

Phone: 25530672-76 Fax: 25534043

Email: purchase@iiap.res.in Website: www.iiap.res.in



## **INDIAN INSTITUTE OF ASTROPHYSICS**

IIND BLOCK, SARJAPUR ROAD, KORAMANGALA,  
BANGALORE-560 034

### **PUBLIC TENDER NOTICE NO:PR/PT/SK/DE-HUM/CAP/506 DATED 19<sup>TH</sup> NOVEMBER 2013**

The Director, Indian Institute of Astrophysics invites Quotations/Bids Two bid system (both Technical bid and Commercial bid) from reputed firms for the following.

Sl.No.	Description	Quantity	E.M.D (Refundable) Rs.	Tender Fee (Non-refundable) Rs.
1.	Supply of Desiccant Type Industrial De-Humidifiers as per the specification in the ANNEXURE - I.	02 Nos.	87,500/-	300/-

**Note:** The Tender documents with Specification details are available on IIA website [www.iiap.res.in/tenders.htm](http://www.iiap.res.in/tenders.htm). Hence the interested tenderers may at their option down load the same from our website (as no hard copies of Tender documents is/are provided from this office) and submit their offer both Technical bid and Commercial bid along with EMD (refundable) & Tender fee (non-refundable) prescribed therein, only in the form of Demand Draft drawn in favour of Director, IIA. Those who are registered with NIC need not pay the EMD amount. Your offer with Technical bid and Commercial bid should be superscribed in different envelopes mentioning the tender notice no., Date of opening, and submit the Technical bid and Commercial bid in separate sealed envelopes addressed in favour of Director, Indian Institute of Astrophysics, Bangalore – 560 034.

**02.** The firms who fulfill the following requirements shall be eligible to submit their bid. Joint ventures are not acceptable.

(a) Tendering Company shall be professionally managed and equipped with facility for the supply and maintenance of tendered items.

(b) The tenderers should have completed, the last 3 financial years (i.e., current year and two previous financial years) at least one similar single work for a minimum value of Rs.30 Lacs.

(c) The total contract amount received during the last 3 financial years, and the current financial year should be minimum of 150% of the above mentioned value. The tenderer should submit Audited Balance Sheet duly certified by the chartered accountant to this effect. They should also submit Bankers Solvency Certificate to a minimum of Rs.30 Lacs.

(d) The Private Body Contractor shall be required to produce the TDS Certificate indicating the Income Tax deducted by the client for the execution of similar items, completed individually of value not less than Rs.30 Lacs.

**03.** The Bids supported by the above information should be submitted in Sealed envelopes duly superscribed with the name of work/item. The completed Bids both Technical bid and Commercial bid will be received by this office **upto 15.00 Hrs. latest by 19<sup>th</sup> December 2013.**

**04.** If any information furnished by the tenderers is found incorrect at a later stage, the firm shall be liable to be debarred from tendering and taking up work in IIA. The Institute reserves the right to verify the particulars furnished by the tenderers.

**05.** The interested tenderers may contact Mr.S. Kathiravan, Engineer 'D', Electronics (Ph.No.080-22541403) to discuss Technical Clarification and Shri.Y.K.Raja Iyengar (Ph.No.080-22541244) for Commercial Clarifications, if any, on or before 6<sup>th</sup> December 2013 during office hours, before submitting bids.

**06.** The firms should submit the Technical bid superscribed along with EMD Demand Draft and Tender fee Demand Draft of prescribed amount and Commercial price / bid **upto 15.00 Hrs. Latest by 19<sup>th</sup> December 2013.** The Technical Bids will be opened in presence of the bidders or their authorized representatives **at 15.30 Hrs. on 19<sup>th</sup> December 2013.**

**07.** Incomplete bids are liable for rejection.

**08.** Late / delayed offer will not be considered.

**09.** IIA is not responsible for any delay / loss of documents in transit.

**10.** No bids will be considered if prescribed Tender Fee and EMD is not found with the Technical bid.

**11.** The offer should be valid for a minimum period of 120 days from the date of opening of bid.

**12.** The Commercial / Price bids will be opened in the presence of vendors or their representatives only for those vendors Quotes qualify in technical evaluation. The opening of Commercial bids date will be intimated later. However, the decisions for finalization shall be done by a technical evaluation committee being nominated for this purpose approved by the Head of the Institution.

