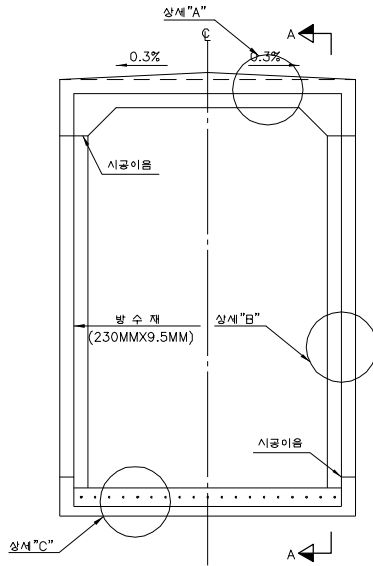


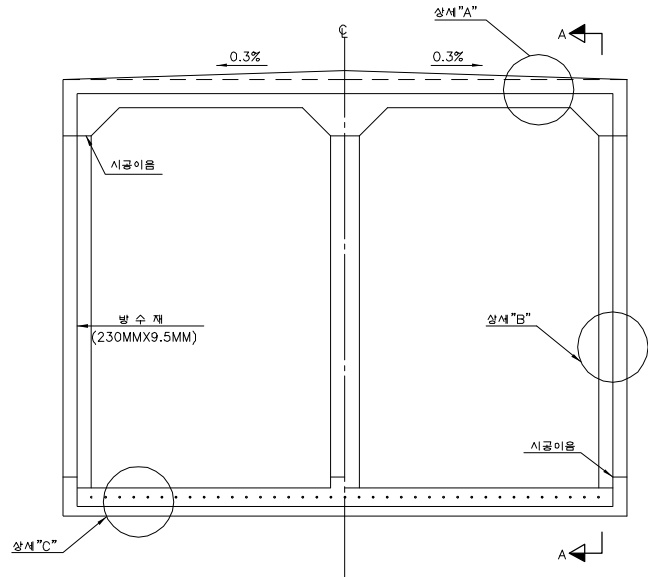
암거 연결 및 방수상세도 (1)

(성토지반, 연약지반 토포 5.0M 미만)
(신축이음)

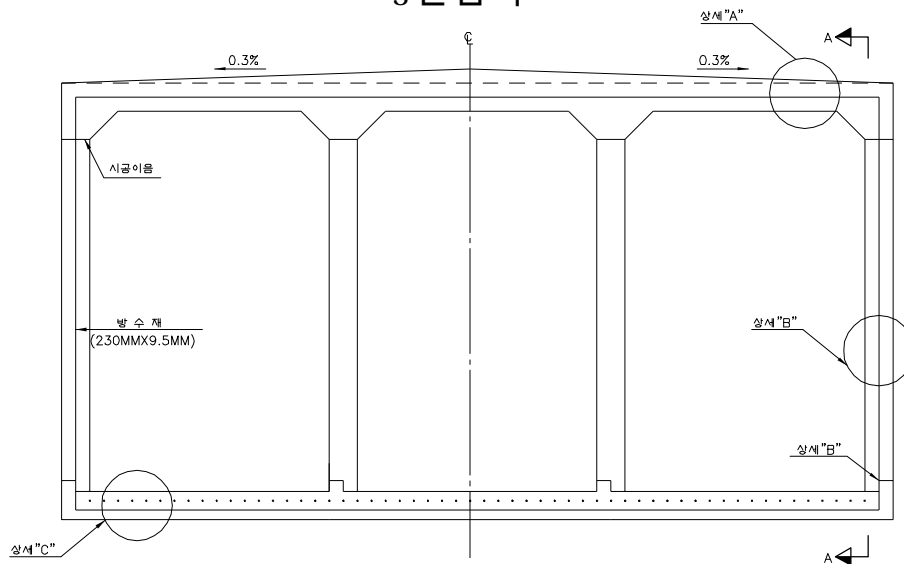
1 련 암 거



2 련 암 거



3 련 암 거



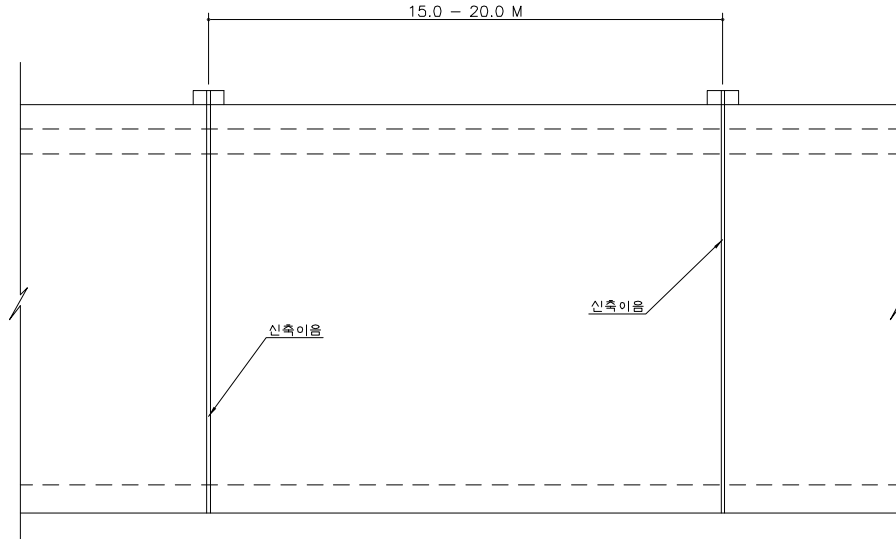
[주의사항]

- 시공면은 평탄하고 돌출된 곳이 없어야 하며, 먼지나 모래들은 공기압축기나 청소기등으로 표면을 깨끗이 하여야 한다.
- 통로암거 상판 및 벽체의 외측은 ASPALT COATING 2회 실시하여야 한다.(수로암거 제외)
- 표면처리가 끝난 후 프라이머를 도포한 후 (간조시간 : 30~120분) 방수쉬트를 시공하여야 한다.
- 연결부 처리방법은 기존암거와 신설암거의 신축이음 간격(15~20m)을 고려하여 분리시공 할 경우는 암거 연결상세 및 방수상세도와 같이 처리하고, 강결 시공할 경우는 필요한 겹이음길이 이상 확보하여야 한다.

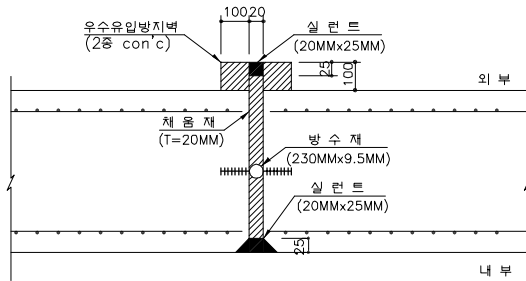
암거 연결 및 방수상세도 (1)

(성토지반, 연약지반 토피 5.0M 미만)

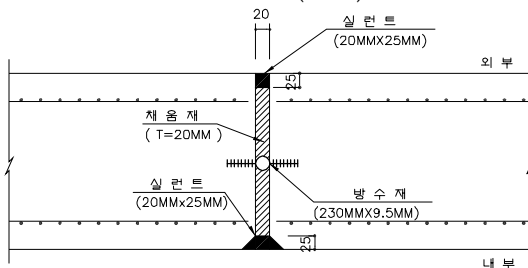
단 면 A-A



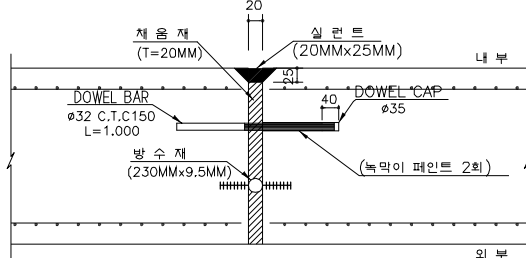
신설암거 연결 상세도
상세 "A" (상판)



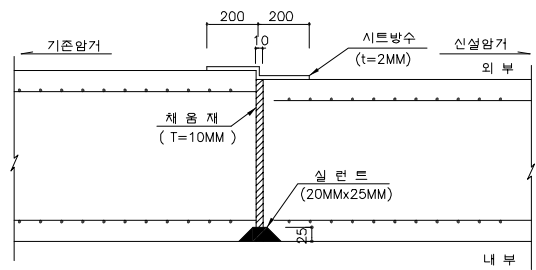
상세 "B" (벽체)



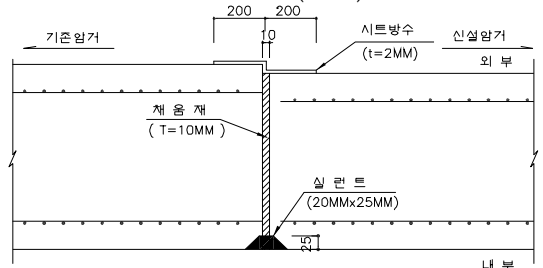
상세 "C" (저판)



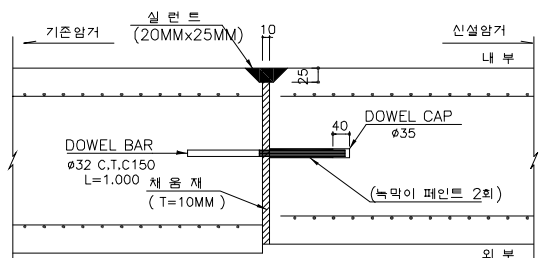
기존암거와 신설암거 연결 상세도
상세 "A" (상판)



상세 "B" (벽체)



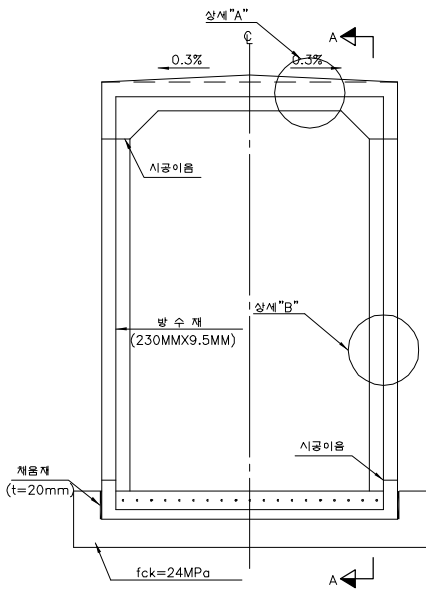
상세 "C" (저판)



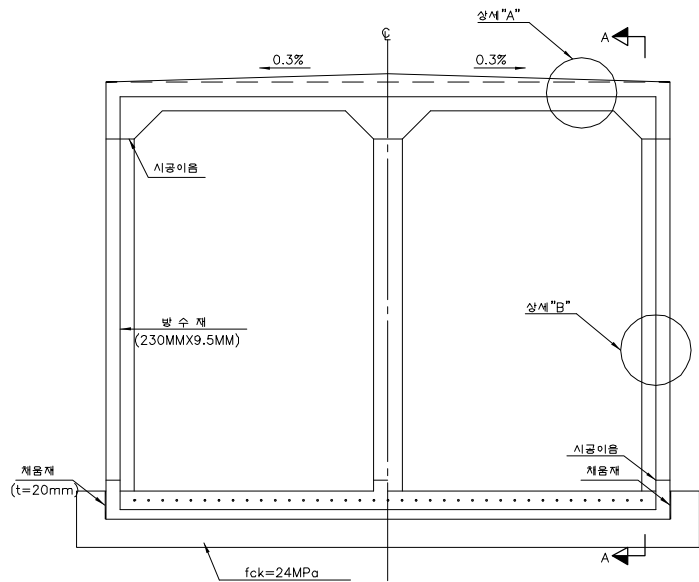
암거 연결 및 방수상세도 (2)

(연약지반 토피 5.0M 이상)
(신축이음)

