

# TENDER SPECIFICATION FOR PORTABLE ELECTRIC DRIVEN BREATHING HP AIR COMPRESSOR

1. **Name of the Equipment.** Portable Electric Driven Breathing HP Air Compressor.
2. **Purpose.** The Portable Electric Driven Breathing HP Air Compressor will be used for charging diving air bottles, breathing apparatus, BASCCA, EDDBA and Emergency Life Support Apparatus (ELSA). The breathing air compressor is to be fitted with purifier and charging facility.
3. **Quantity.** 05 (Five) in number set.
4. **Manufacturer, Principal Supplier & Local Supplier.** Name and full address to be mentioned.

1.	Manufacturer/ Brands	Reavell (USA), Gardner Denver (UK), Bauer (Germany), Quincy (USA), Deno Compressors (Netherlands) and Alkin (Turkiye).
2.	Principal Supplier	To be mentioned
3.	Local Supplier	To be mentioned

5. **Year of Manufacturing.** 2024 or later.
6. **Country of Origin.** USA, UK, Germany, Netherland and Turkiye.
7. **Manufacturing Country.** USA, UK, Germany, Netherland and Turkiye.
8. **Certificate/Document of Authentication.** The local supplier must provide following certificate(s)/ document(s) with the offer/quotation as regard to the genuineness of source and item(s) in order to establish chain of links from the original source to supply:
  - 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).
  - c. Three certificates/documents, first one by the manufacturer to authorized agent, second one by authorized agent to sub-agent and third one by sub-agent to supplier (in case sub-agent as immediate source). If the supplier is unable to obtain the first certificate (by manufacturer to authorized agent), then it has to produce relevant document to prove agency-ship of its claimed agent of the recognized manufacturer.
9. **Standard.** The Breathing HP Air Compressor is to be designed and constructed fulfilling the requirement of International standard. The standard to which the quoted Breathing HP Air Compressor complies with is to be specified (ISO or similar).
10. **Operating Environment of Compressor.** The environment under which the compressor will be operated and their performances will be measured is as under:

a. **Ambient Conditions.**

1.	Air temperature	05°C to 50°C.
2.	Relative humidity	Up to 95% (non-condensing)
3.	Location	At sea

- b. **Inlet Air.** The compressors will take inlet air from the atmosphere inside the compartment of ships where it will be kept.



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

- a. Main items (05 x Portable Electric Driven Breathing HP Air Compressor) complete with all items necessary for immediate operation without the requirement of any other items (attachments, accessories, consumables, etc) (as per paragraph 12 and 13).
- b. Optional items (as per paragraph 14) (as selected by BN).
- c. Special tools (as per paragraph 15).
- d. Spare parts (as per paragraph 16).
- e. Document and certificates (as per paragraph 17 and 18).
- f. Test, trial and acceptance (as per paragraph 19).
- g. Warranty (as per paragraph 20).
- h. Any other issue relevant (if any).

12. **Technical Specification.**

a. **Air Compressor (Electric Driven).**

Ser	Description	
1.	Type	Portable Electric Driven Breathing HP Air Compressor
2.	Model	To be mentioned
3.	Maker	BN Standardised Brands {(Reavell/Gardner Denver (USA/ UK), Bauer (Germany), Quincy (USA), Deno Compressors (Netherlands), and Alkin (Turkiye)}
4.	Delivery pressure (Minimum)	330 bar
5.	Number of cylinder	To be mentioned
6.	Number of stages	To be mentioned
7.	Free Air Delivery (FAD)	Not less than 100 ltr/min
8.	Drive	Electrical Motor.
9.	Compressor oil	Grade and name of commercial equivalents to be mentioned. Oil must be available in Bangladesh local market
10.	Method of compressor cooling	Air cooled
11.	Noise level	Preferable 85dB(A) (To be mentioned)
12.	Charging hose	Standard filling hose with connection system
13.	Materials	Corrosion-resistant suitable for use in marine environment

b. **Motor**

1.	Type	To be mentioned
2.	Brand/Model	To be mentioned
3.	Maker	To be mentioned.
4.	Power supply	380-400V, 50 HZ, 3 Phase. (The motor will have the tolerance of $\pm 10\%$ voltage fluctuation)
5.	Power in KW	To be mentioned (should match the requirement of compressor)
6.	RPM	To be mentioned



7.	Motor cooling	Air cooled
8.	Insulation class	F or better
9.	Ingress protection	IP-54 or better
10.	Motor protection	Detail to be specified

c. **Starter.**

1.	Type	For motor with power rating of 3 kW or more, a star-delta starter may be provided
2.	Indicating light	To be mentioned
3.	Safety device	Overload and over/under voltage trip
4.	Automatic Shut down device	When final pressure reached
5.	Reset	Manual

d. **Mounting.** Compressor with motor, starter and charging panel along with all accessories are to be mounted on steel base frame with built in anti-vibration and shock mountings. The frame should have lifting handle to make the compressor portable.

