

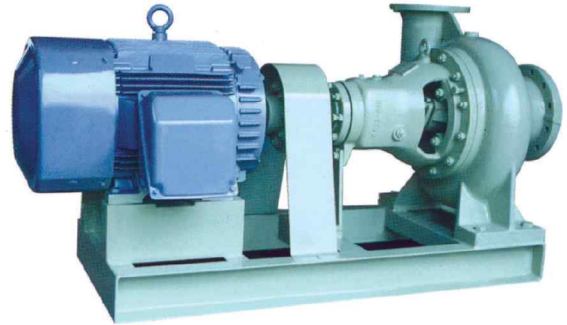
NPP/NPPR

Horizontal, Single Stage, Volute Casing
Centrifugal Pumps, Foot Mounted Type

횡축, 단단, 볼류트 케이싱 원심 펌프, 푸트 마운트형

펄프, 제지공업 및 장치 공업용

For pulp and paper industries, and process industries.



10Bar / PN10Bar

용도 및 적용 분야 / Usages and applications

맑은 액체용 자흡식 펌프임.

펄프, 제지 공업 분야에서 농도 6%까지의 제지원료 고형분 함량 60%까지의 블랙 리쿼 등 장치공업 분야에서 슬러리 취급용, 부식/마모성 원유 이송, 코크스 정제광 이송, 수처리 분야, 벤츄리 스크리버 직물 슬러리 등의 펌핑에 사용된다.

Paper stock thru 6% consistency, black liquor to 60% solids etc.
in the pulp & paper industries.

Slurry handling, corrosive/abrasive crude, coke fines, waste treatment, venturi scribe, textile slurries etc, in the process industries.

설계 및 구조적 특징 / Design and operation features

01. 회주철, 닥타일 주철, 스테인레스강 등의 재질.
02. 수직 방향으로 분할되는 케이싱.
03. 보완설계된 와권 케이싱
04. 유지 보수의 편의성을 도모한 후방 취출구조
05. 개방형 임펠러
06. 사이드 플레이트와 임펠러를 조정 가능
07. 교체 가능한 축스리브
08. 오일에 의한 베어링 윤활
09. 회전 방향 : 구동축에서 보아 우회전
10. 플랜지는 흡토출 공히 KS(JIS)10kg/cm² 급. FF
11. 다이내믹 바란스셀에 의한 누수방지(OPTION)
12. 흡입능력우수.

※ 상기 사양범위를 초과하는 대형 펌프도 제작합니다.

01. Materials in gray cast iron, ductile cast iron, stainless steel etc.
02. Vertically split casing
03. Modified spiral volute casing.
04. Back pull-out design for low maintenance and downtime.
05. Open impeller.
06. Adjustable side plate and impeller.
07. Renewable shaft sleeve.
08. Oil lubricated bearings.
09. Rotation : Clockwise rotation viewed from the driver end.
10. Flanges are KS(JIS) 10kg/cm² ratings, FF
11. Dynamic Balance Seal Type (Option).

