

TENDER SPECIFICATION OF FLAK JACKET (NIJ LEVEL IIIA)

1. **Name of the Item.** Flak Jacket (NIJ Level IIIA) (Digital Combat Colour).
2. **Purpose.** The main purpose of the Flak Jacket is to provide protection and ensure the safety of the wearer from various ballistic threats, injuries, and harms caused by munitions, including fragments from exploded ordnance and various weapons, in accordance with NIJ Level IIIA standards.
3. **Quantity.** 500 in no (Large: 100 in no, Medium: 300 in no and Small: 100 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, Brazil, Canada, Denmark, France, Germany, Greece, Italy, Japan, Netherlands, Norway, South Korea, Singapore, Spain, Sweden, Switzerland, Singapore, South Africa, Turkiye, USA and UK.
8. **Manufacturing Country.** Australia, Brazil, Canada, Denmark, France, Germany, Greece, Italy, Japan, Netherlands, Norway, South Korea, Singapore, Spain, Sweden, Switzerland, Singapore, South Africa, Turkiye, USA and UK.
9. **Supplier/ Local Agent.** The name and full address of the supplier/ local agent must 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, 1st one by the Manufacturer to Authorized Agent and 2nd 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, 1st one by the Manufacturer to Authorized Agent/Dealer, 2nd one by the Authorized Agent to Sub-Agent/ Seller and 3rd 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 Flak Jacket (NIJ Level IIIA) (Digital Combat Colour) 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 Flak Jacket (NIJ Level IIIA) (Digital Combat Colour) (Large: 100 in no. Medium: 300 in no and Small: 100 in no) (as per para 13 to 16).
- b. Test/ Trail and Acceptance (as per para 33).
- c. Documentations (as per para 28).

12. **Description.** The Flak Jacket must fulfil the requirements of the National Institute of Justice (NIJ) Standard. The ballistic material shall be Polyethylene (Dyneema) or Aramid (Twaron/Kevlar), providing protection at NIJ Level IIIA. All portions of the jacket without the Armour Panels must meet a minimum protection level of NIJ IIIA. The outer cover of the jacket should be made of Digital Combat cloth and must be removable for washing and cleaning.

13. **Characteristics.** Flak Jacket should meet the following requirements:

- a. Blast protected.
- b. Multi-hit capability.
- c. Capable to protect Front, Back & Shoulder Side.
- d. Removable Soft Armour Panels (SAP) for washing & dry cleaning.
- e. Should have water proof Ballistic Panels and Covers.
- f. Full freedom of movement.
- g. Utility Pocket.
- h. Lightest possible version.
- j. Male version.
- k. Groin area protection capacity.
- l. Detachable and foldable Groin, Neck & Collars.

14. **Detail Specification of Soft Armour Panel.** Soft armour panels should be waterproof and UV resistant. The shape, size, and dimensions of the various armour panels are provided below:

- a. **Material.** The soft armour panels shall be made of Polyethylene (Dyneema) or Aramid fibres (Twaron/Kevlar).

b. **Number of Layers.**

- (1) Kevlar : 26 layers or more.
- (2) Dyneema : 35 layers or more.

c. **Protection Level.** Should provide **NIJ Protection Level IIIA.**

d. **Collar.**

- (1) Height:

- (a) Large Size : Max 8-11 cm, Min 6-8 cm
(b) Medium Size : Max 8-11 cm, Min 6-8 cm
(c) Small Size : Max 8-11 cm, Min 6-8 cm

- (2) **Length:**

- (a) Large Size : 30-35 cm
(b) Medium Size : 30-35 cm
(c) Small Size : 30-35 cm

- (3) **Shape:** As per BN sample.

e. **Shoulder.**(1) **Length.**

- | | | |
|-----|-------------|------------|
| (a) | Large Size | : 18-22 cm |
| (b) | Medium Size | : 18-22 cm |
| (c) | Small Size | : 18-22 cm |

(2) **Width.**

- | | | |
|-----|-------------|-----------|
| (a) | Large Size | : 8-11 cm |
| (b) | Medium Size | : 8-11 cm |
| (c) | Small Size | : 8-11 cm |

