

Cabinet Type	Multideck Combined Half Glass over Well			
Model Designation	GDD			
File Reference	1220			
Document Issue	1	27.07.12	LRC	Original Issue
	2	16.08.12	LRC	Updated 2100 WAE data Changed from Glycol 30% to DTX 27%, changed flow rates and added lower temperature chilled glycol.
	3	30-08-13	LRC	Highlighted defrost strategy and control temperatures for Ice Cream and WAE Cases.
	4	03-12-13	LRC	
	5	26-02-14	LRC	Updated Maximum Running loads.

Cabinet Technical Data Sheet – GDD

Product Type	Frozen Food 3L1
Product Temperature	-18°C / -22°C
Maximum Design Ambient	25°C 60%RH

Case Length [m]	3.75	2.50	2.1 (WAE)	1.87
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Refrigeration Data

Nett Environmental Cooling Effect	+0.84	+1.06	0.42	0.42
Refrigerant Charge per System R1270	700g	420g	700g	700g

Electrical Data (individual loads 230v)	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps
Defrost Heaters	4000	17.39	2800	12.17	2400	10.45	2000	8.70
Fans	147	0.64	98	0.43	75	0.35	75	0.35
Trim Heaters	841	3.66	540	2.35	480	2.09	456	1.98
Controller	10	0.04	10	0.04	10	0.04	10	0.04
Lights LED	110	0.48	76	0.33	56	0.24	56	0.24
Condensing unit	2358	10.3	1678	7.3	1179	5.1	1179	5.1

Electrical Data (@400V 3ph 50Hz)	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Maximum Load – Normal Running	4.8	5.15	5.15	3.15	3.65	3.65	2.72	2.6	5.1	0	5.1	0
Maximum Load – Electric Defrost	4.8	8.7	8.7	3.15	6.5	6.5	2.72	5.2	5.2	2.61	4.3	4.3

Engineering Data - Common

Total Heat Rejection THR [KW]	5.77	4.11	3.25	3.03
Plate Heat Exchanger [Kpa] each	1 @ 7.5Kpa		1 @0.86Kpa	
Drain Outlet	32mm Plastic			
Chilled Water Connections	22mm			
Condensate Volume	2ltrs (Per Linear Meter Per 24hrs)			

Engineering Data

THR (Water only) [KW]	5.26	3.31	2.85	2.63
DTX Glycol Flow Rate 27% [Kg/S]***	0.2301	0.1448	0.1245	0.1151
18°C/24°C				
DTX Glycol Flow Rate 27% [Kg/S]*****	0.2310	0.1454	0.1250	0.1155
6°C/12°C				
Water Flow Rate [Kg/S]*****	0.2096	0.1319	0.1134	0.1048

Set-Up Data**

	Frozen		Ice Cream	
	3.75/2.50	1.87	3.75/2.50	1.87
Cut in Temperature [°C]	-24	-24	-27	-27
Differential [K]	2	2	2	2
Cabinet Temperature Ratio (%)	60	60	60	60
Anti Cycle Time [Seconds]	180	180	180	180
Lag Comp Delay [Seconds]	60	0	60	0
N° Defrosts (per 24hrs)	2	2	2	2
Maximum Defrost Time [mins]	45	45	45	45
Defrost Termination Temp (air off) [°C]	1	1	1	1
Drain Down Time [mins]	0	0	0	0
Fans in Defrost	On	On	On	On
Integral Control	Basic	Basic	Basic	Basic
Trim Heater Control (%) if fitted	60	60	60	60

