## TENDER SPECIFICATION OF FIRE FIGHTING SUIT (FEARNAUGHT SUIT)

- 1. Name of the Equipment. Fire Fighting Suit (Fearnaught Suit).
- 2. <u>Purpose</u>. The suits will be used as protective clothes for the fire fighting personnel onboard naval ships and submarine against the effects of heat or physical damage.
- 3. Quantity.

Description	Deno	Qty
Fire Fighting Suit (Fearnaught Suit)	Pair	300
Complete Set includes Jacket & Trouser, Gloves, Hood Size: Medium=135 Pair, Large=135 Pair, Extra Large =30 Pair		

- 4. Brand. To be mentioned.
- 5. Model. To be mentioned.
- 6. Year of Manufacture. 2025 or later.
- 7. <u>Country of Origin.</u> France, Germany, Italy, Netherland, Spain, Sweden, Austria, Finland, Denmark, Bulgaria, Belgium, UK, USA, Canada, Turkey, Norway, Japan, South Korea.
- 8. <u>Manufacturing Country</u>. EU Countries, UK, USA, Canada, Turkey, Norway, Japan, South Korea.
- 9. Name and Address Local Supplier. Name & full address with email is to be mentioned.
- 10. Manufacturer's Name and Address. Name & full address with email is to be mentioned.
- 11. Principal's Name and Address. Name & full address with email is to be mentioned.
- 12. <u>Bidder's Qualification</u>. The Supplier must be enlisted at DGDP. The supplier must be commercially competent in trading technical stores. The concerned supplier is expected to have adequate knowledge in understanding all the technical criteria and ability to fulfill those in clear terms given in the indent. The supplier has to ensure that the source is either the manufacturer or dealer/agent of the respective manufacturer (having clear existence in the manufacturer's authorization and website/fax & e-mail address) or sub-agent of the respective agent (having authorization from authorized dealer).
- 13. <u>Certificate and Document of Authentication</u>. The concerned supplier must provide following original certificate(s)/ document(s) as applicable with the quotation and during delivery of items as regard to the authenticity of source and item(s) in order to establish chain of links from the original source to supply items:
  - a. One certificate by the Original Equipment Manufacturer (OEM) in favor of the local supplier (in case of OEM as principal).

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- b. Two certificates, one by the OEM to authorized dealer/agent and other by the authorized dealer/agent to supplier (in case of authorized dealer/agent as principal).
- c. Three certificates, first one by OEM to authorized dealer/agent, second one by authorized dealer/agent to sub-agent and third one by sub-agent to supplier (in case of sub-agent as principal). If the supplier is unable to obtain the first certificate (by OEM to authorized dealer/agent), then it has to produce relevant document to prove agency-ship of its claimed agent of the recognized manufacturer.

# 14. Factory Acceptance Test (FAT)/Pre-Shipment Inspection (PSI).

- a. Factory Acceptance Test (FAT)/Pre-Shipment Inspection (PSI) will be carried out by a team of 02 (two) BN officers for a duration of 03 (three) working days excluding journey period, at the buyer's expense (including return air ticket, food and accommodation). The supplier should inform the buyer about the date of FAT/PSI (schedule) at least 08 (eight) weeks prior to the date of commencement of the FAT/PSI. The FAT/PSI criteria for the items will be forwarded by the supplier along with the FAT/PSI schedule.
- b. All types of movement/transportation within the manufacturer/supplier's country, reception and arrangement for entry into the country/concerned area for the FAT/PSI team are to be arranged by the supplier.
- c. On return from the country of supplier, the FAT/PSI team will submit report to concerned directorate of NHQ. NHQ concerned directorate will, in turn, forward final decision within 3 weeks, basing on which DGDP will render clearance for shipment of stores to the supplier concerned. The supplier will not make shipment of any item of the contract without clearance from the DGDP.
- 15. <u>Standard</u>. Marine Equipment Directive 96/98/EC (MED) Certified, SOLAS Approved. The supplied item should also meet classification EN649:2005+A1:2006 protective clothing for fire fighters (Test Standard ISO 6942).
- 16. <u>Colour.</u> Black, Navy Blue, Dark Grey, Golden, Yellow & Orange with reflective strip as per OEM Standard.

