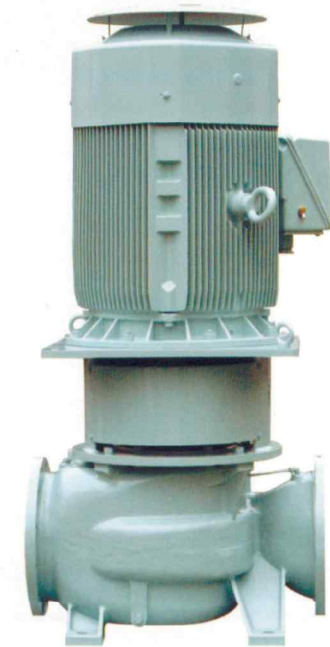


MDC

Vertical, Single Stage, Double Suction, Closed Coupled Type

입형, 단단, 양흡입, 클로즈 카플드 형식



용도 및 적용 분야 / Usages and applications

맑은 액체용(청수, 해수, 기름)

광범위한 사용영역의 일반용도 펌핑에 사용된다.

일반산업용, 가정용수공급용, 빌딩용, 급수시설, 수처리, 관개 및 선박용 등

For clean fluids(water, sea water, oil etc)

For general purpose pumping in a wide range of services : general industries,
domestic water, building, water works, water treatment, irrigation, marine use
(fresh water, cooling water, sanitary, G.S, ballast)

설계 및 구조적 특징 / Design and operation features

01. 넓은 사용영역에 걸쳐 효율이 높고, 운전이 정숙하며 고장이 적다.
 02. 펌프 부품의 최대의 호환성
 03. 플랜지는 KS, JIS 흡입 5kg/cm², FF
토출 5kg/cm², 또는 10kg/cm², FF
 04. 동평형된 임펠러
 05. 구동기 축에서 보아 우회전
 06. 임펠러 후방 취출 구조
 07. 협소한 공간에 사용이 용이하다.
 08. 유지, 보수가 쉽다.
 09. 동력은 리지드 카플링으로 전달된다.
 10. 축 씰링은 M/Seal 또는 Packing 가능하다.
- ※ 상기 사양범위를 초과하는 대형 펌프도 제작합니다.

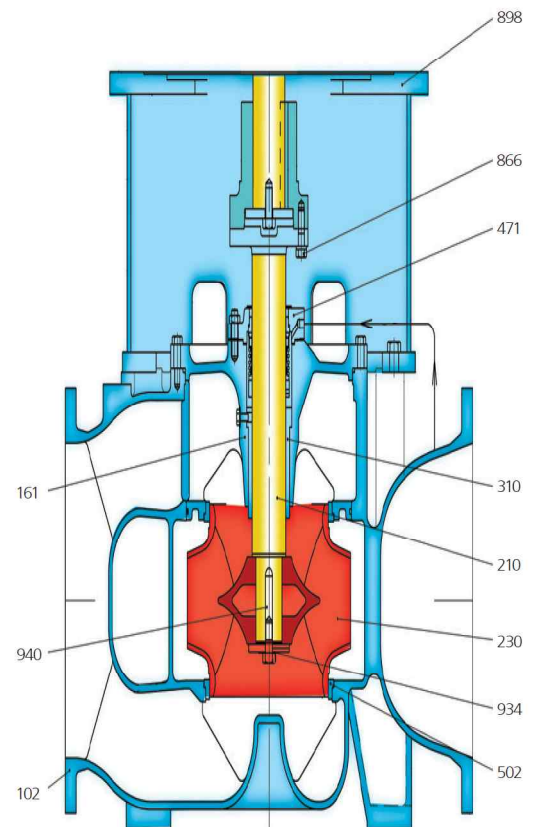
01. Good efficiency smooth operations and trouble free operation throughout a wide range of hydraulic coverage
 02. Maximum interchange abilities of pump parts.
 03. Flange are KS, JIS Suc. 5kg/cm², FF
Dis. 5kg/cm², or 10kg/cm², FF
 04. Dynamically balanced impeller
 05. Clock-wise(CW) rotation when viewed from the driver end.
 06. Impeller back pull-out arrangement
 07. Available to install on a small space.
 08. Easy to maintenance.
 09. Power transmission is performed by a rigid coupling.
 10. Shaft Sealing by M/Seal type or Packing type.
- * The out of the above range can be supplied according to customer's order placement.