NOTES! * 12/12 Trading Conditions

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

*** Flow rate for DTX Glycol based on 27% @ 20°C from ASHRAE = 3.8095 KJ/(KG-K)

***** Flow rate for DTX Glycol based on 27% @ 9°C from ASHRAE = 3.7954 KJ/(KG-K)

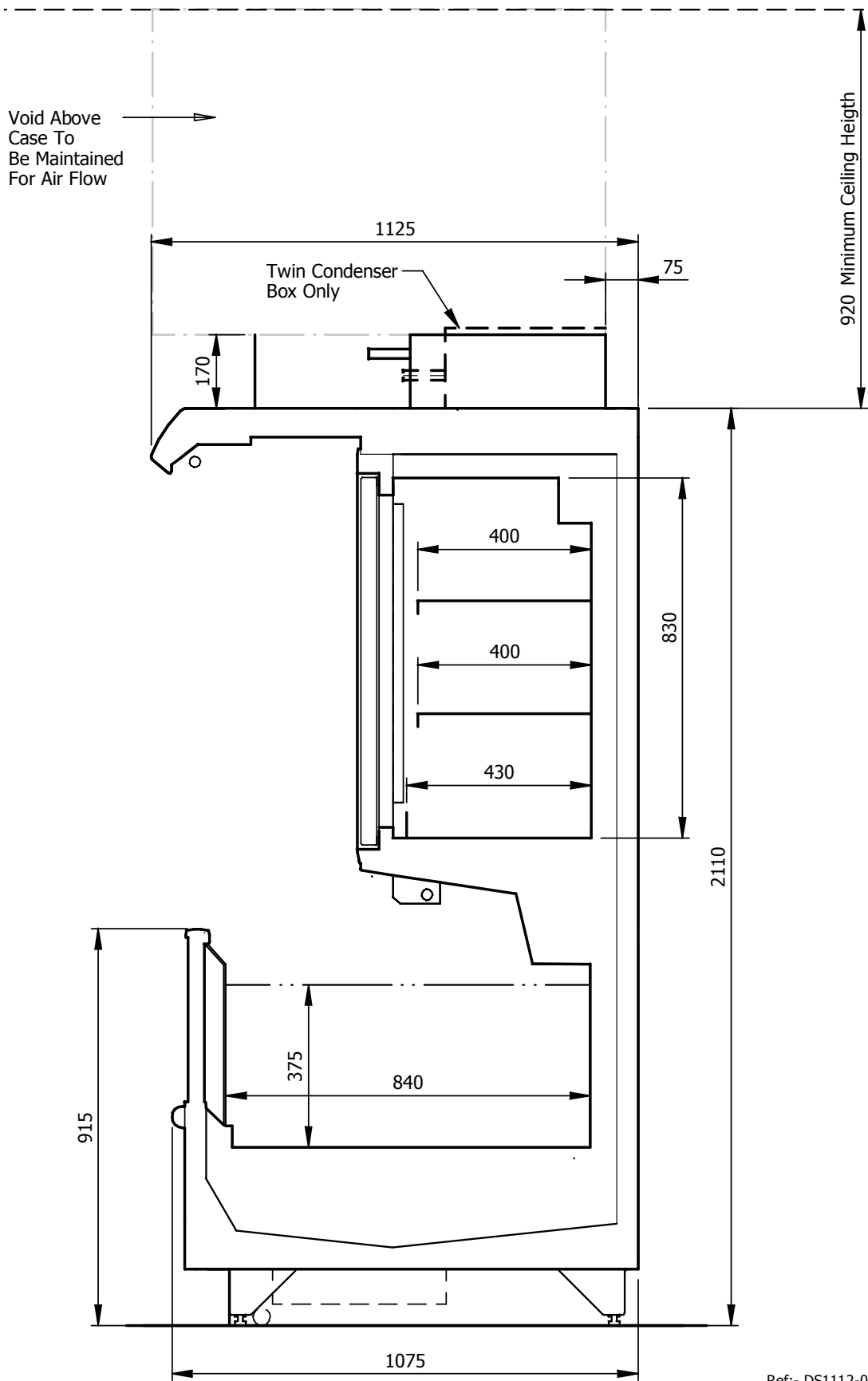
2 To defrost outside of peak trading hours.

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

	Frozen/Ice Cream
	2100/1.87 WAE
Cut in Temperature [°C]	-27
Differential [K]	2
Cabinet Temperature Ratio (%)	50
Anti Cycle Time [Seconds]	180
Lag Comp Delay [Seconds]	0
N° Defrosts (per 24hrs)	2
Maximum Defrost Time [mins]	45
Defrost Termination Temp (air off) [°C]	1
Drain Down Time [mins]	0
Fans in Defrost	On
Integral Control	Basic
Trim Heater Control (%) if fitted	60

