

Best Quality with JEIL

# 기어드모터 & 기어박스

JEIL GEARED MOTOR & GEAR BOX



# 첨단 기술의 뉴프론티어 - 제일감속기

신기술 창조 및 우수한 품질로  
고객의 꿈을 한단계 앞서 실현시켜 드리겠습니다.

## 제품의 주요특징 ○○●

### 고정도, 고효율

최신 설비에 의한 정밀가공으로 저소음, 저진동, 고효율을 실현하였습니다.

### 제품의 표준화

부품의 표준화에 의한 계획 생산으로 고객의 요구납기에 신속히 공급해 드립니다.

### 긴수명

적정한 경도의 열처리와 고정밀의 치형연마로 수명이 반 영구적이고 또한 경제적입니다.



## Geared Motor & Gear Box



최고의 기술, 우수한 품질, 끊임없는 노력으로 감속기  
업계의 대표적인 기업으로 성장해온 제일 감속기가  
한차원 앞선 고품질, 고효율의 감속기로 귀사의 경쟁력을  
한층 더 높여 드리겠습니다.

긴수명

표준화

고정밀 · 고효율

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## 회사연혁 ○ ● ● ●

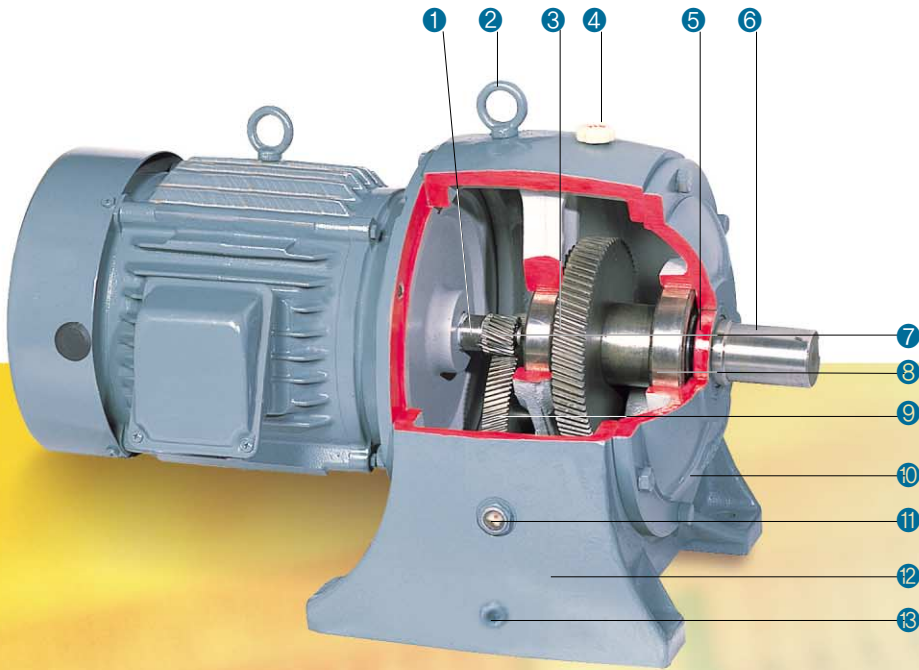
- 1970. 4 제일감속기제작소 설립
- 1976. 9 IBRD 차관 \$1,200,000 로 기계 27기 도입
- 1978. 11 ADB 차관으로 MACHINING CENTER 도입
- 1980. 주식회사 제일중공으로 상호변경
- 1980. 7 중소기업형 전문기계공장으로 지정 2차 상공부장관 80-149
- 1981. 9 신규개발기계지정 국산화 1호 (DAMPER ACTUATOR)  
KAIST와 CINTRO REDUCER 공동 개발을 통한 국산화 성공
- 1982. 4 새마을 훈장 노력장 수여 NO.397
- 1985. 6 유망중소기업 선정 (산업기술연구원)
- 1998. 11 수출유망중소기업 선정 중소기업진흥공단 98-74 경기도 김포시 대곶면으로 공장 신축이전
- 1999. 8 제일감속기 주식회사로 상호변경
- 2001. 6 서울시 구로구 온수동 100-10으로 공장이전
- 2002. 7 CNC HOBBING / SKYVING MACHINE (독일 RICHARDON R-400)도입
- 2004. 5 CNC GEAR TESTER MACHINE (일본 TOKYO TECH TTI-450)도입
- 2004. 6 감속기 조립생산라인 증축 완공

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# 감속기 내부구조

## FEATURES



### Sectional View & Parts Name (Cast Iron Frame)

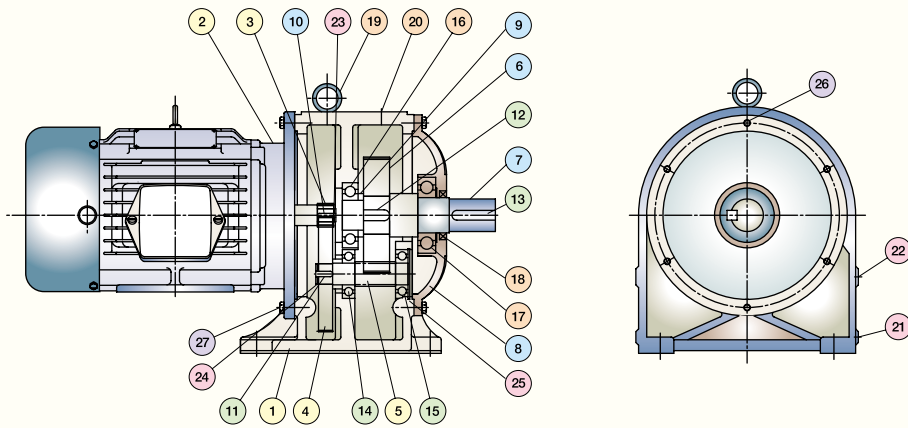




# 단면도 및 부품명칭

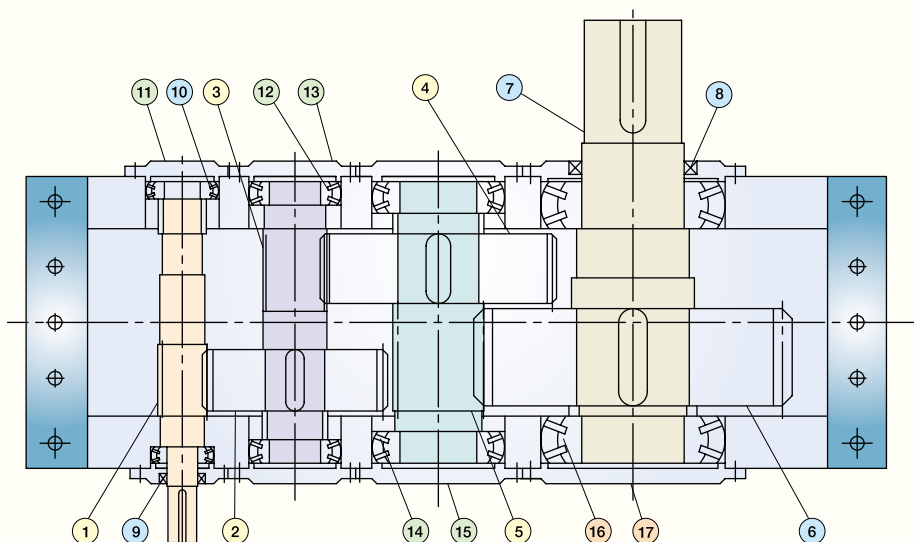
## [JK-HT TYPE]

- |                |                |           |            |              |                  |
|----------------|----------------|-----------|------------|--------------|------------------|
| ① Case         | ⑥ 2nd Gear     | ⑪ Key     | ⑯ Bearing  | ⑳ Drain Plug | ㉖ Hex.Bolt & S/W |
| ② Motor Flange | ⑦ Output Shaft | ⑫ Key     | ⑰ Bearing  | ㉑ Oil Gauge  | ㉗ Hex.Bolt & S/W |
| ③ 1st Pinion   | ⑧ Cover        | ⑬ Key     | ⑱ Oil Seal | ㉒ Snap Ring  |                  |
| ④ 1st Gear     | ⑨ Collar       | ⑭ Bearing | ⑲ Eye Bolt | ㉓ Snap Ring  |                  |
| ⑤ 2nd Pinion   | ⑩ Key          | ⑮ Bearing | ㉔ Air Vent | ㉕ Snap Ring  |                  |

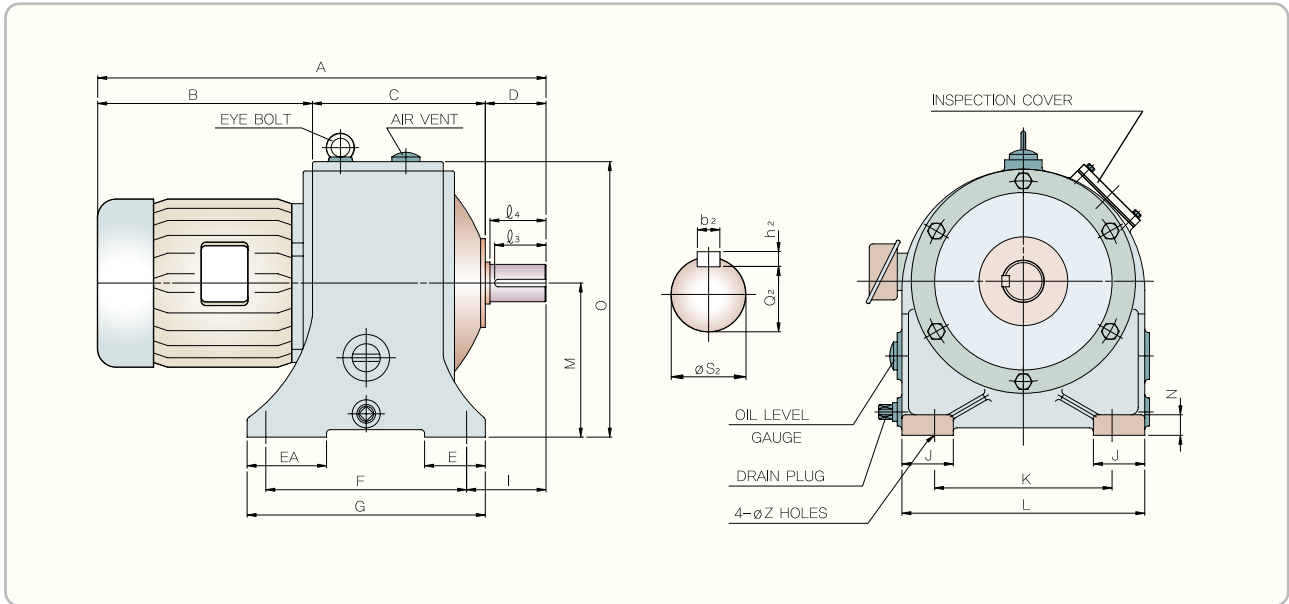


## [GEAR BOX]

- |              |                |                     |                        |
|--------------|----------------|---------------------|------------------------|
| ① 1st Pinion | ⑥ 3rd Gear     | ⑪ 1st Bearing Cover | ⑯ Output Bearing       |
| ② 1st Gear   | ⑦ Output Shaft | ⑫ 2nd Bearing       | ⑰ Output Bearing Cover |
| ③ 2nd Pinion | ⑧ Oil Seal     | ⑬ 2nd Bearing Cover |                        |
| ④ 2nd Gear   | ⑨ Oil Seal     | ⑭ 3rd Bearing       |                        |
| ⑤ 3rd Pinion | ⑩ 1st Bearing  | ⑮ 3rd Bearing Cover |                        |



# JK-HT

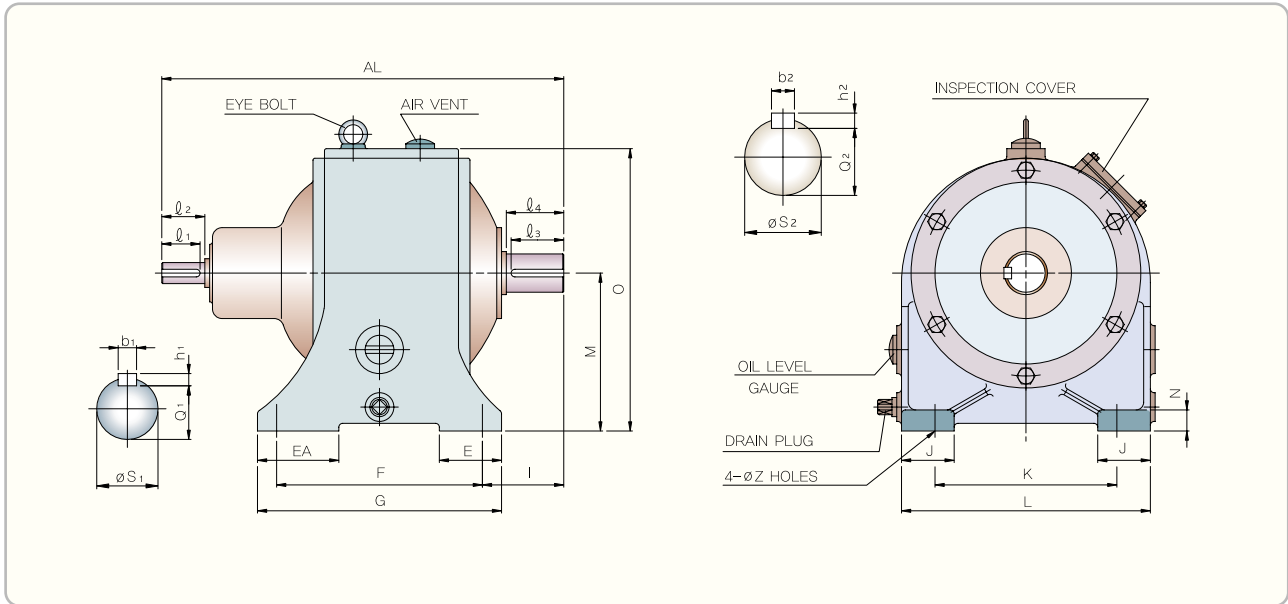


## Dimensions (A & B change according to the motor makers)

Note:  $\varnothing S_1, \varnothing S_2=48$  bellow h6, over m6

Gear Ratio	kW		Frame No.	A	B	C	D	E	EA	F	G	I	J	K	L
	4P	6P													
1/05 ~ 1/20	0.75	0.4	2080	480	230	185	65	65	85	215	255	85	55	190	260
	1.5	0.75	2080	528	278	185	65	65	85	215	255	85	55	190	260
	2.2	1.5	2080	547	297	185	65	65	85	215	255	85	55	190	260
	3.7	2.2	2095	594	304	215	75	70	90	240	280	100	60	240	310
	5.5	3.7	2110	669	349	240	80	75	105	275	325	105	65	260	340
	7.5	5.5	2125	754	384	275	95	85	115	320	370	120	65	320	400
	11	7.5	2125	824	454	275	95	85	115	320	370	120	65	320	400
	15	11	2150	953	498	330	125	100	130	380	440	155	80	370	470
	22	15	2150	1005	550	330	125	100	130	380	440	155	80	370	470
30	22	2175	1071	556	370	145	110	150	430	490	175	80	450	550	
1/21 ~ 1/30	0.75	0.4	2080	480	230	185	65	65	85	215	255	85	55	190	260
	1.5	0.75	2080	528	278	185	65	65	85	215	255	85	55	190	260
	2.2	1.5	2095	571	281	215	75	70	90	240	280	100	60	240	310
	3.7	2.2	2110	624	304	240	80	75	105	275	325	105	65	260	340
	5.5	3.7	2125	717	347	275	95	85	115	320	370	120	65	320	400
	7.5	5.5	2125	754	384	275	95	85	115	320	370	120	65	320	400
	11	7.5	2150	909	454	330	125	100	130	380	440	155	80	370	470
	15	11	2150	953	498	330	125	100	130	380	440	155	80	370	470
22	15	2175	1065	550	370	145	110	150	430	490	175	80	450	550	
1/31 ~ 1/60	0.75	0.4	3080	530	230	220	80	65	85	250	290	100	55	190	260
	1.5	0.75	3080	578	278	220	80	65	85	250	290	100	55	190	260
	2.2	1.5	3095	626	281	255	90	70	90	280	320	115	60	240	310
	3.7	2.2	3110	694	304	295	95	75	105	330	380	120	65	260	340
	5.5	3.7	3125	822	347	350	125	85	115	390	440	155	65	320	400
	7.5	5.5	3125	859	384	350	125	85	115	390	440	155	65	320	400
	11	7.5	3150	1044	454	435	155	100	130	480	540	190	80	370	470
	15	11	3150	1088	498	435	155	100	130	480	540	190	80	370	470
	22	15	3175	1210	550	495	165	110	150	550	610	200	80	450	550
	30	22	3210	1395	620	575	200	140	180	640	720	245	120	500	620
	37	30	3210	1395	620	575	200	140	180	640	720	245	120	500	620
	45	37	3260	1630	710	690	230	180	220	710	810	290	170	670	840
55	45	3260	1630	710	690	230	180	220	710	810	290	170	670	840	

