

16 AUG 2015

No. P/604/2014(389)/AGL Grn/RD/MHA-1534
Bharat Sarkar/Government of India
Grihas Mantralaya/Ministry of Home Affairs
PM Division/Prov.II

26, Man Singh Road, Jaisalmer House,
New Delhi, Dated: 06 August, 2015

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

Subject:- QRs and TDs of 30 mm AGL Grenade/Round.

The QRs and Trial Directives of 30 mm AGL Grenade/Round (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.

3. CAPFs concerned will be accountable for correctness of the QRs and TDs.

Encl: A/a

Yours Faithfully,

(Signature)

(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)

(Signature)
06/8/15
(Ritesh Kumar)

Section Officer (Prov. II)
Tel No: 2338 6034

Copy to:- DDG (Procurement), MHA, Jaisalmer House

1. Mr. (THRU)	
2. Mr. (Prov)	
3. Mr. (Prov)	
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NGO Dy No. V/2421
DATE 10/8/15

Copy to Ops (WE) update -

IG (Prov) Secretariat
Dy No ahs
Date 10/8/15

QRS/SPECIFICATIONS CIF 30 MM AGL GRENADE/ROUND

Ser No	Characteristics	Value	Justification
1.	Caliber	30mm (compatible with 30 mm AGL)	AGL is available in this caliber only and therefore the ammunition has to be of same caliber.
2.	Weight of round	Not more than 370 grams.	Weight of the round is optimum for such category of ammunition to meet the ballistic performance. Hence this parameters is recorded for information only.
3.	Muzzle velocity, m/s	185±5m/s	Muzzle velocity in this range is required to take a round of specified weight to the given range.
4.	Max Range	Not less than 1800 meters	Operational requirement.
5.	Accuracy at a range of 1800 meters - Deflection for lateral wind of speed 10m/s - Longitudinal error at nose/tail wind velocity of 10m/s	To be specified as $B_p/X_m \leq 1/66$, Where B_p = Probable Distance Deviation. X_m = Mean Range.	Accuracy in this range is necessary in order to inflict maximum damage to the target at desired range.
6.	Effective damage range (in meter) - Unprotected personnel	30 meter	Effective damage range needs to be specified so that a large area can be covered with fragments at given ranges and significant damage can be inflicted on the target.
7.	Lethal radius (probability 1.0)meter	≥ 6 meter	The lethal radius needs to be specified so that the firer can inflict fatal shots on a group target in the specified area.
8.	Arming Distance	10 to 60 meter	The arming distance needs to be specified so that the firer can secure himself from the fragments of the grenade.

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QRs/SPECIFICATIONS OF 30 MM AGL GRENADE/ROUND (Contd)

Sl. No	Characteristics	Value	Justification
3.	Should have a direct impact fuze with Self-destruction time of not more than	30 ± 2s	This specification is essential to ensure that the grenade blasts either on impact or because of self destruction fuse to ensures that the grenade blasts under all circumstances.
10.	Shelf Life	10yrs Minimum	Shelf life is essential for this category of ammunition because the procurement of such ammunition normally takes long time to complete.
11.	Functional Reliability	97% Minimum	To ensure that maximum Nos of rounds burst without fail and more & more targets are engaged with minimal blind rounds.
12.	Operational Temperature	-30 ⁰ C to+ 50 ⁰ C	The specified temperature range is required so that the grenades can be used /stored in varied temperature / weather conditions by various forces deployed across or aboard.
13.	Storage Temperature	-30 ⁰ C to +50 ⁰ C	
14.	Relative Humidity	95%	

[Signature]
 (D D S R Talsaniya, AGP)
 ACJ BANGALORE

[Signature]
 (TOGESH SINGH DC)
 Diny (Muz) Agny

[Signature]
 (Machak Chandan)
 S. V. S. (Sally) Agny

[Signature]
 (V. C. S. Agny)
 Agny Agny

[Signature]
 (V. K. P. Agny, SSC)
 Agny Agny
 SSA (Agny) B. P. P. P.

