

**MINISTRY OF EXTERNAL AFFAIRS
(GOVT. OF INDIA)**

**DISTRICT GENERAL HOSPITAL, DIKOYA,
SRI LANKA**

Tender

for

**Installation, Testing & Commissioning of already supplied
Equipment and pipelines of Medical Gas Manifold System
including Supply & Installation of Electric Distribution Panel on
Turn Key Basis at District General Hospital, Dikoya, Sri Lanka**

VOLUME – III

BILL OF QUANTITIES (BOQ)

September 2015



(Consultants & Engineers for Mega Hospitals & Laboratories)
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Tender No. HSCC/SES/MEA/Sri Lanka/MGMS/2015

BILL OF QUANTITIES (BOQ)

PRICE BID

Scope of Works –

Works for Installation Testing and commissioning of already supplied equipment, Copper pipeline and Accessories and Turnkey works of Medical Gas Manifold System(MGMS) should be done as per the balance works of Annexure-I including supply, installation and commissioning of Electric Distribution Panel and AGSS Unit with necessary spares at District Hospital, Dickoya, Srilanka and handover of Complete MGMS to the Hospital.

Part-I

SL. NO.	ITEM DESCRIPTION	UNIT	Q'NTY	RATE (Rs.) (In Figure)	Rate (Rs.) (In Words)	AMOUNT (Rs.)
1.0	Installation, testing and commissioning of Oxygen System :					
1.1	Installation, testing and commissioning of 12+12 Bulk Cylinder Manifold for Oxygen complete with Middle Frame, NRV and Tail Pipes as required as per specifications	Set	1			
1.2	Installation, testing and commissioning of Automatic Oxygen Control Panel with automatic switchover from one bank to other bank of cylinders complete as required with accessories as per specification	No.	1			
1.3	Installation, testing and commissioning of Four-cylinder Emergency system for Oxygen complete as required with accessories as per specification	Set	1			
2.0	Installation, testing and commissioning of Nitrous Oxide System :					
2.1	Installation, testing and commissioning of 2+2 Bulk Cylinder Manifold for Nitrous Oxide complete with Middle Frame, NRV and Tail Pipes complete as required with accessories as per specification	Set	1			
2.2	Installation, testing and commissioning of Automatic Nitrous Oxide Control Panel with automatic switchover from one bank to other bank of cylinders complete as required with accessories as per specification	No.	1			
2.3	Installation, testing and commissioning of Single-cylinder Emergency system for Nitrous Oxide complete as required with accessories as per specification	Set	1			

3	Installation, testing and commissioning of Compressed Air System :					
3.1	Installation, testing and commissioning of Compressed Air System Consisting of 2 nos Air Compressors, each having 15 HP Motor with 57.18 cfm capacity at 8.5Kg/cm2 pressure, Tank Mounted, each Receiver Capacity 1500 ltrs, common 50 CFM Air drier, Pressure Reducing Unit etc. complete as required with accessories as per specification Make- Ingersolrand/Anest Iwata/Equivalent	Set	1			
3.2	Installation, testing and commissioning of Auto Drain System for Air receivers complete as required with accessories as per specification	No.	2			
3.3	Installation, testing and commissioning of 3-Stage Breathing Air Filter for 50 CFM as per ISO 8573-1 complete as required with accessories as per specification	Set	2			
4.0	Installation, testing and commissioning of Vacuum System :					
4.1	Installation, testing and commissioning of 2 nos. of vacuum pumps each having with 7.5 HP Motor with common 2000 litres Receiver, Filters, Electricals, etc. complete as required with accessories as per specification Make-Ingersol-Rand/Anesta Iwata make	Set	1			
4.2	Installation, testing and commissioning of Bacterial Filter suitable for Vacuum Pump system complete as required with	Set	1			
5.0	Installation, testing and commissioning of Gas Outlet complete as required with accessories as per specification					
5.1	Oxygen	No.	141			
5.2	Nitrous Oxide	No.	11			
5.3	Medical Air 4 Bar	No.	45			
5.4	Vacuum	No.	141			
5.4	AGSS Outlets as per NFPA99 standard	No.	7			