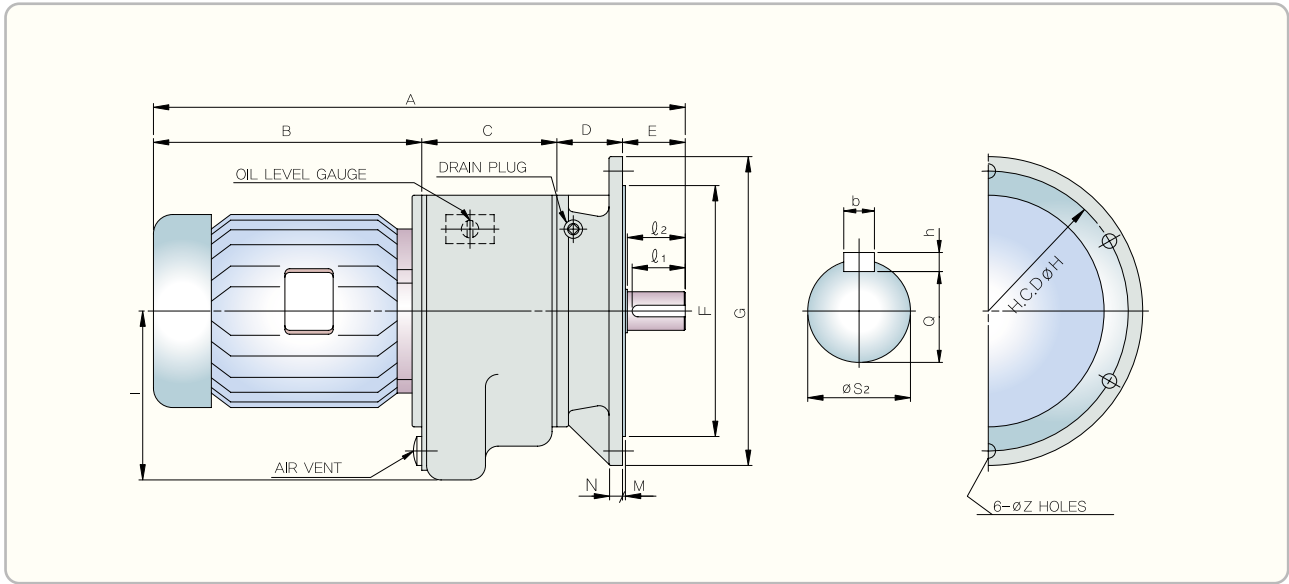
※ 감속비 1/60 초과시 별도 문의 요망



## Dimensions

M	N	O	Z	Out-Put					$Q_4$	AL	In-Put					$Q_2$	Weight(kg)	
				$S_2$	$Q_2$	$b_2$	$h_2$	$Q_3$			$S_1$	$Q_1$	$b_1$	$h_1$	$Q_1$		JK-HT	JK-LT
165	22	295	15	40	35	12	8	55	60	420	22	18	8	7	40	45	60	55
165	22	295	15	40	35	12	8	55	60	420	22	18	8	7	40	45	70	55
165	22	295	15	40	35	12	8	55	60	425	28	24	8	7	45	50	80	55
200	22	355	15	45	39.5	14	9	65	70	475	28	24	8	7	45	50	85	80
225	30	395	19	50	44.5	14	9	70	75	530	38	33	10	8	60	65	115	110
255	30	450	19	60	53	18	11	85	90	600	38	33	10	8	60	65	255	165
255	30	450	19	60	53	18	11	85	90	605	42	37	12	8	65	70	280	165
300	35	530	24	80	71	22	14	110	120	720	42	37	12	8	65	70	400	295
300	35	530	24	80	71	22	14	110	120	730	48	42.5	14	9	75	80	490	295
350	35	620	24	90	81	25	14	130	140	840	55	49	16	10	85	90	610	360
165	22	295	15	40	35	12	8	55	60	420	22	18	8	7	40	45	60	55
165	22	295	15	40	35	12	8	55	60	420	22	18	8	7	40	45	70	55
200	22	355	15	45	39.5	14	9	65	70	475	28	24	8	7	45	50	100	80
225	30	395	19	50	44.5	14	9	70	75	515	28	24	8	7	45	50	140	110
255	30	450	19	60	53	18	11	85	90	600	38	33	10	8	60	65	210	185
255	30	450	19	60	53	18	11	85	90	600	38	33	10	8	60	65	230	185
300	35	530	24	80	71	22	14	110	120	720	42	37	12	8	65	70	380	295
300	35	530	24	80	71	22	14	110	120	720	42	37	12	8	65	70	400	295
350	35	620	24	90	81	25	14	130	140	830	48	42.5	14	9	75	80	540	360
165	22	295	15	50	44.5	14	9	70	75	470	22	18	8	7	40	45	80	75
165	22	295	15	50	44.5	14	9	70	75	470	22	18	8	7	40	45	90	75
200	22	355	15	55	49	16	10	80	85	530	28	24	8	7	45	50	145	120
225	30	395	19	60	53	18	11	85	90	585	28	24	8	7	45	50	190	170
255	30	450	19	80	71	22	14	115	120	705	38	33	10	8	60	65	305	265
255	30	450	19	80	71	22	14	115	120	705	38	33	10	8	60	65	320	265
300	35	530	24	100	90	28	16	140	150	855	42	37	12	8	65	70	460	390
300	35	530	24	100	90	28	16	140	150	855	42	37	12	8	65	70	490	390
350	35	620	24	110	100	28	16	150	160	975	48	42.5	14	9	75	80	700	500
420	40	730	33	125	114	32	18	180	190	1140	55	49	16	10	80	85	950	680
420	40	730	33	125	114	32	18	180	190	1140	55	49	16	10	80	85	960	680
520	60	900	38	140	128	36	20	210	220	1320	60	53	18	11	85	90	1420	1000
520	60	900	38	140	128	36	20	210	220	1320	60	53	18	11	85	90	1450	1000

# JK-VT



## Dimensions (A & B change according to the motor makers)

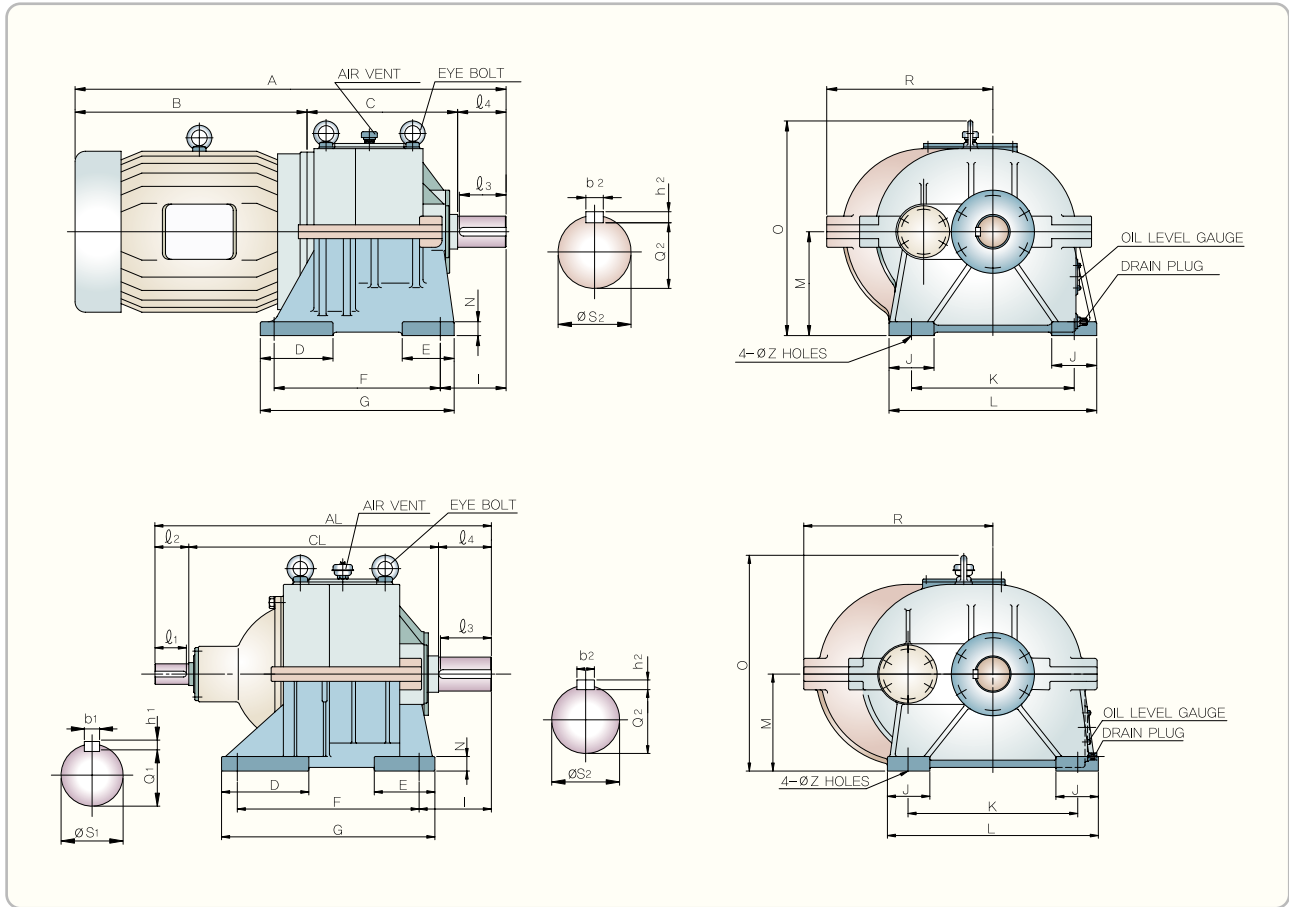
Note:  $\varnothing S_2=48$  bellow h6, over m6

Gear Ratio	kW		Frame No.	A	B	C	D	E	F	G	H	I	$l_2$	N	M	Z	Out-Put					Weight (kg)
	4P	6P															$S_2$	Q	b	h	$l_1$	
1/05 ~ 1/20	0.75	0.4	2080	503	230	140	68	65	260	320	290	175	60	14	3	15	40	35	12	8	55	80
	1.5	0.75	2080	551	278	140	68	65	260	320	290	175	60	14	3	15	40	35	12	8	55	90
	2.2	1.5	2080	570	297	140	68	65	260	320	290	175	60	14	3	15	40	35	12	8	55	105
	3.7	2.2	2095	612	304	165	68	75	290	350	320	202	70	14	5	15	45	39.5	14	9	65	135
	5.5	3.7	2110	694	349	185	80	80	320	380	350	230	75	16	5	15	50	44.5	14	9	70	185
	7.5	5.5	2125	774	384	215	80	95	370	440	405	258	90	18	5	19	60	53	18	11	85	290
	11	7.5	2125	844	454	215	80	95	370	440	405	258	90	18	5	19	60	53	18	11	85	315
	15	11	2150	988	498	260	100	130	440	510	475	307	120	18	5	19	80	71	22	14	110	440
	22	15	2150	1040	550	260	100	130	440	510	475	307	120	18	5	19	80	71	22	14	110	530
	30	22	2175	1111	556	295	110	150	510	590	550	360	140	25	5	24	90	81	25	14	130	660
37	30	2200	1360	700	370	140	150	620	720	670	430	140	30	5	26	90	81	25	14	135	710	
55	37	2250	1485	740	420	150	175	620	740	680	500	160	30	5	33	120	109	32	18	155	920	
1/21 ~ 1/30	0.75	0.4	2080	503	230	140	68	65	260	320	290	175	60	14	3	15	40	35	12	8	55	80
	1.5	0.75	2080	551	278	140	68	65	260	320	290	175	60	14	3	15	40	35	12	8	55	90
	2.2	1.5	2095	589	281	165	68	75	290	350	320	202	70	14	5	15	45	39.5	14	9	65	120
	3.7	2.2	2110	649	304	185	80	80	320	380	350	230	75	16	5	15	50	44.5	14	9	70	165
	5.5	3.7	2125	737	347	215	80	95	370	440	405	258	90	18	5	19	60	53	18	11	85	245
	7.5	5.5	2125	774	384	215	80	95	370	440	405	258	90	18	5	19	60	53	18	11	85	265
	11	7.5	2150	944	454	260	100	130	440	510	475	307	120	18	5	19	80	71	22	14	110	420
	15	11	2150	988	498	260	100	130	440	510	475	307	120	18	5	19	80	71	22	14	110	440
	22	15	2175	1105	550	295	110	150	510	590	550	360	140	25	5	24	90	81	25	14	130	590
	30	22	2200	1230	570	370	140	150	620	720	670	430	140	30	5	26	90	81	25	14	135	730
37	30	2250	1485	740	420	150	175	620	740	680	500	160	30	5	33	120	109	32	18	155	980	
1/31 ~ 1/60	0.75	0.4	3080	553	230	175	68	80	260	320	290	160	75	14	3	15	50	44.5	14	9	70	100
	1.5	0.75	3080	601	278	175	68	80	260	320	290	160	75	14	3	15	50	44.5	14	9	70	110
	2.2	1.5	3095	644	281	205	68	90	290	350	320	190	85	14	3	15	55	49	16	10	80	170
	3.7	2.2	3110	719	304	240	80	95	320	380	350	210	90	16	5	15	60	53	18	11	85	215
	5.5	3.7	3125	837	347	285	80	125	370	440	405	246	120	18	5	19	80	71	22	14	115	340
	7.5	5.5	3125	874	384	285	80	125	370	440	405	246	120	18	5	19	80	71	22	14	115	355
	11	7.5	3150	1074	454	360	100	160	440	510	475	290	150	18	5	19	100	90	28	16	140	500
	15	11	3150	1118	498	360	100	160	440	510	475	290	150	18	5	19	100	90	28	16	140	530
	22	15	3175	1245	550	415	110	170	510	590	550	339	160	25	5	24	110	100	28	16	150	750
	30	22	3210	1360	550	485	125	200	630	740	675	408	190	30	5	24	125	114	32	18	180	960
37	30	3210	1438	628	485	125	200	630	740	675	408	190	30	5	24	125	114	32	18	180	980	

\* 감속비 1/60 초과시 별도 문의 요망



# JK-BT, BC



## Dimensions (A & B change according to the motor makers)

Note:  $\varnothing S_1, \varnothing S_2=48$  bellow h6, over m6

Gear Ratio	kW		Frame No.	A	B	C	D	E	F	G	I	J	K	L	M	N	O	R	Z
	4P	6P																	
1/21 ~ 1/30	30	22	2200	1165	590	435	210	150	480	560	190	130	470	600	300	40	620	480	28
	37	30	2225	1225	600	475	230	170	520	600	205	140	500	630	315	40	670	530	28
	55	37	2260	1370	680	530	260	200	570	670	220	150	550	700	340	50	730	590	35
	75	55	2300	1520	770	570	310	230	650	750	245	160	610	760	350	50	850	695	35
1/05 ~ 1/20	30	22	2200	1165	590	435	210	150	480	560	190	130	470	600	300	40	620	480	28
	37	30	2225	1225	600	475	230	170	520	600	205	140	500	630	315	40	670	530	28
	55	37	2260	1370	680	530	260	200	570	670	220	150	550	700	340	50	730	590	35
	75	55	2300	1520	770	570	310	230	650	750	245	160	610	760	350	50	850	695	35

Gear Ratio	kW		Frame No.	Out-Put						AL	CL	In-Put						Weight(kg)	
	4P	6P		S <sub>2</sub>	Q <sub>2</sub>	b <sub>2</sub>	h <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>			S <sub>1</sub>	Q <sub>1</sub>	b <sub>1</sub>	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	JK-BT	JK-BC
1/21 ~ 1/30	30	22	2200	90	81	25	14	135	140	900	680	50	44.5	14	9	75	80	810	600
	37	30	2225	100	90	28	16	145	150	965	735	50	44.5	14	9	75	80	980	700
	55	37	2260	110	99	32	18	155	160	1060	810	60	53	18	11	85	90	1340	920
	75	55	2300	130	119	32	18	170	180	1180	880	75	67.5	20	12	110	120	1650	1150
1/05 ~ 1/20	30	22	2200	90	81	25	14	135	140	900	680	50	44.5	14	9	75	80	830	600
	37	30	2225	100	90	28	16	145	150	965	735	50	44.5	14	9	75	80	1120	700
	55	37	2260	110	99	32	18	155	160	1060	810	60	53	18	11	85	90	1380	920
	75	55	2300	130	119	32	18	170	180	1180	880	75	67.5	20	12	110	120	1880	1150

# 최신 설비 및 검사장비

수직선반



TNL-80V-2 (KOREA)

머시닝센터



KH63G (KOREA)

HOFLER 연마기



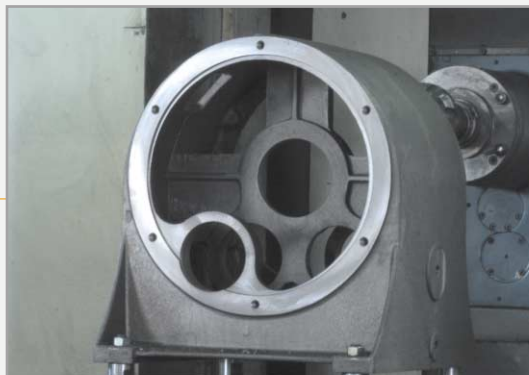
H1000E (GERMANY)



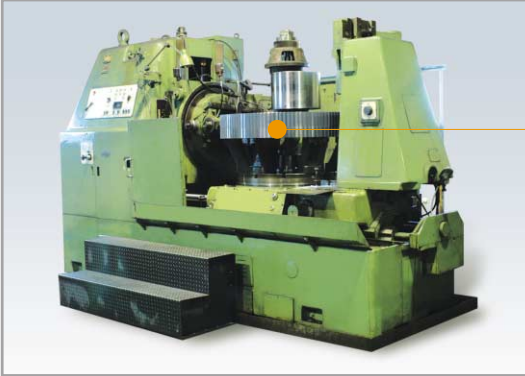
머시닝센터



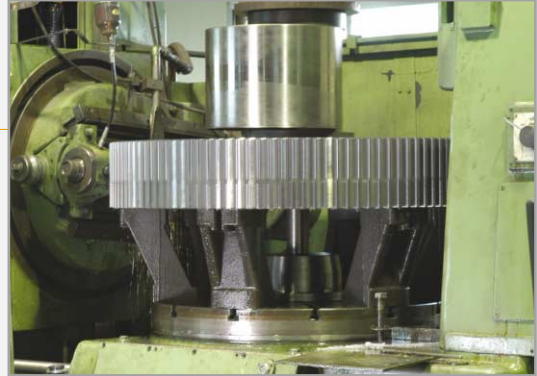
ACE-H80 (KOREA)



## 대형 HOBBING



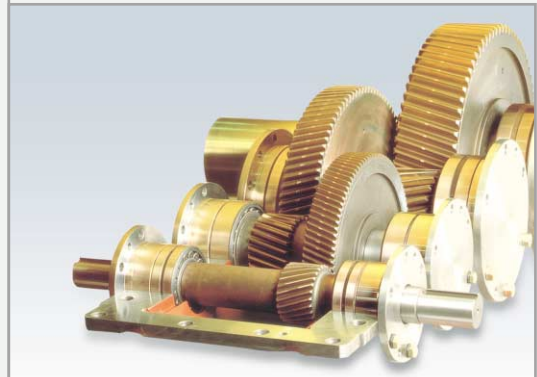
Ø 1500 (GERMANY)



## CNC 테스터



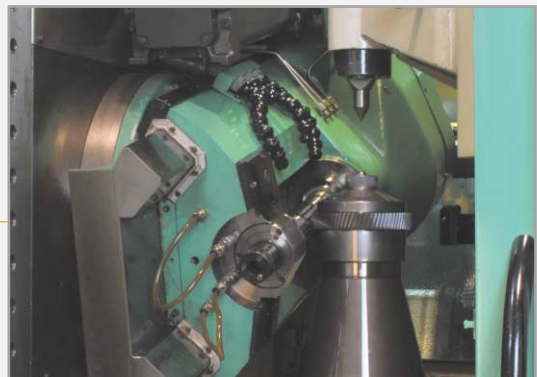
TTI-450E (JAPAN)



## CNC 호빙/스카이빙 머신



RICHARDON R300 (GERMANY)



# GEAR BOX [JK-CS]

## NORMAL POWER RATINGS

### 허용 전달 용량표

(Unit : kW)