✓ APPROVED / NOT APPROVED

[Signature]
 R. C. Talwar
 DG, NSG
 17/12

TRIAL DIRECTIVES FOR 30 MM AGL GRENADE

Ser No	<u>Characteristics</u>
<u>Introduction.</u>	
1.	The user trial directives for 30 mm AGL ammunitions have been formulated to enable the evaluation of functional and operational suitability of the mentioned product
<u>Trial Requirements.</u>	
2.	Number of Rounds (Grenade). 300 Grenades of the same class to be provided by each firm.
3.	Technical Literature. Following should be made available at the time of trial by manufacturer:- (a) User hand book for AGL ammunition (Grenades). (b) Drawings/Specifications. (c) Safety precautions.
4.	Environment Adaptability. The AGL ammunition (Grenades) should be able to sustain the climatic conditions as mentioned in QRs (Ser 12, 13 & 14) and a certificate from an accredited lab to this effect must be provided by the manufacturer/firm prior to the user trials.
5.	The AGL ammunition (grenades) should have been subjected to proof and test from any accredited lab, and the result of the same must be provided by the firm prior to the user trial.
6.	Safety certificate to be provided by the firm prior to user trial.
<u>Aspects to be evaluated.</u>	
7.	A meticulous and holistic evaluation of the AGL ammunition (Grenade) will be carried out with reference to the following issues :- (a) Visual and gauging inspection. (b) Operational reliability as per the QRs. (c) Functional capability/ adequacy as per QRs.

TRIAL DIRECTIVES FOR 30 MM AGL GRENADE(Contd. ...)

Ser No	Characteristics
<u>General Features</u>	
8.	<p>The general features of the AGL Ammunition(Grenades) should confirm to the laid down specifications in the user hand book and design specification. While assessing the general features of the AGL ammunition(Grenades) following will be ascertained:-</p> <p>(a) <u>Technical parameters:-</u></p> <ul style="list-style-type: none"> (i) Maximum effective ranges and dispersion as per QRs. (ii) Reliability as per QRs/Specifications (iii) AGL ammunition(Grenades) testing in desert conditions and rainy environment. Sub Zero "0" temperature condition. (Certificate to this effect must be provided by firm before trial evaluation). (iv) Grenade body assembly (visual examination). (v) Painting and Stenciling (visual examination). (vi) Cartridge Case Assembly (visual examination). (vii) Fuze Assembly to Grenade Body (visual examination). (viii) Weight of complete round. (ix) Crimping of Cartridge Case to grenade body (visual examination). (x) Muzzle Velocity. (xi) Safety and functioning with round conditioning for 08 Hrs at +50 degree C and -30 degree C. (xii) Functioning of self-Destruction. (xiii) Quality of packing.










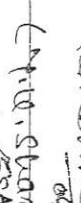







TRIAL DIRECTIVES FOR 30 MM AGL GRENADE(Contd....)

Ser No	Characteristics
<p>(b) Operational Reliability. The operational reliability of the AGL Ammunition (Grenades) should be evaluated by carrying out firing by the weapon to assess the following:-</p> <p>(i) Accuracy. To be checked as per Para 5 of QRS.</p> <p>(ii) Lethality (a certificate regarding lethality of 30mm AGL ammunition(Grenades) must be provided . by the manufacturing firm before trial).</p>	

 DC SECRETARY, AR	 (YOGESH SINGH) DC SSB	 (H. K. Handa) Asst Dir (Arms)	 V. S. Sharma	 V. K. Pathak, ASSE
 P. C. J. Isornwong USE 2156	 Mayadi S. C. P. 72	 K. V. S. Reddy RE ITSP	 V. S. Sharma	 V. S. Sharma ASSE

APPROVED / NOT-APPROVED

(R C Taval)
 DG, NSG

