OFFICE OF THE SUPERINTENDENT SCB MEDICAL COLLEGE & HOSPITAL, CUTTACK.

Tel / Fax:0671-2414080

e-mail :scbsuperintendent@yahoo.com

Tender Reference No. SCB MCH/2021-2022 NO-8872 DT. 16.04.2021

TENDER DOCUMENT FOR SUPPLY & INSTALLATION OF MEDICAL GAS PIPELINE MANAGEMENT SYSTEM

SECTION -I

NOTICE INVITING TENDER

Tender Reference No.SCBMCH/2021-2022/MGPS/ No-8872 Dated: 16.04.2021

TENDERS ARE INVITED FROM ELIGIBLE BIDDERSAS PER THE ELIGIBILITY CRITERIA FOR SUPPLY AND INSTALLATION OF MEDICAL GAS PIPE LINE MAMAGEMENT SYSTEM IN THE 4^{TH} FLOOR OF OPHTHALMOLOGY DEPARTMENT, SCB MEDICAL COLLEGE & HOSPITAL CUTTACK

1	Period of Availability of	
1	Tender Document	From <u>20.04.21</u> (date) to <u>10.05.2021</u> (date) upto 5 P.M.
		[Downloadable from website: www.scbmch.in
		In case of any bid amendment and clarification, responsibility lies with the bidders to collect the same from the above mentioned website before last date of submission of tender document and the tender inviting authority shall have no responsibility for any delay / omission on part of the bidder.
2	Last date & time for	Date: 12.05.2021, Time: up to 5 pm
	submission of Tender	Address of Submission of Bid:
		The Superintendent,
		SCB Medical College and Hospital
		Cuttack -753 007, Odisha, India
		(Through Speed post / Registered post only
3	Date, time and place of	a) Technical Bid (Cover A) opening: 13.05.2021 (date),
	opening of Tender	12.30 P.M. (time) at the address mentioned above.
		b) Financial Bid (Cover B):
		The date of opening of financial bid will be intimated to the firms found successful in the technical bid evaluation. (Venue is mentioned at the address mentioned above) (Bidders / authorized representative may remain present at
		the time of opening of bid)

Superintendent SCB MCH, Cuttack

SECTION -II

IMPORTANT INSTRUCTIONS TO BE NOTED CAREFULLY BY THE TENDERERS

1.	Mode of Procurement	Through National Competitive Bidding Pro Superintendent, SCB Medical College & Hos invite tender & evaluate the same. After final the supplier & the rate, the purchase order sha Superintendent, SCB Medical College & Hospit	spital, Cuttackshall ization/approval of all be placed by the
2.	Purchaser	Superintendent SCB Medical College Hospital-Cu	
3.	Consignee	CUTTACK	College Hospital,
4.	Delivery Period	Within 60 days from issue of the purchase order.	
5.	Mode of Delivery	By Air / Road / Rail	
6.	Guarantee / Warranty /CMC	Comprehensive warranty including all spares, m period 10(ten) years from the date of installation & 7(seven) years CMC after warranty period.	c commissioning and
7.	Tender Document Cost Money	Rs.1000/-). The tender document cost is to be su of bank draft in favour of Superintendent COLLEGE, HOSPITAL, CUTTACK from Scheduled Bank payable at Cuttack or depo Accounts Section of this hospital on all workin scheduled period.	, SCB MEDICAL any Nationalized/sit of Rs.5000/- in
8.	Earnest Money Deposit (EMD)	Sl. Name of Equipment	EMD
	(The no. of equipment	Si. Name of Equipment	(in Rupees)
	is mentioned in the Schedule of requirement – Section IV)	Gas pipeline and Gas plant with Oxygen Compressor Vacuumed unit (fully functional unit)	1,00,000.00 (One lakh)
		Note: The bidder may quote for any or all the equipment by submitting the required EMD for that equipment. The Earnest Money Deposit will be paid in the shape of Demand Draft only in favour of SUPERINTENDENT, SCB MEDICAL COLLEGE, CUTTACK from any Nationalized/Scheduled Bank and payable at Cuttack	
9.	Performance Security	The selected firm should submit the performance Bank Draft /Bank Guarantee, equal to the amore purchase order value (excluding the tax & CMC within 21 days of issue of the purchase order returned back after completion of warranty period security shallbe furnished to the Superinte Cuttackafter getting the purchase order.	unt of 10 % of the C cost) of the items & the same will be d. The performance

10. Pre-qualification (Eligibility Criteria)

- **A.** Manufacturing units / Importers are eligible to participate in the tender provided, they have
 - (i) Import License (In case of Importer only)
 - (ii) Valid ISO certificate.
 - (iii) Product must be ISI /CE / US FDA/IEC etc certified if specified in Technical Specification (Section V)
 - (iv) Tenderer (Manufacturer/Importer) should have proof of supply of equipment(s) mentioned in the schedule of requirement (executed directly by manufacturer or through distributor) of the equipment(s) /similar equipments mentioned in the schedule of requirement to any Govt. organization / Corporate Hospitals / PSU Hospitals / UN Agencies and purchase order copies in support of that in last 3 yearsas per format at Annexure VII (Item wise)
 - (v) Proof of annual average turnover (Manufacturers/Importer) ofin the lastthree (3) financial years certified by the Chartered Accountant as per the format at Annexure VI supported by audited balance sheet/Annual Report.
- **B.** Authorized distributors on behalf of the manufacturer are eligible to participate in the tender provided:
 - (i) They should have proof of annual average turnover of the last three (3) financial years certified by the Chartered Accountant as per the format at Annexure VIsupported by audited balance sheet/Annual Report.
 - (ii) In addition to this, the distributor shall also submit the average annual turnover of the **manufacturer/importer** of the **item** (s) as mentioned in A (v) above.
 - (iii) They should submit **manufacturer's authorization** to transact business on behalf of the manufacturer as per the format at **Annexure V**.
 - (iv) Proof of supply of the equipments in the schedule of requirement to any Govt. organization /Corporate Hospitals / PSU Hospitals / UN Agencies and purchase order copies in support of that in last 3 years as per format at Annexure VII (Item wise)
 - (v) The authorized distributor will submit the following documents in support of the manufacturer along with the tender:
 - (vi) Valid ISO certificate, Valid ISI / CE / US FDA / IEC certificates of the manufacturer is specified in technical specification (Section V)
 - **D.**The Manufacturer or the tenderer if blacklisted either by the Tender inviting authority or by any state Govt. or Central Govt. organization for the quoted item is not eligible to participate in the tender during the period of blacklisting.

SECTION-III

TERMS AND CONDITIONS FOR SUPPLY & INSTALLATION OFMEDICAL EQUIPMENTS FOR DIFFERENT DEPARTMENT

- 1.1 Sealed tenders will be received till 12.05.2021(date) upto 5pm (time) by the office of the Superintendent SCB Medical College Hospital—Cuttack. Any tender received after the due date & time will be rejected / returned to the sender unopened. The tenders will be received through Regd. Post // Speed Post only. The prospective bidders may attend and clarify any doubts on the terms and conditions of the bid document.
- 1.2 The bidder(s) are to submit their tenders in separate sealed covered envelops for technical bid and commercial bid by super scribing Cover "A" (Technical Bid)&Cover "B" (Price Bid) and both the sealed covers should be put into a third outer Cover, which should be super scribed as "Tender for Supply & Installation of Medical Gas pipe line Management System
- 1.3 The Sealed tenders "Cover A" (Technical Bid) submitted by the tenderers will be opened at the office of the Superintendent,, SCB Medical College, Cuttack on 13.05.2021(date) at 12.30 PM (time).

The tenderer or their duly authorized representatives are allowed to be present during the opening of the tenders if they so like.

2. DOCUMENTS TO BE SUBMITTED

The following documents should be enclosed in Cover "A" (Technical Bid) by the tenderer.

All the photocopies are to be self-attested.