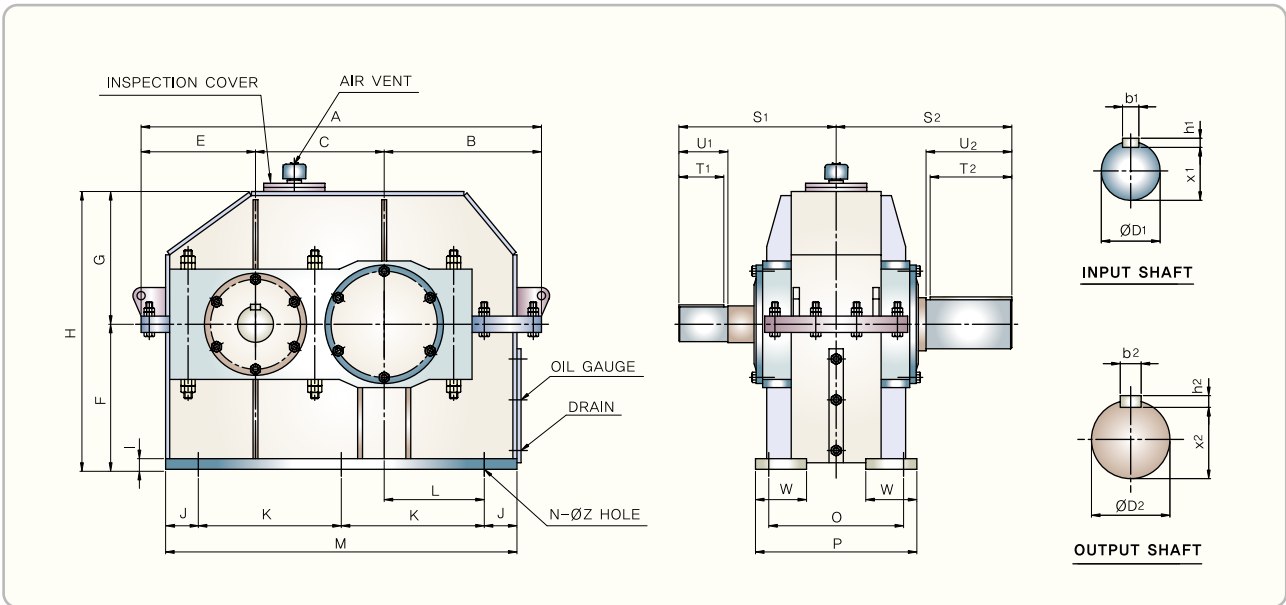
Ratio	n1 [ min <sup>-1</sup> ] r.p.m.	n2	Gear Reducer Frame No.											
			125	160	200	250	280	315	355	400	450	500	560	630
			Transmitting Power											
1.25	1800	1440	230	465	830	1565	-	-	-	-	-	-	-	
	1200	960	160	310	560	1050	-	-	-	-	-	-	-	
	900	720	120	235	420	795	-	-	-	-	-	-	-	
	720	576	110	200	360	610	-	-	-	-	-	-	-	
1.4	1800	1285	230	430	760	1500	-	-	-	-	-	-	-	
	1200	857	155	290	510	1010	-	-	-	-	-	-	-	
	900	642	115	220	380	765	-	-	-	-	-	-	-	
	720	514	105	195	330	580	-	-	-	-	-	-	-	
1.6	1800	1125	215	390	700	1390	1750	2100	2800	-	-	-	-	
	1200	750	150	270	470	935	1210	1420	2050	-	-	-	-	
	900	562	115	205	360	705	930	1070	1610	-	-	-	-	
	720	450	100	190	310	570	790	960	1290	-	-	-	-	
1.8	1800	1000	210	365	640	1270	1560	2000	2660	-	-	-	-	
	1200	666	140	255	430	860	1130	1360	1850	-	-	-	-	
	900	500	105	198	330	650	890	1030	1420	-	-	-	-	
	720	400	98	185	280	530	740	920	1210	-	-	-	-	
2	1800	900	180	345	600	1140	1490	1850	2530	-	-	-	-	
	1200	600	125	235	420	790	1020	1260	1720	-	-	-	-	
	900	450	100	180	320	610	770	960	1300	1980	2830	3510	-	
	720	360	89	165	270	500	670	840	1120	1660	2450	3160	4160	
2.24	1800	803	165	325	540	1090	1300	1700	2310	-	-	-	-	
	1200	535	115	224	360	750	880	1160	1600	-	-	-	-	
	900	401	90	170	270	570	730	880	1230	1790	2600	3290	-	
	720	321	82	155	240	460	650	785	1040	1540	2290	2910	3750	
2.5	1800	720	150	300	480	1010	1210	1530	2160	-	-	-	-	
	1200	480	110	205	330	710	850	1090	1500	-	-	-	-	
	900	360	85	155	250	540	660	840	1150	1680	2370	3140	-	
	720	288	77	140	230	420	590	730	960	1450	2080	2750	3500	
2.8	1800	642	135	270	450	940	1100	1410	1960	-	-	-	-	
	1200	428	95	188	305	640	780	960	1350	-	-	-	-	
	900	321	72	144	230	485	600	740	1030	1490	2220	2900	-	
	720	257	62	130	210	400	530	660	870	1290	1960	2580	3250	
3.15	1800	571	113	250	430	860	1050	1320	1740	2500	3540	4660	-	
	1200	380	78	170	280	580	720	900	1230	1740	2580	3330	-	
	900	285	60	130	215	440	550	680	960	1340	2030	2600	3440	
	720	228	51	115	190	350	510	610	810	1160	1790	2290	3080	
3.55	1800	507	108	218	390	780	940	1220	1590	2280	3240	4130	-	
	1200	338	74	152	265	530	650	830	1130	1620	2370	3000	-	
	900	253	56	117	200	400	500	630	880	1260	1870	2370	3360	
	720	202	48	100	180	320	440	550	750	1120	1670	2080	3000	
4	1800	450	90	190	360	740	900	1120	1440	2090	2960	3760	-	
	1200	300	62	130	255	490	620	760	1030	1480	2150	2690	-	
	900	225	47	100	190	370	470	580	800	1150	1680	2100	3290	
	720	180	40	83	170	290	420	510	690	1000	1500	1880	2910	
4.5	1800	400	66	165	320	640	840	1080	1270	1880	2550	3200	-	
	1200	266	46	114	220	430	590	720	940	1260	1780	2390	-	
	900	200	35	87	165	330	450	550	750	960	1380	1900	2980	
	720	160	29	83	150	260	400	470	640	800	1170	1620	2500	
5	1800	360	59	148	265	540	710	950	1200	1700	2440	3040	4620	
	1200	240	41	102	175	380	490	650	840	1190	1720	2220	3200	
	900	180	31.5	77	130	290	380	500	650	920	1340	1760	2450	
	720	144	26.5	65	110	220	320	420	570	750	1120	1450	2160	
5.6	1800	321	51	125	235	480	590	860	1030	1500	2070	2800	4000	
	1200	214	35	85	160	320	420	580	750	1050	1410	1880	2730	
	900	160	27	65	125	240	330	440	590	800	1070	1410	2060	
	720	128	23	55	105	180	270	360	500	670	870	1160	1750	
6.3	1800	285	48	99	190	390	520	710	920	1260	1880	2220	3230	
	1200	190	33	69	130	260	370	470	680	860	1270	1500	2210	
	900	142	26	53	99	200	290	360	540	660	960	1150	1830	
	720	114	22	45	88	150	240	290	420	540	790	960	1370	

### Thermal Capacities

(Unit : kW)

Ratio	n1 [ min <sup>-1</sup> ] <sup>-1</sup>	Gear Reducer Frame No.											
		125	160	200	250	280	315	355	400	450	500	560	630
		Thermal Power											
Without cooling	720~1800	31	44	62	90	108	128	162	198	260	310	380	520

**PARALLEL SHAFT TYPE**



**Dimensions**

(mm)

Frame No.	A	B	C	E	F	G	H	I	J	K	L	M	O	P	N	Z	W
CS 125	410	160	125	125	160	130	290	20	30	290	100	350	180	210	4	14	50
CS 160	515	202	160	153	200	180	380	20	45	355	122	445	200	245	4	18	65
CS 200	625	245	200	180	250	230	480	26	60	425	145	545	250	310	4	23	75
CS 250	760	295	250	215	315	300	615	26	60	275	190	670	300	370	6	27	95
CS 280	840	330	280	230	330	310	640	26	60	310	220	740	310	380	6	27	120
CS 315	980	385	315	280	355	325	680	26	80	350	245	860	330	400	6	27	125
CS 355	1050	410	355	285	420	390	810	30	80	385	270	930	350	430	6	33	130
CS 400	1160	455	400	305	450	400	850	30	95	425	300	1040	380	480	6	39	140
CS 450	1270	495	450	325	500	460	960	35	100	475	335	1150	410	510	6	39	140
CS 500	1420	560	500	360	560	490	1050	35	105	540	390	1290	450	550	6	39	150
CS 560	1570	620	560	390	630	540	1170	40	120	600	435	1440	500	600	6	39	150
CS 630	1810	700	630	480	710	610	1320	40	120	710	505	1660	580	690	6	45	180

Frame No.	S <sub>1</sub>	U <sub>1</sub>	T <sub>1</sub>	D <sub>1</sub>	b <sub>1</sub>	h <sub>1</sub>	x <sub>1</sub>	S <sub>2</sub>	U <sub>2</sub>	T <sub>2</sub>	D <sub>2</sub>	b <sub>2</sub>	h <sub>2</sub>	x <sub>2</sub>	Weight (kg)	Oil (liter)
CS 125	220	90	85	50m6	14	9	44.5	220	90	85	55m6	16	10	49	90	2.5
CS 160	245	105	100	60m6	18	11	53	245	105	100	65m6	18	11	58	140	4
CS 200	280	120	115	75m6	20	12	67.5	300	140	135	80m6	22	14	71	200	6.2
CS 250	355	160	155	90m6	25	14	81	355	160	155	95m6	25	14	86	340	9.5
CS 280	380	180	175	100m6	28	16	90	390	180	175	110m6	28	16	100	420	12.8
CS 315	385	180	175	110n6	28	16	100	430	210	205	120n6	32	18	109	510	17.5
CS 355	440	210	215	120n6	32	18	109	475	240	235	130n6	32	18	119	780	23.6
CS 400	490	240	235	130n6	32	18	119	490	240	235	150n6	36	20	138	965	36.2
CS 450	530	240	235	140n6	36	20	128	590	300	295	180n6	45	25	165	1520	48.4
CS 500	540	240	235	150n6	36	20	138	605	300	295	190n6	45	25	175	1690	67.5
CS 560	600	270	265	170n6	40	22	157	680	350	345	210n6	50	28	193	2240	102.6
CS 630	670	300	295	180n6	45	25	165	780	410	405	250n6	56	32	230	3075	152



# GEAR BOX [JK-CD]

## NORMAL POWER RATINGS

### 허용 전달 용량표

(Unit : kW)

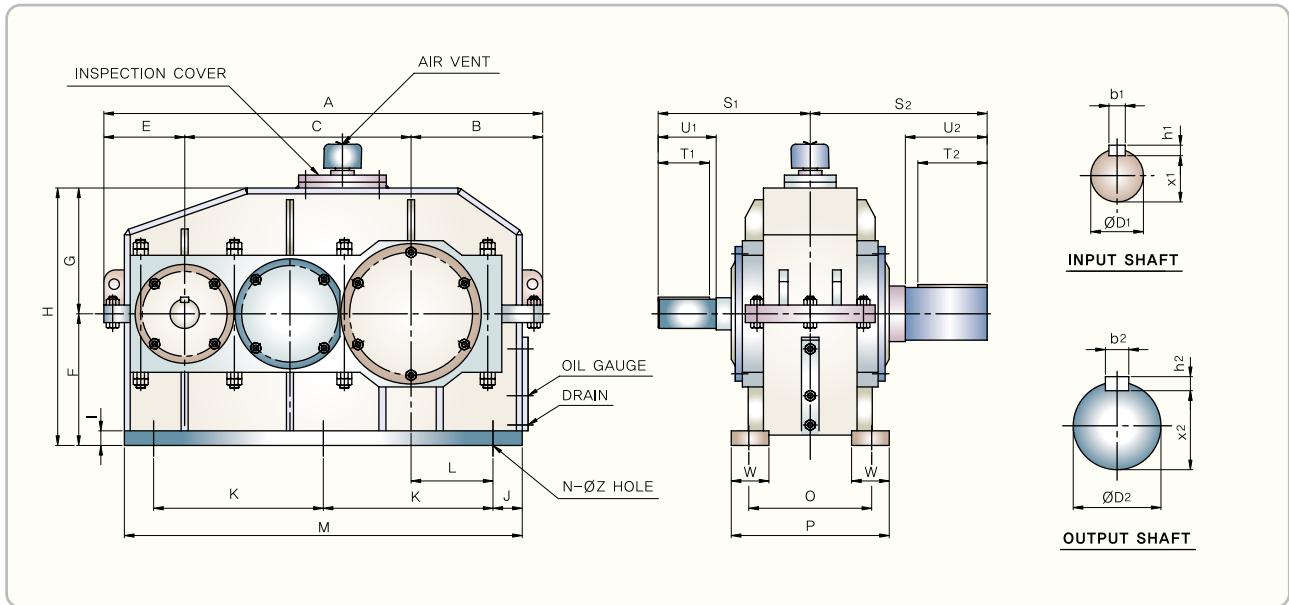
Ratio	n1 [ min <sup>-1</sup> ] r.p.m.	n2	Gear Reducer Frame No.														
			240	272	305	340	385	430	480	540	605	680	765	855	960	1080	1210
			Transmitting Power														
6.3	1800	285.7	70	105	150	223	290	420	560	780	1050	1400	1940	3300	4500	6200	8100
	1200	190.4	49	72	100	155	206	290	390	550	760	1050	1400	2300	3100	4400	6200
	900	142.8	39	54	85	112	160	220	300	420	600	830	1100	1800	2500	3400	4700
	720	114.2	31	43	68	93	134	190	250	350	500	710	910	1500	2050	2820	3900
7.1	1800	253.5	63	94	145	200	290	380	500	690	1000	1200	1700	3000	4200	5400	7100
	1200	169	44	64	100	135	190	265	350	470	710	970	1200	2100	2950	3850	5600
	900	126.7	35	49	77	102	150	200	270	360	540	760	940	1600	2300	3000	4400
	720	101.4	28	39	63	89	128	170	220	300	440	610	780	1350	1900	2450	3600
8	1800	225	59	85	135	185	245	330	450	630	890	1100	1500	2600	3600	4800	6300
	1200	150	40	61	90	125	170	240	320	440	630	850	1000	1800	2550	3400	4900
	900	112.5	31	45	69	94	132	190	240	340	480	660	820	1400	2000	2650	3800
	720	90	26	36	57	79	102	150	200	280	390	540	680	1150	1600	2150	3100
9	1800	200	54	78	125	160	230	315	410	600	840	1050	1450	2500	3500	4600	6000
	1200	133.3	38	56	83	115	165	220	290	420	580	800	980	1700	2450	3300	4700
	900	100	30	43	64	85	125	170	230	330	460	630	800	1300	1900	2600	3600
	720	80	24	33	53	68	97	135	185	270	370	520	650	1050	1500	2000	3000
10	1800	180	47	70	105	148	200	290	360	520	740	1000	1350	2200	3000	4200	5400
	1200	120	33	49	70	100	145	190	250	370	520	730	950	1500	2150	3040	4200
	900	90	26	39	54	78	108	150	195	290	410	570	750	1200	1650	2400	3300
	720	72	21	29	45	64	88	125	165	230	330	470	610	980	1300	1900	2700
11.2	1800	160.7	42	62	96	126	175	260	330	470	670	890	1150	1900	2600	3650	4600
	1200	107.1	29	44	66	90	123	170	230	330	480	640	800	1300	1850	2550	3700
	900	80.3	23	34	51	70	97	135	180	260	360	500	640	1050	1450	2000	2900
	720	64.2	18.8	26	41	57	78	110	150	210	290	400	520	850	1150	1640	2350
12.5	1800	144	37	55	82	110	153	220	290	430	580	810	1000	1700	2300	3100	4100
	1200	96	26	38	54	77	109	155	200	290	410	570	700	1200	1650	2150	3200
	900	72	20	30	41	59	86	120	160	230	315	440	570	910	1300	1700	2500
	720	57.6	16.4	23	35	49	68	100	130	185	250	360	460	750	1050	1400	2050
14	1800	128.5	33	50	74	100	150	200	270	400	530	720	990	1600	2200	3000	4000
	1200	85.7	23	34	49	69	105	140	185	270	380	520	680	1100	1500	2050	3000
	900	64.2	18.4	27	37	54	79	110	145	200	300	400	550	850	1200	1600	2300
	720	51.5	14.8	19	31	44	66	90	120	170	230	330	440	700	970	1300	1900
16	1800	112.5	28	42	66	87	130	175	240	340	460	640	860	1400	1900	2650	3800
	1200	75	19.5	30	44	62	92	120	170	220	330	460	600	1000	1350	1850	2700
	900	56.2	15.4	24	33	49	69	95	130	180	260	360	470	750	1000	1400	2100
	720	45	12.4	18	18	39	58	78	100	145	210	290	380	620	850	1150	1700
18	1800	100	26	41	60	83	115	160	220	310	420	580	800	1200	1700	2350	3400
	1200	66.6	18.0	28	40	56	80	105	150	210	300	410	560	850	1200	1630	2400
	900	50	14.2	22	30	44	60	80	115	165	230	320	440	650	940	1250	1800
	720	40	11.6	15.7	25	35	50	67	90	140	185	270	360	530	760	1000	1500
20	1800	90	22	39	56	70	105	145	200	260	380	520	700	1100	1500	2200	2800
	1200	60	16.2	26.5	37	50	74	95	140	185	265	360	480	750	1050	1500	2000
	900	45	12.7	21	28	37	56	75	105	145	200	290	380	580	840	1150	1600
	720	36	10	14.6	23	30	46	62	85	110	170	240	320	480	680	950	1300

### Thermal Capacities

(Unit : kW)

Ratio	n1 [ min <sup>-1</sup> ]	Gear Reducer Frame No.														
		240	272	305	340	385	430	480	540	605	680	765	855	960	1080	1210
		Thermal Power														
Without cooling	720~1800	37	50	62	80	100	125	160	200	260	340	430	540	690	900	1150

**PARALLEL SHAFT TYPE**



**Dimensions**

(mm)

