

# ShinMaywa

*Submersible Pumps &  
Water Treatment Equipment*

Bomba

ポンプ

Pumpen

Pump

Pompa

水泵

Pompe

水泵



# Creating Comfort and Convenience for the living Environment.

ShinMaywa has long history and experiences as a pump manufacture since we started manufacturing of Pumps in 1955.

And we enjoy reputation of high quality water treatment equipments until today.

Therefore, all products are in operation not only in Japan, but also in many countries.

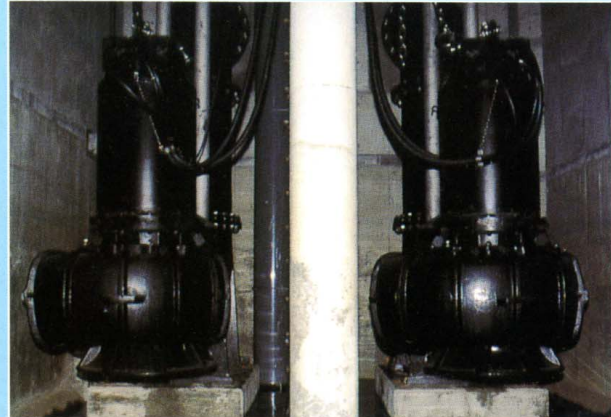
Our variety of products help and satisfy your requests to solve waste water treatment.

Many applications such as in public facilities and waste water treatment plants prove our confidence and durability.

Here, you can find a number of features of our products.



Submersible pump (Model:CN300)



Submersible pump (Model:CN700)



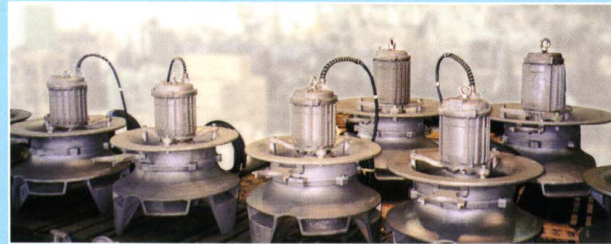
NORUS® Series



CNT with FLYWHEEL



Submersible pump (Model:CN1502)



All stainless submersible aerator

## Factory and Subsidiaries



Test Facility

### Brief information

**Ono plant** Site area:57,966m<sup>2</sup>  
Building area:14,827m<sup>2</sup>



ShinMaywa  
Malaysia

ShinMaywa  
Asia

# Summary of ShinMaywa W.W.T Equipments

	APPLICATION	IMPELLER	MODEL	BORE (mm)	OUTPUT (kW)	POLES	PAGE
Submersible Pumps	Drainage Effluent	Volute	A	40~80	0.25~1.5	2	8
			AH	40~100	0.4~11		9
		Closed	CRC	40~80	0.4~2.2		11
	Raw water Sewage	Non-Clogging	CN	40~65	0.25~1.5	2	8
				80~150	2.2~22	4	8
				200~800	7.5~150	4~16	8
			CNL	50 · 65	0.25~1.5	4	—
		CNH	100	11·15·22	4	8	
		Non-Clogging (with chopper)	CJ	50 · 65	0.75 · 1.5	2	10
				80 · 100	2.2~7.5	4	10
		Vortex	CV	50 · 65	0.4~1.5	2	9
				80~150	2.2~22	4	9
			CVS	40~100	0.15~11	2	9
			CVC	50~100	0.4~7.5	4	—
			CVM	50~150	0.4~7.5		—
			CVL	50 · 65	0.25~1.5		—
			CVH	100	11·15·22	—	
			CR	50~80	0.15~2.2	2	—
	CRS		32~80	0.15~2.2	—		
	Vortex(with grinder)	CKM	32·40·50	1.0~3.7	2	—	
Screw	CW	65~150	1.5~22	4	10		
	CWH	100	11·15·22	—			
Chemical (made of Stainless Steel.)	Volute	S3A	40~80	0.25~1.5	2	—	
	Non-Clogging	S3N	40~100	0.25~7.5	2 · 4	—	
	Vortex	S3V					
Dry pit	Non-Clogging	CNT	65~150	1.5~22	4	10	
	Screw	CWT				—	
Float pump	Non-Clogging	FP	50 · 80	0.75 · 1.5	2	12	
Flood Control	Axial Flow	SA	300~800	11~150	6~20	12	
	Mixed Flow	SD	400~800				

• Both flange and automatic connecting type are available.(except CNT,CWT & FP)

• Wide range of options are available.(motor protector,cable length,materials,etc)

