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APPENDIX

NOMENCLATURES

Latin Letters

A	= Pipe surface area (m^2)
A	= Specific interfacial area (m^{-1})
D	= Pipe diameter (m)
DO	= Dissolved oxygen (mg/L)
f	= Friction coefficient
g	= Gravity (9.8 m/s^2)
h	= Head (m, ft)
hL major	= Major losses (m)
hL minor	= Minor losses (m)
K	= Pipe inlet coefficient
KL	= Losses coefficient
L	= Pipe length (m)
n	= Total fitting used
P	= Power (HP, watt)
P2	= The pressure at the end of the pipe system (m)
P1	= The pressure at the initial point of the pipe system (m)
P	= Tekanan (atm, Pa, PSI)
QG	= Gas flow rate (m^3/h, U.S.G/M)
QL	= Liquid flow rate (m^3/h, U.S.G/M)
Re	= Reynolds number
*U*b	= Terminal Velocity (m/s)
V	= Fluid velocity (m/s)
μ	= Dynamic Viscosity ($N.s/m^2$.Pa.s)
z1	= Suction height (m)
z2	= The height at highest point (m)

Greek Letters

Δz	= Elevation head loss (m)
ΔP	= Potential head (m)
ε	= Relative roughness of pipe (mm)
υ	= Kinematic viscosity (m^2/s, cST)
ρ	= Density (kg/m^3)