

**TENDER SPECIFICATION OF INFLATABLE BULLET PROOF JACKET (NIJ LEVEL IIIA)**

1. **Name of the Items.** Inflatable Bullet Proof Jacket (NIJ level IIIA) (Digital Combat Colour).
2. **Purpose.** The purpose of the IBPJ, made from ultra-light weight, bullet-resistant polyethylene (PE) fibres, is to provide ballistic protection against fragments from grenades, rockets, booby traps, and various ballistic threats, meeting NIJ Level IIIA standards. Additionally, the jacket must offer long-lasting flotation capability to keep the wearer afloat in the event of falling into water.
3. **Quantity.** 500 in no.
4. **Year of Manufacture.** 2025 or later.
5. **Brand/Model.** To be mentioned.
6. **Name of Manufacturer.** Name and full address are to be mentioned.
7. **Country of Origin.** Australia, Canada, Denmark, France, Germany, Greece, Italy, Japan, Norway, Netherlands, Singapore, Spain, Sweden, South Korea, South Africa, Turkiye, USA and UK.
8. **Manufacturing Country.** Australia, Canada, Denmark, France, Germany, Greece, Italy, Japan, Norway, Netherlands, Singapore, Spain, Sweden, South Korea, South Africa, Turkiye, USA and UK.
9. **Supplier/Local Agent.** Name and Full address of the supplier/local agent are to be mentioned.
10. **Qualification of Bidder.**
  - a. Only an Original Manufacturer (the Manufacturer), or an authorized dealer on their behalf, can submit quotation through an authorized agent (i.e. the Bidder) in Bangladesh. Offers from multiple manufactures may be allowed through such an authorized agent in Bangladesh.
  - b. **Certificate/Document of Authentication.** The Bidder must provide following original certificate(s)/document(s) with the offer to authenticate genuineness of source and item(s) in order to establish chain of links from the original Manufacturer to the Bidder:
    - (1) 01 (One) in number certificate/document by the Manufacturer in favour of the Bidder (in case the Manufacturer is the Direct Source).
    - (2) 02 (Two) in number certificates/documents, 1<sup>st</sup> one by the Manufacturer to Authorized Agent and 2<sup>nd</sup> one by the Authorized Agent to the Bidder (in case the Manufacturer's Authorized Agent/ Seller is the Immediate Source).
    - (3) 03 (Three) in number certificates/documents, 1<sup>st</sup> one by the Manufacturer to Authorized Agent/Dealer, 2<sup>nd</sup> one by the Authorized Agent to Sub-Agent/ Seller and 3<sup>rd</sup> one by the Sub-Agent/Seller to the Bidder (in case the Sub-Agent/ Seller is the Immediate Source).
  - c. **Export License.** Obtaining 'Export License' for the sale of Inflatable Bullet Proof Jacket (IBPJ) NIJ level IIIA will be the responsibility of the Bidder (BN will provide 'End User Certificate'). The Bidder must clearly mention this in the offer; otherwise, the offer will be deemed incomplete and disqualified.

11. **Scope of Supply.**

- a. 500 in number Inflatable Bullet Proof Jacket (NIJ level IIIA) (Digital Combat Colour) (as per para 13 to 16).
- b. Test/ Trail and Acceptance (as per para 37).
- c. Documentations (as per para 31).

12. **Description.** The Inflatable Bullet Proof Jacket (IBPJ) NIJ Level IIIA is a body armour made from ultra-lightweight, bullet-resistant polyethylene (PE) fibres designed to provide ballistic protection against fragments from grenades, rockets, booby traps, and various ballistic threats, all parts of which will meeting National Institute of Justice (NIJ) Level IIIA standards. The jacket is engineered for both ballistic protection and buoyancy, making it suitable for naval personnel who may face ballistic threats and need flotation support.

