CHILLED WATER PUMPS

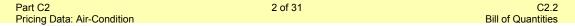
Item		Alternative Offered.
System	CHILLED WATER	
Quantity	2	
Make	KSB	
Model No.	ETA 80-250	
Flow rate	20.8 l/s	
Head	20m	
NPSH Pump	2.3m	
Efficiency	76%	
Nominal Speed	1450	
Motor Make	WEG	
Motor Rating	9.2 kW	7
Power Required	5.4 kW	
Electrical Supply	400V 3 phase 50 Hz	7
Shaft Seal	Mechanical	
Bearings/Lubrication	Ball/Oil	
Casing	Cast Iron	
Impellor	Bronze	
Shaft	Chrome Steel	
Shaft Protection Sleeve	316 S/ Steel	
Coupling	Tyre Spacer	
Base plate Material	Hot Dip Calvanised	
Drip Tray	304 S/ Steel	
Estimated Mass	311 kg	
Estimated Mass		

Part C2 1 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



COOLING COIL

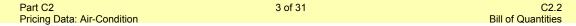
Item		Alternative Offered.
Make	Heating Centre	
Model No.	4-CWC-33 x 3050 x 6r x 10f x	
	44c	
Quantity	2	
Туре	Serpentine	
Total Cooling Capacity	205.3 kW	
Sensible Cooling	130.9 kW	
Capacity		
Supply Air Quantity	6.510 m³/s	
On-Coil	26.7°C db/19.4 °C wb	
Off-Coil	9.9 °C db /9.5 °C wb	4
Inlet Water Temperature	6 °C	
Outlet Water	11 °C	
Temperature		
Water Temp. Difference	5 ℃	7
Water Quantity	9.79 kg/s	
Water Pressure Drop	39.5 kPa	
Coil Height	838.2 mm (33")	
Coil Length	3050 mm	
Coil Velocity	2.55 m/s	
Air Pressure Drop	213.8 Pa	
Rows	6 Rows	
Fins	10 fins per inch	
Circuits	44.0	
Casing Material	Stainless Steel	
Fins Material	Aluminium Fins	
Tube Material	Copper Tube	
Drain Pan	304 Stainless Steel	





CONDENSER WATER PUMPS

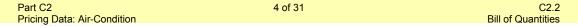
Item		Alternative Offered.
System	CONDENSER WATER	
Quantity	2	
Make	KSB	
Model No.	ETA 100-250	
Flow rate	28.8 l/s	
Head	20 m	
NPSH Pump	3.4 m	
Efficiency	79 %	
Nominal Speed	1450 r.p.m.	
Motor Make	WEG	
Motor Rating	9.2 kW	
Power Required	6.8 kW	
Electrical Supply	400V 3 phase 50 Hz	
Shaft Seal	Mechanical	
Bearings/Lubrication	Ball/Oil	
Casing	Cast Iron	<u> </u>
Impellor	Bronze	
Shaft	Chrome Steel	
Shaft Protection Sleeve	316 S/ Steel	
Coupling	Tyre Spacer	
Base plate Material	Hot Dip Galvanised	
Drip Tray	Not Required	
	320 kg	
Estimated Mass		





COOLING TOWERS

Item		Alternative Offered.
Ref.		Alternative Offered.
	E) /A DOO	
Make / Model No.	EVAPCO	
Location	ROOF	
Quantity	2	
Heat Rejection	471.29 kW	
Flow Rate	20.05 l/s	
Warm Water	35.0 °C	
temperature	35.0 C	
Cold Water	29.5 °C	
temperature	29.5 °C	
Wet Bulb	26 F 9C	1
Temperature	26.5 °C	
Fill Material	PVC	
Nozzle Type	Poly Prop Evap jet	
Nozzle Pressure	30 kPa	
Fan Motor	7.5 kW	
Fan Type	Axial	
Fan Motor Protection	IP56	
Fan Support	Stainless Steel	
Structure	Stanless Steel	
Access Loddon	Galvanised Steel Access	
Access Ladder	Ladder c/w Safety Hoops	
Operating Weight	2358 kg	
Length	2963	
Width	2530	
Height	4130	





