

JAMAICA FIRE BRIGADE

Request for Quotation

1. The Jamaica Fire Brigade is inviting your Company to provide a Quotation to provide the following:

Description of Goods/Service TWO (02) BREATHING APPARATUS AIR COMPRESSORS

**Locations: JAMAICA FIRE BRIGADE
BRIGADE HEADQUARTERS
14 Port Royal Street
Kingston**

Detailed Specifications are attached at **Appendix 'A'**.

2. Eligibility

A "*Qualified Contractor*" is one who meets, or by the date of Tender acceptance, can meet all requirements for providing the services contained in these specifications.

The Contractor must:

- I. be registered with the National Contracts Commission (NCC);
- II. possess a valid Tax Compliance Certificate (TCC);
- III. be registered in the **Safety Products** category.

3. Instructions to Contractors

3.1 How to Prepare Tender Proposals

i) Contractors are encouraged to carefully review all provisions and attachments of this document before completing the application..

ii) Quotations should include all the documents and information requested in this RFQ.

Failure to do so will result in rejection of the Proposal.

- iii) Quotations should be typewritten, signed and stamped by the Contractor or an authorized representative.
- iv) All erasures and/or corrections should be initialed, dated and stamped by the person signing the Proposal.

3.2 How to Submit Tender

The Contractor shall:

- i) Submit the Tender in a sealed plain envelope clearly marked with the Tender number or work description.
- ii) Submit the original of the Tender with the following information:
 - a. Copy of valid Tax Compliance Certificate (TCC);
 - b. Copy of Certificate of Registration with the NCC;
 - c. Bid Security of one percent (1%) of the bid amount (**only of the amount is Four Million Dollars (\$4,000,000.00) and over.**)
 - d. Any other consideration relevant to this RFQ.
- iii) Contractors or their authorized representatives should deposit Tenders **no later than 12:00 p.m. on Friday, 16th January, 2008, in the Tender Box at Jamaica Fire Brigade Headquarters, 14 Port Royal Street, Kingston.** Tenders received after the date and time specified will not be opened.
- iv) **The responsibility to deposit the Quotations in the Tender Box specified remains the sole responsibility of Contractors.**
- v) Quotations should be addressed and labeled as follows:

REQUEST FOR QUOTATION RFQ # (if any)
Supply of

Name of Company

Address of Company

- vi) The Tender Profile at **Appendix B** must be completed and returned with the Proposal.
- vii) Clarifications and questions may be made through contacting the Office/Procurement Manager at the above address or email at om.jfb@cwjamaica.com no later than five (5) working days to the opening of the Tender.
- viii) Bid Security
- A bid security of one percent (1%) of the total bid amount is required (only if the amount is \$4m and above).
 - The bid security shall be at the bidder's option in any of the following terms:
 - Bank Guarantee
 - An irrevocable letter of credit
 - A cashier's certified cheque
 - The bid security shall be valid for twenty-eight days beyond the end of the validity period of the bid. This shall also apply if the period for bid validity is extended.
 - Any bid not accompanied by a bid security as specified shall be referred by the Purchaser as non-responsive.
 - The bid security of unsuccessful bidders shall be returned as promptly as possible upon the successful bidders furnishing of the performance security (if required).
 - The bid security of the successful bidder shall be returned as promptly as possible once the bidder has signed the contract and furnished the required performance security.

4. Tender Award

- i) The Jamaica Fire Brigade will select the Contractor/Bidder whose offer meets the requirements of this RFQ, provides the greatest overall benefit, who attains the highest score on the evaluation and the best overall value for money. This is represented in the most advantageous offer conforming to the tender offer and demonstrating the best value to the Jamaica Fire Brigade.
- ii) The Jamaica Fire Brigade Evaluation Committee reserves the right to reject any or all Quotation(s). The Jamaica Fire Brigade reserves the right to select the Contractor/Bidder who offers superior performance and value for money. The Jamaica Fire Brigade also reserves the right to award this contract on a section-by-section basis.
- iii) The Jamaica Fire Brigade further reserves the right to split or abstract any or all bid proposals and award multiple contracts from the same quotation base on price, availability and services when in its judgment, it best serves the Jamaica Fire Brigade.
- iv) The Jamaica Fire Brigade also reserves the right to request clarification of information submitted and to request additional information from any bidder.
- v. The Jamaica Fire Brigade will reject a Tender for award if it determines that the company recommended for award has engaged in corrupt or fraudulent activities in competing for the contract in question.