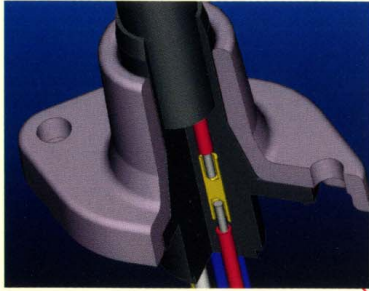
	ITEM	MODEL	OUTPUT (kW)	REMARKS	
Related Products	Submersible Ejector	J · JA	0.75~5.5	Self air priming type	
	Submersible Aerator	SJ · SJL · SU	0.75~30	Forced air priming(use with blower)	
	Submersible Mixer	SM	0.25~7.5		
	Air Blower	Land Type	ARH-S	0.4~55	Helical rotor type
			ARS	1.5~132	Spur rotor type
		Submersible Type	RB	0.4~15	Helical rotor type
	Automatic Screen	BS · SS · VS	0.025 · 0.1		
	Float switch	LC	for sewage,waste-water and drinking water.		
		MS	for waste water.		
FV		for waste water containing a few suspended solids.			

• Details:refer to individual catalogues

# There are MANY ADVANTAGES with ShinMaywa Submersible Pump

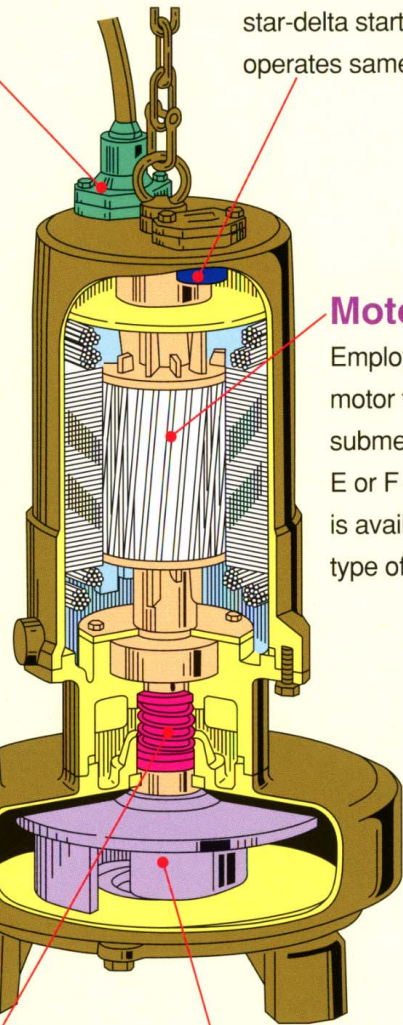
## Cable Insertion Hole

The stuffing box is located at the cable entry section and takes the part of sealing of water. As the cable conductors consists of multi stranded conductor, water may penetrate into the motor by the capillary phenomenon when cable sheath or insulation is damaged or when the end of the cable is submerged. Therefore, a certain part of insulation of each conductor is peeled, and sealed with rubber to prevent water penetration from this part.



## Motor protection

Employing auto cut or thermal protector to prevent overheat due to overload, impeller lock, open phase. Auto cut is a snap-action bi-metal device. When temperature of the coil exceeds designed temperature, it bends automatically and stops the electric circuit. Thermal protector is employed for star-delta starting type and it operates same way.

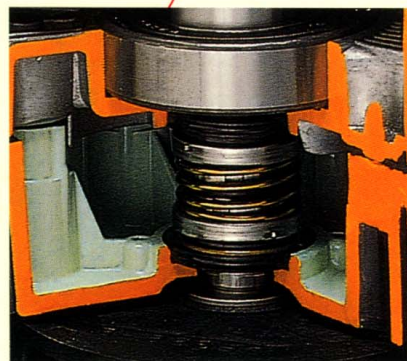


## Motor

Employing a dry type motor for all kinds of submersible pump. E or F class insulation is available for the type of motors.

## Impeller

Many kinds of impeller types suitable for each application are available. (For example, volute type, non-clog type, vortex type, screw type.)



## Mechanical Seal

Employing double mechanical seal with high wear resistance material to prevent water penetration into motor room. Also, in combination with employing such kinds of oil seal, life time of mechanical seal becomes long.

