

No. P-63013/36/2019/Mod-I/BSF 2762-71
Government of India Ministry of Home Affairs
Directorate General Border Security Force
(Prov Dte: Mod Cell)
(Fax: 011-24367683)

Block No.10, CGO Complex,
Lodhi Road, New Delhi-03

Dated, the 19 Nov 2019

To,

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

Sub: **Forwarding of QRs and Trial Directives**

Find enclosed herewith QRs and Trial Directives of following equipments as per appendix 'A' and 'B' duly finalized by Sub group of technical experts and approved by DG BSF for your information and necessary action please:-

- i) K-4 Crash Rated Blocking Bollard
- ii) K-4 Crash Rated Boom Barrier
- iii) Hydraulic Tyre Killer
- iv) Flap Barrier/Swing Gate-Normal and Wide Lane

Encl : As above


19/11/19

(Bhagat Singh Tolia)
Dy. Inspector General (Tpt/Prov)
FHQ BSF, New Delhi

Copy to :-

1. SO (IT),
North Block MHA,
New Delhi : You are requested to host the above QRs and TDs on MHA website please.
2. IT Cell
FHQ BSF,
New Delhi : You are requested to host the above QRs and TDs on BSF website please.
3. The Under Secretary
Ministry of Home Affairs
Secretariat Security Org.
3rd Floor, NDCC-II Bldg,
Jai Singh Road, New Delhi : w.r.t. your letter No. D-22012-102/2017-SSO(S) dated 06th September 2019.

DIRECTOR GENERAL BORDER SECURITY FORCE
(PROVISIONING DIRECTORATE (MOD CELL))

EXPRESSION OF INTEREST

DIG (Prov)
HQ DG BSF, Prov Dte (Mod Cell)
Block No. 10, CGO Complex
Lodhi Road, New Delhi
(Tele/Fax No. 011-24367683)
Mail id : comdtord.bsf.nic.in

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, letter No. IV-24011/12/2011-Prov.I dated 13th June 2012 and O/No. 11012/02/ 2009-Fin-I/Prov.I-17 dated 02nd January 2018 held its meeting at BSF HQ 16th September 2019 to formulate the QRs of **K-4 Crash rated Blocking Bollard**.

2. After detailed deliberation the referred Sub-group of technical experts has finalized the QRs and TDs of **K-4 Crash rated Blocking Bollard** on 05th November 2019 which are as under:-

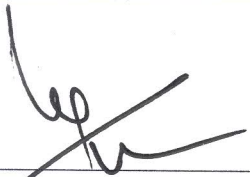
QUALITATIVE REQUIREMENTS OF K-4 CRASH RATED BLOCKING BOLLARD


S/No.	Descriptions	Specifications
1.	Drive Unit	Hydraulic/Pneumatic
2.	Cylinder diameter	220 to 250mm
3.	Cylinder length	900 to 1000mm
4.	Rating	IWA 14-1:2013 Bollard V/7200 (N2A) 48/90/0.1
5.	Cylinder Material	High Tensile Carbon Steel
6.	Rising Time (EFO) (optional)	1 to 2 Sec
7.	Rising & Lowering Time (normal)	3 to 6 Sec
8.	Protection Class (Panel Enclosure)	IP68
9.	Duty cycle	100% as per rising and lowering time
10.	Illumination	Red LED/Reflective Bands
11.	Manual Lowering Operations	Available
12.	Operating temperature	-20° C to + 60° C
13.	Total weight of each bollard	200 to 350 Kg
14.	MTBF	50,00,000
15.	MCBF	15,00,000
16.	Safety against Vehicle	Loop Detector
17.	Safety against Human Traffic	Photo Sensor
18.	Control Unit	PLC based control unit with tailor made integration with all access Control Devices.


19.	Testing and Certifications	All testing & other certificate from National/International accredited labs like Horiba, MIRA. U.K or ARAI etc.
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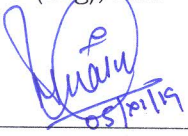
Note:- The bollard is to be manufactured keeping in mind the corrosive nature of the tropical Indian climate. All parts of bollards to be galvanised to prevent corrosion and smooth functioning even hen submerged in water. To give a fine balance between aesthetics and security, all bollards to come with an aesthetically pleasing stainless steel sleeve which easily merges with environment.


- Bollards to be fast and ideal for infrastructure which has least depth to the point of impact and at the same time requiring continuous operation
- PLC based control unit which is tailor made to use and can be integrated to all access control devices.
- Wherein the bollard if hit at 48 km/h by a fully laden 7.2-ton truck should achieve a penetration of only 0.1 m testing certificate should be provided by OEM.

