

<p># 1 /</p> <p>가</p> <p>< ></p> <p>가 (1) + 125KW(1)</p> <p>1.</p> <p>- 1</p> <p>$T_c = (T_s + T_a)/F$</p> <p>Tc : 1 ()</p> <p>Ts : 1 ()</p> <p>Ta : 1 ()</p> <p>F :</p> <p>N = 1,500 / 50 ()</p> <p>:M N</p> <p>. L1 = 0.0 M , N1 = 0</p> <p>. L2 = 0.0 M , N2 = 0</p> <p>. L3 = 7.2 M , N3 = 300</p> <p>. L4 = 0.8 M , Qu1 = 50</p> <p>. L5 = 1.5 M , Qu2 =100</p> <p>SHEET PILE : L = 0+0+7.2+0.8+1.5=9.50 m</p> <p>Ts = 15.0 MIN</p> <p>Ta = r* L* k =? MIN</p> <p>r : ()</p> <p>r1 = 0.03 * N1 + 2.5 = 2.50 /M</p> <p>r2 = 0.05 * N2 + 2.5 = 2.50 /M</p> <p>r3 = 0.03 * N3 + 2.5 = 11.50 /M</p> <p>r4 = 0.07 * Qu1 + 2.5 = 6.00 /M</p> <p>$r = (2.5 * 0 + 2.5 * 0 + 11.5 * 7.2 + 6 * 0.8) / 9.5 = 9.22$</p> <p>k :</p> <p>k = 1.10</p> <p>Ta =9.22* 9.5* 1.1 =96.35 MIN</p> <p>F = Fo + (f1 + f2 + f3 + f4)</p> <p>F :</p> <p>f1 :</p>	63,518	167,748	260,434	491,700	#.1

f2 : f3 : f4 : $F_o = 1.0$, $f_1 = 0.0$, $f_2 = 0.0$ $f_3 = 0.0$, $f_4 = 0.0$ $F = F_o + f_1 + f_2 + f_3 + f_4 = 1.00$ $T_c = (T_s + T_a) / F = 111.35$ MIN/ $Q = 60 / T_c = 0.53$ /HR $Q_1 = 1 / Q * 1 = 1.8867$ HR/					
1. 가 : 1 * 10,939.68 * 1.8867 = 20,639.8 / : 1 * 31,751 * 1.8867 = 59,904.6 / : 1 * 131,002 * 1.8867 = 247,161.4 /	20,639.8	59,904.6	247,161.4	20,639.8 59,904.6 247,161.4	E65500045 E65500045 E65500045
2. (125KW) : 1 * 22,726.8 * 1.8867 = 42,878.6 / : 1 * 12,438 * 1.8867 = 23,466.7 / : 1 * 7,035 * 1.8867 = 13,272.9 /	42,878.6	23,466.7	13,272.9	42,878.6 23,466.7 13,272.9	E75050125 E75050125 E75050125
3. : 2 / 8 HR * 1.8867 * 1 * 93,650 = 44,172.3 / : 2 / 8 HR * 1.8867 * 1 * 50,683 = 23,905.9 / : 1 / 8 HR * 1.8867 * 1 * 69,109 = 16,298.4 /		44,172.3		44,172.3	L015
		23,905.9		23,905.9	L085
		16,298.4		16,298.4	L080
	63,518.4	167,747.9	260,434.3	491,700.6	
	63,518	167,748	260,434	491,700	

