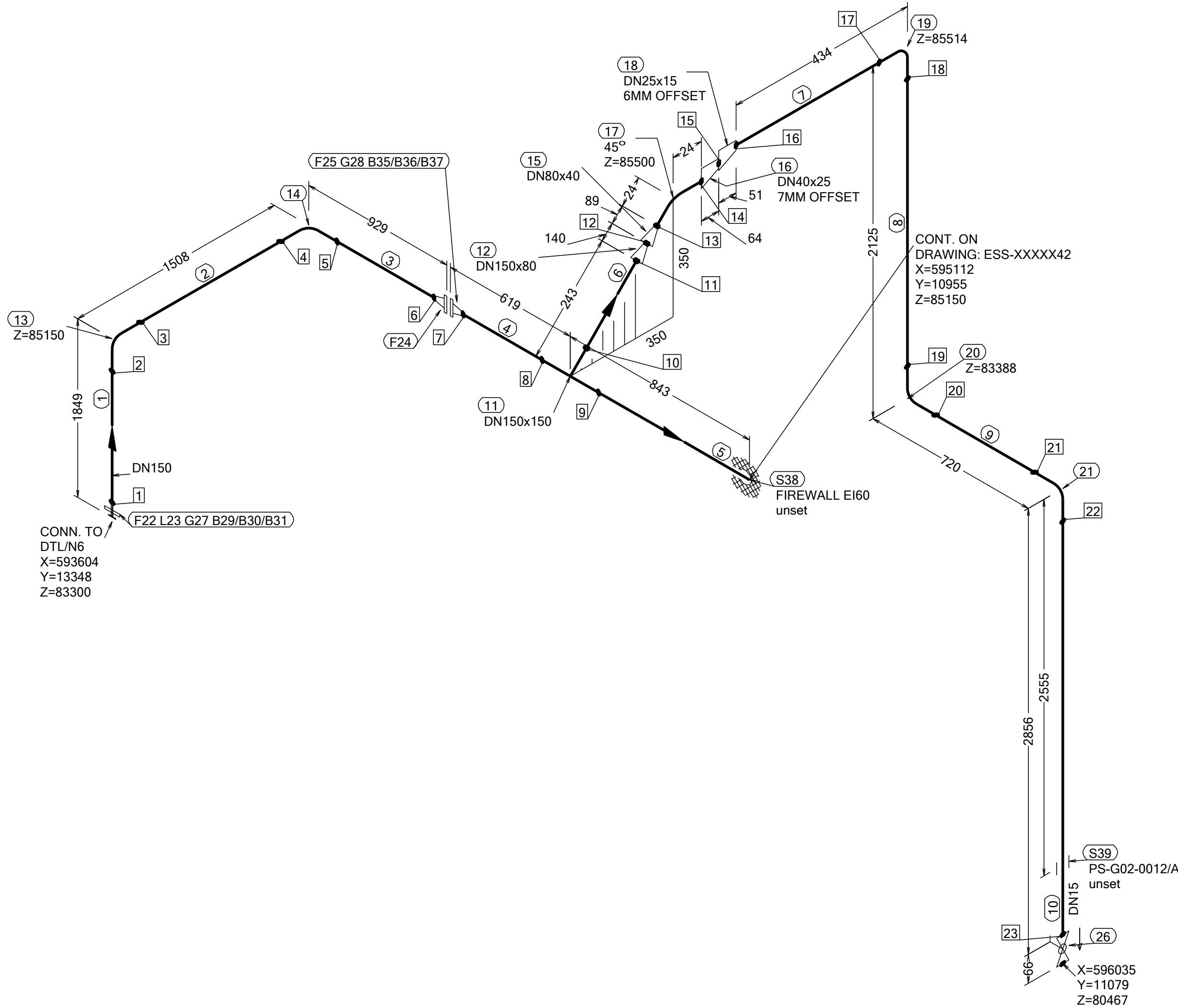
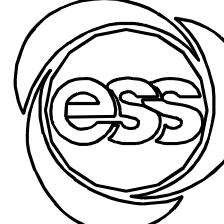


N (Y)



