92. HIGH PRESSURE BREATHING AIR COMPRESSOR

Sl.	TECHNICAL SPECIFICATION	PICTURE OF EQUIPMENT
1.	OBJECTIVE Portable BA Compressor is required for thepurpose of refilling BA cylinders (300 Bar) for firefighting as well as underwater BA cylinders(200 Bar) for use by NDRFs. The set should to capable to fill 300 bar (10% maximum efficiency).	
2.	MAIN COMPONENTS OF EQUIPMENT i) Standard 300 Bar DIN adaptors for charging fire fighting BA cylinder and 200 Bar INT adopter for refilling under water diving BA cylinder.	
	ii) Immediate and final pressure safety valves and pressure gauges.	
	iii) Two charging hoses (one each with adopter for 200 & 300 bar) for refilling the cylinder one at a time.	
	iv) Repair Kit / Tool Kit.	
	v) The compressor should be Trolley mounted having sufficient road clearance and wheels locking arrangements so as to avoid movement while during operations.	
3.	GENERAL DIMENSIONS:- i) The set should be lightweight, rugged & trans- portable (with lockable wheels) & weight up to 175 kg.	
	ii) Operating Pressure 300 to 200 bar and should be able to fill cylinders at 300 bar as well as 200 bar (or any pressure between 300 to 200 bar) by simply selecting/ setting the pressure setting on a pressure switch on the compressor.	
	iii) Charging rate to be 9 cfm(+/-5%) for standard international filling norm.	
4.	GENERAL FEATURES :- i) To be compact, robust, machine should not require any foundation.	
	ii) Design should ensure minimum wearing of components and case of maintenance.	
	iii) The compressor should be oil lubricated using Splash or Pumped lubrication.	
	iv) Filtration system should be at intake and at final point of use to ensure highest level of purity of air delivered and to ensure that the quality of breathing air is as per EN 12021 or CGA-E or any equivalent international Standard for Breathing Air. The firm should furnish test certificate from Govt. Approved/ international or equivalent.	
	v) Provision for full range of automated control devices to monitor both compressor and working conditions should be provided. The compressor should have noise level up to 85 dB at 1m distance. The control panel on the compressor should have the START, STOP and EMERGENCY STOP button. The panel should have pressure switch where the user can select level of pressure at which he wants to fill the cylinders. The compressor should stop when desired pressure is reached i.e. the compressor should have the feature of AUTO STOP. The compressor should also have feature of AUTO DRAIN of the moisture in the system and it should get drained at regular intervals. The disposal of the drain should be pollution free in a tank. The compressor should have inter stage control device and final stage Pressure gauge for the operator to monitor. The compressor should also have OIL LEVEL INDICATOR.	
	vi) Eco friendly condensate collection.	
	vii) Construction to be of modular type.	

	viii) Machine should be electric driven suitable for 3 phase 400-440 V 50 HZ supply.
5.	SAFETY FEATURES The equipment must have adequate safety features to ensure complete safety during handling.
6.	SPARES i) Each compressor to be supplied with Spares parts including Two Sets of filter cartridges and one oil refill.
	ii) List of one year on Board Spares to be provided.
	iii) List of five year spares to be provided.
7.	DOCUMENTATION i) General arrangement drawing giving overall and all important dimensions with sufficient details so that all standard equipment can be identified.
	ii) Operational Manual giving details of maintenance and repair instructions.
	iii) Test and trial report, if any along with inspections certificate.
8.	STATUS The present status of the system (that is, whether it is in service in the firm's country, or is in the service abroad, or is at developmental stage) be stated.
9.	MTBF & MTTR Mean Time between Failures and Mean Time to Repair figures of the system, as also its major sub units are to be stated.
10.	COMMISSIONING The compressor are to be commissioned by the competent at site and also provide training on use, operation, maintenance, trouble shooting etc to the users.
11.	PRESENTATION Firm is to furnish preservation procedure of the compressor set, if any.