

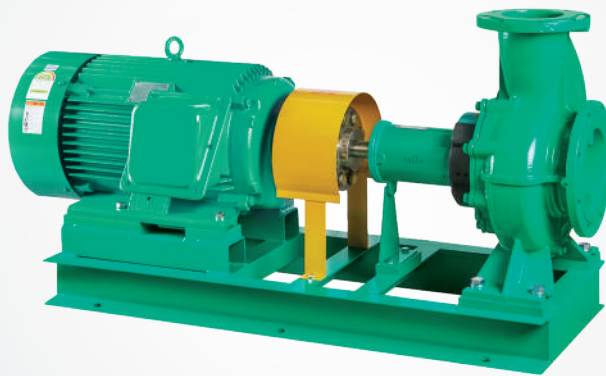
Pioneering for You

wilo

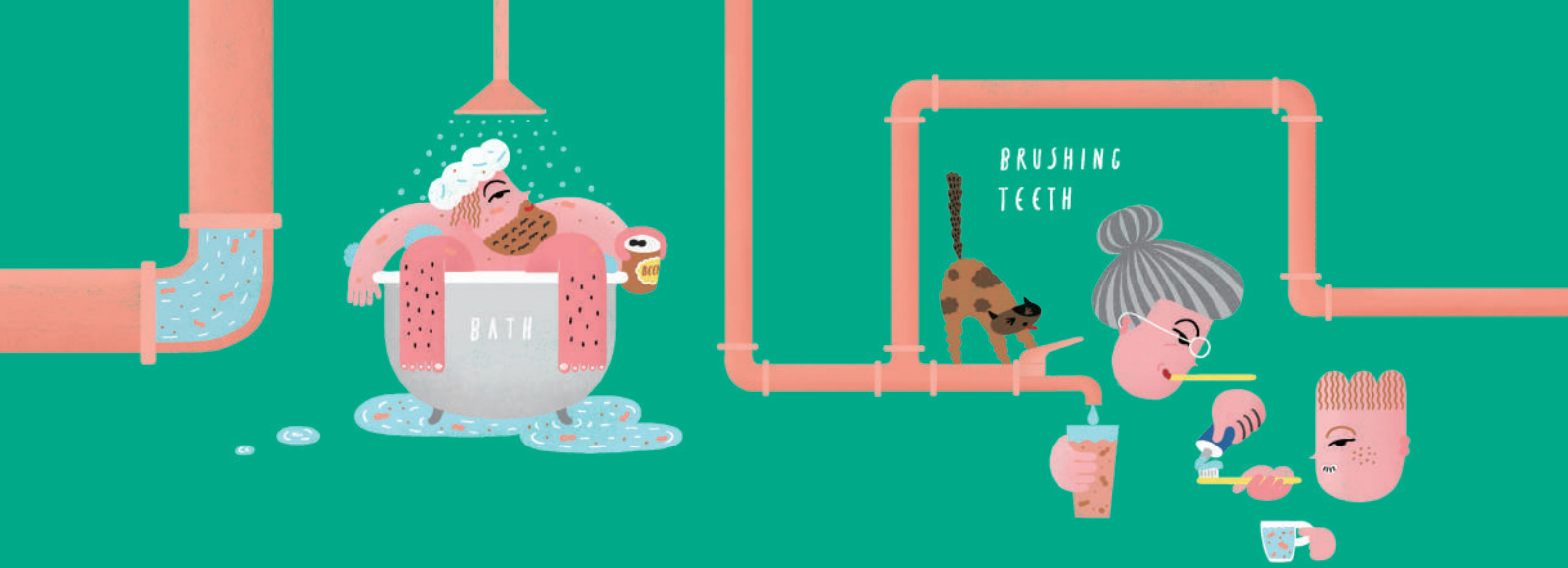
제품 카탈로그

Norm and Multistage Pumps

Pumps and Pump Systems for
Building Services, Industry and Water Management



윌로펌프(주)



깨끗한 펌프

맑은 물

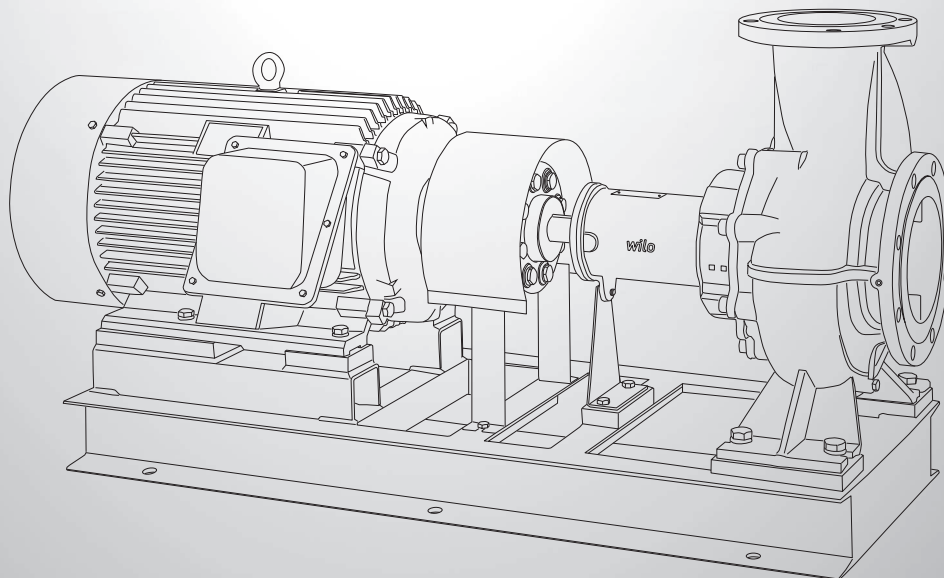
FRESH WATER!

우리 모두를 위한 맑은 물.
깨끗한 펌프를 사용해야 얻을 수 있습니다.



Norm and Multistage Pumps

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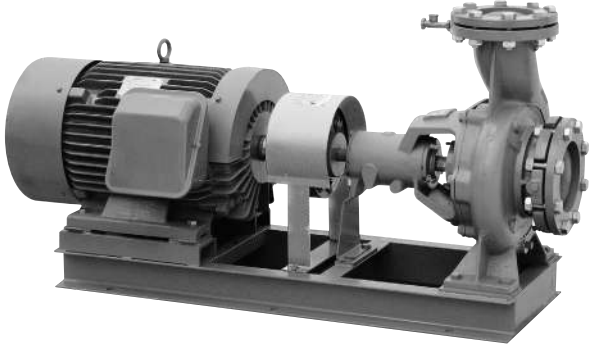


End Suction Pump

PSV Series

PSV Series

제품소개



적용범위 및 사용유체

- 맑은 액체용 - 청수 및 해수
- 일반산업용 및 급수 시설용
- 가정용수 공급용 및 빌딩 수처리용
- 관개용수용 및 선박용, 드레인용
- 공기조화용 및 스프레이용 (스프링클러용)
- 냉각 또는 가열 순환용

구조 및 특징

- 임펠러 내의 물의 흐름이 용이하도록 설계된 3차원 임펠러를 사용
- Stuffing Box는 KS B 7501 (ISO3069)의 Dimension을 채택하였으므로 Mechanical Seal 사용시 장착이 쉽고 유지보수가 간편
- 제품의 표준화설계로 인하여 단일품목으로 광범위한 사용 영역
- Back pull-out 구조로 편리한 유지보수
- 토출부가 중앙상부에 위치하여 배관하중에 대한 안전성과 펌프 가동시 Balance가 유지
- 진동, 소음분석 설계를 통한 최적의 제품

특장점

- 고효율 설계로 제작
- 높은 내구성 (타제품보다 Bearing Grade가 한 단계 높음)
- KS규격의 외형치수에 준 한 설계 (광범위의 제품 호환성)
- 10 kgf/cm² 적용설계로 견고하며 넓은 사용 가능 범위
- Shaft에 Sleeve가 장착되어 긴 Shaft 수명
- 임펠러의 수로부는 Shell core를 적용하여 내면을 매끈하게 하여 흐름손실 감소

End Suction Pump

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제품사양

취급액 (0~100°C의 청수, pH6~8)

고온 또는 청수가 아닌 액을 취급할 경우에는 이송액의 특성 (온도, 농도, 고형물의 유·무)과 사용조건에 따라 내마모성, 내식성이 현저히 변화되는 경우가 있으므로 반드시 영업 또는 공장으로 문의

흡입측 조건

흡입 전압정 또는 압입 압력은 아래 표에 따름

흡입 전압정 허용치		
액의 온도	흡입구경	흡입 전압정
0°C~40°C	50 ~ 80mm	-6m 이내
	100 ~ 125mm	-5.5m 이내

흡입 전압정 보정치	
온도	보정치
40°C 이상~50°C 미만	+1
50°C 이상~60°C 미만	+2
60°C 이상~70°C 미만	+3.5
70°C 이상~80°C 미만	+5
80°C 이상~90°C 미만	+7
90°C 이상~95°C 미만	+9
95°C 이상~100°C 이하	+11

표준 흡입압력 허용치

흡입 압력이 4kgf/cm² 이하이면서

$$\left[10 - \frac{\text{펌프 체적 전압정}}{10} \right] \text{ kgf/cm}^2 \text{이내}$$

또한 흡입압력이 순간적으로 변하지 않도록 하여야 함
상기조건을 벗어나는 경우에는 영업 또는 공장으로 문의

운전조건

- 기동반복이 빈번한 자동제어용으로 펌프를 사용할 경우에는 임펠러의 파손 우려가 있으므로 임펠러 재질을 BC6급 이상으로 사용
- 자동제어용으로 사용하실 경우 기동반복이 시간당 12회를 넘지 않아야 함
- 수격현상(워터해머)이 발생되지 않도록 배관을 구성

임펠러

임펠러내의 유체 흐름을 균일하도록 하고, 임펠러로부터 유출된 물의 마찰, 와류등으로 인한 손실을 줄여 토출구로 보내도록 설계



※일부 모델에 한해 세 스테인리스일 경우 Semi-Open Type Impeller도 가능

적용규격

- KS B 7501(한국공업규격)
- ISO 2858(국제표준화규격)
- JIS B 8313(일본공업규격)

단단 볼류트펌프의 구조 및 성능은 위 규격에 준하여 제작됨

주문사양(Option)

- 구조변경: Mechanical Seal
Bearing Oil 윤활구조
- 접액부재질변경

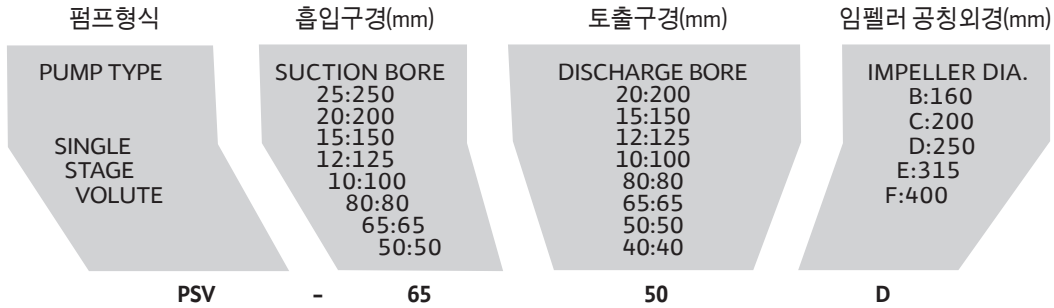
End Suction Pump

PSV Series

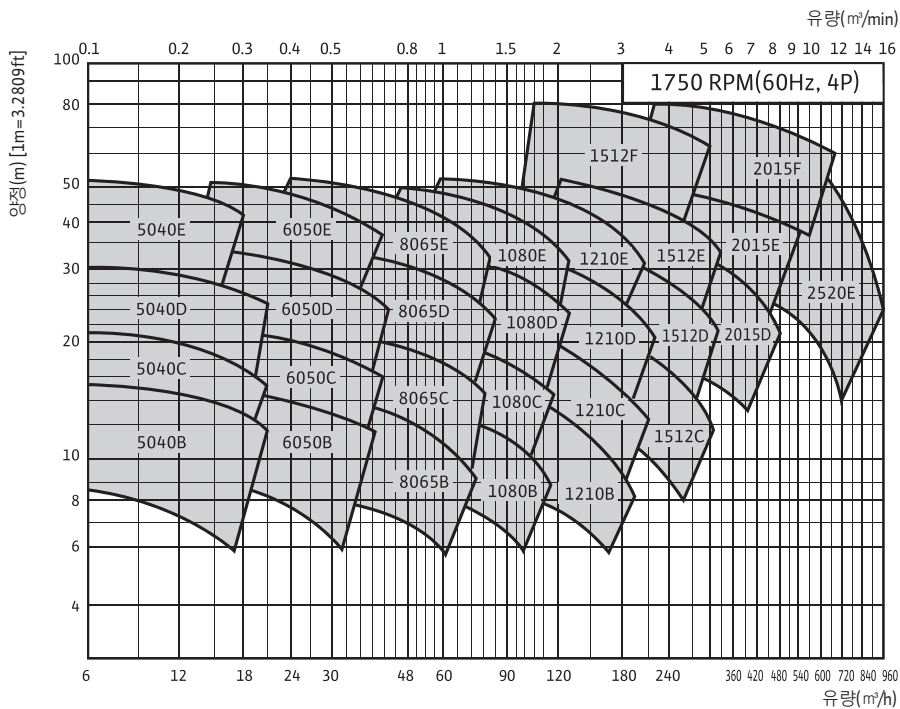
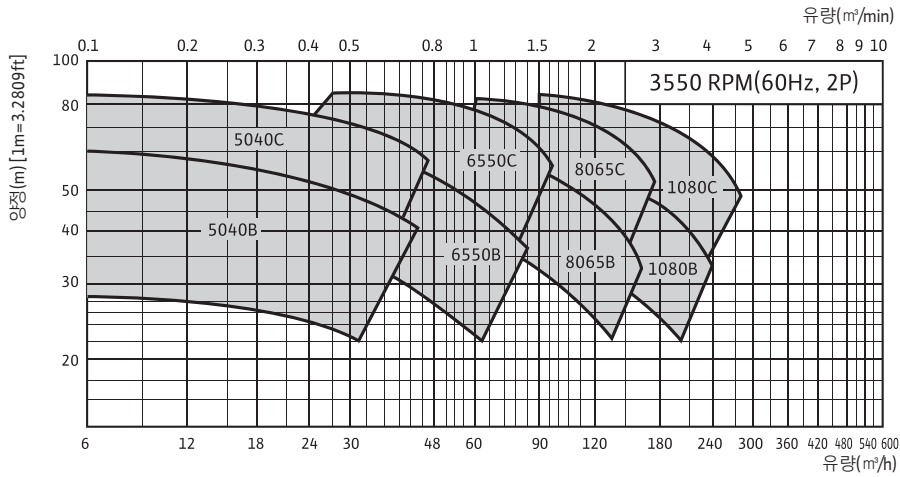
PSV Series

모델명 및 선정도

모델명 부여기준 (MODEL)



선정도 (SELECTION CHART)



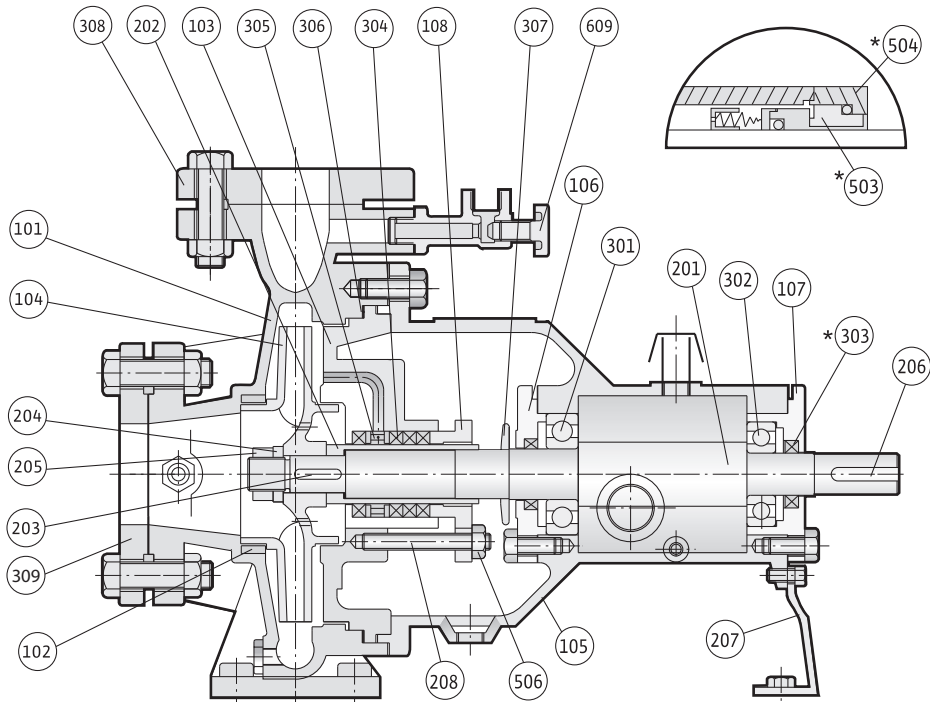
End Suction Pump

PSV Series

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PSV Series 단면도

단면도 (SECTIONAL DRAWING)



품번	품명	재질	수량
101	케이싱(CASING)	GC200	1
# 102	케이싱 링(CASING RING)	GC200	1
103	케이싱 커버(CASING COVER)	GC200	1
# 104	임펠러(IMPELLER)	GC200	1
105	베어링 하우징(BEARING HOUSING)	GC200	1
106	베어링 커버(A)(BEARING COVER(A))	GC200	1
107	베어링 커버(B)(BEARING COVER(B))	GC200	1
108	글랜드(GLAND)	GC200	1
201	축(SHAFT)	SM45C	1
# 202	슬리브(SLEEVE)	STS304	1
# 203	임펠러 키(IMPELLER KEY)	SM45C	1
204	임펠러 와셔(IMPELLER WASHER)	STS304	1
205	임펠러 너트(IMPELLER NUT)	SS400	1
206	커플링 키(COUPLING KEY)	SM45C	1

범례

* : 선택부품 (Option Parts)

: 추천에비품 (Recommended Spare Parts)

품번	품명	재질	수량
207	지지대(SUPPORT)	SCP1	1
208	글랜드 볼트(GLAND BOLT)	STS304	2/4
# 301	볼 베어링(A)[BALL BEARING(A)]	STB2	1
# 302	볼 베어링(B)[BALL BEARING(B)]	STB2	1
* 303	오일 실(OIL SEAL)	NBR	2
# 304	글랜드 패킹(GLAND PACKING)	FABRIC	4
305	랜턴링(LANTERN RING)	NORYL/BC6	1
# 306	케이싱 가스켓(CASING GASKET)	NBR	1
307	물막음턱(DEFLECTOR)	NR610	1
308	상대 플랜지(COMPANION FLANGE)	SS400	1
309	상대 플랜지(COMPANION FLANGE)	SS400	1
* 503	미캐니컬 실(MECHANICAL SEAL)		1
* 504	미캐니컬 실 커버(M/SEAL COVER)	SM45C	1
506	육각너트(HEX NUT)	C3602BD	2/4
609	마중물컵 파이프(PRIMING PIPE)	HBsC1	1

End Suction Pump

PSV Series

PSV Series 선정표

1750RPM (60Hz, 4P)

H \ Q	3	6	12	18	24	30	36	42	48	54	60	72	84	96	108	120	Q \ H	
85																	85	
80																1512F 55 2.0	1512F 55 2.2	80
75																1512F 55 2.0	1512F 55 2.2	75
70																1512F 45 2.0	1512F 55 2.2	70
65																1512F 45 2.0	1512F 55 2.2	65
60																1512F 45 2.0	1512F 37 2.2	60
55												1210E 22 3.0	1210E 22 2.4		1512E 30 2.4	1512E 37 2.4	55	
52						1080E 15 2.5	1080E 15 2.7	1080E 15 2.8				1210E 22 3.0	1210E 22 2.4	1210E 30 2.2	1210E 30 2.3	1210E 30 2.4	1512E 37 2.3	52
50	5040E 7.5 4.2	5040E 7.5 3.3	6550E 11 2.9		8065E 11 2.0	8065E 15 3.0	1080E 15 2.8	1080E 15 2.0	1080E 15 1.8	1080E 18.5 1.7	1210E 18.5 2.0	1210E 22 2.4	1210E 22 2.2	1210E 30 2.3	1210E 30 2.4	1210E 30 2.5	50	
48	5040E 5.5 4.2	5040E 7.5 3.3	6550E 7.5 2.9	6550E 11 3.0	6550E 11 2.0	8065E 15 3.0	8065E 15 2.8	8065E 15 2.0	1080E 15 2.0	1080E 18.5 1.7	1080E 18.5 2.0	1080E 18.5 2.0	1210E 22 2.2	1210E 30 2.3	1210E 30 2.4	1210E 30 2.5	48	
46	5040E 5.5 3.3	5040E 5.5 2.6	5040E 7.5 2.8	6550E 11 3.0	6550E 11 2.0	6550E 11 2.1	8065E 15 2.8	8065E 15 2.0	8065E 15 2.0	1080E 18.5 2.2	1080E 18.5 2.0	1080E 18.5 2.0	1210E 22 2.2	1210E 30 2.4	1210E 30 2.4	1210E 30 2.5	46	
44	5040E 5.5 3.3	5040E 5.5 2.6	5040E 7.5 2.4	6550E 7.5 2.8	6550E 7.5 2.0	6550E 11 2.1	8065E 15 2.8	8065E 15 2.0	8065E 15 2.0	8065E 15 2.2	1080E 18.5 2.0	1080E 18.5 2.0	1080E 18.5 2.2	1080E 22 2.3	1210E 30 2.4	1210E 30 2.5	44	
42	5040E 5.5 3.3	5040E 5.5 2.6	5040E 7.5 2.4	6550E 7.5 2.8	6550E 7.5 2.0	6550E 11 2.1	6550E 11 2.7	8065E 15 2.0	8065E 15 2.0	8065E 15 2.2	8065E 15 2.3	1080E 18.5 2.0	1080E 18.5 2.2	1080E 18.5 2.3	1210E 22 2.4	1210E 30 2.5	42	
40	5040E 3.7 3.8	5040E 5.5 3.1	5040E 7.5 2.4	6550E 7.5 2.8	6550E 7.5 2.5	6550E 11 2.3	6550E 11 2.7	8065E 15 2.0	8065E 15 2.0	8065E 15 2.2	8065E 15 2.3	1080E 18.5 2.0	1080E 18.5 2.2	1080E 18.5 2.3	1210E 22 2.4	1210E 30 2.5	40	
38	5040E 3.7 3.8	5040E 5.5 3.1	5040E 5.5 2.2	6550E 7.5 2.8	6550E 7.5 2.5	6550E 11 2.3	6550E 11 2.7	8065E 15 2.0	8065E 15 2.0	8065E 15 2.2	8065E 15 2.3	1080E 15 2.0	1080E 18.5 2.2	1080E 18.5 2.3	1080E 22 2.5	1210E 30 2.5	38	
36	5040E 3.7 3.8	5040E 5.5 3.1	5040E 5.5 2.2	6550E 7.5 2.8	6550E 7.5 2.3	6550E 11 2.3	6550E 11 2.7	8065E 15 2.0	8065E 11 2.0	8065E 15 2.2	8065E 15 2.3	8065E 15 2.4	1080E 18.5 2.2	1080E 18.5 2.3	1080E 22 2.5	1210E 22 2.8	36	
34	5040E 3.7 3.8	5040E 3.7 3.1	5040E 5.5 2.2	6550E 5.5 2.8	6550E 7.5 2.3	6550E 7.5 2.4	6550E 11 2.7	8065E 11 2.0	8065E 11 2.0	8065E 11 2.2	8065E 15 2.3	8065E 15 2.4	1080E 18.5 2.2	1080E 18.5 2.3	1080E 18.5 2.5	1210E 22 2.8	34	
32	5040E 3.7 3.8	5040E 3.7 3.1	5040E 5.5 2.2	6550E 5.5 2.8	6550E 7.5 2.3	6550E 7.5 2.4	6550E 11 2.7	8065D 11 1.9	8065D 11 2.0	8065E 11 2.2	8065E 15 2.3	8065E 15 2.4	1080E 15 2.2	1080E 15 2.3	1080E 18.5 2.5	1080E 22 2.8	32	
30	5040D 3.7 4.0	5040D 3.7 3.5	5040E 3.7 2.2	6550E 5.5 2.8	6550E 5.5 2.3	6550E 7.5 2.4	6550E 11 2.7	8065D 7.5 1.9	8065D 7.5 2.0	8065D 11 2.0	8065D 11 2.1	8065E 15 2.4	1080D 15 2.5	1080D 15 2.7	1080E 18.5 2.5	1210D 18.5 3.0	30	
28	5040D 3.7 4.0	5040D 3.7 3.5	5040D 3.7 2.1	5040D 5.5 2.2	6550D 5.5 2.5	6550D 5.5 2.2	6550D 7.5 2.4	8065D 7.5 1.9	8065D 7.5 1.8	8065D 7.5 2.0	8065D 11 2.1	8065D 11 2.2	1080D 11 2.5	1080D 15 2.7	1080D 15 2.7	1210D 18.5 3.0	28	
26	5040D 3.7 4.0	5040D 3.7 3.5	5040D 3.7 2.0	5040D 3.7 2.2	6550D 5.5 2.5	6550D 5.5 2.2	6550D 7.5 2.4	8065D 7.5 1.9	8065D 7.5 1.8	8065D 7.5 2.0	8065D 7.5 2.0	8065D 7.5 2.0	1080D 11 2.2	1080D 11 2.5	1080D 11 2.7	1080D 15 2.7	26	
24	5040D 2.2 4.0	5040D 2.2 3.5	5040D 3.7 2.0	5040D 3.7 2.2	6550D 3.7 2.5	6550D 5.5 2.2	6550D 7.5 2.4	8065D 7.5 2.0	8065D 7.5 1.8	8065D 7.5 2.0	8065D 7.5 2.0	8065D 11 2.2	1080D 11 2.5	1080D 11 2.7	1080D 15 2.7	1080D 15 2.8	24	
22	5040D 2.2 2.5	5040D 2.2 2.2	5040D 2.2 2.0	5040D 3.7 2.2	6550D 3.7 2.5	6550D 5.5 2.2	6550D 7.5 2.4	6550D 7.5 2.0	8065D 5.5 1.8	8065D 7.5 2.0	8065D 7.5 2.0	8065D 11 2.2	1080D 11 2.5	1080D 11 2.7	1080D 11 2.7	1080D 15 2.8	22	
20	5040C 1.5 2.5	5040C 1.5 2.2	5040D 2.2 2.0	5040D 3.7 2.2	6550D 3.7 2.5	6550D 5.5 2.2	6550D 5.5 2.4	6550D 5.5 2.0	8065D 5.5 2.0	8065D 5.5 2.0	8065D 5.5 2.0	8065D 7.5 2.0	8065D 7.5 2.2	1080D 7.5 2.5	1080D 11 2.7	1210D 11 3.0	20	
18	5040C 1.5 3.0	5040C 1.5 2.2	5040C 2.2 2.0	5040D 2.2 1.8	6550C 3.7 2.2	6550C 3.7 2.3	6550C 3.7 2.4	8065C 5.5 2.2	8065C 5.5 2.0	8065C 5.5 2.0	8065D 5.5 2.2	8065D 7.5 2.2	1080C 7.5 2.5	1080D 11 2.7	1080D 11 2.7	1210C 11 2.8	18	
16	5040C 1.5 3.0	5040C 1.5 2.2	5040C 1.5 2.0	5040C 2.2 1.8	6550C 3.7 2.2	6550C 3.7 2.3	6550C 3.7 2.4	8065C 3.7 2.5	8065C 5.5 2.0	8065C 5.5 2.0	8065C 5.5 2.2	8065C 5.5 2.4	1080C 7.5 2.5	1080C 7.5 2.9	1080C 7.5 3.0	1210C 11 2.8	16	
14	5040B 1.5 3.8	5040B 1.5 3.1	5040C 1.5 2.0	5040C 2.2 1.8	6550C 2.2 2.2	6550C 3.7 2.3	6550C 3.7 2.4	6550C 3.7 2.5	8065C 3.7 2.0	8065C 3.7 2.0	8065C 5.5 2.2	8065C 5.5 2.4	1080C 5.5 2.5	1080C 7.5 2.9	1080C 7.5 3.0	1210B 7.5 3.3	14	
12	5040B 0.75 2.8	5040B 1.5 2.5	5040B 1.5 2.0	5040B 1.5 2.0	6550B 1.5 2.0	6550B 2.2 2.3	6550C 3.7 2.4	6550C 3.7 2.5	8065B 3.7 2.0	8065B 3.7 2.5	8065C 5.5 2.2	8065C 5.5 2.3	1080B 5.5 3.0	1080C 5.5 2.9	1210B 7.5 3.5	1210B 7.5 3.3	12	
10	5040B 0.75 2.8	5040B 0.75 2.5	5040B 1.5 2.0	5040B 1.5 2.0	6550B 1.5 2.0	6550B 2.2 2.3	6550B 2.2 2.8	8065B 2.2 3.8	8065B 2.2 2.8	8065B 3.7 2.7	8065B 3.7 3.0	8065B 3.7 3.2	1080B 3.7 3.0	1080B 5.5 3.2	1080B 5.5 3.4	1210B 5.5 3.5	10	
8	5040B 0.75 2.8	5040B 0.75 2.5	5040B 0.75 2.0	5040B 1.5 3.5	6550B 1.5 2.0	6550B 1.5 2.3	6550B 2.2 2.8	8065B 2.2 3.8	8065B 2.2 2.6	8065B 2.2 2.5	8065B 2.2 3.0	8065B 3.7 3.2	1080B 3.7 3.0	1080B 3.7 3.2	1080B 5.5 3.4		8	
6						6550B 1.5 2.3			8065B 1.5 2.6	8065B 2.2 2.5	8065B 2.2 3.0		1080B 3.7 3.0	1080B 3.7 3.2	1080B 3.7 3.4		6	
H \ Q	3	6	12	18	24	30	36	42	48	54	60	72	84	96	108	120	Q \ H	

※SELECTION TABLE 보는 방법

1. H는 양정(m)이며, Q는 유량(m³/h)

2. IMPELLER 및 CASING의 재질이 회주철이나 청동이 아닌 특수재질의 경우는 별도 문의

3. 본 선정표는 펌프의 개략선정시에만 사용 (상세 설계시 변경 가능)

4. 선정표에서 정해지지않은 중간사양은 윗단계의 형식과 동력을 적용

5. 안의 내용은 펌프 MODEL 동력(kW), NPSHr(m)

※Semi-Open Type IMPELLER는 당사 로문의

End Suction Pump

PSV Series



PSV Series 선정표

1750RPM (60Hz, 4P)

H \ Q	150	180	210	240	270	300	330	360	390	420	450	480	540	600	720	840	Q \ H
85				2015F 132 2.6	2015F 132 2.8	2015F 132 3.0	2015F 160 3.1	2015F 160 3.2	2015F 160 3.6	2015F 160 4.1							85
80	1512F 75 2.4	1512F 75 2.5		2015F 110 2.6	2015F 110 2.8	2015F 132 3.0	2015F 160 3.1	2015F 132 3.2	2015F 160 3.6	2015F 160 4.1	2015F 160 4.6	2015F 160 4.8	2015F 200 5.2				80
75	1512F 75 2.4	1512F 75 2.5	1512F 75 2.7	2015F 110 2.6	2015F 110 2.8	2015F 110 3.0	2015F 110 3.1	2015F 132 3.2	2015F 132 3.6	2015F 132 4.1	2015F 160 4.6	2015F 160 4.8	2015F 160 5.2	2015F 200 5.5			75
70	1512F 55 2.4	1512F 75 2.5	1512F 75 2.7	1512F 75 3.3	2015F 90 2.8	2015F 110 3.0	2015F 110 3.1	2015F 110 3.2	2015F 132 3.6	2015F 132 4.1	2015F 132 4.6	2015F 132 4.8	2015F 160 5.2	2015F 160 5.5			70
65	1512F 55 2.5	1512F 55 2.5	1512F 75 2.7	1512F 75 3.3	1512F 90 2.8	2015F 90 3.0	2015F 90 3.1	2015F 110 3.2	2015F 110 3.6	2015F 110 4.1	2015F 132 4.6	2015F 132 4.8	2015F 132 5.2	2015F 160 5.5			65
60	1512F 55 2.5	1512F 55 2.5	1512F 55 2.8	1512F 75 3.3	1512F 75 2.8	1512F 90 3.5	2015F 90 3.1	2015F 90 3.2	2015F 110 3.6	2015F 110 4.1	2015F 110 4.6	2015F 110 4.8	2015F 132 5.2	2015F 160 5.5			60
55	1512F 45 2.5	1512F 55 2.5	1512F 55 2.8	1512F 75 3.3	1512F 75 2.8	1512F 90 3.5	2015F 90 3.1	2015F 90 3.2	2015F 90 3.6	2015F 110 4.1	2015F 110 4.6	2015F 110 4.8	2015F 110 5.2	2015F 132 5.5			55
52	1512E 37 2.4	1512F 55 2.5	1512F 55 2.5	1512F 75 2.8	1512F 75 2.8	2015F 75 3.5	2015F 75 3.1	2015F 90 3.2	2015F 90 3.6	2015F 110 4.1	2015F 110 4.6	2015F 110 4.8	2015F 110 5.2	2015F 132 5.5			52
50	1512E 37 2.4	1512E 45 2.0	1512E 55 2.5	1512E 75 2.8	1512E 75 2.8	2015E 75 3.0	2015F 75 3.3	2015F 90 3.2	2015F 90 3.6	2015F 90 4.1	2015F 110 4.6	2015F 110 4.8	2015F 110 5.2	2015F 132 5.5			50
48	1512E 37 2.4	1512E 45 2.0	1512E 45 2.3	1512E 55 2.8	1512E 75 2.8	2015E 75 3.0	2015F 75 3.3	2015F 75 3.5	2015F 75 3.6	2015F 90 4.1	2015F 110 4.6	2015F 90 4.8	2015F 110 5.2	2015F 110 5.5			48
46	1210E 37 2.7	1512E 37 3.0	1512E 45 2.3	1512E 55 3.8	1512E 75 2.8	2015E 75 3.0	2015F 75 3.3	2015F 75 3.5	2015F 75 3.6	2015F 90 4.0	2015F 90 4.2	2015F 90 4.8	2015F 110 5.2	2015F 110 5.5			46
44	1210E 30 2.7	1512E 37 3.0	1512E 45 2.3	1512E 45 3.8	1512E 75 2.8	2015E 75 3.0	2015F 75 3.3	2015F 75 3.5	2015F 75 3.6	2015F 90 4.0	2015F 90 4.2	2520E 110 4.8	2520E 110 5.2	2015F 110 5.5			44
42	1210E 30 2.7	1512E 37 3.0	1512E 37 3.3	1512E 45 3.8	1512E 45 4.0	2015E 75 3.0	2015F 75 3.3	2015E 75 3.5	2015E 75 3.6	2015E 75 4.0	2015F 90 4.2	2520E 90 4.8	2520E 90 5.2	2520E 110 5.5			42
40	1210E 30 2.7	1210E 37 3.2	1512E 37 3.3	1512E 45 3.8	1512E 45 4.0	2015E 55 3.2	2015F 75 3.3	2015E 75 3.5	2015E 75 3.6	2015E 75 4.0	2015E 75 4.2	2015E 90 3.9	2520E 90 5.2	2520E 110 5.5			40
38	1210E 30 2.8	1210E 37 3.2	1512E 37 3.3	1512E 37 3.8	1512E 45 4.0	2015E 55 3.2	2015F 55 3.3	2015E 75 3.4	2015E 75 3.6	2015E 75 4.0	2015E 75 4.2	2015E 75 3.9	2520E 90 5.2	2520E 90 5.5	2520E 110 6.3		38
36	1210E 30 2.8	1210E 37 3.2	1512E 37 3.3	1512E 37 3.8	1512E 45 4.0	2015E 45 3.2	2015F 55 3.3	2015E 55 3.4	2015E 75 3.6	2015E 75 4.0	2015E 75 4.2	2015E 75 3.9	2520E 75 5.2	2520E 90 5.5	2520E 110 6.3		36
34	1210E 30 2.8	1210E 37 3.2	1512E 30 3.3	1512E 37 3.8	1512E 45 4.0	2015E 45 3.2	2015F 55 3.3	2015E 55 3.4	2015E 55 3.6	2015E 55 4.0	2015E 75 4.2	2015E 75 4.0	2520E 75 5.2	2520E 90 5.5	2520E 110 6.3		34
32	1210E 30 2.8	1210E 37 3.0	1512E 30 3.3	1512E 37 3.6	1512E 37 4.0	2015E 45 3.2	2015F 45 3.3	2015E 55 3.4	2015E 55 3.6	2015E 55 4.0	2015E 55 4.2	2015E 75 4.0	2520E 75 5.2	2520E 75 5.5	2520E 90 6.3	2520E 110 7.0	32
30	1210E 22 3.0	1210E 30 3.0	1512E 30 3.3	1512E 37 3.6	1512E 37 4.0	2015E 45 3.2	2015D 55 4.5	2015D 55 4.7	2015E 55 3.6	2015E 55 4.0	2015E 55 4.2	2015E 75 4.0	2520E 75 5.2	2520E 75 5.5	2520E 90 6.3	2520E 110 7.0	30
28	1210D 18.5 3.0	1210E 30 3.0	1512D 30 3.0	1512E 37 3.6	1512E 37 4.0	2015E 45 3.2	2015D 45 4.5	2015D 55 4.7	2015D 55 4.9	2015D 55 5.1	2015E 55 4.2	2015E 75 4.0	2520E 75 5.2	2520E 75 5.5	2520E 90 6.3	2520E 110 7.0	28
26	1210D 15 3.5	1512D 22 3.2	1512D 22 3.0	1512D 30 3.3	1512E 37 4.0	2015E 45 3.2	2015D 37 4.0	2015D 45 4.7	2015D 45 4.9	2015D 55 5.1	2015D 55 5.2	2015E 55 4.0	2520E 55 5.2	2520E 75 5.5	2520E 75 6.3	2520E 90 7.0	26
24	1210D 15 3.5	1210D 18.5 3.2	1512D 22 3.2	1512D 30 3.3	2015D 37 3.8	1512E 37 4.0	2015D 37 4.0	2015D 37 4.7	2015D 45 4.9	2015D 45 5.1	2015D 45 5.2	2520E 55 4.0	2520E 55 5.2	2520E 75 5.5	2520E 75 5.5	2520E 90 7.0	24
22	1210D 15 3.5	1210D 18.5 3.2	1512D 22 3.2	1512D 22 3.3	2015D 30 3.6	2015D 30 4.0	2015D 37 4.0	2015D 37 4.3	2015D 37 4.9	2015D 37 5.1	2015D 45 5.2	2520E 55 4.0	2520E 55 5.2	2520E 55 5.5	2520E 75 5.5	2520E 90 7.0	22
20	1210D 15 3.5	1210D 18.5 3.2	1512D 18.5 3.2	1512D 18.5 3.3	2015D 30 3.6	2015D 30 4.0	2015D 30 4.0	2015D 30 4.3	2015D 37 4.5	2015D 37 4.9	2015D 37 5.2			2520E 55 5.5	2520E 75 5.5		20
18	1210D 15 3.5	1210D 15 3.2	1512C 18.5 3.5	1512D 18.5 4.0	2015D 22 3.6	2015D 30 4.0	2015D 30 4.0	2015D 30 4.5	2015D 30 4.5	2015D 37 4.9	2015D 37 5.2				2520E 75 5.5		18
16	1210C 11 3.3	1512C 15 3.4	1512C 15 3.5	1512C 18.5 4.0	2015D 22 3.6	2015D 22 4.0	2015D 30 4.0	2015D 30 4.5	2015D 30 4.8	2015D 30 5.3							16
14	1210C 11 3.3	1210C 11 3.6	1512C 15 3.5	1512C 15 4.0	1512C 18.5 3.5	2015D 22 4.0		2015D 30 4.5	2015D 30 4.8	2015D 30 5.3							14
12	1210B 11 3.8	1210C 11 3.6	1512C 11 3.5	1512C 15 4.0	1512C 15 3.5	1512C 18.5 4.0											12
10	1210B 75 3.8	1210B 11 4.0	1512C 11 3.5	1512C 11 4.0	1512C 15 3.5												10
8	1210B 55 3.8	1210B 75 4.0															8
6																	6
H \ Q	150	180	210	240	270	300	330	360	390	420	450	480	540	600	720	840	Q \ H

Norm and Multistage Pumps

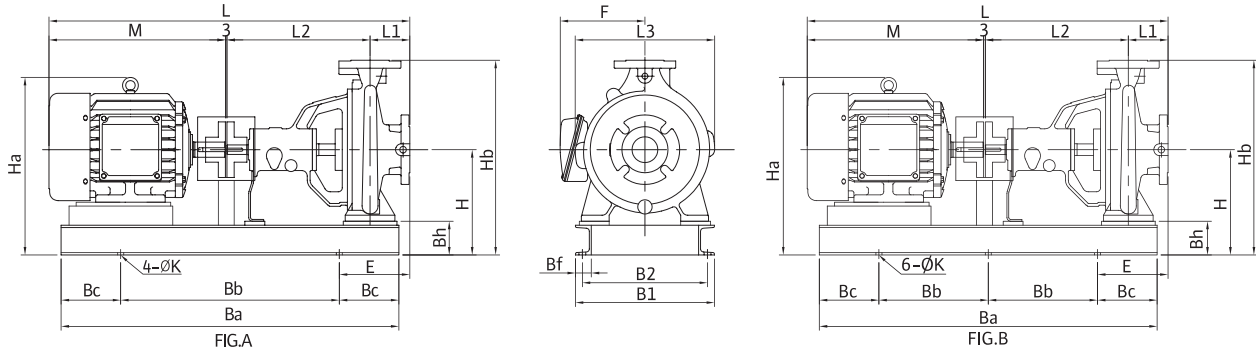
End Suction Pump

PSV Series

PSV Series

외형도 및 치수

외형도



치수																						
MODEL	FIG	MOTOR (kW)	PUMP & MOTOR(mm)										BED ASM(mm)							WEIGHT(kg)		
			L	M	Ha	E	F	H	L3	L1	L2	Hb	Ba	B1	Bh	Bb	Bc	B2	Bf	K	P-B	P-B·M
PSV-5040B	A	0.75	727	284	305	115	148	217	250	80	360	377	650	290	85	450	100	255	40	15	62	80
	A	1.5	761	318	313	145	158	217	250	80	360	377	750	350	85	500	125	315	40	15	57	82
	A	2.2	825	382	360	170	171	217	250	80	360	377	800	290	85	500	150	255	40	15	56	90
PSV-5040C	A	1.5	781	318	341	167.5	158	245	290	100	360	425	750	350	85	500	125	315	40	15	64	89
	A	2.2	845	382	388	187.5	171	245	290	100	360	425	800	350	85	500	150	315	40	15	66	100
	A	3.7	858	395	407	167.5	180	245	290	100	360	425	750	350	85	500	125	315	40	15	64	109
PSV-5040D	A	2.2	845	382	408	177.5	171	265	350	100	360	490	800	350	85	500	150	315	40	15	73	107
	A	3.7	858	395	427	152.5	180	265	350	100	360	490	750	350	85	500	125	315	40	15	87	132
	A	5.5	910	447	444	177.5	220	265	350	100	360	490	850	350	85	550	150	315	40	15	93	161
PSV-5040E	A	3.7	993	395	472	227.5	180	310	415	125	470	560	900	410	85	550	175	375	40	15	111	156
	A	5.5	1045	447	489	227.5	220	310	415	125	470	560	950	410	85	600	175	375	40	15	134	202
	A	7.5	1084	486	489	227.5	220	310	415	125	470	560	950	410	85	600	175	375	40	15	134	216
	A	11	1193	595	545	277.5	265	335	415	125	470	585	1050	440	110	600	225	395	50	19	144	261
PSV-6550B	A	1.5	781	318	341	165	158	245	255	100	360	425	750	350	85	500	125	315	40	15	60	85
	A	2.2	845	382	388	185	171	245	255	100	360	425	800	350	85	500	150	315	40	15	62	96
	A	3.7	858	395	407	165	180	245	255	100	360	425	750	350	85	500	125	315	40	15	60	105
PSV-6550C	A	2.2	845	382	388	185	171	245	305	100	360	445	800	350	85	500	150	315	40	15	67	101
	A	3.7	858	395	407	165	180	245	305	100	360	445	750	350	85	500	125	315	40	15	65	110
	A	5.5	910	447	424	175	220	245	305	100	360	445	800	350	85	500	150	315	40	15	82	150
PSV-6550D	A	3.7	858	395	427	152.5	180	265	350	100	360	490	750	350	85	500	125	315	40	15	91	136
	A	5.5	910	447	444	177.5	220	265	350	100	360	490	850	350	85	550	150	315	40	15	97	165
	A	7.5	949	486	444	177.5	220	265	350	100	360	490	850	350	85	550	150	315	40	15	97	179
PSV-6550E	A	3.7	993	395	472	227.5	180	310	415	125	470	590	900	410	85	550	175	375	40	15	114	159
	A	5.5	1045	447	489	227.5	220	310	415	125	470	590	950	410	85	600	175	375	40	15	136	204
	A	7.5	1084	486	489	227.5	220	310	415	125	470	590	950	410	85	600	175	375	40	15	136	218
	B	11	1193	595	565	202.5	265	335	415	125	470	615	1100	440	110	400	150	395	50	19	148	265
	B	15	1237	639	565	202.5	265	335	415	125	470	615	1100	440	110	400	150	395	50	19	148	288
PSV-8065B	A	2.2	845	382	388	172.5	171	245	275	100	360	445	800	350	85	500	150	315	40	15	68	102
	A	3.7	858	395	407	152.5	180	245	275	100	360	445	750	350	85	500	125	315	40	15	66	111
	A	5.5	910	447	424	177.5	220	245	275	100	360	445	800	350	85	500	150	315	40	15	86	154
PSV-8065C	A	3.7	858	395	427	152.5	180	265	345	100	360	490	750	350	85	500	125	315	40	15	85	130
	A	5.5	910	447	444	177.5	220	265	345	100	360	490	850	350	85	550	150	315	40	15	91	159
	A	7.5	949	486	444	177.5	220	265	345	100	360	490	850	350	85	550	150	315	40	15	91	173
PSV-8065D	A	7.5	1059	486	464	185	220	285	370	100	470	535	950	410	85	600	175	375	40	15	122	204
	B	11	1168	595	520	160	265	310	370	100	470	560	1100	440	110	400	150	395	50	19	134	251
	B	15	1212	639	520	160	265	310	370	100	470	560	1100	440	110	400	150	395	50	19	134	274
PSV-8065E	B	11	1193	595	545	185	265	335	410	125	470	615	1100	440	110	400	150	395	50	19	154	271
	B	15	1237	639	545	185	265	335	410	125	470	615	1100	440	110	400	150	395	50	19	154	294

※MOTOR축 치수는 MOTOR 제조업체에 따라 달라질 수 있음
(하이젠 모터 기준 치수)

P-B: 모터제외중량/P-B·M: 모터포함중량

End Suction Pump



PSV Series

PSV Series 치수

치수																						
MODEL	FIG	MOTOR (kW)	PUMP & MOTOR(mm)										BED ASM(mm)						WEIGHT(kg)			
			L	M	Ha	E	F	H	L3	L1	L2	Hb	Ba	B1	Bh	Bb	Bc	B2	Bf	K	P-B	P-B-M
PSV-8065E	B	18.5,22	1243	645	581	185	297	335	410	125	470	615	1150	440	110	425	150	395	50	19	154	339/354
	A	3.7	883	395	427	177.5	180	265	310	125	360	490	750	350	85	500	125	315	40	15	86	131
PSV-1080B	A	5.5	935	447	444	202.5	220	265	310	125	360	490	850	350	85	550	150	315	40	15	92	160
	A	7.5	974	486	444	202.5	220	265	310	125	360	490	850	350	85	550	150	315	40	15	92	174
PSV-1080C	A	5.5	1045	447	444	222	220	265	330	125	470	515	1000	470	85	660	170	440	40	15	116	184
	A	7.5	1084	486	444	222	220	265	330	125	470	515	1000	470	85	660	170	440	40	15	116	198
PSV-1080D	A	11	1193	595	500	279.5	265	290	330	125	470	540	1050	440	110	600	225	395	50	19	120	237
	B	11	1193	595	520	185	265	310	380	125	470	590	1100	440	110	400	150	395	50	19	137	254
PSV-1080E	B	15	1237	639	520	185	265	310	380	125	470	590	1100	440	110	400	150	395	50	19	137	277
	B	18.5,22	1243	645	556	185	297	310	380	125	470	590	1100	440	110	400	150	395	50	19	137	322/337
PSV-1210B	B	18.5,22	1243	645	606	185	297	360	435	125	470	675	1150	440	110	425	150	395	50	19	158	343/358
	B	30	1271	673	606	185	297	360	435	125	470	675	1150	440	110	425	150	395	50	19	158	393
PSV-1210C	A	5.5	1045	447	464	210	220	285	360	125	470	565	950	410	85	600	175	375	40	15	119	187
	A	7.5	1084	486	464	210	220	285	360	125	470	565	950	410	85	600	175	375	40	15	119	201
PSV-1210D	B	11	1193	595	520	185	265	310	360	125	470	590	1100	440	110	400	150	395	50	19	131	248
	B	15	1237	639	520	185	265	310	360	125	470	590	1100	440	110	400	150	395	50	19	131	271
PSV-1210E	A	7.5	1084	486	464	210	220	285	360	125	470	565	950	410	85	600	175	375	40	15	124	206
	B	11	1193	595	520	185	265	310	360	125	470	590	1100	440	110	400	150	395	50	19	136	253
PSV-1210F	B	15	1237	639	520	185	265	310	360	125	470	590	1100	440	110	400	150	395	50	19	136	276
	B	15	1252	639	545	200	265	335	390	140	470	615	1100	440	110	400	150	395	50	19	147	287
PSV-1210G	B	18.5,22	1258	645	581	200	297	335	390	140	470	615	1150	440	110	425	150	395	50	19	147	332/347
	B	18.5,22	1258	645	606	200	297	360	460	140	470	675	1150	440	110	425	150	395	50	19	166	351/366
PSV-1210H	B	30	1286	673	606	200	297	360	460	140	470	675	1150	440	110	425	150	395	50	19	166	401
	B	37	1453	840	631	200	385	362	460	140	470	677	1300	440	112	500	150	395	50	19	169	489
PSV-1512C	B	15	1252	639	570	200	265	360	405	140	470	675	1100	440	110	400	150	395	50	19	156	296
	B	18.5,22	1258	645	606	200	297	360	405	140	470	675	1150	440	110	425	150	395	50	19	156	341/356
PSV-1512D	B	18.2,22	1258	645	606	200	297	360	420	140	470	715	1150	440	110	425	150	395	50	19	160	345/360
	B	30	1286	673	606	200	297	360	420	140	470	715	1150	440	110	425	150	395	50	19	160	395
PSV-1512E	B	37	1453	840	631	200	385	362	420	140	470	717	1300	440	112	500	150	395	50	19	176	496
	B	45	1551	938	631	200	385	362	420	140	470	717	1300	440	112	500	150	395	50	19	176	576
PSV-1512F	B	30	1346	673	641	180	297	395	495	140	530	750	1300	560	115	500	150	515	50	19	208	443
	B	37	1513	840	704	180	385	435	495	140	530	790	1400	560	155	550	150	500	65	23	208	528
PSV-1512G	B	45	1611	938	704	180	385	435	495	140	530	790	1400	560	155	550	150	500	65	23	208	608
	B	55	1528	855	734	155	415	435	495	140	530	790	1350	560	155	550	125	500	65	23	232	652
PSV-1512H	B	30	1346	673	666	180	297	430	563	140	530	830	1200	560	115	450	150	515	50	19	255	490
	B	37	1513	840	739	180	385	470	563	140	530	870	1400	560	155	550	150	500	65	23	272	592
PSV-1512I	B	45	1611	938	739	180	385	470	563	140	530	870	1400	560	155	550	150	500	65	23	272	672
	B	55	1528	855	749	135	415	450	563	140	530	850	1350	570	135	550	125	505	65	23	296	716
PSV-1512J	B	75	1563	890	782	185	440	450	563	140	530	850	1450	570	135	550	175	505	65	23	320	840
	B	30	1366	673	641	187	297	395	550	160	530	770	1300	560	115	500	150	515	50	19	206	441
PSV-2015D	B	37	1533	840	704	187	385	435	550	160	530	810	1400	560	155	550	150	500	65	23	206	526
	B	45	1631	938	704	187	385	435	550	160	530	810	1400	560	155	550	150	500	65	23	206	606
PSV-2015E	B	55	1548	855	734	162	415	435	550	160	530	810	1350	560	155	550	125	500	65	23	230	650
	B	37	1533	840	739	193	385	470	600	160	530	870	1400	610	155	550	150	550	65	23	236	556
PSV-2015F	B	45	1631	938	739	193	385	470	600	160	530	870	1400	610	155	550	150	550	65	23	236	636
	B	55	1548	855	769	168	415	470	600	160	530	870	1350	610	155	550	125	550	65	23	282	702
PSV-2015G	B	75	1583	890	787	218	440	455	600	160	530	855	1450	610	140	550	175	550	65	23	293	813
	B	90	1649	956	787	218	440	455	600	160	530	855	1450	610	140	550	175	550	65	23	293	853
PSV-2015H	B	110	1789	1096	1030	243	-	470	600	160	530	870	1600	610	155	600	200	550	65	23	320	1100
	B	132	1863	1170	1030	243	-	470	600	160	530	870	1600	610	155	600	200	550	65	23	320	1150
PSV-2015I	B	37	1533	840	739	190	385	470	625	160	530	920	1400	610	155	550	150	550	65	23	280	600
	B	45	1631	938	739	190	385	470	625	160	530	920	1400	610	155	550	150	550	65	23	280	680
PSV-2015J	B	55	1548	855	769	165	415	470	625	160	530	920	1350	610	155	500	125	550	65	23	328	748
	B	75	1583	890	787	215	440	455	625	160	530	905	1450	610	140	550	175	550	65	23	344	864
PSV-2520E	B	90	1649	956	787	215	440	455	625	160	530	905	1450	610	140	550	175	550	65	23	344	904
	B	110	1789	1096	1030	240	-	470	625	160	530	920	1600	610	155	600	200	550	65	23	375	1155
PSV-2520F	B	132	1863	1170	1030	240	-	470	625	160	530	920										

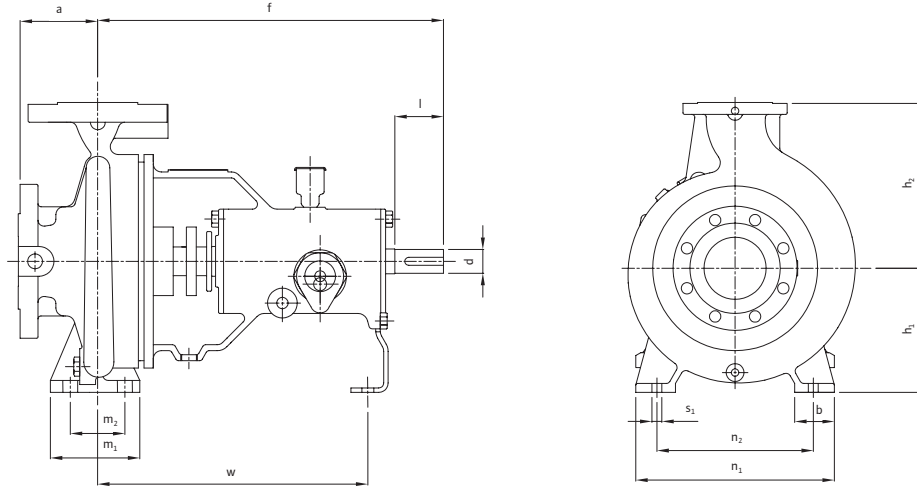
End Suction Pump

PSV Series

PSV Series

외형도 및 치수-Bare Shaft Pump

외형도



치수

MODEL	BORE(mm)		PUMP(mm)													WEIGHT (kg)
	Suc.	Dis.	a	f	h ₁	h ₂	b	m ₁	m ₂	n ₁	n ₂	w	s ₁	d	l	
PSV-5040B	50	40	80	360	132	160	50	100	70	240	190	285	15	24	50	32
PSV-5040C			100	360	160	180	50	100	70	265	212	285	15	24	50	39
PSV-5040D			100	360	180	225	65	125	95	320	250	285	15	24	50	48
PSV-5040E			125	470	225	250	65	125	95	345	280	370	15	32	80	80
PSV-6550B	65	50	100	360	160	180	50	100	70	265	212	285	15	24	50	35
PSV-6550C			100	360	160	200	50	100	70	265	212	285	15	24	50	40
PSV-6550D			100	360	180	225	65	125	95	320	250	285	15	24	50	52
PSV-6550E			125	470	225	280	65	125	95	345	280	370	15	32	80	82
PSV-8065B	85	65	100	360	160	200	65	125	95	280	212	285	15	24	50	41
PSV-8065C			100	360	180	225	65	125	95	320	250	285	15	24	50	46
PSV-8065D			100	470	200	250	80	160	120	360	280	370	19	32	80	68
PSV-8065E			125	470	225	280	80	160	120	400	315	370	19	32	80	88
PSV-1080B	100	80	125	360	180	225	65	125	95	320	250	285	15	24	50	47
PSV-1080C			125	470	180	250	65	125	95	345	280	370	15	32	80	56
PSV-1080D			125	470	200	280	80	160	120	400	315	370	19	32	80	71
PSV-1080E			125	470	250	315	80	160	120	400	315	370	19	32	80	92
PSV-1210B	125	100	125	470	200	280	80	160	120	360	280	370	19	32	80	65
PSV-1210C			125	470	200	280	80	160	120	360	280	370	19	32	80	70
PSV-1210D			140	470	225	280	80	160	120	400	315	370	19	32	80	81
PSV-1210E			140	470	250	315	80	160	120	400	315	370	19	32	80	100
PSV-1512C	150	125	140	470	250	315	80	160	120	400	315	370	19	32	80	90
PSV-1512D			140	470	250	355	100	160	120	400	315	370	19	32	80	94
PSV-1512E			140	530	280	355	100	200	150	500	400	370	23	42	110	130
PSV-1512F			140	530	315	400	100	200	150	500	400	370	23	42	110	180
PSV-2015D	200	150	160	530	280	375	100	200	150	500	400	370	23	42	110	128
PSV-2015E			160	530	315	400	100	200	150	550	450	370	23	42	110	156
PSV-2015F			160	530	315	450	100	200	150	550	450	370	23	48	110	200
PSV-2520E	250	200	200	556	350	430	100	200	150	550	450	395	23	48	110	256

End Suction Pump

PSV Series

wilo

PSV Series

기술Data

Stuffing Box Data

MODEL	Stuffing Box Size		Outer Dia. of Sleeve	Gland Packing Size(W×H×L)	Number of Gland Packing				
	Bore	Length							
PSV-5040B	ø51	49	ø35	8×8×143	4				
PSV-6550B									
PSV-8065B									
PSV-1080B									
PSV-5040C									
PSV-6550C		48							
PSV-8065C									
PSV-5040D									
PSV-6550D									
PSV-1210B						ø65	60	ø45	10×10×184
PSV-1080C									
PSV-1210C									
PSV-1512C									
PSV-8065D									
PSV-1080D									
PSV-1210D									
PSV-1512D									
PSV-5040E	ø75	73	ø55	10×10×215					
PSV-6550E									
PSV-8065E									
PSV-1080E									
PSV-1210E									
PSV-1512E									
PSV-1512F									
PSV-2015D					ø90		73	ø65	12.5×12.5×255
PSV-2015E									
PSV-2015F									
PSV-2520E									

Shaft & Bearing Housing Data

MODEL	Shaft Diameter				Size of key At Coupling	Span Between		Bearing No.
	At Impeller	At Stuff. Box	Between Bearing	At Coupling		Thrust Bearing & Impeller	Bearings	
PSV-5040B	ø22	ø29	ø36	ø24	8×7×36	157	118	Thrust : 6306zzC3 Radial : 6305zzC3
PSV-6550B						160		
PSV-8065B						165		
PSV-1080B						170		
PSV-5040C						158		
PSV-6550C						159		
PSV-8065C						167		
PSV-5040D						158		
PSV-6550D						160		
PSV-1210B						ø30		
PSV-1080C	195							
PSV-1210C	210							
PSV-1512C	208							
PSV-8065D	197							
PSV-1080D	204							
PSV-1210D	207							
PSV-1512D	210							
PSV-5040E	196							
PSV-6550E	197							
PSV-8065E	ø42	ø47	ø59	ø42	12×8×50	209	175	Thrust : 6410zzC3 Radial : 6409zzC3
PSV-1512E						223		
PSV-1512F						223		
PSV-2015D						218		
PSV-2015E	ø50	ø55	ø73	ø48	14×9×80	224	167.5	Thrust : 6412zzC3 Radial : 6312zzC3
PSV-2015F						253		
PSV-2520E								

