

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Adoptable Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
374	1200	749	1500
499	1350	900	1800

>900 Link+900 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
1.500	1050	99.999	1200

Circular Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

Cell 800 Link Type

Shape	Closed Rectangular	Auto Increment (mm)	500
Barrels	1	Follow Ground	x
Height (mm)	800		

Available Diameters (mm)

500

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S1	0.027	5.00	61.400	600	-327.725	313.056	0.750
S2	0.027	5.00	61.400	600	-295.386	313.056	1.175
S3	0.027	5.00	61.400	600	-263.892	313.056	1.525
S4	0.027	5.00	61.400	600	-263.892	282.642	1.875
S5	0.010	5.00	61.400	600	-272.403	279.446	1.780
S6	0.027	5.00	61.400	600	-272.403	282.679	2.525
S7	0.027	5.00	61.400	600	-326.035	282.642	1.750
S8	0.010	5.00	61.400	600	-301.496	279.409	1.600
S9	0.027	5.00	61.400	600	-301.496	282.642	2.500
S10	0.027	5.00	61.400	1200	-287.973	282.642	2.550
S11	0.000		61.400	1200	-287.973	280.659	2.600
S12	0.000		61.400	1200	-285.412	280.534	2.650

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	S1	S2	32.339	0.600	60.650	60.225	0.425	76.1	225	5.54	50.0
1.001	S2	S3	31.494	0.600	60.225	59.875	0.350	90.0	225	6.15	49.8
1.002	S3	S4	30.414	0.600	59.875	59.525	0.350	86.9	225	6.74	47.6
1.003	S4	S6	8.511	0.600	59.525	59.450	0.075	113.5	225	6.90	47.1
2.000	S5	S6	3.233	0.600	59.620	59.525	0.095	34.0	150	5.05	50.0
3.000	S7	S9	24.539	0.600	59.650	59.475	0.175	140.2	225	5.41	50.0
4.000	S8	S9	3.233	0.600	59.800	59.725	0.075	43.1	150	5.05	50.0
3.001	S9	S10	13.523	0.600	58.900	58.850	0.050	270.5	3000	5.57	50.0
1.004	S6	S10	15.570	0.600	58.875	58.850	0.025	622.8	3000	7.20	46.1
1.005	S10	S11	1.983	0.600	58.850	58.800	0.050	39.7	300	7.24	45.9
1.006	S11	S12	2.564	0.600	58.800	58.750	0.050	51.3	300	7.29	45.8

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.500	59.7	3.7	0.525	0.950	0.027	0.0	37	0.834
1.001	1.379	54.8	7.3	0.950	1.300	0.054	0.0	55	0.961
1.002	1.403	55.8	10.5	1.300	1.650	0.081	0.0	65	1.079
1.003	1.226	48.8	13.8	1.650	1.725	0.108	0.0	81	1.056
2.000	1.731	30.6	1.4	1.630	1.725	0.010	0.0	21	0.868
3.000	1.102	43.8	3.7	1.525	1.700	0.027	0.0	44	0.670
4.000	1.537	27.2	1.4	1.450	1.525	0.010	0.0	23	0.796
3.001	2.342	5621.8	8.7	1.700	1.750	0.064	0.0	11	0.267
1.004	1.539	3694.3	18.1	1.725	1.750	0.145	0.0	22	0.276
1.005	2.504	177.0	29.4	2.250	2.300	0.236	0.0	82	1.871
1.006	2.200	155.5	29.3	2.300	2.350	0.236	0.0	88	1.700

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	32.339	76.1	225	Circular	61.400	60.650	0.525	61.400	60.225	0.950
1.001	31.494	90.0	225	Circular	61.400	60.225	0.950	61.400	59.875	1.300
1.002	30.414	86.9	225	Circular	61.400	59.875	1.300	61.400	59.525	1.650
1.003	8.511	113.5	225	Circular	61.400	59.525	1.650	61.400	59.450	1.725
2.000	3.233	34.0	150	Circular	61.400	59.620	1.630	61.400	59.525	1.725
3.000	24.539	140.2	225	Circular	61.400	59.650	1.525	61.400	59.475	1.700
4.000	3.233	43.1	150	Circular	61.400	59.800	1.450	61.400	59.725	1.525
3.001	13.523	270.5	3000	Cell 800	61.400	58.900	1.700	61.400	58.850	1.750
1.004	15.570	622.8	3000	Cell 800	61.400	58.875	1.725	61.400	58.850	1.750