13. **Characteristics.** IBPJs should meet the following requirements:

- a. Blast protected.
- b. Integrated with built in **MARINE-X Foam** for long lasting flotation capability.
- c. Manufactured with one Waist-Band Strap for extra support and two Vertical Nylon Straps to keep tight on the user during in-water operations.
- d. Capable of protecting Front, Back, Shoulder and Neck at protection level NIJ IIIA.
- e. Removal Soft Armor Panels (SAP) for washing & dry cleaning.
- f. Should have Removable and Waterproof Ballistic Panels/ Covers.
- g. Full freedom of movement.
- h. Utility Pocket (for CSMG magazine).
- j. Securing Strap (loop type) to carry walkie-talkie set.
- k. Lightest possible versions.
- l. Male version.
- m. Easy care and salt water-resistant outer-shell.
- n. Pocket for additional Hard Armour Insert on Front and Back of vest.

14. **Detail Specification of IBPJ.**

a. **Detail Dimensions.** Soft Armour Panels should be waterproof ultra-light-weight polyethylene (PE). The shape, size and dimensions of various armour panels (as per BN sample) are appended below:

(1) **Floatation Foam Panel - Front.**

- (a) Height : Max 54-58 cm, Min 26-28 cm
- (b) Width : Max 45-49 cm, Min 35-38 cm
- (c) Neck : 34-36 cm

(2) **Floatation Foam Panel- Back.**

- (a) Height : Max 54-58 cm, Min 26-28 cm
- (b) Width : Max 45-49 cm, Min 35-38 cm
- (c) Neck : 21-24 cm

(3) **Front and Back Ballistic Panels.**

- (a) Height : Max 38-42 cm, Min 16-20 cm



(b) Width : Max 45-49 cm, Min 32-36 cm

(4) **Shoulder Panel.** 24-26 cm x 10-12 cm x 6-7 cm x 7-8 cm

(5) **Collar Panel.** 32-36 cm x 21-23 cm x 7-8 cm

b. **Material.** The Soft Armour Panel should be made of lightweight Polyethylene Fiber (PE). Each panel must consist of at least 28-36 layers of ballistic material, with an additional layer of Trauma Foam (not a trauma plate) on the back. The weight of the PE material must be at least 130 g/m<sup>2</sup> for each layer used.

(1) **Thickness.** The ballistic panel should have thickness of under 1-2 cm, including the Trauma Foam.

(2) **Protection Level.** Should provide **NIJ protection Level IIIA.**

(3) **Buoyancy.** Should be in the range of 150N to 275N. The vest is to last for min 24 hours and hold at least 100 kg. **Details are to be mentioned.**

c. **Outer Cover of Jacket.**

(1) **Fabric.** The outer cover of the jacket should be made of oxford cloth (Durable 500X600D Polyester) and must be washable. The fabric should be durable, with a strong coating of Polyurethane (PU) treatment to ensure water resistance and ultraviolet (UV) resistance. The fabric specifications should be: 250-280 GSM, Warp/EPI: 30 ends/cm, and Weft/PPI: 15 picks/cm.

(2) **Colour/ Shade.** Digital Combat (Same as BN Digital Combat Dress).

(3) **Colour of Digital Combat Print.**

Ser	Colour	PANTONE Colour Name	PANTONE Number
1.	Grey	Sharkskin	17-3914 TCX
2.	Deep Ocean	Stargazer	19-4316 TCX
3.	Olive	Urban Chic	19-5004 TCX
4.	Dark navy	Dark Sapphire	19-4020 TCX
5.	Printed as per the approved BN pattern		

(4) **Utility Pocket.**

a. 03 (Three) in no utility pockets should be on the front outer cover of jackets for CSMG/BD-08 Magazine as per BN Sample. The measurements of utility pockets are as follows:

- (i) Length : 21-24 cm
- (ii) Breadth : 7.5-8.5 cm
- (iii) Height : 3.5-5 cm

b. 02 (Two) in no utility pockets should be on the front outer cover of jackets for Pistol Magazine as per BN Sample. The measurements of utility pockets are as follows:

(i)	Length	: 16-18 cm
(ii)	Breadth	: 7.25-8.25 cm
(iii)	Height	: 2.8-3.8 cm

Size of the flap of all Utility Pockets should be 10–13 cm × 8–10 cm. Flaps will be closed with the pockets by means of velcro of 10-12 cm × 5-6 cm.