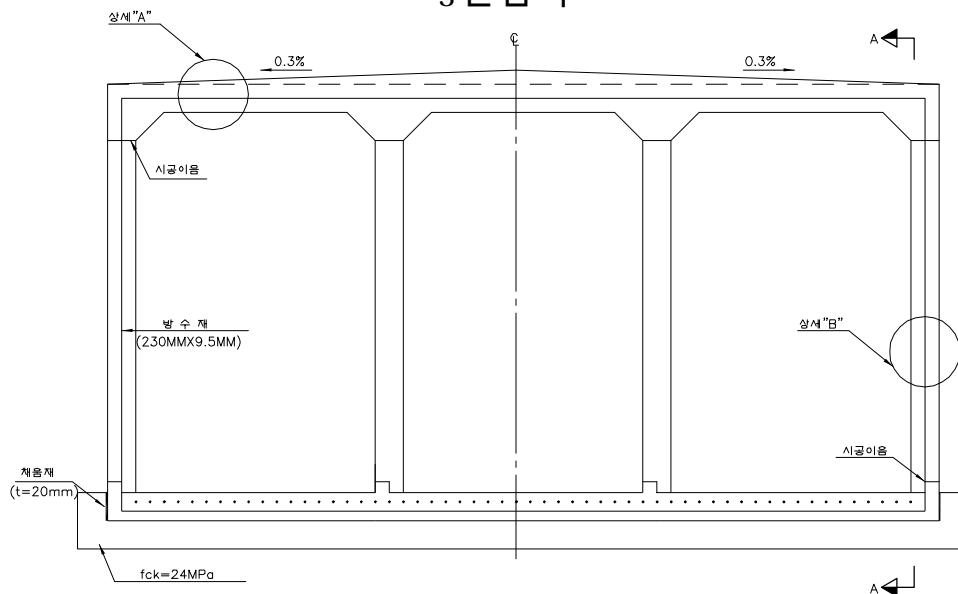
1 련 암 거



2 련 암 거



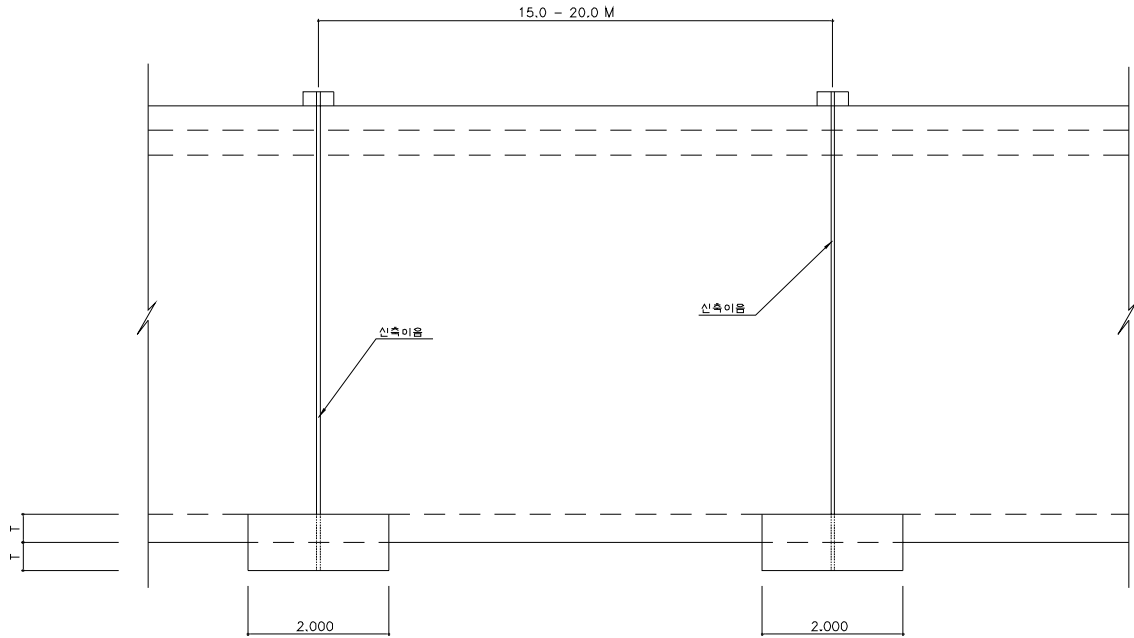
3 련 암 거



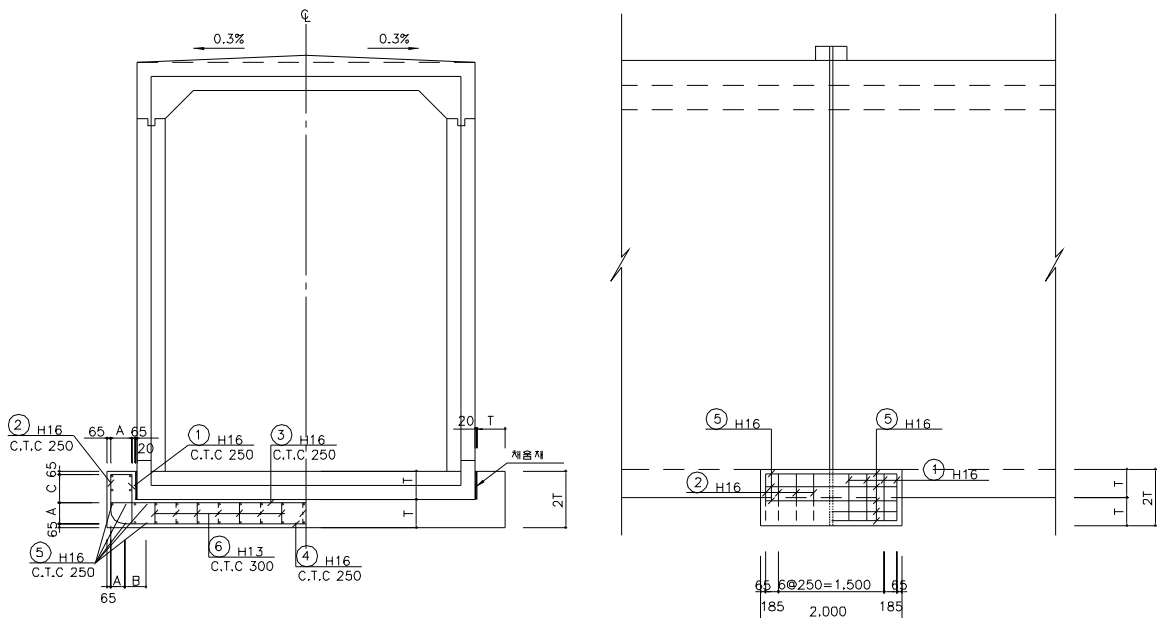
암거 연결 및 방수상세도 (2)

(연약지반 토피 5.0M 이상)

단 면 A-A

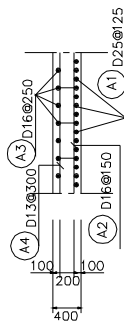


받침판 보강 상세도

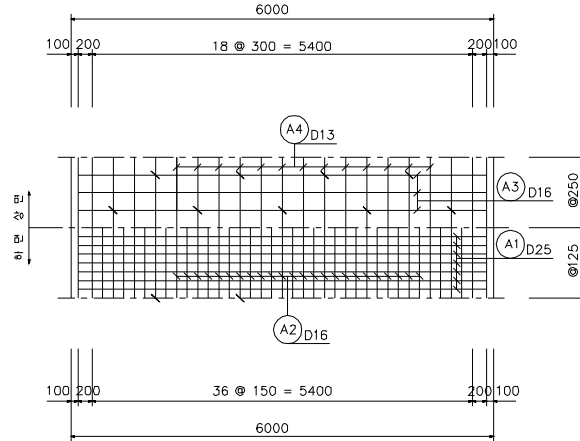


접속슬래브 구조도

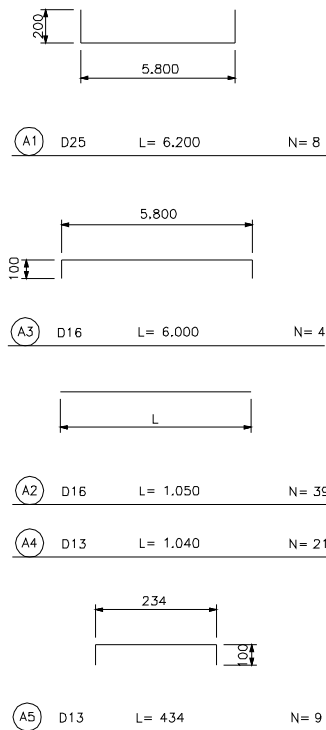
횡 단 면 도



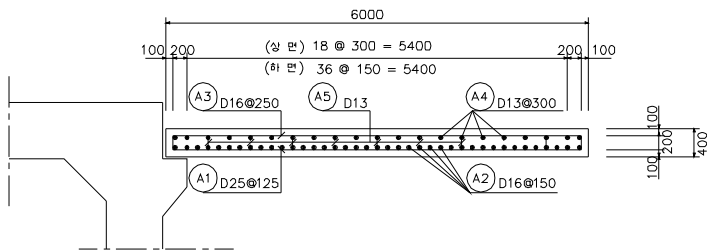
평 면 도



철근 상세도



중 단 면 도



재 료 표(1m당)

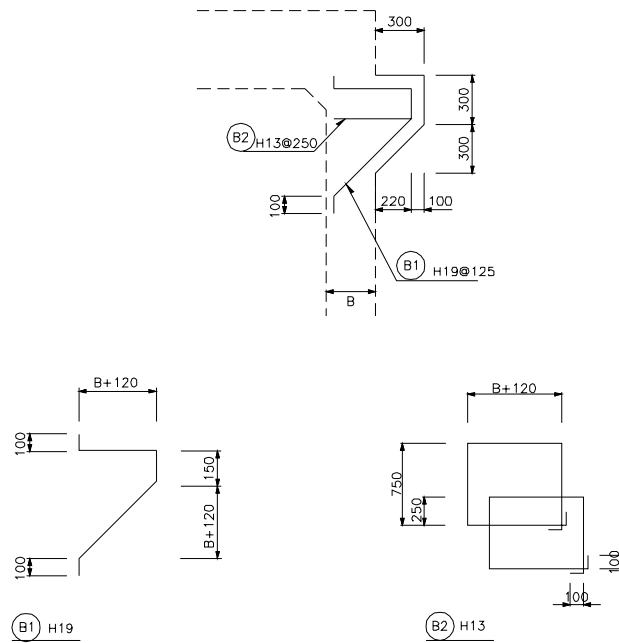
항 목	단 위	수 량	적 요
콘 크 리 트	m ³	0.240	f _{ck} =24MPa
거 루 집	m ²	0.800	
마 감 거 루 집	m ²	0.480	2 개스

철근 집계 표(1m당)

부 호	호 칭	길 이	갯 수	총 길 이	단위 중량	총 중 량	비 고
A1	D25	6.200	8	49.600			3% 활용
소 계				49.600	3.980	0.197	0.203
A2	D16	1.050	39	40.950			
A3	"	6.000	4	24.000			
소 계				64.950	1.560	0.101	0.104
A4	D13	1.040	21	21.840			
A5	"	0.434	9	3.906			
소 계				25.746	0.995	0.026	0.027
합 계						0.324	0.334

※ 접속슬래브 길이 : 암거뒤편 상단폭 + 0.5m 이다.

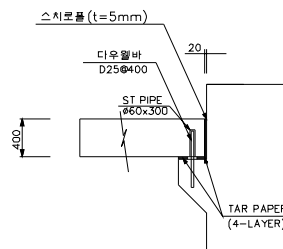
브래킷 상세도



$$1. \text{콘크리트} : (0.3 + 0.6) \times 0.5 \times 0.3 \times l = 0.135 \times l \text{ m}^3$$

$$2. \text{거푸집} : (0.3 + \sqrt{(0.3)^2 + (0.3)^2}) \times l + (0.3 \times 0.3 \times \frac{1}{2} + 0.3 \times 0.3) \\ = 0.724l + 0.135 \text{ m}^2$$

다우웰바 상세도

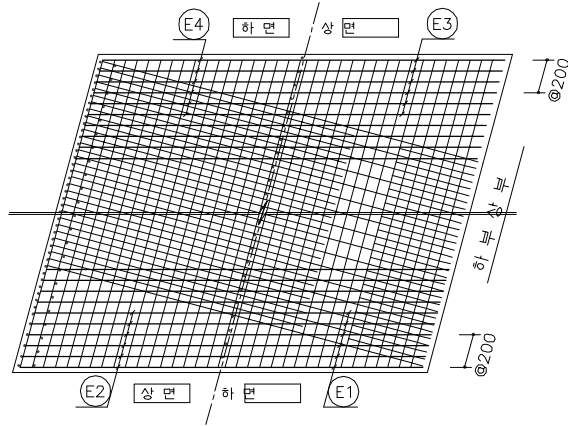


[주의사항]

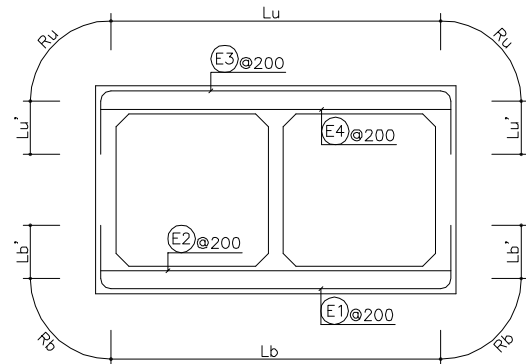
- . 겹이음 길이는 A급 이음이므로 시공시 겹이음 위치를 교차시켜 시공하여야 한다.
- . 콘크리트 강도는 $f_{ck}=24\text{MPa}$, 철근 항복강도는 $f_y=400\text{MPa}$ 임.
- . A2 철근은 단부에 갈고리 돌것.

암거 사각부 보강철근 상세

평면도



보강철근조립도



- 1. 암거 사각부 보강철근의 우각부 구부리는 반경 R과 벽체의 정착길이 L은 표준단면의 2,4CYCLE 철근과 동일하게 적용한다.
- 2. 보강철근의 간격은 암거중심선 방향에 대한 간격을 표시한다.
- 3. 철근의 이름은 고차하여 실시하여야 한다.

- 1. 단면별재료표는 암거사각부 상면에 상토사면이 존재하는 경우에 적용할 수 있으며, 설계하중이 모두 작용하는 경우에는 별도의 단면해석을 수행하여 보강하여야 한다.

도면번호	부호	호칭	사각 15°				사각 30°				사각 45°			
			길이	갯수	총길이	총중량	길이	갯수	총길이	총중량	길이	갯수	총길이	총중량
P1-1	E1	H19	5.506	12	66.072	148.662	5.871	24	140.904	317.034	6.665	38	253.270	569.858
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H19	5.506	12	66.072	148.662	5.871	24	140.904	317.034	6.665	38	253.270	569.858
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합계					0.431t				0.933t				1.720t
P1-2	E1	H16	5.817	12	69.804	108.894	6.190	24	148.560	231.754	7.000	38	266.000	414.960
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	5.817	12	69.804	108.894	6.190	24	148.560	231.754	7.000	38	266.000	414.960
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합계					0.352t				0.763t				1.410t
P1-3	E1	H16	5.918	12	71.016	110.785	6.291	24	150.984	235.535	7.100	38	269.800	420.888
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	5.918	12	71.016	110.785	6.291	24	150.984	235.535	7.100	38	269.800	420.888
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합계					0.356t				0.770t				1.422t
P1-4	E1	H16	6.258	12	75.096	117.150	6.654	24	159.696	249.126	7.516	40	300.640	468.998
	E2	H19	3.789	12	45.468	102.303	4.226	24	101.424	228.204	5.176	40	207.040	465.840
	E3	H16	6.258	12	75.096	117.150	6.654	24	159.696	249.126	7.516	40	300.640	468.998
	E4	H19	3.789	12	45.468	102.303	4.226	24	101.424	228.204	5.176	40	207.040	465.840
	합계					0.439t				0.955t				1.870t
P1-5	E1	H16	6.389	12	76.668	119.602	6.797	24	163.128	254.480	7.685	42	322.770	503.521
	E2	H19	3.893	12	46.716	105.111	4.342	24	104.208	234.468	5.317	42	223.314	502.457
	E3	H16	6.549	12	78.588	122.597	6.957	24	166.968	260.470	7.845	42	329.490	514.004
	E4	H19	3.893	12	46.716	105.111	4.342	24	104.208	234.468	5.317	42	223.314	502.457
	합계					0.452t				0.984t				2.022t
P1-6	E1	H16	6.117	12	73.404	114.510	6.490	24	155.760	242.986	7.300	38	277.400	432.744
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	6.117	12	73.404	114.510	6.490	24	155.760	242.986	7.300	38	277.400	432.744
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합계					0.363t				0.785t				1.446t
P1-7	E1	H16	6.151	12	73.812	115.147	6.523	24	156.552	244.221	7.333	38	278.654	434.700
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	6.151	12	73.812	115.147	6.523	24	156.552	244.221	7.333	38	278.654	434.700
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합계					0.364t				0.788t				1.450t

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
P1-8	E1	H16	6.354	12	76.248	118.947	6.739	24	161.736	252.308	7.574	40	302.960	472.618
	E2	H16	3.686	12	44.232	69.002	4.111	24	98.664	153.916	5.035	40	201.400	314.184
	E3	H16	6.354	12	76.248	118.947	6.739	24	161.736	252.308	7.574	40	302.960	472.618
	E4	H16	3.686	12	44.232	69.002	4.111	24	98.664	153.916	5.035	40	201.400	314.184
	합 계													
P1-9	E1	H16	6.604	12	79.248	123.627	7.001	24	168.024	262.117	7.863	40	314.520	490.651
	E2	H19	3.789	12	45.468	102.303	4.226	24	101.424	228.204	5.176	40	207.040	465.840
	E3	H16	6.604	12	79.248	123.627	7.001	24	168.024	262.117	7.863	40	314.520	490.651
	E4	H19	3.789	12	45.468	102.303	4.226	24	101.424	228.204	5.176	40	207.040	465.840
	합 계													
P1-10	E1	H19	6.840	12	82.080	184.680	7.241	24	173.784	391.014	8.703	42	365.526	822.434
	E2	H19	3.893	12	46.716	105.111	4.342	24	104.208	234.468	5.317	42	223.314	502.457
	E3	H16	6.808	12	81.696	127.446	7.216	24	173.184	270.167	8.744	42	367.248	572.907
	E4	H19	3.893	12	46.716	105.111	4.342	24	104.208	234.468	5.317	42	223.314	502.457
	합 계													
P1-11	E1	H19	7.067	14	98.938	222.611	7.492	26	194.792	438.282	9.006	44	396.264	891.594
	E2	H16	4.100	14	57.400	89.544	4.573	26	118.898	185.481	5.600	44	246.400	384.384
	E3	H19	7.067	14	98.938	222.611	7.492	26	194.792	438.282	9.006	44	396.264	891.594
	E4	H16	4.100	14	57.400	89.544	4.573	26	118.898	185.481	5.600	44	246.400	384.384
	합 계													
P1-12	E1	H19	7.114	14	99.596	224.091	7.539	26	196.014	441.032	9.053	44	398.332	896.247
	E2	H16	4.100	14	57.400	89.544	4.573	26	118.898	185.481	5.600	44	246.400	384.384
	E3	H19	7.114	14	99.596	224.091	7.539	26	196.014	441.032	9.223	44	405.812	913.077
	E4	H16	4.100	14	57.400	89.544	4.573	26	118.898	185.481	5.600	44	246.400	384.384
	합 계													
P1-13	E1	H19	7.421	14	103.894	233.762	7.870	28	220.360	495.810	9.435	46	434.010	976.523
	E2	H16	4.307	14	60.298	94.065	4.804	28	134.512	209.839	5.883	46	270.618	422.164
	E3	H19	7.421	14	103.894	233.762	7.870	28	220.360	495.810	9.605	46	441.830	994.118
	E4	H19	4.307	14	60.298	135.671	4.804	28	134.512	302.652	5.883	46	270.618	608.891
	합 계													
P1-14	E1	H19	7.657	14	107.198	241.196	8.708	28	243.824	548.604	9.710	46	446.660	1004.985
	E2	H19	4.410	14	61.740	138.915	4.919	28	137.732	309.897	6.025	46	277.150	623.588
	E3	H19	7.657	14	107.198	241.196	8.878	28	248.584	559.314	9.880	46	454.480	1022.580
	E4	H19	4.410	14	61.740	138.915	4.919	28	137.732	309.897	6.025	46	277.150	623.588
	합 계													
P1-15	E1	H19	8.621	14	120.694	271.562	9.106	28	254.968	573.678	10.160	48	487.680	1097.280
	E2	H19	4.617	14	64.638	145.435	5.150	28	144.200	324.450	6.307	48	302.736	681.156
	E3	H19	8.791	14	123.074	276.917	9.276	28	259.728	584.388	10.330	48	495.840	1115.640
	E4	H19	4.617	14	64.638	145.435	5.150	28	144.200	324.450	6.307	48	302.736	681.156
	합 계													
P1-16	E1	H19	8.765	14	122.710	276.098	9.262	30	277.860	625.185	10.341	50	517.050	1163.363
	E2	H16	4.721	14	66.094	103.107	5.265	30	157.950	246.402	6.449	50	322.450	503.022
	E3	H19	8.775	14	122.850	276.413	9.272	30	278.160	625.860	10.351	50	517.550	1164.488
	E4	H16	4.721	14	66.094	103.107	5.265	30	157.950	246.402	6.449	50	322.450	503.022
	합 계													
P1-17	E1	H19	8.691	14	121.674	273.767	9.188	30	275.640	620.190	10.268	50	513.400	1155.150
	E2	H16	4.721	14	66.094	103.107	5.265	30	157.950	246.402	6.449	50	322.450	503.022
	E3	H19	8.861	14	124.054	279.122	9.358	30	280.740	631.665	10.438	50	521.900	1174.275
	E4	H19	4.721	14	66.094	148.712	5.265	30	157.950	355.388	6.449	50	322.450	725.512
	합 계													
P1-18	E1	H19	9.098	16	145.568	327.528	9.619	30	288.570	649.283	10.751	52	559.052	1257.867
	E2	H19	4.928	16	78.848	177.408	5.496	30	164.880	370.980	6.732	52	350.064	787.644
	E3	H19	9.268	16	148.288	333.648	9.789	30	293.670	660.757	10.921	52	567.892	1277.757
	E4	H19	4.928	16	78.848	177.408	5.496	30	164.880	370.980	6.732	52	350.064	787.644
	합 계													
P1-19	E1	H19	9.439	16	151.024	339.804	9.983	32	319.456	718.776	11.167	54	603.018	1356.791
	E2	H19	5.135	16	82.160	184.860	5.727	32	183.264	412.344	7.014	54	378.756	852.201
	E3	H19	9.609	16	153.744	345.924	10.153	32	324.896	731.016	11.337	54	612.198	1377.446
	E4	H19	5.135	16	82.160	184.860	5.727	32	183.264	412.344	7.014	54	378.756	852.201
	합 계													



