

# NHGH

## Horizontal, External Gear Pumps with Built-in Relief Valve

횡축, 외치차 기어펌프 안전변 내장식



~20m<sup>3</sup>/h × ~16kg/cm<sup>2</sup>

### 설계 및 운전특징 / Design and operation features

01. 용도 : 윤활유, 연료유, 윤활성이 있는 액체
02. 사용압력 : 16kg/cm<sup>2</sup> 까지
03. 베어링 : 메탈베어링 내장식. 펌핑액체로써 윤활.
04. 안전변 : 내장식. 추천 설정 압력은 총 압력의 132%이며  
최저 8.5kg/cm<sup>2</sup>, 최고16.5kg/cm<sup>2</sup>
05. 축시일링 : 그랜드 팩킹 또는 메카니칼 씰
06. 펌핑온도 : 일반적으로 70℃ (최고 130℃)이내
07. 플랜지 : KS 또는 JIS 10kg/cm<sup>2</sup>(흡입측)  
KS 또는 JIS 16kg/cm<sup>2</sup>(토출측)  
플랜지는 모두 평면 플랜지임(FF)
08. 회전수 : 400cst 이내는 1800rpm 까지  
500cst 이내는 1500rpm 까지  
1000cst 이내는 1200~1000rpm 까지
09. 점도 : 5~2000cst
10. 표준용량 : 표준용량 25.8cst(Rw,No.1,100초)에서  
계산하였으며, 전동기 회전수 슬립은 고려되어 있다.  
25.8cst 이하에서 용량을 유지하기 위해서는  
큰 사이즈의 펌프를 선정하거나 회전수를  
높여야 한다.

※ 상기 사양범위를 초과하는 대형 펌프도 제작합니다.

01. Applications : Lubrication oil, fuel oil, liquids with lubricating property
02. Differential pressure : Up to 16kg/cm<sup>2</sup>.
03. Bearings : Internally setted metal bearing, lubricated by the pumping liquid.
04. Relief valve : Built-in type. Recommended Setting pressure is 132% of total pressure.  
Setting pressure : minimum 8.5kg/cm<sup>2</sup>  
maximum 16.5kg/cm<sup>2</sup>
05. Shaft sealing : Gland packing or mechanical seal.
06. Pumping temperature : Up to 70°C in general(max.130°C)
07. Flanges : KS or JIS 10kg/cm<sup>2</sup>,(suc)  
KS or JIS 16kg/cm<sup>2</sup>,(Dis)  
Flange faces are flat faced(FF)
08. Number of revolutions :  
Less than 400cst up to 1800rpm  
Less than 500cst up to 1500rpm  
Less than 1000cst up to 1200rpm~1000rpm
09. Viscosity : 5~2000cst.
10. Standard capacity : calculated at 25.8cst(Rw.No.1, 100sec),  
rpm-slip of motor is considered.  
To keep the capacity at iscosity less than  
25.8cst, select bigger size or increase rpm.

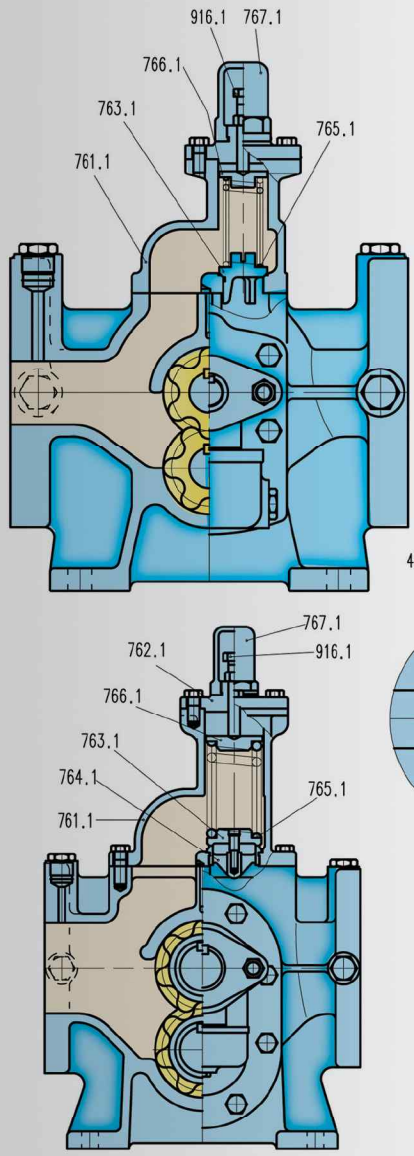
\*The out of the above range can be supplied according to customer's order placement