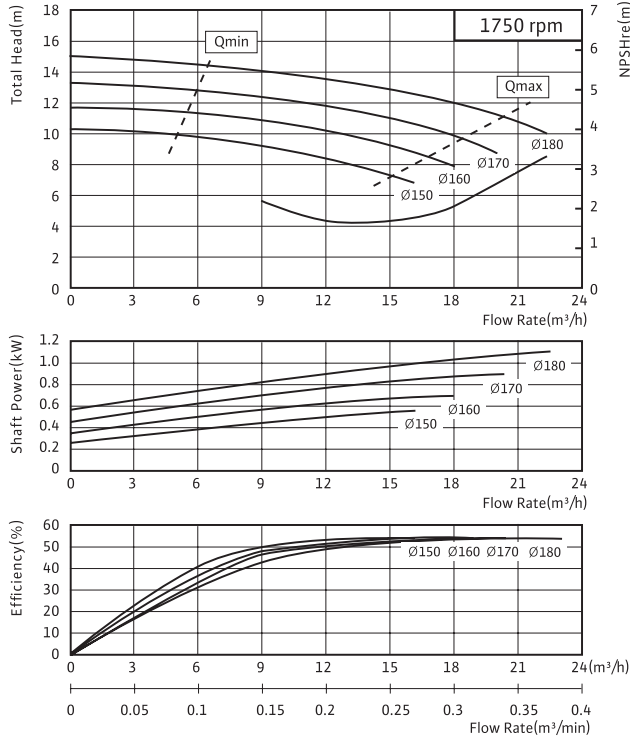
End Suction Pump

PSV Series

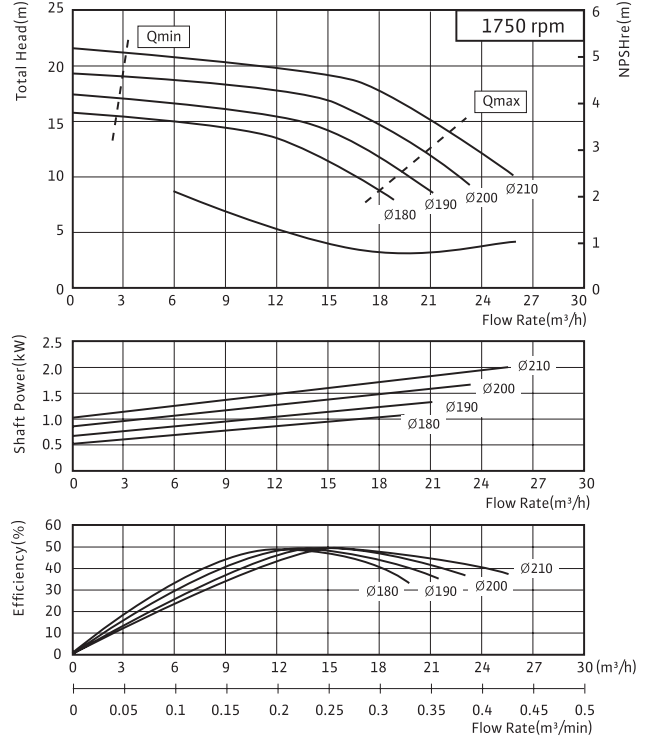
PSV-5040B / 5040C / 5040D / 5040E

성능곡선 4pole

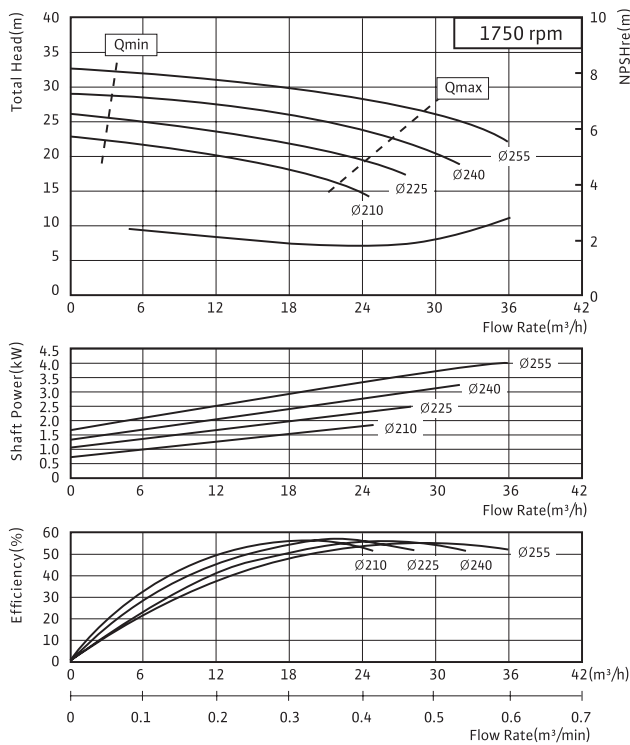
PSV - 5040B



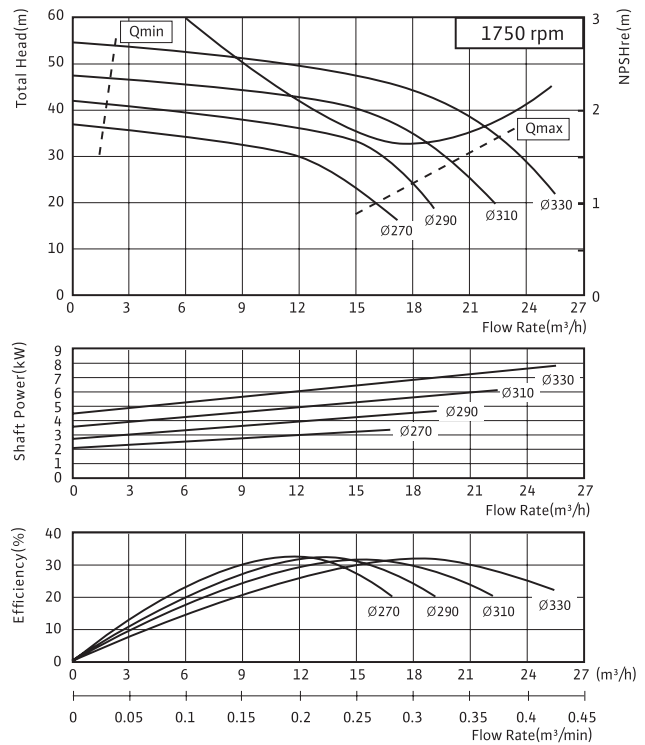
PSV - 5040C



PSV - 5040D



PSV - 5040E



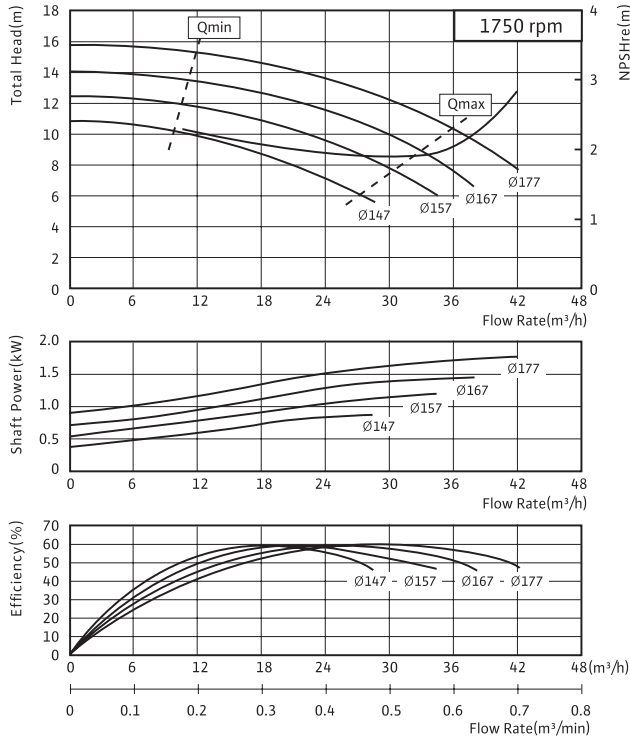
End Suction Pump

PSV Series

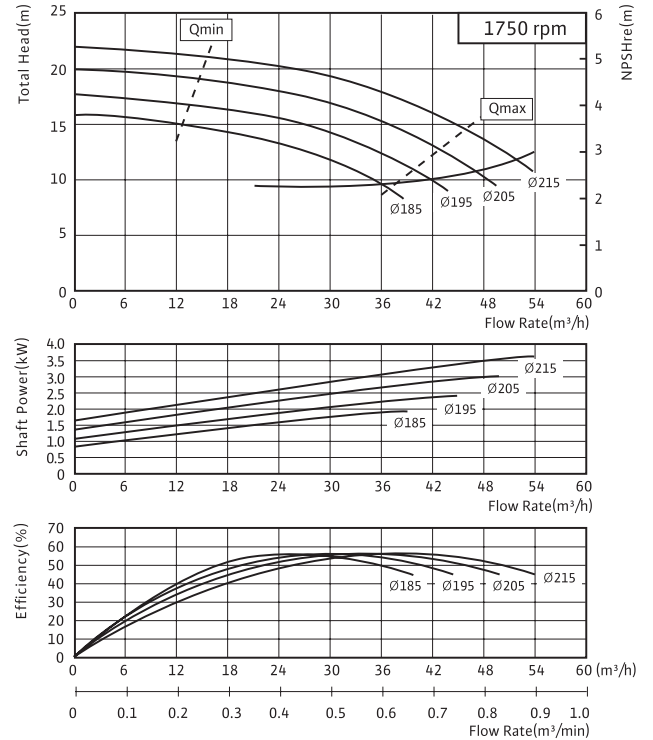


PSV-6550B / 6550C / 6550D / 6550E 성능곡선 4pole

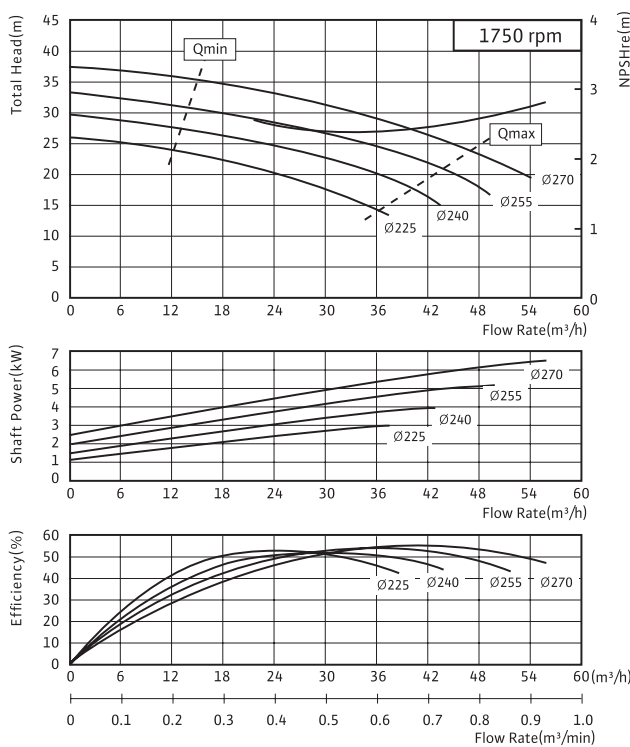
PSV - 6550B



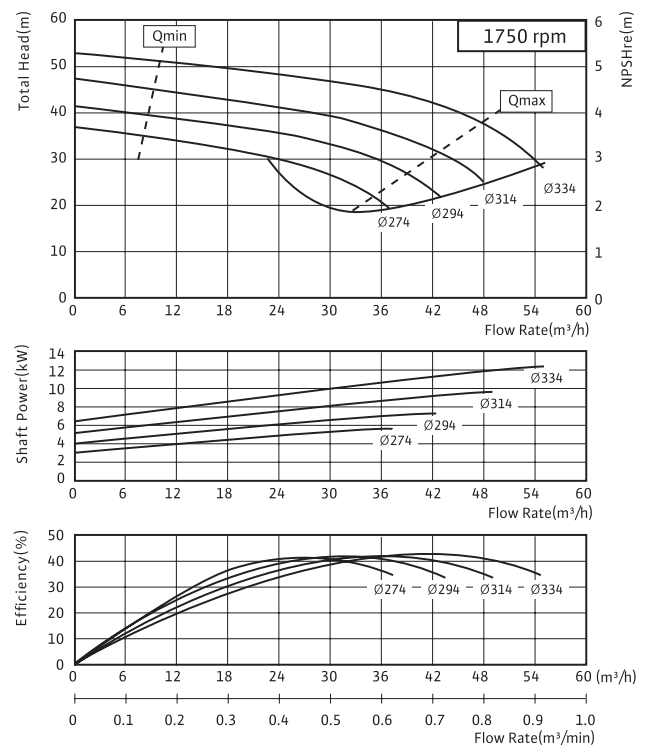
PSV - 6550C



PSV - 6550D



PSV - 6550E



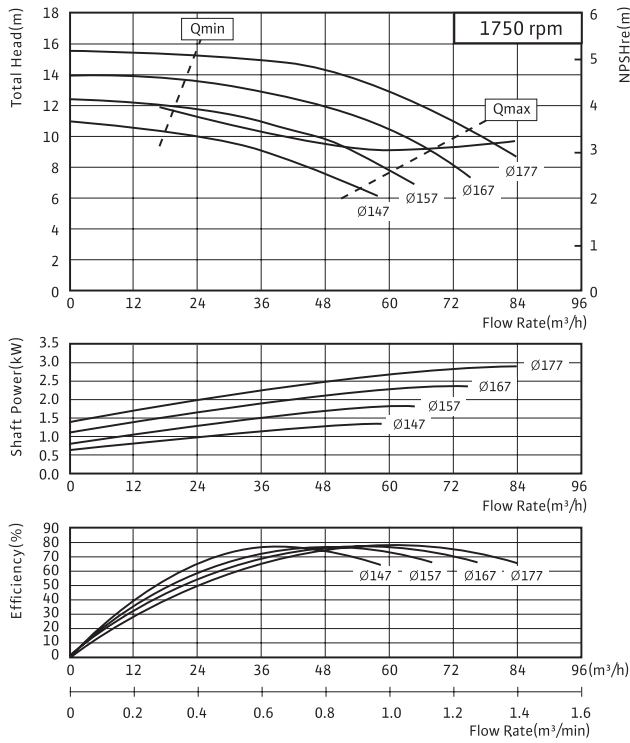
End Suction Pump

PSV Series

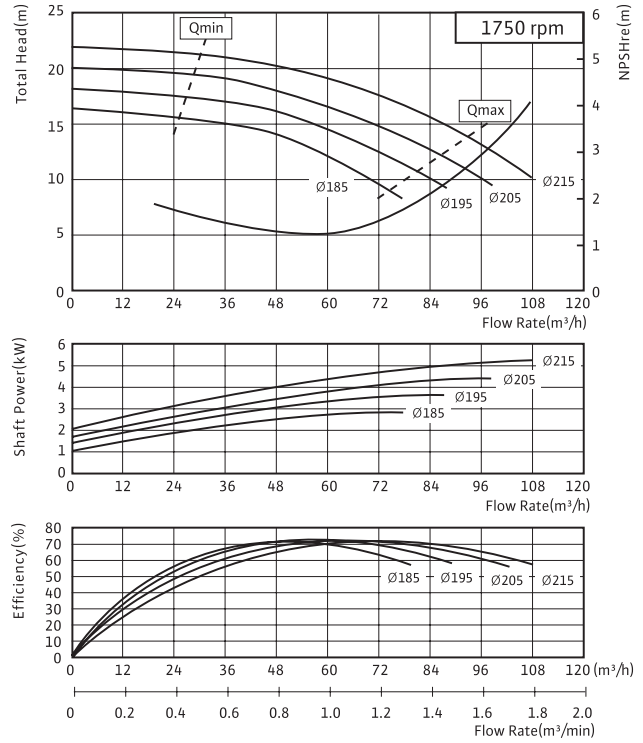
PSV-8065B / 8065C / 8065D / 8065E

성능곡선 4pole

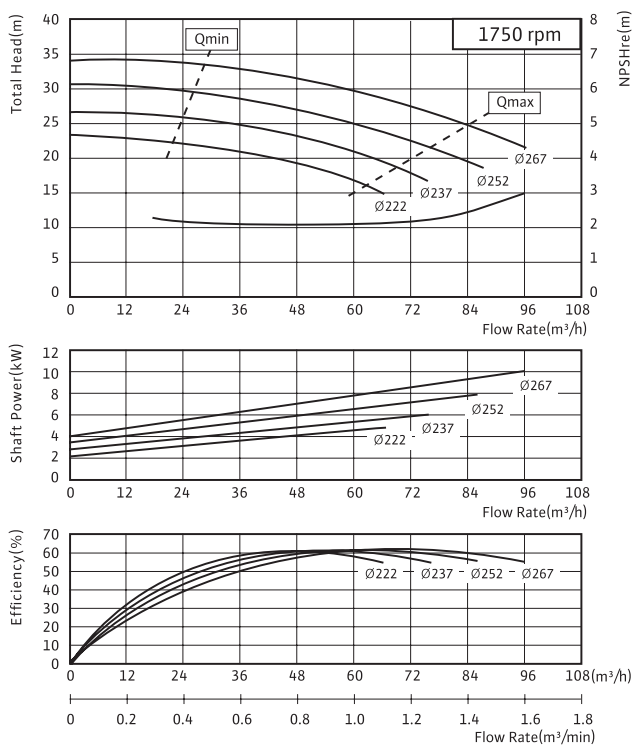
PSV - 8065B



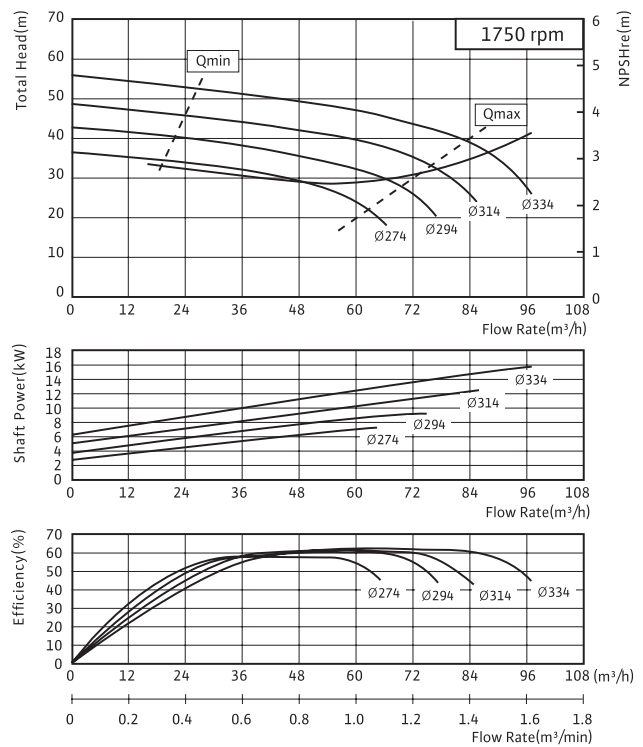
PSV - 8065C



PSV - 8065D



PSV - 8065E



End Suction Pump

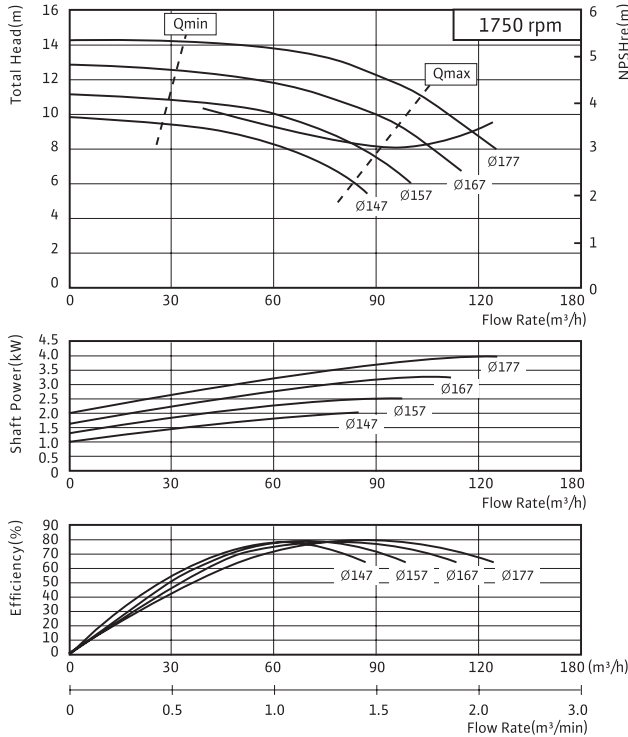
PSV Series



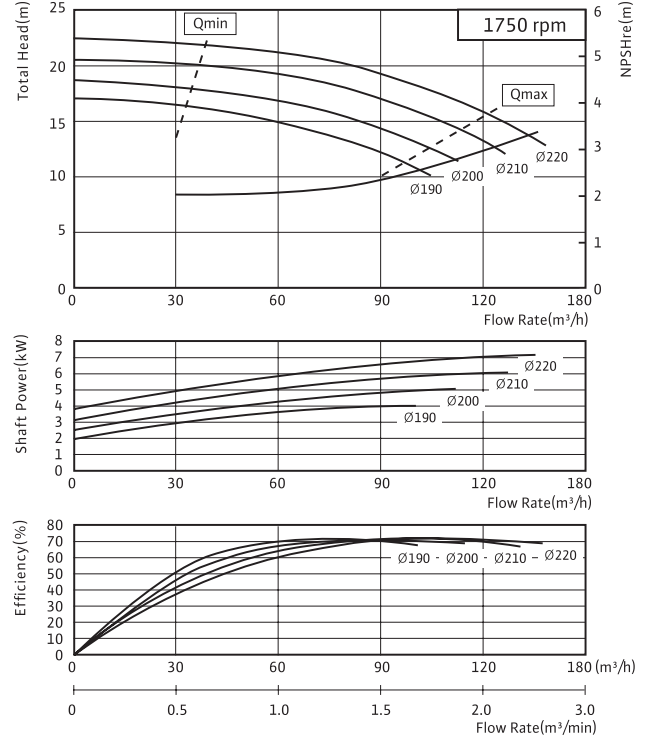
PSV-1080B / 1080C / 1080D / 1080E

성능곡선 4pole

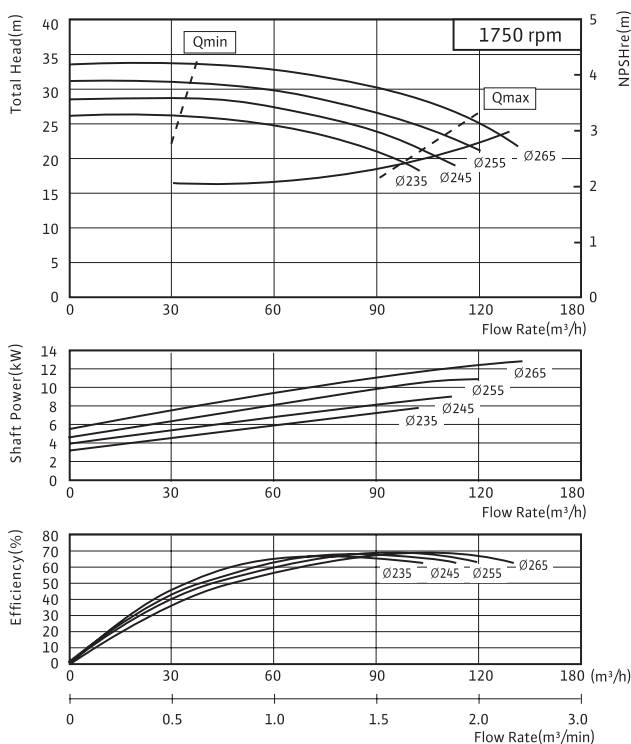
PSV - 1080B



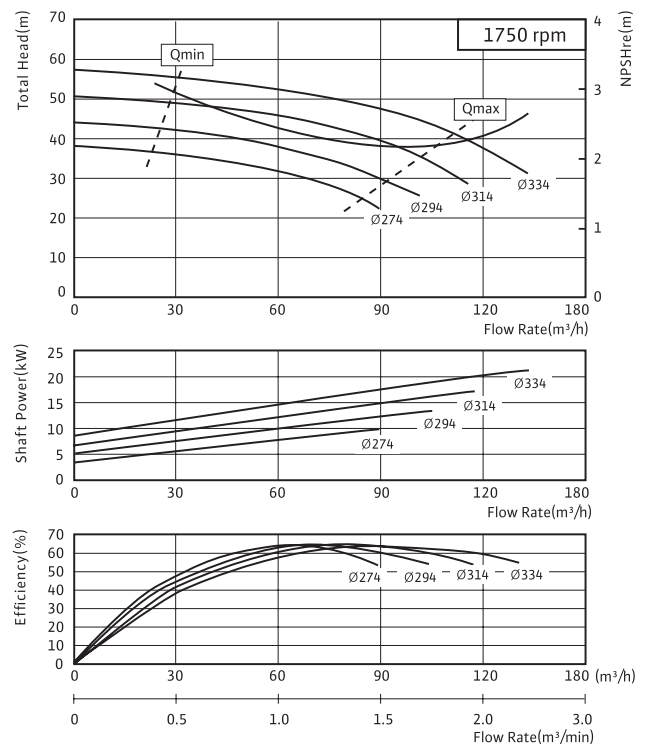
PSV - 1080C



PSV - 1080D



PSV - 1080E



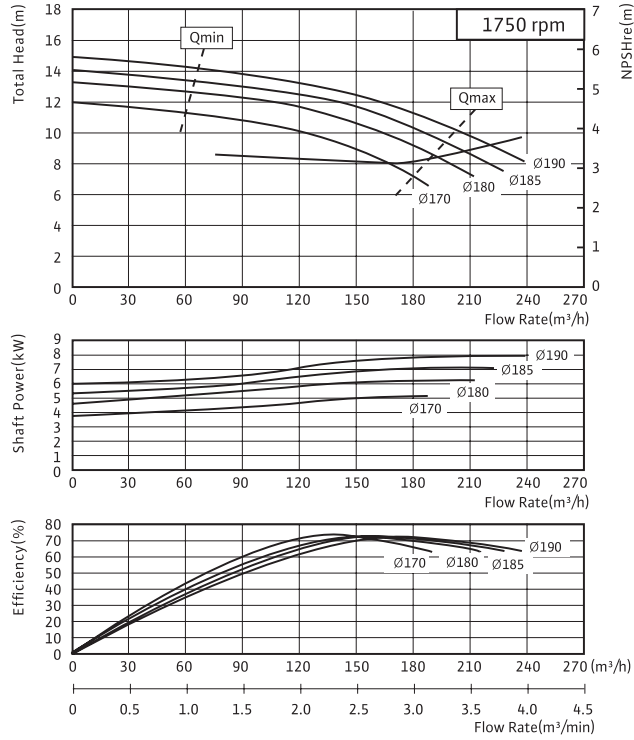
End Suction Pump

PSV Series

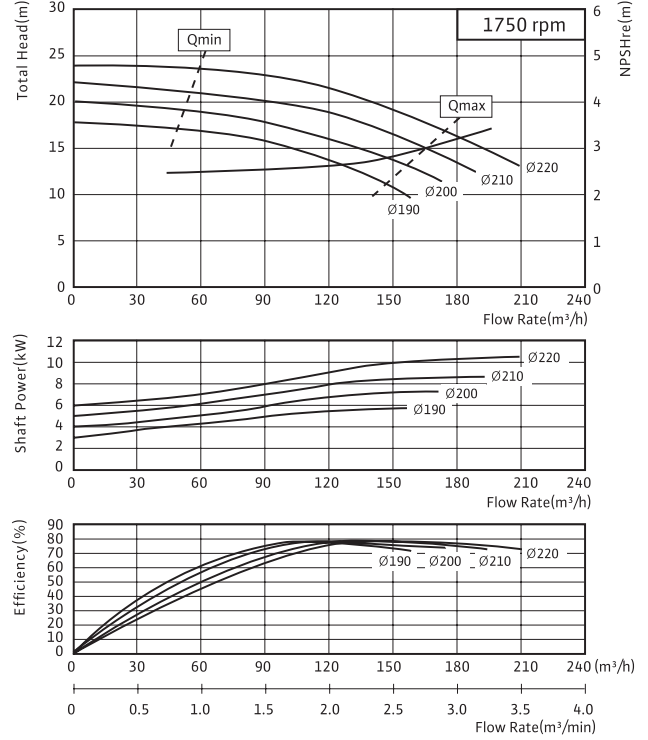
PSV-1210B / 1210C / 1210D / 1210E

성능곡선 4pole

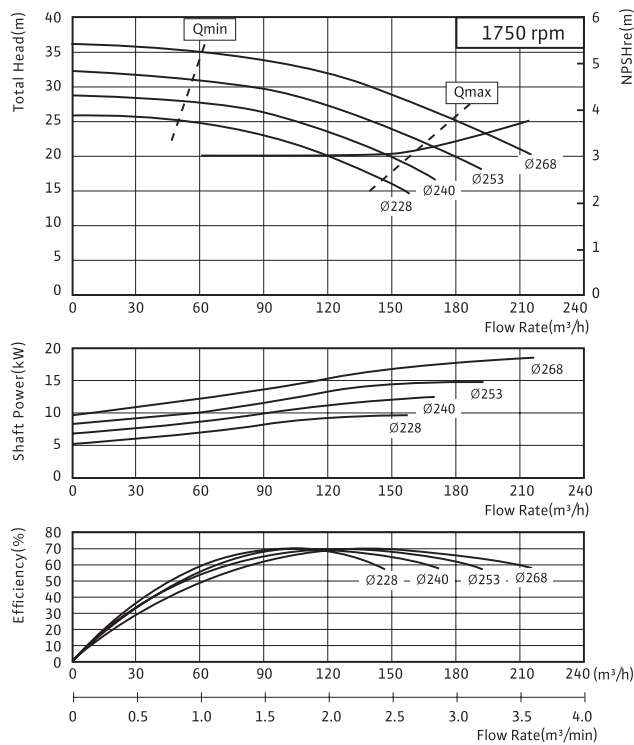
PSV - 1210B



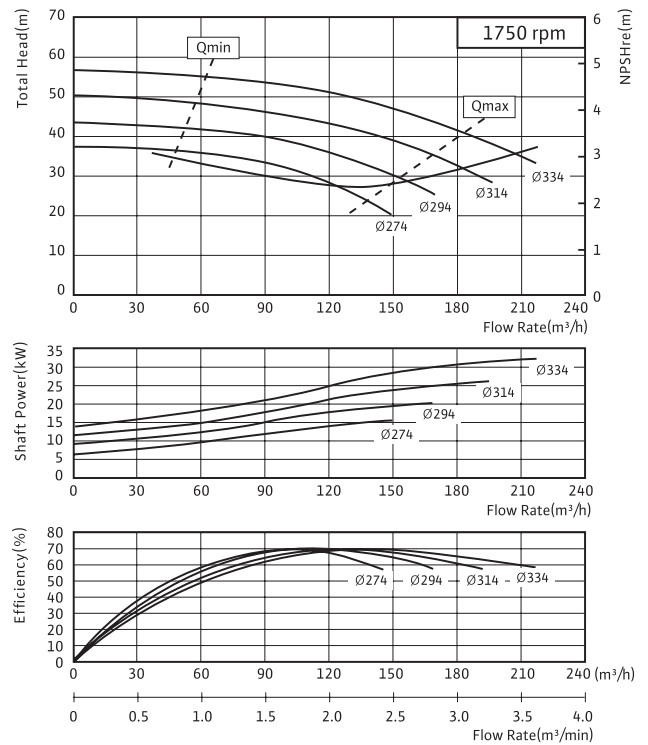
PSV - 1210C



PSV - 1210D



PSV - 1210E



End Suction Pump

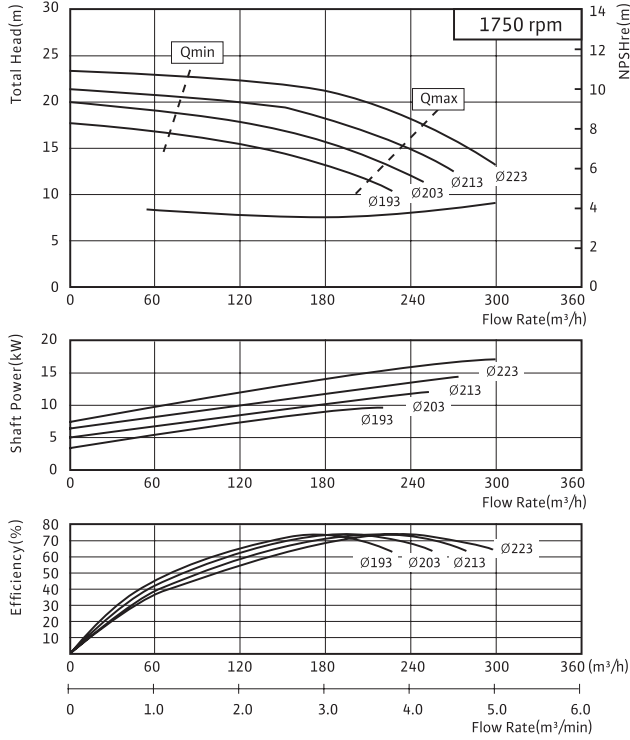
PSV Series



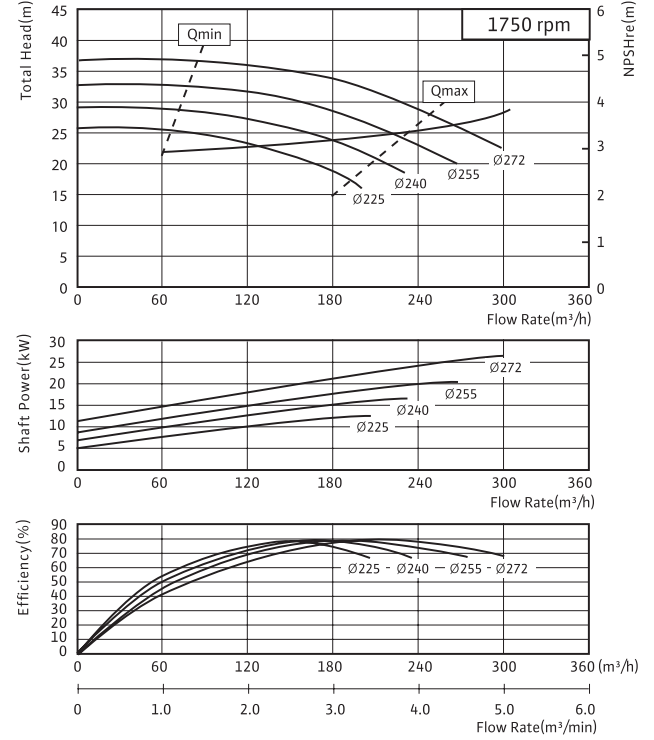
PSV-1512C / 1512D / 1512E / 1512F

성능곡선 4pole

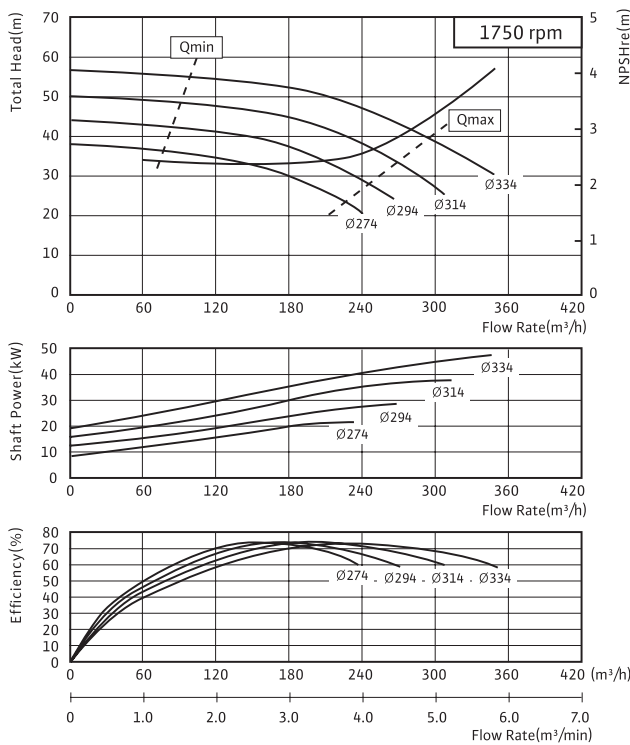
PSV - 1512C



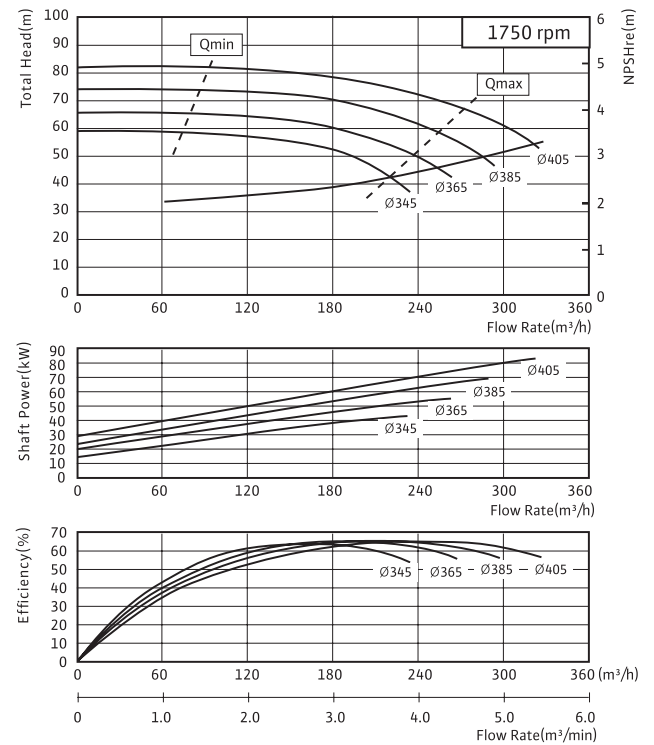
PSV - 1512D



PSV - 1512E



PSV - 1512F



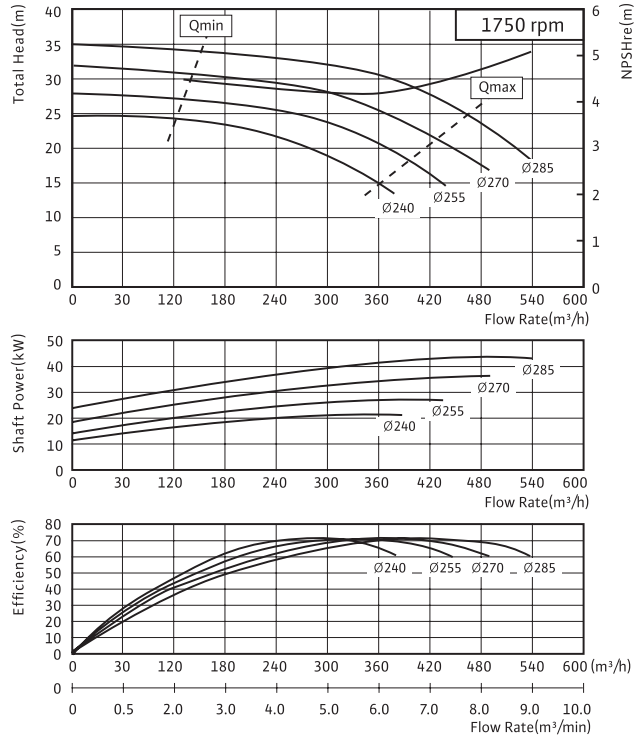
End Suction Pump

PSV Series

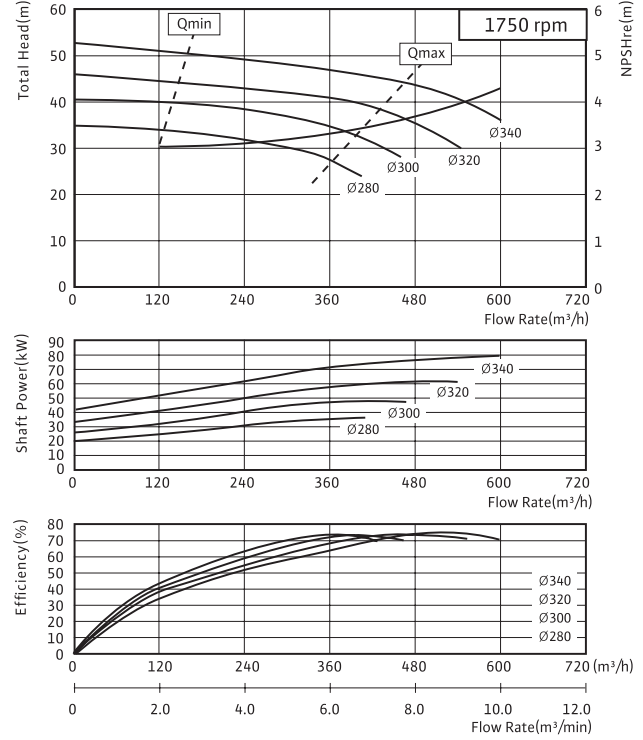
PSV-2015D / 2015E / 2015F / 2520E

성능곡선 4pole

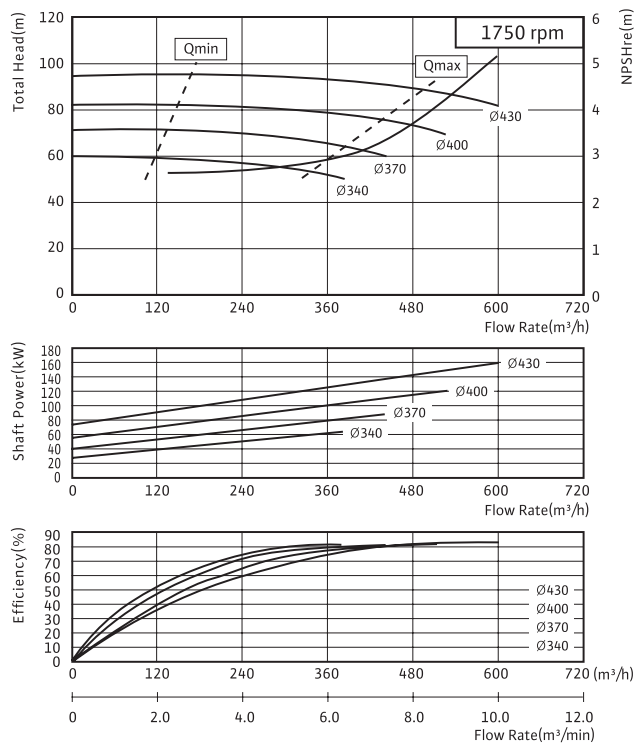
PSV - 2015D



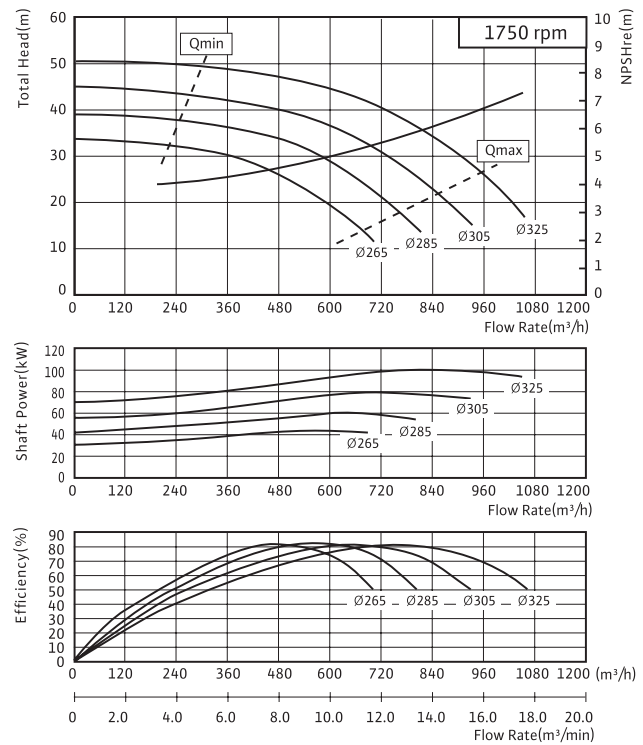
PSV - 2015E



PSV - 2015F



PSV - 2520E



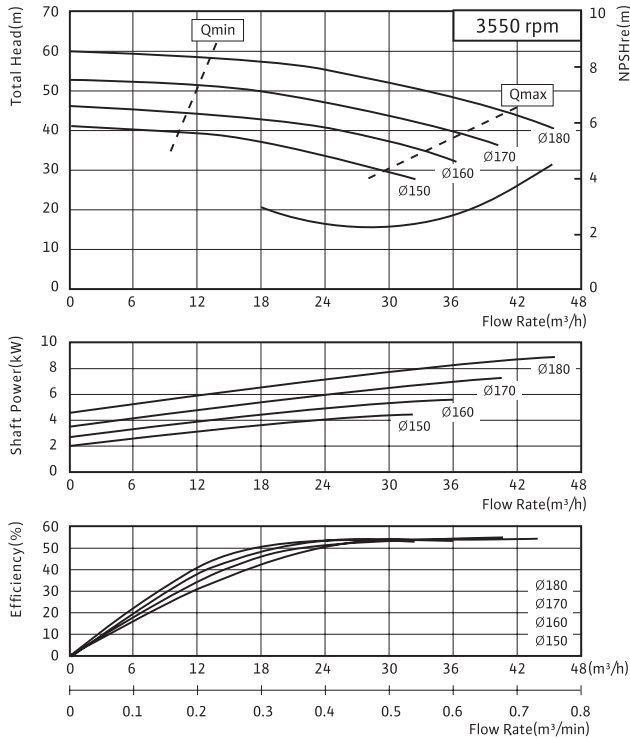
End Suction Pump

PSV Series

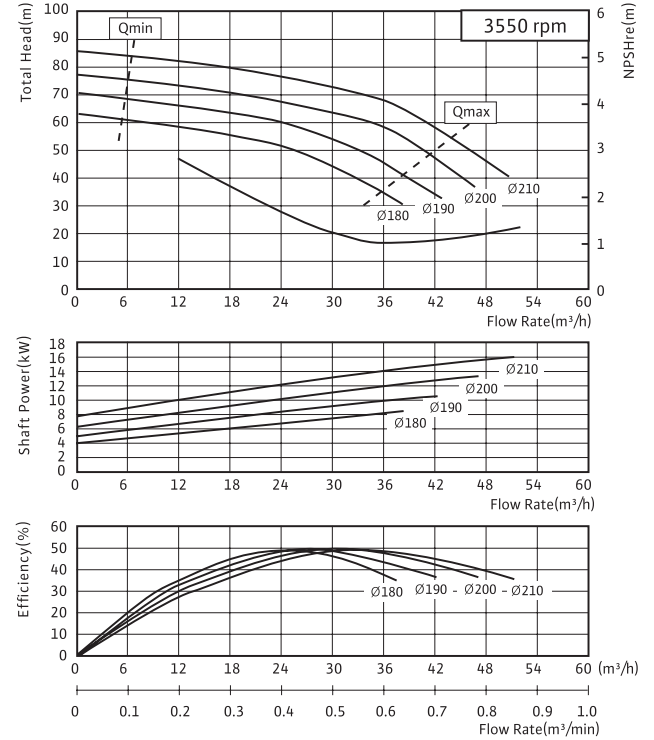


PSV-5040B / 5040C / 6550B / 6550C 성능곡선 2pole

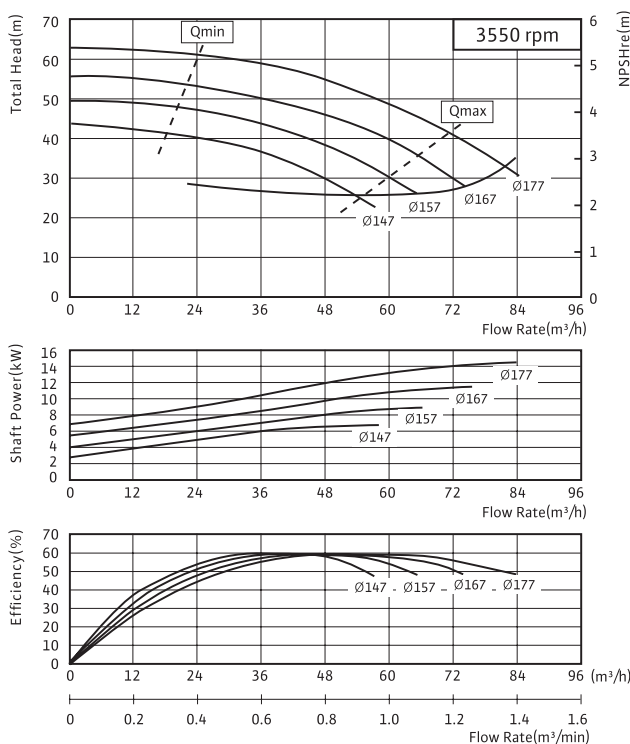
PSV - 5040B



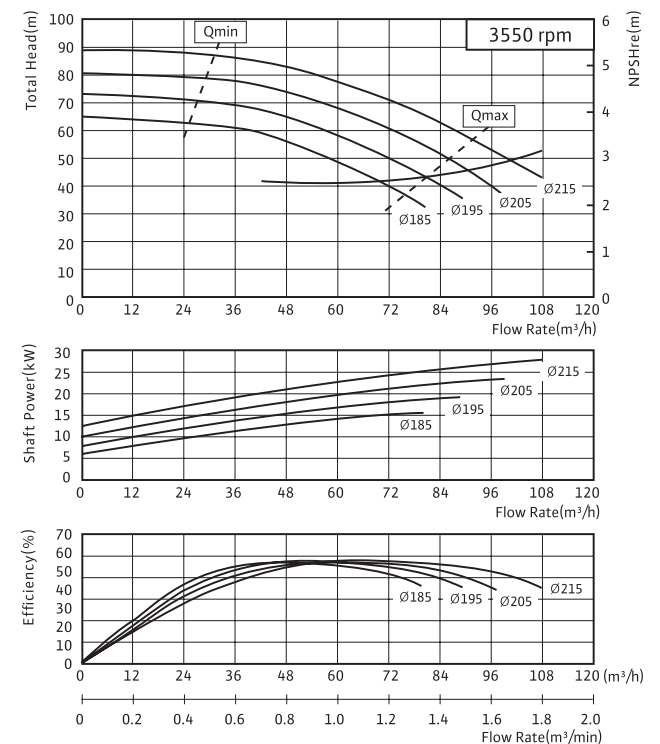
PSV - 5040C



PSV - 6550B



PSV - 6550C



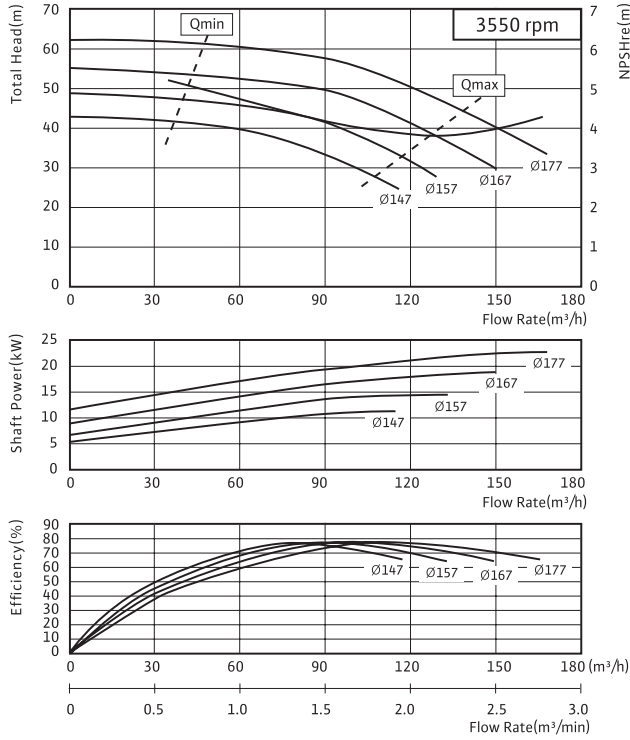
End Suction Pump

PSV Series

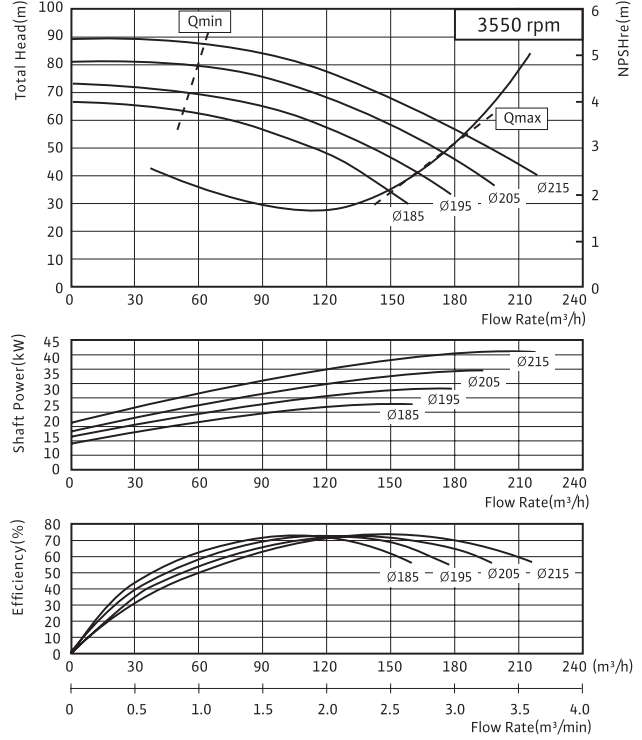
PSV-8065B / 8065C / 1080B / 1080C

성능곡선 2pole

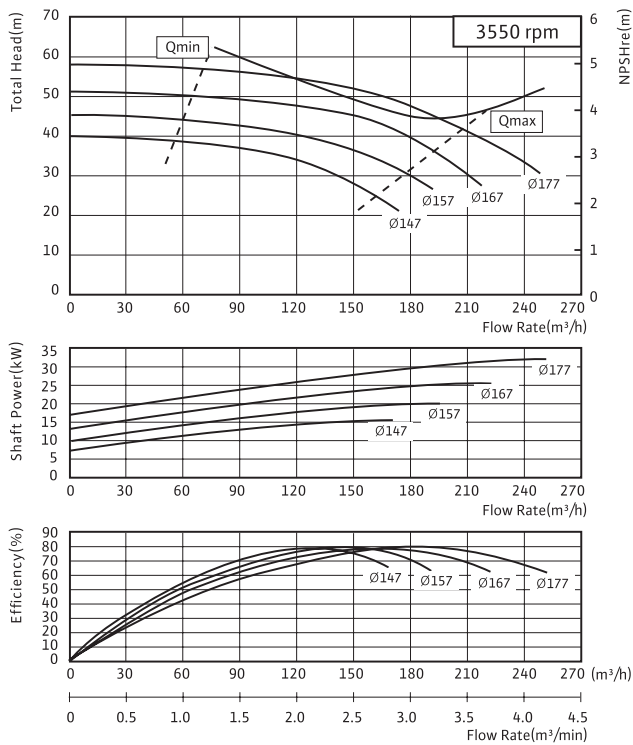
PSV - 8065B



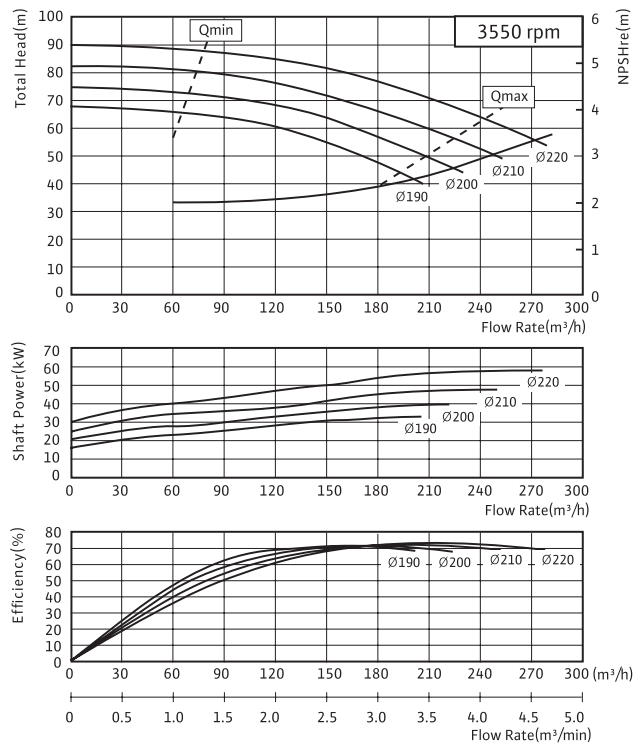
PSV - 8065C



PSV - 1080B



PSV - 1080C



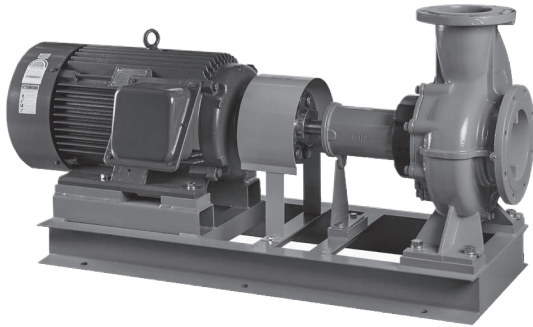
End Suction Pump

NLn Series

wilo

NLn Series

제품 소개



적용범위

- 많은 액체용 - 청수
- 일반산업용 및 급수시설용
- 가정용수 공급용 및 빌딩 수처리용
- 관개용수용 및 발전소용
- 공기조화용 및 스프링클러용
- 냉각 또는 가열 순환용

구조 및 특징

- 임펠러 내의 액체의 흐름이 용이하도록 설계된 3차원 깃을 적용
- EN12756의 치수에 준한 Mechanical Seal 채택으로 장착이 쉽고 간편한 유지보수
- 제품의 표준화설계로 인하여 단일품목으로 광범위한 사용 영역을 보유
- Back pull-out 구조로 편리한 유지보수
- 토출부가 중앙상부에 위치하여 배관하중에 대한 안전성과 펌프 가동 시 Balance가 유지
- 유체 유동 해석을 통한 설계로 최적의 성능

특장점

- 고효율 설계로 제작
- 높은 내구성
- EN733 외형 치수에 준한 설계로 국제적인 제품 호환성을 확보
- PN10(10kgf/cm²) 적용 설계로 사용 환경을 고려
- Mechanical Seal 표준 적용으로 최적의 제품 구성으로 설계

End Suction Pump

NLn Series

NLn Series

제품 사양

취급액(-20~120°C, pH6~8)

고온 또는 청수가 아닌 액을 취급할 경우에는 이송액의 특성 (온도, 농도, 고형물의 유·무)과 사용조건에 따라 내마모성, 내식성이 현저히 변화되는 경우가 있으므로 반드시 영업 또는 공장으로 문의

흡입측 조건

흡입 전양정 또는 압입 압력은 아래 표에 따름

흡입 전양정 허용치		
액의 온도	흡입구경	흡입 전양정
0°C ~ 40°C	50 ~ 80mm	-6m 이내
	100 ~ 125mm	-5.5m 이내
	150 ~ 200mm	-4m 이내

흡입 전양정 보정치	
온도	보정치
40°C 이상~50°C 미만	+1
50°C 이상~60°C 미만	+2
60°C 이상~70°C 미만	+3.5
70°C 이상~80°C 미만	+5
80°C 이상~90°C 미만	+7
90°C 이상~95°C 미만	+9
95°C 이상~100°C 이하	+11

표준 흡입압력 허용치

흡입압력이 4kgf/cm² 이하이면서

[10 - $\frac{\text{펌프 체질 전양정}}{10}$] kgf/cm²이내.

또한 흡입압력이 순간적으로 변하지 않도록 하여야 함
상기조건을 벗어나는 경우에는 영업 또는 공장으로 문의

운전조건

- 기동반복이 빈번한 자동제어용으로 펌프를 사용할 경우에는 임펠러의 파손 우려가 있으므로 임펠러 재질을 청동급 이상으로 사용
- 자동제어용으로 사용하실 경우 기동반복이 시간당 12회를 넘지 않아야 함
- 수격현상(워터해머)이 발생되지 않도록 배관을 구성

표준사양

- Pump Housing
축방향 흡입구와 수직방향 토출구를 가진 구조 적용
- EN 733에 따른 치수 및 구조 적용
- Flange 규격: KSB 1511의 10K
- 120°C 사용 가능 Mechanical Seal 적용
- Stainless Steel Shaft 표준 적용
- 사용자의 안전을 고려한 Shaft Guard 적용

적용규격

- EN 733: End-suction centrifugal pumps, rating with 10 bar with bearing bracket
- KSB 7501: 소형 벌루트 펌프
- KSB 1511: 철강제 관 플랜지의 기본 치수
- EN 1092-2: Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 2 : Cast iron flanges

주문사양(Option)

- Flange : EN 1092-2의 PN 10
- 재질변경
Impeller - Bronze/Stainless Steel
- Working Pressure 16 bar : 별도 제품

End Suction Pump



NLn Series

NLn Series 모델명

모델명 부여기준 (MODEL)

NLn125/315-75/4

- NLn: 펌프 형식(Single Stage End Suction Volute Pump)
- 125: 토출 구경(mm)
예 - 토출 125mm, 흡입 150mm
- /315: 임펠러 공칭 외경(mm) - 125, 160, 200, 250, 315, 400
예 - 임펠러 공칭 외경 315mm
- -75: 적용 전동기 동력(kW)
예 - 적용 전동기 75kW
- /4: 적용 전동기 극수(Pole) - 2극, 4극, 6극
예 - 적용 전동기 극수 4극

치수 단위: mm			
대표 모델명 (Model)	흡입 구경 (DN inlet)	토출 구경 (DN outlet)	공칭 임펠러 외경 (Nominal Impeller Diameter)
NLn40/250	65	40	250
NLn50/160	65	50	160
NLn50/200			200
NLn50/250			250
NLn65/200	80	65	200
NLn65/250			250
NLn65/315			315
NLn80/200	100	80	200
NLn80/250			250
NLn80/315			315
NLn80/400			400
NLn100/160	125	100	160
NLn100/200			200
NLn100/250			250
NLn100/315			315
NLn100/400			400
NLn125/200	150	125	200
NLn125/250			250
NLn125/315			315
NLn125/400			400
NLn150/200	200	150	200
NLn150/250			250
NLn150/315			315
NLn150/400			400

Norm and Multistage Pumps

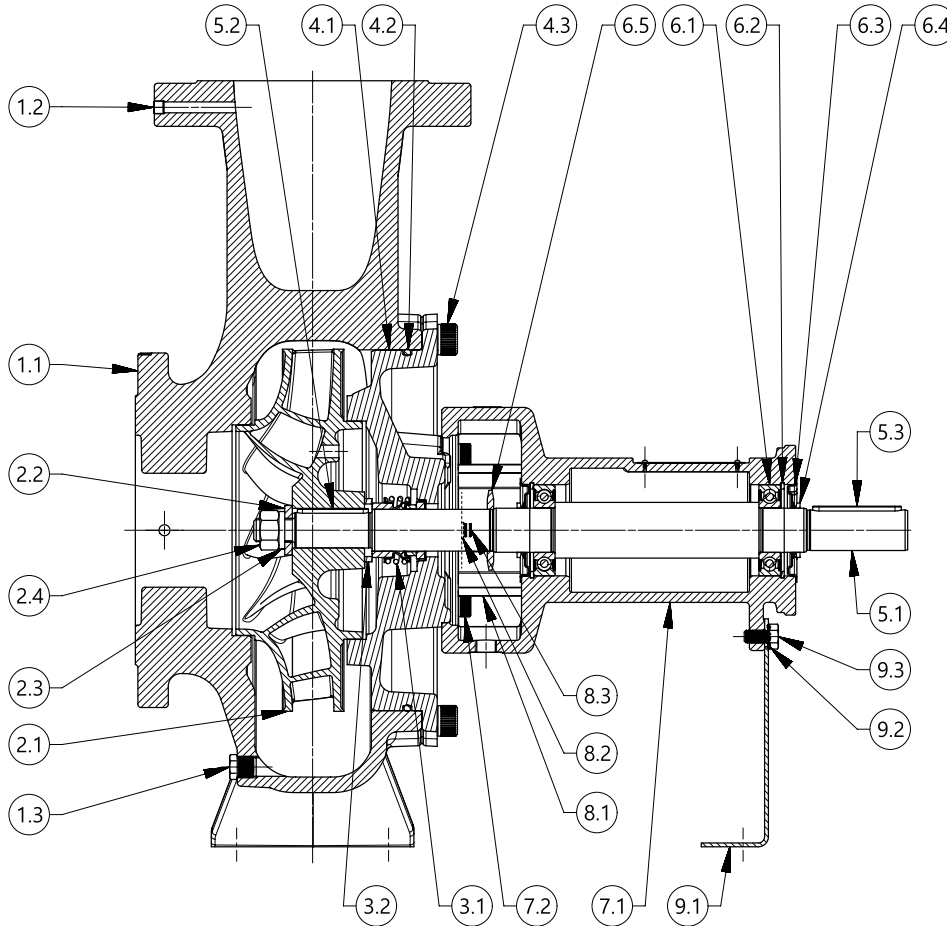
End Suction Pump

NLn Series

NLn Series

단면도

단면도 (SECTIONAL DRAWING)



품번	품명	재질	수량
1.1	펌프하우징(Pump Housing)	GJL-250	1
1.2	플러그(Screw Plug)	-	2
1.3	육각 플러그(Hex Plug)	SM20C	2
2.1	임펠러(Impeller)	GJL-200	1
2.2	임펠러 와셔(Impeller Washer)	STS304	1
2.3	스프링 와셔(Spring Washer)	STS304	1
2.4	임펠러 너트(Impeller Nut)	STS304	1
3.1	미케니컬 실(Mechanical Seal)	-	1
3.2	스페이서 디스크(Spacer Disc)	1.4021	1
4.1	토출 커버(Discharge Cover)	GJL-250	1
4.2	O-링(O-Ring)	EPDM	1
4.3	소켓 볼트(Socket Bolt)	-	4/8/12
5.1	축(Shaft)	1.4028	1
5.2	임펠러 키(Impeller Key)	SM45C	1

품번	품명	재질	수량
5.3	커플링 키(Coupling Key)	SM45C	1
6.1	볼 베어링(Ball Bearing)	-	2
6.2	C-링(C Ring)	SK5M	2
6.3	베어링 커버(Bearing Cover)	STS304	2
6.4	V-링(V-Ring)	NBR	2
6.5	디플렉터(Water Thrower)	EPDM	1
7.1	베어링 브라켓(Bearing Bracket)	GJL-250	1
7.2	소켓 볼트(Socket Bolt)	-	4
8.1	축 가드(Shaft Protection)	PP	2
8.2	평 와셔(Plain Washer)	SS400	2
8.3	소켓 볼트(Socket Bolt)	-	2
9.1	지지대(Foot Support)	S235JR	1
9.2	록 와셔(Serrated Lock Washer)	-	1
9.3	육각 볼트(Hexagon Bolt)	SM20C	1

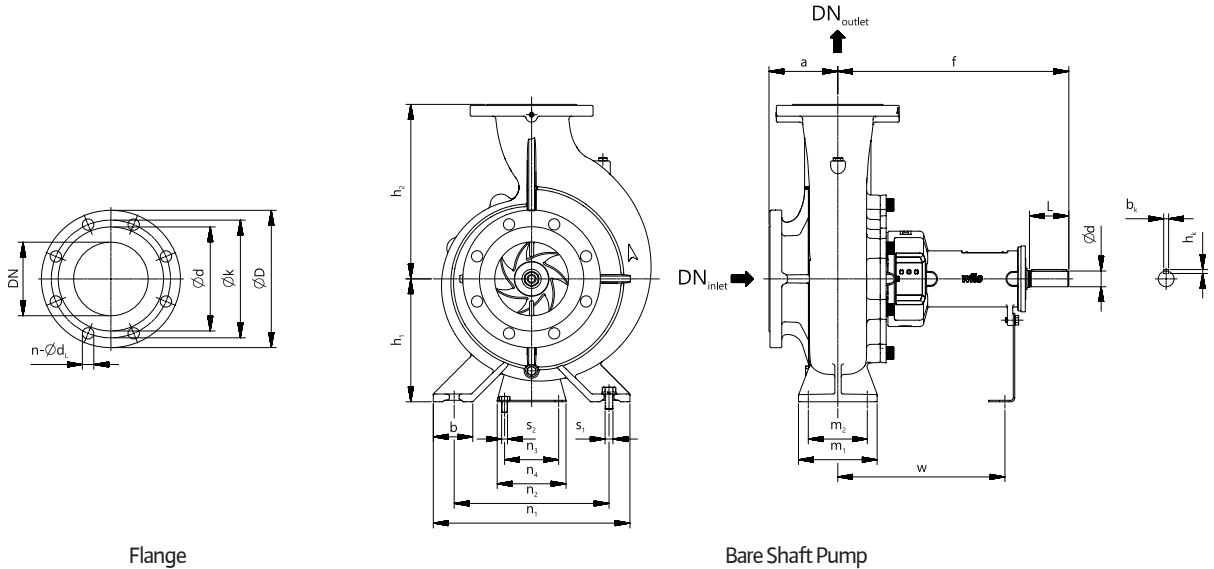
End Suction Pump

NLn Series



NLn Series 외형도-Bare Shaft Pumps

외형도



Flange

Bare Shaft Pump

치수 – Bare Shaft Pumps																						
Model	Bore size(mm)		Pump(mm)														Shaft(mm)			Key(mm)		Weight (kg)
	DN inlet	DN outlet	a	f	h1	h2	b	m1	m2	n1	n2	n3	n4	w	s1	s2	d	L	x	bk	hk	
NLn50/160	65	50	100	360	160	180	50	100	70	265	212	110	140	260	M12	M12	24	50	100	8	7	37
NLn65/200	80	65	100	360	180	225	65	125	95	320	250	110	140	260	M12	M12	24	50	140	8	7	47
NLn100/160	125	100	125	470	200	280	80	160	120	360	280	110	140	340	M16	M12	32	80	140	10	8	63
NLn100/250			140	470	225	280	80	160	120	400	315	110	140	340	M16	M12	32	80	140	10	8	84
NLn125/200	150	125	140	470	250	315	80	160	120	400	315	110	140	340	M16	M12	32	80	140	10	8	87
NLn125/250			140	470	250	355	80	160	120	400	315	110	140	340	M16	M12	32	80	140	10	8	100
NLn125/315			140	530	280	355	100	200	150	500	400	110	140	370	M20	M12	42	110	140	12	8	136
NLn125/400			140	530	315	400	100	200	150	500	400	110	140	370	M20	M12	42	110	140	12	8	187
NLn150/200	200	150	160	470	280	400	100	200	150	550	450	110	140	340	M16	M12	32	80	140	10	8	107
NLn150/250			160	530	280	375	100	200	150	500	400	110	140	370	M20	M12	42	110	140	12	8	135
NLn150/315			160	530	280	400	100	200	150	550	450	110	140	370	M20	M12	42	110	140	12	8	151

치수 – Flange (KS 10kgf/cm ²)							단위:mm
Bore	DN	Ød	Øk	ØD	n	ØdL	Bolt
50	50	96	120	160	4	19	M16
65	65	116	140	180	4	19	M16
80	80	128	150	190	8	19	M16
100	100	152	175	215	8	19	M16
125	125	182	210	250	8	23	M20
150	150	212	240	280	8	23	M20
200	200	262	290	335	12	23	M20

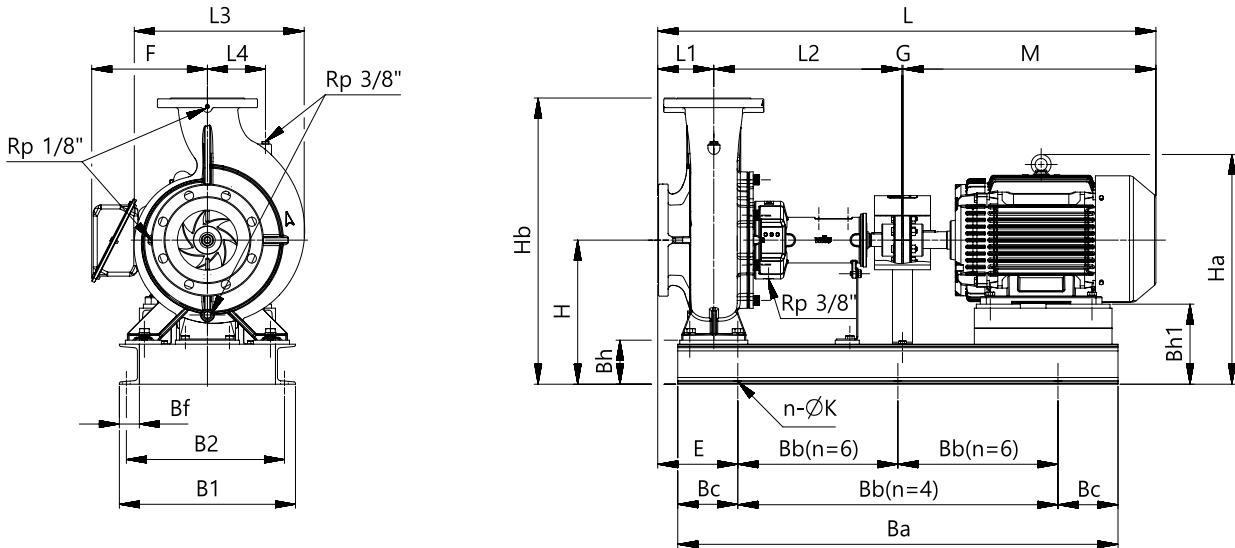
End Suction Pump

NLn Series

NLn Series

외형도

외형도



• Motor 관련 형상 및 Terminal Box의 위치는 Motor제 조업체에 따라 달라질 수 있음

치수		60Hz-4Pole																								
MODEL	MOTOR (kW)	BORE(mm)		PUMP & MOTOR(mm)										BED ASSEMBLY(mm)						WEIGHT(kg)						
		DN inlet	DN outlet	L	L1	L2	L3	L4	E	F	G	M	H	Ha	Hb	Ba	Bb	Bc	Bf	B1	B2	Bh	Bh1	n - ØK	P-B	P-B-M
NLn50/160-1.5/4	1.5	65	50	781	100	360	247	95	165	158	3	318	245	341	425	750	500	125	40	350	315	85	155	4 - 15	67	92
NLn50/160-2.2/4	2.2	65	50	820	100	360	247	95	185	171	3	357	245	388	425	800	500	150	40	350	315	85	145	4 - 15	69	103
NLn50/160-3.7/4	3.7	65	50	833	100	360	247	95	165	180	3	370	245	407	425	750	500	125	40	350	315	85	133	4 - 15	66	111
NLn65/200-2.2/4	2.2	80	65	820	100	360	301	107	178	171	3	357	265	408	490	800	500	150	40	350	315	85	165	4 - 15	80	114
NLn65/200-3.7/4	3.7	80	65	833	100	360	301	107	153	180	3	370	265	427	490	750	500	125	40	350	315	85	153	4 - 15	79	124
NLn65/200-5.5/4	5.5	80	65	910	100	360	301	107	178	220	3	447	265	444	490	850	550	150	40	350	315	85	133	4 - 15	81	149
NLn65/200-7.5/4	7.5	80	65	949	100	360	301	107	178	220	3	486	265	444	490	850	550	150	40	350	315	85	133	4 - 15	81	163
NLn100/160-3.7/4	3.7	125	100	968	125	470	308	140	210	180	3	370	285	447	565	900	550	175	40	410	375	85	173	4 - 15	101	146
NLn100/160-5.5/4	5.5	125	100	1045	125	470	308	140	210	220	3	447	285	464	565	950	600	175	40	410	375	85	153	4 - 15	102	170
NLn100/160-7.5/4	7.5	125	100	1084	125	470	308	140	210	220	3	486	285	464	565	950	600	175	40	410	375	85	153	4 - 15	102	184
NLn100/250-11/4	11	125	100	1208	140	470	411	137	200	265	3	595	335	545	615	1100	400	150	50	440	395	110	175	6 - 19	138	255
NLn100/250-15/4	15	125	100	1252	140	470	411	137	200	265	3	639	335	545	615	1100	400	150	50	440	395	110	175	6 - 19	138	278
NLn100/250-18.5/4	18.5	125	100	1258	140	470	411	137	200	297	3	645	335	581	615	1150	425	150	50	440	395	110	155	6 - 19	142	327
NLn100/250-22/4	22	125	100	1258	140	470	411	137	200	297	3	645	335	581	615	1150	425	150	50	440	395	110	155	6 - 19	142	342
NLn100/250-30/4	30	125	100	1287	140	470	411	137	200	297	4	673	335	581	615	1150	425	150	50	440	395	110	155	6 - 19	146	381
NLn125/200-11/4	11	150	125	1208	140	470	404	150	200	265	3	595	360	570	675	1100	400	150	50	440	395	110	200	6 - 19	144	261
NLn125/200-15/4	15	150	125	1252	140	470	404	150	200	265	3	639	360	570	675	1100	400	150	50	440	395	110	200	6 - 19	144	284
NLn125/200-18.5/4	18.5	150	125	1258	140	470	404	150	200	297	3	645	360	606	675	1150	425	150	50	440	395	110	180	6 - 19	149	334
NLn125/200-22/4	22	150	125	1258	140	470	404	150	200	297	3	645	360	606	675	1150	425	150	50	440	395	110	180	6 - 19	149	349
NLn125/200-30/4	30	150	125	1287	140	470	404	150	200	297	4	673	360	606	675	1150	425	150	50	440	395	110	180	6 - 19	153	388

※ Motor 관련 치수는 Motor제 조업체에 따라 달라질 수 있음(하이젠 모터 기준 치수)

※ 'F' 치수가 없는 경우

- Motor Terminal Box가 상부에 위치

- 'Ha' 치수는 Motor Terminal Box 상부까지의 치수

P-B: 모터제의종량/P-B-M: 모터 포함종량

End Suction Pump

NLn Series



NLn Series 치수

치수		60Hz-4Pole																								
MODEL	MOTOR (kW)	BORE(mm)		PUMP & MOTOR(mm)												BED ASSEMBLY(mm)								WEIGHT(kg)		
		DN inlet	DN outlet	L	L1	L2	L3	L4	E	F	G	M	H	Ha	Hb	Ba	Bb	Bc	Bf	B1	B2	Bh	Bh1	n - ØK	P-B	P-B-M
NLn125/250-11/4	11	150	125	1208	140	470	427	145	200	265	3	595	360	570	715	1100	400	150	50	440	395	110	200	6 - 19	157	274
NLn125/250-15/4	15	150	125	1252	140	470	427	145	200	265	3	639	360	570	715	1100	400	150	50	440	395	110	200	6 - 19	157	297
NLn125/250-18.5/4	18.5	150	125	1258	140	470	427	145	200	297	3	645	360	606	715	1150	425	150	50	440	395	110	180	6 - 19	161	346
NLn125/250-22/4	22	150	125	1258	140	470	427	145	200	297	3	645	360	606	715	1150	425	150	50	440	395	110	180	6 - 19	161	361
NLn125/250-30/4	30	150	125	1287	140	470	427	145	200	297	4	673	360	606	715	1150	425	150	50	440	395	110	180	6 - 19	165	400
NLn125/250-37/4	37	150	125	1552	140	470	427	145	200	385	4	938	362	631	717	1300	500	150	50	440	395	112	162	6 - 19	177	492
NLn125/250-45/4	45	150	125	1552	140	470	427	145	200	385	4	938	362	631	717	1300	500	150	50	440	395	112	162	6 - 19	177	577
NLn125/315-22/4	22	150	125	1318	140	530	502	160	180	297	3	645	395	641	750	1300	500	150	50	560	515	115	215	6 - 19	223	423
NLn125/315-30/4	30	150	125	1347	140	530	502	160	180	297	4	673	395	641	750	1300	500	150	50	560	515	115	215	6 - 19	227	462
NLn125/315-37/4	37	150	125	1612	140	530	502	160	180	385	4	938	435	704	790	1400	550	150	65	560	500	155	235	6 - 23	260	575
NLn125/315-45/4	45	150	125	1612	140	530	502	160	180	385	4	938	435	704	790	1400	550	150	65	560	500	155	235	6 - 23	260	660
NLn125/315-55/4	55	150	125	1529	140	530	502	160	155	415	4	855	435	734	790	1350	550	125	65	560	500	155	210	6 - 23	255	655
NLn125/315-75/4	75	150	125	1564	140	530	502	160	205	478	4	890	435	767	790	1450	550	175	65	560	500	155	185	6 - 23	288	788
NLn125/400-55/4	55	150	125	1529	140	530	596	170	135	415	4	855	450	749	850	1350	550	125	65	570	505	135	225	6 - 23	289	689
NLn125/400-75/4	75	150	125	1564	140	530	596	170	185	478	4	890	450	782	850	1450	550	175	65	570	505	135	200	6 - 23	318	818
NLn125/400-90/4	90	150	125	1634	140	530	596	170	185	478	4	960	450	782	850	1450	550	175	65	570	505	135	200	6 - 23	318	878
NLn125/400-110/4	110	150	125	1774	140	530	596	170	230	-	4	1100	470	1019	870	1600	600	200	65	580	520	155	190	6 - 23	368	1168
NLn125/400-132/4	132	150	125	1844	140	530	596	170	230	-	4	1170	470	1019	870	1600	600	200	65	580	520	155	190	6 - 23	368	1248
NLn125/400-160/4	160	150	125	1970	140	530	596	170	185	-	4	1296	535	1118	935	1650	650	175	80	700	620	220	220	6 - 27	404	1584
NLn150/200-15/4	15	200	150	1272	160	470	424	160	200	265	3	639	395	605	795	1100	400	150	50	570	525	115	235	6 - 19	182	322
NLn150/200-18.5/4	18.5	200	150	1278	160	470	424	160	200	297	3	645	395	641	795	1250	475	150	50	570	525	115	215	6 - 19	189	374
NLn150/200-22/4	22	200	150	1278	160	470	424	160	200	297	3	645	395	641	795	1250	475	150	50	570	525	115	215	6 - 19	189	389
NLn150/200-30/4	30	200	150	1307	160	470	424	160	200	297	4	673	395	641	795	1250	475	150	50	570	525	115	215	6 - 19	194	429
NLn150/250-18.5/4	18.5	200	150	1338	160	530	486	184.5	200	297	3	645	395	641	770	1300	500	150	50	560	515	115	215	6 - 19	218	403
NLn150/250-22/4	22	200	150	1338	160	530	486	184.5	200	297	3	645	395	641	770	1300	500	150	50	560	515	115	215	6 - 19	218	418
NLn150/250-30/4	30	200	150	1367	160	530	486	184.5	200	297	4	673	395	641	770	1300	500	150	50	560	515	115	215	6 - 19	223	458
NLn150/250-37/4	37	200	150	1632	160	530	486	184.5	200	385	4	938	435	704	810	1400	550	150	65	560	500	155	235	6 - 23	257	572
NLn150/250-45/4	45	200	150	1632	160	530	486	184.5	200	385	4	938	435	704	810	1400	550	150	65	560	500	155	235	6 - 23	257	657
NLn150/315-37/4	37	200	150	1632	160	530	507	170	200	385	4	938	435	704	835	1400	550	150	65	610	550	155	235	6 - 23	283	598
NLn150/315-45/4	45	200	150	1632	160	530	507	170	200	385	4	938	435	704	835	1400	550	150	65	610	550	155	235	6 - 23	283	683
NLn150/315-55/4	55	200	150	1549	160	530	507	170	175	415	4	855	435	734	835	1350	550	125	65	610	550	155	210	6 - 23	277	677
NLn150/315-75/4	75	200	150	1584	160	530	507	170	225	478	4	890	420	752	820	1450	550	175	65	610	550	140	170	6 - 23	292	792
NLn150/315-90/4	90	200	150	1654	160	530	507	170	225	478	4	960	420	752	820	1450	550	175	65	610	550	140	170	6 - 23	292	852
NLn150/315-110/4	110	200	150	1794	160	530	507	170	250	-	4	1100	435	984	835	1600	600	200	65	610	550	155	155	6 - 23	314	1114

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P-B: 모터제 외중량/P-B-M: 모터 포함중량

Norm and Multistage Pumps

End Suction Pump

NLn Series

NLn Series

기술자료

Bearing Bracket Data

Model	Bearing Bracket Type	Bearing No.		Mechanical Seal Size(mm)	Key Size(mm)	
		Thrust	Radial		at Impeller	at Coupling
NLn50/160	BB1	6205ZZC3	6205ZZC3	Ø24	6x6x36	8x7x45
NLn65/200	BB1	6205ZZC3	6205ZZC3	Ø24	6x6x36	8x7x45
NLn100/160	BB2	6207ZZC3	6207ZZC3	Ø32	8x7x56	10x8x70
NLn100/250	BB2	6207ZZC3	6207ZZC3	Ø32	8x7x56	10x8x70
NLn125/200	BB2	6207ZZC3	6207ZZC3	Ø32	8x7x56	10x8x70
NLn125/250	BB2	6207ZZC3	6207ZZC3	Ø32	8x7x56	10x8x70
NLn125/315	BB3	6310ZZC3	6310ZZC3	Ø45	12x8x70	12x8x100
NLn125/400	BB3	6310ZZC3	6310ZZC3	Ø45	12x8x70	12x8x100
NLn150/200	BB2	6207ZZC3	6207ZZC3	Ø32	8x7x56	10x8x70
NLn150/250	BB3	6310ZZC3	6310ZZC3	Ø45	12x8x70	12x8x100
NLn150/315	BB3	6310ZZC3	6310ZZC3	Ø45	12x8x70	12x8x100

Shaft Data

Model	Bearing Bracket Type	Shaft Diameter(mm)				Span between(mm)	
		at Impeller	at M/Seal	between Bearings	at Coupling	Thrust Bearing and Impeller	Bearings
NLn50/160	BB1	Ø20	Ø24	Ø32	Ø24	149	129
NLn65/200	BB1	Ø20	Ø24	Ø32	Ø24	154	129
NLn100/160	BB2	Ø28	Ø32	Ø44	Ø32	183	178
NLn100/250	BB2	Ø28	Ø32	Ø44	Ø32	188	178
NLn125/200	BB2	Ø28	Ø32	Ø44	Ø32	180	178
NLn125/250	BB2	Ø28	Ø32	Ø44	Ø32	183	178
NLn125/315	BB3	Ø38	Ø45	Ø59	Ø42	185	187
NLn125/400	BB3	Ø38	Ø45	Ø59	Ø42	193	187
NLn150/200	BB2	Ø28	Ø32	Ø44	Ø32	192	178
NLn150/250	BB3	Ø38	Ø45	Ø59	Ø42	197	187
NLn150/315	BB3	Ø38	Ø45	Ø59	Ø42	203	187

End Suction Pump

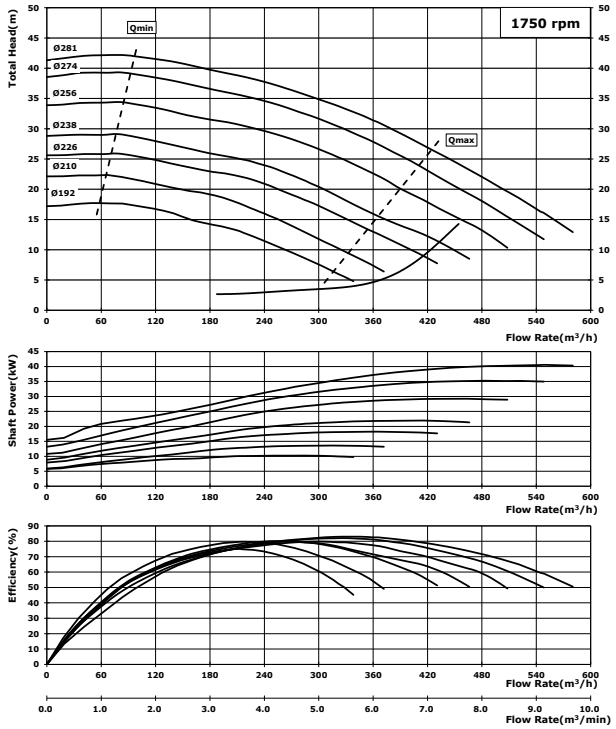
NLn Series



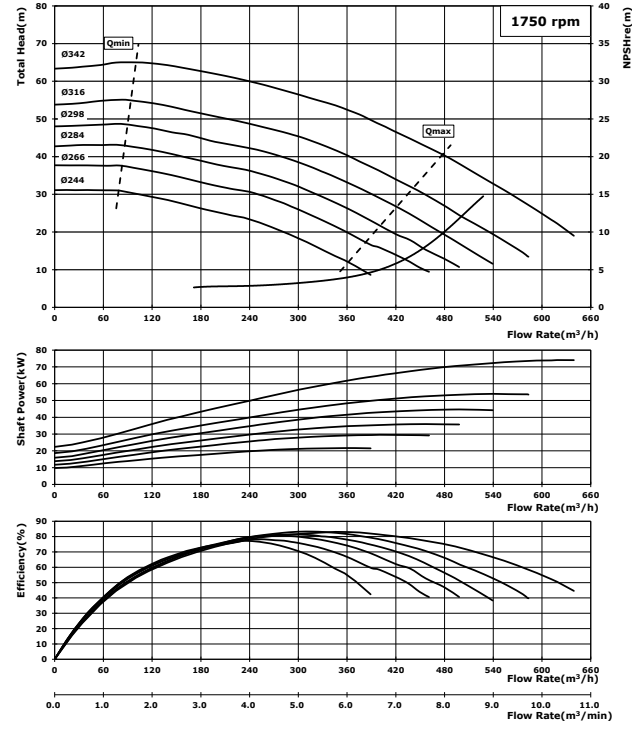
NLn Series

성능 곡선 4pole

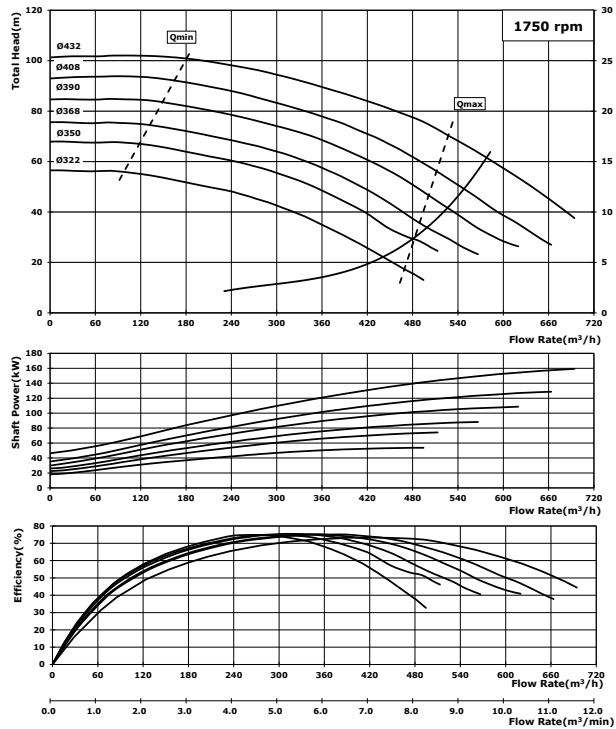
NLn125/250



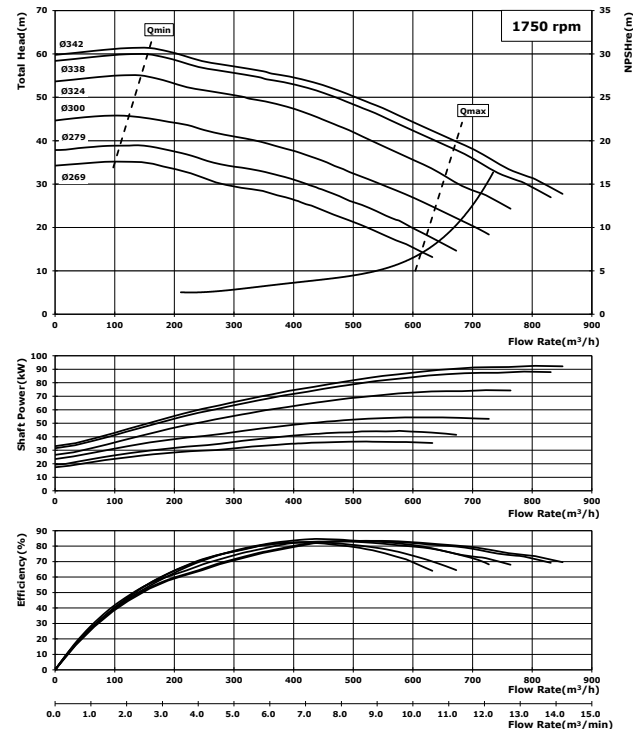
NLn125/315



NLn125/400



NLn150/315



※ Acceptance Grade: ISO 9906: 2012 - 2B

※ 상기 성능은 가압 3.8bar 조건에서의 성능으로 다른 흡입 조건에서는 상기와 다를 수 있음

Large Sized End Suction Pump

NLG Series

NLG Series

제품소개



적용범위

공기조화, 빌딩서비스, 순환용, 소방용, 관개용
제지설비용, 화학용, 선박용, 일반정수용

사용유체

냉·난방수, 응축수 등 점도가 높지 않고, 섬유질이나 마모를 일으킬 수 있는 이물질이 포함되지 않은 유체

VDI 2035에 준하는 온수, 냉수, 냉각용수, 열교환 용수, 글리콜 혼합용수 (20%, 최대 40%까지 option으로 가능)

* VDI 2035 : VDI guideline for preventing damage in hot water heating installations.