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
P1-20	E1	H19	9.820	16	157.120	353.520	10.388	32	332.416	747.936	11.624	56	650.944	1464.624
	E2	H22	5.342	16	85.472	259.835	5.958	32	190.656	579.594	7.297	56	408.632	1242.241
	E3	H19	9.990	16	159.840	359.640	10.558	32	337.856	760.176	11.794	56	660.464	1486.044
	E4	H22	5.342	16	85.472	259.835	5.958	32	190.656	579.594	7.297	56	408.632	1242.241
합 계			1.233t				2.667t				5.435t			
P1-21	E1	H19	9.849	16	157.584	354.564	10.430	34	354.620	797.895	11.691	56	654.696	1473.066
	E2	H19	5.446	16	87.136	196.056	6.074	34	206.516	464.661	7.439	56	416.584	937.314
	E3	H19	10.019	16	160.304	360.684	10.600	34	360.400	810.900	11.861	56	664.216	1494.486
	E4	H16	5.446	16	87.136	135.932	6.074	34	206.516	322.165	7.439	56	416.584	649.871
합 계			1.047t				2.396t				4.555t			
P1-22	E1	H19	9.849	16	157.584	354.564	10.430	34	354.620	797.895	11.691	56	654.696	1473.066
	E2	H19	5.446	16	87.136	196.056	6.074	34	206.516	464.661	7.439	56	416.584	937.314
	E3	H19	10.019	16	160.304	360.684	10.600	34	360.400	810.900	11.861	56	664.216	1494.486
	E4	H19	5.446	16	87.136	196.056	6.074	34	206.516	464.661	7.439	56	416.584	937.314
합 계			1.107t				2.538t				4.842t			
P1-23	E1	H19	10.193	18	183.474	412.816	10.785	34	366.690	825.053	12.072	58	700.176	1575.396
	E2	H19	5.549	18	99.882	224.735	6.189	34	210.426	473.459	7.580	58	439.640	989.190
	E3	H19	10.223	18	184.014	414.031	10.815	34	367.710	827.348	12.102	58	701.916	1579.311
	E4	H19	5.549	18	99.882	224.735	6.189	34	210.426	473.459	7.580	58	439.640	989.190
합 계			1.276t				2.599t				5.133t			
P1-24	E1	H19	10.500	18	189.000	425.250	11.116	36	400.176	900.396	12.455	60	747.300	1681.425
	E2	H22	5.756	18	103.608	314.968	6.420	36	231.120	702.605	7.863	60	471.780	1434.211
	E3	H19	10.670	18	192.060	432.135	11.286	36	406.296	914.166	12.625	60	757.500	1704.375
	E4	H22	5.756	18	103.608	314.968	6.420	36	231.120	702.605	7.863	60	471.780	1434.211
합 계			1.487t				3.220t				6.254t			
P1-25	E1	H22	11.279	18	203.022	617.187	11.919	36	429.084	1304.415	13.310	62	825.220	2508.669
	E2	H22	6.046	18	108.828	330.837	6.743	36	242.748	737.954	9.369	62	580.878	1765.869
	E3	H22	11.539	18	207.702	631.414	12.179	36	438.444	1332.870	13.570	62	841.340	2557.674
	E4	H22	6.046	18	108.828	330.837	6.743	36	242.748	737.954	9.109	62	564.758	1716.864
합 계			1.910t				4.113t				8.549t			
P1-26	E1	H19	10.434	18	187.812	422.577	11.074	36	398.664	896.994	12.465	62	772.830	1738.868
	E2	H19	5.963	18	107.334	241.501	6.651	36	239.436	538.731	8.906	62	552.172	1242.387
	E3	H19	10.604	18	190.872	429.462	11.244	36	404.784	910.764	12.635	62	783.370	1762.583
	E4	H19	5.963	18	107.334	241.501	6.651	36	239.436	538.731	8.736	62	541.632	1218.672
합 계			1.335t				2.885t				5.963t			
P1-27	E1	H22	10.703	18	192.654	585.668	11.331	36	407.916	1240.065	12.696	62	787.152	2392.942
	E2	H19	5.942	18	106.956	240.651	6.628	36	238.608	536.868	8.878	62	550.436	1238.481
	E3	H22	10.963	18	197.334	599.895	11.591	36	417.276	1268.519	12.956	62	803.272	2441.947
	E4	H19	5.942	18	106.956	240.651	6.628	36	238.608	536.868	8.708	62	539.896	1214.766
합 계			1.667t				3.582t				7.288t			
P1-28	E1	H22	11.057	18	199.026	605.039	11.709	38	444.942	1352.624	13.126	64	840.064	2553.795
	E2	H22	6.150	18	110.700	336.528	6.859	38	260.642	792.352	9.510	64	608.640	1850.266
	E3	H22	11.457	18	206.226	626.927	12.109	38	460.142	1398.832	13.526	64	865.664	2631.619
	E4	H22	6.150	18	110.700	336.528	6.859	38	260.642	792.352	9.250	64	592.000	1799.680
합 계			1.905t				4.336t				8.835t			
P1-29	E1	H22	11.831	20	236.620	719.325	12.531	40	501.240	1523.770	14.051	68	955.468	2904.623
	E2	H22	6.564	20	131.280	399.091	7.321	40	292.840	890.234	10.076	68	685.168	2082.911
	E3	H22	12.091	20	241.820	735.133	12.791	40	511.640	1555.386	14.311	68	973.148	2958.370
	E4	H22	6.564	20	131.280	399.091	7.321	40	292.840	890.234	9.816	68	667.488	2029.164
합 계			2.253t				4.860t				9.975t			
P1-30	E1	H22	12.101	20	242.020	735.741	12.813	40	512.520	1558.061	14.359	68	976.412	2968.292
	E2	H22	6.667	20	133.340	405.354	7.436	40	297.440	904.218	10.218	68	694.824	2112.265
	E3	H19	11.968	20	239.360	538.560	12.689	40	507.560	1142.010	14.257	68	969.476	2181.321
	E4	H25	6.667	20	133.340	530.693	7.436	40	297.440	1183.811	10.138	68	689.384	2743.748
합 계			2.210t				4.788t				10.006t			
P1-31	E1	H22	12.092	22	266.024	808.713	12.863	44	565.972	1720.555	14.540	74	1075.960	3270.918
	E2	H19	7.185	22	158.070	355.657	8.774	44	386.056	868.626	10.575	74	782.550	1760.738
	E3	H22	12.352	22	271.744	826.102	13.123	44	577.412	1755.332	14.800	74	1095.200	3329.408
	E4	H19	7.185	22	158.070	355.657	8.604	44	378.576	851.796	10.405	74	769.970	1732.433
합 계			2.346t				5.196t				10.093t			

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
P1-32	E1	H25	12.184	22	268.048	1066.831	12.948	44	569.712	2267.454	14.609	74	1081.066	4302.643
	E2	H22	7.185	22	158.070	480.533	9.124	44	401.456	1220.426	10.925	74	808.450	2457.688
	E3	H25	12.624	22	277.728	1105.357	13.388	44	589.072	2344.507	15.049	74	1113.626	4432.231
	E4	H22	7.185	22	158.070	480.533	8.864	44	390.016	1185.649	10.665	74	789.210	2399.198
	합	계				3.133t				7.018t				13.592t
P1-33	E1	H25	12.494	22	274.868	1093.975	13.270	44	583.880	2323.842	14.957	74	1106.818	4405.136
	E2	H25	7.288	22	160.336	638.137	9.469	44	416.636	1658.211	11.296	74	835.904	3326.898
	E3	H25	12.794	22	281.468	1120.243	13.570	44	597.080	2376.378	15.257	74	1129.018	4493.492
	E4	H22	7.288	22	160.336	487.421	8.979	44	395.076	1201.031	10.806	74	799.644	2430.918
	합	계				3.340t				7.559t				14.656t
P1-34	E1	H22	12.662	22	278.564	846.835	13.470	44	592.680	1801.747	15.224	76	1157.024	3517.353
	E2	H25	7.495	22	164.890	656.262	9.700	44	426.800	1698.664	11.579	76	880.004	3502.416
	E3	H22	12.922	22	284.284	864.223	13.730	44	604.120	1836.525	15.484	76	1176.784	3577.423
	E4	H22	7.495	22	164.890	501.266	9.210	44	405.240	1231.930	11.089	76	842.764	2562.003
	합	계				2.869t				6.569t				13.159t
P1-35	E1	H22	13.136	22	288.992	878.536	13.967	46	642.482	1953.145	15.774	78	1230.372	3740.331
	E2	H25	7.702	22	169.444	674.387	9.931	46	456.826	1818.167	11.862	78	925.236	3682.439
	E3	H22	13.396	22	294.712	895.924	14.227	46	654.442	1989.504	17.144	78	1337.232	4065.185
	E4	H25	7.702	22	169.444	674.387	9.621	46	442.566	1761.413	11.552	78	901.056	3586.203
	합	계				3.123t				7.522t				15.074t

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
P2-1	E1	H19	9.856	20	197.120	443.520	10.615	42	445.830	1003.118	12.266	72	883.152	1987.092
	E2	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	10.070	72	725.040	721.415
	E3	H16	9.724	20	194.480	303.389	10.491	42	440.622	687.370	12.157	72	875.304	1365.474
	E4	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	9.950	72	716.400	712.818
	합	계				1.025t				2.343t				4.787t
P2-2	E1	H19	9.889	20	197.780	445.005	10.649	42	447.258	1006.330	12.299	72	885.528	1992.438
	E2	H16	6.998	20	139.960	218.338	7.806	42	327.852	511.449	10.190	72	733.680	1144.541
	E3	H16	9.757	20	195.140	304.418	10.524	42	442.008	689.532	12.190	72	877.680	1369.181
	E4	H16	6.998	20	139.960	218.338	7.806	42	327.852	511.449	10.050	72	723.600	1128.816
	합	계				1.186t				2.719t				5.635t
P2-3	E1	H19	10.159	22	223.498	502.871	10.931	42	459.102	1032.980	12.607	72	907.704	2042.334
	E2	H13	7.102	22	156.244	155.463	7.921	42	332.682	331.019	10.212	72	735.264	731.588
	E3	H16	10.167	22	223.674	348.931	10.946	42	459.732	717.182	12.638	72	909.936	1419.500
	E4	H13	7.102	22	156.244	155.463	7.921	42	332.682	331.019	10.092	72	726.624	722.991
	합	계				1.163t				2.412t				4.916t
P2-4	E1	H19	10.433	22	229.526	516.433	11.228	44	494.032	1111.572	12.957	74	958.818	2157.341
	E2	H16	7.309	22	160.798	250.845	8.782	44	386.408	602.796	10.614	74	785.436	1225.280
	E3	H16	10.581	22	232.782	363.140	11.384	44	500.896	781.398	13.128	74	971.472	1515.496
	E4	H16	7.309	22	160.798	250.845	8.642	44	380.248	593.187	10.474	74	775.076	1209.119
	합	계				1.381t				3.089t				6.107t
P2-5	E1	H19	10.950	22	240.900	542.025	11.781	46	541.926	1219.334	13.588	78	1059.864	2384.694
	E2	H16	7.620	22	167.640	261.518	9.129	46	419.934	655.097	11.039	78	861.042	1343.226
	E3	H19	11.120	22	244.640	550.440	11.951	46	549.746	1236.929	13.758	78	1073.124	2414.529
	E4	H16	7.620	22	167.640	261.518	8.989	46	413.494	645.051	10.899	78	850.122	1326.190
	합	계				1.616t				3.756t				7.469t
P2-6	E1	H19	10.189	20	203.780	458.505	10.949	42	459.858	1034.681	12.599	72	907.128	2041.038
	E2	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	10.070	72	725.040	721.415
	E3	H16	10.057	20	201.140	313.778	10.824	42	454.608	709.188	12.490	72	899.280	1402.877
	E4	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	9.950	72	716.400	712.818
	합	계				1.051t				2.396t				4.878t
P2-7	E1	H16	10.090	20	201.800	314.808	10.857	42	455.994	711.351	12.523	72	901.656	1406.583
	E2	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	10.070	72	725.040	721.415
	E3	H16	10.090	20	201.800	314.808	10.857	42	455.994	711.351	12.523	72	901.656	1406.583
	E4	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	9.950	72	716.400	712.818
	합	계				0.908t				2.075t				4.247t



