

SARS Musina**SCHEDULE OF QUANTITIES: WET SERVICES AND HOT WATER GENERATION****SCHEDULE A: Preambles to bills of quantities**

Item	Description	Unit	Qty	Rate	Amount
A	PREAMBLES TO BILLS OF QUANTITIES				
A1	These Bills of Quantities contain pages numbered (Alpha numerically) consecutively.				
A2	Before the Tenderer submits his tender he should check the number of pages, and if any are found missing or duplicated, or the figures or writing indistinct, he should apply to the Engineer at once and have same rectified as no liability whatsoever will be admitted by the Engineer in respect of errors in tender due to the foregoing.				
A3	The Bills of Quantities form part of and must be read in conjunction with the Specification, which document contains the full description of the work to be done and material and equipment to be used and unless otherwise described in the Bills of Quantities, reference should be made to the Specification for the full meaning of descriptions of work to be done and materials and equipment to be used in this service.				
A4	All item rates and extensions must be priced in detail before submission of Tenders..				
A5	The total tender price in the bill shall constitute the contract price of the successful Tenderer.				
A6	Tenderers are advised to check their item extensions and total additions, as no claim for arithmetical errors will be considered.				
A7	No alteration, erasure or addition is to be made in the text of the Bills of Quantities. Should any alteration, erasure or addition be made, it will not be recognised but the original wording of the Bills of Quantities will be adhered to.				
A8	The priced Bills of Quantities of the successful Tenderer will be checked and the Engineer reserves the right to call for adjustments to any individual price and to rectify any discrepancy whilst the Total Tender Price, as submitted, remains unaltered.				
A9	The responsibility for the accuracy of the quantities written into the Bills remains with the person who prepared the Bills. The Tenderer shall be relieved of responsibility of measuring quantities at the tender stage, and the tender sum submitted shall be in respect of the quantities set out in the Bills, although he will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the Bills and shall include in the item price for such small installation materials as are required for the complete installation in accordance with the specification.				

SARS Musina**SCHEDULE OF QUANTITIES: WET SERVICES AND HOT WATER GENERATION****SCHEDULE A1: Preambles to bills of quantities**

Item	Description	Unit	Qty	Rate	Amount
A10	The quantities in these Bills of Quantities are <u>provisional and are not to be used for ordering materials.</u>				-
A11	Variations in the scope and extent of the work included in the Bills shall be allowed to meet the Employer's requirements and shall be measured and costed at rates entered in the Bills, where appropriate, and shall form an addition to or deduction from the total of the Bills. Any items or variations for which rates have not been included in the Bills shall be agreed and priced as non-scheduled items in accordance with the provisions of the contract.				
A12	Unless a separate rate for the supply and for the installation of any items is specifically called for, the supply and installation costs of any item shall be fully included in the unit price.				
A13	The description of each item shall, unless otherwise stated herein, be deemed to include making, conveying and delivery, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and waste, patterns, models and templates, plant, temporary works, return of packing, establishment charges, profit and all other obligations arising out of the Conditions of Contract.				
A14	All measurements are net, unless otherwise stated, and Tenderers must allow in the rate for wastage.				
A15	Hangers, supports, splices, joining, drilling, etc., shall form part of the unit rate.				
A16	All materials or equipment specified under a trade name, catalogue or reference number shall, for competitive tender pricing, be exactly as described in this tender.				
A17	Shop drawings must be supplied to the Engineer for approval before equipment is ordered.				
A18	Training must be supplied to the Client once the system is in a working order.				
A19	Reducers and straight connection pieces shall form part of the unit rate				

SARS Musina**SCHEDULE OF QUANTITIES: WET SERVICES AND HOT WATER GENERATION****SCHEDULE B: Preambles to bills of quantities**