6	Laying of remaining (As per Annexure-I) Copper Piping having copper pipes as per BS EN 1057 standard complete as required with accessories as per specification in the hospital building					
	Cu Pipe 76.1 mm Od x 2 mm thick	Mtr.	83			
	Cu Pipe 54 mm Od x 1.2 mm thick	Mtr.	138			
	Cu Pipe 42 mm Od x 1.2 mm thick	Mtr.	482			
	Cu Pipe 28 mm Od x 0.9 mm thick	Mtr.	698			
	Cu Pipe 22 mm Od x 0.9 mm thick	Mtr.	1122			
	Cu Pipe 15 mm Od x 0.9 mm thick	Mtr.	988			
	Cu Pipe 12 mm Od x 0.7 mm thick	Mtr.	515			
7	Installation of Isolation Ball Valve (Factory-Degreased) with Brass Adaptor complete as required with accessories as per specification					
	15 MM.	No.	16			
	76 MM.	No.	8			
8	Installation, testing and commissioning of Valve Box complete as required with accessories as per specification					
	2 services	No.	3			
	3 services	No.	1			
	4 Services	No.	8			
	5 services	No.	1			
9	Installation, testing and commissioning of Alarm complete as required with accessories as per specification					
9.1	Installation, testing and commissioning of Master Alarm	No.	1			
9.2	Installation, testing and commissioning of Area Pressure Alarm (Digital)					
	2 services	No.	2			
	3 services	No.	1			
	4 services	No.	8			

10	Installation, testing and commissioning of CEILING PENDANT complete as required with accessories as per specification					
10.1	Rigid Ceiling Pendant (S.S. make)	No.	5			
11.0	Supply, Installation, testing and commissioning of AGSS UNIT (Imported)					
	Simplex AGSS UNIT having dry Rotary Vane Vacuum System with 1.2 HP motor and receiver with control panel complete as required with accessories as per specification	No.	1			
12.0	Fitting of HP A/S Tubing:					
	High Pressure Tubing for AIR	Mtr.	30			
	High Pressure Tubing for vacuum	Mtr.	30			
	LP Tubing	Mtr.	100			
13.0	Installation, testing and commissioning of Horizontal Bed Headed Panel	Nos	10			
	High Strength Anodised Aluminium Extrusions with inbuilt single railing, Medical Gas Outlets etc complete as required with accessories as per specification					
14.0	Installation, testing and commissioning of ACCESSORIES					
14.1	Installation, testing and commissioning of BPC Flowmeter with humidifier bottle & adapter complete as required with accessories as per specification	No.	141			
	Kit Conversion - Oxygen	No.	7			
	Kit Conversion - Nitrous Oxide	No.	7			
14.2	Installation, testing and commissioning of Ward Vacuum Unit with 600ml poly carbonate collection jar complete as required with accessories as per specification	No.	141			
14.3	Installation, testing and commissioning of Theater Suction Unit with regulator, trolley & 2x2000ml poly	No.	7			

15	Supply, Installation, Testing, Commissioning of Electrical Distributional Panel	No	1			
16	Turnkey works complete as required with accessories as per specification	lot	1			
					SUB TOTAL Rs.	
	In words : Rupees					

Part-II						
Item No.	Description 2	Unit 3	Qty 4	Unit Rate In Rs (in Figure) 5	Unit Rate in Rs (in Words) 6	Amount (Rs.) (In Figure) 7
1.0	Comprehensive Maintenance Charges for the complete MGPS including spares, repair or replacement of defective equipments/parts, accessories, labour charges etc. complete in all respect after completion of Defect Liability Period as per the contract.					
	Ist Year	Job	1			
	2nd Year	Job	1			
	3rd Year	Job	1			
					SUB TOTAL Rs.	
	SUMMARY OF RATES QUOTED					
1	TOTAL (PART-I)					
2	TOTAL (PART-II)					
				Grand Total Amount (PART - I + PART - II) (in Figures)		
	In words : Rupees					

Date

Signature of Bidder

Name of Bidder

Seal of the Bidder