

## SECTION 4

**PORT SHEPSTONE HOSPITAL  
NEW PSYCHIATRIC WARD  
(WIMS 044044)**

**MEDICAL GAS AND VACUUM INSTALLATION**

**BILL OF QUANTITIES**

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Prepared for: Dept. of Public Works



**public works**

Department:  
Public Works  
**PROVINCE OF KWAZULU-NATAL**

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**JULY 2025**

**OXYGEN AND VACUUM INSTALLATION: BILL OF QUANTITIES  
PORT SHEPSTONE PSYCH WARD (WIMS 044044)**

**BILL NO. 2 : OXYGEN AND VACUUM INSTALLATION**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p><b>BILL NO. 1</b></p> <p><b>MECHANICAL WORKS</b></p> <p>The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (1999 Edition)</p> <p><b>SUPPLEMENTARY PREAMBLES</b></p> <p>1. All prices for equipment shall be for supply and final fixing in place.</p> <p>2. This bill must be priced in conjunction with the drawing and specifications documents.</p> <p>3. Unless otherwise stated elsewhere, all rates shall be fixed for the duration of the contract.</p> <p>Specifications, drawings, etc</p> <p>Tenderers are referred to the specifications, for the full descriptions of the following items which are to be read and priced in conjunction with the said specification and drawings</p> <p><b>CABLING, WIRING</b></p> <p>Descriptions of control panels, switchboards, cabling or wiring shall be deemed to include terminations, glands, flexibles conduit, saddles</p> <p><b>PANELS</b></p> <p>Descriptions of panels shall include housing, fixing in place, removing of existing and installing new in place, and making good where necessary</p> <p>The Dept of Health's standard specification for Medical Gas and Vacuum shall be referenced and complied with. Any conflict shall be brought to the Engineering attention.</p>				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>1.0</b>	<b><u>OXYGEN INSTALLATION</u></b>				
<b>1.1</b>	New 2 x 8 cylinder oxygen manifold complete with auto-changeover valves, pressure sensors, pigtails, etc.,	No.	1		
<b>1.2</b>	<b><u>Medical grade copper Oxygen Piping (Rates per metre shall include bends, tees, brackets and painting)</u></b>				
a	12mm dia. Pipes	m	144		
b	15mm dia. Pipes	m	72		
c	22mm dia. Pipes	m	20		
d	12mm isolating valves	No.	6		
e	15mm isolating valves	No.	2		
f	22mm isolating valves	No.	1		
<b>1.3</b>	<b><u>MAIN LINE BULK OXYGEN SUPPLY to new Building</u></b>				
a	Medical grade coppber Oxygen 28mm dia. Pipes to be installed in cable tray (tray allowed elsewhere)	m	130		
b	150mm wide Cable ladder	m	130		
c	28mm isolating valves	No.	1		
<b>1.4</b>	<b><u>MAIN LINE BULK OXYGEN SUPPLY TO CONNECT TO EXISTING BUILDING</u></b>				
a	Medical grade coppber Oxygen 28mm dia. Pipes to be installed in cable tray (tray allowed elsewhere)	m	75		
b	150mm wide Cable ladder	m	75		
<b>2.0</b>	<b><u>VACUUM INSTALLATION</u></b>				
<b>2.1</b>	2 x Vane type vacuum pumps on common horizontal receiver as specified (rate to be inclusive of pumps and receiver)	No.	1		
Total carried forward to summary page:					R