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
P2-8	E1	H19	10.426	22	229.372	516.087	11.197	42	470.274	1058.117	12.874	72	926.928	2085.588
	E2	H16	7.102	22	156.244	243.741	7.921	42	332.682	518.984	10.342	72	744.624	1161.613
	E3	H16	10.444	22	229.768	358.438	11.223	42	471.366	735.331	12.915	72	929.880	1450.613
	E4	H16	7.102	22	156.244	243.741	7.921	42	332.682	518.984	10.192	72	733.824	1144.765
	합	계				1.362t				2.831t				5.843t
P2-9	E1	H19	10.800	22	237.600	534.600	11.595	44	510.180	1147.905	13.323	74	985.902	2218.280
	E2	H16	7.309	22	160.798	250.845	8.792	44	386.848	603.483	10.624	74	786.176	1226.435
	E3	H16	10.818	22	237.996	371.274	11.620	44	511.280	797.597	13.364	74	988.936	1542.740
	E4	H16	7.309	22	160.798	250.845	8.642	44	380.248	593.187	10.474	74	775.076	1209.119
	합	계				1.408t				3.142t				6.197t
P2-10	E1	H19	11.290	22	248.380	558.855	12.121	46	557.566	1254.524	13.928	78	1086.384	2444.364
	E2	H16	7.620	22	167.640	261.518	9.139	46	420.394	655.815	11.049	78	861.822	1344.442
	E3	H19	11.460	22	252.120	567.270	12.291	46	565.386	1272.119	14.098	78	1099.644	2474.199
	E4	H16	7.620	22	167.640	261.518	8.989	46	413.494	645.051	10.899	78	850.122	1326.190
	합	계				1.649t				3.828t				7.589t
P2-11	E1	H16	11.526	24	276.624	431.533	12.412	48	595.776	929.411	14.337	82	1175.634	1833.989
	E2	H13	8.544	24	205.056	204.031	9.470	48	454.560	452.287	11.484	82	941.688	936.980
	E3	H16	11.676	24	280.224	437.149	12.562	48	602.976	940.643	14.487	82	1187.934	1853.177
	E4	H13	8.424	24	202.176	201.165	9.350	48	448.800	446.556	11.364	82	931.848	927.189
	합	계				1.274t				2.769t				5.551t
P2-12	E1	H19	11.658	24	279.792	629.532	12.537	48	601.776	1353.996	14.447	82	1184.654	2665.471
	E2	H16	8.674	24	208.176	324.755	9.600	48	460.800	718.848	11.614	82	952.348	1485.663
	E3	H19	11.828	24	283.872	638.712	12.707	48	609.936	1372.356	14.617	82	1198.594	2696.837
	E4	H16	8.524	24	204.576	319.139	9.450	48	453.600	707.616	11.464	82	940.048	1466.475
	합	계				1.912t				4.153t				8.314t
P2-13	E1	H19	12.119	24	290.856	654.426	13.022	50	651.100	1464.975	14.983	84	1258.572	2831.787
	E2	H16	8.881	24	213.144	332.505	9.831	50	491.550	766.818	11.897	84	999.348	1558.983
	E3	H19	12.129	24	291.096	654.966	13.032	50	651.600	1466.100	14.993	84	1259.412	2833.677
	E4	H16	8.731	24	209.544	326.889	9.681	50	484.050	755.118	11.747	84	986.748	1539.327
	합	계				1.969t				4.453t				8.764t
P2-14	E1	H19	12.437	24	298.488	671.598	13.370	50	668.500	1504.125	15.396	86	1324.056	2979.126
	E2	H16	9.140	24	219.360	342.202	10.120	50	506.000	789.360	12.251	86	1053.586	1643.594
	E3	H19	12.607	24	302.568	680.778	13.540	50	677.000	1523.250	15.566	86	1338.676	3012.021
	E4	H16	8.990	24	215.760	336.586	9.970	50	498.500	777.660	12.101	86	1040.686	1623.470
	합	계				2.031t				4.594t				9.258t
P2-15	E1	H22	13.198	26	343.148	1043.170	14.149	52	735.748	2236.674	17.064	88	1501.632	4564.961
	E2	H19	9.498	26	246.948	555.633	10.506	52	546.312	1229.202	12.696	88	1117.248	2513.808
	E3	H19	13.065	26	339.690	764.303	14.025	52	729.300	1640.925	16.872	88	1484.736	3340.656
	E4	H19	9.328	26	242.528	545.688	10.336	52	537.472	1209.312	12.526	88	1102.288	2480.148
	합	계				2.909t				6.316t				12.900t
P2-16	E1	H19	13.333	26	346.658	779.981	14.356	54	775.224	1744.254	17.167	94	1613.698	3630.821
	E2	H13	9.786	26	254.436	253.164	10.856	54	586.224	583.293	13.181	94	1239.014	1232.819
	E3	H16	13.351	26	347.126	541.517	14.381	54	776.574	1211.455	17.258	94	1622.252	2530.713
	E4	H13	9.666	26	251.316	250.059	10.736	54	579.744	576.845	13.061	94	1227.734	1221.595
	합	계				1.825t				4.116t				8.616t
P2-17	E1	H19	13.420	26	348.920	785.070	14.442	54	779.868	1754.703	17.254	94	1621.876	3649.221
	E2	H16	9.916	26	257.816	402.193	10.986	54	593.244	925.461	13.311	94	1251.234	1951.925
	E3	H19	13.430	26	349.180	785.655	14.452	54	780.408	1755.918	17.434	94	1638.796	3687.291
	E4	H16	9.766	26	253.916	396.109	10.836	54	585.144	912.825	13.161	94	1237.134	1929.929
	합	계				2.369t				5.349t				11.218t
P2-18	E1	H19	13.805	28	386.540	869.715	14.858	56	832.048	1872.108	17.734	96	1702.464	3830.544
	E2	H16	10.175	28	284.900	444.444	11.275	56	631.400	984.984	13.665	96	1311.840	2046.470
	E3	H19	13.975	28	391.300	880.425	15.028	56	841.568	1893.528	18.074	96	1735.104	3903.984
	E4	H16	10.025	28	280.700	437.892	11.125	56	623.000	971.880	13.515	96	1297.440	2024.006
	합	계				2.632t				5.722t				11.805t
P2-19	E1	H22	14.722	28	412.216	1253.137	15.810	58	916.980	2787.619	19.024	100	1902.400	5783.296
	E2	H19	10.688	28	299.264	673.344	11.834	58	686.372	1544.337	14.322	100	1432.200	3222.450
	E3	H19	14.589	28	408.492	919.107	15.686	58	909.788	2047.023	18.831	100	1883.100	4236.975
	E4	H19	10.518	28	294.504	662.634	11.664	58	676.512	1522.152	14.152	100	1415.200	3184.200
	합	계				3.508t				7.901t				16.427t



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
P2-20	E1	H22	15.080	28	422.240	1283.610	17.048	60	1022.880	3109.555	19.477	102	1986.654	6039.428
	E2	H19	10.947	28	306.516	689.661	12.122	60	727.320	1636.470	14.676	102	1496.952	3368.142
	E3	H19	15.087	28	422.436	950.481	16.974	60	1018.440	2291.490	19.424	102	1981.248	4457.808
	E4	H19	10.777	28	301.756	678.951	11.952	60	717.120	1613.520	14.506	102	1479.612	3329.127
	합 계					3.603t				8.651t				17.195t
P2-21	E1	H16	13.692	26	355.992	555.348	14.733	56	825.048	1287.075	17.486	94	1643.684	2564.147
	E2	H13	9.890	26	257.140	255.854	10.972	56	614.432	611.360	13.323	94	1252.362	1246.100
	E3	H16	13.682	26	355.732	554.942	14.723	56	824.488	1286.201	17.626	94	1656.844	2584.677
	E4	H13	9.770	26	254.020	252.750	10.852	56	607.712	604.673	13.203	94	1241.082	1234.877
	합 계					1.619t				3.789t				7.630t
P2-22	E1	H19	13.749	26	357.474	804.317	14.784	56	827.904	1862.784	17.621	94	1656.374	3726.841
	E2	H16	10.020	26	260.520	406.411	11.102	56	621.712	969.871	13.453	94	1264.582	1972.748
	E3	H19	13.919	26	361.894	814.262	14.954	56	837.424	1884.204	17.961	94	1688.334	3798.752
	E4	H16	9.870	26	256.620	400.327	10.952	56	613.312	956.767	13.303	94	1250.482	1950.752
	합 계					2.425t				5.674t				11.449t
P2-23	E1	H19	14.294	28	400.232	900.522	15.364	58	891.112	2005.002	18.279	98	1791.342	4030.520
	E2	H16	10.330	28	289.240	451.214	11.448	58	663.984	1035.815	13.877	98	1359.946	2121.516
	E3	H19	14.464	28	404.992	911.232	15.534	58	900.972	2027.187	18.619	98	1824.662	4105.490
	E4	H16	10.180	28	285.040	444.662	11.298	58	655.284	1022.243	13.727	98	1345.246	2098.584
	합 계					2.708t				6.090t				12.356t
P2-24	E1	H22	14.873	28	416.444	1265.990	15.943	58	924.694	2811.070	19.119	98	1873.662	5695.932
	E2	H16	10.413	28	291.564	454.840	11.540	58	669.320	1044.139	13.990	98	1371.020	2138.791
	E3	H19	14.600	28	408.800	919.800	15.680	58	909.440	2046.240	18.786	98	1841.028	4142.313
	E4	H16	10.263	28	287.364	448.288	11.390	58	660.620	1030.567	13.840	98	1356.320	2115.859
	합 계					3.089t				6.932t				14.093t
P2-25	E1	H22	15.488	28	433.664	1318.339	17.456	60	1047.360	3183.974	19.885	102	2028.270	6165.941
	E2	H19	10.947	28	306.516	689.661	12.122	60	727.320	1636.470	14.676	102	1496.952	3368.142
	E3	H19	15.355	28	429.940	967.365	17.242	60	1034.520	2327.670	19.692	102	2008.584	4519.314
	E4	H19	10.777	28	301.756	678.951	11.952	60	717.120	1613.520	14.506	102	1479.612	3329.127
	합 계					3.654t				8.762t				17.383t
P2-26	E1	H19	14.959	30	448.770	1009.733	16.702	62	1035.524	2329.929	19.209	104	1997.736	4494.906
	E2	H16	11.055	30	331.650	517.374	12.256	62	759.872	1185.400	14.867	104	1546.168	2412.022
	E3	H19	14.969	30	449.070	1010.407	16.882	62	1046.684	2355.039	19.389	104	2016.456	4537.026
	E4	H13	10.805	30	324.150	322.529	12.006	62	744.372	740.650	14.617	104	1520.168	1512.567
	합 계					2.860t				6.611t				12.957t
P2-27	E1	H19	14.885	30	446.550	1004.738	16.628	62	1030.936	2319.606	19.135	104	1990.040	4477.590
	E2	H16	11.055	30	331.650	517.374	12.256	62	759.872	1185.400	14.867	104	1546.168	2412.022
	E3	H19	15.055	30	451.650	1016.213	16.968	62	1052.016	2367.036	19.475	104	2025.400	4557.150
	E4	H16	10.905	30	327.150	510.354	12.106	62	750.572	1170.892	14.717	104	1530.568	2387.686
	합 계					3.049t				7.043t				13.834t
P2-28	E1	H22	15.698	30	470.940	1431.658	17.726	62	1099.012	3340.996	20.285	108	2190.780	6659.971
	E2	H16	11.345	30	340.350	530.946	12.580	62	779.960	1216.738	15.263	108	1648.404	2571.510
	E3	H22	15.958	30	478.740	1455.370	18.246	62	1131.252	3439.006	20.805	108	2246.940	6830.698
	E4	H16	11.195	30	335.850	523.926	12.430	62	770.660	1202.230	15.113	108	1632.204	2546.238
	합 계					3.942t				9.199t				18.608t
P2-29	E1	H22	17.047	32	545.504	1658.332	18.255	64	1168.320	3551.693	20.878	110	2296.580	6981.603
	E2	H19	11.724	32	375.168	844.128	12.988	64	831.232	1870.272	15.737	110	1731.070	3894.908
	E3	H22	17.427	32	557.664	1695.299	18.635	64	1192.640	3625.626	21.258	110	2338.380	7108.675
	E4	H19	11.554	32	369.728	831.888	12.818	64	820.352	1845.792	15.567	110	1712.370	3852.833
	합 계					5.030t				10.893t				21.838t
P2-30	E1	H25	17.973	32	575.136	2289.041	19.221	66	1268.586	5048.972	21.933	114	2500.362	9951.441
	E2	H19	12.138	32	388.416	873.936	13.450	66	887.700	1997.325	17.062	114	1945.068	4376.403
	E3	H22	18.181	32	581.792	1768.648	19.437	66	1282.842	3899.840	22.164	114	2526.696	7681.156
	E4	H19	11.968	32	382.976	861.696	13.280	66	876.480	1972.080	16.722	114	1906.308	4289.193
	합 계					5.793t				12.918t				26.298t
P2-31	E1	H19	16.766	32	536.512	1207.152	18.057	68	1227.876	2762.721	20.862	116	2419.992	5444.982
	E2	H16	12.245	32	391.840	611.270	13.584	68	923.712	1440.991	17.133	116	1987.428	3100.388
	E3	H19	17.106	32	547.392	1231.632	18.397	68	1250.996	2814.741	21.202	116	2459.432	5533.722
	E4	H16	12.095	32	387.040	603.782	13.434	68	913.512	1425.079	16.833	116	1952.628	3046.100
	합 계					3.654t				8.444t				17.125t



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
P2-32	E1	H19	16.766	32	536.512	1207.152	18.057	68	1227.876	2762.721	20.862	116	2419.992	5444.982
	E2	H16	12.245	32	391.840	611.270	13.584	68	923.712	1440.991	17.133	116	1987.428	3100.388
	E3	H19	17.106	32	547.392	1231.632	18.397	68	1250.996	2814.741	21.202	116	2459.432	5533.722
	E4	H16	12.095	32	387.040	603.782	13.434	68	913.512	1425.079	16.833	116	1952.628	3046.100
	합 계		3.654t				8.444t				17.125t			
P2-33	E1	H22	17.821	34	605.914	1841.979	19.130	70	1339.100	4070.864	21.974	118	2592.932	7882.513
	E2	H19	12.604	34	428.536	964.206	13.970	70	977.900	2200.275	17.699	118	2088.482	4699.085
	E3	H22	18.341	34	623.594	1895.726	19.650	70	1375.500	4181.520	22.494	118	2654.292	8069.048
	E4	H19	12.434	34	422.756	951.201	13.800	70	966.000	2173.500	17.359	118	2048.362	4608.815
	합 계		5.653t				12.626t				25.259t			
P2-34	E1	H22	18.165	34	617.610	1877.534	19.510	70	1365.700	4151.728	22.432	122	2736.704	8319.580
	E2	H19	12.914	34	439.076	987.921	14.316	70	1002.120	2254.770	18.123	122	2211.006	4974.764
	E3	H22	18.825	34	640.050	1945.752	20.170	70	1411.900	4292.176	23.092	122	2817.224	8564.361
	E4	H19	12.744	34	433.296	974.916	14.146	70	990.220	2227.995	17.783	122	2169.526	4881.434
	합 계		5.786t				12.927t				26.740t			
P2-35	E1	H25	19.008	34	646.272	2572.163	20.375	72	1467.000	5838.660	23.347	124	2895.028	11522.211
	E2	H19	13.173	34	447.882	1007.735	14.605	72	1051.560	2366.010	18.476	124	2291.024	5154.804
	E3	H22	19.216	34	653.344	1986.166	20.591	72	1482.552	4506.958	23.578	124	2923.672	8887.963
	E4	H19	13.003	34	442.102	994.730	14.435	72	1039.320	2338.470	18.136	124	2248.864	5059.944
	합 계		6.561t				15.050t				30.625t			

