weapon and check its sustainability</p>	<p>Firing and re-mounting of the Reflex Sight should not disturb the zeroing.</p>	

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<p>9. <u>Adaptor</u>: Should have adaptor to mount (Picatinny or dovetail) on user specified weapons.</p>	<p>of zeroing by firing 100 Rds on the target. There after Reflex Sight be re-mounted on the weapon.</p> <p>Mount the Reflex Sight on the weapon and dismount it on user specified weapons.</p>	<p>The Reflex Sight must be easy to mount and dismount on the weapon.</p>
<p>10. <u>Compatibility</u>: Should be compatible with the night vision sights when used in tandem.</p>	<p>Mount the Reflex Sight on the weapon with the night vision sight/device and check its compatibility.</p>	<p>The Reflex Sight must be compatible with the night vision device and one must be capable to aim the target with the help of night vision device through Reflex sight.</p>
<p>11. <u>Ruggedized</u> :- The Reflex Sight should be ruggedized as per latest Mil STD or JSS 55555 in the respect of high and low temperature, humidity shock, vibration and rain.</p>	<p>Check the certificate submitted by the firm in respect of the latest Mil STD or JSS 55555 in the respect of high and low temperature, humidity shock, vibration and rain.</p>	<p>The firm must submit national / international accredited Lab report / certificate in respect of latest Mil STD or JSS 55555 in the respect of high and low temperature, humidity shock, vibration and rain.. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>
<p>12. <u>Operating Temperature</u>: -20° C to +55° C</p>	<p>Switch 'ON' the Reflex sight and keep it into the Hot & Cold chamber at -20° C to + 55° C for 30 minutes each. The firm should also submit national / international accredited lab certificate / report for the same</p>	<p>No deterioration in the Sight must be observed during and after the test.</p> <p>Check the National / International accredited Lab test report/certificate submitted by the firm in r/o Operating Temperature. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>
<p>13. <u>Storage Temperature</u> : -30° C to +60° C</p>	<p>Switch 'ON' the Reflex sight and keep it into the Hot & Cold chamber at -30° C to +60° C for 30 minutes each. The firm should also submit national / international</p>	<p>No deterioration in the Sight must be observed during and after the test.</p> <p>Check the National / International accredited Lab test</p>

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 Mr. M. K. G. S. N. S. N.

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	<p>accredited lab certificate / report for the same.</p>	<p>report/certificate submitted by the firm in r/o Operating Temperature. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>	
<p>14. <u>MTBF</u> : More than 10,000 hours</p>	<p>Check the OEM certificate submitted by the firm in respect of the same.</p>	<p>> The OEM certificate contents must confirm the sight MTBF of more than 10,000 hours. In case of any doubt in the certificate, the veracity of the same may be checked from the concerned OEM.</p>	
<p>15. <u>Material</u>: Reflex sight should not have any Radioactive material or hazardous material.</p>	<p>The firm should submit national / international accredited report or certificate in respect of the same.</p>	<p>Check the National / international accredited Lab test report/certificate submitted by the firm in r/o of the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.</p>	
<p>16. <u>Miscellaneous</u></p>	<p>The firm should submit an undertaking for the same.</p>	<p>Undertaking certificate to be checked.</p>	

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Packing: Impact resistant hard transportation box in commensuration with Mil-Standard should be provided. It should have provision to accommodate complete accessories.

The firm should submit national / international accredited report or certificate in respect of Mil Standard. Check the provision provided in the hard transportation box to accommodate complete accessories.

Check the National / International accredited Lab report/certificate submitted by the firm in r/o of the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab. Provision should be available in the hard transportation box to accommodate complete accessories.

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