

TECHNICAL SPECIFICATION OF ENDOSCOPE MACHINE WITH ACCESSORIES

1. **Name of the Equipment.** Endoscope Machine with Accessories.
2. **Purpose.** This instrument has been designed to be used ancillary equipment for observation and examination of the inner part of machinery, equipment or pipeline that cannot be observed directly from the outside.
3. **Quantity.** 01 (One) in number complete set.
4. **Manufacturer, Principal Supplier & Local Supplier.** Name and full address to be mentioned.

a.	Manufacturer	To be mentioned.
b.	Principle Supplier	To be mentioned.
c.	Local Supplier	To be mentioned.

5. **Year of Manufacture.** 2022 or later. The item should be brand new and original.
6. **Country of Origin.** USA, UK, EU Countries, Canada, Japan, Australia, South Korea, China, Turkey and New Zealand.
7. **Manufacturing Country.** USA, UK, EU Countries, Canada, Japan, Australia, South Korea, China, Turkey and New Zealand.
8. **Certificate/Document of Authentication.** The local supplier must provide following certificate(s)/ document(s) with the offer/quotation of items as regard to the genuinity of source and item(s) in order to establish chain of links from the original source to supply items:

- a. One certificate/ document by the manufacturer in favour of the supplier (in case of manufacturer as direct source).
- b. Two certificates/ documents, one by the manufacturer to authorized agent and other by the authorized agent to supplier (in case of authorized agent as immediate source).

9. **Standard.** The Endoscope Machine is to be designed and constructed fulfilling the requirement of International standard. The standard to which the quoted Endoscope Machine complies with is to be specified (class certificate, ISO etc).

10. **Ambient Condition.** The Machine will have to operate in a highly corrosive marine environment whose particulars are as follows:

a.	Air temperature	+05°C to +45°C
b.	Relative Humidity	Upto 95% (non-condensing)
c.	Location	Close to the sea shore

11. **Scope of Supply.** The scope of supply is to include the followings:

- a. Main item (01 x Endoscope Machine with accessories complete with all items necessary for immediate operation without the requirement of any other items (standard fittings/attachments, accessories, etc) (as per paragraph 12 to 14).
- b. Optional items (as per paragraph 15) (as selected by BN).



- c. Tools (as per paragraph 16).
- d. Spare parts (as per paragraph 17) (as selected by BN).
- e. Documents (operation and maintenance manual, spare parts catalogue, certificates etc, as applicable) (as per paragraph 18 and 19).
- f. Test, Trial and Acceptance, Training (as per paragraph 20 and 21).
- g. Warranty and Guarantee (as per paragraph 22 and 23).

12. **Technical Specification.**

a.	Type	Industrial Video Scope
b.	Model	To be mentioned.
c.	Maker	To be mentioned.
d.	Features: Scope and Base unit	
	(1) Scope Diameter	4 – 6 mm.
	(2) Scope Length	5 – 7.5 m.
	(3) Exterior	High durability tungsten braid.
	(4) Tube Flexibility	Tapered flex tube with flexibility gradually increasing toward the distal end.
	(5) Articulation Angle (UP/DOWN/RIGHT/LEFT)	90 ° - 150 °
	(6) Articulation Mechanics	True feel scope tip articulation with electronic power-assisted, manual articulation
	(7) Temperature Sensors	2-stage indicator for high temp warning.
	(8) Optical Tip Adaptor Identification	Smart tip automatic recognition technology
	(9) Optical Tip Adaptor Locking Mechanism	To be mentioned.
	(10) Handheld Control Unit	Dedicated quick access buttons, levers or joysticks on the hand control unit; live mode, gain control, brightness, zoom, freeze image, record still/video, articulation control, articulation Lock, menu access, saved recording, index access; quick last image recall.
	(11) Operating Temperature	(a) In Air -25 ° C to 100 ° C. (b) In Water 10 ° C to 30 ° C.
	(12) Base Unit Display	Daylight-view LCD Monitor approx. 7 inches
	(13) Hardware and Connectors	Video output; audio output; Aux; USB; Retrieval tools; Optical tip adaptors; Rigid sleeve sets; Handheld controller holder; Guide tube for inspection of engines; Guide tube for long scope; Lithium-ion battery with battery charger
	(14) Software Controls	Image controls; Adjustable gain controls; Exposure controls; Color enhancement.
	(15) Recording Management	Recording media; Internal and external memory; Image management functions; Overlay; Thumbnail image display; Stereo management etc.
	(16) Others	(a) Liquid resistance of all parts; (b) Waterproofing of all parts; Military standard compliance (c) License of software should be given by the supplier to update the software.