5. Evaluation of Quotations:

- *Compliance with Specifications*
- *Capability*
- *Staffing*
- *Warranty*
- *Cost*

- i. An Evaluation Committee, on the basis of the above criteria, will evaluate the Quotations. This process will be completed within ten (10) days of receipt of the Quotation. During this time, the Contractor/Bidder may be requested to supply supplementary information.
- ii. The **Schedule of Supply/Specifications** listed in **Appendix 'A'** are the minimum requirements.
- iii. The Evaluation Committee will assess the Quotations on the basis of their responsiveness of the *Scope of Work*, applying the criteria as follows:

#	Criteria	Points
i	Responsiveness/Compliance with Specifications <i>Contractor's technical understanding of the Scope of Work as evidenced by the quality of the Tender submitted. Demonstrated effectiveness of proposed delivery system to ensure quality service.</i>	40
ii	Capability <i>Experience and technical competence of the Contractor/Bidder</i>	10
iii.	Staffing <i>Qualifications and relevant experience of key personnel to provide after-sale service. Available resources and material to deliver as per contract.</i>	10
iv.	Warranty <i>The warranty must not be less than twenty-four (24) months.</i>	20
v.	Cost <i>Competitiveness of proposed fees and costs. Value for money.</i>	20
Total Points		100

6. Business Conditions

The Contractor must:

- i. be prepared to formalize and sign the contract to provide goods within fourteen (14) days of the notification of award of the contract.
- ii. Quotations must be valid for ninety (90) days.
- iii. Quotations must be prepared in United States Dollars.

7. Past Performance

Contractors should have the required technical and operational capability and will be evaluated to determine that they have been successfully providing these goods/services within the past three (3) years. Please provide information on:

- a. name and address of three (3) largest customers;
- b. description of job.

8. Cost of Submission

The Jamaica Fire Brigade will not be liable for any costs incurred by a bidder in preparing, submitting or otherwise associate with this bid response.

9. Property

All bid response become the property of The Jamaica Fire Brigade upon receipt and shall not be returned.

1. Scope of Work

The contractor will be required to furnish all management, transportation, labour, tools, material and equipment to successfully complete the job. The contractor will be required to furnish all relevant details in regards to the successful completion of the job.

2. Responsibilities of the Contractor

2.1 Insurance

The Jamaica Fire Brigade will assume no responsibility for personal injuries, loss or damage to material or equipment owned by the Contractor, his/her agents or employees.

2.2 **Personal Requirements**

- i) The Contractor shall utilize capable, certified tradesmen/workmen in the performance of the tasks of this Contract.
- ii) The Contractor shall maintain discipline at the sites and at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or among those employed at the sites.
- iii) The Jamaica Fire Brigade may require in writing that the Contractor remove from the work any employee that the Jamaica Fire Brigade deems incompetent, careless, insubordinate or otherwise objectionable, or whose continued employment on the job is deemed to be contrary to the Jamaica Fire Brigade's interests.
- iv) All employees of the Contractor shall wear suitable work attire consisting of a minimum of shirt/blouse or coveralls, hard hats and work shoes. **No slippers will be allowed on site.**
- v) No drugs, alcohol, or weapons are allowed on the premises.

2.3 **Certification**

The Contractor shall ensure that all relevant certificates (NCC, TCC,) are kept valid and current for the duration of the contract.

By submitting the Tender, the Contractor indicates that he/she has thoroughly investigated the job site, examined the relevant Tender documents and is familiar and satisfied with the Scope of Work requirements.

3. Responsibilities of the Client

- i) Ensure payment of Invoice within thirty (30) days of submission.

SCHEDULE OF SUPPLY/SPECIFICATION

A. CODES & STANDARDS

Air purity shall meet or exceed the standards of the Compressed Gas Association specification G-7.1 for grade IIE" breathing air and the standards of NFPA 1500.