Frame No.	A	B	C	E	F	G	H	I	J	K	L	M	O	P	N	Z	W
CD 240	530	172	240	118	160	145	305	20	30	205	112	470	210	240	6	14	50
CD 272	600	195	272	133	180	155	335	20	45	225	120	540	240	280	6	18	70
CD 305	660	215	305	140	200	170	370	20	40	250	135	580	260	300	6	18	70
CD 340	730	240	340	150	225	190	415	26	45	280	155	650	280	330	6	23	80
CD 385	810	265	385	160	250	210	460	26	50	315	175	730	320	370	6	23	90
CD 430	890	290	430	170	280	240	520	26	50	355	200	810	360	430	6	27	90
CD 480	1000	325	480	195	315	270	585	30	50	400	225	900	390	450	6	27	90
CD 540	1110	365	540	205	355	300	655	30	70	430	240	1000	430	510	6	33	100
CD 605	1210	395	605	210	400	340	740	30	70	480	270	1100	470	550	6	33	100
CD 680	1380	440	680	260	450	390	840	35	80	555	305	1270	520	610	6	39	150
CD 765	1530	490	765	275	500	440	940	35	80	625	350	1410	580	670	6	39	150
CD 855	1690	535	855	300	530	485	1015	35	80	470	395	1570	630	720	8	39	150
CD 960	1860	590	960	310	600	540	1140	35	90	520	440	1740	700	790	8	39	150
CD 1080	2080	660	1080	340	670	610	1280	40	95	590	505	1960	770	870	8	45	180
CD 1210	2350	745	1210	395	750	680	1430	40	95	670	575	2200	850	950	8	45	180

Frame No.	S1	U1	T1	D1	b1	h1	x1	S2	U2	T2	D2	b2	h2	x2	Weight (kg)	Oil (liter)
CD 240	225	60	55	30m6	8	7	26	270	105	100	65m6	20	12	57.5	100	6
CD 272	235	60	55	35m6	10	8	30	295	120	115	70m6	20	12	62.5	135	8
CD 305	255	60	55	40m6	12	8	35	345	140	135	85m6	25	14	76	190	11
CD 340	285	70	65	45m6	14	9	39.5	385	160	155	90m6	25	14	81	255	15
CD 385	300	80	75	50m6	14	9	44.5	410	180	175	100m6	28	16	90	350	21
CD 430	330	90	85	55m6	16	10	49	430	180	175	110n6	32	18	99	470	30
CD 480	365	105	100	60m6	18	11	53	480	210	205	130n6	36	20	118	580	39
CD 540	400	120	115	70m6	20	12	62.5	530	240	235	140n6	36	20	128	810	53
CD 605	450	140	135	80m6	22	14	71	590	270	265	160n6	40	22	147	1080	82
CD 680	495	160	155	90m6	25	14	81	655	310	305	180n6	45	25	165	1490	105
CD 765	560	180	175	100m6	28	16	90	740	350	345	200n6	45	25	185	2100	180
CD 855	590	180	175	110n6	32	18	99	820	400	395	230n6	50	28	213	2890	215
CD 960	665	210	205	120n6	32	18	109	915	450	445	260n6	56	32	240	3900	340
CD 1080	740	240	235	140n6	36	20	128	1010	500	495	280n6	63	32	260	5600	450
CD 1210	830	270	265	160n6	40	22	147	1120	550	545	320n6	70	36	298	7200	615

# GEAR BOX [JK-CT]

## NORMAL POWER RATINGS

### 허용 전달 용량표

(Unit : kW)

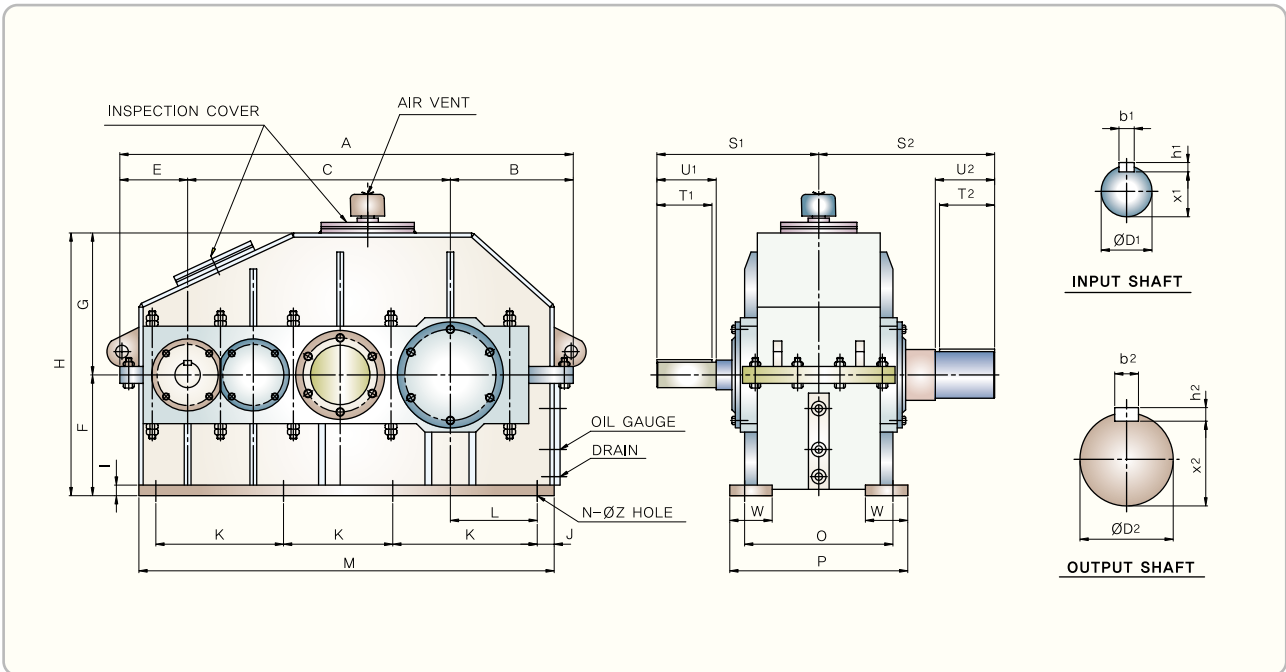
Ratio	n1	n2	Gear Reducer Frame No.															
			[ min <sup>-1</sup> ] r.p.m.		400	440	497	555	620	700	785	880	990	1105	1240	1395	1565	1760
			Transmitting Power															
22.4	1800	80.3	53	62	90	135	185	275	370	486	720	1080	1450	1900	2800	3760		
	1200	53.5	35	47	63	92	130	180	270	360	475	760	1040	1370	2040	2850		
	900	40.1	27	37	50	71	97	142	200	270	385	580	770	1010	1440	2020		
	720	32.1	22	30	41	60	78	112	175	225	325	490	650	850	1220	1760		
25	1800	72	47	55	80	115	160	245	333	435	640	950	1290	1730	2490	3500		
	1200	48	30	39	56	80	110	160	255	320	420	680	940	1220	1790	3600		
	900	36	23	31	44	62	82	123	190	240	340	530	730	940	1340	1950		
	720	28.8	19.5	24.5	35	51	68	100	160	195	285	440	580	780	1080	1580		
28	1800	64	43	50	72	110	145	225	297	387	565	820	1120	1510	2180	3150		
	1200	42	28	36	50	73	100	145	218	270	385	570	825	1060	1620	2380		
	900	32	21	28	39	57	75	112	170	210	300	445	630	800	1170	1710		
	720	25	18	22	31	47	61	92	130	170	240	370	510	660	970	1400		
31.5	1800	57	38	43	63	95	130	200	265	360	510	755	1030	1380	1970	2890		
	1200	38	25	31	44	63	88	135	190	260	340	530	750	1020	1390	2000		
	900	28	19	24	34	49	66	101	150	205	260	400	570	770	1070	1550		
	720	22	16	20	28	41	52	80	120	165	215	330	460	600	860	1260		
35.5	1800	50	34	41	56	88	120	180	250	325	465	700	950	1250	1880	2700		
	1200	33	22.5	28	39	59	82	120	170	225	315	490	690	920	1290	1830		
	900	25	17	22	30	46	61	90	140	180	245	365	510	670	970	1380		
	720	20	14	18	25	37	49	72	115	145	200	300	410	540	790	1110		
40	1800	45	30	38	51	79	110	160	215	290	420	630	850	1120	1680	2380		
	1200	30	20	26	36	53	73	105	150	200	280	440	610	820	1130	1620		
	900	22	15.5	20	27	41	54	82	125	160	220	325	460	600	870	1240		
	720	18	12.5	17.5	22	34	44	65	100	130	180	270	370	485	720	1000		
45	1800	40	26	32	45	70	98	145	200	255	355	530	760	990	1510	2120		
	1200	26	17.5	23	31	47	65	92	140	180	250	370	560	730	1080	1580		
	900	20	13	18.5	24	37	48	72	112	142	195	285	410	530	800	1110		
	720	16	11	14.5	20	30	40	60	92	115	160	240	335	440	640	900		
50	1800	36	23	28	41	63	87	130	180	225	330	500	640	870	1340	1940		
	1200	24	16	20	29	43	60	83	125	160	220	330	460	620	920	1320		
	900	18	12	16	22	34	45	65	100	125	170	255	345	470	700	1010		
	720	14.4	10	12.5	18	27	35	52	80	103	140	210	290	385	570	820		
56	1800	32	20	24	36	56	78	115	158	200	285	450	600	790	1210	1680		
	1200	21	14	18	25	38	53	75	110	140	190	310	440	570	800	1160		
	900	16	10.5	14	19	30	39	58	90	112	150	235	330	430	630	900		
	720	12.8	8.5	11.5	16	24	32	47	73	92	120	190	265	355	510	710		
63	1800	28	19	21	31	45	63	105	135	190	260	395	540	700	1080	1510		
	1200	19	12	15	23	32	43	70	95	125	175	280	405	520	750	1100		
	900	14.2	8.2	12	17	24	32	52	80	100	135	210	300	380	560	770		
	720	11.4	7.2	9.5	14	20	26	42	62	85	110	170	245	315	450	640		
71	1800	25	16	18.5	27	40	57	91	122	162	225	360	480	640	950	1340		
	1200	16.9	10	13.5	20	28	39	61	88	114	150	250	360	470	660	970		
	900	12.6	7.5	10.5	16	21	29	45	70	90	115	185	260	350	490	700		
	720	10.1	6.2	8.5	12.5	18	23	36	56	75	95	150	210	280	400	560		
80	1800	22	14	17	25	36	52	82	110	155	205	315	420	560	830	1210		
	1200	15	9.5	12	18	26	35	52	78	100	140	220	320	420	600	870		
	900	11.2	7	9.5	14	19	26	41	62	80	105	165	230	310	430	630		
	720	9	5.8	7.8	11	16	21	33	50	66	85	135	190	250	360	500		
90	1800	20	12	15	23	33	47	75	100	130	185	285	400	520	760	1080		
	1200	13.5	8.5	11	16	24	31	47	70	92	125	190	280	365	515	730		
	900	10	6	8.8	12.5	17	23	37	55	72	95	150	210	280	390	550		
	720	8	5.3	7	10.5	14.5	19	30	45	58	75	120	170	225	310	450		

### Thermal Capacities

(Unit : kW)

Ratio	n1 [ min ] <sup>-1</sup>	Gear Reducer Frame No.													
		400	440	497	555	620	700	785	880	990	1105	1240	1395	1565	1760
		Thermal Power													
Without cooling	720~1800	47	58	75	94	120	150	190	250	320	400	500	620	760	960

PARALLEL SHAFT TYPE



Dimensions

(mm)

Frame No.	A	B	C	E	F	G	H	I	J	K	L	M	O	P	N	Z	W
CT 400	720	210	400	110	200	180	380	20	45	190	135	660	260	300	8	18	70
CT 440	810	240	440	130	225	200	425	26	55	210	150	740	290	350	8	23	80
CT 497	905	268	497	140	250	225	475	26	55	235	168	815	310	370	8	23	80
CT 555	995	290	555	150	280	250	530	27	60	265	190	915	360	420	8	27	95
CT 620	1080	300	620	160	300	280	580	27	65	290	195	1000	390	450	8	27	100
CT 700	1200	325	700	175	320	300	620	30	75	320	205	1110	430	500	8	33	110
CT 785	1320	355	785	180	350	320	670	30	75	360	235	1230	470	540	8	33	110
CT 880	1460	395	880	185	390	360	750	35	85	400	265	1370	520	600	8	39	130
CT 990	1660	445	990	225	430	400	830	35	85	460	305	1550	580	660	8	39	150
CT 1105	1805	490	1105	210	470	430	900	35	85	505	345	1685	630	740	8	45	170
CT 1240	1985	540	1240	205	520	490	1010	35	85	565	395	1865	700	810	8	45	170
CT 1395	2225	605	1395	225	570	550	1120	40	95	635	445	2095	780	910	8	52	190
CT 1565	2460	665	1565	230	650	620	1270	40	85	720	515	2330	870	1000	8	52	190
CT 1760	2925	830	1760	335	800	760	1560	40	100	855	650	2765	1000	1130	8	52	190

Frame No.	S <sub>1</sub>	U <sub>1</sub>	T <sub>1</sub>	D <sub>1</sub>	b <sub>1</sub>	h <sub>1</sub>	x <sub>1</sub>	S <sub>2</sub>	U <sub>2</sub>	T <sub>2</sub>	D <sub>2</sub>	b <sub>2</sub>	h <sub>2</sub>	x <sub>2</sub>	Weight (kg)	Oil (liter)
CT 400	245	50	45	28m6	8	7	24	345	140	135	85m6	25	14	76	220	14
CT 440	275	60	55	32m6	10	8	27	385	160	155	95m6	28	16	85	290	20
CT 497	280	60	55	38m6	12	8	33	410	180	175	100m6	28	16	90	390	26
CT 555	310	70	65	42m6	12	8	37	430	180	175	110n6	32	18	99	540	36
CT 620	340	80	75	48m6	14	9	42.5	480	210	205	130n6	36	20	118	640	54
CT 700	370	90	85	55m6	16	10	49	530	240	235	140n6	36	20	128	890	75
CT 785	415	105	100	60m6	18	11	53	590	270	265	170n6	45	25	155	1190	115
CT 880	440	105	100	65m6	20	12	57.5	655	310	305	180n6	45	25	165	1660	160
CT 990	500	120	115	70m6	20	12	62.5	740	350	345	210n6	50	28	193	2250	210
CT 1105	550	140	135	80m6	22	14	71	820	400	395	240n6	56	32	220	3210	285
CT 1240	615	160	155	95m6	28	16	85	915	450	445	270n6	63	32	250	4340	450
CT 1395	680	180	175	110n6	32	18	99	1010	500	495	300n6	70	36	278	6120	520
CT 1565	770	210	205	120n6	32	18	109	1120	550	545	340n6	80	40	315	7900	750
CT 1760	980	240	235	140n6	36	20	128	1280	620	615	390n6	80	45	362	10900	980

# GEAR BOX [JK-CQ]

## NORMAL POWER RATINGS

### 허용 전달 용량표

(Unit : kW)

Ratio	n1	n2	Gear Reducer Frame No.												
			[ min <sup>-1</sup> ] r.p.m.		440	497	555	620	700	785	880	990	1105	1240	1395
			Transmitting Power												
100	1800	18	15	21	32	42	62	90	120	170	258	360	500		
	1200	12	10	14	23	28	41	63	82	120	175	250	345		
	900	9	8	11.2	16.5	22	32	50	65	80	138	198	270		
	720	7.2	6.2	9.2	14	18	25.4	40	53	72	110	164	216		
112	1800	16	13.5	19	29	38	56	80	105	150	230	340	450		
	1200	10.7	9.2	13	20	26	38	56	74	110	160	225	305		
	900	8	7.1	10	15.5	20	30	44	58	82	122	180	240		
	720	6.4	5.4	8	12.8	16.5	23.5	36	47	62	95	148	196		
125	1800	14.4	11	17	26	34	49	73	95	135	210	300	400		
	1200	9.6	7.3	11.5	18	23	34	51	67	95	147	200	275		
	900	7.2	6	9.3	13.5	18	26	41	53	75	114	160	213		
	720	5.7	4.8	7.4	11.3	14.7	21.7	33	43	60	92	132	172		
140	1800	12.8	11	16	23	32	46	65	85	122	185	270	360		
	1200	8.5	6.9	10.5	17	21.5	31	45	58	85	130	185	245		
	900	6.4	5.4	8.2	12.5	16	24	36	46	65	100	146	190		
	720	5.1	4.4	6.7	10.2	13.2	19	29	37	54	84	116	152		
160	1800	11.2	9.6	14.5	20	28	41	58	75	110	165	240	330		
	1200	7.5	6.1	9.2	14.5	18	27.5	41	52	75	114	160	220		
	900	5.6	4.8	7.2	11	14	21	32	41	60	90	127	168		
	720	4.5	3.8	6.0	8.5	11.5	17.2	26	33	48	72	105	136		
180	1800	10	8.4	13	19	25	37	52	65	95	145	215	290		
	1200	6.6	5.3	8.3	13.5	17	25	36	45	66	100	145	190		
	900	5	4.2	6.5	10	13	19	29	36	51	76	112	150		
	720	4	3.3	5.2	8.1	10.7	15.2	24	28	42	65	92	124		
200	1800	9	7.5	12	15.5	22	33	47	60	85	132	195	260		
	1200	6	4.7	7.6	11.8	14.5	22	32	41	60	92	130	175		
	900	4.5	3.7	6.0	8.2	11	17	26	32	45	71	100	135		
	720	3.6	3.0	4.8	6.8	9.5	14	21	26	38	58	85	110		
224	1800	8	6.7	10.5	14	20	29	42	55	75	117	170	220		
	1200	5.3	4.2	6.6	10.5	13.5	20	29	36	52	82	115	160		
	900	4	3.3	5.2	7.5	10	15	23	29	40	63	93	120		
	720	3.2	2.7	4.2	6.0	8.6	12.3	18.5	23	32	52	74	95		
250	1800	7.2	6.1	9.5	12.6	17.5	26	38	50	65	105	150	200		
	1200	4.8	3.9	6.0	9.5	12	17.5	26	33	46	73	105	138		
	900	3.6	3.0	4.7	6.6	9	13	21	26	35	56	82	108		
	720	2.8	2.4	3.8	5.5	7.4	10.7	16.5	21	28	45	65	87		
280	1800	6.4	5.3	8.2	11.2	15.5	23	34	44	60	90	135	180		
	1200	4.2	3.3	5.3	8	10.5	15.5	23.5	30	42	65	92	123		
	900	3.2	2.5	4.1	5.8	8	12	18	23	32	50	72	96		
	720	2.5	2.1	3.3	4.8	6.6	9.8	15	18.5	26	40	56	74		
315	1800	5.7	4.7	7.5	10	14	21.5	30	40	55	85	120	160		
	1200	3.8	2.9	4.8	7.5	9.5	15	20.5	27	37	58	82	110		
	900	2.8	2.2	3.7	5.2	6.7	10.5	16.2	21	29	45	65	85		
	720	2.2	1.8	3.0	4.3	5.7	8.6	13.5	17	23	36	51	68		
355	1800	5	4	6.5	9	13	20	27	36	47	75	105	142		
	1200	3.3	2.5	4.3	6.5	9	13	18.5	24	33	52	73	98		
	900	2.5	1.9	3.3	4.8	6.4	9.5	14.5	18.5	26	40	56	78		
	720	2	1.5	2.6	3.9	5.5	8.2	12	15	20.5	32.5	45	60		
400	1800	4.5	3.6	6	8	11.5	17	25	33	42	65	92	130		
	1200	3	2.2	3.8	6.2	7.5	12	17	21	29	46	65	86		
	900	2.2	1.7	2.9	4.2	5.7	8.5	13.2	17	23	36	50	67		
	720	1.8	1.4	2.4	3.4	4.8	7.0	11	13.5	18	29	40	54		
450	1800	4	3.2	5	7	10.5	14	21	28	36	58	85	115		
	1200	2.6	3.1	3.3	5.0	6.6	9.5	14	19	25	42	58	66		
	900	2	1.5	2.6	3.8	5.0	7.5	11	14.8	20	33	46	62		
	720	1.6	1.2	2.0	3.0	4.3	6	9	11.8	15.5	25.5	36	48		