Principle particulars

Item Model		300C	300D	350C	400C	500C
Rotation		Clockwise when viewed from driver end				
Suction Bore	(mm)	300	300	350	400	500
Discharge Bore	(mm)	300	250	350	400	500
Stuffing box seal		Gland packing or Mechanical seal				
Weight : GC(BC)	(kg)	440(500)	470(530)	550(600)	630(930)	1830(1930)
Water filled in casing	(kg)	124	150	150	295	450

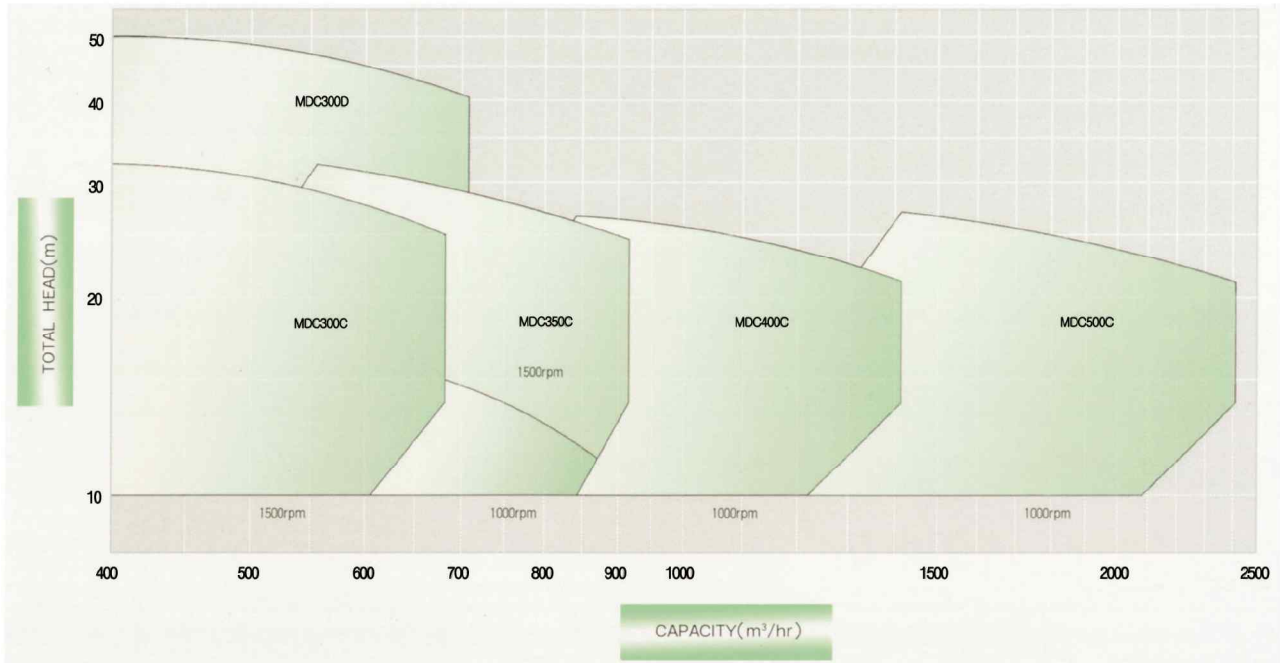
Standrad Materials

Part No.	NAME OF PART	REQ NO. FOR 1PUMP	FOR FRESH WATER		FOR SEA WATER	
			NAME	KS	NAME	KS
102	Volute Casing	1	Cast Iron	GC 200	Bronze	CAC 406
161	Casing Cover	1	Cast Iron	GC 200	Bronze	CAC 406