# IMPELLERS—Wide range of types are available—

IMPELLER TYPE	APPLICABLE MODEL	DESIRABLE APPLICATION	PUMP EFFICIENCY	FEATURES		
				PASSAGE CAPABILITY		
				SOLID	FIBER	SLUDGE
 <b>VOLUTE</b>	A AH	Drainage Defoaming Effluent	Excellent	Unsuitable	Unsuitable	Unsuitable
 <b>NON-CLOGGING</b>	CN CNH CNL CNT	Raw water Sewage Sanitary	Good	Best suited	Applicable	Applicable
 <b>NON-CLOGGING (WITH CHOPPER MECHANISM)</b>	CJ	Raw water Sewage Sanitary	Good	Best suited	Best suited	Applicable
 <b>VORTEX</b>	CV CVH CVL CVS CVM CVC CR CRS	Raw water Sewage Sanitary Sludge	Normal	Best suited	Best suited	Best suited
 <b>SCREW</b>	CW CWH CWT	Raw water Sewage Sanitary Sludge	Excellent	Best suited	Applicable	Best suited

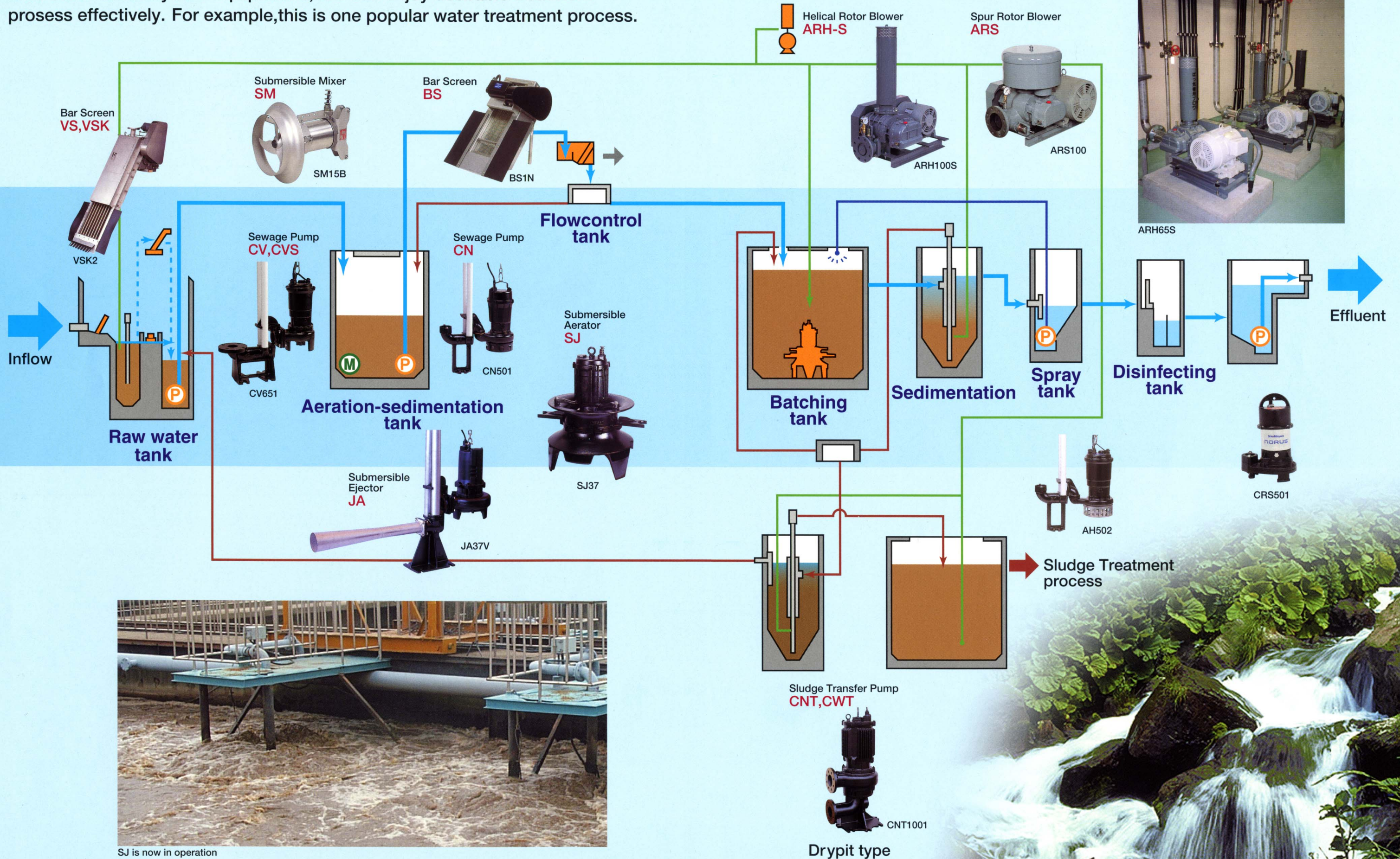
\* Cutter pump (Model: CK) is also available.

\* Grinder pump (Model:CKM) is also available.

# FLOW CHART OF INTERMITTENT

# AERATION TREATMENT

With these ShinMaywa's equipments, You can enjoy desirable treatment process effectively. For example, this is one popular water treatment process.