WELD	WPS	FABRICATION MATERIALS				
PT NO		COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
1		PIPE				
2		PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	1565	
3		PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	1050	
4		PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	645	
5		PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	421	
6		PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	700	
7		PIPE, SS-EN 10217-7, TC1, 168.3x2.0	150	EN 1.4404	100	
8		PIPE, SS-EN 10217-7, TC1, 21.3x2.0	15	EN 1.4404	406	
9		PIPE, SS-EN 10217-7, TC1, 21.3x2.0	15	EN 1.4404	2069	
10		PIPE, SS-EN 10217-7, TC1, 21.3x2.0	15	EN 1.4404	664	
11		PIPE, SS-EN 10217-7, TC1, 21.3x2.0	15	EN 1.4404	2828	
12		FITTINGS				
13		TEE EQUAL, SS-EN 10253-4, TYPE A, 168.3x2.0 / 168.3x2.0	150 x 150	EN 1.4404	1	
14		REDUCER CONC, SS-EN 10253-4, TABLE A.5, 168.3x2.0 / 88.9x2.0	150 x 80	EN 1.4404	1	
15		ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 168.3x2.0	150	EN 1.4404	1	
16		ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 168.3x2.0	150	EN 1.4404	1	
17		REDUCER CONC, SS-EN 10253-4, TABLE A.5, 88.9x2.0 / 48.3x2.0	80 x 40	EN 1.4404	1	
18		REDUCER ECC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
19		ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 48.3x2.0	40	EN 1.4404	1	
20		REDUCER ECC, SS-EN 10253-4, TABLE A.5, 33.7x2.0 / 21.3x2.0	25 x 15	EN 1.4404	1	
21		ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 21.3x2.0	15	EN 1.4404	1	
22		ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 21.3x2.0	15	EN 1.4404	1	
23		ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 21.3x2.0	15	EN 1.4404	1	
24		FLANGES				
25		LOOSE FLANGE, SS-EN 1092-1, TYP 02, PN16	150		1	
26		WELDING RING WITH COLLAR, SS-EN 1092-1 TYPE 35, PN16	150		1	
27		FLANGE WN, SS-EN 1092-1, TYPE 11, PN16	150		1	
28		FLANGE WN, SS-EN 1092-1, TYPE 11, PN16	150		1	
29		VALVES / IN-LINE ITEMS				
30		BALL VALVE, WORCESTER A44, SHORT, BW	15		1	

PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
31	GASKETS				
32	GASKET, EN 1514-1, TYPE XXX, T=1,5mm	150	EXPANDED GRAPHITE	1	
33	GASKET, EN 1514-1, TYPE XXX, T=1,5mm	150	EXPANDED GRAPHITE	1	
34	BOLTS				
35	HEXAGONAL NUT, M6M, ISO 4032	20	EN 1515-4, A4	8	
36	WASHER, BRB, ISO 7089	20	A4, HV≥250	16	
37	90 mm HEXAGONAL BOLT, M6S, ISO 4017	20	EN 1515-4, A4-70	8	
38	HEXAGONAL NUT, M6M, ISO 4032	20	EN 1515-4, A4	8	
39	WASHER, BRB, ISO 7089	20	A4, HV≥250	16	
40	80 mm HEXAGONAL BOLT, M6S, ISO 4017	20	EN 1515-4, A4-70	8	
41	SUPPORTS				
42	PENETRATION ATTA	150		1	
43	ESS Atta	15		1	

WPS See Weldlist TBN	Design Temperature 50degC	Tightening Torque For Flange Joints TBN	P&ID Drawing Number ESS-0060416	General Layout Drawing Number TBN	Calculation Report ESS-0058702	Inspection Plan TBN	Area Code G02
Quality Level For Weldign Acc To TBN	Design Pressure 10bar (g)	Bend Radius N/A	Bending Procedure N/A	Coupling Installation Procedure TBN	Pressure Test Program TBN	Alternate System Tag	Date (First Issue) 170522
Weld Joint Efficiency Factor (Longitudinal) 1,0	Test Pressure 14.3bar (g)	Insulation Specification N/A				Title/Name EUROPEAN SPALLATION SOURCE ERIC WATER COOLING SYSTEM CWM DIW SUPPLY FOR FEB ESS.ACC.E02.E04.WP0001	Scale -
Elevation (z) Acc To BCS	Quality Class MQC4-C	Insulation Thickness N/A					Format A2
	Media CWM	Allowance For Corrosion 0					Sheet 1 of 1
	Pipe Specification MQC4-W-PN16	Surface Treatment N/A					Revision A1

Rev	Description	Date	Drawn	Designed	Reviewed	Verified	Quality	Approved
A1	ISSUED FOR CDR	170522	FRPE	FRPE	AKCO	ANLU		