특장점

- 3차원 유동해석을 통한 고효율 임펠러
- 낮은 NPSHr 설계에 의한 높은 흡입성능

펌프사양

성능제원표

최대유량	1600m ³ /h
최대양정	100 m
토출구경	150mm ~ 300mm
최대허용압력	16bar
최대사용온도	-20~120°C

재질사양표

케이싱	Cast Iron
임펠러	Cast Iron(special version: G-CuSn10)
샤프트	Stainless Steel
베어링 하우징	Cast Iron
케이싱링	G-CuSn10

Large Sized End Suction Pump

NLG Series



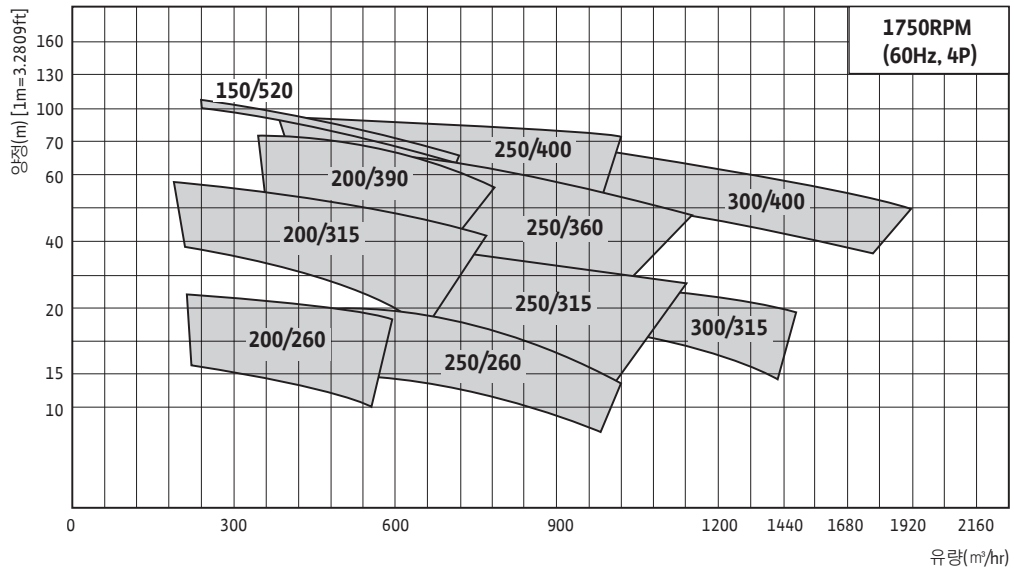
NLG Series 모델명 및 선정도

모델명 부여기준 (MODEL)

NLG 150/520 - 200/4

- NLG : 대형 단단 볼류트 펌프
- 150/ : 토출 구경
- 520 : 임펠러 공칭 외경(mm)
- -200 : 모터 동력(kW)
- /4 : 모터 극수(4극모터)

선정도 (SELECTION CHART)



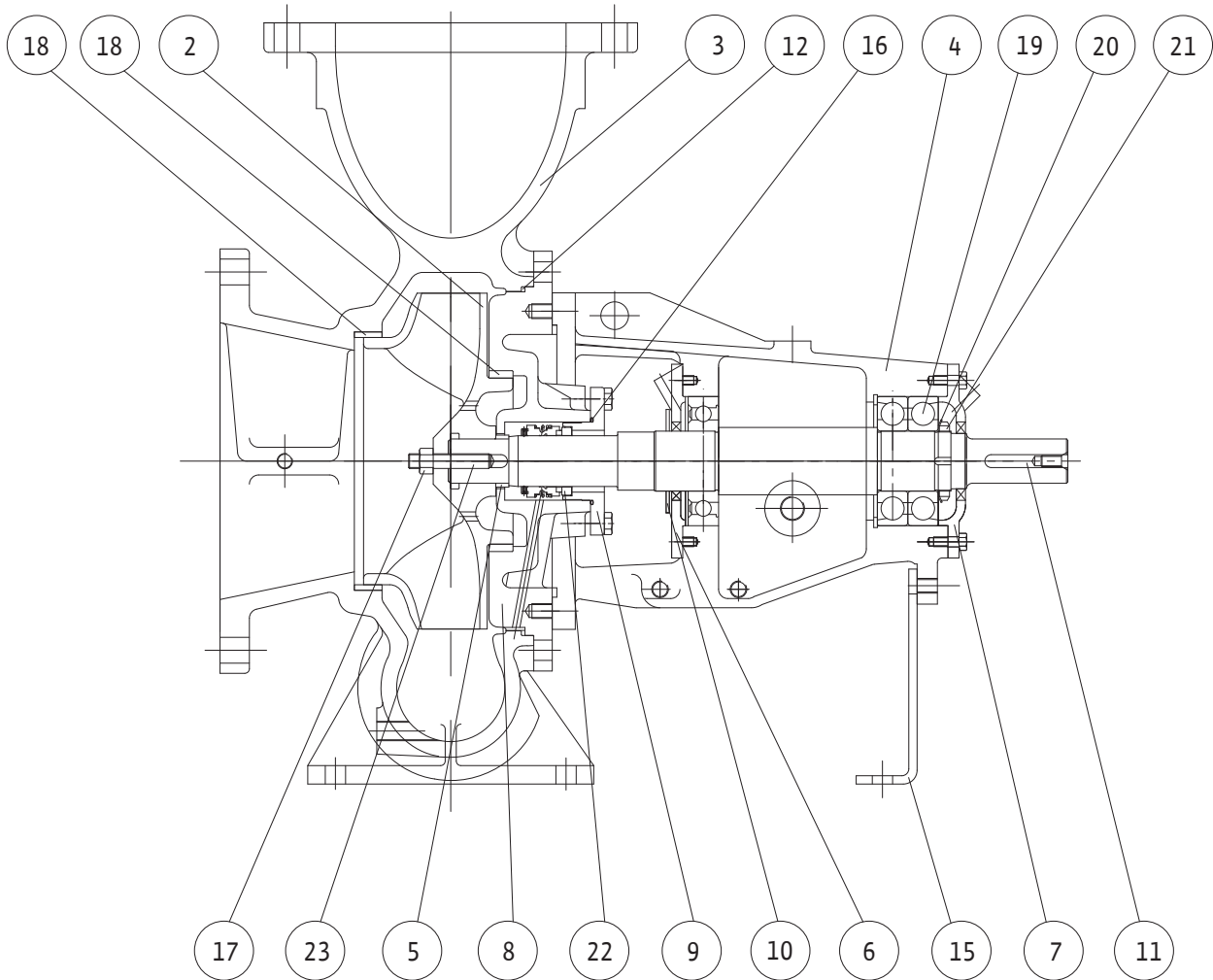
Large Sized End Suction Pump

NLG Series

NLG Series

단면도

Mechanical Seal type



No.	PART NAME	Q'ty
1	SHAFT	1
2	IMPELLER	1
3	CASING	1
4	BEARING HOUSING	1
5	IMPELLER SPACER	1
6	BEARING COVER(INNER)	1
7	BEARING COVER(OUTER)	1
8	BACK COVER	1
9	GLAND PLATE	1
10	WATER THROWER	1
11	KEY COUPLING	1

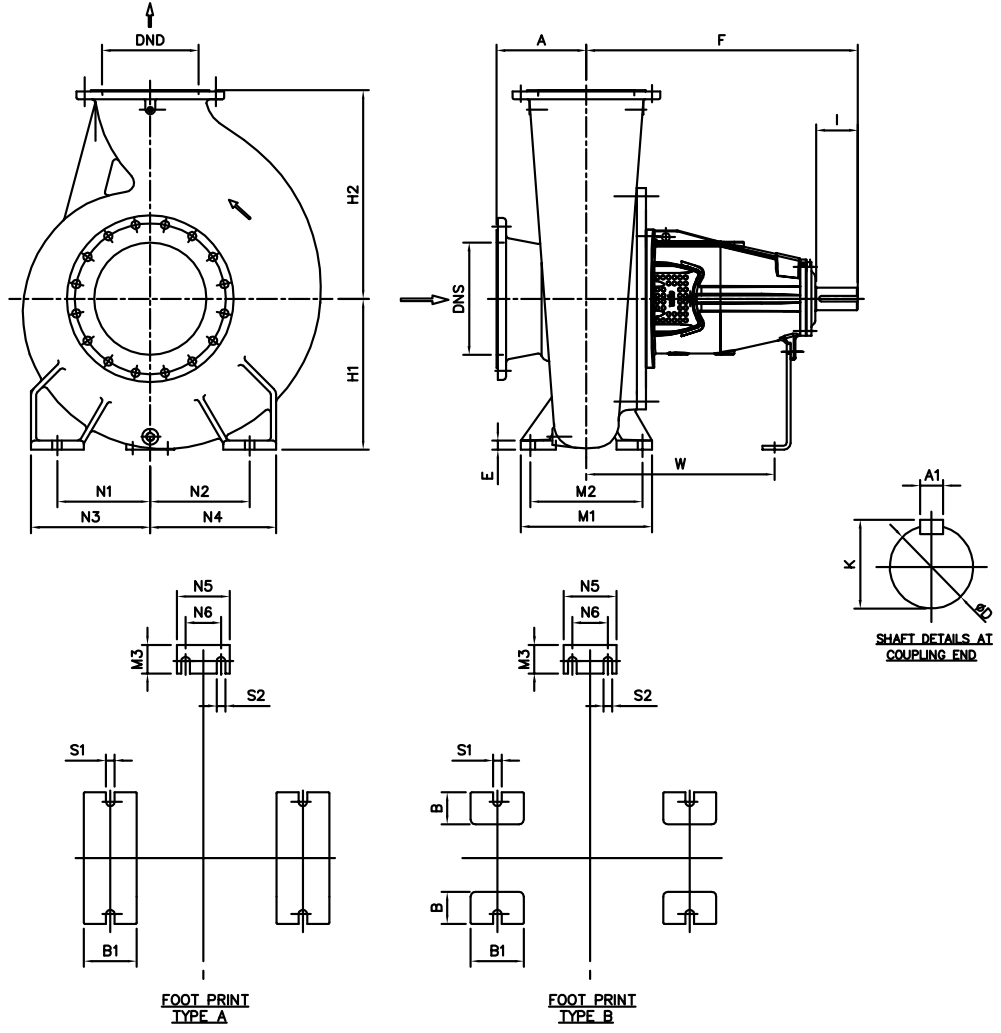
No.	PART NAME	Q'ty
12	O-RING(BACK COVER)	1
15	SUPPORT FOOT	1
16	O-RING(GLAND PLATE)	1
17	SCREW FOR IMPELLER	1
18	WEAR RING	1
19	BEARING	3
20	LOCK WASHER	1
21	LOCK NUT	1
22	MECHANICAL SEAL	1
23	IMPELLER KEY	1

Large Sized End Suction Pump

NLG Series



NLG Series 외형도 및 치수-Bare Shaft Pump



MODEL	Shaft Group	BORE(mm)		PUMP(mm)																	SHAFT(mm)				WEIGHT kg	Foot Type		
		Suc.	Dis.	M1	M2	H1	H2	N1	N2	N3	N4	S1	S2	B1	M3	W	A	F	N5	N6	E	B	I	D			A1	K
NLG150/520	ES4	200	150	200	150	400	525	225	225	262.5	262.5	24	24	85	66	476	170	670.5	150	110	24	NO	110	48	14	51.5	470	A
NLG200/260	ES4	200	200	400	340	300	395	255	255	325	325	24	24	120	66	533	245	727	150	110	20	NO	110	48	14	51.5	305	A
NLG200/315	ES4	250	200	200	150	315	450	262.5	262.5	287.5	287.5	24	24	80	66	485	180	679	150	110	20	NO	110	48	14	51.5	335	A
NLG200/390	ES4	250	200	300	230	400	425	185	185	250	250	24	24	115	66	451	180	645	150	110	20	NO	110	48	14	51.5	360	A
NLG250/260	ES4	250	250	400	340	350	450	255	255	325	325	24	24	120	66	533	250	727	150	110	20	NO	110	48	14	51.5	340	A
NLG250/315	ES4	300	250	400	340	340	455	255	255	325	325	24	24	120	65	556	290	750	150	110	20	NO	110	48	14	51.5	425	A
NLG250/360	ES4	300	250	310	250	350	475	255	255	325	325	24	24	120	65	475	250	669	150	110	20	NO	110	48	14	51.5	350	A
NLG250/400	ES6	300	250	410	350	410	525	289	289	372	372	27	28	165	88	566.5	240	836	165	110	28	100	129	70	20	74.5	785	B
NLG300/315	ES4	300	300	400	340	385	500	255	255	325	325	24	28	120	66	543	272	737	160	110	20	NO	110	48	14	51.5	410	A
NLG300/400	ES6	350	300	410	350	410	575	290	310	372.5	392.5	27	28	165	88	576.5	280	846	165	110	28	100	129	70	20	74.5	830	B

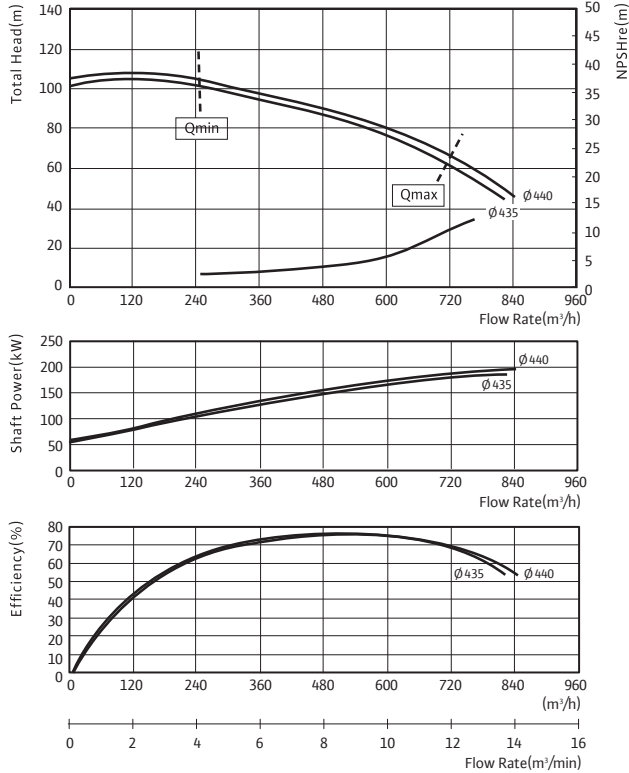
Large Sized End Suction Pump

NLG Series

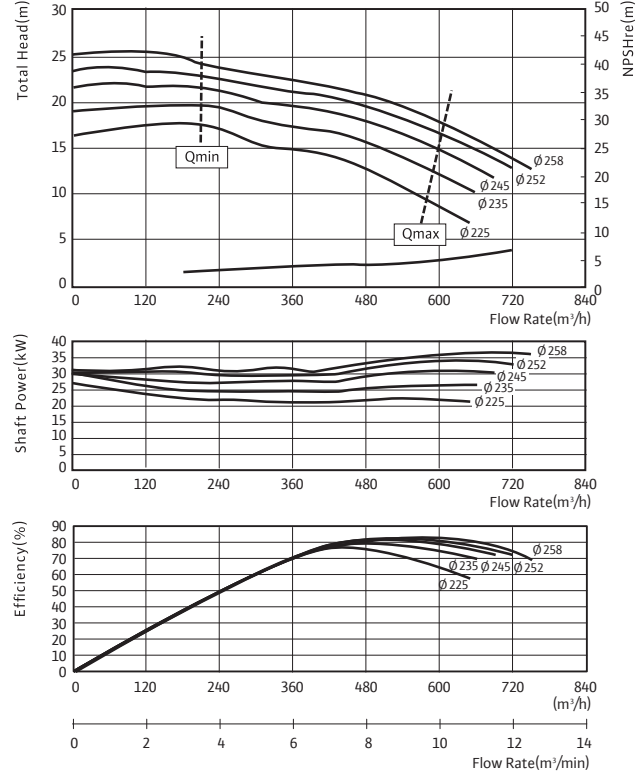
NLG 150/520, 200/260, 200/315, 200/390

성능곡선 4pole

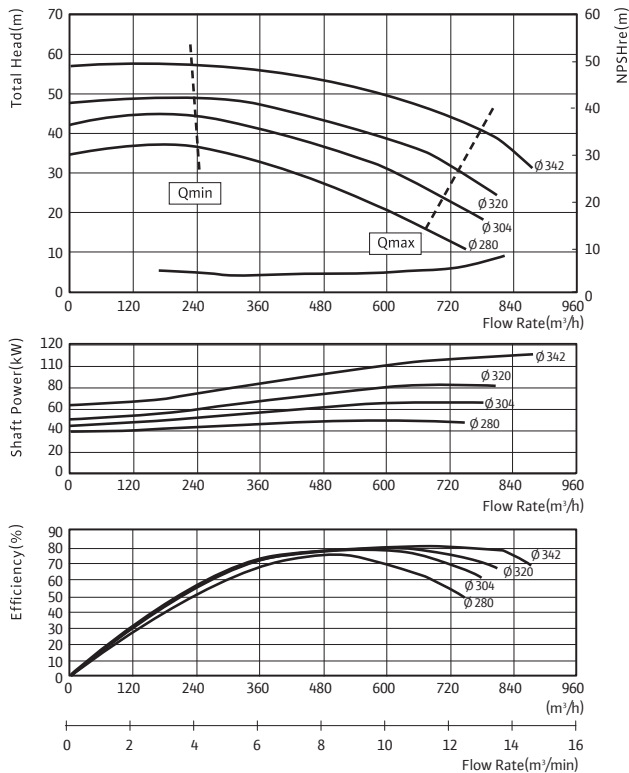
NLG 150/520



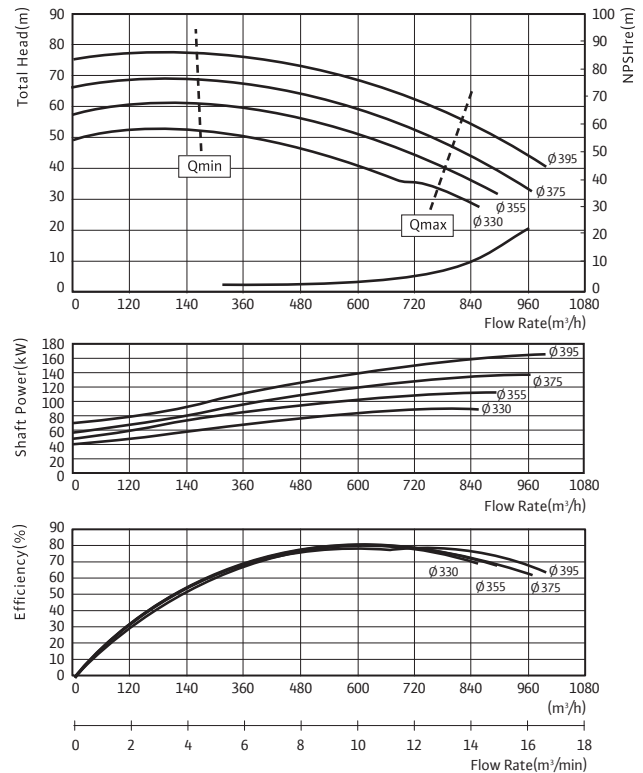
NLG 200/260



NLG 200/315



NLG 200/390



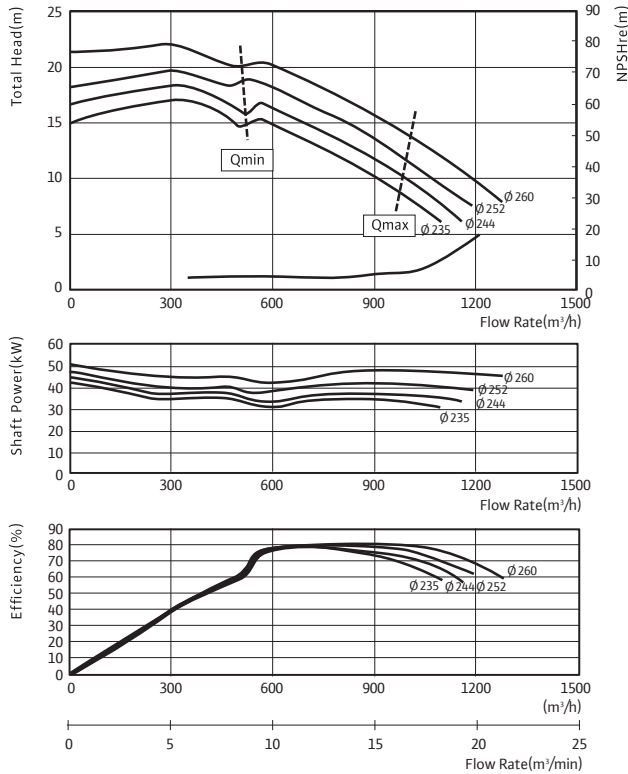
Large Sized End Suction Pump

NLG Series

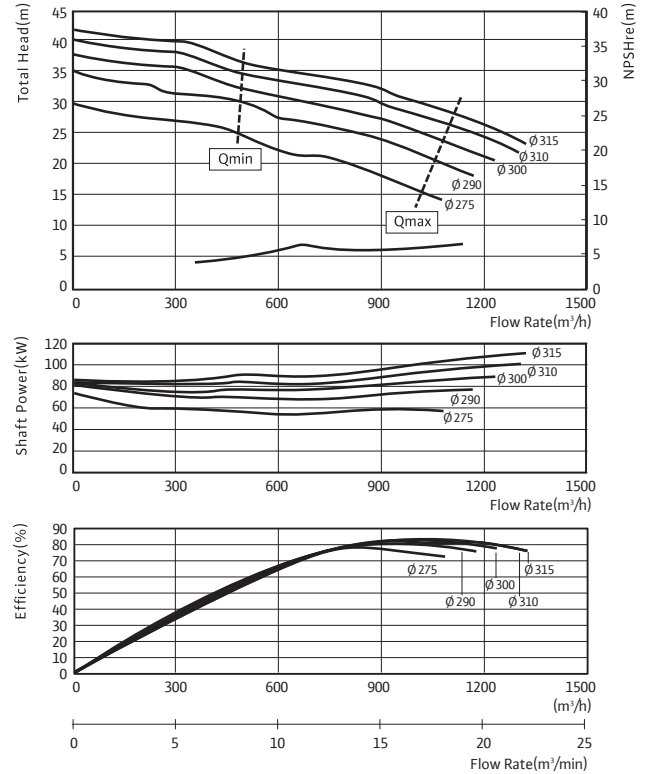


NLG 250/260, 250/315, 250/360, 250/400 성능곡선 4pole

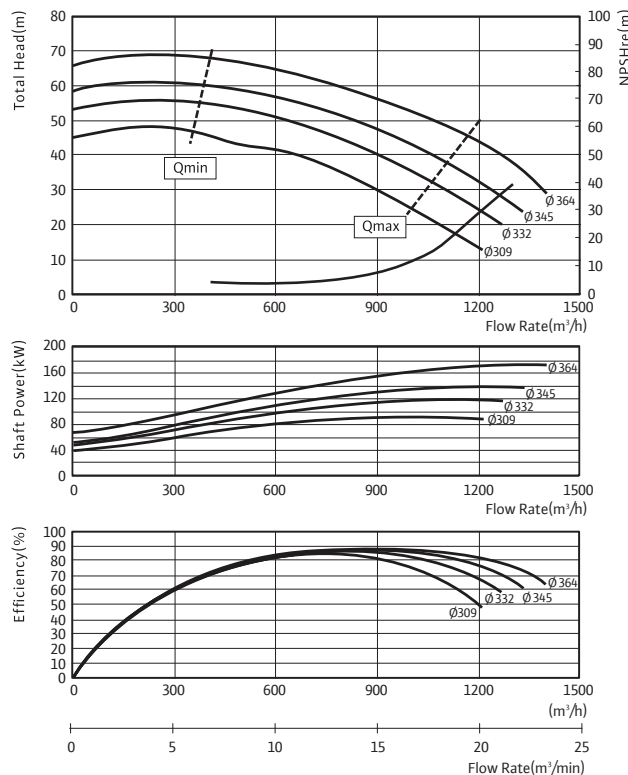
NLG 250/260



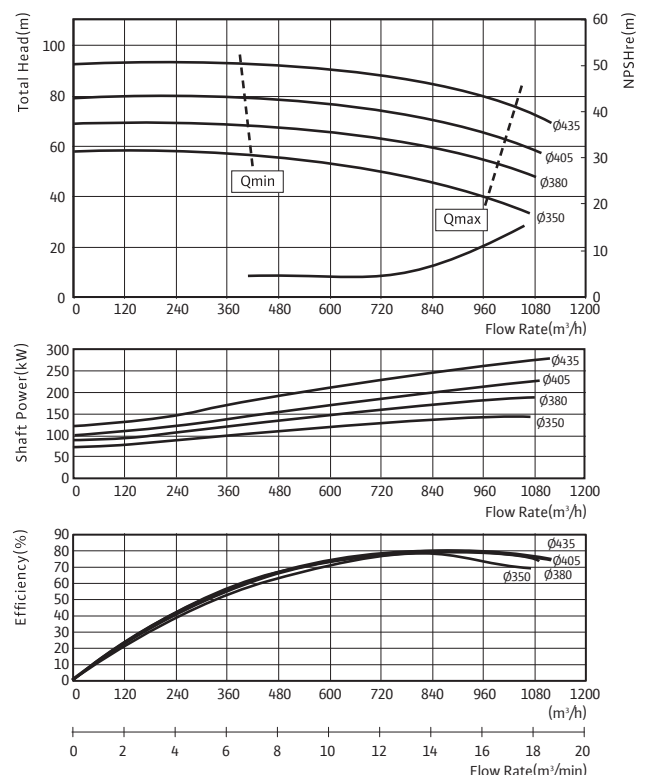
NLG 250/315



NLG 250/360



NLG 250/400



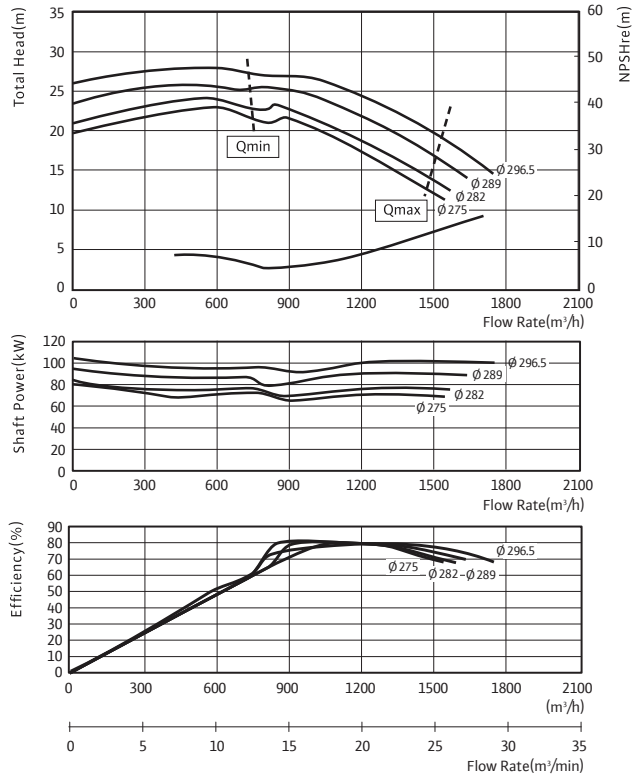
Large Sized End Suction Pump

NLG Series

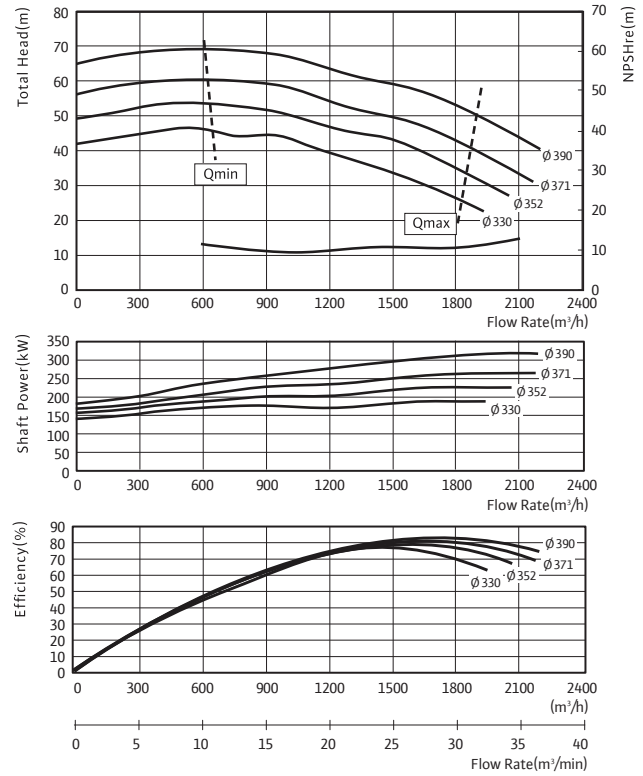
NLG 300/315, 300/400

성능곡선 4pole

NLG 300/315



NLG 300/400



EN 733 단단 볼류트 펌프

NL Series

wilo

NL Series

제품소개



적용범위

- 맑은 액체용 - 청수
- 일반산업용 및 급수시설용
- 가정용수 공급용 및 빌딩 수처리용
- 관개용수용 및 발전소용
- 온수순환용

구조 및 특징

- 임펠러 내의 물의 흐름이 용이하도록 설계된 3차원 임펠러를 사용
- Stuffing Box는 DIN EN 733의 Dimension을 채택하여 Mechanical Seal 장착이 쉽고 유지보수가 간편
- 제품의 표준화설계로 인하여 단일품목으로 광범위한 사용영역
- Back pull-out 구조로 유지보수가 편리
- 토출부가 중앙상부에 위치하여 배관하중에 대한 안전성과 펌프 가동 시 Balance가 유지
- 진동, 소음분석 설계를 통한 최적의 제품

특장점

- 고효율 설계로 제작
- 높은 내구성(타제품보다 Bearing Grade가 한단계 높음)
- PN16 기본 적용으로 견고하며 사용가능범위가 넓음

EN 733 단단 볼류트 펌프

NL Series

취급액(-20~120°C, pH6~8)

고온 또는 청수가 아닌 액을 취급할 경우에는 이송액의 특성(온도, 농도, 고형물의 유·무)과 사용조건에 따라 내마모성, 내식성이 현저히 변화되는 경우가 있으므로 반드시 영업 또는 공장으로 문의

흡입측 조건

흡입 전양정 또는 압입 압력은 아래 표에 따름

흡입 전양정 허용치		
액의 온도	흡입구경	흡입 전양정
0°C ~ 40°C	50 ~ 80mm	-6m 이내
	100 ~ 125mm	-5.5m 이내
	150 ~ 200mm	-4m 이내

흡입 전양정 보정치	
온도	보정치
40°C 이상 ~ 50°C 미만	+1
50°C 이상 ~ 60°C 미만	+2
60°C 이상 ~ 70°C 미만	+3.5
70°C 이상 ~ 80°C 미만	+5
80°C 이상 ~ 90°C 미만	+7
90°C 이상 ~ 95°C 미만	+9
95°C 이상 ~ 100°C 이하	+11

표준 흡입압력 허용치

흡입압력이 4kgf/cm² 이하이면서

$$\left[10 - \frac{\text{펌프 체적 전양정}}{10} \right] \text{kgf/cm}^2 \text{이내}$$

또한 흡입압력이 순간적으로 변하지 않아야 함
상기조건을 벗어나는 경우에는 영업 또는 공장으로 문의

운전조건

- 기동반복이 빈번한 자동제어용으로 펌프를 사용 할 경우에는 임펠러의 파손 우려가 있으므로 임펠러 재질을 BC6급 이상으로 사용
- 자동제어용으로 사용하실 경우 기동반복이 시간당 12회를 넘지 않아야 함
- 수격현상(워터해머)이 발생되지 않도록 배관을 구성

표준사양

- Pump Casing
- 축방향 흡입, 수직방향 토출구를 가진 구조 적용
- DIN EN 733에 따른 치수 및 구조
- Flange 규격 : PN 16 according to EN 1092-2
- 120°C의 고온수용 mechanical seal AQ1EGG 적용

적용규격

- EN 733 : PN 10 end-suction centrifugal pumps with bearing bracket
- ISO 5199 : Technical Specifications for Centrifugal Pumps - Class II
- EN 1092-2 : (Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 2 : Cast iron flanges)

주문사양(Option)

- 재질변경
Impeller - Bronze CuSn8

EN 733 단단 볼류트 펌프

NL Series



NL Series 모델명 및 선정도

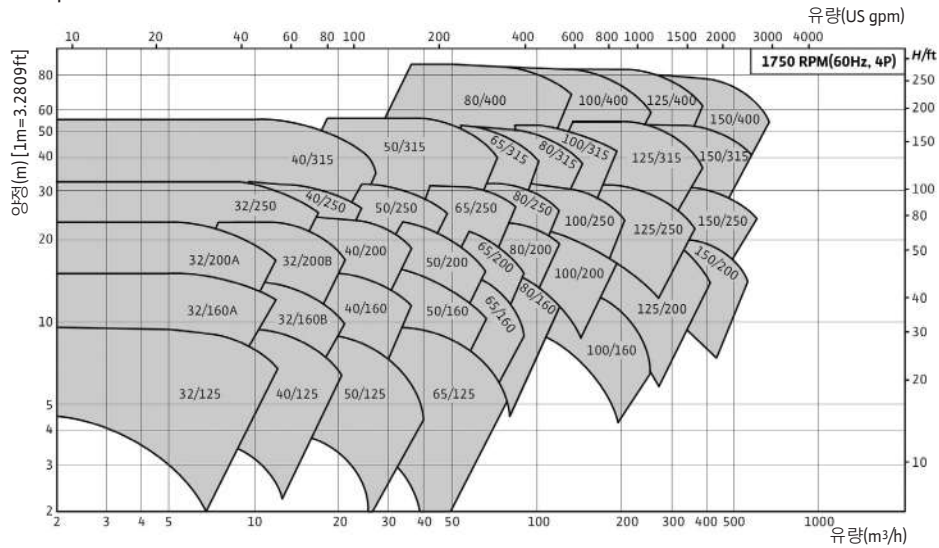
모델명 부여기준

NL 32/125-1.5/2

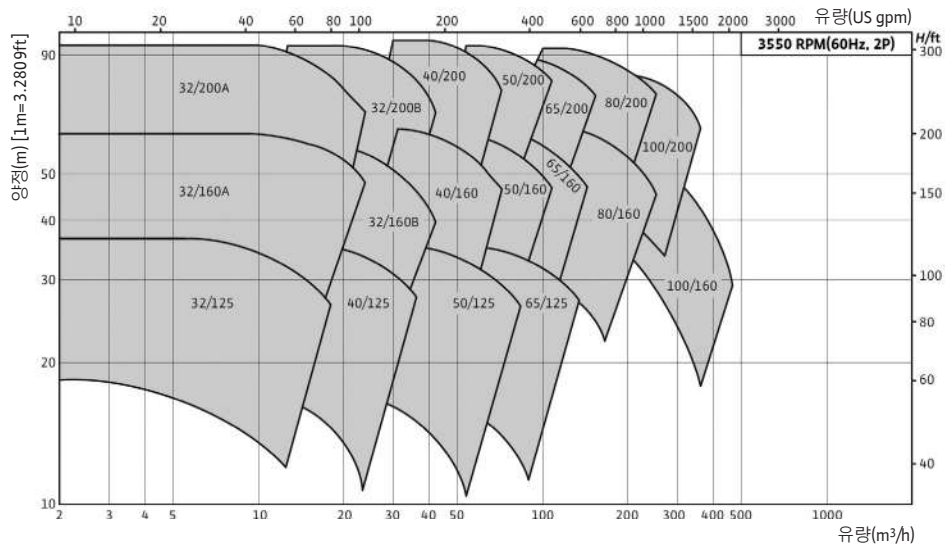
- NL: 펌프형식(SINGLE STAGE VOLUTE)
- 32/: 토출구경(mm)
- 125: 임펠러 공칭외경(mm)
- -1.5: 모터 동력(kW)
- /2: 모터 극수

선정도

NL 4pole-60Hz



NL 2pole-60Hz



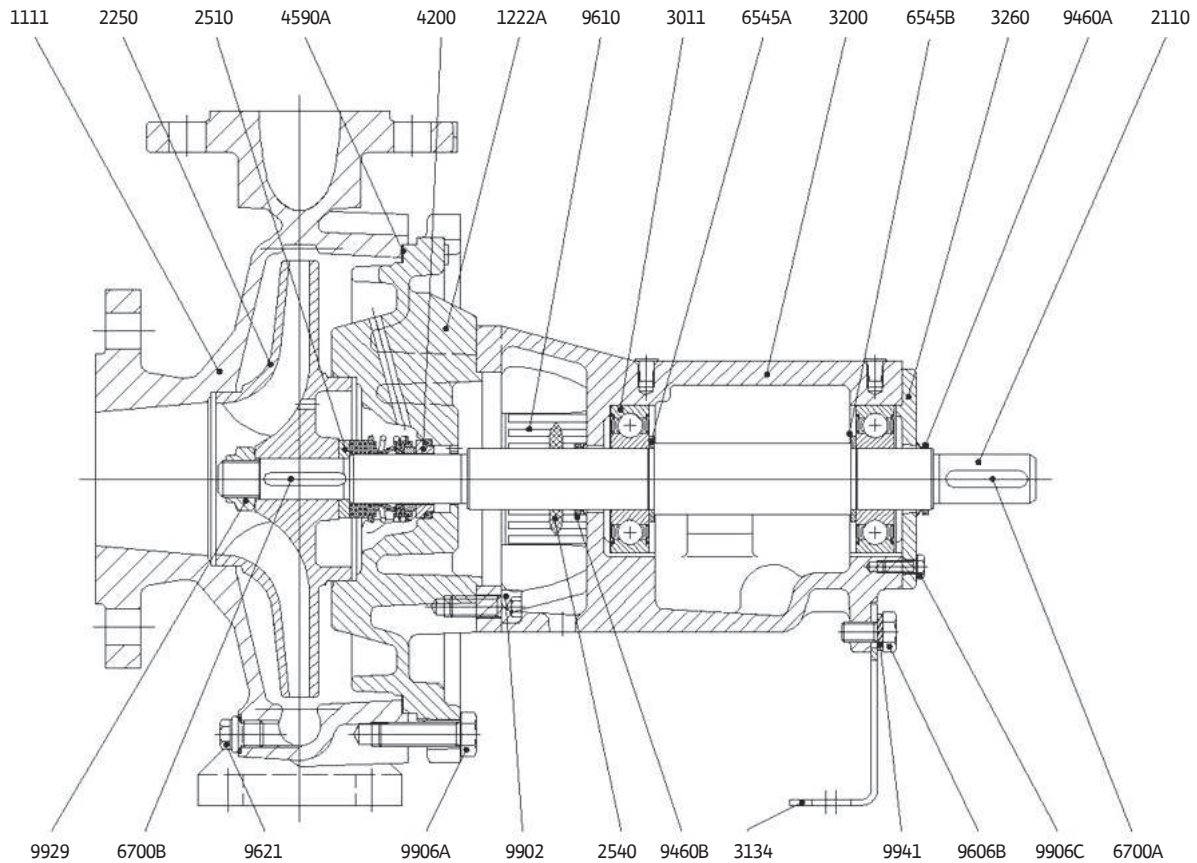
EN 733 단단 볼류트 펌프

NL Series

NL Series

단면도

단면도



No.	PART NAME	MATERIALS	Q'ty
1111	VOLUTE CASING	EN-GJL-250	1
4590A	CASING GASKET	EPDM	1
1222A	CASING COVER	EN-GJL-250	1
2250	IMPELLER	EN-GJL-200	1
6700A	COUPLING KEY	SM20C	1
6700B	IMPELLER KEY	X20Cr13	1
3134	SUPPORT FOOT	SS400	1
4200	MECHANICAL SEAL		1
2110	SHAFT	X20Cr13	1
2510	SPACER	X20Cr13	1
9929	IMPELLER NUT	X20Cr13	1
9941	CONTACT WASHER	SM20C	1
9621	PLUG	SM20C	1

No.	PART NAME	MATERIALS	Q'ty
3200	BEARING BRACKET	EN-GJL-200	1
3260	BEARING COVER	EN-GJL-200	1
3011	BALL BEARING	STB2	2
9460A	V RING	NBR	1
9460B	V RING	NBR	1
6545A	BACKING WAHSER	SM20C	1
6545B	BACKING WAHSER	SM20C	1
2540	DEFLECTOR	NBR	1
9906A	SCREW M12X40	SM20C	8
9902	SCREW M10X25	SM20C	4
9906C	SCREW M6X16	SM20C	4
9606B	SCREW M10X20	SM20C	1

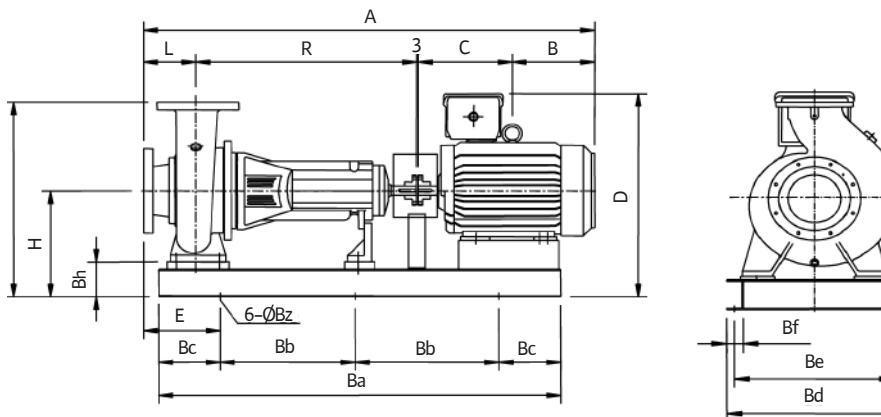
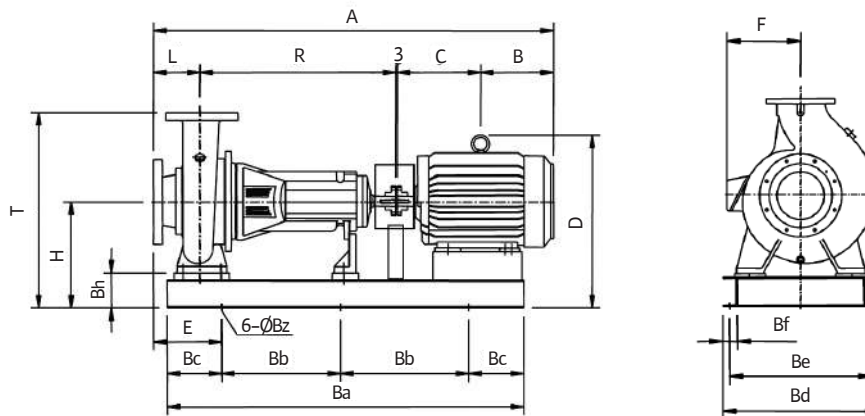
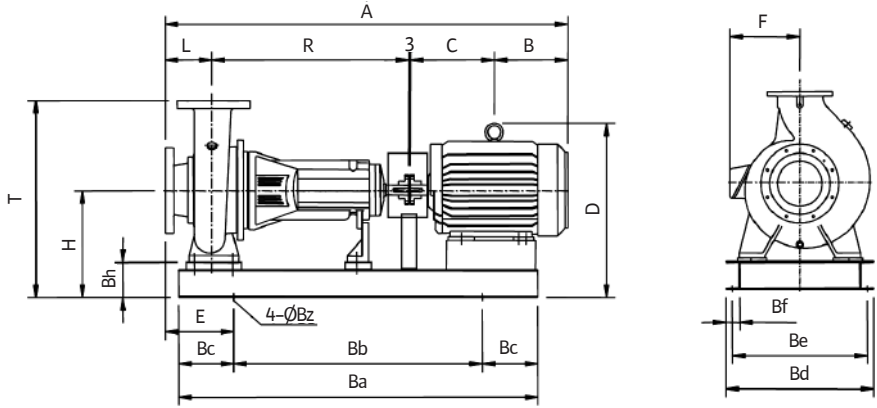
EN 733 단단 볼류트 펌프

NL Series

wilo

NL Series 외형도

외형도



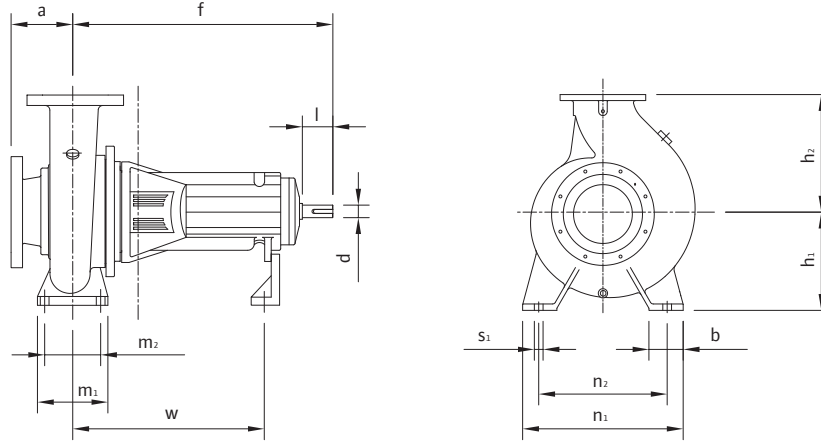
EN 733 단단 볼류트 펌프

NL Series



NL Series 외형도 및 치수-Bare Shaft Pump

외형도



치수																
MODEL	BORE(mm)		PUMP(mm)													WEIGHT kg
	Suc.	Dis.	a	f	h ₁	h ₂	b	m ₁	m ₂	n ₁	n ₂	w	s ₁	d	l	
NL32/125	50	32	80	360	112	140	50	100	70	190	140	260	15	24	50	31
NL32/160			80	360	132	160	50	100	70	240	190	260	15	24	50	33
NL32/200			80	360	160	180	50	100	70	240	190	260	15	24	50	34
NL32/250			100	360	180	225	65	125	95	320	250	260	15	24	50	46
NL40/125	65	40	80	360	112	140	50	100	70	210	160	260	15	24	50	28
NL40/160			80	360	132	160	50	100	70	240	190	260	15	24	50	30
NL40/200			100	360	160	180	50	100	70	265	212	260	15	24	50	36
NL40/250			100	360	180	225	65	125	95	320	250	260	15	24	50	46
NL40/315			125	470	225	250	65	125	95	345	280	340	15	32	80	73
NL50/125	65	50	100	360	132	160	50	100	70	240	190	260	15	24	50	30
NL50/160			100	360	160	180	50	100	70	265	212	260	15	24	50	36
NL50/200			100	360	160	200	50	100	70	265	212	260	15	24	50	40
NL50/250			100	360	180	225	65	125	95	320	250	260	15	24	50	50
NL50/315			125	470	225	280	65	125	95	345	280	340	15	32	80	88
NL65/125	80	65	100	360	160	180	65	125	95	280	212	260	15	24	50	33
NL65/160			100	360	160	200	65	125	95	280	212	260	15	24	50	39
NL65/200			100	360	180	225	65	125	95	320	250	260	15	24	50	45
NL65/250			100	470	200	250	80	160	120	360	280	340	19	32	80	70
NL65/315			125	470	225	280	80	160	120	400	315	340	19	32	80	92
NL80/160	100	80	125	360	180	225	65	125	95	320	250	260	15	24	50	43
NL80/200			125	470	180	250	65	125	95	345	280	340	15	32	80	60
NL80/250			125	470	200	280	80	160	120	400	315	340	19	32	80	75
NL80/315			125	470	250	315	80	160	120	400	315	340	19	32	80	95
NL80/400	125	80	125	530	280	355	80	160	120	435	355	370	19	42	110	143
NL100/160	125	100	125	470	200	280	80	160	120	360	280	340	19	32	80	78
NL100/200			125	470	200	280	80	160	120	360	280	340	19	32	80	70
NL100/250			140	470	225	280	80	160	120	400	315	340	19	32	80	85
NL100/315			140	470	250	315	80	160	120	400	315	340	19	32	80	104
NL100/400			140	530	280	355	100	200	150	500	400	370	23	42	110	177
NL125/200	150	125	140	470	250	315	80	160	120	400	315	340	19	32	80	100
NL125/250			140	470	250	355	80	160	120	400	315	340	19	32	80	102
NL125/315			140	530	280	355	100	200	150	500	400	370	23	42	110	151
NL125/400			140	530	315	400	100	200	150	500	400	370	23	42	110	188
NL150/200	200	150	160	470	280	400	100	200	150	550	450	340	23	32	80	123
NL150/250			160	470	280	400	100	200	150	500	400	340	23	32	80	128
NL150/315			160	530	280	400	100	200	150	550	450	370	23	42	110	170
NL150/400			160	530	315	450	100	200	150	550	450	370	23	42	110	205

Norm and Multistage Pumps

EN 733 단단 볼류트 펌프

NL Series

NL Series

기술 DATA

Stuffing Box Data

MODEL	Bearing Brackets No.	Mechanical Seal Size Inner Dia.	Bearing No.
NL 32/125	25	ø24	Thrust : 6306zzC3 Radial : 6306zzC3
NL 32/160			
NL 32/200			
NL 32/250			
NL 40/125			
NL 40/160			
NL 40/200			
NL 40/250			
NL 50/125			
NL 50/160			
NL 50/200			
NL 50/250			
NL 65/125			
NL 65/160			
NL 65/200			
NL 80/160	35	ø32	Thrust : 6308zzC3 Radial : 6308zzC3
NL 40/315			
NL 50/315			
NL 65/250			
NL 65/315			
NL 80/200			
NL 80/250			
NL 80/315			
NL 100/160			
NL 100/200			
NL 100/250			
NL 100/315			
NL 125/200			
NL 125/250			
NL 150/200			
NL 150/250			
NL 80/400	45	ø45	Thrust : 6311zzC3 Radial : 6311zzC3
NL 100/400			
NL 125/315			
NL 125/400			
NL 150/315			
NL 150/400			

Bearing Housing Data

Bearing Brackets No.	Shaft Dia.				Size of key At Coupling	Span Between	
	At Impeller	At Stuff. Box	Between Bearing	At Coupling		Thrust Bearing & Impeller	Bearings
25	ø20	ø24	ø35	ø24	8×7×40	160	115
35	ø28	ø32	ø48	ø32	10×8×70	180	175
						198 (NL 150/200, NL 150/250만 해당)	
45	ø40	ø45	ø65	ø42	12×8×100	196	180

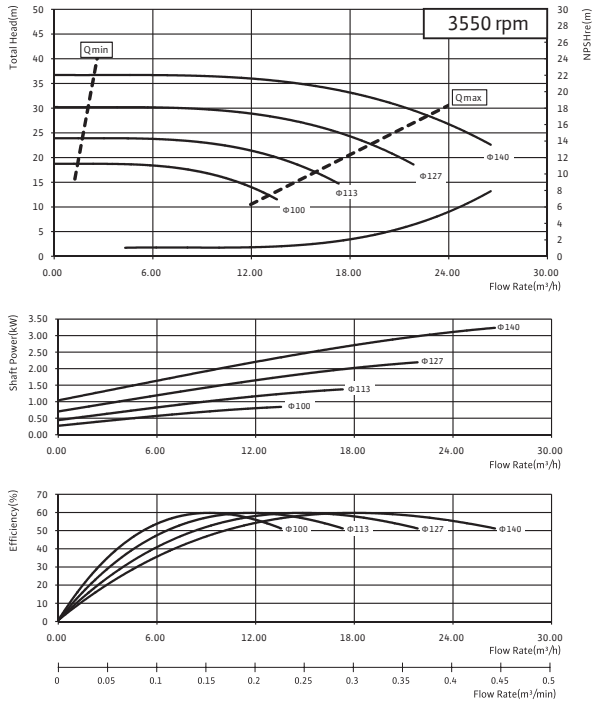
EN 733 단단 볼류트 펌프

NL Series

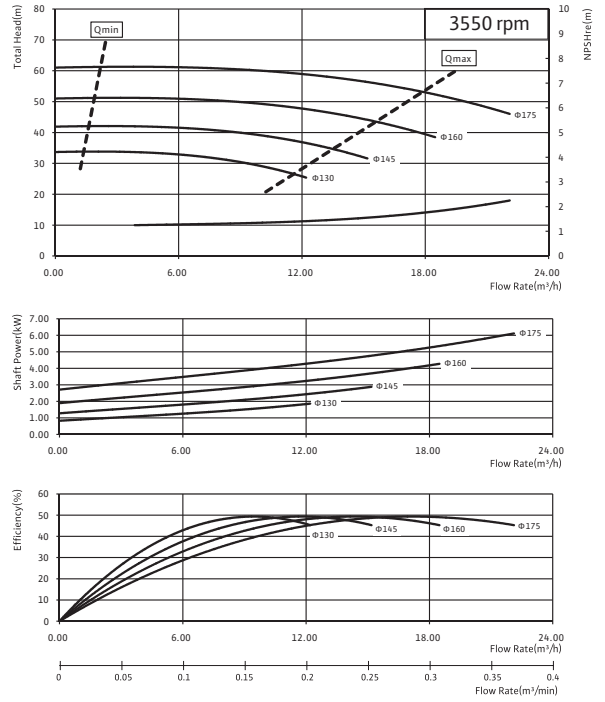


NL Series 성능곡선 2pole

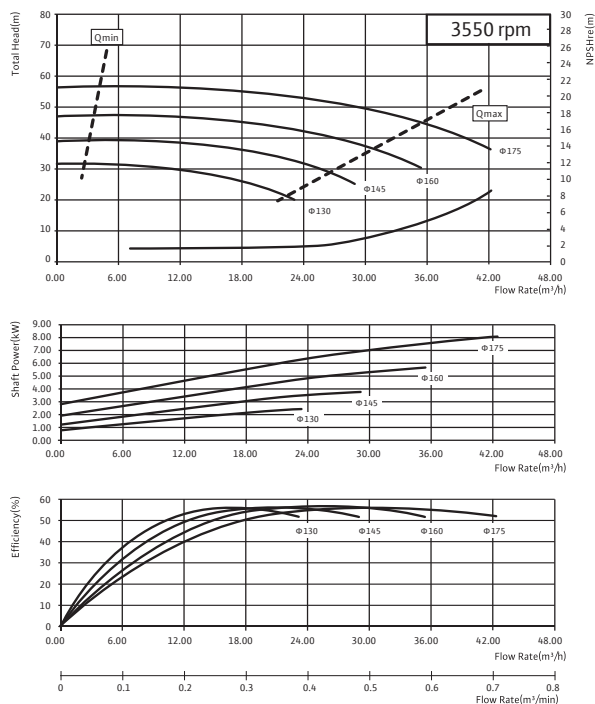
NL 32/125



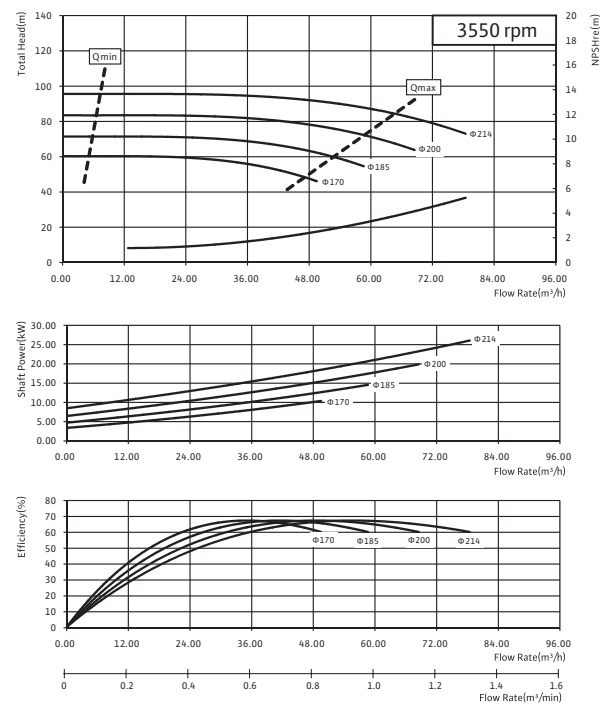
NL 32/160A



NL 32/160B



NL 32/200A



EN 733 단단 볼류트 펌프

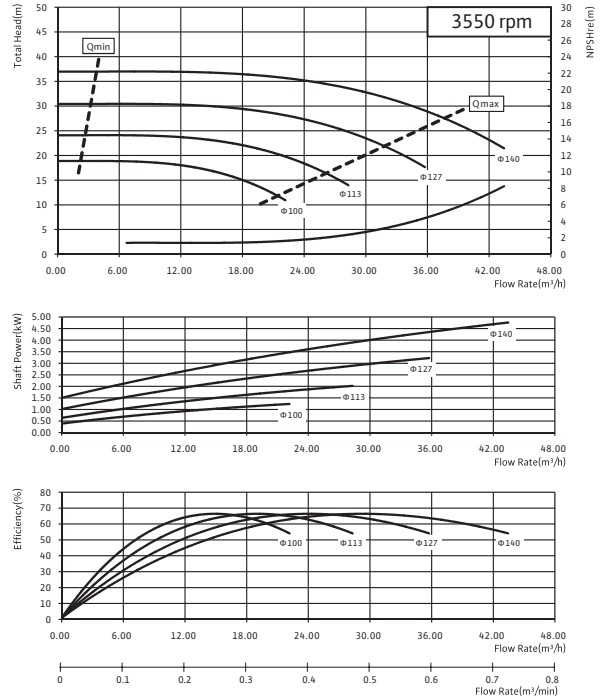
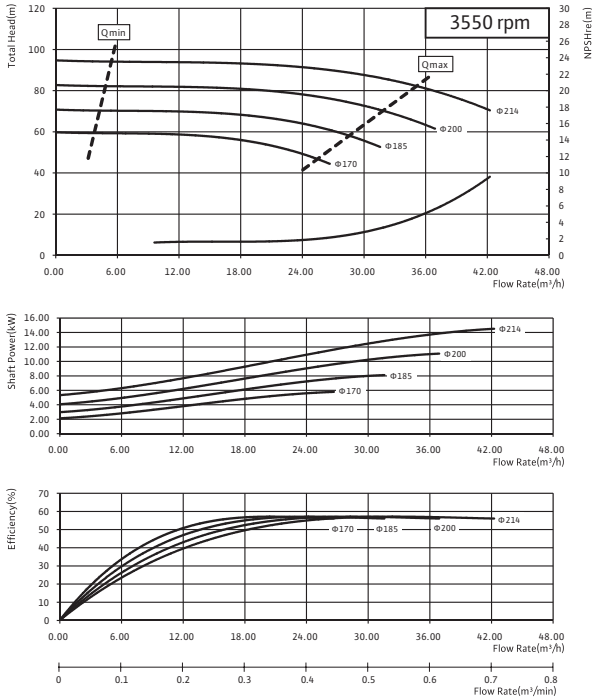
NL Series

NL Series

성능곡선 2pole

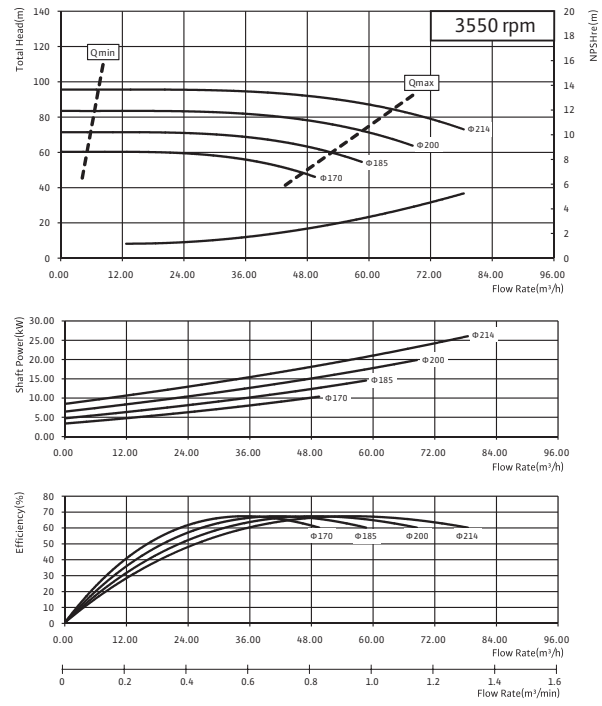
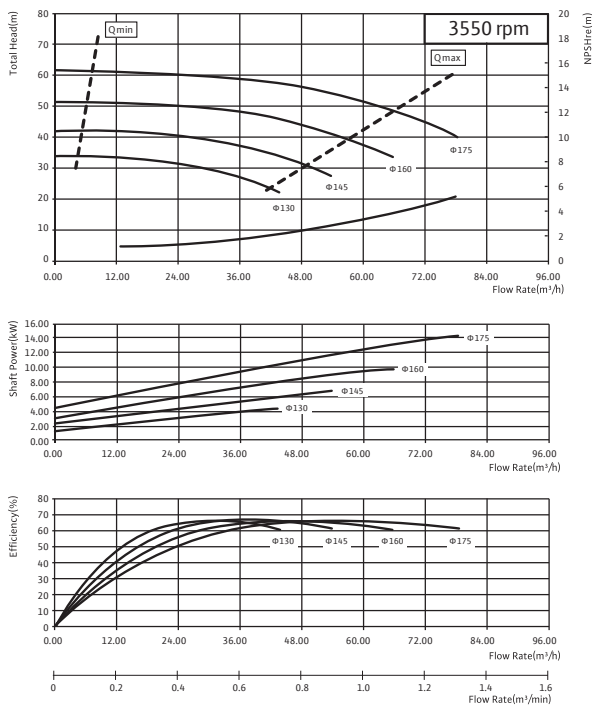
NL 32/200B

NL 40/125



NL 40/160

NL 40/200



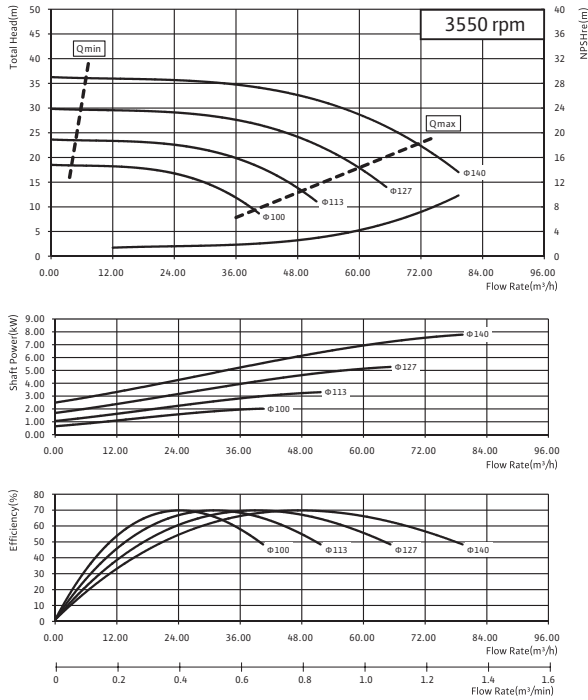
EN 733 단단 볼류트 펌프

NL Series

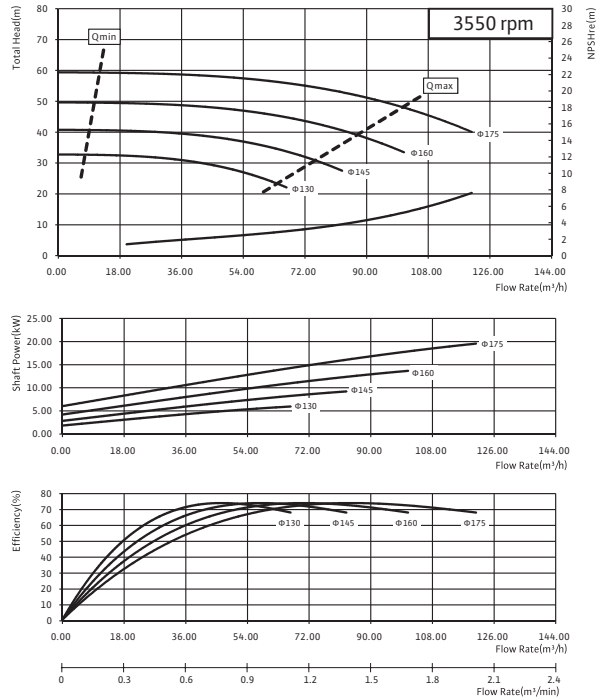


NL Series 성능곡선 2pole

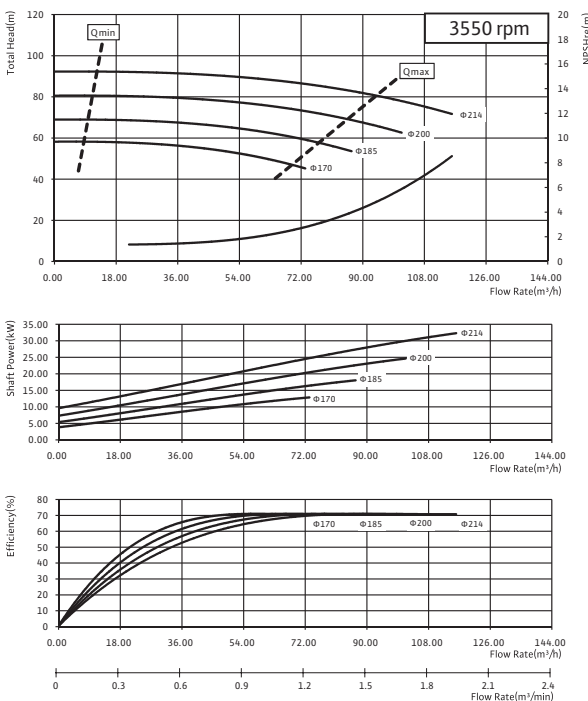
NL 50/125



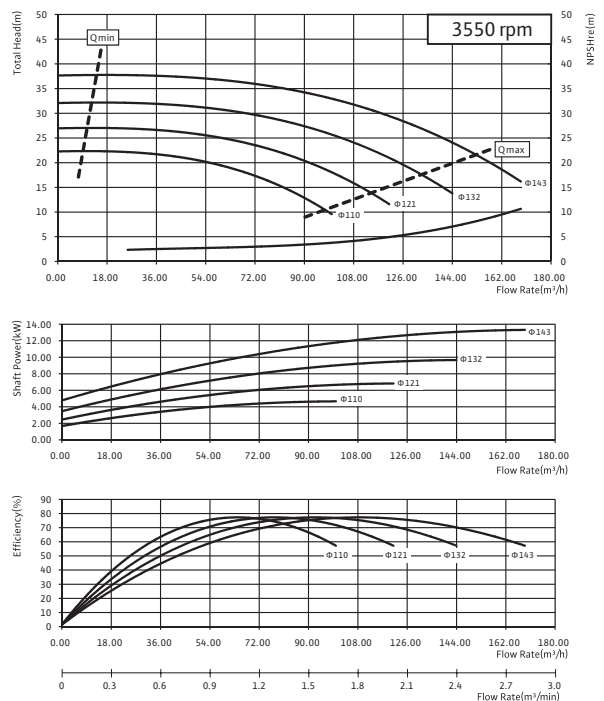
NL 50/160



NL 50/200



NL 65/125



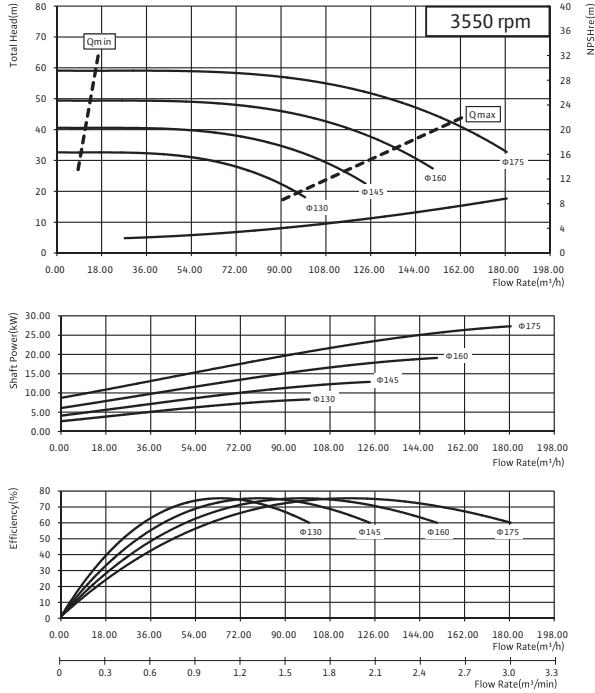
EN 733 단단 볼류트 펌프

NL Series

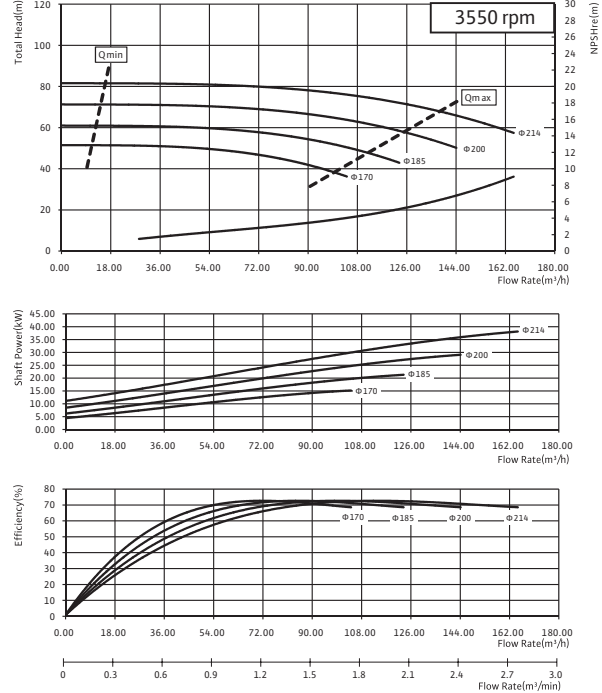
NL Series

성능곡선 2pole

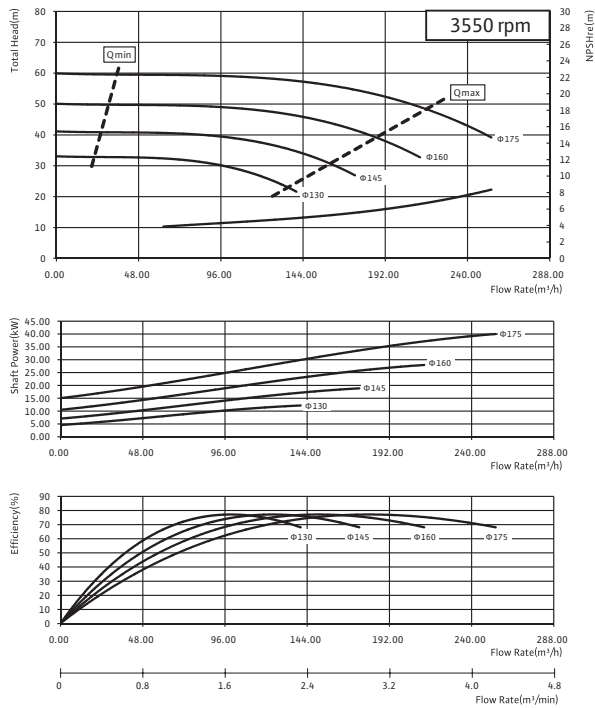
NL 65/160



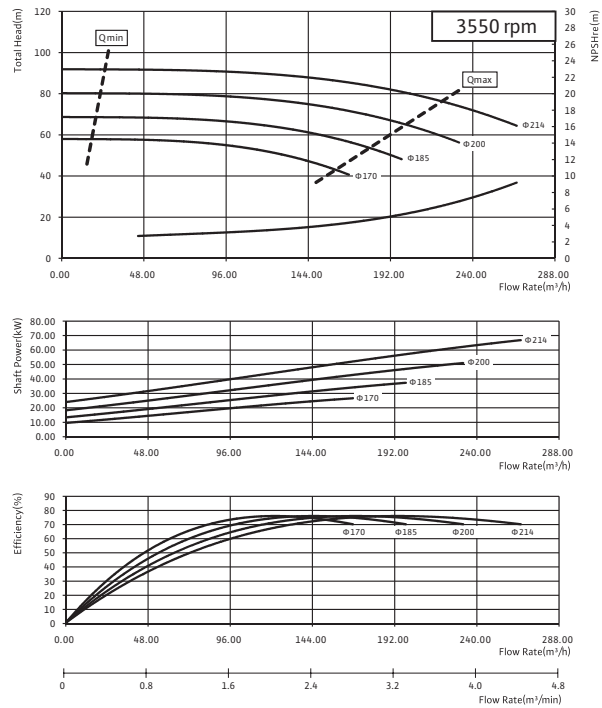
NL 65/200



NL 80/160



NL 80/200



EN 733 단단 볼류트 펌프

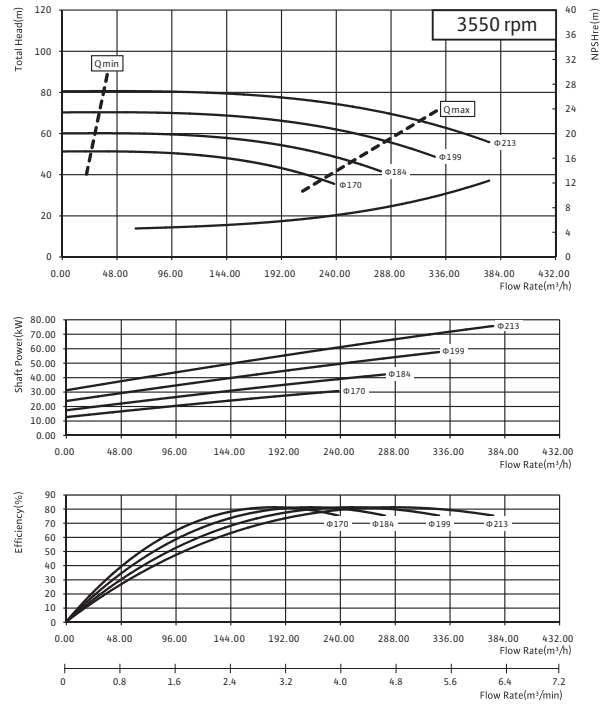
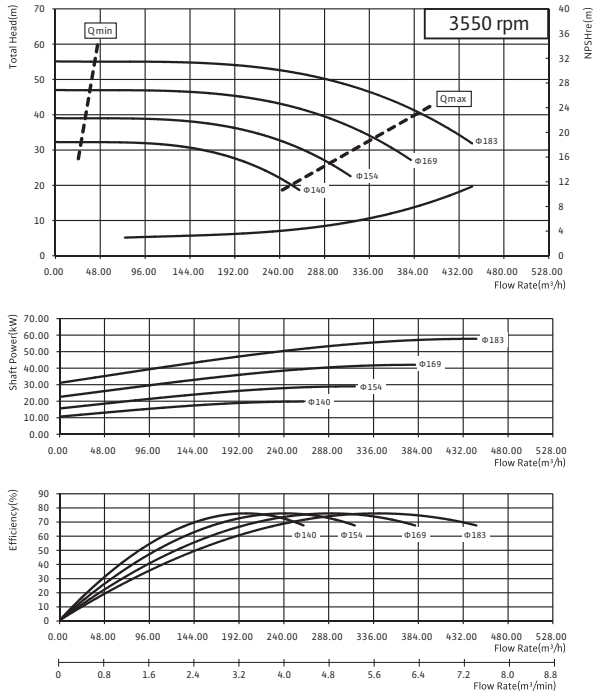
NL Series



NL Series 성능곡선 2pole

NL 100/160

NL 100/200



EN 733 단단 볼류트 펌프

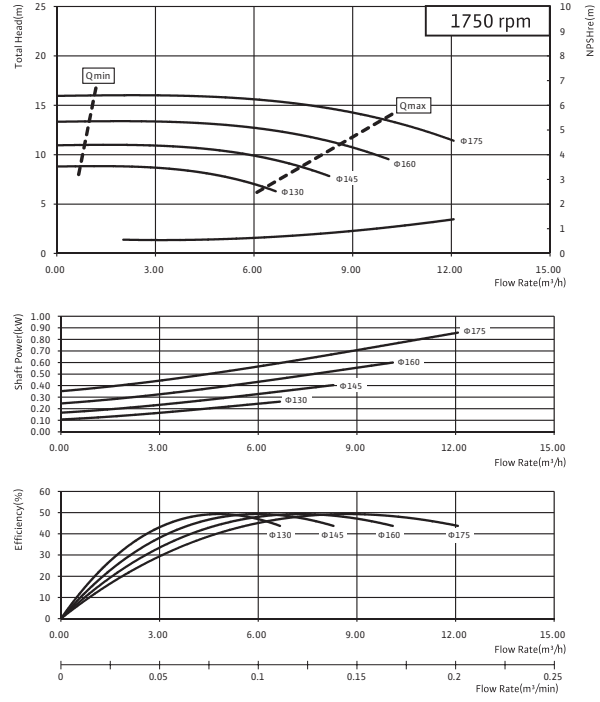
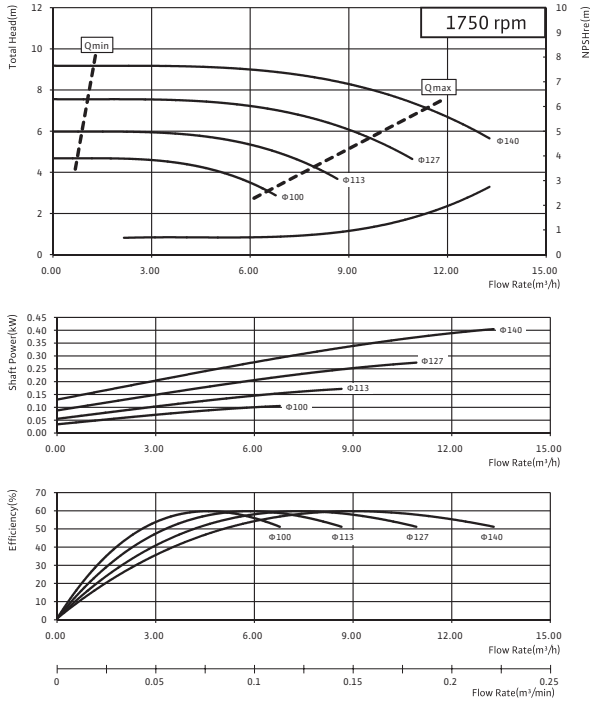
NL Series

NL Series

성능곡선 4pole

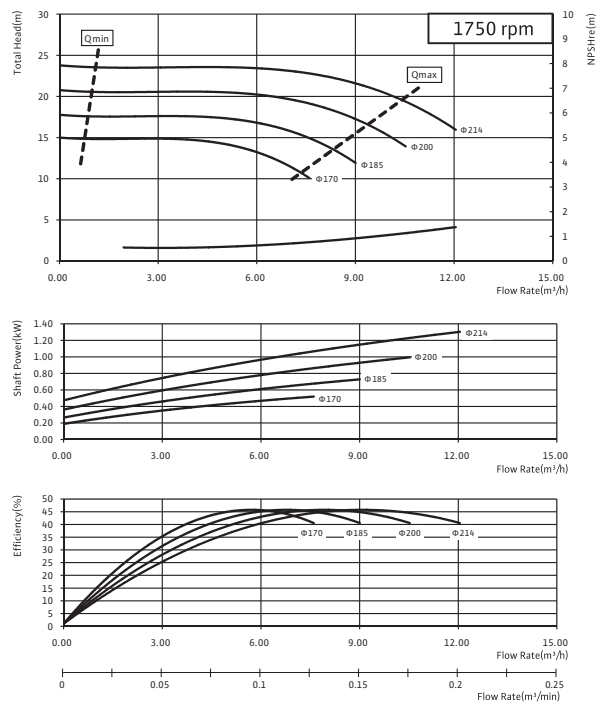
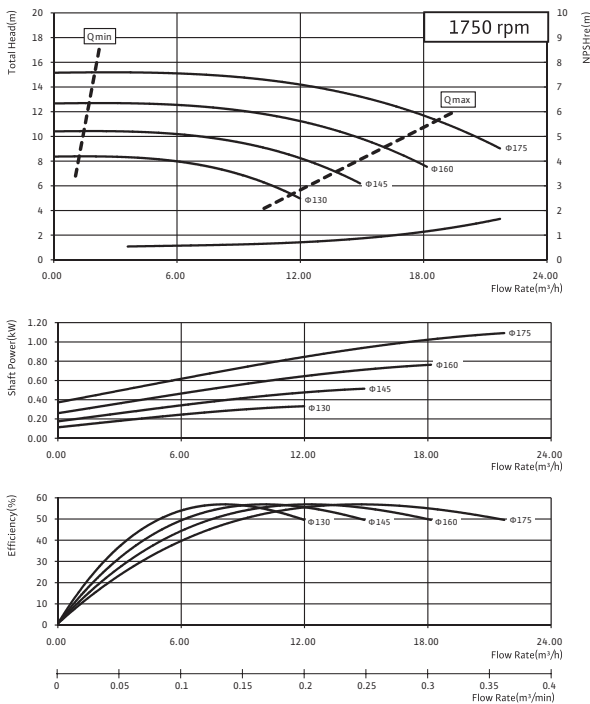
NL 32/125