SJ is now in operation

# SUBMERSIBLE PUMP

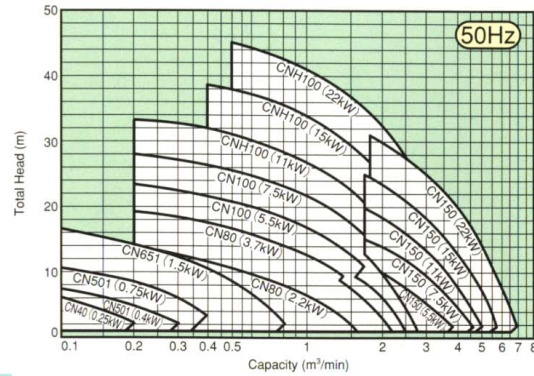
## NON-CLOGGING TYPE

### CN/CNH

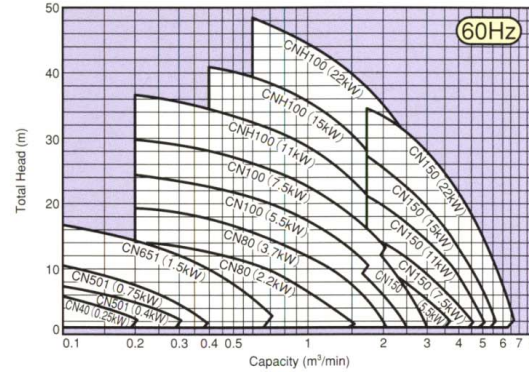
Non-clog impeller ensures that waste water and sewage can be efficiently transferred. Under 7.5kW models employ semi-open type impeller (others are closed type) The models exceed  $\phi$  500 bore and 75kW output are also available.



CN501



Bore (mm)	Model	Output (kW)
40	CN40	0.25
50	CN501	0.4 0.75
65	CN651	1.5
80	CN80	2.2 3.7
100	CN100	5.5 7.5
	CNH100	11 15 22
150	CN150	5.5 7.5

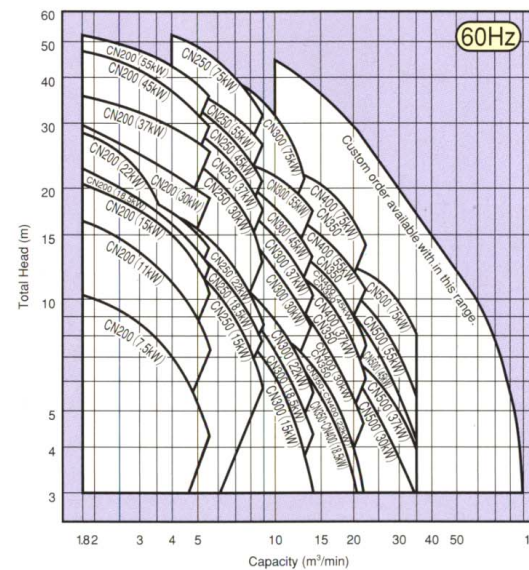
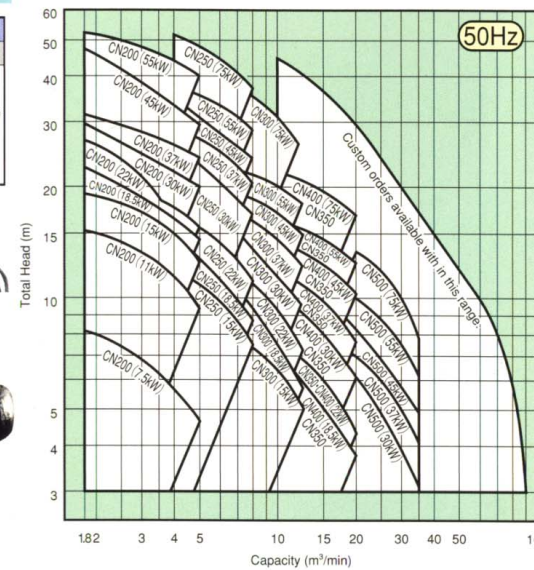


### CN

Bore (mm)	Model	Output (kW)
200	CN200-P	7.5 11
250	CN250-P	15
300	CN300-P	18.5
350	CN350-P	22 30 37 45 55 75
400	CN400-P	
500	CN500-P	



CN500-P



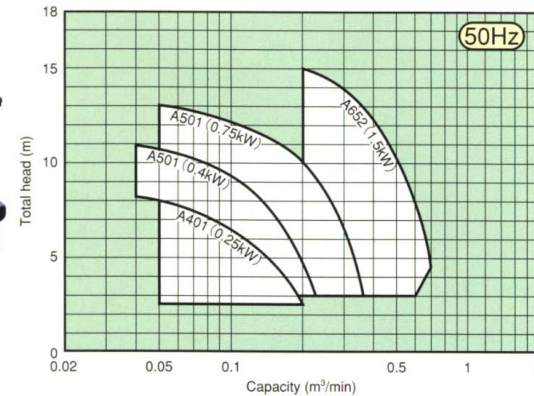
## VOLUTE TYPE

### A

"A" pump is compact, lightweight and easy to handle. This pump is suitable for waste water transferring