**13.** IIA reserves the right to reject any or all tenders without assigning any reasons.

**Purchase Officer  
For Director  
IIA, Bangalore-34**

## **ANNEXURE - I**

### Industrial Dehumidifiers **Technical Specifications**

**PLACE:** DETAILS OF REQUIREMENT OF INDUSTRIAL TYPE DE – HUMIDIFIERS (2NOS) FOR PROF. M.G.K.MENON SPACE SCIENCE LABORATORY AT **CREST** CAMPUS OF INDIAN INSTITUTE OF ASTROPHYSICS (IIAP).

**USE:** THE PROPOSED INDUSTRIAL DE-HUMIDIFIERS (2 Nos) WILL BE USED TO PROVIDE 25+/-5% RH IN THE FOLLOWING CLEAN AREAS.

ROOM 1 (FED STD:CLEAN ROOM CLASS 1000) – SIZE: 42 X 23 X 16 FT

ROOM 2 (FED STD:CLEAN ROOM CLASS 10,000) – SIZE: 35 X 33 X 13 FT

#### 1. **GENERAL**

The dehumidifiers shall be of industrial type and manufactured to the highest **consistency** and **reliability** and **ecology** standards. The dehumidifiers therefore, shall be manufactured in an ISO 9001 and ISO 14001 certified manufacturing facility employing CNC sheet metal manufacturing.

The dehumidifiers shall be fully factory assembled, and functionally tested prior to shipment.

Manufacturer/Supplier shall have sufficient factory trained service personnel in major metro towns (Especially in Bangalore) to provide a quick and efficient service back up, whenever required.

The **Industrial dehumidifiers** shall be of the rotary type, employing the principle of chemical adsorption to remove moisture from the air on a continuous basis by use of desiccant synthesized on fluted type media in rotor form.

The de-humidifiers shall be designed to conform, strictly to the specifications given hereunder.

#### 2. **SCOPE OF WORK**

All dehumidifier units shall be furnished, installed and placed in operation with flexible connectors, filters, volume dampers, control panel, and all necessary controls for proper operation of the system.

The dehumidifier unit shall be arranged to provide continuous dehumidification with constant outlet temperature and humidity for a given inlet condition. The unit shall have two compartment type using desiccant wheel with process and regenerative sections.

Site conditions are given below:

**ROOM 1 (FED STD:CLEAN ROOM CLASS 1000) – SIZE: 42 X 23 X 16 FEET**

ROOM TEMPERATURE : 21 +/- 1 DEG C  
OUTSIDE TEMP & RH : ASSUME STANDARD CONDITIONS FOR  
HOSAKOTE, BANGALORE  
NO.OF OCCUPANTS : 5  
***RH REQUIRED INSIDE : 25+/-5%***

***NOMINAL AIR FLOW (CFM)***

***REQUIRED FOR DE-HUMIDIFIER : ~ 2500 CFM - 1 No***

**ROOM (FED STD:CLEAN ROOM CLASS 10,000) – SIZE: 35 X 33 X 13 FEET**

ROOM TEMPERATURE : 21 +/- 1 DEG C  
OUTSIDE TEMP & RH : ASSUME STANDARD CONDITIONS FOR  
HOSAKOTE, BANGALORE  
NO.OF OCCUPANTS : 5  
***RH REQUIRED INSIDE : 25+/-5%***

***NOMINAL AIR FLOW (CFM)***

***REQUIRED FOR DE-HUMIDIFIER : ~ 2500 CFM – 1 No***

### 3. DEHUMIDIFIER

The **dehumidifier** shall be capable of sustained operation of either process or react fan without energized react heat for prolonged periods of operation without damage to the humidity transfer media or bed contactor.

The **dehumidifier shall** consist of a high efficiency desiccant rotor/bed mounted on a horizontal fixed shaft arrangement. It has positive sealing of process and reactivation air streams to allow for independent airflow with no balancing required.

The dehumidifier shall be fully automatic, factory assembled package unit, complete with reactivation heaters, filters, motors, fans, desiccant bed drive assembly, access panels, volume dampers, weatherproof or dust-tight automatic electrical panel, desiccant rotor/bed, and all component auxiliaries for safe, unattended, automatic operation.