NL 32/160A



NL 32/160B

NL 32/200A



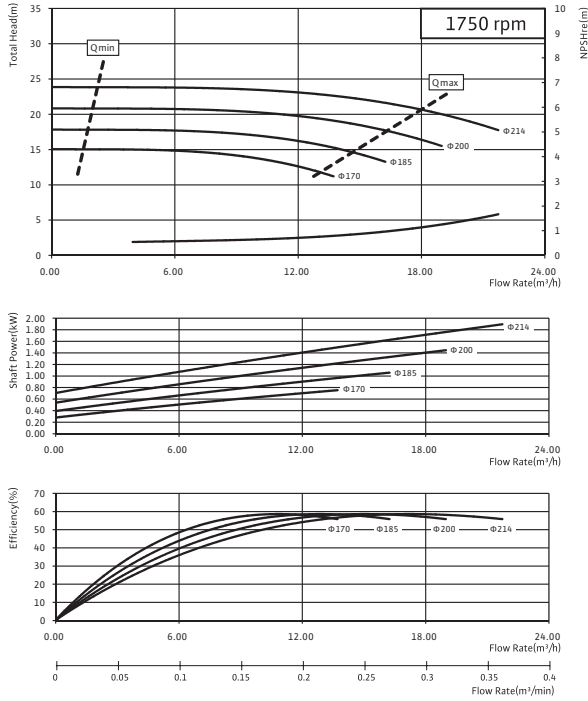
EN 733 단단 볼류트 펌프

NL Series

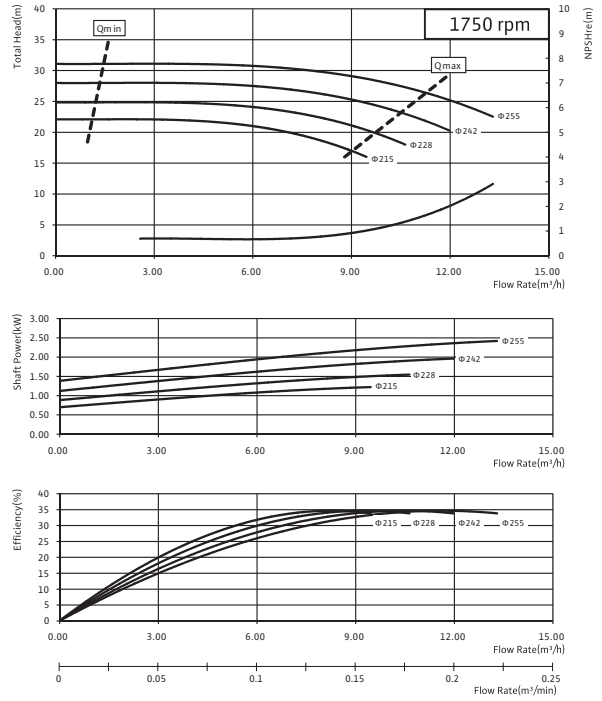


NL Series 성능곡선 4pole

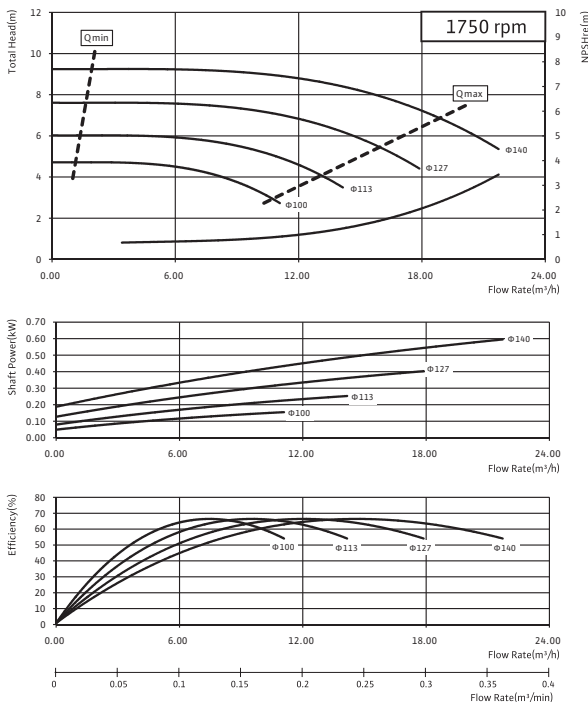
NL 32/200B



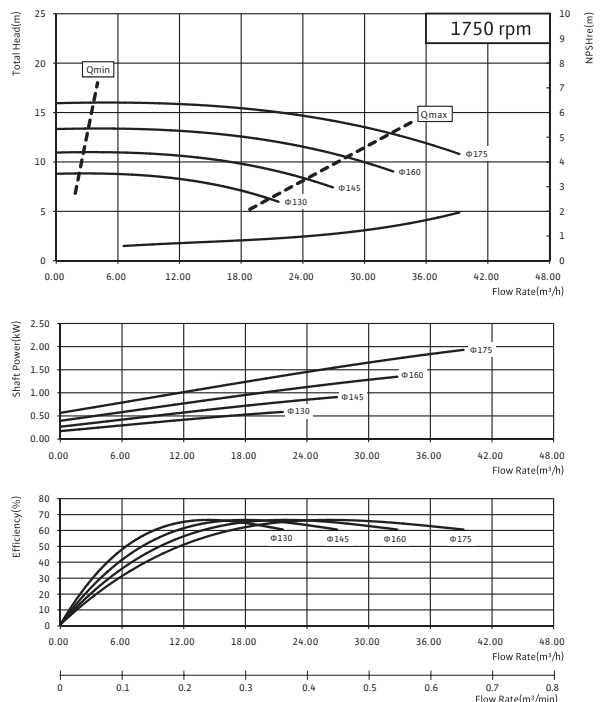
NL 32/250



NL 40/125



NL 40/160



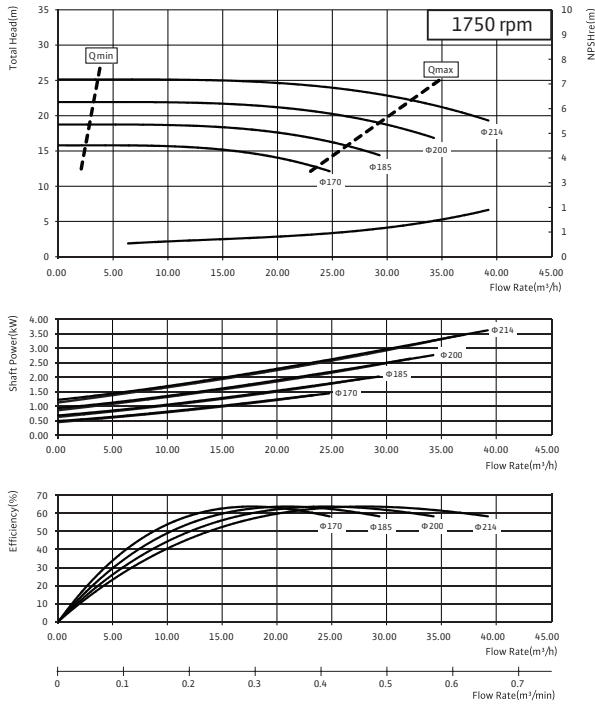
EN 733 단단 볼류트 펌프

NL Series

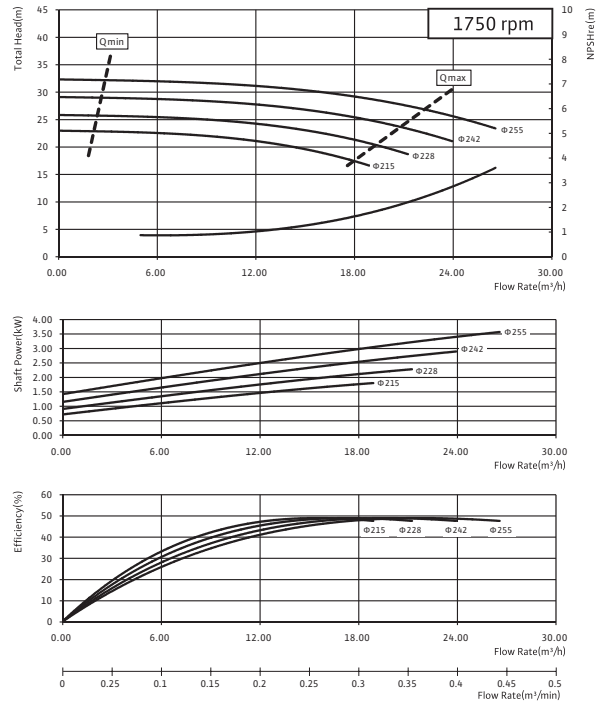
NL Series

성능곡선 4pole

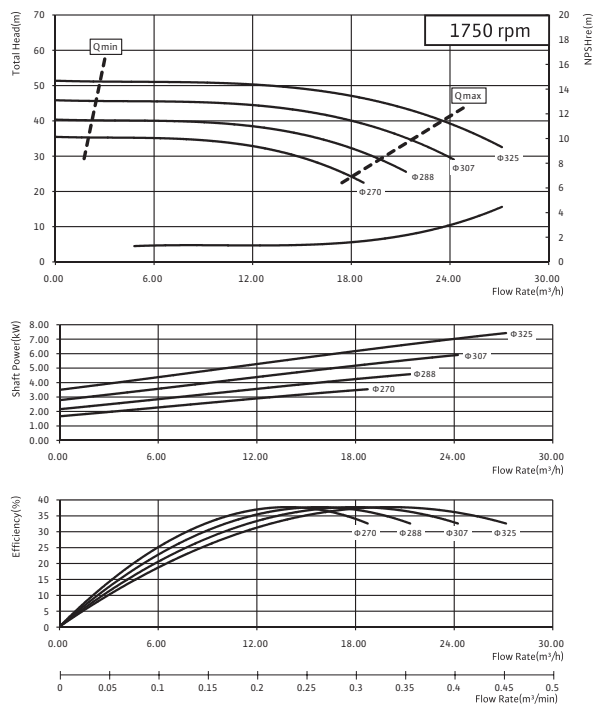
NL 40/200



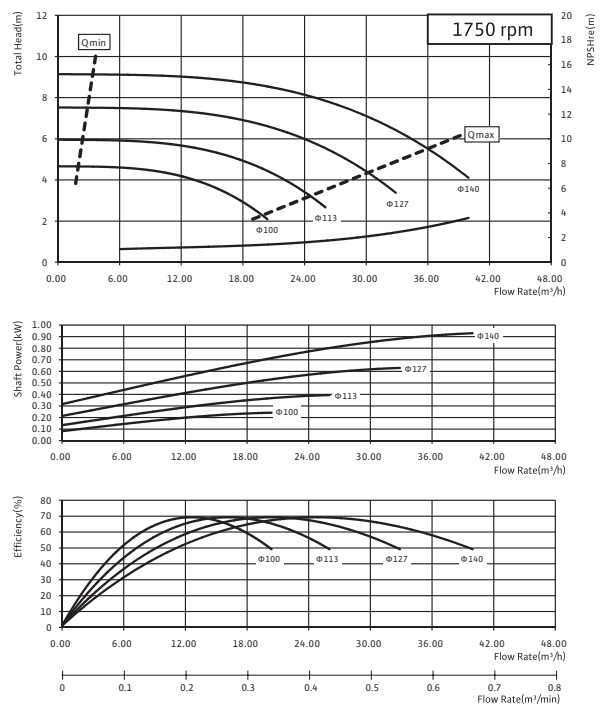
NL 40/250



NL 40/315



NL 50/125



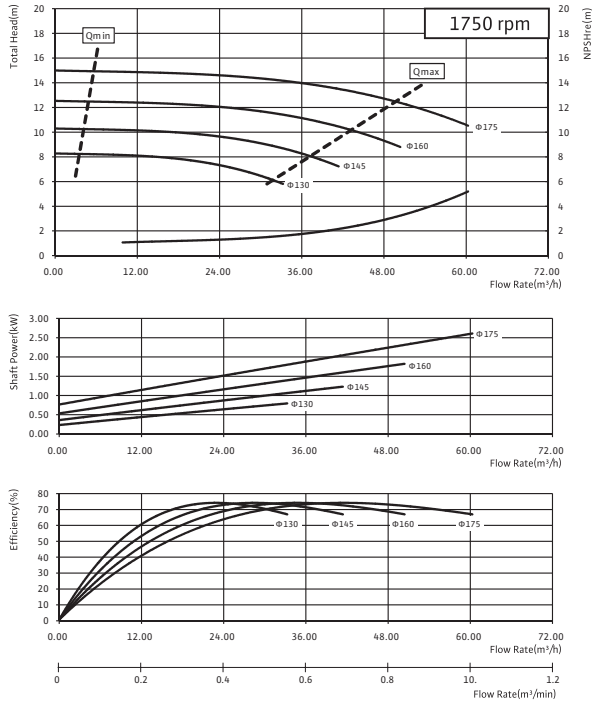
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NL Series

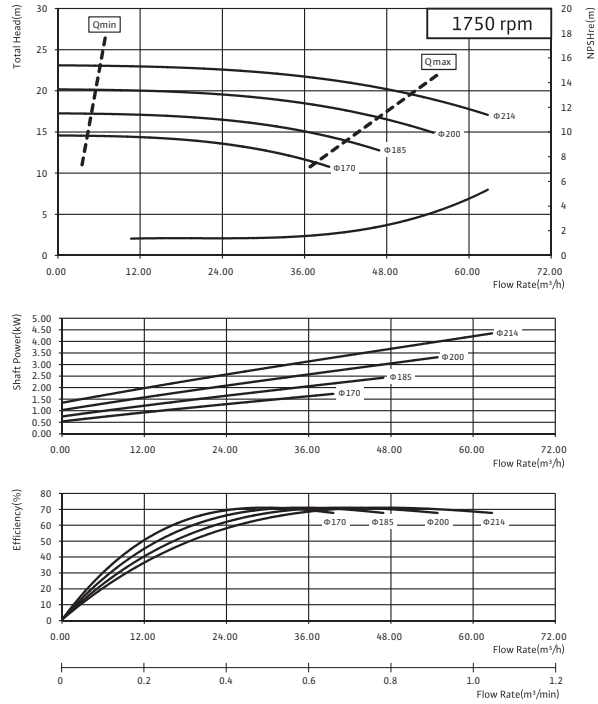


NL Series 성능곡선 4pole

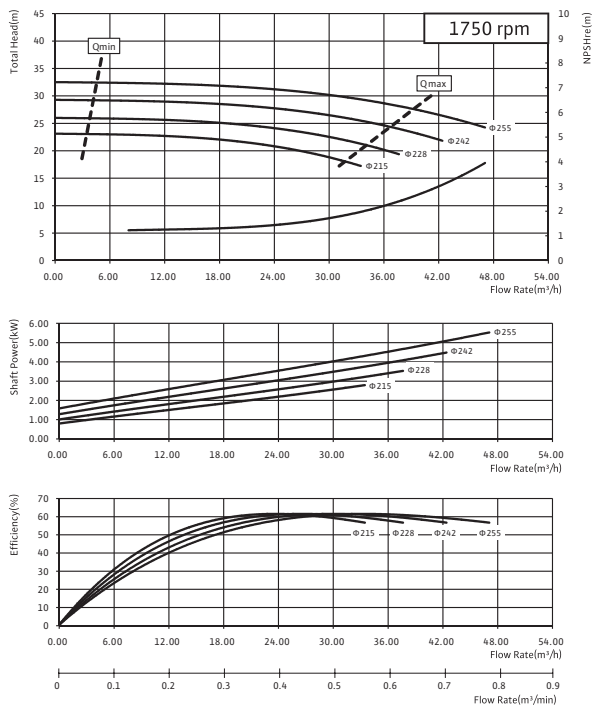
NL 50/160



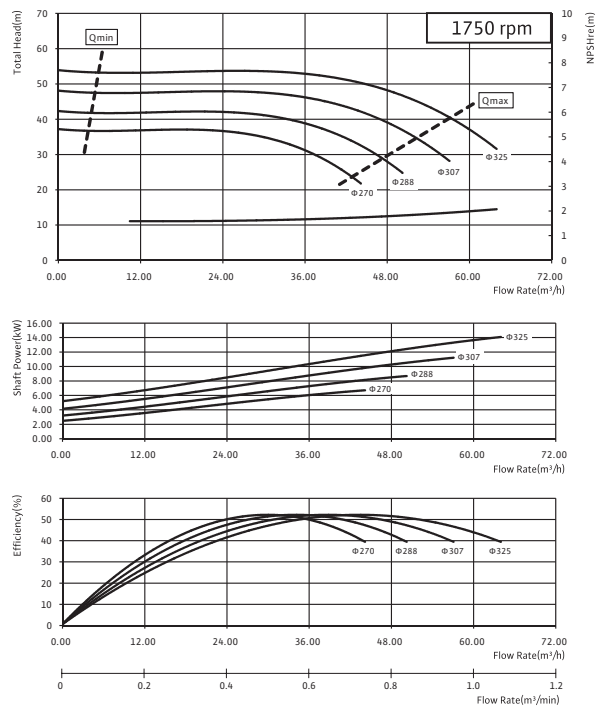
NL 50/200



NL 50/250



NL 50/315



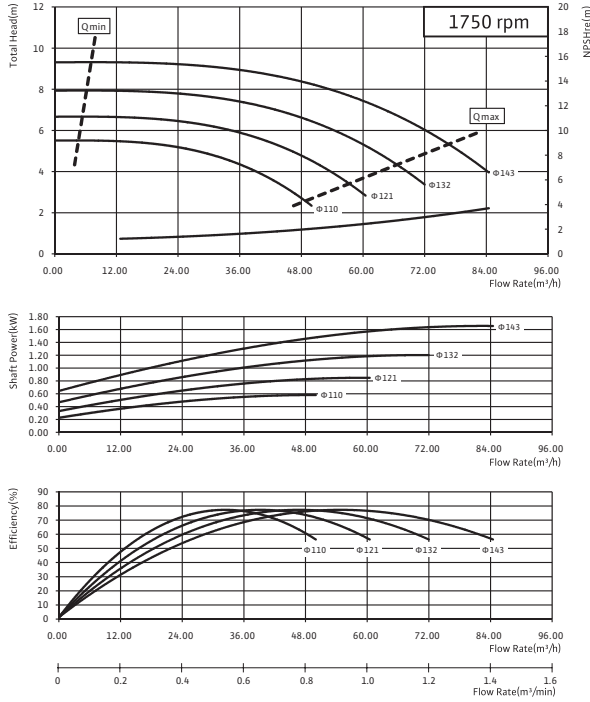
EN 733 단단 볼류트 펌프

NL Series

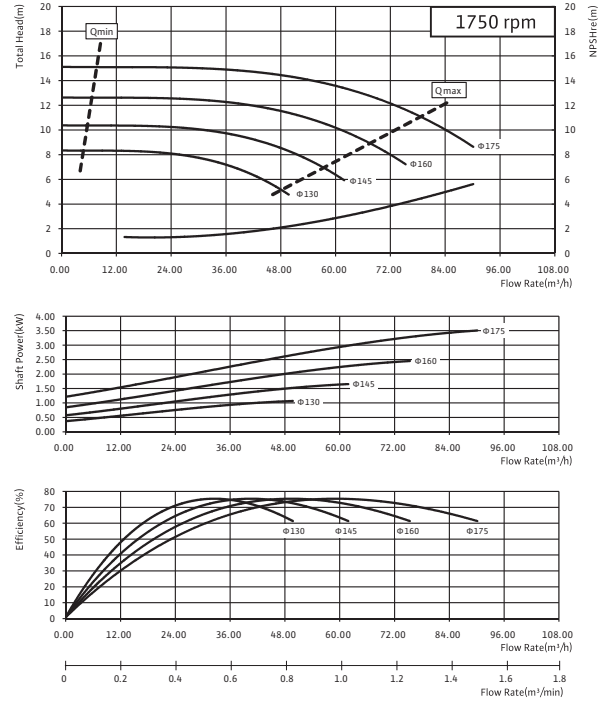
NL Series

성능곡선 4pole

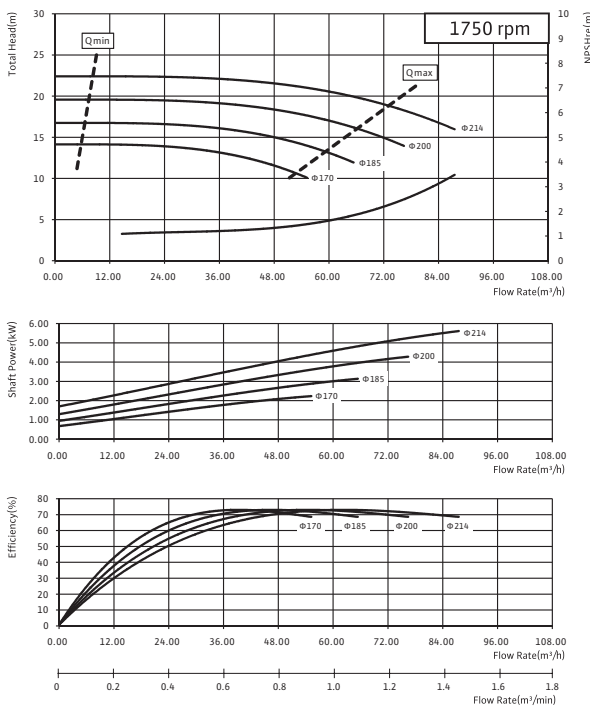
NL 65/125



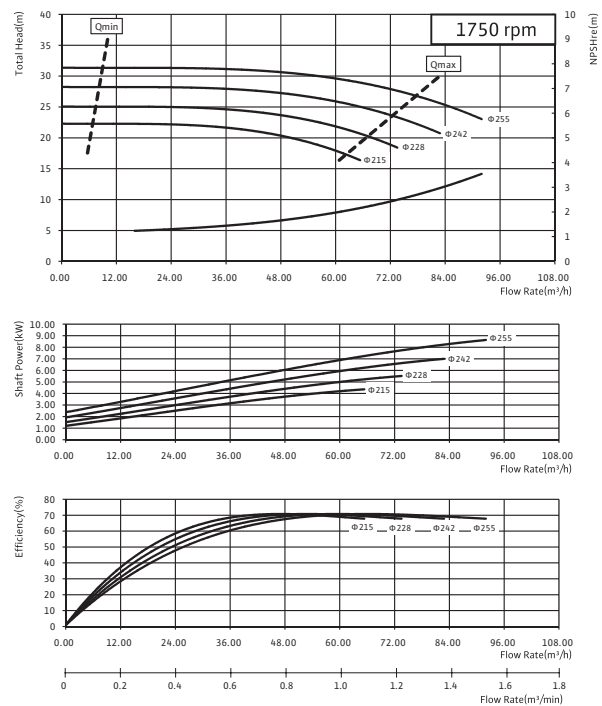
NL 65/160



NL 65/200



NL 65/250



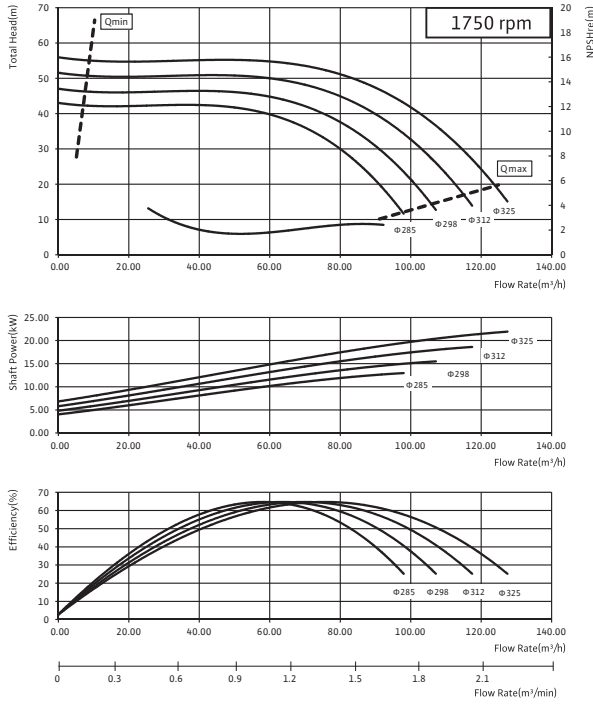
EN 733 단단 볼류트 펌프

NL Series

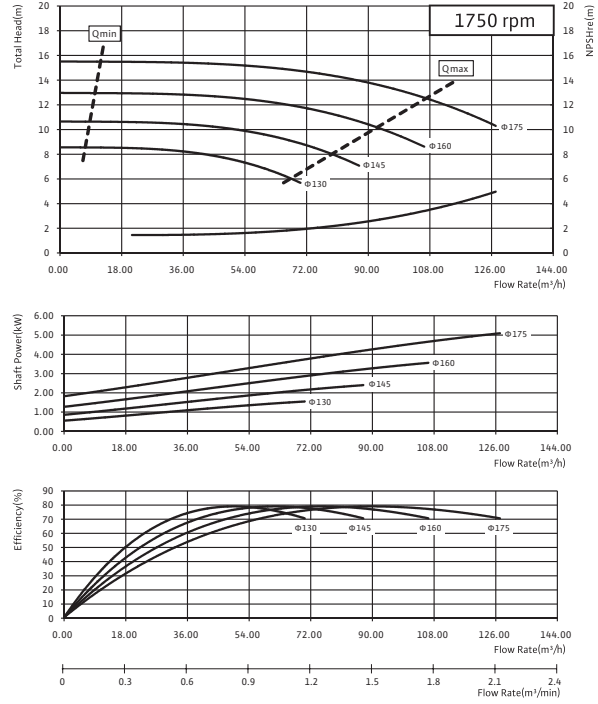


NL Series 성능곡선 4pole

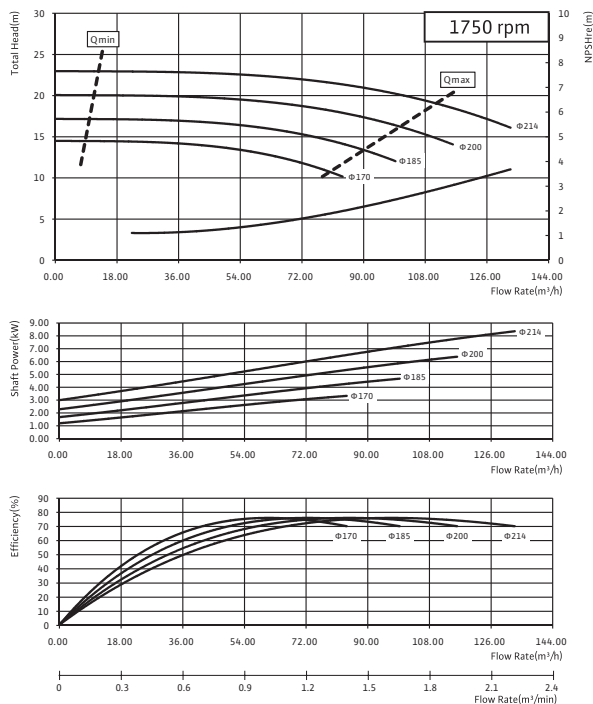
NL 65/315



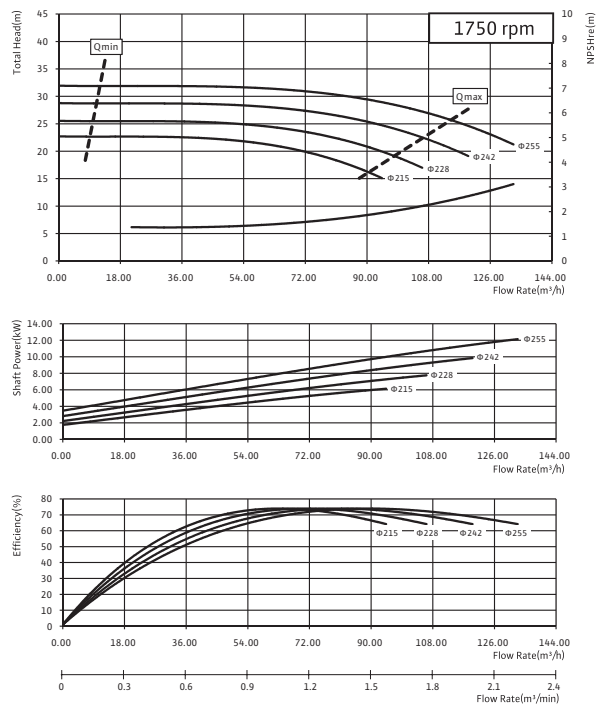
NL 80/160



NL 80/200



NL 80/250



EN 733 단단 볼류트 펌프

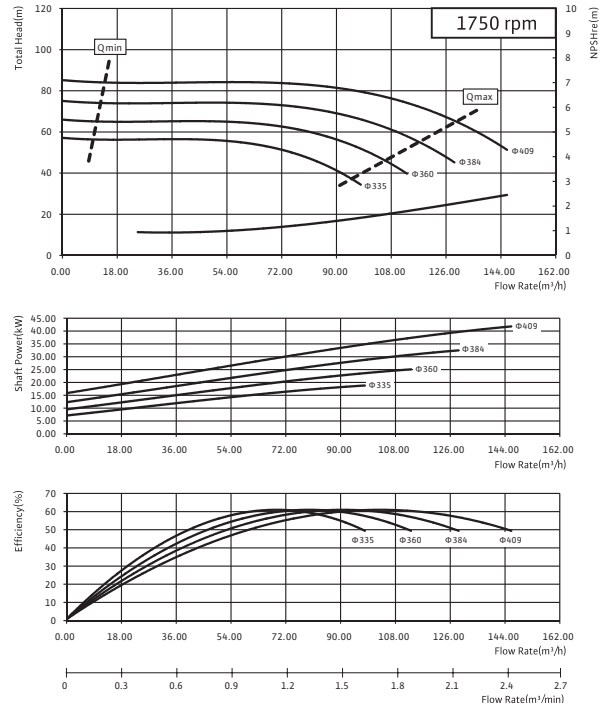
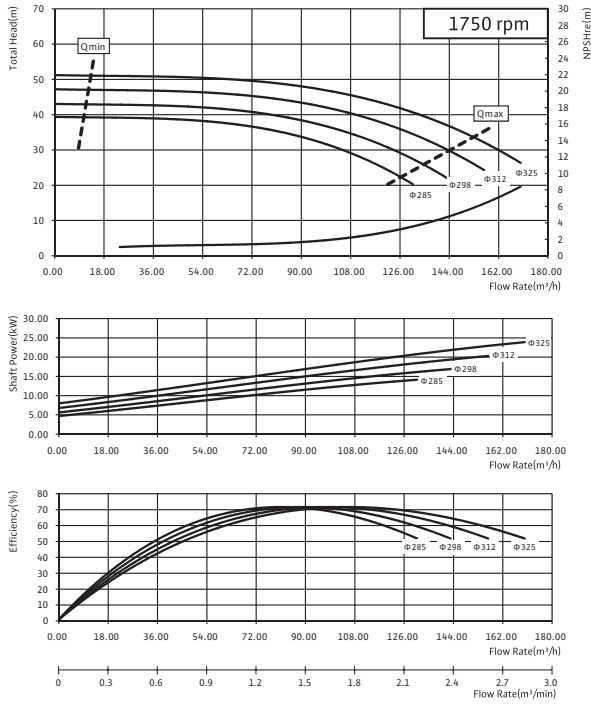
NL Series

NL Series

성능곡선 4pole

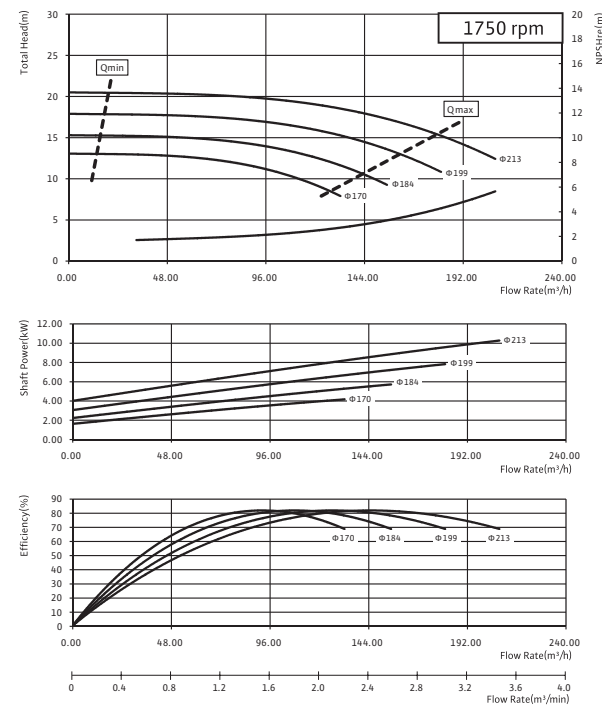
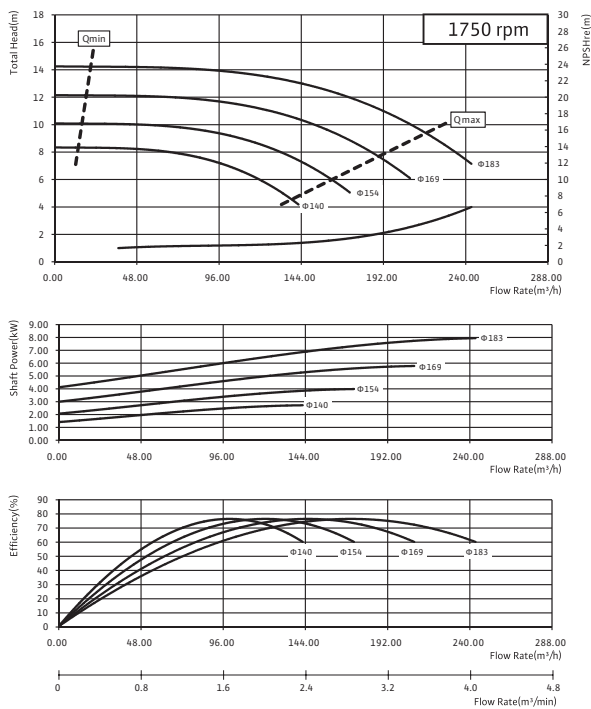
NL 80/315

NL 80/400



NL 100/160

NL 100/200



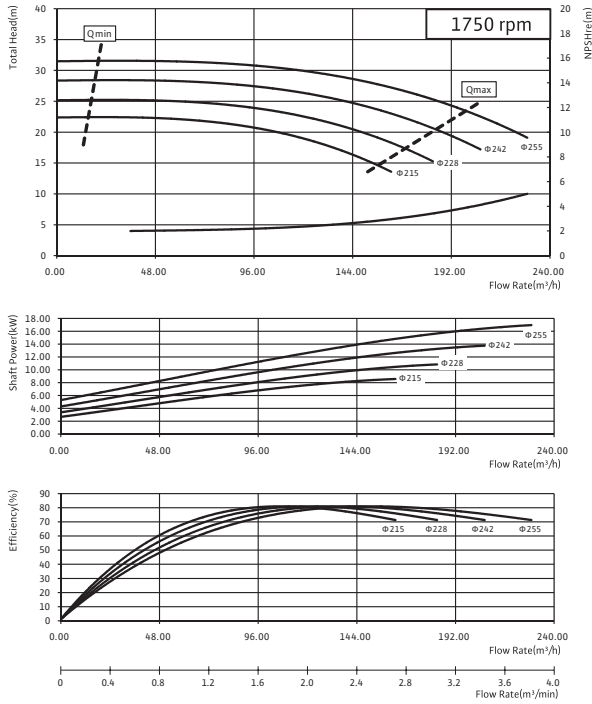
EN 733 단단 볼류트 펌프

NL Series

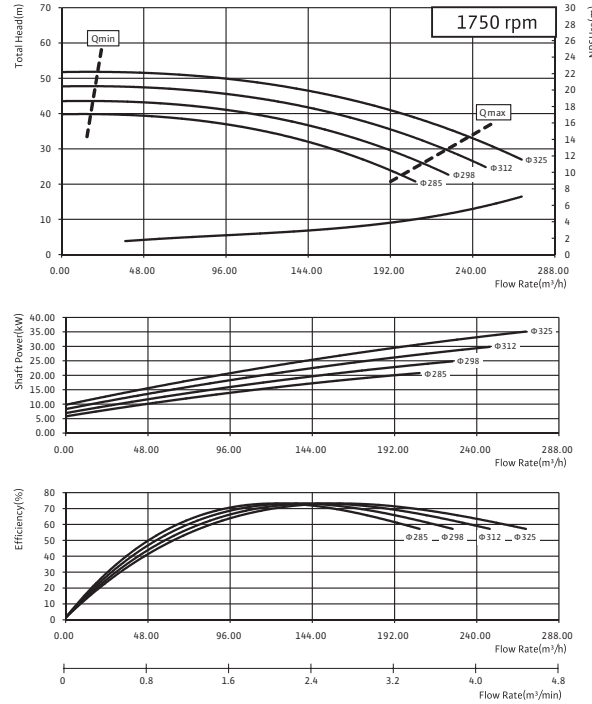


NL Series 성능곡선 4pole

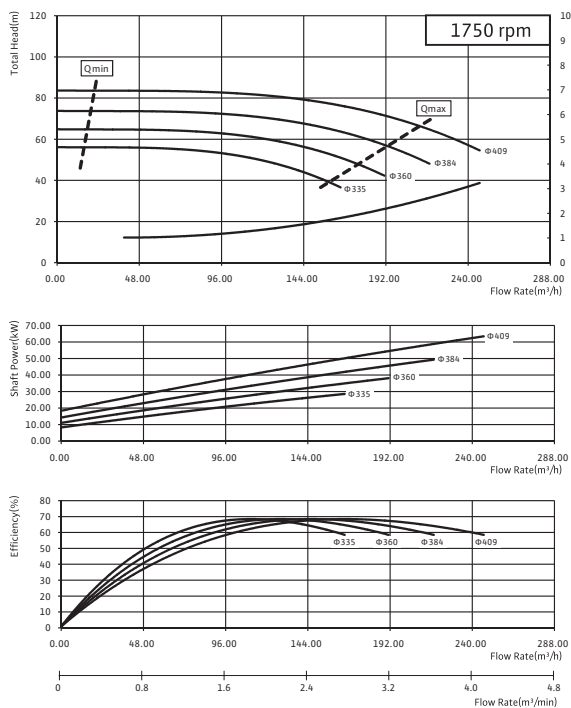
NL 100/250



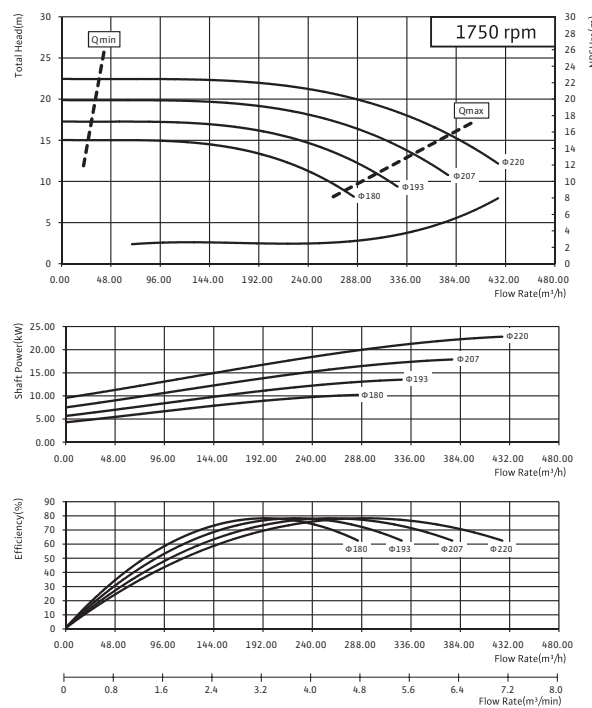
NL 100/315



NL 100/400



NL 125/200



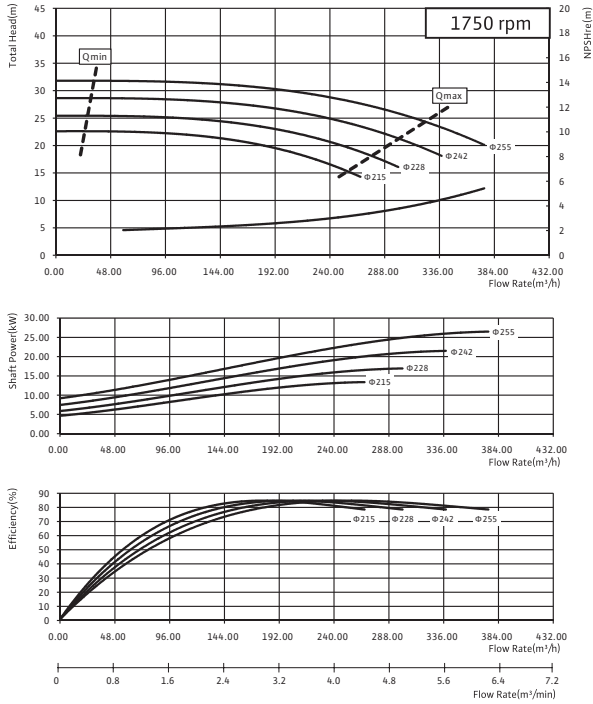
EN 733 단단 볼류트 펌프

NL Series

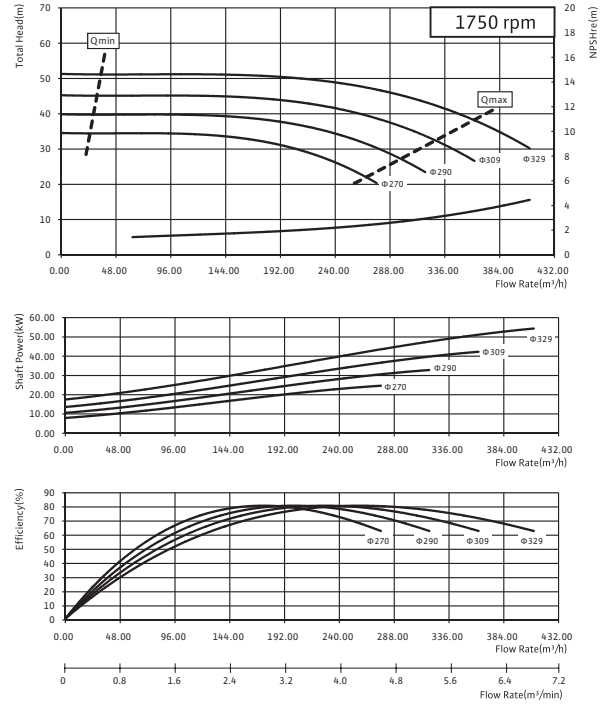
NL Series

성능곡선 4pole

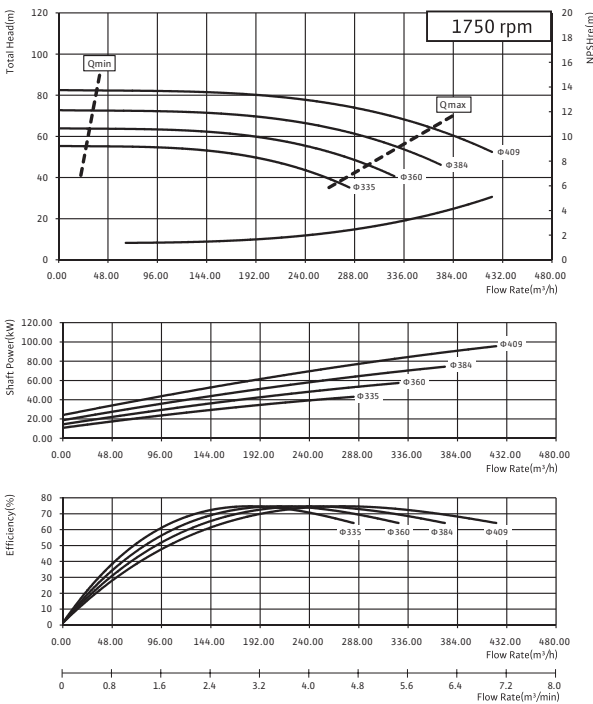
NL 125/250



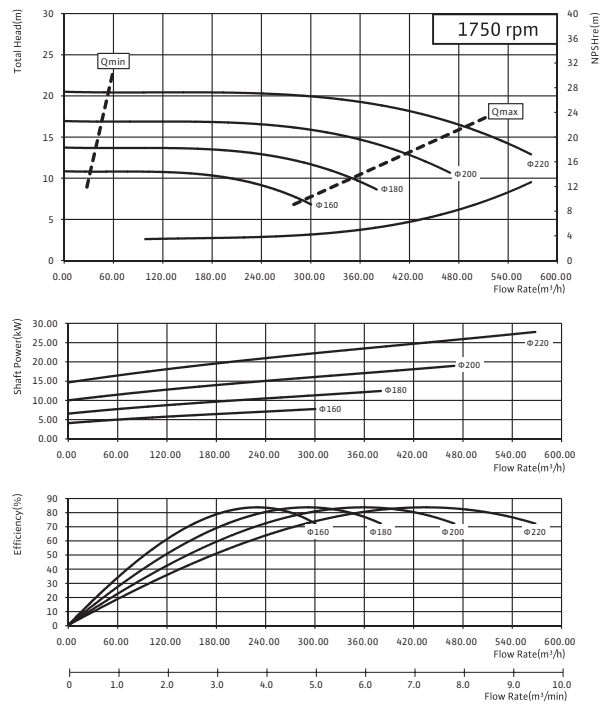
NL 125/315



NL 125/400



NL 150/200



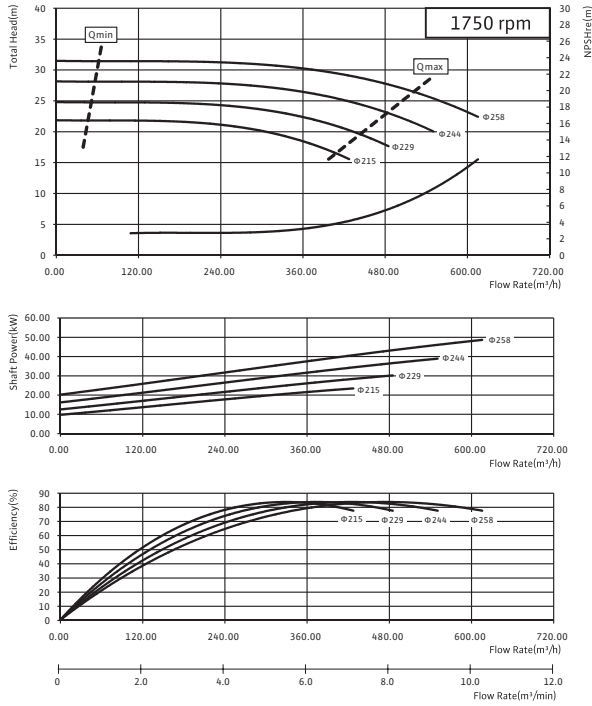
EN 733 단단 볼류트 펌프

NL Series

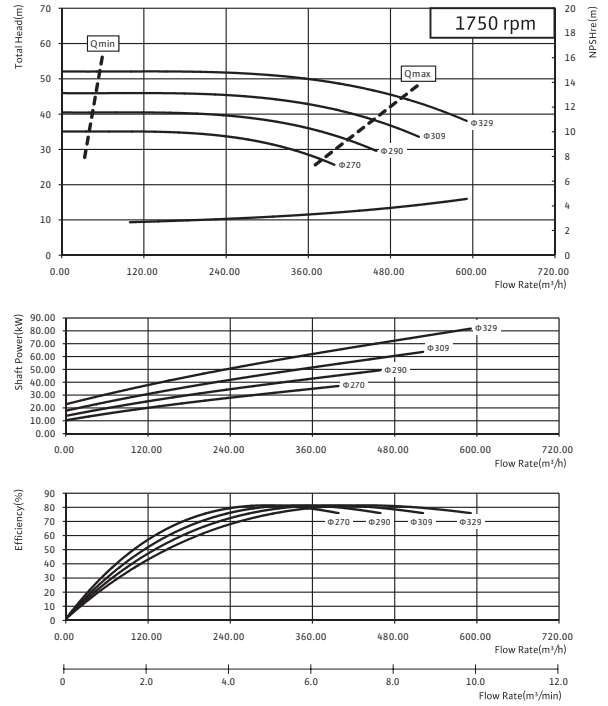


NL Series 성능곡선 4pole

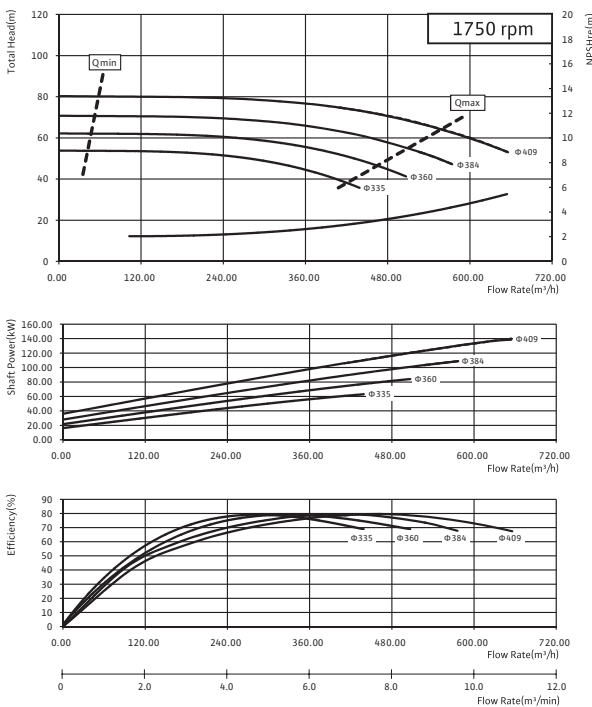
NL 150/250



NL 150/315



NL 150/400

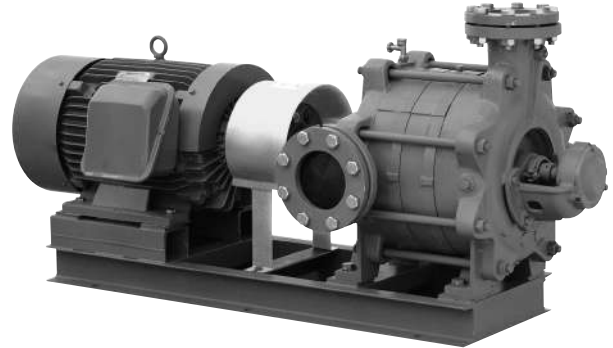
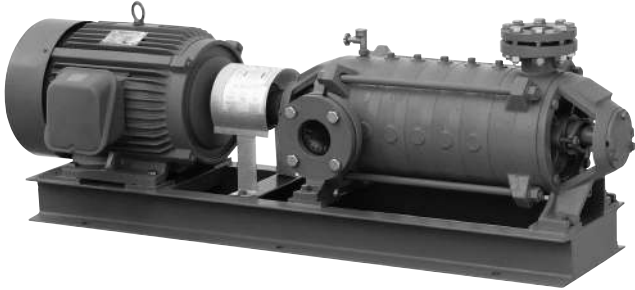


Multi-Stage Pumps

Ring Section Pumps

Multi-Stage Pump

제품소개



PMT Series

적용범위

- 수도 : 취수용, 송수용, 배수용, 가압용
- 건축 : 급·배수용, 냉각수 및 냉온수의 순환용, 소화설비용
- 공장 : 각종 급·배수용, 보일러 급수용
- 농업 : 양수배수용, 스프링클러용

구조

- 다단 터빈 펌프로 가이드 베인 분리형 구조
- 압력을 받는 흡입케이싱, 중간케이싱, 토출케이싱은 표준 재질을 GC250(GC200)으로 하여 강도를 높였으며 각각의 케이싱은 오링으로 밀봉
- 임펠러를 조합시켜 다양한 사양점에서 펌프 선정 가능
- 축은 슬리브 및 임펠러 보스등에 의하여 보호되고 있으므로 축의 마모가 적음
- Back pull-out 구조로 유지보수가 편리
- 밸런싱 Hole을 임펠러에 형성하여 축추력을 감소

특장점

- 콤팩트한 고성능 설계에 따라, 설치비의 절감과 에너지 절감이 가능
- 설치 다리는 베어링 하우징에 일체형 구조로 흡·토출구를 상·좌우방향으로 설치 가능하여 배관이 용이
- 가정용수 공급용 및 빌딩 수처리용
- 축봉 방식은 용도에 따라 그랜드 패킹 또는 Mechanical Seal 방식 선택 가능
- 볼 베어링 방식을 채택하여 축 방향의 밀림(End play)을 줄였으며, 베어링에 급유 불필요
- 밸런싱 Hole을 임펠러에 형성하여 축추력을 감소

PMV Series

적용범위

- 수도 : 취수용, 송수용, 배수용, 가압용
- 건축 : 급·배수용, 냉각수 및 냉온수의 순환용, 소화설비용
- 공장 : 각종 급·배수용, 보일러 급수용
- 농업 : 양수배수용, 스프링클러용

구조

- 다단 터빈 펌프로 가이드 베인 일체형 구조
- 볼베어링 방식을 채택한 구조
- 펌프의 설치다리를 케이싱상의 몸체에 설치
- 감압파이프 설치 구조(3단이상적용)
- 플랜지는 RF 방식을 채택

특장점

- 넓은 범위에 운전 가능하도록 설계 및 제작
- 임펠러의 입구에서 유체의 흐름을 안정시켜 흡입성능이 우수
- 양단 베어링 지지 구조로 적은 진동 및 소음 발생
- 축봉 방식은 용도에 따라 그랜드 패킹 또는 Mechanical Seal 방식 선택 가능
- 볼 베어링 방식을 채택하여 축 방향의 밀림(End play)을 줄였으며, 베어링에 급유 불필요
- 밸런싱 Hole을 임펠러에 형성하여 축추력을 감소

Multi-Stage Pumps

Ring Section Pumps



Multi-Stage Pump

제품소개

취급액(0~80°C의 청수, pH6~8)
이외의 고온, 특수액은 사용불가능

고온 또는 청수가 아닌 액을 취급할 경우에는 이송액의 특성(온도, 농도, 고형물의 유·무)과 사용조건에 따라 내마모성, 내식성이 현저히 변화되는 경우가 있으므로 반드시 영업 또는 공장으로 문의

흡입측 조건

흡입 전압정 또는 압입 압력은 아래에 따름

흡입 전압정 허용치		
액의 온도	흡입구경	흡입 전압정
0°C~40°C	50 ~ 80mm	-6m 이내
	100 ~ 150mm	-5.5m 이내

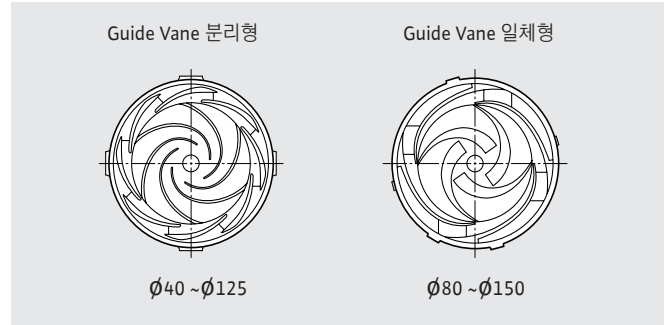
운전조건

- 기동반복이 빈번한 자동제어용으로 펌프를 사용할 경우에는 임펠러의 파손 우려가 있으므로 임펠러 재질을 BC6급 이상으로 사용
- 자동제어용으로 사용할 경우 기동반복이 시간당 12회를 넘지 않아야 함
- 수격현상(워터해머)이 발생하지 않도록 배관을 구성

주문사항(Option)

- 구조변경: Mechanical seal 구조
- 재질변경: Shaft-ST5304
Impeller-BC6

다단펌프 CASING 구조



모델명 부여기준 (MODEL)

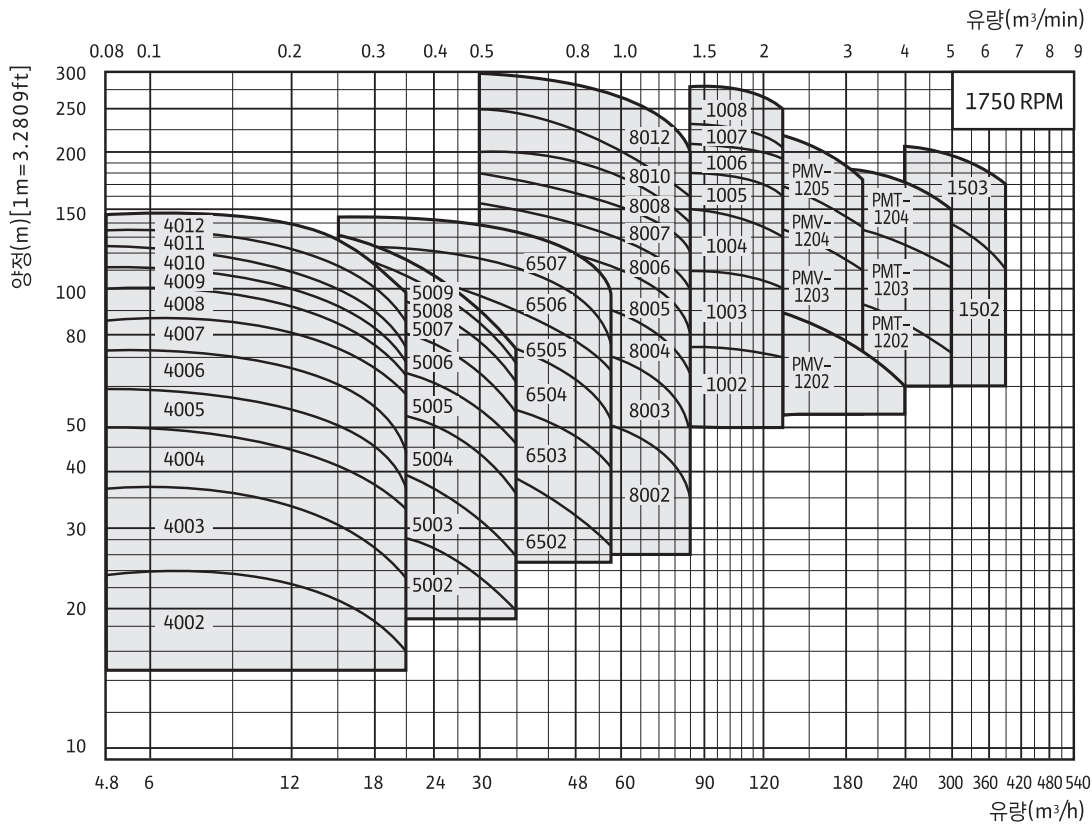
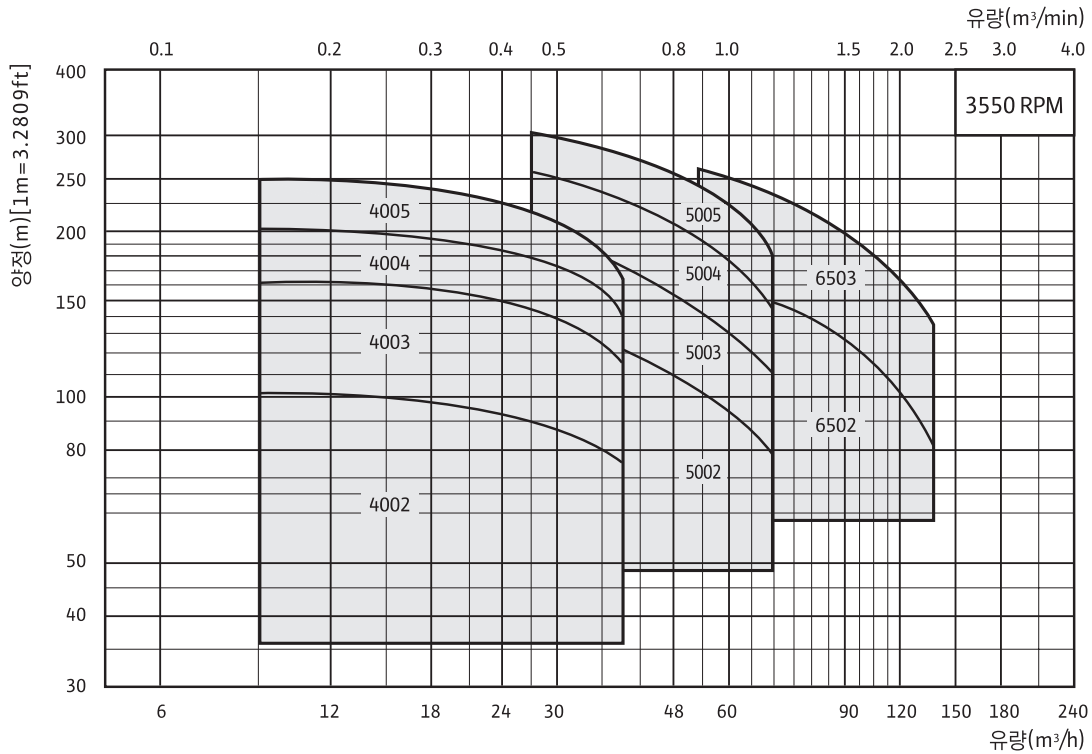
형식	토출구경mm	단수
PUMP TYPE	DISCHARGE BORE	NO. OF STAGE
MULTI STAGE PUMP	15:150 12:125 10:100 80:80 65:65 50:50 40:40	2 STAGE 3 STAGE • • •
PMT: 다단 터빈 펌프 (가이드 베인 분리형)	80	03
PMV: 다단 터빈 펌프 (가이드 베인 일체형)		

Multi-Stage Pumps

Ring Section Pumps

Multi-Stage Pump

선정도



※ 40-100 Series는 PMT

Multi-Stage Pumps

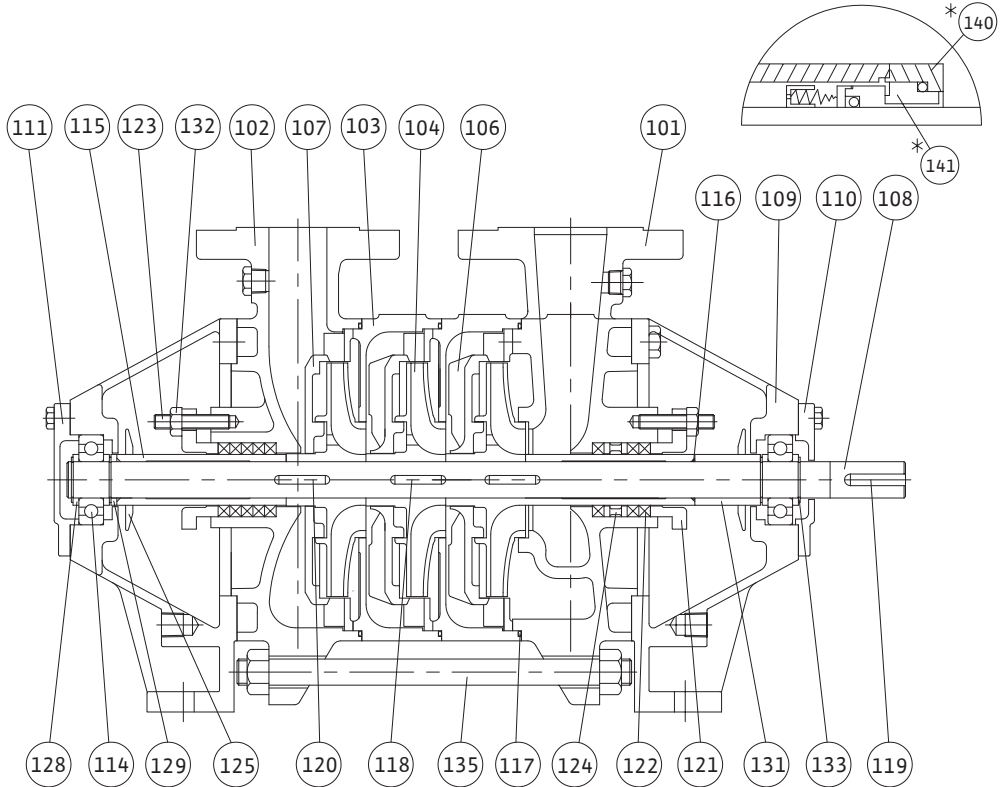
Ring Section Pumps



PMT - 40, 50, 65 Series

단면도

단면도



품번	품명	재질	수량
101	흡입 케이싱 (SUCTION CASING)	GC250	1
102	토출 케이싱 (DISCHARGE CASING)	GC250	1
103	중간 케이싱 (MIDDLE CASING)	GC250	S-1
104	임펠러 (IMPELLER)	GC200	S
106	안내날개 (A) [GUIDE VANE(A)]	GC200	S-1
107	안내날개 (B) [GUIDE VANE(B)]	GC200	1
108	축 (SHAFT)	SM45C	1
109	베어링 하우징 (BEARING HOUSING)	GC200	2
110	베어링 커버 (A) [BEARING COVER(A)]	GC200	1
111	베어링 커버 (B) [BEARING COVER(B)]	GC200	1
114	볼 베어링 (BALL BEARING)	STB2	2
115	슬리브 (SLEEVE)	STS304	2
116	슬리브 오링 (SLEEVE O-RING)	NBR	2
117	케이싱 오링 (CASING O-RING)	NBR	S
118	임펠러 키 (IMPELLER KEY)	SM45C	S-2

*:선택부품(Optional Parts)

품번	품명	재질	수량
119	커플링 키 (COUPLING KEY)	SM45C	1
120	슬리브 키 (SLEEVE KEY)	SM45C	2
121	글랜드 (GLAND)	GC200	2
122	글랜드 패킹 (GLAND PACKING)	FABRIC	8
123	글랜드 볼트 (GLAND BOLT)	STS304	4
124	랜턴링 (LANTERN RING)	BC6	1
125	물막음턱 (DEFLECTOR)	NR610	2
128	안내링 (GUIDE RING)	STS304	4
129	간격링 (DISTANCE RING)	STS304	1
131	조정 스페이서 (ADJUSTABLE SPACER)	STS304	1
132	육각너트 (HEX NUT)	C3602BD	4
133	멈춤링 (STOP RING)	SK5	4
135	조임볼트 (TIE BOLT)	SM20C	4
*140	미캐니컬 실 커버 (M/SEAL COVER)	SM45C	2
*141	미캐니컬 실 (MECHANICAL SEAL)		2

수량란의 S는 단수

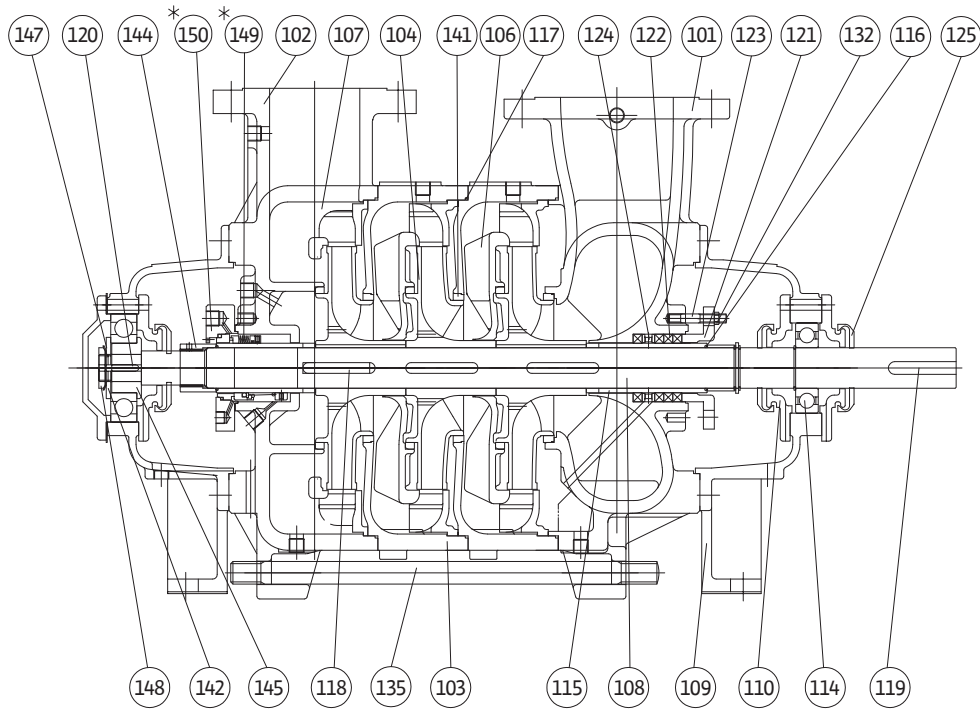
Multi-Stage Pumps

Ring Section Pumps

PMT 80, 10 Series

단면도

단면도



품번	품명	재질	수량
101	흡입 케이싱 (SUCTION CASING)	GC200	1
102	토출 케이싱 (DISCHARGE CASING)	GC200	1
103	중간 케이싱 (MIDDLE CASING)	GC200	S-1
104	임펠러 (IMPELLER)	GC200	S
106	안내날개(A) [GUIDE VANE(A)]	GC200	S-1
107	안내날개(B) [GUIDE VANE(B)]	GC200	1
108	축 (SHAFT)	SM45C	1
109	베어링 하우징 (BEARING HOUSING)	GC200	2
110	베어링 커버 (BEARING COVER)	GC200	4
114	볼 베어링 (BALL BEARING)	STB2	2
115	슬리브 (SLEEVE)	STS304	2
116	슬리브오링 (SLEEVE O-RING)	NBR	1
117	케이싱오링 (CASING O-RING)	NBR	S
118	임펠러 키 (IMPELLER KEY)	SM45C	S
119	커플링 키 (COUPLING KEY)	SM45C	1
120	아답터 키 (ADAPTER KEY)	SM45C	1

품번	품명	재질	수량
121	글랜드 (GLAND)	GC200	2
122	글랜드 패킹 (GLAND PACKING)	FABRIC	8
123	글랜드 볼트 (GLAND BOLT)	STS304	4
124	랜턴링 (LANTERN RING)	HBsC1	2
125	물막음턱 (DEFLECTOR)	NBR	3
132	육각너트 (HEX NUT)	C3602BD	4
135	조임 볼트 (TIE BOLT)	SM45C	8
141	케이싱링 (CASING RING)	HBsC1	2+(S-1)x2
142	그리스칼라 (GREASE COLLAR)	SM20C	1
144	축너트 (SHAFT NUT)	BrC3	1
145	아답터 (ADAPTER)	SM20C	1
147	로크와셔 (LOCK WASHER)	SS400	1
148	로크너트 (LOCK NUT)	SM30C	1
*149	미캐니컬 실 (MECHANICAL SEAL)		2
*150	미캐니컬 실커버 (M/SEAL COVER)	SM45C	2

*: 선택부품 (Option Parts)

※PMT 80/10 Series의 경우 단수에 따라 토출 케이싱의 표준재질 변경

(PMT-8008: GCD450, PMT-8010/12: SC450, PMT-1007/08: GCD450)

단, PMT-8010/12 Series의 경우 흡입 케이싱의 표준재질도 SC450으로 변경

수량란의 S는 단수

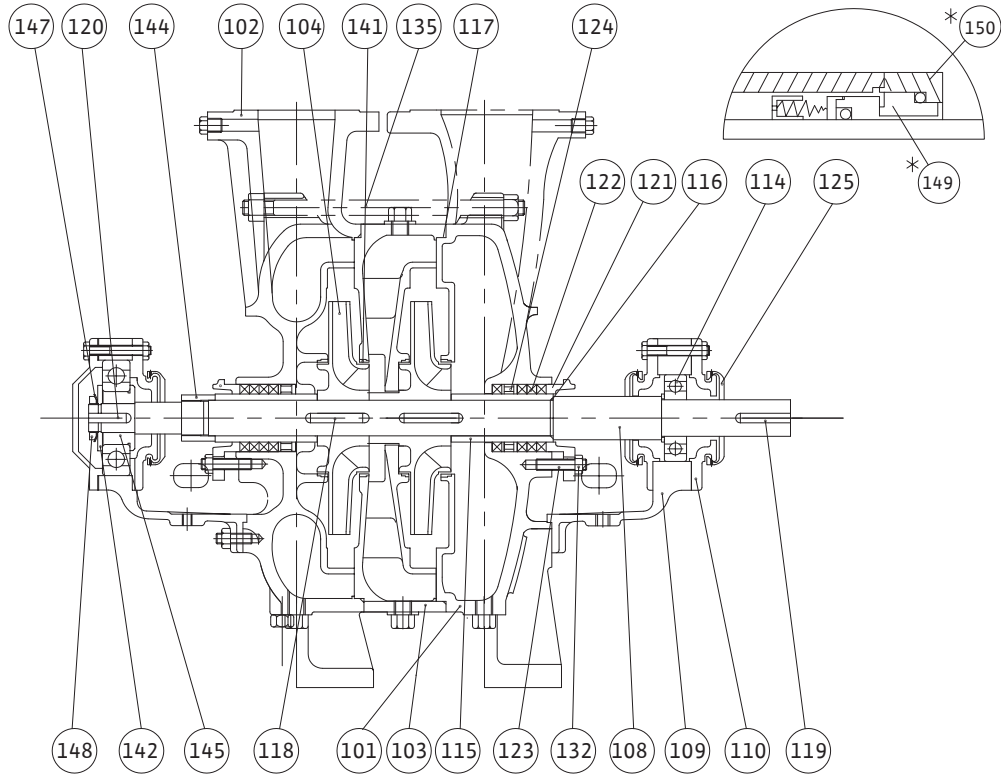
Multi-Stage Pumps

Ring Section Pumps

wilo

PMT-12, PMV-80, 10, 12, 15 Series 단면도

단면도



품번	품명	재질	수량
101	흡입케이싱 (SUCTION CASING)	GC200	1
102	토출케이싱(DISCHARGE CASING-GUIDE VANE 일체)	GC200	1
103	중간케이싱(MIDDLE CASING-GUIDE VANE 일체)	GC200	S-1
104	임펠러 (IMPELLER)	GC200	5
108	축 (SHAFT)	SM45C	1
109	베어링 하우징 (BEARING HOUSING)	GC200	2
110	베어링 커버 (BEARING COVER)	GC200	4
114	볼 베어링 (BALL BEARING)	STB2	2
115	슬리브 (SLEEVE)	STS304	2
116	슬리브오링 (SLEEVE O-RING)	NBR	1
117	케이싱오링 (CASING O-RING)	NBR	5
118	임펠러키 (IMPELLER KEY)	SM45C	5
119	커플링키 (COUPLING KEY)	SM45C	1
120	아답터키 (ADAPTER KEY)	SM45C	1
121	글랜드 (GLAND)	GC200	2

품번	품명	재질	수량
122	글랜드 패킹 (GLAND PACKING)	FABRIC	8
123	글랜드 볼트 (GLAND BOLT)	STS304	4
124	랜턴링 (LANTERN RING)	BC6	2
125	물막음턱 (DEFLECTOR)	NBR	3
132	육각너트 (HEX NUT)	C3602BD	4
135	조임 볼트 (TIE BOLT)	SM45C	8
141	케이싱링 (CASING RING)	BC6	2+(S-1)x2
142	그리스칼라 (GREASE COLLAR)	SS400	1
144	축너트 (SHAFT NUT)	BC6	1
145	아답터 (ADAPTER)	SM45C	1
146	감압관 (REDUCING PIPE)	C1100T	1
147	로크와셔 (LOCK WASHER)	SS400	1
148	로크너트 (LOCK NUT)	SM30C	1
*149	미캐니컬 실 (MECHANICAL SEAL)		2
*150	미캐니컬 실 커버 (M/SEAL COVER)	SM45C	2

*: 선택부품 (Option Parts)

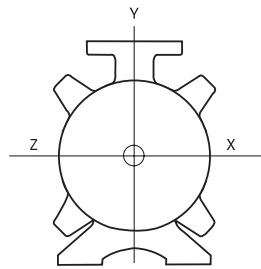
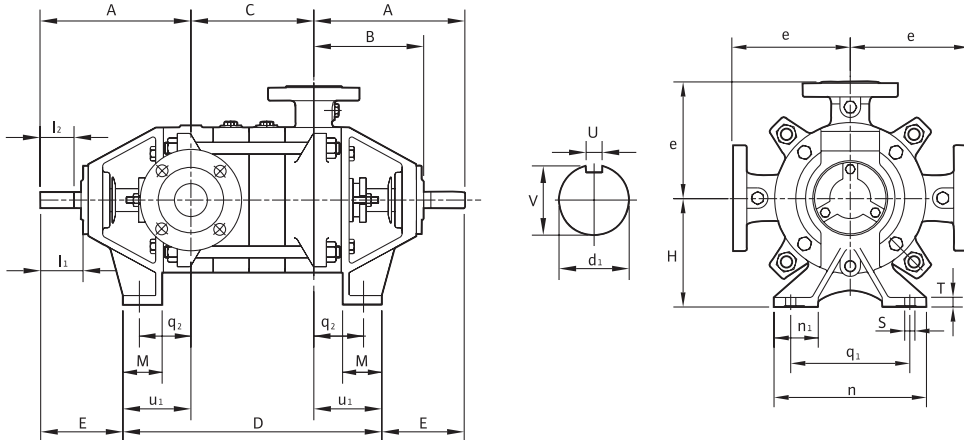
Multi-Stage Pumps

Ring Section Pumps

PMT-40, 50, 65 Series

외형도 및 치수-Bare Shaft Pump

외형도



커플링 측에서 본 단면

흡·토출구의 방향		
구분	표준품	비표준품
흡입측	X	Y, Z
토출측	Y	X, Z

※단, 비표준품은 주문시 별도요청 필요

*S=단수

MODEL	PUMP(mm)															SHAFT(mm)				
	A	B	C	D	E	e	H	M	n	n ₁	q ₁	q ₂	S	T	u ₁	d ₁	l ₁	l ₂	V	U
PMT - 40	231	168	78+55(S-1)	286+55(S-1)	127	174	160	60	224	65	175	79	15	14	104	24	63	52	27	8
PMT - 50	240	180	89+62(S-1)	313+62(S-1)	128	190	160	60	250	65	200	87	15	16	112	29	60	52	32	8
PMT - 65	257	195	109+71(S-1)	345+71(S-1)	139	215	180	60	290	75	240	93	15	16	118	34	62	52	37	10

단수의 변경에 따라 변경되는 치수

MODEL	BORE(mm)		단수에 따른 C치수(mm)											
	Suc.	Dis.	1	2	3	4	5	6	7	8	9	10	11	12
PMT - 40	50	40	78	133	188	243	298	353	408	463	518	573	628	683
PMT - 50	65	50	89	151	213	275	337	399	461	523	585			
PMT - 65	80	65	109	180	251	322	393	464	535					

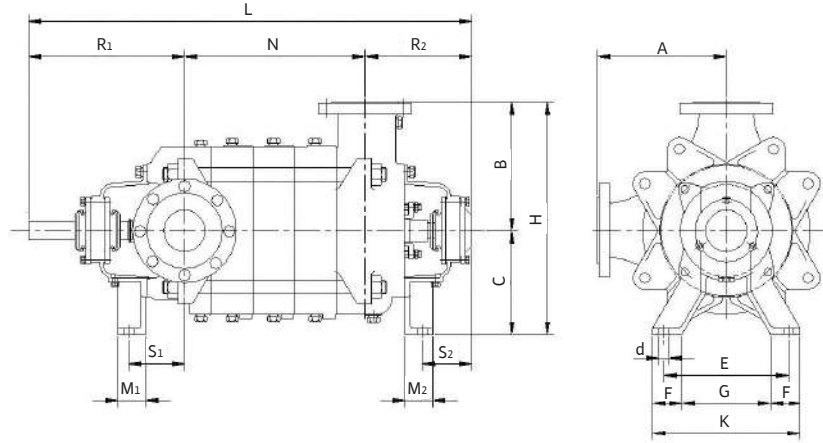
Multi-Stage Pumps

Ring Section Pumps



PMT 80, 10 Series 외형도 및 치수-Bare Shaft Pump

외형도



※ 외형도는 PMT-10 Series

치수																				
MODEL	BORE(mm)		PUMP(mm)																WEIGHT (kg)	
	Suc.	Dis.	R ₁	N	R ₂	L	B	C	H	M ₁	M ₂	S ₁	S ₂	A	E	F	G	K		d
PMT - 8002	100	80	360	210	237	807	275	250	525	66	66	132.5	114	265	300	71	213	355	24	175
PMT - 8003				297		894														210
PMT - 8004				384		981														245
PMT - 8005				471		1068														280
PMT - 8006				558		1155														315
PMT - 8007				645		1242														350
PMT - 8008				732		1329														385
PMT - 8010				906		1503														455
PMT - 8012				1080		1677														525
PMT - 1002				125		100														376
PMT - 1003	335	968	230																	
PMT - 1004	435	1068	280																	
PMT - 1005	535	1168	330																	
PMT - 1006	635	1268	380																	
PMT - 1007	735	1368	430																	
PMT - 1008	835	1468	480																	