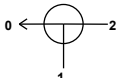
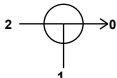
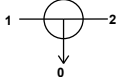
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S1	600	Manhole	Adoptable	S2	600	Manhole	Adoptable
1.001	S2	600	Manhole	Adoptable	S3	600	Manhole	Adoptable
1.002	S3	600	Manhole	Adoptable	S4	600	Manhole	Adoptable
1.003	S4	600	Manhole	Adoptable	S6	600	Manhole	Adoptable
2.000	S5	600	Manhole	Adoptable	S6	600	Manhole	Adoptable
3.000	S7	600	Manhole	Adoptable	S9	600	Manhole	Adoptable
4.000	S8	600	Manhole	Adoptable	S9	600	Manhole	Adoptable
3.001	S9	600	Manhole	Adoptable	S10	1200	Manhole	Adoptable
1.004	S6	600	Manhole	Adoptable	S10	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.005	1.983	39.7	300	Circular	61.400	58.850	2.250	61.400	58.800	2.300
1.006	2.564	51.3	300	Circular	61.400	58.800	2.300	61.400	58.750	2.350

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.005	S10	1200	Manhole	Adoptable	S11	1200	Manhole	Adoptable
1.006	S11	1200	Manhole	Adoptable	S12	1200	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S1	-327.725	313.056	61.400	0.750	600				
						0	1.000	60.650	225
S2	-295.386	313.056	61.400	1.175	600				
						0	1.001	60.225	225
						1	1.000	60.225	225
S3	-263.892	313.056	61.400	1.525	600				
						0	1.002	59.875	225
						1	1.001	59.875	225
S4	-263.892	282.642	61.400	1.875	600				
						0	1.003	59.525	225
						1	1.002	59.525	225
S5	-272.403	279.446	61.400	1.780	600				
						0	2.000	59.620	150
S6	-272.403	282.679	61.400	2.525	600				
						0	1.004	58.875	3000
						1	2.000	59.525	150
						2	1.003	59.450	225
S7	-326.035	282.642	61.400	1.750	600				
						0	3.000	59.650	225
S8	-301.496	279.409	61.400	1.600	600				
						0	4.000	59.800	150
S9	-301.496	282.642	61.400	2.500	600				
						0	3.001	58.900	3000
						1	4.000	59.725	150
						2	3.000	59.475	225
S10	-287.973	282.642	61.400	2.550	1200				
						0	1.005	58.850	300
						1	3.001	58.850	3000
						2	1.004	58.850	3000

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S11	-287.973	280.659	61.400	2.600	1200		1.005	58.800	300
						0	1.006	58.800	300
S12	-285.412	280.534	61.400	2.650	1200		1.006	58.750	300

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	20.000	Drain Down Time (mins)	240
Ratio-R	0.400	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	0	0	0
100	40	0	0

Node S10 Online Orifice Control

Flap Valve	x	Design Depth (m)	1.150	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	5.0		
Invert Level (m)	58.850	Diameter (m)	0.047		

Other (defaults)

Entry Loss (manhole)	0.250	Entry Loss (junction)	0.000	Apply Recommended Losses	x
Exit Loss (manhole)	0.250	Exit Loss (junction)	0.000	Flood Risk (m)	0.300

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	109.521	30.991	1 year 180 minute winter	15.102	5.979
1 year 15 minute winter	76.857	30.991	1 year 240 minute summer	18.475	4.882
1 year 30 minute summer	71.439	20.215	1 year 240 minute winter	12.274	4.882
1 year 30 minute winter	50.133	20.215	1 year 360 minute summer	14.169	3.646
1 year 60 minute summer	48.435	12.800	1 year 360 minute winter	9.210	3.646
1 year 60 minute winter	32.179	12.800	1 year 480 minute summer	11.185	2.956
1 year 120 minute summer	30.053	7.942	1 year 480 minute winter	7.431	2.956
1 year 120 minute winter	19.966	7.942	1 year 600 minute summer	9.182	2.511
1 year 180 minute summer	23.233	5.979	1 year 600 minute winter	6.274	2.511

