

THIS DRAWING MUST NOT BE SCALED AND ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE WORK IS COMMENCED.
THE DESIGN AND DRAWING ARE THE COPYRIGHT OF THE CONSULTANTS AND MUST NOT BE USED OR REPRODUCED WITHOUT THEIR PERMISSION.
ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE CONSULTANTS.
ALL INFORMATION SHOWN ON THE DRAWING IS SUBJECT TO OBTAINING THE NECESSARY STATUTORY CONSENTS.

VENTILATION NOTES

- ALL DUCT RUNS AND INTAKE/EXTRACT POSITIONS TO BE CONFIRMED AND SITE MEASURED PRIOR TO MANUFACTURE.
- THE TYPE, ORIENTATION & HEIGHT OF THE ROOF WILL DETERMINE ROOF OR WALL INTAKE/EXHAUST LOCATIONS.
- ALL BUILDERS WORK OPENINGS TO BE CONFIRMED BY M&E CONTRACTORS.
- A CO₂ SENSOR TO BE PROVIDED FREE ISSUE BY THE BMS SUPPLIER INSTALLED BY M&E CONTRACTOR.
- THE MINIMUM HEAD HEIGHT TO UNDERSIDE OF DUCT IN WAREHOUSE SHALL BE 3,000mm AFFL.
- ALL EXTERNAL TEMPERATURE SENSORS ARE TO BE LOCATED ON NORTH FACING WALLS. HOWEVER, IF THIS IS NOT POSSIBLE THEN A PURPOSE RADIANT SHIELD AND MOUNTING BRACKET MUST BE PROVIDED.
- THE HEAT RECOVERY UNIT (HRV) NEED TO BE INSTALLED BEFORE THE COLD ROOMS ARE BUILT.
THE HRV IS BOTTOM ACCESSSED – UNIT TO BE RAISED TO ALLOW FILTER CHANGING.
- DOOR HEATERS ARE TO BE MOUNTED BELOW THE CEILING.
- THE LENGTH OF THE HRV'S AIR DUCTS WILL BE 1,450 mm.
- ALL EGGRATE CORE GRILLS WILL BE OF GDL MANUFACTURE OR EQUIVALENT.
COLOUR FINISH: WHITE

6	17.10.19	DRAWING UPDATED
5	07.08.19	EXTRACT DUCT RELOCATED
4	25.06.19	RE-ISSUE
3	25.02.19	NOTES REVISED
2	13.12.18	BUILDING LAYOUT UPDATED
1	27.09.18	FIRE DAMPERS OMITTED
0	04.07.18	FIRST ISSUE

