

# HES

Hyosung End Suction Standard Pump



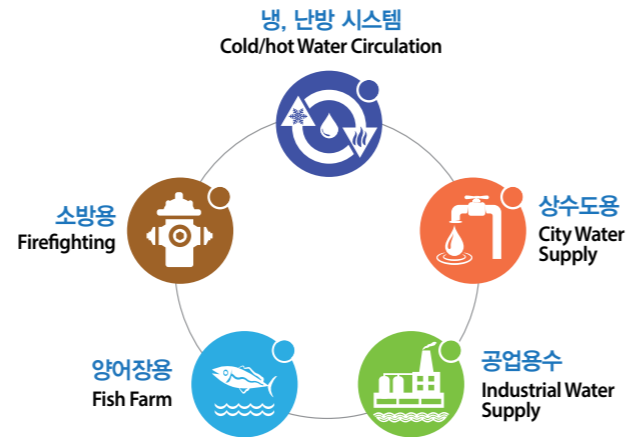
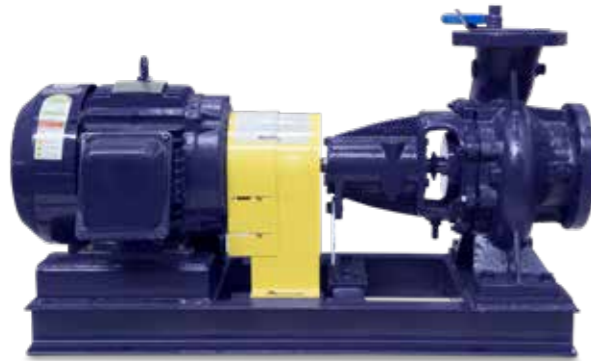
*Springs of Living Water*



## C

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## 용도 Application



## 특징 Features

- 01. 고객의 다양한 Needs에 적용가능한 넓은 사용범위와 고효율 구현
- 02. 회전체의 동적해석(Rotor Dynamics) 및 구조물의 유한요소법(FEM) 해석을 통한 저진동, 저소음 구현
- 03. 흡입, 토출 배관을 분리하지 않고 분해, 점검이 가능한 Back-Pull-Out 구조 채용
- 04. GT(Group Technology)기법을 도입, 부품의 호환성을 극대화시킨 구조
- 05. 국내 최대 납품실적으로 다양한 산업용으로 사용중인 고신뢰성, 경제적인 제품
- 06. 한국산업규격(KS B 7501) 제품으로 표준화된 용량 및 치수 적용

- 01. Wide range of application and outstanding efficiency for various customer needs.
- 02. Low vibration and noise through Rotor Dynamic and FEM analysis
- 03. Back-Pull-Out Type for disassemble and maintenance without suction and discharge pipe separated
- 04. GT (Group Technology) technique for maximizing component compatibility
- 05. Highly reliable and economic product for industrial use based on major reference around the world
- 06. Capacity and dimension standardized to the Korean Industrial Standard (KS B 7501)

## 호칭 Model Designation

# HES 50-200



## 표준 사양 Standard Specification

취급액	Applicable Liquid	청수 Clean Water (pH 5.8 ~ 8.6), 0 ~ 90°C	해수 Sea Water (pH 8.0 ~ 8.3), 0 ~ 90°C
유량 / 양정	Capacity / Head	2 ~ 1,800 m <sup>3</sup> /h / 3 ~ 88 m	
구경	Diameter	32 ~ 500 mm	
회전방향	Rotation Direction	CW (구동기측에서 펌프를 바라 보았을 때) (From the Motor Side to the Pump)	
구조 Structure	회전차	Impeller	클로즈형 (Closed Type)
	축봉	Shaft Seal	Packing (테프론 함침 탄화섬유) / Mechanical Seal (Carbonized fibers impregnated with Teflon)
	베어링	Bearing	Ball Bearing
플랜지	Flange	KS B 1511 10K, RF	
카플링 Coupling	45kW 이하	Below 45kW	물림형 카플링 Jaw Coupling
	55kW 이상	Above 55kW	플랜지 카플링 Flange Coupling
재질 Material	케이싱	Casing	GC200 (Option : SSC13/14, etc) / SSC13 (Option : SSC14/16, etc)
	회전차	Impeller	GC200 (Option : SSC13/14, etc) / SSC13 (Option : SSC14/16, etc)
	축봉	Shaft	SM45C (Option : STS304/316, etc) / STS304 (Option : STS316/316L, etc)

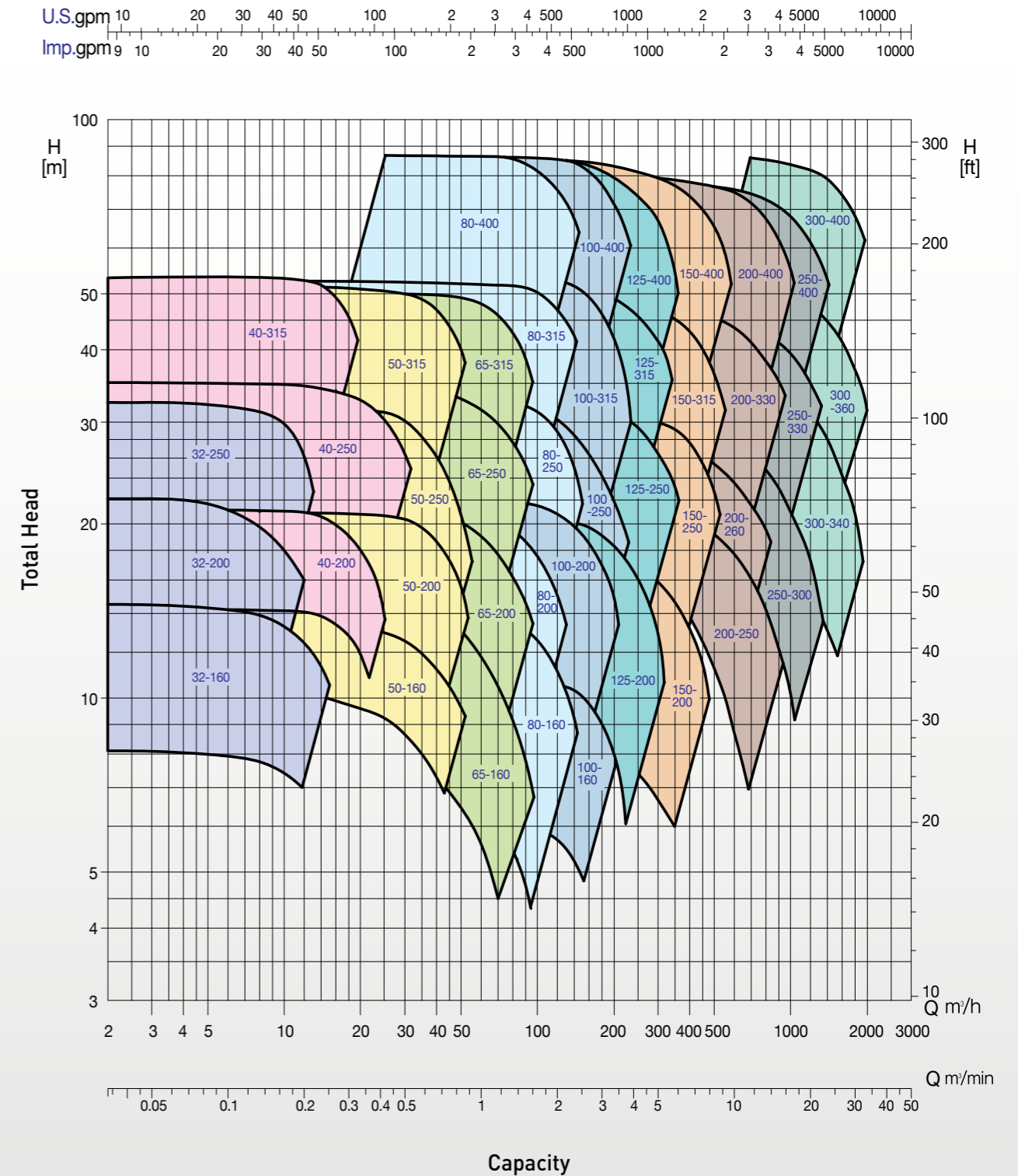
### 선택사양 Option

- 잡액부 재질 (조립단면도 선택사항 참고)
- 축봉장치 (요구사항)
- 카플링 (요구사항)
- 전동기 형식 (요구사항)
- 각종 계기류, Drain/Vent 배관 구성
- 흡토출 플랜지 규격 (별도 문의 요망)
- 도장사항 (요구사항)
- Material of the Liquid Contacting Part (Refer to the Specifications in the Sectional Drawing)
- Shaft Seal (Requirement)
- Coupling (Requirement)
- Motor Type (Requirement)
- Instrument, Drain/Vent Piping
- Suction, Discharge Flange Specification (Contact us)
- Painting (Requirement)

※ GC200 : Cast Iron / SSC13, SSC14 : Stainless Steel Casting  
 ※ SM45C : Carbon Steel Bar / STS304, STS316 : Stainless Steel Bar or Plate

