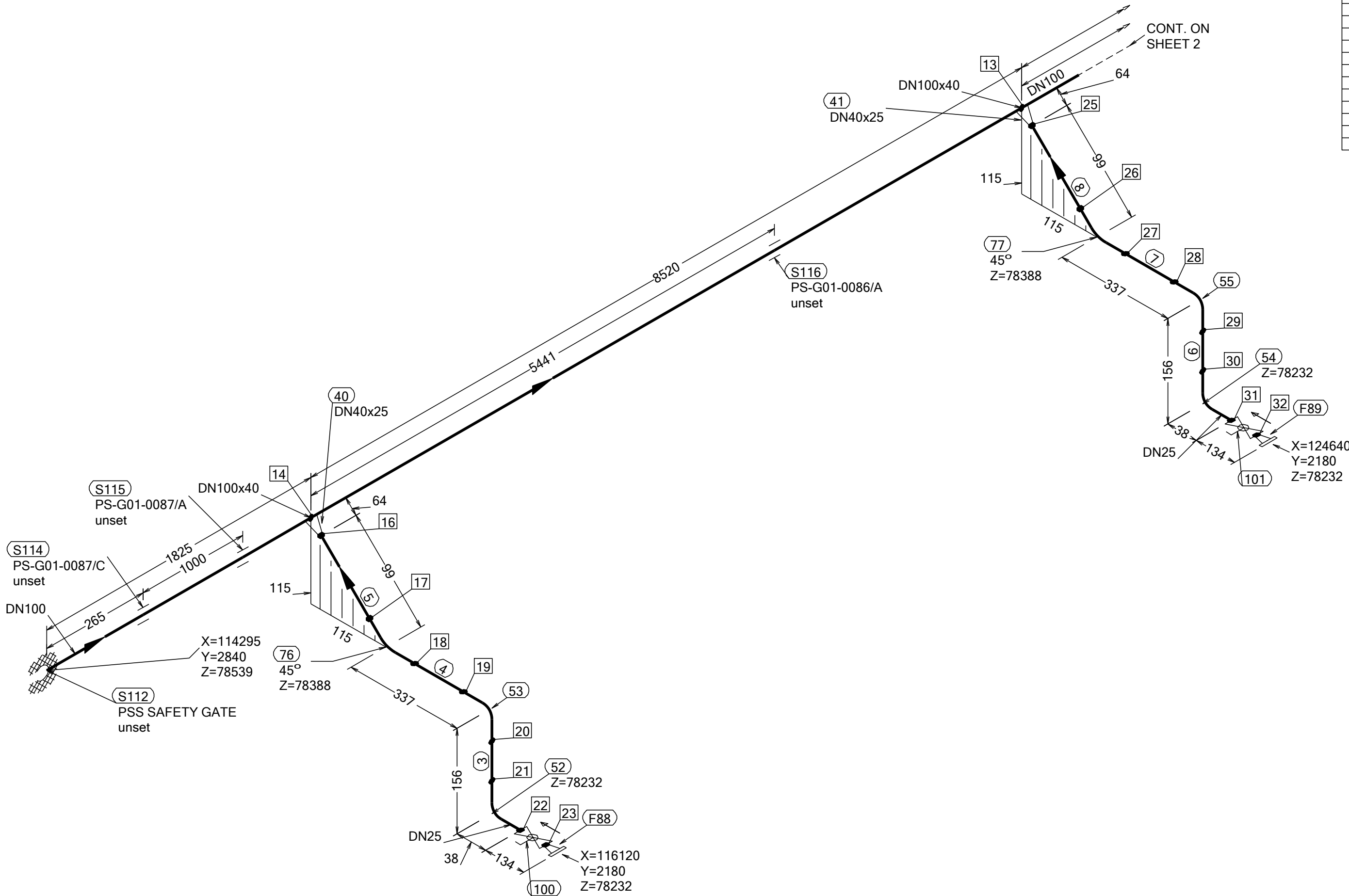


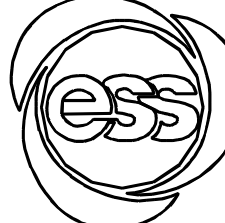
N (Y)