AXIAL FLOW FAN SCHEDULE

Specified Airconditioning Supply Air Fan Plantroom 2 Donkin Guide Vane Axial 1000.D.1/1 Broad Axial 6.51 m³/s 800 Pa 9° 1440 rpm 7.5 kW	
Air Fan Plantroom 2 Donkin Guide Vane Axial 1000.D.1/1 Broad Axial 6.51 m³/s 800 Pa 9° 1440 rpm 7.5 kW	
Donkin Guide Vane Axial 1000.D.1/1 Broad Axial 6.51 m³/s 800 Pa 9° 1440 rpm 7.5 kW	
Donkin Guide Vane Axial 1000.D.1/1 Broad Axial 6.51 m³/s 800 Pa 9° 1440 rpm 7.5 kW 14.5 A	
Guide Vane Axial 1000.D.1/1 Broad Axial 6.51 m³/s 800 Pa 9° 1440 rpm 7.5 kW	
1000.D.1/1 Broad Axial 6.51 m³/s 800 Pa 9° 1440 rpm 7.5 kW	
Broad Axial 6.51 m³/s 800 Pa 9° 1440 rpm 7.5 kW	
6.51 m³/s 800 Pa 9° 1440 rpm 7.5 kW	
800 Pa 9° 1440 rpm 7.5 kW 14.5 A	
9° 1440 rpm 7.5 kW 14.5 A	
1440 rpm 7.5 kW 14.5 A	17
7.5 kW 14.5 A	17
14.5 A	
700/	
76%	
1440 rpm	
Hz	
94 dB	
1 4 1	00 Volts 3 phase 50

Part C2 5 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



RA AXIAL FLOW FAN SCHEDULE

REF	Specified	Alternative Offered
SERVICE	Airconditioning Return	
	Air Fan	
LOCATION	Plantroom	
QUANTITY	2	
MAKE	Donkin	
Fan Type	Guide Vane Axial	
MODEL No.	1000.D.1/1	
Impellor Type	Broad Axial	
AIRFLOW	6.51 m³/s	
STATIC PRESSURE	800 Pa	
PITCH	9°	
SPEED	1440 rpm	
MOTOR POWER	7.5 kW	
Full Load Current	14.5 A	
EFFICIENCY	76%	
MOTOR SPEED	1440 rpm	())
ELECTRICAL	400 Volts 3 phase 50	
SUPPLY VOLTAGE	Hz	
SOUND PRESSURE	94 dB	
LEVEL		
PRIEN	ENG	

Part C2 6 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 1	PRELIMINARY & GENERAL				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	P&G Costs (incl. all performance Bond Costs, Insurances, Legal fees)	LOT			
	Site Establishment Costs	LOT			
	Management Costs Supervision Costs	LOT			
	Administration Costs	LOT			
	Allow for all costs to meet Statutory				
	Regulations Safety Officer	LOT			
	Builders Work Drawings	LOT			
	Workshop Drawings	LOT	1		
	Final Drawings (Incl. framed wiring diagrams)	LOT	7		
	Operating & maintenance manuals (4 copies)	LOT			
	Transportation and Delivery Costs	LOT			
	Craneage and Lifting	LOT			
	Erection Costs	LOT			
	Scaffold	LOT			
	Painting	LOT			
	Commissioning (to include Air balancing, Water Balance, Electrical Installation, Control Installation and BMS System)	LOT			
	Ctart Training	LOT	1		
	Staff Training	LOT	ı		
	TOTAL FOR PAGE 1 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

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Bill of Quantities

C2.2

C2.2

Bill of Quantities

Project:	TRANSNET				
Page 2	CAPITAL EQUIPMENT				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
1	Cooling Coil CU x AL 4 CWC-33 x 3050 x 6r x 10f – 44c		2		
2	Chilled water pumps KSB ETA 80-250		2		
3	New condenser water pump's KSB ETA 100-250		2		
4	Evapco Cooling Tower AFT 4-612A		2	1	
5	Supply Air Fans Donkin Model 1000.D.1/1 Guide vane axial		2		
6	Return Air Fans Donkin Model 1000.D.1/1 Guide vane axial	1	2		
7	Donkin Pod Type Silencer	*	4		
8	Springs		16		
9	Drip trays and drains for the pumps		2		
	V				
	TOTAL FOR PAGE 2 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 8 of 31
Pricing Data: Air-Condition