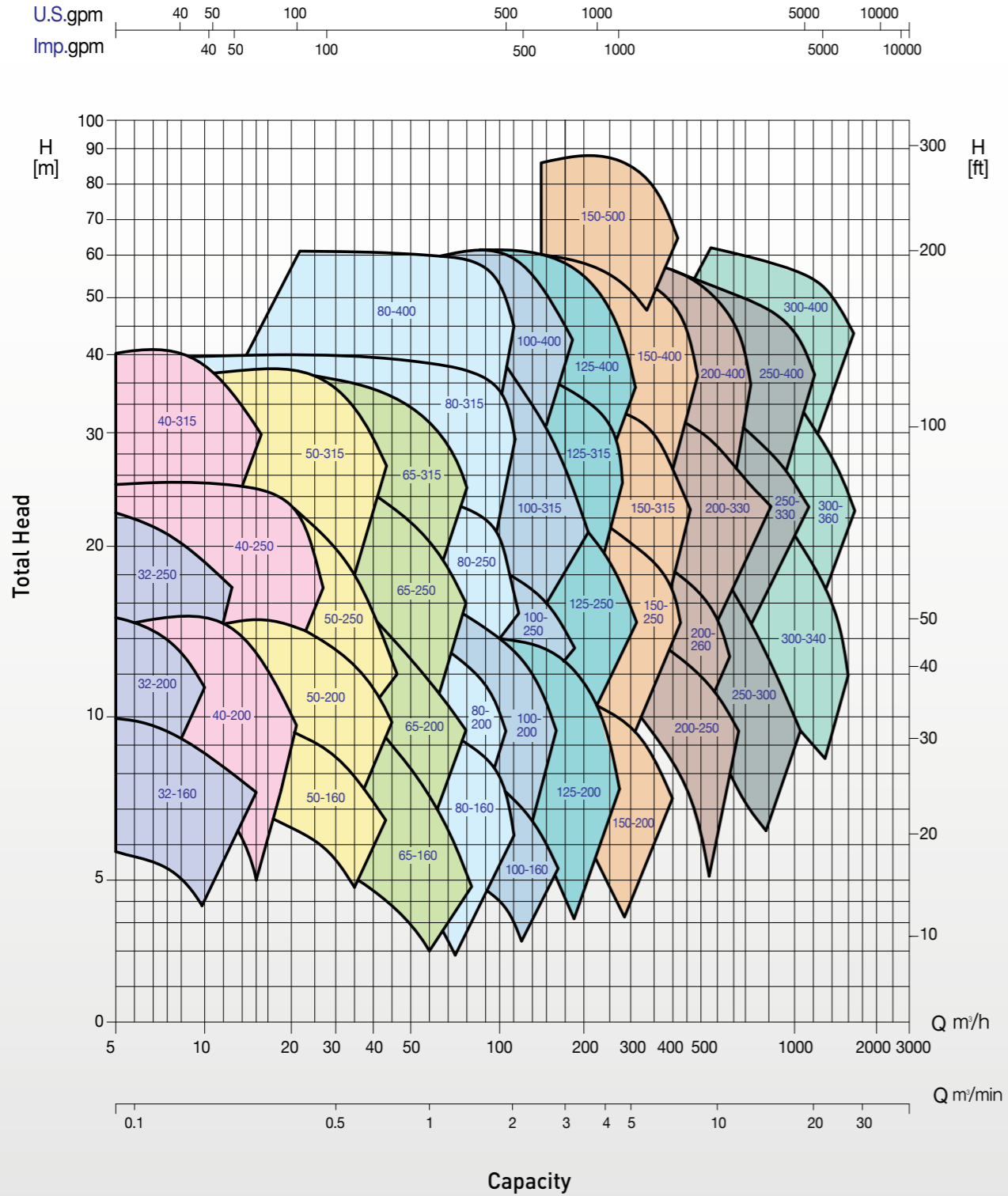
## 선정도 Selection Chart

60Hz (4P, 1750RPM)

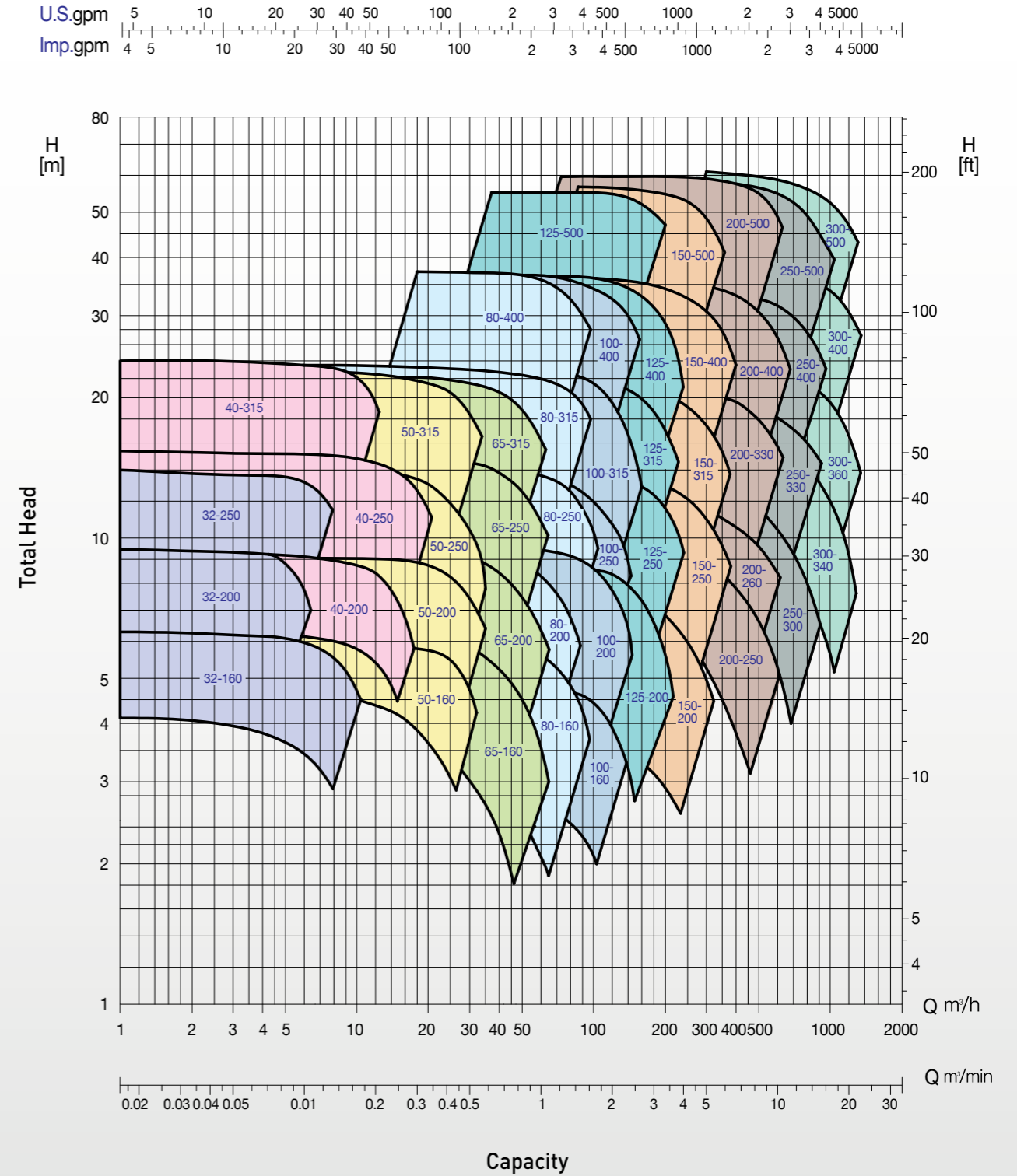


## 선택도 Selection Chart

50Hz (4P, 1450RPM)

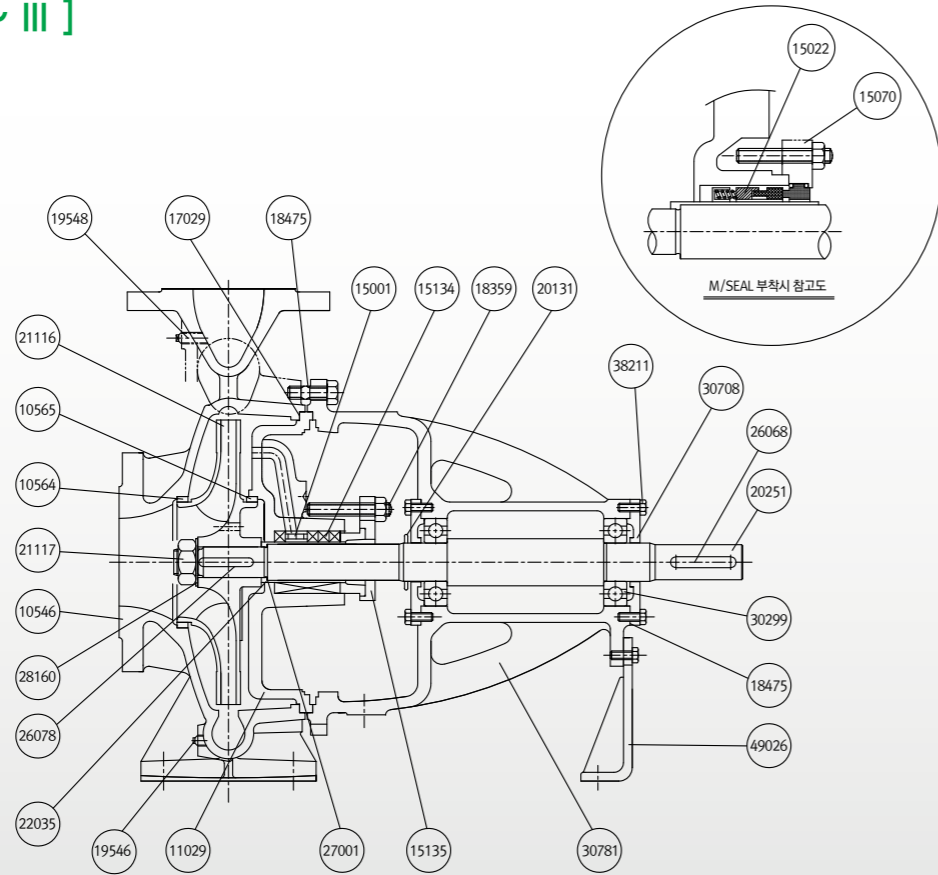


60Hz (6P, 1160RPM)