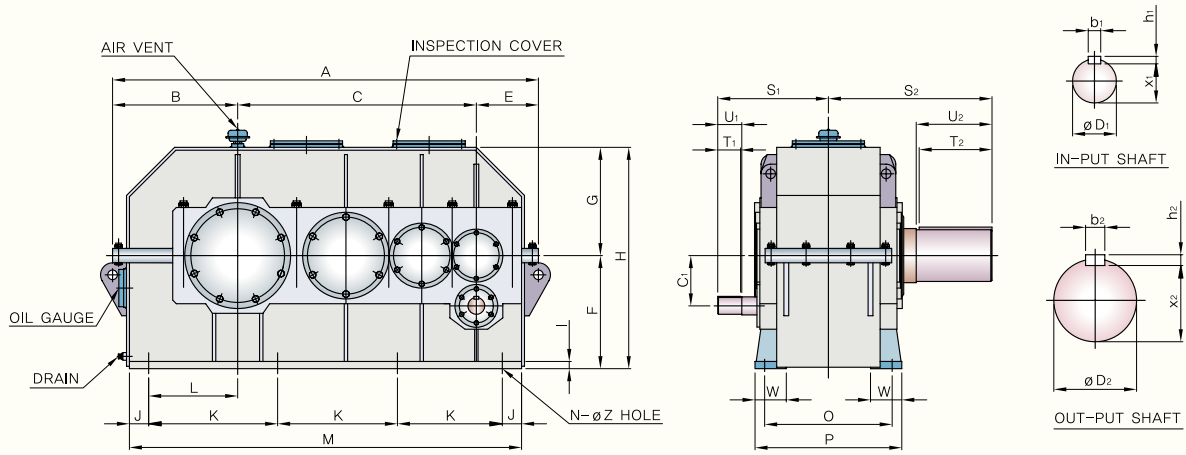
## Thermal Capacities

(Unit : kW)

Ratio	n1 [ min <sup>-1</sup> ] <sup>-1</sup>	Gear Reducer Frame No.										
		440	497	555	620	700	785	880	990	1105	1240	1395
		Thermal Power										
Without cooling	720~1800	32	41	52	66	87	110	140	175	200	280	350



**PARALLEL SHAFT TYPE**



**Dimensions**

(mm)

Frame No.	A	B	C	C <sub>1</sub>	E	F	G	H	I	J	K	L	M	O	P	N	Z	W
CQ 440	810	240	440	70	130	225	200	425	26	55	210	150	740	290	350	8	23	80
CQ 497	905	265	497	80	143	250	225	475	26	65	235	165	835	310	370	8	23	80
CQ 555	995	290	555	90	150	280	250	530	26	60	265	190	915	360	420	8	27	100
CQ 620	1080	300	620	100	160	300	280	580	26	65	290	195	1000	390	450	8	27	100
CQ 700	1200	325	700	125	175	320	300	620	30	75	320	205	1110	430	500	8	33	110
CQ 785	1320	355	785	112	180	350	320	670	30	75	360	235	1230	470	540	8	33	110
CQ 880	1460	395	880	140	185	390	360	750	35	85	400	265	1370	520	600	8	39	150
CQ 990	1660	445	990	160	225	430	400	830	35	85	460	305	1550	580	660	8	39	150
CQ 1105	1805	490	1105	180	210	470	430	900	35	85	505	345	1685	630	740	8	45	170
CQ 1240	1985	540	1240	200	205	520	490	1010	35	85	565	395	1865	700	810	8	45	170
CQ 1395	2225	605	1395	225	225	570	550	1120	40	95	635	445	2095	780	910	8	52	190

Frame No.	S <sub>1</sub>	U <sub>1</sub>	T <sub>1</sub>	D <sub>1</sub>	b <sub>1</sub>	h <sub>1</sub>	x <sub>1</sub>	S <sub>2</sub>	U <sub>2</sub>	T <sub>2</sub>	D <sub>2</sub>	b <sub>2</sub>	h <sub>2</sub>	x <sub>2</sub>	Weight (kg)	Oil (liter)
CQ 440	250	35	30	20m6	6	6	16.5	385	160	155	95m6	28	16	85	330	15
CQ 497	255	35	30	22m6	8	7	18	410	180	175	100m6	28	16	90	450	20
CQ 555	280	40	35	24m6	8	7	20	430	180	175	110n6	32	18	99	620	27
CQ 620	310	50	45	28m6	8	7	24	480	210	205	130n6	36	20	118	730	42
CQ 700	340	60	55	32m6	10	8	27	530	240	235	140n6	36	20	128	1000	56
CQ 785	370	60	55	38m6	12	8	33	590	270	265	170n6	45	25	155	1330	86
CQ 880	405	70	65	42m6	12	8	37	655	310	305	180n6	45	25	165	1820	120
CQ 990	460	80	75	48m6	14	9	42.5	740	350	345	210n6	50	28	193	2410	160
CQ 1105	500	90	85	55m6	16	10	49	820	400	395	240n6	56	32	220	3380	220
CQ 1240	560	105	100	60m6	18	11	53	915	450	445	270n6	63	32	250	4610	340
CQ 1395	605	105	100	65m6	20	12	57.5	1010	500	495	300n6	70	36	278	6580	400

# GEAR BOX [JK-SD]

## NORMAL POWER RATINGS

### 허용 전달 용량표

(Unit : kW)

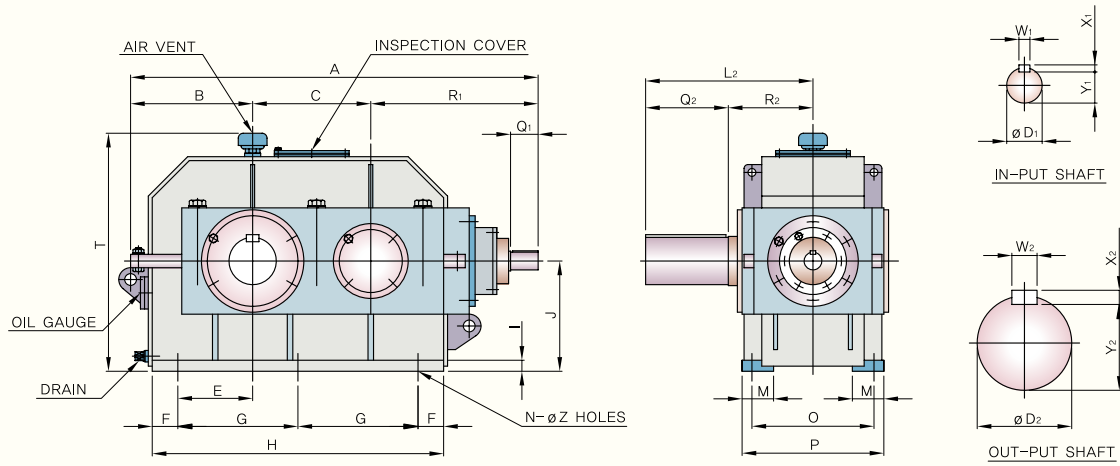
Ratio	n1	n2	Gear Reducer Frame No.												
			[ min <sup>-1</sup> ] r.p.m.		100	125	160	200	250	280	315	355	400	450	500
			Transmitting Power												
5	1800	360	17.0	30.5	65	115	235	300	400	560	850	1210	1440		
	1200	240	11.2	22.2	47	85	175	225	300	410	630	900	1130		
	900	180	8.5	17.7	37	65	142	180	250	320	500	720	930		
	720	144	7.1	14.0	32	52	120	160	215	280	450	600	830		
5.6	1800	321.4	16.3	30.0	62	112	230	280	385	550	840	1200	1410		
	1200	214.2	11.0	22.0	45	82	170	220	290	402	610	885	1110		
	900	160.7	8.3	17.5	35	63	140	175	245	310	485	710	920		
	720	128.5	6.8	14.0	29	50	115	160	205	265	440	590	810		
6.3	1800	285.7	16.3	30.0	62	112	230	280	385	550	840	1200	1410		
	1200	190.4	11.0	22.0	45	82	170	220	290	402	610	885	1110		
	900	142.8	8.3	17.5	35	63	140	175	245	310	485	710	920		
	720	114.2	6.8	14.0	29	50	115	160	205	265	440	590	810		
7.1	1800	253.5	14.5	28.8	61	109	222	280	385	535	810	1160	1400		
	1200	169	10.2	20.5	40	80	167	215	290	395	590	870	1110		
	900	126.7	7.8	16.0	30.4	61	134	175	240	310	475	695	920		
	720	101.4	6.3	13.2	28.5	49	108	145	194	255	415	560	800		
8	1800	225	13.7	27.6	55	102	210	280	335	500	760	1110	1380		
	1200	150	9.4	19.4	38	75	158	210	290	380	560	830	1080		
	900	112.5	7.2	15.0	29	60	125	170	240	310	450	670	900		
	720	90	5.7	12.0	23.2	49	105	140	190	255	380	545	800		
9	1800	200	13.0	25.2	50	92	185	264	350	450	690	1020	1340		
	1200	133.3	8.6	17.5	35	68	145	195	265	335	510	750	1000		
	900	100	6.4	13.0	26.3	54	117	155	215	275	405	595	800		
	720	80	5.4	11.4	22.2	45	100	130	180	240	350	490	690		
10	1800	180	11.0	21.6	46	86	170	230	315	400	610	940	1280		
	1200	120	7.7	15.1	30	62	125	170	230	300	450	660	900		
	900	90	5.9	11.6	23.2	49	100	135	185	240	355	510	690		
	720	72	4.8	10.0	19.5	42	89	120	170	215	300	440	600		
11.2	1800	160.7	9.9	20.6	41	80	155	215	300	370	560	800	1020		
	1200	107.1	6.6	13.7	28	56	114	160	215	280	410	580	750		
	900	80.3	4.9	10.3	21.1	44	90	125	170	220	330	460	590		
	720	64.2	4.3	8.9	17.8	38	75	105	140	200	270	390	500		
12.5	1800	144	8.9	18.1	35	70	143	190	235	325	460	635	920		
	1200	96	5.9	12.2	25	50	98	140	175	245	330	455	680		
	900	72	4.4	9.3	19	38	75	110	140	195	255	355	540		
	720	57.6	3.7	7.7	15.5	32	63	90	110	160	215	305	450		
14	1800	128.5	6.9	15.0	33	55	128	180	230	315	390	530	690		
	1200	85.7	4.5	10.2	22	37	85	120	155	210	280	350	460		
	900	64.2	3.4	7.7	16.5	28	65	90	118	160	210	265	350		
	720	51.5	2.9	6.6	13.2	21	55	75	95	135	170	225	290		
16	1800	112.5	5.4	12.5	28	51	100	140	180	280	360	450	690		
	1200	75	3.6	8.0	19.2	33	69	100	190	220	250	330	460		
	900	56.2	2.7	5.9	14.4	25	53	80	150	170	190	250	350		
	720	45	2.2	5.1	12.4	18	45	70	125	140	155	210	290		

## Thermal Capacities

(Unit : kW)

Ratio	n1 [ min <sup>-1</sup> ] <sup>-1</sup>	Gear Reducer Frame No.										
		100	125	160	200	250	280	315	355	400	450	500
		Thermal Power										
Without cooling	720~1800	15.5	23	43	69	110	140	180	230	300	390	480

**RIGHT ANGLE TYPE**



**Dimensions**

(mm)

Frame No.	A	B	C	E	F	G	H	I	J	T	M	O	P	N	Z
SD 100	505	145	100	80	30	135	330	15	110	260	60	165	200	6	14
SD 125	630	175	125	100	35	165	400	20	140	330	60	200	240	6	14
SD 160	775	200	160	125	35	210	490	25	180	430	70	250	290	6	18
SD 200	920	245	200	155	45	255	600	25	225	540	100	280	340	6	22
SD 250	1105	300	250	200	50	330	760	26	260	610	100	360	420	6	26
SD 280	1220	330	280	225	50	370	840	26	280	680	100	410	490	6	33
SD 315	1350	365	315	240	70	405	950	26	320	760	100	450	530	6	33
SD 355	1505	400	355	270	70	460	1060	26	360	860	100	500	580	6	33
SD 400	1695	445	400	305	80	515	1190	35	410	960	150	560	650	6	39
SD 450	1880	490	450	350	80	590	1340	35	460	1060	150	640	740	6	39
SD 500	2085	540	500	385	90	435	1485	35	520	1130	150	700	800	8	39

Frame No.	Q1	R1	D1	W1	X1	Y1	L2	Q2	R2	D2	W2	X2	Y2	Weight (kg)	Oil (liter)
SD 100	35	260	20k6	6	6	16,5	220	80	140	40m6	12	8	35	44	2.0
SD 125	40	330	25m6	8	7	21	240	80	160	45m6	14	9	39,5	78	4.2
SD 160	60	415	35m6	10	8	30	290	105	185	60m6	18	11	53	165	12.8
SD 200	80	475	40m6	12	8	35	375	160	215	75m6	20	12	67,5	270	14
SD 250	90	555	55m6	16	10	49	420	160	260	95m6	25	14	86	480	23
SD 280	105	610	60m6	18	11	53	470	180	290	110n6	28	16	100	660	31
SD 315	105	670	65m6	18	11	58	525	210	315	120n6	32	18	109	915	38
SD 355	120	750	70m6	20	12	62,5	580	240	340	130n6	32	18	119	1190	68
SD 400	140	850	80m6	22	14	71	615	240	375	150n6	36	20	138	1620	93
SD 450	160	940	90m6	25	14	81	695	270	425	170n6	40	22	157	2380	135
SD 500	180	1045	100n6	28	16	90	760	300	460	185n6	45	25	170	2800	180

# GEAR BOX [JK-ST]

## NORMAL POWER RATINGS

### 허용 전달 용량표

(Unit : kW)

