

Soakaway design - Infiltration design (v2.0.04)

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The information required for calculating the soil infiltration rate is
1) the trial pit size
2) three test results (minutes) for the time taken for the water level to fall from 75% to 25% effective storage depth in the pit.

Rainfall data

Select location: London

Ratio 60-minute to 2 day rainfalls of 5 year rtn: 0.44

M5_60min rainfall: 20 mm

Return period for rainfall: 100 yr

Impermeable area drained to the system: 693 m²

Soakaway details

Type of soakaway: Rectangular pit

Determine: Define all dimension

Pit depth (below incoming invert): 209 mm

Pit length: 26300 mm

Width: 26300 mm

Percentage free volume: 33 %

Soil infiltration

Calculate from trial pit results

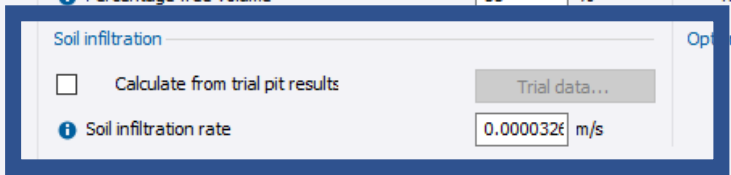
Soil infiltration rate: 0.000032 m/s

Preview calculation results

Duration (min)	Inflow (m ³)	Outflow (m ³)	Storage (m ³)
5min	14.4	0.1	14.3
10min	20.7	0.2	20.5
15min	25.3	0.3	25.0
30min	32.0	0.6	31.3
60min	38.5	1.3	37.2
120min	45.0	2.6	42.4
240min	51.3	5.2	46.2
360min	55.4	7.7	47.7
600min	60.3	12.9	47.4
1440min	70.6	31.0	39.7

Required volume - 47.69 m³; Actual volume - 47.71 m³

Time of emptying half the storage 18hr 28min 55s



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