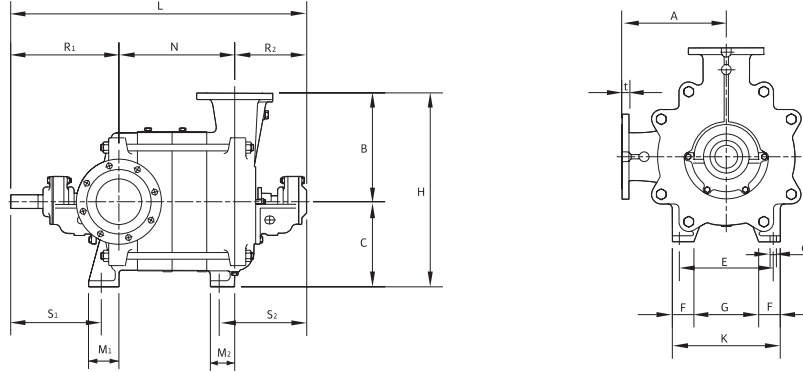
Multi-Stage Pumps

Ring Section Pumps

PMT - 12, PMV - 80, 10, 12, 15 Series

외형도 및 치수-Bare Shaft Pump

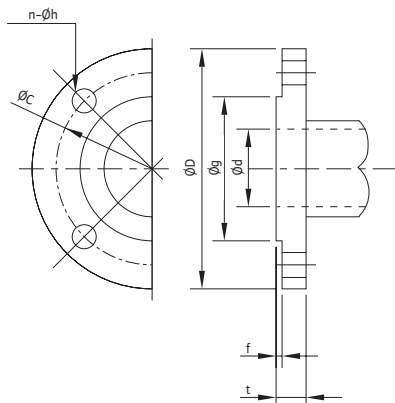
외형도



치수

MODEL	BORE(mm)		PUMP(mm)																	WEIGHT (kg)	
	Suc.	Dic.	R ₁	N	R ₂	L	B	C	H	M ₁	M ₂	S ₁	S ₂	t	A	E	F	G	K		d
PMV - 8002	100	80	319	194	232	743	320	280	600	80	264	287	24	270	300	71	213	355	24	140	
PMV - 8003	100	80	319	284	232	835	320	280	600	80	264	287	24	270	300	71	213	355	24	190	
PMV - 8004	100	80	328	371	232	931	320	280	600	80	273	287	24	270	300	71	213	355	24	240	
PMV - 8005	100	80	328	458	232	1018	320	280	600	80	273	287	24	270	300	71	213	355	24	290	
PMV - 8006	100	80	328	545	232	1105	320	280	600	80	273	287	24	270	300	71	213	355	24	340	
PMV - 1002	125	100	314	220	232	766	355	280	635	80	259	287	24	330	300	71	213	355	24	160	
PMV - 1003	125	100	322	314	232	868	355	280	635	80	267	287	24	330	300	71	213	355	24	220	
PMV - 1004	125	100	341	408	232	981	355	280	635	80	286	287	24	330	300	71	213	355	24	280	
PMV - 1005	125	100	351	502	232	1085	355	280	635	80	297	287	24	330	300	71	213	355	24	340	
PMV - 1006	125	100	351	596	232	1179	355	280	635	80	297	287	24	330	300	71	213	355	24	400	
PMV - 1202	150	125	356	267	241	864	360	280	640	100	80	281	296	26	340	300	71	213	355	24	280
PMV - 1203	150	125	356	381	241	978	360	280	640	100	80	281	296	26	340	300	71	213	355	24	360
PMV - 1204	150	125	356	495	241	1092	360	280	640	100	80	281	296	26	340	300	71	213	355	24	440
PMV - 1205	150	125	386	609	261	1256	360	280	640	100	80	311	316	26	340	300	71	213	355	24	520
PMT - 1202	150	125	391	283	272	946	375	310	685	100	90	306	337	26	375	380	95	270	460	24	290
PMT - 1203	150	125	391	398	272	1061	375	310	685	100	90	306	337	26	375	380	95	270	460	24	375
PMT - 1204	150	125	391	513	272	1176	375	310	685	100	90	306	337	26	375	380	95	270	460	24	460
PMV - 1502	200	150	431	350	297	1078	425	375	800	120	361	367	26	425	400	100	300	500	24	480	
PMV - 1503	200	150	431	495	297	1223	425	375	800	120	361	367	26	425	400	100	300	500	24	620	

KS FLANGE 외형치수



외형치수도

구분	구경(ød)	øD	t	f	øg	øC	n	øh	볼트	
10kgf/cm ² (흡입FLANGE)	40	140	20	2	81	105	4	19	M16	
	50	155	20	2	96	120	4	19	M16	
	65	175	22	2	116	140	4	19	M16	
	80	185	22	2	126	150	8	19	M16	
	100	210	24	2	151	175	8	19	M16	
	125	250	24	2	182	210	8	23	M20	
	150	280	26	2	212	240	8	23	M20	
	200	330	26	2	262	290	12	23	M20	
16kgf/cm ² (흡입FLANGE)	250	400	30	2	324	355	12	25	M22	
	100	225	26	2	160	185	8	23	M20	
	125	270	26	2	195	225	8	25	M22	
	150	305	28	2	230	260	12	25	M22	
	20kgf/cm ² (토출FLANGE)	40	140	22	2	81	105	4	19	M16
		50	155	22	2	96	120	4	19	M16
		65	175	24	2	116	140	8	19	M16
		80	200	26	2	135	160	8	23	M20
100		225	28	2	160	185	8	23	M20	
125		270	30	2	195	225	8	25	M22	
150		305	32	2	230	260	12	25	M22	
200		350	34	2	275	305	12	25	M22	
40kgf/cm ² (흡입FLANGE)	250	430	38	2	345	380	12	27	M24	
	80	210	32	2	140	170	8	23	M20	
	100	250	36	2	165	205	8	25	M22	
	125	300	40	2	200	250	8	27	M24	

(단위:mm)

Multi-Stage Pumps

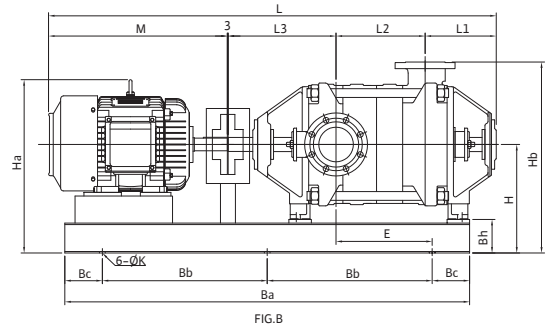
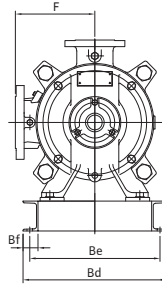
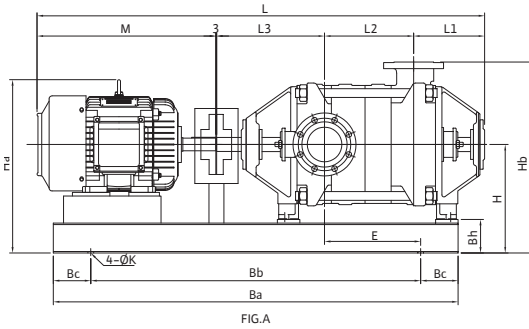
Ring Section Pumps



PMT - 40, 50, 65 Series

외형도 및 치수

외형도



치수																						
MODEL	FIG	MOTOR (kW)	PUMP & MOTOR(mm)										BED ASM(mm)							WEIGHT(kg)		
			L1	L2	L3	M	F	H	Ha	Hb	E	L	Ba	Bd	Bh	Bb	Bc	Be	Bf	K	P·B	P·B·M
PMT-4002	A	1.5	168	133	231	318	174	245	341	419	97.5	853	800	280	85	500	150	245	40	15	96	121
	A	2.2	168	133	231	382	174	245	388	419	97.5	917	850	280	85	550	150	245	40	15	98	132
	A	3.7	168	133	231	395	174	245	407	419	97.5	930	800	280	85	500	150	245	40	15	100	145
PMT-4003	A	2.2	168	188	231	382	174	245	388	419	127.5	972	900	280	85	550	175	245	40	15	108	142
	A	3.7	168	188	231	395	174	245	407	419	147.5	985	850	300	85	550	150	265	40	15	114	159
	A	5.5	168	188	231	447	174	245	424	419	122.5	1037	900	300	85	550	175	265	40	15	116	184
PMT-4004	A	3.7	168	243	231	395	174	245	407	419	180.5	1040	900	300	85	550	175	265	40	15	126	171
	A	5.5	168	243	231	447	174	245	424	419	155.5	1092	1000	300	85	600	200	265	40	15	129	197
	A	7.5	168	243	231	486	174	245	424	419	155.5	1131	1000	300	85	600	200	265	40	15	129	211
PMT-4005	A	3.7	168	298	231	395	174	245	407	419	212	1095	1000	270	85	600	200	235	40	15	136	181
	A	5.5	168	298	231	447	174	245	424	419	185	1147	1050	300	85	600	225	265	40	15	141	209
	A	7.5	168	298	231	486	174	245	424	419	185	1186	1050	300	85	600	225	265	40	15	141	223
PMT-4006	B	3.7	168	353	231	395	174	245	407	419	340	1150	1050	300	85	400	125	265	40	15	139	184
	B	5.5	168	353	231	447	174	245	424	419	315	1202	1100	300	85	400	150	265	40	15	153	221
	B	7.5	168	353	231	486	174	245	424	419	315	1241	1100	300	85	400	150	265	40	15	153	235
PMT-4007	B	5.5	168	408	231	447	174	245	424	419	403	1257	1150	300	85	450	125	265	40	15	160	228
	B	7.5	168	408	231	486	174	245	424	419	403	1296	1150	300	85	450	125	265	40	15	160	242
	B	11	168	408	231	595	174	270	482	444	378	1405	1300	320	110	500	150	275	50	19	179	296
PMT-4008	B	15	168	408	231	639	174	270	482	444	378	1449	1300	320	110	500	150	275	50	19	179	319
	B	5.5	168	463	231	447	174	245	424	419	425	1312	1200	280	85	450	150	245	40	15	174	242
	B	7.5	168	463	231	486	174	245	424	419	425	1351	1200	280	85	450	150	245	40	15	174	256
PMT-4009	B	11	168	463	231	595	174	270	482	444	465	1460	1350	320	110	550	125	275	50	19	191	308
	B	15	168	463	231	639	174	270	482	444	465	1504	1350	320	110	550	125	275	50	19	191	331
	B	5.5	168	518	231	447	174	270	449	444	505	1367	1250	300	110	500	125	255	50	19	193	261
PMT-4009	B	7.5	168	518	231	486	174	270	449	444	505	1406	1250	300	110	500	125	255	50	19	193	275
	B	11	168	518	231	595	174	270	482	444	482	1515	1400	320	110	550	150	275	50	19	199	316
	B	15	168	518	231	639	174	270	482	444	482	1559	1400	320	110	550	150	275	50	19	199	339

※MOTOR측 치수는 MOTOR 제조업체에 따라 달라질 수 있음 (하이젠 모터 기준 치수)

P·B: 모터제외중량/P·B·M: 모터포함중량

Multi-Stage Pumps

Ring Section Pumps

Multi-Stage Pump

기술 DATA

General Data

MODEL	Suc.Size	Dis.Size	Max. Working Pressure	Casing Thickness	Wearing Ring	
					Impeller Ring	Casing Ring
PMT-40	50	40	28 kgf/cm ²	8	No	No
PMT-50	65	50	28 kgf/cm ²	8	No	No
PMT-65	80	65	28 kgf/cm ²	8	No	No
PMT-80	100	80	20(28) kgf/cm ²	14	No	2EA x Number of Stage
PMT-10	125	100	20(28) kgf/cm ²	16	No	2EA x Number of Stage
PMT-12	150	125	18(24) kgf/cm ²	16	No	2EA x Number of Stage
PMV-80	100	80	18(25) kgf/cm ²	14	No	2EA x Number of Stage
PMV-10	125	100	18(24) kgf/cm ²	14	No	2EA x Number of Stage
PMV-12	150	125	18(21) kgf/cm ²	14	No	2EA x Number of Stage
PMV-15	200	150	18(24) kgf/cm ²	16	No	2EA x Number of Stage

Impeller Data

MODEL	Max.Dia.	Min. Dia.	Eye Dia.	No. of Vane	Max. Stage			
					50Hz		60Hz	
					4Pole	2Pole	4Pole	2Pole
PMT-40	161	130	70	6	12	11	12	8
PMT-50	181	155	80	6	9	9	9	6
PMT-65	206	165	100	6	7	7	7	4
PMT-80	225	180	112	7	12	3	12	3
PMT-10	269	200	138	7	8	2	8	2
PMT-12	320	260	165	5	5	-	4	-
PMV-80	266	206	102	5	6	-	6	-
PMV-10	286	246	120	5	6	-	6	-
PMV-12	310	280	152	5	4	-	4	-
PMV-15	400	320	180	5	4	-	3	-

Stuffing Box and Bearing Housing Data

MODEL	Stuffing Box Size (BorexLength)	O.D of Shaft Sleeve (PTO)	Packing Size (WxHxL)	Bearing No.	Size of Key at Coupling	Shaft Diameter			
						At Impeller	At Stuff. Box	At Coupling	At Bearing
PMT-40	ø51x45	ø35(40)	8x8x143	6305zzC3	8x7x36	ø25	ø25	ø24	ø25
PMT-50	ø56x55	ø40(45)	8x8x167	6306zzC3	8x7x45	ø30.5	ø30.5	ø29	ø30
PMT-65	ø65x55	ø45(50)	10x10x184	6307zzC3	10x8x45	ø35.5	ø35.5	ø34	ø35
PMT-80	ø70x60	ø50(55)	10x10x199	Drive:6308zzC3 End:6311zzC3	12x8x50	ø40	ø40	ø40	Drive:ø40 End:ø30
PMT-10	ø75x62	ø55(60)	10x10x215	Drive:6309zzC3 End:6311zzC3	14x9x68	ø45	ø45	ø45	Drive:ø45 End:ø30
PMT-12	ø85x80	ø60(65)	12.5x12.5x227	Drive:6311zzC3 End:7213B DB(2)	16x10x92	ø50	ø50	ø54	Drive:ø55 End:ø41
PMV-80 PMV-10	ø70x62	ø50(55)	10x10x199	Drive:6308zzC3 End:6311zzC3	10x8x50	ø37	ø37	ø38	Drive:ø40 End:ø30
PMV-12	ø75x62	ø55(60)	10x10x215	Drive:6310zzC3 End:6311zzC3	14x9x68	ø45	ø45	ø45	Drive:ø50 End:ø30
PMV-1205	ø75x62	ø55(60)	10x10x215	Drive:6310zzC3 End:5311C3	14x9x80	ø45	ø45	ø49	Drive:ø50 End:ø37
PMV-15	ø95x80	ø70(75)	12.5x12.5x260	Drive:6313zzC3 End:7313DB(2)	18x11x90	ø55	ø55	ø64	Drive:ø65 End:ø42

Multi-Stage Pumps

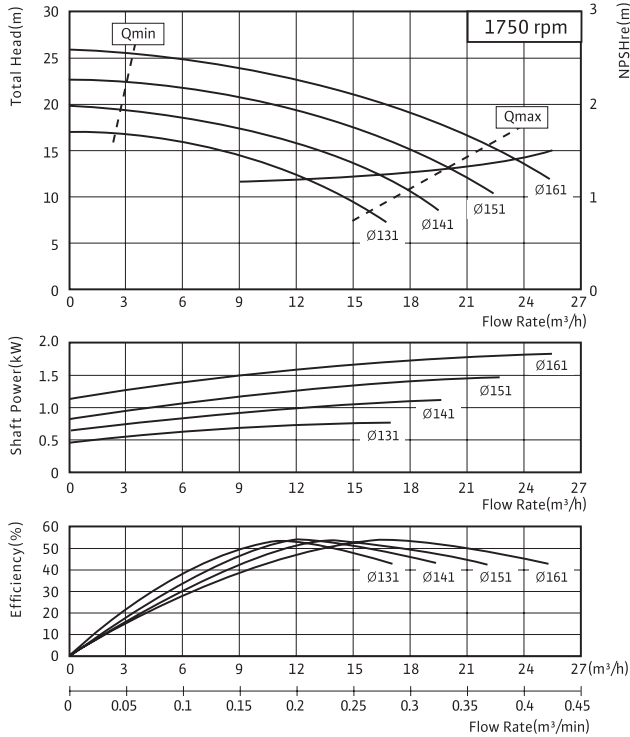
Ring Section Pumps



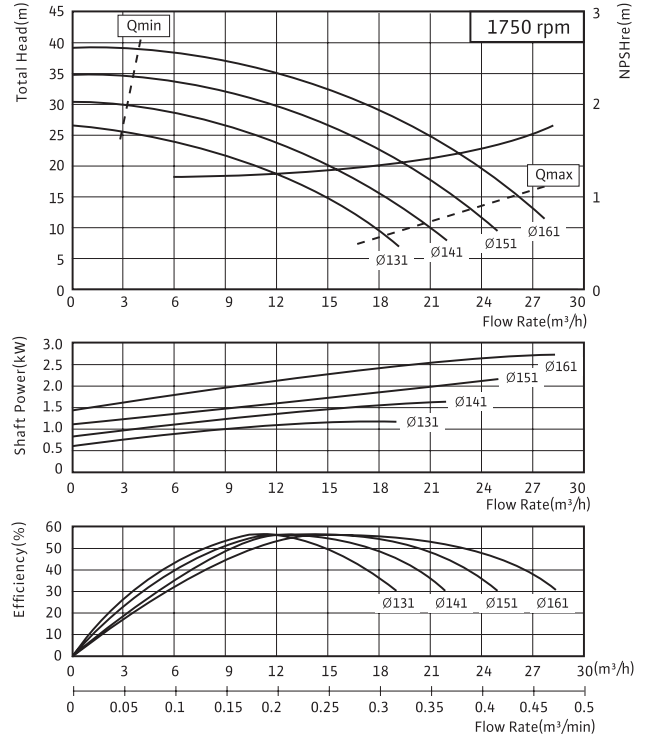
PMT- 4002 / 4003 / 4004 / 4005

성능곡선 4Pole

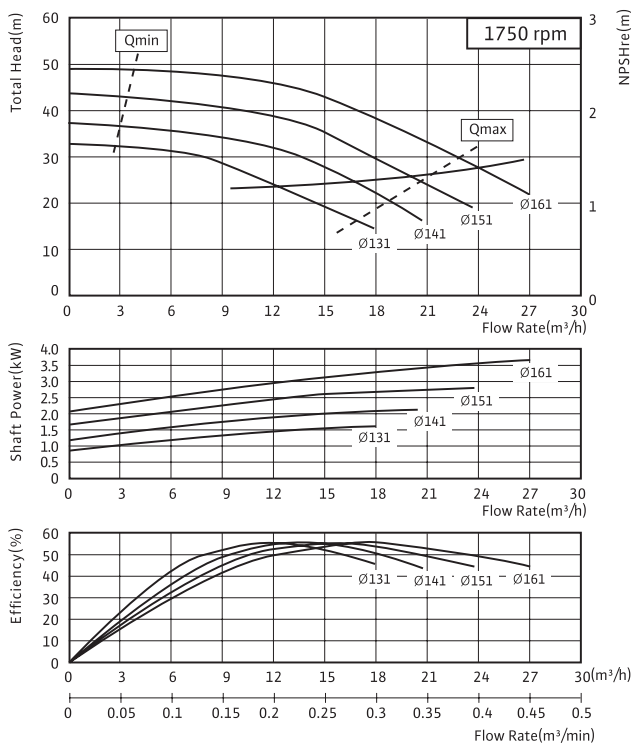
PMT - 4002



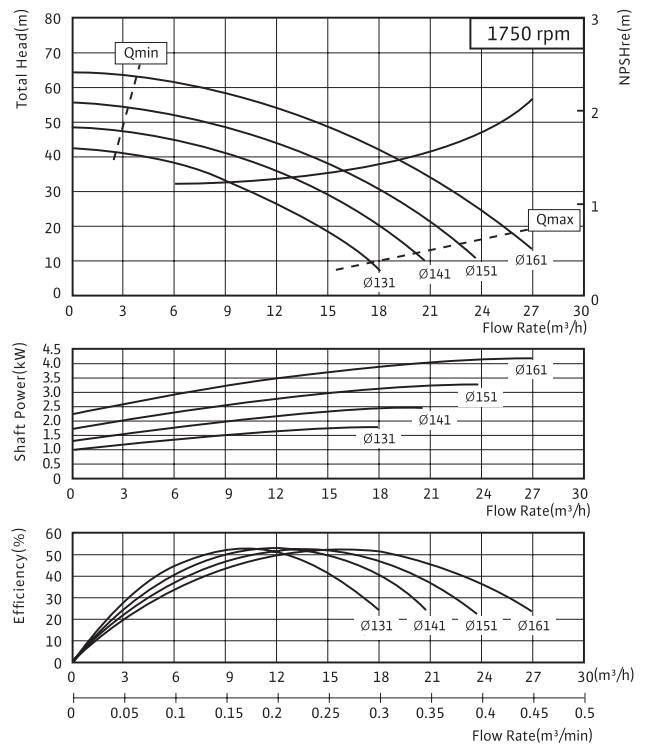
PMT - 4003



PMT - 4004



PMT - 4005



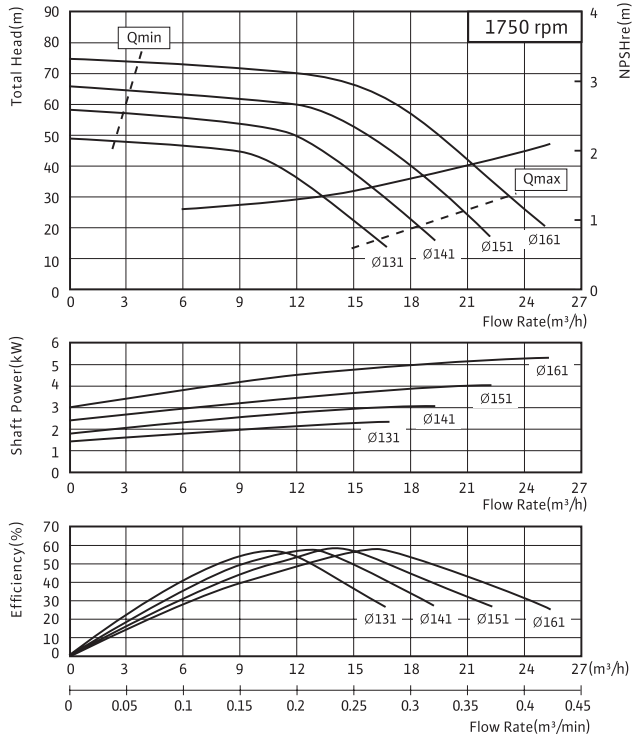
Multi-Stage Pumps

Ring Section Pumps

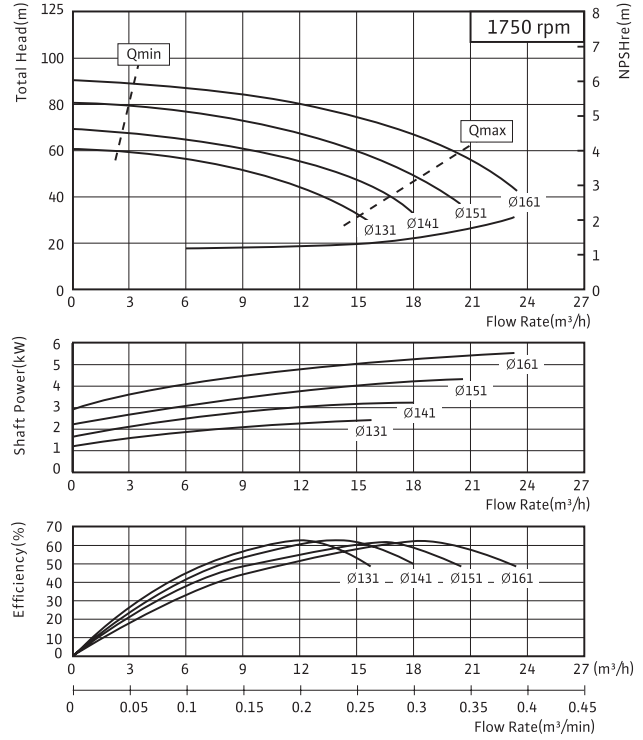
PMT - 4006 / 4007 / 4008 / 4009

성능곡선 4Pole

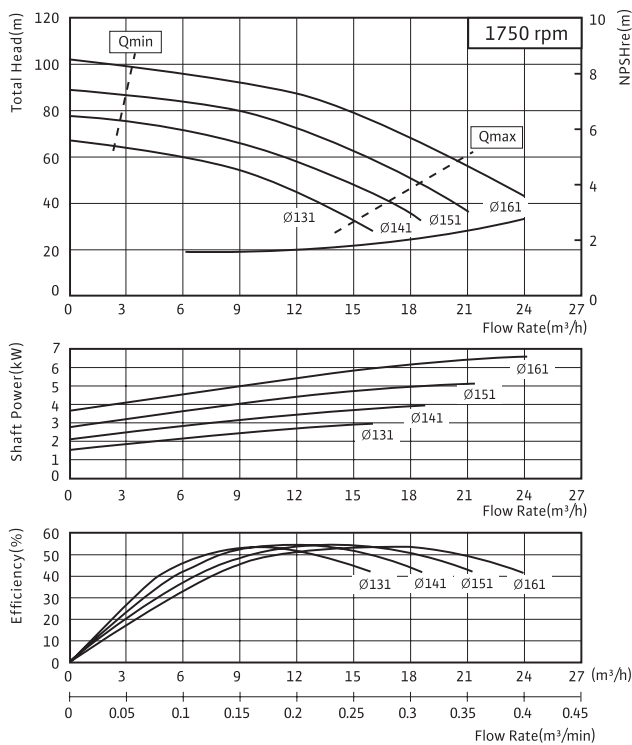
PMT - 4006



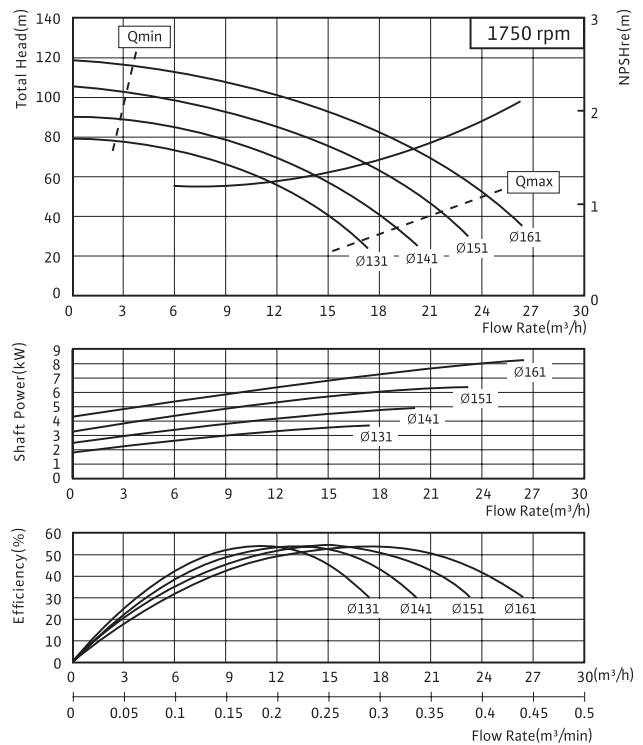
PMT - 4007



PMT - 4008



PMT - 4009



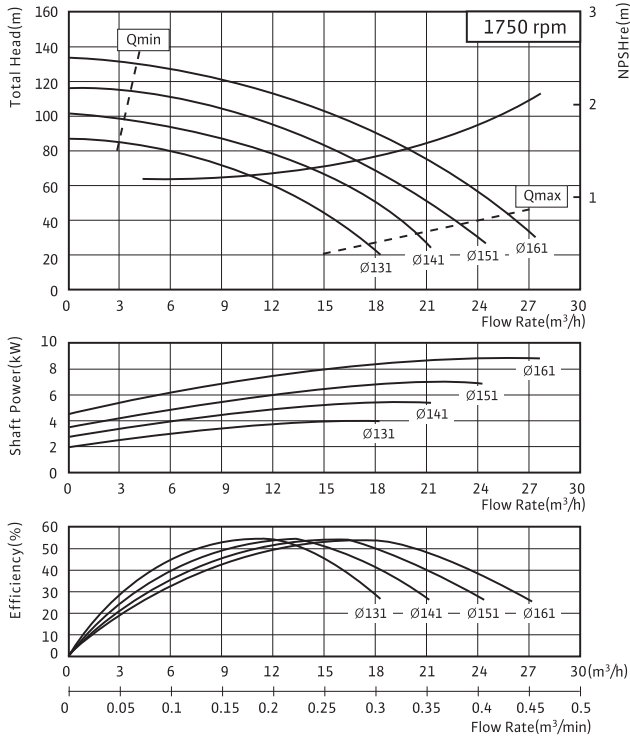
Multi-Stage Pumps

Ring Section Pumps

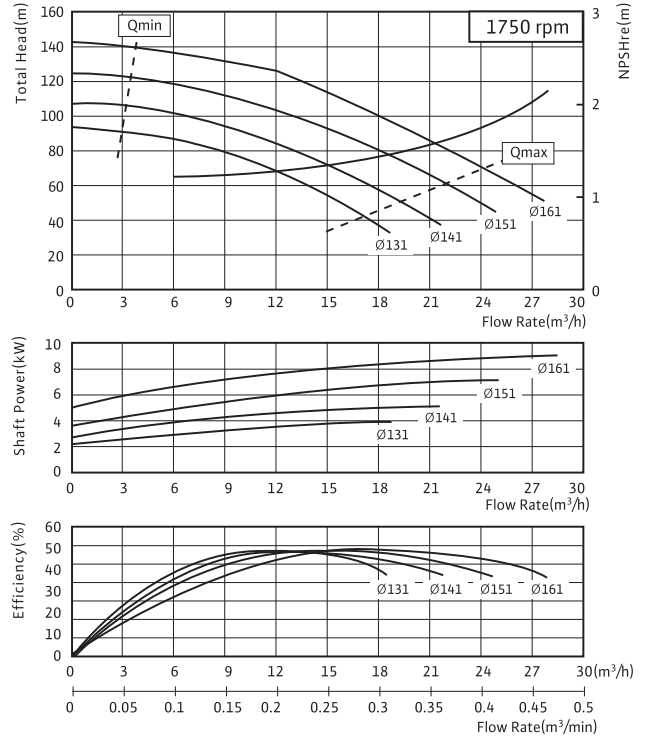


PMT- 4010 / 4011 / 4012 / 5002 성능곡선 4Pole

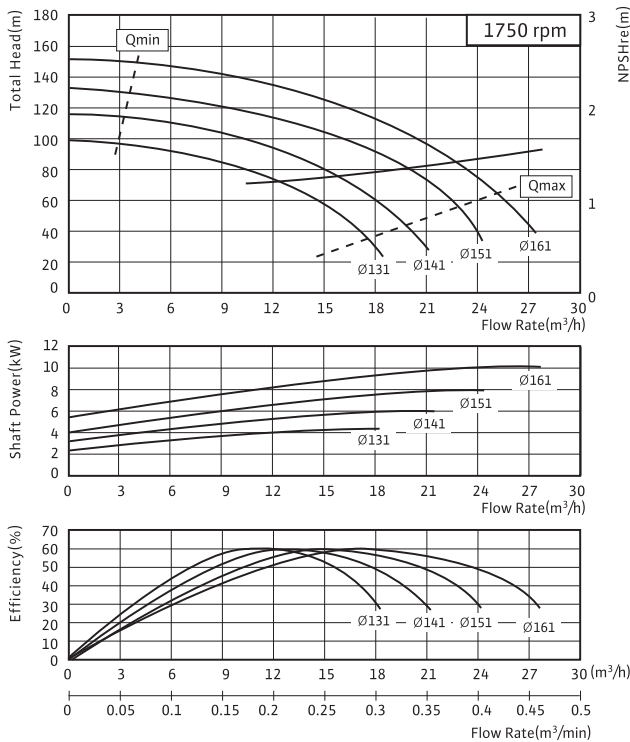
PMT - 4010



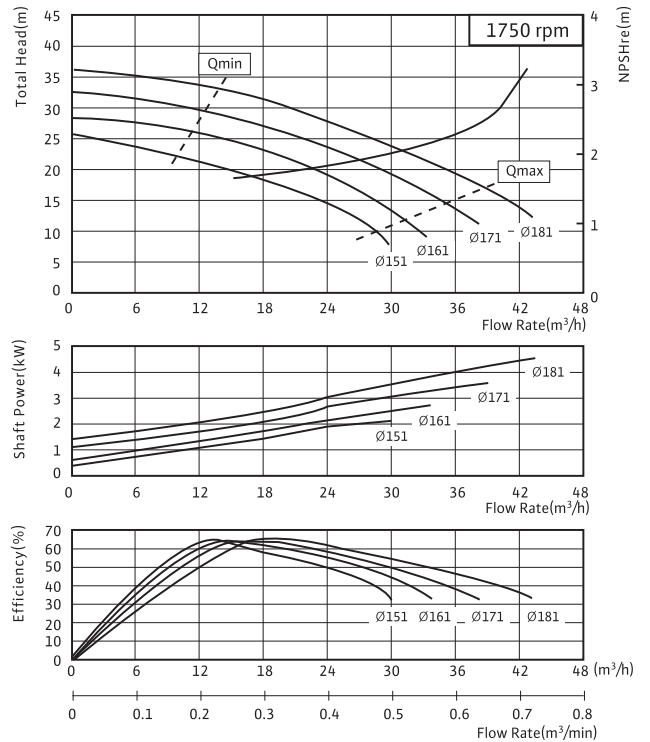
PMT - 4011



PMT - 4012



PMT - 5002



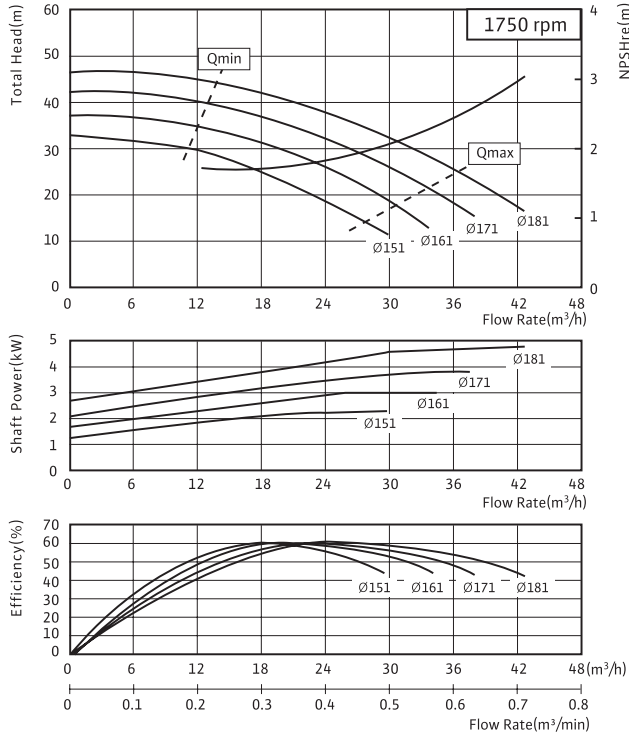
Multi-Stage Pumps

Ring Section Pumps

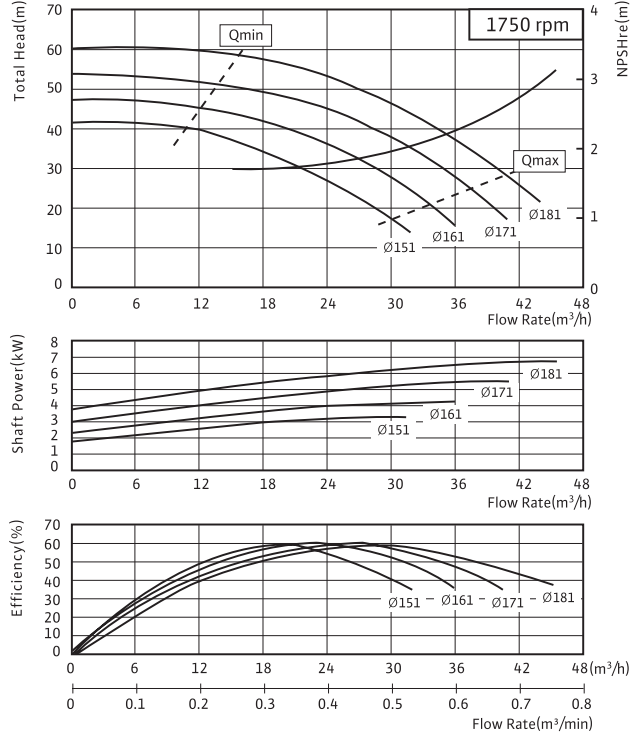
PMT - 5003 / 5004 / 5005 / 5006

성능곡선 4Pole

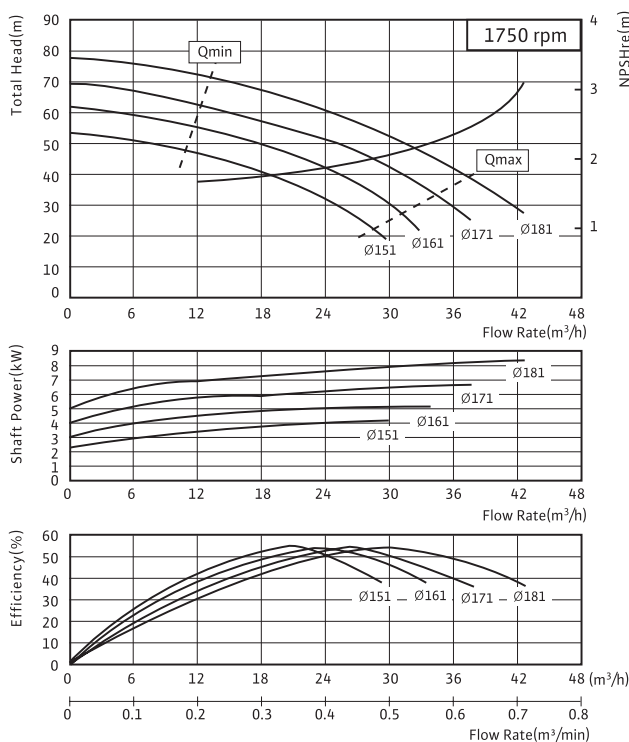
PMT - 5003



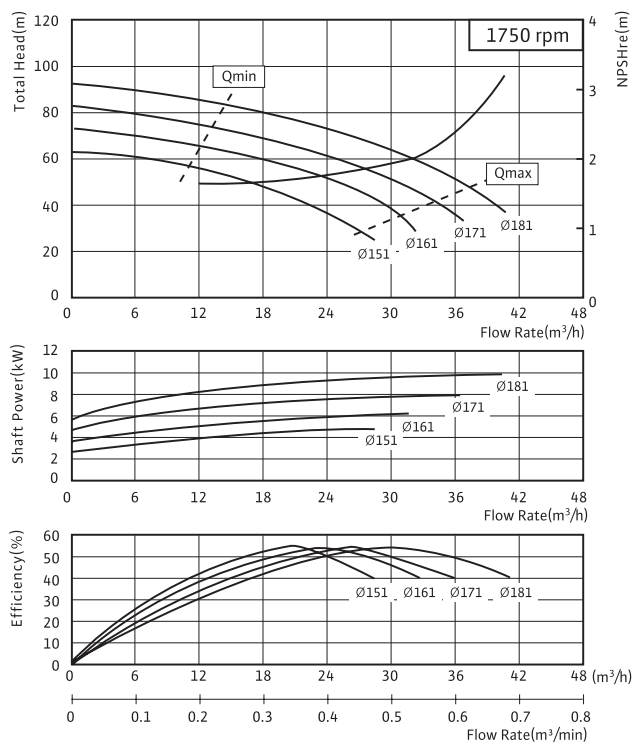
PMT - 5004



PMT - 5005



PMT - 5006



Multi-Stage Pumps

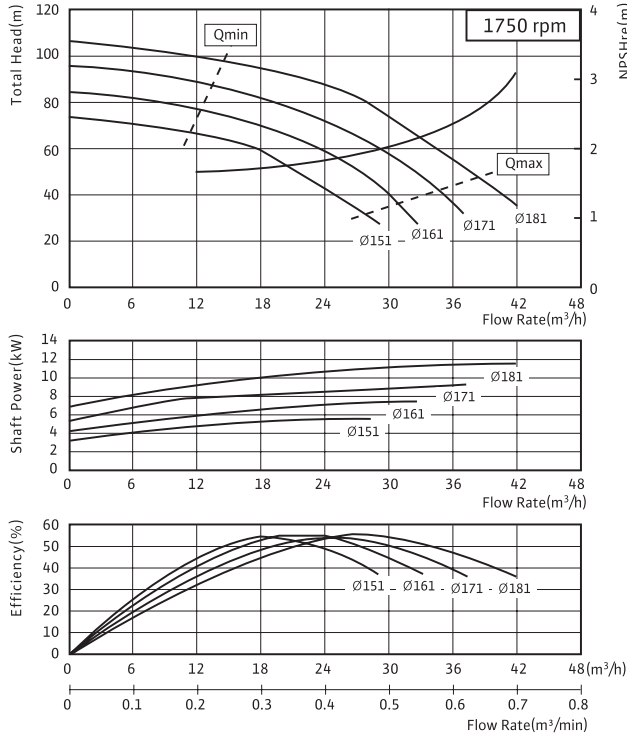
Ring Section Pumps



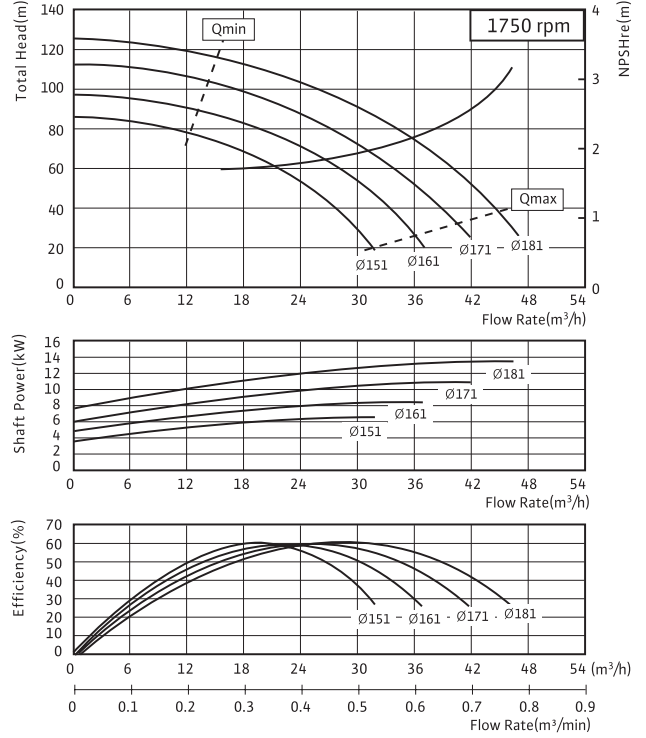
PMT- 5007 / 5008 / 5009 / 6502

성능곡선 4Pole

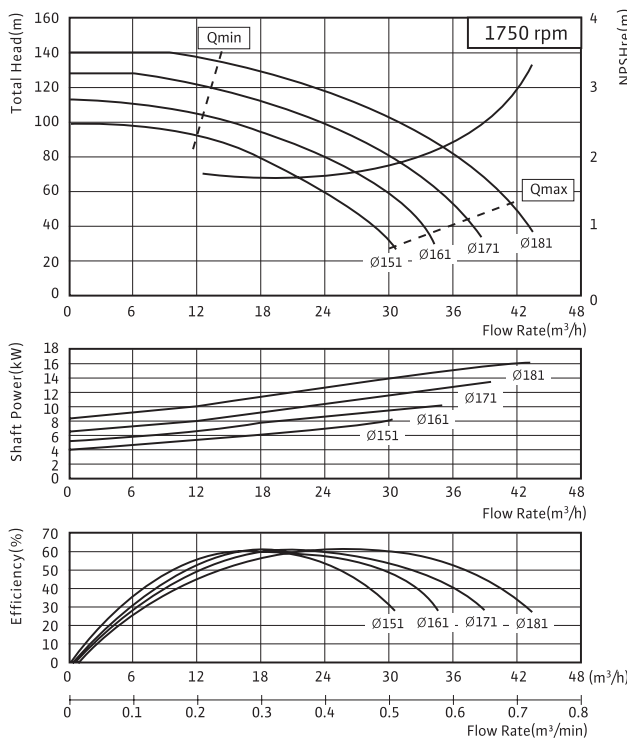
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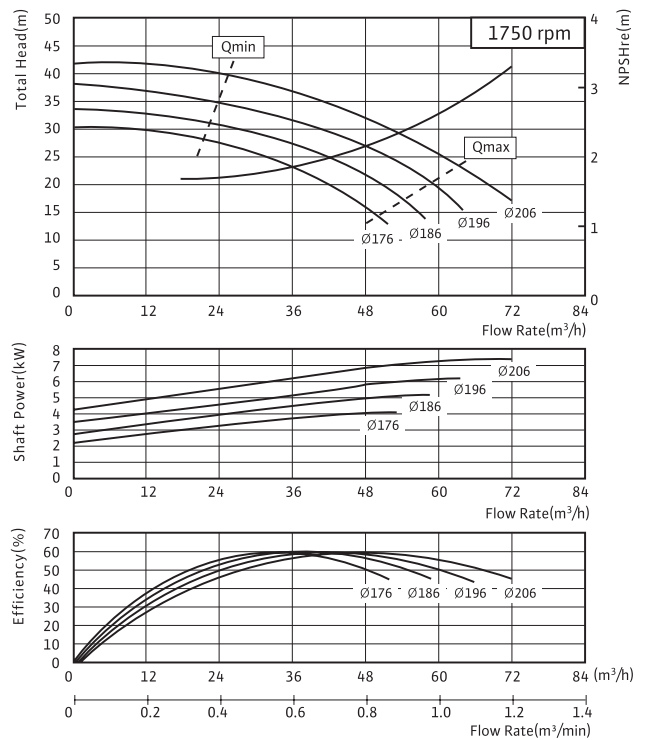
PMT - 5008