(3) **Shape.** As per BN sample.f. **Groin Guard.**

- | | | |
|-----|---------------------------------|--|
| (1) | Height (Large, Medium & Small): | 28-32 cm |
| (2) | Width (Large, Medium & Small): | Max 25-28 cm, Min 20-25 cm |
| (3) | Shape | : As per BN sample (Parabolic Shape 12.5 cm radius). |

g. **Front Panel.**(1) **Height.**

- | | | |
|-----|-------------|------------------------------|
| (a) | Large Size | : Max 48-52 cm, Min 38-40 cm |
| (b) | Medium Size | : Max 46-48 cm, Min 36-40 cm |
| (c) | Small Size | : Max 42-46 cm, Min 33-36 cm |

(2) **Width.**

- | | | |
|-----|-------------|------------------------------|
| (a) | Large Size | : Max 59-62 cm, Min 57-60 cm |
| (b) | Medium Size | : Max 55-58 cm, Min 53-56 cm |
| (c) | Small Size | : Max 48-53 cm, Min 48-52 cm |

(3) **Size of Chest.**

- | | | |
|-----|-------------|------------|
| (a) | Large Size | : 31-34 cm |
| (b) | Medium Size | : 28-30 cm |
| (c) | Small Size | : 28-30 cm |

(4) **Height of side.**

- | | | |
|-----|-------------|------------|
| (a) | Large Size | : 23-25 cm |
| (b) | Medium Size | : 20-23 cm |
| (c) | Small Size | : 18-20 cm |

(5) **Shape.** As per BN sample.(6) **Location.** The soft armour panel should be positioned 2.54 cm (1 inch) below the stitching of the Jacket Neck.

h. **Back Panel.**

(1) Height.

- (a) Large Size : Max 48-52 cm, Min 47-50 cm
(b) Medium Size : Max 46-48 cm, Min 45-47 cm
(c) Small Size : Max 42-46 cm, Min 44-46 cm

(2) Width.

- (a) Large Size : Max 47-51 cm, Min 46-49 cm
(b) Medium Size : Max 47-51 cm, Min 46-49 cm
(c) Small Size : Max 47-51 cm, Min 46-49 cm

(3) **Size of Chest (Back side).**

- (a) Large Size : 34-36 cm
(b) Medium Size : 34-36 cm
(c) Small Size : 34-36 cm

(4) Height of side.

- (a) Large Size : 23-25 cm
(b) Medium Size : 20-23 cm
(c) Small Size : 18-20 cm

(5) **Shape.** As per BN sample.

J. **Overall Shape and Colour.** As per BN sample (Digital Combat Colour).

15. **Technical Specification of the Outer Cover of Jacket.** Outer cover of the jacket should contain all soft armour panels. Detail size, shape, dimensions and other information are appended below:

- a. **Fabric.** Outer cover of jacket is to be made of washable Digital Combat printed cloth.

b. **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		

- c. **Shoulder Pocket.** One end of the shoulder pocket (18.5–22.5 cm x 8.5–11.5 cm) shall be stitched onto the exterior surface of the back outer cover of the jacket, while the other end shall have a Velcro patch (9–10 cm x 16–19 cm) and a loop on the edge.

- d. **Collar Pocket.** 02 (Two) in no collar pockets shall be permanently fixed to the jacket (As per sample). Each pocket should have a provision for opening and closing with Velcro to allow insertion of collar panels. Additionally, there should be a provision for overlapping the collars at the front with Velcro (4-6 cm x 4-6 cm).

e. **Cover Groin Guard.** The cover groin guard should be made of the same fabric as the armour cover of the jacket and should house the soft armour panel for the groin. The entire cover groin guard shall be detachable and secured with 02 (two) Velcro strips (9–11 cm x 3–5 cm) stitched on its exterior side, as per the BN sample.

f. **Circumference of Neck.** Circumference of the neck of outer cover of the jacket should be 64-68 cm after stitching the collar and inserting the soft armour panel inside the outer fabric.