13. **Cables (If required).** Standard Cable for connection of the machine is to be provided.
14. **Standard Accessories.** Standard accessories must include all items and accessories, which are essential to operate the Endoscope Machine, whether those are mentioned in this specification or not. A list of such items / accessories indicating item wise price (Price included in total price).
15. **Optional Items.** A list of optional items which may be required for Endoscope Machine is to be provided (price not included in the total price).
16. **Tools.** One (01) set of tools for maintenance of the Endoscope Machine is to be provided indicating item wise price. Quantity and specification of the tools are to be mentioned in details in the quotation (price included in the total price).
17. **Spare Parts.** A recommended list of spare parts required for the Endoscope Machine with Accessories for 05 years running is to be provided with the quotation indicating item wise price (price not included in the total price).
18. **Documents.** 02 (Two) sets of following documents in English language are to be supplied free of cost with the equipment (One set to be supplied with the offer):
- Instruction manual including technical specification and maintenance manual.
 - Spare parts catalogue with internationally recognized part No of all parts.
 - Factory test/Performance test certificate.
 - Circuit diagram etc (if any).
19. **Quality Assurance Certificate.** Quality assurance certificate in respect of the associated equipment in regards to its manufacturing and performance is to be provided at the time of delivery of the items.
20. **Test, trial and Acceptance.** The buyer will carry out the test and trial of the Endoscope Machine in presence of supplier's representative. After satisfactory test, trial and necessary training programmed an acceptance certificate will be signed jointly by the supplier's representative and the representative of buyer.
21. **Training.** The supplier will provide operation and maintenance training for 05 Persons and duration of 01 day after installation. Cost of training are to be borne by the supplier
22. **Warranty.** Warranty for trouble free operation is to be given by the principal/ manufacturer for a period of at 12 months from the date of acceptance by the buyer. During the warranty period, if the item/equipment remains non-operational/defective for any action pending by the supplier the warranty period will be extended for the same period. The warranty covers all parts and labor (including service engineers' cost) throughout the warranty period.
23. **Guarantee.** The manufacturer shall guarantee to supply necessary spare parts for at least 05 (Five) years with reasonable price. Yearly increase of price of spares should not be more than 5% of the price list for spares provided with the quotation.
24. **Shipment.**
- The supplier will arrange shipment of all items by any sea/ air port of Bangladesh.
 - All items are to be delivered in sea-worthy packing to ensure safe transportation by sea/air.
 - All packages are to have packing notes showing their contents in details and all packages shall be marked with the name and address of the consignee and gross weight.
 - The supplier will arrange transportation of all supplied items to the Naval Store Depot, Chattogram.

e. **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.

25. **Delivery.** The items are to be delivered within **04 (Four)** months of signing the contract to the following address:

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

26. **Terms of Payment.** 100% of Total Contract Price (TCP) will be paid in local currency as per existing rules after satisfactory test/ trial and acceptance by BN.

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

28. **Validity of Offer.** The offer should remain valid till 03 (three) months from the date of tender opening.

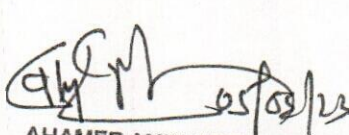
29. **Condition for Acceptance of Quotation.** Quotation has to have supporting documents (booklets, leaflet, catalogue, brochure etc) having detailed particulars of the offered Endoscope Machine. If detailed information regarding specifications, maker's books and catalogue about the same model of the Endoscope Machine quoted, spare parts, accessories, scope of supply, etc are not provided, the quotation will not be accepted.

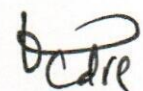
30. **Compliance Statement.** A compliance statement fulfilling all the requirement of the tender is to be submitted for evaluation of the quotations. Stating mere 'Yes' or 'No' will not suffice and detailed description/information as required is to be given. An incomplete compliance statement may attribute to cancellation of the offer. If any clause of this specification does not commensurate with offered Endoscope Machine, the deviation has to be spelt out clearly.

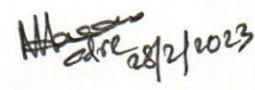

MALAMGIR HOSSAIN
Commander BN
Director of Naval Engineering (C)
Naval Headquarters
Banani, Dhaka-1213
Date: 28/02/2023



S. M. RAHMAN
Lt Commander BN
Staff Officer (NS-1)
Naval Headquarters
Banani, Dhaka-1213
Date: 28/02/2023


MD. ASIB RAIHAN
Lt Commander BN
Staff Officer (Plans-II)
Naval Headquarters
Banani, Dhaka-1213
Date: 28/02/2023


AHAMED AMIN ABDULLAH
Captain BN
Director of Naval Armament
Inspection and Supply
NHQ Banani, Dhaka-1213
Date: 28/02/2023


M. ABDUR RAHMAN
Commodore BN
Director of Naval Weapons
and Electrical Engineering
NHQ, Banani, Dhaka-1213
Date: 28/02/2023


M. ABDUR RAHMAN
Commodore BN
Director of Naval Weapons
and Electrical Engineering
NHQ, Banani, Dhaka-1213
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M. ABDUR RAHMAN
Commodore BN
Director of Naval Weapons
and Electrical Engineering
NHQ, Banani, Dhaka-1213
Date: 28/02/2023