All tubing shall meet NFPA, SAE, JIC and ANSI standards.

All valves shall meet the applicable national codes such as those of the Bureau of Explosives, DOT and' CGA.

The entire air system shall meet all requirements established by the Occupational Safety and Health Act, otherwise known as OSHA. Purification systems shall be constructed in accordance with section VIII of the ASME code for unfired pressure vessels.

The compressor system manufacturer shall have an ISO 9000 quality management system standard approval on the design and/or manufacture process.

B. IDENTIFICATION

All major components and accessories are to be clearly identified with permanently affixed nameplates stating the make, model and serial number. Other pertinent information such as capacities, pressure, voltages, currents, etc. is to be indicated in the proper manner.

C. INSTRUCTIONS

Appropriate tags and warning labels shall be affixed where necessary for safety and ease in the operation and adjustment of the valves, switches and controls. One manual shall be delivered with the system containing information on operation, maintenance, troubleshooting and replacement parts.

D. TESTING & WARRANTY

All equipment shall be factory assembled, thoroughly tested and backed by a one-year limited warranty covering parts and labor. The warranty period shall be one year regardless of the hours accumulated on the equipment.

GENERAL NOTES

1. All panel-mounted gauges shall be rated at least 10% over their working pressure with a 4 to 1 safety factor.
2. All high-pressure hoses shall be rated for a 6000 psig working pressure with a 4 to 1 safety factor.
3. All high-pressure valves with exception of 3-way valves shall be soft seat for safe and easy operation. They shall have replaceable seats and be rated at 6000 psig working pressure with a 4 to 1 safety factor.
4. All high-pressure tubing shall be as follows:
 - a) 3/8" O.D. x .049 wall stainless steel
 - b) 1/4" O.D. x .049 wall stainless steel
 - c) 1/8" O.D. x .035 wall stainless steel
 - d) All tubing shall be fully annealed and suitable for bending and flaring
 - e) Tubing shall be clamped every 36" or less to prevent chafing.

E. SCOPE OF EQUIPMENT TO BE SUPPLIED

The breathing air system shall incorporate all functions required to safely pressurize SCBA/SCUBA cylinders with air that meets or exceeds CGA grade II-E" criteria. These functions include:

1. Induction of atmospheric air.
2. Compression of the air to a preset pressure using a multistage air-cooled compressor.

3. Moisture removal between compressor stages and immediately after the last stage via mechanical separation.
4. Rejection of the heat of compression via air coolers between compressor stages (intercoolers) and an air cooler after the last stage (after cooler).
5. Delivery of high pressure air to the purification subsystem at a temperature only slightly above the ambient air temperature (18 degrees f or less above ambient).
6. Reduction of the moisture content and impurity levels in the stream issuing from the last stage separator to CGA grade II E" criteria by adsorption, chemical reaction, and filtration in the purification subsystem.
7. Conveying that purified high-pressure air directly to SCBA/SCUBA tanks located in the protective enclosure or to the air storage subsystem.
8. Continual management controlling all system pressures to preclude SCBA/SCUBA or system component over pressurization.
9. Physical protection from SCBA/SCUBA tank failure during the filling process by means of containment and expanding air management shall be provided for operator safety.

The breathing air system shall be divided into two (2) separate systems as follows: I. Compressor, Purification, & Controls

II. Containment Fill Station

SPECIFICATIONS BREATHING AIR MODULE

The entire breathing air module shall be integrated into a single freestanding unit. The outer frame shall be of heavy-duty construction consisting of welded two-inch square tube. To minimize radiant sound level the enclosure shall contain sound absorbing material.