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

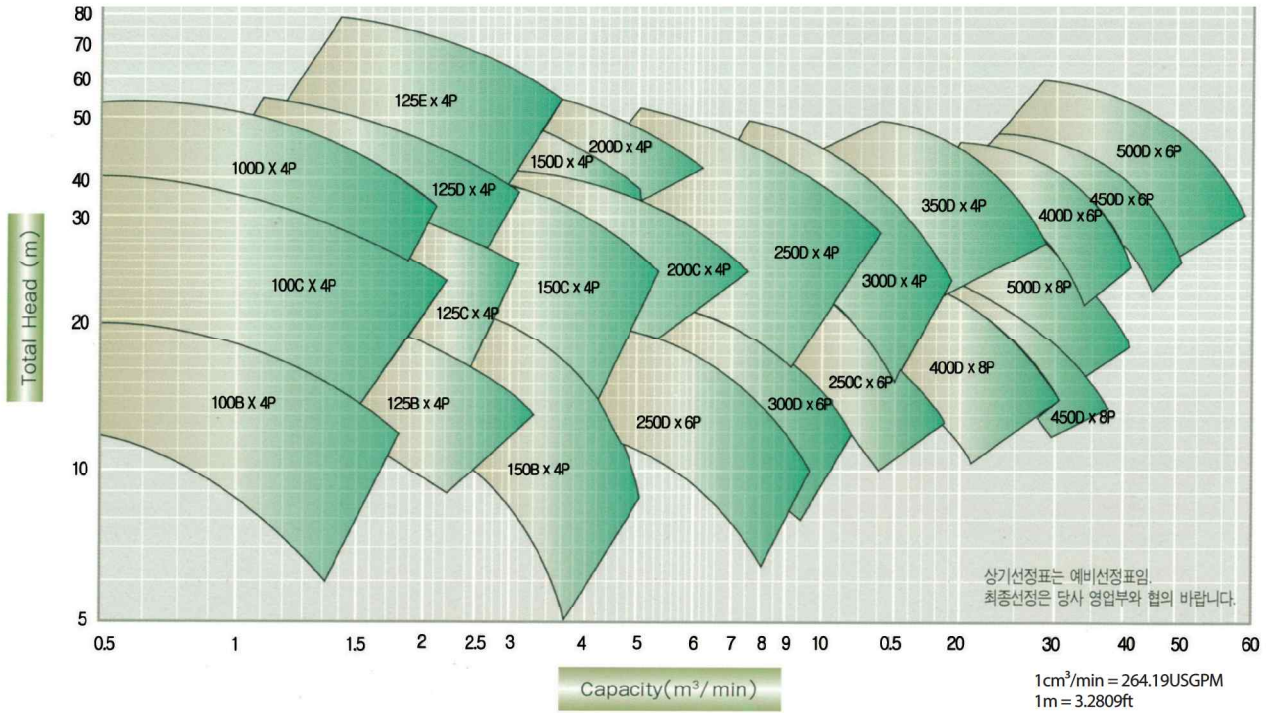
형식 표시 방법 / Type nomenclature

- ▶ 씨리즈(Series) _____
- ▶ 사이즈/흡입 구경(Size/Nominal dia. of suction nozzle) _____
- ▶ 양정 등급(Head ratings) : A,B,C,..... _____

NPP(R)-100B

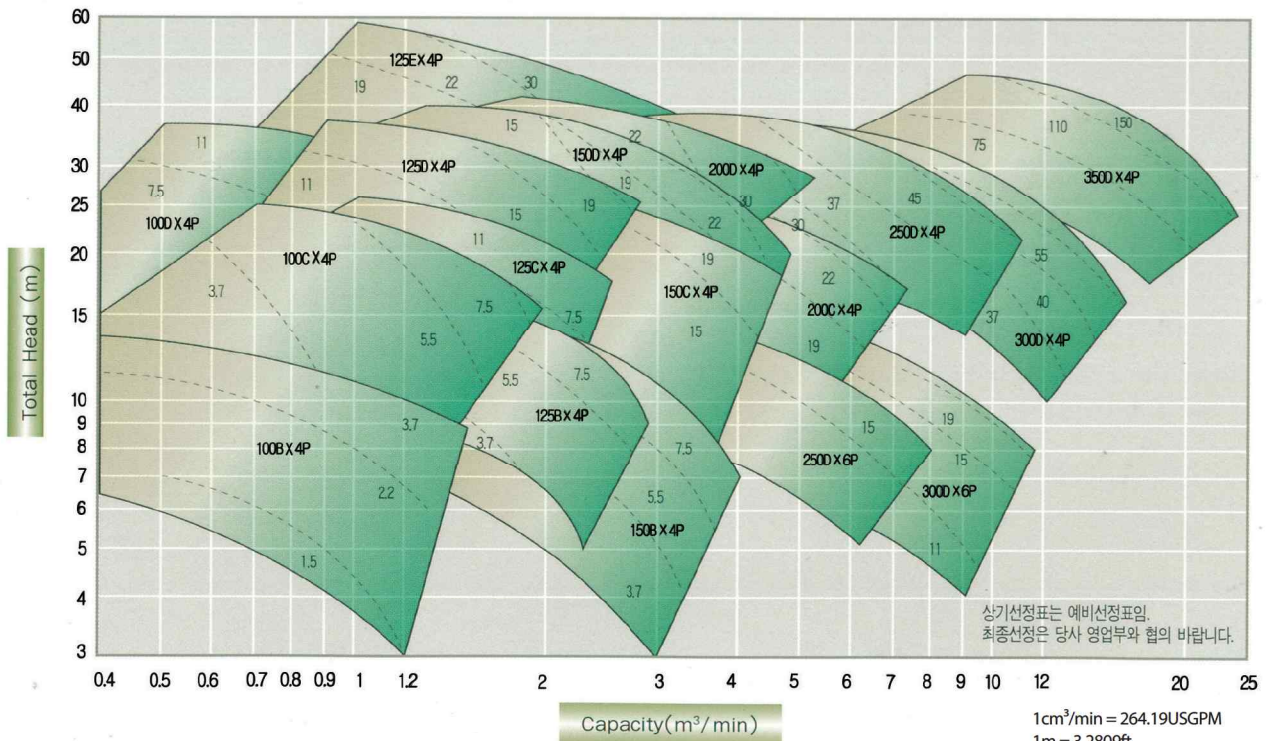
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선정표(60HZ에서) / Performance selection chart(60Hz)