### 형식 표시 방법 / Type nomenclature

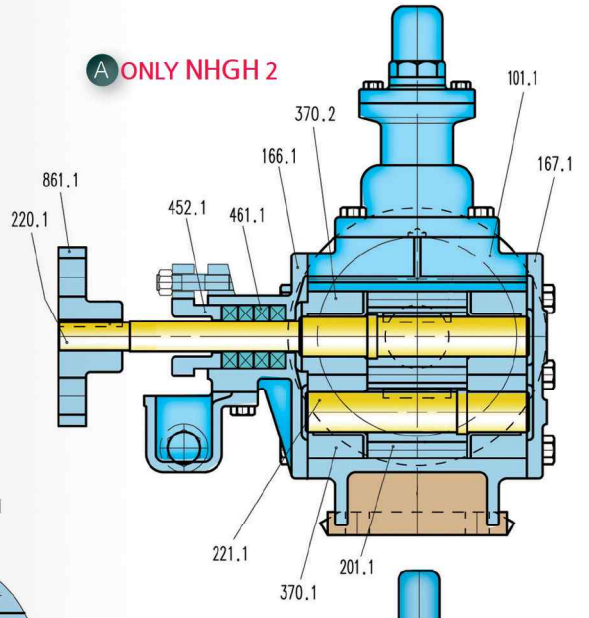
- ▶ 시리즈(Series)
- ▶ 1200rpm에서의 표준용량, m<sup>3</sup>/h (Standard capacity in m<sup>3</sup>/h at 1200rpm)