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H1-1	E1	H13	4.767	10	47.670	47.432	5.027	18	90.486	90.034	5.593	28	156.604	155.821
	E2	H13	2.547	10	25.470	25.343	2.841	18	51.138	50.882	3.479	28	97.412	96.925
	E3	H13	4.767	10	47.670	47.432	5.027	18	90.486	90.034	5.593	28	156.604	155.821
	E4	H13	2.547	10	25.470	25.343	2.841	18	51.138	50.882	3.479	28	97.412	96.925
	합 계		0.146t				0.282t				0.505t			
H1-2	E1	H13	4.767	10	47.670	47.432	5.027	18	90.486	90.034	5.593	28	156.604	155.821
	E2	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	E3	H13	4.767	10	47.670	47.432	5.027	18	90.486	90.034	5.593	28	156.604	155.821
	E4	H13	2.547	10	25.470	25.343	2.841	18	51.138	50.882	3.479	28	97.412	96.925
	합 계		0.160t				0.311t				0.561t			
H1-3	E1	H13	4.777	10	47.770	47.531	5.037	18	90.666	90.213	5.603	28	156.884	156.100
	E2	H13	2.547	10	25.470	25.343	2.841	18	51.138	50.882	3.479	28	97.412	96.925
	E3	H13	4.857	10	48.570	48.327	5.117	18	92.106	91.645	5.683	28	159.124	158.328
	E4	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	합 계		0.161t				0.313t				0.563t			
H1-4	E1	H13	4.857	10	48.570	48.327	5.117	18	92.106	91.645	5.683	28	159.124	158.328
	E2	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	E3	H13	4.877	10	48.770	48.526	5.137	18	92.466	92.004	5.703	28	159.684	158.886
	E4	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	합 계		0.176t				0.343t				0.621t			
H1-5	E1	H13	5.007	10	50.070	49.820	5.267	18	94.806	94.332	5.833	28	163.324	162.507
	E2	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	E3	H13	5.027	10	50.270	50.019	5.287	18	95.166	94.690	5.853	28	163.884	163.065
	E4	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	합 계		0.179t				0.349t				0.629t			
H1-6	E1	H13	5.267	10	52.670	52.407	5.527	18	99.486	98.989	6.093	28	170.604	169.751
	E2	H13	2.547	10	25.470	25.343	2.841	18	51.138	50.882	3.479	28	97.412	96.925
	E3	H13	5.267	10	52.670	52.407	5.527	18	99.486	98.989	6.093	28	170.604	169.751
	E4	H13	2.547	10	25.470	25.343	2.841	18	51.138	50.882	3.479	28	97.412	96.925
	합 계		0.156t				0.300t				0.533t			
H1-7	E1	H13	5.267	10	52.670	52.407	5.527	18	99.486	98.989	6.093	28	170.604	169.751
	E2	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	E3	H13	5.267	10	52.670	52.407	5.527	18	99.486	98.989	6.093	28	170.604	169.751
	E4	H13	2.547	10	25.470	25.343	2.841	18	51.138	50.882	3.479	28	97.412	96.925
	합 계		0.170t				0.329t				0.588t			



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H1-8	E1	H13	5.257	10	52.570	52.307	5.517	18	99.306	98.809	6.083	28	170.324	169.472
	E2	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	E3	H13	5.277	10	52.770	52.506	5.537	18	99.666	99.168	6.103	28	170.884	170.030
	E4	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	합 계					0.184t				0.358t				0.643t
H1-9	E1	H13	5.357	10	53.570	53.302	5.617	18	101.106	100.600	6.183	28	173.124	172.258
	E2	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	E3	H13	5.477	10	54.770	54.496	5.737	18	103.266	102.750	6.303	28	176.484	175.602
	E4	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	합 계					0.187t				0.363t				0.652t
H1-10	E1	H13	5.447	10	54.470	54.198	5.707	18	102.726	102.212	6.273	28	175.644	174.766
	E2	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	E3	H16	5.619	10	56.190	87.656	5.872	18	105.696	164.886	6.422	28	179.816	280.513
	E4	H16	2.547	10	25.470	39.733	2.841	18	51.138	79.775	3.479	28	97.412	151.963
	합 계					0.221t				0.427t				0.759t
H1-11	E1	H16	4.900	10	49.000	76.440	5.213	20	104.260	162.646	5.893	34	200.362	312.565
	E2	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	E3	H16	4.900	10	49.000	76.440	5.213	20	104.260	162.646	5.893	34	200.362	312.565
	E4	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	합 계					0.248t				0.539t				1.069t
H1-12	E1	H16	4.900	10	49.000	76.440	5.213	20	104.260	162.646	5.893	34	200.362	312.565
	E2	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	E3	H16	4.900	10	49.000	76.440	5.213	20	104.260	162.646	5.893	34	200.362	312.565
	E4	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	합 계					0.248t				0.539t				1.069t
H1-13	E1	H16	5.000	10	50.000	78.000	5.313	20	106.260	165.766	5.993	34	203.762	317.869
	E2	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	E3	H16	5.000	10	50.000	78.000	5.313	20	106.260	165.766	5.993	34	203.762	317.869
	E4	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	합 계					0.252t				0.545t				1.080t
H1-14	E1	H16	5.066	10	50.660	79.030	5.379	20	107.580	167.825	6.059	34	206.006	321.369
	E2	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	E3	H16	5.066	10	50.660	79.030	5.379	20	107.580	167.825	6.059	34	206.006	321.369
	E4	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	합 계					0.254t				0.549t				1.087t
H1-15	E1	H16	5.197	10	51.970	81.073	5.521	20	110.420	172.255	6.227	34	211.718	330.280
	E2	H19	3.168	10	31.680	71.280	3.533	20	70.660	158.985	4.327	34	147.118	331.015
	E3	H16	5.357	10	53.570	83.569	5.681	20	113.620	177.247	6.387	34	217.158	338.766
	E4	H19	3.168	10	31.680	71.280	3.533	20	70.660	158.985	4.327	34	147.118	331.015
	합 계					0.307t				0.667t				1.331t
H1-16	E1	H16	5.232	10	52.320	81.619	5.545	20	110.900	173.004	6.225	34	211.650	330.174
	E2	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	E3	H16	5.232	10	52.320	81.619	5.545	20	110.900	173.004	6.225	34	211.650	330.174
	E4	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	합 계					0.259t				0.559t				1.104t
H1-17	E1	H16	5.233	10	52.330	81.635	5.546	20	110.920	173.035	6.226	34	211.684	330.227
	E2	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	E3	H16	5.233	10	52.330	81.635	5.546	20	110.920	173.035	6.226	34	211.684	330.227
	E4	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	합 계					0.259t				0.559t				1.105t
H1-18	E1	H16	5.333	10	53.330	83.195	5.646	20	112.920	176.155	6.326	34	215.084	335.531
	E2	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	E3	H16	5.333	10	53.330	83.195	5.646	20	112.920	176.155	6.326	34	215.084	335.531
	E4	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	합 계					0.262t				0.566t				1.115t
H1-19	E1	H16	5.413	10	54.130	84.443	5.726	20	114.520	178.651	6.406	34	217.804	339.774
	E2	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	E3	H16	5.413	10	54.130	84.443	5.726	20	114.520	178.651	6.406	34	217.804	339.774
	E4	H16	3.064	10	30.640	47.798	3.418	20	68.360	106.642	4.186	34	142.324	222.025
	합 계					0.264t				0.571t				1.124t



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H1-20	E1	H16	5.616	10	56.160	87.610	5.941	20	118.820	185.359	6.647	34	225.998	352.557
	E2	H16	3.168	10	31.680	49.421	3.533	20	70.660	110.230	4.327	34	147.118	229.504
	E3	H16	5.616	10	56.160	87.610	5.941	20	118.820	185.359	6.647	34	225.998	352.557
	E4	H19	3.168	10	31.680	71.280	3.533	20	70.660	158.985	4.327	34	147.118	331.015
	합 계					0.296t				0.640t				1.266t
H1-21	E1	H16	5.784	12	69.408	108.276	6.157	24	147.768	230.518	6.966	38	264.708	412.944
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	5.784	12	69.408	108.276	6.157	24	147.768	230.518	6.966	38	264.708	412.944
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합 계					0.351t				0.760t				1.406t
H1-22	E1	H16	5.818	12	69.816	108.913	6.191	24	148.584	231.791	7.000	38	266.000	414.960
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	5.818	12	69.816	108.913	6.191	24	148.584	231.791	7.000	38	266.000	414.960
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합 계					0.352t				0.763t				1.410t
H1-23	E1	H16	5.917	12	71.004	110.766	6.290	24	150.960	235.498	7.100	38	269.800	420.888
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	5.917	12	71.004	110.766	6.290	24	150.960	235.498	7.100	38	269.800	420.888
	E4	H19	3.582	12	42.984	96.714	3.995	24	95.880	215.730	4.893	38	185.934	418.352
	합 계					0.385t				0.836t				1.550t
H1-24	E1	H16	6.271	12	75.252	117.393	6.668	24	160.032	249.650	7.529	40	301.160	469.810
	E2	H19	3.789	12	45.468	102.303	4.226	24	101.424	228.204	5.176	40	207.040	465.840
	E3	H16	6.271	12	75.252	117.393	6.668	24	160.032	249.650	7.529	40	301.160	469.810
	E4	H19	3.789	12	45.468	102.303	4.226	24	101.424	228.204	5.176	40	207.040	465.840
	합 계					0.439t				0.956t				1.871t
H1-25	E1	H16	6.788	12	81.456	127.071	7.196	24	172.704	269.418	8.574	42	360.108	561.768
	E2	H19	3.893	12	46.716	105.111	4.342	24	104.208	234.468	5.317	42	223.314	502.457
	E3	H16	6.228	12	74.736	116.588	6.636	24	159.264	248.452	7.524	42	316.008	492.972
	E4	H19	3.893	12	46.716	105.111	4.342	24	104.208	234.468	5.317	42	223.314	502.457
	합 계					0.454t				0.987t				2.060t
H1-26	E1	H16	6.117	12	73.404	114.510	6.490	24	155.760	242.986	7.300	38	277.400	432.744
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	6.117	12	73.404	114.510	6.490	24	155.760	242.986	7.300	38	277.400	432.744
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합 계					0.363t				0.785t				1.446t
H1-27	E1	H16	6.164	12	73.968	115.390	6.537	24	156.888	244.745	7.346	38	279.148	435.471
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H16	6.164	12	73.968	115.390	6.537	24	156.888	244.745	7.346	38	279.148	435.471
	E4	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	합 계					0.365t				0.789t				1.451t
H1-28	E1	H19	6.296	12	75.552	169.992	6.661	24	159.864	359.694	7.455	38	283.290	637.403
	E2	H16	3.582	12	42.984	67.055	3.995	24	95.880	149.573	4.893	38	185.934	290.057
	E3	H19	6.296	12	75.552	169.992	6.661	24	159.864	359.694	7.455	38	283.290	637.403
	E4	H19	3.582	12	42.984	96.714	3.995	24	95.880	215.730	4.893	38	185.934	418.352
	합 계					0.504t				1.085t				1.983t
H1-29	E1	H16	6.604	12	79.248	123.627	7.001	24	168.024	262.117	7.863	40	314.520	490.651
	E2	H19	3.789	12	45.468	102.303	4.226	24	101.424	228.204	5.176	40	207.040	465.840
	E3	H16	6.604	12	79.248	123.627	7.001	24	168.024	262.117	7.863	40	314.520	490.651
	E4	H19	3.789	12	45.468	102.303	4.226	24	101.424	228.204	5.176	40	207.040	465.840
	합 계					0.452t				0.981t				1.913t
H1-30	E1	H19	6.833	12	81.996	184.491	7.234	24	173.616	390.636	8.696	42	365.232	821.772
	E2	H19	3.893	12	46.716	105.111	4.342	24	104.208	234.468	5.317	42	223.314	502.457
	E3	H16	6.801	12	81.612	127.315	7.210	24	173.040	269.942	8.737	42	366.954	572.448
	E4	H19	3.893	12	46.716	105.111	4.342	24	104.208	234.468	5.317	42	223.314	502.457
	합 계					0.522t				1.130t				2.399t
H1-31	E1	H19	6.624	14	92.736	208.656	7.049	26	183.274	412.367	7.973	44	350.812	789.327
	E2	H16	4.100	14	57.400	89.544	4.573	26	118.898	185.481	5.600	44	246.400	384.384
	E3	H19	6.624	14	92.736	208.656	7.049	26	183.274	412.367	7.973	44	350.812	789.327
	E4	H16	4.100	14	57.400	89.544	4.573	26	118.898	185.481	5.600	44	246.400	384.384
	합 계					0.596t				1.196t				2.347t



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총증량	길 이	갯수	총길이	총증량	길 이	갯수	총길이	총증량
H1-32	E1	H19	6.624	14	92.736	208.656	7.049	26	183.274	412.367	7.973	44	350.812	789.327
	E2	H16	4.100	14	57.400	89.544	4.573	26	118.898	185.481	5.600	44	246.400	384.384
	E3	H19	6.624	14	92.736	208.656	7.049	26	183.274	412.367	7.973	44	350.812	789.327
	E4	H16	4.100	14	57.400	89.544	4.573	26	118.898	185.481	5.600	44	246.400	384.384
	합 계					0.596t				1.196t				2.347t
H1-33	E1	H19	7.041	14	98.574	221.792	7.490	28	209.720	471.870	9.055	46	416.530	937.193
	E2	H19	4.307	14	60.298	135.671	4.804	28	134.512	302.652	5.883	46	270.618	608.891
	E3	H19	7.031	14	98.434	221.476	7.480	28	209.440	471.240	9.215	46	423.890	953.752
	E4	H19	4.307	14	60.298	135.671	4.804	28	134.512	302.652	5.883	46	270.618	608.891
	합 계					0.715t				1.548t				3.109t
H1-34	E1	H19	7.244	14	101.416	228.186	7.705	28	215.740	485.415	9.297	46	427.662	962.240
	E2	H19	4.410	14	61.740	138.915	4.919	28	137.732	309.897	6.025	46	277.150	623.588
	E3	H19	7.214	14	100.996	227.241	7.675	28	214.900	483.525	9.437	46	434.102	976.729
	E4	H19	4.410	14	61.740	138.915	4.919	28	137.732	309.897	6.025	46	277.150	623.588
	합 계					0.733t				1.589t				3.186t
H1-35	E1	H19	8.691	14	121.674	273.767	9.176	28	256.928	578.088	10.230	48	491.040	1104.840
	E2	H19	4.617	14	64.638	145.435	5.150	28	144.200	324.450	6.307	48	302.736	681.156
	E3	H19	8.781	14	122.934	276.602	9.266	28	259.448	583.758	10.320	48	495.360	1114.560
	E4	H22	4.617	14	64.638	196.500	5.150	28	144.200	438.368	6.307	48	302.736	920.317
	합 계					0.892t				1.925t				3.821t
H1-36	E1	H19	7.575	14	106.050	238.613	8.662	30	259.860	584.685	9.741	50	487.050	1095.863
	E2	H19	4.721	14	66.094	148.712	5.265	30	157.950	355.388	6.449	50	322.450	725.512
	E3	H19	7.575	14	106.050	238.613	8.832	30	264.960	596.160	9.911	50	495.550	1114.988
	E4	H19	4.721	14	66.094	148.712	5.265	30	157.950	355.388	6.449	50	322.450	725.512
	합 계					0.775t				1.892t				3.662t
H1-37	E1	H19	7.575	14	106.050	238.613	8.662	30	259.860	584.685	9.741	50	487.050	1095.863
	E2	H19	4.721	14	66.094	148.712	5.265	30	157.950	355.388	6.449	50	322.450	725.512
	E3	H19	7.575	14	106.050	238.613	8.832	30	264.960	596.160	9.911	50	495.550	1114.988
	E4	H19	4.721	14	66.094	148.712	5.265	30	157.950	355.388	6.449	50	322.450	725.512
	합 계					0.775t				1.892t				3.662t
H1-38	E1	H19	7.982	16	127.712	287.352	9.092	30	272.760	613.710	10.224	52	531.648	1196.208
	E2	H19	4.928	16	78.848	177.408	5.496	30	164.880	370.980	6.732	52	350.064	787.644
	E3	H19	7.982	16	127.712	287.352	9.262	30	277.860	625.185	10.394	52	540.488	1216.098
	E4	H19	4.928	16	78.848	177.408	5.496	30	164.880	370.980	6.732	52	350.064	787.644
	합 계					0.930t				1.981t				3.988t
H1-39	E1	H19	9.259	16	148.144	333.324	9.803	32	313.696	705.816	10.987	54	593.298	1334.921
	E2	H19	5.135	16	82.160	184.860	5.727	32	183.264	412.344	7.014	54	378.756	852.201
	E3	H19	9.259	16	148.144	333.324	9.803	32	313.696	705.816	10.987	54	593.298	1334.921
	E4	H22	5.135	16	82.160	249.766	5.727	32	183.264	557.123	7.014	54	378.756	1151.418
	합 계					1.101t				2.381t				4.673t
H1-40	E1	H19	9.796	16	156.736	352.656	10.364	32	331.648	746.208	11.600	56	649.600	1461.600
	E2	H22	5.342	16	85.472	259.835	5.958	32	190.656	579.594	7.297	56	408.632	1242.241
	E3	H19	9.816	16	157.056	353.376	10.384	32	332.288	747.648	11.620	56	650.720	1464.120
	E4	H22	5.342	16	85.472	259.835	5.958	32	190.656	579.594	7.297	56	408.632	1242.241
	합 계					1.226t				2.653t				5.410t
H1-41	E1	H19	9.339	16	149.424	336.204	9.920	34	337.280	758.880	11.181	56	626.136	1408.806
	E2	H19	5.446	16	87.136	196.056	6.074	34	206.516	464.661	7.439	56	416.584	937.314
	E3	H19	9.509	16	152.144	342.324	10.090	34	343.060	771.885	11.351	56	635.656	1430.226
	E4	H19	5.446	16	87.136	196.056	6.074	34	206.516	464.661	7.439	56	416.584	937.314
	합 계					1.071t				2.460t				4.714t
H1-42	E1	H22	9.622	16	153.952	468.014	10.190	34	346.460	1053.238	11.426	56	639.856	1945.162
	E2	H19	5.425	16	86.800	195.300	6.051	34	205.734	462.902	7.410	56	414.960	933.660
	E3	H22	9.882	16	158.112	480.660	10.450	34	355.300	1080.112	11.686	56	654.416	1989.425
	E4	H19	5.425	16	86.800	195.300	6.051	34	205.734	462.902	7.410	56	414.960	933.660
	합 계					1.339t				3.059t				5.802t
H1-43	E1	H19	9.543	18	171.774	386.491	10.135	34	344.590	775.328	11.422	58	662.476	1490.571
	E2	H22	5.549	18	99.882	303.641	6.189	34	210.426	639.695	7.580	58	439.640	1336.506
	E3	H19	9.713	18	174.834	393.376	10.305	34	350.370	788.333	11.592	58	672.336	1512.756
	E4	H22	5.549	18	99.882	303.641	6.189	34	210.426	639.695	7.580	58	439.640	1336.506
	합 계					1.387t				2.843t				5.676t

