

CT CALCULATOR ENTER DATA IN SHADED CELLS		CASE 1	CASE 2	CASE 3
(0 to 25° C)	Water Temperature (° C)	5.0	5.0	3.0
(6.5-8.5)	pH	6.5	6.5	6.5
(NLT .2)	Free Chlorine Residual (mg/l)	1.2	0.3	0.6
(0 to 3)	Log Inactivation Required	0.5	0.5	0.5
CT = Log Inactivation* 5.057 * e^(a+b+c) a = -0.0693 *temp b = 0.361* pH c = 0.113 * Free Cl Residual		(0.35)	(0.35)	(0.21)
		2.35	2.35	2.35
		0.14	0.03	0.07
REQUIRED CT (min/(mg liter))=		21	19	23
Required Contact Time (min) = CT / (Free Cl Residual) =		18	64	38
Design Flow Rate (gpm)		42	6	12
CT Storage Volume (gal)		7,800	7,800	7,800
Baffle Factor (0.1 to 1.0)		0.1	0.1	0.1
Effective Storage (gal) = (Storage * Baffle Factor)		780	780	780
Storage Time (min) @ Flow Rate = Eff. Storage / Des Flow Rate		19	139	65
Excess contact time (mins) = (Storage Time - Contact Time)		1	75	27
Note: Excess Contact Time must be positive under all operating conditions!				