

**MECHANICAL SERVICES
EQUIPMENT SCHEDULES
FOR
ABBOTSMEAD PLACE
SHELTERED HOUSING PROJECT
CAVERSHAM, BERKSHIRE**

Prepared for:

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MECHANICAL SERVICES EQUIPMENT SCHEDULES

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SCHEDULE N°. 1

HEAT PUMPS, BUFFER VESSEL AND ASSOCIATED EQUIPMENT

1. For details of this equipment refer to the Dimplex quotation for this project.

2. Equipment supplier:-

Dimplex Renewables Ltd

Tel: 0845 601 5111

www.dimplex.co.uk/renewables

Contact: Rob Mack 07800 685358

SCHEDULE N°. 2

UNDERFLOOR HEATING MANIFOLDS, MIXING PUMP SETS AND ASSOCIATED EQUIPMENT

1. For details of this provision refer to the Myson quotation for this Project.

2. Equipment Supplier

Myson Ltd

Tel: 0845 402 3434

Contact: Julian Mace

SCHEDULE No. 3 HEATING PRESSURISATION UNIT AND EXPANSION VESSEL

REFERENCE	PU1 / EV1
MANUFACTURER	HAMWORTHY
MODEL	CHESIL 'FLOOR MOUNTED' PACKAGED PRESSURISATION UNIT AND 1 No. HAF300 EXPANSION VESSEL.
APPLICATION	LPHW HEATING SYSTEM PRESSURISATION
FLOW/RETURN TEMPERATURES	(°C) 40/32
NUMBER OF PUMPS	TWO
COLD FILL PRESSURE	(BAR) 1.5
NORMAL WORKING PRESSURE	(BAR) 3.0
MAXIMUM OPERATING PRESSURE	(BAR) 5.0
HIGH ALARM PRESSURE	(BAR) 3.5
LOW ALARM PRESSURE	(BAR) 0.8
EXPANSION VESSEL	
NUMBER OF VESSELS	ONE
VESSEL CAPACITY	(LITRES) 300

Notes

1. This schedule shall be read in conjunction with the mechanical services specification and design drawings.
2. All equipment shall be located with adequate space for maintenance and shall be tested to the relevant standards and test certificates provided.
3. Pressurisation unit shall be supplied as a complete package with the pump assemblies within a floor mounted cabinet.
4. Exact position of this equipment to be determined at site, as space in plant room is very tight.
5. Pressurisation unit and expansion vessel shall be supplied by:

Hamworthy Heating Ltd
Fleets corner
Poole
Dorset
BH17 0HH

Tel: 0845 450 2865 Email: www.hamworthy-heating.com

SCHEDULE N°. 4 CIRCULATING PUMPS

SCHEDULE N°. 4.1 LPHW HEAT PUMP SECONDARY CIRCUIT

REFERENCE:	P01
APPLICATION:	HEAT PUMP SECONDARY CIRCUIT
MODEL:	GRUNDFOS TPED 80-90/4. A-F-A BAQE
MEDIUM:	LTHW 40/32
PUMP TYPE:	TWIN PUMP SET WITH INVERTER PRESSURE DIFFERENTIAL CONTROL & TRANSDUCER ASSEMBLY
FLOW RATE:	(L/S) 11.6 L/S
PRESSURE DROP:	60 KPA
PIPE LINE SIZE	100 DN.
CONNECTION SIZE	(MM) 80 DN
PORT TO PORT LENGTH	(MM) 440
WEIGHT	(KG) 158
MOTOR:	(W) 2 X 1500
ELECTRICAL SUPPLY:	3 PHASE 415 VOLTS 50HZ
FULL LOAD CURRENT:	(A) 3.3
MAXIMUM OPERATING TEMPERATURE	(°C) 120

Notes

1. This schedule shall be read in conjunction with the mechanical services specification and drawings
2. Pumps as manufactured by:

Grundfos Pumps Ltd.

Grovebury Road
Leighton Buzzard
Bedfordshire
LU7 8TL

Contact: Ami Abbasi: 07790 547108

www.aabbasi@grundfos.com

SCHEDULE N°. 4.2 LPHW HEAT PUMP PRIMARY CIRCUIT

REFERENCE:	P02
APPLICATION:	HEAT PUMP PRIMARY CIRCUIT
MODEL:	GRUNDFOS TPED 80-70/4 A-F-A -BAQE
MEDIUM:	LTHW 40/32
PUMP TYPE:	TWIN PUMP SET WITH INVERTER PRESSURE DIFFERENTIAL CONTROL & TRANSDUCER ASSEMBLY
FLOW RATE:	(L/S) 11.6 L/S
PRESSURE DROP:	KPA 45 KPA
PIPE LINE SIZE	(MM) 100 MM DIA
CONNECTION SIZE	(MM) 80
PORT TO PORT LENGTH	(MM) 440
WEIGHT	(KG) 156
MOTOR:	(W) 2 X 1100
ELECTRICAL SUPPLY:	3 PHASE 415 VOLTS 50HZ
FULL LOAD CURRENT:	(A) 2.503
MAXIMUM OPERATING TEMPERATURE	(°C) 120

Notes

1. This schedule shall be read in conjunction with the mechanical services specification and drawings.
2. Pumps as manufactured by:

Grundfos Pumps Ltd.
Grovebury Road
Leighton Buzzard
Bedfordshire
LU7 8TL

Contact: Ami Abbasi: 07790 547108

www.aabbasi@grundfos.com

SCHEDULE N°. 5

AIR AND DIRT SEPARATOR

The Contractor shall supply and install a 'Spirotech combined air and dirt separator in the roof top plant room.

This shall be installed in the LPHW flow header and shall be a 100mm Spirotech combi unit.

As supplied by Messrs

Spirotech Ltd
PO Box 109
Glossop Derbyshire
SK13 1WT

Tel 0208 451 3344

www.spirotech.co.uk

SCHEDULE N°. 6 DOSING POT

To each plantroom the Contractor shall supply and install a 6 litre dosing pot for the LPHW pipework system.

Water treatment and dosing of the LPHW system shall be carried out by the contractors water treatment specialist.

SCHEDULE NO 7 PIPEWORK, VALVES AND FITTINGS

1. All principal pipework distribution system throughout the roof top plant room, main pipework riser and circulation corridor ceiling voids outside each flat shall be in 'Gerberit' Mapress carbon steel pipework and fittings.
2. All pipework and fittings within flats shall be in copper.
3. The LPHW pressure relief valve at the index of each pipework run shall be a 22ø self acting 'Hydrolux pressure release valve, rated to pass 0.5 l/s between an adjustable pressure range of 10 kPa to 50 kPa. As supplied by Messrs Tour & Anderson Ltd. Tel: 01582 876232
4. All pipeline valves shall be Crane Ltd and be of the following type:-

Isolating Valves

DN15 to DN50 shall be ball valves and DN65 to DN100 shall be butterfly valves, as detailed below.

DN15 to DN50 ball valves shall be full bore, copper alloy, Crane Fig N° D171A with fixed lever

LPHW heating DN65 to DN100 shall be butterfly valves flangeless fully lugged wafer type, Fig F628 with trigger lever.

Double Regulating Valves

On 15mm to 50mm pipelines screwed double regulating valves shall be Crane Fig No D931 at flow rates above 0.07 l/s Crane D933 at flow rates of 0.03 l/s to 0.07 l/s and D934 at flow rates between 0.016 l/s and 0.04 l/s.

Flow Measurement Valves

On 15mm to 50mm pipelines valves shall be Crane Fig No D931.

On pipelines 65mm to 100mm in diameter flanged valves shall be Crane Fig No DM941.