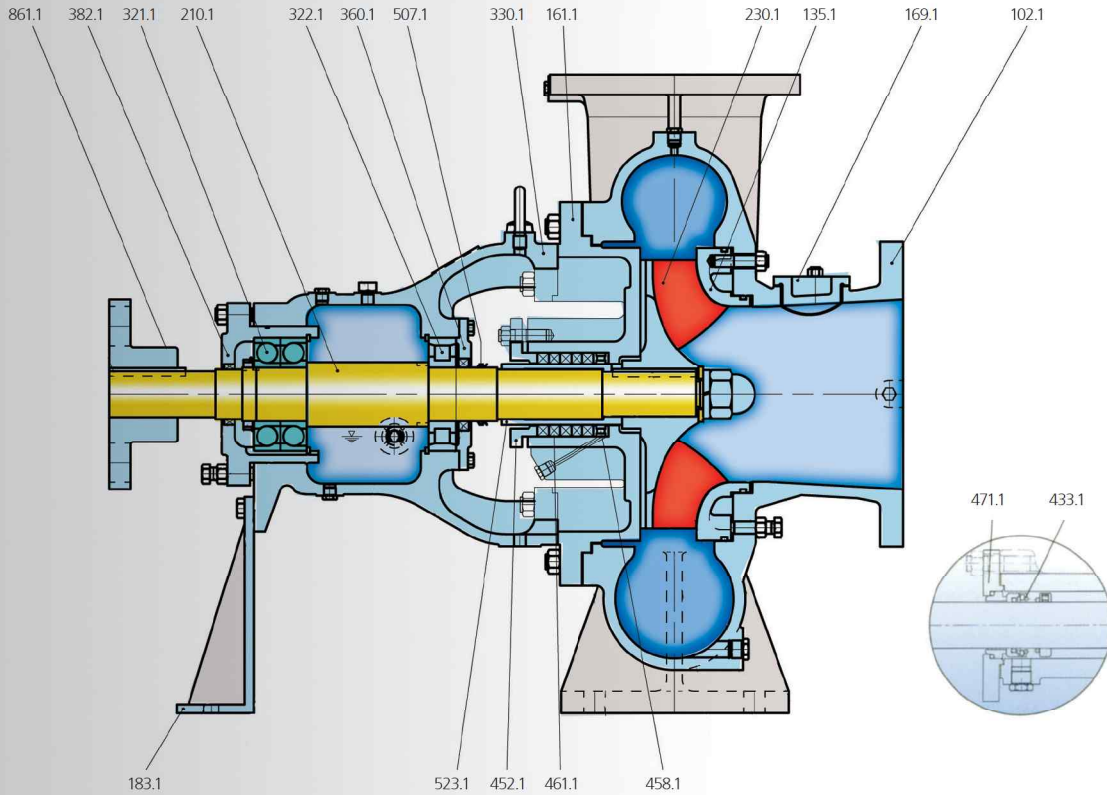
* The out of the above range can be supplied according to customer's order placement.

