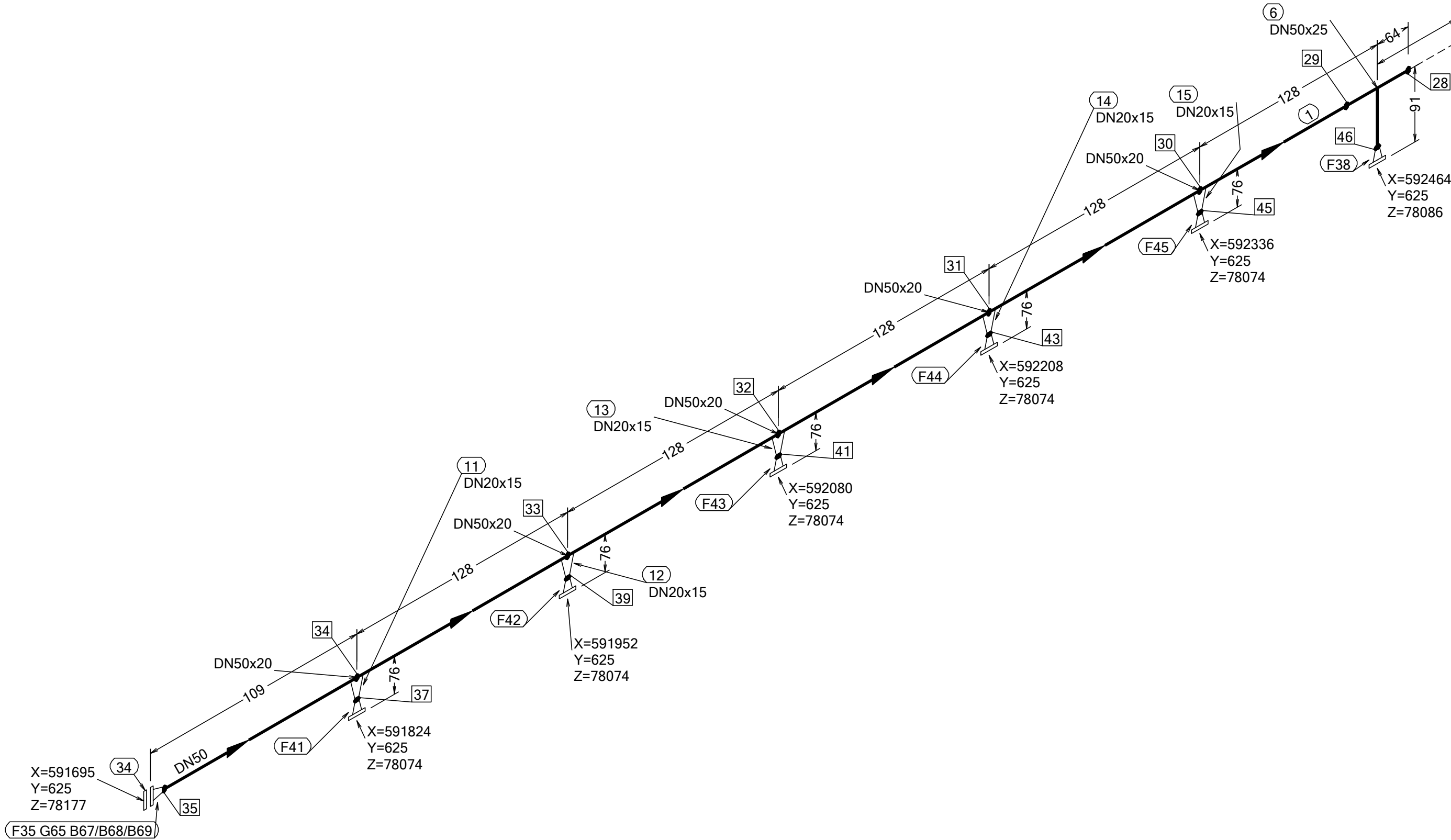


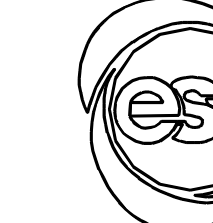
N (Y)