**NHGH - 3**

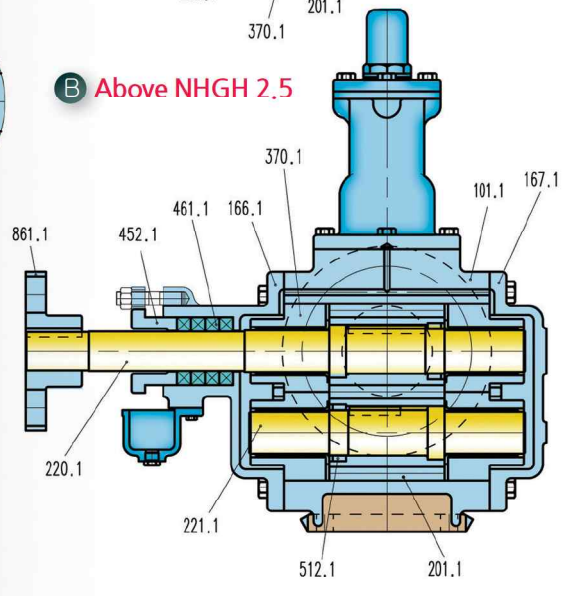
조립 단면도 / Sectional drawing



A ONLY NHGH 2



B Above NHGH 2.5



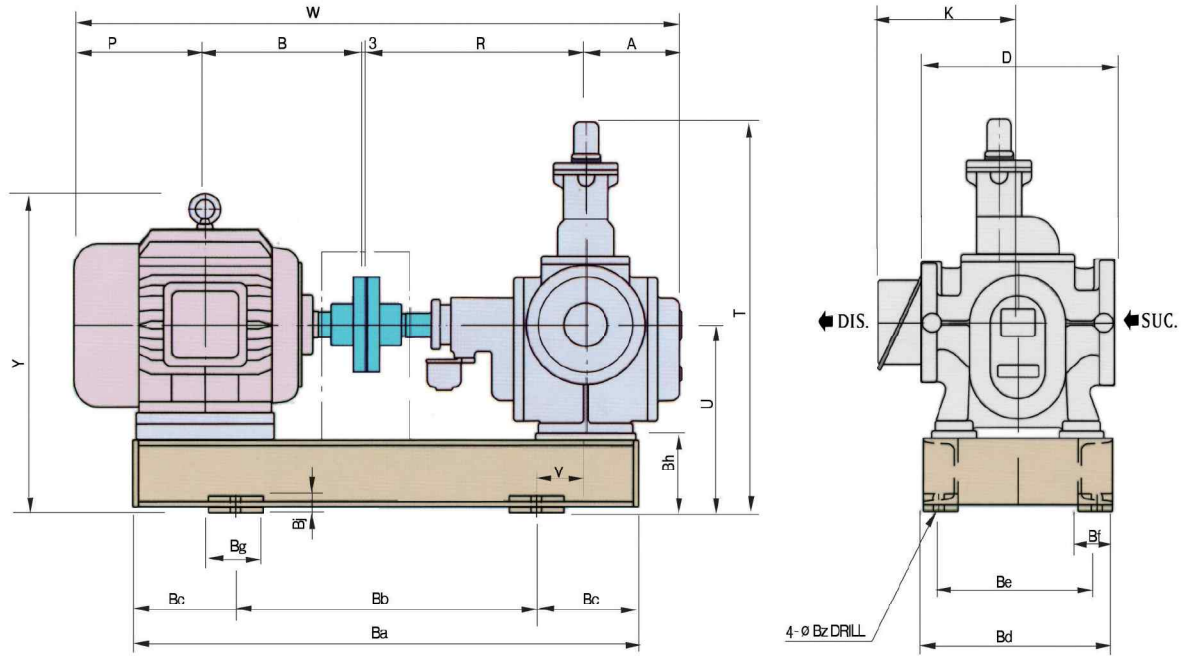
No	PART NAME	MATERIAL			Q'ty
		1	2	3	
101.1	PUMP CASING				1
166.1	SIDE COVER(INNER)	GC 200	GCD 450	SC 450	1
167.1	SIDE COVER(OUTER)				1
201.1	GEAR			SCM 440	1set
220.1	DRIVE SHAFT	SM 45C			1
221.1	DRIVEN SHAFT				1
370.1	SLIDING BEARING	GC 200+WM1 (WHITE METAL)			1
370.2	SLIDING BEARING				1
452.1	PACKING GLAND	GC 200			1
461.1	PACKING	NON METALLIC			1set
471.1	*SEAL COVER	SM 45C			1

\*OPTION

NO.	PART NAME	MATERIAL			Q'ty
		1	2	3	
512.1	GEAR SET RING	GC 200	GCD 450	SC 450	1
761.1	VALVE BODY				1
762.1	VALVE COVER	GC 200			
763.1	SAFETY VALVE	Below the NHGH 3 : CAC 406 Above the NHGH 4 : STS 304			1
764.1	VALVE SEAT	CAC 406			1
765.1	VALVE SPRING	SPS 6			1
766.1	SPRING CARRIER	SS 400			1
767.1	VALVE CAP	GC 200			1
861.1	COUPLING	GC 200			1
916.1	ADJUSTING SCREW	SS 400			1
433.1	*MECHANICAL SEAL				1set