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H1-44	E1	H19	10.020	18	180.360	405.810	10.636	36	382.896	861.516	11.975	60	718.500	1616.625
	E2	H22	5.756	18	103.608	314.968	6.420	36	231.120	702.605	7.863	60	471.780	1434.211
	E3	H19	10.120	18	182.160	409.860	10.736	36	386.496	869.616	12.075	60	724.500	1630.125
	E4	H22	5.756	18	103.608	314.968	6.420	36	231.120	702.605	7.863	60	471.780	1434.211
	합 계					1.446t				3.136t				6.115t
H1-45	E1	H22	11.563	18	208.134	632.727	12.203	36	439.308	1335.496	13.594	62	842.828	2562.197
	E2	H22	6.046	18	108.828	330.837	6.743	36	242.748	737.954	9.369	62	580.878	1765.869
	E3	H22	11.643	18	209.574	637.105	12.283	36	442.188	1344.252	13.674	62	847.788	2577.276
	E4	H22	6.046	18	108.828	330.837	6.743	36	242.748	737.954	9.109	62	564.758	1716.864
	합 계					1.932t				4.156t				8.622t
H1-46	E1	H19	10.311	18	185.598	417.596	10.963	36	394.668	888.003	12.380	62	767.560	1727.010
	E2	H19	6.067	18	109.206	245.714	6.767	36	243.612	548.127	9.047	62	560.914	1262.057
	E3	H19	10.481	18	188.658	424.481	11.133	36	400.788	901.773	12.550	62	778.100	1750.725
	E4	H19	6.067	18	109.206	245.714	6.767	36	243.612	548.127	8.877	62	550.374	1238.342
	합 계					1.334t				2.886t				5.978t
H1-47	E1	H22	10.593	18	190.674	579.649	11.233	36	404.388	1229.340	12.624	62	782.688	2379.372
	E2	H19	6.046	18	108.828	244.863	6.743	36	242.748	546.183	9.019	62	559.178	1258.151
	E3	H22	10.853	18	195.354	593.876	11.493	36	413.748	1257.794	12.884	62	798.808	2428.376
	E4	H19	6.046	18	108.828	244.863	6.743	36	242.748	546.183	8.849	62	548.638	1234.436
	합 계					1.663t				3.579t				7.300t
H1-48	E1	H22	11.000	18	198.000	601.920	11.664	38	443.232	1347.425	13.107	64	838.848	2550.098
	E2	H22	6.253	18	112.554	342.164	6.974	38	265.012	805.636	9.652	64	617.728	1877.893
	E3	H22	11.260	18	202.680	616.147	11.924	38	453.112	1377.460	13.367	64	855.488	2600.684
	E4	H22	6.253	18	112.554	342.164	6.974	38	265.012	805.636	9.392	64	601.088	1827.308
	합 계					1.902t				4.336t				8.856t
H1-49	E1	H22	11.737	20	234.740	713.610	12.425	40	497.000	1510.880	13.920	66	918.720	2792.909
	E2	H22	6.460	20	129.200	392.768	7.205	40	288.200	876.128	9.935	66	655.710	1993.358
	E3	H22	11.757	20	235.140	714.826	12.445	40	497.800	1513.312	13.940	66	920.040	2796.922
	E4	H22	6.460	20	129.200	392.768	7.205	40	288.200	876.128	9.675	66	638.550	1941.192
	합 계					2.214t				4.776t				9.524t
H1-50	E1	H22	12.184	20	243.680	740.787	12.896	40	515.840	1568.154	14.443	68	982.124	2985.657
	E2	H25	6.667	20	133.340	530.693	7.436	40	297.440	1183.811	10.398	68	707.064	2814.115
	E3	H22	12.174	20	243.480	740.179	12.886	40	515.440	1566.938	14.433	68	981.444	2983.590
	E4	H25	6.667	20	133.340	530.693	7.436	40	297.440	1183.811	10.098	68	686.664	2732.923
	합 계					2.542t				5.503t				11.516t

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H2-1	E1	H13	6.438	16	103.008	102.493	6.973	30	209.190	208.144	8.526	52	443.352	441.135
	E2	H16	4.928	16	78.848	123.003	5.496	30	164.880	257.213	6.732	52	350.064	546.100
	E3	H13	6.288	16	100.608	100.105	6.823	30	204.690	203.667	7.986	52	415.272	413.196
	E4	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	합 계					0.404t				0.833t				1.749t
H2-2	E1	H13	6.438	16	103.008	102.493	6.973	30	209.190	208.144	8.526	52	443.352	441.135
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H13	6.288	16	100.608	100.105	6.823	30	204.690	203.667	7.986	52	415.272	413.196
	E4	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	합 계					0.360t				0.740t				1.551t
H2-3	E1	H16	6.640	16	106.240	165.734	7.168	30	215.040	335.462	8.805	52	457.860	714.262
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H13	6.428	16	102.848	102.334	6.963	30	208.890	207.846	8.516	52	442.832	440.618
	E4	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	합 계					0.425t				0.871t				1.852t
H2-4	E1	H16	6.670	16	106.720	166.483	7.198	30	215.940	336.866	8.835	52	459.420	716.695
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H16	6.880	16	110.080	171.725	7.408	30	222.240	346.694	9.195	52	478.140	745.898
	E4	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	합 계					0.495t				1.012t				2.159t



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H2-5	E1	H16	6.820	16	109.120	170.227	7.348	30	220.440	343.886	8.985	52	467.220	728.863
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H16	6.690	16	107.040	166.982	7.218	30	216.540	337.802	9.005	52	468.260	730.486
	E4	H16	4.928	16	78.848	123.003	5.496	30	164.880	257.213	6.732	52	350.064	546.100
	합	계				0.539t				1.103t				2.354t
H2-6	E1	H13	6.538	16	104.608	104.085	7.073	30	212.190	211.129	8.626	52	448.552	446.309
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H13	6.538	16	104.608	104.085	7.073	30	212.190	211.129	8.626	52	448.552	446.309
	E4	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	합	계				0.365t				0.750t				1.589t
H2-7	E1	H13	6.538	16	104.608	104.085	7.073	30	212.190	211.129	8.626	52	448.552	446.309
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H13	6.538	16	104.608	104.085	7.073	30	212.190	211.129	8.626	52	448.552	446.309
	E4	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	합	계				0.365t				0.750t				1.589t
H2-8	E1	H16	6.570	16	105.120	163.987	7.098	30	212.940	332.186	8.735	52	454.220	708.583
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H13	6.538	16	104.608	104.085	7.073	30	212.190	211.129	8.626	52	448.552	446.309
	E4	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	합	계				0.425t				0.871t				1.852t
H2-9	E1	H16	6.670	16	106.720	166.483	7.198	30	215.940	336.866	8.835	52	459.420	716.695
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H16	6.670	16	106.720	166.483	7.198	30	215.940	336.866	8.985	52	467.220	728.863
	E4	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	합	계				0.490t				1.002t				2.142t
H2-10	E1	H16	6.730	16	107.680	167.981	7.258	30	217.740	339.674	8.895	52	462.540	721.562
	E2	H13	4.928	16	78.848	78.454	5.496	30	164.880	164.056	6.732	52	350.064	348.314
	E3	H16	6.670	16	106.720	166.483	7.198	30	215.940	336.866	8.985	52	467.220	728.863
	E4	H16	4.928	16	78.848	123.003	5.496	30	164.880	257.213	6.732	52	350.064	546.100
	합	계				0.536t				1.098t				2.345t
H2-11	E1	H16	7.605	18	136.890	213.548	8.742	36	314.712	490.951	10.149	62	629.238	981.611
	E2	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	E3	H16	7.605	18	136.890	213.548	8.742	36	314.712	490.951	10.149	62	629.238	981.611
	E4	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	합	계				0.641t				1.458t				3.016t
H2-12	E1	H16	7.605	18	136.890	213.548	8.742	36	314.712	490.951	10.149	62	629.238	981.611
	E2	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	E3	H16	7.605	18	136.890	213.548	8.742	36	314.712	490.951	10.149	62	629.238	981.611
	E4	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	합	계				0.641t				1.458t				3.016t
H2-13	E1	H16	7.945	18	143.010	223.096	9.082	36	326.952	510.045	10.489	62	650.318	1014.496
	E2	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.656	62	536.672	533.989
	E3	H16	7.945	18	143.010	223.096	9.232	36	332.352	518.469	10.639	62	659.618	1029.004
	E4	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	합	계				0.660t				1.505t				3.104t
H2-14	E1	H19	8.651	18	155.718	350.366	9.303	36	334.908	753.543	10.720	62	664.640	1495.440
	E2	H16	6.067	18	109.206	170.361	6.767	36	243.612	380.035	8.927	62	553.474	863.419
	E3	H16	8.799	18	158.382	247.076	9.458	36	340.488	531.161	10.890	62	675.180	1053.281
	E4	H16	6.067	18	109.206	170.361	6.767	36	243.612	380.035	8.777	62	544.174	848.911
	합	계				0.938t				2.045t				4.261t
H2-15	E1	H19	9.358	18	168.444	378.999	10.034	38	381.292	857.907	11.502	64	736.128	1656.288
	E2	H16	6.274	18	112.932	176.174	6.997	38	265.886	414.782	9.210	64	589.440	919.526
	E3	H16	9.536	18	171.648	267.771	10.219	38	388.322	605.782	11.703	64	748.992	1168.428
	E4	H16	6.274	18	112.932	176.174	6.997	38	265.886	414.782	9.060	64	579.840	904.550
	합	계				0.999t				2.293t				4.649t
H2-16	E1	H16	7.855	18	141.390	220.568	8.992	36	323.712	504.991	10.399	62	644.738	1005.791
	E2	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	E3	H16	7.855	18	141.390	220.568	8.992	36	323.712	504.991	10.399	62	644.738	1005.791
	E4	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	합	계				0.655t				1.486t				3.065t

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H2-17	E1	H16	7.855	18	141.390	220.568	8.992	36	323.712	504.991	10.399	62	644.738	1005.791
	E2	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	E3	H16	7.855	18	141.390	220.568	8.992	36	323.712	504.991	10.399	62	644.738	1005.791
	E4	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	합 계					0.655t				1.486t				3.065t
H2-18	E1	H16	7.955	18	143.190	223.376	9.092	36	327.312	510.607	10.499	62	650.938	1015.463
	E2	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	536.672	533.989
	E3	H16	7.955	18	143.190	223.376	9.242	36	332.712	519.031	10.649	62	660.238	1029.971
	E4	H13	5.963	18	107.334	106.797	6.651	36	239.436	238.239	8.536	62	529.232	526.586
	합 계					0.660t				1.506t				3.106t
H2-19	E1	H19	8.831	18	158.958	357.655	9.483	36	341.388	768.123	10.900	62	675.800	1520.550
	E2	H16	6.067	18	109.206	170.361	6.767	36	243.612	380.035	8.927	62	553.474	863.419
	E3	H16	8.779	18	158.022	246.514	9.438	36	339.768	530.038	10.870	62	673.940	1051.346
	E4	H16	6.067	18	109.206	170.361	6.767	36	243.612	380.035	8.777	62	544.174	848.911
	합 계					0.945t				2.058t				4.284t
H2-20	E1	H19	9.528	18	171.504	385.884	10.204	38	387.752	872.442	11.672	64	747.008	1680.768
	E2	H16	6.274	18	112.932	176.174	6.997	38	265.886	414.782	9.210	64	589.440	919.526
	E3	H16	9.316	18	167.688	261.593	9.999	38	379.962	592.741	11.483	64	734.912	1146.463
	E4	H16	6.274	18	112.932	176.174	6.997	38	265.886	414.782	9.060	64	579.840	904.550
	합 계					1.000t				2.295t				4.651t
H2-21	E1	H19	9.512	20	190.240	428.040	10.272	42	431.424	970.704	11.922	72	858.384	1931.364
	E2	H16	6.998	20	139.960	218.338	7.806	42	327.852	511.449	10.050	72	723.600	1128.816
	E3	H16	9.380	20	187.600	292.656	10.147	42	426.174	664.831	11.813	72	850.536	1326.836
	E4	H16	6.998	20	139.960	218.338	7.806	42	327.852	511.449	10.050	72	723.600	1128.816
	합 계					1.157t				2.658t				5.516t
H2-22	E1	H16	9.380	20	187.600	292.656	10.147	42	426.174	664.831	11.813	72	850.536	1326.836
	E2	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	10.070	72	725.040	721.415
	E3	H16	9.380	20	187.600	292.656	10.147	42	426.174	664.831	11.813	72	850.536	1326.836
	E4	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	9.950	72	716.400	712.818
	합 계					0.864t				1.982t				4.088t
H2-23	E1	H19	9.796	22	215.512	484.902	10.567	42	443.814	998.582	12.244	72	881.568	1983.528
	E2	H16	7.102	22	156.244	243.741	7.921	42	332.682	518.984	10.342	72	744.624	1161.613
	E3	H16	9.814	22	215.908	336.816	10.593	42	444.906	694.053	12.285	72	884.520	1379.851
	E4	H16	7.102	22	156.244	243.741	7.921	42	332.682	518.984	10.192	72	733.824	1144.765
	합 계					1.309t				2.731t				5.670t
H2-24	E1	H19	10.503	22	231.066	519.899	11.298	44	497.112	1118.502	13.027	74	963.998	2168.996
	E2	H16	7.309	22	160.798	250.845	8.792	44	386.848	603.483	10.624	74	786.176	1226.435
	E3	H16	10.571	22	232.562	362.797	11.374	44	500.456	780.711	13.118	74	970.732	1514.342
	E4	H16	7.309	22	160.798	250.845	8.642	44	380.248	593.187	10.474	74	775.076	1209.119
	합 계					1.384t				3.096t				6.119t
H2-25	E1	H19	11.464	22	252.208	567.468	12.295	46	565.570	1272.533	14.101	78	1099.878	2474.726
	E2	H16	7.620	22	167.640	261.518	9.139	46	420.394	655.815	11.049	78	861.822	1344.442
	E3	H19	11.284	22	248.248	558.558	12.115	46	557.290	1253.903	13.921	78	1085.838	2443.136
	E4	H16	7.620	22	167.640	261.518	8.989	46	413.494	645.051	10.899	78	850.122	1326.190
	합 계					1.649t				3.827t				7.588t
H2-26	E1	H16	9.630	20	192.600	300.456	10.397	42	436.674	681.211	12.063	72	868.536	1354.916
	E2	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	9.950	72	716.400	712.818
	E3	H16	9.630	20	192.600	300.456	10.397	42	436.674	681.211	12.063	72	868.536	1354.916
	E4	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	9.950	72	716.400	712.818
	합 계					0.879t				2.015t				4.135t
H2-27	E1	H16	9.630	20	192.600	300.456	10.397	42	436.674	681.211	12.063	72	868.536	1354.916
	E2	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	10.070	72	725.040	721.415
	E3	H16	9.630	20	192.600	300.456	10.397	42	436.674	681.211	12.063	72	868.536	1354.916
	E4	H13	6.998	20	139.960	139.260	7.806	42	327.852	326.213	9.950	72	716.400	712.818
	합 계					0.879t				2.015t				4.144t
H2-28	E1	H19	10.046	22	221.012	497.277	10.817	42	454.314	1022.207	12.494	72	899.568	2024.028
	E2	H16	7.102	22	156.244	243.741	7.921	42	332.682	518.984	10.342	72	744.624	1161.613
	E3	H19	10.216	22	224.752	505.692	10.987	42	461.454	1038.272	12.664	72	911.808	2051.568
	E4	H16	7.102	22	156.244	243.741	7.921	42	332.682	518.984	10.192	72	733.824	1144.765
	합 계					1.490t				3.098t				6.382t