A652



Bore (mm)	Model	Output (kW)
40	A401	0.25
50	A501	0.4 0.75
80	A652	1.5

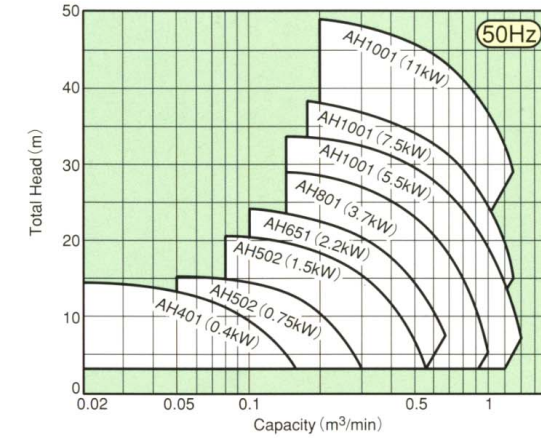


### AH

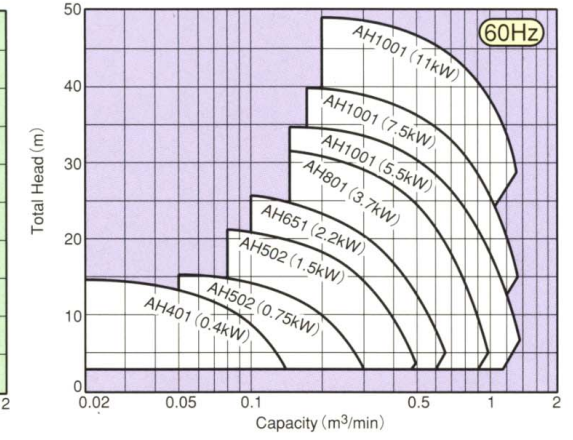
This model is ideal for high-head applications.



AH502



Bore (mm)	Model	Output (kW)
40	AH401	0.4
50	AH502	0.75 1.5
65	AH651	2.2
80	AH801	3.7
100	AH1001	5.5 7.5 11



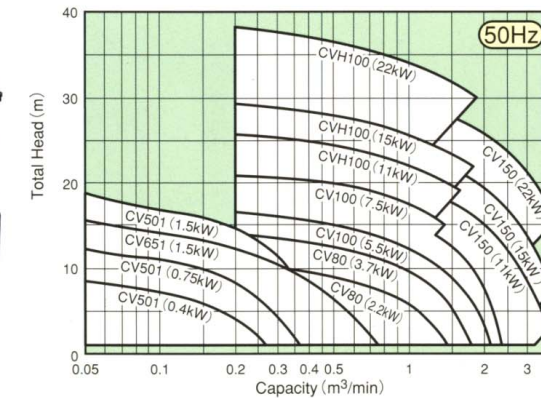
## VORTEX TYPE

### CV/CVH

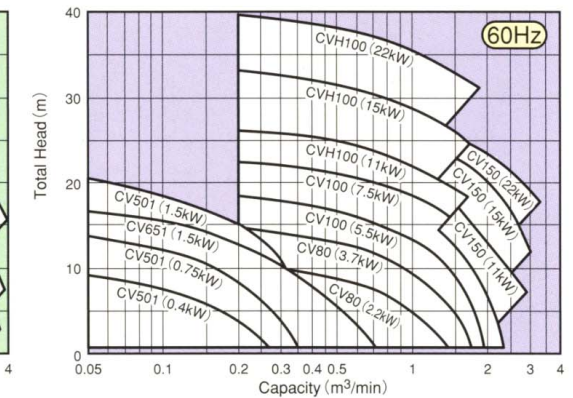
"CV" pump features a vortex structure and wide pump casing interior, preventing clogging by solids and fibrous foreign matters.