The dehumidifier framework/casing shall be made from tubular stainless steel hollow section, duly welded, and shall be of industrial design and robust body of industrial quality,

for maximum durability, life, and strength, with advanced component welding and joining techniques.

The unitized framework, unless fabricated from stainless steel shall undergo a multilayer surface pretreatment and preparation process and shall be given a protective phosphate treatment followed by a dry powder paint which shall be of pure polyester with a minimum 70 micron coating, and shall be oven cured.

The units shall be provided with double skin insulated panels within the industrial quality welded SS framework. The external panels shall be either powder coated or of stainless steel and are at least 0.80mm thick. The inside skin/panels shall be stainless steel and at least 0.80mm thick. The insulation, between the panels shall be glass fiber, or rock wool, with a minimum density of 48kg/cu.mt.

The dehumidifier framework/casing together with the sand witch panels, with advanced component welding and jointing techniques, shall ensure a vapour tight (zero vapour leakage) construction, to achieve a leakage standard complying with SMACNA class 6, which allows a maximum leakage of 16 cfm/100 sq.ft of the casing surface at a pressure of 4" ( 100 mm) water gauge.

The dehumidifier unit casing shall be compact and space saving in design, and, for ease of service and inspection, has test points for air pressure and air flow

measurement. An observation window shall also be provided to permit visual inspection of the bed while the unit is in operation.

The desiccant rotor media shall be adsorbent, non toxic, non flammable, fully water washable, having metal silicate desiccant synthesized in-situ, on an inorganic fibre substrate, with net organics less than 2%. The desiccant rotor shall have a perimeter flange, and has “teeth” located around the perimeter, to ensure a positive and slip free rotation with a chain drive mechanism. The desiccant rotor shall rotate on integral long life bearings supported by a fixed shaft design which allows a simple slide out of the bed along with the centre shaft, for ease of maintenance and inspection. The desiccant rotor shall have long life with adequate air filtration.

Special high quality seals, dividing the process and reactivation airstreams, shall be designed to positively seal the two air streams for inter-compartmental air and moisture leakage, at upto 6 to 8” W.G. differential pressure. The seal material shall not be made from silicon rubber/Silicone.

The reactivation heat source, built into the dehumidifier casing/unit, shall be either steam, electric, or direct fired gas, and installed with filters.

The process and reactivation motors shall be of the TEFC (totally enclosed fan cooled) type.

The **control panel** shall be housed integrally with-in the unit casing and has factory wired fan motor starters, and auxiliary controls. Starting and stopping of the dehumidifier unit shall be sequenced by a humidistat.

#### 4. DESICCANT ROTOR

The desiccant rotor media shall be adsorbent, non toxic, non flammable, fully water washable. The substrate of the rotor shall not made from asbestos or any synthetic material, and do not have any toxic desiccants impregnated like lithium chloride, etc.

The desiccant media shall have synthesized metal silicate desiccant on an inert inorganic fibre substrate.

The active desiccant material shall be at least 80% of the media weight, so as to ensure high performance and minimal heat carry over.

The net organics in media shall not exceed 2%.

The desiccant rotor shall have integral long life bearings supported by a simple fixed shaft design to allow a simple slide out of the rotor/bed.

The desiccant media shall not fracture due to repeated temperature and moisture cycling and all the materials of construction shall be non toxic.

The surface of the media shall have a special edge hardening so as to ensure a smooth surface and long life of both the media and the seal contacting it.

The desiccant media shall not use any organic burn off process, as this weakens the media structure.

## **5. FILTERS**

All air entering the dehumidifier shall be filtered to 10 micron level. Filters provided shall have minimum rating of EU4 and of a size and capacity as recommended. Filters shall be of front removal, or removal from side of ductwork. All filters shall be cleanable types.

## **6. VOLUME DAMPERS**

All volume dampers on the dehumidifier shall be multiblade, opposed blade type with locking quadrants. Dampers shall be factory installed at the outlets of both process and reactivation air fans. The damper shaft exposed at the quadrant shall be notched to indicate the position of damper blades.

## **7. PACKAGEABILITY**

The dehumidifier unit shall be modular in design so as to be able to connect with factory standardized pre cool and post cool modular boxes and to connect accessories such as face and bypass dampers. These modular boxes shall have the same construction method as the unit casing for material of construction, water vapour leakage, industrial use, and paint work.