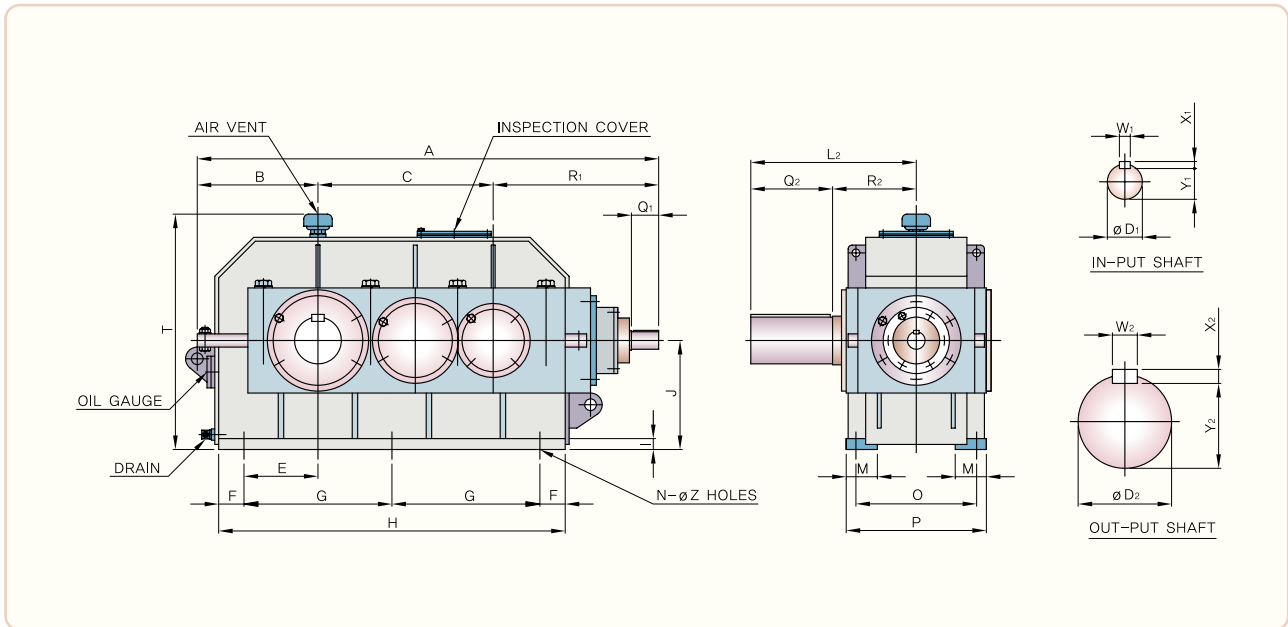
Ratio	n1 [ min <sup>-1</sup> ] r.p.m.	n2	Gear Reducer Frame No.															
			240	272	305	340	385	430	480	540	605	680	765	855	960	1080	1210	1360
			Transmitting Power															
18	1800	3.6	24.7	36	50	64	99	133	180	245	380	470	670	320	1520	2080	-	-
	1200	2.4	17.0	25.3	34	45	66	90	130	180	280	350	490	820	1130	1520	2200	2500
	900	1.8	12.9	19.4	26.5	35	49	68	100	140	220	280	390	650	900	1200	1650	1900
	720	1.4	10.3	15.8	22.8	29	43	56	80	120	180	240	340	540	790	1000	1400	1700
20	1800	3.2	21.8	34.2	46	58	90	120	165	230	360	460	650	1100	1500	2050	2180	-
	1200	2.1	20.7	23.4	31.5	41	60	82	120	170	260	320	460	760	1050	1400	1840	2400
	900	1.6	11.3	17.8	24.0	31	46	62	90	130	200	250	350	570	810	1050	1550	1840
	720	1.2	8.9	14.1	20.0	26	38	50	75	110	170	210	310	480	690	890	1340	1660
22.4	1800	2.8	19.2	30	43	55	80	115	150	210	330	440	620	1030	1310	1900	2050	2750
	1200	1.9	13.1	20.2	29	38	55	78	108	150	240	300	430	680	920	1260	1680	2100
	900	1.4	10.0	15.2	22	29	42	58	84	120	180	230	320	510	710	930	1360	1680
	720	1.1	7.9	12.1	18.0	25	35	48	66	100	150	190	270	420	600	790	1170	1600
25	1800	2.5	17.5	26.8	38	53	72	103	140	190	300	400	570	890	1210	1650	2030	2650
	1200	1.6	12.0	17.7	25.5	35	49	69	90	140	210	270	390	610	870	1120	1600	2050
	900	1.2	9.0	13.2	19.9	27	37	52	74	110	165	200	290	470	680	870	1320	1650
	720	1.0	7.2	11.0	15.8	22	30	42	59	90	134	165	240	380	530	720	1000	1520
28	1800	2.2	15.9	22.0	32	45	64	85	125	185	280	340	500	790	1100	1490	2600	2350
	1200	1.5	10.7	14.6	21.5	30	44	58	83	125	190	240	350	540	760	1020	1450	1900
	900	1.1	8.1	11.0	16.5	22.5	34	44	62	95	145	180	270	410	580	770	1130	1600
	720	0.9	6.2	8.9	13.4	18.3	27	35	50	79	120	150	220	330	70	610	930	1310
31.5	1800	2	14.2	19.8	29.4	39	59	78	110	172	251	330	480	710	1020	1310	1950	2100
	1200	1.3	9.5	13.3	19.5	23	39	52	76	115	173	226	320	490	700	920	1350	1770
	900	1	7.1	10.0	14.5	20	29	40	58	87	132	171	240	370	530	710	1030	1490
	720	0.8	5.8	8.2	11.7	16.2	24	31	45	72	105	134	190	300	420	550	820	1200
35.5	1800	1.8	12.9	16.2	26.8	35	53	70	94	155	225	300	440	660	950	1240	1550	1870
	1200	1.2	8.6	11.0	17.7	23	36	46	63	103	156	200	290	450	620	840	1240	1570
	900	0.9	6.4	8.4	13.2	18.1	27	35	47	77	120	150	220	340	460	630	940	1320
	720	0.7	5.1	6.6	10.7	14.8	22	28.3	38	62	95	122	175	265	380	500	760	1050
40	1800	1.6	11.0	15.1	23.6	31	47	61	84	135	205	260	390	590	855	1120	1680	1740
	1200	1.0	7.6	10.0	15.9	21.6	32	41	56	93	140	185	260	410	570	740	1120	1430
	900	0.8	5.8	7.4	12.0	16.5	24.6	31	42	70	105	145	200	300	420	550	830	1190
	720	0.6	4.5	5.9	10.0	13.1	20.3	24.8	34	57	85	110	160	240	340	440	670	960
45	1800	1.4	9.7	13.3	20.7	28.5	43	55	78	125	185	240	350	510	750	980	1490	1710
	1200	0.9	6.7	9.0	13.8	19.0	28.2	37	52	83	124	160	230	370	510	670	1020	1290
	900	0.7	5.1	6.8	10.3	14.2	21.3	28.2	39	62	93	120	170	290	390	510	770	1030
	720	0.5	4.1	5.3	8.2	11.7	17.9	22.0	31	51	76	100	145	220	310	410	600	870
50	1800	1.2	9.0	11.6	18.5	26.8	36	50	69	112	160	210	310	470	670	910	1330	1710
	1200	0.8	6.0	7.8	12.4	17.7	26.9	33	47	75	107	140	205	320	450	600	900	1230
	900	0.6	4.5	5.8	9.3	13.2	21.0	25.0	35	56	80	105	155	240	335	445	680	970
	720	0.5	3.6	4.8	7.6	10.7	15.8	20.7	29	45	65	86	125	200	280	380	540	790
56	1800	1.1	7.8	10.3	16.8	23.3	34	43	61	98	140	190	380	425	590	780	1150	1690
	1200	0.7	5.2	6.9	11.2	15.5	23.1	29.8	42	66	97	125	185	290	410	540	790	1150
	900	0.5	4.0	5.2	8.4	11.6	17.4	22.6	32	50	75	95	135	220	315	410	600	870
	720	0.4	3.1	4.2	6.9	9.6	14.5	18.0	25.5	40	60	78	114	175	245	330	475	680
63	1800	1.0	7.2	9.4	14.4	20.1	30	38	54	85	127	172	245	375	525	690	1080	1310
	1200	0.6	4.7	6.3	10.0	13.6	20.4	26.3	37	58	82	115	165	255	365	475	715	920
	900	0.5	3.5	4.7	7.8	10.3	15.5	20.0	28.5	45	68	87	123	195	275	360	535	710
	720	0.4	2.9	3.8	5.9	8.2	12.4	15.8	22.8	35	54	68	100	155	220	295	435	580
71	1800	0.9	6.4	8.1	13.0	18.5	26.6	35	49	78	112	150	200	345	480	625	850	990
	1200	0.6	4.2	5.5	8.6	12.4	18.0	23.6	32	53	75	105	135	230	325	425	585	730
	900	0.4	3.1	4.2	6.4	9.3	13.6	17.8	24.6	40	55	80	103	170	245	325	445	580
	720	0.3	2.5	3.3	5.2	7.6	11.0	14.5	20.0	32	45	63	82	135	195	260	355	475
80	1800	0.8	5.3	7.7	10.3	16.6	25.2	32	43	63	98	135	185	300	400	615	745	950
	1200	0.5	3.6	5.1	6.6	11.4	16.5	22.1	29.8	43	67	93	125	200	285	420	520	630
	900	0.4	2.7	3.8	5.2	8.7	12.3	16.8	22.6	32	51	71	93	155	220	320	365	470
	720	0.3	2.2	3.1	4.2	6.9	9.6	13.4	19.3	26.2	38	55	75	125	170	220	295	385
90	1800	0.7	4.7	6.8	8.6	15.5	22.6	30	37	57	70	105	130	200	360	430	690	930
	1200	0.4	2.7	4.6	5.7	10.3	14.8	20.4	25.6	38	46	70	90	135	255	300	460	600
	900	0.3	2.3	3.5	4.3	7.8	11.0	15.5	19.4	28.5	34	55	65	100	170	230	340	420
	720	0.2	1.9	2.8	3.5	6.2	8.9	12.0	15.2	22.8	28	42	55	80	140	180	275	350

### Thermal Capacities

(Unit : kW)

Ratio	n1 [ min <sup>-1</sup> ] <sup>-1</sup>	Gear Reducer Frame No.															
		240	272	305	340	385	430	480	540	605	680	765	855	960	1080	1210	1360
		Thermal Power															
Without cooling	720~1800	22	29	37	46	58	73	93	120	150	195	250	310	390	500	610	760

**RIGHT ANGLE TYPE**



**Dimensions**

(mm)

Frame No.	A	B	C	E	F	G	H	I	J	T	M	O	P	N	Z
ST 240	675	180	240	115	35	200	470	20	160	335	60	220	250	6	14
ST 272	767	195	272	120	45	215	520	20	180	335	70	240	280	6	18
ST 305	855	220	305	135	45	240	570	20	200	370	70	260	300	6	18
ST 340	935	240	340	155	45	275	640	25	225	415	80	280	330	6	23
ST 385	1035	265	385	175	50	310	720	25	250	460	90	320	370	6	23
ST 430	1150	290	430	200	50	385	870	30	280	520	90	360	430	6	27
ST 480	1285	330	480	225	50	425	950	30	315	585	90	390	450	6	27
ST 540	1430	365	540	240	70	465	1070	30	355	655	100	430	510	6	33
ST 605	1565	395	605	270	70	520	1180	30	400	740	100	470	550	6	33
ST 680	1755	440	680	305	80	590	1340	35	450	840	150	520	610	6	39
ST 765	1940	490	765	350	80	670	1500	35	500	940	150	580	670	6	39
ST 855	2160	535	855	395	80	505	1675	35	530	1015	150	630	720	8	39
ST 960	2450	590	960	440	90	560	1860	35	600	1140	150	700	790	8	39
ST 1080	2735	660	1080	505	95	640	2110	40	670	1280	180	770	870	8	45
ST 1210	3075	745	1210	575	95	725	2365	40	750	1430	180	850	950	8	45
ST 1360	3405	825	1360	650	100	820	2660	40	850	1720	190	1000	1100	8	52

Frame No.	Q1	R1	D1	W1	X1	Y1	L2	Q2	R2	D2	W2	X2	Y2	Weight (kg)	Oil (liter)
ST 240	35	255	22m6	6	6	18.5	265	105	160	65m6	18	11	58	106	7.6
ST 272	40	300	25m6	8	7	21	295	120	175	70m6	20	12	62.5	150	10
ST 305	60	330	30m6	8	7	26	345	140	205	80m6	22	14	71	195	14.5
ST 340	60	355	32m6	10	8	27	385	160	225	90m6	25	14	81	275	19
ST 385	60	385	35m6	10	8	30	410	180	230	100n6	28	16	90	370	28
ST 430	80	430	40m6	12	8	35	430	180	250	110n6	32	18	99	510	33
ST 480	80	475	45m6	14	9	39.5	480	210	270	120n6	32	18	109	680	41
ST 540	90	525	50m6	14	9	44.5	530	240	290	140n6	36	20	128	930	58
ST 605	105	565	60m6	18	11	53	590	270	320	160n6	40	22	147	1230	84
ST 680	105	635	65m6	18	11	58	655	310	345	180n6	40	25	165	1670	110
ST 765	120	685	70m6	20	12	62.5	740	350	390	200n6	45	25	185	2330	160
ST 855	140	770	85m6	22	14	76	820	400	420	230n6	50	28	213	2750	200
ST 960	160	900	95m6	25	14	86	915	450	465	260n6	56	32	240	3550	298
ST 1080	180	995	105n6	28	16	95	980	470	510	290n6	63	32	270	4750	410
ST 1210	210	1120	115n6	32	18	104	1070	500	570	320n6	70	36	298	6090	460
ST 1360	210	1220	125n6	32	18	114	1210	550	660	340n6	80	40	315	8590	560



# GEAR BOX [JK-SQ]

## NORMAL POWER RATINGS

### 허용 전달 용량표

(Unit : kW)

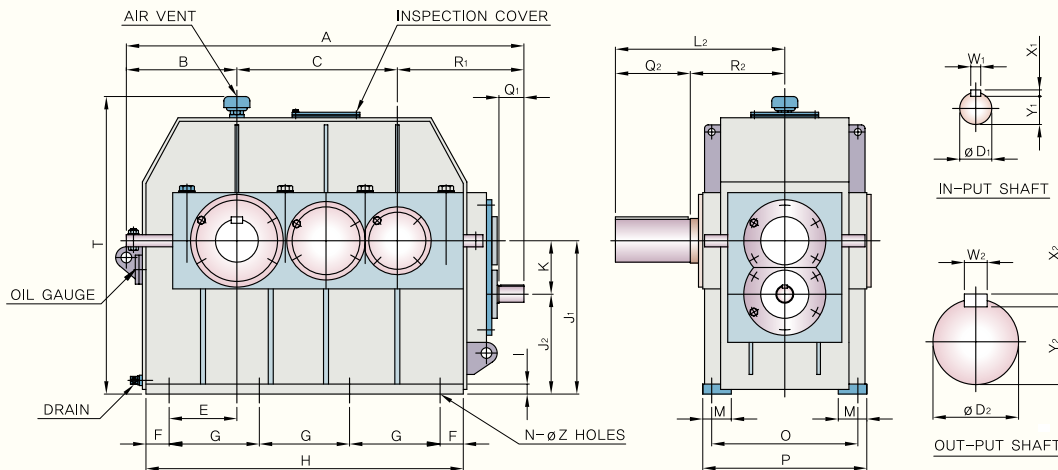
Ratio	n1 [ min <sup>-1</sup> ] r.p.m.	n2	Gear Reducer Frame No.														
			272	305	340	385	430	480	540	605	680	765	855	960	1080	1210	1360
			Transmitting Power														
100	1800	18	6.6	9.4	13.0	20.0	26.4	37	59	90	115	165	260	360	480	700	980
	1200	12	4.5	6.3	8.8	13.4	17.9	25.2	40	60	79	110	175	240	325	470	665
	900	9	3.4	4.8	6.6	10.1	13.5	18.9	30	45	60	85	130	182	240	350	505
	720	7.2	2.7	3.8	5.3	8.3	10.8	15.1	25	37	48	67	105	148	195	280	405
112	1800	16	5.8	8.2	12.0	18.5	24.5	34	53	77	100	150	230	325	430	615	820
	1200	10.7	3.9	6.0	8.3	12.8	16.5	22.8	35	53	70	100	153	215	290	415	580
	900	8	3.0	4.7	6.4	9.8	12.5	17.2	26.3	40	52	78	115	160	215	310	450
	720	6.4	2.4	3.6	5.0	7.5	10.0	14.0	21.6	32	41	61	94	133	170	250	360
125	1800	14.4	5.2	8.0	11.1	16.5	22.0	30	46	70	89	135	205	285	385	545	790
	1200	9.6	3.5	5.4	7.6	11.1	14.8	20.5	31	48	60	90	138	190	255	365	520
	900	7.2	2.6	4.1	5.8	8.4	11.1	15.5	23.6	36	45	67	105	145	190	275	390
	720	5.7	2.1	3.4	4.6	6.5	9.0	12.0	19.0	29.5	36	54	82	115	155	220	310
140	1800	12.8	4.7	7.1	10.3	14.5	20.0	26.6	42	63	80	120	183	265	340	490	720
	1200	8.5	3.1	4.9	6.8	10.1	13.7	18.4	28.5	43	53	80	125	175	225	330	520
	900	6.4	2.3	3.8	5.1	7.8	10.4	14.1	21.6	33	40	60	95	130	172	245	390
	720	5.1	1.8	3.0	4.1	5.8	8.3	11.5	17.2	26	32	50	75	108	140	200	310
160	1800	11.2	4.1	6.5	8.8	13.1	17.9	24.6	38	56	72	103	162	230	305	440	640
	1200	7.5	2.8	4.4	6.2	8.6	12.1	16.5	25.0	38	49	69	108	155	200	295	425
	900	5.6	2.1	3.4	4.8	6.4	9.1	12.5	18.5	28.3	37	52	80	118	150	220	320
	720	4.5	1.6	2.7	3.6	5.3	7.6	10.0	15.4	23.0	29.5	42	66	97	122	180	260
180	1800	10	3.7	5.7	8.1	11.7	15.6	22.0	34	51.0	65	89	145	200	265	395	565
	1200	6.6	2.5	3.9	5.4	7.8	10.6	14.8	22.8	34	43	61	95	135	175	265	375
	900	5	1.9	2.9	4.1	5.8	8.1	11.1	17.2	25.6	32	46	70	100	135	200	280
	720	4	1.5	2.3	3.3	4.7	6.4	9.0	14.0	20.8	26	37	59	83	108	148	230
200	1800	9	3.2	5.2	7.2	10.7	13.8	20.4	29.4	45	58	83	130	185	240	350	500
	1200	6	2.1	3.4	4.9	7.2	9.3	13.2	20.0	30	38	55	87	120	160	235	340
	900	4.5	1.6	2.6	3.7	5.4	7.1	9.8	15.1	23	29.0	41	65	90	120	175	255
	720	3.6	1.3	2.0	3.0	4.3	5.8	8.3	12.2	19	23.0	33	52	75	97	144	200
224	1800	8	2.8	4.5	6.3	9.4	12.6	17.3	26.8	41	51	75	116	165	215	320	445
	1200	5.3	1.9	3.1	4.2	6.3	8.3	11.9	18.0	27	34	50	78	112	145	215	300
	900	4	1.4	2.3	3.2	4.7	6.2	9.1	13.8	20.5	25.6	37	58	85	108	160	230
	720	3.2	1.2	1.8	2.7	3.8	5.1	7.2	11.2	16.5	20.5	30	48	68	86	130	180
250	1800	7.2	2.5	4.2	5.9	8.2	11.1	15.6	23.9	35	46	65	100	148	195	290	405
	1200	4.8	1.7	2.8	4.0	5.5	7.5	10.6	15.8	24.1	30	43	69	99	130	190	270
	900	3.6	1.3	2.1	3.0	4.1	5.7	8.1	11.8	18.2	23.0	33	52	74	98	145	200
	720	2.8	1.1	1.7	2.4	3.3	4.6	6.5	9.7	14.7	18.7	26.6	42	60	80	115	162
280	1800	6.4	2.3	3.1	4.9	7.2	10.3	14.2	21.0	32	41	58	90	130	175	250	350
	1200	4.2	1.6	2.1	3.4	4.9	6.8	9.7	14.2	20.2	27.7	40	60	87	115	165	235
	900	3.2	1.2	1.6	2.6	3.7	5.1	7.4	10.8	16.2	20.9	31	45	65	87	125	175
	720	2.5	0.9	1.2	2.0	3.0	4.0	5.8	8.6	13.3	16.5	23.7	36	52	70	100	140
315	1800	5.7	2.1	2.8	4.5	6.7	8.5	12.7	19	29.9	35	52	82	115	152	225	300
	1200	3.8	1.4	1.9	3.1	4.4	5.8	8.2	12.5	19.5	24.1	35	55	78	102	150	205
	900	2.8	1.0	1.4	2.3	3.3	4.4	6.1	9.4	14.5	18.2	26.3	41	58	77	110	155
	720	2.2	0.8	1.1	1.8	2.7	3.6	5.1	7.9	11.8	14.7	21.2	33	47	62	90	125
355	1800	5	1.9	2.5	4.1	5.9	7.5	10.7	16.2	21.3	32	41	75	103	138	189	246
	1200	3.3	1.3	1.7	2.7	3.9	5.3	7.2	10.8	14.6	21.6	27.7	49	69	93	126	165
	900	2.5	1.0	1.3	2.0	2.9	4.1	5.4	8.1	11.1	16.2	21.0	36	52	70	95	125
	720	2	0.7	1.0	1.6	2.3	3.1	4.4	6.5	9.0	13.0	16.9	30	42	56	75	100
400	1800	4.5	1.6	2.2	3.5	5.0	6.7	8.9	13.8	19.8	27.0	36	65	89	112	158	220
	1200	3	1.0	1.5	2.3	3.4	4.5	6.0	9.3	13.1	18.0	24.6	43	60	75	105	148
	900	2.2	0.8	1.1	1.7	2.6	3.4	4.5	7.0	9.7	13.5	18.5	32	45	56	77	111
	720	1.8	0.6	0.9	1.4	2.0	2.7	3.6	5.6	8.2	11.1	14.7	26	37	45	63	90
450	1800	4	1.3	1.9	2.7	4.5	6.1	8.0	12.1	17.3	26.2	33	52	79	98	138	196
	1200	2.6	0.9	1.3	1.8	2.9	4.1	5.4	8.1	11.9	17.2	22.3	35	53	66	94	133
	900	2	0.6	1.0	1.4	2.2	3.1	4.1	6.1	9.1	12.8	16.8	26.3	40	50	70	100
	720	1.6	0.5	0.8	1.1	1.8	2.5	3.3	4.8	7.2	10.0	13.3	21.2	32	40	56	79
500	1800	3.6	1.2	1.7	2.3	3.5	5.4	6.5	9.4	15.2	21.6	29.4	44	64	87	135	170
	1200	2.4	0.8	1.1	1.6	2.3	3.6	4.4	6.3	10.2	14.4	20.0	30	42	58	90	115
	900	1.8	0.5	0.8	1.2	1.7	2.7	3.3	4.8	7.7	10.8	15.2	23	32	44	67	88
	720	1.4	0.4	0.7	0.9	1.4	2.2	2.7	3.8	6.2	8.6	11.9	18.4	26	35	54	68