3. TECHNICAL BID:

- 3.1 Checklist with detail of the documents enclosed in Cover "A" (as per Annexure I) with page number. The documents should be serially arranged as per this Annexure I and should be securely tied and bound.
- 3.2 List of Item (s) Quoted with name of the Make & Model of the item (s)

 (Annexure II)

- 3.3 Tender document fee of Rs1000/- in shape of Demand Draft.
- 3.4 Earnest Money Deposit(s) in shape of Demand Draft). Details of EMD and the name of the equipment quoted should be clearly mentioned.
- 3.5 Details name, address, telephone no., Fax, e-mail of the manufacturer / authorized distributor / service centre / contract person / office in Odisha (Annexure III).
- 3.6 The declaration form in **Annexure IV** duly signed by the tenderer before Notary Public / Executive Magistrate.
- 3.7 Manufacturer's Authorization Format in **Annexure** –**V** (In case the bidder is not the manufacturer). Importers are also required to furnish the authorization from the manufacturer.
- 3.8 Certificate duly filled by the Auditor / Chartered Accountant (as per **Annexure VI)** that the annual average turnover of the firm in the last 3 financial years (In case of bidders who are authorized distributors of the manufacturer). In case of authorized distributor, they will also have to submit the average annual turnover the manufacturer/importer of the item(s).
- 3.9 Performance Statement (Annexure VII) (Item wise) Tenderer have must be proof of supply, installation and commissioning of Medical GAS pipeline system at any Govt. organization / PSU Hospitals //Corporate Hospitals(Not less than 100 Bedded)Bidder Must be produce Performance certificate in support of that from the user in last 3 years in odisha only for the year 2018-19 & 2019-20 & 2020-21)
- 3.10 Deviation/No Deviation Statement from Technical Specification & details of technical specification of the product (Annexure-VIII A & B)
- 3.11 Leaflet/Technical Brochures of the product/item offered.
- 3.12 Copy of Import License by the Importer (in case of Importer).
- 3.13 Copy of Valid ISO certificate.
- 3.14 Copy of Valid ISI / CE /US FDA certificate (as per Section VI Technical Specification).
- 3.15 Copy of Certificate in support of IEC certificate (as per Section V-Technical Specification).
- 3.16 Copy of valid GST certificateGST Return Filing (GSTR-3B) up to Last Quarter of Current Financial Year.

- 3.17 The Original Tender Booklet with Conditions and the schedules signed by the tenderer at the bottom of each page with his official seal duly affixed.
- 3.18 Certificate in support of service center in Odisha or undertaking to set up service center in Odisha within one month from the date of installation if approved (for those who have no service centers in Odisha).
 - **N.B:** Valid means the certificate should be valid on or beyond the date of opening of tender (Cover-A).

COVER – B (PRICE BID)

- 4. The price to be quoted for medical Gas pipeline system should be sent in the prescribed price format in a separate sealed cover hereafter called <u>Cover "B"</u> (Price Bid).
 - Cover –B (Price Bid) of the tenderers who qualify in it's Technical Bid (Cover A) and complies to tender specification& find to be as per technical specification in Product in demonstration (if required) will only be opened.
- 4.1 The tender format (Price Schedule) in duplicate in the prescribed form (as per Annexure – IX), must be submitted in Cover-B. The price of the item should be quoted inclusive of excise duty, insurance, packing, forwarding, freight (door delivery) and warranty for 3 years. The price of CMC for 7 years, turnkey job if (accessories any for installation including charges for installation/commissioning), sales tax / VAT and entry tax charges (if any) should be quoted in a separate column. The rate should be quoted for each item both in figures and words. In case of difference in words and figures, words will be taken into consideration for evaluation.
- 4.2 The Cover "B" of tenderers who qualifies in their technical bid, will only be opened at the office of the Dean & Principal, SCB Medical College, Cuttack at a date & time which will be intimated to them.

EARNEST MONEY DEPOSIT

5.1 The amount of Earnest Money Deposit required is mentioned in the Section-II.

The Earnest Money Deposit will be submitted in the shape of **demand Draft**

- **only**in favour of **SUPERINTENDENT**, **SCB MEDICAL COLLEGE**, **CUTTACK** from any Nationalized/Scheduled Bank payable at **Cuttack**.
- 5.2 The EMD of the unsuccessful tenderers will be returned back without interest after placement of purchase order to the successful tenderer and EMD of successful tenderer will be returned after submission of performance security (ies)
- 5.3 The EMD will be forfeited if the tenderer withdraws its tender / furnish forged documents which is found during bid evaluation OR doesn't sign the contract / doesn't furnish performance security / doesn't supply the items (in case of successful bidder) within the stipulated time period.

PERFORMANCE SECURITY& AGREEMENT

- 6.1 The performance Security should be submitted in shape of Bank Draft/Bank Guarantee from a Nationalized / Scheduled Bank in favour of Superintendent, SCB Medical College, Cuttack payable at Cuttack equal to the amount of 10% of the purchase order value of the item (excluding cost of CMC & taxes) within 21 days of issue of the purchase order.
- 6.2 The agreement (as per Annexure X) will be signed between the supplier, manufacturer and the purchaser and will be kept by the purchaser.
- 6.3 The performance Security Money will be returned back to the tenderer without interest after the expiry of the warranty period i.e. two years after the date of installation & signing of the CMC agreement.
- 6.4 Security money will be forfeited if there is any violation of the tender terms and conditions.

TENDER CONDITIONS:

7.1 The details of the medical Gaspipeline System with specifications are mentioned in Section-V. The firm must clearly mention their specification, special features, upgraded version (if any), detail technical catalogue of the offered model in their tender.

- 7.2 Tenders should be typewritten or computerized and every correction in the tender should invariably be attested with signature by the tenderer with date before submission, failing which the tender will be ineligible for further consideration.
- 7.3 Rates inclusive of excise duty / customs duty, packing, forwarding, insurance, transportation charges with 7 years onsite comprehensive warrantyand exclusive of GSTN should be quoted for supply and installation of the medical Gas pipe line Management system on door delivery basis. The turnkey job (cost of accessories if any required for Installation/Commissioning including installation/commissioning charges), 7 year CMC cost &GSTNshould be mentioned in separate columns. The rates quoted should be in Indian Rupees only. Rates quoted in any other currency will not be accepted.
- 7.4 The purchaser shall be responsible only after delivery and due verification, installation and commissioning of the equipment.
- 7.5 The rate per unit shall not vary with the quantum of order placed for destination point.
- 7.6 If there is difference between figures & words, words will be taken into consideration.
- 7.7 In the event of the date being declared as a holiday by Govt. of Odisha, the due date of sale, submission of bids and opening of bids will be the following working day at the scheduled place & time.
- 7.8 The rate quoted and accepted will be binding on the tenderer for a period of **one year** from the **date of approval of the rate contract** and on no account; any increase in the price will be entertained till the completion of this tender period.
- 7.9 No tenderer shall be allowed at any time on any ground whatsoever to claim revision of or modification in the rate quoted by him. Clerical error / typographical error, etc. committed by the tenderers in the tender forms shall not be considered after opening of tenders. Conditions such as "SUBJECT TO AVAILABILITY" / "SUPPLIES WILL BE MADE AS AND WHEN SUPPLIES ARE RECEIVED" etc., will not be considered under any circumstance and the tenders

- of those who have given such conditions shall be treated as incomplete and for that reason, shall be rejected.
- 7.10 If at any time during the period of rate contract, the price of tendered item is reduced or brought down by any law or act of the Central or State Government or the tenderer, the tenderer shall be morally and statutorily bound to inform the purchaser immediately about such reduction in the contracted price. The purchaser is empowered to unilaterally effect such reduction in rate, in case the tenderer fails to notify or fails to agree for such reduction of rate.
- 7.11 Approved rate with terms, conditions & the quoted price of the tender shall remain valid for a period of 12 months from the date of approval.
- 7.12 If the relevant documents / certificates which are required to be furnished along with the tender are written in language other than English, the tendering firm shall furnish English version of such documents / certificates duly attested by a Gazetted Officer / Notary with his seal and signature.
- 7.13 If any information or documents furnished by the tenderer with the tender papers are found to be misleading or incorrect at any stage the tender of the relevant items in the approved list shall be cancelled and steps will be taken to blacklist the said firm for three (3) years.
- 7.14 Rate should be quoted in Indian Currency, both in words and figures against each item as the payments will be made in Indian currencies only (Annexure-IX). The tenderer shall not quote his own rate for any item other than the item specified in the list. (Section V Schedule of Requirement).
- 7.15 Both Cover-A and Cover-B should have an **index and page number** of all the documents submitted inside that cover.
- 7.16 The Tax will be charged as per the guidelines given by the Finance Dept., Govt. of Odisha from time to time. Either C.G.S.T& SGST (as applicable) will be paid to the supplier. The requirement of items may increase or decrease depending on the situation.