## 조립 단면도 Sectional Drawing

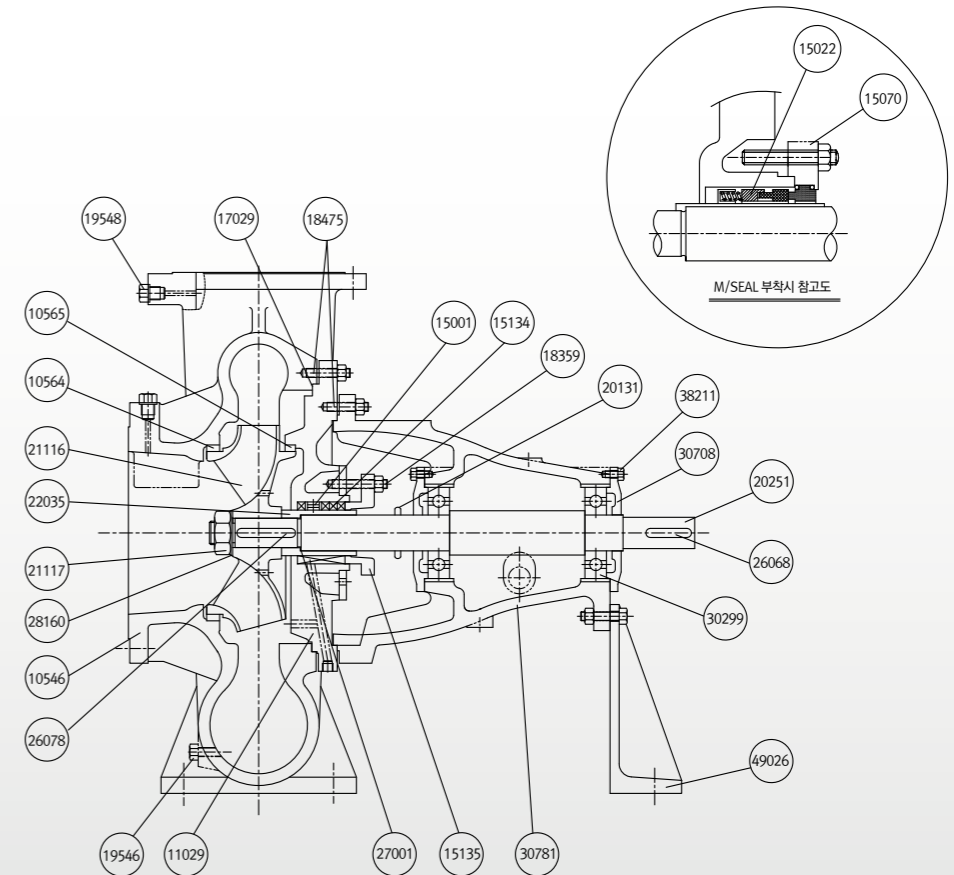
[ FIGURE I ~ III ]



부품번호 Part No.	부품명 Part Name	표준재질 Material	선택사양 Option	부품번호 Part No.	부품명 Part Name	표준재질 Material	선택사양 Option
10546	VOLUTE CASING	GC200	SSC13, 14	20131	PROTECT RING	Rubber	-
10564	CASING RING	GC200	SSC13, 14	20251	SHAFT	SM45C	STS304, 316
10565	CASING RING	GC200	SSC13, 14	21116	IMPELLER	GC200	SSC13, 14
11029	STUFFINGHOUSING	GC200	SSC13, 14	21117	IMPELLERNUT	SM45C	STS304, 316
15001	LANTERN RING	Acetal	STS304, 316	22035	SHAFT SLEEVE	SM45C	STS304, 316
15022	MECHANICAL SEAL	SiC/Carbon	Requirement	26068	COUPLING KEY	SM45C	-
15070	M/SEAL COVER	GC200	SSC13, 14	26078	IMPELLER KEY	SM45C	STS304, 316
15134	PACKING	CARBON FIBER	-	27001	GASKET_SLEEVE	TEFLON	-
15135	PACKING RETAINER	GC200	SSC13, 14	30299	BALL BEARING	Steel	-
17029	GASKET_CASING	OIL SHEET	-	30708	BEARING COVER	GC200	-
18359	STUD BOLT	SM45C	STS304, 316	30781	BEARING BRACKET	GC200	-
18475	HEX BOLT	SM45C	STS304, 316	38211	HEX BOLT	SM20C	-
19546	PLUG	CAC406	STS304, 316	49026	SUPPORT	SS275	-
19548	PLUG	CAC406	STS304, 316	28160	LOCKWASHER	SM45C	STS304, 316

※ Part No. 15022, 15070 are applicable for M/Seal Option  
 ※ CARBON FIBER : Carbonized Fiber Impregnated with PTFE Braided Packing

[ FIGURE IV ]



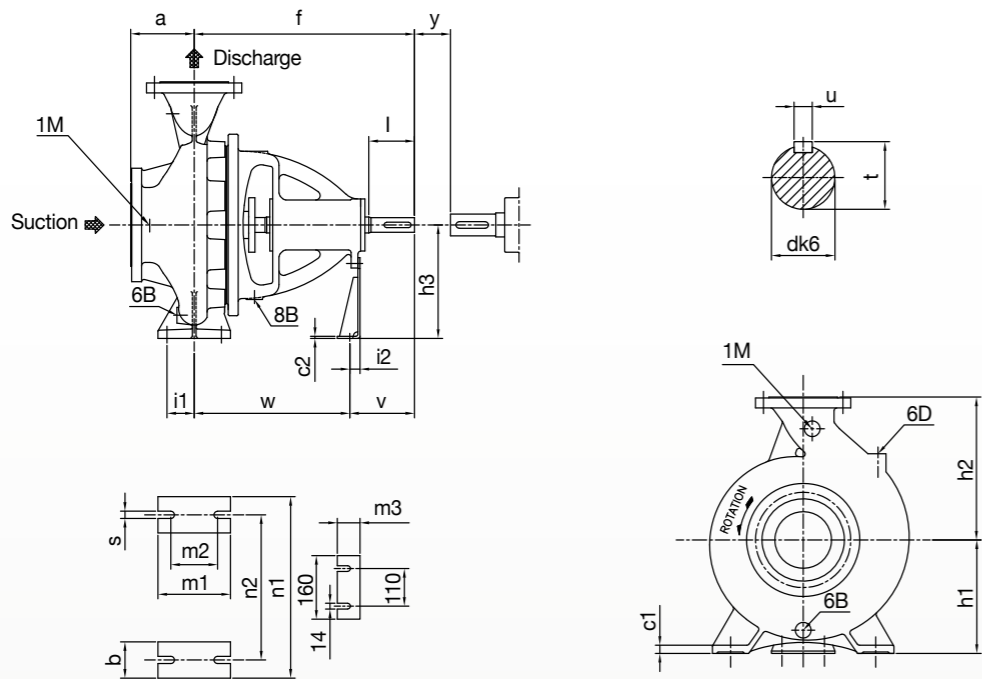
부품번호 Part No.	부품명 Part Name	표준재질 Material	선택사양 Option	부품번호 Part No.	부품명 Part Name	표준재질 Material	선택사양 Option
10546	VOLUTE CASING	GC200	SSC13, 14	20131	PROTECT RING	Rubber	-
10564	CASING RING	GC200	SSC13, 14	20251	SHAFT	SM45C	STS304, 316
10565	CASING RING	GC200	SSC13, 14	21116	IMPELLER	GC200	SSC13, 14
11029	STUFFINGHOUSING	GC200	SSC13, 14	21117	IMPELLERNUT	SM45C	STS304, 316
15001	LANTERN RING	Acetal	STS304, 316	22035	SHAFT SLEEVE	SM45C	STS304, 316
15022	MECHANICAL SEAL	SiC/Carbon	Requirement	26068	COUPLING KEY	SM45C	STS304, 316
15070	M/SEAL COVER	GC200	SSC13, 14	26078	IMPELLER KEY	SM45C	-
15134	PACKING	CARBON FIBER	-	27001	GASKET_SLEEVE	TEFLON	-
15135	PACKING RETAINER	GC200	SSC13, 14	30299	BALL BEARING	Steel	-
17029	GASKET_CASING	LIQUID	-	30708	BEARING COVER	GC200	-
18359	STUD BOLT	SM45C	STS304, 316	30781	BEARING BRACKET	GC200	-
18475	HEX BOLT	SM45C	STS304, 316	38211	HEX BOLT	SM20C	-
19546	PLUG	CAC406	STS304, 316	49026	SUPPORT	SS275	-
19548	PLUG	CAC406	STS304, 316	28160	LOCKWASHER	SM45C	STS304, 316