If pre cooling module is incorporated, the metal work contacting the process air stream shall be duly insulated and the insulation sand wadded as in the panel work for the dehumidifier.

## **8. ELECTRICALS & SAFETY DEVICES**

The control panel shall be factory prewired for the system operation and shall be supplied with fuse/MCB's contactors, starters, control transformer, overload protection, and all the necessary components to ensure a continuous automatic operation.

The control panel shall complete with a dehumidifier digital control (DDC) which has a mimic diagram of the functioning of the unit and with a full diagnostics display facility of faults. The DDC shall provide display of reactivation inlet. Manual /off/auto switches shall be provided on the D.D.C. (dehumidifier digital controller).

The unit shall be provided with safety interlock option , if specified by engineer, so that the dehumidifier cannot run if access panels or the control panel door are open/removed.

In accordance with IEC regulation, two independent thermostats shall be provided for automatic shutdown.

The DDC microprocessor, shall also provide the following.

- Supervision of the operation, fault management along with display messaging of system parameters and faults.
- Continuous data log of system parameters and line display of operating parameters (Pin, Poul, Rin Rout temperatures, RH for Pin and Pout, Relative Pressure (Process & React)).
- RS 232 serial data interface to retrieve stored data in the data log.
- RS 485 serial data interface for connection of remote system.
- Remote start/stop facility to switch on/off the dehumidifier from a remote location through software.
- Remote fault warning output to allow an audible alarm or warning lamp to be activated at a remote location.
- Spare control and fault input/output to allow auxiliary system and/or component to be controlled by the dehumidifier.
- Intelligent re-start following a power failure.
- Programmable security code to prevent unauthorized mishandling.
- Intelligent power circuit switching to minimize voltage drops in unit supply system.
- Alpha numeric fault display.
- Real time clock.
- Battery backup of setting.

#### **9. INSTALLATION & COMMISSIONING REQUIREMENT:**

Installation and commissioning shall be carried out by the supplier/manufacturer.

#### **10. WARRANTY & SERVICE :**

Supplier/Manufacturer has to specify the warranty & service details.



# TECHNICAL DATA SHEET

## FOR

### INDUSTRIAL DEHUMIDIFIERS

Item	Specified/required
<b>Manufacturer's quality certification</b>	ISO 9001 & ISO 14001
Vendor qualification	<b>min. 10 yrs. Dehumidifier manufacturing experience</b>
Dehumidifier type <b>Casing framework</b>	<b>Industrial</b> SS tubular Industrial quality, welded and caulked
<b>Panel type and finish</b>	Double skin insulated, outer skin dry powder coated with pure polyester and oven cured.
Vapour /air lightness of dehumidifier unit	<b>SMACNA Class 6</b>
Inter compartmental	<b>Polyurathane seal or 6" to 8" wc pressure differential (Silicon is banned in our facility)</b>
Rotor type	<b>Rotary fluted media</b>
<b>Rotor bearings</b>	inbuilt
<b>Rotor casing</b>	with perimeter flange
<b>Desiccant</b>	synthesized metal silicate
<b>Active desiccant on rotor</b>	> 80%
<b>Net organics of the rotor media</b>	< Shall be very minimal
<b>Non metals out gassing Values</b>	TML< 1% , CVCM<0.1%
<b>Packageability</b>	modular
<b>Dehumidifier digital controller</b>	Full fault diagnostics on mimic
<b>Nominal (Deh. process) air flow(CFM)</b>	2500 CFM

**Phone:** 25530672-76 **Fax:** 25534043

**Email:** [purchase@iiap.res.in](mailto:purchase@iiap.res.in) **Website:** [www.iiap.res.in](http://www.iiap.res.in)



## **INDIAN INSTITUTE OF ASTROPHYSICS**

IIND BLOCK, SARJAPUR ROAD, KORAMANGALA,  
BANGALORE-560 034

**No.PR/PT/SK/DE-HUM/CAP/506**

**Dated:** 19<sup>th</sup> November 2013

M/s.

Dear Sirs,

The Director, Indian Institute of Astrophysics, Bangalore invites Sealed Tenders for the supply of Stores detailed in the Tender Form hereto annexed. The Tender Terms and conditions enclosed are also may be noted carefully. If you are in a position to quote for the supply in accordance with the requirement, please submit your quotation in the attached Tender Form also.