C2.2 Bill of Quantities

Project:	TRANSNET				
Page 3	CHILLED WATER PIPEWORK				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	125 Ø Pipe	m	48		
	125 Ø 90° Bends		15		
	125 Ø 45° Bends		4		
	125 Ø Tees		2		
	125 Ø x 80 Ø Reducers		2		
	125 Ø x 100 Ø Reducers		2	1	
	125 Ø Flanges Table E		36		
	125 Ø Flexible Connections		4		
	125 Ø Butterfly Valves	1	8		
	125 Ø N.R.V		2		
	125 Ø Strainer		2		
	50 Ø Sockets		3		
	15 Ø Sockets		6		
	15 Ø Ball Valves		6		
	15 Ø Plugs		6		
	Brackets & Clamps	LOT			
	Pressure Gauges, Syphon tubes and Gauge Cocks		6		
	Thermometers and Wells		2		
	Airvents		4		
	TOTAL FOR PAGE 3 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 9 of 31
Pricing Data: Air-Condition



Project:	TRANSNET				
Page 4	CONDENSER WATER PIPEWORK				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	125 Ø Pipework	m	60		
	125 Ø 90°Bends		36		
	125 Ø 45° Bends		8		
	125 x 100 Ø Reducers		6		
	125 x 80 Ø Reducers		2		
			_		
	125 Ø Flanges Table E		68		
	125 Ø Flexible connections		6	4	
			4	1	
	125 Ø Butterfly Valves		13		
	125 Ø N.R.V		2		
	120 Ø W.M.V		1		
	125 Ø Strainer	,	2		
	50 Ø Weld Sockets		4		
	45 674 110 111		00		
	15 Ø Weld Sockets		20		
	15 Ø Ball Valves		6		
	10 & Ball Valves		0		
	15 Ø Plugs		6		
	Purpose made brackets on roof	LOT			
	Brackets	LOT			
	Hot dipped galvanizing for all pipework fittings	LOT			
	and brackets				
	Pressure Gauges, Syphon tubes and Gauge		0		
	Cocks		8		
	The was a section or d Malla		0		
	Thermometers and Wells		2		
	TOTAL FOR PAGE 4				
	(TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 10 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 5	MCW., OVERFLOW AND DRAINS				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	54 Ø Copper Pipe	m	50		
	54 Ø Couplings		8		
	54 Ø Tees		6		
	54 Ø Bends		20		
	54 Ø Unions		4		
	54 Ø Officials		4		
	54 Ø S/S Ball Valves		4	1	
	54 Ø M.I x W Connectors		10		
			7		
	Brackets for pipework	LOT			
	Automatic water treatment system		1		
	Chemicals for first year		1		
	Chemicals for chilled water system		1		
	Monthly services		12		
	Dosing pot, ball valves Tundish and piping		1		
	Drains from centrifugal pumps	LOT			
	22mm Copper		24		
	22mm Tees 22mm Bonds		6 18		
	22mm M1 x CW Connectors		6		
	22mm Ding Drooksts		00		
	22mm Pipe Brackets		20		
	Stainless steel sink Model: FRANKE CVN 611		1		
	Taps and waste				
	MCW Supply to sink		1		
	Waste to outside		1		
	waste to outside		I		
	TOTAL FOR PAGE 5 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

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Project:	TRANSNET					
Page 6	CHILLED WATER PIPEWORK INSULATION					
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT	
	125 Ø Pipework	М	48			
	125 Ø Bends		15			
	125 Ø Tees		2			
	125 Ø Flanges		42			
	125 Ø Flanges		50			
	125 x 100 Ø Reducers		12	1		
	125 Ø Valves		6	/		
	125 Ø Strainers	-	2			
	Repair existing insulation	LOT	1			
	Repair all damaged cladding	LOT	1			
	Pipework Identification	LOT	1			
	TOTAL FOR PAGE 6 (TO BE CARRIED FORWARD TO SUMMARY PAGE)					

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Project:	TRANSNET				
Page 7	ELECTRICS				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	Remove redundant cables		1		
	Power supply to chillers		1		
			·		
	Power supply to CW pumps Incl. all necessary switchgear, cables, cable tray and isolators etc.		2		
	Power supply to condenser pumps Incl. all necessary switchgear, cables, cable tray and isolators etc.		2		
	Power supply to cooling towers Incl. all necessary switchgear, cables, cable tray and isolators etc.		2		
	Power Supply to water treatment plant Incl. all necessary switchgear, cables, cable tray and isolators etc.	1	1		
	Power supply to supply and return fans Incl. all necessary switchgear, cables, cable tray and isolators etc.	·	4		
	Variable speed drives for supply air fan		2		
	Variable speed drives for return air fan		2		
	Variable speed drive for two cooling tower fans 15kW		2		
	Main electrical control panel including new section, all necessary switch gear and wiring to conform to specifications.		1		
	All new electrical control wiring. (Incl. cables to averaging sensors	LOT	1		
	Power supplies to all diffusers		1		
	All necessary controls, wiring etc for the BMS system	LOT	1		
	Power supply to all fire dampers		1		
	TOTAL FOR PAGE 7 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