※ Part No. 15022, 15070 are applicable for M/Seal Option  
 ※ CARBON FIBER : Carbonized Fiber Impregnated with PTFE Braided Packing

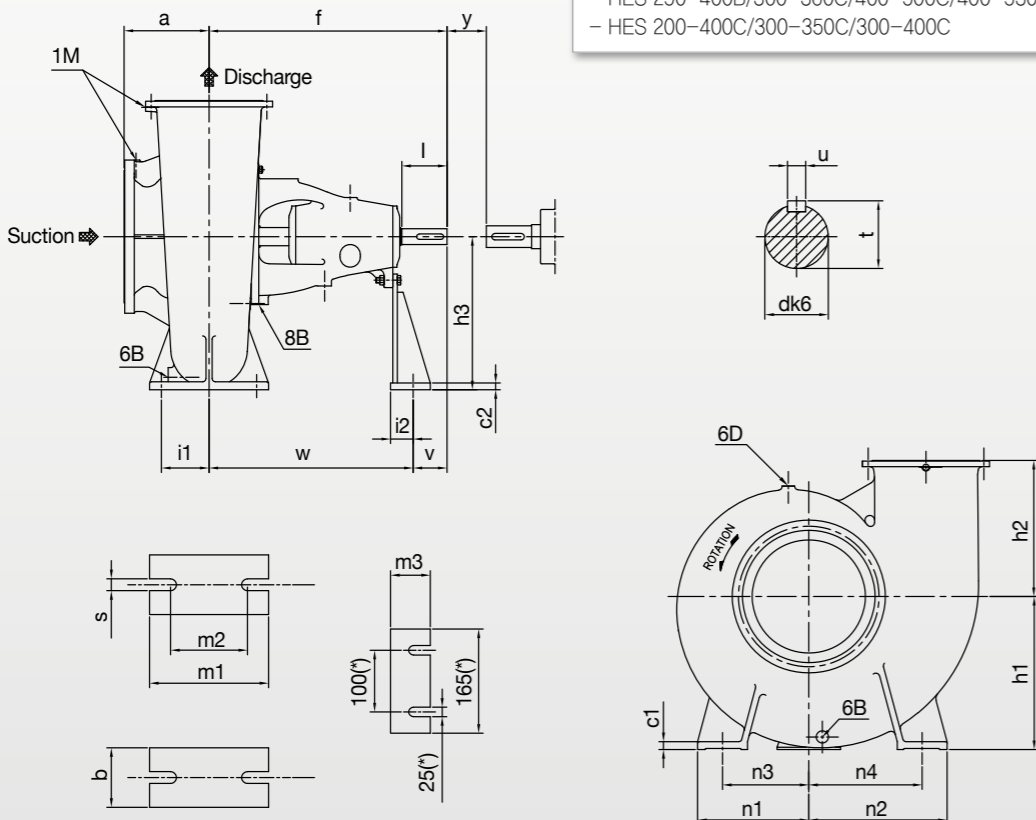
## 외형도 Outline Drawing

## 외형 치수표 Outline Dimension

[ FIGURE I ]



[ FIGURE II ]



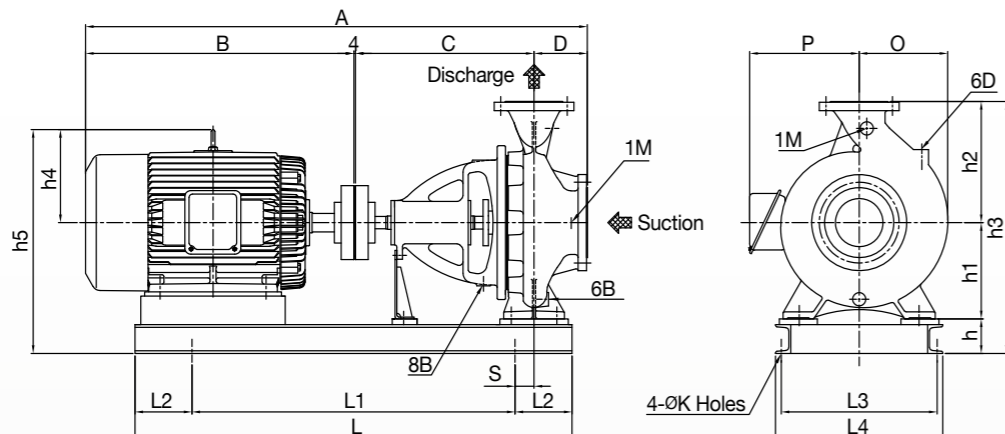
하기 모델의 상기 (\*)치수는 별도 문의 바랍니다.  
 - HES 250-400B/300-360C/400-500C/400-530C/500-500C  
 - HES 200-400C/300-350C/300-400C