PMT - 5009



PMT - 6502



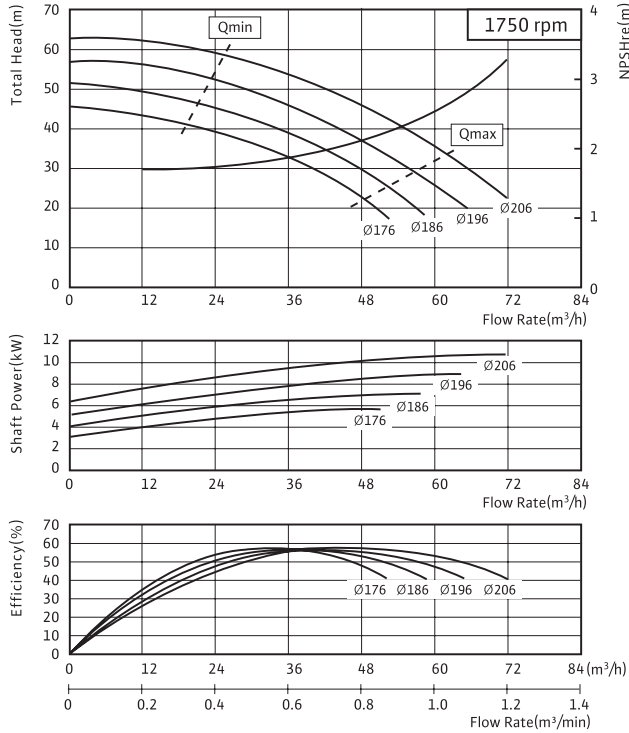
Multi-Stage Pumps

Ring Section Pumps

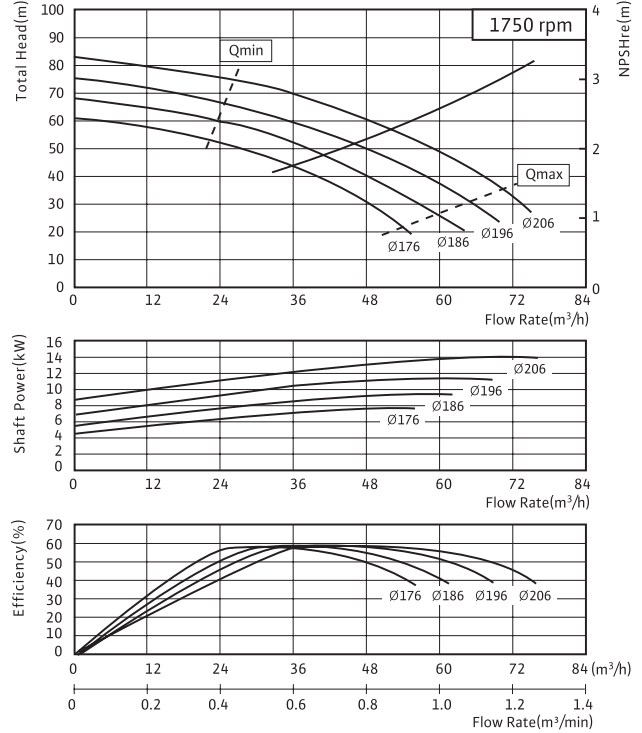
PMT - 6503 / 6504 / 6505 / 6506

성능곡선 4Pole

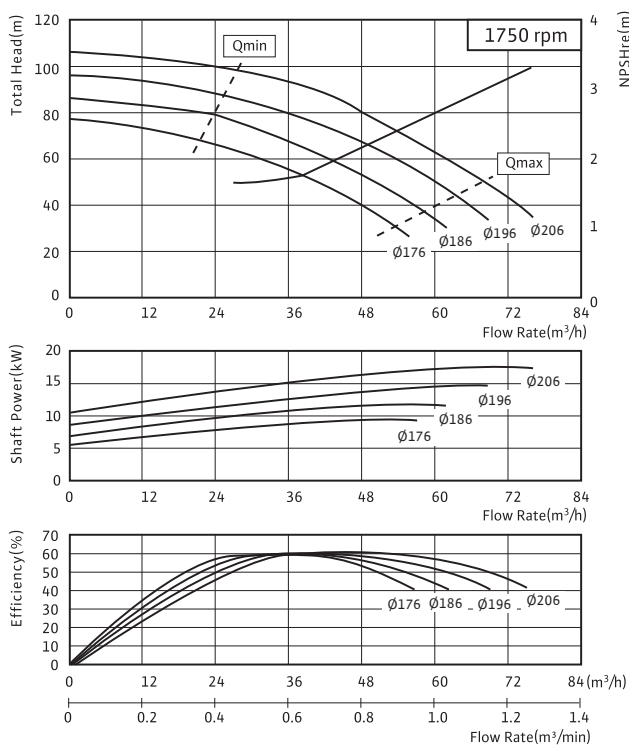
PMT - 6503



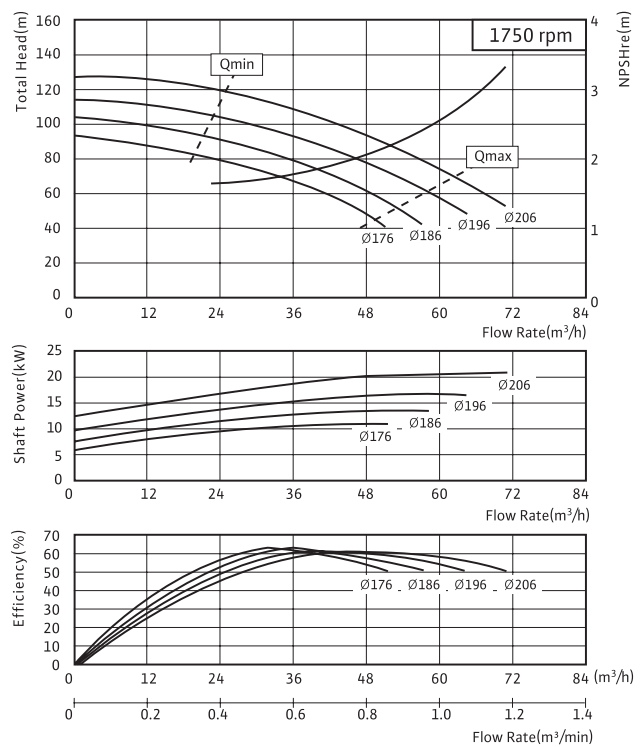
PMT - 6504



PMT - 6505



PMT - 6506



Multi-Stage Pumps

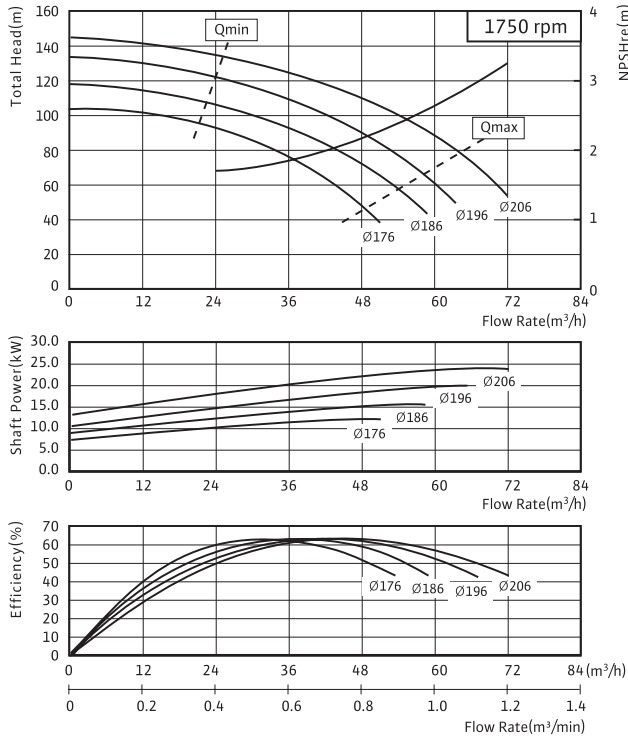
Ring Section Pumps



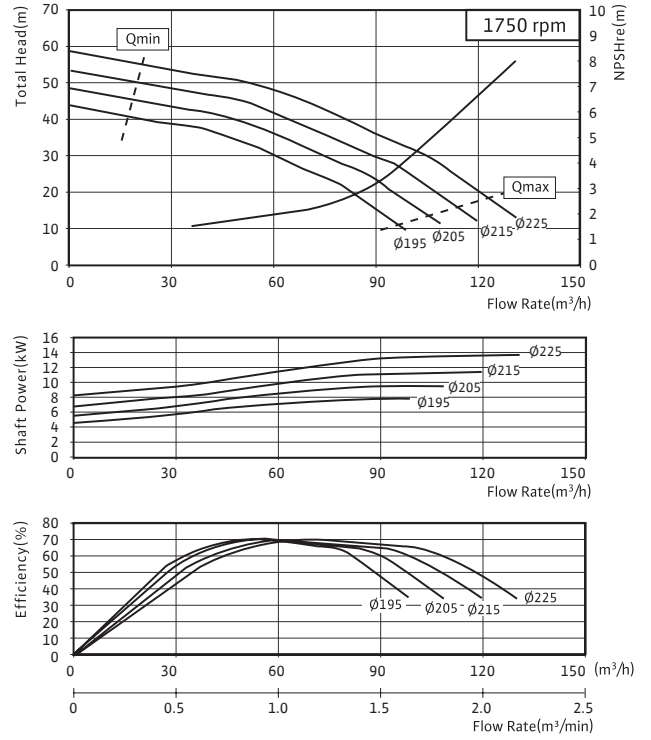
PMT - 6507 / 8002 / 8003 / 8004

성능곡선 4Pole

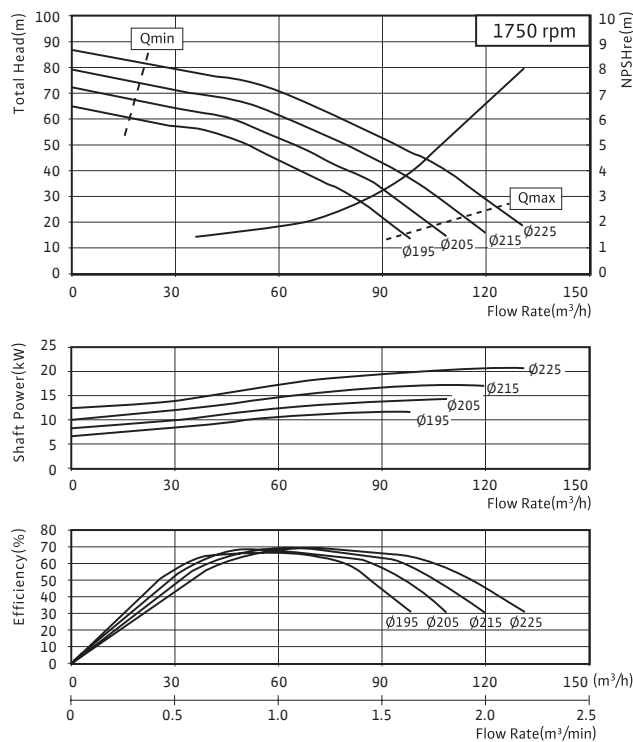
PMT - 6507



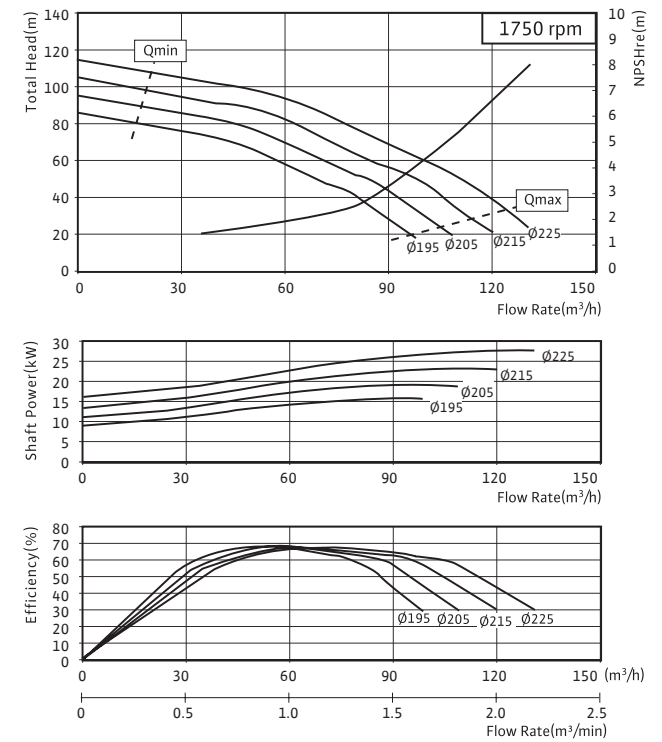
PMT - 8002



PMT - 8003



PMT - 8004



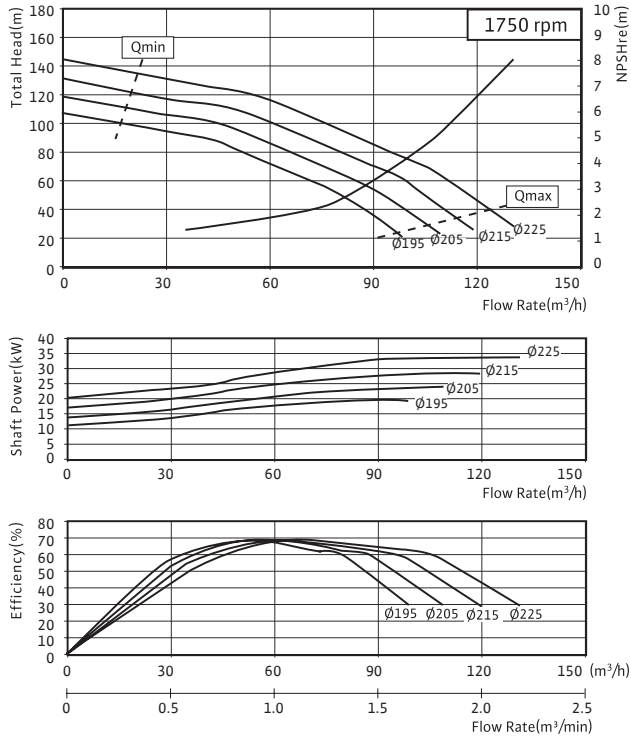
Multi-Stage Pumps

Ring Section Pumps

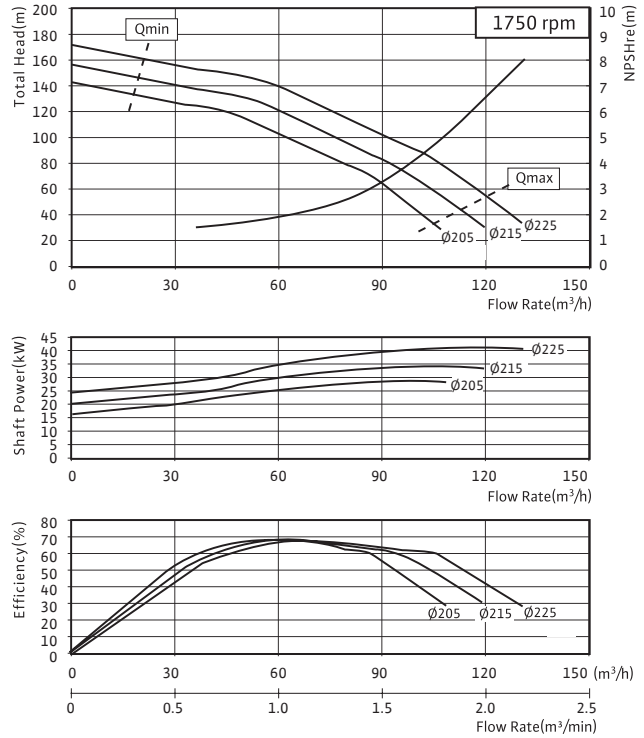
PMT - 8005 / 8006 / 8007 / 8008

성능곡선 4Pole

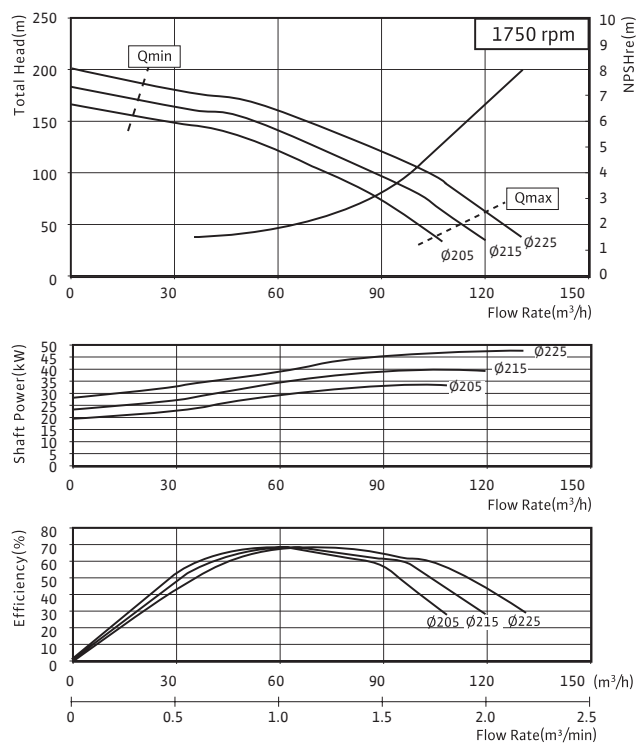
PMT - 8005



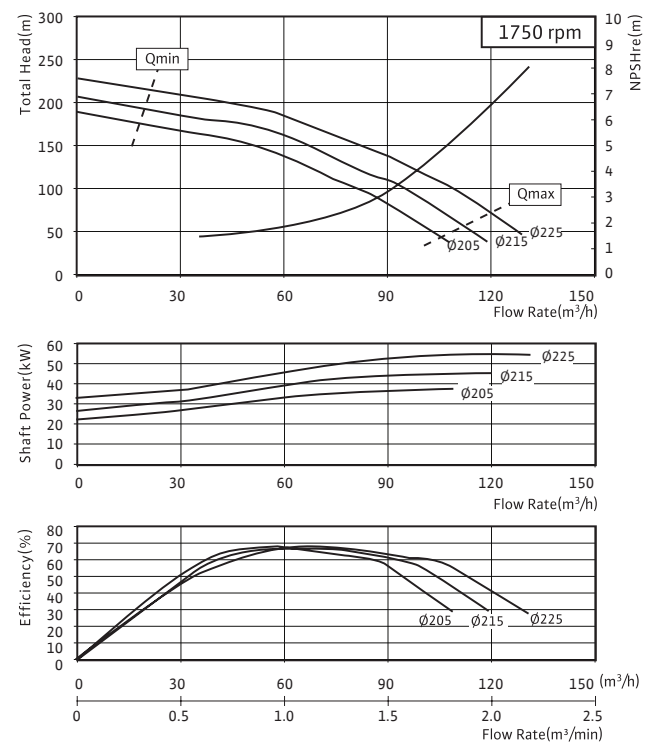
PMT - 8006



PMT - 8007



PMT - 8008



Multi-Stage Pumps

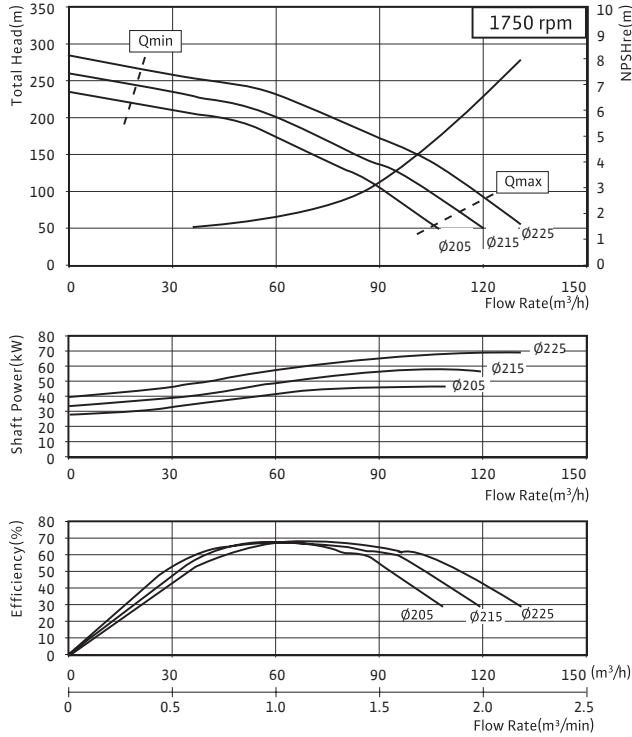
Ring Section Pumps



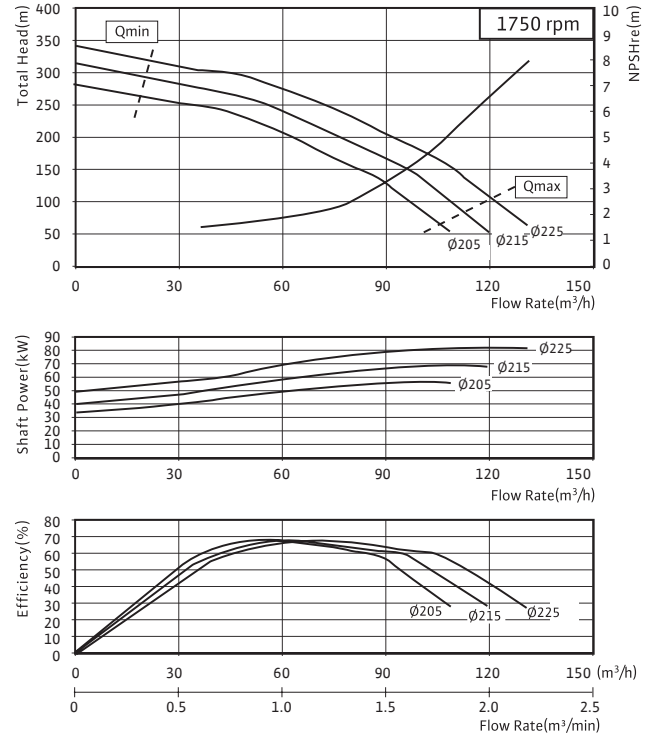
PMT- 8010 / 8012 / 1002 / 1003

성능곡선 4Pole

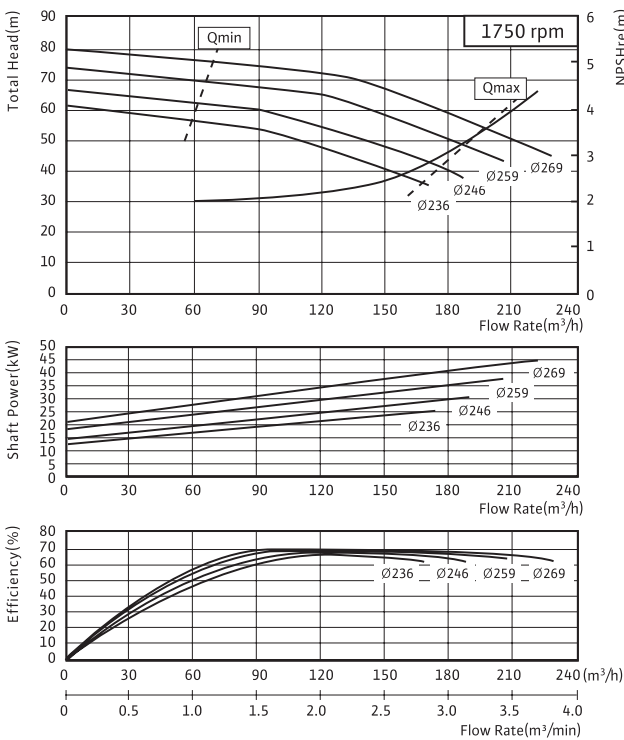
PMT - 8010



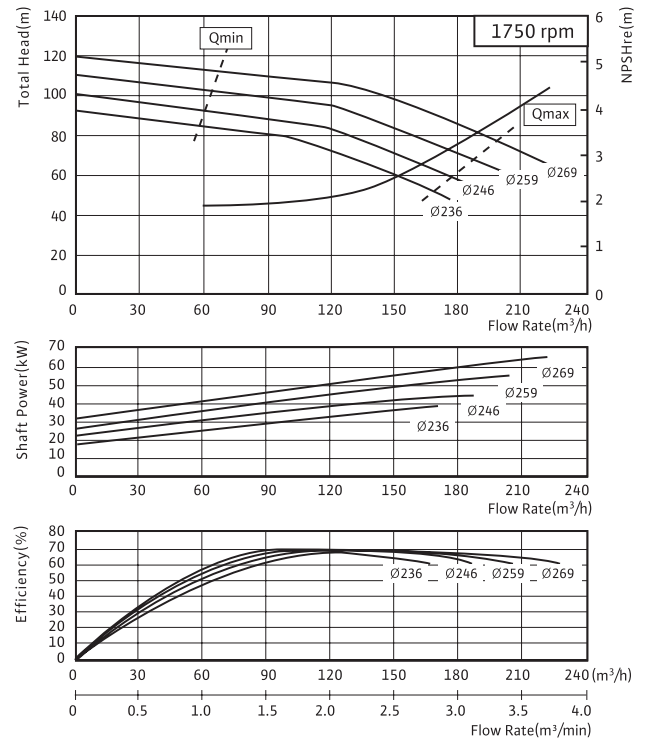
PMT - 8012



PMT - 1002



PMT - 1003



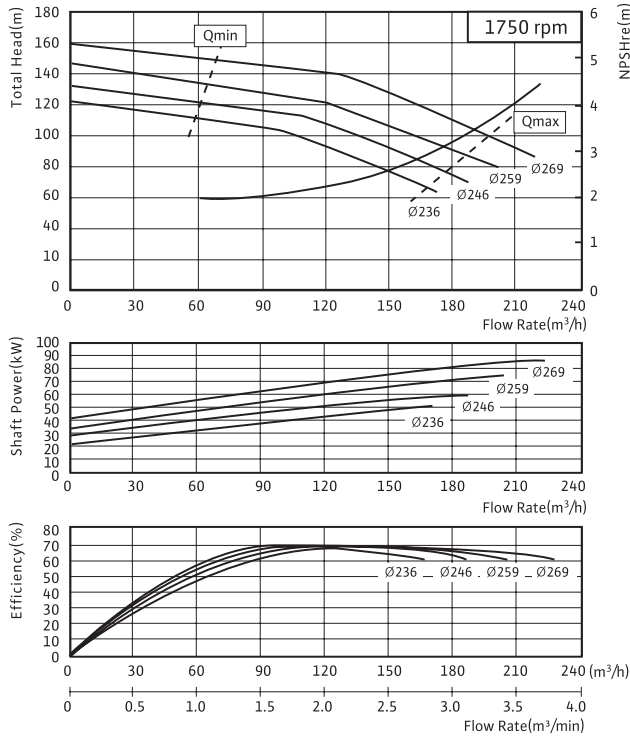
Multi-Stage Pumps

Ring Section Pumps

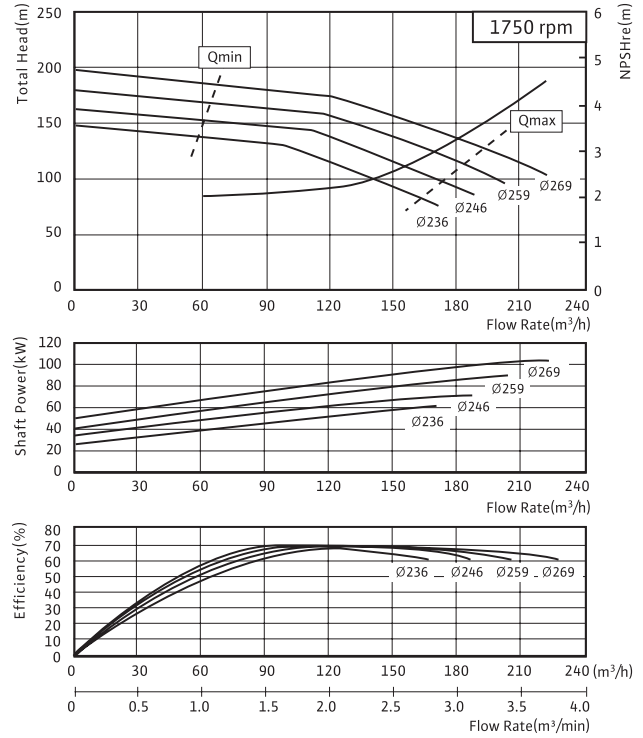
PMT - 1004 / 1005 / 1006 / 1007

성능곡선 4Pole

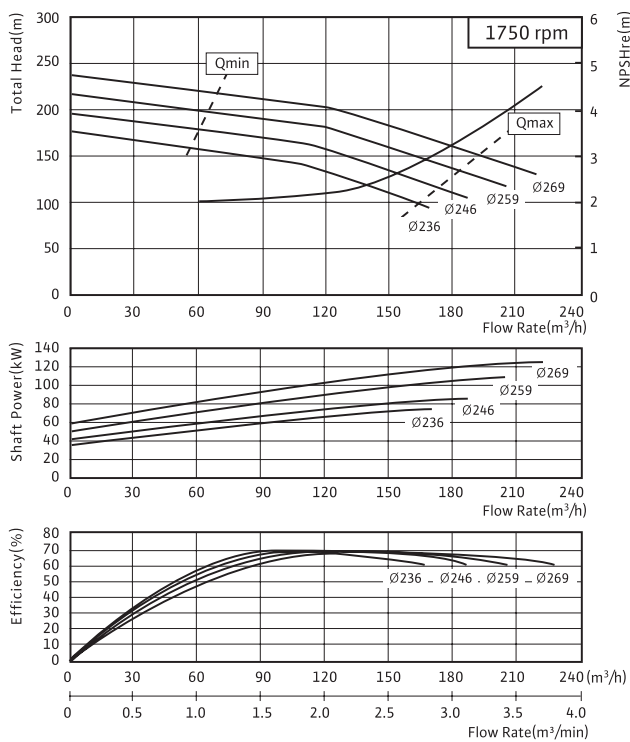
PMT - 1004



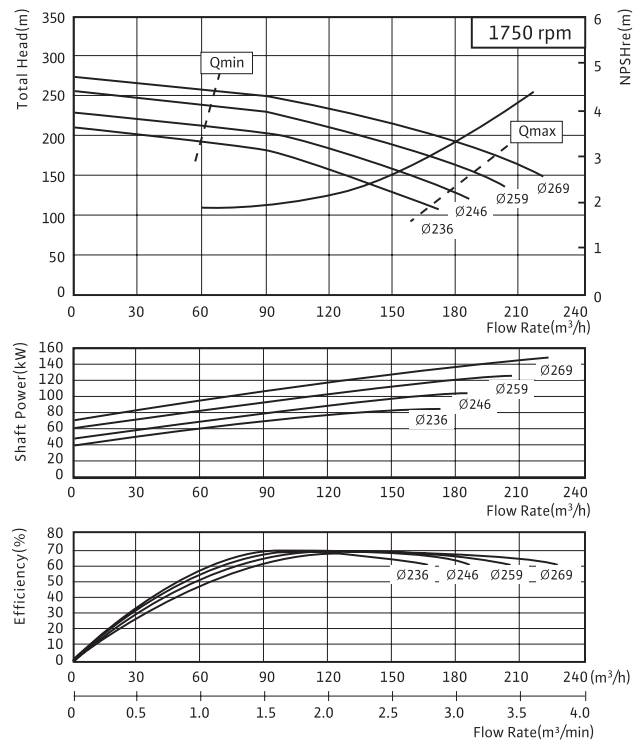
PMT - 1005



PMT - 1006



PMT - 1007



Multi-Stage Pumps

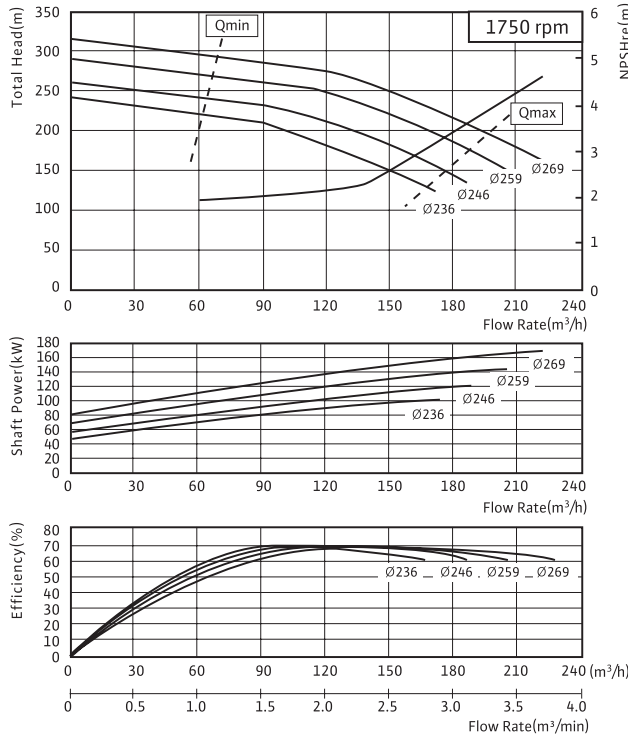
Ring Section Pumps



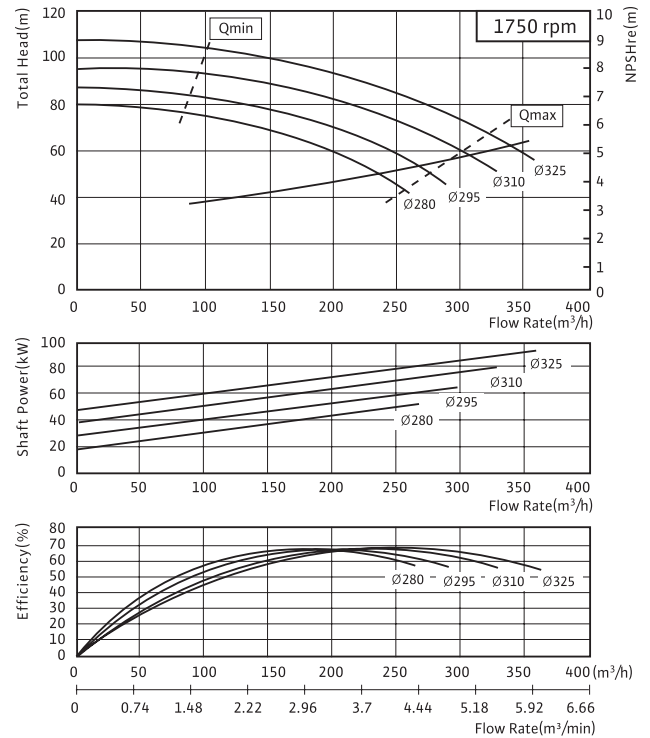
PMT- 1008 / 1202 / 1203 / 1204

성능곡선 4Pole

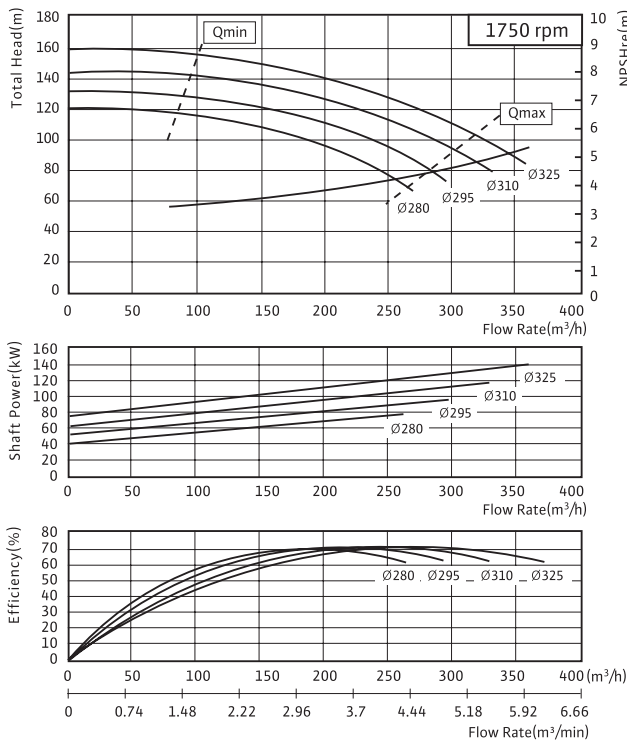
PMT - 1008



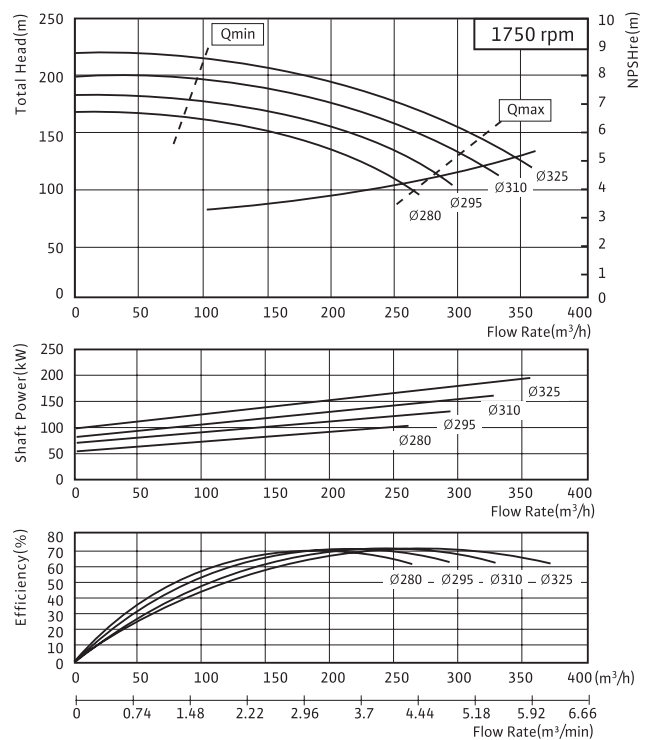
PMT - 1202



PMT - 1203



PMT - 1204



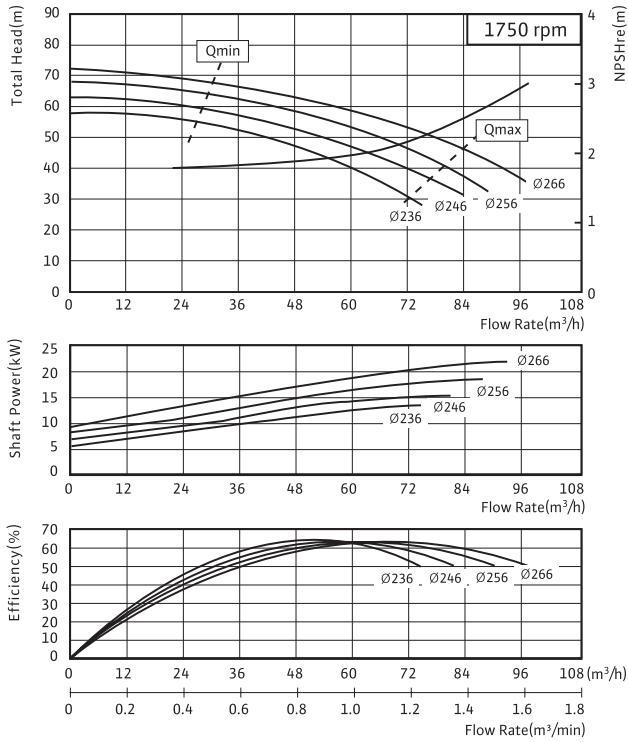
Multi-Stage Pumps

Ring Section Pumps

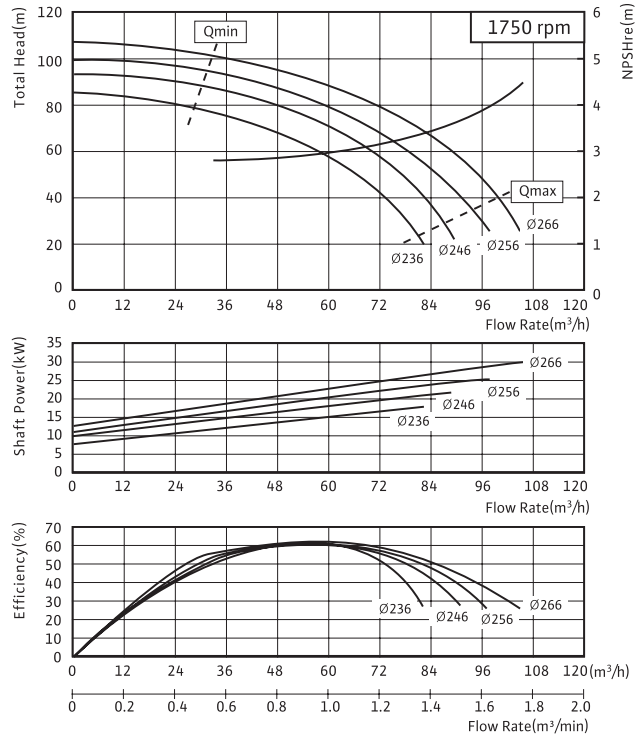
PMV - 8002 / 8003 / 8004 / 8005

성능곡선 4Pole

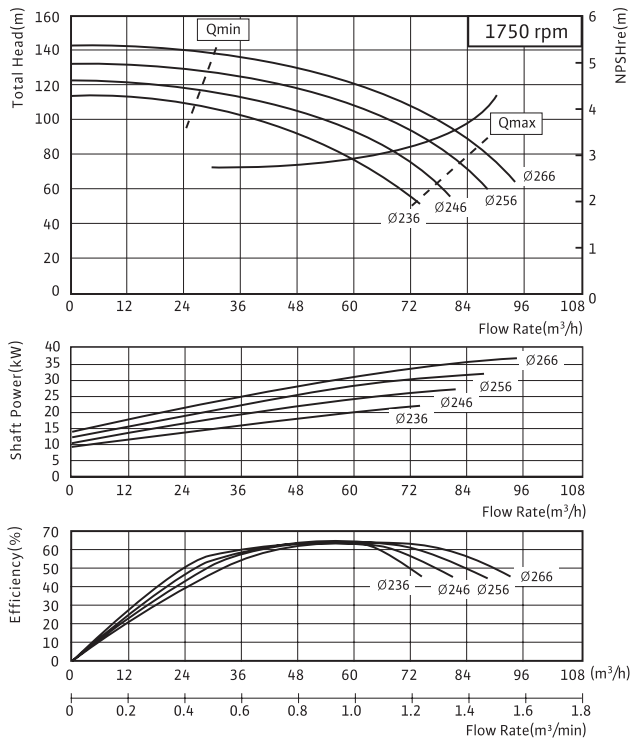
PMV - 8002



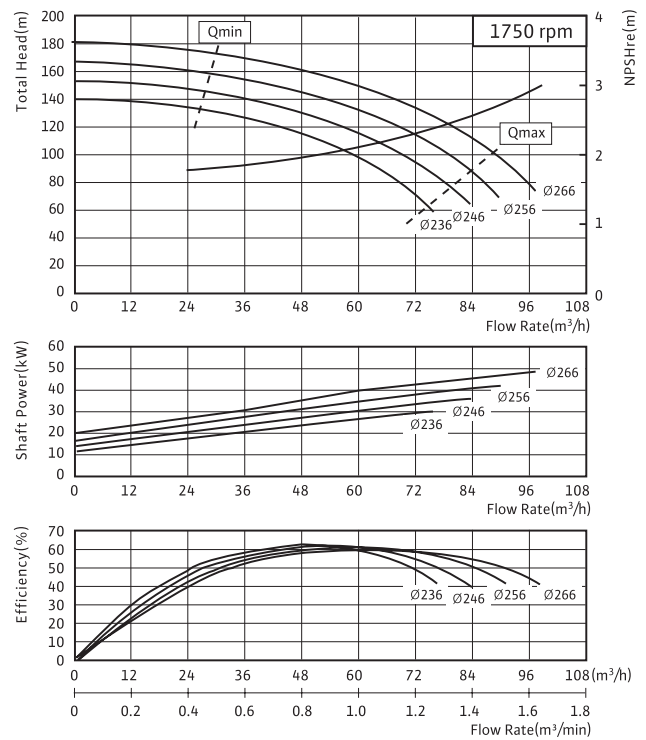
PMV - 8003



PMV - 8004



PMV - 8005



Multi-Stage Pumps

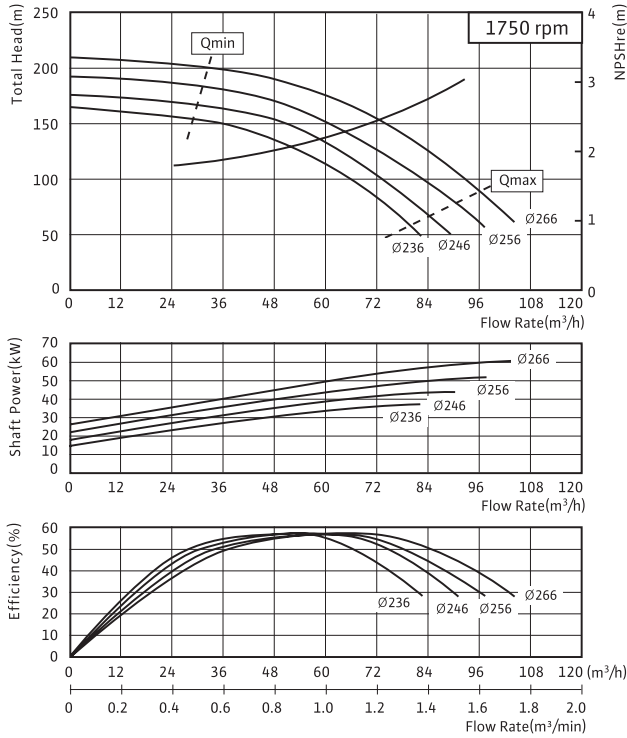
Ring Section Pumps



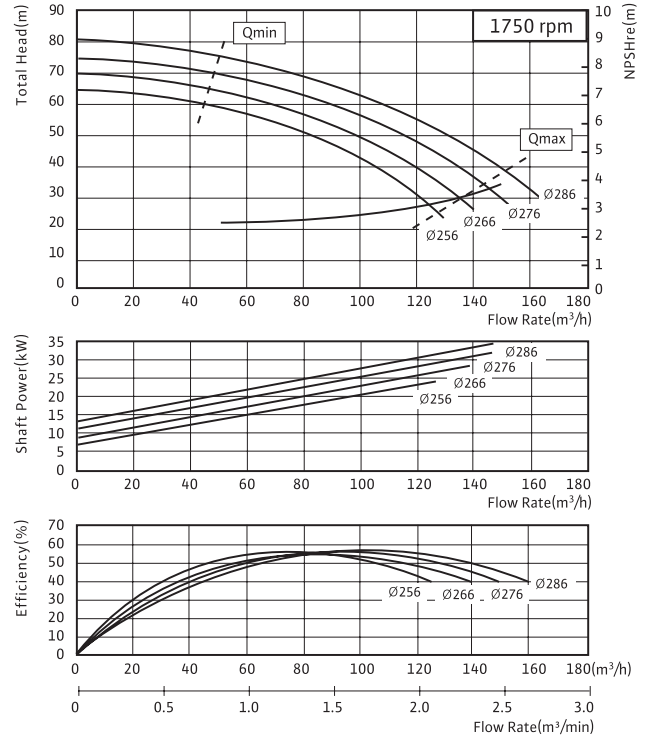
PMV- 8006 / 1002 / 1003 / 1004

성능곡선 4Pole

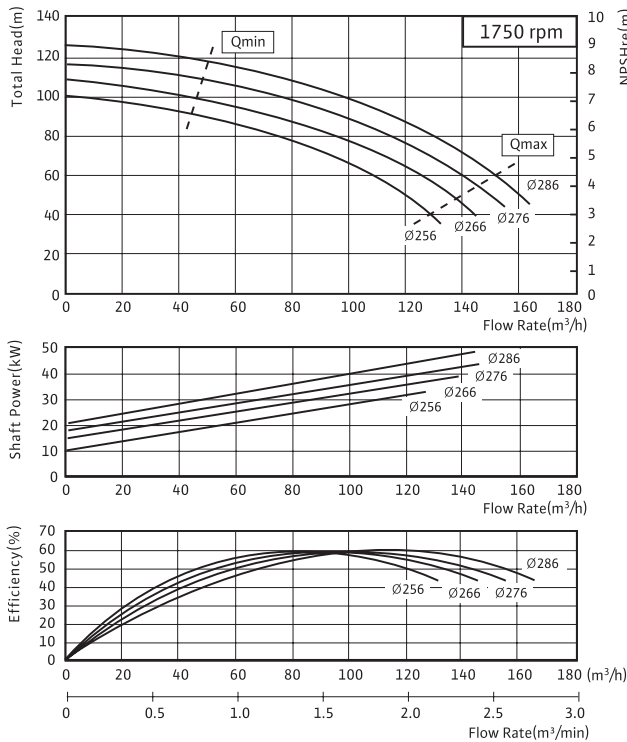
PMV - 8006



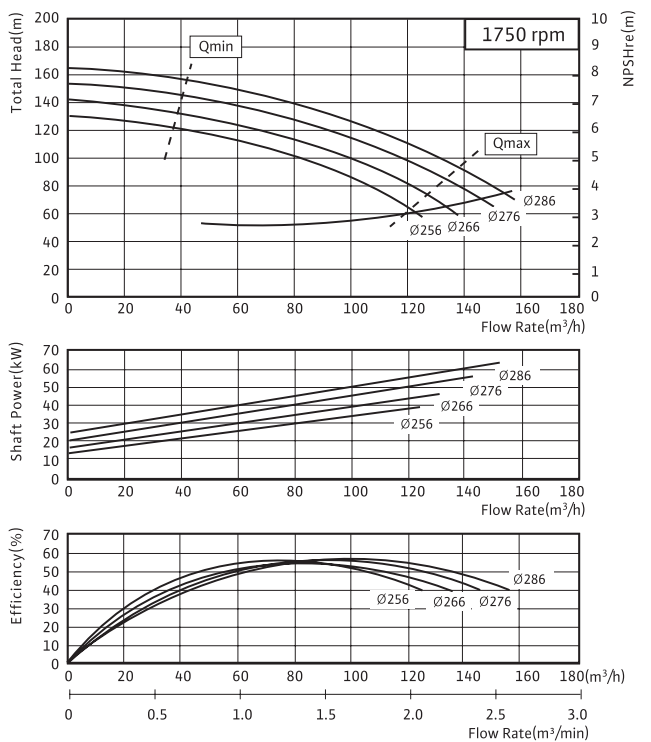
PMV - 1002



PMV - 1003



PMV - 1004



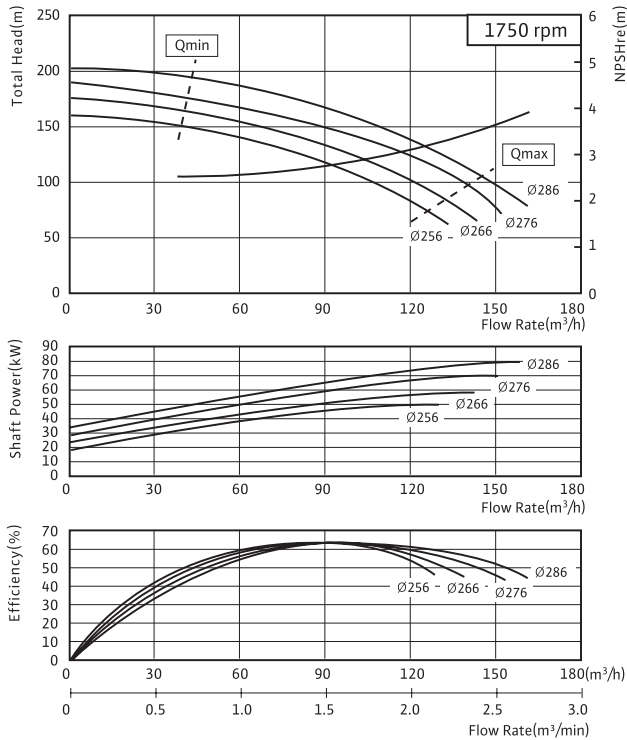
Multi-Stage Pumps

Ring Section Pumps

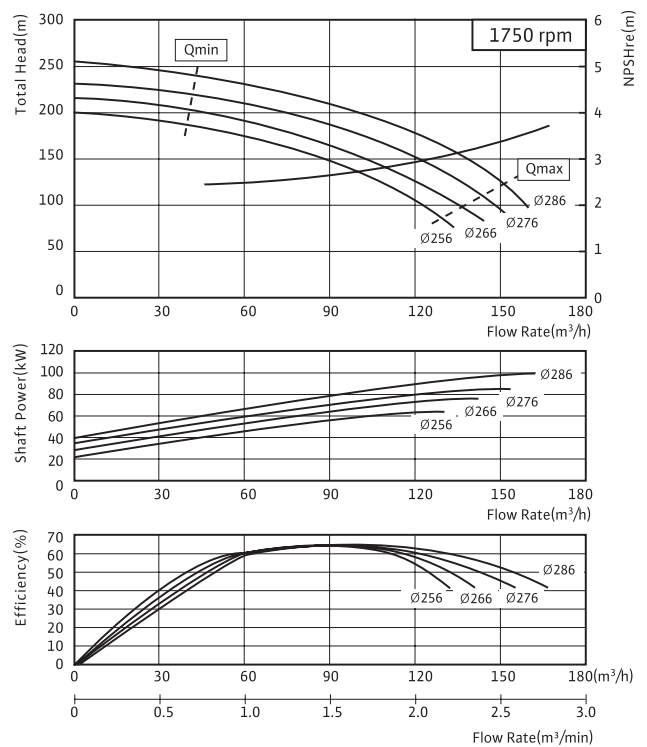
PMV - 1005 / 1006 / 1202 / 1203

성능곡선 4Pole

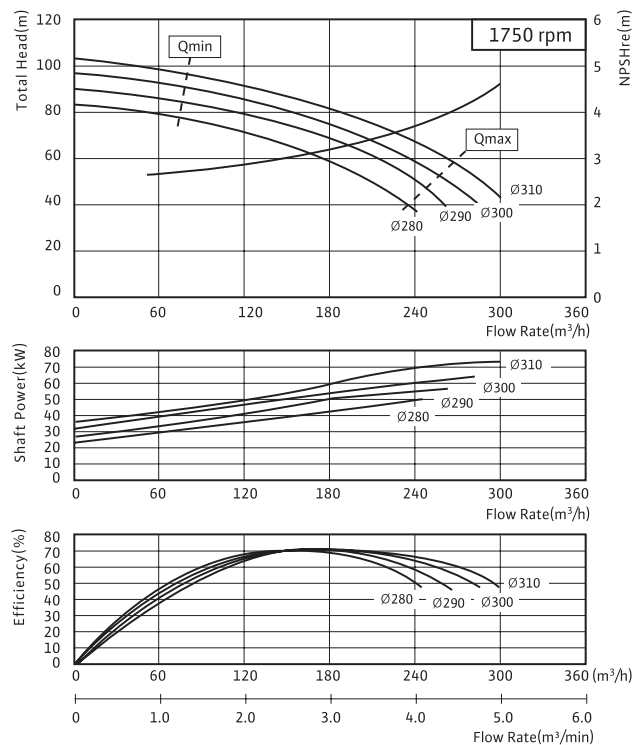
PMV - 1005



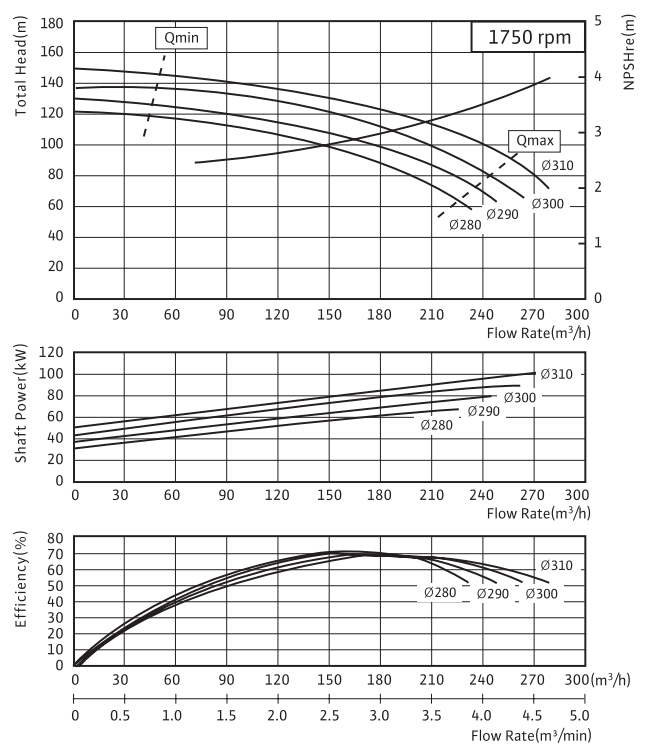
PMV - 1006



PMV - 1202



PMV - 1203



Multi-Stage Pumps

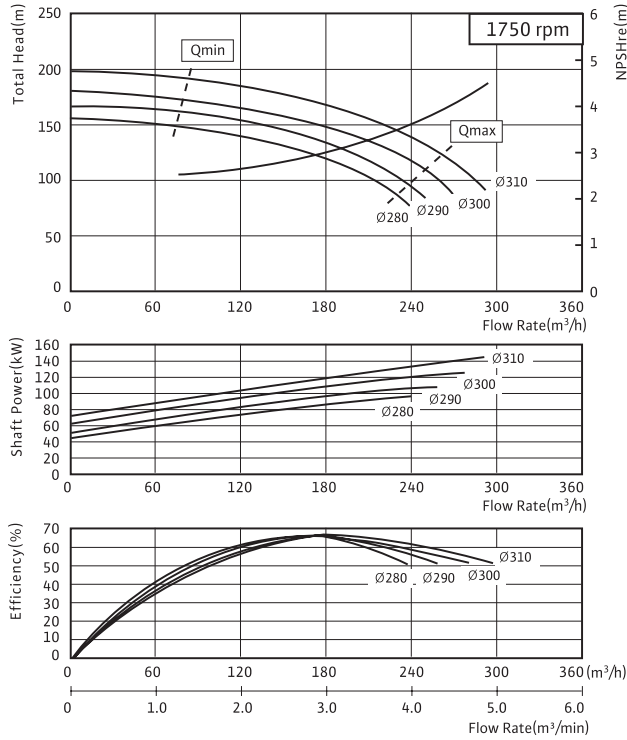
Ring Section Pumps



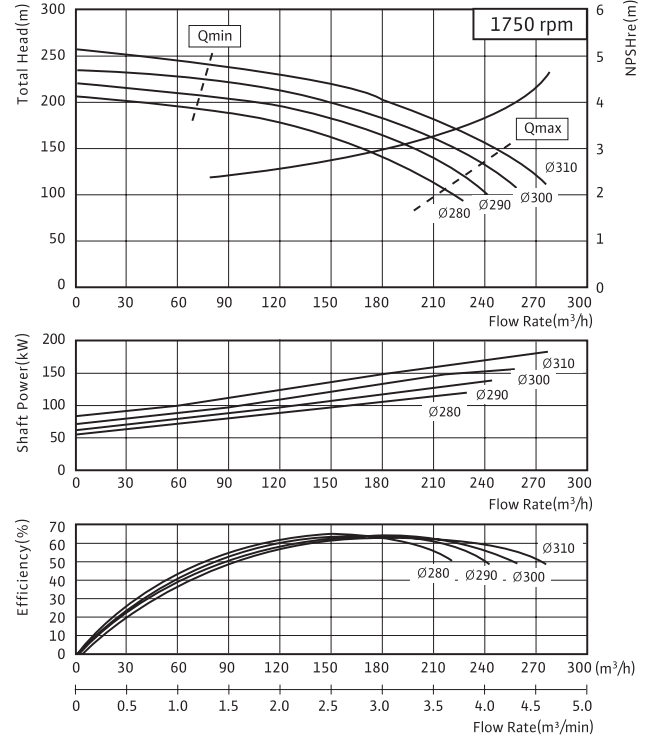
PMV - 1204 / 1205 / 1502 / 1503

성능곡선 4Pole

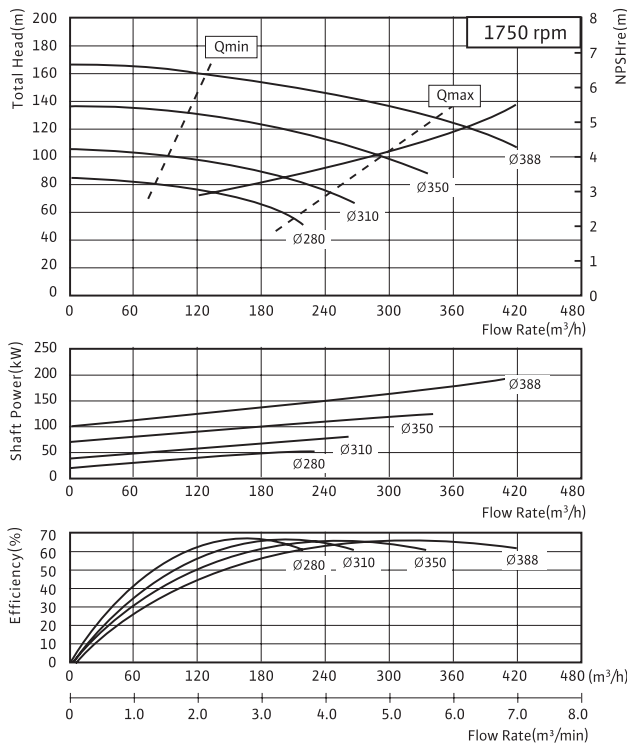
PMV - 1204



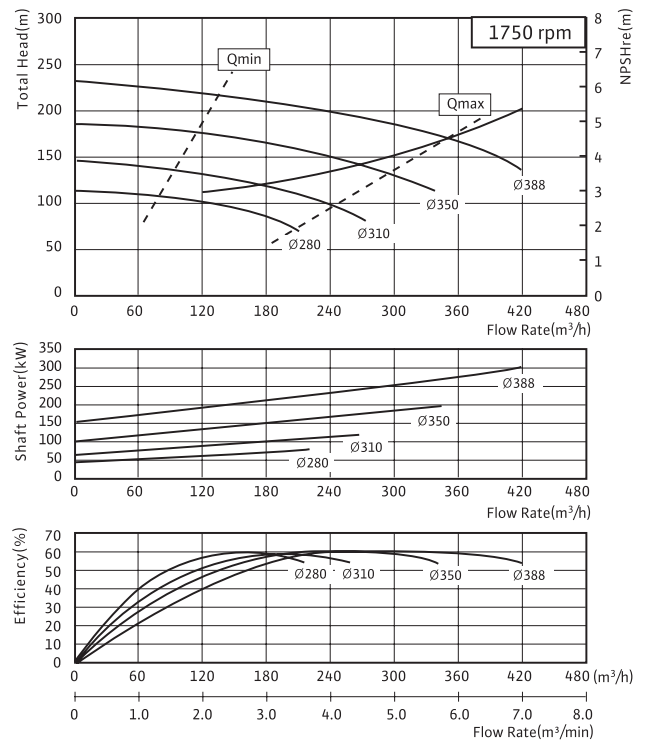
PMV - 1205



PMV - 1502



PMV - 1503



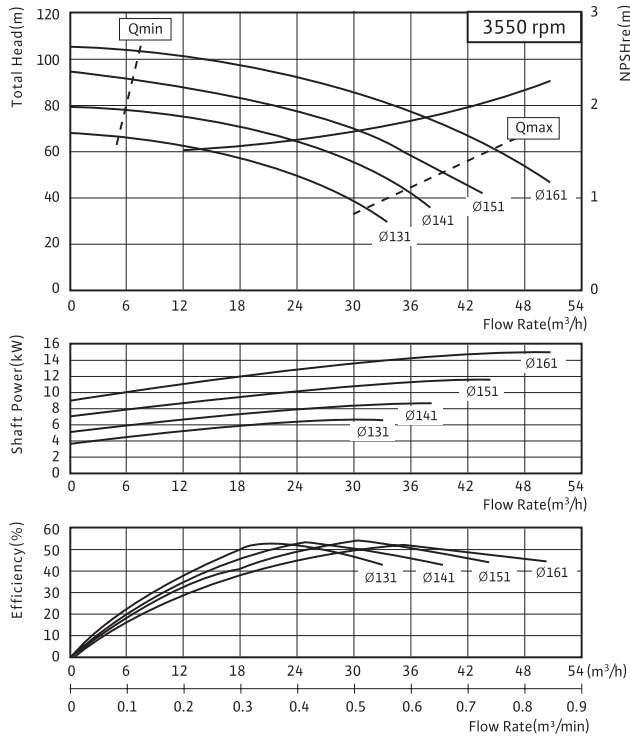
Multi-Stage Pumps

Ring Section Pumps

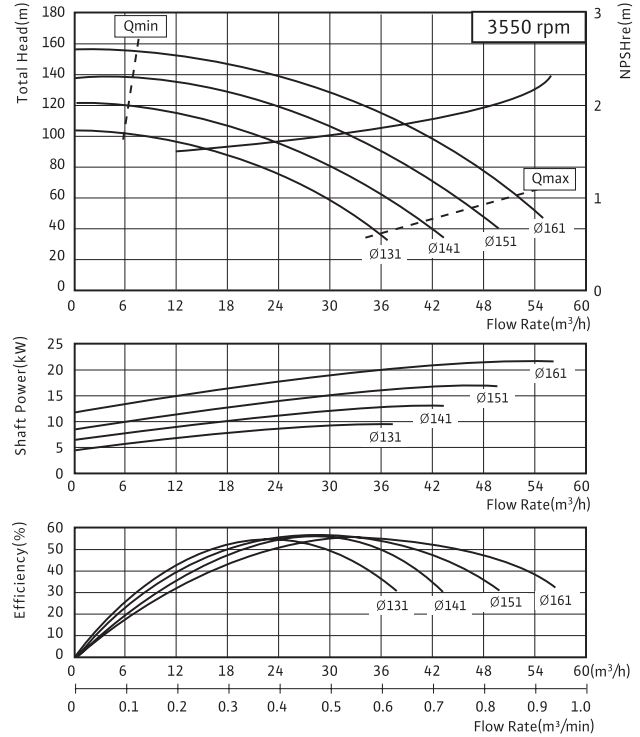
PMT - 4002 / 4003 / 4004 / 4005

성능곡선 2Pole

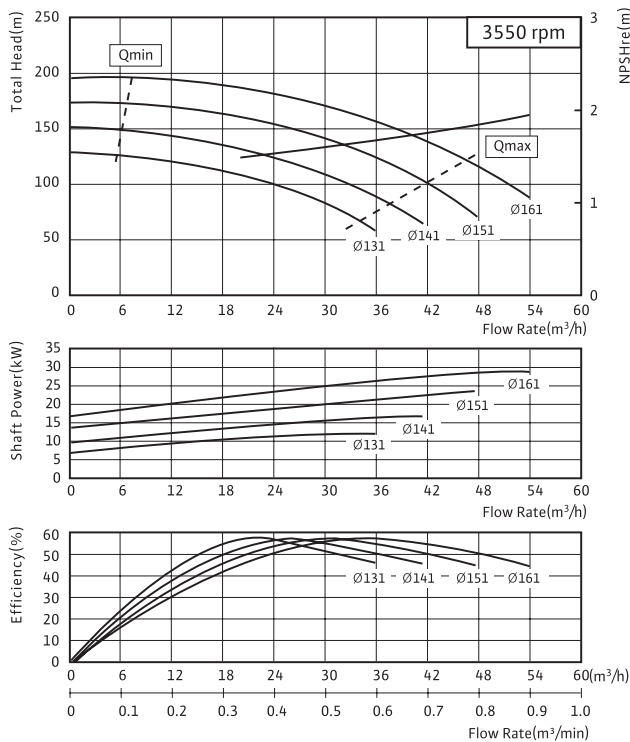
PMT - 4002



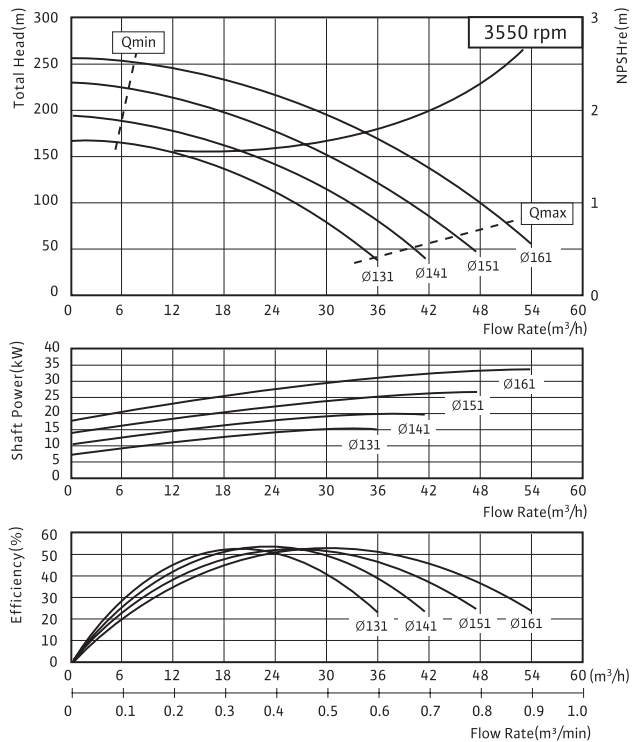
PMT - 4003



PMT - 4004



PMT - 4005



Multi-Stage Pumps

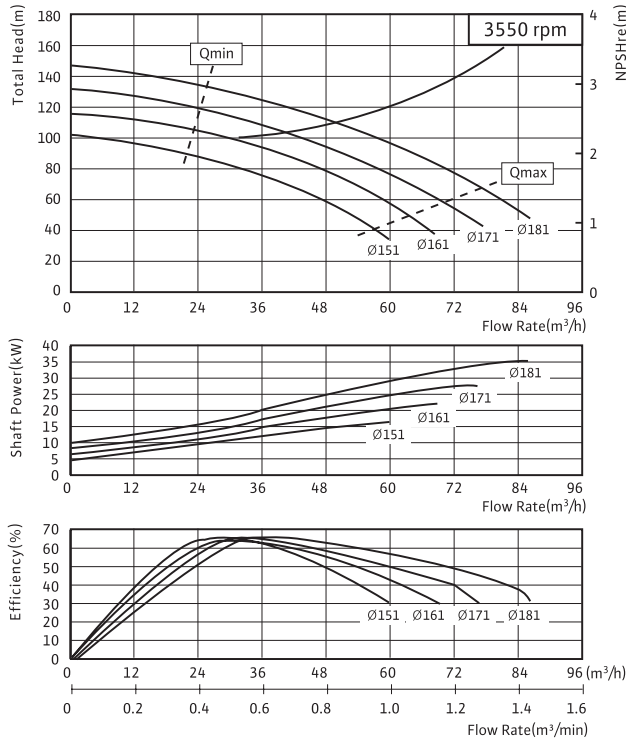
Ring Section Pumps



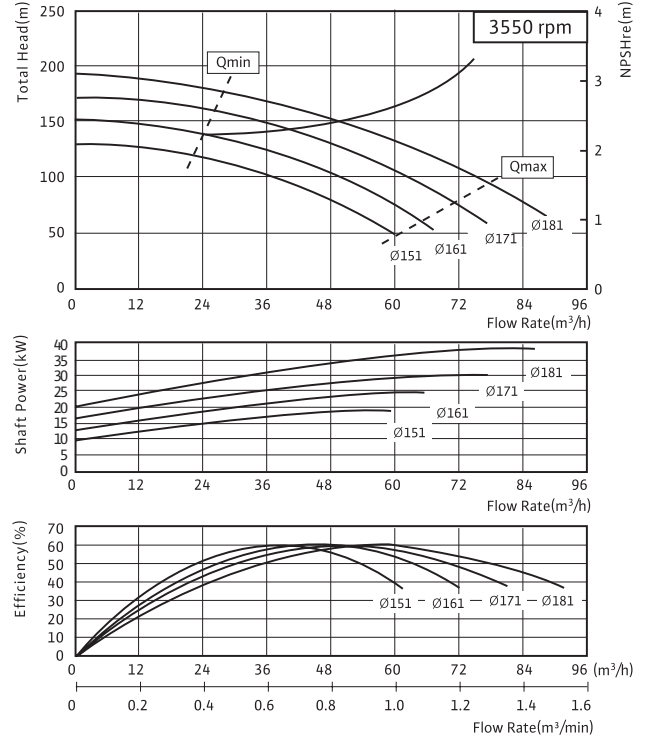
PMT- 5002 / 5003 / 5004 / 5005

성능곡선 2Pole

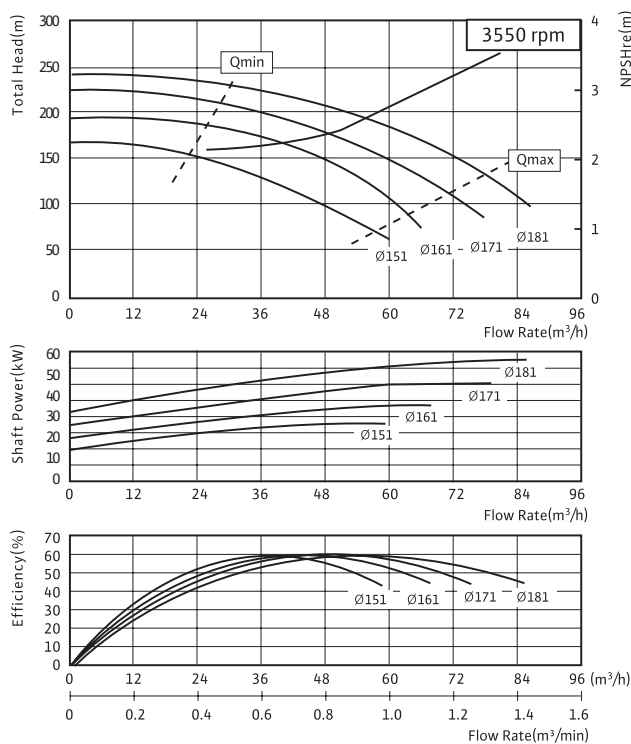
PMT - 5002



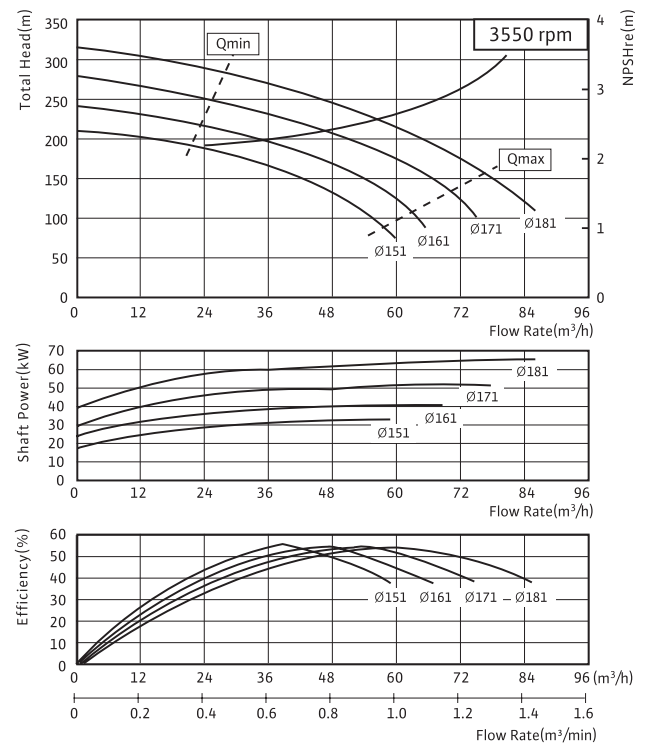
PMT - 5003



PMT - 5004



PMT - 5005



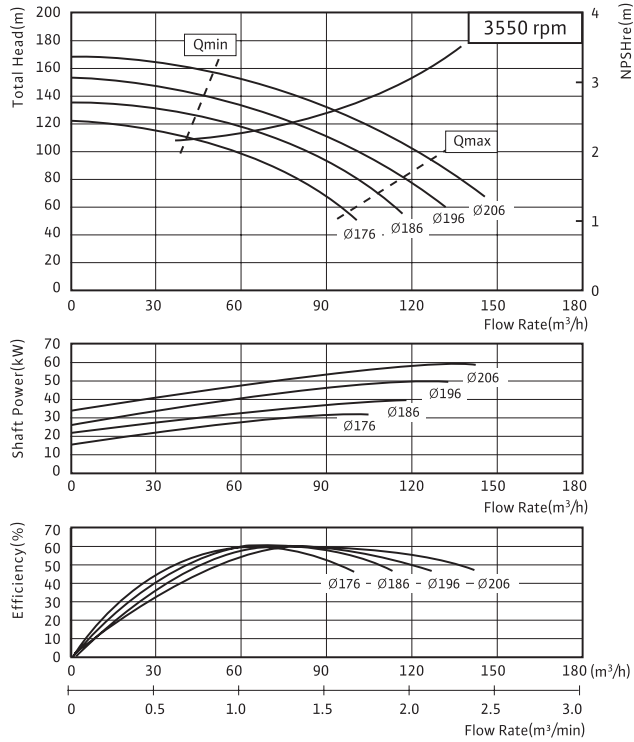
Multi-Stage Pumps

Ring Section Pumps

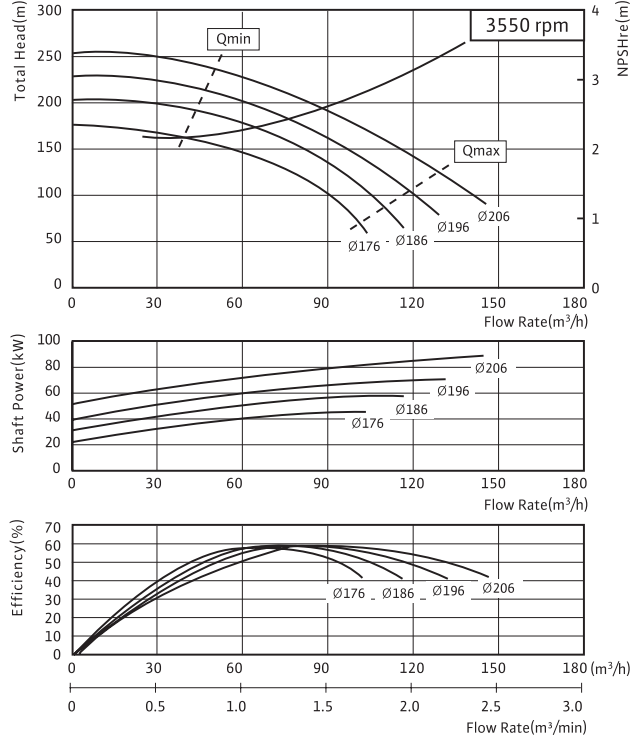
PMT - 6502 / 6503

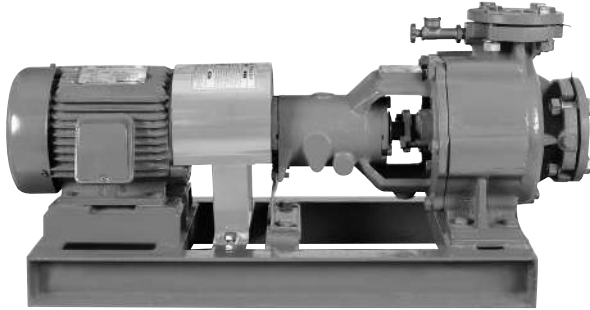
성능곡선 2Pole

PMT - 6502



PMT - 6503





적용범위

- 제지 이송용, 펄프 이송용, 슬러지 이송용
- 하수처리용, 오수용

사용유체

취급액 (0~80°C의 오페수)

고온 또는 이물질이 많은 액을 취급할 경우에는 이송액의 특성(온도, 농도, 고형물의 유·무)과 사용조건에 따라 내마모성, 내식성이 현저히 변화되는 경우가 있으므로 반드시 영업 또는 공장으로 문의

구조

- 임펠러 내의 물의 흐름을 용이하도록 설계된 임펠러를 사용
- Back pull-out 구조로 유지보수가 편리
- 볼류트케이싱 채용으로 케이싱 마모로 인한 손상 감소
- 토출부가 중앙 상부에 위치하여 배관 하중에 대한 안전성과 펌프 가동시 Balance가 유지
- 임펠러에 Back vane을 형성시켜 축추력 감소

특장점

- 고형물, 섬유질이 혼합된 액체 및 가스가 함유된 액체 이송에 유리
- 강력한 흡입성능
- Vortex펌프의 이송특징인 Vortex를 유도한 Pumping 작용으로 이송 고형물의 손상 감소
- 내구성이 뛰어나고 긴 수명
- Shaft에 Sleeve가 장착되어 긴 Shaft 수명
- Fabric Gland Packing을 표준 채용하여 Packing 교체 기간연장 및 특수액 취급이 용이

흡입측 조건

흡입 전압정 또는 압입 압력은 아래 표에 따름

흡입 전압정 허용치		
액의 온도	흡입구경	흡입 전압정
0°C~40°C	50 ~ 80mm	-6m 이내
	100 ~ 125mm	-5.5m 이내

표준 흡입 압력 허용치

흡입 압력이 4kgf/cm² 이하이면서

$$\left[10 - \frac{\text{펌프 체적 전압정}}{10} \right] \text{kgf/cm}^2 \text{이내}$$

또한 흡입압력이 순간적으로 변하지 않도록 하여야 함
상기조건을 벗어나는 경우에는 영업 또는 공장으로 문의

운전조건

- 기동반복이 빈번한 자동제어용으로 펌프를 사용할 경우에는 임펠러의 파손 우려가 있으므로 임펠러 재질을 BC6급 이상으로 사용
- 자동제어용으로 사용할 경우 기동반복이 시간당 12회를 넘지 않아야 함
- 수격현상(워터해머)이 발생되지 않도록 배관을 구성

주문사양 (Option)

- 구조 변경 : Mechanical Seal
Bearing Oil 윤활구조
- 접액부 재질 변경

표준구조 DATA		
구분	링형볼텍스(PVH)	
이송액 조건	이 송 액	하수오물, 폐수
	슬러지 크기	토출구경의 80%
	온 도	0 - 80°C
최대 허용압력		10kgf/cm ²
최소 이송유량		최고효율점의 15%
구 조	IMPELLER	반개방형 (Semi-open Type)
	STUFFING BOX	글랜드 패킹 (Gland Packing)
	BEARING	양쪽 실드 볼 베어링 (Shield Ball Bearing)
	FLANGE	10kgf/cm ² , Flat Face Type
	NOZZLE POSITION	End Suction, Top Discharge
ACCESSORIES		<ul style="list-style-type: none"> • Priming Cock • Common Base • Coupling & Coupling Guard • Drain & Air-Venting Plug

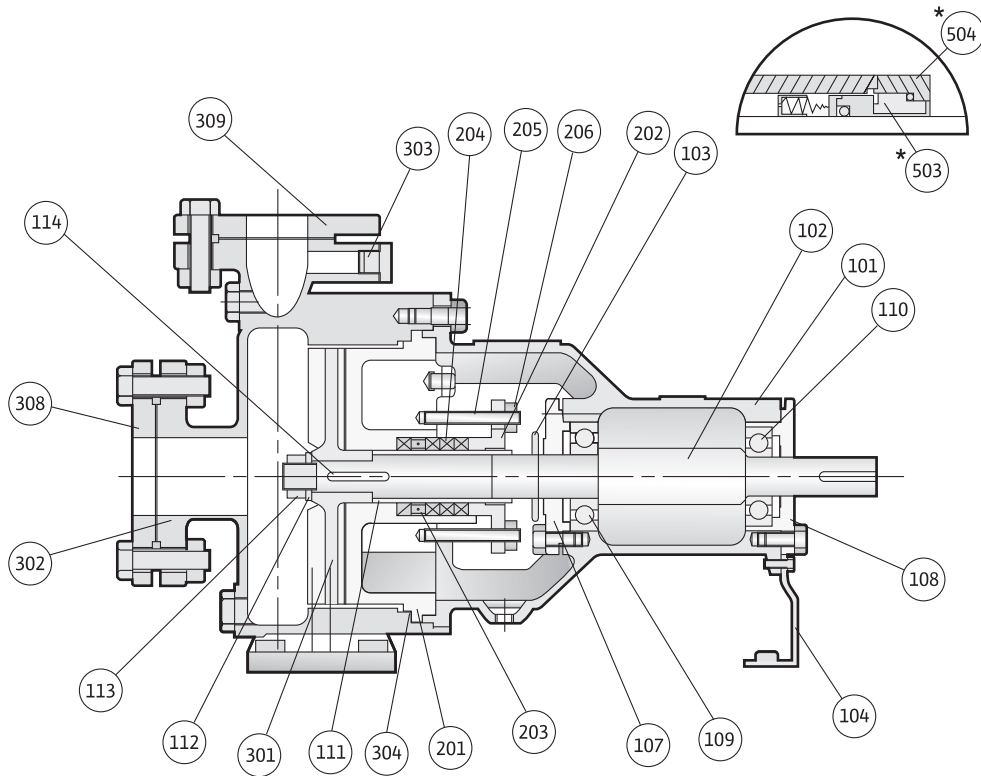
Vortex Pumps

PVH Series

PVH Series

단면도

단면도



품번	품명	재질	수량
101	베어링 하우징 (BEARING HOUSING)	GC200	1
102	축 (SHAFT)	SM45C	1
103	물막음턱 (DEFLECTOR)	NBR	1
104	지지대 (SUPPORT)	SS400	1
107	베어링 커버 [BEARING COVER(A)]	GC200	1
108	베어링 커버 [BEARING COVER(B)]	GC200	1
109	볼 베어링 [BALL BEARING(A)]	STB2	1
110	볼 베어링 [BALL BEARING(B)]	STB2	1
111	슬리브 (SLEEVE)	STS304	1
112	임펠러 와셔 (IMPELLER WASHER)	STS304	1
113	임펠러 너트 (IMPELLER NUT)	SS400	1
114	임펠러 키 (IMPELLER KEY)	SM45C	1
201	케이싱 커버 (CASING COVER)	GC200	1

품번	품명	재질	수량
202	글랜드 (GLAND)	GC200	1
203	랜턴 링 (LANTERN RING)	NORYL/BC6	1
204	글랜드 패킹 (GLAND PACKING)	FABRIC	4
205	글랜드 볼트 (GLAND BOLT)	STS304	2
206	육각 너트 (HEX NUT)	C3602BD	2
301	임펠러 (IMPELLER)	GC200	1
302	케이싱 (CASING)	GC200	1
303	플러그 (PLUG)	SS400	1
304	케이싱 가스켓 (CASING GASKET)	NBR	1
308	상대 플랜지 (COMPANION FLANGE)	SS400	1
309	상대 플랜지 (COMPANION FLANGE)	SS400	1
* 503	미캐니컬 실 (MECHANICAL SEAL)		1
* 504	미캐니컬 실 커버 (M/SEAL COVER)	SM45C	1

*:선택부품(Option Parts)

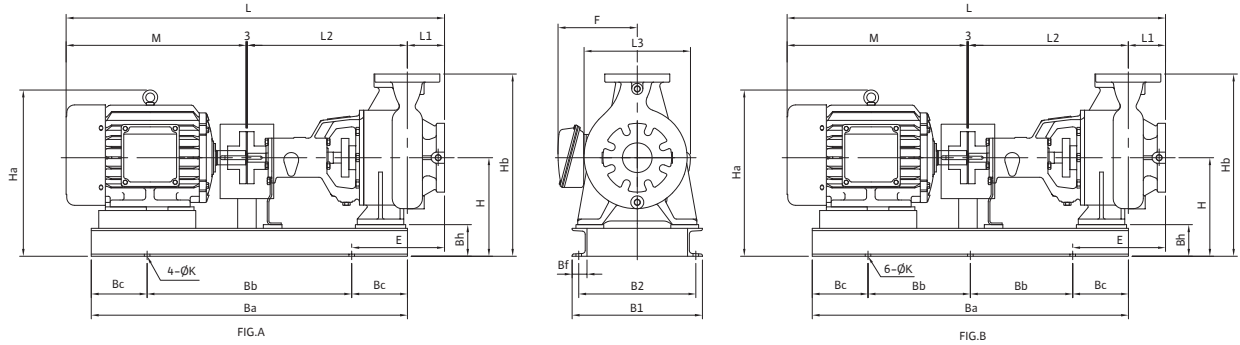
Vortex Pumps

PVH Series



PVH Series 외형도 및 치수

외형도



치수																								
MODEL	BORE(mm)		FIG	MOTOR (kW)	PUMP & MOTOR(mm)										BEDASM(mm)						WEIGHT(kg)			
	Suc.	Dis.			L2	L1	H	L3	M	Hb	Ha	E	L	F	Ba	Bb	Bc	B1	B2	Bh	Bf	K	P.B	P.B.M
PVH - 5040B	50	40	A	1.5	410	80	217	232	318	377	313	195	811	158	750	500	125	350	315	85	40	15	96	121
			A	2.2	410	80	217	232	382	377	360	220	875	171	800	500	150	290	255	85	40	15	95	129
A			2.2	410	80	245	284	382	425	388	215	875	171	800	500	150	350	315	85	40	15	101	135	
A			3.7	410	80	245	284	395	425	407	195	888	180	750	500	125	350	315	85	40	15	99	144	
PVH - 5040C	65	50	A	3.7	420	100	245	284	395	445	407	225	918	180	750	500	125	350	315	85	40	15	109	154
A			5.5	420	100	245	284	447	445	424	235	970	220	800	500	150	350	315	85	40	15	126	194	
A			7.5	419	100	265	355	486	490	444	229	1008	220	850	550	150	350	315	85	40	15	170	252	
A			11	419	100	265	355	595	490	477	254	1117	265	950	600	175	350	315	85	40	15	176	293	
PVH - 6550C	80	65	A	5.5	430	100	265	286	447	490	444	249.5	980	220	850	550	150	350	315	85	40	15	128	196
A			7.5	430	100	265	286	486	490	444	249.5	1019	220	850	550	150	350	315	85	40	15	128	210	
A			11	430	100	265	286	595	490	477	274.5	1128	265	950	600	175	350	315	85	40	15	134	251	
A			15	553	100	310	374	595	560	522	243	1251	265	1100	400	150	440	395	110	50	19	199	316	
PVH - 6550D	100	80	B	15	553	100	310	374	639	560	522	243	1295	265	1100	400	150	440	395	110	50	19	199	339
B			18.5	553	100	310	374	645	560	556	243	1301	297	1100	400	150	440	395	110	50	19	199	384	
B			11	557	125	290	296	595	540	471	272.5	1280	265	1100	400	150	440	395	110	50	19	156	273	
B			15	557	125	290	296	639	540	471	272.5	1324	265	1100	400	150	440	395	110	50	19	156	296	
PVH - 1080C	125	100	B	18.5	568	125	310	346	645	590	490	266	1341	297	1100	400	150	440	395	110	50	19	203	388
B			22	568	125	310	346	645	590	490	266	1341	297	1100	400	150	440	395	110	50	19	203	403	
B			22	568	140	335	345	645	615	581	264	1356	297	1150	450	125	440	395	110	50	19	210	410	
B			30	568	140	335	345	673	615	581	264	1384	297	1150	450	125	440	395	110	50	19	210	445	
PVH - 1210D	125	100	B	22	568	140	335	345	645	615	581	264	1356	297	1150	450	125	440	395	110	50	19	210	410
B			30	568	140	335	345	673	615	581	264	1384	297	1150	450	125	440	395	110	50	19	210	445	
PVH - 1210E	125	100	B	90	566	140	400	459	960	700	732	225	1669	478	1450	550	175	480	540	155	65	23	772	1087

※ MOTOR 축 치수는 MOTOR 제조업체에 따라 달라질 수 있음 (하이젠 모터 기준 치수)

P-B: 모터제외중량 / P-B-M: 모터포함중량

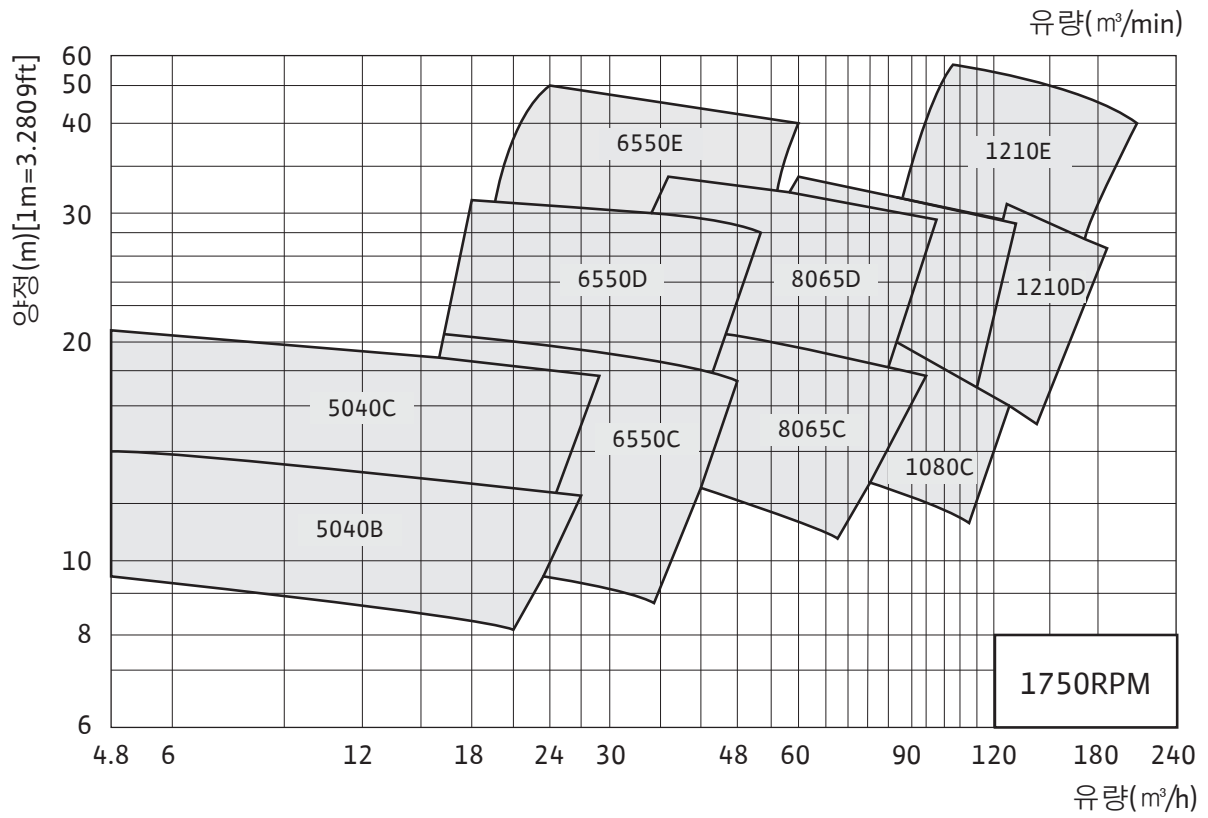
Vortex Pumps

PVH Series

wilo

PVH Series 선정도

선정도



※PVH-6550E/1210E 모델은 ALL SSC기준 성능이며, GC재질의 경우 별도 문의

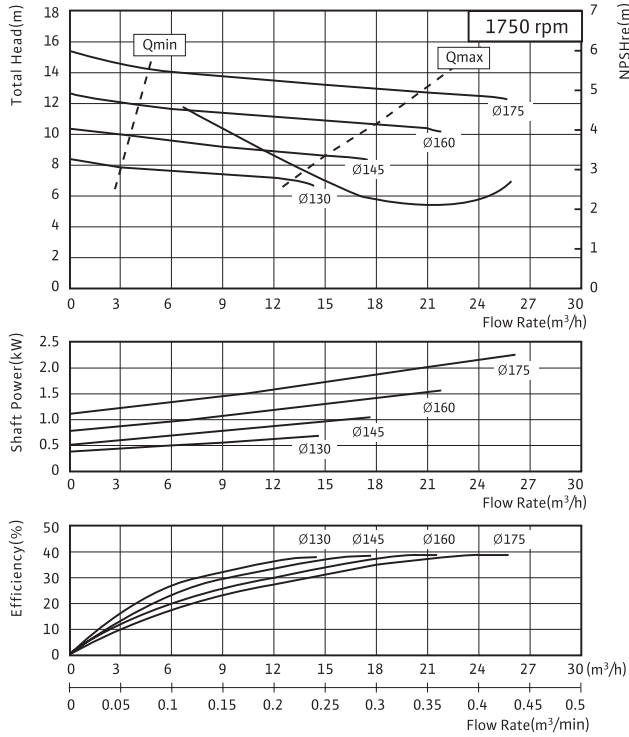
Vortex Pumps

PVH Series

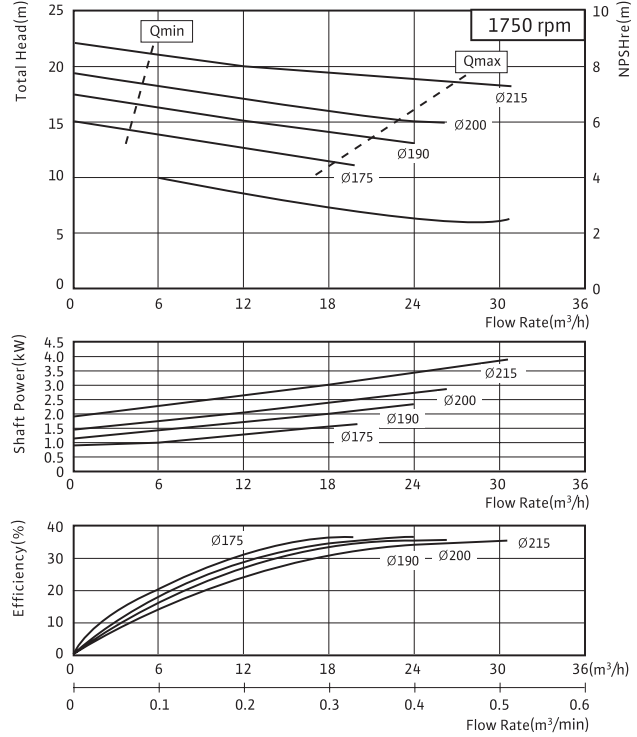
PVH-5040B / 5040C / 6550C / 6550D

성능곡선 4pole

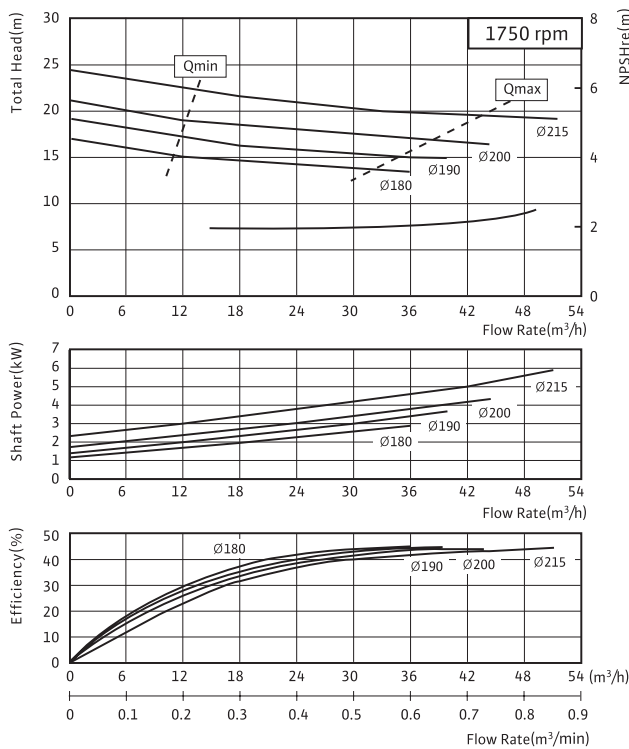
PVH - 5040B



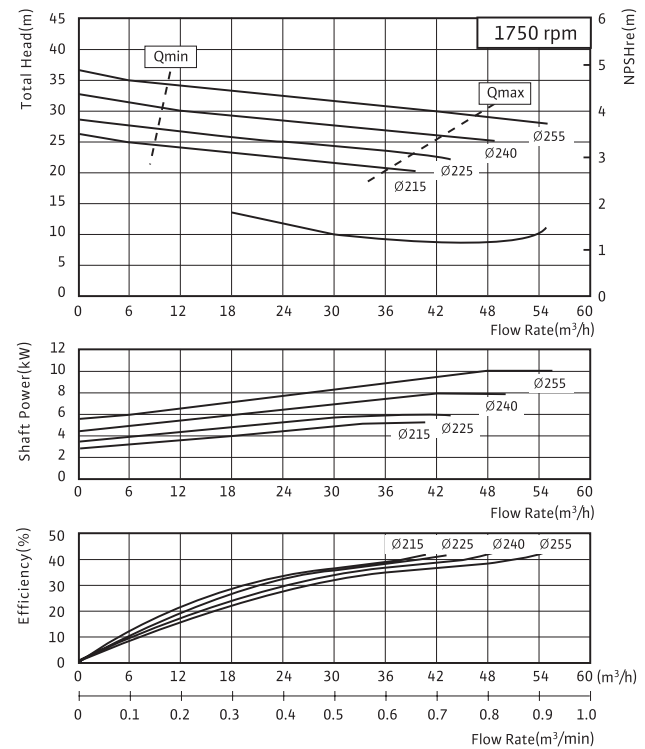
PVH - 5040C



PVH - 6550C



PVH - 6550D



Vortex Pumps

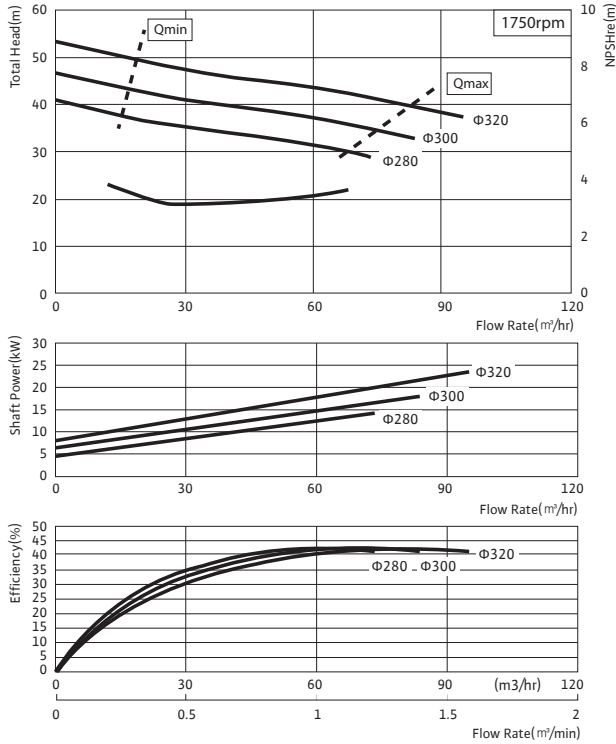
PVH Series



PVH-6550E / 8065C / 8065D / 1080C

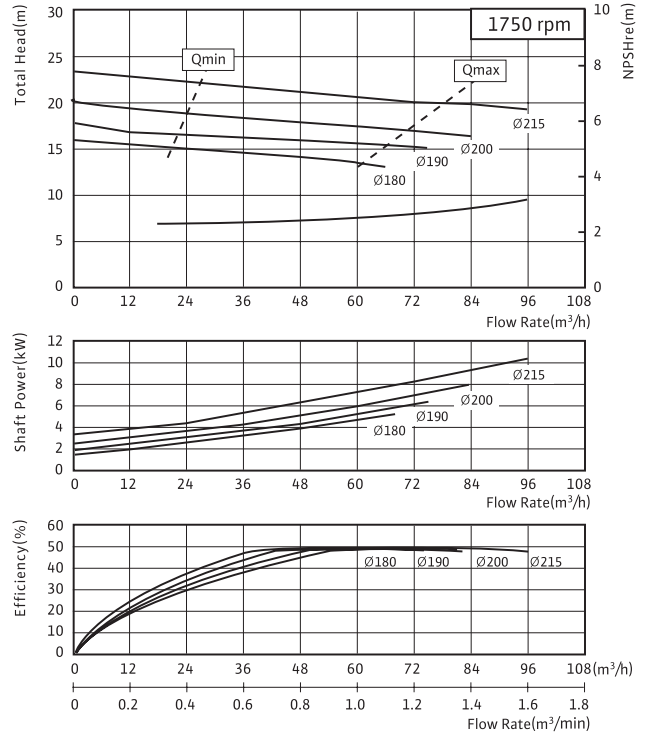
성능곡선 4pole

PVH - 6550E

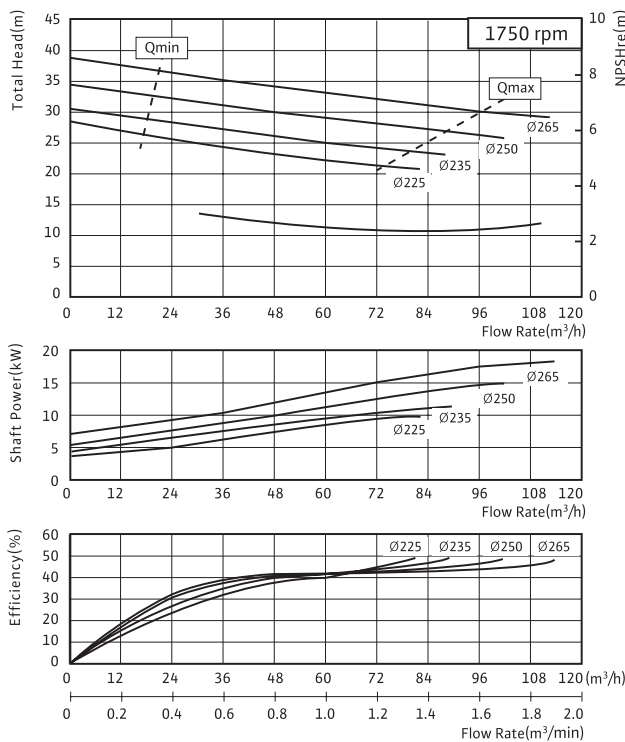


※ALL SSC 기준 성능

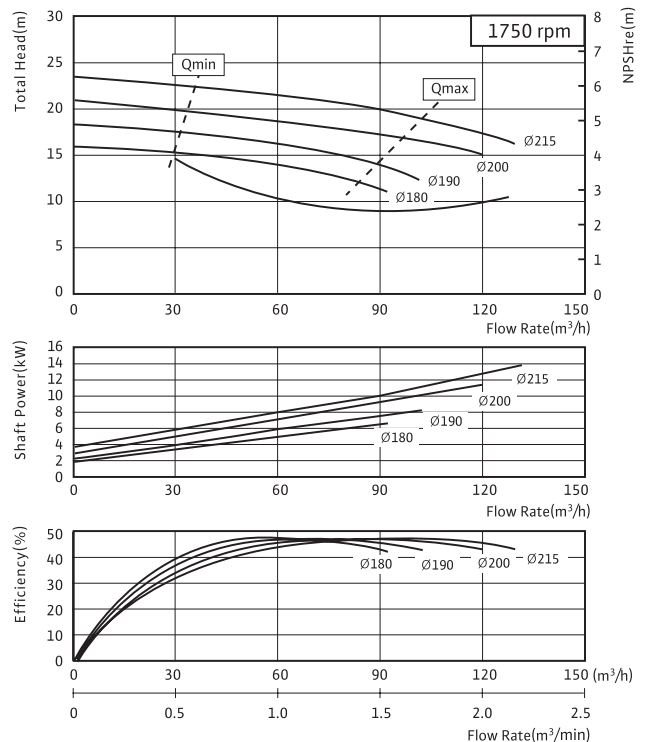
PVH - 8065C



PVH - 8065D



PVH - 1080C



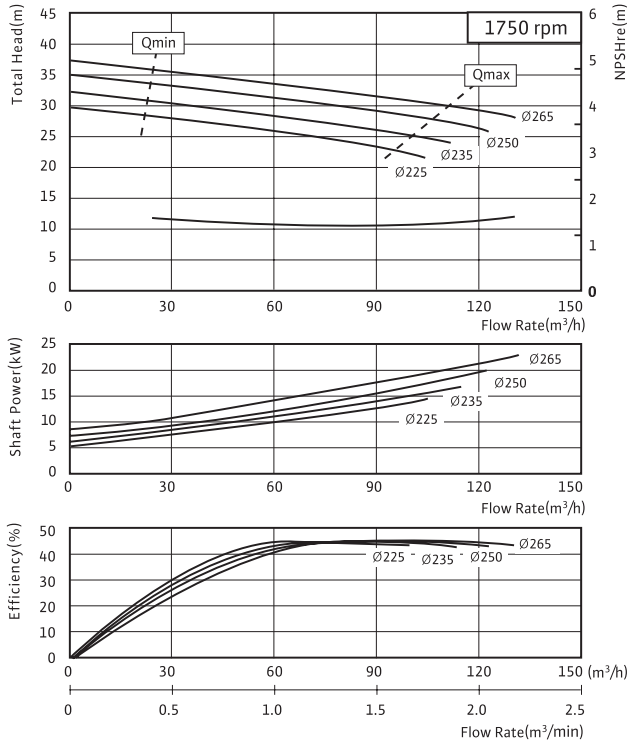
Vortex Pumps

PVH Series

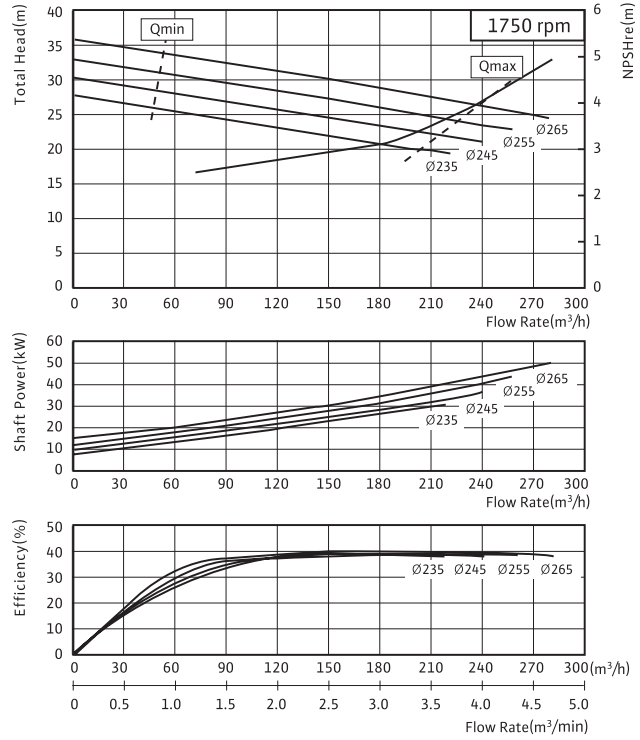
PVH- 1080D / 1210D / 1210E

성능곡선 4pole

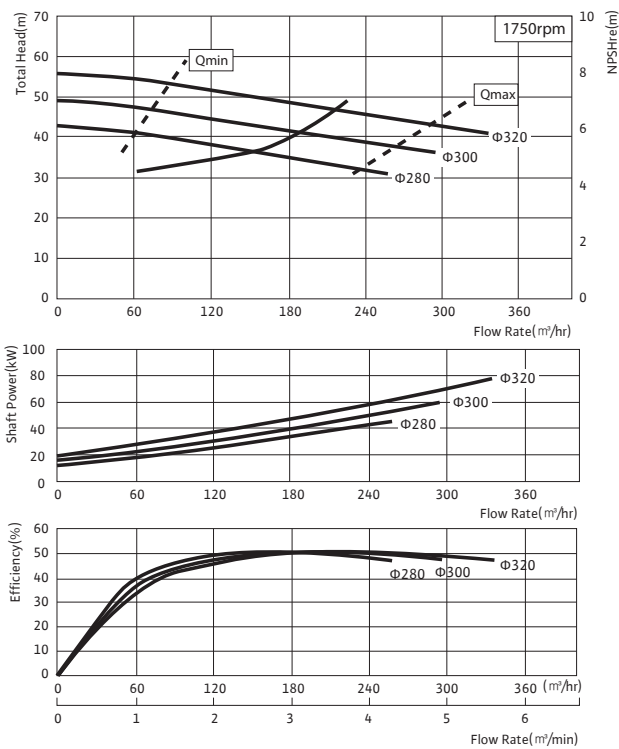
PVH - 1080D



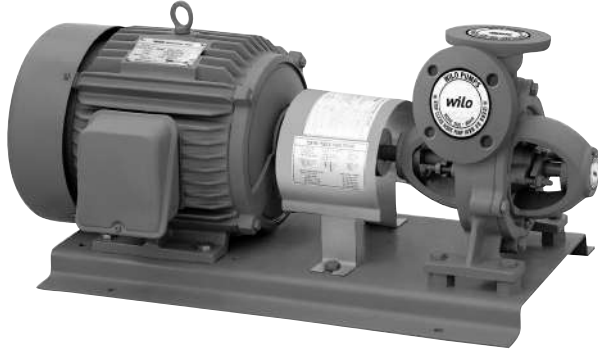
PVH - 1210D



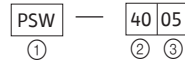
PVH - 1210E



※ALL SSC 기준 성능



▶ 모델명 부여 기준



- ① 단단웨스코 펌프 (Single Stage Westco Pump)
- ② 흡·토출구경(40 : 40mm, 50 : 50mm)
- ③ 동력(03 : 3HP, 05 : 5HP, 08 : 7.5HP, 10 : 10HP, 15 : 15HP, 20 : 20HP)

※ M/Seal Size
PSW-40 : ϕ 20, PSW-50 : ϕ 25

적용범위

- 보일러 급수용
- 고지대 및 고층건물용
- 간이 상수도용
- 소화보조용
- 스프링클러용
- 각종 기계장치용

사용유체

고온 또는 청수가 아닌 액을 취급할 경우에는 이송액의 특성 (온도, 농도, 고형물의 유, 무)과 사용조건에 따라 내마모성, 내식성이 현저히 변화되는 경우가 있으므로, 반드시 영업 또는 공장으로 문의

구조 및 특징

- Compact한 Design (소형, 경량)
- 내구성이 뛰어나며 긴 수명
- 임펠러의 축방향이동을 줄여 임펠러 마모가 적음
- 스텐 재질의 연마 Shaft를 사용, 마모가 적음
- 양쪽 지지 무급유 Ball Bearing 적용
- 보수점검이 용이한 구조로 설계되어 있으며 Ball Bearing에는 급유 불필요

제품사양표					
MODEL	구경(mm)		동력 (HP)	유량 (m ³ /h)	양정 (m)
	흡입	토출			
PSW-4003	40	40	3	3.6	38
PSW-4005			5	3.6	80
PSW-4008			7.5	3.6	105
PSW-4010			10	3.6	120
PSW-5005	50	50	5	15.6	35
PSW-5008			7.5	12.6	65
PSW-5010			10	9	95
PSW-5015			15	3.6	130
PSW-5020			20	3.6	140

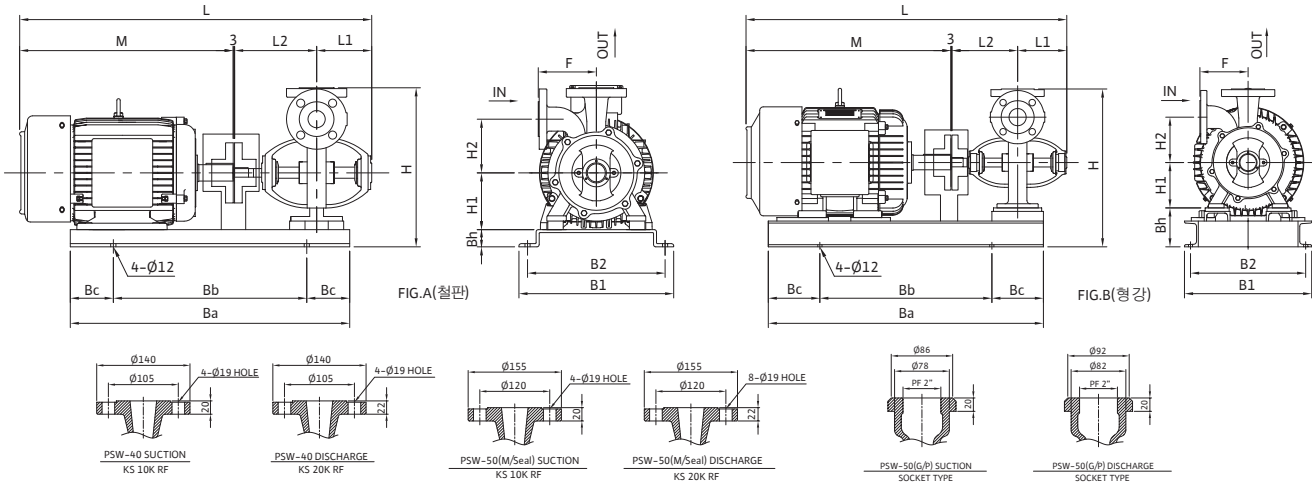
Westco Pumps

PSW Series

PSW Series

외형치수 및 선정도

외형도



※PSW-50 Series G/Packing 적용 모델은 Socket type

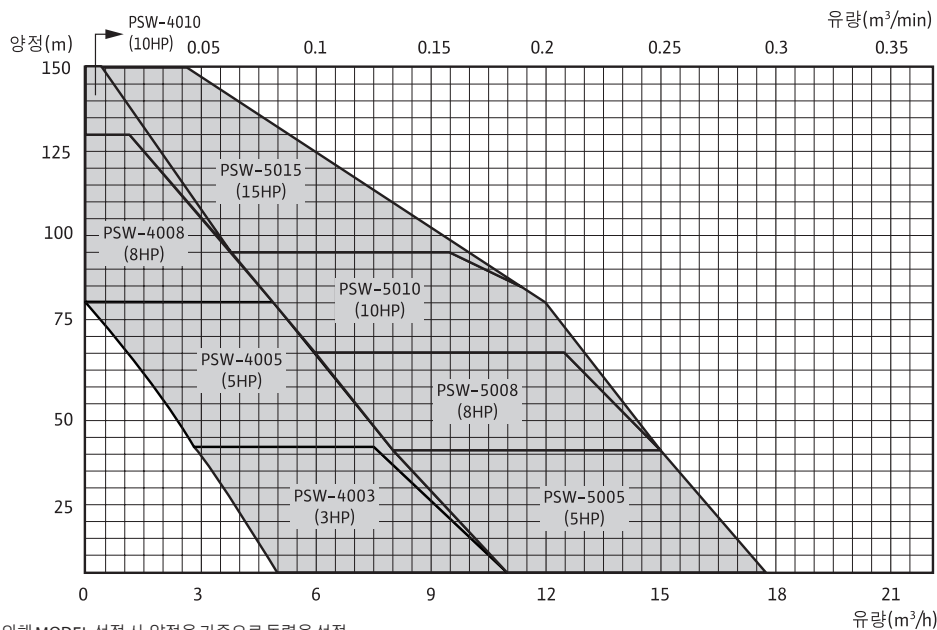
치수

Model	FIG	PUMP & MOTOR(mm)								Bed ASM(mm)						WEIGHT(kg)	
		L	L1	L2	M	H	H1	H2	F	Ba	Bb	Bc	Bh	B1	B2	PB	P.B.M
PSW-4003	A	704	128	191	382	350	112	125	135	650	450	100	40	320	360	30	64
PSW-4005	A	717			395											370	112+20
PSW-4008	A	769			447	132	132										
PSW-4010	A	808			486											40	112
PSW-5005	A	732	143	191	395	386	132	140	800	500	150	113	335	370	40	85	
PSW-5008	A	784			447										132	132	40
PSW-5010	A	823			486	132	132										40
PSW-5015	B	932			595										132	132	50
PSW-5020	B	976	639	50	190												

※PSW-40 Series의 8~10HP의 경우, 높이차 보정을 위해 두께 20mm의 조정 Pad를 Pump 발자리에 밑에 별도 부착한 치수

(단위:mm)

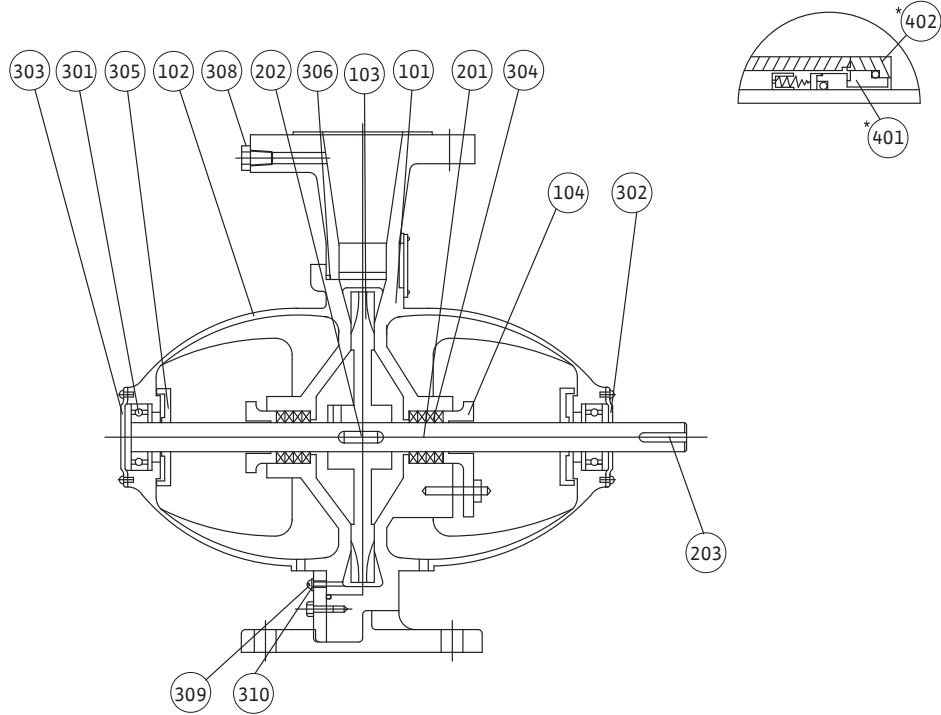
선정도



※상기 성능곡선에 의해 MODEL 선정 시, 양정을 기준으로 동력을 선정

PSW Series 단면도

단면도



품번	품명	재질	수량
101	케이싱 (CASING)	GC200	1
102	케이싱 커버 (CASING COVER)	GC200	1
103	임펠러 (IMPELLER)	C3771BD	1
104	글랜드 (GLAND)	GC200	2
201	축 (SHAFT)	STS410	1
202	축 키 (SHAFT KEY)	SM45C	1
203	커플링 키 (COUPLING KEY)	SM45C	1
301	볼베어링 (BALL BEARING)	STB2	2
302	베어링 커버 (A)[BEARING COVER(A)]	SCP1	1

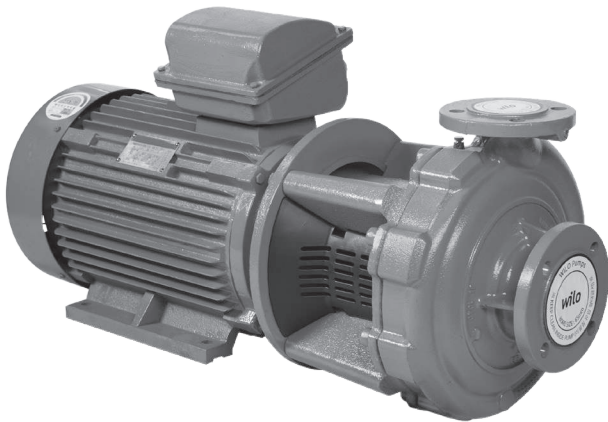
품번	품명	재질	수량
303	베어링 커버 (B)[BEARING COVER(B)]	SCP1	1
304	글랜드 패킹 (GLAND PACKING)	FABRIC	2SETS
305	물막음 턱 (DEFLECTOR)	NR	2
306	케이싱 O-링 (CASING O-RING)	NBR	1
308	플러그 (PLUG)	C3602BD	2
309	배수용 나사 (DRAIN SCREW)	NSWR3	1
310	배수용 패킹 (DRAIN PACKING)	NBR	1
* 401	미캐니컬 실 (MECHANICAL SEAL)		2
* 402	미캐니컬 실 커버 (M/SEAL COVER)	SM45C	2

*:선택부품 (Option Parts)

Monobloc Pumps

BL Series

BL Series



적용범위

- 빌딩의 냉온수 순환
- 공동주택의 온수 순환
- 급탕 순환
- 콜링 타워
- 가압, 응축수 시스템

사용유체

VDI 2035에 준하는 온수, 냉수, 냉각용수, 열교환 용수, 글리콜 혼합용수 (20%, 최대 40%까지 option으로 가능)

* VDI 2035: VDI guideline for preventing damage in hot water heating installations.