Your Tender must reach this office on or before the date and time indicated in the Tender Schedule.

Thanking you,

Yours faithfully,

Encl: as above.

Y K Raja Iyengar  
Purchase Officer  
For Director

**INDIAN INSTITUTE OF ASTROPHYSICS**

BANGALORE-560 034

**PUBLIC TENDER NOTICE NO:PR/PT/SK/DE-HUM/CAP/506**  
**DATED 19<sup>TH</sup> NOVEMBER 2013.**

**TENDER FORM**

No.PR/PR/SK/DE-HUM/CAP/506

**Dated:** 19<sup>th</sup> November 2013

**FROM:**

TO

**THE DIRECTOR,**  
Indian Institute of Astrophysics.,  
Bangalore-560 034.

Sir,

I/We hereby offer to supply the stores indicated below at the price hereunder quoted and agree to hold this offer open till\_\_\_\_\_. I/We shall be bound to supply the store hereby offered upon the issue of the Purchase Order communicating to the acceptance thereof on or before the expiry of the last mentioned date. You are at liberty to accept any one or more of the items of such stores. I/We not withstanding that the offer in this tender has not been accepted in whole, shall be bound to supply such items and such portion or portions of one or more of the items as may be specified in the said Purchase Order communicating the acceptance.

Sl.No.	Description of the item(s)	Quantity	Unit	Rate	Dely. Period
1.	Supply & Installation of Desiccant Type Industrial De-Humidifiers as per the specification in the ANNEXURE - I.	02 Nos.			

Place at which the Delivery is required : At field station IIA, CREST Campus, Shidlaghatta road, Hosakote - 562114, Bangalore District.

Date by which the supplies are required order. : Within 30 days from the date of receipt of Purchase order.

2. I/We have understood the items of the tender annexed to the invitation to this Public Tender and have thoroughly examined the specifications/drawing and /or pattern quoted or referred to herein and/are fully aware of the nature of the stores required and my/our offer is to supply the stores strictly in accordance with the requirements subject to the terms and conditions contained in the Purchase Order, if communicated on the acceptance of this tender either in whole or in part.

Date:

**Signature and seal of Tenderer**

## **TERMS AND CONDITIONS OF CONTRACT**

### **1. DEFINITIONS :**

a.) The terms 'Purchaser' shall mean the Director, Indian Institute of Astrophysics, Bangalore -560 034.

b.) The term 'Contractor' shall mean, the person, firm or company with whom or with which the order of stores is placed and shall be deemed to include the Contractor's successors, representative, heirs, executors and administrators unless excluded by the contract.

c.) The 'Stores' shall mean that contractor agrees to supply under the contract as specified in the Purchase Order including erection Plants and machinery and subsequent testing, should such as condition be included in the Purchase Order.

d.) The terms 'Purchase Order' shall mean the communication signed on behalf of the Purchaser by an Officer duly authorized intimating the acceptance on behalf the Purchaser on the terms and conditions mentioned or referred to in the said communications accepting the tender or offer of the contractor for supply of stores or plant, machinery or equipment or part thereof.

### **2. PRICES :**

Tenders, offering firm prices will be preferred, where a price variation clause is insisted upon by a tenderer, quotations with a reasonable ceiling should be submitted. Such offers should variably be supported by the base price taken into account at the time of tendering and also the formula for any such variations.

### **3. DUTY EXEMPTION :**

(a.) Excise duty exemption certificate will be provided if considered against the categories of items tendered, under the Govt. of India Notification No. 10/97 valid till 2016.

### **4. SECURITY DEPOSIT:**

On acceptance of Tender, the Contractor shall, at the option of the Purchaser and within the period specified by him deposit with him in cash or any other form as the Purchaser may determine, Security deposit not exceeding ten percent of the value of the contract as the Purchaser shall specify. If the contractor is called upon by the purchaser to deposit 'Security' and the contractor fails to provide the security within the period specified, such failure shall constitute a breach of the contract and purchase shall be entitled to make other arrangements for the re-purchase of the stored contracted for at the risk of contractor in terms of sub-clause (ii) and (iii) of clause 10 (b) hereof and/or to recover from the contractor damages arising from such cancellation.