PACKAGING:

8.1 All the packaging should be New. The supplier shall provide such packaging of the goods as is required to prevent their damage or deterioration during transit to their final destination. The packaging shall be sufficient to withstand without any limitation including rough handling during transit, exposure to extreme temperature, salt and precipitation during transit and upon storage.

COMPREHENSIVE WARRANTY & CMC:

(Undertaking as per Annexure – XI & XII)

- 9.1 The comprehensive warranty will remain valid for 3 years from the date of installation & commissioning of the equipment. The original copy of warranty documents will be submitted to the purchaser at the time installation.
- 9.2 The warranty will cover all the parts of the machine or item and any replacement or repair required within the warranty period and will be provided by the supplier free of cost at the destination point (installation point). The supplier will take back the replaced parts / goods at the time of their replacement. No claim whatsoever shall be on the purchaser for the replaced parts / goods thereafter. No traveling allowances or transportation cost will be paid by the purchaser during the warranty period.
- 9.3 The Supplier shall warrant that the Goods supplied under this contract are new, unused, of the most recent or current models and they incorporate all recent improvements in design and materials. The Supplier shall further warrant that all Goods supplied under this contract shall have no defect arising from design, materials or workmanship or from any act or omission of the Supplier that may develop under normal use of the supplied Goods in the conditions prevailing in the place of final destination.
- 9.4 **CMC**: The tenderer shall also commit to provide offer for CMC (**Labour** + **all spare**) for the **next** 7(**seven**) **years after five** (3) **years of warranty.** No extra cost will be paid other than the CMC cost for functioning of the item during this period. The supplier will provide one (1)**preventive**maintenance in every **six months** in a year during the period of CMC.

- 9.5 The selected firm should have a service centre in Odisha.
- 9.6 All the warranty certificates must be handed over to the consignee at the time of installation.

TRANINING & OPERATIONAL MANUAL:

- 10.1 The firm / supplier will provide hands on training to two doctors and two technicians in his own cost for operating / handling the medical equipment(s) at the time of installation of equipment.
- 10.2 The supplier / firm will provide the operation / maintenance manuals of all equipment's to the purchaser at the time of installation.

UPTIME GUARANTEE:

11.1 <u>UP-TIME BALANCE</u>:

The Supplier (s) shall provide guarantee 95% uptime during comprehensive warranty period, i.e., for 3 years from the date of installation & commissioning. Any uptime less than the specified period above will be compensated by the Supplier(s) by extending the warranty period. The consignee shall maintain a logbook in the format provided by the Supplier(s) which will indicate usage of the equipment every day and for calculation of up-time.

DOWNTIME PENALTY CLAUSE:

During the Guarantee / warranty period, desired uptime of 95% of 365 days will be ensured (24 hour). If downtime exceeds 5%, penalty in the form of extended warranty, double the number of days for which the equipment goes out of service will be applied. The supplier must undertake to supply all spares for optimal upkeep of the equipment for **TEN YEARS** after installation. If accessories / other attachment of the system are procured from the third party, then the supplier must produce cost of the accessory / other attachment and the CMC from the third party separately along with the main offer and the third party will have to sign the CMC with the purchaser if required. In no case equipment should remain in non-working condition for more than 7 (seven) days from the date of complaint, beyond which a penalty will be applicable as per Rule.

12.2 The principals or their agents are required to submit a certificate that they have satisfactory service arrangements and fully trained staff available to support the uptime guarantee.

SPARE PARTS:

- 13.1 The spare price list of all spares and accessories (including minor) required for maintenance and repairs in future after guarantee / warrantee period should be attached / enclosed along with the sealed quotation.
- 13.2 The tenderers are required to furnish the list of spares along with their cost in the financial Bid separately which will not be taken for evaluation.
- 13.3 Local agents / distributors quoting on behalf of the manufacturer / importer must attach the authority letter in their favour.

LABELLING:

14.1 The equipment supplied must be properly labelled with Sl. No., Model Name, Make & year of Manufacture

ACCEPTANCE OF TENDER AND SUPPLY CONDITIONS:

- 15.1 The Purchaser reserves the right to reject the tenders or to accept the tenders for the supply of the item tendered without assigning any reason thereof.
- 15.2 The Purchaser will be at liberty to terminate the contract either wholly or in part without assigning any reasons thereof. The tenderers will not be entitled to any compensation whatsoever for such termination.
- 15.3 The supply and Installation of MGPS should be completed within 60 days from the date of issue of purchase order unless otherwise specified. If no supply is received even after 60 days or 88 days with liquidated damage from the date of issue of the purchase orders, such orders will stand cancelled automatically without further notice. Penalties shall also thereafter be applied to the tenderer as specified in. The approved firm shall also suffer forfeiture of the EMD and Performance Security Deposit.
- 15.4 The tender inviting authority or his authorised representative (s) has the right to inspect the factory of those company who have quoted for the tender, before

accepting the rate quoted by them or before releasing any purchase order (s) or at any point of time during the validity period of tender and has also the right to reject the tender or terminate / cancel the orders issued or not to reorder based on the facts brought out during such inspections.

TERMS OF PAYMENT:

- 16.1 No advance payments towards cost of medical equipments or turnkey job will be made to the tenderer.
- 16.2 Payments as mentioned above will only be made after keeping the **performance** security deposit from the supplier, if they have not deposited the same before. Payment will only be made after ensuring signing of the Agreement, undertaking and handing over of warranty papers of equipment and turnkey jobs by the supplier to the purchaser.
- 16.3 No claims shall be made against the purchaser in respect of interest on earnest money deposit or performance security deposit or any delayed payment or any other deposit.
- 16.4 Payments in shape of Draft / Pay Order will preferably be despatched to the supplier by Registered post with A.D or e-payment / on-line transfer.
- 16.5 The payment of CMC will be made on a **six monthly basis**, after completion of warranty period and signing of the CMC agreement.

PENALTIES:

- 17.1 If the successful tenderer fails to deposit the required performance security within the time specified or withdraws his tender after acceptance of his tender owing to any other reasons or unable to undertake the contract, his contract will be cancelled and the earnest money deposit / performance security deposit submitted shall stand forfeited by the purchaser.
- 17.2 Violating the tender terms and conditions & non supply / supply which is not as per technical specification will disqualify the firm to participate in the tender for a period of 3 (three) years from the date of issue of letter and his E.M.D &

- performance security deposit will be forfeited and no further purchase order will be placed to that firm for that item.
- 17.3 In the event of any dispute arising out of the tender, such disputes would be subject to the jurisdiction of the Civil Court of the concerned District or High Court of Odisha.

INSPECTION/TESTING:

18.1 The selected supplier shall have to arrange for demonstration of the equipment at the supply point. The purchaser or its nominated representative(s) shall inspect and test the equipments at the supply point to check their conformity to the technical specifications and other details incorporated in the contract.

CONDITIONS APPLICABLE TO LOCAL MSEs / SSIs OF ODISHA:

The MSE / SSI Units of the State of Odisha will be given the following preferences in the tenders provided they produce the following documents as per MSME Development Policy-2009 and IRP - 2007:

- 19.1 Attested copy of valid manufacturing licence.
- 19.2 P.M.T Certificate from the Director of Industries, Odisha or General Manager District Industries Centre that it is a MSE / SSI Units of the State of Odisha, provided that MSE / SSI units has not been derecognised by the Govt. for that specified period.
- 19.3 Local Micro & Small Scale Enterprises (MSE) and Khadi& Village industrial units including handloom and handicrafts will enjoy a price preference of 10% vis-à-vis over local medium and large industries as well as industries outside the State. Local Micro & Small Scale Enterprises having ISO, ISI Certification for their product shall get an additional price preference of 3% as per provision of IPR-2007.
- 19.4 Local MSEs registered with respective DICs, Khadi, Village, Cottage and Handicraft Industries, OSIC, NSIC shall be exempted from payment of earnest money and shall pay 25% of the prescribed performance security deposit.
- 19.5 Clause number 1 to 22 is also applicable to the Small Scale Industry Units of the State of Odisha
- 19.6 Clause number 1 to 22 is also applicable to the Small Scale Industry Units of the State of Odisha.

