

ITEM	PHYSICAL PROPERTIES OF POLYURETHANE FOAM	FOR ABOVEGROUND CHILLED WATER PIPEWORKS	FOR UNDERGROUND CHILLED WATER PIPEWORKS
1	DENSITY	45 kg/m <sup>3</sup> MINIMUM	45 kg/m <sup>3</sup> MINIMUM
2	THERMAL CONDUCTIVITY	NOT GREATER THAN 0.023 W/m°C AT 20°C MEAN TEMPERATURE	NOT GREATER THAN 0.023 W/m°C AT 20°C MEAN TEMPERATURE
3	COMPRESSIVE STRENGTH	2.0 kg/cm <sup>2</sup> MINIMUM	5.0 kg/cm <sup>2</sup> MINIMUM
4	CLOSED CELL CONTENT	MINIMUM 90% BY VOLUME	MINIMUM 90% BY VOLUME
5	WATER VAPOUR PERMEABILITY	2.2 PERM-INCHES	1.5 PERM-INCHES
6	INSULATION THICKNESS	<div>PIPE_SIZEINSULATION THICKNESS</div> <div>UP TO 100mm40mm</div> <div>ABOVE 125mm50mm</div>	<div>PIPE_SIZEINSULATION THICKNESS</div> <div>UP TO 32mm25mm</div> <div>40mm TO 125mm32mm</div> <div>150mm TO 200mm40mm</div> <div>ABOVE 250mm50mm</div>
7	OUTER JACKET/CASING	<div>INDOOR</div> <div>INTERNAL SPIRAL LOCK SEAMED GALVANISED STEEL (0.6 mm THICK)</div> <div>OUTDOOR</div> <div>INTERNAL SPIRAL LOCK SEAMED ALUMINIUM (0.8mm THICK)</div>	EXTRUDED HIGH DENSITY POLYETHYLENE (HDPE) BLACK IN COLOUR AND CONFORMING TO BS 3284

COOLING TOWER SCHEDULE										
ITEM	EQUIPMENT NO.	TYPE	HEAT REJECTION CAPACITY IN KW (HRT)	LEAVING/ ENTERING CONDENSER WATER TEMPERATURE (°C)	FOULING FACTOR IN, m <sup>2</sup> K/kW (ft <sup>2</sup> F hr/Btu)	CONDENSER WATER FLOW RATE IN L/S	NO OF UNIT	LOCATION	ESTIMATED ELECTRICAL LOAD	REMARKS
1	CT1 CT2	LOW NOISE, CROSS FLOW TYPE	1134 (250)	30.6/36.2	0.04404 (0.00025)	33.1	3 (2 DUTY, 1 STANDBY)	ROOF TOP	3 PHASE, 415V, 50 Hz, NOMINAL POWER INPUT OF 7.5kW FOR EACH COOLING TOWER	–

CHILLED WATER PUMP SCHEDULE								
ITEM	EQUIPMENT NO.	TYPE	PUMP FLOWRATE IN L/S	PUMP HEAD IN m	NO. OF UNIT	LOCATION	ESTIMATED ELECTRICAL LOAD	REMARKS
1	CHWP 1 CHWP 2 CHWP 3	CONSTANT SPEED HORIZONTAL CENTRIFUGAL END SUCTION PUMP	26.5	50	3 (2 DUTY, 1 STANDBY)	CHILLER PLANT ROOM AT ROOF	3 PHASE, 415V, 50 Hz, POWER SUPPLY OF 20KW IS NEEDED FOR EACH PUMP	THE EFFICIENCY OF PUMP MOTOR SHALL BE MINIMUM 75%

CONDENSER WATER PUMP SCHEDULE								
ITEM	EQUIPMENT NO.	TYPE	PUMP FLOWRATE IN L/S	PUMP HEAD IN m	NO. OF UNIT	LOCATION	ESTIMATED ELECTRICAL LOAD	REMARKS
1	CWP 1 CWP 2 CWP 3	CONSTANT SPEED HORIZONTAL CENTRIFUGAL END SUCTION PUMP	33.1	20	3 (2 DUTY, 1 STANDBY)	CHILLER PLANT ROOM AT ROOF	3 PHASE, 415V, 50 Hz, POWER SUPPLY OF 12kW IS NEEDED FOR EACH PUMP	THE EFFICIENCY OF PUMP MOTOR SHALL BE MINIMUM 75%

