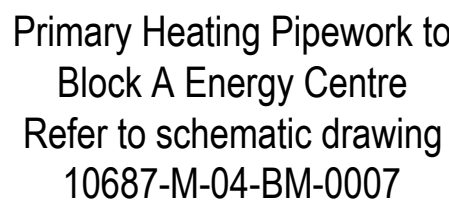


Plant Ref.	Duty	Description	Manufacturer / Supplier	Product Range	Product Ref
AS AM1	Full In-Line Flow	Microbubble, dirt and magnetite separator with Compressed Particle Extractor and automatic air vent.	IMI Hydronic	Zeparo ZIO	ZCD 32
BMS AM1	As per detailed quotation.	Management system with both local and remote maintenance access to ensure all plant can operate as intended and raise a fault alarm, including an automatic email message, should an item of plant become faulty. Incorporated safety system as noted.	Safe & Sound Controls	Trend	-
CDP AM1	25 Litre	Wall Mounted chemical dosing pot with funnel, non-return valve on fill line and air release valve.	ESG Waterwise	DP	DP25
EPF AM1	1.38 minimum pressure 1.98 final pressure	Pressure maintenance, pump driven expansion provision, vacuum degassing and water make up.	IMI Hydronic	SD 80.10 Statico V 6.1 E Connect Tecbox P ABS Pleno Make-Up Tecbox	-
PMP 01 & PUMP 02	0.9 l/s @ 79 kPa / Pump	Twin head variable speed pumpset, including built-in frequency converter. Operating as Duty/Standby. Installed on Inertia bases.	Grundfos	MAGNA3 32-100	97924257
SSF AM1	0.49m ³ /hr filtration	Skid mounted sidestream filtration package with closed recovery system, bag filtration, and insulation kit. Bag filter to be reduced to 5 micron bags before system is handed over.	Socotec	CSF filter with CRS dirt recovery system	CSF05/CRS/1/01W
PHX 01 & 02	113kW Max 16.3kPa pressure loss	Duty and standby heating plates.	ALFA LAVAL	Gasketed plate heat exchanger	AQ2L-FM



Incoming BCWS pipework
from Block B

	V	Valve normally open / Valve normally closed respectively
	AAV	Air Admission Valve, minimum 25mm with safety centre
	ABV	Automatic Bypass Valve, to open when pressure increases
	BV	Balancing Valve, with measuring points & hand wheel for positive isolation from Mill Hydraulics STRAF range
	BV	Balancing Valve, with self-sealing measuring points and positive shut-off, from Mill Hydraulics STRAF range
	C	2-ported differential control valve
	D	Drain Off Cock - Bronze Guard Pattern valve by Hattersley
	DV	3 Port Diverter Valve
	FMD	Flow Measuring Device, as per DV10 but solely for the purpose of Flow measurement and isolation only, with valve to left turn valve
	FMD	Isolation Valve for Flushing Equipment, as per DV1, capped off, Low side of Pump, wherever is smaller
	FMD	Isolation Valve - Full bore ball valve with quarter turn lever (below 50mm) or Butterfly valve with lever operator (50mm and above) by Hattersley
	FMD	Lockable Isolation Valve, as per DV1, with provision for padlock
	MCV	2 port seal seat controlling control valve
	MCV	3 Port seal seat mixing valve
	NRV	Non-Return Valve
	PCV	Pressure Independent Control Valve, with measuring points and modulating control from Mill Hydraulics FUSION range
	RPZ	Reduced Pressure Zone Valve
	SV	Safety Valve, high lift type, fixed rated setting (not adjustable)
	VAC	Automatic Air-Vacuum Valve
FITTINGS		
	CH	Change in Pipe Size
	EV	Expansion Valve
	FM	Flexible Connection: Under rubber bellows from Pipe Hangers Supply LTB range
	FL	Flange: Flange, metal, brazed
	FMD	Flow Measuring Orifice from Mill Hydraulics MDO range
	HP	Single Head Pump
	STR	Strainer - Y-type strainer, stainless steel screen, KDN25 with 40.7mm screen, KDN20 with 15.1mm screen, with quarter turn handle
	TUN	Tundish
SENSORS/GAUGES		
	DP	Differential Pressure Sensor
	FS	Flow Sensor, as supplied with meter
	HM	Heat Meter, supplied with communication optics as labelled, from Danfoss Seneron 1100 range
	AG	Antistatic Gauge, Bourdon tube gauge, 150mm gauge diameter, 3/8" connection, with option lock and isolation valve
	DP	Digital Pressure Sensor
	PT	Temperature Probe
	APG	Automatic Pressure Gauge, B-steel type, 100mm gauge diameter, 1/2" connection or 1/4" isolation valve from Barton Instruments
	DP	Digital Pressure Sensor, in 1/2" port size with isolation valve, accurate to at least 0.25%
FLOW RATE	PIPE SIZE	
		Flow Rate Characteristics

C1	15.04.2007	Construction Issue				IV	AM
C1	15.04.2007	Change to ITM system				IV	LJ
C1	14.11.2013	Final Issue				IV	LS
Rev	Date	Description	Scale	NWS	Size	Drawn	Checked
Original Issue	Date	CONSTRUCTION	Scale	NWS	Size	Drawn	Checked
 WHITECODE DESIGN ASSOCIATES BUILDING SERVICES DESIGN CONSULTANTS 30-32 The Arcade, Northampton Grandstand Court, DA11 1EU www.whitecode.co.uk T: 01232 299971 E: design@whitecode.co.uk							
HEATING SUBSTATION SCHEMATIC MUWS AND ANNEX SHEET 1 OF 2 HORNSLEY TOWN HALL							
Client:	ARMDORE						Rev:
Dwg Number:	10087-M-MU-M-00001(1)						C1