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총증량	길 이	갯수	총길이	총증량	길 이	갯수	총길이	총증량
H2-29	E1	H19	10.453	22	229.966	517.424	11.248	44	494.912	1113.552	12.977	74	960.298	2160.671
	E2	H16	7.309	22	160.798	250.845	8.792	44	386.848	603.483	10.624	74	786.176	1226.435
	E3	H16	10.471	22	230.362	359.365	11.274	44	496.056	773.847	13.018	74	963.332	1502.798
	E4	H16	7.309	22	160.798	250.845	8.642	44	380.248	593.187	10.474	74	775.076	1209.119
	합	계				1.378t				3.084t				6.099t
H2-30	E1	H19	11.244	22	247.368	556.578	12.075	46	555.450	1249.763	13.881	78	1082.718	2436.116
	E2	H16	7.620	22	167.640	261.518	9.139	46	420.394	655.815	11.049	78	861.822	1344.442
	E3	H19	11.444	22	251.768	566.478	12.275	46	564.650	1270.463	14.081	78	1098.318	2471.216
	E4	H16	7.620	22	167.640	261.518	8.989	46	413.494	645.051	10.899	78	850.122	1326.190
	합	계				1.646t				3.821t				7.578t
H2-31	E1	H19	10.898	24	261.552	588.492	11.777	48	565.296	1271.916	13.687	82	1122.334	2525.252
	E2	H16	8.674	24	208.176	324.755	9.600	48	460.800	718.848	11.614	82	952.348	1485.663
	E3	H16	10.916	24	261.984	408.695	11.802	48	566.496	883.734	13.727	82	1125.614	1755.958
	E4	H16	8.524	24	204.576	319.139	9.450	48	453.600	707.616	11.464	82	940.048	1466.475
	합	계				1.641t				3.582t				7.233t
H2-32	E1	H19	10.898	24	261.552	588.492	11.777	48	565.296	1271.916	13.687	82	1122.334	2525.252
	E2	H16	8.674	24	208.176	324.755	9.600	48	460.800	718.848	11.614	82	952.348	1485.663
	E3	H19	11.068	24	265.632	597.672	11.947	48	573.456	1290.276	13.857	82	1136.274	2556.617
	E4	H16	8.524	24	204.576	319.139	9.450	48	453.600	707.616	11.464	82	940.048	1466.475
	합	계				1.830t				3.989t				8.034t
H2-33	E1	H19	11.375	24	273.000	614.250	12.278	50	613.900	1381.275	14.239	84	1196.076	2691.171
	E2	H16	8.881	24	213.144	332.505	9.831	50	491.550	766.818	11.897	84	999.348	1558.983
	E3	H19	11.455	24	274.920	618.570	12.358	50	617.900	1390.275	14.319	84	1202.796	2706.291
	E4	H16	8.731	24	209.544	326.889	9.681	50	484.050	755.118	11.747	84	986.748	1539.327
	합	계				1.892t				4.293t				8.496t
H2-34	E1	H22	12.441	24	298.584	907.695	13.380	52	695.760	2115.110	15.420	88	1356.960	4125.158
	E2	H16	9.274	24	222.576	347.219	10.270	52	534.040	833.102	12.435	88	1094.280	1707.077
	E3	H19	12.208	24	292.992	659.232	13.156	52	684.112	1539.252	15.217	88	1339.096	3012.966
	E4	H16	9.124	24	218.976	341.603	10.120	52	526.240	820.934	12.285	88	1081.080	1686.485
	합	계				2.256t				5.308t				10.532t
H2-35	E1	H22	12.831	26	333.606	1014.162	13.781	52	716.612	2178.500	15.847	88	1394.536	4239.389
	E2	H19	9.498	26	246.948	555.633	10.506	52	546.312	1229.202	12.696	88	1117.248	2513.808
	E3	H19	12.698	26	330.148	742.833	13.658	52	710.216	1597.986	15.744	88	1385.472	3117.312
	E4	H19	9.328	26	242.528	545.688	10.336	52	537.472	1209.312	12.526	88	1102.288	2480.148
	합	계				2.858t				6.215t				12.351t
H2-36	E1	H19	11.148	24	267.552	601.992	12.027	48	577.296	1298.916	13.937	82	1142.834	2571.377
	E2	H16	8.674	24	208.176	324.755	9.600	48	460.800	718.848	11.614	82	952.348	1485.663
	E3	H16	11.166	24	267.984	418.055	12.052	48	578.496	902.454	13.977	82	1146.114	1787.938
	E4	H16	8.524	24	204.576	319.139	9.450	48	453.600	707.616	11.464	82	940.048	1466.475
	합	계				1.664t				3.628t				7.311t
H2-37	E1	H19	11.148	24	267.552	601.992	12.027	48	577.296	1298.916	13.937	82	1142.834	2571.377
	E2	H16	8.674	24	208.176	324.755	9.600	48	460.800	718.848	11.614	82	952.348	1485.663
	E3	H19	11.318	24	271.632	611.172	12.197	48	585.456	1317.276	14.107	82	1156.774	2602.742
	E4	H16	8.524	24	204.576	319.139	9.450	48	453.600	707.616	11.464	82	940.048	1466.475
	합	계				1.857t				4.043t				8.126t
H2-38	E1	H19	11.535	24	276.840	622.890	12.438	50	621.900	1399.275	14.399	84	1209.516	2721.411
	E2	H16	8.881	24	213.144	332.505	9.831	50	491.550	766.818	11.897	84	999.348	1558.983
	E3	H19	11.705	24	280.920	632.070	12.608	50	630.400	1418.400	14.569	84	1223.796	2753.541
	E4	H16	8.731	24	209.544	326.889	9.681	50	484.050	755.118	11.747	84	986.748	1539.327
	합	계				1.914t				4.340t				8.573t
H2-39	E1	H22	12.306	24	295.344	897.846	13.227	50	661.350	2010.504	15.228	86	1309.608	3981.208
	E2	H19	9.239	24	221.736	498.906	10.217	50	510.850	1149.413	12.342	86	1061.412	2388.177
	E3	H19	12.143	24	291.432	655.722	13.073	50	653.650	1470.713	15.095	86	1298.170	2920.883
	E4	H19	9.069	24	217.656	489.726	10.047	50	502.350	1130.288	12.172	86	1046.792	2355.282
	합	계				2.542t				5.761t				11.646t
H2-40	E1	H22	12.895	26	335.270	1019.221	13.845	52	719.940	2188.618	15.911	88	1400.168	4256.511
	E2	H19	9.498	26	246.948	555.633	10.506	52	546.312	1229.202	12.696	88	1117.248	2513.808
	E3	H19	12.742	26	331.292	745.407	13.702	52	712.504	1603.134	15.788	88	1389.344	3126.024
	E4	H19	9.328	26	242.528	545.688	10.336	52	537.472	1209.312	12.526	88	1102.288	2480.148
	합	계				2.866t				6.230t				12.376t

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H2-41	E1	H16	12.688	26	329.888	514.625	13.718	54	740.772	1155.604	15.955	94	1499.770	2339.641
	E2	H16	9.916	26	257.816	402.193	10.986	54	593.244	925.461	13.311	94	1251.234	1951.925
	E3	H16	12.838	26	333.788	520.709	13.868	54	748.872	1168.240	16.745	94	1574.030	2455.487
	E4	H13	9.666	26	251.316	250.059	10.736	54	579.744	576.845	13.061	94	1227.734	1221.595
	합	계				1.688t				3.826t				7.969t
H2-42	E1	H19	12.820	26	333.320	749.970	13.842	54	747.468	1681.803	16.654	94	1565.476	3522.321
	E2	H16	9.916	26	257.816	402.193	10.986	54	593.244	925.461	13.311	94	1251.234	1951.925
	E3	H19	12.990	26	337.740	759.915	14.012	54	756.648	1702.458	16.994	94	1597.436	3594.231
	E4	H16	9.766	26	253.916	396.109	10.836	54	585.144	912.825	13.161	94	1237.134	1929.929
	합	계				2.308t				5.223t				10.998t
H2-43	E1	H22	13.561	28	379.708	1154.312	14.601	56	817.656	2485.674	17.712	96	1700.352	5169.070
	E2	H16	10.154	28	284.312	443.527	11.252	56	630.112	982.975	13.637	96	1309.152	2042.277
	E3	H19	13.428	28	375.984	845.964	14.478	56	810.768	1824.228	17.519	96	1681.824	3784.104
	E4	H16	10.004	28	280.112	436.975	11.102	56	621.712	969.871	13.487	96	1294.752	2019.813
	합	계				2.881t				6.263t				13.015t
H2-44	E1	H22	14.395	28	403.060	1225.302	15.483	58	898.014	2729.963	18.697	100	1869.700	5683.888
	E2	H19	10.688	28	299.264	673.344	11.834	58	686.372	1544.337	14.322	100	1432.200	3222.450
	E3	H19	14.142	28	395.976	890.946	15.240	58	883.920	1988.820	18.385	100	1838.500	4136.625
	E4	H19	10.518	28	294.504	662.634	11.664	58	676.512	1522.152	14.152	100	1415.200	3184.200
	합	계				3.452t				7.785t				16.227t
H2-45	E1	H22	15.234	28	426.552	1296.718	17.202	60	1032.120	3137.645	19.631	102	2002.362	6087.180
	E2	H19	10.947	28	306.516	689.661	12.122	60	727.320	1636.470	14.676	102	1496.952	3368.142
	E3	H19	14.971	28	419.188	943.173	16.858	60	1011.480	2275.830	19.308	102	1969.416	4431.186
	E4	H19	10.777	28	301.756	678.951	11.952	60	717.120	1613.520	14.506	102	1479.612	3329.127
	합	계				3.609t				8.663t				17.216t

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H3-1	E1	H13	9.279	22	204.138	203.117	10.089	44	443.916	441.696	11.848	74	876.752	872.368
	E2	H13	7.309	22	160.798	159.994	8.542	44	375.848	373.969	10.374	74	767.676	763.838
	E3	H13	9.059	22	199.298	198.302	9.869	44	434.236	432.065	11.628	74	860.472	856.170
	E4	H13	7.309	22	160.798	159.994	8.542	44	375.848	373.969	10.374	74	767.676	763.838
	합	계				0.721t				1.622t				3.256t
H3-2	E1	H13	9.279	22	204.138	203.117	10.089	44	443.916	441.696	11.848	74	876.752	872.368
	E2	H13	7.309	22	160.798	159.994	8.542	44	375.848	373.969	10.374	74	767.676	763.838
	E3	H13	9.059	22	199.298	198.302	9.869	44	434.236	432.065	11.628	74	860.472	856.170
	E4	H13	7.309	22	160.798	159.994	8.542	44	375.848	373.969	10.374	74	767.676	763.838
	합	계				0.721t				1.622t				3.256t
H3-3	E1	H16	9.571	22	210.562	328.477	10.374	44	456.456	712.071	12.118	74	896.732	1398.902
	E2	H13	7.309	22	160.798	159.994	8.662	44	381.128	379.222	10.494	74	776.556	772.673
	E3	H13	9.229	22	203.038	202.023	10.039	44	441.716	439.507	11.798	74	873.052	868.687
	E4	H13	7.309	22	160.798	159.994	8.542	44	375.848	373.969	10.374	74	767.676	763.838
	합	계				0.850t				1.905t				3.804t
H3-4	E1	H16	9.371	22	206.162	321.613	10.174	44	447.656	698.343	11.918	74	881.932	1375.814
	E2	H13	7.309	22	160.798	159.994	8.662	44	381.128	379.222	10.494	74	776.556	772.673
	E3	H13	9.509	22	209.198	208.152	10.319	44	454.036	451.766	12.078	74	893.772	889.303
	E4	H13	7.309	22	160.798	159.994	8.542	44	375.848	373.969	10.374	74	767.676	763.838
	합	계				0.850t				1.903t				3.802t
H3-5	E1	H16	9.731	22	214.082	333.968	10.534	44	463.496	723.054	12.278	74	908.572	1417.372
	E2	H16	7.309	22	160.798	250.845	8.792	44	386.848	603.483	10.624	74	786.176	1226.435
	E3	H16	9.711	22	213.642	333.282	10.514	44	462.616	721.681	12.258	74	907.092	1415.064
	E4	H16	7.309	22	160.798	250.845	8.642	44	380.248	593.187	10.474	74	775.076	1209.119
	합	계				1.169t				2.641t				5.268t
H3-6	E1	H16	10.994	26	285.844	445.917	11.976	52	622.752	971.493	14.109	90	1269.810	1980.904
	E2	H13	9.252	26	240.552	239.349	10.274	52	534.248	531.577	12.496	90	1124.640	1119.017
	E3	H16	10.994	26	285.844	445.917	11.976	52	622.752	971.493	14.109	90	1269.810	1980.904
	E4	H13	9.252	26	240.552	239.349	10.274	52	534.248	531.577	12.496	90	1124.640	1119.017
	합	계				1.371t				3.006t				6.200t