# 2 SHEET PILE () /	9,530	16,327	14,474	40,331	#.2
Tc = ((0.75 + r x Nmax) x L + a) x K / F (min/)					
a, r :					
L : (M)					
F :					
Nmax: N					
K : SHEET PILE					
Fo = 1.0					
. : f1=0.05					
. : f2=0.05					
. : f3=0.05					
F = Fo + (f1 + f2 + f3) = 1.15					
30 kw 45 kw 60kw					
a K a K a K					
SP-III 3.24 1.11 3.87 0.93 4.34 0.83					
SP-IIIA 2.71 1.33 3.24 1.11 3.60 1.00					
SP- IV - - 3.05 1.18 3.43 1.05					
r 0.00					
.SHEET PILE (): L = 9.50 m					
. N : Nmax = 30					
K = 1.05					
a = 3.43					
r = 0.00					
Tc = ((0.75 + r * Nmax) * L + a) * K / F = 9.64					
(1)					
. (60 kw) : 1					
. () (40 ton) : 1					
. (250 kw) : 1					
. (20 ton) : 1					
. (60 %) : 1					
(2)					
. : 2					
. : 1					
. : 1					
. : 1					
(3)					
1) (60 kw)					
. : 21,913 * Tc / 60 = 3,520.6			3,520.6	3,520.6	E65300060
			3,520.6	3,520.6	
2) (40 ton)					
. : 10,939.68 * Tc / 60 = 1,757.6	1,757.6			1,757.6	E21010040

. : $31,751 * T_c / 60 = 5,101.3$		5,101.3		5,101.3	E21010040
. : $31,913 * T_c / 60 = 5,127.3$			5,127.3	5,127.3	E21010040
	1,757.6	5,101.3	5,127.3	11,986.2	
3) (250 kw)					
. : $44,760.24 * T_c / 60 = 7,191.4$	7,191.4			7,191.4	E75050250
. : $12,438 * T_c / 60 = 1,998.3$		1,998.3		1,998.3	E75050250
. : $12,173 * T_c / 60 = 1,955.7$			1,955.7	1,955.7	E75050250
	7,191.4	1,998.3	1,955.7	11,145.4	
4) (20 ton) (60 %)					
. : $6,024.52 * T_c / 60 * 0.6 = 580.7$	580.7			580.7	E21040020
. : $31,751 * T_c / 60 * 0.6 = 3,060.7$		3,060.7		3,060.7	E21040020
. : $40,147 * T_c / 60 * 0.6 = 3,870.1$			3,870.1	3,870.1	E21040020
	580.7	3,060.7	3,870.1	7,511.5	
(4)					
. : $93,650 * T_c / 60 / 8 * 2 = 3,761.6$		3,761.6		3,761.6	L015
. : $50,683 * T_c / 60 / 8 * 1 = 1,017.8$		1,017.8		1,017.8	L085
. : $69,109 * T_c / 60 / 8 * 1 = 1,387.9$		1,387.9		1,387.9	L081
		6,167.3		6,167.3	
	9,529.7	16,327.6	14,473.7	40,331	
	9,530	16,327	14,474	40,331	

# 3 SHEET PILE /	25,816	92,662	7,766	126,244	#.3
1. SHEET PILE : L = 11.0 M					
가) SHEET PILE					
(1) ANGLE (L-90x90x10)					
0.15 M 2M					
$N = (11 / 2) + 1 = 6.50 \text{ EA}$					
$WT = 6.5 * 0.15 \text{ M} * 13.3 \text{ kg/m} = 12.97 \text{ kg}$					
(2)					
. : SHEET PILE					
(3) ANGLE (t = 10 mm)					
1) : ANGLE x (0.09 + 0.09) M					
$L1 = 6.5 \text{ EA} * 0.18 \text{ M} = 1.17 \text{ M}$					
(4) (fillet t = 6 mm)					
1) ANGLE					
$L2 = 0.09 * 4 + 0.15 * 2 = 0.66 \text{ M}$					
$L3 = 0.66 \text{ M} * 6.5 \text{ EA} = 4.29 \text{ M}$					
2) SHEET PILE					
$L4 = 11 \text{ M} + (11 \text{ M} - 0.15 \text{ M} * 6.5 \text{ EA}) = 21.03 \text{ M}$					
: 25.32 M					
) SHEET PILE					
(1) ANGLE (L-90x90x10)					
$325 * 12.97 \text{ kg} * 1.07 = 4,510.3$	4,510.3			4,510.3	M10019
(2)					
. : $948 * 11 \text{ M} = 10,428.0$	10,428			10,428	
. : $599 * 11 \text{ M} = 6,589.0$		6,589		6,589	
. : $12 * 11 \text{ M} = 132.0$			132	132	
(3) ANGLE (t = 10 mm)					
. : $598 * 1.17 \text{ M} = 699.6$	699.6			699.6	
. : $528 * 1.17 \text{ M} = 617.7$		617.7		617.7	
. : $11 * 1.17 \text{ M} = 12.8$			12.8	12.8	
(4) (fillet t = 6 mm)					
. : $402 * 25.32 \text{ M} = 10,178.6$	10,178.6			10,178.6	
. : $3,375 * 25.32 \text{ M} = 85,455.0$		85,455		85,455	
. : $301 * 25.32 \text{ M} = 7,621.3$			7,621.3	7,621.3	