The unit shall be designed to allow installation flush against a wall without inhibiting cooling airflow or maintenance access. The complete system shall not exceed the following dimensions:

96" W x 48" D x 70" H

The breathing air module shall be factory assembled and tested to assure quality and reliability. The system scope of supply shall be housed within the confines of the sheet metal enclosure to include purification system, muffler reservoir and pressure bearing components as follows:

Compressor

The compressor block shall be four stage, air cooled, pressure oil

lubricated of "V" configuration and rated for continuous duty at 6000 psig with a charging rate of 14 cfm. Compressor systems requiring auxiliary cooling fans or cool down cycles shall not be acceptable. The crankcase shall be of all cast iron construction, fully enclosed and support an iron crankshaft with oversized ball bearings on each end. Only two connecting rods shall be utilized. Each connecting rod shall be equipped with needle bearings on each end for long life. All pistons shall be of the captive design, manufactured of aluminum or steel and incorporate rings on all stages. Cylinders shall be of aluminum or cast iron construction with deep cooling fins to provide maximum heat dissipation. The compressor flywheel shall incorporate a high velocity fan to remove heat from the compressor. Cooling airflow from the fan shall be a minimum of 3000 cfm. Individually mounted intercoolers shall be utilized after each stage of compression and the after cooler shall be designed to deliver final air at a temperature not to exceed 21 degrees F above ambient. Suction and delivery valves shall be designed in such a manner that they can be replaced without replacing the entire assembly. Valve inspection covers are to be provided on the first and second stage cylinders. Relief valves shall be utilized after each stage of compression. The pressure lubrication system shall include an oil pump to supply metered quantities of lubricant directly to the fourth stage piston through a replaceable spin-off type, full flow filter. The oil pump shall be directly driven off of the crankshaft. Belt driven pumps shall not be acceptable.

An oil level sight glass shall be provided for checking the crankcase oil level. An automatic drain system shall be supplied to periodically discharge accumulated condensation during operation and whenever the unit shuts down. The compressor manufacturer shall have an ISO 9001 quality management system standard approval on the design and manufacture process.

Compressor Enclosure

The breathing air module shall be fully enclosed with solid steel panels, minimum thickness 14 gauge. All sections of the compressor enclosure shall be lined with sound absorbing material.

An air ducting system that allows against-the-wall installation by drawing cooling air from below the unit and directing it upwards and away from the operator and control panel shall be provided. Insulated and gasketed maintenance access doors equipped with quarter turn latches shall be located on both sides and in front of the compressor system. These latches shall be designed to draw the access doors in to the frame opening. Male-female

hinges on side doors shall be used to allow their fast and easy removal without requiring hand tools.

Auto Drain Muffler/Reservoir

An automatic drain muffler/reservoir system manufactured of 14 gauge steel shall be incorporated into the package. The reservoir shall be designed to capture discharged condensation without the need for piping to the outside and to reduce the discharge noise level. A conveniently located valve shall be supplied within the enclosure to periodically drain the condensate accumulated in the muffler/reservoir at atmospheric pressure.

Electric Motor

NEMA designed B, 2-pole, 10 horsepower, open drip proof motor shall be furnished for three phase, 50 hertz, 208-230 volts. The motor shall be suspended underneath the compressor base plate. This base plate shall incorporate rubber shock mounts, which isolates vibration from the rest of the cabinet. The V-belt drive shall be guarded to meet OSHA requirements.

Purification System

The purification system and replacement filter cartridges shall be

manufactured by the same company as the compressor package. The system shall be a multi-chamber arrangement each constructed of 7075T6 aluminum alloy with a tensile strength of 83,000 psi and designed for 6000 psi working pressure with a 4 to 1 safety factor. The first chamber shall be a mechanical separator to eliminate oil and water. Subsequent chambers shall utilize replaceable filter cartridges constructed of high strength, non-corrosive FDA grade polycarbonate plastic. Non-corrosive stainless steel springs and spin welded end caps shall be incorporated within the cartridge boundary. The cartridges shall be designed to remove water vapor, hydrocarbons, noxious gases, taste and odors.

A visual moisture/carbon monoxide indicator shall be provided after the final purifying chamber. Systems requiring depressurization to check filter condition shall not be acceptable. Carbon monoxide shall also be eliminated by catalytic oxidation. The purification system shall process 27,500 cf (with an 80 degree F inlet temperature) before cartridge replacement. The air delivered shall meet CGA grade "E" quality.