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Project:	TRANSNET				
Page 8	ELECTRONIC CONTROLS				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	Chillers				
	Upgrade chiller controller		1		
	Electronic programmable controller		1		
	Pipe temperature controller		1		
	Flow switches		4		
	Airhandling Unit				
	Electronic programmable controller		2		
	Averaging room sensor		10	1	
	Air pressure switch		10	1	
	Overheat Stat		1	*	
	5 Torriout Oldt				
	Return Air Sensor		1		
) "		
	Cooling Towers	1			
	3	1			
	Electronic programmable controller	•	1		
	Pipe temperature sensor		1		
	Bypass valve		1		
	Variable speed drive		1		
	Supply Air Fans				
	Variable speed drives		2		
	Pressure Sensors		2		
	Air Flow Switches		2		
	Return air bypass damper and actuator		2		
	Smoke sensor		12		
	Return Air Fans				
	Variable speed drives		2		
	Pressure Sensors		2		
	Air Flow Switches		2		
	TOTAL FOR PAGE 8				
	(TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 14 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 9	BUILDING MANAGEMENT SYSTEM				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	Pentium Core-Duo computer, 17" LCD touch screen, keyboard, mouse and ADSL modem etc. and all necessary hardware and software to run the BMS system as specified.		1		
	All BMS software, computer graphics and necessary interface.		1		
	Connection of all the air-conditioning plant and associated equipment in the building to the BMS and all calibrations and settings of this equipment on the BMS	LOT	1	1	
				1	
			4		
)		
		1			
	60'				
	, 0				
	2				
	~				
	•				
	TOTAL FOR PAGE 9				
	(TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 15 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 10	DUCTING – GROUND FLOOR				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	TROX ceiling diffusers Masters 200 Ø c/w 0.5kW Reheater		17		
	Slaves 200 Ø c/w 0.5kW Reheater		17		
	Power Supplies		34		
	Thermostats		17		
	Plenum Boxes Lineo		34	1	
	Circular Ducting 200 Ø	m C	34		
	Spigots	1	34		
	Flexible Duct 200ø	m	34		
	600 x 300 RAEC Grilles		34		
	Fire Dampers 760 x 380		2		
	Blank off existing Spigots		10		
	Repair External Duct Insulation	LOT			
	X				
	TOTAL FOR PAGE 10 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 16 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 11	DUCTING - FIRST FLOOR				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	TROX ceiling diffusers				
	Masters				
	350 Ø c/w 1.5kW Reheater		3		
	300 Ø c/w 1.0kW Reheater		5		
	250 Ø c/w 0.75kW Reheater		3		
	200 Ø c/w 0.5kW Reheater		1		
	Slaves				
	350 Ø c/w 1.5kW Reheater		3		
	300 Ø c/w 1.0kW Reheater		4		
	250 Ø c/w 0.75kW Reheater		2	1	
	200 Ø c/w 0.5kW Reheater		0		
			11		
	Plenum Boxes Internally Lined		71		
	350 Ø		6		
	300 Ø		9		
	250 Ø		5		
	200 Ø	1	1		
		·			
	Power Supplies		21		
			4.0		
	Thermostats		12		
	Spigots		21		
	ор. до с				
	Circular Ducting				
	350 Ø	М	18		
	300 Ø	М	27		
	250 Ø	М	15		
	200 Ø	М	3		
	Flexible Duct				
	350 Ø	М	12		
	300 🖉	М	18		
	250 Ø	M	10		
	200 Ø	M	2		
	Blank off existing Spigots		10		
			.0		
	RAEC Grilles 600 x 300		21		
	Repair external duct insulation		1		
	TOTAL FOR PAGE 11				
	(TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 17 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET							
Page 12	DUCTING – FIRST FLOOR CONT.							
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT			
	Fire Dampers							
	900 x 605		2					
	305 x 380		1					
	400 x 500		1					
	760 x 380		2					
	Static Pressure Dampers							
	360 x 380		1					
	485 x 380		1					
	510 x 380		1	4				
	305 x 380		1	1				
				1				
	Balancing Dampers		1	1				
	360 x 380		1					
	485 x 380		1					
	510 x 380		1					
	305 x 380	1	1					
	000 x 000		•					
	Access panels	•	_					
	300 x 300		2					
	Return air grilles with hinged core 900 x 605mm		2					
	1							
	V							
	TOTAL FOR PAGE 12							
	(TO BE CARRIED FORWARD TO SUMMARY PAGE)							

