

SARS Musina**SCHEDULE OF QUANTITIES****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 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.				

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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A10	The quantities and descriptions in these Bills of Quantities are provisional and are not to be used for ordering materials. Equipment in terms of quality shall be as per the Specification				
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 variation 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 held 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 packings, establishment charges, profit and all other obligations arising out of the Conditions of Contract.				
A14	All measurements are nett, unless otherwise stated, and Tenderers must allow in the rate for wastage.				
A15	Hangars, supports, splices, joining drilling etc shall form part of 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	Prices for individual items in this Bill of Quantities must be exclusive of VAT. Provision has been made in the Final Summary of this document for the lump sum addition of VAT				
A18	The Client and/or Engineer shall not be responsible for any losses incurred due to loss of interest through the VAT system.				

SARS Musina SCHEDULE OF QUANTITIES SCHEDULE A: Preambles to bills of quantities					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A19	Tenderers shall price the Preliminary and General (P & G's) in terms of the Conditions of Contract and in consultation with the Main Contractor and the main programme				
CARRIED TO SUMMARY SHEET					

SARS Musina SCHEDULE OF QUANTITIES SCHEDULE B: Preambles to bills of quantities					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B	AIR CONDITIONING INSTALLATION				
	PREAMBLES				
B1	Ducting Where transformations or reducers occur, the larger size ductwork has been measured over the fitting. Descriptions of ductwork shall be deemed to include jointing materials, sealants, couplers in the running stiffeners, length and access inspection panels in and duct and piping support systems Dimensions, as seen on plan are given in the following sequence: (a) Horizontal parallel to the line of sight (b) Vertical at right angles to the line of sight Descriptions of fittings shall be deemed to include for cutting, forming openings and jointing to ducting. Fire dampers shall be installed where indicated. Small ducts shall be reinforced with angle iron at wall penetrations, as indicated.				
B2	Air diffusion Description of air terminals, grilles, louvres and the like shall be deemed to include necks, frames, supports and flexible connections.				
B3	Fans Description of fan assemblies shall be deemed to include supports from the structure, flexible or other connections to ductwork, vibration isolation mounting and airtight inspection doors. Electrical interface equipment included.				
B4	Sound attenuators Descriptions of sound attenuators shall be deemed to include flanged or flexible connections to ductwork and supports from the structure.				
B5	Piping Description of piping shall be deemed to include joints, flanges, fittings, supports, brackets, painting etc.				

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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B6	Valves Descriptions of valves shall be deemed to include flanged or screwed connections to piping, reducers, supports, etc.				
B7	Assembling Descriptions of manufactured items shall be deemed to include for complete assembling and handing over in a proper working order.				
B8	Pricing It is expected from the Tenderer to price each individual item in this bill of quantities and no alterations, omissions or additions shall be made to the bill or specification.				
B9	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.				
B10	Ductwork etc Galvanised sheet steel low velocity supply air ducts etc, fixed horizontally, complete with necessary joints, connections, cutting, longitudinal seams, transverse joints, cross breaking and/or beading, duct stiffening, tie rods, hangers, rivets, screws, bolts and other fastening equipment, sealing and short lengths, as described.				

SARS Musina SCHEDULE OF QUANTITIES SCHEDULE C1: Bills of quantities					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C1	ADMINISTRATION BLOCK DX SPLIT UNIT SYSTEM (INVERTER HEAT PUMP) OFFICES NEW UNITS				
1.1	Supply only of Cassette DX Split units complete with wall mounted controllers as specified in administration block				
1.1.1	Unit AC 01 complete with condenser	Sum	1		
1.1.2	Unit AC 01 complete with condenser	Sum	1		
1.2	Supply only of Midwall DX Split unit complete with wall mounted controllers as specified in server room				
1.2.1	Unit AC 02 complete with condenser	Sum	1		
2	Contractors markup on units				
2.1	Unit AC 01	Sum	1		
2.2	Unit AC 01	Sum	1		
2.3	Unit AC 02	Sum	1		
3	Installation and Commissioning of units into position complete with supports, electrics, PVC conduit installed in ceiling void and chased in wall /partitions, wall box, wall controllers with vibration pads to suite. (Allow 15m PVC conduit per unit)				
3.1	Unit AC 01	Sum	1		
3.2	Unit AC 01	Sum	1		
3.3	Unit AC 02	Sum	1		
4	Supply and installation of refrigeration piping complete with insulation equal to Armorflex.				
4.1	Unit AC 01	m	15		
4.2	Unit AC 01	m	10		
4.3	Unit AC 02	m	6		
5.1	Supply and installation of "ECO Duct" trunking for all exposed refrigeration piping complete with straights, bends etc				
5.1.1	Unit AC 02	Sum	1		
CARRIED TO SUMMARY SHEET					