g. **Front Outer Cover of Jacket.**

(1) **Dimensions.**

(a) **Height.**

(i)	Large Size	: 53-56 cm
(ii)	Medium Size	: 51-54 cm
(iii)	Small Size	: 49-52 cm

(b) **Width.**

(i)	Large Size	: 58-62 cm
(ii)	Medium Size	: 55-59 cm
(iii)	Small Size	: 48-54 cm

(c) **Chest (Large, Medium & Small Size).** 33-36 cm

(d) **Height of Side.**

(i)	Large Size	: 25-29 cm
(ii)	Medium Size	: 23-26 cm
(iii)	Small Size	: 22-25 cm

(e) **Dimension of Utility Pocket.** 02 (Two) in no utility pockets should be on outer cover of jacket stitched from 4-5 cm above the base. The measurements of utility pocket are as follows:

(i)	Large Size	: 18-20 cm X 13-15 cm
(ii)	Medium Size	: 18-20 cm X 13-15 cm
(iii)	Small Size	: 18-20 cm X 13-14 cm

Size of the flap of utility pocket should be 13-14 cm X 6-9 cm. Flaps will be closed with the pockets by means of Velcro of 12-13 cm X 3-5 cm.

(f) **Dimension of Side Velcro.** 02 (Two) in no side velcro should be stitched on both sides of the utility pockets to adjust with overlapping strap. The measurements of side velcro are as follows:

(i)	Large Size	: 18-20 cm X 15-17 cm
(ii)	Medium Size	: 18-20 cm X 12-15 cm
(iii)	Small Size	: 18-20 cm X 11-13 cm

(g) **Extra Pocket (Large, Medium & Small).** All sizes should have an extra pocket. The width and height of extra pocket should be 26-28 cm and 33-35 cm respectively. Flap of extra pocket should be in 26-28 cm X 7-8 cm with a velcro of 24-26 cm X 5-6 cm.

(h) **Location of Extra Pocket from Base.**

- | | | |
|-------|-------------|----------|
| (i) | Large Size | : 6-8 cm |
| (ii) | Medium Size | : 4-6 cm |
| (iii) | Small Size | : 3-4 cm |

(j) **Groin Securing Pocket.** The lower side of the front panel should have a pocket to store the groin guard when it is not in use. One end of 02 (two) elastic straps (21-26 cm × 4-6 cm) shall be stitched inside the pocket for the groin guard, and the other end shall have a Velcro patch (7-11 cm × 5-7 cm) stitched on it to secure the groin guard.

(2) **Overall Shape.** As per BN sample.

(3) **Colour.** Digital Combat (Same as BN Digital Combat Dress).

(4) **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		

h. **Back Outer Cover of Jacket.**

(1) **Dimension.**

(a) **Height.**

- | | | |
|-------|-------------|------------|
| (i) | Large Size | : 53-56 cm |
| (ii) | Medium Size | : 51-54 cm |
| (iii) | Small Size | : 49-52 cm |

(b) **Width of Side (Large, Medium&Small Size).** 51-54 cm

(c) **Chest Back Side (Large, Medium & Small Size).** 36-41 cm

(d) **Height of Side.**

- | | | |
|-------|-------------|------------|
| (i) | Large Size | : 23-25 cm |
| (ii) | Medium Size | : 21-23 cm |
| (iii) | Small Size | : 19-21 cm |

(2) **Overlapping Strap.** An overlapping strap (80-83 cm X 19-21 cm) made of double layer should be stitched with back outer cover of jacket. The length of middle portion of the overlapping strap will be 38-40 cm. Two open straps (20-22 cm) will be stitched on each side of the middle portion of overlapping strap. The location of overlapping strap should be 4-5 cm above the base. Overlapping straps should be adjustable on both sides with the front part of the Jacket.

(3) **Extra Pocket (Large, Medium & Small).** All sizes should have an extra pocket. Width & height of extra pocket should be 27-29 cm & 33-35 cm respectively. Flap of extra pocket should be 27-29 cm X 7-9 cm and fixed by a velcro of 25-27 cm X 5-6 cm. Location of the extra pocket should be 6-8 cm below the neck.