선정표(50HZ에서) / Performance selection chart(50Hz)



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

조립 단면도 / Sectional drawing



NO.	PART NAME	MATERIAL					Q'ty
		1	2	3	4	5	
102.1	VOLUTE CASING	GC 200	GCD 450	SSC 13	SSC 14	SSC 16	1
135.1	WEAR PLATE	SSC 13	SSC 13				1
161.1	CASING COVER	GC 200	GCD 450				1
169.1	HAND HOLE COVER	GC 200					1
183.1	SUPPORT	SS 400					1
210.1	SHAFT	SM 45C / SCM 440 / STS 304		STS 304	STS 316	STS 316L	1
230.1	IMPELLER	SSC 13			SSC 14	SSC 16	1
321.1	BALL BEARING	STB 2					1
322.1	ROLLER BEARING	STB 2					1
330.1	BEARING HOUSING	GC 200					1
360.1	BEARING COVER	GC 200					1
382.1	BEARING CASE	GC 200					1
452.1	PACKING GLAND	GC 200		SSC 13	SSC 14	SSC 16	1
458.1	LANTERN RING	CAC 406		SSC 13	SSC 14	SSC 16	1
461.1	PACKING	NON METALLIC					1SET
507.1	THROWER	NBR					1
523.1	SHAFT SLEEVE	STS 304			STS 316	STS 316L	1
861.1	COUPLING	GC 200					1
*471.1	SEAL COVER	STS 304			STS 316	STS 316L	1
*433.1	MECHANICAL SEAL	-					1

*OPTION

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외형치수도 / Outline dimensions

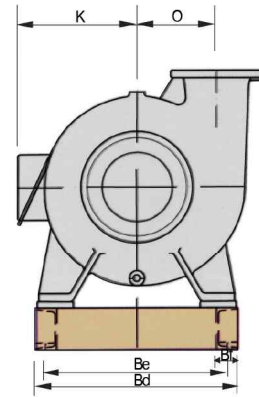
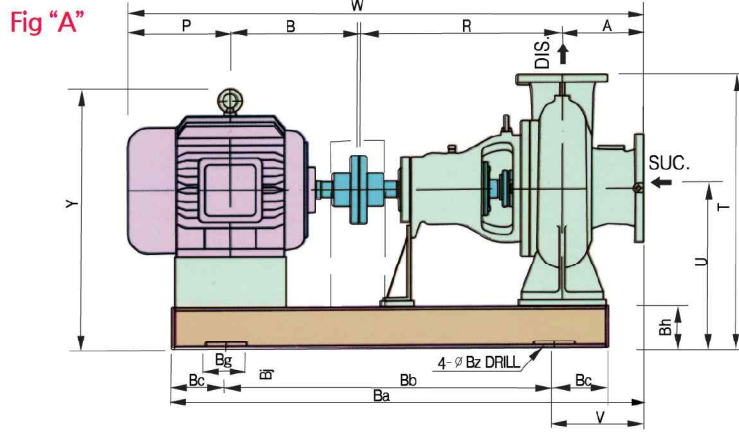
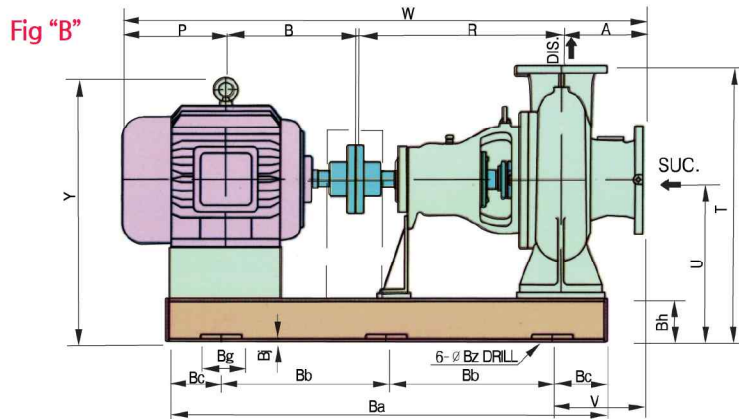


Fig "A" & "B"



• Dimensions for the standard unit driven by ICE standard motor.