Unit : mm

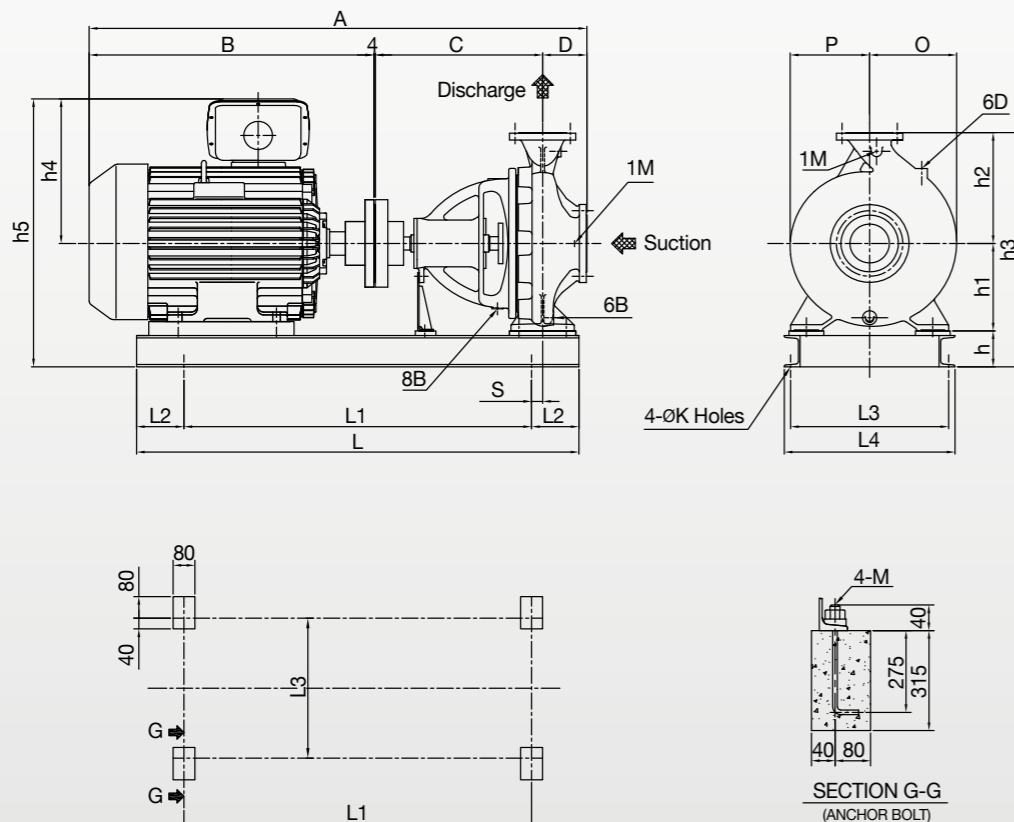
Pump Size	Bore		Pump										Foot										Stub Shaft				Weight (kg)	Fig			
	NWS	NWD	a	e	f	h1	h2	h3	y	b	m1	m2	m3	s	n1	n2	n3	n4	i1	i2	i3	c1	c2	v	w	dk6			l	u	t
HES32-160	50	32	80	-	360	132	160	132	100	50	100	70	50	14	240	190	-	-	35	26	-	15	4.5	100	260	24	52	8	27	33	I
HES32-200	50	32	80	-	360	160	180	160	100	50	100	70	50	14	240	190	-	-	35	26	-	15	4.5	100	260	24	52	8	27	38	I
HES32-250	50	32	80	-	360	180	225	180	100	65	125	95	50	14	320	250	-	-	47.5	26	-	17	4.5	95	265	24	52	8	27	50	I
HES40-200	65	40	100	-	360	160	180	160	100	50	100	70	50	14	265	212	-	-	35	26	-	15	4.5	95	265	24	52	8	27	41	I
HES40-250	65	40	100	-	360	180	225	180	100	65	125	95	50	14	320	250	-	-	47.5	26	-	17	4.5	95	265	24	52	8	27	51	I
HES40-315	65	40	125	-	470	225	250	225	100	65	125	95	50	14	345	280	-	-	47.5	26	-	17	4.5	130	340	32	80	10	35	83	I
HES50-160	65	50	100	-	360	160	180	160	100	50	100	70	50	14	265	212	-	-	35	26	-	15	4.5	100	260	24	52	8	27	37	I
HES50-200	65	50	100	-	360	160	200	160	100	50	100	70	50	14	265	212	-	-	35	26	-	15	4.5	95	265	24	52	8	27	43	I
HES50-250	65	50	100	-	360	180	225	180	100	65	125	95	50	14	320	250	-	-	47.5	26	-	17	4.5	95	265	24	52	8	27	53	I
HES50-315	65	50	125	-	470	225	280	225	100	65	125	95	50	14	345	280	-	-	47.5	26	-	17	4.5	130	340	32	80	10	35	85	I
HES65-160	80	65	100	-	360	160	200	160	100	65	125	95	50	14	280	212	-	-	47.5	26	-	17	4.5	95	265	24	52	8	27	44	I
HES65-200	80	65	100	-	360	180	225	180	100	65	125	95	50	14	320	250	-	-	47.5	26	-	17	4.5	95	265	24	52	8	27	48	I
HES65-250	80	65	100	-	470	200	250	200	100	80	160	120	50	14	360	280	-	-	60	26	-	18	4.5	130	340	32	80	10	35	70	I
HES65-315	80	65	125	-	470	225	280	225	140	80	160	120	50	14	380	315	-	-	60	26	-	18	4.5	130	340	32	80	10	35	91	I
HES80-160	100	80	125	-	360	180	225	180	100	65	125	95	50	14	320	250	-	-	47.5	26	-	17	4.5	95	265	24	52	8	27	49	I
HES80-200	100	80	125	-	470	180	250	180	100	65	125	95	50	14	345	280	-	-	47.5	26	-	17	4.5	130	340	32	80	10	35	59	I
HES80-250	100	80	125	-	470	200	280	200	100	80	160	120	50	14	400	315	-	-	60	26	-	18	4.5	130	340	32	80	10	35	75	I
HES80-315	100	80	125	-	470	250	315	250	140	70	160	120	50	14	380	315	-	-	60	26	-	18	4.5	130	340	32	80	10	35	96	I
HES80-400	100	80	125	-	530	280	355	280	140	80	160	120	50	14	435	355	-	-	60	26	-	18	4.5	160	370	42	110	12	45	142	I
HES100-160	125	100	125	-	470	200	280	200	140	80	160	120	50	14	360	280	-	-	60	26	-	18	4.5	130	340	32	80	10	35	68	I
HES100-200	125	100	125	-	470	200	280	200	140	80	160	120	50	14	360	280	-	-	60	26	-	18	4.5	130	340	32	80	10	35	71	I
HES100-250 (E)	125	100	140	-	470	225	280	225	140	80	160	120	50	14	400	315	-	-	60	26	-	18	4.5	130	340	32	80	10	35	83	I
HES100-315 (E)	125	100	140	-	470	250	315	250	140	80	160	120	50	14	380	315	-	-	60	26	-	18	4.5	130	340	32	80	10	35	105	I
HES100-400	125	100	140	-	530	280	355	280	140	100	200	150	50	14	500	400	-	-	75	26	-	20	4.5	160	370	42	110	12	45	154	I
HES125-200	150	125	140	-	470	250	315	250	140	70	160	120	50	14	380	315	-	-	60	26	-	18	4.5	130	340	32	80	10	35	93	I
HES125-250 (E)	150	125	140	-	470	250	355	250	140	80	160	120	50	14	400	315	-	-	60	26	-	18	4.5	130	340	32	80	10	35	93	I
HES125-315	150	125	140	-	530	280	355	280	140	100	200	150	50	14	500	400	-	-	75	26	-	20	4.5	160	370	42	110	12	45	138	I
HES125-400	150	125	140	-	530	315	400	315	140	100	200	150	50	14	500	400	-	-	75	26	-	20	4.5	160	370	42	110	12	45	166	I
HES125-500	150	125	140	307	670	355	400	355	200	100	300	230	110	28	230	270	180	220	115	60	115	25	20	70	600	48	110	14	51.5	305	II
HES150-200	200	150	160	-	470	280	400	280	140	100	200	150	50	14	550	450	-	-	75	26	-	20	4.5	130	340	32	80	10	35	146	I
HES150-250	200	150	160	-	470	280	400	280	140	100	200	150	50	14	500	400	-	-	75	26	-	20	4.5	130	340	32	80	10	35	130	I
HES150-315 (E)	200	150	160	-	530	280	400	280	140	100	200	150	50	14	550	450	-	-	75	26	-	20	4.5	160	370	42	110	12	45	156	I
HES150-400 (E)	200	150	160	-	530	315	450	315	140	100	200	150	50	14	550	400	-	-	75	26	-	20	4.5	160	370	42	110	12	45	202	I
HES150-500	200	150	150	315	670	355	450	355	200	100	300	230	110	28	240	260	190	210	115	60	115	25	20	70	600	48	110	14	51.5	330	II
HES200-250	200	200	220	250	770	355	345	355	200	100	300	230	110	28	220	280	170	230	109	60	121	25	20	70	700	48	110	14	51.5	316	I
HES200-260	200	200	200	300	670	400	350	400	200	100	300	230	110	28	220	280	170	230	115	60	115	25	20	70	600	48	110	14	51.5	326	I
HES200-330 (E)	250	200	200	315	670	400	400	400	200	100	300	230	110	28	220	280	170	230	115	60	115	25	20	70	600	48	110	14	51.5	333	I
HES200-400	250	200	180	290	670	400	400	400	200	130	300	230	110	28	220	280	155	215	115	60	115	25	20	70	600	48	110	14	51.5	396	I
HES200-500	250	200	200	387	670	500	450	500	200	130	350	280	110	28	320	380	255	315	140	60	140	25	20	70	600	48	110	14	51.5	465	II
HES250-300	250	250	225	300	785	400	400	400	200	130	300	230	110	28	270	330	205	265	95	60	135	25	20	70	715	48	110	14	51.5	395	I
HES250-330	250	250	250	345	670	450	400	450	200	130	350	280	110	34	310	390	245	325	140	60	140	25	20	70	600	48	110	14	51.5	397	I
HES250-400	300	250	180	335	720	450	480	450	200	130	350	290	110	34	320	380	255	315	145	60	145	25	20	120	600	60	140	18	64	520	I
HES250-500	300	250	225	425	720	500	500	500	200	130	400	325	110	34	360	440	295	375	162.5	60	162.5	32	20	120	600	60	140	18	64	551	II
HES300-340	300	300	255	315	805	450	450	450	200	160	350	280	110	34	310	390	230	310	120	60	160	25	20	70	735	48	110	14	51.5	523	I
HES300-360	300	300	300	387	670	560	450	560	200	160	400	325	110	34	310	390	230	310	162.5	60	162.5	32	20	70	600	48	110	14	51.5	549	I
HES300-400	350	300	300	425	720	560	500	560	200	160	400	325	110	34	350	450	270	370	162.5	60	162.5	32	20	120	600	60	140	18	64	612	I
HES300-500	350																														

## 외형도 Outline Drawing

[ FIGURE III, 45kW 이하 ]



[ FIGURE IV, 55kW 이상 ]



