



OFFICE OF THE
PRINCIPAL D.G KHAN MEDICAL COLLEGE/ TEACHING
HOSPITAL DERA GHAZI KHAN
PH.NO-064-9260631 FAX NO.064-9260632



MINUTES OF PRE-BID MEETING REGARDING INSTALLATION & COMMISSIONING OF MEDICAL GASES PIPELINE SYSTEM FOR THE SCHEME "ESTABLISHMENT OF EMERGENCY & OPD BLOCK AT TEACHING HOSPITAL D.G.KHAN HELD ON 09-03-2026 AT 11.00 AM

D.G.Khan Medical College D.G.Khan advertised a tender in Newspapers on 04-03-2026 for the Procurement of biomedical equipment. Detail is as follows:

Sr.#	Bid Reference No.	Name of Equipment
A.	247039TO70920261527	INSTALLATION & COMMISSIONING OF MEDICAL GASES PIPELINE SYSTEM

A Pre-bid meeting for subject tenders was held on 04-03.2026 at 11:00 AM in the Committee Room of d D.G.Khan Medical College D.G.Khan **Chairmanship of Principal D.G.Khan Medical College D.G.Khan Prof.Bilal Saeed.**

1. The following attended the meeting.

Sr. No	Name	Designation	Signature
1	Prof. Dr.Bilal Saeed Principal D.G Khan Medical College D.G Khan	Chairman	
2	Dr. Mansoor Ahmad Afghan Medical Superintendent Allam Iqbal Teaching Hospital D.G. khan.	Member	
3	Dr. Wahid Saleem Associate Professor of ENT D.G Khan Medical College D.G Khan	Member	
4	Director Finance D.G.Khan Medical College/Allam Iqbal Teaching Hospital D.G.Khan	Member	
5	Dr.Syed Austar Abbas Naqvi Associate Professor of Anesthesia D.G Khan Medical College, Dera Ghazi Khan	Member/End User	

6	Mrs. Sara Fatima Qaisrani Bio-Medical Engineer D.G Khan Medical College, Dera Ghazi Khan.	Member	
7	Dr. Muhammad Faisal Mahboob Pharmacist Allama Iqbal Teaching Hospital D.G Khan	Member	

PROCEEDINGS:

2. Meeting started with the recitation from Holy Quran. All the participants and representatives of the prospective bidders were welcomed. The list of participants is attached as **Annex-B**.

3. Participants were briefed that a number of tenders for the Procurement of Subject Equipment for FY 2025-26 were advertised in Newspapers on **04-03-2026** vide IPL number 2256 and one-Punjab Acquisition & Disposal System (e-PADS) vide No(s). 2470391070320261527 through which e-Bids were invited from Bidders i.e. Manufactures / Sole Agents / Authorized Agents of Foreign Principals registered on e-Punjab Acquisition & Disposal System (e-PADS) as per single stage two envelope bidding procedure as per PPR-2014 & Regulations framed there under. The tenders were also uploaded on the websites of Punjab Procurement Regulatory Authority, Punjab Lahore and D.G.Khan Medical College D.G.Khan.

4. The Pre-Bid meeting in line with aforementioned advertisement held on 04-03-2026 to clarify the queries of the prospective bidders. The minutes of pre-bid meeting are addendum to bidding documents as per advertisement. The salient points of the advertised bidding documents were apprised to the participants.

5. During the meeting, the technical drawing of the proposed medical gas pipeline system was formally handed over to all participating firms. The purpose of sharing the drawing was to ensure that all firms clearly understood the technical layout, scope of work, and installation requirements for the project. The BOQ was also discussed in detail. Each item included in the BOQ was reviewed collectively to ensure clarity regarding specifications, quantities, and scope of supply and installation.

6. The house was opened for discussion. After detailed discussion & due deliberations, following were discussed and decided:



S#	Existing clause/clarification sought	Amendment in clause/clarification
I.	Prospective Bidders requested that single quality certificate should be required among FDA,CE(MDR) & MHLW instead of FDA mandatory for others-instead Single quality certificate should be required among FDA,CE(MDR) & MHLW,ITM 2022 or latest, however, ISO 7396-1 or latest.	It is decided that single quality certificate among FDA,CE(MDR) & MHLW instead of FDA mandatory for equipment. In addition, the firms shall also submit ISO ITM certification whichever is applicable along with all other necessary and relevant standard certifications applicable to medical gases and pipeline systems to ensure compliance with recognized quality and safety standards.
II.	Prospective Bidders requested warranty should be 03 years excluding consumables.	Request was denied and it is decided that warranty would be 05years including all consumables as per SBD.
III.	Past Performance: The 100% of tender quantity of quoted product (Must include Manifold System, Gas Outlets, Air Plant & Vacuum Plant) must have been installed in Pakistan The bidder shall submit 08 or above, purchase orders, installation report and satisfactory performance certificates from public & also consider private sector institutions bed capacity above 200 where quoted machine are installed and operational (Must include Manifold System, Gas Outlets, Air Plant & Vacuum Plant).. The firm should have at least 10 years market sale history in Pakistan of the quoted brand.	It was unanimously decided by the participant that The bidder shall submit 08 or above, purchase orders, installation report and satisfactory performance certificates of quoted product from public & also consider private sector institutions bed capacity. the quoted system installed and operational (Must include Manifold System, Gas Outlets, Air Plant & Vacuum Plant).. 08No.of purchased orders as past performance is mandatory regardless of the years of market sale history.
IV.	Financial Positioning Average annual financial turnover for last three financial years must be 1000million	Financial positioning shall remain same as per advertise bidding documents.

Note: In case of any discrepancy in numeric value and alphabetic value, alphabetic value shall prevail.

7. Rest of the Terms & Conditions of already advertised tender/bidding documents shall remain same.

8. The BOQ for the tender and specifications with finalized values is also attached as Annex-C

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The meeting ended with the vote of thanks from chairman.



Dr. Wahid Saleem
Associate Professor of ENT
D.G Khan Medical College D.G Khan



Director Finance
D.G.Khan Medical College/Allam Iqbal
Teaching Hospital D.G.Khan



Mrs. Sara Fatima Qaisrani
Bio-Medical Engineer
D.G Khan Medical College, Dera Ghazi
Khan



Dr. Faisal Mehboob
Pharmacist
Allama Iqbal Teaching Hospital
Dera Ghazi Khan



Dr. Syed Astar Abbas Naqvi
Associate Professor of Anesthesia
D.G Khan Medical College, Dera Ghazi
Khan
(End User Concerned)



Dr. Mansoor Ahmad Afghan
Medical Superintendent
Allam Iqbal Teaching Hospital D.G.
khan



PROF. DR. BILAL SAEED
Principal

D.G Khan Medical College/Hospital
Dera Ghazi khan
(Chairman)





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Annex-C

PVMS AND BOQ OF CENTRAL MEDICAL GAS PIPELINE

Technical Specifications

The given below is the designed turnkey solution of complete hospital, in case of requirement of complete new system, procuring agency need to define the items required and quantities of each items as per the bed strength of hospital.

In case of requirement of any of the given below equipment, with in the running/equipped hospital, Procuring agency may select the required items and define the quantities as per its actual requirement.

Applicable Standards / Configuration

The Medical gas Pipe line should strictly comply with the international standards and configuration for requirements of HTM 2022 or latest, however, ISO 7396-1 or latest can also be used. It would be the choice of the bidder for adherence to any standard which would be mentioned in the bid. The objectives are to ensure the following:

- Non-Interchangeability Between Different Pipeline Systems By Design;
- Continuous Supply Of Gases And Vacuum at Specified Pressures By Providing Appropriate Sources;
- Required Flow Rates In Particular Areas/ Outlets;
- Use Of Suitable Materials;
- Cleanliness Of Components;
- Correct Installation;
- Provision Of Monitoring, Controls and alarm at single site.
- Correct Marking Of The Pipeline System;
- Following Of Testing And Commissioning Protocols;
- Maintaining The Purity Of The Gases Delivered By The Pipeline System;
- Correct Operational Management.

S. No	Item Description /Specification
1	AUTOMATIC MANIFOLD FOR OXYGEN QTY: 01
	AUTOMATIC MANIFOLD FOR OXYGEN. (ISO)
	The Manifold shall be a fully automatic type & shall switch from "VIE" tank to Cylinder Manifold and Vice versa without fluctuation in delivery supply line pressure & without the need for external power.
	AUTOMATIC MANIFOLD FOR OXYGEN. (HTM)
	The Manifold shall be a fully automatic type & shall switch from "VIE" tank to Cylinder Manifold and Vice versa without fluctuation in delivery supply line pressure with external power for switching from VIE to cylinder Manifold or Vice Versa pure sine wave UPS with 4 hrs. Backup should be required.
	Note: Procuring agency is not authorized to make discretions between HTM or ISO standards, It would be the choice of the bidder for adherence to any standard which would be mentioned in the bid.
	Capacity:

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	(2 x 10) with capacity of 120, m3/h or more. @ 4-5 bar
	Function:
	Fully automatic self-contained shuttle-valve/Solenoid valve (Ups Mandatory for Solenoid valve).
	Microprocessor controlled LCD/LED display unit for monitoring and alarm of different parameters (High, low Pressure) For VII connection and cylinder manifolds.
	Units of pressure measurement (psi/Pa/bar).
	Complete with relief valve, Emergency shut off valve and battery / bank alarm for left and right side cylinder
	VII Connection with shut off valve, controlled by the manifold cabinet.
	The primary source of Oxygen will be the VII System.
	The complete automatic shifting from VII System to Manifold cylinders and Vice versa automatically with display of pressures for each source on manifold.
	Equipped with NIST Connection/Test Connection.
2	AUTOMATIC MANIFOLD FOR NITROUS OXIDE
	The Manifold shall be a fully automatic type & shall switch from left and right bank without fluctuation in delivery supply line pressure & without the need for external power./ Delivery supply line Pressure with external power for switching between cylinder Manifold pure sine wave UPS with 4 hrs. Backup should be required
	Capacity:
	(2 x 5) with capacity of 30-40 m3/h.
	Function:
	Fully automatic self-contained shuttle-valve/Solenoid valve (Ups Mandatory for Solenoid valve).
	Microprocessor controlled LCD/LED display unit for monitoring and alarm of different parameters (High, low Pressure) for cylinder manifolds.
	Units of pressure measurement (psi/Pa/bar).
	Complete with relief valve, Emergency shut off valve and battery / bank alarm for left and right cylinder bank.
	Equipped with NIST Connection/Test Connection.
3	GAS OUTLETS (BS/DIN SYSTEM)
	Gas outlets, complete in Box/casing gas Specific, Self-scaling valve, indexed to eliminate interchangeability /erroneous tapping of gas, and cover plate as per Standard Design requirements of the bidder with following color coding.
i	Oxygen White 290
ii	Nitrous Oxide Blue 06
iii	Compressed Air 4 bar Black/ B&W Stripes Vacuum. Yellow 49
iv	Vacuum Yellow 280
v	AGSS Passive Venturi based 06
4	BED HEADS UNIT FOR ICU (Local) QTY: 22
	Each unit consists of: 1,500 mm
	Horizontal type with railing
	Built in over bed Light with ON/OFF switch.
	Built in reading Light with ON/OFF switch.
	Provision for Nurse Call/ Alert Button
	Gas outlets Provision (1x Vacuum, 2x Air, 2x Oxygen).
	Electrical provisions;
	Electrical sockets: 6 Nos. & 2Nos. Multi Pin Plug and above schuko/ F-type All wiring conforms to standards, ground/earth

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	Separate ducts for Electrical & Gas Pipes.	
5	BED HEAD UNIT FOR WARDS & PRIVATE ROOMS (Local)	QTY: 248
	Each unit consists of: 1,000 mm and above	
	Horizontal type	
	Built in over bed Light with ON/OFF switch.	
	Built in reading Light, with ON/OFF switch.	
	Provision for Nurse Call/ Alert Button	
	Gas outlets Provision (1x Vacuum, 1x Air, 2x Oxygen).	
	Electrical provisions:	
	Electrical sockets: 4 Nos. & 2Nos. Multi Pin Plug and above schuko/ F-type All wiring conforms to standards, ground/earth	
	Separate ducts for Electrical & Gas Pipes.	
6	ALARM AREA WITH REMOTE SENSORS	
	Digital Display Alarm area with remote sensors	
	Individual display and sensor module.	
	Self-diagnostic & error message display readable for ease of maintenance psi, kPa or bar readout	
	Test & Mute Button, low alarm condition.	
i	02 Gases	qty: 14
ii	03 Gases	qty: 04
iii	04 Gases	qty: 01
iv	05 Gases	qty: 05
7	Master Alarm with Remote Sensors	QTY: 01
	Digital Display Alarm area with remote sensors	
	Individual display and sensor module.	
	Self-diagnostic & error message display readable for ease of maintenance psi, kPa or bar readout	
	Test & Mute Button, low alarm condition.	
8	MULTIPLE ZONE VALVE BOX	
	Multiple zone valve box for two/three/four/five/six gases. (Procuring agency to specify in accordance with the requirement)	
	Each wall type zone valve box shall consist of the following Components. A steel valve box/Aluminum which can house two to six shutoff ball valves.	
	Pressure gauges to display the pressure of various gases. NIST Connection)	
i	02 Gases	qty: 14
ii	03 Gases	qty: 04
iii	04 Gases	qty: 01
iv	05 Gases	qty: 05
9	OXYGEN & AIR FLOW METER WITH S.S PROBE	QTY: 300
	For Adults	
	Oxygen Flow meter complete set from 1 to 15 l.p.m with unbreakable, autoclavable humidifier bottle, S.S probes.	
	For Neonate (Dial Type)	

10 VACUUM REGULATOR WITH GAUGE / DIGITAL QTY: 200

The Vacuum Controller should be connected to Wall Source of Vacuum using direct probe or rail mounting System. Vacuum Levels 0 to 750 mm Hg complete with 1 Liter suction Bottles, Unbreakable/ Autoclave able (2 each). Complete with overflow safety system.