WELD	WPS
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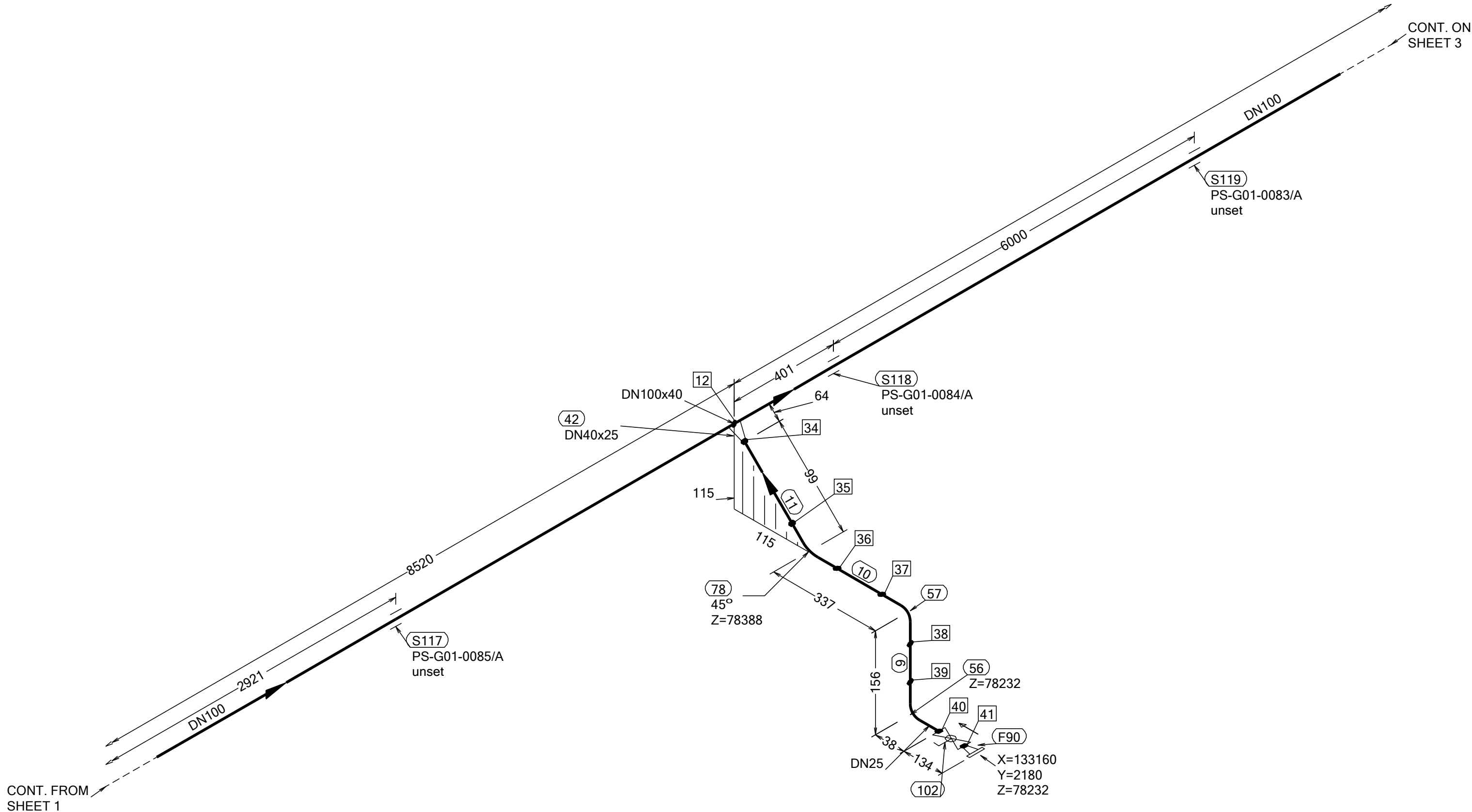
FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	PIPE				
1	PIPE, SS-EN 10217-7, TC1, 114.3x2.0	100	EN 1.4404	10346	SETON TEE
3	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
4	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
5	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
6	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
7	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
8	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
	FITTINGS				
40	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
41	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
52	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
53	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
54	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
55	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
76	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
77	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
	FLANGES				
88	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
89	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
	VALVES / IN-LINE ITEMS				
100	WORCESTER BALL VALVE BW, A59-666TT-BWJ DN25	25	EN 1.4404	1	
101	WORCESTER BALL VALVE BW, A59-666TT-BWJ DN25	25	EN 1.4404	1	

ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
SUPPORTS					
112	PENETRATION ATTA	100		1	
114	ESS Atta	100		1	
115	ESS Atta	100		1	
116	ESS Atta	100		1	

WPS See Weldlist	Design Temperature	Tightening Torque For Flange Joints	P&ID Drawing Number	General Layout Drawing Number	Calculation Report	Inspection Plan	Area Code
TBN	50degC	TBN	ESS-0059673	TBN	ESS-0058702	TBN	G01-HEB
Quality Level For Weldign Acc To	Design Pressure	Bend Radius	Bending Procedure	Coupling Installation Procedure	Pressure Test Program	Alternate System Tag	Date (First Issue)
TBN	10bar (g)	N/A	N/A	TBN	TBN		170522
Weld Joint Efficiency Factor (Longitudinal)	Test Pressure	Insulation Specification			Title/Name EUROPEAN SPALLATION SOURCE ERIC WATER COOLING SYSTEM CWM-CWS02 OVERVIEW ESS.ACC.E02.E02.WP0004		Scale
1,0	14.3bar (g)	N/A					-
Elevation (z) Acc To	Quality Class	Insulation Thickness					Format
BCS	MQC4-C	N/A					A2
	Media	Allowance For Corrosion			Document Number ESS-XXXXX61		Sheet
	CWM	0					1 of 8
	Pipe Specification	Surface Treatment					Revision
	MQC4-W-PN16	N/A					A1

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


N (Y)



WELD	WPS	FABRICATION MATERIALS					
12		PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
33			PIPE				
34		1	PIPE, SS-EN 10217-7, TC1, 114.3x2.0	100	EN 1.4404	17038	SETON TEE
35		9	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
36		10	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
37		11	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
38			FITTINGS				
39		42	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
40		56	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
41		57	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
		78	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
			FLANGES				
		90	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
			VALVES / IN-LINE ITEMS				
		102	WORCESTER BALL VALVE BW, A59-6666TT-BWJ DN25	25	EN 1.4404	1	