## 17. <u>Characteristics</u>.

- a. The suits must provide excellent thermal protection up to at least 250°C against heat and must not melt. It must be flame retardant and must ensure excellent breathable characteristics and durability.
- b. The suit will be worn over naval uniform. Therefore, supplied suits must be of light weight, durable and comfortable without compromising the protective features.
- c. Trouser should be worn over upper part of boot.



- 18. Main Features of Fire Fighting Suit.
  - a. Shoulders. Extra outer layer of Nomex.
  - b. <u>Pockets.</u> Jacket includes two covered pockets on each side with left radio chest pocket.
  - c. <u>Double Closed Front</u>. Velcro fixing and safety zipper.
  - d. Wrist Bands. Aramid knitting.
  - e. Zippers. Metal teeth with quick release.
  - f. Collar. Wide collar with collar closure system.
  - g. <u>Front Opening</u>. Closed with brass zipper which is covered by a Velcro sealed plate. Flame/hot air should not enter inside.
  - h. Adjustable Protective Cuff. Velcro fire and waterproof.
  - j. Sewing Thread. High quality Nomex thread.
  - k. <u>Reflective Trims</u>. Colored reflective strip of Jacket, Trousers, Gloves and Hood (OEM Standard).
- 19. <u>Washable Condition</u>. Should be washable (manually/ dry wash) and long lasting. Color should not be faded (color guarantee will be appreciated).
- 20. <u>Scope of Supply</u>. The Firefighting suits are to be supplied brand new and of latest production range. Items are to be supplied complete in all respect fulfilling the technical specification with all required standard accessories/ attachments as mentioned in the specification and ready for immediate operation.
- 21. <u>Storing Condition</u>. The fire fighting suits should be capable of storing using satisfactorily in the following ambient condition:

a.	Air Temperature	+5 to 55 <sup>0</sup> C
b.	Sea Water Temperature	+5 to 35° C
c.	Sea Water Condition	Muddy and Sandy
d.	Relative, humidity	Up to 98%
e.	Salinity	Up to 34 gm/ltr

### 22. <u>Technical specification of Fire Fighting Suit.</u>

- a. <u>Fire Fighting Suit Outfit</u>. The fire fighting suit is to be two piece garment and Breathing Apparatus (BA) Set is to be worn over Fire Fighting Suit. However complete Fire Fighting Suit Outfit will contain the followings:
  - (1) Jacket.
  - (2) Trouser (with shoulder strap).
  - (3) Fire Fighting Gloves.
  - (4) Fire Fighting Hood.

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b. Fire Fighting Suit Layers (Jacket and Trouser). Fire Fighting Suit (Jacket and Trouser) should comprise of total 4 layer as follows.

Layer Barrier	Function	Specification
Outer Layer . Moisture Barrier	Heat protective, water and oil repellent finish. Antistatic	NOMEX® Tough (Approximately 75% NOMEX®, 23% KEVLAR®, 2% P140) Flame retardant (FR) Aramid Fabric+
Heat Barrier	Provide thermal isolation	100% Aramid felt
Inner Layer	Provides a high degree of comfort to the wearer (Anti Wicking)	Aramid/Viscose (FR)