특장점

- 구조
백플아웃 구조로 유지보수가 용이
커플링 연결구조
Compact design으로 장비 부착용에 적합
- 임펠러
3차원 유동해석을 통한 최적설계
유체의 저항을 최소화 하여 고효율 실현
- 미캐니컬 실 표준 장착

기술자료

- 운전 범위
최대 유량: 360m³/hr
최고 양정: 120m
- 최대허용압력
13 bar에서 +140°C 까지
16 bar에서 +120°C 까지
- 사용 온도
-20°C ~ +140°C
- 주위 온도
최대 +40°C
- 축봉장치
미캐니컬 실
- 플랜지
PN 16 (EN 1092-2)
1/8" 게이지 태핑
- 모터
IEC 표준 모터(효율 관리 기자재 운영 규정 만족)
3상, IP55, F종
- 재질(표준)

케이싱	Gray Cast Iron + Cataphoresis Coating
임펠러	Gray Cast Iron + Cataphoresis Coating
샤프트	Stainless Steel
랜턴	Gray Cast Iron + Cataphoresis Coating
미캐니컬 실	AQ1EGG

* 청동임펠러 option 가능

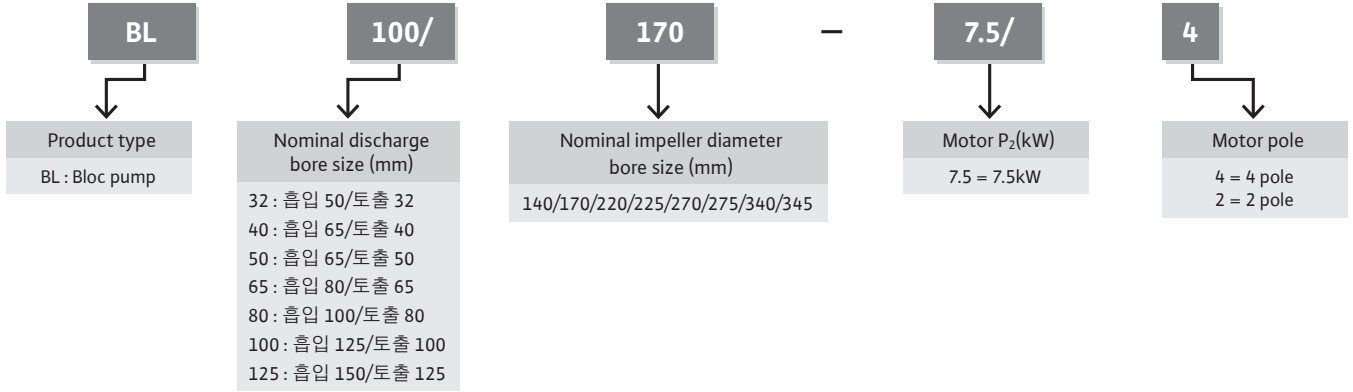
Monobloc Pumps



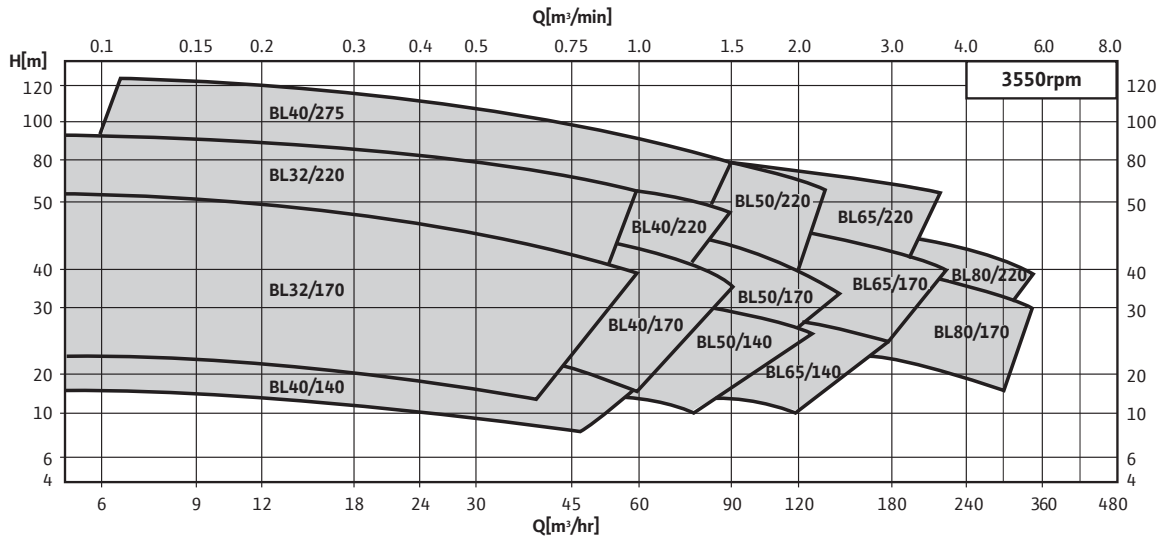
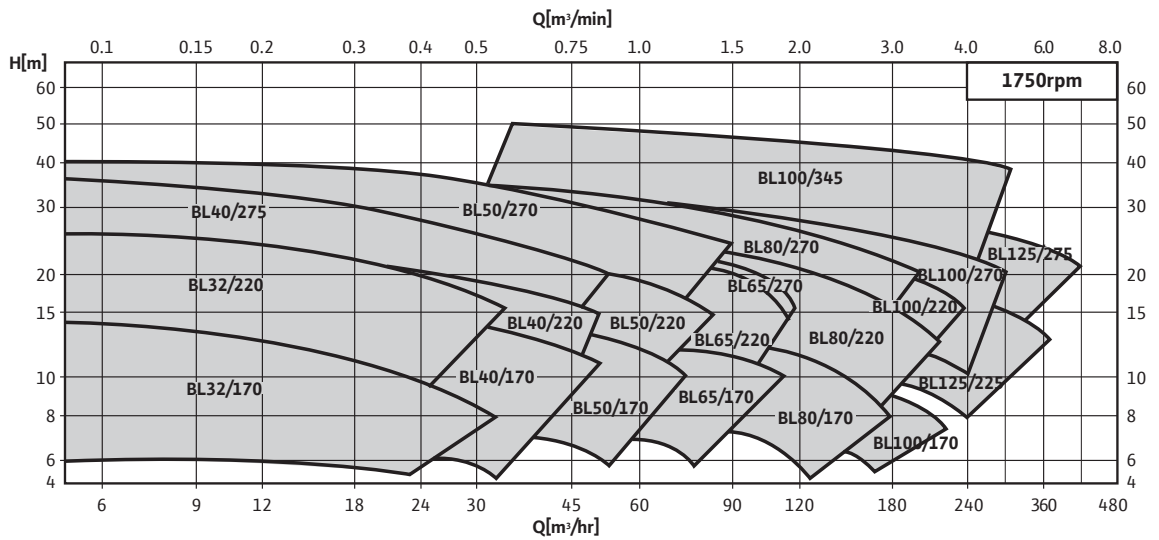
BL Series

BL Series 모델명 및 선정도

모델명 부여기준



선정도



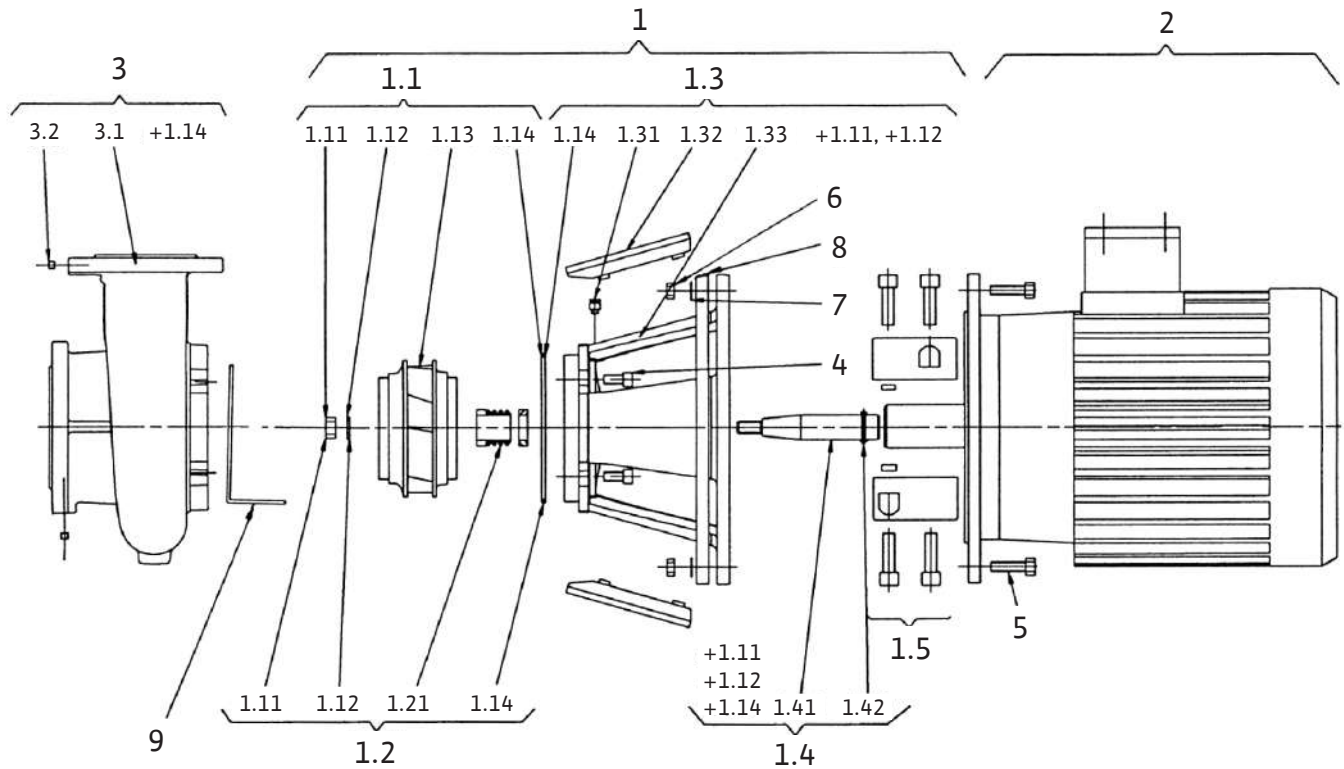
Monobloc Pumps

BL Series

BL Series

단면도

단면도



No.	PART NAME	MATERIALS
1.11	Hexagon nut	- DIN934 A2
1.12	Steel washer	- DIN125 A2
1.13	Impeller	- EN-GJL200 - Bronze
1.14	O-ring	- EPDM - Viton
1.2	Mechanical seal assembly	- Carbon/SiC-EPDM - SiC/SiC-Viton
1.31	Vent plug	- CuZn39Pb2
1.32	Coupling guard	- PA66
1.33	Lantern	- EN-GJL250

No.	PART NAME	MATERIALS
1.41	Shaft	- 1.4122 Stainless Steel
1.42	Circlip	- DIN7993 A2
1.5	Coupling assembly	
2	Motor	
3.1	Pump body	- EN-GJL250
3.2	Plug	- DIN906 8.8
4	Bolts	- DIN912 8.8
5	Bolts	- DIN912 8.8
6	Hexagon nuts	- DIN934 8
7	Steel washers	- DIN125 ST
8	Adopter ring(5.5, 7.5kW)	
9	Pump support feet(~4kW)	

Monobloc Pumps

BL Series

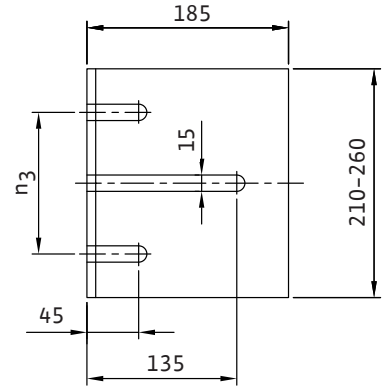
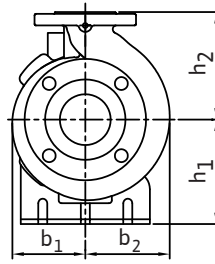
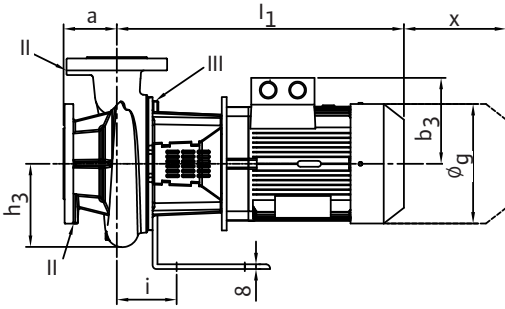


BL Series

외형도

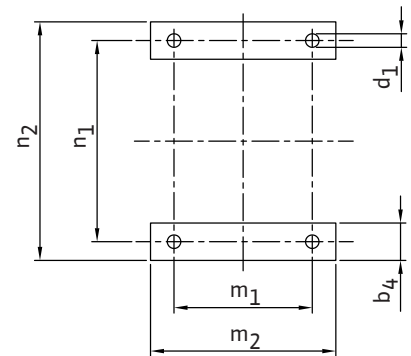
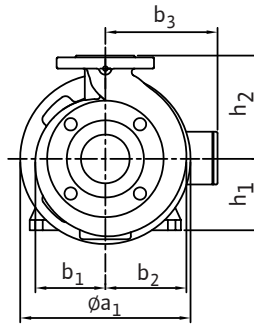
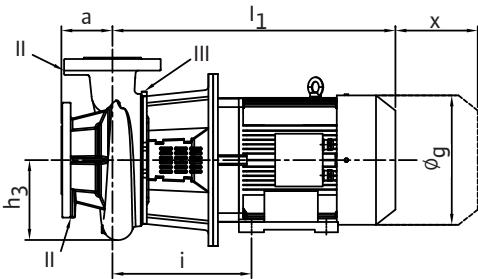
외형도

BL Series(Figure 1)



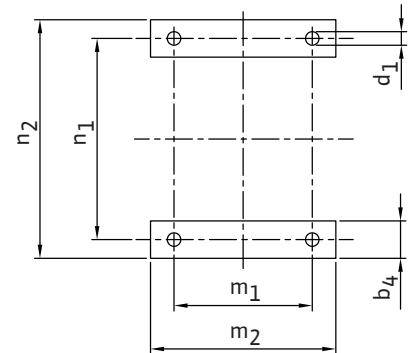
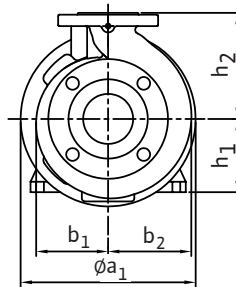
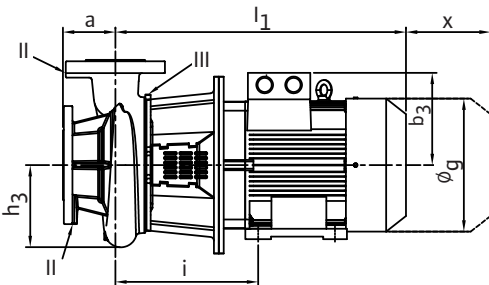
II : Gauge tapping 1/8"
III : Vent plug 1/8"

BL Series(Figure 2)



II : Gauge tapping 1/8"
III : Vent plug 1/8"

BL Series(Figure 3)



II : Gauge tapping 1/8"
III : Vent plug 1/8"

Monobloc Pumps

BL Series

BL Series

외형치수

외형치수 4pole																							
Model	DN		Fig.	a	øa ₁	b ₁	b ₂	b ₃	b ₄	d ₁	øg	h ₁	h ₂	h ₃	~l ₁	i	m ₁	m ₂	n ₁	n ₂	n ₃	x	~Net Weight (kg)
	Suc.	Dis.																					
BL32/170-0.4/4	50	32	1	80	-	113	129	141	-	-	175	160	160	122	437	110	-	-	-	-	130	95	43
BL32/170-0.55/4	50	32	1	80	-	113	129	141	-	-	175	160	160	122	437	110	-	-	-	-	130	95	43
BL32/170-0.75/4	50	32	1	80	-	113	129	141	-	-	175	160	160	122	437	110	-	-	-	-	130	95	44
BL32/170-1.1/4	50	32	1	80	-	113	129	150	-	-	193	160	160	122	505	110	-	-	-	-	130	95	49
BL32/170-1.5/4	50	32	1	80	-	113	129	150	-	-	193	160	160	122	505	110	-	-	-	-	130	95	51
BL32/220-1.1/4	50	32	1	80	-	145	149	150	-	-	193	180	180	145	502	117	-	-	-	-	180	100	55
BL32/220-1.5/4	50	32	1	80	-	145	149	150	-	-	193	180	180	145	502	117	-	-	-	-	180	100	57
BL32/220-2.2/4	50	32	1	80	-	145	149	203	-	-	236	180	180	145	569	117	-	-	-	-	180	100	74
BL32/220-3/4	50	32	1	80	-	145	149	203	-	-	236	180	180	145	569	117	-	-	-	-	180	100	74
BL40/170-0.75/4	65	40	1	80	-	120	135	141	-	-	175	160	160	132	439	114	-	-	-	-	130	100	46
BL40/170-1.1/4	65	40	1	80	-	120	135	150	-	-	193	160	160	132	507	114	-	-	-	-	130	100	51
BL40/170-1.5/4	65	40	1	80	-	120	135	150	-	-	193	160	160	132	507	114	-	-	-	-	130	100	53
BL40/170-2.2/4	65	40	1	80	-	120	135	203	-	-	236	160	160	132	575	114	-	-	-	-	130	100	70
BL40/220-1.5/4	65	40	1	100	-	145	151	150	-	-	193	180	180	145	509	124	-	-	-	-	180	100	61
BL40/220-2.2/4	65	40	1	100	-	145	151	203	-	-	236	180	180	145	576	124	-	-	-	-	180	100	78
BL40/220-3/4	65	40	1	100	-	145	151	203	-	-	236	180	180	145	576	124	-	-	-	-	180	100	78
BL40/220-3.7/4	65	40	1	100	-	145	151	203	-	-	236	180	180	145	576	124	-	-	-	-	180	100	78
BL40/275-3/4	65	40	1	100	-	174	174	203	-	-	236	200	225	174	582	126	-	-	-	-	180	110	85
BL40/275-3.7/4	65	40	1	100	-	174	174	203	-	-	236	200	225	174	582	126	-	-	-	-	180	110	85
BL40/275-4/4	65	40	1	100	-	174	174	203	-	-	236	200	225	174	582	126	-	-	-	-	180	110	87
BL40/275-5.5/4	65	40	2	100	300	174	174	221	45	12	274	132	225	174	613	334	140	175	216	250	-	110	88
BL40/275-7.5/4	65	40	2	100	300	174	174	221	45	12	274	132	225	174	652	335	178	215	216	250	-	110	93
BL50/170-1.1/4	65	50	1	100	-	127	147	150	-	-	193	160	180	152	514	122	-	-	-	-	130	120	54
BL50/170-1.5/4	65	50	1	100	-	127	147	203	-	-	236	160	180	152	514	122	-	-	-	-	130	120	56
BL50/170-2.2/4	65	50	1	100	-	127	147	203	-	-	236	160	180	152	582	122	-	-	-	-	130	120	72
BL50/170-3/4	65	50	1	100	-	127	147	203	-	-	236	160	180	152	582	122	-	-	-	-	130	120	72
BL50/220-2.2/4	65	50	1	100	-	153	172	203	-	-	236	180	200	159	577	124	-	-	-	-	180	120	72
BL50/220-3/4	65	50	1	100	-	153	172	203	-	-	236	180	200	159	577	124	-	-	-	-	180	120	72
BL50/220-3.7/4	65	50	1	100	-	153	172	203	-	-	236	180	200	159	577	124	-	-	-	-	180	120	72
BL50/220-4/4	65	50	1	100	-	153	172	203	-	-	236	180	200	159	577	124	-	-	-	-	180	120	74
BL50/220-5.5/4	65	50	2	100	300	153	172	221	45	12	274	132	200	159	608	329	140	175	216	250	-	120	110
BL50/220-7.5/4	65	50	2	100	300	153	172	221	45	12	274	132	200	159	647	330	178	215	216	250	-	120	125
BL50/270-4/4	65	50	1	100	-	174	186	203	-	-	236	132	225	179	583	131	-	-	-	-	180	110	89
BL50/270-5.5/4	65	50	2	100	300	174	186	221	45	12	274	132	225	179	614	335	140	175	216	250	-	110	125
BL50/270-7.5/4	65	50	2	100	300	174	186	221	45	12	274	132	225	179	653	336	178	215	216	250	-	110	140
BL50/270-11/4	65	50	3	100	350	174	186	304	50	15	317	160	225	179	739	362	210	250	254	300	-	110	197
BL50/270-15/4	65	50	3	100	350	174	186	304	50	15	317	160	225	179	783	362	254	300	254	300	-	110	217
BL65/170-1.5/4	80	65	1	100	-	136	162	150	-	-	193	160	200	155	514	130	-	-	-	-	130	120	63
BL65/170-2.2/4	80	65	1	100	-	136	162	203	-	-	236	160	200	155	582	130	-	-	-	-	130	120	76
BL65/170-3/4	80	65	1	100	-	136	162	203	-	-	236	160	200	155	582	130	-	-	-	-	130	120	76
BL65/170-3.7/4	80	65	1	100	-	136	162	203	-	-	236	160	200	155	582	130	-	-	-	-	130	120	76
BL65/170-4/4	80	65	1	100	-	136	162	203	-	-	236	160	200	155	582	130	-	-	-	-	130	120	76
BL65/220-3/4	80	65	1	100	-	156	181	203	-	-	236	200	225	170	593	139	-	-	-	-	180	120	85
BL65/220-3.7/4	80	65	1	100	-	156	181	203	-	-	236	200	225	170	593	139	-	-	-	-	180	120	85
BL65/220-4/4	80	65	1	100	-	156	181	203	-	-	236	200	225	170	593	139	-	-	-	-	180	120	87
BL65/220-5.5/4	80	65	2	100	300	156	181	221	45	12	274	132	225	170	624	345	140	175	216	250	-	120	123
BL65/220-7.5/4	80	65	2	100	300	156	181	221	45	12	274	132	225	170	663	346	178	215	216	250	-	120	138
BL65/275-5.5/4	80	65	2	100	300	184	203	221	45	12	274	132	250	196	622	343	140	175	216	250	-	115	146
BL65/275-7.5/4	80	65	2	100	300	184	203	221	45	12	274	132	250	196	661	344	178	215	216	250	-	115	161
BL80/170-3/4	100	80	1	125	-	160	196	203	-	-	236	160	225	178	597	137	-	-	-	-	130	135	85
BL80/170-3.7/4	100	80	1	125	-	160	196	203	-	-	236	160	225	178	597	137	-	-	-	-	130	135	85
BL80/170-4/4	100	80	1	125	-	160	196	203	-	-	236	160	225	178	597	137	-	-	-	-	130	135	85
BL80/170-5.5/4	100	80	2	125	300	160	196	221	45	12	274	132	225	178	617	338	140	175	216	250	-	135	123
BL80/170-7.5/4	100	80	2	125	300	160	196	221	45	12	274	132	225	178	656	339	178	215	216	250	-	135	132

Monobloc Pumps

BL Series



BL Series

외형치수

외형치수 4pole																							
Model	DN		Fig.	a	øa ₁	b ₁	b ₂	b ₃	b ₄	d ₁	øg	h ₁	h ₂	h ₃	~l ₁	i	m ₁	m ₂	n ₁	n ₂	n ₃	x	~Net Weight (kg)
	Suc.	Dis.																					
BL80/220-3.7/4	100	80	1	125	-	170	197	203	-	-	236	200	250	178	598	143	-	-	-	-	180	120	98
BL80/220-4/4	100	80	1	125	-	170	197	203	-	-	236	200	250	178	598	143	-	-	-	-	180	120	100
BL80/220-5.5/4	100	80	2	125	300	170	197	221	45	12	274	132	250	178	629	350	140	175	216	250	-	120	136
BL80/220-7.5/4	100	80	2	125	300	170	197	221	45	12	274	132	250	178	668	351	178	215	216	250	-	120	151
BL80/220-11/4	100	80	3	125	350	170	197	304	50	15	317	160	250	178	795	418	210	250	254	300	-	120	208
BL80/220-15/4	100	80	3	125	350	170	197	304	50	15	317	160	250	178	839	418	210	250	254	300	-	120	228
BL80/270-11/4	100	80	3	125	350	192	218	304	50	15	317	160	280	199	783	406	210	250	254	300	-	120	227
BL80/270-15/4	100	80	3	125	350	192	218	304	50	15	317	160	280	199	827	406	210	250	254	300	-	120	248
BL80/270-18.5/4	100	80	3	125	350	192	218	326	61	15	365	180	280	199	821	407	241	280	279	321	-	120	273
BL80/270-22/4	100	80	3	125	350	192	218	326	61	15	365	180	280	199	821	407	241	280	279	321	-	120	288
BL100/170-3.7/4	125	100	1	125	-	167	206	203	-	-	236	189	260	189	606	147	-	-	-	-	130	120	97
BL100/170-4/4	125	100	1	125	-	167	206	203	-	-	236	189	260	189	606	147	-	-	-	-	130	120	99
BL100/170-5.5/4	125	100	2	125	300	167	206	221	45	12	274	132	260	189	626	347	140	175	216	250	-	120	135
BL100/170-7.5/4	125	100	2	125	300	167	206	221	45	12	274	132	260	189	665	348	178	215	216	250	-	120	150
BL100/220-5.5/4	125	100	2	125	300	176	211	221	45	12	274	132	280	196	639	360	140	175	216	250	-	120	145
BL100/220-7.5/4	125	100	2	125	300	176	211	221	45	12	274	132	280	196	678	361	178	215	216	250	-	120	160
BL100/220-11/4	125	100	3	125	350	176	211	304	50	15	317	160	280	196	804	427	210	250	254	300	-	120	217
BL100/220-15/4	125	100	3	125	350	176	211	304	50	15	317	160	280	196	848	427	210	250	254	300	-	120	237
BL100/270-15/4	125	100	3	140	350	200	232	304	50	15	317	160	280	222	841	420	210	250	254	300	-	130	262
BL100/270-18.5/4	125	100	3	140	350	200	232	326	61	15	365	180	280	222	835	421	241	280	279	321	-	130	287
BL100/270-22/4	125	100	3	140	350	200	232	326	61	15	365	180	280	222	852	438	241	280	279	321	-	130	302
BL100/270-30/4	125	100	3	140	400	200	232	405	61	15	406	200	280	222	1017	427	279	318	279	321	-	130	416
BL100/345-22/4	125	100	3	140	350	263	297	326	61	15	365	180	315	250	870	456	241	280	279	321	-	140	349
BL100/345-30/4	125	100	3	140	400	263	297	405	61	15	406	200	315	250	1035	445	279	318	279	321	-	140	434
BL100/345-37/4	125	100	3	140	450	263	297	405	83	19	406	200	315	250	1119	521	305	365	318	400	-	140	509
BL100/345-45/4	125	100	3	140	450	263	297	405	82	19	406	200	315	250	1149	510	305	365	318	400	-	140	519
BL100/345-55/4	125	100	3	140	450	263	297	434	79	19	454	225	315	250	1153	540	311	375	356	432	-	140	604
BL125/225-7.5/4	150	125	2	140	300	207	254	221	45	12	274	132	315	232	690	373	178	215	216	250	-	140	197
BL125/225-11/4	150	125	3	140	350	207	254	304	50	15	317	160	315	232	817	440	210	250	254	300	-	140	259
BL125/225-15/4	150	125	3	140	350	207	254	304	50	15	317	160	315	232	861	440	210	250	254	300	-	140	280
BL125/225-18.5/4	150	125	3	140	350	207	254	326	61	15	365	180	315	232	855	441	241	280	279	321	-	140	305
BL125/225-22/4	150	125	3	140	350	207	254	326	61	15	365	180	315	232	855	441	241	280	279	321	-	140	320
BL125/275-18.5/4	150	125	3	140	350	252	294	326	61	15	365	180	355	250	876	462	241	280	279	321	-	140	331
BL125/275-22/4	150	125	3	140	350	252	294	326	61	15	365	180	355	250	876	462	241	280	279	321	-	140	346
BL125/275-30/4	150	125	3	140	350	252	294	405	61	15	406	200	355	250	1070	480	279	318	279	321	-	140	476
BL125/275-37/4	150	125	3	140	450	252	294	405	83	19	406	200	355	250	1094	496	305	365	318	400	-	140	496

※22kW이하는IE2모터,30kW이상은IE3모터 기준

Monobloc Pumps

BL Series

BL Series 외형치수

외형치수 2pole																									
Model	DN		Fig.	a	øa ₁	b ₁	b ₂	b ₃	b ₄	d ₁	øg	h ₁	h ₂	h ₃	~l ₁	i	m ₁	m ₂	n ₁	n ₂	n ₃	x	~Net Weight (kg)		
	Suc.	Dis.																						(mm)	
BL32/170-3/2	50	32	1	80	-	113	129	203	-	-	236	160	160	122	572	110	-	-	-	-	130	95	63		
BL32/170-3.7/2	50	32	1	80	-	113	129	203	-	-	236	160	160	122	572	110	-	-	-	-	130	95	66		
BL32/170-4/2	50	32	1	80	-	113	129	203	-	-	236	160	160	122	572	110	-	-	-	-	130	95	67		
BL32/170-5.5/2	50	32	2	80	300	113	129	221	45	12	274	132	160	122	593	314	140	175	216	250	-	95	95		
BL32/170-7.5/2	50	32	2	80	300	113	129	221	45	12	274	132	160	122	593	314	140	175	216	250	-	95	100		
BL32/170-11/2	50	32	3	80	350	113	129	304	50	15	317	160	160	122	767	390	210	250	254	300	-	95	169		
BL32/220-7.5/2	50	32	2	80	300	145	149	221	45	12	274	132	180	145	600	321	140	175	216	250	-	100	108		
BL32/220-11/2	50	32	3	80	350	145	149	304	50	15	317	160	180	145	766	389	210	250	254	300	-	100	175		
BL32/220-15/2	50	32	3	80	350	145	149	304	50	15	317	160	180	145	766	389	210	250	254	300	-	100	175		
BL32/220-18.5/2	50	32	3	80	350	145	149	304	50	15	317	160	180	145	810	389	254	300	254	300	-	100	195		
BL32/220-22/2	50	32	3	80	350	145	149	326	61	15	365	180	180	145	804	390	241	280	254	279	321	-	100	225	
BL40/140-2.2/2	65	40	1	80	-	101	119	150	-	-	193	160	140	111	503	114	-	-	-	-	130	100	47		
BL40/140-3/2	65	40	1	80	-	101	119	203	-	-	236	160	140	111	571	114	-	-	-	-	130	100	60		
BL40/140-3.7/2	65	40	1	80	-	101	119	203	-	-	236	160	140	111	571	114	-	-	-	-	130	100	62		
BL40/140-4/2	65	40	1	80	-	101	119	203	-	-	236	160	140	111	571	114	-	-	-	-	130	100	62		
BL40/170-5.5/2	65	40	2	80	300	120	135	221	45	12	274	132	160	132	595	316	140	175	216	250	-	100	111		
BL40/170-7.5/2	65	40	2	80	300	120	135	221	45	12	274	132	160	132	595	316	140	175	216	250	-	100	118		
BL40/170-11/2	65	40	3	80	350	120	135	304	50	15	317	160	160	132	768	391	210	250	254	300	-	100	185		
BL40/170-15/2	65	40	3	80	350	120	135	304	50	15	317	160	160	132	768	391	210	250	254	300	-	100	185		
BL40/220-7.5/2	65	40	2	100	300	145	151	221	45	12	274	132	180	145	607	328	140	175	216	250	-	100	133		
BL40/220-11/2	65	40	3	100	350	145	151	304	50	15	317	160	180	145	773	396	210	250	254	300	-	100	200		
BL40/220-15/2	65	40	3	100	350	145	151	304	50	15	317	160	180	145	773	396	210	250	254	300	-	100	200		
BL40/220-18.5/2	65	40	3	100	350	145	151	304	50	15	317	160	180	145	817	396	254	300	254	300	-	100	220		
BL40/220-22/2	65	40	3	100	350	145	151	326	61	15	365	180	180	145	811	397	241	280	279	321	-	100	250		
BL40/275-30/2	65	40	3	100	400	174	174	405	61	15	406	200	225	174	982	408	279	318	279	321	-	110	335		
BL40/275-37/2	65	40	3	100	400	174	174	405	83	19	406	200	225	174	982	425	305	365	318	400	-	110	370		
BL40/275-45/2	65	40	3	100	400	174	174	405	82	19	406	200	225	174	1112	414	305	365	318	400	-	110	410		
BL50/140-4/2	65	50	1	100	-	111	133	203	-	-	236	160	160	124	577	121	-	-	-	-	130	110	67		
BL50/140-5.5/2	65	50	2	100	300	111	133	221	45	12	274	132	160	124	603	324	140	175	216	250	-	110	94		
BL50/140-7.5/2	65	50	2	100	300	111	133	221	45	12	274	132	160	124	603	324	140	175	216	250	-	110	101		
BL50/140-11/2	65	50	3	100	350	111	133	304	50	15	317	160	160	124	777	400	210	250	254	300	-	110	168		
BL50/140-15/2	65	50	3	100	350	111	133	304	50	15	317	160	160	124	777	400	210	250	254	300	-	110	168		
BL50/140-18.5/2	65	50	3	100	350	111	133	304	50	15	317	160	160	124	821	400	254	300	254	300	-	110	188		
BL50/170-7.5/2	65	50	2	100	300	127	147	221	45	12	274	132	180	152	602	323	140	175	216	250	-	120	115		
BL50/170-11/2	65	50	3	100	350	127	147	304	50	15	317	160	180	152	776	399	210	250	254	300	-	120	182		
BL50/170-15/2	65	50	3	100	350	127	147	304	50	15	317	160	180	152	776	399	210	250	254	300	-	120	182		
BL50/170-18.5/2	65	50	3	100	350	127	147	304	50	15	317	160	180	152	820	399	254	300	254	300	-	120	202		
BL50/170-22/2	65	50	3	100	350	127	147	326	61	15	365	180	180	152	814	400	241	280	279	321	-	120	232		
BL50/220-18.5/2	65	50	3	100	350	153	172	304	50	15	317	160	200	159	817	396	254	300	254	300	-	110	219		
BL50/220-22/2	65	50	3	100	350	153	172	326	61	15	365	180	200	159	811	397	241	280	279	321	-	110	249		
BL50/220-30/2	65	50	3	100	400	153	172	405	61	15	406	200	200	159	961	387	279	318	279	321	-	110	324		
BL50/220-37/2	65	50	3	100	400	153	172	405	83	19	406	200	200	159	961	404	305	365	318	400	-	110	359		
BL65/140-5.5/2	80	65	2	100	300	123	151	221	45	12	274	132	180	155	610	331	140	175	216	250	-	120	99		
BL65/140-7.5/2	80	65	2	100	300	123	151	221	45	12	274	132	180	155	610	331	140	175	216	250	-	120	106		
BL65/140-11/2	80	65	3	100	350	123	151	304	50	15	317	160	180	155	784	407	210	250	254	300	-	120	173		
BL65/140-15/2	80	65	3	100	350	123	151	304	50	15	317	160	180	155	784	407	210	250	254	300	-	120	173		
BL65/140-18.5/2	80	65	3	100	350	123	151	304	50	15	317	160	180	155	828	407	254	300	254	300	-	120	193		

Monobloc Pumps



BL Series

BL Series 외형치수

외형치수 2pole

Model	DN		Fig.	a	øa ₁	b ₁	b ₂	b ₃	b ₄	d ₁	øg	h ₁	h ₂	h ₃	~l ₁	i	m ₁	m ₂	n ₁	n ₂	n ₃	x	~Net Weight (kg)
	Suc.	Dis.																					
BL65/170-11/2	80	65	3	100	350	136	162	304	50	15	317	160	200	155	784	407	210	250	254	300	-	120	197
BL65/170-15/2	80	65	3	100	350	136	162	304	50	15	317	160	200	155	784	407	210	250	254	300	-	120	197
BL65/170-18.5/2	80	65	3	100	350	136	162	304	50	15	317	160	200	155	828	407	254	300	254	300	-	120	217
BL65/170-22/2	80	65	3	100	350	136	162	326	61	15	365	180	200	155	822	408	241	280	279	321	-	120	247
BL65/170-30/2	80	65	3	100	350	136	162	405	61	15	406	200	200	155	972	397	279	318	279	321	-	120	317
BL65/220-22/2	80	65	3	100	350	156	181	326	61	15	365	180	225	170	828	414	241	280	279	321	-	120	259
BL65/220-30/2	80	65	3	100	400	156	181	405	61	15	406	200	225	170	979	404	279	318	279	321	-	120	334
BL65/220-37/2	80	65	3	100	400	156	181	405	83	19	406	200	225	170	979	421	305	365	318	400	-	120	414
BL65/220-45/2	80	65	3	100	400	156	181	405	82	19	406	200	225	170	1109	410	305	365	318	400	-	120	454
BL80/170-22/2	100	80	3	125	350	160	196	326	61	15	365	180	225	178	829	415	241	280	279	321	-	135	250
BL80/170-30/2	100	80	3	125	400	160	196	405	61	15	406	200	225	178	979	405	279	318	279	321	-	135	320
BL80/170-37/2	100	80	3	125	400	160	196	405	83	19	406	200	225	178	979	422	305	365	318	400	-	135	400
BL80/170-45/2	100	80	3	125	400	160	196	405	82	19	406	200	225	178	1109	411	305	365	318	400	-	135	440
BL80/220-37/2	100	80	3	125	400	170	197	405	83	19	406	200	250	178	980	422	305	365	318	400	-	120	422
BL80/220-45/2	100	80	3	125	400	170	197	405	82	19	406	200	250	178	1110	411	305	365	318	400	-	120	462

※22kW이하는IE2모터,30kW이상은IE3모터 기준

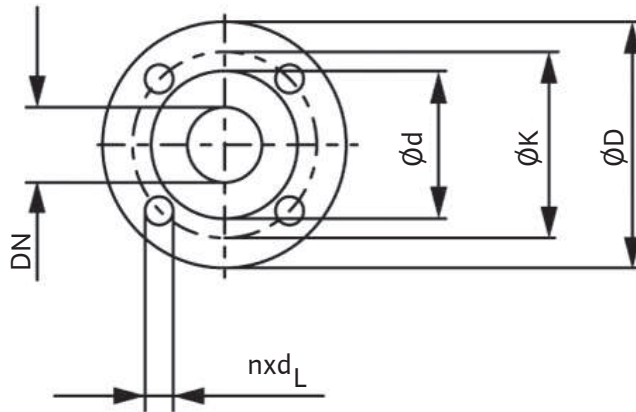
Monobloc Pumps

BL Series

BL Series

외형도 및 플랜지규격

외형도



플랜지규격(PN 16 - EN 1092-2)

Nominal flange diameter DN	Pump flange dimensions			
	øD	ød	øk	n x d _L
	(mm)			Number x mm
32	140	76	100	4 x 19
40	150	84	110	4 x 19
50	165	99	125	4 x 19
65	185	118	145	4 x 19
80	200	132	160	8 x 19
100	220	156	180	8 x 19
125	250	188	210	8 x 19
150	285	211	240	8 x 23

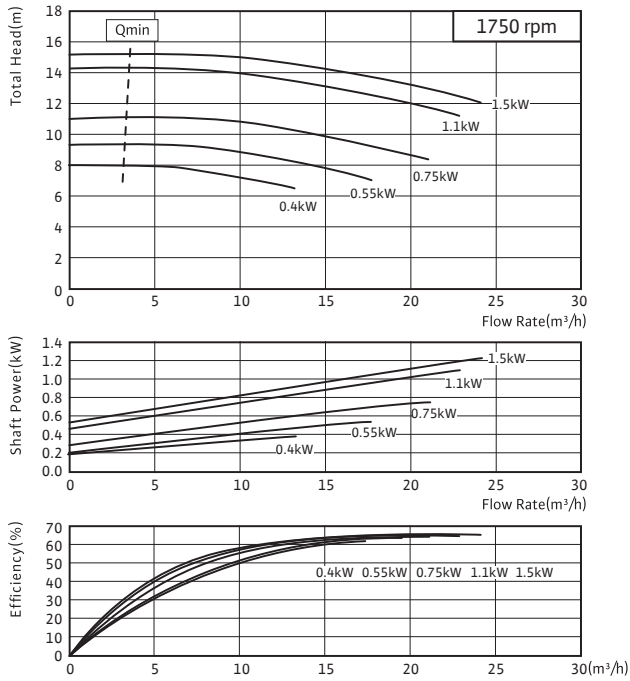
Monobloc Pumps

BL Series

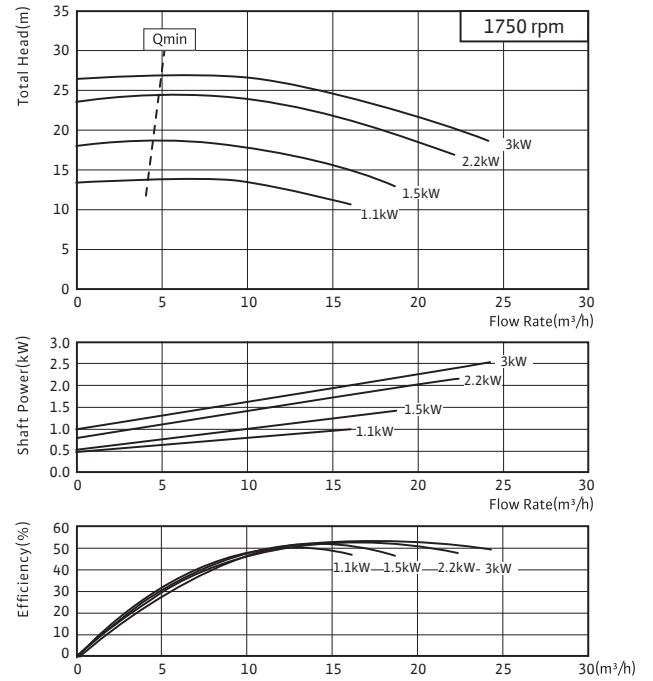


BL Series 성능곡선 4pole

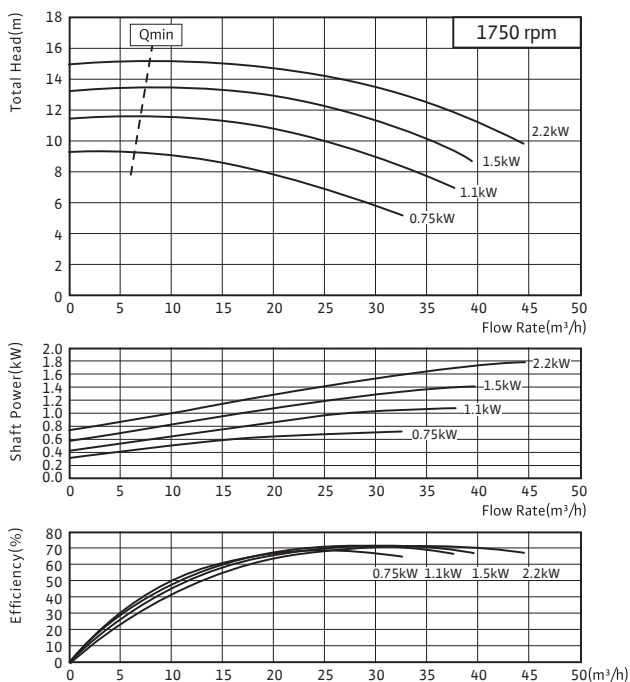
BL 32/170



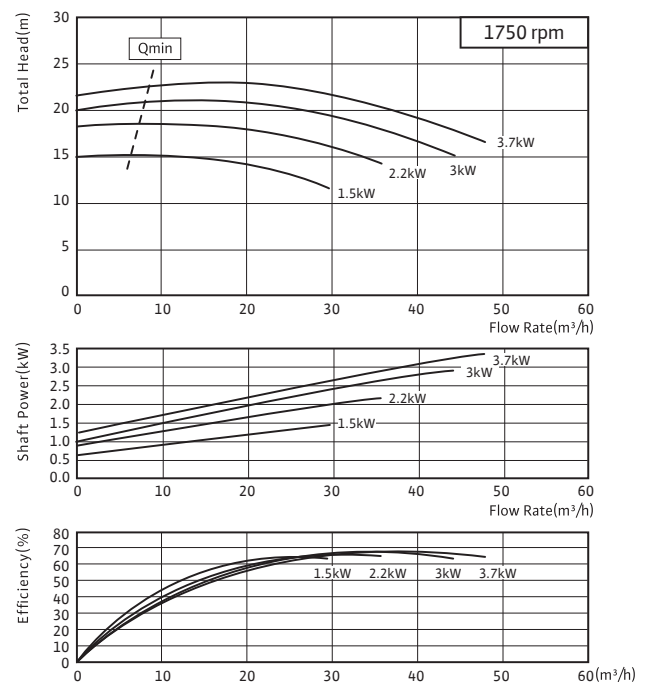
BL 32/220



BL 40/170



BL 40/220



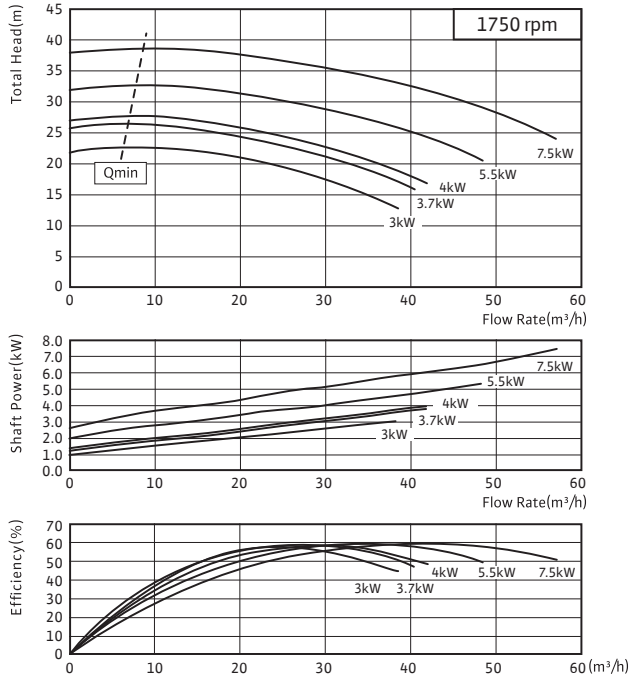
Monobloc Pumps

BL Series

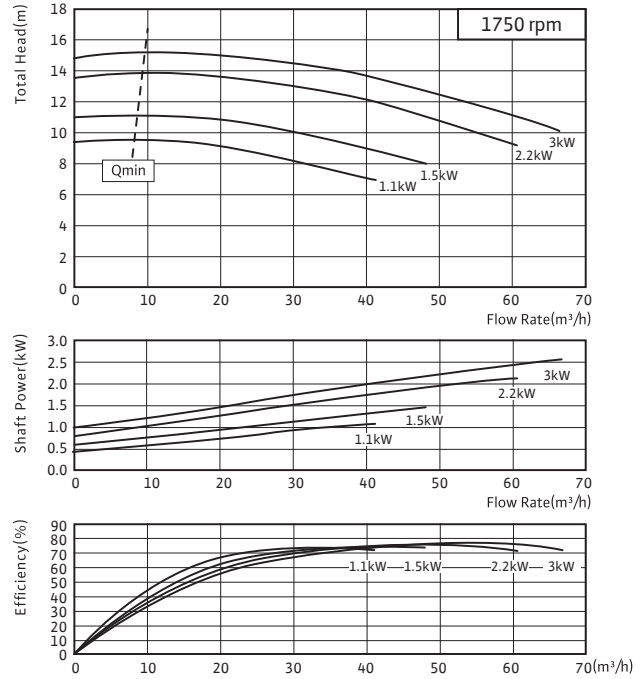
BL Series

성능곡선 4pole

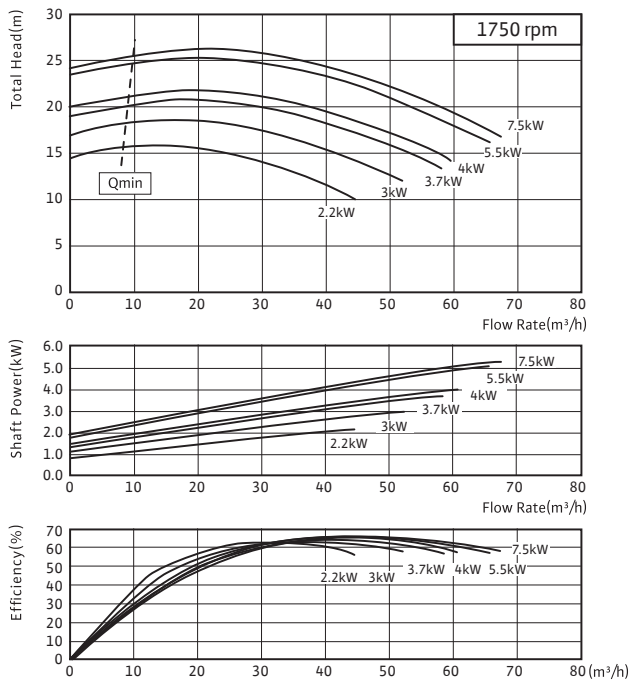
BL 40/275



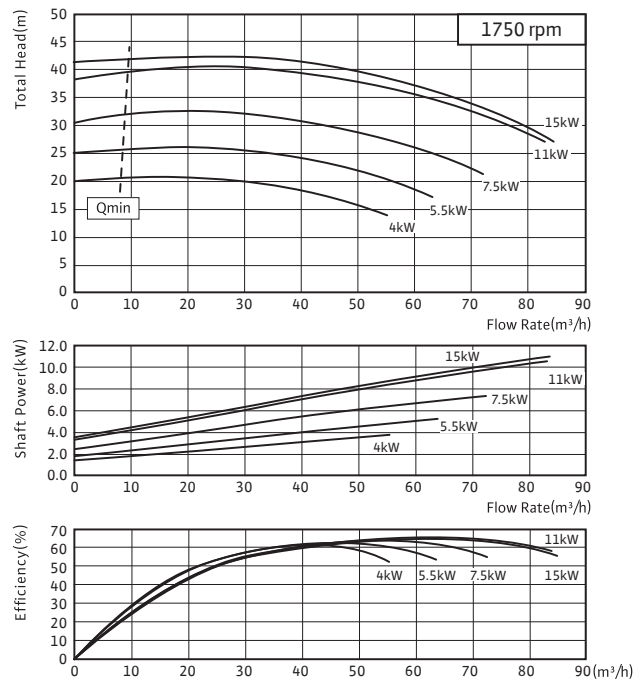
BL 50/170



BL 50/220



BL 50/270



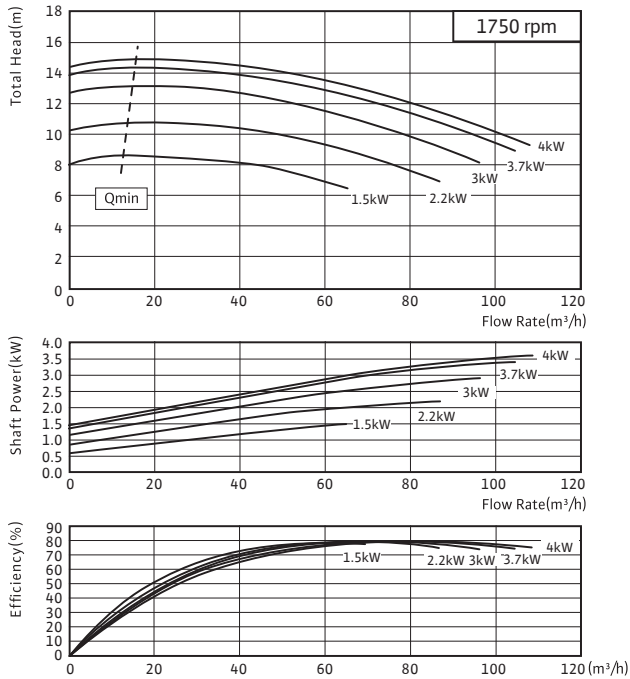
Monobloc Pumps

BL Series

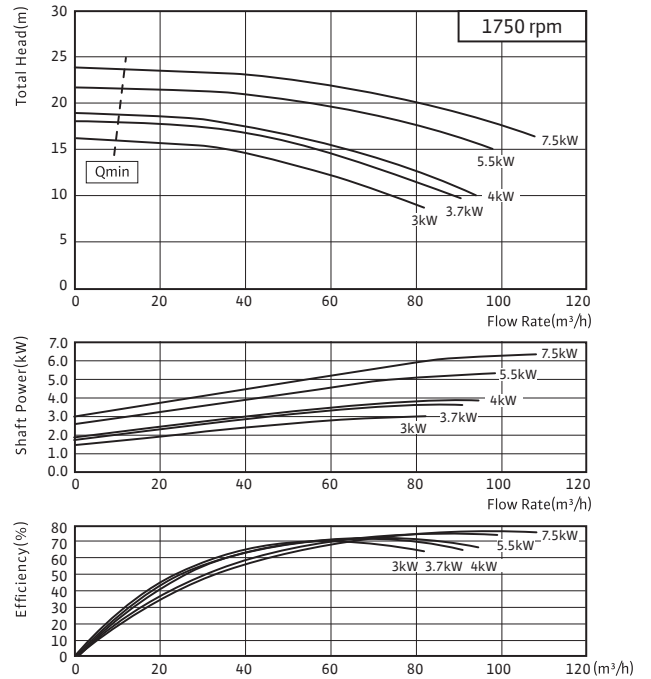
wilo

BL Series 성능곡선 4pole

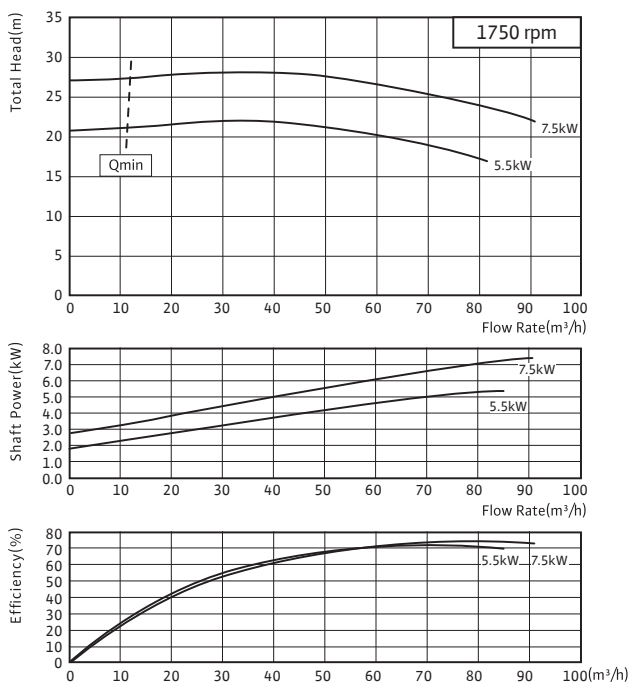
BL 65/170



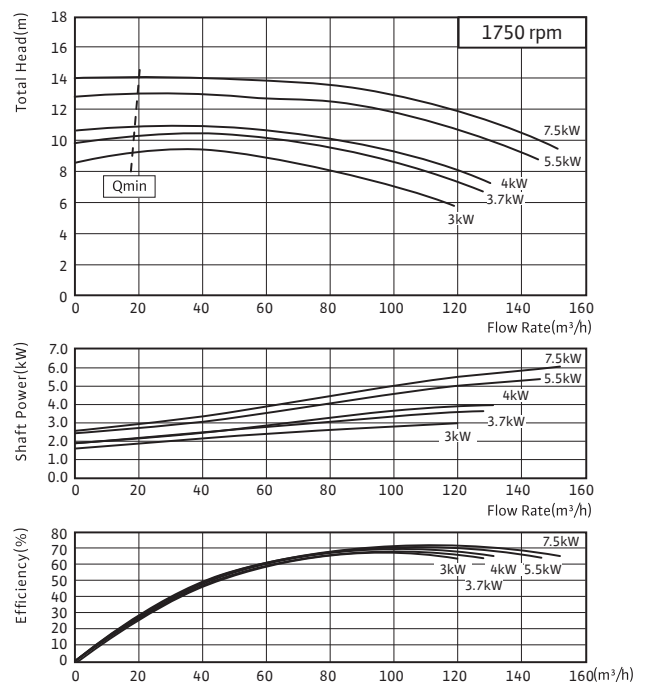
BL 65/220



BL 65/275



BL 80/170



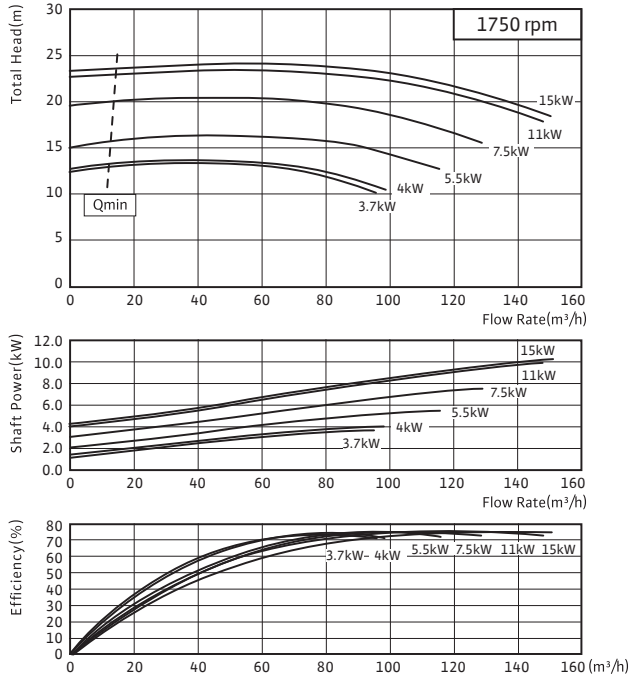
Monobloc Pumps

BL Series

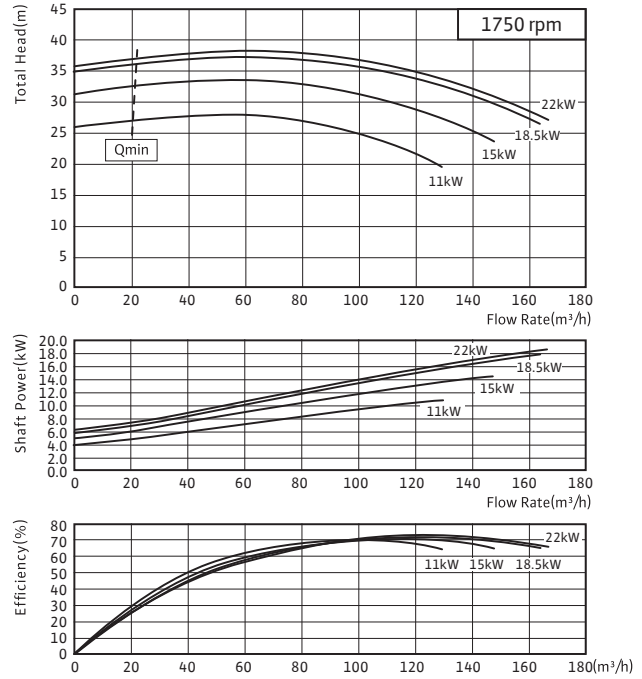
BL Series

성능곡선 4pole

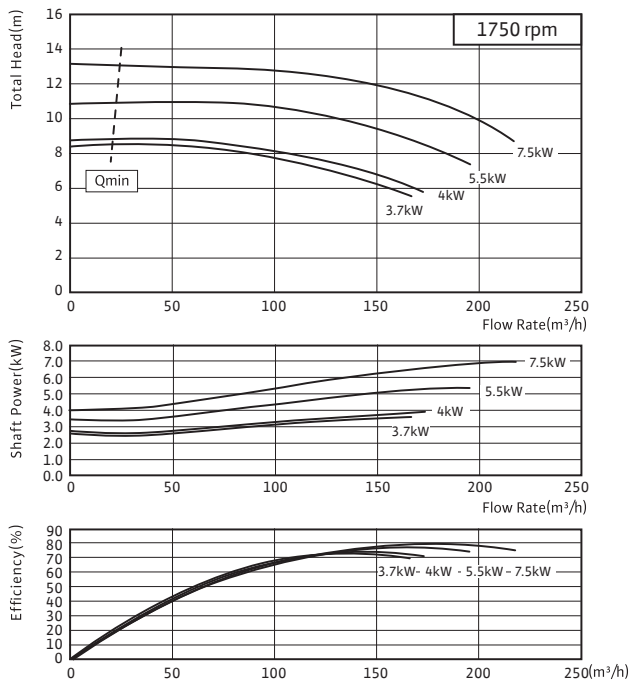
BL 80/220



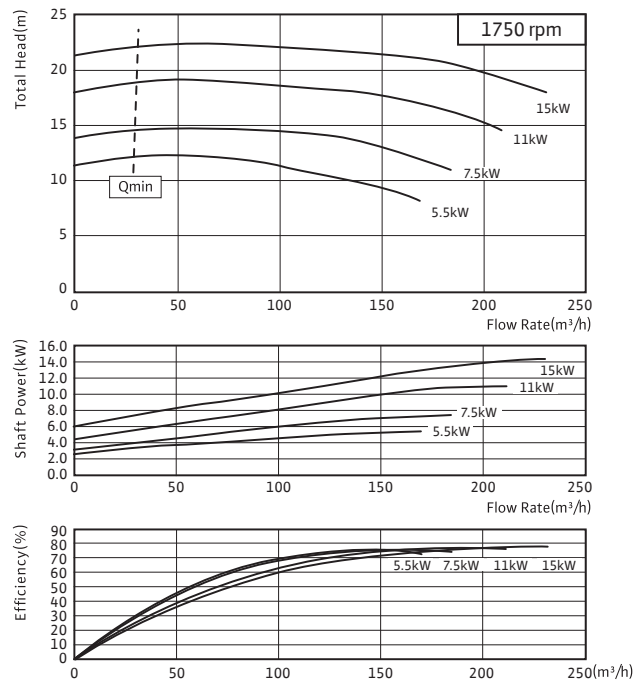
BL 80/270



BL 100/170



BL 100/220



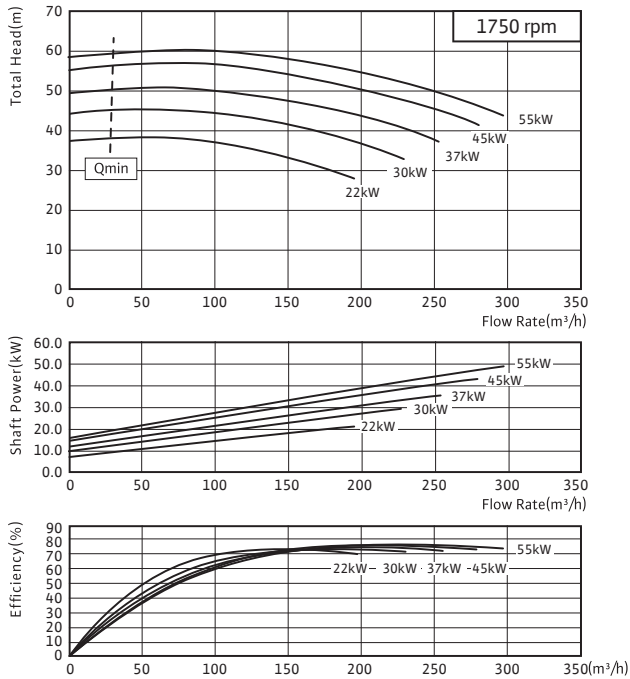
Monobloc Pumps

BL Series

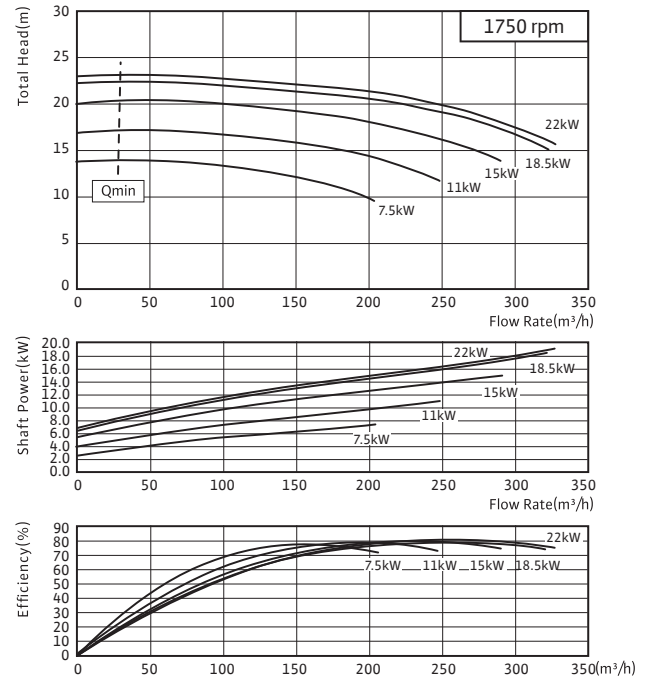
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BL Series 성능곡선 4pole