Part C2 18 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 13	DUCTING - SECOND FLOOR				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	TROX ceiling diffusers				
	Masters				
	350 Ø c/w 1.5kW Reheater		2		
	300 Ø c/w 1.0kW Reheater		5		
	250 Ø c/w 0.75kW Reheater		5		
	200 Ø c/w 0.5kW Reheater		3		
	Slaves				
	350 Ø c/w 1.5kW Reheater		1		
	300 Ø c/w 1.0kW Reheater		4		
	250 Ø c/w 0.75kW Reheater		3		
	Plenum Boxes Internally Lined				
	350 Ø		3		
	300 Ø		9		
	250 Ø		8		
	200 Ø		3		
	200 %	7	3		
	Device Consilies		0.4		
	Power Supplies		24		
			4-		
	Thermostats		15		
	Spigots		24		
	Circular Ducting				
	350 Ø	M	9		
	300 Ø	M	27		
	250 Ø	M	24		
	200 Ø	M	9		
	Flexible Duct				
	350 Ø	М	6		
	300 Ø	М	18		
	250 Ø	М	16		
	200 Ø	М	6		
	Blank off existing Spigots		10		
	RAEC Grilles 600 x 300		24		
	Repair external duct unsulation		1		
	Topan external duct unsulation		1		
	TOTAL FOR PAGE 13				
	(TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 19 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



TRANSNET							
DUCTING – SECOND FLOOR CONT.							
ITEM	UNIT	QTY	RATE	AMOUNT			
Fire Dampers							
		2					
Static Pressure Dampers							
		1					
			_				
Balancing Dampers		11					
		4					
		1					
		_					
	1						
	1						
Access panels	·	2					
300 X 300							
Return air grilles with hinged core 900 x 605mm		2					
, ,							
•							
TOTAL FOR PAGE 14 (TO BE CARRIED FORWARD TO SUMMARY PAGE)							
	ITEM Fire Dampers 900 x 605 305 x 380 400 x 500 760 x 380 Static Pressure Dampers 360 x 380 485 x 380 510 x 380 Balancing Dampers 360 x 380 485 x 380 510 x 380 485 x 380 510 x 380 Return air grilles with hinged core 900 x 605mm TOTAL FOR PAGE 14	ITEM	DUCTING - SECOND FLOOR CONT. ITEM	ITEM			