For neonate / Peads (0-150 mmHg) or better.

11 COPPER PIPING

Supply and installation of seamless medical graded(ISO133481EN.) copper pipe, deoxidized and degreased along with required fitting etc., various sizes /diameter as per Drawing of the project and Design standard of the bidder with matching color indications of out lets. The sizes will vary from minimum of 12mm to onward as per design offered by the firm to ensure the pressure and flow 12,15,22,28,35,,42,54 and 76 mm;

Oxygen: White

Air: Black/ B&W Stripes

Nitrous: Blue

Vacuum: Yellow Carbon Dioxide Grey stripes

i	12mm	3280 FT
ii	15mm	8500 FT
iii	22mm	4000 FT
iv	28mm	950 FT
v	35mm	500 FT
vi	42mm	150 FT
vii	54mm	350 FT
viii	76mm	200 FT

12 TRIPLEX MEDICAL VACUUM SYSTEM QTY: 01

The capacity of Vertical Vacuum System is 1300 L./min per vacuum pump

Vacuum level @ -450 mm Hg.

Vibration Isolation, Pads, Hour meters, Circuit barkers, Vacuum pump run lights.

Tank mounted / Verticle Tank system. Complete with filters.

Verticle Tank Capacity 2500 L.

13 MEDICAL COMPRESSED AIR STATION

Medical Air Plant with Breathable Air. Elimination of Toxic Gases such as carbon dioxide, Nitrogen dioxide, Nitrogen monoxide, Carbon monoxide; and other pollutants as per European Pharmacopeia standard system compliance to MIDD clause II B.

Compressor

Duplex Compressor unit.

Screw type

Capacity of air producing approximately minimum of each compressor: - 1450 liters/min/FAD at 10 bars or better.

Mounted on anti-vibration base.

Reservoir

Compatible medical grade.

Minimum recommended water capacity of the tank is 1000 L.

Vertical type.

Galvanized internally/Epoxy coating CE certified with auto drain.

Mininum 10/13 bars out put pressure of tank.

Air Dryer

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Capacity suitable according to the compressor output as per ITM /ISO standard.
Filtration System
Clean Medical Grade Air supply in accordance with the requirements of ITM/ISO standards.
Consisting of water separator, Pre-filter /Post filter (As per ITM /ISO.)
Mounted with shut-off valves on an assembly panel.
Parallel Connections of the filters. This will make it possible to exchange filter without interrupting the air supply.
Flow / filtering rate according to the compressed air output.
Reducer Panel Compressed Air
Parallel switched duplex reducer with gauge, safety valve, pressure switch for high and low Pressure and shut off valve with assembly panel size 4 and 7 bar separately.
Complete with distribution block according to requirement, Incl. Shut off valve and pressure gauge for every distribution block, complete assemble panel with incoming and outgoing copper pipe for complete system.
Test point in the system for air quality.
Control
A system should be capable to run air compressor and dryers automatically with warning system with alarm.
Monitoring of alarms conditions for the compressor room.
Complete with all necessary fitting and installation material for smooth running of the system without any interruption.
Power
Power Supply- 3 Phase, 380 -400V/50 Hz.

Special Terms & Conditions

1. The item like manifold, outlet, Area Alarm, Multiple Zone valve Box, should be of same manufacturer.
2. The Vacuum System, medical air compressor and Pendant may be of different manufacturer but should be supplied by the same manufacturer of medical gas pipeline system.
3. All equipment must be according to international safety standard.
4. The color of outlets, piping and cylinder for recognition will be BS type for all the system equipment.
5. The drop outlet/ Connection will be flushed surface. Separate ducts for piping and electrification

Warranty

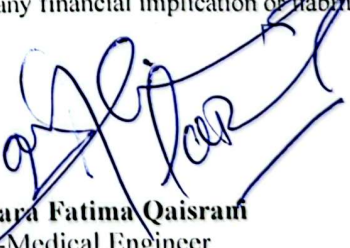
The warranty period shall be of 5 years unconditional for all essential equipment to keep MGPLS functional which include all parts/Consumables of equipment's, (Like seal, kits, pipes fittings, batteries of ups).

Firm will be responsible to maintain flow and pressure in Hospital.

During the period of machine functioning before signing of formal installation of report rectification of error or replacements of faulty part shall be the responsibility of supplying firm without any financial implication or liabilities at the institute or end-user.

The warranty shall start from date of signing of installation report


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 D.G Khan Medical College, Dera Ghazi Khan
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