210	Shaft	1	Stainless Steel	STS 304	Stainless Steel	STS 304
230	Impeller	1	Phosphore Bronze	CAC 502A	Phosphore Bronze	CAC 502A
310	Sleeve Bearing	1	PAG	-	PAG	-
471	Seal Cover	1	Bronze	CAC 406	Bronze	CAC 406
502	Casing wear ring	2	Leaded Tin Bronze	LBC 4	Leaded Tin Bronze	LBC 4
866	Coupling Bolt/Nut	6	Cr.Mo Steel	SCM 440	Cr.Mo Steel	SCM 440
898	Motor Frame	1	Steel	SS 400	Steel	SS 400
934	Lock Washer	1	Stainless Steel	STS 304	Stainless Steel	STS 304
940	Impeller Key	1	Stainless Steel	STS 304	Stainless Steel	STS 304



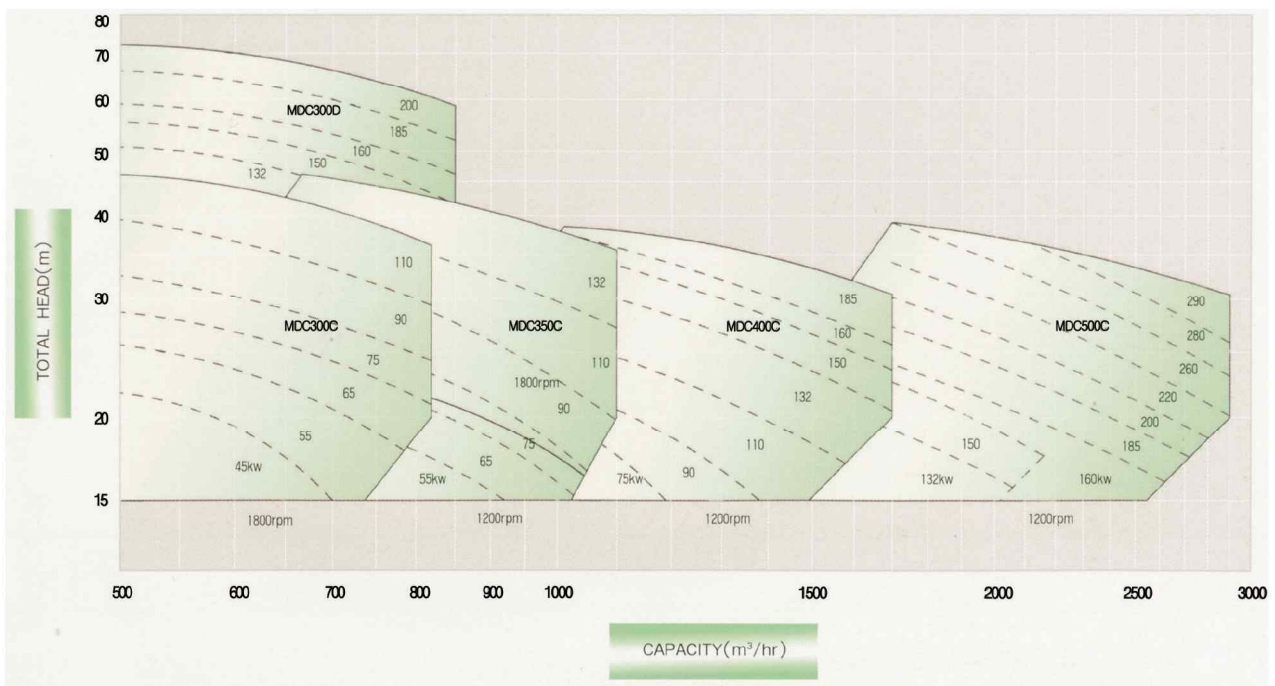
MDC

Double Suction 양흡입(50Hz)



