

Cabinet Type

Multideck Full Height

Model Designation

ICB

File Reference

1168

Document Issue

1	16.11.10	GR	Provisional Tech Data
2	03.12.10	LRC	Updated Electrical Data and Water Flow Rates
3	04.01.11	GR	Condensate Volumes Added
4	06-06-11	GL	Updated Water Flow Rates for 18c & 24c

cabinet **TECHNICAL DATA**

Cabinet Technical Data Sheet – ICB

Product Type	Meat 3M0
Product Temperature	-1 /+4 °C
Maximum Design Ambient	25°C @ 60% RH

Case Length [m]	3.75	2.50	1.87	1.25
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Refrigeration Data				
Nett Environmental Cooling Effect	1.91	0.78	0.96	0.39
Refrigerant Charge Per System R1270	850g	630g	850g	630g

Electrical Data (@ 230V 50Hz)										
	Watts		Amps		Watts		Amps		Watts	
Fans (EC EBM)	42	0.18	28	0.12	21	0.09	14	0.06		
Controller	10	0.04	10	0.04	10	0.04	10	0.04		
Lights	54	0.23	36	0.16	24	0.10	12	0.05		
Condensing unit	1580	6.9	1226	5.3	790	3.4	613	2.7		
Maximum Load – Off Cycle Defrost	1686	7.3	1300	5.7	845	3.7	649	2.8		

Engineering Data - Common				
Total Heat Rejection THR [KW]	7.29	5.04	3.64	2.52
Plate Heat Exchanger [Kpa] each	2 @ 1.31	2 @ 1.31	1 @ 1.31	1 @ 1.31
Water inlet temperature	18°C			
Water outlet temperature	24°C			
Drain Outlet	32mm Plastic			
Chilled Water Connections	22mm			
Condensate Volume (3M0 +4 ⁰)	44ltrs (Per Linear Metre Per 24hrs)			
Condensate Volume (3M1 +5 ⁰)	23ltrs (Per Linear Metre Per 24hrs)			

Engineering Data – Core Stores (No Primary Condenser)				
THR (Water only) [KW]	6.49	4.25	3.25	2.12
THR (Air only) [KW]	0.8	0.8	0.40	0.40
Glycol Flow Rate [Kg/S]***	0.2815	0.1839	0.1407	0.0920
Water Flow Rate [Kg/S]****	0.2589	0.1692	0.1295	0.0846

Engineering Data – Convenience Stores (With Primary Condenser)				
THR (Water only) [KW]	5.80	3.54	2.90	1.77
THR (Air only) [KW]	1.5	1.5	0.75	0.75
Glycol Flow Rate [Kg/S]***	0.2511	0.1536	0.1256	0.0768
Water Flow Rate [Kg/S]****	0.2310	0.1413	0.1155	0.0706

Set-Up Data** O/C Defrost	Meat 3.75 & 2.50		Meat 2.18, 1.87 & 1.25	
Cut in Temperature [°C]	3		3	
Differential [K]	2		2	
Anti Cycle Time (Seconds)	180		180	
Lag Comp Delay (Seconds)	180		0	
Cabinet Temperature Ratio (%)	40		40	
N° Defrosts (per 24hrs)	8		8	
Maximum Defrost Time [mins]	45		45	
Defrost Termination Temp (air off) [°C]	8		8	
Drain Down Time [mins]	1		1	
Fans in Defrost	On		On	
Integral Control	Basic		Basic	

NOTES! * 12/12 Trading Conditions
 ** Set-up data is for guidance only. Final settings to be determined by commissioning contractor.
 *** Flow rate for Glycol based on 30% @ 20°C from ASHRAE = 3.848 KJ/(KG-K)
 **** Flow rate for water @ 20°C (http://www.engineeringtoolbox.com/water-thermal-properties-d_162.html)



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Cabinet Technical Data Sheet – ICB WAE

Product Type	Meat 3M0
Product Temperature	-1 /+4 °C
Maximum Design Ambient	25°C @ 60% RH

Case Length [m]	2.18 WAE	1.87 WAE
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Refrigeration Data

Nett Environmental Cooling Effect	1.53	0.96
Refrigerant Charge Per System R1270	880g	650g

Electrical Data (@ 230V 50Hz)

	Watts	Amps	Watts	Amps
Fans (EC EBM)	28	0.12	21	0.09
Trim Heaters	30	0.13	30	0.13
Controller	10	0.04	10	0.04
Lights	30	0.13	20	0.90
Condensing unit	839	3.7	790	3.4
Maximum Load – Off Cycle Defrost	937	4.1	871	3.8