REVISIONS



JOB TITLE
**STANDARD 1315
RETAIL UNIT**

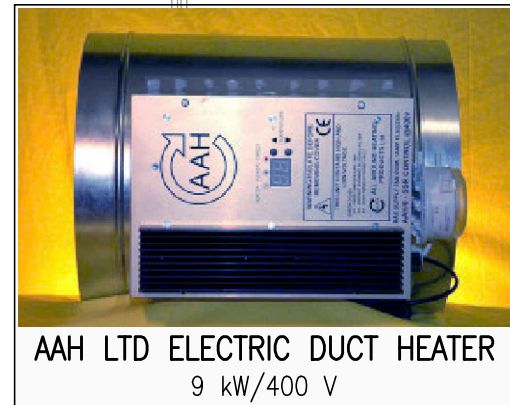
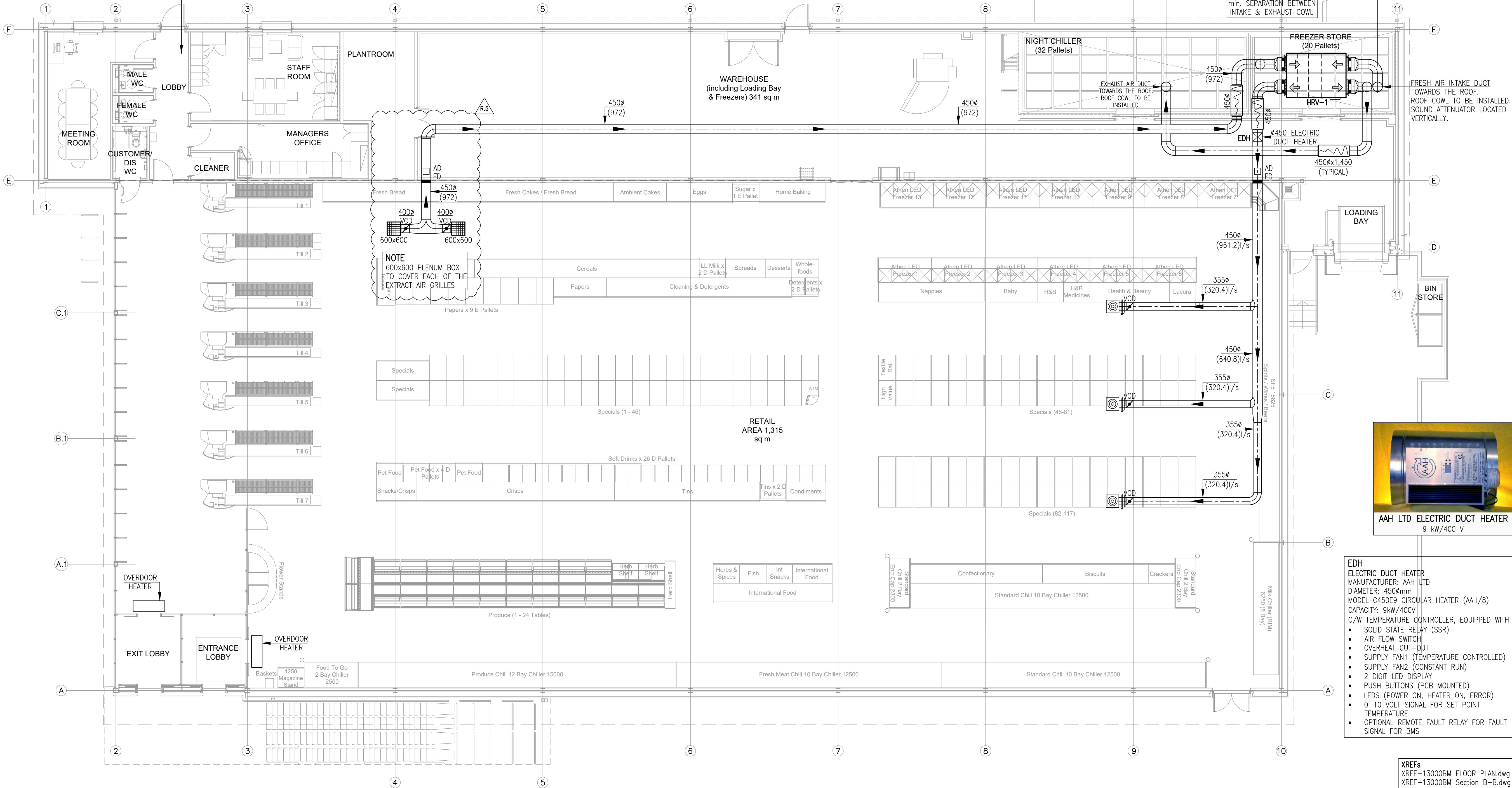
DRG. TITLE
**MECHANICAL SERVICES
RETAIL AREA-VENTILATION**

SCALE	JOB NO.	DRG. NO	REV.
1:100	13000BM	W608	6
DATE			
JUNE 19			

ROOF COWLS
MANUFACTURER: SYSTEMAIR (FANS & SPARES)
MODEL: RA-630
CASING: GLASS REINFORCED PLASTIC WITH ULTRA-VIOLET STABILISER
HORIZONTAL DISCHARGE WITH BIRD GUARD
CONNECTION OPENING: 790x790 mm
EXTERNAL DIMENSIONS: 1,115x1,115 mm
HEIGHT: 650 mm
WEIGHT: 70 kg
COLOURED TO RAL OR BS
STANDARD COLOUR: RAL 7035 GOOSEWING GREY



NOTE
PLEASE REFER TO DRAWING W622, FOR VENTILATION LAYOUT OF THE ADMINISTRATION & WELFARE AREA.