CV651



Bore (mm)	Model	Output (kW)
50	CV501	0.4 0.75
65	CV651	1.5
80	CV80	2.2 3.7
100	CV100	5.5 7.5
	CVH100	11 15 22
150	CV150	5.5 7.5

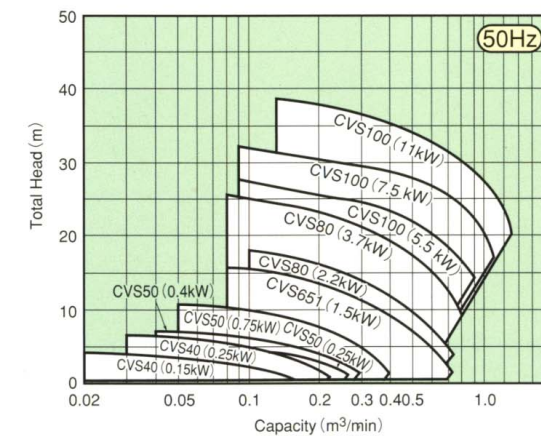


### CVS

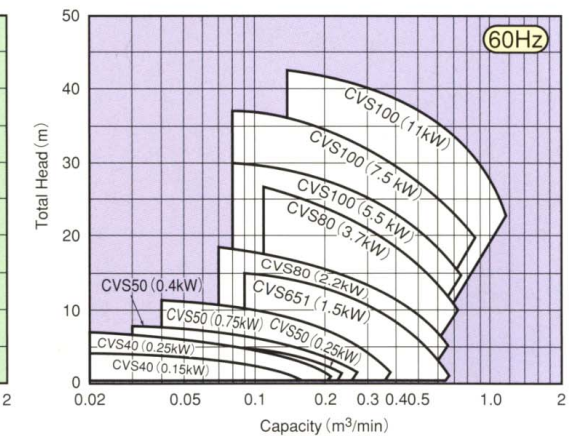
"CVS" pump has a high efficiency and head model of vortex type. (2poles)



CVS50



Bore (mm)	Model	Output (kW)
40	CVS40	0.15 0.25
50	CVS50	0.4 0.75
65	CVS651	1.5
80	CVS80	2.2 3.7
100	CVS100	5.5 7.5 11



# SUBMERSIBLE PUMP

## DEBRIS SHREDDING MECHANISM TYPE

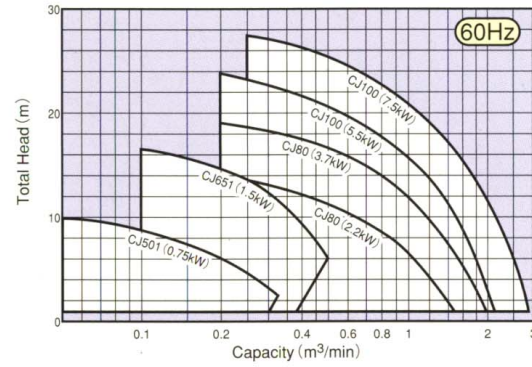
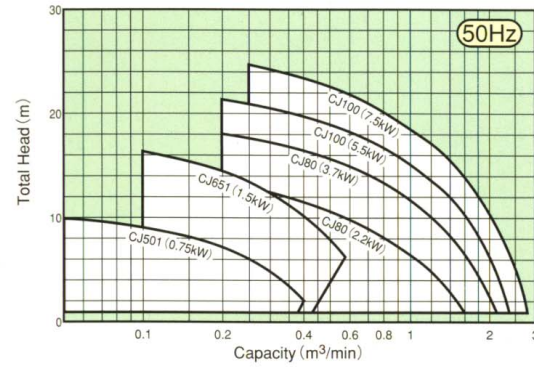
### CJ

In combination with well-designed suction hole, special heat treated chopper blade cuts debris without clogging. If necessary, more reliable cutter pump "CK" and grinder pump "CKM" are available.

Bore(mm)	Model	Output(kW)
50	CJ501	0.75
65	CJ651	1.5
80	CJ80	2.2 3.7
100	CJ100	5.5 7.5



CJ501



## SCREW TYPE

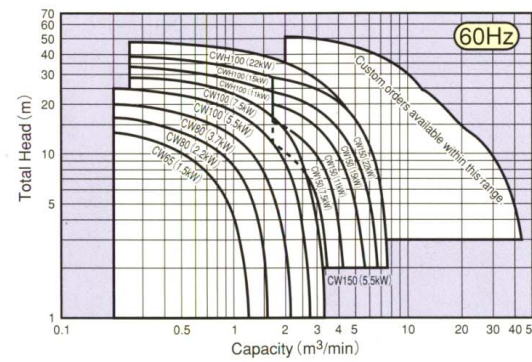
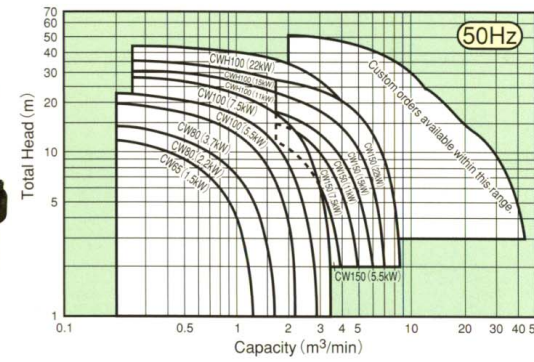
### CW/CWH

