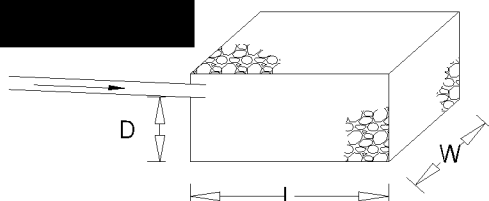


Dimensional Rectangular Soakaway System
Rational Computer Method



Rainfall Data

Geographic Location:

☒ England and Wales

☐ Scotland and N. Ireland

5yr 60min. Rainfall: M5-60 = mm

Return Period: T = Yrs

Impermeable Area: A = m²

M5-60min/M5-2day: r =

Soakaway Details

Soakaway Length: L = m

Soakaway Width: W = m

Depth below Invert: D = m

Base Area: Ab = 50 m

Perimeter Length: P = 30 m

Porosity of Fill: n =

Factor of Safety: F =

Soil Properties

Infiltration Coeff: q = 0.06216 m/hr

Infiltration Rate: f = m/s

Table of Characteristic Rainfall and Soakaway Depth

Storm Duration D	M5-D Rainfalls mm	MT-D Rainfalls mm	P (mm):	MT-D Intensity, i m/hr	SW Discharge l/s	Runoff Volume m ³	Hmax m
5 min.	7.4	13.7	13.55	0.163	41.78	12.5	0.258
10 min.	10.6	20.5	20.35	0.122	31.38	18.8	0.384
15 min.	12.6	24.7	24.54	0.098	25.22	22.7	0.459
30 min.	16.2	32.4	32.26	0.065	16.58	29.8	0.590
1 hr	20.0	40.5	40.37	0.040	10.37	37.3	0.707
2 hr	24.2	48.9	48.80	0.024	6.27	45.1	0.788
4 hr	28.9	57.4	57.25	0.014	3.68	53.0	0.790
6 hr	32.0	62.5	62.40	0.010	2.67	57.7	0.733
12 hr	37.9	72.2	72.11	0.006	1.54	66.7	0.494
24 hr	44.9	83.0	82.86	0.003	0.89	76.6	0.028
48 hr	53.0	94.8	94.74	0.002	0.51	87.6	

Where no value is shown for Hmax, the soakaway outflow exceeds the inflow.

Required Depth Below Invert for Given Soakaway Area:

0.790 m

Required Storage Volume: V_{reqd} = 39.476 m³

Soakaway Storage Volume: V_{act} = 40.000 m³

Storage Adequate

Time for Emptying: TE_{50%} = 4.46 Hrs

Time for Emptying Acceptable
(TE_{50%} must be <24hrs)