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 720 minute summer	8.203	2.199	100 year 180 minute winter	45.376	17.964
1 year 720 minute winter	5.513	2.199	100 year 240 minute summer	54.269	14.342
1 year 960 minute summer	6.768	1.782	100 year 240 minute winter	36.055	14.342
1 year 960 minute winter	4.483	1.782	100 year 360 minute summer	40.484	10.418
1 year 1440 minute summer	4.949	1.326	100 year 360 minute winter	26.315	10.418
1 year 1440 minute winter	3.326	1.326	100 year 480 minute summer	31.414	8.302
30 year 15 minute summer	268.706	76.035	100 year 480 minute winter	20.871	8.302
30 year 15 minute winter	188.566	76.035	100 year 600 minute summer	25.431	6.956
30 year 30 minute summer	174.929	49.499	100 year 600 minute winter	17.376	6.956
30 year 30 minute winter	122.757	49.499	100 year 720 minute summer	22.452	6.017
30 year 60 minute summer	116.589	30.811	100 year 720 minute winter	15.089	6.017
30 year 60 minute winter	77.459	30.811	100 year 960 minute summer	18.166	4.784
30 year 120 minute summer	70.438	18.615	100 year 960 minute winter	12.033	4.784
30 year 120 minute winter	46.797	18.615	100 year 1440 minute summer	12.896	3.456
30 year 180 minute summer	53.298	13.715	100 year 1440 minute winter	8.667	3.456
30 year 180 minute winter	34.645	13.715	100 year +40% CC 15 minute summer	488.233	138.153
30 year 240 minute summer	41.604	10.995	100 year +40% CC 15 minute winter	342.620	138.153
30 year 240 minute winter	27.641	10.995	100 year +40% CC 30 minute summer	320.551	90.705
30 year 360 minute summer	31.221	8.034	100 year +40% CC 30 minute winter	224.948	90.705
30 year 360 minute winter	20.295	8.034	100 year +40% CC 60 minute summer	214.603	56.713
30 year 480 minute summer	24.324	6.428	100 year +40% CC 60 minute winter	142.577	56.713
30 year 480 minute winter	16.160	6.428	100 year +40% CC 120 minute summer	129.587	34.246
30 year 600 minute summer	19.756	5.404	100 year +40% CC 120 minute winter	86.094	34.246
30 year 600 minute winter	13.498	5.404	100 year +40% CC 180 minute summer	97.729	25.149
30 year 720 minute summer	17.490	4.687	100 year +40% CC 180 minute winter	63.526	25.149
30 year 720 minute winter	11.754	4.687	100 year +40% CC 240 minute summer	75.977	20.078
30 year 960 minute summer	14.215	3.743	100 year +40% CC 240 minute winter	50.477	20.078
30 year 960 minute winter	9.416	3.743	100 year +40% CC 360 minute summer	56.677	14.585
30 year 1440 minute summer	10.161	2.723	100 year +40% CC 360 minute winter	36.841	14.585
30 year 1440 minute winter	6.829	2.723	100 year +40% CC 480 minute summer	43.979	11.622
100 year 15 minute summer	348.738	98.681	100 year +40% CC 480 minute winter	29.219	11.622
100 year 15 minute winter	244.728	98.681	100 year +40% CC 600 minute summer	35.604	9.738
100 year 30 minute summer	228.965	64.789	100 year +40% CC 600 minute winter	24.327	9.738
100 year 30 minute winter	160.677	64.789	100 year +40% CC 720 minute summer	31.433	8.424
100 year 60 minute summer	153.288	40.510	100 year +40% CC 720 minute winter	21.125	8.424
100 year 60 minute winter	101.841	40.510	100 year +40% CC 960 minute summer	25.432	6.697
100 year 120 minute summer	92.562	24.461	100 year +40% CC 960 minute winter	16.847	6.697
100 year 120 minute winter	61.496	24.461	100 year +40% CC 1440 minute summer	18.055	4.839
100 year 180 minute summer	69.806	17.964	100 year +40% CC 1440 minute winter	12.134	4.839