## 외형 치수표 Outline Dimension

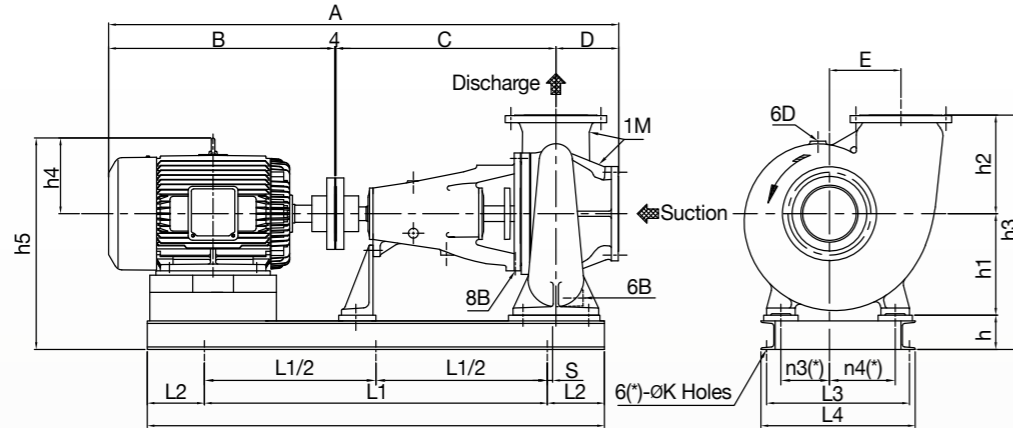
Pump	Motor		Pump & Motor													BED							Weight [kg]			Fig		
	Suc	Dis	[kW]	Frame No.	A	B	C	D	O	P	h	h1	h2	h3	h4	h5	L	L1	L2	L3	L4	S	M	K	Pump		Motor	Bed
HES32-160	50	32	1.5	90L,4P,TE	779	335	360	80	112	150	90	132	160	382	102	324	700	400	150	250	280	80	M12	15	33	30	24	III
HES32-160	50	32	2.2	100L,4P,TE	781	337	360	80	112	150	90	132	160	382	150	372	700	400	150	250	280	80	M12	15	33	43	24	III
HES32-160	50	32	3.7	112M,4P,TE	822	378	360	80	112	190	90	132	160	382	173	395	750	450	150	250	280	80	M12	15	33	53	24	III
HES32-200	50	32	0.75	80M,4P,TE	721	277	360	80	127	135	90	160	180	430	92	342	650	350	150	250	280	80	M12	15	38	19	24	III
HES32-200	50	32	1.5	90L,4P,TE	781	337	360	80	127	150	90	160	180	430	102	352	700	400	150	250	280	80	M12	15	38	30	25	III
HES32-200	50	32	2.2	100L,4P,TE	820	376	360	80	127	180	90	160	180	430	150	400	750	450	150	250	280	80	M12	15	38	43	26	III
HES32-200	50	32	3.7	112M,4P,TE	822	378	360	80	127	190	90	160	180	430	173	423	750	450	150	250	280	80	M12	15	38	53	26	III
HES32-250	50	32	1.5	90L,4P,TE	801	337	360	100	151	165	90	180	225	495	102	372	750	450	150	330	360	65	M12	15	38	30	31	III
HES32-250	50	32	2.2	100L,4P,TE	840	376	360	100	151	180	90	180	225	495	150	420	750	450	150	330	360	65	M12	15	50	43	31	III
HES32-250	50	32	3.7	112M,4P,TE	842	378	360	100	151	190	90	180	225	495	173	443	750	450	150	330	360	65	M12	15	50	53	31	III
HES32-250	50	32	5.5	132S,4P,TE	906	442	360	100	151	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	50	73	31	III
HES40-200	65	40	0.75	80M,4P,TE	741	277	360	100	136	150	90	160	180	430	92	342	650	350	150	290	320	80	M12	15	41	19	26	III
HES40-200	65	40	1.5	90L,4P,TE	801	337	360	100	136	150	90	160	180	430	102	352	700	400	150	290	320	80	M12	15	41	30	26	III
HES40-200	65	40	2.2	100L,4P,TE	840	376	360	100	136	180	90	160	180	430	150	400	750	450	150	290	320	80	M12	15	41	43	28	III
HES40-200	65	40	3.7	112M,4P,TE	842	378	360	100	136	190	90	160	180	430	173	423	750	450	150	290	320	80	M12	15	41	53	28	III
HES40-200	65	40	5.5	132S,4P,TE	906	442	360	100	136	213	90	160	180	430	188	438	850	550	150	290	320	80	M12	15	41	73	29	III
HES40-250	65	40	1.5	90L,4P,TE	801	337	360	100	160	165	90	180	225	495	102	372	750	450	150	330	360	65	M12	15	51	30	24	III
HES40-250	65	40	2.2	100L,4P,TE	840	376	360	100	160	187	81	180	225	486	150	411	750	450	150	330	360	65	M12	15	51	43	24	III
HES40-250	65	40	3.7	112M,4P,TE	842	378	360	100	160	190	90	180	225	495	173	443	750	450	150	330	360	65	M12	15	51	53	29	III
HES40-250	65	40	5.5	132S,4P,TE	906	442	360	100	160	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	51	73	31	III
HES40-250	65	40	7.5	132M,4P,TE	945	481	360	100	160	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	51	85	31	III
HES40-315	65	40	2.2	100L,4P,TE	975	376	470	125	184	187	90	225	250	565	150	465	900	600	150	350	380	65	M12	15	83	43	38	III
HES40-315	65	40	3.7	112M,4P,TE	977	378	470	125	184	197	90	225	250	565	173	488	900	600	150	350	380	65	M12	15	83	53	38	III
HES40-315	65	40	5.5	132S,4P,TE	1041	442	470	125	184	213	90	225	250	565	188	503	950	650	150	350	380	65	M12	15	83	73	40	III
HES40-315	65	40	7.5	132M,4P,TE	1080	481	470	125	184	213	90	225	250	565	188	503	950	650	150	350	380	65	M12	15	83	85	40	III
HES40-315	65	40	11	160M,4P,TE	1187	588	470	125	184	261	90	225	250	565	220	535	1100	800	150	350	380	65	M12	15	83	136	48	III
HES40-315	65	40	15	160L,4P,TE	1231	632	470	125	184	261	90	225	250	565	220	535	1100	800	150	350	380	65	M12	15	83	161	48	III
HES50-160	65	50	0.75	80M,4P,TE	741	277	360	100	141	150	90	160	180	430	92	342	650	350	150	290	320	80	M12	15	37	19	25	III
HES50-160	65	50	1.5	90L,4P,TE	801	337	360	100	141	150	90	160	180	430	102	352	700	400	150	290	320	80	M12	15	37	30	26	III
HES50-160	65	50	2.2	100L,4P,TE	840	376	360	100	141	180	90	160	180	430	150	400	750	450	150	290	320	80	M12	15	37	43	28	III
HES50-160	65	50	3.7	112M,4P,TE	842	378	360	100	141	190	90	160	180	430	173	423	750	450	150	290	320	80	M12	15	37	53	27	III
HES50-200	65	50	1.5	90L,4P,TE	801	337	360	100	156	150	90	160	200	450	102	352	700	400	150	290	320	80	M12	15	43	30	26	III
HES50-200	65	50	2.2	100L,4P,TE	840	376	360	100	156	180	90	160	200	450	150	400	750	450	150	290	320	80	M12	15	43	43	28	III
HES50-200	65	50	3.7	112M,4P,TE	842	378	360	100	156	190	90	160	200	450	173	423	750	450	150	290	320	80	M12	15	43	53	27	III
HES50-200	65	50	5.5	132S,4P,TE	906	442	360	100	156	213	90	160	200	450	188	438	850	550	150	290	320	80	M12	15	43	73	29	III
HES50-200	65	50	7.5	132M,4P,TE	945	481	360	100	156	213	90	160	200	450	188	438	850	550	150	290	320	80	M12	15	43	85	29	III
HES50-200	65	50	11	160M,4P,TE	1052	588	360	100	156	261	90	160	200	450	220	470	950	650	150	330	360	80	M12	15	43	136	35	III
HES50-250	65	50	2.2	100L,4P,TE	840	376	360	100	171	180	90	160	225	475	150	400	750	450	150	330	360	65	M12	15	53	43	31	III
HES50-250	65	50	3.7	112M,4P,TE	842	378	360	100	171	190	90	180	225	495	173	443	750	450	150	330	360	65	M12	15	53	53	31	III
HES50-250	65	50	5.5	132S,4P,TE	906	442	360	100	171	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	53	73	31	III
HES50-250	65	50	7.5	132M,4P,TE	945	481	360	100	171	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	53	85	31	III
HES50-250	65	50	11	160M,4P,TE	1052	588	360	100	171	261	90	180	225	495	220	490	1000	700	150	330	360	65	M12	15	53	136	47	III
HES50-315	65	50	2.2	100L,4P,TE	975	376	470	125	202	180	90	225	280	595	150	465	900	600	150	350	380	65	M12	15	85	43	38	III
HES50-315	65	50	3.7	112M,4P,TE	977	378	470	125	202	190	90	225	280	595	173	488	900	600	150	350	380	65	M12	15	85	53	37	III
HES50-315	65	50	5.5	132S,4P,TE	1041	442	470	125	202	213	90	225	280	595	188	503	950	650	150	350	380	65	M12	15	85	73	38	III
HES50-315	65	50	7.5	132M,4P,TE	1080	481	470	125	202	213	90	225	280	595	188	503	950	650	150	350	380	65	M12	15	85	85	38	III
HES50-315	65	50	11	160M,4P,TE	1187	588	470	125	202	261	90	225	280	595	220	535	1100	800	150	350	380	65	M12	15	85	136	48	III
HES50-315	65	50	15	160L,4P,TE	1231	632	470	125	202	261	90	225	280	595	220	535	1100	800	150	350	380	65	M12	15	85	161	48	III
HES65-160	80	65	1.5	90L,4P,TE	801	337	360	100	148	150	90	160	200	450	102	352	750											