CHECK LIST

(To be submitted in Cover ATechnical Bid)

Note: The documents has to be arranged serially as per the order mentioned in the check list

Please put /in the respective box	
·	MENTS : SUBMITTED OR NOT
1. List of Item (s) – Annexure II	Page No Yes No
2. Tender document Fee	Page Yes No
3. Earnest Money Deposit No.	Page Yes No
4. Details of Manufacturing Unit / contact person Pag Liaisioning agent / servicing centre (Annexure III)	
5. Declaration form (Annexure -IV) signed by the Tenderer & affidavit before No. Notary Public / Executive Magistrate	Page Yes No
6. Manufacturer's Authorization Format (Annexure – V) (for distributor/Importer)	Page Yes No.
7. Proof of avg. Annual turnover of Rs. 2.5CroreCrore or more for preceding 3 financial years No. (for Manufacturer/Importer) or Rs.2 Crore or more VI) (Annual turnover for the manufacturer/importer is also to be	(for authorized distributors) (Annexure
8. Audited Account Statemen (P&L Account)/AnnualReport for the three financial years by highlighting the figure in it, which is mentioned in the Annexure -VI	No Page Yes No
9. Performance Statement (Item wise) during the last three year (Annexure -VII)	Page Yes No.
10. Copies of Purchase order (Item wise) in support of the performance statement	Page Yes No.
	Page No Yes No

12. Leaflets/Technical Brocheures of the Page Yes No. Equipment offered (Item wise) No. 13. Copy of Import license(In case of Importer) Page Yes 14. Copy of Valid ISO Certificate Page Yes No. 15. Attested Photocopy of Up-to-datePage Yes No CE / US FDA/BIS Certificate (Item wise) No. (As per technical specification) 16. Attested Photocopy of Up-to-datePage Yes IEC Certificate (Item wise) No. (As per technical specification) 17.Photocopy of PAN Page Yes No No. 18. Photocopy of VAT clrance cerificate Page Yes No No. 19. Copy of original Tender and schedules, duly Page Yes signed by the Tenderer No.

11. Deviation/No deviation Statement (Item wise)& details

of technical specification (Annexure -VIII A & B)

LIST OF ITEM(S) QUOTED

(Liquid Nitrogen Storage System / Aphaeresis Machine for BMT / Bed for BMT)

Sl.	Name of Item(s)	Name of Manufacturer	Make	Model Name	Details of offered product at Page No. (s)
1					
2					
3					

	Signature of the Tenderer :
Date:	
Official Seal:	

DETAILS OF EMD(S) SUBMITTED

SI. Name o	f Equipment	EMD Amount (Rs.)
TOTAL	(Rs.)	
		Signature of the Tenderer:
Date:		

DETAILS OF THE TENDERER & LOCAL CONTACT PERSON

	Corporate Office (The address in which the purchase orders and payment details will be communicated)	Local Contact Person / Branch Office / Zonal Office / Service Centre if any, in Odisha.
Name & Full Address		
Telephone Nos., landline		
Mobile		
Fax		
E – Mail		
Date of Inception	(Copy of Certificate of incorporation of Manufacturer)	
Name of the issuing authority		
Import License (in case of Importer only)	(Furnish photocopy of Import License)	
VAT validity	(Furnish photocopy of VAT)	
PAN	(Furnish photocopy of VAT)	
Details of the Service Centre Facilities in Odisha/Eastern India	(1 samen photogopy of 1111)	

Signature of the Tenderer
with seal

- 11	ate	•
v	aic	•

Official Seal:

DECLARATION FORM

I / We	having My /
our	office
at	do declare that I/We have carefully
read all the terms & conditions of tender of the	,Odisha for the supply and
installation of medical GA pipeline management	System The approved rate will remain valid for
a period of one year from the date of approval. I	will abide with all the terms & conditions set
forth in the Tender Reference no.	
I/We do hereby declare I/We have not	been de-recognized / black listed by any State
Govt. / Union Territory / Govt. of India / Gov	t. Organization / Govt. Health Institutions for
supply of Not of Standard Quality(NSQ) items	/ non-supply.
I/We agree that the Tender Inviting Author	ority can forfeit the Earnest Money Deposit and
or Performance Security Deposit and blacklist m	ne/us for a period of 3 years if, any information
furnished by us proved to be false at the time of	inspection / verification and not complying with
the Tender terms & conditions.	
	do hereby declare that I / we will supply the ender document. I / we further declare that I / we have a service centre / pment in Odisha.
Signature of the bidder :	
Seal Date	e :
Name & Address of the Firm:	
Affidavit before Executive Magistrate / Notai	ry Public.

(Refer Clause No. 2.2(i))

(To be submitted in *Cover A -Technical Bid*) MANUFACTURER'S AUTHORISATION FORMAT

To

The Superintendent SCB Medical College and Hospital Cuttack -753 007, Odisha

Ref:	Tender No.	Dated	for		
Dear Sir,				 ;	
		(name of ec	quipment(s) and		
distributor 2. We confidence of the confidence	r forsale and ser rm that no sup the above distr for the above go extend our full var or 7 years CMC take that we ha	vice of (nativities of control of the popular or firm or	individual other zed to submit a by us. comprehensive period asrequire structure and sp	name of equipment than Messrstender and ente warranty) and a sed by the purchast pare part support	r into a contract also full back-up ser. to carry out the
For and	l on behalf of M	 ame and designation lessrse e manufacturers)	,		

- 1. This letter should be on the *letterhead* of the *manufacturer (Item wise)* and should be signed by a person having the power of attorney to legally bind the manufacturer.
- 2. Original letter shall be attached to the technical bid.

(To be submitted in Cover A -Technical Bid)

(Refer Clause No. 3.8)

(To be furnished in the **letter head** of the Auditor/ Chartered Account)

ANNUAL TURN OVER ST	<i>'ATEMENT</i> '
---------------------	-------------------

The Annual Turnover for the last three financial years of M/s	who
is a Manufacturer /Distributor/Importer (Pl. tick whichever is applicable)	are given below
and certified that the statement is true and correct.	

Sl.No.	.No. Year Turnover in (Rs.)			
1.	2018 - 2019	-		
2.	2019 - 2020	_		
3.	2020 - 2021	_		

Average Annual Turnover (for the above three years) in (Rs.)_____

Date:
Place:
(Name in Capital)

Signature of Auditor/ Chartered Accountant

Seal

Membership No.-

Registration No. of Firm

Note:

- a) To be issued in the **letter head** of the Auditor/Chartered Accountant mentioning the Membership no.
- b) To be supported by the attested photocopies of audited account statement / P&L account/ Annual Report and the figure of turnover mentioned in the format (Annexure – VI) should be highlighted there. The authorized distributor has also to furnish his turnover statement in the above format.

Annexure VII

PROFORMA FOR PERFORMANCE STATEMENT

(Fortheperiodoflastthreeyears)

ITEM WISE(Pl. Furnish separate

<u>performance statement itemwise if the bidder quote for more</u> <u>than one item& attach the order copies alongwith each</u> <u>performance statement)</u>

NameofTenderer:
NameofManufacturer:
Name of the Item:

Sl.	1 *		Item Name	Make &		DateofCo	_	l	1
	(Address of purchaser)	& Date		Model	Contract (Rs.)	Asper		1	the goods
	(attach documentary proof)*	,			(IXS.)	contract		if any	been functio
1									•
2									
••									
			Total Qty						

Signature and seal of the Tenderer

- * Thedocumentaryproofwillbecopies of the purchase order (during the last 3 years) indicatingContractNo.and datealongwithanotarizedcertification (bythebidder)authenticatingthecorrectnessoftheinformationfurnished.
- **Thedocumentaryproofwillbecertificatefromtheconsignee/enduserindicating ContractNo.and datealongwithanotarizedcertification(bythebidder)authenticatingthecorrec tnessoftheinformationfurnished.

(To be submitted in Cover A -Technical Bid)

(Refer Clause No. 3.10)

STATEMENT REGARDING DEVIATIONS FROM TECHNICAL SPECIFICATIONS (IF ANY)

Followingarethe Technical deviations and variations from the purchaser's Technical Specifications.