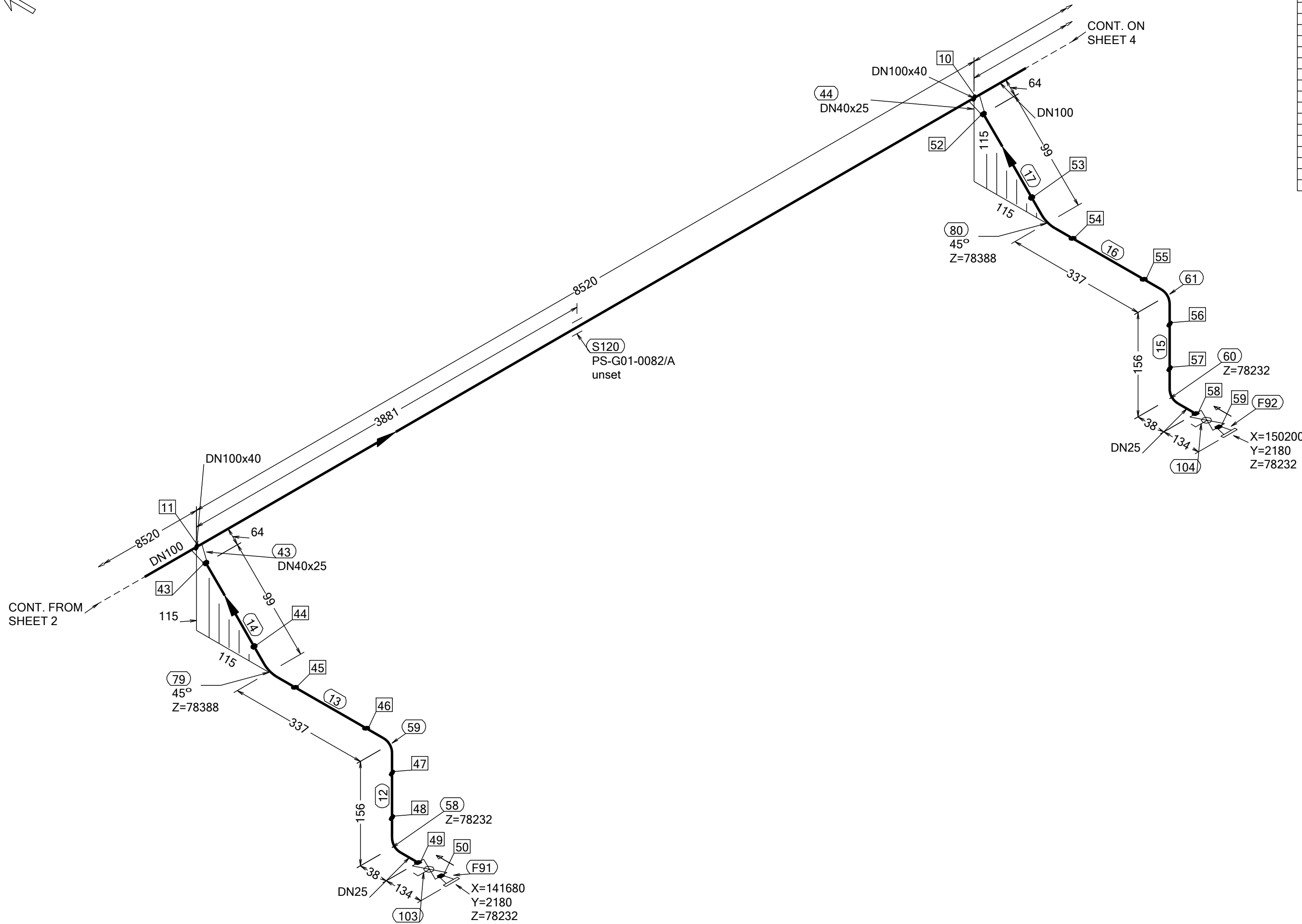
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ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
SUPPORTS					
117	ESS Atta	100		1	
118	ESS Atta	100		1	
119	ESS Atta	100		1	

WPS See Weldlist TBN	Design Temperature 50degC	Tightening Torque For Flange Joints TBN	P&ID Drawing Number ESS-0059673	General Layout Drawing Number TBN	Calculation Report ESS-0058702	Inspection Plan TBN	Area Code G01-HE
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-CWS02 OVERVIEW ESS.ACC.E02.E02.WP0004			Scale -
Elevation (z) Acc To BCS	Quality Class MQC4-C	Insulation Thickness N/A					Format A2
	Media CWM	Allowance For Corrosion 0					Sheet 2 of 8
	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		

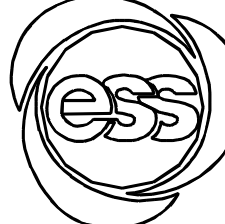
N (Y)