## 외형 치수표 Outline Dimension

Pump	Motor		Pump & Motor															BED			Weight [kg]			Fig				
	Suc	Dis	[kW]	Frame No.	A	B	C	D	O	P	h	h1	h2	h3	h4	h5	L	L1	L2	L3	L4	S	M		K	Pump	Motor	Bed
HES65-200	80	65	5.5	132S,4P,TE	906	442	360	100	167	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	48	73	31	III
HES65-200	80	65	7.5	132M,4P,TE	945	481	360	100	167	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	48	85	31	III
HES65-200	80	65	11	160M,4P,TE	1052	588	360	100	167	261	90	180	225	495	220	490	1000	700	150	330	360	65	M12	15	48	136	47	III
HES65-200	80	65	15	160L,4P,TE	1096	632	360	100	167	261	90	180	225	495	220	490	1000	700	150	330	360	65	M12	15	48	161	47	III
HES65-250	80	65	5.5	132S,4P,TE	1016	442	470	100	187	213	90	200	250	540	188	478	1000	700	150	370	400	50	M12	15	70	73	38	III
HES65-250	80	65	7.5	132M,4P,TE	1055	481	470	100	187	213	90	200	250	540	188	478	1000	700	150	370	400	50	M12	15	70	85	38	III
HES65-250	80	65	11	160M,4P,TE	1162	588	470	100	187	261	90	200	250	540	220	510	1100	800	150	370	400	50	M12	15	70	136	46	III
HES65-250	80	65	15	160L,4P,TE	1206	632	470	100	187	261	90	200	250	540	220	510	1100	800	150	370	400	50	M12	15	70	161	46	III
HES65-250	80	65	18.5/22	180M,4P,TE	1221	647	470	100	187	295	90	200	250	540	235	525	1150	850	150	370	400	50	M12	15	70	223	52	III
HES65-315	80	65	5.5	132S,4P,TE	1041	442	470	125	211	213	90	225	280	595	188	503	1000	700	150	390	420	50	M12	15	91	73	43	III
HES65-315	80	65	7.5	132M,4P,TE	1080	481	470	125	211	213	90	225	280	595	188	503	1000	700	150	390	420	50	M12	15	91	85	43	III
HES65-315	80	65	11	160M,4P,TE	1187	588	470	125	211	261	90	225	280	595	220	535	1100	800	150	390	420	50	M12	15	91	136	51	III
HES65-315	80	65	15	160L,4P,TE	1231	632	470	125	211	261	90	225	280	595	220	535	1100	800	150	390	420	50	M12	15	91	161	51	III
HES65-315	80	65	18.5/22	180M,4P,TE	1246	647	470	125	211	295	90	225	280	595	235	550	1150	850	150	390	420	50	M12	15	91	223	55	III
HES65-315	80	65	30	180L,4P,TE	1305	706	470	125	211	288	90	225	280	595	235	550	1150	850	150	390	420	50	M12	15	91	238	55	III
HES80-160	100	80	2.2	100L,4P,TE	865	376	360	125	170	160	90	180	225	495	150	420	750	450	150	330	360	65	M12	15	49	43	31	III
HES80-160	100	80	3.7	112M,4P,TE	867	378	360	125	170	190	90	180	225	495	173	443	750	450	150	330	360	65	M12	15	49	53	31	III
HES80-160	100	80	5.5	132S,4P,TE	931	442	360	125	170	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	49	73	31	III
HES80-160	100	80	7.5	132M,4P,TE	970	481	360	125	170	213	90	180	225	495	188	458	850	550	150	330	360	65	M12	15	49	85	31	III
HES80-160	100	80	11	160M,4P,TE	1077	588	360	125	170	213	90	180	225	495	220	490	1000	700	150	330	360	65	M12	15	49	136	47	III
HES80-200	100	80	3.7	112M,4P,TE	977	378	470	125	183	190	90	180	250	520	173	443	900	600	150	350	380	65	M12	15	59	53	34	III
HES80-200	100	80	5.5	132S,4P,TE	1041	442	470	125	183	213	90	180	250	520	188	458	950	650	150	350	380	65	M12	15	59	73	37	III
HES80-200	100	80	7.5	132M,4P,TE	1080	481	470	125	183	213	90	180	250	520	188	458	950	650	150	350	380	65	M12	15	59	85	37	III
HES80-200	100	80	11	160M,4P,TE	1187	588	470	125	183	261	90	180	250	520	220	490	1100	800	150	350	380	65	M12	15	59	136	49	III
HES80-200	100	80	15	160L,4P,TE	1231	632	470	125	183	261	90	180	250	520	220	490	1100	800	150	350	380	65	M12	15	59	161	49	III
HES80-250	100	80	5.5	132S,4P,TE	1041	442	470	125	209	213	90	200	280	570	188	478	1000	700	150	410	440	50	M12	15	75	73	48	III
HES80-250	100	80	7.5	132M,4P,TE	1080	481	470	125	209	213	90	200	280	570	188	478	1000	700	150	410	440	50	M12	15	75	85	48	III
HES80-250	100	80	11	160M,4P,TE	1187	588	470	125	209	261	90	200	280	570	220	510	1100	800	150	410	440	50	M12	15	75	136	51	III
HES80-250	100	80	15	160L,4P,TE	1231	632	470	125	209	261	90	200	280	570	220	510	1100	800	150	410	440	50	M12	15	75	161	51	III
HES80-250	100	80	18.5/22	180M,4P,TE	1246	647	470	125	209	295	90	200	280	570	235	525	1150	850	150	410	440	50	M12	15	75	223	53	III
HES80-315	100	80	11	160M,4P,TE	1187	588	470	125	219	261	90	250	315	655	220	560	1100	800	150	410	440	50	M12	15	96	136	61	III
HES80-315	100	80	15	160L,4P,TE	1231	632	470	125	219	261	90	250	315	655	220	560	1100	800	150	410	440	50	M12	15	96	161	61	III
HES80-315	100	80	18.5/22	180M,4P,TE	1246	647	470	125	219	295	90	250	315	655	235	575	1150	850	150	410	440	50	M12	15	96	223	63	III
HES80-315	100	80	30	180L,4P,TE	1305	706	470	125	219	288	90	250	315	655	235	575	1150	850	150	410	440	50	M12	15	96	238	63	III
HES80-315	100	80	37/45	200L,4P,TE	1390	791	470	125	219	409	90	250	315	655	265	605	1250	950	150	410	440	50	M12	15	96	325	67	III
HES80-400	100	80	11	160M,4P,TE	1247	588	530	125	267	261	90	280	355	725	220	590	1150	850	150	430	460	50	M12	15	142	136	52	III
HES80-400	100	80	15	160L,4P,TE	1291	632	530	125	267	261	90	280	355	725	220	590	1150	850	150	430	460	50	M12	15	142	161	52	III
HES80-400	100	80	18.5/22	180M,4P,TE	1366	647	530	125	267	295	90	280	355	725	235	605	1200	900	150	430	460	50	M12	15	142	223	58	III
HES80-400	100	80	30	180L,4P,TE	1365	706	530	125	267	288	90	280	355	725	235	605	1200	900	150	430	460	50	M12	15	142	238	58	III
HES80-400	100	80	37/45	200L,4P,TE	1450	791	530	125	267	409	115	280	355	750	265	660	1300	1000	150	430	460	50	M16	19	142	325	70	III
HES80-400	100	80	55	225S,4P,TE	1476	817	530	125	267	443	115	280	355	750	295	790	1300	1000	150	450	480	50	M16	19	142	390	70	IV
HES100-160	125	100	3.7	112M,4P,TE	977	378	470	125	215	197	90	200	280	570	173	463	900	600	150	370	400	30	M12	15	68	53	38	III
HES100-160	125	100	5.5	132S,4P,TE	1041	442	470	125	215	213	90	200	280	570	188	478	1000	700	150	370	400	30	M12	15	68	73	38	III
HES100-160	125	100	7.5	132M,4P,TE	1080	481	470	125	215	213	90	200	280	570	188	478	1000	700	150	370	400	30	M12	15	68	85	38	III
HES100-160	125	100	11	160M,4P,TE	1187	588	470	125	215	261	90	200	280	570	220	510	1100	800	150	370	400	30	M12	15	68	136	46	III
HES100-200	125	100	5.5	132S,4P,TE	1041	442	470	125	201	213	90	200	280	570	188	478	1000	700	150	370	400	30	M12	15	71	73	38	III
HES100-200	125	100	7.5	132M,4P,TE	1080	481	470	125	201	213	90	200	280	570	188	478	1000	700	150	370	400	30	M12	15	71	85	38	III
HES100-200	125	100	11	160M,4P,TE	1187	588	470	125	201	261	90	200	280	570	220	510	1100	800	150	370	400	30	M12	15	71	136	46	III
HES100-200	125	100	15	160L,4P,TE	1231	632	470	125	201	261	90	200	280	570	220	510	1100	800	150	370	400	30	M12	15	71	161	46	III
HES100-200	125	100	18.5/22	180M,4P,TE	1246	647	470	125	201	295	90	200	280	570	235	525	1150											

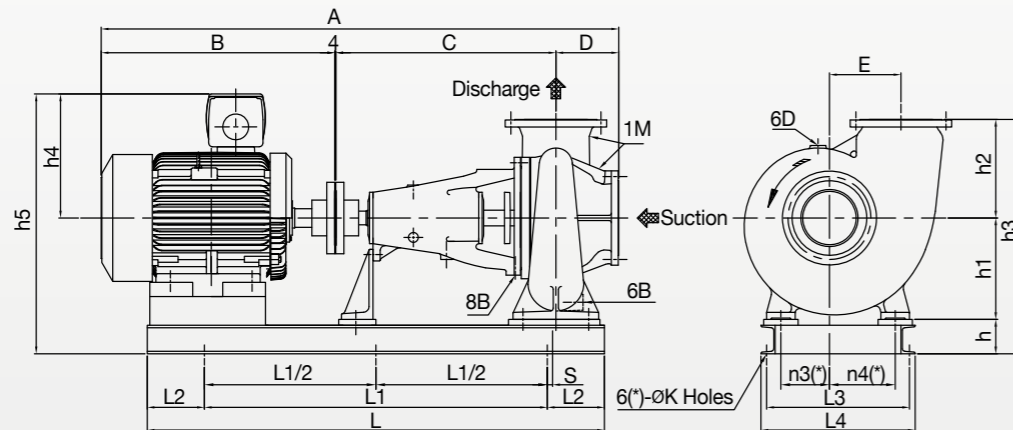
## 외형도 Outline Drawing

[ FIGURE V, 45kW 이하 ]