Sl. No.	Item Name	Clause of Technical Specification	StatementofDeviations/Variation s if any
1			
2			
••			
	In case there is Deviation .	no deviation from technical sp	ecification, Pl. Mention <i>No</i>
	SignatureoftheBidd	ler	
	Name : Date:		
	Place:		
	Seal		

(To be submitted in *Cover A -Technical Bid*) Annexure VIII B

DETAILS OF TECHNICAL SPECIFICATION OF THE PRODUCT (S) OFFERED BY THE BIDDER

Sl. No.	Item Name	Make	Model	Detail Specification of the product(s) offered* (Pl. Describe the detail specification of the product offered) – Para wise compliance to the technical specification asked for.	**Page no. of the Catalogue / Leaflet where Para wise compliance information as per technical specification is available
1					
2					

^{*} Leaflets/Technical Brocheures of the product offered must be attached in support of the information provided above.

SignatureoftheBidder Name:
Date:
Place:
Seal

^{**} It is mandatory to mention the page no(s) in the format as mentioned above.

(Refer Clause No. 4.1 & 8.15)

FORMAT I - PRICE SCHEDULE (For Item : Gas pipeline and Gas plant with Oxygen Compressor Vacuumed unit (fully functional unit))

Name of the Item (s) (Items mentioned in the schedule of requirement)	Make & Model	* Price of the items with all accessories which includes excise duty / customs duty, packing, insurance, forwarding / transportation (door delivery) with 3 (three) years onsite warranty, calibration charges if any&excludes tax Cost in Rupees (both in words & figures)	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	materials: for electrical, civil, air conditioning work etc.) for installation & commissioning and all	Gas pipeline and Gas plant with Oxygen Compressor Vacuumed unit (fully functional unit)with CMC	CGST/SGST &
(1)	(2)	(3)	(4)	(5)	6=3+4+5	7
Gas pipeline and Gas plant with Oxygen Compressor Vacuumed unit (fully functional unit)			1 st year after warranty: 2 nd year after warranty: 3 rd year after warranty: Total:			CGST/SGST

- * Breakup of the price of individual items of the items mentioned at col. (3) above should be mentioned separately at Annexure IXA2
- ** The cost of turnkey shall include any specific accessories/equipment required for installation/commissioning and . In case of turnkey, the details of accessories/equipment are to be mentioned.
- *** CGST/SGST which will be chargeable on the price (3) shall be mentioned separately in column 7 above.

Date:

	Rates should be quoted both in figures & words for each item and if there is any discrepancy, e quoted rates in words will be taken for evaluation.
2.	The tenderer has to mention the make / brand, specification, warranty of all the items in turn key.

Place:

(Agreement, Warranty and CMC **Undertaking**)

ANNEXURE – X

(Refer clause no. 7.1.2)

AGREEMENT

THIS AGREEMENT IS MADE AT	THIS THE DAY OF	2014
	<u>BETWEEN</u>	
Name of the Supplier with full address		
Here in after called the "Supplier(s)	" as 1 st Pa	nrty
AND		
Superintendent, SCB Medical College Hospita	ıl-Cuttack	
herinafter called the "PURCHASER"	as 2 nd Party.	
Relying on the documents and represundertake the responsibilities of sell and purchereinafter laid down.		
And whereas the 2 nd party "Purchaser(s)	" is willing to purchase	
Name of the Item:		
Specifications: As per specifications laid down in	n the Tender terms & condit	ions
The Supplier(s) has agreed to sell the requirements and their / his offer dtd. them operative at the destination mentioned in the mentioned against each.	and the Suppli	er(s) has also agreed to install to mak
Description of goods Qty	Price	<u>Total</u>
The price / cost of the item also include the follow 1. Insurance 2. Freight 3. Transportation 4. Customs duty / Excise duty	wings in addition to above.	

- 5. Charges for documents, instructions manual, tools
- 6. F.O.R. at the destinations mentioned in the consignee list
- 7. Training to doctors & technicians.
- 1. Maintenance of the system includes all accessories supplied and their spare parts required during comprehensive warranty period of three year at free of cost from the date of successful installation and satisfactory functioning of the system at the site.
- 2. Installation and commissioning of the system by the Supplier's engineer at site.

3. Any other charges including loading & unloading, packing & forwarding etc. will be paid by the Supplier(s) till the completion of the installation and turnkey job if any.

CMC cost for next 7(seven) years after the warranty period shall be paid after completion of the warranty period (on a six monthly basis).

TERMS AND CONDITIONS:-

PRICE:

Only the price quoted by the Supplier(s) in his / their financial proposal will be the price for payment and no other price escalation will be allowed at any circumstances.

SUPPLY

The supply should be completed within 60 days from the date of issue of purchase order unless otherwise specified. If no supply is received even after 60 days or 88 days with liquidated damage from the date of issue of the purchase orders , such orders will stand cancelled automatically without further notice. Penalties shall also thereafter be applied to the tenderer as specified under Penalty. The approved firm shall also suffer forfeiture of the EMD and Performance Security Deposit.

LIQUIDATED DAMAGE:

The SuperintendentSCB MCH Cuttack may allow extension for a maximum period of 4 (four) weeks (28 days), after the stipulated date of supply (i.e. 60 days) with a penalty of 0.5% which will be deducted from the purchase order value as "Liquidated Damage", for each week (7 days) of delay upto a maximum 2% on the value of the goods.

If the supplier fails to complete the supply within the extended period, i.e. 60 days after being allowed by the purchaser, no further purchase order will be placed to the firm for the said item including forfeiture of the Performance security and the concerned firm will be blacklisted for two (2) years from the date of issue of letter for the said item.

TERMS FOR PAYMENT:

- A. The payment(s) shall be made by purchaser in Indian currencies. No advance payments towards cost of supply and installation of MGPS etc. will be made to the tenderer. No payment will be made to the supplier if he has not deposited the unconditional performance security in shape of Bank draft/bank gurantee amounting to 10% of the purchase order value which will be deposited with the O/o of the concerned congnee.
- **B.** Before release of payment the supplier has to submit the signed agreement, warranty documents of equipment and turnkey job to the consignee. The undertaking as per Annexure XI & XII will also be submitted to the consignee with photocopies to the purchaser.
- C. The payment of CMC will be made on six monthly basis after expiry of the warranty period and signing of the CMC agreement.

UP-TIME BALANCE:

The Supplier (s) shall provide guarantee 95% uptime i.e. 41610 hours (95% of 43800 Hours) during comprehensive warranty period. The up time guarantee will be 95% as calculated here under i.e. 8322 hours per annum.

1 year – 365 days (24 working hours per day)

Total working time per annum -365 days x 24hrs = 8760 hrs.

Up time guarantee $-0.95 \times 8760 \text{ hrs.} = 8322 \text{ hrs. per annum.}$

For 3 years warranty = 8322×3 hrs

Any uptime less that specified above will be compensated by the Supplier(s). The consignee shall maintain a log-book in the format provided by the Supplier(s) which will indicate usage of the equipment every day and for calculation of up-time.

DOWNTIME PENALTY CLAUSE:

During the Guarantee / warranty period, desired uptime will be 95% of 365 days (24 hour) if downtime exceeds 5%, penalty in the form of extended warranty, double the number of days for which the equipment goes out of service will be applied. The vendor must undertake to supply all spares for optimal upkeep of the equipment for TWO YEARS from the date of installation at the site. If accessories / other attachment of the system are procured from the third party, then the vendor must produce cost of accessory / other attachment and the CMC from the third party separately along with the main offer and the third party will have to sign the CMC with the consignee if required.

In no case equipment should remain in non-working condition for more than 7 working days.

The manufacturers or their agents are required to submit a certificate that they have satisfactory service arrangements and fully trained staff available to support the uptime guarantee.

COMPREHENSIVE MAINTENANCE CONTRACT:

The supplier will provide CMC for 7 (seven) years after the completion of 3 years comprehensive warranty period.

<u>INSTALLATION AND DEMONSTRATION</u>:

The installation and demonstration of the equipment shall be done by the Supplier(s) at free of cost at the installation site of the respective institutions.

TRAINING:

Supplier(s) shall impart adequate training to 2 doctors and 2 technicians at the site / his / their factory / workshop inside / outside India as the case may be at the Supplier(s) cost.

INCIDENTAL SERVICES:

The Supplier(s) shall abide by the terms and conditions under incidental services & the installation of Instrument / Equipment at the destination point (Door Delivery) of consignee and demonstrate the machine in working condition to the receiving authority.