e. **Overall Dimension.** To be mentioned.

f. **Weight.** To be mentioned.

g. **Purifier.** The air purification system with replacement filter is to be supplied. Detailed description of the system and purification standard is to be mentioned.

h. **Charging Arrangement.** One set of charging arrangement including adopter is to be provided for each air compressor. Charging hoses should be able to withstand maximum operating pressure (350 bar) of compressor. Items included for charging arrangement is to be mentioned.

j. **Cables.** Standard cable with 3 pin plug (Euro type) to be provided with each compressor.

13. **Standard Accessories.** Standard accessories must include all items and accessories, which are essential to operate the HP Air Compressor, whether those are mentioned in this specification or not. A list of such items/accessories to be mentioned with the quotation. The accessories should be supplied **free of cost**. The list should include the following:

Ser	Description
1.	Safety valve/auto relief valve
2.	Delivery air pressure gauges
3.	Air inlet filter
4.	Automatic condensate drain valve
5.	05 (five) meter charging line complete with pressure gauge, shut off valve, bleed valve and suitable adapter
6.	Pressure switch for auto cut-off
7.	Belt guard (if applicable)
8.	Fan wheel cover (if applicable)
9.	<b>Safety device.</b>  (1) Low lubricating oil pressure alarm (2) High air pressure shut off (3) Safety valve at all stages



14. **Optional Items.** A list of optional items which may be required for the compressor is to be provided. The price will not be added to the total price while evaluating the comparative price of the bidders.

15. **Special Tools.** 01 (One) set of special tools (if required) for carrying out maintenance of the compressor is to be supplied free of additional cost.

16. **Spare Parts.** A recommended list of spare parts required for 05 years or 5000 hrs satisfactory operation of HP Air Compressor is to be provided indicating item-wise price. The prices will be added with total price while evaluating the comparative price of the bidders.

17. **Documents.** 02 (Two) sets of following documents in English language are to be supplied free of cost with each compressor:

- a. Instruction manual including technical specification, installation, operation and maintenance.
- b. Workshop level repair manual.
- c. Electrical diagram, fault finding flow chart etc.
- d. Spare parts catalogue and its components.
- e. Factory test certificate/performance certificate.

18. **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.

19. **Test, trial and Acceptance.** The buyer will carry out test and trial of the Portable Electric Driven Breathing HP Air Compressor in presence of supplier's representative. After satisfactory test, trial and necessary training programme, an acceptance certificate will be signed jointly by the supplier's representative and the representative of buyer.

20. **Warranty.** Warranty for trouble free operation is to be given by the manufactures for a period of at least 01 (One) year from the date of acceptance by the buyer. During the warranty period, if the HP Air Compressor remains non-operational for any action pending by the supplier, the warranty period will be extended for the same period. The warranty covers all parts and labour (Including OEM or authorized service engineer's cost) throughout the warranty period.

21. **Shipment.**

- a. The supplier will arrange shipment of all items to any sea/air port of Bangladesh.
- b. All items are to be delivered in sea/air worthy packing to ensure safe transit by sea/air.
- c. All packages are to have packing notes showing their contents in detail and all packages shall be marked with the name and address of the consignee and gross weight.
- d. The supplier will arrange transportation of all supplied items from respective sea/air port to NSD Chattogram.

e. **Port of Shipment.** Any port of manufacturing country. In case of shipment through any port of Manufacturer's authorized dealer, relevant manufacturer's certificate is to be provided as a proof of genuineness of the offered item.



2. **Delivery.**

a. The items are to be delivered within **06 (Six) months** from the date of signing the contract to the following **consignee**:

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

b. **Place of delivery.** NSD Chattogram.

23. **Validity of Offer.** The offer should remain valid till **06 (Six) months** from the date of tender opening.

24. **Currency.** Local Currency.

25. **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.

26. **Condition for Acceptance of Quotation.** Quotation has to have supporting documents (booklets, leaflet, catalogue, brochure etc) having detailed particulars of the offered HP Air Compressor. If detailed information regarding specifications, maker's books and catalogues, spare parts, accessories, scope of supply, authentication certificate etc are not provided, the quotation will not be accepted.

27. **Compliance Statement.** A compliance statement fulfilling all the requirement of the tender is to be submitted for evaluation of the quotations. Merely stating 'Yes' or 'No' will not suffice, rather detailed description/information as required is to be provided. An incomplete compliance statement may attribute to cancellation of the offer. If any clause of this specification does not commensurate with offered Portable Electric Driven Breathing HP Air Compressor, the deviation has to be spelt out clearly.

