

CALCULATION SHEET FOR SEPTIC TANK

1 WASTE WATER VOLUME

*Waste Water volume=1.0*Water supply volume [m3]

Domestic water supply volume:

$$Q_{sh.nd}^{CN} = \frac{\sum q_n N_n}{1000}$$

Detail:

$Q_{sh.nd}^{CN}$ Total domestic water capacity for workers per working shift [m3/day]

q_n Standard of domestic water for each workers [L/day]

N_n Number of workers per working shift

2 SEDIMENTATION VOLUME

$W_{\text{sediment}} = [aT(100-W1)bc]N/[(100-W2)*1000]$ [m3]

a: Average sedimentation of body per day
(0.8L/person*day)

T: days between cleaning times

W1,W2: Humidity of Soil

W1=95 [%]

W2=90 [%]

b: Coefficient depended reduce volume (b=0.7)

c: Coefficient depended remaining Soil volume (c=1.2)

N: Quantified of workers per day

3 SEPTIC TANK VOLUME

W= Wwaste+Wsediment [m3]