SARS Musina SCHEDULE OF QUANTITIES SCHEDULE C2: Bills of quantities					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C2	ADMINISTRATION BLOCK DX SPLIT UNIT SYSTEM (INVERTER HEAT PUMP) OFFICES NEW UNITS				
5.2	Supply and installation of galvanised trunking for all external exposed refrigeration piping complete with straights, bends etc				
5.2.1	Unit AC 02	Sum	1		
5.2.2	Unit AC 01	Sum	1		
5.2.3	Unit AC 01	Sum	1		
6	Supply and installation of galvanised steel condensor frame/stand complete as shown				
6.1	Unit AC 01	Sum	1		
6.2	Unit AC 01	Sum	1		
6.3	Unit AC 02	Sum	1		
7	EXTRA OVER				
7.1	Galvanised cable trays for all piping associated with the air conditioning installation complete with all fitments.	Sum	1		
7.2	PVC conduit installed in ceiling void and chased in wall /partitions, wall box, wall controllers with vibration pads to suite. (Allow 15m PVC conduit per unit)	Sum	1		
	Supply and installation of condasate drain piping for each unit complete with supports, reduceres, tees, bends as shown				
7.3	20mm diameter uPVC drain piping	m	8		
7.4	25mm diameter uPVC drain piping	m	20		
7.5	Supply and installation of P trap assembly at condensate drain outlet of units complet and installed	Nr	3		
7.6	Electrical wiring from the isolator to the air conditioning units	Sum	1		
CARRIED TO SUMMARY SHEET					

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SCHEDULE D1: Bills of quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D1	ADMINISTRATION BLOCK VENTILATION EXTRACT SYSTEM CLEANER'S ROOMS				
1	Supply and installation of ducted toilet extract systems complete with fan, attenuators, uninsulated ducting, outlets electrics, complete and commissioned				
1.1	250 x 300 straight ducting	m	5		
1.2	150 x 300 straight ducting	m	2		
1.3	400 x 250 straight ducting	m	1		
1.4	250mm diameter spigot	Nr	2		
1.5	250mm diameter butterfly damper	Nr	2		
1.6	250mm diameter bend	Nr	1		
1.7	250mm diameter circular ducting	m	9		
1.8	250mm uninsulated flexible ducting c/w clamps	m	8		
1.9	315Ø x to 250 x 300 transformation piece	Nr	2		
1.10	250 x 300 to 150 x 300 transformation piece	Nr	1		
1.11	250 x 300 shoe piece	Nr	1		
1.12	150 x 300 end cap	Nr	1		
1.13	250 x 300 ducting bend	Nr	2		
1.14	Plenum box (400 x 250 x 500 long)mm	Nr	1		
1.15	Weather louvre c/w WMS (400 x 250)mm	Nr	1		
1.16	Return air grille c/w OBD (600 x 300)mm	Nr	2		
1.17	Door grilles (600 x 600)mm	Nr	1		
1.18	Door grilles (400 x 250)mm	Nr	1		
1.19	Transfer grille c/w plenum box and spigot (600 x 600)mm	Nr	2		
1.20	Inline tube fan 315mm diameter 240l/s complete with square to round duct pieces, flexible connections, flanges, supports, AV mounts and associated accessories installed complete with electrics and controls	Sum	1		
1.21	315mm diameter sound attenuators to suite Inline fan	Nr	2		
1.22	Electrical wiring from the isolator to the fan	Sum	1		
CARRIED TO SUMMARY SHEET					

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SCHEDULE E1: Preambles to bills of quantities

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E1	WAREHOUSE BLOCK VENTILATION EXTRACT SYSTEM DESTRUCTION and HAZARDOUS ROOMS				
1	Transfer grille (600 x 600)mm	Nr	8		
2	Explosion proof roof fan (1750l/s and 1440rpm) complete with connections, flanges, supports and associated accessories installed complete with electrics and controls	Sum	1		
3	Explosion proof roof fan (1810l/s and 1440rpm) complete with connections, flanges, supports and associated accessories installed complete with electrics and controls	Sum	1		
4	Sound attenuators to suite explosion proof roof fan	Nr	2		
5	Fan wall switch	Nr	2		
6	Electrical wiring from the isolator to the fan	Sum	1		
CARRIED TO SUMMARY SHEET					

SARS Musina SCHEDULE OF QUANTITIES SCHEDULE F1: Bills of quantities					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
F1	GENERAL P'S AND G'S				
1	Detailed engineering calculations, pressures, flow etc	Sum	1		
2	Compilation of workshop drawings	Sum	1		
3	Compilation of builders drawings	Sum	1		
4	Compilation of as-built drawings	Sum	1		
5	Compilations of manuals x 4 copies	Sum	1		
6	Meeting attendance throughout contract	Sum	1		
7	Engineering and supervision	Sum	1		
8	12-months maintenance (total installation)	Sum	1		
9	12-months guarantee (new units)	Sum	1		
10	Site establishment	Sum	1		
11	Compliance to OHS act	Sum	1		
12	Supply and erection of scaffolding for entire project	Sum	1		
CARRIED TO SUMMARY SHEET					

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SCHEDULE OF QUANTITIES

SCHEDULE A: Preambles to bills of quantities

SUMMARY PAGE FOR BILLS OF QUANTITIES

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