### Thermal Capacities

(Unit : kW)

Ratio	n1 [ min <sup>-1</sup> ] <sup>1</sup>	Gear Reducer Frame No.														
		272	305	340	385	430	480	540	605	680	770	860	960	1080	1210	1360
		Thermal Power														
Without cooling	720~1800	14.5	18.5	23.5	30	38	48	63	79	105	130	165	210	285	350	460

RIGHT ANGLE TYPE



Dimensions

(mm)

Frame No.	A	B	C	E	F	G	H	I	J1	J2	T	M	O	P	N	Z
SQ 272	732	195	272	120	45	170	600	20	180	117	370	70	240	280	8	18
SQ 305	820	225	305	140	45	190	660	20	200	130	420	70	260	300	8	18
SQ 340	900	245	340	150	55	210	740	25	225	145	470	80	280	330	8	23
SQ 385	1005	270	385	165	65	235	835	25	250	160	520	90	320	370	8	23
SQ 430	1115	295	430	195	60	270	930	25	280	180	580	90	360	430	8	27
SQ 480	1255	340	480	200	85	285	1025	25	315	203	650	90	390	450	8	27
SQ 540	1400	370	540	215	100	320	1160	25	355	230	735	100	430	510	8	33
SQ 605	1535	405	605	250	100	360	1280	35	400	260	825	100	470	550	8	33
SQ 680	1700	440	680	275	110	400	1420	35	450	290	930	150	520	610	8	39
SQ 765	1905	500	765	310	130	450	1610	35	500	320	1030	150	580	670	8	39
SQ 855	2105	540	855	335	145	500	1790	35	530	330	1090	170	640	740	8	45
SQ 960	2375	595	960	370	165	560	2010	40	600	375	1230	170	710	810	8	45
SQ 1080	2685	665	1080	420	185	630	2260	40	670	420	1370	190	790	900	8	52
SQ 1210	2990	750	1210	470	205	710	2540	40	750	470	1540	190	870	980	8	52
SQ 1360	3340	830	1360	530	225	800	2850	45	850	530	1740	220	1030	1160	8	62

Frame No.	K	Q1	R1	D1	W1	X1	Y1	L2	Q2	R2	D2	W2	X2	Y2	Weight (kg)	Oil (liter)
SQ 272	63	30	265	15k6	5	5	12	310	120	190	70m6	20	12	62.5	144	11
SQ 305	70	30	290	18k6	6	6	14.5	345	140	205	80m6	22	14	71	187	16
SQ 340	80	35	315	20k6	6	6	16.5	385	160	225	90m6	25	14	81	260	21
SQ 385	90	35	350	22k6	6	6	18.5	420	180	240	100n6	28	16	90	360	28
SQ 430	100	40	390	25k6	8	7	21	440	180	260	110n6	28	16	100	485	36
SQ 480	112	50	435	28m6	8	7	24	485	210	275	120n6	32	18	109	653	52
SQ 540	125	60	490	30m6	8	7	26	540	240	300	140n6	36	20	128	870	72
SQ 605	140	60	525	35m6	10	8	30	590	270	320	160n6	40	22	147	1180	104
SQ 680	160	80	580	40m6	12	8	35	620	270	350	170n6	40	22	157	1665	141
SQ 765	180	80	640	45m6	14	9	39.5	695	300	395	190n6	45	25	175	2290	196
SQ 855	200	90	710	50m6	14	9	44.5	780	350	430	220n6	50	28	203	3326	270
SQ 960	225	90	820	55m6	16	10	49	875	410	465	250n6	56	32	230	4450	405
SQ 1080	250	105	940	65m6	18	11	58	960	450	510	280n6	63	32	260	6070	462
SQ 1210	280	120	1030	70m6	20	12	62.5	1050	500	550	320n6	70	36	298	8220	713
SQ 1360	320	140	1150	80m6	22	14	71	1240	590	650	360n6	80	40	335	11790	1030

# GEARED MOTOR TECHNICAL DATA

## [감속기 선정방법]

### 감속비의 결정

감속비=출력 회전수/입력 회전수

필요한 출력축 회전수에서 감속비를 결정합니다.

본 카다록에 표기한 감속비는 호칭 감속비이며, 감속비 선정시 본 카다록의 표준 감속비로 결정하시면 더 빠른 제작과 A/S를 받으실 수 있습니다.

감속비(Ratio)	오차(%)
1/5~1/30	±3%
1/31~1/90	±4%

### 동력 및 회전력

HP=P×S/75	P=작용력, 가해진 힘(kg)
HP=T×N/75	S=움직인 거리(m/s)
T=716.2×HP/N	T=Torque(kg-m)
T=974×kW/N	N=회전수(rpm)
T=R×P	R=회전체 반경(m)
kW=T×N/974	P=중량(kg)

### 출력축 Torque

부하 토크에서 출력축 토크를 계산합니다.

$$T = T_1 \times SF$$

T : 출력축 토크(kgf-m)  
 T<sub>1</sub> : 부하 토크(kgf-m)  
 SF: Service Factor(표1)

### Over Hung Load (O. H. L)

감속기 출력축에 Gear, Pulley, Sprocket 등을 취부할 경우 축단하중이 크게 작용하므로 축의 휨, 진동, 베어링 파손 등의 원인이 되므로 아래사항에 유의하시어 선정하여 주시기 바랍니다.

$$O.H.L (kg) = \frac{T \times Cf}{R \times Lf} \times Sf$$

T = Torque(kgf-m)  
 R = 체인, 풀리 등의 반경(m)  
 Cf = 연결방식에 따른 계수  
 Lf = 하중작용 위치계수(표3)  
 SF = Service Factor(표4)

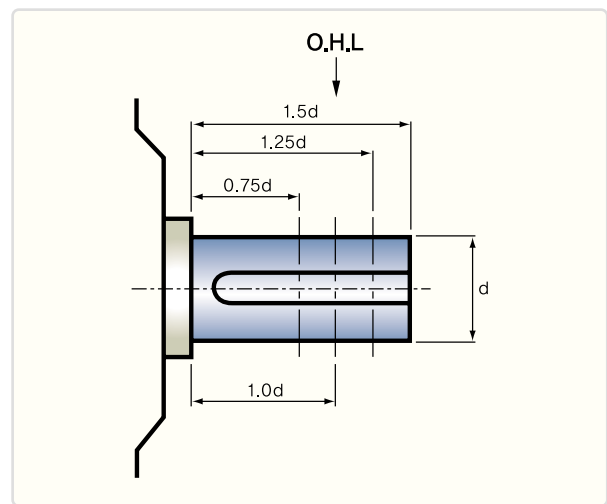
**표1 SF (동하중계수)**

운전시간 \ 하중상태	균일하중	보통충격	심한충격
3시간 이하/일	1.0	1.0	1.5
3~10시간/일	1.0	1.25	1.75
10시간 이상/일	1.25	1.5	2.0

※ 본 감속기는 균일하중에서 10시간 연속운전으로 설계되었으며, Torque, 속도 또는 충격하중이 주기적, 연속적으로 가해질 경우 상기 계수표를 참조하여 선정하여 주시기 바랍니다.

**표2 Cf**

Sprocket(단열)	1.00
Sprocket(복열)	1.25
Gear	1.25
V-Belt	1.5
Flat Belt	2.5



**표3 Lf**

0.75d	1.10
1.00d	1.00
1.25d	0.87
1.5d	0.75

**선정 예)**

출력 회전수 : 60r.p.m.  
 부하 토크 (T1) : 20kgf-m  
 Motor 회전수 : 1800r.p.m.  
 피동기계 : 콘베어 (균일하중)

감속기연결(Cf) : 단열 Sprocket (PCD 120mm)  
 하중작용 위치(Lf) : 축의 중심  
 운전시간 : 8시간/일

1. 감속비 : 60/1800=1/30
2. 전달 토크(T) : 표1 및 표2에 의하여  $T=T_1 \times C_f = 20 \times 1.0 = 20(\text{kgf-m})$
3. Motor 출력(HP)= $20 \times 60 / 716.2 = 1.6(\text{HP})$
4. O.H.L= $2 \times 1000 \times 20 \times 1.0 \times 1.0 / 120 \times 1.0 = 333.3\text{kgf}$  이므로 이상을 만족하는 감속기는 2HP 1/30에 해당합니다.

**표4 Service Factor**

Load Class	Prime Mover														
	Electric Motor					Multicyclic internal Combustion Engine					Single Cylinder Combustion Engine				
	Half hours per day	3hours per day	Up to 10hours per day	24hours per day		Half hours per day	3hours per day	Up to 10hours per day	24hours per day		Half hours per day	3hours per day	Up to 10hours per day	24hours per day	
			Line power	Parallel Shaft				Line power	Parallel Shaft				Line power	Parallel Shaft	
Uniform	0.50	0.80	1.00	1.25	1.25	0.80	1.00	1.25	1.25	1.50	1.00	1.25	1.50	1.75	1.75
Moderate Shock	0.80	1.00	1.25	1.50	1.50	1.00	1.25	1.50	1.75	1.75	1.25	1.50	1.75	2.00	2.00
Heavy Shock	1.25	1.50	1.75	1.75	2.00	1.50	1.75	2.00	2.00	2.25	1.75	2.00	2.25	2.25	2.50

# GEARED MOTOR TECHNICAL DATA

## [ 표5 Load Class (부하등급) ]

■ U : Uniform  
 ■ MS : Moderate shock load  
 ■ HS : Heavy shock load  
 ▲ 당사문의

○ 24 hours per day service factor only  
 △ Use service factor 1.00  
 □ Use service factor 1.25  
 ☆ Use service factor 1.50

Driven Machine	Load Class	Driven Machine	Load Class	Driven Machine	Load Class	Driven Machine	Load Class	Driven Machine	Load Class
<b>Agitators</b>		<b>Dredges</b>		<b>Lumber industry</b>		rob ○		<b>Rubber and plastics industries</b>	
pure liquids	U	cable reels	MS	barkers-hydraulic-		plain	MS	crackers ○	HS
liquids and solids	MS	conveyors	MS	mechanical	MS	wedge bar	MS	laboratory equipment	MS
liquids -variable	MS	cutter head drives	HS	burner conveyor	MS	tumbling barrels	HS	mixing mills ○	HS
<b>Blowers</b>		lig drives	HS	chain saw and drag saw	HS	<b>Mixers</b>		refiners ○	MS
centrifugal	U	maneuvering winches	MS	chain tranfer	HS	concrete mixer		rubber calenders ○	MS
lobe	MS	pumps	MS	craneway tranfer	HS	continuous	MS	rubber mills-2 on line ○	MS
vane	U	screen drive	HS	de-barking drum	HS	concrete mixer		rubber mills-3 on line ○	U
<b>Brewing and distilling</b>		stackers	MS	edger feed	MS	intermittent	MS	sheeter ○	MS
bottling machinery	U	utility winches	MS	gang feed	MS	constant	U	tire building machine	▲
brew kettles-continuous		<b>Dry dock cranes</b>		green chain	MS	variable	MS	tire and tube press	
duty	U	main hoist	△	live rolls	HS	<b>Oil industry</b>		openers	▲
cookers-continuous duty	U	auxiliary hoist	△	log deck	HS	chillers	MS	tubers and strainers ○	MS
mash tubs continuous duty	U	boom, luffing	△	log haul-Incline	HS	oil well pumping	▲	warming mills ○	MS
scale hopper-frequent		rotating, swing or slew	□	log haul-well type	HS	paraffin filter press	MS	<b>Sand muller</b>	MS
starts	MS	tracking, drive wheels	☆	log turningdevice	HS	rotary kilns	MS	<b>Sewage disposal equipment</b>	
<b>Can filling machines</b>	U	<b>Elevators</b>		main log conveyor	HS	<b>Paper mills</b>		bar screens	U
<b>Cane knives</b>	MS	bucket-uniform load	U	off bearing rolls	MS	agitators, (mixers)	MS	chemical feeders	U
<b>Car dumpers</b>	HS	bucket-heavy load	MS	planer feed chains	MS	barker-auxiliaries-		collectors	U
<b>Car pullers</b>	MS	bucket-continuous	U	planer tilting hoist	MS	hydraulic	MS	dewatering screws	MS
<b>Clarifiers</b>	U	centrifugal discharge	U	re-saw merry go-round		barker-mechanical	MS	scum breakers	MS
<b>Classifiers</b>	U	escalators	U	conveyor	MS	barking drum	HS	slow or rapid mixers	MS
<b>Clay working machinery</b>		freight	MS	roll cases	HS	beater and pulper	MS	thickeners	MS
brick press	HS	gravity discharge	U	slab conveyor	HS	bleacher	U	vacuum filters	MS
briquette machine	HS	man lifts	▲	small waste conveyor		calenders	MS	<b>Screens</b>	
clay working machinery	MS	passenger	▲	chain	MS	calenders-super	HS	air washing	U
pug mill	MS	<b>Fans</b>		sorting table	MS	converting machine except		rotary-stone or gravel	MS
<b>Compressors</b>		centrifugal	U	tipple hoist conveyor	MS	cutters, platers	MS	traveling water intake	U
centrifugal	U	cooling towers		transfer conveyors	MS	conveyors	U	<b>Slab pushers</b>	MS
lobe	MS	induced draft	▲	transfer rolls	MS	couch	MS	<b>Steering gear</b>	▲
reciprocating		forced draft	▲	tray drive	MS	cutters-platers	HS	<b>Stokers</b>	U
multi-cylinder	MS	induced draft	MS	trimmer feed	MS	cylinders	MS	<b>Sugar industry</b>	
<b>Conveyors-uniformly loaded or fed</b>		large, mine, etc.	MS	waste conveyors	MS	dryers	MS	cane knives ○	MS
apron	U	large, industrial	MS	<b>Metal tools</b>		felt stretcher	MS	crushers ○	MS
assembly	U	light,small diameter	U	bending roll	MS	felt whipper	HS	mills ○	MS
belt	U	<b>Feeders</b>		punch press-gear driven	HS	jordans	HS	<b>Textile industry</b>	
bucket	U	apron	MS	notching press-bell		log haul	HS	batchers	MS
chain	U	belt	MS	driven	▲	presses	U	calenders	MS
flight	U	disc	U	plate planers	HS	pulp machine reel	MS	cards	MS
oven	U	reciprocating	HS	tapping machine	HS	stock chest	MS	washers and thickeners	MS
screw	U	screw	U	other machine tools		suction roll	U	winders	MS
<b>Conveyors-heavy duty not uniformly fed</b>		<b>Food industry</b>		main drives	MS	washers and thickeners	MS	dyeing machinery	MS
apron	MS	belt slicer	MS	auxiliary drives	U	winders	U	knitting machines	▲
assembly	MS	cereal cooker	U	<b>Metal mills</b>		<b>Printing presses</b>	▲	looms	MS
belt	MS	bough mixer	MS	draw bench carriage		<b>Pullers</b>		mangles	MS
bucket	MS	meat grinders	MS	and main drive	MS	barge haul	HS	nappers	MS
chain	MS	<b>Generators-not welding</b>	U	pinch, dryer and		<b>Pumps</b>		pads	MS
flight	MS	<b>Hammer mills</b>	HS	scraubber rolls-reversing	▲	centrifugal	U	range drives	▲
live roll	▲	<b>Hoists</b>		slitters	MS	proportioning	MS	slashers	MS
oven	MS	heavy	HS	table conveyors		reciprocating		soapers	MS
reciprocating	HS	medium duty	MS	non-reversings		single acting; 3 or		spinners	MS
screw	MS	skip hoist	MS	group drives	MS	more cylinders	MS	tenter frames	MS
shaker	HS	<b>Laundry washers</b>		individual drives	HS	double acting; 2 or		washers	MS
<b>Cranes</b>		reversing	MS	reversings	▲	more cylinders	MS	winders	MS
main hoists	U	<b>Laundry tumblers</b>	MS	wire drawing and		single acting; 1 or 2		<b>windlass</b>	▲
bridge travel	▲	<b>Line shafts</b>		flattening machine	MS	cylinders	▲		
trolley travel	▲	driving processing		wire winding machine	MS	double acting; single			
<b>Crusher</b>		light	U	<b>Mills-rotary type</b>		rotary	▲		
ore	HS	other line shafts	U	ball	MS	gear type	U		
stone	HS			cement kilns ○	MS	lobe, vane	U		
sugar ○	HS			druers and coolers ○	MS				
				kilns, other than cement	MS				
				pebble ○	MS				





### GEARED MOTOR (Torque & O.H.L)

비율 HP(4P)	1/10		1/20		1/30		1/40		1/50		1/60	
	Torque	O.H.L	Torque	O.H.L	Torque	O.H.L	Torque	O.H.L	Torque	O.H.L	Torque	O.H.L
3	13.6	270	27.2	391	40.8	575	54	650	68.3	730	80	860
5	22.8	390	45.7	670	68.6	893	90	1024	113.8	1294	134	1524
7.5	29.5	574	58.6	763	89	997	114.8	1050	144.2	1315	172.3	1570
10	39.3	763	117.2	880	117.5	1315	153	1570	192.3	1745	229	2080
15	59	811	78.2	1315	177.8	1560	229.5	1750	288.5	1915	343.5	2360
20	78	882	156.3	1395	233	2042	306.5	2376	381.4	2530	458	3150
30	117.2	1031	234.4	2054	349.6	2788	455.9	3060	570	3420	684	4115
40	155.4	1455	309	2460	465.4	3610	606.5	3758	758	4370	909	5250
50	194.2	1555	386.3	2950	582.6	3520	758	4375	948.2	5470	1137	6565
60	233.1	1795	464	2870	699.2	3840	909.7	4825	1137	6020	1364	7230
75	291.4	2250	573	3460	859.4	4700	1134.6	6015	1400	7420	1683	8890

\* 사양은 제품 품질향상을 위하여 예고없이 변경될 수 있습니다.