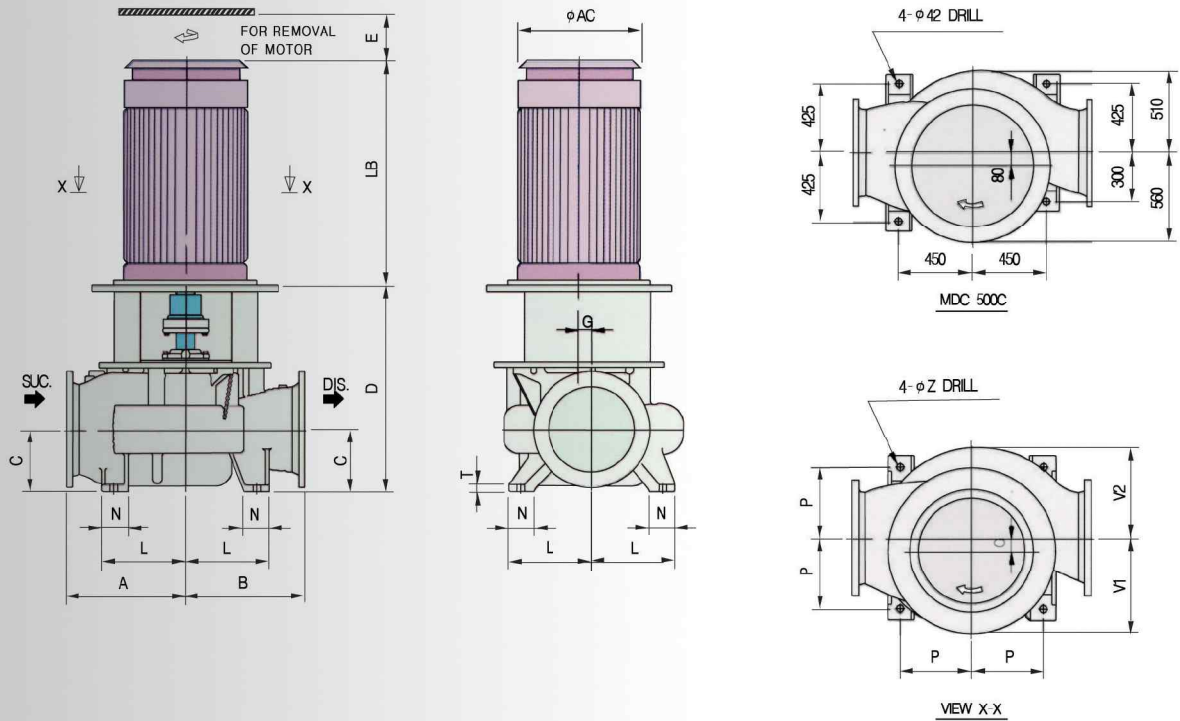
* The out of the above range can be supplied according to customer's order placement.

Double Suction 양흡입(60Hz)



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

외형치수도 / Outline dimensions



Dimensions : mm

MODEL	BORE		A	B	C	D	E	G	LB	L	N	O	P	T	Z	AC	V1	V2
	SUC.	DIS.																
MDS 300C	Ø 300	Ø 300	420	420	250	820	250	50	789	295	105	800	250	25	28	570	410	320
MDS 300D	Ø 300	Ø 250	450	450	250	840	250	50	1094	320	110	900	270	28	28	570	410	320
MDS 350C	Ø 350	Ø 350	430	430	270	885	250	50	1094	310	105	800	265	28	33	570	410	330
MDS 400C	Ø 400	Ø 400	550	550	290	960	250	60	1094	385	120	1100	330	30	330	600	500	430
MDS 500C	Ø 500	Ø 500	730	730	380	1145	250	80	1224	-	-	1200	-	35	-	700	530	510



MSS/MDS/MSC/MDC 공통자료

Motor

이 펌프 기종의 모터는 아래 조건들을 만족 해야만 한다

축방향 추력

축방향 추력은 회전하는 부분이 아래로 작용하는 힘을 말한다.
 축방향 추력의 최대값은 아래 표와 같다.