### **5. GUARANTEE AND REPLACEMENT :**

a.) The contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material workmanship and performance.

b.) For a period of (12) twelve months or as per Company norms after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use arising from faulty stores, design or workmanship, contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the store or any part thereof are faulty.

c.) If in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser provided the notice informing the contractor of the defect is given by the purchaser in this regard within the said 14 months from the date of acceptance thereof.

d.) Should the contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the contractor the whole or any portion of the defective stores.

e.) The decision of the purchaser, notwithstanding any prior approval of acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the contractor are defective or any defects has developed within the said period of 12 months or as to whether the nature of the defectives required renewal or replacement shall be final, conclusive and binding on the contractor.

f.) To fulfill guarantee conditions outlined in Clause 5(a) to (d) above, the contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser) from a Bank approved by the purchaser for an amount equivalent to 10% of the value of the contract along with first shipment documents. On the performance and completion of the contract in all respects, the Bank Guarantee will be returned to the contractor without any interest.

g.) All the replacement stores shall also be guaranteed for a period of 12 months from the date of arrival of stores at Purchaser's site.

h.) Even while the 12 months guarantee applied to all stores in case where a greater period is called forth by our specifications then such a specification shall apply; in such cases the period of 14 months referred to in Para 5(b) and (c) shall be 'asked for' guarantee period plus two months.

## **6. PACKAGING, FORWARDING AND INSURANCE :**

The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air, to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packing shall be done by and at the expenses of the contractor. The Purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the contractor and the Purchaser shall pay only for such stores as are actually received in good condition, in accordance with contract.

## **7. TEST CERTIFICATE :**

Wherever required Test Certificate should be sent along with the relevant dispatch documents.

## **8. ACCEPTANCE OF STORES :**

a) The Stores shall be tendered by the contractor for inspection at such places as may be specified by the purchaser at the Contractor's own risk, expenses and cost.

b) It is expressly agreed that the acceptance of stores, contracted for is subject to final approval by the Purchaser, whose decision shall be final.

c) If, in the opinion of the Purchaser all or any of the stores that do not meet the performance or quality requirements specified in the Purchase Order, they may be either rejected or accepted at the price to be fixed by the purchaser and his decision as to rejection and the prices to be fixed shall be final and binding on the contractor.

d) If the whole or any part of the store supplied are rejected in accordance with Clause No.8(c) above, the Purchaser shall be at the liberty, with or without notice to the Contractor, to purchase in the open market at the expenses of the Contractor, stores meeting the necessary performance and quality contracted for in place of these rejected, provided that either the purchase, or the agreement to purchase, from another supplier is made within six months from the date of rejection of the stores as aforesaid.

## **9. REJECTION OF STORES :**

Rejected stores will remain at the destination at the Contractor's risk and responsibility, if instructions for their disposal are not received from the Contractor within a period of 14 days from the date of receipt of the advice or rejection, the Purchaser or his representative has, at his discretion the right to scrap or seal or consign the rejected stores to the Contractor's address at the Contractor's entire risk and expense, freight being payable by the Contractor at actuals.

## **10. DELIVERY PERIOD :**

a.) The delivery period of the stores stipulated in the purchase order shall be deemed to be the essence of the Contract, and delivery must be completed on or before the specified dates/period.

b.) Should the Contractor fails to deliver the stores or any consignment thereof within the period prescribed for such delivery, the Purchaser shall be entitled at his option either.

i) to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 2% of the price of any stores which the contractor has failed to deliver as aforesaid for each month or part of a month, during which the delivery of such stores may in arrears, or

ii) to purchase elsewhere, without notice to the Contractor on the account and at the risk of the contractor, the stores not delivered or others of similar description (where other exactly complying with the particulars are not, in the opinion of the purchaser readily procurable, such opinion being final) without canceling the Contract in respect of the consignment(s) not yet due for delivery or,

iii) to cancel the contract or a portion thereof, and, if so desired to purchase or authorize the purchase of stores not so delivered or others of similar description (where other exactly

complying with the particulars are not, in the opinion of the purchaser readily procurable, such opinion final) at the risk and cost of the Contractor.