WELD	WPS
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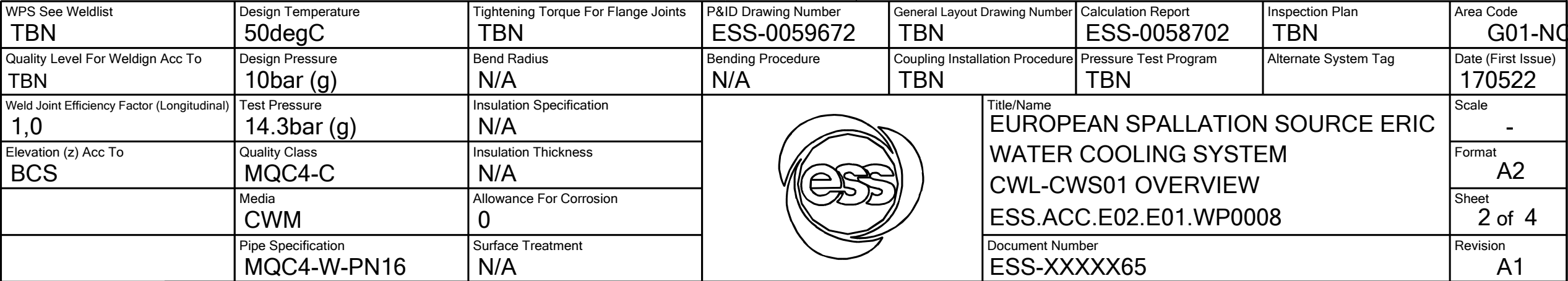
FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
PIPE					
1	PIPE, SS-EN 10217-7, TC1, 60.3x2.0	50	EN 1.4404	640	SETON TEE
FITTINGS					
6	TEE REDUCED, SS-EN 10253-4, TYPE A, 60.3x2.0 / 33.7x2.0	50 x 25	EN 1.4404	1	
11	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
12	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
13	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
14	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
15	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
FLANGES					
34	FLANGE BLIND, SS-EN 1092-1, TYPE 05, PN16	50		1	
35	FLANGE WN, SS-EN 1092-1, TYPE 11, PN16	50		1	
38	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
41	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
42	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
43	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
44	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
45	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	

ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
GASKETS					
65	GASKET, EN 1514-1, TYPE XXX, T=1,5mm	50	EXPANDED GRAPHITE	1	
BOLTS					
67	HEXAGONAL NUT, M6M, ISO 4032	16	EN 1515-4, A4	4	
68	WASHER, BRB, ISO 7089	16	A4, HV≥250	8	
69	65 mm HEXAGONAL BOLT, M6S, ISO 4017	16	EN 1515-4, A4-70	4	

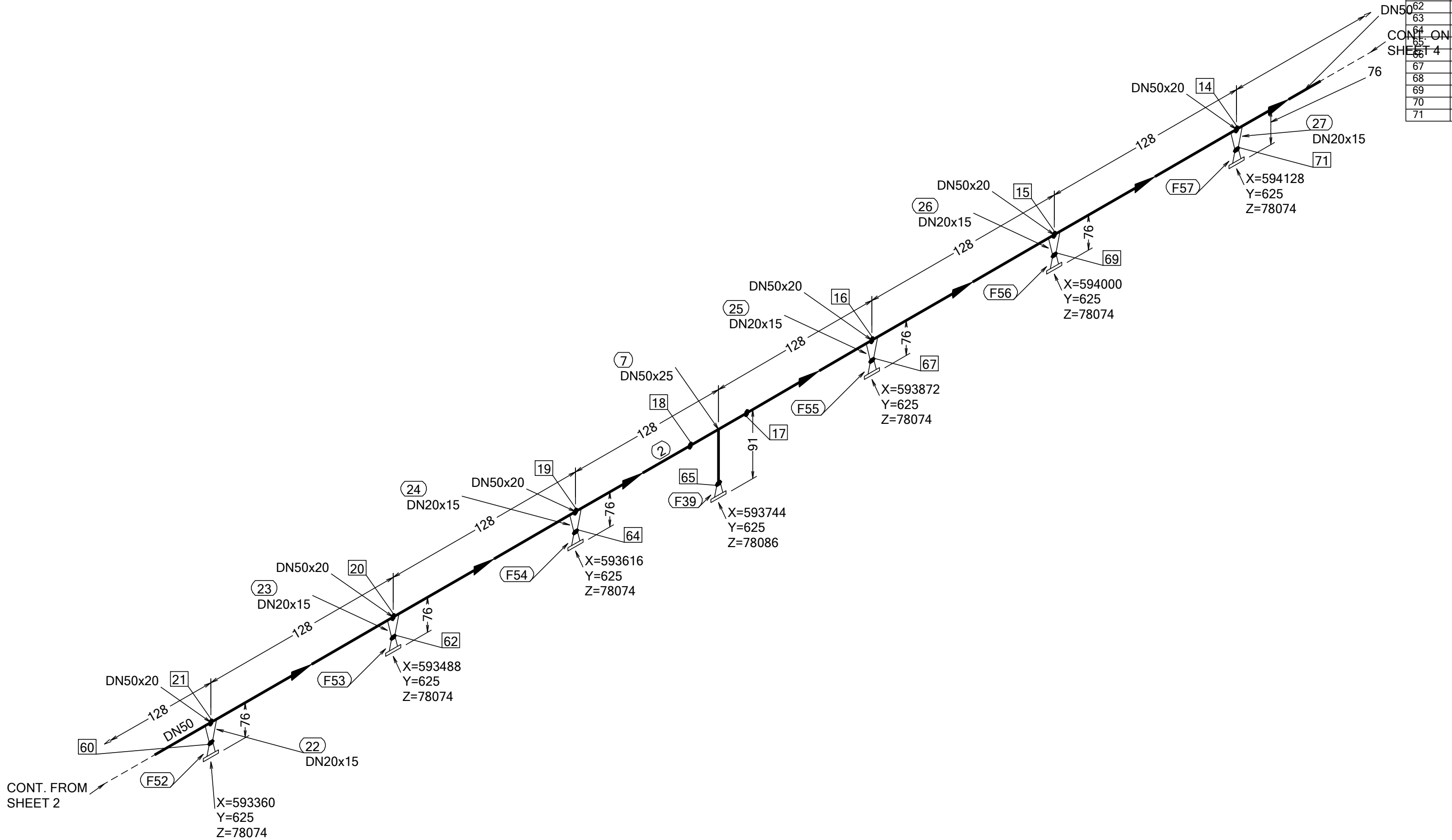
WPS See Weldlist TBN	Design Temperature 50degC	Tightening Torque For Flange Joints TBN	P&ID Drawing Number ESS-0059672	General Layout Drawing Number TBN	Calculation Report ESS-0058702	Inspection Plan TBN	Area Code G01-NCL
Quality Level For Weldign Acc To TBN	Design Pressure 10bar (g)	Bend Radius N/A	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 CWL-CWS01 OVERVIEW ESS.ACC.E02.E01.WP0008	Scale -	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 4	
	Pipe Specification MQC4-W-PN16	Surface Treatment N/A				Revision A1	
				Document Number ESS-XXXXX65		Revision A1	