Part C2 20 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 15	DUCTING - THIRD FLOOR				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	TROX ceiling diffusers				
	Masters				
	350 Ø c/w 1.5kW Reheater		3		
	300 Ø c/w 1.0kW Reheater		4		
	250 Ø c/w 0.75kW Reheater		5		
	200 Ø c/w 0.5kW Reheater		1		
	Slaves				
	350 Ø c/w 1.5kW Reheater		2		
	300 Ø c/w 1.0kW Reheater		4		
	250 Ø c/w 0.75kW Reheater		1		
	200 Ø c/w 0.5kW Reheater		1	1	
			11		
	Plenum Boxes Internally Lined				
	350 Ø		5		
	300 Ø		8		
	250 Ø		6		
	200 Ø	1	2		
			0.4		
	Power Supplies		21		
	Thermostats		12		
	THEITHOStats		12		
	Spigots		21		
	- Indiana in the second in the				
	Circular Ducting				
	350 Ø	М	15		
	300 Ø	М	24		
	250 Ø	М	18		
	200 Ø	M	6		
	Flexible Duct				
	350 Ø	M	10		
	300 🖉	M	16		
	250 Ø	M	12		
	200 Ø	M	4		
	Blank off existing Spigots		10		
	Diamit on oxiding opigoto		10		
	RAEC Grilles 600 x 300		21		
	Repair external duct insulation		1		
	TOTAL FOR PAGE 15 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 21 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 16	DUCTING - THIRD FLOOR CONT.				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	Fire Dampers				
	900 x 605		2		
	305 x 380		1		
	400 x 500		1		
	760 x 380		2		
	Static Pressure Dampers				
	360 x 380		1		
	485 x 380		1		
	510 x 380		1	4	
	305 x 380		1 _	1	
				1	
	Balancing Dampers		11		
	360 x 380				
	485 x 380		1		
	510 x 380		1		
	305 x 380	1	1		
	- COO X COO	1	•		
	Access panels 300 x 300	•	2		
	300 X 300				
	Return air grilles with hinged core 900 x 605mm		2		
	<u> </u>				
	~				
	X				
	▼				
	TOTAL FOR BACT 12				
	TOTAL FOR PAGE 16 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 22 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET							
Page 17	DUCTING – FOURTH FLOOR							
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT			
	TROX ceiling diffusers							
	Masters							
	350 Ø c/w 1.5kW Reheater		0					
	300 Ø c/w 1.0kW Reheater		7					
	250 Ø c/w 0.75kW Reheater		8					
	200 Ø c/w 0.5kW Reheater		3					
	Slaves							
	350 Ø c/w 1.5kW Reheater		0					
	300 Ø c/w 1.0kW Reheater		6					
	250 Ø c/w 0.75kW Reheater		2					
	200 Ø c/w 0.5kW Reheater		0	4				
			11					
	Plenum Boxes Internally Lined		(-7)					
	350 Ø		0					
	300 Ø		13					
	250 Ø		10					
	200 Ø		3					
	Power Supplies		26					
	Thermostats		18					
	Coinete		00					
	Spigots		26					
	Circular Ducting							
	300 Ø	М	39					
	250 Ø	М	30					
	200 Ø	М	9					
	5							
	Flexible Duct	D 4	00					
	300 Ø	M	26					
	250 0	M	20					
	200 💆	M	6					
	Blank off existing Spigots		10					
	RAEC Grilles 600 x 300		26					
	Repair external duct insulation		1					
	TOTAL FOR PAGE 17 (TO BE CARRIED FORWARD TO SUMMARY PAGE)							

Part C2 23 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



TRANSNET							
DUCTING – FOURTH FLOOR CONT.							
ITEM	UNIT	QTY	RATE	AMOUNT			
Fire Dampers							
		2					
Static Pressure Dampers							
		1					
			_				
			1				
Balancing Dampers		11					
		1					
		_					
	1						
000 X 000	1						
Access panels	•	2					
300 X 300							
Return air grilles with hinged core 900 x 605mm		2					
N							
·							
X							
•							
(TO BE CARRIED FORWARD TO SUMMARY							
	## DUCTING - FOURTH FLOOR CONT. ITEM	DUCTING - FOURTH FLOOR CONT.	DUCTING - FOURTH FLOOR CONT.	DUCTING - FOURTH FLOOR CONT. TEM			

Part C2 24 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 19	DUCTING - AC PLANTROOM				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	Fire Dampers				
	1000 x 800		3		
	1000 x 1000		1		
	F				
	External Weather Louvres c/w WMS 3200 x 2500		1		
	3200 X 2300		1		
	Dump Damper				
	3200 x 2500		1		
				4	
	Return air bypass dampers		4	1	
	1000 x 1000		2		
	TDOV Danie				
	TROX Doors		3		
)		
		1			
		\			
	<u> </u>				
	1//				
	*				
	TOTAL FOR PAGE 19				
	(TO BE CARRIED FORWARD TO SUMMARY PAGE)				

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Bill of Quantities

C2.2



Project:	TRANSNET				
Page 20	STRIP OUT REDUNDANT EQUIPMENT				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	Strip out redundant equipment		1		
	Cooling Tower		1		
	Pumps		2		
	Pipework		1		
	Existing 2 nd fix ducting and grilles	LOT			
	Pneumatic Control System		1	1	
			1		
			17		
		, ()`		
		1			
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	, 0				
	, N				
	214				
	TOTAL FOR PAGE 20 (TO BE CARRIED FORWARD TO SUMMARY				
	PAGE)				