# NHGH

## 외형치수도 / Outline dimensions



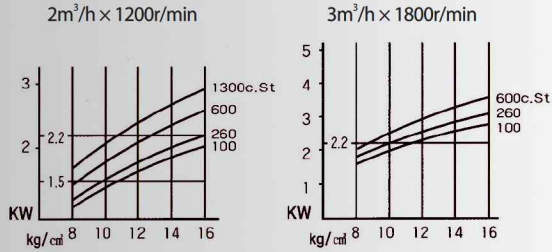
PUMP TYPE	MOTOR FRAME NO.	BORE		PUMP & MOTOR DIMENSIONS(MM)											BASE PLATE DIMENSIONS(MM)								WEIGHT(KG)			CPLG KSB 1552			
		SUC.	DIS.	A	B	D	K	P	R	T	U	V	W	Y	Ba	Bb	Bc	Bd	Be	Bf	Bg	Bh	Bj	Bz	BODY		BASE	MOTOR	
NHGH-2	100L	∅40	∅32	193	200	199	175	220	392	207	30	666	329	600	400	100	245	210	40	80	107	25	15	16	19	34	125		
	112M			200	182	680	410					275	240				39												
	132S			239	218	757	275					240	62																
NHGH-3	90L	∅50	∅40	169	240	158	152	250	445	227	35	30	668	326	600	400	100	275	240	40	80	95	25	15	28	19	17	125	
	100L			193	175	30	716					386	600	400												100	34		
	112M			200	182	35	730					349	600	400												100	39		
	132S			239	205	60	792					417	700	450												125	275	240	70
	132M			258	217	60	830					417	700	450												125	275	240	70
NHGH-4	112M	∅65	∅50	200	250	199	182	250	445	227	60	35	730	349	600	400	100	275	240	40	80	95	25	15	30	19	39	125	
	132S			239	205	792	417					700	450	125												275	240		56
	132M			258	224	60	830					417	700	450												125	275		240
	160M			323	273	60	944					470	850	550												150	325	290	102
	160L			345	295	60	988					470	850	550												150	325	290	118
NHGH-5	112M	∅65	∅50	200	280	199	182	250	500	227	60	740	386	600	400	100	275	240	40	80	95	25	15	30	19	40	140		
	132S			239	217	802	417					700	450				125	275							240	56			
	132M			258	224	802	417					700	450				125	275							240	70			
	160M			323	273	528	255					85	951				482	850							550	150	325	290	108
	160L			345	275	528	255					80	998				470	850							550	150	325	290	118
NHGH-7.5	132S	∅80	∅65	239	280	220	220	250	535	255	60	55	817	438	700	450	125	275	240	40	80	95	25	15	40	25	62	140	
	132M			259	224	60	841					445	700	450				125	275							240	70		
	160M			323	270	60	951					482	850	550				150	325							290	108		
	160L			345	292	85	995					482	850	550				150	325							290	136		
NHGH-10	132M	∅80	∅65	258	280	224	224	320	535	255	50	935	445	800	500	150	275	240	40	80	95	28	19	45	35	70	140		
	160M			323	270	1046	507					900	550				175	325							280	108			
	160L			345	292	1090	507					900	550				175	325							280	136			
	180M			352	307	1112	507					900	550				175	325							280	147			
	180L			371	326	1150	507					900	550				175	325							280	159			
NHGH-15	132M	∅80	∅65	258	280	218	239	320	580	280	70	950	438	800	500	150	275	240	50	100	120	28	19	50	35	70	160		
	160L			345	273	900	550					325	280				120												
	160M			323	275	900	550					325	280				140												
	180L			371	290	950	600					365	320				140												
	180M			352	297	1100	950					600	365				320	140											
NHGH-20	160M	∅100	∅80	323	320	275	273	320	605	300	100	1059	515	900	550	175	325	280	50	100	120	28	19	60	42	102	180		
	160L			345	273	1100	527					900	550				325	280							136				
	180M			371	297	1148	546					950	600				365	320							177				
	180L			371	290	1160	535					950	600				365	320							159				

• 치수는 참고용임.

