



**Values of Power Coefficient**

**Table:1**

Type of Impeller	$K_L$	$K_T$
Propeller (square pitch, three blades)	1	0,001
Propeller (pitch of 2, three blades)	1,1	0,004
Turbine (six Hat blades)	1,8	0,025
Turbine (six curved blades)	1,8	0,019
Shrouded turbine (six curved blades)	2,4	0,004
Shrouded turbine (two curved blades)	2,4	0,004
Flat paddles (two blades, $Dt/W=6$ )	0,9	0,006
Hat paddles (two blades, $Dt/W=8$ )	0,8	0,005
Flat paddles (four blades, $Dt/W=6$ )	1,2	0,011
Flat paddles (six blades, $Dt/W=6$ )	1,8	0,015



Propeller



Turbine



Paddle Vaned Disk

*Note:* For vessels with four baffles at wall and  $J = 0,1 D$ .

From W. L. McCabe and J. C. Smith (1967). *Unit Operations of Chemical Engineering*. McGraw-Hill, New York, 262.

**G Criteria Values for Effective Mixing**

**Table:2**

Detention time: $t_0$ seconds	G $s^{-1}$
<10	4000-1500
10-20	1500-950
20-30	950-850
30-40	850-750
40-130	750-700

**G Criteria Values for Flocculators**

**Table:3**

Type of raw water	G $s^{-1}$	$G \cdot t_0$	$t_0$ s
Low turbidity and colored	20-70	50000-250000	2500-3571
High turbidity	70-150	80000-190000	1143-1267