WELD	WPS
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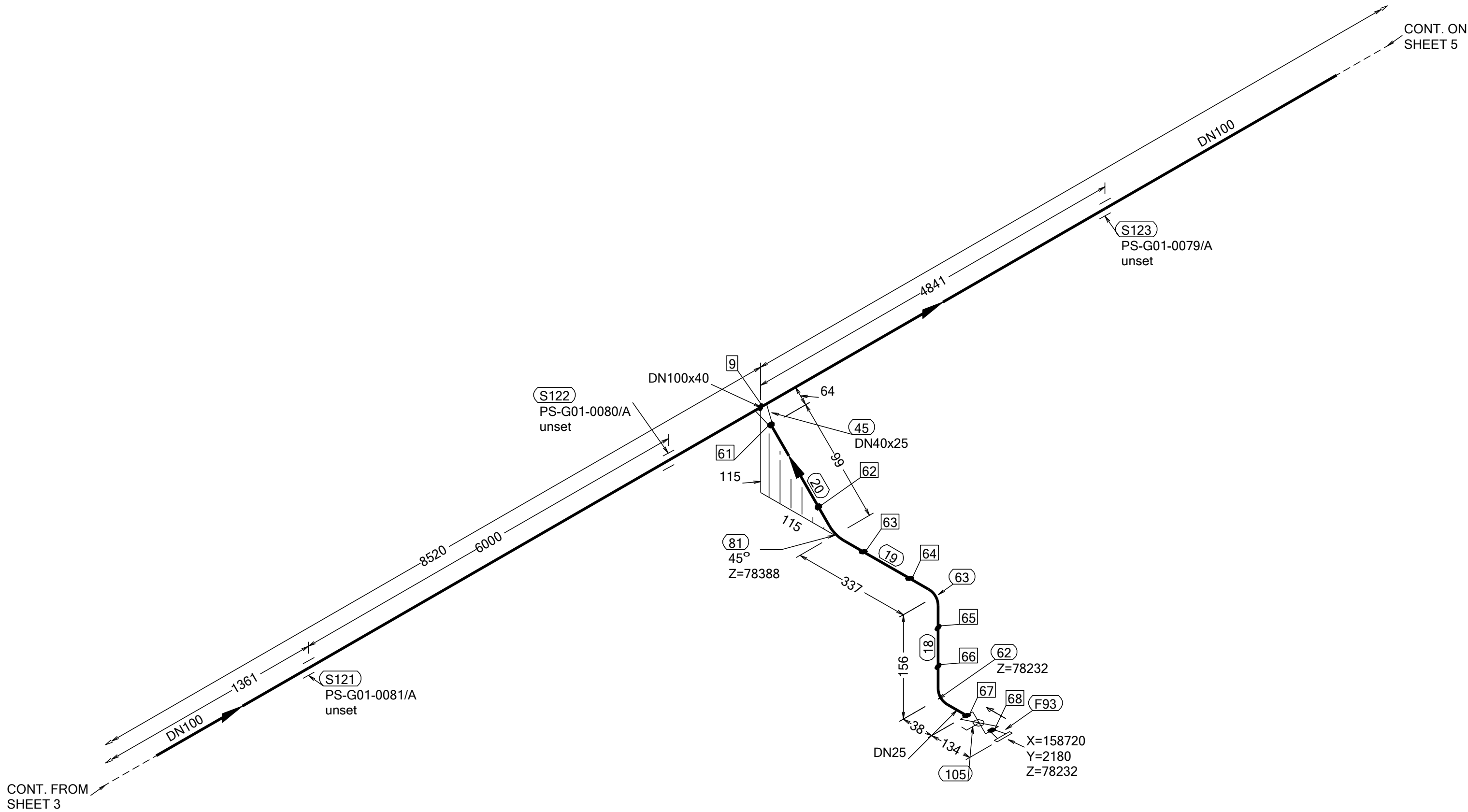
FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	PIPE				
1	PIPE, SS-EN 10217-7, TC1, 114.3x2.0	100	EN 1.4404	8522	SETON TEE
12	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
13	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
14	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
15	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
16	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
17	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
	FITTINGS				
43	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
44	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
58	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
59	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
60	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
61	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
79	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
80	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
	FLANGES				
91	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
92	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
	VALVES / IN-LINE ITEMS				
103	WORCESTER BALL VALVE BW, A59-666TT-BWJ DN25	25	EN 1.4404	1	
104	WORCESTER BALL VALVE BW, A59-666TT-BWJ DN25	25	EN 1.4404	1	

ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
SUPPORTS					
120	ESS Atta	100		1	

WPS See Weldlist	Design Temperature	Tightening Torque For Flange Joints	P&ID Drawing Number	General Layout Drawing Number	Calculation Report	Inspection Plan	Area Code
TBN	50degC	TBN	ESS-0059673	TBN	ESS-0058702	TBN	G01-HEB
Quality Level For Weldign Acc To	Design Pressure	Bend Radius	Bending Procedure	Coupling Installation Procedure	Pressure Test Program	Alternate System Tag	Date (First Issue)
TBN	10bar (g)	N/A	N/A	TBN	TBN		170522
Weld Joint Efficiency Factor (Longitudinal)	Test Pressure	Insulation Specification			Title/Name EUROPEAN SPALLATION SOURCE ERIC WATER COOLING SYSTEM CWM-CWS02 OVERVIEW ESS.ACC.E02.E02.WP0004		Scale
1,0	14.3bar (g)	N/A					-
Elevation (z) Acc To	Quality Class	Insulation Thickness					Format
BCS	MQC4-C	N/A					A2
	Media	Allowance For Corrosion					Sheet
	CWM	0					3 of 8
	Pipe Specification	Surface Treatment					Revision
	MQC4-W-PN16	N/A			Document Number ESS-XXXXX61		A1

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

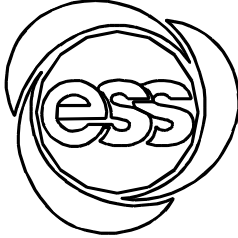
N (Y)