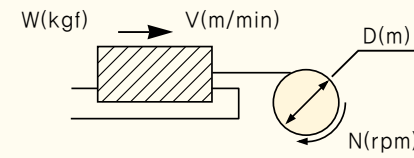
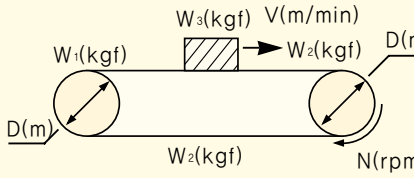
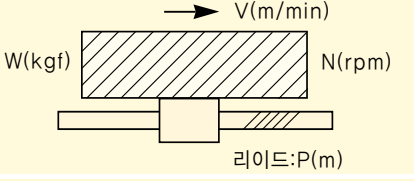
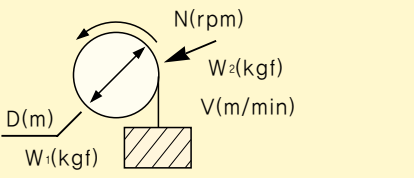


Best Quality with JEIL

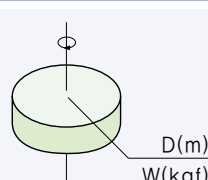
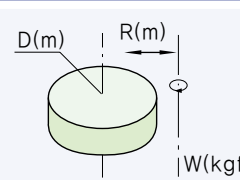
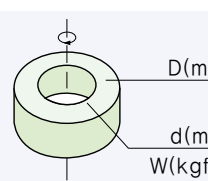
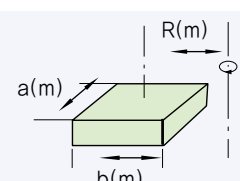
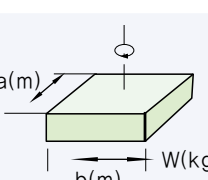
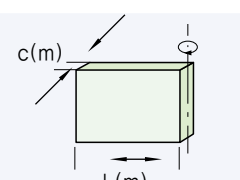
# GEARED MOTOR TECHNICAL DATA

## [GD<sup>2</sup>]

### 직선운동의 GD<sup>2</sup>

일반용도		$GD^2 = W \left( \frac{V}{\pi^2 \cdot N} \right)^2 = WD^2$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>
컨베이어용 수평운동		$GD^2 = \left( \frac{W_1+W_2}{2} + W_3+W_4 \right) \times D^2$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>
이송나사에 의한 수평운동		$GD^2 = W \left( \frac{V}{\pi \cdot N} \right)^2 = W \left( \frac{P}{\pi} \right)^2$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>
권상기용 상하운동		$GD^2 = W_1 D^2 + \frac{1}{2} W_2 D^2$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>

### 회전체의 GD<sup>2</sup>

회전축 중심인 경우		회전축 중심이 아닌 경우	
	$GD = \frac{1}{2} WD^2$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>		$GD^2 = W \left( \frac{1}{2} D^2 + 4R^2 \right)$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>
	$GD^2 = \frac{1}{2} W(D^2 + d^2)$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>		$GD^2 = W \left( \frac{a^2+b^2}{3} \right) + 4R^2$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>
	$GD^2 = \frac{1}{3} W(a^2 + b^2)$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>		$GD^2 = \frac{1}{3} W(4L^2 + c^2)$ <p style="text-align: right;">[ kgf · m<sup>2</sup> ]</p>



## [윤활 및 유량]

1. 본사에서는 제품출하시 Gear Oil 320을 주입하고 있습니다.
2. 이의 교환은 초기 300시간 사용후 교환하시고, 매 10,000시간마다 교환하여 주십시오.
3. Oil 주입시는 감속기에 부착되어 있는 Oil Gauge의 중앙눈금까지 주입하시고, 운전시에는 Gear, Bearing, Case 등의 내면에 Oil이 부착되어 유면이 낮아지므로 유의바랍니다.
4. 과다한 Oil 주입은 Oil 토출 및 Motor측 Oil 유입 등의 현상이 일어나므로 유의바랍니다.

## [윤활유의 선정 추천윤활유]

Type	Maker	CALTEX	GULF	SHELL	MOBIL	주위온도(°C)
ISO VG 150		Meropa 150	EP Lubricant HD 150	Omala 150	Mobil gear 629	-10~0
ISO VG 220		Meropa 220	EP Lubricant HD 220	Omala 220	Mobil gear 630	0~30
ISO VG 320		Meropa 320	EP Lubricant HD 320	Omala 320	Mobil gear 632	30~50
Grease	NLGI 0	Multifak EP 0	Crown EP 0	Alvania EP 0	Mobilplex EP 0	
Grease	NLGI 1	Multifak EP 1	Crown EP 1	Alvania EP 1	Mobilplex EP 1	
Grease	NLGI 2	Multifak EP 2	Crown EP 2	Alvania EP 2	Mobilplex EP 2	

## [에 주입량]

(단위 : ℓ )

TYPE	비율		1/05 ~ 1/30	1/31 ~ 1/60	윤활
	HP(4P)				
Geared Motor JK-HT	3		4.5	5.5	OIL
	5		5.5	7.5	OIL
	7.5		9.0	11.5	OIL
	10		9.0	11.5	OIL
	15		15.0	20.5	OIL
	20		15.0	20.5	OIL
	30		23.0	30.0	OIL
	40		25.0	50.0	OIL
	50		28.0	50.0	OIL
	60		34.0	70.0	OIL
	75		34.0	70.0	OIL

# GEARED MOTOR TECHNICAL DATA

## [설치 및 사용상의 유의사항]

### 1. 설치전 점검

- 본사에서는 철저한 점검 및 완벽한 검사후 출하하지만, 수송 운반도 중 진동이나 충격, 그외의 영향으로 인하여 손상될 경우가 있으므로 설치전 점검을 하십시오.

### 2. 연결방법

- 직결방법으로 연결하여 사용하는것이 가장 좋은 방법입니다.
- 체인사용시에는 상대기계와 연결하여 체인이 느슨하지 않을 정도의 적당한 장력으로 조정하여 주십시오.
- 출력축에 스프라켓, 풀리, 기어 등을 취부하여 사용할 때에는 적당한 직경을 선정하여 주시고, 감속기의 본체축으로 취부하여 주십시오.
- 출력축은  $\varnothing 45$  이하는 h6,  $\varnothing 45$  초과는 m6으로 가공되어 있습니다.

### 3. 운전

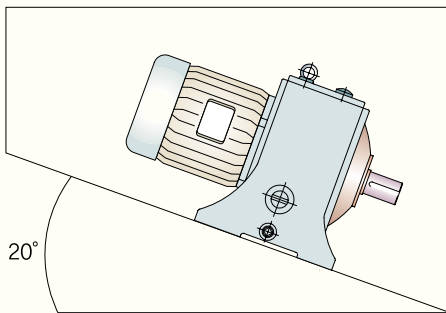
- 부하 토크 및 O.H.L. 허용치 이내에서 사용하십시오.
- 운전중 감속기를 역회전하는 경우에는 완전히 정지시킨 후 운전하여 주십시오.

### 4. 설치

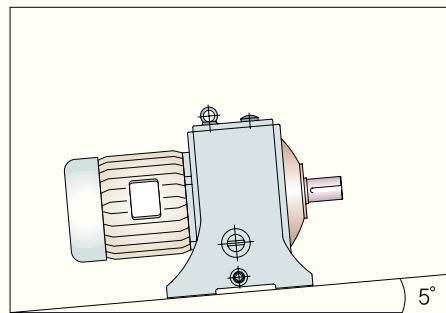
- 피동기계와 동일한 수평으로 설치하여 주십시오.
- 경사면에 설치할 경우 허용 경사도를 참조하시기 바랍니다.

## [허용 경사도]

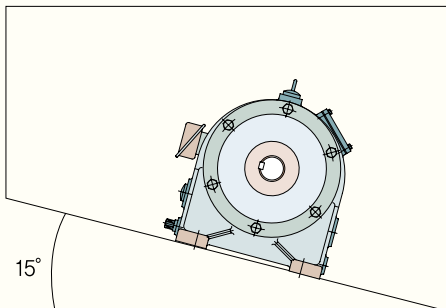
A



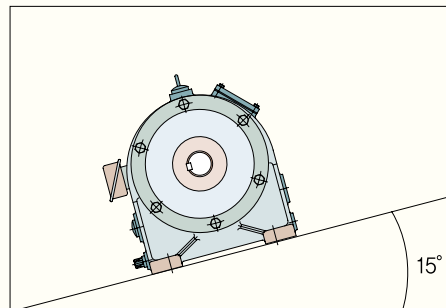
B



C



D





## [고장원인 및 대책]

### 발열

원 인	대 책
과부하 운전	적정 부하로 운전
윤활유의 과소 또는 과다	유면계의 지시선에 맞게한다
윤활유의 불량 또는 부적당	노화, 오염된 것은 새 윤활유로 교체
베어링 틈새 과소	베어링 틈새 조정
오일 시일 불량	오일 시일 교체
전동기의 통풍 방해	방해요인 제거
3상중 1상이 열려있거나 접속 불완전	접속여부를 점검, 단단히 한다
고정자 코일이 중간에서 단락	수리한다
전압의 불평형	변압기 및 회로 조사
코일 접지	접지장소 찾아서 수리
축이 휘었거나 연결부 장력이 팽팽함	축심 점검, 장력을 조절
베어링의 불량 (마모, 거칠다)	교체
베어링 부위의 억지 조립	분해 점검후 수정
부품의 마찰	분해 점검후 조정

### 심한 소음 및 이음

원 인	대 책
규칙적 소음 - 치의 치합상태 불량, 베어링 손상	기어 및 베어링 교체, 윤활유 보충, 교체
높은 금속음 - 윤활유 부족	윤활유 보충, 교체
불규칙 소음 (이음) - 이물질 침입, 베어링 손상	이물질 제거 (세척), 베어링 교체
회전자와 고정자의 접촉	수리
팬이 후드에 닿는다	수리 (팬을 이격시켜 재조립)
3상 전동기가 단상 운전하고 있다	회로조사
고정부위가 헐겁다 (축과 기어, 프랜즈 접합부)	분해후 점검, 원인 제거, 교체

### 심한 진동

원 인	대 책
치의 마모	기어교체
이물질 침입	이물질 제거 및 윤활유 교체
베어링 마모 손상	베어링 교체
취부 볼트 및 고정볼트의 이완	볼트 조임
조립 부위(축, 기어)의 이완	분해 점검후 재조립
축심이 일직선이 아니다(바란스가 나쁘다)	부하의 연결 상태조사 및 재연결
전동기의 엔드프레임이 너무 크다	베어링 조사, 와셔를 넣어 재조립
케이스 및 연결 부위파손	교체

### 오일의 누유

원 인	대 책
오일 시일 손상	오일 시일 교체
패킹 불량 (접합부)	패킹 교체 및 재씰링
배유구 이완	단단히 체결 (테프론테이프)
유면계 파손 및 이완	교체
기타 용접 부위 누유	재용접 또는 교체
출력축 마모 (씰링부위)	출력축 교체
출력 카바 그리이스 부족 (그리이스링 부위 : 수직형)	카바의 그리이스 보충
제품의 잘못된 부착	당사에 문의

### 전동기 기동불능 또는 기동곤란

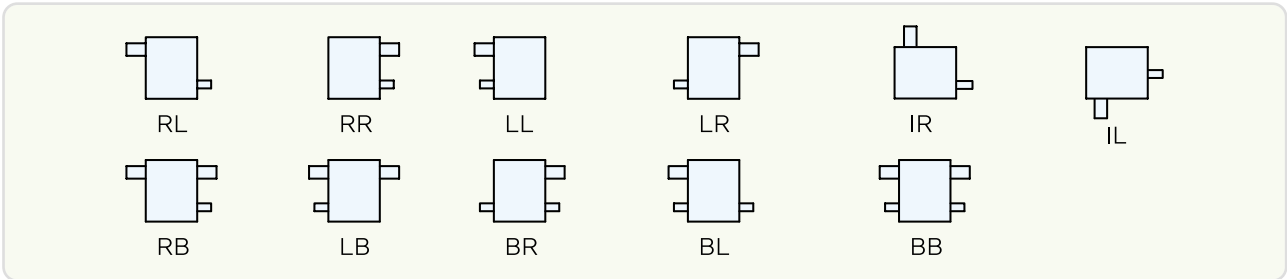
원 인	대 책
퓨우즈가 끊어진다	퓨우즈의 용량조사, 교체
기동 토크가 모자란다	기동방식 교체 또는 용량 늘임
회로가 열려있다 (접속 불안전)	과부하 릴레이, 기동시 푸시버튼 조사
코일의 단선	수리
정전 또는 전원이 이상	전원점검
과부하	전류 측정 및 부하조사
베어링 및 부품의 끼임 현상	재조립 또는 교체

※ 기어 및 축, 케이스 등을 교체할 때는 당사로 문의하시기 바라며, 임시방편 또는 잘못된 부품교체는 전체를 손상시키므로 각별히 주의하시기 바랍니다.



# GEAR BOX TECHNICAL DATA

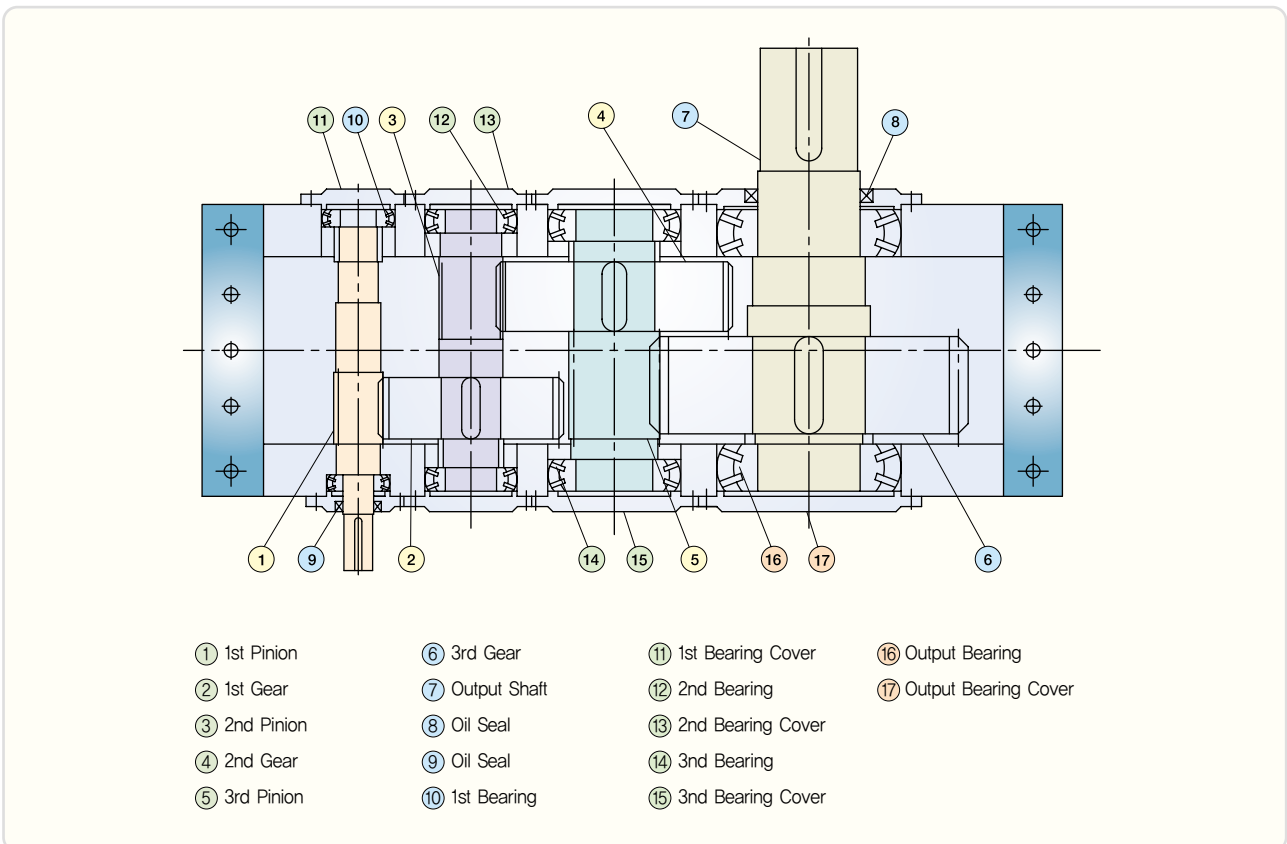
**[축배열]** 설치위치 및 배열에 따라 아래의 평면도로 결정됩니다.



**[축간거리]** 감속기의 Frame No. 이며 크기를 표시합니다.  
용도에 따라 전달 용량표에 의하여 선정됩니다.

## [감속비]

감속	감속비의 범위	호칭 감속비	오차
1단 감속	1/1.25~1/6.0	1.25, 1.8, 2.5, 4, 5, 5.6, 6.3	±3%
2단 감속	1/6.3~1/20	7.1, 10, 12.5, 14, 16, 18, 20	±3%
3단 감속	1/22.4~1/90	22.4, 28, 31.5, 40, 50, 63, 80, 90	±4%
4단 감속	1/100~1/450	100, 112, 125, 140, 200, 280, 400, 450	±4%



**[기어박스 선정방법]** 필요한 크기의 감속기를 아래 순서에 의하여 결정하여 주십시오.

**사용계수결정**



**등가 전달용량**

등가 전달용량 = 실제 전달동력 × Service Factor

**Frame 선정**

정격 전달용량표에서 요구되는 회전수 및 감속비란의 정격 전달용량과 등가 전달용량을 비교하여 등가 전달 용량보다 큰 용량의 Frame을 선정하여 주십시오.

등가 전달용량 ≤ 정격 전달용량표

**열용량 검토**

1) 온도보정 계수 결정

주위온도로 온도보정 계수표를 이용하여 온도보정 계수를 결정하십시오.

주위온도 °C	온도보정 계수	
	Fan 없음	Fan 부착
20	1.00	1.00
30	0.85	0.87
40	0.70	0.73
50	0.55	0.60

2) 등가 열용량 결정

등가 열용량 = 실 전달동력 ÷ 온도 보정 계수

3) 열용량 Check

정격 열용량표 및 등가 열용량으로 열용량을 Check하여 주십시오.

등가 열용량 ≤ 정격 열용량

**선정 예**

1) 사양

운전시간	10hours/day
전달동력	75kW
입력회전수	1200r.p.m
출력회전수	38r.p.m
감속비	1/31.57
피동기	Agitator

2) 사용계수

운전시간	경충격
최대 10hours/day	M
	1.25

3) 등가전달동력

75kW × 1.25 = 93.8kW

4) Frame 선정

감속비 31.5의 Size JK-CT700이 정격 전달용량 135kW이므로

93.8kW < 135kW

▶▶ Homepage address

<http://www.제일기어드모타>

<http://www.jeilreducer.com>



**JEIL**

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#100-10, Onsu-Dong, Kuro-Gu, Seoul, Korea  
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FAX. 82-2-2682-2439