Unit:kg

Model	MSS/MSC								MDS/MDC				
	100C	100D	125C	125D	150C	150D	200C	200D	250C	300C	300D	350C	400C
Thrust	34	38	49	58	55	65	70	85	50	80	105	110	125

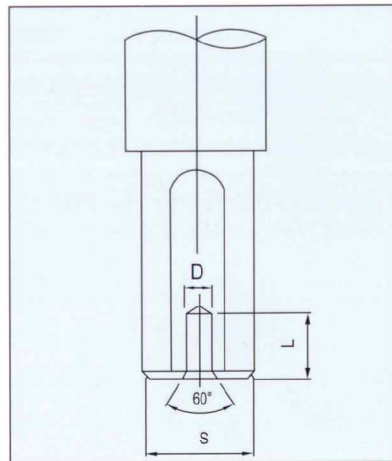
- NOTES**
- 펌프의 축방향 추력은 임펠러의 수력학적 힘에 따라 다양하다.
 - 모터의 스러스트 베어링은 상하방향 고정형(0.7mm이내)이어야만 한다.
 - 열 팽창에 의한 축끝단부의 치수변화 허용값은 1mm 이하여야 한다.

모터 축 끝단의 나사 (고정 볼트는 신신기계 제공)

펌프의 회전 부분을 지지하기 위해 모터의 축 끝단부에는
 모터 커플링 고정용 나사가 있어야 한다

모터 플랜지의 직각도와 편심률

다이얼 게이지로 측정시 축과 관련된 플랜지 면의 직각도와
 고정된 플랜지의 외부 직경의 편심거리가 0.127mm 보다
 작아야 한다.



축끝단의 휨

축끝단의 휨은 Dial Indicator 로 읽었을 때 0.05mm 이하
 여야 한다.

표준 약세서리

- Discharge pressure gauge 1
- Suction compound gauge 1
- Gauge board 1
- Gauge root valve 2
- Sealing pipe 1set
- Vacuum unit(for self priming pump) 1set

표준 스페어 파트

- 1 pump set of the following spare is supplied for 1 ship.
- Gland packing or mechanical seal
- Coupling Bolt & Nut
- Bearing bush
- Complete set of rotating element(if required)

Motor

The motor for this type of pump must satisfied the following conditions :

Axial Thrust

The thrust due to the weight of the rotating element acts downward.

The maximum values are as shown in the following table.

Unit:kg

Model	MSS/MSC									MDS/MDC			
	100C	100D	125C	125D	150C	150D	200C	200D	250C	300C	300D	350C	400C
Thrust	34	38	49	58	55	65	70	85	50	80	105	110	125

- NOTES**
- The thrust for 500c pumps are variable according to the hydraulic force acting on the impeller
 - The trust bearing for the motor must be of the fixed type(below 0.7mm) for up and down directions
 - The permissible value of elongation of the shaft end due to thermal expansion is be less than 1mm

Screw at the motor shaft end(Bolt for fixing is supplied by SHIN SHIN)

In order to support the pump rotating element the shaft end must be provided with threaded hole for fitting the motor coupling.

Rectangularity and eccentricity for motor flange

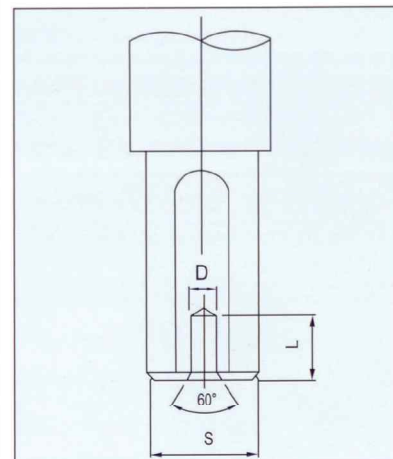
The rectangularity of the flange face relative to the axis and the eccentricity of the flange fitting outside diameter must be less than 0.127mm when read from a dial indicator.

Shaft end deflection

The shaft end deflection must be less than 0.05mm when read from a dial indicator.

Standard Accessories

Discharge pressure gauge	.....	1
Suction compound gauge	.....	1
Gauge board	.....	1
Gauge root valve	.....	2
Sealing pipe	.....	1set
Vacuum unit(for self priming pump)	.....	1set



Standard Spare Parts

- 1 pump set of the following spare is supplied for 1 ship.
- Gland packing or mechanical seal
 - Coupling Bolt & Nut
 - Bearing bush
 - Complete set of rotating element(if required)