Engineering Data - Common

Total Heat Rejection THR [KW]	4.89	3.65
Plate Heat Exchanger [Kpa] each	1 @ 0.86	1 @ 1.31
Water inlet temperature		18°C
Water outlet temperature		24°C
Drain Outlet		32mm Plastic
Chilled Water Connections		22mm
Condensate Volume (3M0 +4 ^o)	44ltrs (Per Linear Metre Per 24hrs)	
Condensate Volume (3M1 +5 ^o)	23ltrs (Per Linear Metre Per 24hrs)	

Engineering Data – Core Stores (No Primary Condenser)

THR (Water only) [KW]	4.37	2.90
THR (Air only) [KW]	0.4	0.4
Water Flow Rate [Kg/S]	0.1787	0.1295
Glycol Flow Rate [Kg/S]	0.1943	0.1407

Engineering Data – Convenience Stores (With Primary Condenser)

THR (Water only) [KW]	4.14	2.99
THR (Air only) [KW]	0.75	0.75
Water Flow Rate [Kg/S]	0.1648	0.1155
Glycol Flow Rate [Kg/S]	0.1791	0.1256

Set-Up Data** O/C Defrost

	Meat 3.75 & 2.50	Meat 2.18, 1.87 & 1.25
Cut in Temperature [°C]	3	3
Differential [K]	2	2
Anti Cycle Time [Seconds]	180	180
Lag Comp Delay [Seconds]	180	0
Cabinet Temperature Ratio (%)	40	40
N° Defrosts (per 24hrs)	8	8
Maximum Defrost Time [mins]	45	45
Defrost Termination Temp (air off) [°C]	8	8
Drain Down Time [mins]	1	1
Fans in Defrost	On	On
Integral Control	Basic	Basic