(5) **Extra Pocket.** One extra pocket will be on the front and another one will be on the back sides to house Hard Armour Plates with dimensions of 30-32 cm x 25-28 cm x 2.5-3 cm. The Flap of extra pockets will be 26.5 x 8 cm and closed by Velcro of 23 -25 x 3.5-5 cm.

(6) **Dimention of Side Velcro.** 02 (Two) in no Velcro (12 cm x 5 cm) should be stitched on the back part of the jacket to adjust the side strap. Location of Velcro should be 7.5 cm above from overlapping strap.

(7) **Overlapping Strap and Side Strap.** An overlapping strap of Nylon (Size- 120-140 cm x 05±02 cm, Thickness- 1±0.2 mm) will be stitched on the back outer cover of the jacket which will have adjustable push buckle as per BN sample. The length of middle portion of the stitched overlapping strap will be 51-53 cm. Location of overlapping strap should be 12.5 cm above from base. 02 (Two) in no side strap (Size- 17-19 cm x 05±02 cm, Thickness- 1±0.2 mm) of Nylon should be stitched on back outer cover of the jacket which will be adjusted with front part of the Jacket by a metal buckle as per BN Sample. Location of side strap should be 7.5 cm above from overlapping strap.

(8) **Securing Straps for Walkie-Talkie.** One securing strap (loop type) will be on the chest, as per BN sample, for carrying Walkie-Talkie sets.

(9) **Waist Belt Buckle Material (Male and Female).** The material of Waist Belt Buckle (male and female) should be high quality steel/stainless steel/plastic.

15. **Operating/Storage Condition.**

a.	Operating temperature range	: 0° c to 55° c.
b.	Storage temperature range	: 0° c to 60° c.
c.	Humidity permissible condition for operation	: Up to 95%.
d.	Maximum permissible humidity condition for storage	: Up to 98%.

16. **Weight.** 4±0.5 kg. (Less weight will be preferable, subject to fulfilling other conditions).

17. **Instruction for Stitching.** All Velcro on the jacket must be double stitched, with the inner stitch positioned 1 cm away from the outer stitch, except on the pocket flaps. The ultra lightweight Polyethylene (PE) fibre panels are to have thermo-sealed edges to prevent water and humidity ingress, and these edges must not be sewn or stitched. Additionally, a certificate from the original manufacturer of the IBPJ must be submitted with the offer, which verifies that the fabrication and stitching of all parts of the jacket were completed in their own factory.



18. **Anti Trauma Material.** All soft armour panels (front, back& shoulder) should have good anti trauma material to minimize the trauma effect. Anti-trauma material should be a layer of durable "trauma foam".
19. **Non-Toxic.** The manufacturer should provide a certificate confirming that all materials used in the IBPJ are non-toxic to human skin.
20. **Non-Pig Components.** The manufacturer must provide a certificate confirming that the materials used in the IBPJ do not contain any raw materials sourced from pigs.
21. **Anti Mosquito Treatment.** Anti-mosquito treatment is to be applied to the jacket fabric to repel 90% or more of mosquito landings.
22. **Shelf Life.** The minimum shelf life of the Inflatable Bullet Proof Jacket (IBPJ) NIJ level IIIA (Digital Combat Colour) must be 10 years. A Shelf-Life Certificate from the manufacturer should be provided with the offer.
23. **Ballistic Test.** The jacket must qualify for ballistic and bulletproof tests. Each part of **one randomly selected complete sample** will be tested for resistance to ballistic penetration and Back Face Signature (BFS). Complete penetration or any BFS depth measurement in the backing material greater than 44 mm (1.73 inches) from any fair hit shall constitute a failure. The sample must qualify the ballistic test as mentioned below:

Threat Level	Materials	Caliber of Ammunition	Bullet Description	Bullet Weight (gm)	Muzzle Velocity (m/sec)	Distance (m)
NIJ-IIIA	Jacket with soft armour panels	9 x 19 mm Parabellum	FMJ RN	8.2	436	5