도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H3-7	E1	H16	10.994	26	285.844	445.917	11.976	52	622.752	971.493	14.109	90	1269.810	1980.904
	E2	H13	9.252	26	240.552	239.349	10.274	52	534.248	531.577	12.496	90	1124.640	1119.017
	E3	H16	10.994	26	285.844	445.917	11.976	52	622.752	971.493	14.109	90	1269.810	1980.904
	E4	H13	9.252	26	240.552	239.349	10.274	52	534.248	531.577	12.496	90	1124.640	1119.017
	합 계					1.371t				3.006t				6.200t
H3-8	E1	H16	11.364	26	295.464	460.924	12.346	52	641.992	1001.508	14.479	90	1303.110	2032.852
	E2	H16	9.502	26	247.052	385.401	10.524	52	547.248	853.707	12.746	90	1147.140	1789.538
	E3	H16	11.244	26	292.344	456.057	12.226	52	635.752	991.773	14.359	90	1292.310	2016.004
	E4	H16	9.352	26	243.152	379.317	10.374	52	539.448	841.539	12.596	90	1133.640	1768.478
	합 계					1.682t				3.689t				7.607t
H3-9	E1	H16	11.477	26	298.402	465.507	12.471	54	673.434	1050.557	14.630	90	1316.700	2054.052
	E2	H16	9.605	26	249.730	389.579	10.640	54	574.560	896.314	12.887	90	1159.830	1809.335
	E3	H16	11.687	26	303.862	474.025	12.681	54	684.774	1068.247	14.840	90	1335.600	2083.536
	E4	H16	9.455	26	245.830	383.495	10.490	54	566.460	883.678	12.737	90	1146.330	1788.275
	합 계					1.713t				3.899t				7.735t
H3-10	E1	H19	12.053	26	313.378	705.100	13.051	54	704.754	1585.697	15.221	92	1400.332	3150.747
	E2	H16	9.709	26	252.434	393.797	10.755	54	580.770	906.001	13.029	92	1198.668	1869.922
	E3	H16	12.141	26	315.666	492.439	13.147	54	709.938	1107.503	15.332	92	1410.544	2200.449
	E4	H16	9.559	26	248.534	387.713	10.605	54	572.670	893.365	12.879	92	1184.868	1848.394
	합 계					1.979t				4.493t				9.070t
H3-11	E1	H16	12.797	30	383.910	598.900	13.958	62	865.396	1350.018	16.970	104	1764.880	2753.213
	E2	H16	10.905	30	327.150	510.354	12.106	62	750.572	1170.892	14.717	104	1530.568	2387.686
	E3	H16	12.797	30	383.910	598.900	13.958	62	865.396	1350.018	16.970	104	1764.880	2753.213
	E4	H16	10.905	30	327.150	510.354	12.106	62	750.572	1170.892	14.717	104	1530.568	2387.686
	합 계					2.219t				5.042t				10.282t
H3-12	E1	H16	12.797	30	383.910	598.900	13.958	62	865.396	1350.018	16.970	104	1764.880	2753.213
	E2	H16	11.055	30	331.650	517.374	12.256	62	759.872	1185.400	14.867	104	1546.168	2412.022
	E3	H16	12.797	30	383.910	598.900	13.958	62	865.396	1350.018	16.970	104	1764.880	2753.213
	E4	H13	10.805	30	324.150	322.529	12.006	62	744.372	740.650	14.617	104	1520.168	1512.567
	합 계					2.038t				4.626t				9.431t
H3-13	E1	H19	13.029	30	390.870	879.458	14.182	62	879.284	1978.389	17.279	104	1797.016	4043.286
	E2	H16	11.055	30	331.650	517.374	12.256	62	759.872	1185.400	14.867	104	1546.168	2412.022
	E3	H16	13.047	30	391.410	610.600	14.208	62	880.896	1374.198	17.370	104	1806.480	2818.109
	E4	H16	10.905	30	327.150	510.354	12.106	62	750.572	1170.892	14.717	104	1530.568	2387.686
	합 계					2.518t				5.709t				11.661t
H3-14	E1	H19	13.736	30	412.080	927.180	14.913	62	924.606	2080.364	18.062	106	1914.572	4307.787
	E2	H16	11.262	30	337.860	527.062	12.487	62	774.194	1207.743	15.150	106	1605.900	2505.204
	E3	H16	13.694	30	410.820	640.879	14.879	62	922.498	1439.097	18.093	106	1917.858	2991.858
	E4	H16	11.112	30	333.360	520.042	12.337	62	764.894	1193.235	15.000	106	1590.000	2480.400
	합 계					2.615t				5.920t				12.285t
H3-15	E1	H19	14.663	32	469.216	1055.736	15.901	66	1049.466	2361.299	19.179	112	2148.048	4833.108
	E2	H16	11.780	32	376.960	588.058	13.065	66	862.290	1345.172	15.857	112	1775.984	2770.535
	E3	H19	14.753	32	472.096	1062.216	15.991	66	1055.406	2374.664	19.439	112	2177.168	4898.628
	E4	H16	11.630	32	372.160	580.570	12.915	66	852.390	1329.728	15.707	112	1759.184	2744.327
	합 계					3.287t				7.411t				15.247t
H3-16	E1	H19	13.179	30	395.370	889.583	14.332	62	888.584	1999.314	17.429	104	1812.616	4078.386
	E2	H16	10.905	30	327.150	510.354	12.106	62	750.572	1170.892	14.717	104	1530.568	2387.686
	E3	H16	13.047	30	391.410	610.600	14.208	62	880.896	1374.198	17.220	104	1790.880	2793.773
	E4	H16	10.905	30	327.150	510.354	12.106	62	750.572	1170.892	14.717	104	1530.568	2387.686
	합 계					2.521t				5.715t				11.648t
H3-17	E1	H16	13.047	30	391.410	610.600	14.208	62	880.896	1374.198	17.220	104	1790.880	2793.773
	E2	H16	11.055	30	331.650	517.374	12.256	62	759.872	1185.400	14.867	104	1546.168	2412.022
	E3	H16	13.047	30	391.410	610.600	14.208	62	880.896	1374.198	17.220	104	1790.880	2793.773
	E4	H13	10.805	30	324.150	322.529	12.006	62	744.372	740.650	14.617	104	1520.168	1512.567
	합 계					2.061t				4.674t				9.512t
H3-18	E1	H19	13.482	30	404.460	910.035	14.648	62	908.176	2043.396	17.771	106	1883.726	4238.384
	E2	H16	11.158	30	334.740	522.194	12.372	62	767.064	1196.620	15.008	106	1590.848	2481.723
	E3	H16	13.500	30	405.000	631.800	14.673	62	909.726	1419.173	17.862	106	1893.372	2953.660
	E4	H16	11.008	30	330.240	515.174	12.222	62	757.764	1182.112	14.858	106	1574.948	2456.919
	합 계					2.579t				5.841t				12.131t

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H3-19	E1	H19	13.846	30	415.380	934.605	15.023	62	931.426	2095.708	18.172	106	1926.232	4334.022
	E2	H16	11.262	30	337.860	527.062	12.487	62	774.194	1207.743	15.150	106	1605.900	2505.204
	E3	H16	13.704	30	411.120	641.347	14.889	62	923.118	1440.064	18.103	106	1918.918	2993.512
	E4	H16	11.112	30	333.360	520.042	12.337	62	764.894	1193.235	15.000	106	1590.000	2480.400
	합 계				2.623t				5.937t				12.313t	
H3-20	E1	H19	14.833	32	474.656	1067.976	16.661	66	1099.626	2474.159	19.349	112	2167.088	4875.948
	E2	H16	11.780	32	376.960	588.058	13.065	66	862.290	1345.172	15.857	112	1775.984	2770.535
	E3	H19	14.903	32	476.896	1073.016	16.901	66	1115.466	2509.799	19.589	112	2193.968	4936.428
	E4	H16	11.630	32	372.160	580.570	12.915	66	852.390	1329.728	15.707	112	1759.184	2744.327
	합 계				3.310t				7.659t				15.327t	
H3-21	E1	H19	14.832	34	504.288	1134.648	16.754	70	1172.780	2638.755	19.651	120	2358.120	5305.770
	E2	H16	12.608	34	428.672	668.728	13.988	70	979.160	1527.490	17.628	120	2115.360	3299.962
	E3	H16	14.850	34	504.900	787.644	16.830	70	1178.100	1837.836	19.741	120	2368.920	3695.515
	E4	H16	12.458	34	423.572	660.772	13.838	70	968.660	1511.110	17.328	120	2079.360	3243.802
	합 계				3.252t				7.515t				15.545t	
H3-22	E1	H19	14.832	34	504.288	1134.648	16.754	70	1172.780	2638.755	19.651	120	2358.120	5305.770
	E2	H16	12.608	34	428.672	668.728	13.988	70	979.160	1527.490	17.628	120	2115.360	3299.962
	E3	H16	14.850	34	504.900	787.644	16.830	70	1178.100	1837.836	19.741	120	2368.920	3695.515
	E4	H16	12.458	34	423.572	660.772	13.838	70	968.660	1511.110	17.328	120	2079.360	3243.802
	합 계				3.252t				7.515t				15.545t	
H3-23	E1	H19	15.409	34	523.906	1178.789	17.355	72	1249.560	2811.510	20.303	122	2476.966	5573.174
	E2	H16	12.815	34	435.710	679.708	14.219	72	1023.768	1597.078	17.911	122	2185.142	3408.822
	E3	H16	15.237	34	518.058	808.170	17.241	72	1241.352	1936.509	20.204	122	2464.888	3845.225
	E4	H16	12.665	34	430.610	671.752	14.069	72	1012.968	1580.230	17.611	122	2148.542	3351.726
	합 계				3.338t				7.925t				16.179t	
H3-24	E1	H19	15.959	34	542.606	1220.864	17.942	72	1291.824	2906.604	20.968	124	2600.032	5850.072
	E2	H16	13.125	34	446.250	696.150	14.566	72	1048.752	1636.053	18.335	124	2273.540	3546.722
	E3	H19	15.899	34	540.566	1216.274	18.052	72	1299.744	2924.424	21.078	124	2613.672	5880.762
	E4	H16	12.975	34	441.150	688.194	14.416	72	1037.952	1619.205	18.035	124	2236.340	3488.690
	합 계				3.821t				9.086t				18.766t	
H3-25	E1	H22	18.092	36	651.312	1979.988	19.509	74	1443.666	4388.745	22.587	128	2891.136	8789.053
	E2	H19	13.535	36	487.260	1096.335	15.009	74	1110.666	2498.999	18.971	128	2428.288	5463.648
	E3	H19	17.699	36	637.164	1433.619	19.125	74	1415.250	3184.313	22.224	128	2844.672	6400.512
	E4	H19	13.365	36	481.140	1082.565	14.839	74	1098.086	2470.694	18.631	128	2384.768	5365.728
	합 계				5.593t				12.543t				26.019t	
H3-26	E1	H16	14.950	34	508.300	792.948	16.780	70	1174.600	1832.376	19.691	120	2362.920	3686.155
	E2	H16	12.608	34	428.672	668.728	13.988	70	979.160	1527.490	17.628	120	2115.360	3299.962
	E3	H16	15.100	34	513.400	800.904	17.080	70	1195.600	1865.136	19.991	120	2398.920	3742.315
	E4	H13	12.358	34	420.172	418.071	13.738	70	961.660	956.852	17.128	120	2055.360	2045.083
	합 계				2.681t				6.182t				12.774t	
H3-27	E1	H19	15.082	34	512.788	1153.773	17.004	70	1190.280	2678.130	19.901	120	2388.120	5373.270
	E2	H16	12.608	34	428.672	668.728	13.988	70	979.160	1527.490	17.628	120	2115.360	3299.962
	E3	H19	15.252	34	518.568	1166.778	17.344	70	1214.080	2731.680	20.241	120	2428.920	5465.070
	E4	H16	12.458	34	423.572	660.772	13.838	70	968.660	1511.110	17.328	120	2079.360	3243.802
	합 계				3.650t				8.448t				17.382t	
H3-28	E1	H19	15.469	34	525.946	1183.379	17.415	72	1253.880	2821.230	20.363	122	2484.286	5589.644
	E2	H16	12.815	34	435.710	679.708	14.219	72	1023.768	1597.078	17.911	122	2185.142	3408.822
	E3	H16	15.487	34	526.558	821.430	17.491	72	1259.352	1964.589	20.454	122	2495.388	3892.805
	E4	H16	12.665	34	430.610	671.752	14.069	72	1012.968	1580.230	17.611	122	2148.542	3351.726
	합 계				3.356t				7.963t				16.243t	
H3-29	E1	H19	16.689	34	567.426	1276.709	18.082	72	1301.904	2929.284	21.108	124	2617.392	5889.132
	E2	H16	13.125	34	446.250	696.150	14.566	72	1048.752	1636.053	18.335	124	2273.540	3546.722
	E3	H19	16.909	34	574.906	1293.539	18.302	72	1317.744	2964.924	21.328	124	2644.672	5950.512
	E4	H16	12.975	34	441.150	688.194	14.416	72	1037.952	1619.205	18.035	124	2236.340	3488.690
	합 계				3.955t				9.149t				18.875t	

도면번호	부 호	호 칭	사 각 15°				사 각 30°				사 각 45°			
			길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량	길 이	갯수	총길이	총중량
H3-30	E1	H22	17.872	36	643.392	1955.912	19.289	74	1427.386	4339.253	22.367	128	2862.976	8703.447
	E2	H19	13.535	36	487.260	1096.335	15.009	74	1110.666	2498.999	18.971	128	2428.288	5463.648
	E3	H19	17.449	36	628.164	1413.369	18.875	74	1396.750	3142.688	21.974	128	2812.672	6328.512
	E4	H19	13.365	36	481.140	1082.565	14.839	74	1098.086	2470.694	18.631	128	2384.768	5365.728
	합 계					5.548t				12.452t				25.861t
H3-31	E1	H16	17.630	38	669.940	1045.106	19.173	80	1533.840	2392.790	22.526	136	3063.536	4779.116
	E2	H16	14.368	38	545.984	851.735	15.951	80	1276.080	1990.685	20.032	136	2724.352	4249.989
	E3	H16	17.930	38	681.340	1062.890	19.473	80	1557.840	2430.230	22.826	136	3104.336	4842.764
	E4	H16	14.218	38	540.284	842.843	15.801	80	1264.080	1971.965	19.732	136	2683.552	4186.341
	합 계					3.803t				8.786t				18.058t
H3-32	E1	H19	17.862	38	678.756	1527.201	19.397	80	1551.760	3491.460	22.735	136	3091.960	6956.910
	E2	H16	14.368	38	545.984	851.735	15.951	80	1276.080	1990.685	20.032	136	2724.352	4249.989
	E3	H19	18.202	38	691.676	1556.271	19.737	80	1578.960	3552.660	23.075	136	3138.200	7060.950
	E4	H16	14.218	38	540.284	842.843	15.801	80	1264.080	1971.965	19.732	136	2683.552	4186.341
	합 계					4.778t				11.007t				22.454t
H3-33	E1	H19	18.372	40	734.880	1653.480	19.944	82	1635.408	3679.668	23.359	140	3270.260	7358.085
	E2	H19	14.798	40	591.920	1331.820	17.178	82	1408.596	3169.341	20.697	140	2897.580	6519.555
	E3	H19	18.712	40	748.480	1684.080	20.284	82	1663.288	3742.398	23.699	140	3317.860	7465.185
	E4	H16	14.528	40	581.120	906.547	16.638	82	1364.316	2128.333	20.157	140	2821.980	4402.289
	합 계					5.576t				12.720t				25.745t
H3-34	E1	H22	19.222	40	768.880	2337.395	20.805	82	1706.010	5186.270	25.096	142	3563.632	10833.441
	E2	H19	14.985	40	599.400	1348.650	17.386	82	1425.652	3207.717	20.951	142	2975.042	6693.845
	E3	H19	18.999	40	759.960	1709.910	20.592	82	1688.544	3799.224	24.814	142	3523.588	7928.073
	E4	H19	14.815	40	592.600	1333.350	17.046	82	1397.772	3144.987	20.611	142	2926.762	6585.215
	합 계					6.729t				15.338t				32.041t
H3-35	E1	H22	20.559	40	822.360	2499.974	22.203	86	1909.458	5804.752	26.624	146	3887.104	11816.796
	E2	H19	15.502	40	620.080	1395.180	17.963	86	1544.818	3475.841	21.658	146	3162.068	7114.653
	E3	H25	21.161	40	846.440	3368.831	22.797	86	1960.542	7802.957	27.643	146	4035.878	16062.794
	E4	H19	15.332	40	613.280	1379.880	17.623	86	1515.578	3410.051	21.318	146	3112.428	7002.963
	합 계					8.644t				20.494t				41.997t