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Bill of Quantities

C2.2



Project:	TRANSNET				
Page 21	BUILDERS WORK				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	New single door frame and hardware		1		
	Paint doors 2 coats undercoat 2 Coats enamel		lot		
			4		
	New concrete bases for pumps		4		
	New inertia bases for pumps		4		
	Remove existing pump base		2	1	
	Repair Opening in wall for left by old cooling tower including old bases		1		
	Opening through external wall for condenser water pipes and make good	C	2		
	New concrete piers for cooling towers	1	lot		
	New concrete piers for condenser water pipework		4		
	Opening in wall for new MCW pipe to roof and the making good		1		
	Re paint main airhandling unit plantrooms walls with two coats high quality PVA		1		
	Paint plantroom floor in plantroom walls with epoxy paint		1		
	Full bore drain, coring of hole and pipework to nearest soil pipe		1		
	X				
	TOTAL FOR PAGE 21 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

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Project:	TRANSNET				
Page 22	MAINTENANCE AND GUARANTEE				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
1	Bi-Monthly service of all new and existing plant		5		
2	Annual major service of all new and existing plant		1		
3	Allowance for any breakdown calls	LOT			
4	Spare set of filters for all new equipment supplied	LOT			
				1	
			7		
		-) '		
		1			
	O _X				
	•				
	TOTAL FOR PAGE 22 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 28 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 23	GENERAL ITEMS				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	Fill & Vent		2		
	Pressure test		1		
	Flush system		2		
	Centrifugal pumps anti-vibration mounts		24		
	Test kit for binder fittings		1		
	Offload, rigging and installation of equipment		1	1	
	Teco pads		40		
	Hot dipped galvanizing of all pipework and brackets including transport and labour to load and offload and position	, C	1		
	Inertia bases		6		
	Cleaning and flushing of towers (4off)		2		
	Cleaning and hushing of towers (40h)				
	Cleaning of all pipework		2		
	Cleaning and touching up paintwork of all equipment		1		
	Automotio water tractment auctom		1		
	Automatic water treatment system		I		
	Water treatment service contract				
	Monthly Services		12		
	Years Chemicals		1		
	TOTAL FOR PAGE 23 (TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 29 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



Project:	TRANSNET				
Page 24	CREDIT FOR REDUNDANT EQUIPMENT				
ITEM NO	ITEM	UNIT	QTY	RATE	AMOUNT
	Credit for all redundant equipment, pipework, coil etc. That are not to be refurbished on site and are to be scrapped.	LOT	1		
	This item includes all copper finned copper coil on existing air cooled condensing units.				
			4	1	
			4		
		, (),		
	TOTAL FOR PAGE 24				
	(TO BE CARRIED FORWARD TO SUMMARY PAGE)				

Part C2 30 of 31 C2.2
Pricing Data: Air-Condition Bill of Quantities



C2.2

Bill of Quantities

Project:	TRANSNET					
SUMMARY PAGE						
PAGE No.	ITEM	AMOUNT				
1	PRELIMINARY & GENERAL	R				
2	CAPITAL EQUIPMENT	R				
3	CHILLED WATER PIPEWORK	R				
4	CONDENSER WATER PIPEWORK	R				
5	MCW., OVERFLOW AND DRAINS	R				
6	CHILLED WATER PIPEWORK INSULATION	R				
7	ELECTRICS	R				
8	ELECTRONIC CONTROLS	R				
9	BUILDING MANAGEMENT SYSTEM	R				
10	DUCTING – GROUND FLOOR	R				
11	DUCTING - FIRST FLOOR	R				
12	DUCTING - FIRST FLOOR CONT.	R) ·			
13	DUCTING - SECOND FLOOR	R				
14	DUCTING - SECOND FLOOR CONT.	R				
15	DUCTING - THIRD FLOOR	R				
16	DUCTING - THIRD FLOOR CONT.	R				
17	DUCTING - FOURTH FLOOR	R				
18	DUCTING - FOURTH FLOOR CONT.	R				
19	DUCTING - AC PLANTROOM	R				
20	STRIP OUT REDUNDANT EQUIPMENT	R				
21	BUILDERS WORK	R				
22	MAINTENANCE AND GUARANTEE	R				
23	GENERALITEMS	R				
24	CREDIT FOR REDUNDANT EQUIPMENT	R				
	PC SUM FOR REPAIRS TO CHILLER	R	10 000.00			
	CONTINGENCY SUM	R	200 000.00			
	TOTAL FOR SUMMARY PAGE CARRIED FORWARD TO TENDER PAGE	R				

Part C2 31 of 31
Pricing Data: Air-Condition

