

TECHNICAL SPECIFICATION OF LP AIR COMPRESSOR WITH ASSOCIATED ACCESSORIES

1. **Name of the Equipment.** LP Air Compressor delivery pressure 14 bar capacity 510 liter/minute motor driven.
2. **Purpose.** The LP Air compressor will be used for charging air bottles on board Bangladesh Coast Guard Ship.
3. **Quantity.** 04 (four) in number.
4. **Year of Manufacture.** 2017 or later.
5. **Country of Origin.** USA, Canada, Australia, Japan, Norway, Switzerland, UK, France, Germany.
6. **Name of Manufacturer.** Details address with email and web site is to be mentioned. And all the data should be verified from the web address.
7. **Qualification of Bidders.** Only the local agents of genuine manufacturers or their authorized dealers (Principal) can submit quotations. Manufacturer's Certificate of authorization is to be submitted with the quotation. In addition to the above type approval certificates of classification society and quality assurance certificate are to be submitted.
8. **Operating Environment of Compressor.** The environment under which the compressors will be operated and their performances will be measured is as under:

a. **Ambient Conditions.**

(1)	Air temperature	05°C to 50°C.
(2)	Sea Water Temperature	05°C to 32°C.
(3)	Relative humidity	Up to 98%

- b. **Intake Air.** The compressor will take intake air from the atmosphere or from any place of ship.
9. **Scope of Supply.** The scope of supply will include the followings:
 - a. Main item complete with all items necessary for immediate operation without the requirement of any other items (attachments, accessories, consumables, etc) (as per paragraph 10 to 13).
 - b. Spare parts and consumables (as per paragraph 14).
 - c. Installation, Test/Trial and acceptance services (as per paragraph 15).
 - d. Documents (instruction manual, spare parts catalogue/ repair manual, circuit diagram, certificate, etc; as applicable) (as per paragraph 16).
 - e. Warranty services (as per paragraph 17).

10. **Technical Specification.**

a. **Air Compressor.**

(1)	Type	14 bar capacity 510 L/min electric driven air compressor.
(2)	Model	To be mentioned.
(3)	Maker	To be mentioned.
(4)	Service Pressure	14 bar.
(5)	Maximum Operating Pressure	510 Liter/minute.
(6)	Volumetric displacement	510 L/Min
(7)	Effective free air output at full load with respect to the suction	390 L/Min
(8)	Maximum pressure	14 bar.
(9)	Absorbed power at working pressure at full load	5 HP
(10)	Number of stage	02 stage
(11)	Number of cylinder	02 stage
(12)	Cooling arrangement	Air Cooled.
(13)	Speed (RPM)	900 RPM
(14)	Inlet condition	The compressor will take intake air from the Atmosphere
(15)	Drive	Motor driven.
(16)	Lubrication system	Force/ Splash (actual system to be mentioned).
(17)	Compressor oil	Oil grade to be mentioned. Oil for initial filling is to be supplied. Oil must be available in Bangladesh local market.
(18)	Move ability/ Mounting	Fixed
(19)	Air output connection	¾" Gas
(20)	Weight	80 kg +_ 5kg

b. **Technical Specification of Motor (Prime Mover)**

(1)	Type	To be mentioned.
(2)	Maker	To be mentioned.
(3)	Model	To be mentioned.
(4)	Power	5 Kw.
(5)	Voltage	440 Volt AC
(6)	Frequency	60 Hz
(7)	Phase	3 Phase
(8)	Amps	10 A
(9)	RPM	To be mentioned.
(10)	Cooling	Air Cooled
(11)	Starting method	Push switch arrangement.
(12)	Safety device	Standard Safety device fitted with compressor and motor are to be mentioned

c. **Mounting.** Complete Compressor unit i.e. Compressor and motor are to be installed on a single mounting and supplied as complete single unit along with all necessary items.

d. **Overall Dimension.** To be mentioned (Compact size is preferable).

e. **Overall Weight.** To be mentioned (Less weight is preferable).