"CW" pump is a screw impeller type developed especially for sewage and sludge transferring pump. Foreign matter such as vinyl and fiber or highly concentrated sludge can be pumped by "CW"

Bore(mm)	Model	Output(kW)
65	CW65	1.5
80	CW80	2.2 3.7
100	CW100	5.5 7.5
	CWH100	11 15 22
150	CW150	5.5 7.5



CW80



## DRY PIT TYPE

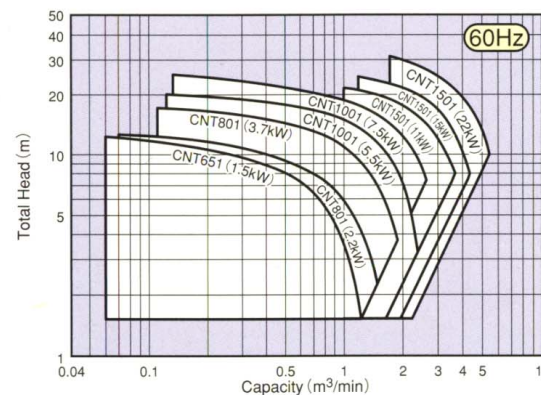
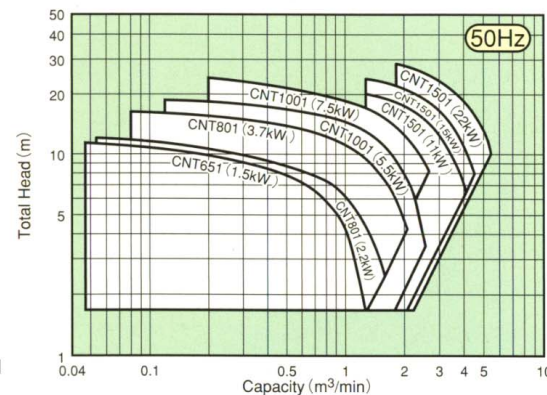
### CNT

Employing newly developed air-cooled type submersible motor. Both submersible and dry-pit applications are available. There are a lot of models from 1.5kW to 22kW. (Screw impeller model (CWT) is also available.)

Bore(mm)	Model	Output(kW)
65	CNT651	1.5
80	CNT801	2.2 3.7
100	CNT1001	5.5 7.5
150	CNT1501	11 15 22



CNT1001



## ENGINEERING PLASTIC-STAINLESS COMPOSITE TYPE

ShinMaywa has a wide range of engineering plastic-stainless pumps, "NORUS" series.

1. Dramatically reduced weight  
NORUS pump has reduced the pump weight by more than 50% (compared with our conventional cast iron pumps).
2. Increased resistance and strength against impact.  
NORUS pump are made of a special-grade resin having excellent impact resistance. As a result, NORUS is 6 times as strong as other resin pumps.
3. Pumps equipped with float switch are available.  
With these models, alternative operation is possible.



### CR

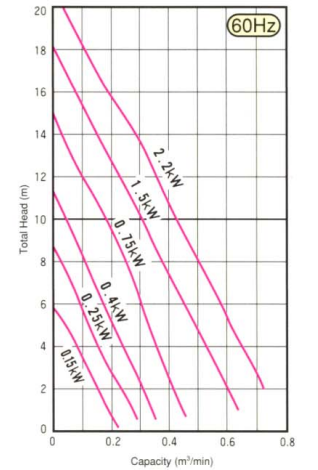
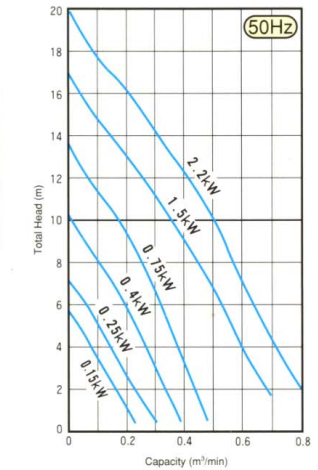
High passage capability model

Bore(mm)	Model	Output(kW)
50	CR501S	0.15 0.25 0.4
	CR501T	
	CR501	0.75
65	CR65	1.5
80	CR80	2.2