24. **Washing Test, Dye Fastness to Sunlight Test and Water Resistance Test (Outer Cover Cloth of Jacket).** Supplied sample (Outer Cover Cloth of Jacket) should qualify Washing Test, Dye Fastness to Sunlight Test and Water Resistance Test. Description of the tests are as follows:

- a. **Washing Test.** The Sample will be kept in the reagent of 0.5% soap flakes for 1.5 hrs at 60°C. Sample subjected to the washing test with a minimum grading of 3 out of 4 will be accepted.
- b. **Dye Fastness to Sunlight Test.** If the sample passes the washing test, it will be subjected to a dry fastness test. A minimum grading of 3 out of 4 in this test will be accepted.
- c. **Water Resistance Test (Cone Test).** The supplied sample will be subjected to the cone test. A minimum grading of 3 out of 4 in this test will be accepted.

25. **Labelling.**

a. **Ballistic Panels.** Every ballistic panel should have a label permanently attached to the exterior surface of the panel. The label should contain the following information, printed in **English** with permanent ink or sticker:

- (1) Name, logo or other identification of the manufacturer
- (2) The rated level of protection
- (3) Size
- (4) Lot number
- (5) Date of manufacture
- (6) Strike face or wear face
- (7) Serial number
- (8) Care instructions

b. **Outer Cover of Jacket.** The outer cover of the jacket with removable ballistic panels should have a label stitched on the exterior side of the back armour carrier facing the body. The label should contain the following information, printed in **English** with permanent ink:

- (1) Name, logo or other identification of the manufacturer.
- (2) To check level of ballistic protection a statement stated that "This carrier offers no ballistic protection without ballistic panels being inserted" for the user. This warning to be written with letters at least twice the size of rest of the type on the label.
- (3) Size.
- (4) Serial number.
- (5) Lot number.
- (6) Date of manufacture.
- (7) Care instructions.
- (8) Any special condition for washing/use.

26. **Inspection Certificate.** All components of the IBPJ should have printed inspection certificate of the manufacturer with the year and month of manufacture.

27. **Manufacturer's Certificate.** A Certificate from the manufacturer is to be provided, stating that the items offered are original, brand new, unused and produced in the year 2025 or later. It is also to be certified that the offered items will comply the technical specification mentioned in Para 2, 13 to 16.

28. **Sample.** 02 (Two) complete sets of the offered IBPJ are to be supplied with the offer for tender evaluation and Ballistic Test (as per para 23). The size of sample should be clearly mentioned. **Offers without samples will not be accepted.**

29. **Packing Details.** Each IBPJ is to be packed in standard nylon carry bag, 20 in no jackets are be packed one Sea/Air worthy Carton. All packages should be shipped by Sea worthy container/ Pallet for Air shipment. Carton size is to be mentioned. Each package is to be marked as follows:

- a. Name of Item
- b. Contract no and date
- c. Quantity
- d. Year of manufacture
- e. Supplier's name and address with contact number
- f. Consignee's address