Furnishing of tools required for assembly and / or maintenance of the supplied Instruments / Equipments.

Furnishing of detailed operations and maintenance manual literatures for each appropriate unit of supplied Goods.

Performance or supervision or maintenance and / or repair of the supplied Goods, for a period of five (5) years i.e. the warranty period, provided that this service shall not relieve the Supplier of any warranty obligations under this contract.

The successful supplier shall replace any part or whole system as may be necessary in the event of damage during transit or found damaged on arrival or during installation of the system or if found not in conformity to the specifications at his / their own cost.

The tenderer should furnish an undertaking to the effect that he / they should take responsibility after sales service of the equipments / instruments to be supplied by him / them and to provide spare parts for up keeping the Equipments / Instruments for a minimum period of 10 years from the date of installation.

The price of the instruments / equipments is inclusive of warranty for a period of 3 (three) years commencing from the date of installation. The tenderers shall submit undertaking for C.M.C(Comprehensive Maintenance Cost) for a period of 7 (seven) years from 8th year onwards duly signed by authorised signatories for the execution at appropriate time (Annexure – X & XI).

SPARE PARTS:

The supplier will provide all the spare parts, repairing & maintenance by its trained personnel after the warranty period (3 years) during the CMC period 7 years.

COMPREHENSIVE WARRANTY:

This warranty shall remain valid for three (3) years from the date of installation & commissioning of the machine / item & must be submitted at the time of installation to the consignee with a photocopy to the purchaser.

The warranty will cover all the parts of the machine or item and any replacement or repair required within the warranty period will be provided by the supplier free of cost at the destination point (Installation point). The supplier will take back the replaced parts / goods at the time of their replacement. No claim whatsoever shall be on the purchaser for the replaced parts / goods thereafter. No traveling allowances or transportation cost will be paid by the purchaser during warranty period.

The Supplier warrants that the Goods supplied under this contract are new, unused, of the most recent or current models and they incorporate all recent improvements in design and materials (even if the advanced facilities are not mentioned in our product specification). The Supplier further warrants that all Goods supplied under this contract shall have no defect arising from design, materials or workmanship (except when the design and / or material is required by the Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the place of final destination.

The Purchaser / consignee shall promptly notify the Supplier in writing / Fax / Telephone of any claims arising under this warranty.

Upon receipt of such notice, the Supplier shall with all responsible speed will repair or replace the defective goods or parts thereof without cost to the purchaser to maintain its UP TIME offered in the beginning of purchase otherwise penal provisions shall apply if the supplier fails to keep up its UP TIME.

If the Supplier, having been notified, fails to remedy the defect(s) within 10 days, the Purchaser may proceed to take such remedial action as may be necessary, like forfeiture of EMD or recovery from security deposit the amount of loss incurred by the purchaser.

GOVERNING LANGUAGE:

The contract shall be written in English language. English language version of the contract shall govern its interpretation. All correspondences and other documents pertaining to the contract which are exchanged by the parties shall be written in English.

DELIVERY OF DOCUMENT:

Four (4) copies of the Supplier invoice / bills showing purchase order number, good's description, quantity, unit price, total amount with stock entry certificate by the consignee.

Photocopy of the Insurance Certificate if any (The Original Certificate is to be given to the Consignee).

Attested Photocopy of Manufacturer's / Supplier's warranty certificate. (The original warranty certificate is to be submitted to the consignee at installation point).

INSURANCE:

For delivery of goods at site, the insurance shall be obtained by the Supplier(s) in an amount equal to 110% of the value of goods from "Warehouse" (final destination) on "All Risks" basis including natural calamities.

PACKAGING:

The supplier shall provide such packaging of the goods as is required to prevent their damage or deterioration during transit to their final destination. The packaging shall be sufficient to withstand without limitation rough handling during transit and exposure to extreme temperature, salt and precipitation during transit and upon storage. All primary packaging containers which come in contact with the item should strictly protect the quality and integrity of the Instruments &Equipments. Packing case size and weights should be taken into consideration, in case of remoteness of final destination and the absence of heavy handling facilities at all points in transit.

The packaging marking shall show the description of quantity of contents, the name of the consignee and address, the gross weight of the packages, the name of the supplier with a distinctive number of mark sufficient for purposes of identification. Each package shall contain:

- i. a packaging note quoting the name of the purchaser
- ii. the number and date of order
- iii. nomenclature of the goods
- iv. schedule of parts for each complete equipment giving part number with reference to assembly.
- v. Name & address of the consignee
- vi. Name & address of the supplier.

TERMS OF CONTRACT:

The **Superintendent, SCB Medical College Hospital-Cuttack**will be at liberty to terminate the contract either wholly or in part without assigning any reason. The tenderers will not entitled to any compensation whatsoever in such terminations.

PENALTIES:

If the successful tenderer fails to execute the agreement and / or deposit the required security within the time specified or withdraws his tender after acceptance of his tender owing to any other reasons, he is unable to undertake the contract, his contract will be cancelled and the Earnest Money Deposit deposited by him along with his tender shall stand forfeited and he will also be liable for all damages sustained by the Superintendent, SCB Medical College Hospital-Cuttackby reasons of such breach, such as failure to supply / delayed supply including the liability to pay any difference between the prices accepted by him and those ultimately paid for the procurement of the articles concerned. Such damages shall be assessed by the Superintendent, SCB Medical College Hospital-Cuttackwhose decision is final & binding in the matter.

If any articles or things supplied by the tenderer have been partially or wholly used or consumed after supply and are subsequently found to be in bad order, unsound, inferior in quality or description or are otherwise faulty or unfit for consumption / use & rusted then the contract price or prices of such articles on full will be recovered from the tenderer, if payment had already been made to him or the tenderer will not be entitled to any payment for that item & no further order will be given to him. For infringement of the stipulations of the contract or for other justifiable reasons, the contract may be terminated by the Superintendent, SCB Medical College Hospital-Cuttack and the tenderer shall be liable for all losses sustained by the Superintendent, SCB Medical College Hospital-Cuttackin consequence of the termination which may be recovered from the Security Deposit made by the tenderer or other money due or become due to him.

Supply of sub-standard items or non - performance of tender terms & conditions will disqualify a firm to participate in the tender for the next five years.

ARBITRATIONS:

In the event of any dispute out of the contract, such dispute should be subject to the Jurisdiction of the High Court, Odisha.

CHANGE OF TERMS AND CONDITIONS:

Any amendment to the terms & conditions and clauses of the agreement if required must be done in writing duly signed by the two parties.

IN WITNESS WHERE OF the parties herein to have set and subscribed their respective hands the day and year first herein above written.

Executed by Purchaser (s) / Consignee Executed by Supplier(s)

In presence of (Witness)

In presence of (Witness)

(Refer Clause No. 11.1 to 11.6 & 13.1)

UNDERTAKING

(To be submitted on Rs.50/- stamp paper)

	Tender ref. No
	Name of the equipment:
	Date of Installation:
	Name of the Consignee:
	Name of the purchaser:
Sir,	
	I / we
hereby	declare that
1.	I / we am / are the manufacturers / authorized agents / distributors of
2.	I / we do accept / agree for the all clauses including the warranty 3 years
	followed by 7 years CMC) and payment terms and conditions of this tender.

- 3. I / we do hereby confirm that the prices / rates quoted are fixed and are at par with the prices quoted by me / us to any other Govt. of India / Govt. of Odisha Hospitals / Medical Institutions. I / we also offer to supply the stores at the prices and rates not exceeding those mentioned in the price bid.
- 4. I / we agree to abide by my / our offer for a period of 365 days from the date of approval of the tender.
- 5. I / we have necessary infrastructure for the maintenance of the equipment and will provide all the accessories / spares as and when required.
- 6. I / we also declare that in case of change of Indian Agent or for any other change, merger, dissolution solvency etc. in the organization of our foreign principles, we would take care of the Guarantee / warranty / maintenance of the machinery / equipment and have provided written confirmation for the same.
- 7. I / we shall provide assistance to the consignee in clearance and delivery of store at consignee's stores / premises.

- 8. The demurrage / storage charges, if any, payable to the customs department, due to non-receipt of required documents in time by the hospital / delay due to incorrect entries, mistakes to the documents etc. shall be borne by me / us.
- 9. I / we have carefully read and understood all the terms and conditions of the tender and shall abide by them.
- I / we undertake to get the equipment's repaired within 48 hours of receiving of the complaint from the indenting hospital / consignee failing which a penalty
 @ 1% of the cost may be recovered from the performance security before releasing the same to us after 5 years warranty period.

