

QUALITATIVE REQUIREMENTS & TRIAL DIRECTIVES OF MODULAR CHARGES

<u>S.NO</u>	<u>QR</u>	<u>TD</u>
1.	<p><u>General</u></p> <p>a) Modular Charges should be set of disruptors for use against Vehicle-Borne Improvised Explosive Devices (VBIED) and also for breaching walls and doors.</p> <p>(b) When actuated the Modular Charges should project water blades horizontally with such force that the side of the vehicle is penetrated and the bomb is disrupted</p> <p>(c) The set of Modular charges should include</p> <ul style="list-style-type: none"> (i) 18 x 5 litre disruptors (ii) 18 x 2 litre disruptor (iii) 18 x 1 litre disruptor (iv) 18 x 500 ml disruptors (v) 06 x Gate Breaching charge (vi) 18 x Window Breacher (vii) 06 x Strip Charges 	<p>To be physically checked by BOO</p> <p>To be physically checked by BOO by live firing of equipment.</p> <p>To be physically checked by BOO</p>
2.	<p><u>Design</u></p> <p>(a) Should facilitate positioning of the MODULAR CHARGES on the target with plain as well as rough surfaces with commensurate stability.</p> <p>(b) Design should not compel compromise on safety aspects related to explosive placement & initiation, detonator placement & initiation, electric and non electric firing of the charges.</p> <p>(c) The design of modular charges should facilitate carriage and placement by ROV</p> <p>(d) MODULAR CHARGES should be made from light weight ABS plastic or better.</p>	<p>To be physically checked by BOO</p> <p>To be physically checked by BOO</p> <p>To be physically checked by BOO</p> <p>To be physically checked by BOO</p>
	<p>(e) Window breaker should be made of ABS plastic or better light weight material.</p>	<p>OEM to provide certificate</p>
	<p>(f) Window breacher should consist of a small calibre barrel containing projectile capsule at one end and a detonator housing and adaptor at other end which is compatible with military detonator no 33 & 27.</p>	<p>To be physically checked by BOO</p>
3.	<p><u>Sizes</u></p> <p>(a) <u>5 litre charges</u></p> <ul style="list-style-type: none"> (i) Maximum empty weight: upto 1kg (ii) Maximum loaded weight: upto 5kgs 	<p>To be physically checked by BOO</p>

	<p>(b) <u>2 litre charges</u> (i) Minimum size : 160 x 135 x 100mm (ii) Maximum Weight empty: upto 400gm (iii) Maximum weight loaded: upto 2 kg</p> <p>(c) <u>1 litre charges</u> Minimum size: 300 x 85 x 60mm Maximum empty weight : upto 200 gm Maximum loaded weight: upto 1 kg</p> <p>(d) <u>500 ml charges</u> (i) Minimum Dimensions: 170 x 70 x 50mm (ii) Maximum Weight Empty: 300gm (iii) Maximum Weight full: 600gm</p> <p>(e) <u>Gate breaching charge</u> (i) Minimum dimensions: 580x1090x60 mm (ii) Maximum empty weight : 4.5 kg (iii) Maximum fully loaded weight : 23 kg</p> <p>(g) <u>Strip charges</u> Type 1: Minimum Size 25x15x1000mm Type 2: Minimum Size 42x27x1000mm</p>	
3.	<p><u>Operability</u></p> <p>(a) The modular charges must be water based disruptors.</p> <p>(b) All explosive items required for firing the modular charges must be of Indian ordnance origin.</p> <p>(c) The effect of explosion should converge in one direction and produce a shaped charge effect. The effect in other directions should be tamped by water or aby alternate measures.</p> <p>(d) The capability of modular charges needs to be clearly defined in the operator's manual in terms of thickness of metallic sheet, masonry walls and concrete/re-enforced concrete walls.</p> <p>(e) Modular charges should be inert until loaded, and ready for use during transport by air/rail, vehicle and backpack for safety reasons.</p>	<p>To be physically checked by BOO</p> <p>To be physically checked by BOO</p> <p>To be physically checked by BOO. Board to confirm that the back-blast from the modular charges should not be greater than 1 m.</p> <p>To be physically checked by BOO</p> <p>To be physically checked by BOO</p>
4.	<p><u>Durability</u></p> <p>(a) Material configuration of the containers should not get altered due to prolonged exposure to water and moisture.</p> <p>(b) Storage conditions should be-</p> <p>(i) Temperature- -10 to 55 degrees centigrade</p> <p>(ii) Humidity- 80%</p>	<p>Certificate to be provided by OEM</p> <p>Certificate to be provided by OEM</p>

5.	<u>Miscellaneous</u> (a) Live training will be provided by the supplier to the user force for training and safety of use after the supply of modular charges.	Certificate to be provided by OEM
	(b) Transportation bag will be provided for carrying modular charges to ops	To be physically checked by BOO