

Abbreviations

Abbreviation	Unit	
A	[m ²]	Area
AT		Aeration tank
$\beta_{\text{BOD}_5\text{In}}$	[mg/l]	Concentration of BOD ₅ at inlet
DN 1,000	[mm]	Nominal diameter
DW		Dry weather
FDS		Flow-dividing structure
h	[m]	Height difference
L	[Kg BOD ₅ / (Kg MLSS*d)]	Biological Sludge loading
l	[m]	Length
$L_{\text{BOD}_5} = Q_d \times \beta_{\text{BOD}_5}$	[kg BOD ₅ / d]	Daily biological load
$L_{\text{d,COD}}$	[kg COD/d]	Daily Load of COD
$L_{\text{d,TVS}}$	[kg TVS/(m ³ · d)]	Daily load of TVS
L_{MLSS}		Sludge loading
LOI		Loss on ignition
L_{R}		Spatial loading
n	[%]	Ratio of removal
Od_{d}	[kg/d]	Oxygen demand, daily
P	[l]	Population [inhabitant]
PE	[l]	Population Equivalent [inhabitant]
PST		Primary settlement tank
PS		Primary sludge
$PT = P + PE$	[l]	Total Population and equivalents [Inhabitant]
Q	[m ³ /s]	Flow
Q	[kWh]	Amount of heat
Q_{d}	[m ³ /d]	Daily inflow to treatment plant
Q_{infl}	[m ³ /d]	Flow at inlet
$q_{\text{l}} = Q/l$	[m ³ /(h · m)]	Edge load
Q_{s}		Flow of sludge

Abbreviation	Unit	
Q_{SS}	[m ³ /d]	Flow of surplus sludge
$R_R = Q_{RS} / Q_{In}$	[%]	Recirculation Ratio of Sludge
RS		Return activated sludge
S	[‰]	Slope
SE		Contamination unit
SS		Surplus sludge
SST		Secondary Settlement tank
SSV	[ml/l]	Settled Sludge Volume in Aeration Tank
SVI	[ml/g]	Sludge Volume Index
SW		Stormwater event
t	[d]	Retention time (of sludge in digester)
t_{DW}	[min]	Flow time at dry weather
TOS	TOS	Tank overflow structure
t_{PS}	[h]	Retention time in Primary settlement tank
t_R	[min,h,d]	Retention Time
TS	[%] or [g TS / kg sludge]	Total Solids (in sludge)
TSS	[g TSS / l sludge]	Total Suspended Solids concentration (dry mass)
t_{SW}	[min]	Flow time at Stormwater event
t_{TSS}	[d]	Sludge age
TVS	[liter per kg]	Total volatile suspended solids = LOI
v	[cm/s]	Velocity
V	[m ³]	Volume
V_{bio}	[m ³]	Volume of biological tank
V_{PST}	[m ³]	Volume of Primary settlement tank
V_{tot}	[m ³]	Total volume of tank
W	[m]	Width of tank