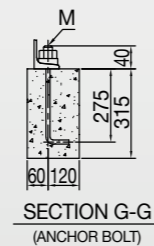
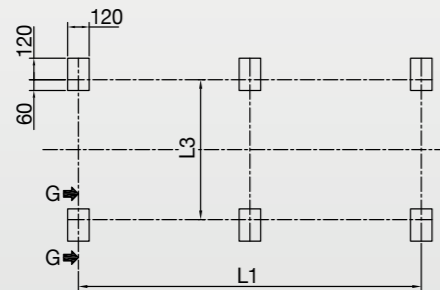


상기 (\*)치수는 하기 내용 참조  
 1. n3, n4 치수는 Figure II 치수표 참조  
 2. 앵커볼트 홀 수는 치수 M 참조

[ FIGURE VI, 55kW 이상 ]



상기 (\*)치수는 하기 내용 참조  
 1. n3, n4 치수는 Figure II 치수표 참조  
 2. 앵커볼트 홀 수는 치수 M 참조



## 외형 치수표 Outline Dimension

Pump	Motor		Pump & Motor													BED										Weight [kg]			Fig
	Suc	Dis	[kW]	Frame No.	A	B	C	D	E	h	h1	h2	h3	h4	h5	L	L1	L2	N1	N2	N3	N4	S	M	K	Pump	Motor	Bed	
HES200-250	200	200	22	180M,4P,TE	1662	668	770	220	250	120	355	345	820	235	710	1460	1160	150	240	300	220	280	167	6-M16	19	316	161	92	V
HES200-250	200	200	30	180L,4P,TE	1700	706	770	220	250	120	355	345	820	235	710	1500	1200	150	240	300	220	280	168	6-M16	19	316	182	95	V
HES200-250	200	200	37/45	200L,4P,TE	1785	791	770	220	250	120	355	345	820	265	740	1580	1180	200	240	300	220	280	170	6-M16	19	316	282	100	V
HES200-250	200	200	55	225S,4P,TE	1811	817	770	220	250	120	355	345	820	395	870	1600	1200	200	240	300	220	280	170	6-M16	19	316	345	105	VI
HES200-260	200	200	37/45	200L,4P,TE	1665	791	670	200	300	120	400	350	870	265	785	1480	1180	150	240	300	220	280	170	4-M16	19	326	282	92	V
HES200-260	200	200	55	225S,4P,TE	1686	812	670	200	300	120	400	350	870	395	915	1500	1200	150	240	300	220	280	170	4-M16	19	326	345	95	VI
HES200-260	200	200	75	250S,4P,TE	1775	901	670	200	300	120	400	350	870	450	970	1520	1120	200	270	300	250	280	170	6-M16	19	326	490	98	VI
HES200-330	250	200	55	225S,4P,TE	1686	812	670	200	300	120	400	350	870	395	915	1500	1200	150	240	300	220	280	170	4-M16	19	333	345	95	VI
HES200-330	250	200	75	250S,4P,TE	1775	901	670	200	315	120	400	400	920	450	970	1520	1120	200	270	300	250	280	170	6-M16	19	326	490	98	VI
HES200-330	250	200	90	250M,4P,TE	1813	939	670	200	315	120	400	400	920	450	970	1560	1160	200	270	300	250	280	170	6-M16	19	326	550	110	VI
HES200-330	250	200	110	280S,4P,TE	1936	1062	670	200	315	120	400	400	920	525	1045	1680	1280	200	300	300	280	280	170	6-M16	19	333	690	120	VI
HES200-330	250	200	132	280M,4P,TE	1942	1068	670	200	315	120	400	400	920	525	1045	1680	1280	200	300	300	280	280	170	6-M16	19	333	800	120	VI
HES200-330	250	200	160	315S,4P,TE	2093	1219	670	200	315	120	400	400	920	525	1045	1770	1370	200	300	300	280	280	170	6-M16	19	333	950	130	VI
HES200-400	250	200	75	250S,4P,TE	1755	901	670	180	290	150	400	400	950	450	1000	1520	1120	200	270	300	245	275	170	6-M20	23	396	490	145	VI
HES200-400	250	200	90	250M,4P,TE	1793	939	670	180	290	150	400	400	950	450	1000	1560	1160	200	270	300	245	275	170	6-M20	23	396	550	150	VI
HES200-400	250	200	110	280S,4P,TE	1871	1017	670	180	290	150	400	400	950	525	1075	1630	1230	200	300	300	275	275	170	6-M20	23	396	690	155	VI
HES200-400	250	200	132	280M,4P,TE	1922	1068	670	180	290	150	400	400	950	525	1075	1680	1280	200	300	300	275	275	170	6-M20	23	396	800	160	VI
HES200-400	250	200	160	315S,4P,TE	2073	1219	670	180	290	150	400	400	950	525	1075	1770	1370	200	300	300	275	275	170	6-M20	23	396	950	170	VI
HES200-400	250	200	185	315M,4P,TE	2073	1219	670	180	290	150	400	400	950	525	1075	1770	1370	200	300	300	275	275	170	6-M20	23	396	950	170	VI
HES250-300	250	250	75	250S,4P,TE	1914	900	785	225	300	150	400	400	950	450	1000	1630	1230	200	285	345	260	320	165	6-M20	23	395	490	137	VI
HES250-300	250	250	90	250M,4P,TE	1953	939	785	225	300	150	400	400	950	450	1000	1670	1270	200	285	345	260	320	165	6-M20	23	395	550	142	VI
HES250-300	250	250	110	280S,4P,TE	2031	1017	785	225	300	150	400	400	950	525	1075	1740	1340	200	295	345	270	320	165	6-M20	23	395	690	150	VI
HES250-330	250	250	55	225S,4P,TE	1736	812	670	250	345	150	450	400	1000	395	995	1520	1120	200	325	405	300	380	190	6-M20	23	397	345	165	VI
HES250-330	250	250	75	250S,4P,TE	1825	901	670	250	345	150	450	400	1000	450	1050	1540	1140	200	325	405	300	380	190	6-M20	23	397	490	165	VI
HES250-330	250	250	90	250M,4P,TE	1863	939	670	250	345	150	450	400	1000	450	1050	1580	1180	200	325	405	300	380	190	6-M20	23	397	550	166	VI
HES250-330	250	250	110	280S,4P,TE	1954	1030	670	250	345	150	450	400	1000	525	1125	1740	1340	200	325	405	300	380	190	6-M20	23	397	690	170	VI
HES250-330	250	250	132	280M,4P,TE	1992	1068	670	250	345	150	450	400	1000	525	1125	1700	1300	200	325	405	300	380	190	6-M20	23	397	800	168	VI
HES250-330	250	250	160	315S,4P,TE	2143	1219	670	250	345	150	450	400	1000	525	1125	1790	1390	200	325	405	300	380	190	6-M20	23	397	950	173	VI
HES250-330	250	250	185	315M,4P,TE	2314	1390	670	250	345	150	450	400	1000	525	1125	1790	1390	200	325	405	300	380	190	6-M20	23	397	950	173	VI
HES250-400	300	250	110	280S,4P,TE	1921	1017	720	180	335	175	450	480	1105	525	1150	1700	1300	200	335	395	305	365	190	6-M20	23	520	690	220	VI
HES250-400	300	250	132	280M,4P,TE	1972	1068	720	180	335	175	450	480	1105	525	1150	1750	1350	200	335	395	305	365	190	6-M20	23	520	800	223	VI
HES250-400	300	250	160	315S,4P,TE	2123	1219	720	180	335	175	450	480	1105	525	1150	1840	1440	200	335	395	305	365	190	6-M20	23	520	950	230	VI
HES250-400	300	250	185	315M,4P,TE	2123	1219	720	180	335	175	450	480	1105	525	1150	1840	1440	200	335	395	305	365	190	6-M20	23	520	950	230	VI
HES300-340	300	300	185	315M,4P,TE	2283	1219	805	255	315	150	450	450	1050	525	1125	1930	1530	200	330	410	305	385	195	6-M20	23	523	950	240	VI
HES300-340	300	300	200	315M,4P,TE	2283	1219	805	255	315	150	450	450	1050	525	1125	1930	1530	200	330	410	305	385	195	6-M20	23	523	950	240	VI
HES300-360	300	300	185	315M,4P,TE	2193	1219	670	300	387	150	560	450	1160	525	1235	1820	1420	200	330	410	305	385	220	6-M20	23	549	950	229	VI
HES300-360	300	300	200	315M,4P,TE	2193	1219	670	300	387	150	560	450	1160	525	1235	1820	1420	200	330	410	305	385	220	6-M20	23	549	950	229	VI
HES300-400	350	300	132	280M,4P,TE	2092	1068	720	300	425	150	560	500	1210	525	1235	1780	1380	200	370	470	345	445	220	6-M20	23	612	800	237	VI
HES300-400	350	300	160	315S,4P,TE	2243	1219	720	300	425	150	560	500	1210	525	1235	1870	1470	200	370	470	345	445	220	6-M20	23	612	950	240	VI
HES300-400	350	300	185	315M,4P,TE	2243	1219	720	300	425	150	560	500	1210	525	1235	1870	1470	200	370	470	345	445	220	6-M20	23	612	950	240	VI
HES300-400	350	300	200	315M,4P,TE	2243	1219	720	300	425	150	560	500	1210	525	1235	1870	1470	200	370	470	345	445	220	6-M20	23	612	950	240	VI

\* 상기 표에 없는 동력 및 회전차경이 500인 모델은 별도 문의 요망  
 For models not listed in the above dimension table, please contact the head office.