2 To defrost outside of peak trading hours.

Section Drawing – GDD

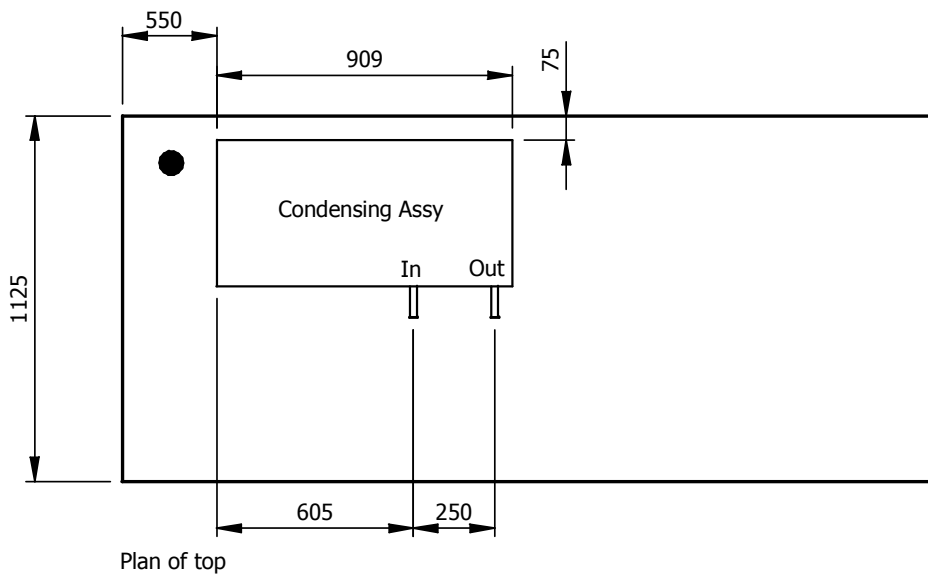
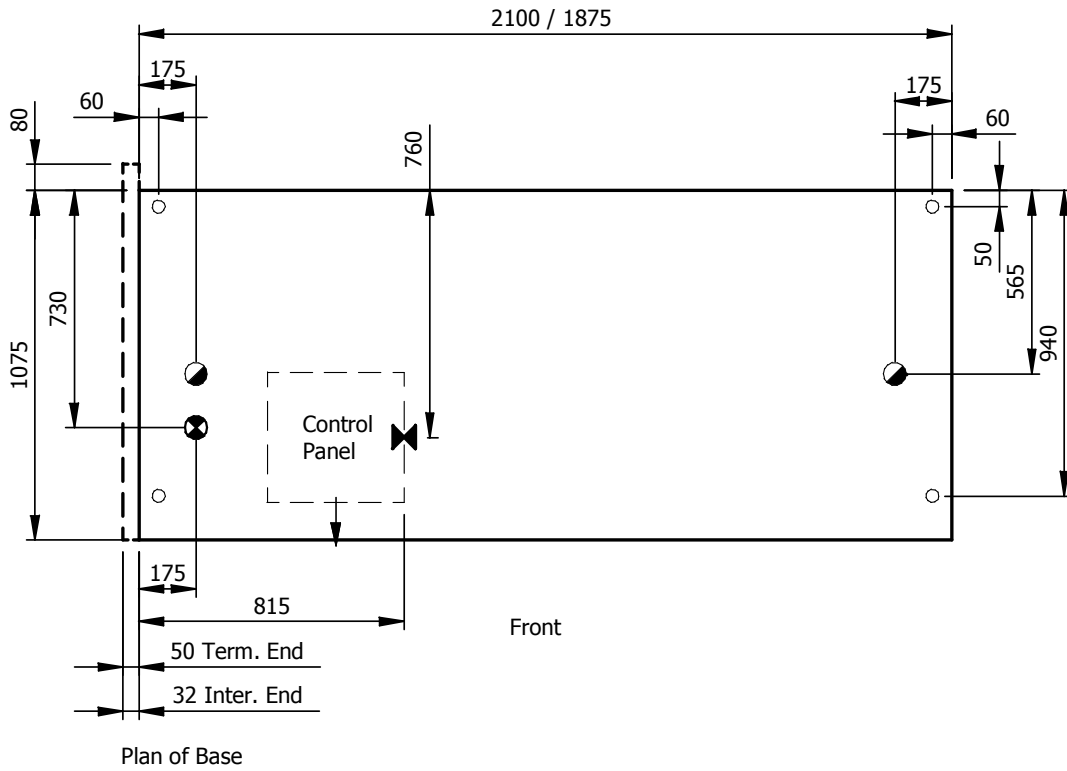


Ref:- DS1112-05

Plan Drawing – GDD

KEY

- Feet Positions
- Refrig. Outlets
- ◐ Drain Outlets
- ⊗ Elect. Outlets
- ⊗ Mains Supply