WELD	WPS
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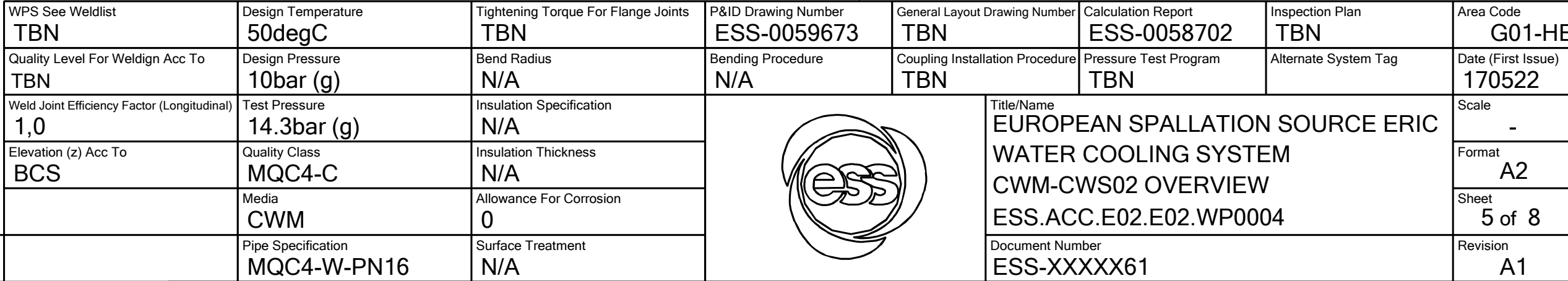
FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	<u>PIPE</u>				
1	PIPE, SS-EN 10217-7, TC1, 114.3x2.0	100	EN 1.4404	17038	SETON TEE
18	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
19	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
20	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
	<u>FITTINGS</u>				
45	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
62	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
63	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
81	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
	<u>FLANGES</u>				
93	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
	<u>VALVES / IN-LINE ITEMS</u>				
105	WORCESTER BALL VALVE BW, A59-6666TT-BWJ DN25	25	EN 1.4404	1	

ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
SUPPORTS					
121	ESS Atta	100		1	
122	ESS Atta	100		1	
123	ESS Atta	100		1	

WPS See Weldlist	Design Temperature	Tightening Torque For Flange Joints	P&ID Drawing Number	General Layout Drawing Number	Calculation Report	Inspection Plan	Area Code
TBN	50degC	TBN	ESS-0059673	TBN	ESS-0058702	TBN	G01-HEB
Quality Level For Weldign Acc To	Design Pressure	Bend Radius	Bending Procedure	Coupling Installation Procedure	Pressure Test Program	Alternate System Tag	Date (First Issue)
TBN	10bar (g)	N/A	N/A	TBN	TBN		170522
Weld Joint Efficiency Factor (Longitudinal)	Test Pressure	Insulation Specification			Title/Name EUROPEAN SPALLATION SOURCE ERIC WATER COOLING SYSTEM CWM-CWS02 OVERVIEW ESS.ACC.E02.E02.WP0004		Scale
1,0	14.3bar (g)	N/A					-
Elevation (z) Acc To	Quality Class	Insulation Thickness					Format
BCS	MQC4-C	N/A					A2
	Media	Allowance For Corrosion			Document Number ESS-XXXXX61		Sheet
	CWM	0					4 of 8
	Pipe Specification	Surface Treatment					Revision
	MQC4-W-PN16	N/A					A1