WATER COOLED CHILLER SCHEDULE														
ITEM	EQUIPMENT NO.	TYPE	CAPACITY IN KW (TR)	LEAVING/ ENTERING CHILLED WATER TEMPERATURE (°C)	LEAVING/ ENTERING CONDENSER WATER TEMPERATURE (°C)	FOULING FACTOR IN, m²K/kW (ft²F hr/Btu)	CHILLED WATER FLOW RATE IN L/S	CONDENSER WATER FLOW RATE IN L/S	OUTDOOR AIR DB/WB (°C)	TYPE OF REFRIGERANT	NO OF UNIT	LOCATION	ESTIMATED ELECTRICAL LOAD	REMARKS
1	CH1 CH2	WATER-COOLED, HERMATIC OR SEMI-HERMETIC SCREW COMPRESSOR TYPE	607 (175)	6/12	30.6/36.1	0.04404 (0.00025)	26.5	33.1	33.3/27.2	R134a	3 (2 DUTY, 1 STANDBY)	CHILLER PLANT ROOM AT ROOF	3 PHASE, 415V, 50 Hz, NOMINAL POWER INPUT OF 130KW FOR EACH CHILLER	1. FULL LOAD POWER CONSUMPTION INDEX SHALL BE LESS THAN 0.75 KW/TR

STAMP / NOTA :

0	24.3.08	ISSUED FOR CONSTRUCTION	SKS
NO.	TARIKH	R I N G K A S A N	OLEH
P I N D A A N			

TAJUK PROJEK :

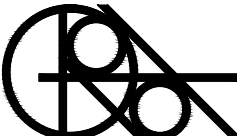
CADANGAN MEMBINA SEBUAH GUDANG 1 TINGKAT BESERTA PEJABAT 3 TINGKAT, YANG MENGANDUNGI:-  
PENCAWANG ELEKTRIK TNB, PUSAT PENGUMPULAN SAMPAH, BILIK PAM,  
1 UNIT PONDOK PENGAWAL DAN 1 UNIT RUANG MENUNGGU 1 TINGKAT, DI ALAMAT NO.9 (PT 33271) JALAN TIANG U8/92, SEKSYEN U8, PERINDUSTRIAN BUKIT JELUTONG, 40150 SHAH ALAM, SELANGOR DARUL EHSAN

UNTUK  
TETUAN ORYX IMPRESSIONS SDN. BHD.

TANDATANGAN & ALAMAT PEMILIK :

ORYX IMPRESSIONS SDN. BHD. (co. no. 646594-X)  
36-2, JALAN 5/101C, OFF JALAN KASKAS, JALAN CHERAS, 56100 KUALA LUMPUR.  
TEL: 03- 9132 3018      FAX: 03-9132 7018

ARKITEK :



**GRA ARCHITECTS** Sdn Bhd  
6-LS-01, Tower 2, Menara PGRM, no. 6&8 Jalan Pudu Ulu, 56100 Kuala Lumpur, Malaysia  
T 603-9281 7177 F 603-9287 8208 E gram@gra.com.my www.gra.com.my

JURUTERA M&E :



**PERUNDING ATOZ**  
Jurutera Perunding - Consulting Engineers

23B, JALAN SS15/4C, 47500 SUBANG JAYA, SELANGOR DARUL EHSAN.  
Tel: 03-56366711 Fax: 03-56366177 E-mail: perunding\_atoz@myjaring.net

TAJUK LUKISAN :

AIR-CONDITIONING AND VENTILATION SYSTEM  
EQUIPMENT SCHEDULE  
(SHEET 2 OF 2)

DILUKIS	DAN	DISEMAK	SKS
SKALA	NOT TO SCALE	TARIKH	MARCH 2008
NO.LUKISAN	508307/M/AC/09	PINDAAN	0

PELAN INI MENGANDUNGI HAK CIPTA  
kontraktor hendaklah mengikut dimensi yang ada di dalam rajah, segala dimensi mesti diperiksa dan disemak di tapak binaan, sebarang selisihan yang terdapat hendaklah dilaporkan kepada akitek/jurutera yang berkuasa.