	25,816.5	92,661.7	7,766.1	126,244.3	
	25,816	92,662	7,766	126,244	

# 4 H-PILE () () L=5.00 M/	9,054	27,964	16,080	53,098	#.4
1. H-PILE (H-250x250x9x14)					
Tc = (Ts + Tb) / F (min /)					
Tc : PILE 1 ()					
Ts : PILE 1 ()					
Tb : PILE 1 ()					
F : PILE					
F0 = 0.8					
. : f1=0					
. : f2=0					
. : f3=0					
. : f4=0					
F = F0 + (f1 + f2 + f3 + f4) = 0.80					
Ts = 10 (min /)					
r :					
LL: PILE (M)					
k :					
H-200 : 0.80 , H-250 : 0.95					
H-300 : 1.00 , H-350 : 1.05					
k = 0.95					
.H-PILE : L = 5.00 m					
.H-PILE : LL= 4.50 m					
. : L1 = 4.50 m					
. : L2 = 0.00 m					
N1.N2: 71 N					
. N : N1 = 5					
. N : N2 = 0					
. () : r1					
. () : r2					
r1 = 0.03 * N1 + 0.6 = 0.75					
r2 = 0.05 * N2 + 0.6 = 0.60					
r = (r1 * L1 + r2 * L2) / (L1 + L2) = 0.75					
Tb = r * LL * k = 3.21 (min /)					
Tc = (Ts + Tb) / F = 16.51 (min /)					
1)					
. (40 kw) : 1					
. (30 ton) : 1					
. (100 kw) : 1					
. (10 ton) : 1					
. (60 %) : 1					
2)					
. : 2					
. : 1					

. : 1					
3)					
(1) (40 kw)					
. : $15,311 * T_c / 60 = 4,213.0$			4,213	4,213	E65300040
			4,213	4,213	
(2) (30 ton)					
. : $10,015.2 * T_c / 60 = 2,755.8$	2,755.8			2,755.8	E21010030
. : $31,751 * T_c / 60 = 8,736.8$		8,736.8		8,736.8	E21010030
. : $24,750 * T_c / 60 = 6,810.3$			6,810.3	6,810.3	E21010030
	2,755.8	8,736.8	6,810.3	18,302.9	
(3) (100 kw)					
. : $20,338.56 * T_c / 60 = 5,596.4$	5,596.4			5,596.4	E75050100
. : $12,438 * T_c / 60 = 3,422.5$		3,422.5		3,422.5	E75050100
. : $5,652 * T_c / 60 = 1,555.2$			1,555.2	1,555.2	E75050100
	5,596.4	3,422.5	1,555.2	10,574.1	
(4) (10 ton) (60 %)					
. : $4,252.6 * T_c / 60 * 0.6 = 702.1$	702.1			702.1	E21040010
. : $31,751 * T_c / 60 * 0.6 = 5,242.0$		5,242		5,242	E21040010
. : $21,210 * T_c / 60 * 0.6 = 3,501.7$			3,501.7	3,501.7	E21040010
	702.1	5,242	3,501.7	9,445.8	
(5)					
. : $93,650 * T_c / 60 / 8 * 2 = 6,442.3$		6,442.3		6,442.3	L015
. : $50,683 * T_c / 60 / 8 * 1 = 1,743.2$		1,743.2		1,743.2	L085
. : $69,109 * T_c / 60 / 8 * 1 = 2,377.0$		2,377		2,377	L081
		10,562.5		10,562.5	
	9,054	27,964	16,080	53,098	