(4) Two nylon straps (28-30 cm X 4-6 cm each) should be fixed from 11-13 cm distance and 25-27 cm above the waist level.

(5) **Overall Shape.** As per BN sample.

(6) **Colour.** Digital Combat (Same as BN Digital Combat Dress).

(7) **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		

16. **Weight of Flak Jacket.**

- a. **Large** : Not more than 4.5 kg.
- b. **Medium** : Not more than 4 kg.
- c. **Small** : Not more than 3.5 kg.

17. **Instruction for Stitching.** All Velcro patches should be double-stitched, with the inner stitch positioned 1 cm away from the outer stitch. Kevlar or an equivalent thread shall be used for stitching the soft armour panels. A certificate from the original manufacturer of the Flak Jacket must be submitted with the offer, stating that the fabrication and stitching of the outer cover, ballistic panels, and all other parts of the offered jacket have been done in their own factory.

18. **Anti Trauma Material.** All soft armour panels (front, back, collar, shoulder and groin) should have good anti trauma material to minimize the trauma effect.

19. **Shelf Life.** The minimum shelf life of the Flak Jacket (NIJ Level IIIA) (Digital Combat Colour) must be 10 years. A Shelf-Life Certificate from the manufacturer should be provided with the offer.

20. **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

21. **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.

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.

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:

- (1) Name, logo or other identification of the manufacture.
- (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 manufacture.
- (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) Lot number.
- (5) Date of manufacture.
- (6) Care instructions.
- (7) Any special condition for washing/use.

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

24. **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.

25. **Sample.** 02 (Two) complete sets of the offered Flak Jacket are to be supplied with the offer for tender evaluation and Ballistic Test (as per para 20). The size of sample should be clearly mentioned. **Offers without samples will not be accepted.**

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26. **Packing Details.** All Flak Jackets are to be supplied in sealed condition. Each Flak Jacket should be packed in a standard sea/air-worthy carry bag. All packages must be shipped in sea-worthy containers or on pallets suitable for air shipment. Each package is to be marked as follows:

- a. Name of Item
- b. Contract Number and Date
- c. Quantity
- d. Year of Manufacture
- e. Supplier's Name and Address with contact number.
- f. Consignee's Address

27. **Brochure/Catalogue.** 01 (One) original copy of the brochure/catalogue of the supplied Flak Jacket in English must be submitted with the offer for tender evaluation. Additionally, the manufacturer's Product Brochure should also be included with the offer.

28. **Manual.** 02 (Two) sets of instructions for preservation and long-term storage manuals (in English) are to be supplied with the Flak Jackets.

29. **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.

30. **Guarantee.** Guarantee must be given that the supplied quantity Flak Jacket will be suitable to meet the purpose and 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 offer.

31. **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.

32. **Quality Assurance.** A Defence Quality Assurance Certificate must be provided by the appropriate Quality Assurance Organization of the manufacturing country.

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33. **Final Acceptance.** Final acceptance of the Flak Jacket will be given by the Naval Armament Inspection Organization (NAIO, Chattogram) after satisfactory physical inspection, comparison of the supplied Flak Jacket with the approved sample, and satisfactory results in the Ballistic Test, Washing Test, Dye Fastness to Sunlight Test, and Water Resistance Test on one randomly selected Flak Jacket. The Ballistic Test, Washing Test, Dye Fastness to Sunlight Test, and Water Resistance Test procedures will be as specified in paragraphs 20 and 21, respectively. The tests and trials will be conducted by NAIO and the appropriate organizations, and the supplier's representative must be present throughout the process.

34. **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.

35. **User List.** List of users indicating year is to be submitted with the offer.

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

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

38. **Terms of Payment.** Total (100%) payment will be made in local currency after satisfactory test/trial and final acceptance by the Bangladesh Navy.

39. **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 are to be provided. An incomplete compliance statement may attribute to cancellation of the offer.