Signature of the witness Name & address

Signature of the Tenderer Name & address

Dated

Seal of the firm.

N.B: 1. To be attested by Notary Public

2. Only to be submitted by the approved supplier / tenderer to the consignee and a copy to the purchaser before release of payment.

Specification for Medical Gas Pipeline system

Copper pipes (material): Copper Pipes to be used should be solid drawn, seamless, phosphorus deoxidized, non arsenical, half hard, tempered and degreased, manufactured as per BS 2871 part I, Table-X of 1971/ EN 1057 and chemical composition as per BS-6017 of 1981, Table 2, Cu-DHP/EN 1254.

Contractor should provide Manufacturer's Test Certificate of copper pipes for physical properties and chemical composition. Further the pipes should be got tested by a reputed third party e.g.Llyods Register Services and certificate to this effect should also be provided.

Pipe sizes to be used should be as under:

42mm OD X 1.2 mm thick

35mm OD X 0.9 mm thick

28mm OD X 0.9 mm thick

22mm OD X 0.9 mm thick

15mm OD X 0.9 mm thick

12mm OD X 0.7 mm thick

- Copper fittings shall be made of copper and suitable for a steam working Pressure of 17 bar and especially made for brazed socket type connections. All copper fittings will be conforming to EN 1254-1, will be factory de-greased, certified, and individually packed and identified for medical use. Fittings will be kite marked up to 54 mm size.
- All copper pipes and fittings like bends, Tees, reducers and straight couplings should be joined by flux less silver brazing method for copper to copper. Inert gas welding technique should be used by passing Nitrogen gas inside the copper pipes during silver brazing, in order to avoid carbon deposition inside the copper pipes.
- Copper pipes of the diameter below 42mm OD should be installed on the wall with the help of plastic saddles at the required span, and metallic white powder coated clamps should be used for pipe sizes 42 mm OD and above. The recommended spacing for supports are :-
- **Test:** After erection, all the pipes should be cleaned or purged with the help of dry nitrogen gas, & should be tested with dry nitrogen at a pressure of 10 Bar for 24 hours. An anti-confusion test also should be performed.
- **Painting**: All installed pipes should be painted with two coats of synthetic enamel paint &colour. The pipes should also be identified for specific gas name, in typical ISO color code for that gas (white for oxygen; blue for N2O; yellow for vacuum and black for air).
- Storage: All pipes must be supplied duly sealed at both the ends with plastic caps to
 prevent contamination and must be stored in a secure place at site to prevent soiling or
 damage.

FullyAutomatic Oxygen Control Panel

The Fully- automatic type control panel should be suitable for installing bulk "D" type cylinders in two banks (1 duty + 1 standby). Either the left or right hand manifold bank should be designated "Duty" and the Control Panel should automatically changeover to supply the

distribution system from the "Standby" bank when pressure in the "Duty" bank falls to a predetermined level of 7 Kg/cm2.

There should be a 2 stage pressure reduction system to provide an un-interrupted high flow rate (At least 500 lpm) at constant pressure of 60 psig irrespective of the flow variations. The inlet of the 1st stage regulator should be protected from the particulate matter by a wire mesh filter where as the second stage regulator should be protected from the particulate matter by a molded sintered bronze filter.

The system should be complete with Two primary and One secondary stage regulators, Two no. minimum contact gauges for indicating cylinder pressure/ contents which should also provide electrical signal in the event of exhaustion of a gas bank, One Indicating line pressure gauge, all the valves, connectors, instruments/accessories and automatic visual alarm system and indicators to indicate exhaustion of a cylinder bank.

Fully Automatic N2O Control Panel

The Fully- automatic type control panel should be suitable for installing bulk "D" type cylinders in two banks (1 duty + 1 standby). Either the left or right hand manifold bank should be designated "Duty" and the Control Panel should automatically changeover to supply the distribution system from the "Standby" bank when pressure in the "Duty" bank falls to a predetermined level of 7 Kg/cm2.

There should be a 2 stage pressure reduction system to provide an un-interrupted high flow rate (up to 200 lpm) at constant pressure of 60 psig irrespective of the flow variations. The inlet of the 1st stage regulator should be protected from the particulate matter by a wire mesh filter where as the second stage regulator should be protected from the particulate matter by a molded sintered bronze filter.

The system should be complete with Two primary and One secondary stage regulators, Two no. minimum contact gauges for indicating cylinder pressure/ contents which should also provide electrical signal in the event of exhaustion of a gas bank, One Indicating line pressure gauge, all the valves, connectors, instruments/accessories and automatic visual alarm system and indicators to indicate exhaustion of a cylinder bank.

Oxygen Manifold – Indigenous 10x10

Oxygen manifold should be extendable type size 2 X 6 for bulk oxygen cylinders. Manifold should be suitable to withstand a working pressure of 145 Kg / cm2 and should be tested hydraulically at 280 Kg/cm2 pressure. Manifold should also have high pressure copper annealed tail pipes with one end having Brass adaptor suitable for oxygen cylinders and other end suitable for Manifold Non-Return Valves. Manifold should also have 12 numbers brass non-return valves one each for individual oxygen cylinder. Manifold middle frame of 2 X 6 cylinder manifold size should be made with circumferential mild steel flat duly powder coated with black color, along with chain for individual bulk O2 cylinder.

Oxygen Emergency Cylinder System.2x2

A single cylinder emergency system with Pressure Regulator and quick connect arrangement through a self sealing valve for Oxygen should also be provided. Each cylinder should be connected to the manifold through a tail pipe and Non Return Valve.

Compressed Air System

The Medical compressed air system shall be consisting of two no. non lubricated, reciprocating type, air cooled, Air Compressors with Motors, Electrical switch gear and automatic control system, after cooler moisture separator, air drier, pressure regulator cum filter, interconnecting piping with necessary valves and fittings.

• **Specifications:**

AIR COMPRESSOR

Make: Ingersoll- Rand/ Anaest Iwata

Bore & Stroke : 5" & 3" x 3.5"

Piston Displacement: 37 CFM

Working Pressure: 125 PSI/ 8.75 Kg/cm2

Actual Delivery: 26.9 CFM

RPM: 930 (max.) Motor: 10 HP (Max) Receiver: 300 Lt.

Electricals: 400V, 3HP, 50 HZ

Type Motor : TEFC Type Starter : DOL

Air Compressor is supplied with a receiver capacity 300 ltr. along with Suction Filter, Motor Pulley, V-Belt, Belt Guard, Safety Valve, Pressure Gauge, Drain Valve, ASSC.CSC regulation,

TEFC squirrel cage induction motor with DOL Starter

• Starter

<u>Type</u> Star/Delta with

Single phase presenter and overload Protection fitted with in the cubical panel

• Air Receiver

Type Vertical Capacity 300litre Qty. One

Working pressure 8.5 Kg/cm²

Vacuum System VACUM PUMP

Make: Ingersoll- Rand/ Anaest Iwata/ Similar Make

The central vacuum plant should be provided with two vacuum pumps, air cooled type, (Model 15VX, Ingersoll Rand make), each pump having piston displacement of 149.6 cfm. Free Air delivery to suction Approx. 90% of P.D. at maximum working pressure of 29" of Hg or 730mm of Hg, single stage - three cylinder, fitted with M.S. channel frame complete with V-Belt drive, belt guard etc.

BORE &STROKE : 5 ½" & 5½" & 5½" x 4"

Piston Displacement: 149.6 CFM

Vacuum: 29.20 HG RPM: 900 (Max.) Motor: 10 HP

Electricals: 400V, 3PH, 50 HZ

Type Motor : TEFC Type Starter : DOL

It is supplied with on a Base Plate along with Motor Pulley, V-Belt, Belt Guard, TEFC squirrel cage induction Motor with DOL Starter.

Vacuum Receiver Capacity 1000Ltr along with Vacuum Gauge, Vacuum Switch, Silencer, Filter.

Vacuum System -

Vacuum system should also have the followings

Electric motor 440 volts, 3 phase. (High Efficiency) - 2 no.

- 1½" BSP stainless steel ball valve with PTFE seat & quarter turn

openable handle for pump isolation - 2 no.