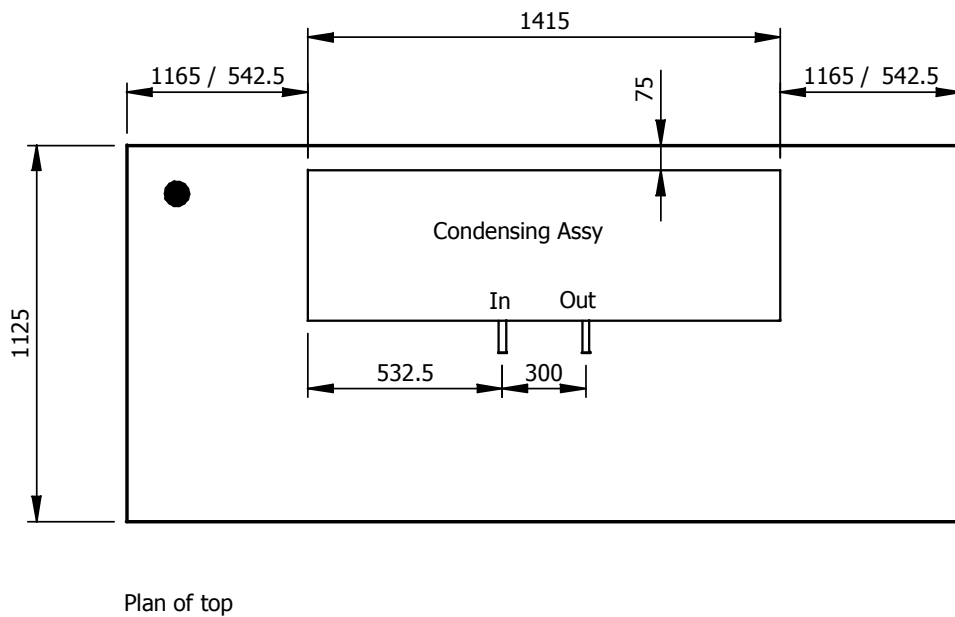
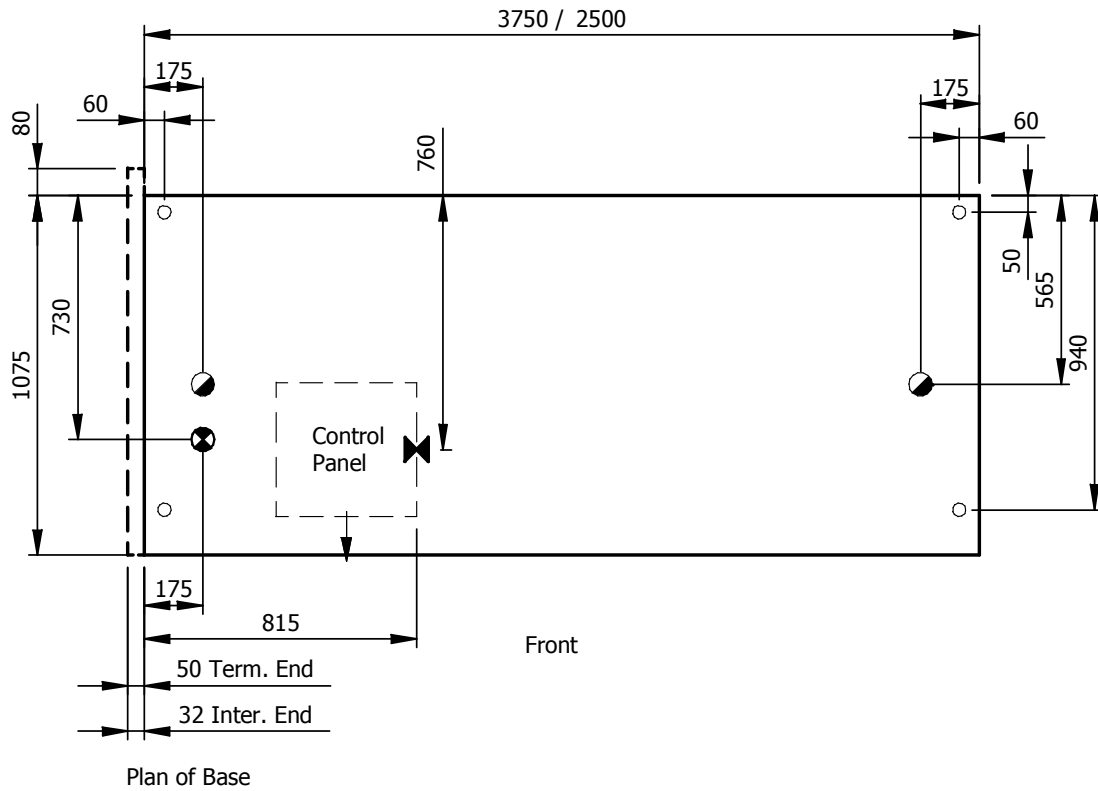


Ref:- DP1112-02

Plan Drawing – GDD 3.75 & 2.5M

KEY

- Feet Positions
- Refrig. Outlets
- ◐ Drain Outlets
- ⊗ Elect. Outlets
- ⊞ Mains Supply



Ref:- DP1220