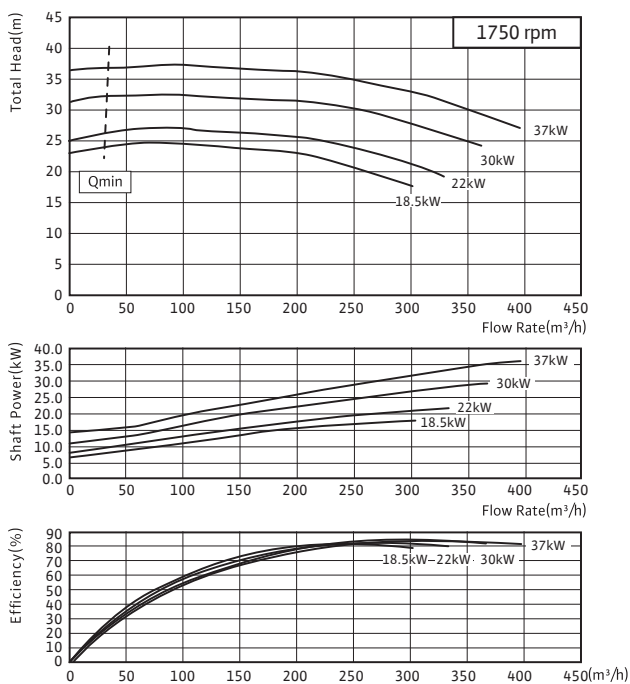
BL 100/345



BL 125/225



BL 125/275



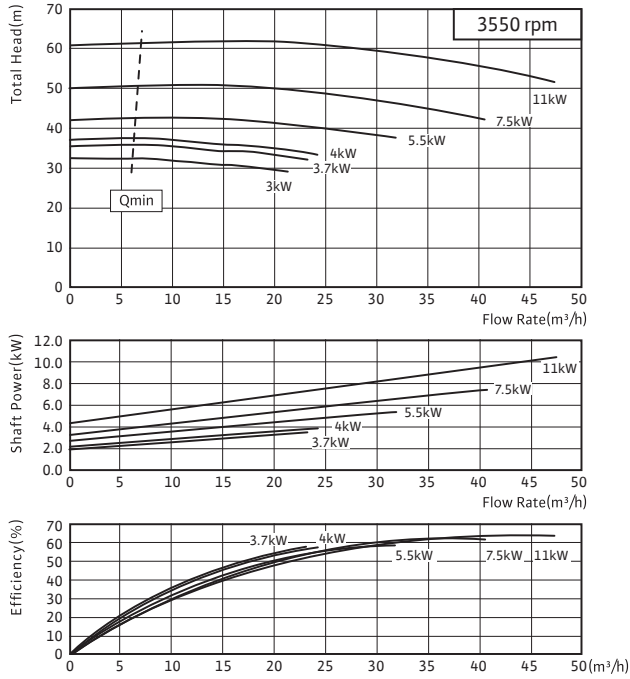
Monobloc Pumps

BL Series

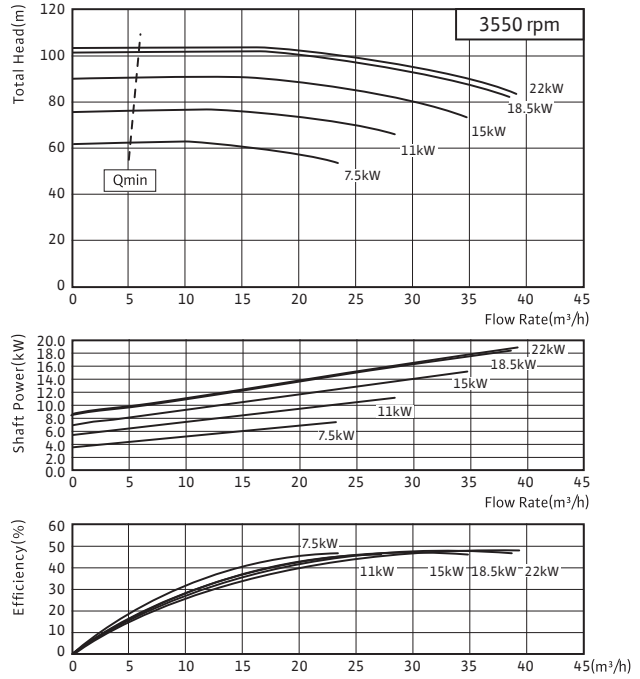
BL Series

성능곡선 2pole

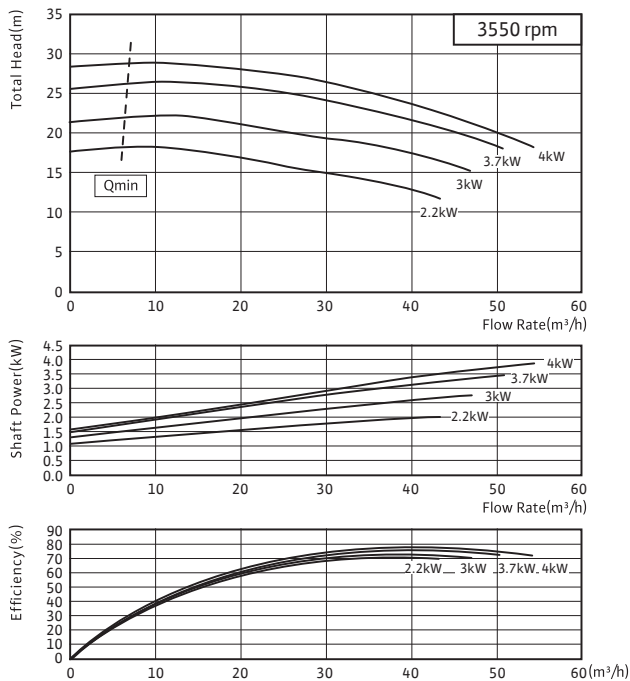
BL 32/170



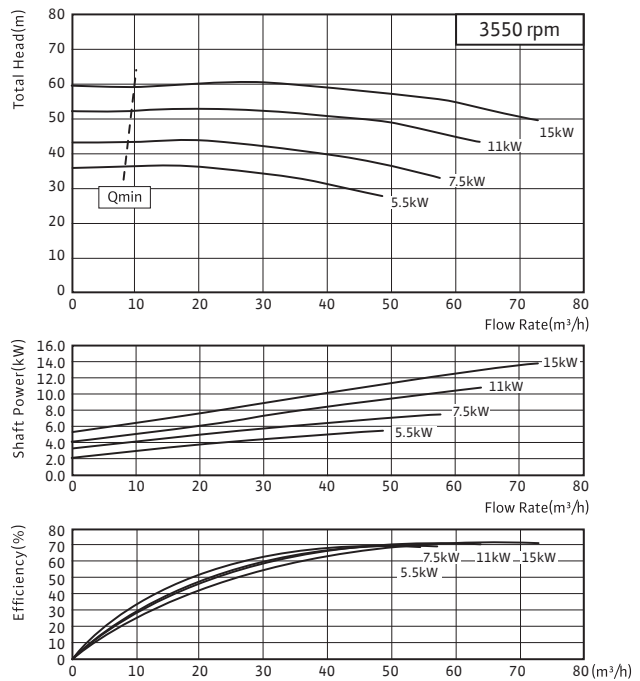
BL 32/220



BL 40/140



BL 40/170



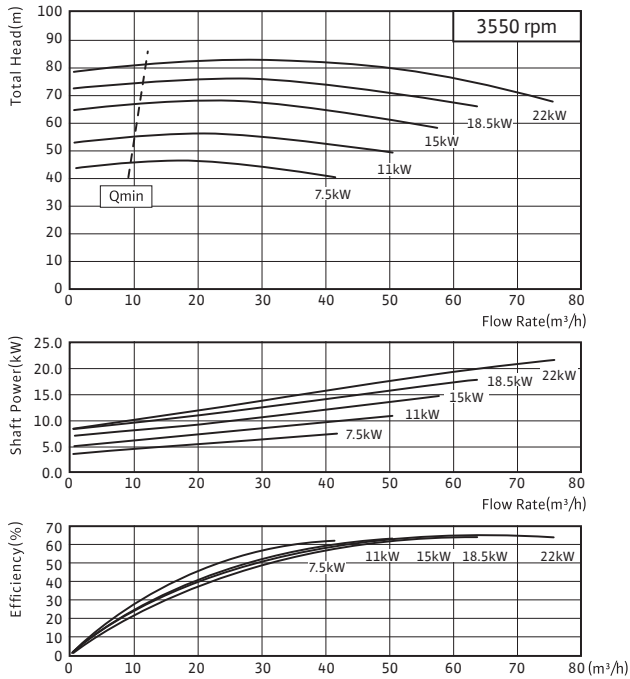
Monobloc Pumps

BL Series

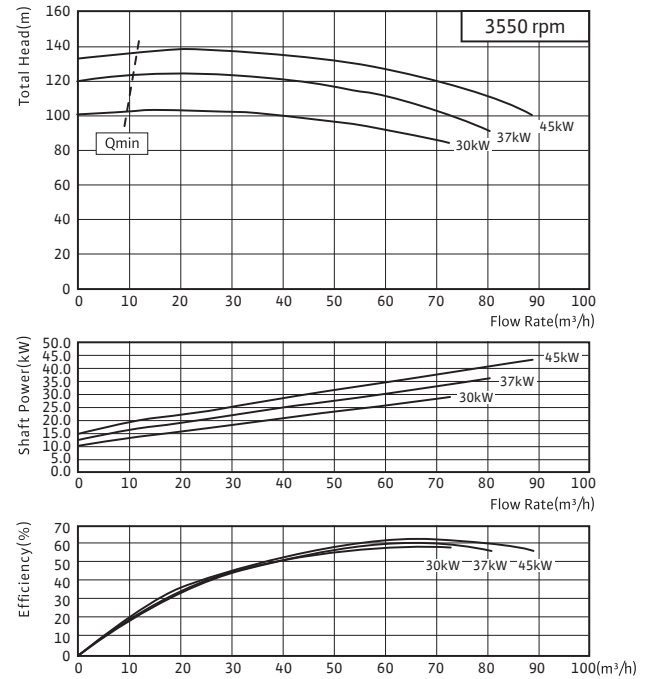
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BL Series 성능곡선 2pole

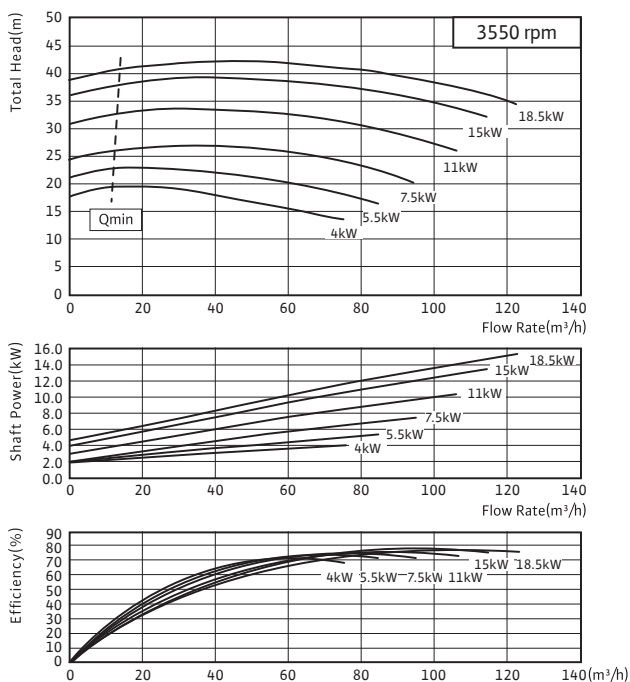
BL 40/220



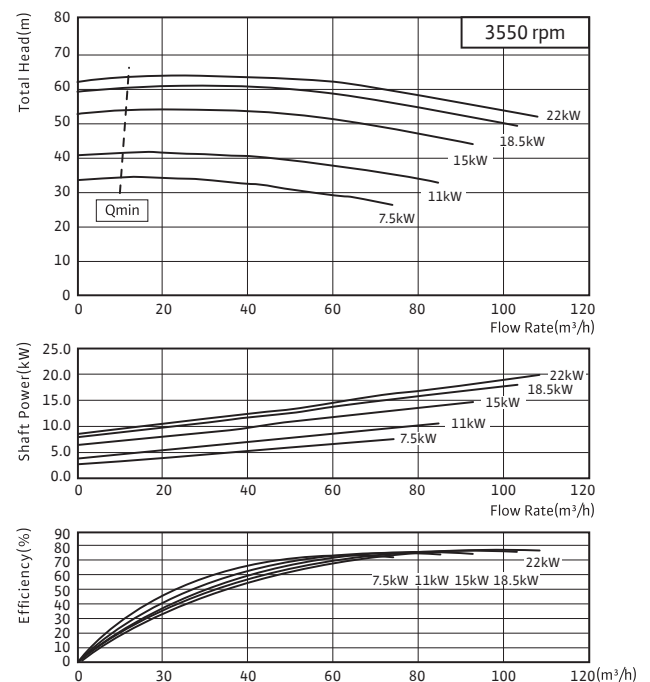
BL 40/275



BL 50/140



BL 50/170



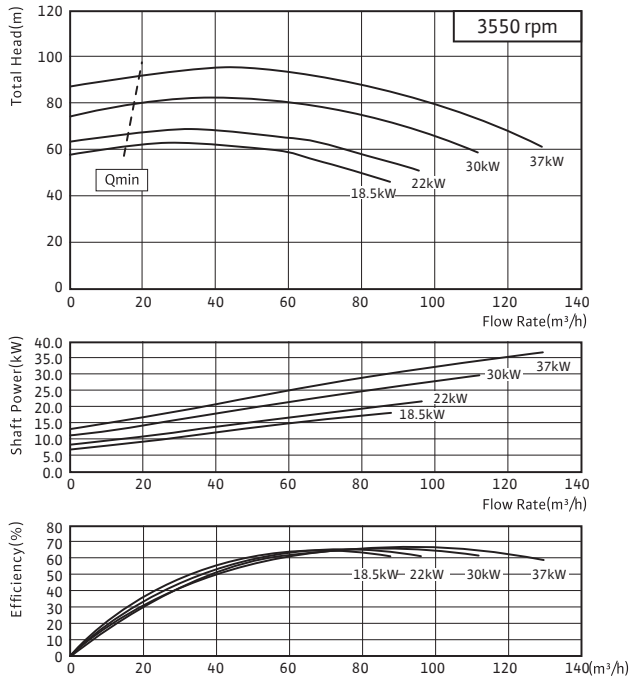
Monobloc Pumps

BL Series

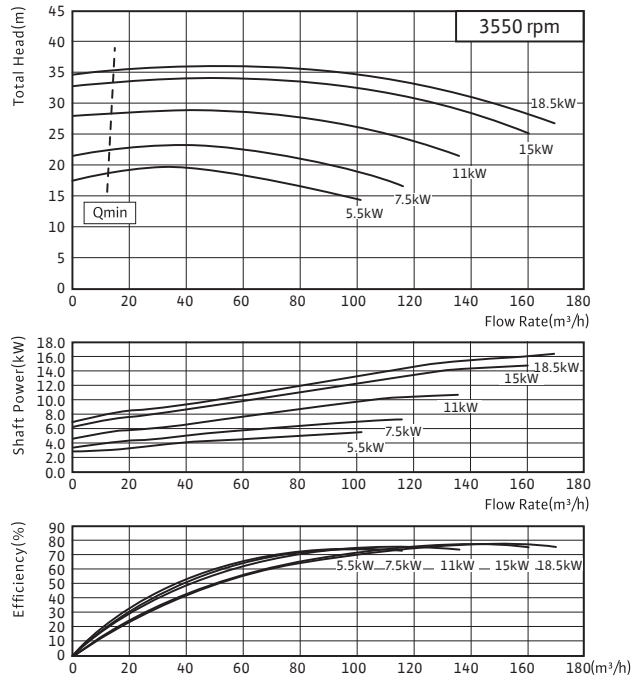
BL Series

성능곡선 2pole

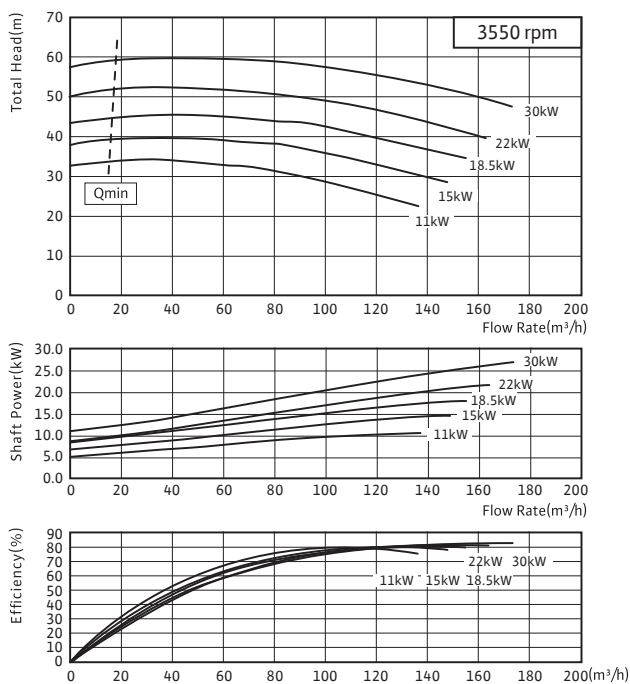
BL 50/220



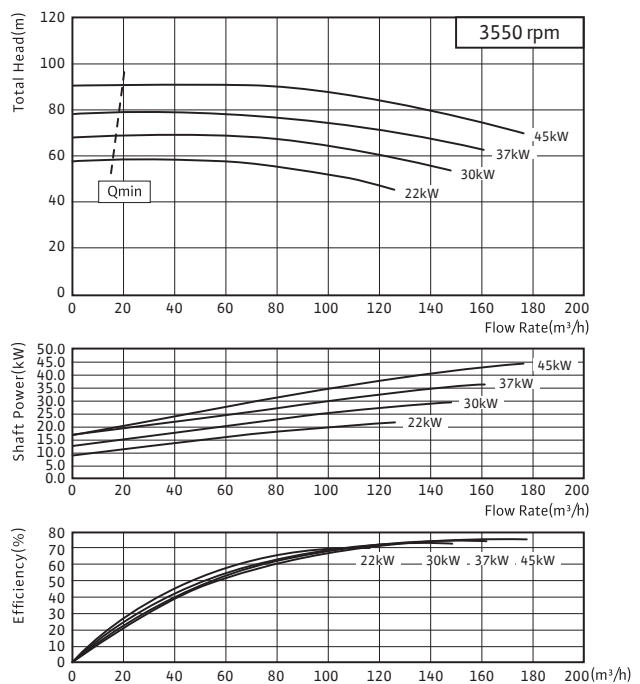
BL 65/140



BL 65/170



BL 65/220



Monobloc Pumps

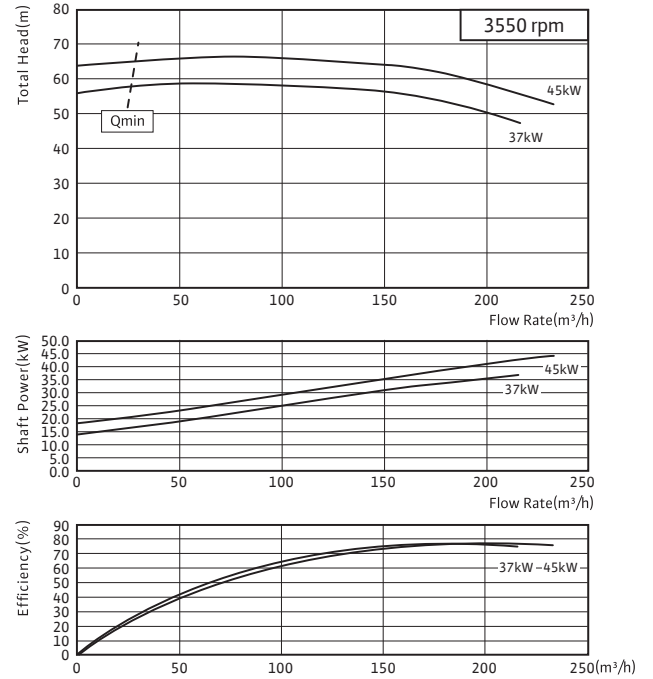
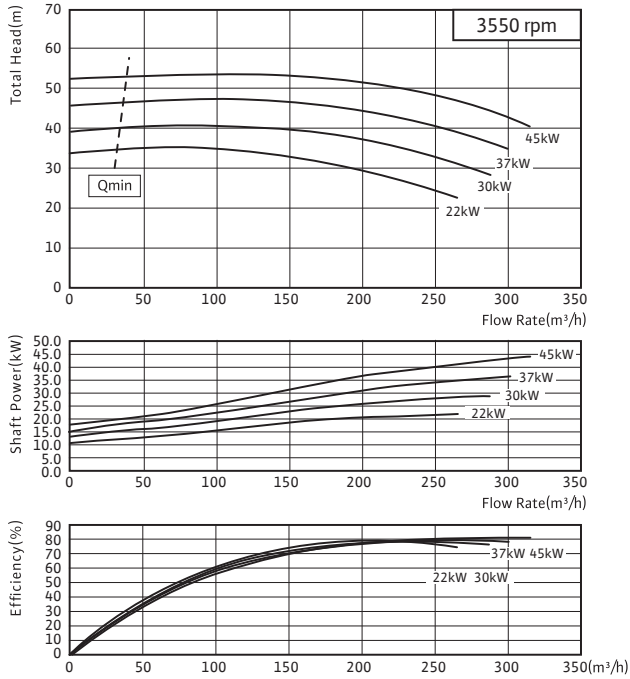
BL Series

wilo

BL Series 성능곡선 2pole

BL 80/170

BL 80/220

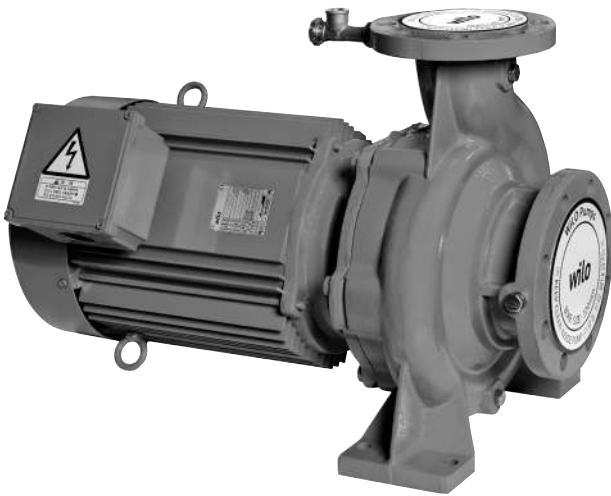


Monobloc Pumps

PSC Series

PSC Series

제품소개



흡입측 조건

흡입 전양정 또는 압입 압력은 아래 표에 따름

흡입 전양정 허용치		
액의 온도	흡입구경	흡입 전양정
0°C ~ 40°C	50 ~ 80mm	-6m 이내
	100 ~ 125mm	-5.5m 이내

흡입 전양정 보정치	
온도	보정치
40°C 이상 ~ 50°C 미만	+1
50°C 이상 ~ 60°C 미만	+2
60°C 이상 ~ 70°C 미만	+3.5
70°C 이상 ~ 80°C 미만	+5
80°C 이상 ~ 90°C 미만	+7
90°C 이상 ~ 95°C 미만	+9
95°C 이상 ~ 100°C 이하	+11

적용범위

- 맑은 액체용 - 청수 및 해수
- 일반산업용 및 급수시설용
- 가정용수 공급용 및 빌딩 수처리용
- 관개용수용 및 선박용, 드레인용
- 공기조화용 및 스프레이용(스프링클러용)
- 냉각 또는 가열 순환용

사용유체(0~100°C의 청수, pH6~8)

고온 또는 청수가 아닌 액을 취급할 경우에는 이송액의 특성(온도, 농도, 고형물의 유/무)과 사용조건에 따라 내마모성, 내식성이 현저히 변화되는 경우가 있으므로 반드시 영업 또는 공장으로 문의

구조

- 물의 흐름이 용이하도록 설계된 3차원 임펠러를 적용
- 표준화 설계를 통한 광범위한 사용 영역 확보
- Back pull-out 구조로 편리한 유지보수
- 토출부가 중앙상부에 위치하여 배관하중에 대한 안전성과 펌프 가동 시 Balance가 유지
- Compact한 구조로 Space-saving 실현

표준 흡입압력 허용치

흡입 압력이 4kgf/cm² 이하이면서

$$\left[10 - \frac{\text{펌프 체적 전양정}}{10} \right] \text{ kgf/cm}^2 \text{ 이내}$$

또한 흡입압력이 순간적으로 변하지 않아야 함
상기조건을 벗어나는 경우에는 영업 또는 공장으로 문의

운전조건

- 기동반복이 빈번한 자동제어용으로 펌프를 사용할 경우에는 임펠러의 파손 우려가 있으므로 임펠러 재질을 BC6급 이상으로 사용
- 자동제어용으로 사용할 경우 기동반복이 시간당 12회를 넘지 않아야 함
- 수격현상(워터해머)이 발생되지 않도록 배관을 구성

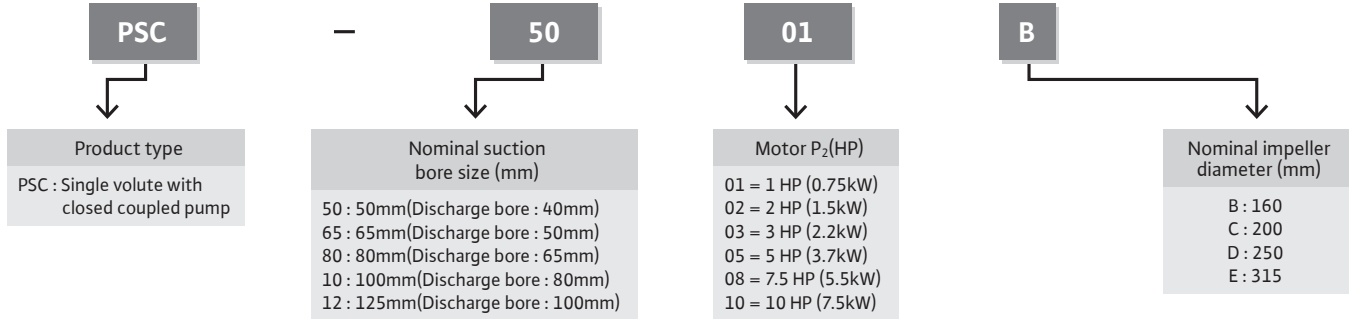
Monobloc Pumps

PSC Series

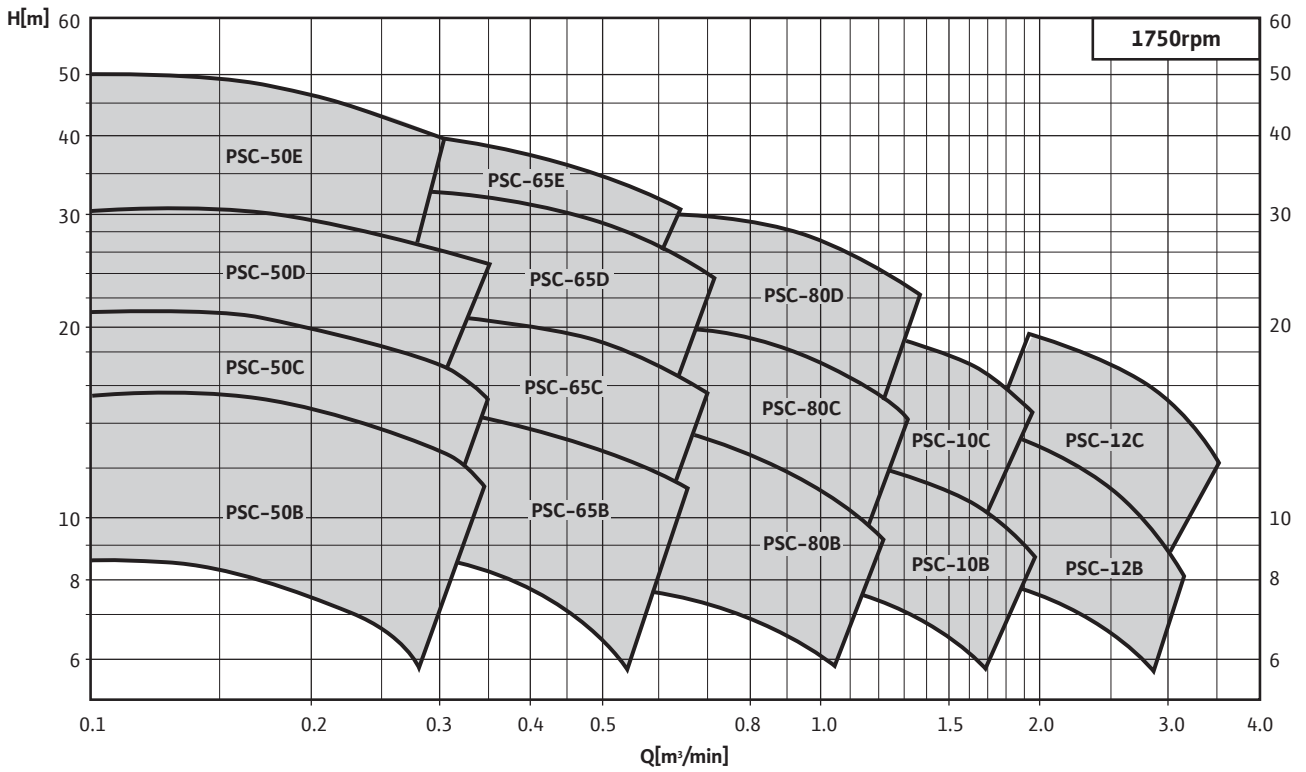
wilo

PSC Series 모델명 및 선정도

모델명 부여기준



선정도



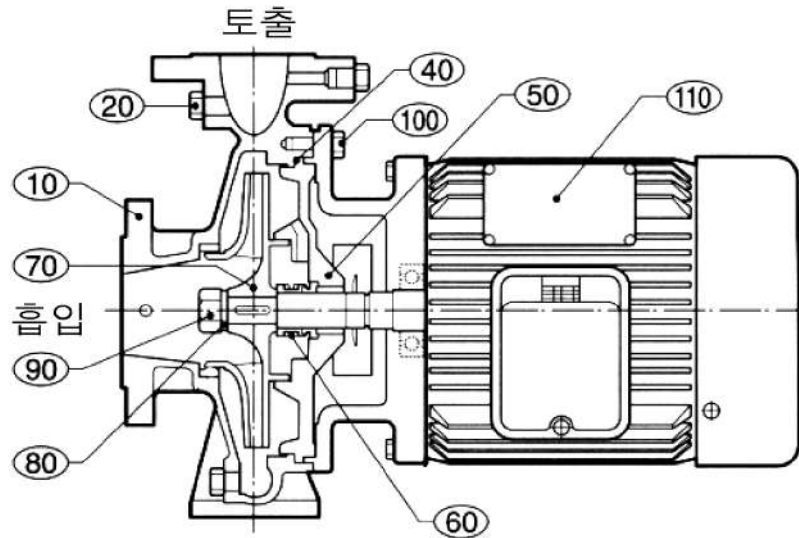
Monobloc Pumps

PSC Series

PSC Series

단면도

단면도



No.	Part	Material
10	Casing	표준 : GC200 옵션 : SSC/SC/Bronze
20	Plug	S45C
40	Gasket	표준 : EPDM 옵션 : Viton
50	Casing Cover	GCD450
60	Mechanical seal	표준 : SiC/Carbon-EPDM 옵션 : SiC/SiC-Viton
70	Impeller	표준 : GC200 옵션 : SSC/Bronze
80	Washer	STS
90	Nut	STS
100	Bolt	S20C
110	Motor	-

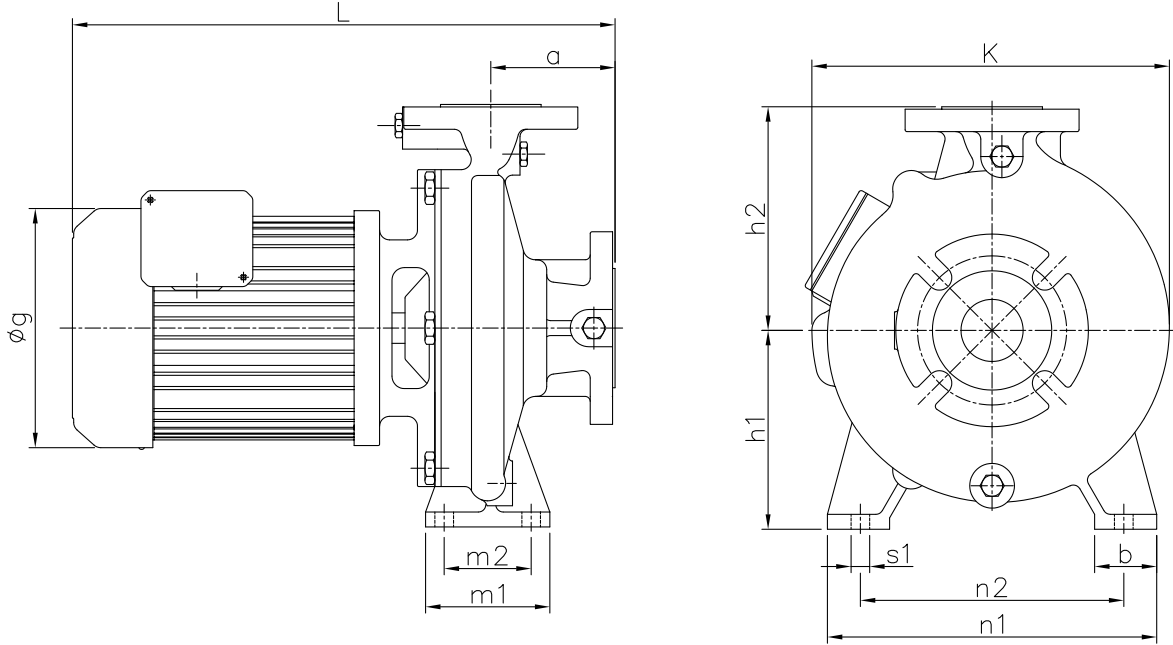
Monobloc Pumps

PSC Series

wilo

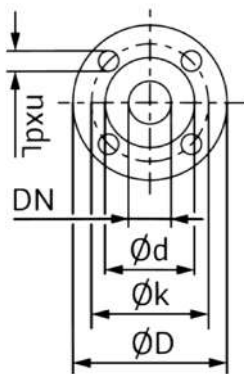
PSC Series 외형도 및 플랜지 규격

외형도



No.	PSC series	Suction Bore	Discharge Bore
1	PSC-50	DN 50	DN 40
2	PSC-65	DN 65	DN 50
3	PSC-80	DN 80	DN 65
4	PSC-10	DN 100	DN 80
5	PSC-12	DN 125	DN 100

플랜지 규격 KS B 1511 : KS10K



DN	D	d	K	n	dL	Bolt
40	140	81	105	4	19	M16
50	155	96	120	4	19	M16
65	175	116	140	4	19	M16
80	185	126	150	8	19	M16
100	210	151	175	8	19	M16
125	250	182	210	8	23	M20

Monobloc Pumps

PSC Series

PSC Series

외형치수

외형치수

No.	PSC series	P2 (kW)	a	L	øg	h1	h2	K	b	m1	m2	n1	n2	s1	Weight (kg)
1	PSC-5001B	0.75	80	427	170	132	160	250	50	100	70	240	190	15	50
2	PSC-5002B	1.5	80	473	196	132	160	250	50	100	70	240	190	15	59
3	PSC-5003C	2.2	100	536	196	160	180	290	50	100	70	265	212	15	73
4	PSC-5005D	3.7	100	592	255	180	225	350	65	125	95	320	250	15	77
5	PSC-5008D	5.5	100	653	282	180	225	350	65	125	95	320	250	15	90
6	PSC-5008E	5.5	125	681	282	225	250	415	65	125	95	345	280	15	108
7	PSC-5010E	7.5	125	681	282	225	250	415	65	125	95	345	280	15	113
8	PSC-6502B	1.5	100	493	196	160	180	255	50	100	70	265	212	15	65
9	PSC-6503B	2.2	100	543	196	160	180	255	50	100	70	265	212	15	72
10	PSC-6503C	2.2	100	536	196	160	200	305	50	100	70	265	212	15	79
11	PSC-6505C	3.7	100	582	255	160	200	305	50	100	70	265	212	15	81
12	PSC-6505D	3.7	100	592	255	180	225	350	65	125	95	320	250	15	89
13	PSC-6508D	5.5	100	653	282	180	225	350	65	125	95	320	250	15	102
14	PSC-6510E	7.5	125	681	282	225	280	415	65	125	95	345	280	15	112
15	PSC-8003B	2.2	100	548	196	160	200	275	65	125	95	280	212	15	74
16	PSC-8005B	3.7	100	599	255	160	200	275	65	125	95	280	212	15	75
17	PSC-8005C	3.7	100	582	255	180	225	345	65	125	95	320	250	15	90
18	PSC-8008C	5.5	100	642	282	180	225	345	65	125	95	320	250	15	103
19	PSC-8008D	5.5	100	667	282	200	250	370	80	160	120	360	280	19	115
20	PSC-8010D	7.5	100	667	282	200	250	370	80	160	120	360	280	19	120
21	PSC-1005B	3.7	125	624	255	180	225	310	65	125	95	320	250	15	103
22	PSC-1008B	5.5	125	684	282	180	225	310	65	125	95	320	250	15	120
23	PSC-1008C	5.5	125	688	282	180	250	330	65	125	95	345	280	15	112
24	PSC-1010C	7.5	125	688	282	180	250	330	65	125	95	345	280	15	117
25	PSC-1208B	5.5	125	693	282	200	280	360	80	160	120	360	280	19	135
26	PSC-1210B	7.5	125	688	282	200	280	360	80	160	120	360	280	19	140
27	PSC-1210C	7.5	125	688	282	200	280	360	80	160	120	360	280	19	140

Monobloc Pumps

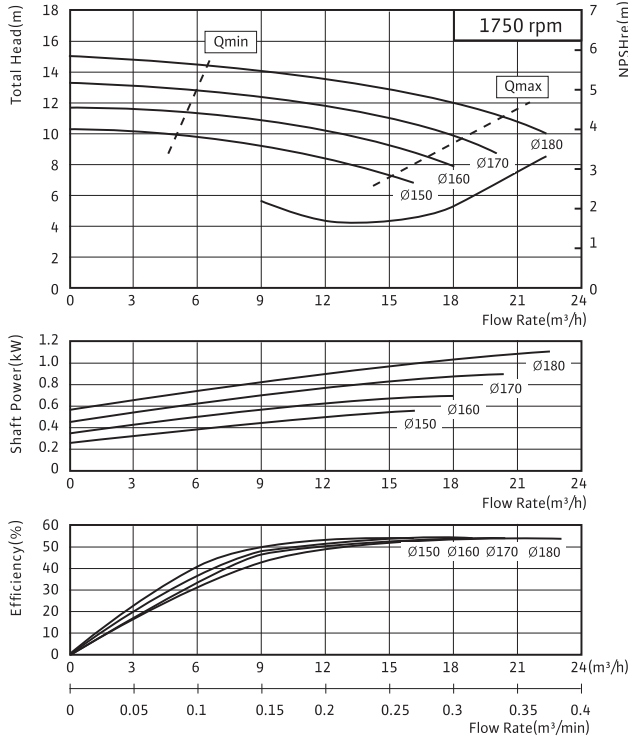
PSC Series



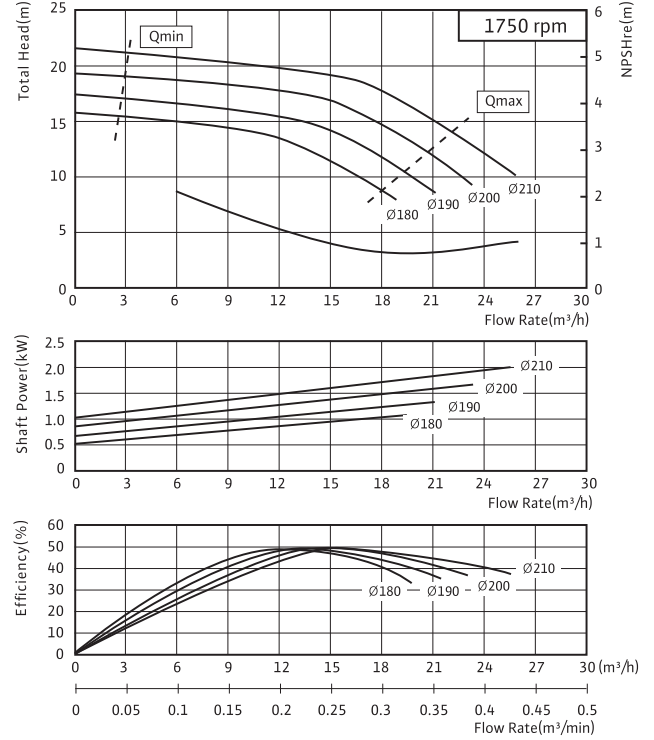
PSC-50B / 50C / 50D / 50E

성능곡선 4pole

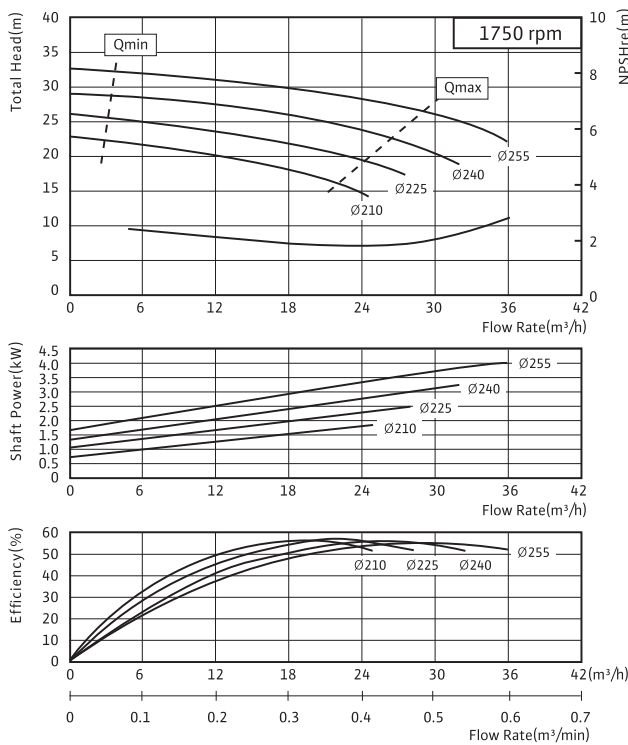
PSC - 50B



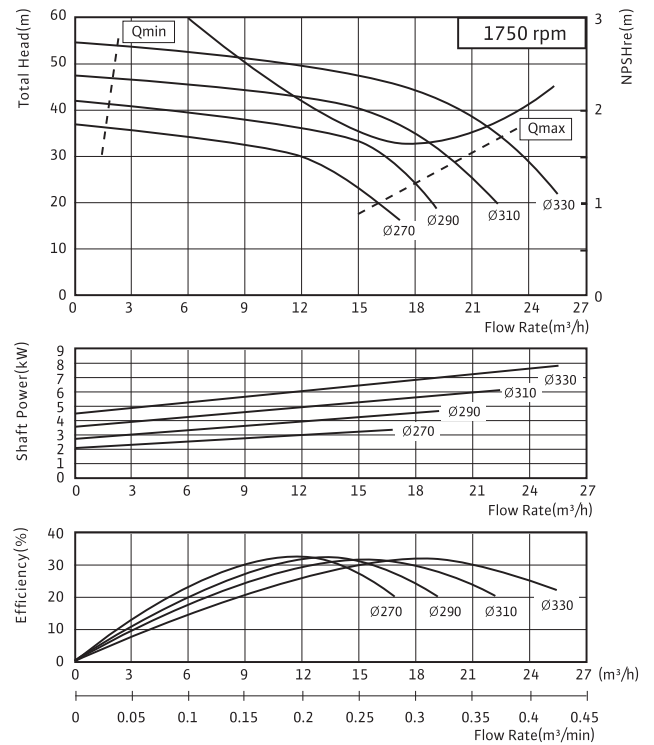
PSC - 50C



PSC - 50D



PSC - 50E



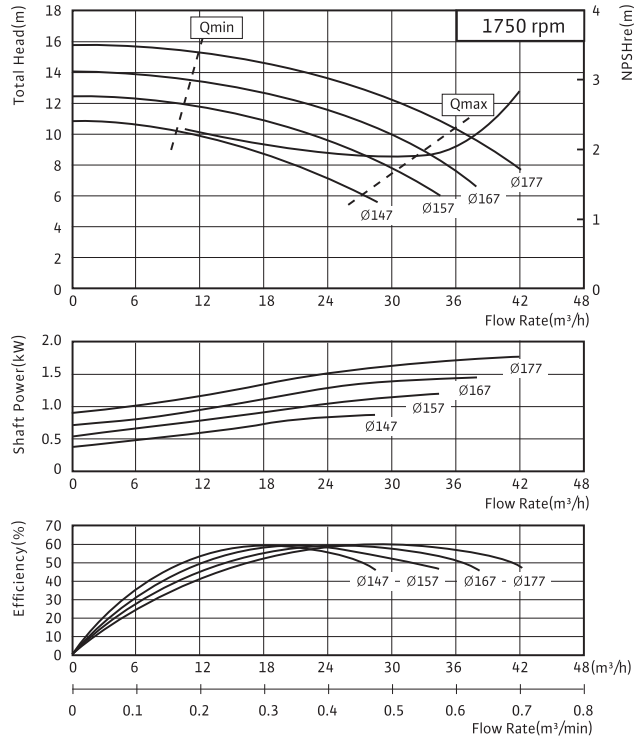
Monobloc Pumps

PSC Series

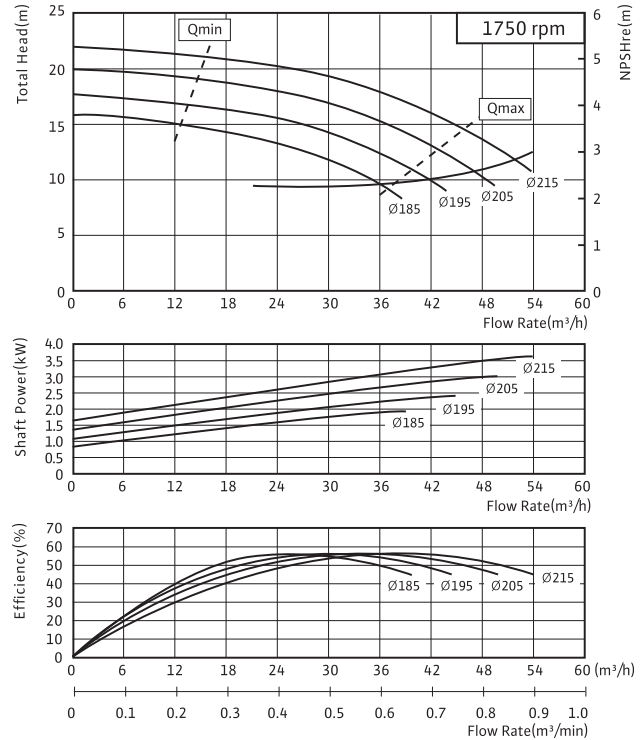
PSC-65B / 65C / 65D / 65E

성능곡선 4pole

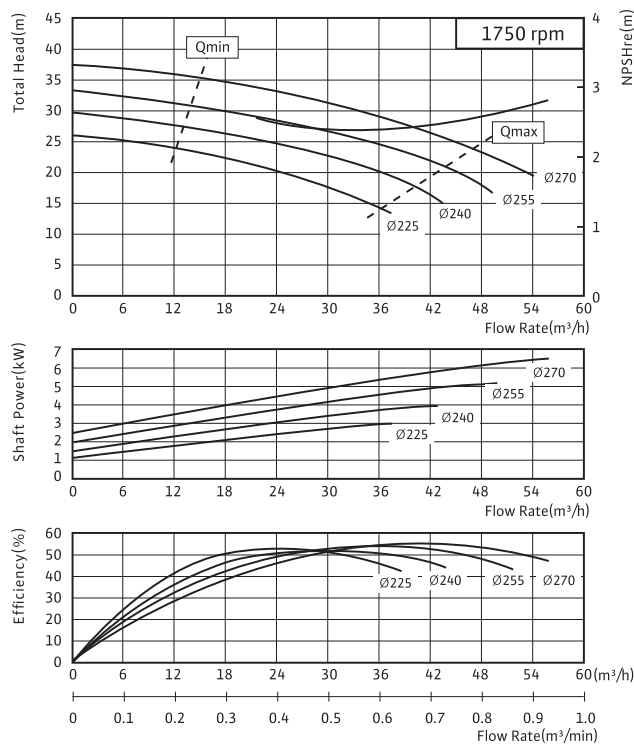
PSC - 65B



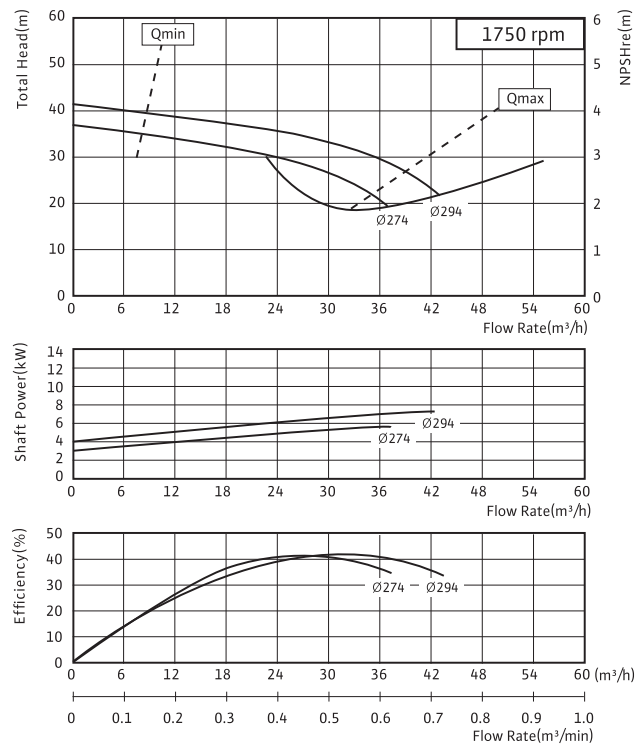
PSC - 65C



PSC - 65D



PSC - 65E



Monobloc Pumps

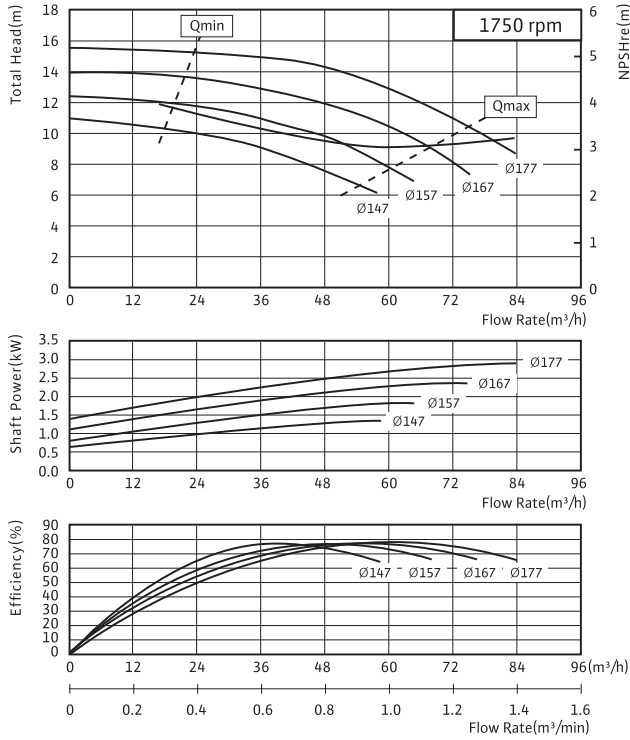
PSC Series



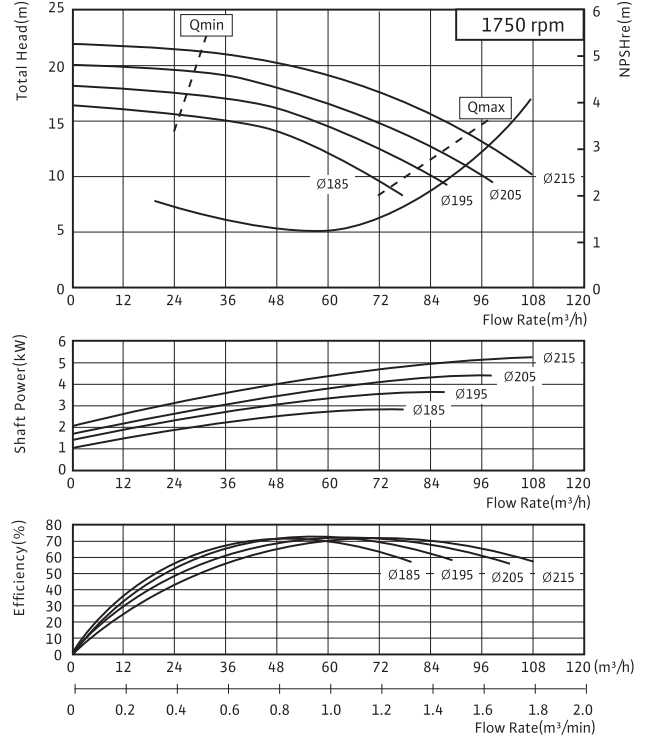
PSC-80B / 80C / 80D / 10B

성능곡선 4pole

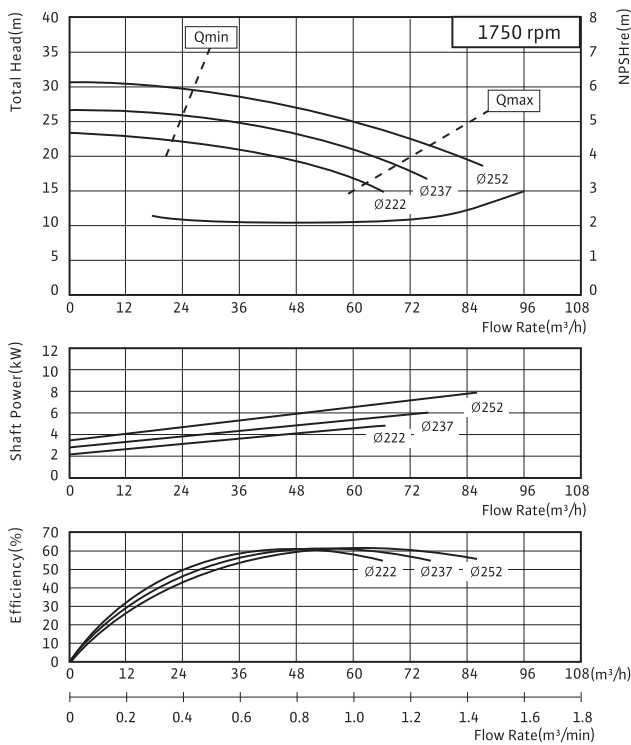
PSC - 80B



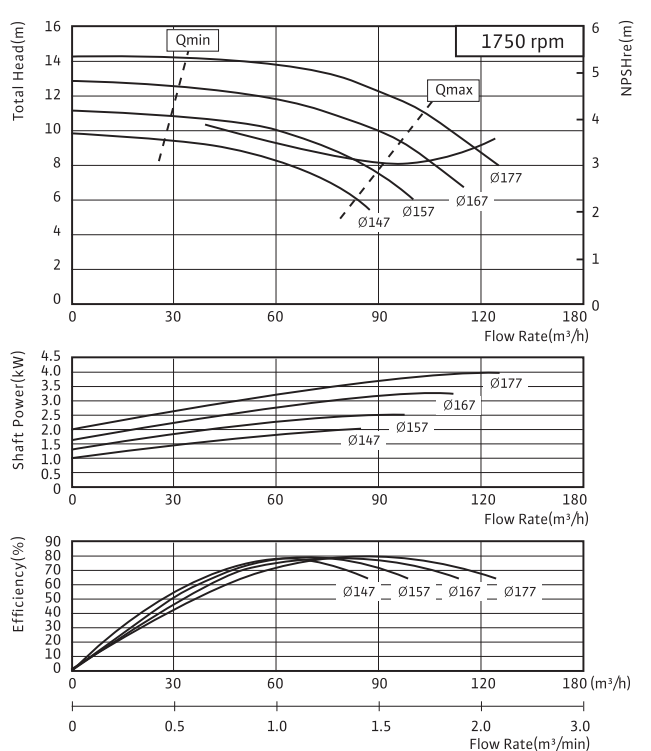
PSC - 80C



PSC - 80D



PSC - 10B



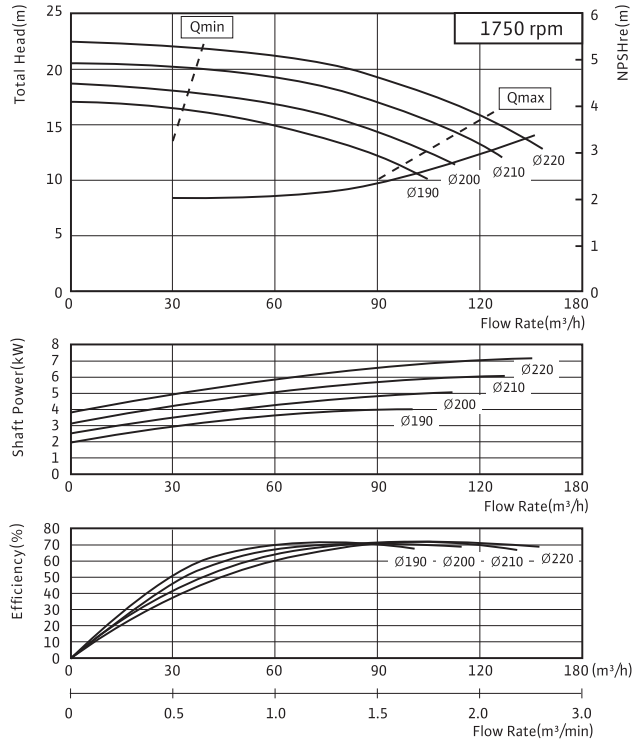
Monobloc Pumps

PSC Series

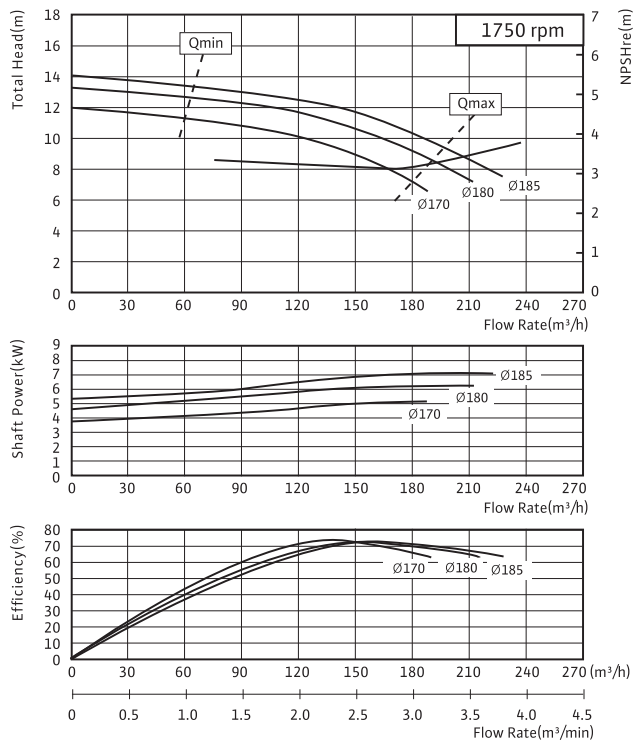
PSC-10C / 12B / 12C

성능곡선 4pole

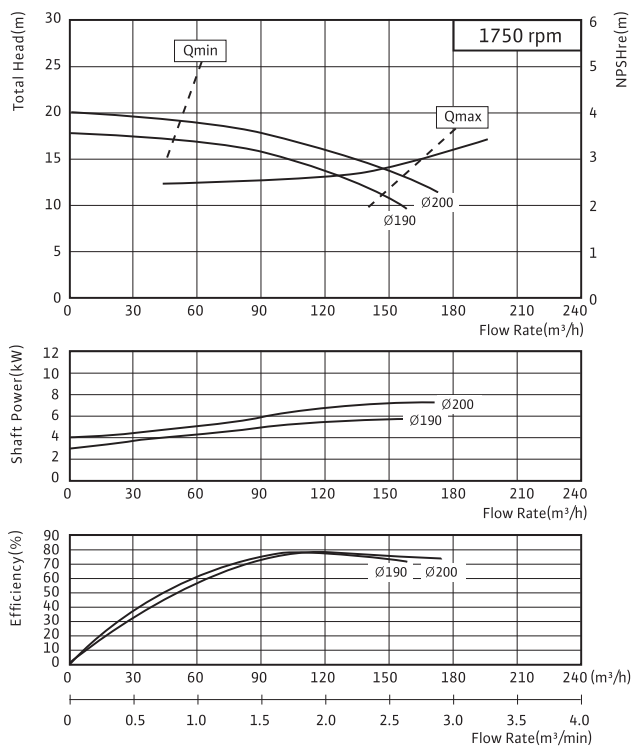
PSC - 10C



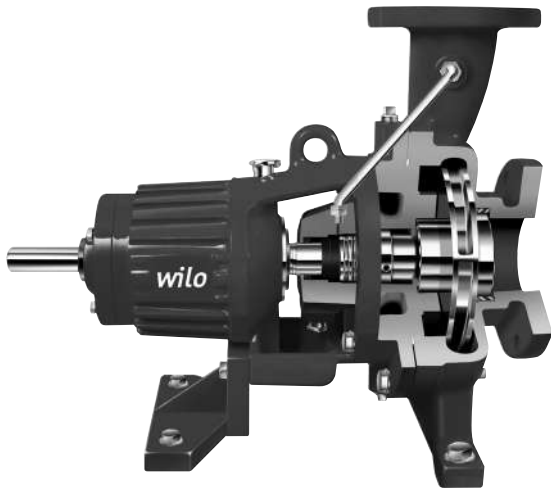
PSC - 12B



PSC - 12C



PCP Series 제품소개



특장점

- Process Pump 사용에 새로운 방향제시
API 610규격의 주요 사항을 수용한 견고한 설계를 채택
- 높은 효율 및 낮은 Stuffing Box 압력
Closed Impeller를 채용하여 Open Impeller사용시 발생하는 유량의 손실을 작게하여 높은 효율을 내며 낮은 Stuffing Box 압력으로 M/Seal 손실 최소화
- 간편한 유지보수
흡, 토출관을 분해하지 않고 수리가 가능한 Back Pull Out 구조
Bearing Housing Adapter가 없어 Alignment 작업이 용이
Casing에 Wear ring이 장착되어 유지 보수비용이 절감
Labryinth Type Bearing Housing Sealing 구조로 긴 수명
- 수력학적 Radial Balance 유지
토출 구경이 4" 이상의 Pump는 Casing이 Double Volute로 설계 됨
- Stuffing Box Jacket
설치시 Welding이 필요없는 구조

적용범위

- 화학공업(Chemical Industry)
- 석유 정제(Petroleum Refinery)
- 석유화학공업(Petrochemical Industry)
- 공업PLANT설비

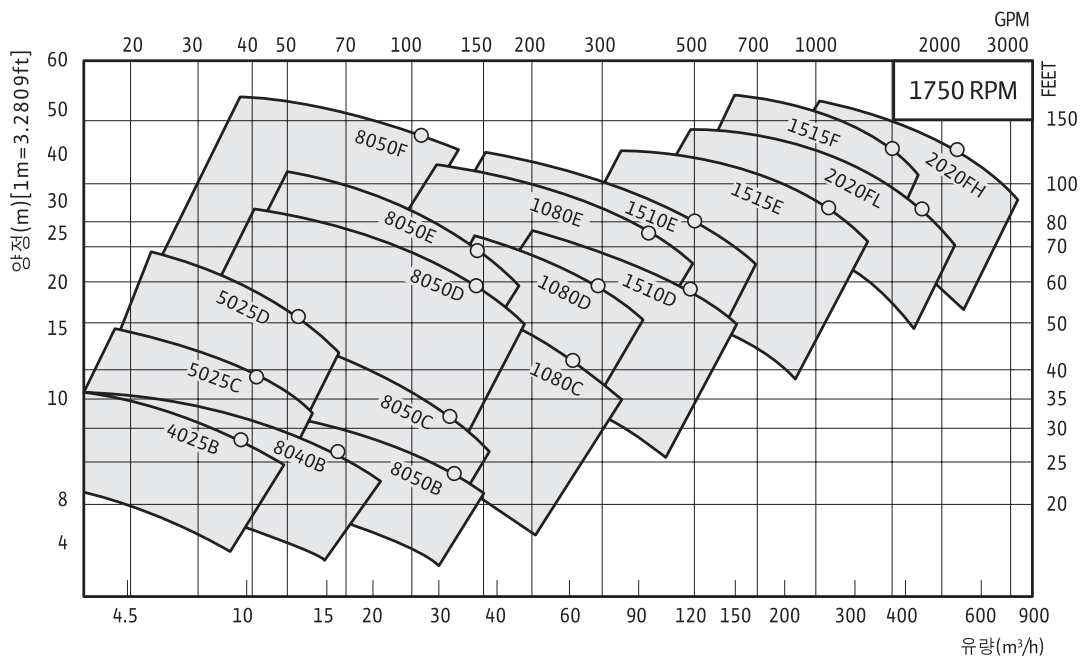
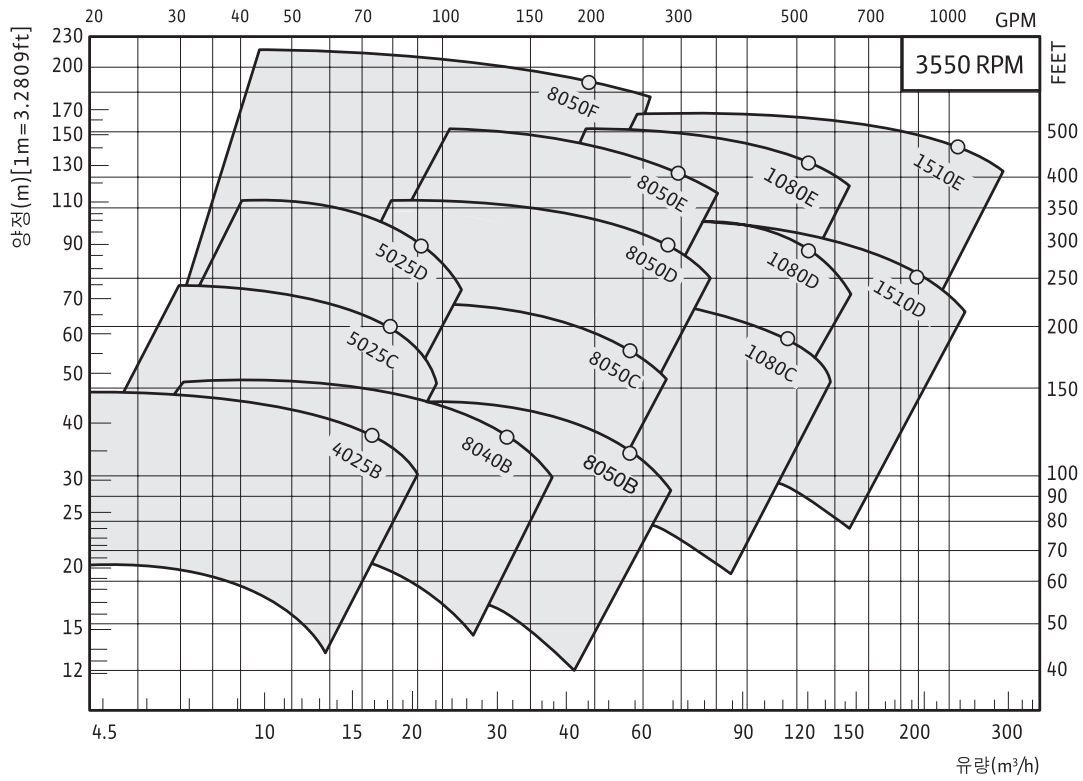
PCP PUMP 운전범위		
유량 (Capacity)		680m ³ /hr (3000 US GPM)
양정 (Total Head)		12~210m (40~689 FT)
임펠러 (Impeller)		31.6kgf/cm ² (400 psi)
최고설계 압력 (Max. Design Pressure)		밀폐형 (Closed Type)
사용온도 (Temperature)		~120°C (~248°F)
플랜지 규격 (Flange Rating)	(Stainless)Steel	ANSI 150 lbs x RF / 300 lbs x RF

ANSI Process Pumps

PCP Series

3550RPM / 1750RPM

선정도



※PUMP 효율 및 축동력은 당사에서 제공하는 DATA SHEET 및 성능곡선도를 참조

ANSI Process Pumps

PCP Series



PCP Series 기술 DATA

Data							
MODEL	BEARING HOUSING ASSEMBLY NO.	구경		케이싱 살두께(Min)	Corrosion Allowable	최대수압시험(10min.)	임펠러와케이싱 커버를 포함한 B/RASM 총량
		흡입	토출			주강	
4025B	"06"	40(1 1/2)	25(1)	9.5(1/4)	6.4(1/4)	31.6kgf/cm ² (450lbf/in ²)	24.5kg(54lb)
8040B		76(3)	40(1 1/2)	9.5(1/4)	6.4(1/4)		25kg(55lb)
8050B		76(3)	50(2)	9.5(1/4)	6.4(1/4)		34kg(75lb)
5025C	"09"	50(2)	25(1)	9.5(1/4)	6.4(1/4)	31.6kgf/cm ² (450lbf/in ²)	41kg(90lb)
8050C		76(3)	50(2)	9.5(1/4)	6.4(1/4)		49kg(108lb)
1080C		100(4)	76(3)	9.5(1/4)	6.4(1/4)		51kg(112lb)
5025D		50(2)	25(1)	12.7(1/2)	8(5/16)	31.6kgf/cm ² (450lbf/in ²)	52.5kg(116lb)
8050D		76(3)	50(2)	12.7(1/2)	8(5/16)		55.5kg(122lb)
1080D		100(4)	76(3)	12.7(1/2)	8(5/16)		57kg(126lb)
1510D		150(6)	100(4)	12.7(1/2)	8(5/16)		59kg(130lb)
8050E		76(3)	50(2)	12.8(1/2)	8(5/16)		63.5kg(140lb)
8050F		76(3)	50(2)	12.8(1/2)	8(5/16)		66kg(145lb)
1080E		100(4)	76(3)	12.8(1/2)	8(5/16)	31.6kgf/cm ² (450lbf/in ²)	66kg(145lb)
1510E		150(6)	100(4)	14.3(9/16)	8(5/16)		68kg(150lb)
1515E		150(6)	150(6)	14.3(9/16)	8(5/16)		72.5kg(160lb)
1515F	150(6)	150(6)	14.3(9/16)	8(5/16)	81.5kg(180lb)		
2020F	200(8)	200(8)	14.3(9/16)	8(5/16)	109kg(240lb)		

NOTES : 1. 플랜지의 표준규격은 ANSI 150 # RF
 2. 회전방향은 커플링 측에서 보았을때 시계방향
 3. Total 중량은 당사에서 제시하는 별도의 Data Sheet를 참조

BEARING HOUSING ASSEMBLY NO.	최대동력(HP)	패킹상자(STUFFING BOX)			그랜드패킹		반부하측 B/R	부하측 B/R
		내경	슬리브외경	깊이	수량	크기		
"06"	40	51(2)	35(1 3/8)	60(2 5/16)	7	8(5/16)	6206C ₃	6306NRC ₃
"09"	100	70(2 3/4)	50(2)	76(3)	7	10(3/8)	6210C ₃	5309ANRC ₃
"12"	200	90(3 9/16)	65(2 9/16)	92(3 5/8)	7	12.5(1/2)	6214C ₃	5312ANRC ₃

단위:mm(inch)

BEARING HOUSING ASSEMBLY NO.	축의 주요부 치수							
	축 경						SPAN거리	
	임펠러설치부	슬리브외경	반부하측 B/R부	부하측 B/R부	B/R사이의 축경	커플링설치부	B/R 간의 거리	반부하측B/R& 임펠러
"06"	22(7/8)	29(1 9/64)	30(1 3/16)	30(1 3/16)	41(15/16)	24(15/16)	82(3 1/4)	173(6 13/16)
"09"	32(1 1/4)	40(1 37/64)	50(1 31/32)	45(1 25/32)	29(1 9/64)	29(1 9/64)	135(5 5/16)	222(8 3/4)
"12"	48(1 7/8)	56(1 13/64)	50(2 3/4)	60(2 3/8)	55(2 3/16)	55(2 3/16)	165(6 1/2)	273(10 3/4)

NOTES : 외형치수는 당사에서 제시하는 별도의 외형치수도를 참조

단위:mm(inch)

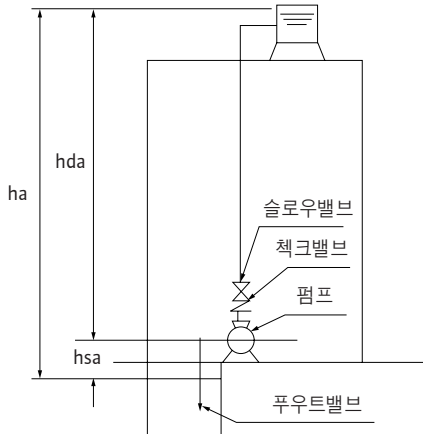
Model 선정방법

MODEL 선정방법

제품선정

1. 전양정 결정

전양정(H)은 흡입측에서 토출측까지 유체를 이송하는데 필요한 압력과 속도에너지 및 손실의 총합을 높이(m)로 환산한 값



$$5. \text{축동력(kW)} = \frac{0.163 \times \text{유량(m}^3/\text{min)} \times \text{양정(m)} \times \text{비중(S-G)}}{\text{펌프효율}(\eta)}$$

※이송액에 점도가있을 시에는 효율이 낮아지므로 축동력은 커짐

회전수 변화시의 모델/동력 선정 방법 (극수 변환, 주파수 변환)

$$\text{유량은 회전수 (N)} \text{에 비례하고 } Q_2 = \left(\frac{N_2}{N_1}\right) Q_1$$

$$\text{양정은 회전수의 제곱에 비례하며 } H_2 = \left(\frac{N_2}{N_1}\right)^2 H_1$$

$$\text{축동력은 회전수의 세제곱에 비례함 } BHP_2 = \left(\frac{N_2}{N_1}\right)^3 BHP_1$$

$$H = ha + hp + hv + hf + hx$$

H=전양정(m)

ha: 실높이(m)=hda+hsa

hda: 토출측 실높이

hsa: 흡입측 실높이(압입의 경우“-”값이 됨)

hp: 압력 Head(m) ※Open Tank는 대기압이므로 “0(zero)”

$$hv: \text{토출관에 걸리는 속도 Head} = \frac{V^2}{2g}$$

hf: 관의 마찰손실 Head

hx: 밸브류, 곡판, 이음관, 흡입관 등에 걸리는 손실 Head(m)

위의 방법으로 전양정(m)을 산출후 이를 압력(kgf/cm²)으로 환산하면

전양정을 10으로 나눈 값이 대략적인 압력

(예, 100m=약 10kgf/cm²)

2. 유량확인

유량(Q)은 단위시간에 이송되는 액체의 체적을 말하며 일반적으로 유량이 적을때 양정은 높게되고 유량이 많아지면 양정 감소

3. 전양정 및 유량확인 후 Catalogue 참조하여 적합한 MODEL을 선정

4. PUMP 효율

당사가 제공하는 Data Sheet 및 성능 곡선도를 반드시 참조하여 적용 ($\eta < 1$)

MODEL 선정방법

임펠러 외경의 계산

예) USER의 SPEC을 $\left\{ \begin{array}{l} \text{유량: } 0.8\text{m}^3/\text{min} \text{ 양정: } 97\text{m} \\ \text{동력: } 22\text{kW} \quad \text{다단터빈 PUMP} \end{array} \right.$ 로 가정하면

• CATALOGUE에서 PMT-6507로 기본 MODEL을 선정

• IMPELLER 외경 CUTTING SIZE 선정하여 유량 및 양정 검증

$$Q = Q1 \times \left(\frac{D2}{D1}\right)^2 \qquad H = H \times \left(\frac{D2}{D1}\right)^2$$

$$Q2 = 0.94 \times \left(\frac{195}{204}\right)^2 = 0.86 \qquad H2 = 96.12 \times \left(\frac{195}{204}\right)^2 = 87.8$$

$$Q3 = 0.7 \times \left(\frac{195}{204}\right)^2 = 0.64 \qquad H3 = 120.5 \times \left(\frac{195}{204}\right)^2 = 110.1$$

• 축동력(BHP)의 계산

PUMP 효율(η): 65% = 0.65

이송액 비중(s.g): 맑은 청수 기준하여 비중은 1로 했을 경우

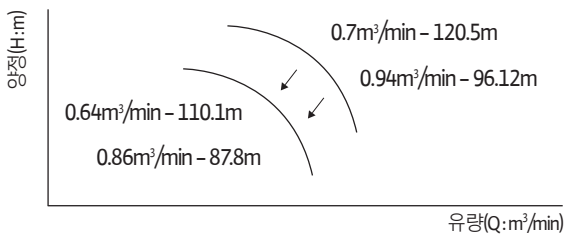
$$\text{BHP(kW)} = \frac{0.163 \times \text{유량(Q: m}^3/\text{min}) \times \text{양정} \times \text{비중(s.g)}}{\text{PUMP 효율}(\eta)}$$

$$\frac{0.163 \times 0.8 \text{ m}^3/\text{min} \times 99 \text{ m} \times 1}{0.65} = 19.86 \text{ kW} \rightarrow 22 \text{ kW 사용가능}$$

※ 상기에서 동력의 여유 10%가 있어야 함

19.86 x 1.1 = 21.8kW이므로 22kW 동력 사용에 문제없음

- ① 시험 성적서(TEST REPORT)에서 가장 근접한 유량, 양정 DATA 산출 → IMPELLER D2 204mm(D1: DATA가 있는 값)
- ② IMPELLER 외경 204mm에서는 30kW 사용해야 되므로 외경을 CUTTING해야 함
- ③ IMPELLER 외경 204mm에서 195mm로 가정하여 유량(Q), 양정(H)을 계산하면 (D2: 가정 DATA)



※ Q2, Q3와 H2, H3는 시험 성적서(TEST REPORT)에서 주문 SPEC 유량 기준점의 중앙, 좌(2), 우(1), 토출량과 총양정으로 산출

④ 주문 SPEC인 유량 0.8m³/min 일때 양정을 보간법으로 계산하면

$$\frac{(110.1 - 87.8) \text{ m} \times (0.86 - 0.8) \text{ m}^3/\text{min}}{(0.86 - 0.64) \text{ m}^3/\text{min}} + 87.8 \text{ m} = 93.8 \text{ m}$$

※ IMPELLER D2 195mm 일때 양정이 93.8m가 되므로 잘못된 선정

⑤ 처음부터 다시 IMPELLER D2를 198mm로 가정하여 같은 방법으로 계산하면 유량이 0.8m³/min에 양정 99m가 되므로 USER의 SPEC을 만족

※ 여기서 유량을 기준으로 양정을 +3%~6%의 여유를 줘야 함

wilo

본사 및 공장

부산광역시 강서구
미음산단 1로 46(구랑동)
46730
T 051-950-8000
F 051-950-8369

영업본부

서울시 강남구 선릉로 514
성원빌딩 2층 06162
T 02-3471-6600
F 02-3471-0233

기술영업팀

서울시 강남구 선릉로 514
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T 02-2104-9442
F 02-3471-0233

유통영업팀

서울시 강남구 선릉로 514
성원빌딩 2층 06162
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서비스영업팀

서울시 강남구 선릉로 514
성원빌딩 2층 06162
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중부영업팀

서울시 강남구 선릉로 514
성원빌딩 2층 06162
T 02-2104-9479
F 02-3471-0233

남부영업팀 부산본사

부산광역시 강서구
미음산단1로 46(구랑동)
46730
T 051-950-8203
F 051-950-8209

대전사무소

대전광역시 서구 둔산동 1398
인곡타워 701호
T 042-489-3721
F 042-489-3723

광주사무소

광주광역시 서구 치평동
1254-4번지 구영오피스텔
306호
T 062-710-0155~6
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대구사무소

대구시 북구 동북로 117
소프트웨어벤처타워 603호
T 053-283-6400
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**Water Management
/Industry팀**

서울시 강남구 선릉로 514
성원빌딩 9층 06162
T 02-2104-9493
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OEM팀

부산광역시 강서구
미음산단1로 46(구랑동)
46730
T 051-950-8363
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서비스문의

T 1688-5890

윌로펌프 통합서비스센터

서울북부·경기북부 지역

북서울 T 02-953-0029
고양 T 031-911-8959
파주 T 1661-3288

서울남부·경기남부 지역

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안양 T 031-479-1080
오산 T 031-377-2224

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동대전 T 042-252-1478
충북 T 043-878-5894

서산·태안/당진(충남) 지역

서산 T 041-668-3013

제주 지역

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서귀포 T 064-732-3134

원주·강원 지역

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원주(B) T 033-763-7131
강릉 T 033-653-5550
속초 T 033-635-5556

대구·경북 지역

대구 T 053-355-0019
서대구 T 053-522-6443
포항 T 054-272-9910

부산·울산·양산 지역

부산(A) T 051-302-0019
부산(B) T 051-311-8819
울산 T 052-258-8818

창원·경남(서부) 지역

경남 T 055-288-8819

광주·전남 지역

광주 T 062-527-0191
등광주 T 062-603-3019

전주·전북 지역

전주 T 063-282-4567



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발행 또는 배포할 수 없습니다.

WILO SE
Nortkirchenstraße 100
D-44263 Dortmund
Germany
T +49 231 4102-0
F +49 231 4102 7363
wilo@wilo.com
wilo.com

WILO Pumps Ltd.
46 Mieumsandan 1-ro
Gangseo-gu Busan Korea
T +82 51 950 8000
F +82 51 950 8369
wilo.com/kr/ko