- Silencers at Vacuum pump discharge end - 2 no.

- Vacuum filter bacterial micro vee type - 1 no.

- One 1000 ltr water capacity vacuum receiver made of - 1 set

4" dia vacuum gauge on receivers
 Inter connection copper piping complete with accessories
 1 lot

(suitable size fm 12mm to 54mm).

VACUM RECEIVER - 1 No.

Vacum Receiver Capacity 1000 Ltr. With vacuum gauge.

Electrical Control Panel for Air Compressors & Vacuum

Common electrical control panel for vacuum pumps and air compressors along with automatic switch gear system with bus bar arrangement, for motors two vacuum switches, two air pressure switches, complete with inside wiring & cabling, electrical contactors with single phase preventing units, 1 main voltmeter, 4 ammeters for vacuum pumps and Air System, 4 hour meters and cascading & sequencing system for vacuum pumps and air compressors. The panel should be provided with double incomer facility.

Detailed technical data sheet along with schematics to be submitted and got approved by our electrical department.

Terminal Units (Gas Outlets) with adaptors for O2,C.Air, Vacuum:

The medical gas terminal unit should conform to BS EN 737-1:1998 and accept probes to BS5682: 1984 or NFPA 99. or DIN standards The wall mounted first fix assembly should consist of brass pipeline termination block with copper stub pipe permanently secured bet Contractor a back plate and a gas specific plate which allows limited radial movement of the copper stub to align with the pipeline. The first fix should incorporate a maintenance valve (except for vacuum) and a test plug. The test plug provides an effective blank to enable carcass pressure testing. The second fix plastic components should be moulded from fire retardant polycarbonate with the pin index permanently moulded into the gas specific socket. The socket assembly retains a capsule assembly, a sealed containing the check valve and probe 'O' ring seal. This replaceable capsule assembly enables all working parts subject to Contractor and tear through usage to be replaced as a factory tested assembly, thereby reducing maintenance time. Medical gas terminal units should accommodate a variable plaster depth up to a maximum of 16mm.

Terminal units should be gas specific and only accept the correct medical gas probe. Gas specific components should be pin-indexed to ensure that a correct gas specific assembly is achieved so that in normal course of dismantling for repair or maintenance, parts from other gases cannot inadvertently be used. Wall mounted terminal units should incorporate an anti-rotation pin to engage with connected downstream medical equipment ensuring correct orientation.

Terminal units installed in booms or pendants should be attached to their respective flexible gas hose by a gas specific NIST fitting and anti-rotation pins should not be fitted. Terminal units located in a rigid installation should be capable of single-handed insertion and removal of the correct BS5682: 1984 medical gas probe. The terminal units should have a three-year warranty, subject to the recommended minimum routine maintenance operations being carried out by correctly competent persons.

The Medical Gas Terminal Units should be CE marked under the Medical Devices Directive 93/42/EEC with approval from notified body no. 0301 (BVQI) if HTM compliant.

Isolation Valves

The valves should be ball type with PTFE seat, Brass body with Nickel plating having quarter turn handle opening. Sizes suitable for 12 mm OD copper pipe to 42 mm OD copper pipes with screwed ends. These should have brass adopter suitable for copper pipe and should be manufactured by an ISO 9001 certified company, duly degreased and **certified for use with oxygen**. Please specify the make being offered otherwise we shall be free to choose any one from the above makes. The valves should be degreased for medical application and certified to this effect by the supplier.

Non lubricated 90° turn level brass valve with end fittings or adaptors for medical gas applications fitted with brass end connectors on both sides for adaptation of pipes.

(15mm - 10 nos., 22mm - 8 nos., 35mm - 1 no. & 42mm - 3 nos.)

Valve boxes

(2 Gas Valve Box, 3 Gas Valve Box, 4 Gas Valve Box)

Valve boxes are provided for user to have access in an emergency or maintenance purpose. These are equipped with isolation valve and pressure gauges installed in a metal enclosure. The door with magnetic catch should permit valve in open position only. If valve are closed it should not be possible to lock the door.

In an emergency user can access to operate these valves without key by breaking panel glass to shut off the service. These are designed for single & multi service as per the requirement. All valves are clearly labeled with flow direction & service.

The valve box is fabricated from CRCA sheet duly powder coated. It has four mounting holes to fix on the wall with help of four screws. The door of the valve box is fitted with glass to break open in emergency. The complete enclosure is fully ventilated.

The line pressure of the area can be monitored through pressure & vacuum gauge fitted down stream of the valve in the valve box.

The valve used in the valve boxes are ball type with quarter turn action for closing & opening of service. These are of female parallel threads to ISO 228 & flat tighten brazed type union. All components are degreased for oxygen service prior to assy. The specification of the valve & gauges are as given below:-

Ball valve:-

Body Material : Brass Alloy

Ball : Brass Alloy hard chrome plated to enhance the life.

Seal : PTFE

Handle : Rugged steel with PVC grip.

Max. Working pressure : 20bar Size : 15NB -54NB

Pressure gauges

Pressure Range : 0-10 kg/cm2

Dial Size : 50mm

High Pressure TEE, Manifold Block, Copper Tubing, Manifold NRV (Complete Set), Tail Pipe to be connected to Manifold Frame

Wall Bracket with Chain and Holder for holding cylinders of various sizes

Medical Gas Area Alarm Panel

(2 Gas Alarm, 3 Gas Alarm, 4 Gas Alarm)

The medical gas central alarms should be capable of monitoring a maximum of 6 medical gas services by means of pressure sensors which detect deviations from the normal operating limits of either pressure or medical vacuum.

Each gas service should be displayed by colored LED's to show 'Normal' (green), 'Low' and 'High Pressure' (red) conditions. Medical vacuum systems should be displayed in the 'Normal' (green) and 'Low Vacuum' (red) conditions only. Failure indicators should be displayed by flashing lights and normal indications should be steady. Each LED block indicator should be a plug-in component with individual long life LED's connected in parallel in 2 banks to provide duplex circuits.

An audible warning should sound simultaneously with any failure indication and a mute facility should be provided. Following a mute selection the audible should resound after approximately 15 minutes, or should operate simultaneously should a further alarm condition occur. A maintenance 'Mute' switch should be provided internally to the panel for use during maintenance which results in prolonged pipeline or plant shutdown. This facility should automatically reset when the gas service returns to normal.

The alarm panel should have a 'test' facility to prove the integrity of the internal circuits, LED's and audible warning. The alarm panel should incorporate a volt free normally closed relay to allow for interconnection to either a medical gas central alarm system or an event recording circuit of a building management system.

Each alarm should provide a green LED to indicate that electrical power is available at the panel and a red LED to indicate 'System alarm'. In the event of an electrical power supply failure the 'System alarm' LED should illuminate (flashing) and the audible warning should be delayed for 20 seconds to enable standby generator tests.

Line contact monitoring circuits should be provided to constantly monitor the integrity of the input sensors and interconnecting wiring. In the event of any fault the line contact monitoring circuits should initiate the specific gas service failure indication, a 'System alarm' indication and an audible warning. Further aids to fault diagnosis should be provided by means of varying flashing rates whilst operating the 'Test' switch.

The Medical Gas Area Alarms should be 'CE' marked to medical device directive (93/42/EEC).

Oxygen Flow meter & Humidifier Bottle - "Indigenous Good Quality"

Back Pressure Compensated Flow meter should be of accurate gas flow measurement and Control within a range of 0-15 litres per minute for use in a variety of respiratory therapy gas delivery system. The flow tube and shroud components should be made of good quality plastic with metal body. Flowmeter should be supplied with reusable Polycarbonate transparent bubble through humidifier bottle.

Ward Vacuum Unit Wall Mounted Type

The ward vacuum unit should include vacuum regulator along with 0 - 760mm of Hg vacuum gauge, 600 ml capacity reusable plastic collection bottle with overflow safety trap along with wall mounting clamp.

Theater Vacuum unit Trolley mounted type for operation theatre

The unit should include one regulator vacuum gauge mounted on a trolley stand, having two reusable each 2000 ml plastic collection bottles mounted on the base of trolley unit and connected with regulator & low pressure tube inter-connections.

High pressure tube

It should be imported colour coded for individual services, antistatic rubber tube, as per ISO standards. White for Oxygen, Black for Compressed Air and Yellow for Vacuum.