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

PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	<u>PIPE</u>				
2	PIPE, SS-EN 10217-7, TC1, 60.3x2.0	50	EN 1.4404	831	SETON TEE
	<u>FITTINGS</u>				
16	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
17	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
18	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
19	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
20	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
21	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
	<u>FLANGES</u>				
46	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
47	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
48	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
49	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
50	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
51	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	

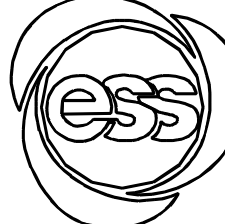


N (Y)



WELD	WPS
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FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
PIPE					
2	PIPE, SS-EN 10217-7, TC1, 60.3x2.0	50	EN 1.4404	321	SETON TEE
3	PIPE, SS-EN 10217-7, TC1, 60.3x2.0	50	EN 1.4404	447	SETON TEE
FITTINGS					
7	TEE REDUCED, SS-EN 10253-4, TYPE A, 60.3x2.0 / 33.7x2.0	50 x 25	EN 1.4404	1	
22	REDUCER CONC. SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
23	REDUCER CONC. SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
24	REDUCER CONC. SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
25	REDUCER CONC. SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
26	REDUCER CONC. SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
27	REDUCER CONC. SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
FLANGES					
39	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
52	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
53	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
54	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
55	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
56	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
57	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	

WPS See Weldlist TBN	Design Temperature 50degC	Tightening Torque For Flange Joints TBN	P&ID Drawing Number ESS-0059672	General Layout Drawing Number TBN	Calculation Report ESS-0058702	Inspection Plan TBN	Area Code G01-NCL
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 CWL-CWS01 OVERVIEW ESS.ACC.E02.E01.WP0008		Scale -
Elevation (z) Acc To BCS	Quality Class MQC4-C	Insulation Thickness N/A					Format A2
	Media CWM	Allowance For Corrosion 0					Sheet 3 of 4
	Pipe Specification MQC4-W-PN16	Surface Treatment N/A			Document Number ESS-XXXXX65		Revision A1

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

FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	<u>PIPE</u>				
3	PIPE, SS-EN 10217-7, TC1, 60.3x2.0	50	EN 1.4404	449	SETON TEE SETON TEE
4	PIPE, SS-EN 10217-7, TC1, 60.3x2.0	50	EN 1.4404	804	
5	PIPE, SS-EN 10217-7, TC1, 60.3x2.0	50	EN 1.4404	604	
	<u>FITTINGS</u>				
8	TEE REDUCED, SS-EN 10253-4, TYPE A, 60.3x2.0 / 33.7x2.0	50 x 25	EN 1.4404	1	
9	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 60.3x2.0	50	EN 1.4404	1	
10	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 60.3x2.0	50	EN 1.4404	1	
28	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
29	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
30	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
31	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
32	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
33	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 26.9x2.0 / 21.3x2.0	20 x 15	EN 1.4404	1	
	<u>FLANGES</u>				
36	FLANGE WN, SS-EN 1092-1, TYPE 11, PN16	50		1	
37	FLANGE WN, SS-EN 1092-1, TYPE 11, PN16	50		1	
40	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
58	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
59	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
60	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
61	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
62	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
63	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	15		1	
	<u>VALVES / IN-LINE ITEMS</u>				
64	WORCESTER BALL VALVE BW, A59-6666TT-BWJ DN50	50	EN 1.4404	1	

ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	<u>GASKETS</u>				
66	GASKET, EN 1514-1, TYPE XXX, T=1,5mm	50	EXPANDED GRAPHITE	1	
	<u>BOLTS</u>				
70	HEXAGONAL NUT, M6M, ISO 4032	16	EN 1515-4, A4	4	
71	WASHER, BRB, ISO 7089	16	A4, HV≥250	8	
72	65 mm HEXAGONAL BOLT, M6S, ISO 4017	16	EN 1515-4, A4-70	4	
	<u>SUPPORTS</u>				
74	ESS Atta	50		1	