TYPE	FIG	MOTOR FRAME NO.	BORE		PUMP & MOTOR DIMENSIONS(MM)													BASE PLATE DIMENSIONS(MM)						WEIGHT(KG)						
			SUC.	DIS.	A	B	O	K	P	R	T	U	V	W	Y	Ba	Bb	Bc	Bd	Be	Bf	Bg	Bh	Bj	Bz	PUMP	MOTOR	BASE	TOTAL	
NPP (R) 100B	A	112M			200.5		206	176.5					310	1146	512	950	600	175								150	39	39	228	
		132S			239		229	200						1208	532	1050	400									150	56	42	248	
	B	132M	∅100	∅100	225	258	155	229	219	540	595	345		1246					125	450	405	50	100	120	18	19	150	70	42	262
		160M			323			260					260	1352	569	1150	450									150	109	43	302	
		160L			345		294	282						1396												150	136	43	329	
NPP (R) 100C	B	132S			239		229	200					1189.5	532	1050	400	125									170	56	40	266	
		132M			258		229	219					1227.5												170	70	40	280		
	B	160M	∅100	∅80	210	323	180	294	260	536.5	595	345	245	1333.5	569	1150	450	125	450	405	50	100	120	18	19	170	109	42	321	
		160L			345		294	282					1377.5													170	136	43	349	
		180M			351		317	304					1405.5	583												170	161	47	378	
NPP (R) 100D	B	132M			258		229	219					275	1255	587	1050	400									190	70	41	301	
		160M			323		294	260					300	1371				125							190	109	42	341		
	B	160L	∅100	∅80	250	345	210	294	282	534	680	400		1415	624	1150		450		460	415	50	100	120	18	19	190	136	43	369
		180M			351		317	304					275	1443												190	161	43	394	
		180L			370		312	345					300	1503	638	1200		150								190	182	47	419	
NPP (R) 125B	B	132S			239		229	200					360	1237.5	532	1000	600	200								150	56	40	246	
		132M			258		229	219					285	1275.5		1050	400	125							150	70	41	261		
	B	160M	∅125	∅125	250	323	160	294	260	544.5	595	345		310	1381.5	569	1100		150	450	405	50	100	120	18	19	150	109	42	301
		160L			345		294	282					285	1425.5												150	136	45	331	
		180M			351		317	304					285	1453.5	583	1150	450	125								150	161	47	358	

• 치수는 참고용임

NPP/NPPR

MODEL NPPR DYNAMIC SEAL PUMP

장점 / Advantage

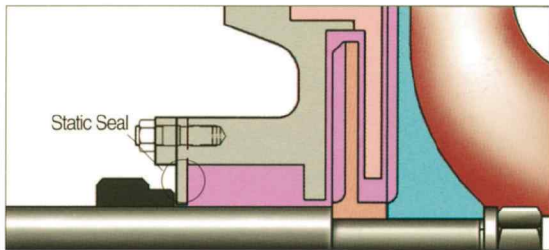
다이나믹 실은 Repeller와 Static Seal로 이루어져 있다. NPP 다이나믹 실 펌프는 종래의 외부 Flushing이 필요하고 계속적이고 비용이 많이 드는 Sealing 방법을 개선하기 위해 개발되었다. 다이나믹 실의 가장 큰 장점은 외부 Sealing 액이 필요하지 않다는 것이다. 이것은 유지보수 비용을 크게 줄일 수 있음을 말한다.

The dynamic seal is comprised of an repeller and static seal NPP Dynamic Seal pumps are designed to handle the tough application. where conventional mechanical seals for packing require outside flush and constant/costly attention.

The major advantage for most application is that external seal water in not required. thus this results in considerable saving in investment and operational cost.

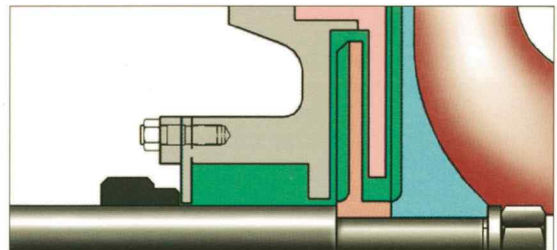
원리

• Running



At startup, the repeller functions like an impeller and pumps liquid form the stuffing BOX.

