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Date 01/05/2020 17:10 File SW Network-Surcharged O...	Designed by Lukepilsbury Checked by	
Innovyze	Network 2018.1.1	

Online Controls for Storm

Complex Manhole: 3, DS/PN: 1.001, Volume (m³): 12.4

Hydro-Brake® Optimum

Unit Reference	MD-SHE-0130-7100-0600-7100
Design Head (m)	0.600
Design Flow (l/s)	7.1
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	130
Invert Level (m)	48.625
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.600	7.1
Flush-Flo™	0.211	7.1
Kick-Flo®	0.440	6.1
Mean Flow over Head Range	-	5.9

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	4.7	1.200	9.8	3.000	15.2	7.000	22.8
0.200	7.1	1.400	10.6	3.500	16.3	7.500	23.6
0.300	6.9	1.600	11.3	4.000	17.4	8.000	24.3
0.400	6.6	1.800	11.9	4.500	18.4	8.500	25.1
0.500	6.5	2.000	12.5	5.000	19.4	9.000	25.8
0.600	7.1	2.200	13.1	5.500	20.3	9.500	26.5
0.800	8.1	2.400	13.6	6.000	21.2		
1.000	9.0	2.600	14.2	6.500	21.9		

Hydro-Brake® Optimum

Unit Reference	MD-SHE-0151-1000-0600-1000
Design Head (m)	0.600
Design Flow (l/s)	10.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	151
Invert Level (m)	48.875

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Hydro-Brake® Optimum

Minimum Outlet Pipe Diameter (mm) 225
Suggested Manhole Diameter (mm) 1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.600	10.0
Flush-Flo™	0.237	10.0
Kick-Flo®	0.457	8.8
Mean Flow over Head Range	-	8.2

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	5.4	1.200	13.9	3.000	21.5	7.000	32.2
0.200	9.9	1.400	14.9	3.500	23.1	7.500	33.4
0.300	9.9	1.600	15.9	4.000	24.7	8.000	34.5
0.400	9.4	1.800	16.8	4.500	26.1	8.500	35.5
0.500	9.2	2.000	17.7	5.000	27.5	9.000	36.6
0.600	10.0	2.200	18.5	5.500	28.7	9.500	37.6
0.800	11.4	2.400	19.3	6.000	30.0		
1.000	12.7	2.600	20.0	6.500	31.0		

Non Return Valve Manhole: 4, DS/PN: 1.002, Volume (m³): 1.6

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