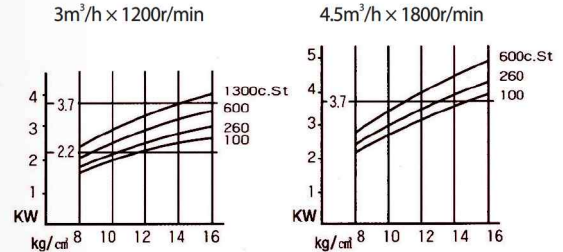


For 60Hz

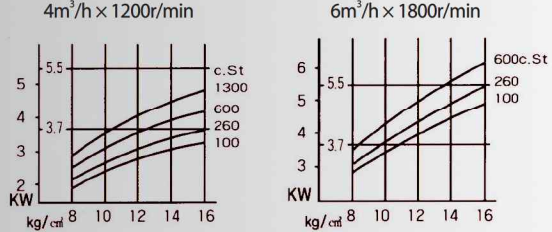
**NHGH - 2**



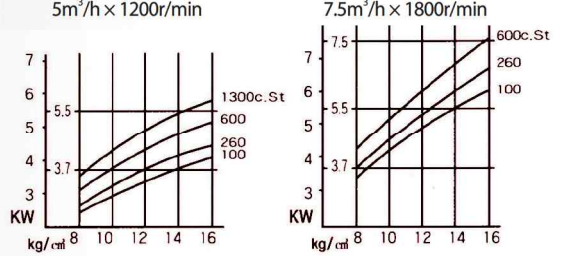
**NHGH - 3**



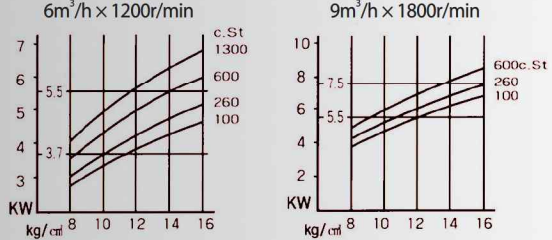
**NHGH - 4**



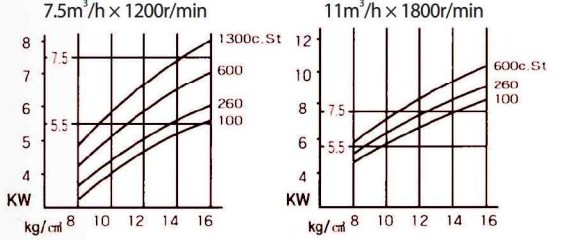
**NHGH - 5**



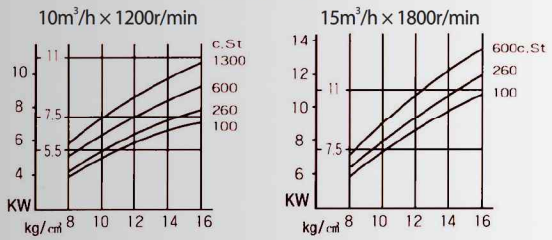
**NHGH - 6**



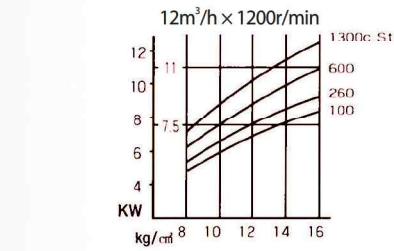
**NHGH - 7.5**



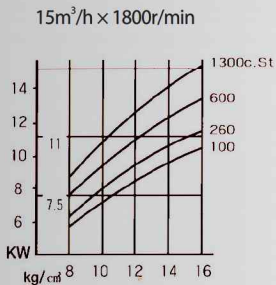
**NHGH - 10**



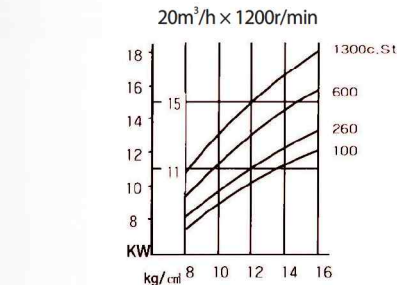
**NHGH - 12**



**NHGH - 15**



**NHGH - 20**



# NHGH

## 선정표 / General performance selection chart

For 50Hz

