

HEATING SYSTEMS

Client: Bedford College
Site: Shuttleworth College
Project: PSDS3b
Reference: 02-15 SPC-M-02
Revision: T00
Date: October 30, 2023

ID Tag	Description	Make	Model & Additional Information
CS	Commissioning Set DN15-50	Oventrop	Hydrocontrol MTR 10604XX; Line size unless indicated otherwise
CS	Commissioning Set DN65-150	Oventrop	Hydrocontrol MFC 106585X; Line size unless indicated otherwise
DBV-01	Dynamic Balancing Valve	Frese	SIGMA 53-2200 Compact DBV DN15-LF with P/T Plugs
DBV-02	Dynamic Balancing Valve	Frese	SIGMA 53-2201 Compact DBV DN15-HF with P/T Plugs
DBV-03	Dynamic Balancing Valve	Frese	SIGMA 53-2202 Compact DBV DN20-LF with P/T Plugs
DBV-04	Dynamic Balancing Valve	Frese	SIGMA 53-2203 Compact DBV DN20-HF with P/T Plugs
DPC-01	Differential Pressure Controller	Frese	PV Compact; 53-3205; DN15; 20-60kPa range; F/F; P/T plugs; Capillary tube; 1/4" & 1/2" adapter
DPC-02	Differential Pressure Controller	Frese	PV Compact; 53-3207; DN20; 20-60kPa range; F/F; P/T plugs; Capillary tube; 1/4" & 1/2" adapter
DPC-03	Differential Pressure Controller	Frese	PV Compact; 53-3211; DN25L; 20-80kPa range; F/F; P/T plugs; Capillary tube; 1/4" & 1/2" adapter
DRV-01	Dynamic Radiator Valve	Danfoss	RA-DV; DN15
MAN-E-0	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-E-1	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-E-2	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-C-0	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-C-1	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-C-2	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-M-0	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories

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MAN-M-1	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-M-2	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-O-0	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-O-1	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-O-2	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-P-0	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-P-1	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
MAN-P-2	Manifold (UFH)	Continal	6-zone; Pumpset low temp; Manifold isolation valves; End sets; Quantum wiring centre; Quantum actuators; Connection accessories
RAD-01	Radiator	Stelrad	Softline Compact K3; 600x400mm
RAD-02	Radiator	Stelrad	Softline Compact K3; 600x500mm
RAD-03	Radiator	Stelrad	Softline Compact K3; 600x600mm
RAD-04	Radiator	Stelrad	Softline Compact K3; 600x700mm
RAD-05	Radiator	Stelrad	Softline Compact K3; 600x800mm
RAD-06	Radiator	Stelrad	Softline Compact K3; 600x900mm
RAD-07	Radiator	Stelrad	Softline Compact K3; 600x1000mm
RAD-08	Radiator	Stelrad	Softline Compact K3; 600x1100mm
RAD-09	Radiator	Stelrad	Softline Compact K3; 600x1200mm

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RLV-01	Radiator Lockshield Valve	Danfoss	RLV; DN15
UFH-E-0-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-0-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-0-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-0-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-0-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-0-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-1-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-1-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-1-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-1-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-1-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-2-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-2-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-2-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-2-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-2-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-E-2-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe;
UFH-C-0-01	Underfloor Heating System	Continal	Future
UFH-C-0-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-0-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-0-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe

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UFH-C-0-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-0-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-1-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-1-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-1-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-1-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-1-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-2-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-2-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-2-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-2-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-2-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-C-2-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-0-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-0-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-0-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-0-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-0-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-0-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-1-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-1-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-1-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe

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UFH-M-1-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-1-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-2-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-2-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-2-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-2-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-2-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-M-2-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-0-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-0-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-0-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-0-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-0-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-0-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-1-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-1-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-1-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-1-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-1-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-2-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-2-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-2-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe

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UFH-O-2-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-2-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-O-2-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-0-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-0-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-0-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-0-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-0-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-0-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-1-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-1-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-1-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-1-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-1-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-2-01	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-2-02	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-2-03	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-2-04	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-2-05	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
UFH-P-2-06	Underfloor Heating System	Continal	Tile-Fix 25-150 XPS panels; SUPERflex-16 pipe
-	Insulation	Kingspan	Kooltherm FM; Refer insulation thickness table

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ID Tag	Description	Make	Model & Additional Information
-	Insulation Jacketing General Spaces	ProTech	ProClad Plus 350W cladding with ProClad pre-formed silver (Alu) fittings and ProClad 4-ply silver tape at joints & seams
-	Insulation Jacketing Plant & Equipment Spaces	ProTech	ProClad Plus 350EMB cladding with ProClad pre-formed silver (Alu) fittings and ProClad 4-ply silver tape at joints & seams
-	Insulation Jacketing - Exterior	ProTech	ProClad Plus 350EMB cladding with ProClad pre-formed silver (Alu) fittings and ProClad 4-ply silver tape at joints & seams
-	Isolation Valve DN15-50	Oventrop	Optibal with extended plastic T-Handle 10771--; Insulation shell 10780--; Line size unless indicated otherwise
-	Isolation Valve DN65-150	Johnson Valves	2-piece Stainless Steel flanged ball valve; Lever operated; JV090018; Line size unless indicated otherwise
-	Non-Return Valve DN15-50	Oventrop	Bronze body swing check; 10750--; Line size unless indicated otherwise
-	Non-Return Valve DN65-150	Oventrop	Double swing wafer check; 107265-; Line size unless indicated otherwise
-	Pipe & Fittings	Geberit	Mapress Stainless Steel - Standard; Seal ring CIIR (black)
-	Pipe Supports	Kingspan	Insulated pipe supports, 80kg/m ³ , Thickness to match insulation; BOSS 2-piece unlined clip 19300---; Unless indicated otherwise
-	Strainer DN15-50	Oventrop	PN25 female thread with 0.25mm mesh; 11210-- ; Line size unless indicated otherwise
-	Strainer DN65-150	Oventrop	PN16 Cast Iron flanged; 11220-- ; Line size unless indicated otherwise
-	Trace Heating System	ESH	Fixed resistance VC heating tape, STC thermostats, VC termination kits & IP66 junction boxes

ALTERNATIVE PRODUCTS BY SUBMITTAL ONLY

Refer drawings for quantities