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**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  
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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 19<sup>th</sup> September 2019 to formulate the QRs of **Hydraulic Tyre Killer**.

2. After detailed deliberation the referred Sub-group of technical experts has finalized the QRs and TDs of **Hydraulic Tyre Killer** on 05<sup>th</sup> November 2019 which are as under:-

**QUALITATIVE REQUIREMENTS OF HYDRAULIC TYRE KILLER**

S/NO.	DESCRIPTION	SPECIFICATIONS
1.	System type	Active 2-Way spikes 90 degree
2.	Mechanism	Elctro-Hydraulic
3.	Speed	1 to 2 second
4.	Height of spike above the ground	120 to 125mm
5.	Thickness of strip	15 to 20mm
6.	Spike to spike distance	100 to 120mm
7.	Housing	Galvanized mild steel body/Made of stainless steel AISI 304 or better <b>(To be decided by the user department at the time of indent)</b>
8.	Installation depth	700mm or better
9.	Vehicle load	50 TON or better
10.	Safety devices	Safety against vehicle: Loop detector Safety against human: Photo Sensor
11.	MTBF	10 Million operations
12.	Power supply	220 to 420 Volt Ac
13.	Duty cycle	100%
14.	Operating temperature	-20 <sup>o</sup> C to 55 <sup>o</sup> C
15.	Power Failure mode	Manual operation available through Hydraulic Hand pump
16.	TCP/IP + WIFI Card	Inbuilt TCP/IP Card + Secured WIFI operation provision

**Note:-** The spikes should be designed to ensure that tyres of intruding vehicles are punctured irrespective of the direction of approach. It can disable all tyres, even third generation flat tyres. It has further been crash tested in one of the

*[Handwritten signatures and initials]*

Armed forces Location wherein the 4 radial tyres of an intruding SUV were damaged imtantaneously.

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Comdt, SIW BSF

(Dr M M Gosal), SSO  
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8.	Installation depth	700mm or better	To be physically checked by BOO.	Installation depth of the equipment must be as per the specifications mentioned in the QRs.
9.	Vehicle load	50 Ton or better	OEM will submit certificate.	Vehicle load of the equipment must be as per the specifications mentioned in the QRs.
10.	Safety devices	Safety against vehicle: Loop detector Safety against human: Photo Sensor	To be physically checked by BOO. OEM will submit certificate.	Safety devices of the equipment must be as per the specifications mentioned in the QRs.
11.	MTBF	10 Million operations	OEM will submit certificate.	MTBF of the equipment must be as per the specifications mentioned in the QRs.
12.	Power supply	220 to 420 Volt Ac	OEM will submit certificate.	Power supply of the equipment must be as per the specifications mentioned in the QRs.
13.	Duty cycle	100%	OEM will submit certificate.	Duty cycle of the equipment must be as per the specifications mentioned in the QRs.
14.	Operating temperature	-20° C to 55° C	OEM will submit certificate.	Operating temperature of the equipment must be as per the specifications mentioned in the QRs.
15.	Power Failure mode	Manual operation available through Hydraulic Hand pump	To be physically checked by BOO.	Power failure mode of the equipment must be as per the specifications mentioned in the QRs.
16.	TCP/IP + WIFI Card	Inbuilt TCP/IP Card + Secured WIFI operation provision	To be physically checked by BOO.	TCP/IP+WIFI card of the equipment must be as per














					the specifications mentioned in the QRs.
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**Note:-** The spikes should be designed to ensure that tyres of intruding vehicles are punctured irrespective of the direction of approach. It can disable all tyres, even third generation flat tyres. It has further been crash tested in one of the Armed forces Location wherein the 4 radial tyres of an intruding SUV were damaged instantaneously.


  
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