30. **Brochure/Catalogue.** 01 (One) original copy of the brochure/catalogue of the supplied IBPJ in English must be submitted with the offer for tender evaluation. Additionally, the manufacturer's Product Brochure should also be included with the offer.
31. **Manual.** 02 (Two) sets of instructions for preservation and long-term storage manuals (in English) are to be supplied with the IBPJ.
32. **Warranty.**
- a. Minimum 12 (twelve) months warranty from the date of final acceptance by the buyer for trouble free use is to be provided by the manufacturer. If any defect/discrepancy arises in any supplied item(s)/component(s) within the warranty period, the warranty period for the relevant item(s)/component(s) shall be automatically extended by the specific duration from the date of notification to the supplier until the date of rectification of the defect or resolution of the discrepancy.
  - b. If any defect/discrepancy arises within the warranty period, the item(s)/component(s) are to be replaced free of cost, including freight, within 03 (three) months from the date of notification to the supplier. In this regard, the supplier must furnish an undertaking with the offer stating, **"We do hereby assure that we take the liability to replace all item(s)/component(s) free of cost, including freight, within 03 (three) months from the date of notification about the defect/discrepancy of the item(s)/component(s) by the buyer, if it occurs within the period of warranty."** For warranty replacement, the supplier will collect the defective item(s) from NSD Chattogram and re-supply the same to the collecting place.
  - c. A 'Warranty Certificate' must be submitted with the offer.
33. **Guarantee.** Guarantee must be given that the supplied quantity IBPJ will be suitable to meet the purpose and technical specifications mentioned in preceding Paragraphs 2, 13 to 16 and that its performance will remain effective in all respects throughout the shelf life. A Guarantee Certificate is to be submitted with the stores.
34. **Undertaking.** If the supplied items are found unsuitable for use by the Bangladesh Navy, the same are to be taken back by the supplier and replaced at no cost to the Bangladesh Navy.
35. **Quality Assurance.** A Defence Quality Assurance Certificate must be provided by the appropriate Quality Assurance Organization of the manufacturing country.
36. **User List.** List of users indicating year is to be submitted with the offer.
37. **Final Acceptance.** Final acceptance of the IBPJ will be given by the Naval Armament Inspection Organization (NAIO) after satisfactory physical inspection and dimensional check up, comparison of the supplied IBPJ with the approved sample, and satisfactory results in the Buoyancy Test, Ballistic Test, Washing Test, Dye Fastness to Sunlight Test, and Water Resistance Test on one randomly selected IBPJ. The Buoyancy Test, Ballistic Test, Washing Test, Dye Fastness to Sunlight Test, and Water Resistance Test procedures will be as specified in paragraphs 14.b (3), 23 and 24, respectively. The tests and trials will be conducted by NAIO together with the relevant authority, and the supplier's representative must be present throughout the process.

38. **Shipment and Delivery.**

a. **Place of Delivery.** The supplier will arrange shipment of all items by sea/ airport to Chattogram/Dhaka. Consignee address is as follows:

**By Sea**

THE COMMANDING OFFICER  
NAVAL STORES DEPOT, CHATTOGRAM  
NEW MOORING  
CHATTOGRAM  
BANGLADESH

**By Air**

THE OFFICER-IN-CHARGE  
NAVAL STORES SUB DEPOT DHAKA  
NAMAPARA, KHILKHET  
DHAKA-1229, BANGLADESH

b. The supplier will carry the items from Chattogram/Dhaka sea/airport to NSD Chattogram at the cost and risk of supplier

c. **Delivery Schedule.** Items are to be delivered within **120 days** from the date of signing the contract.

d. **Port of Shipment.** The port of shipment is from country of manufacturer or country of origin. Port of shipment is to be mentioned.

e. **Source of Supply.** The source of supply, whether from country of manufacturer or country of origin, to be mentioned with detail address, e-mail & contact number.

f. **Source of Raw Materials.** To be mentioned with detail address of source, e-mail & contact number.

39. **Validity of Offer.** Up to 30 June 2026.

40. **Price.** If the item is imported against this tender, price to be quoted without import duties.

41. **Terms of Payment.** Total (100%) payments will be made in local currency after satisfactory inspection and final acceptance by Bangladesh Navy.



42. **Certificates.** The manufacturer is required to submit the following certificates with the stores:

- a. Latest ISO Certificates
- b. Non-toxic chemicals used in all components.
- c. No pig components used in any of the manufacturing process.
- d. Certificate from accredited laboratory in the USA or EU showing compliance with NIJ Standard, level 0101.06, III-A (up to at least 9mm).
- e. Country of origin.

43. **Compliance Statement.** A compliance statement containing all the required information is to be submitted with the offer for tender evaluation. Any deviation from the specification is also to be clearly stated in the offer. Mere mentioning of "Yes/No" or "Comply" will not be sufficient; detailed technical data and information of the offered item including those mentioned at Para 13 are to be provided. An incomplete compliance statement may attribute to cancellation of the offer.