In the event of action being taken under sub-clause (ii) and (iii) of clause 10 above, the Contractor shall be liable for any loss which the Purchaser may sustain on that account, provided that the re-purchase, or if there is an agreement to re-provide shall be made within (6) six months from the date of such failure. But the Contractor shall not be entitled to any gain on such re-purchase made against default. It shall not be necessary for the purchaser to serve a notice of such re-purchase on the defaulting Contractor. This right shall without prejudice to the right of the purchaser to recover damages for breach of contract by the Contractor.

#### **11. EXTENSION OF DELIVERY TIME :**

As soon as it is apparent that Contractor delivery period/dates cannot be adhered to, an application shall be sent by the Contractor to the Purchaser. If failure, on the part of the Contractor to deliver the stores in proper time shall have arisen from any cause which the Purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final he may allow such additional time as he considers it to be justified by the circumstances of the case without prejudice to the Purchaser's rights to recover liquidated damages under clause 10(i)(ii) and (iii).

#### **12. PAYMENT :**

Contractor's bill will be passed only after the stores have been received, inspected and accepted / installed by the Purchaser for payment.

#### **13. RECOVERY OF SUMS DUE :**

Whenever there is breach of contract whether liquidated or not, money arising out of or under this contract against the contract, the Purchaser shall be entitled to recover such sum by appropriating, in part or whole, the security deposited by the Contractor, if a Security is taken against the contract. In the event of the Security being insufficient or if no security has been taken from the Contractor, then the balance or the total sum recoverable as the case may be shall be deducted from any sum then due or which at any time thereafter may become due to the contractor under this or any other contract with the Purchaser. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the Purchaser on demand the remaining balance due. Similarly, if the purchaser has or makes any claims, whether liquidated or not, against the Contractor under any other contract with the purchaser, the payment of all moneys payable under the contract to the Contractor including the Security Deposit shall be withheld till such claims of the Purchaser are finally adjudicated upon and paid by the Contractor.

#### **14. INDEMNITY :**

The Contractor shall warrant and be deemed to have warranted that all stores supplied against this contract are free and clean of infringement of any patent, copy right or trade mark, and shall at all time indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by patent, registration of design or trade mark and shall take all risk of accidents of damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for sufficiency of all the means used by him for the fulfillment of contract.

#### **15. ARBITRATION:**



In the event of any question, dispute or difference arising under these conditions contained in the purchase order in connection with this contract, (except as to any matters the decision of which is specially provided for by these conditions), the same shall be referred to the sole arbitration of the Head of the Institution or of some other person appointed by him. It will be no objection that the arbitrator is a Government Servant, that he has to deal with matter to which the Contract relates or that in the course of his duties as Government Servant he has expressed views on all or any of the matters in dispute binding on the parties of this Contract.

**(a) IT IS TERMS OF THIS CONTRACT:**

If the Arbitrator be the Head of the Institution.,

i) in the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor-in-office either to proceed with the reference himself, or to appoint another person as arbitrator, or,

ii) in the event of his being unwilling or unable to act for any reason, it shall be lawful for the Head of the Institution, to appoint another person as arbitrator or,

**(b) If the Arbitrator be a Person appointed by the Head of the Institution:-**

In the event of his death, neglecting or refusing to act, or resigning or being unable to act for any reason, it shall be lawful for the Institution either to proceed with reference himself or to appoint another person as arbitrator in place of the outgoing arbitrator. Subject as aforesaid the Arbitration Act, 1940 and the rules there under and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceedings under this clause. The Arbitrator shall have the power to extend with the consent of the Purchaser and the Contractor the time for making a publishing the award. The venue of Arbitration shall be the place as the Purchaser. In his absolute discretion may determine. Work under the contract shall if reasonably possible, continue during Arbitration proceedings.

**16. COUNTER TERMS AND CONDITIONS OF SUPPLIERS :**

Where Counter Terms and Conditions/printed or cyclostyled conditions have been offered by the Supplier, the same shall not be deemed to have been accepted by the Purchaser, unless specific written acceptance thereof is obtained.

**17. SECURITY FOR PURCHASER'S MATERIAL(S) :**

Successful Tenderer will have to furnish in the form of a Bank Guarantee or any other form as called for by the Purchaser towards adequate security for the materials/property by the Purchaser for the due execution of the Contract.