<p># 5 H-PILE () () L=5.00 M/</p> <p>1. H-PILE (H-250x250x9x14)</p> <p>$T_c = (T_s + T_b) / F$ (min /)</p> <p>Tc:PILE 1 () Ts:PILE 1 () Tb:PILE 1 () F :PILE</p> <p>$F_0 = 0.9$</p> <p>. : f1=0 . : f2=0 . : f3=0 . : f4=0</p> <p>$F = F_0 + (f_1 + f_2 + f_3 + f_4) = 0.90$</p> <p>$T_s = 6$ (min/)</p> <p>r : LL:PILE (M) k :</p> <p>H-200 : 0.80 , H-250 : 0.90 H-300 : 0.95 , H-350 : 1.05 k = 0.90</p> <p>.H-PILE : L = 5.00 m .H-PILE : LL = 4.50 m</p> <p>. (.) : r1 . () : r2</p> <p>r1 = 0.5 r2 = 0.8 r = 0.5</p> <p>$T_b = r * LL * k = 2.03$ (min/)</p> <p>$T_c = (T_s + T_b) / F = 8.92$ (min/)</p> <p>1)</p> <p>. (40 kw) : 1 . (30 ton) : 1 . (100 kw) : 1 . (10 ton) : 1 . (60 %) : 1</p> <p>2)</p> <p>. : 2 . : 1 . : 1</p> <p>3)</p> <p>(1) (40 kw)</p> <p>. : $15,311 * T_c / 60 = 2,276.2$</p>	4,892	15,108	8,687	28,687	#.5
			2,276.2	2,276.2	E65300040

			2,276.2	2,276.2	
(2) (30 ton)					
. : $10,015.2 * T_c / 60 = 1,488.9$	1,488.9			1,488.9	E21010030
. : $31,751 * T_c / 60 = 4,720.3$		4,720.3		4,720.3	E21010030
. : $24,750 * T_c / 60 = 3,679.5$			3,679.5	3,679.5	E21010030
	1,488.9	4,720.3	3,679.5	9,888.7	
(3) (100 kw)					
. : $20,338.56 * T_c / 60 = 3,023.6$	3,023.6			3,023.6	E75050100
. : $12,438 * T_c / 60 = 1,849.1$		1,849.1		1,849.1	E75050100
. : $5,652 * T_c / 60 = 840.2$			840.2	840.2	E75050100
	3,023.6	1,849.1	840.2	5,712.9	
(4) (10 ton) (60 %)					
. : $4,252.6 * T_c / 60 * 0.6 = 379.3$	379.3			379.3	E21040010
. : $31,751 * T_c / 60 * 0.6 = 2,832.1$		2,832.1		2,832.1	E21040010
. : $21,210 * T_c / 60 * 0.6 = 1,891.9$			1,891.9	1,891.9	E21040010
	379.3	2,832.1	1,891.9	5,103.3	
(5)					
. : $93,650 * T_c / 60 / 8 * 2 = 3,480.6$		3,480.6		3,480.6	L015
. : $50,683 * T_c / 60 / 8 * 1 = 941.8$		941.8		941.8	L085
. : $69,109 * T_c / 60 / 8 * 1 = 1,284.2$		1,284.2		1,284.2	L081
		5,706.6		5,706.6	
	4,892	15,108	8,687	28,687	