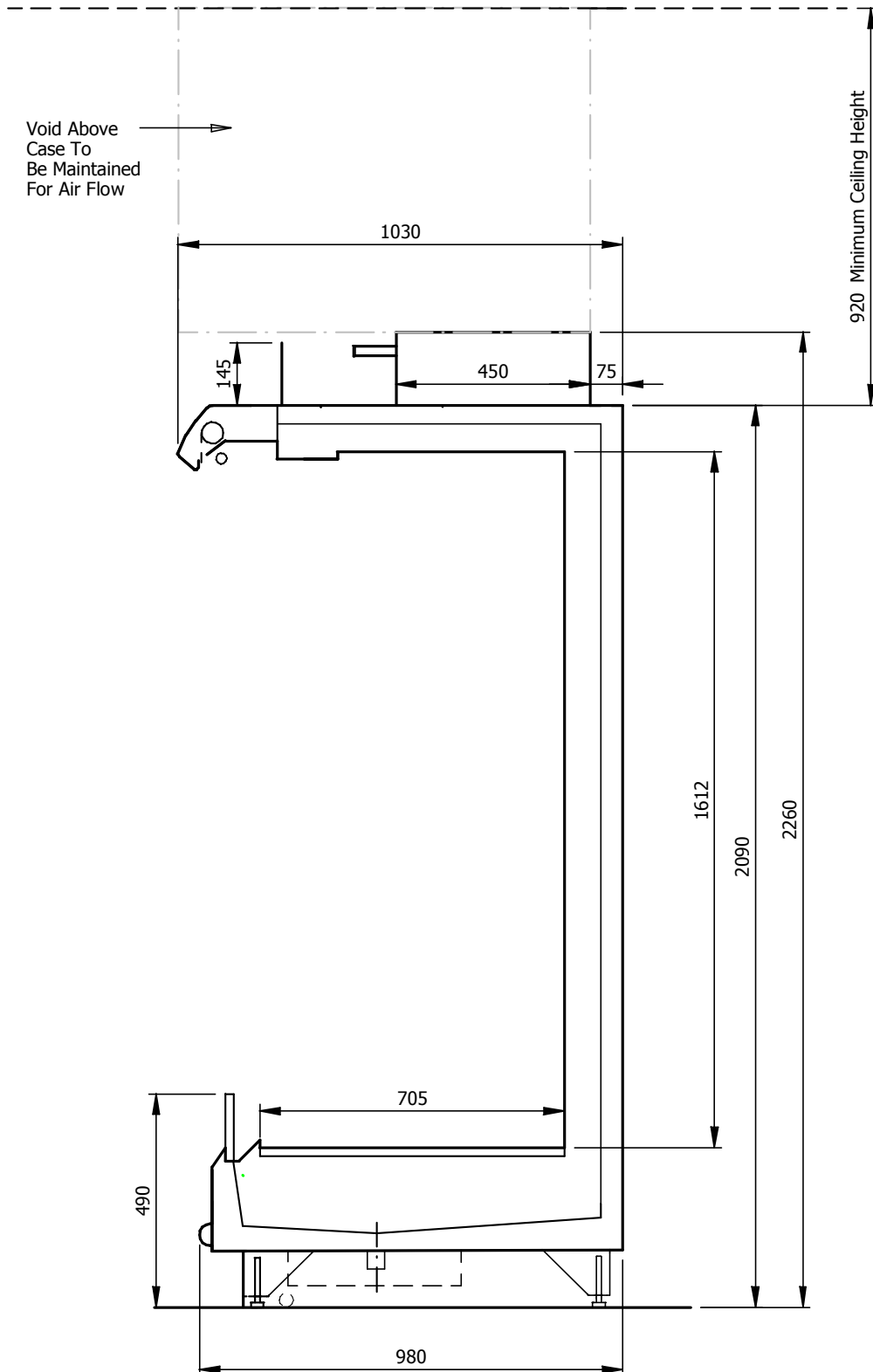
NOTES! * 12/12 Trading Conditions

** Set-up data is for guidance only. Final settings to be determined by commissioning contractor.

*** Flow rate for Glycol based on 30% @ 20°C from ASHRAE = 3.848 KJ/(KG-K)

**** Flow rate for water @ 20°C (http://www.engineeringtoolbox.com/water-thermal-properties-d_162.html)

Section Drawing – ICB

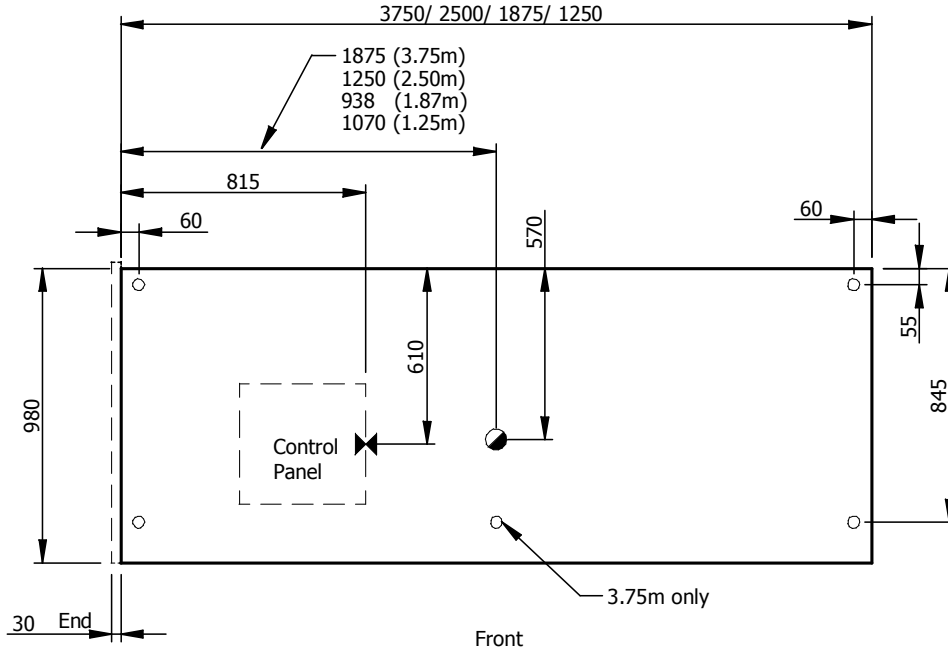


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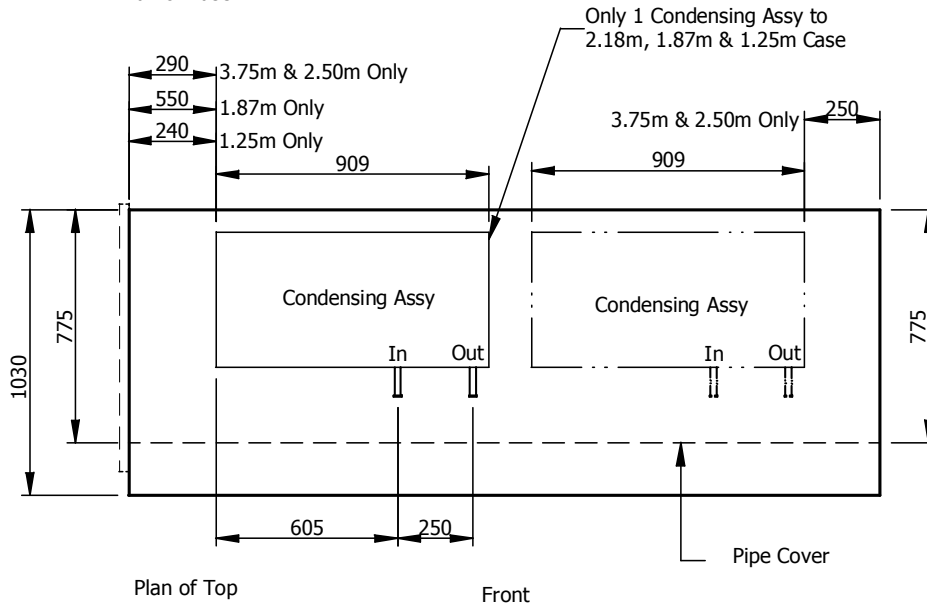