Results for 1 year Critical Storm Duration. Lowest mass balance: 69.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	60.688	0.038	3.8	0.0381	0.0000	OK
15 minute winter	S2	11	60.280	0.055	7.5	0.0411	0.0000	OK
15 minute winter	S3	11	59.942	0.067	11.1	0.0430	0.0000	OK
15 minute winter	S4	11	59.617	0.092	14.6	0.0524	0.0000	OK
15 minute winter	S5	10	59.643	0.023	1.4	0.0091	0.0000	OK
240 minute winter	S6	176	59.111	0.236	4.3	0.1175	0.0000	OK
15 minute winter	S7	10	59.695	0.045	3.8	0.0264	0.0000	OK
15 minute winter	S8	10	59.824	0.024	1.4	0.0100	0.0000	OK
240 minute winter	S9	176	59.111	0.211	1.9	0.1055	0.0000	OK
240 minute winter	S10	176	59.111	0.261	4.4	0.3511	0.0000	OK
240 minute winter	S11	176	58.827	0.027	2.2	0.0308	0.0000	OK
240 minute winter	S12	176	58.775	0.025	2.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	3.7	0.630	0.063	0.1931	
15 minute winter	S2	1.001	S3	7.4	0.844	0.134	0.2765	
15 minute winter	S3	1.002	S4	11.0	0.880	0.198	0.3828	
15 minute winter	S4	1.003	S6	14.7	1.023	0.301	0.1221	
15 minute winter	S5	2.000	S6	1.4	0.843	0.045	0.0053	
240 minute winter	S6	1.004	S10	3.0	0.037	0.001	11.6292	
15 minute winter	S7	3.000	S9	3.7	0.671	0.084	0.1347	
15 minute winter	S8	4.000	S9	1.4	0.774	0.051	0.0058	
240 minute winter	S9	3.001	S10	0.7	0.019	0.000	9.5932	
240 minute winter	S10	Orifice	S11	2.2				
240 minute winter	S11	1.006	S12	2.2	0.758	0.014	0.0076	36.9

Results for 30 year Critical Storm Duration. Lowest mass balance: 69.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	60.709	0.059	9.3	0.0595	0.0000	OK
15 minute winter	S2	10	60.314	0.089	18.5	0.0662	0.0000	OK
15 minute winter	S3	11	59.986	0.111	27.4	0.0709	0.0000	OK
15 minute winter	S4	11	59.688	0.163	36.1	0.0929	0.0000	OK
15 minute winter	S5	10	59.657	0.037	3.5	0.0148	0.0000	OK
180 minute winter	S6	148	59.505	0.630	11.8	0.3132	0.0000	OK
15 minute winter	S7	10	59.721	0.071	9.3	0.0422	0.0000	OK
15 minute winter	S8	10	59.840	0.040	3.5	0.0163	0.0000	OK
180 minute winter	S9	148	59.505	0.605	5.2	0.3020	0.0000	OK
180 minute winter	S10	148	59.505	0.655	11.0	0.8800	0.0000	SURCHARGED
180 minute winter	S11	148	58.835	0.035	3.7	0.0395	0.0000	OK
180 minute winter	S12	148	58.782	0.032	3.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	9.2	0.804	0.154	0.3717	
15 minute winter	S2	1.001	S3	18.1	1.063	0.330	0.5376	
15 minute winter	S3	1.002	S4	27.3	1.078	0.489	0.7654	
15 minute winter	S4	1.003	S6	36.3	1.264	0.745	0.2442	
15 minute winter	S5	2.000	S6	3.5	1.079	0.114	0.0104	
180 minute winter	S6	1.004	S10	7.3	0.062	0.002	30.0267	
15 minute winter	S7	3.000	S9	9.1	0.862	0.207	0.2590	
15 minute winter	S8	4.000	S9	3.5	0.989	0.128	0.0113	
180 minute winter	S9	3.001	S10	1.4	0.041	0.000	25.5719	
180 minute winter	S10	Orifice	S11	3.7				
180 minute winter	S11	1.006	S12	3.7	0.863	0.024	0.0109	65.2