Control System

The unit shall include all necessary controls to assure efficient operation and monitor compressor performance. All necessary electric motor controls shall also be included and rated for NEMA class 1. As a minimum, the control system shall include the following:

- Air pressure switch to automatically start and stop the unit in order to maintain system pressure.
- High air temperature shutdown switch.
- Low oil pressure shutdown switch
- Magnetic, across-the-line starter with electric motor overload protection and 12 VDC control voltage.
- Power selector switch (auto-off), with power "on" light.
- Emergency stop button.

Instrumentation

The unit shall include all necessary gauges and lights necessary to indicate all normal and shutdown conditions. All gauges, lights and indicators shall be mounted on a 14 gauge stainless steel control panel centrally located on the front of the unit. The stainless steel control panel shall provide a minimum of 510 square inches of surface area to accommodate actual and future additions of instrumentation and controls.

As a minimum, the instrumentation panel shall include the following:

- Compressor interstage and final air pressure gauges. - Oil pressure gauge
- Hour meter.
- High air pressure shutdown light.
- High air temperature shutdown light.
- Low oil pressure shut down light.
- Compressor inlet filter service indicator.

ENCLOSED CONTAINMENT FILL STATION

The fill station shall be designed for stationary applications. The unit shall be totally enclosed, constructed of 3/16 inch plate steel and designed to contain an SCBA or SCUBA cylinder and metal fragments in the event of rupture during the filling process. The fill station shall be designed to vent rapidly expanding air away from the operator.

The fill station shall be ergonomically designed to allow the filling of two (2) SCBA or SCUBA bottles either separately or simultaneously. The maximum length of either the SCBA or SCUBA bottle with the valve and fill adapter shall be 29 inches. Access to the enclosure for loading the SCBA cylinder shall be via a manually operated, tilt out door.

The fill station door shall be provided with assisting devices to assure smooth operation and reduce operator fatigue. The fill station door shall be constructed of 3/16 inch plate steel. The SCBA cradle shall contain two (2) fill positions. Each fill position shall be lined with material to protect each SCBA or SCUBA cylinder from abrasion. The carriage shall be mounted on a pivoting system that will lower the cylinders to a near horizontal position and allow full access to all SCBA or SCUBA bottles, fill hoses and valve assemblies with minimal operator fatigue.

To ensure operator protection, a fully automatic safety interlock that prevents SCBA or SCUBA cylinder filling until the door is completely closed shall be provided. Two (2) fill hoses with SCBA or SCUBA adapters shall be provided and located within the enclosure. The fill station shall be designed to fill the SCBA or SCUBA cylinders within the fill station boundary. The control panel shall include a 0 to 6000 psi adjustable regulator, regulated outlet pressure gauge, one (1) SCBA fill valve and bottle pressure gauge. On 6000 psig units a safety relief valve shall be installed downstream of the regulator and set for 5000 psig to protect the SCBA fill assemblies.7

The fill station shall be designed to cascade the air storage system. The control panel shall include pressure gauges and flow control valves for four (4) storage banks. Piping

shall be arranged to permit each bank to be filled or drawn down independently of other banks. A bypass valve shall be supplied to permit direct use of the compressor, bypassing the storage system. A regulated auxiliary fill outlet, complete with a valve and quick disconnect fitting shall be standard.

A copy of a signed certificate, by an accredited professional engineer, shall be provided stating that a prototype fill station has been successfully tested to contain a ruptured 80 cubic foot cylinder pressurized to no less than 5000 psig, and that the fill chamber safely vented the expanding air.

TENDER PROFILE

JAMAICA FIRE BRIGADE
 14 PORT ROYAL STREET,
 KINGSTON

RFQ NO: _____

DATE: _____

Name of Applicant		Date of Application	
Name of Company		Address	
Mailing Address (if different)		Tel: Fax: Email:	
Type of Company: (Please mark one) <input type="checkbox"/> Individual <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation		If a Corporation, date of incorporation.	
Please list all persons authorized to sign contracts in your name			
Name		Official Capacity	
How many years has your company been in business?			
Please list three (3) clients for whom you have provided similar services over the past three (3) years			
Name	Address	Period	Brief Description of Service

Use separate sheet of paper if necessary.

Statement of Qualification (State reasons why your Company is uniquely qualified to undertake the work as described. Use separate sheet of paper if necessary).