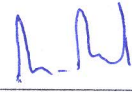

S S Chahar, VSM
ADG (Log), BSF

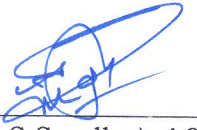

(Dhananjay Mishra),
Comdt, SIW BSF



(Dr M M Gosal), SSO
BPR&D



(Mukesh Panwar), Comdt
MHA, SSF

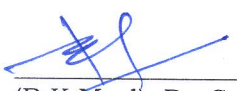

(Santosh Kumar), AC/AIA
SSB

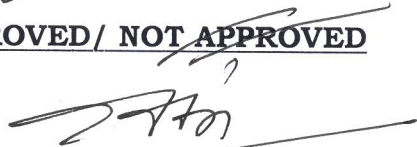

(Rajan Babu), AC/GD
ITBP


(A S Sandhu), AC
SIW BSF


(Insp/RM Manish Raj)
SIW BSF







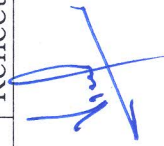


(Nb/Sub Vinod Kumar)
Assam Rifles


(R K Meel), Dy Comdt
CISF

✓
APPROVED / NOT APPROVED

(Vivek Kumar Johri) IPS
DIRECTOR GENERAL
BORDER SECURITY FORCE

TRIAL DIRECTIVES OF K-4 CRASH RATED BLOCKING BOLLARD

S/No.	Descriptions	Specifications	TRIAL PROCEDURE SUGGESTED FOR BOARD OF OFFICERS	RESULT EXCEPTED/DESIRED
1.	Drive Unit	Hydraulic/Pneumatic	OEM will submit certificate	Drive unit must be as per the specifications mentioned in the QRs.
2.	Cylinder diameter	220 to 250mm	To be physically checked by BOO.	Cylinder diameter must be as per the specifications mentioned in the QRs.
3.	Cylinder length	900 to 1000mm	To be physically checked by BOO.	Cylinder length must be as per the specifications mentioned in the QRs.
4.	Rating	IWA 14-1:2013 Bollard V/7200 (N2A) 48/90/0.1	OEM will submit certificate	Rating of the equipment must be as per the specifications mentioned in the QRs.
5.	Cylinder Material	High Tensile Carbon Steel	OEM will submit certificate	Cylinder material must be as per the specifications mentioned in the QRs.
6.	Rising Time (EFO) (optional)	1 to 2 Sec	To be physically checked by BOO.	Rising time must be as per the specifications mentioned in the QRs.
7.	Rising & Lowering Time (normal)	3 to 6 Sec	To be physically checked by BOO.	Rising & Lowering time must be as per the specifications mentioned in the QRs.
8.	Protection Class (for panel enclosure)	IP68	OEM will submit certificate	Protection class must be IP 68.
9.	Duty cycle	100% as per rising and lowering time	To be physically checked by BOO.	Duty cycle must be as per the specifications mentioned in the QRs.
10.	Illumination	Red LED/Reflective Bands	To be physically checked by BOO.	Illumination must be Red LED/ Reflective Bands.

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K-4 crash tested blocking bollard

11.	Manual Lowering Operations	Available	To be physically checked by BOO.	Manual Lowering operations must be as per the specifications mentioned in the QRs.
12.	Operating temperature	-20° C to + 60° C	OEM will submit certificate	Operating temperature must be as per the specifications mentioned in the QRs.
13.	Total weight of each bollard	200 to 350 Kg	OEM will submit certificate	Total weight must be as per the specifications mentioned in the QRs.
14.	MTBF	50,00,000	OEM will submit certificate	MTBF must be as per the specifications mentioned in the QRs.
15.	MCBF	15,00,000	OEM will submit certificate	MCBF must be as per the specifications mentioned in the QRs.
16.	Safety against Vehicle	Loop Detector	To be physically checked by BOO.	Safety against vehicle must be as per the specifications mentioned in the QRs.
17.	Safety against Human Traffic	Photo Sensor	To be physically checked by BOO.	Safety against Human Traffic must be as per the specifications mentioned in the QRs.
18.	Control Unit	PLC based control unit with tailor made integration with all access Control Devices.	To be physically checked by BOO.	Control Unit must be as per the specifications mentioned in the QRs.
19.	Testing and Certifications		All testing & other certificate from National/International accredited labs like Horiba, MIRA. U.K or	Testing and certifications must be as per the specifications mentioned in the QRs.


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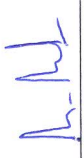
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ARAI etc.

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 Assam Rifles


 (Santosh Kumar), ~~AC/AIA~~
 SSB


 (R K Meel), Dy Comdt
 CISF

APPROVED/ NOT APPROVED


 (Vivek Kumar Johri) ~~IPS~~
 DIRECTOR GENERAL
 BORDER SECURITY FORCE