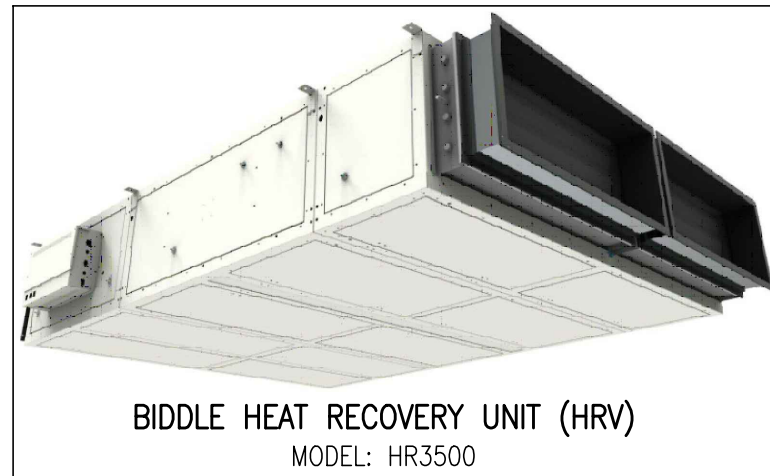
EDH
ELECTRIC DUCT HEATER
MANUFACTURER: AAH LTD
DIAMETER: 450mm
MODEL C450E9 CIRCULAR HEATER (AAH/8)
CAPACITY: 9kW/400V
C/W TEMPERATURE CONTROLLER, EQUIPPED WITH:
• SOLID STATE RELAY (SSR)
• AIR FLOW SWITCH
• OVERHEAT CUT-OUT
• SUPPLY FAN1 (TEMPERATURE CONTROLLED)
• SUPPLY FAN2 (CONSTANT RUN)
• 2 DIGIT LED DISPLAY
• PUSH BUTTONS (PCB MOUNTED)
• LEDS (POWER ON, HEATER ON, ERROR)
• 0-10 VOLT SIGNAL FOR SET POINT TEMPERATURE
• OPTIONAL REMOTE FAULT RELAY FOR FAULT SIGNAL FOR BMS

XREFs
XREF-13000BM FLOOR PLAN.dwg
XREF-13000BM Section B-B.dwg

SYMBOLS LEGEND	
	SOUND ATTENUATOR (CROSSTALK) FITTED ON Ø450 mm AIR DUCT
	ROUND AIR DUCT Ø125 mm, CARRYING 32 L/s OF AIR
	VOLUME CONTROL DAMPER FITTED ON CIRCULAR AIR DUCT
	FIRE DAMPER AND ACCESS DOOR INSTALLED IN CIRCULAR AIR-DUCT, FIRE RATED ½-1-½ HOUR, AS PER ARCHITECTS FIRE STRATEGY PLANS
	EGGRATE CORE GRILLE
	JET DIFFUSER

HRV-1
BIDDLE HEAT RECOVERY (HRV) UNIT, TYPE HR3500.
• FLAT PLANTROOM, INSPECTION/MAINTENANCE THROUGH BOTTOM ACCESS
• EC FAN MOTORS (DC CONTROLLED 5-10V)
• CAPACITY: 972 L/s (3,500 m³/h)
• HEAT EFFICIENCY=~76.5%
SUPPLY AIR FAN
max 3,500 m³/h @ 300 Pa-SPEED 100% (10 VDC)
POWER INPUT 1.35 kW/230 V/5.56 A, SFP=~1.37,
EXTRACT AIR FAN
max 3,500 m³/h @ 150 Pa-SPEED 100% (10 VDC)
POWER INPUT 1.29 kW/230 V/5.14 A, SFP=~1.32,

NOISE LEVEL
• 66 db(A) @ 1m FROM UNDERSIDE OF UNIT
• SUPPLY AIR TO STORE: 86.6 db(A)
• EXTRACT AIR FROM STORE: 76.7 db(A)
FEATURES
• CONDENSATE BY GRAVITY THROUGH CONDENSATE TRAP
• DIRTY FILTER INDICATION
PROJECT AIR FLOW RATE: 961.2 l/s (3,460 m³/h)
DIMENSIONS: (WxLxH)=2,160x2,910x544 mm
WEIGHT=590 kg
CONNECTIONS=500x380 mm



ODH-1 & ODH-2
OVERDOOR HEATERS (AIR CURTAINS)
MANUFACTURER: BIDDLE
MODEL: DF L-150-W4-F
EXPOSED UNIT WITH HIGH OUTPUT COIL
MAXIMUM MOUNTING HEIGHT: 3.5 m
AIR FLOW RATE (L-M-H): 439-570-731 l/s
WATER FLOW RATE: 0.15 l/s
WATER PRESSURE DROP: 0.19 mWG
HEATING CAPACITY (L-M-H): 9-10.6-12.3 kW
(20°C ENTERING AIR & 60/40°C LTHW F&R)
DIMENSIONS (WxDxH): 1,500x570x270 mm
RATED POWER INPUT: 0.77 kW/230 V
NOISE LEVEL: 48 db(A) @ MEDIUM SPEED
WEIGHT: 50 kg

