

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
INDIAN INSTITUTE OF REMOTE SENSING
IIRS
DEHRADUN
PURCHASE & STORES
INVITATION TO TENDER**

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Date : 25/08/2014

M/s

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Our Ref No : GIER 2014-000232-01

Tender Due: 15:00 Hrs IST on 18/09/2014

Dear Sirs,

Please submit your sealed quotation, in the Tender Form enclosed here along with the descriptive catalogues / pamphlets / literature, superscribed with Our Ref.No. and Due Date for the supply of the following items as per the terms & conditions mentioned in Annexure (Form No:)

| S.No. | Description of Items with Specifications | Unit | Quantity |
|-------|---|------|----------|
| 1 | High Pressure Seamless Gas Cylinders for Hydrogen gas as per detailed specifications enclosed | SET. | 6 |
| 2 | High Purity Hydrogen gas-99.994% Pure (Grade-1) (Quantity: 80+-10%) | M3 | 80 |


DELIVERY AT: IIRS

MODE OF DESPATCH DOOR DLVRY

DUTY EXEMPTIONS

SPECIAL INSTRUCTIONS NIL

SPECIFIC TERMS


V.V. NARAYANAN KUTTY
PURS. & STORES OFFICER
For and on behalf of the President of India
The Purchaser


Terms & Conditions:

1. Material should be delivered & installed at IIRS
2. Payment will be made within 30 days from date of receipt of supply and acceptance of the material for orders value upto Rs.2.0 lakhs.
3. We cannot furnish Form C/D. Please indicate the applicable percentage of Trade tax / VAT in your quotation, if applicable. Otherwise the quoted rate will be considered as inclusive of all taxes.
4. Clearly mention the Make / Brand of the item in your quotation. Please enclosed the Authorization Certificate from the principal of the quoted Make / Model along with the quotation.
5. Also clearly mention the exact delivery period and validity of your offer shall be min 60 days.

Annexure - 1

1. List of items with quantities

| Sl. No. | Item Description | Unit | Qty. |
|---------|---|----------------|----------|
| 1 | High pressure seamless gas cylinders for Hydrogen gas as per detailed specifications enclosed | Nos. | 6 |
| 2 | High purity hydrogen gas – 99.994% pure (Grade-I) | M ³ | 80 ± 10% |

2. Detailed Specifications and conditions

A. High pressure gas cylinders for Hydrogen

ISI marked brand new empty high pressure seamless gas cylinders fitted with neck ring, valve and cap.

Specification:

1. Capacity : 46.7 Litres (W.C)
2. Specifications : As per IS: 7285 – 2004
3. Cylinder size : OD – 232 mm
Over all length – 1370 mm (without cap)
Wall thickness – 5.5mm (minimum)
4. Material : Manganese Steel
5. Bottom : Concave (without bottom stand)
6. neck threading : As per IS 3224 (25.4mm / 14 TPI)
7. Inspection and testing
 - a. The cylinder shall be inspected & tested in accordance with the scheme of testing approved by BIS.
 - b. The cylinders shall be leak proof.
 - c. The cylinders shall be pressure tested. Hydrostatic stretch test: 250 kgf/ sq. cm
 - d. Working pressure: 150 kgf/ sq. cm at 15 ° C.
 - e. Tensile strength : 80 kgf/ sq. mm (minimum)
 - f. Yield strength: 60 kgf/ sq. mm (minimum)
 - g. Elongation: 15% (minimum)

Note: Pressure testing certificate should be enclosed along with the supply of cylinders

General requirements:

- i. The cylinder shall be conforming to ISI specifications.
- ii. The cylinder shall be fitted with appropriate valve conforming to IS 3224 for each gas(as mentioned in Sl. No. 1 to 4) service and suitable cap.
- iii. The cylinders shall be painted with the correct colour codes and number marked as per gas cylinder rules 1981, Govt. of India, Nagpur. The approval certificate shall be produced along with the supply.
- iv. Guarantee: Minimum one year guarantee shall be provided from the date of receipt and acceptance of the item at our site.
- v. Ownership certificate: The ownership certificate mentioning owner (IIRS, Dehradun) with details such as cylinder numbers, purchase order number and date shall be issued along with the supply.

B. HIGH PURE HYDROGEN GAS (Sl. No. 2)

Requirements: In batches of 2-3 cylinders at a time.

Total = $80 \pm 10\%$ Cu. M

First batch of gas (quantity equivalent of 6 cylinders $\sim 6 \times 7 = 42$ cu.M) to be filled and send in the 6 numbers of new gas cylinders quoted. Balance quantity shall be supplied in phased manner (2-3 cylinders), up on sending back the cylinders for refilling, as and when cylinders get empty.

Purity : 99.994 % (min.)

Permissible Impurity levels:

| | |
|-----------------|---------|
| Oxygen | < 2 ppm |
| Moisture | < 2 ppm |
| CO ₂ | < 1 ppm |
| CO | < 1 ppm |
| OHC | < 1 ppm |

General Conditions:

1. Empty cylinders will be sent to the party for refilling.
2. Party has to ensure regular supply as per our requirements without any interruption, since the gas is required for our time bound programmes.
3. Party shall supply gas purity certificate along with each batch of gas supply.
4. Party has to do the mandatory hydraulic testing of cylinders whenever required, during refilling time, and certificate has to be sent to us. The cost for the test and normal frequency at which such tests are to be carried out have to be mentioned in the Party's quotation
5. Cost of gas cylinder handling charges, taxes, painting, cylinder service charges, and replacement of defective parts, pressure testing of gas cylinders and other charges, if any, are to be quoted separately.
6. The above quantity of gases may be consumed over a period of minimum two years and the rates quoted shall remain valid for the duration.