Item	Description	Unit	Qty	Rate	Amount
B	PREAMBLES				
B1	Piping Description of piping shall be deemed to include joints, flanges, bolts and nuts, gaskets, fittings, supports, brackets, painting, directional arrows, etc.				
B2	Valves Descriptions of valves shall be deemed to include flanged or screwed connections to piping, reducers, supports, etc.				
B3	Assembling Descriptions of manufactured items shall be deemed to include for complete assembling and handing over in a proper working order.				
B4	Pricing It is expected from the Tenderer to price each item in this bill of quantities and no alterations, omissions or additions shall be made to the bill or specification.				
B5	Value Added Tax (VAT) Prices for individual items in this bill must be exclusive of VAT. Provision has been made in the final summary of this bill for the lump sum addition of VAT				

SARS Musina**SCHEDULE OF QUANTITIES: WET SERVICES AND HOT WATER GENERATION****SCHEDULE C Domestic Hot Water Generation Plant rooms**

Item	Description	Unit	Qty	Rate	Amount
1	Exhibition Hall hot water generation				
1.1	Supply and install solar absorber as per the specifications complete with cylinder (geyser) and solar panel, pressure reducing valves, shut off valves for both the panel and the cylinder, check valves, internal controls, etc. as required. All hot water piping and fittings to be as per specification, rated for design pressures and site conditions Domestic water piping All hot water piping and fittings to be as per specification, rated for design pressures and site conditions Hot and cold water piping for the plant rooms are included. The hot water supply point to the building, and cold water supply point to the plant room will be coordinated at a later stage. Supply and install the following copper piping as per the specifications, as indicted in the plant rooms.	No	1		-
1.2	Ø15mm copper piping	m	10		-
1.3	Ø22mm copper piping	m	10		-
	Fittings				
1.4	Ø22mm Ball Isolating valve	Nr	2		-
	90 degree Elbow				
1.5	Ø15mm copper piping	Nr	4		-
	Ø22mm copper piping	Nr	8		-
	Tee Pieces				
1.6	Ø22mm copper piping	Nr	2		-
	Insulation and cladding Supply and install insulation with cladding on the reticulation piping as per the following:				
1.7	Ø15mm copper piping	m	10		-
1.8	Ø22mm copper piping	m	10		-
CARRIED FORWARD TO SUMMARY SHEET					-

SARS Musina**SCHEDULE OF QUANTITIES: WET SERVICES AND HOT WATER GENERATION****SCHEDULE C Domestic Hot Water Generation Plant rooms**

Item	Description	Unit	Qty	Rate	Amount
1.9	Electrical An electrical isolator will be supplied close to the circulation pumps by others. This will be the electrical supply for the Solar gyser.	Note			
1.10	Cable to suite, from the isolator to the Solar gyser	m	5		-
1.11	Bracketing and cable trays to suite	m	5		-
CARRIED FORWARD TO SUMMARY SHEET					-

SARS Musina**SCHEDULE OF QUANTITIES: WET SERVICES AND HOT WATER GENERATION****SCHEDULE D Miscellaneous**

Item	Description	Unit	Qty	Rate	Amount
E	Miscellaneous				
1.1	Testing and Commissioning of the complete system	Sum	1		-
1.2	Testing certificates, as per SANS 347	Sum	1		-
1.3	Operating and Maintenance manuals of all installed equipment	Sum	1		-
1.4	Training of staff in the operating of all equipment installed	Sum	1		-
1.5	Shop drawings to be approved by the Engineer before installation or ordering of materials, including the services as well as builder's drawings	Sum	1		-
1.6	As built drawings of the complete final installation must be provided	Sum	1		-
1.7	Meeting attendance throughout contract, 2 meetings per month, 4 months installation	Sum	1		-
1.8	Scaffolding	Sum	1		-
1.9	Twelve month maintenance of the complete system	Sum	1		-
2	Twelve month guarantee of the complete system	Sum	1		-
CARRIED TO SUMMARY SHEET					-

SARS Musina**SCHEDULE OF QUANTITIES: WET SERVICES AND HOT WATER GENERATION****SCHEDULE E : Summary**

Item	Description	Tendered Amount
C1	Domestic Hot Water Generation Plant room	R -
C2	Domestic Hot Water Generation Plant room	R -
D	Miscellaneous	R -
	Sub Total	R -
	Contingency (15%)	R -
TOTAL CARRIED FORWARD TO FINAL SUMMARY (ex VAT)		-