11. **Air Filtering/Purifying System.** As the discharged air will be used for breathing purpose, thus appropriate suction and discharge air filtering system to be incorporated. The discharge air purification system with replaceable filter is to be supplied. Detailed description of system and purification standard is to be mentioned. Type and capacity of the purifier is to be mentioned. Two sets of air purification filter to be provided as spares.

12. **Charging Arrangement.** One set charging arrangement including adopter is to be provided. Charging hoses should be able to withstand maximum operating pressure (14 bar) of the compressor. Items including for charging arrangement to be mentioned.

13. **Standard Accessories and Attachments.** Standard accessories must include all items and accessories which are essential to operate the HP air compressor(including prime mover and air purification cartridge for safe breathing) whether those are mentioned in the specification or not. A list of such items /accessories is to be provided with the offer indicating item wise price. In addition, following items are to be included as standard accessories, which are to be supplied with the each compressors:

- a. V Belt 04 in Number.
- b. Air filter 02 in Number .
- c. Safety Valve 01 in Number .
- d. Pressure gauge (1st and 2nd Stage).
- e. Top overhauling kit.
- g. Tool Box.

14. **Spare Parts.** List of recommended spare parts including the following along with unit price for 1,000 hours of trouble free operation of the compressor and their accessories is to be submitted with the offer. It is mandatory to submit the spare parts price list with the offer. However, it is considered as an optional item. This price should not be included with the tender price.

- a. 02 sets of air purification filters.
- b. 01 sets of joint/gasket for each compressor head.
- c. 01 sets of top overhauling kit.
- d. 01 sets of joint/gasket for each Compressor and Motor.
- e. Lub oil for 500 operating hours.
- f. Motor Spare parts.
- g. Compressor spare parts.

15. **Test, Trial and Acceptance.** The purchaser will carry out test and trial of the Compressor at buyer's premises at Coast Guard Headquarters, Dhaka (or in any CG Base/Station directed by CGHQ) in presence of supplier's representative. An acceptance certificate will be signed jointly by the representative of supplier and the representative of buyer after satisfactory test/trial.

16. **Documents.** 02 (Two) sets of following original documents (in English language) are to be provided with the each compressor set:

a.	Operation and maintenance manual.
b.	Complete Parts catalogue (electrical and mechanical).
c.	Performance certificate/factory test certificates.

17. **Warranty.** Warranty for trouble free operation is to be given by the principal / manufacturer for all the supplied items for a period of at least 12 months from the date of acceptance by the buyer. During the warranty period, if the 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 service engineer's cost) throughout the warranty period.

18. **Shipment and Delivery.**

- a. The supplied items are to be delivered within 12 weeks after signing the Contract to the following Consignee:

The Director General
Bangladesh Coast Guard Headquarters
Agargaon Administrative Area
Sher-e-Bangla Nagar
Dhaka-1207

- b. **Delivery Time.** 12 weeks from the date of signing of the Contract.

c. **Port of Shipment.** To be mentioned (All document are to be submitted during supplied of the items)

19. **Validity of Offer.** 03 (three) months from the date of opening of the tender. If the items is imported then the LC documents /shipment documents is to be supplied during supplying the items.
20. **Terms of Payment.** Payment will be made in local currency on completion of successful test trial jointly carried out by the buyer's and supplier's representative and final acceptance by Coast Guard Headquarters.
21. **Site Visit.** The bidder may visit the installation site (Coast Guard West/East Zone) before submission of tender to avoid any difficulties/ confusion after placing order.
22. **Delivery Place.** This item is to be delivered to Coast Guard Headquarters, Dhaka or any of the CG Base/Station designated by Coast Guard, after initial inspection by CI&QC at Coast Guard Headquarters.
23. **Condition for Acceptance of Quotation.** Quotation has to have supporting documents (booklets, leaflet, catalogue, brochure etc) having detailed particulars of the offered air compressor. If detailed information regarding specifications, maker's books and catalogue about the same model of the air compressor quoted, spare parts, accessories, scope of supply, etc are not provided, the quotation will not be accepted.
24. **Compliance.** A compliance statement fulfilling all the requirement of the tender is to be submitted for evaluation of the quotations. Stating '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 the offered air compressor, the deviation has to be spelt out clearly.