Plan Drawing – ICB

KEY

- Feet Positions
- Refrig. Outlets
- ✕ Refrig Pipe Tails
- ◐ Drain Outlets
- ⊞ Mains Supply



Plan of Base



Plan of Top

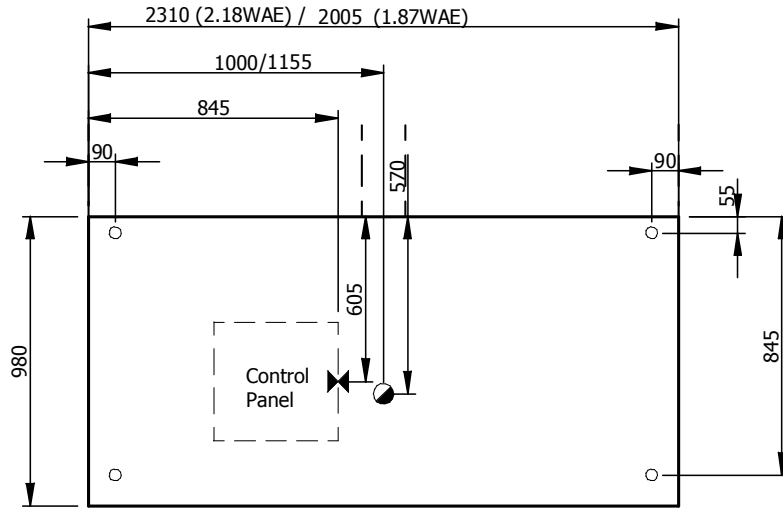
Front

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Plan Drawing – ICB WAE

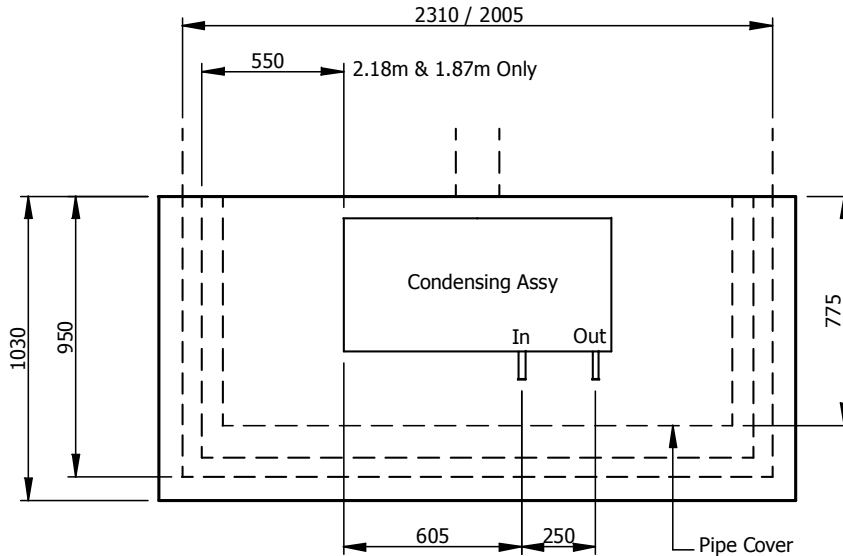
KEY

- Feet Positions
- Refriger. Outlets
- ✕ Refriger. Pipe Tails
- Drain Outlets
- ⊗ Elect. Outlets
- ⊗ Mains Supply



Plan of Base

Front



Plan of Top

Front

Ref:- DW1110-02