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

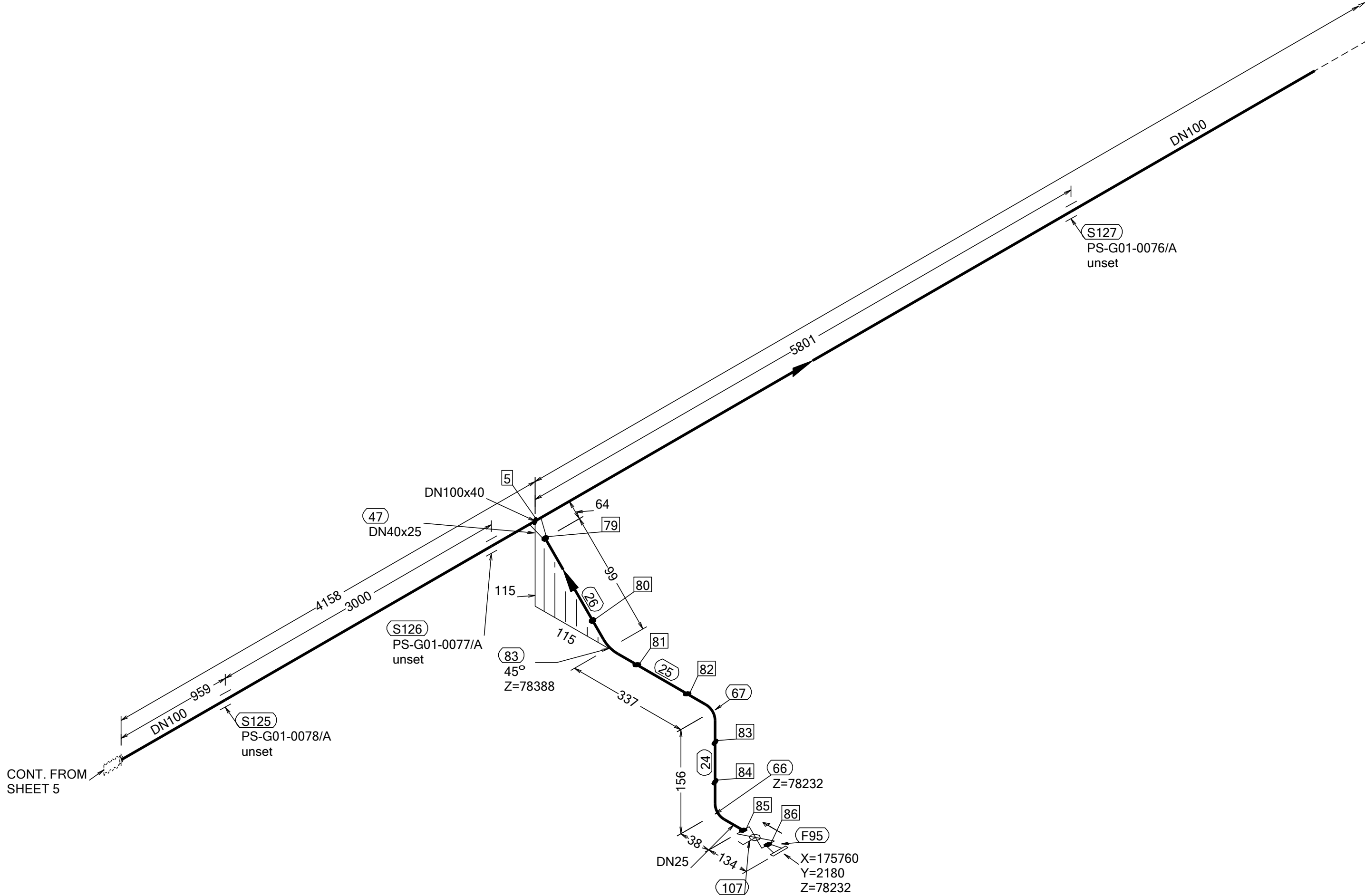
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ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
124	SUPPORTS	100		1	
	ESS Atta				

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


N (Y)



WELD	WPS
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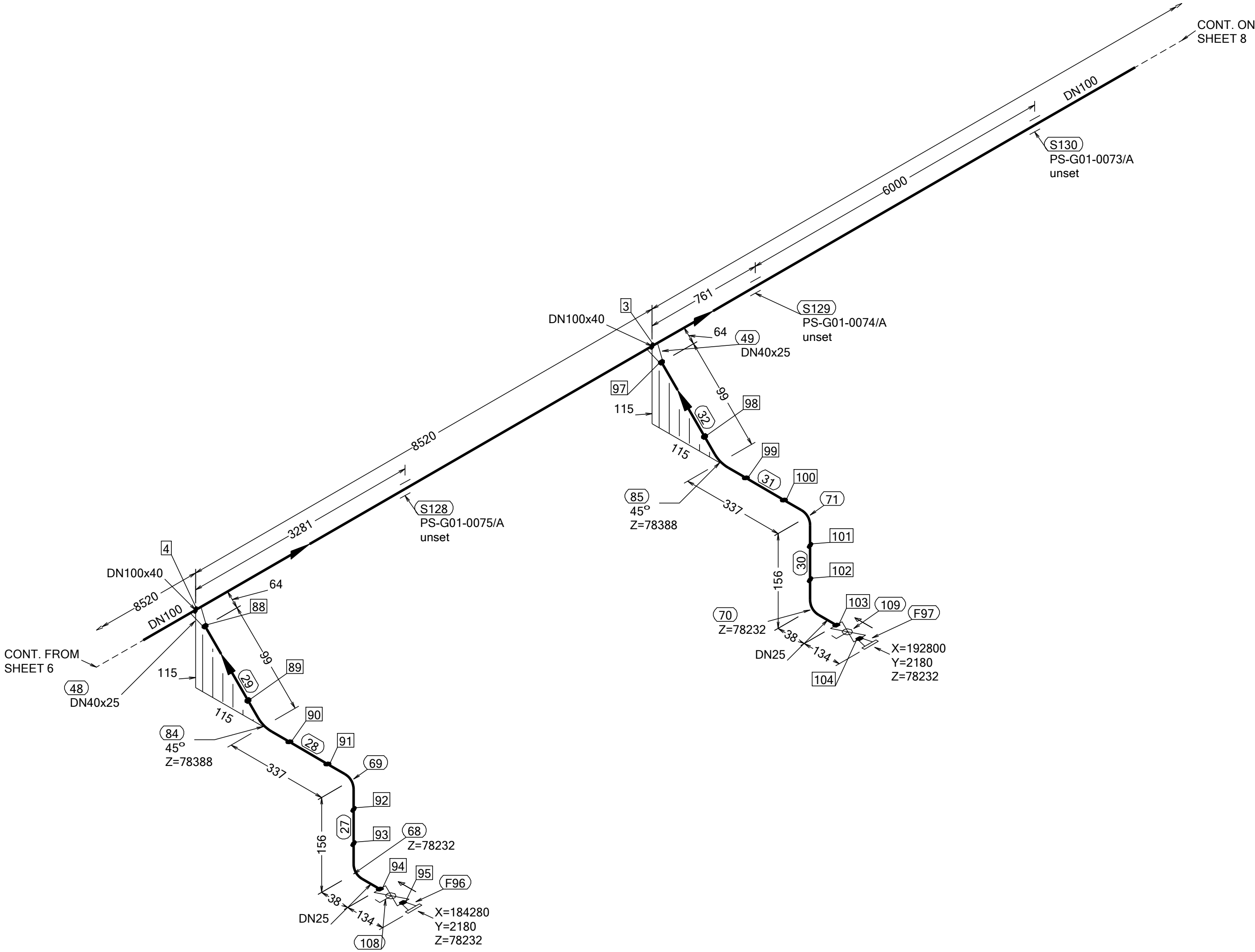
FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	<u>PIPE</u>				
2	PIPE, SS-EN 10217-7, TC1, 114.3x2.0	100	EN 1.4404	12677	SETON TEE
24	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
25	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
26	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
	<u>FITTINGS</u>				
47	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
66	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
67	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
83	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
	<u>FLANGES</u>				
95	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
	<u>VALVES / IN-LINE ITEMS</u>				
107	WORCESTER BALL VALVE BW, A59-6666TT-BWJ DN25	25	EN 1.4404	1	

ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
SUPPORTS					
125	ESS Atta	100		1	
126	ESS Atta	100		1	
127	ESS Atta	100		1	

WPS See Weldlist TBN	Design Temperature 50degC	Tightening Torque For Flange Joints TBN	P&ID Drawing Number ESS-0059673	General Layout Drawing Number TBN	Calculation Report ESS-0058702	Inspection Plan TBN	Area Code G01-HE
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-CWS02 OVERVIEW ESS.ACC.E02.E02.WP0004	Scale -
Elevation (z) Acc To BCS	Quality Class MQC4-C	Insulation Thickness N/A					Format A2
	Media CWM	Allowance For Corrosion 0					Sheet 6 of 8
	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		

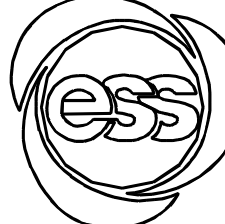
N (Y)



WELD	WPS
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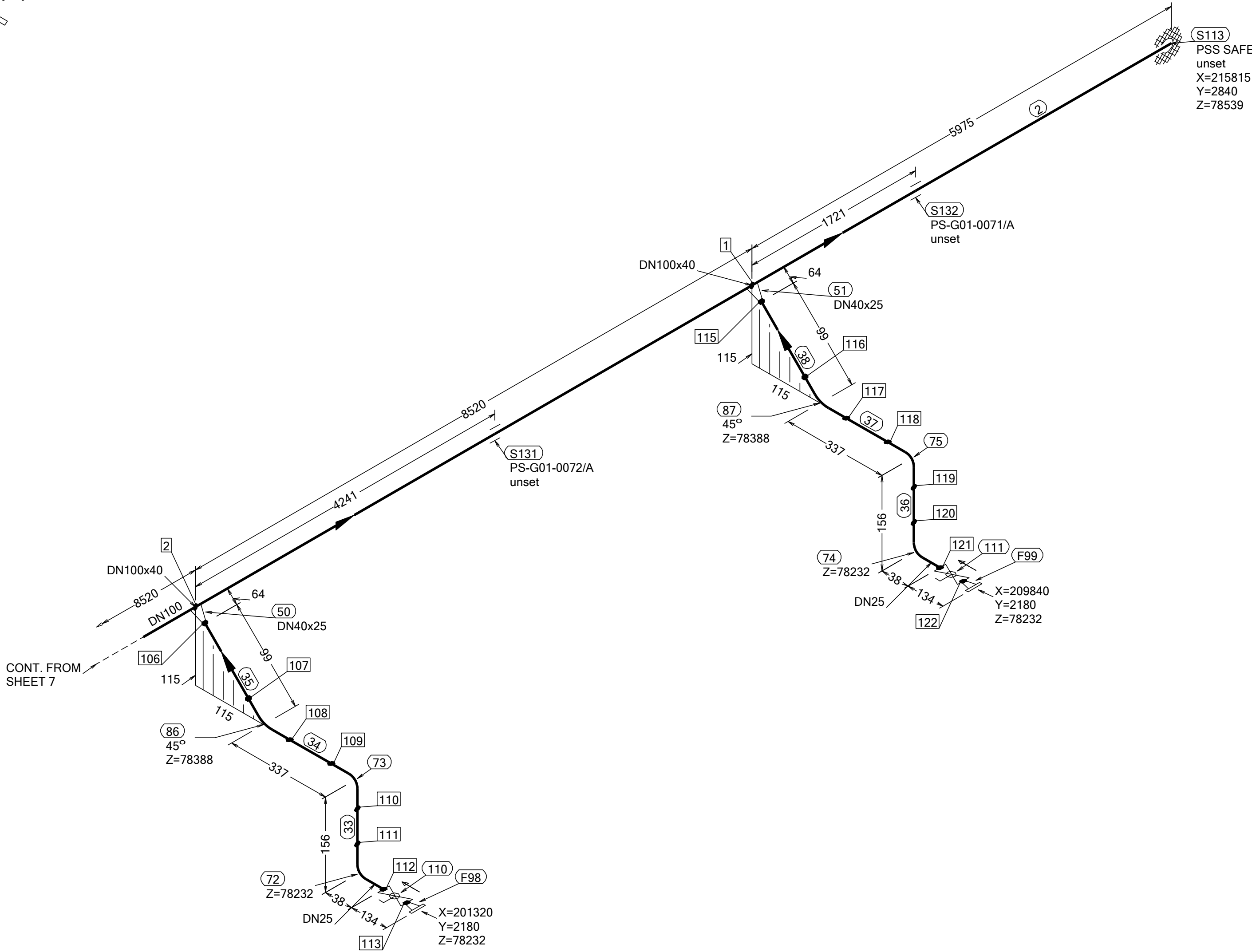
FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	PIPE				
2	PIPE, SS-EN 10217-7, TC1, 114.3x2.0	100	EN 1.4404	17040	SETON TEE
27	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
28	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
29	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
30	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
31	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
32	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
	FITTINGS				
48	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
49	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
68	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
70	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
71	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
84	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
85	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
	FLANGES				
96	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
97	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
	VALVES / IN-LINE ITEMS				
108	WORCESTER BALL VALVE BW, A59-6666TT-BWJ DN25	25	EN 1.4404	1	
109	WORCESTER BALL VALVE BW, A59-6666TT-BWJ DN25	25	EN 1.4404	1	

ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
SUPPORTS					
128	ESS Atta	100		1	
129	ESS Atta	100		1	
130	ESS Atta	100		1	

WPS See Weldlist	Design Temperature	Tightening Torque For Flange Joints	P&ID Drawing Number	General Layout Drawing Number	Calculation Report	Inspection Plan	Area Code
TBN	50degC	TBN	ESS-0059673	TBN	ESS-0058702	TBN	G01-HEB
Quality Level For Weldign Acc To	Design Pressure	Bend Radius	Bending Procedure	Coupling Installation Procedure	Pressure Test Program	Alternate System Tag	Date (First Issue)
TBN	10bar (g)	N/A	N/A	TBN	TBN		170522
Weld Joint Efficiency Factor (Longitudinal)	Test Pressure	Insulation Specification			Title/Name EUROPEAN SPALLATION SOURCE ERIC WATER COOLING SYSTEM CWM-CWS02 OVERVIEW ESS.ACC.E02.E02.WP0004		Scale
1,0	14.3bar (g)	N/A					-
Elevation (z) Acc To	Quality Class	Insulation Thickness					Format
BCS	MQC4-C	N/A					A2
	Media	Allowance For Corrosion			Document Number ESS-XXXXX61		Sheet
	CWM	0					7 of 8
	Pipe Specification	Surface Treatment					Revision
	MQC4-W-PN16	N/A					A1

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

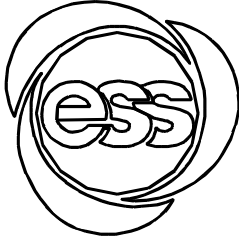
N (Y)



WELD	WPS
1	
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105	
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FABRICATION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
	PIPE				
2	PIPE, SS-EN 10217-7, TC1, 114.3x2.0	100	EN 1.4404	14496	SETON TEE
33	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
34	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
35	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
36	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	80	
37	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	283	
38	PIPE, SS-EN 10217-7, TC1, 33.7x2.0	25	EN 1.4404	83	
	FITTINGS				
50	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
51	REDUCER CONC, SS-EN 10253-4, TABLE A.5, 48.3x2.0 / 33.7x2.0	40 x 25	EN 1.4404	1	
72	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
73	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
74	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
75	ELBOW 90, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
86	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
87	ELBOW 45, TYPE 3D, SS-EN 10253-4, TYPE A, 33.7x2.0	25	EN 1.4404	1	
	FLANGES				
98	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
99	FLANGE WN, SS-EN 1092-1, TYPE 11, PN40	25		1	
	VALVES / IN-LINE ITEMS				
110	WORCESTER BALL VALVE BW, A59-6666TT-BWJ DN25	25	EN 1.4404	1	
111	WORCESTER BALL VALVE BW, A59-6666TT-BWJ DN25	25	EN 1.4404	1	

ERECTION MATERIALS					
PT NO	COMPONENT DESCRIPTION	DN	MATERIAL	QTY (mm)	REMARKS
SUPPORTS					
113	PENETRATION ATTA	100		1	
131	ESS Atta	100		1	
132	ESS Atta	100		1	

WPS See Weldlist	Design Temperature	Tightening Torque For Flange Joints	P&ID Drawing Number	General Layout Drawing Number	Calculation Report	Inspection Plan	Area Code
TBN	50degC	TBN	ESS-0059673	TBN	ESS-0058702	TBN	G01-HEB
Quality Level For Weldign Acc To	Design Pressure	Bend Radius	Bending Procedure	Coupling Installation Procedure	Pressure Test Program	Alternate System Tag	Date (First Issue)
TBN	10bar (g)	N/A	N/A	TBN	TBN		170522
Weld Joint Efficiency Factor (Longitudinal)	Test Pressure	Insulation Specification			Title/Name EUROPEAN SPALLATION SOURCE ERIC WATER COOLING SYSTEM CWM-CWS02 OVERVIEW ESS.ACC.E02.E02.WP0004		Scale
1,0	14.3bar (g)	N/A					-
Elevation (z) Acc To	Quality Class	Insulation Thickness					Format
BCS	MQC4-C	N/A					A2
	Media	Allowance For Corrosion					Sheet
	CWM	0					8 of 8
	Pipe Specification	Surface Treatment					Revision
	MQC4-W-PN16	N/A					A1

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