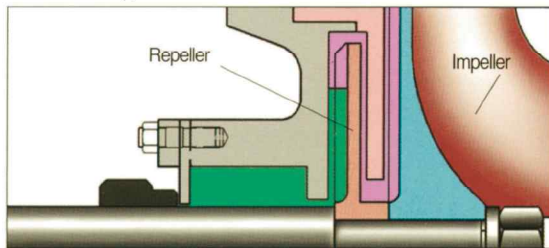
• Stop



When the pump stops, the seal chamber is filled with liquid and static seal prevents leakage.

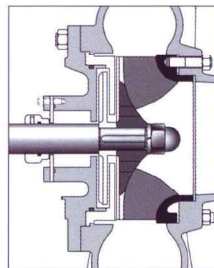
STATIC SEAL

Elastic Disc Type



“NPPR DYNAMIC SEAL PUMP”는
누수방지용 펌프로
특허 받은 제품임.
(특허 제0287571호)

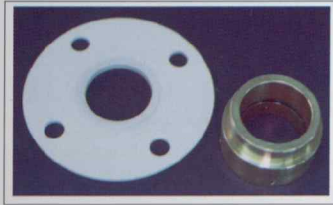
Conversion Kit



Existing SHINSHIN or NPP pumps, originally installed with mechanical seal or stuffing box packing, can easily be converted to the DYNAMIC SEAL.

All that is required is an interchange of parts. No machining is necessary. Overall, pump dimensions are the same, so the pump and motor remain in the original position.

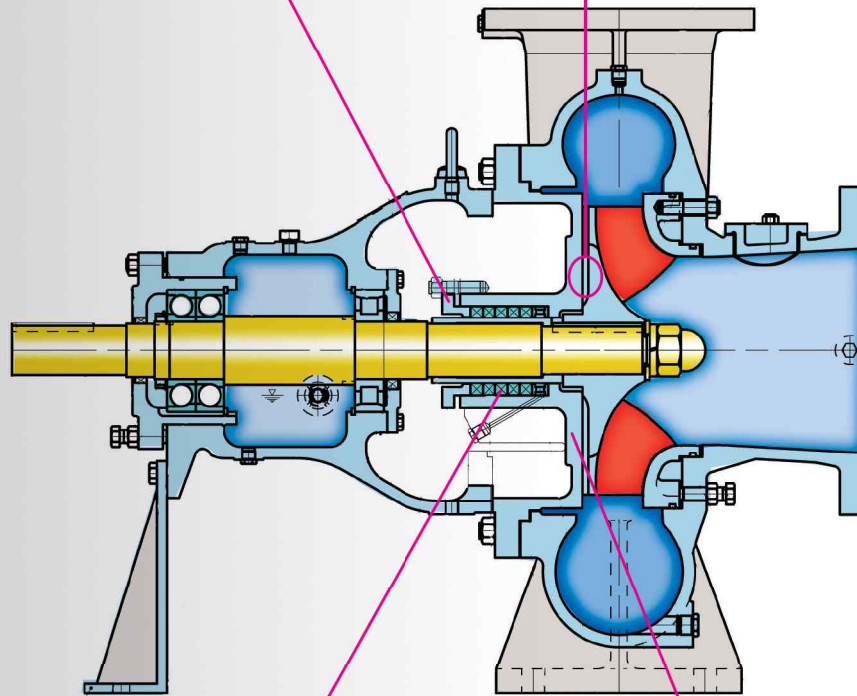
The conversion kit includes an repeller, casing cover, seal chamber, shaft complete static seal and all necessary O-rings and gaskets.



STATIC SEAL(elastic disc)
for stock or other difficult liquid.

REPELLER PLATE AND STUFFING BOX COVER

form the chamber in which the repeller rotates. Positive sealing assured with gasket between plate and stuffing box cover.



SHAFT SLEEVE
No shaft sleeve is available.

REPELLER



Pumps liquid from stuffing box during operation eliminates leakage, pumpage contamination and excessive wear on pump and sealing parts.
Driven by impeller/repeller key.