- c. <u>Fire Fighting Suits Size and Quantity Guideline</u>. Exact size will be determined before purchase order/contact. However size will be as per following guideline and sizes are to marked in each jacket and trouser:
  - (1) Medium Size (Approx 168 cm height of men/women)-45% of total quantities=135 Pairs.
  - (2) Large size (Approx 177 cm height of men)-45% of total quantities=135 Pairs.
  - (3) Extra large size (Approx 185 cm height of men)-10% of total quantities=30 Pairs.
- d. <u>Fire Fighting Gloves</u>. EN 388 and Approved MED Fire fighting gloves should be easy grippable, ergonomic curved finger design by following components:
  - (1) Outer: 100% PHROHIDE grain leather
  - (2) Lining: 100% Kevlar with glass fiber.
  - (3) Cuff: 100% PHROHIDE grain leather
  - (4) Thread: 100% Cotton
  - (5) Colour: Black and Yellow combination
- e. Fire Fighting Hood. The Hoods are to be made from heat cotton loop pile palms
- 23. Non Acceptance. Aluminized fire & heat resistant modacrylic cotton is not acceptable.
- 24. Sample. One pair of Fire Fighting suit outfit ((Jacket, Trouser, Gloves and Hood) is to be provided with the quotation as sample for tender evaluation.
- 25. Warranty of trouble free operation is to be given for the supplied items for a period of at least 12 months from the date of acceptance by BN. For warranty repair/replacement, the supplier will collect the defective item from NSD Chattogram/ Khulna and re-supply the same to the collecting place after warranty repair or replacement.
- 26. Storing Bag. All individual items should have water proof bag for (each set of trouser and Jacket gloves and hood one bag).

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- Test, Trial and Acceptance. 27. The acceptance of the supplied items will be carried out by the CINS at Chattogram, where the supplier's representative will be present. After the satisfactory test/trial, the acceptance certificate will be given by the CINS.
- 28. Port of Shipment. Any port of the manufacturing country. In case of shipment through any port of manufacturer authorized dealer, relevant manufacturer certificate is to be provided as a proof of genuineness of the offered item.
- 29. Shipment, Delivery and Inspection.
  - The items are to be delivered (Without Import Duties) within 09 a. Shipment. (Nine) months from the date of signing the contract to the following consignee:

The Commanding Officer Naval Stores Depot New Mooring, Chittagong, Bangladesh

- b. Place of Delivery. NSD, Chattogram.
- Inspection Authority. CINS, Chattogram. C.
- 30. Validity of Offer. The offer should remain valid until 30 June 2025.
- Liquidate Damage (LD). As per DGDP Rules. 31.
- Terms of Payment. Necessary L/C will be opened in favour of the principal supplier but 32. payment will be made as per following terms:
  - 80% of total CFR value will be paid on delivery of the items described under the scope of supply on production of necessary shipping documents.
  - Remaining 20% L/C amount will be paid on producing 'Acceptance Certificate' following successful test and trial jointly carried out by the representative of purchaser and supplier's representative.
- Certificate/ Document. Following certificates are to be provided as original from the 33. manufacturer in regard to the supplied spares as new, unused and genuine at the time of delivery
  - Authenticity and Genuineness Certificate. a.
  - b. Quality Assurance Certificate.
- 34 The sample pictures of a standard Complete Fire Fighting Suit (Fearnaught Picture. Suit) are attached in (Fig-a). Supply of Jacket, Trousers, Gloves and Hood as per the sample pictures will be appreciated. The quality and color combination should be of OEM standard.
- All terms and conditions of DGDP will also remain valid. If any of the above terms and 35. conditions contradicts with the terms and conditions laid down in the DGDP rules and regulations, the later shall supersede the same. General of Defente

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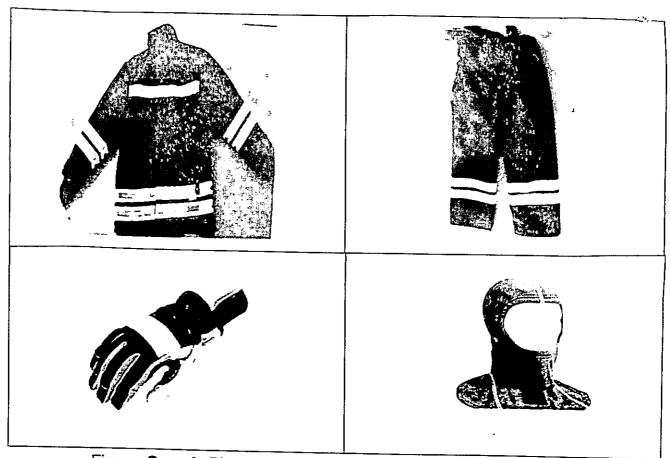


Fig-a: Sample Pictures of Fire Fighting Suit, Gloves and Hood

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