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>2.2</b>	<b><u>Medical grade copper Vacuum Piping (Rates per metre shall include bends, tees, brackets and painting)</u></b>				
a	15mm dia. Pipes	m	142		
b	22mm dia. Pipes	m	72		
c	28mm dia. Pipes	m	50		
d	22mm isolating valves	No.	8		
e	28mm isolating valves	No.	1		
<b>3.0</b>	Single bottle trap	No.	5		
<b>4.0</b>	<b><u>Surface mounted valve boxes complete with valves and labels, mounted at ceiling heightcomplete with notice mounted on wall below ceiling</u></b>				
a	O2 and Vacuum Valve Box (VBX1)	No.	2		
<b>5.0</b>	<b><u>Medical gas alarm panel complete with field components and wiring</u></b>				
a	MGAP1 local alarm panel in reception with local pressure switches to indicate local line pressure status (O <sub>2</sub> , and Vac)	No.	2		
b	MGAP2 local alarm panel in nurse's station with local pressure switches to indicate local line pressure status (O <sub>2</sub> , and Vac)	No.	1		
c	MGAP3 local alarm panel in nurse's station with local pressure switches to indicate local line pressure status (O <sub>2</sub> , and Vac)	No.	1		
d	MGAP4 local alarm panel in nurse's station with local pressure switches to indicate local line pressure status (O <sub>2</sub> , and Vac)	No.	1		
e	OAP/1 oxygen master alarm panel in oxygen plantroom indicating status of bulk supply and left and right banks and bulk VIE supply	panels	1		
f	VP/1 Vacuum plant control panel complete with Pump1/Pump2/off selector switch, ammeter per pump, LED lamp for pump run/trip and pressure fail per pump, main isolator, pressure switches, circuit breakers phase/voltage, protection and flip/flop, field wiring, trunking, conduiting	No.	1		
g	Anti bacterial in-line filters to exhaust line	No.	1		
Total carried forward to summary page:					R

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>6.0</b>	<b><u>Gas Outlet Points</u></b>				
<b>6.1</b>	Supply and instal surface mounted Health Dept approved outlets complete with labels				
a	O <sub>2</sub>	No.	7		
b	Vc	No.	7		
c	Ivorene labels to outlet points and on ceiling for isolating valves in roof (screwed or rivetted)	No.	16		
<b>7.0</b>	Relocation of existing oxygen cylinder manifold serving Special clinic and alarm panel to new position and reconnect supply to clinic (piping - supply from manifold to clinic priced elsewhere in piping rate)	No.	1		
<b>8.0</b>	<b><u>Coring / Drilling</u></b>				
a	50mm dia in brickwork and making good	No.	10		
<b>9.0</b>	<b>Relocation of Bulk oxygen tank</b>				
a.	Relocation of Bulk oxygen tank to adjacent area before construction - by AFROX (provisional sum)	No.	1	R 250 000.00	
b.	Profit and Attendance		sum		
Total carried forward to summary page:					R

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
9.0	<u>General</u>				
9.1	Allowance for associated costs to comply with conditions of contract (including but not limited to insurances, securities, site establishment, site attendance, etc.) - shall be paid in equal amounts over the contract period	-	-	sum	
9.2	Production of shop drawings	sum	1		
9.3	Production of as-built drawings	sum	1		
9.4	Labelling of all equipment	sum	1		
9.5	Compilation and submission of operating and maintenance manuals (with softcopy attached) including training of user client	No	1		
9.6	Additional copies of operating and maintenance manuals (with softcopy attached)	No	3		
9.7	Commissioning	sum	1		
9.8	Training of building management and service personnel, as specified	sum	1		
9.9	Compliance with OHASA 1993 and Construction Regulations 4(1) (a)	sum	1		
10.0	Contingency - to be expended only on Engineer's instruction	sum	1		R 150 000.00
10.0	Fully comprehensive maintenance and guarantee	month	12		
10.1	Other (any item not priced above but required for completion of installation)				
	i.....				
	ii. ....				
Total carried forward to summary page:					R

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SUMMARY PAGE</b>					
	Sub total brought forward from Page MG-B2				
	Sub total brought forward from Page MG-B3				
	Sub total brought forward from Page MG-B4				
	Sub total brought forward from Page MG-B5				
<b>TOTAL EXCLUDING VALUE ADDED TAX CARRIED FORWARD TO MAIN SUMMARY PAGE:</b>					