

Hydraulische Berechnungen der Versickerungsrate

Rigole 1	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 3,2 \text{ m} \times 1,6 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,128$	[l/s]
Rigole 2	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 2,4 \text{ m} \times 0,8 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,048$	[l/s]
Rigole 3	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 3,2 \text{ m} \times 0,8 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,064$	[l/s]
Rigole 4	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 2,4 \text{ m} \times 0,8 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,048$	[l/s]
Rigole 5	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 3,2 \text{ m} \times 1,6 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,128$	[l/s]
Rigole 6	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 2,4 \text{ m}^2 \times 1,6 \text{ m}^2 \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,096$	[l/s]
Rigole 7	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 3,2 \text{ m} \times 0,8 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,064$	[l/s]
Mulde West	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 67,5 \text{ m} \times 0,7 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 1,18$	[l/s]
Mulde Mitte	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 23 \text{ m} \times 0,45 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,259$	[l/s]
Mulde Ost	
$Q_S = L_s \times b_s \times k_f/2$	[l/s]
$k_f = 5E-05$	[m/s]
$Q_S = 10 \text{ m} \times 0,45 \text{ m} \times 5 \cdot 10^{-5/2} \text{ m/s} \times 1.000$	[l/s]
$Q_S = 0,112$	[l/s]