Results for 100 year Critical Storm Duration. Lowest mass balance: 69.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	60.718	0.068	12.1	0.0681	0.0000	OK
15 minute winter	S2	10	60.329	0.104	24.0	0.0773	0.0000	OK
15 minute winter	S3	10	60.004	0.129	35.6	0.0823	0.0000	OK
15 minute winter	S4	11	59.735	0.210	47.4	0.1198	0.0000	OK
180 minute winter	S5	128	59.686	0.066	1.6	0.0260	0.0000	OK
180 minute winter	S6	128	59.682	0.807	15.0	0.4012	0.0000	SURCHARGED
15 minute winter	S7	10	59.732	0.082	12.1	0.0487	0.0000	OK
15 minute winter	S8	10	59.846	0.046	4.5	0.0187	0.0000	OK
180 minute winter	S9	128	59.682	0.782	6.6	0.3901	0.0000	OK
180 minute winter	S10	128	59.679	0.829	13.8	1.1133	0.0000	SURCHARGED
180 minute winter	S11	128	58.837	0.037	4.1	0.0421	0.0000	OK
180 minute winter	S12	128	58.784	0.034	4.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	11.9	0.857	0.200	0.4537	
15 minute winter	S2	1.001	S3	23.5	1.139	0.429	0.6543	
15 minute winter	S3	1.002	S4	35.3	1.132	0.633	0.9432	
15 minute winter	S4	1.003	S6	47.0	1.309	0.964	0.3050	
180 minute winter	S5	2.000	S6	3.3	0.771	0.108	0.0405	
180 minute winter	S6	1.004	S10	9.3	0.061	0.003	37.3594	
15 minute winter	S7	3.000	S9	11.8	0.925	0.270	0.3142	
15 minute winter	S8	4.000	S9	4.5	1.054	0.164	0.0137	
180 minute winter	S9	3.001	S10	10.7	0.038	0.002	32.1005	
180 minute winter	S10	Orifice	S11	4.1				
180 minute winter	S11	1.006	S12	4.1	0.890	0.027	0.0119	75.6

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 69.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	60.731	0.081	17.0	0.0814	0.0000	OK
15 minute winter	S2	10	60.354	0.129	33.8	0.0960	0.0000	OK
15 minute winter	S3	11	60.143	0.268	50.6	0.1708	0.0000	SURCHARGED
60 minute summer	S4	41	60.100	0.575	66.2	0.3285	0.0000	SURCHARGED
60 minute summer	S5	41	60.100	0.480	64.3	0.1895	0.0000	SURCHARGED
60 minute summer	S6	41	60.468	1.593	1559.0	0.7919	0.0000	SURCHARGED
60 minute summer	S7	47	60.312	0.662	20.1	0.3913	0.0000	SURCHARGED
60 minute summer	S8	47	60.088	0.288	23.3	0.1177	0.0000	SURCHARGED
60 minute summer	S9	43	60.599	1.699	986.5	0.8478	0.0000	SURCHARGED
120 minute winter	S10	70	59.906	1.056	1550.0	1.4183	0.0000	SURCHARGED
120 minute winter	S11	70	58.840	0.040	4.7	0.0449	0.0000	OK
120 minute winter	S12	70	58.786	0.036	4.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	16.8	0.928	0.282	0.5901	
15 minute winter	S2	1.001	S3	33.6	1.187	0.613	0.9802	
15 minute winter	S3	1.002	S4	46.8	1.177	0.839	1.2096	
60 minute summer	S4	1.003	S6	67.9	1.708	1.393	0.3385	
60 minute summer	S5	2.000	S6	-61.5	-3.495	-2.011	0.0569	
60 minute summer	S6	1.004	S10	1710.2	0.814	0.463	37.3880	
60 minute summer	S7	3.000	S9	48.3	1.226	1.103	0.9759	
60 minute summer	S8	4.000	S9	29.8	-1.742	1.098	0.0569	
60 minute summer	S9	3.001	S10	1313.8	0.672	0.234	32.4726	
120 minute winter	S10	Orifice	S11	4.7				
120 minute winter	S11	1.006	S12	4.7	0.920	0.030	0.0131	67.6