CR501

CR501D



### CRS

High pump efficiency model

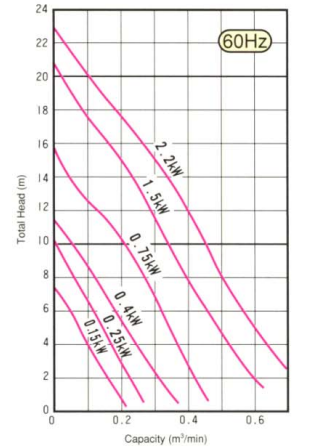
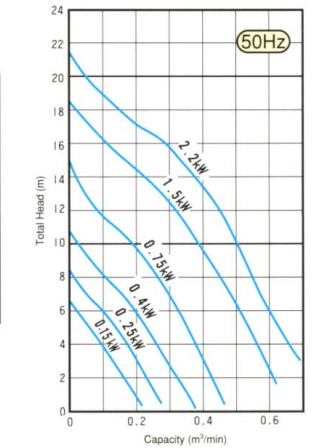
Bore(mm)	Model	Output(kW)
32	CRS321S	
	CRS401S	0.15
	CRS401T	0.25
	CRS501S	0.4
	CRS501T	
	CRS501	0.75
65	CRS65	1.5
80	CRS80	2.2



CRS401

CRS401D

CRS401W



### CRC

Closed type Non-clog impeller model for high head.

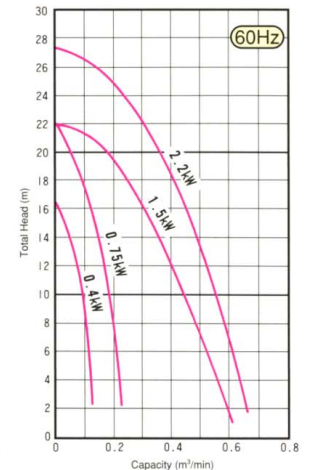
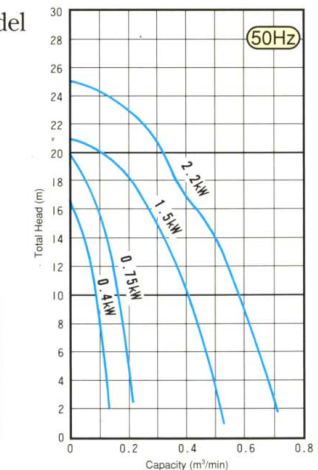
Bore(mm)	Model	Output(kW)
40	CRC40S	0.4
	CRC40T	
50	CRC50	0.75 1.5
65	CRC65	2.2



CRC65

CRC65D

CRC65W



## MIXED FLOW PUMP / AXIAL FLOW PUMP

### SD/SA

It can be set up minimal space within a short period with very little installation restriction. It is also a very economical pumping station as water is siphoned from the lower part of the discharge pipe and up through it for draining.



## FLOAT PUMP

### FP

Pump floats and vacuum the top water effectively.



## SUBMERSIBLE EJECTOR

### J/JA

Aeration with low initial and running costs can be realized. "J"-type is applicable for 2~5m depth and from 20m<sup>3</sup>~300m<sup>3</sup> preliminary Aeration tank.



## SUBMERSIBLE AERATOR

### SJ

Both mixing and aeration are available. SJ type has a high Oxygen transfer efficiency and easy maintenance due to motor direct linkage system. Strong downward flow provides efficient mixing.



## AIR BLOWER ( Land Type )

### ARH-S



Low Noise

### ARS



High-efficiency

## SUBMERSIBLE MIXER

### SM

Powerful and effective mixing but low power consumption can be realized. Various models from 0.25kW to 7.5kW are available.



## PUMP-RELATED PRODUCT

### LC



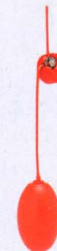
LC is quite reliable and durable float switch. It doesn't cause chattering.

### MS



MS11 can control one level, and MS21 can control two levels.

### FV



FV can control on and off with 1unit(1m length) more than 1m length requires 2 units. This switch is suitable for waste water.

Specifications and dimensions are subject to change without notice.

### ShinMaywa Industries, Ltd.

Overseas Sales Department 2-43, Shitte 3-chome, Tsurumi-ku, Yokohama-shi, 230-0003, Japan  
Phone : +81-45-584-1321 Fax : +81-45-584-1320  
E-mail : sales.info@sb.shinmaywa.co.jp

### ShinMaywa (America), Ltd. ShinMaywa (Bangkok) Co., Ltd.

10737 Gateway West, Suite 112,  
El Paso, Texas 79935, U.S.A.  
Phone : +1-915-594-9862  
Fax : +1-915-594-9866  
E-mail : info@shinmaywaamerica.com

105, Sukhumvit 57 Road, Klongton-Nua Sub-district,  
Wattana District, Bangkok Metropolis 10110 Thailand  
Phone : +66-2-382-1331  
Fax : +66-2-392-2057  
E-mail : Bangkok@sa.shinmaywa.co.jp

### ShinMaywa (Asia) Pte. Ltd.

51 Goldhill Plaza #14-01  
Singapore 308900  
Phone : +65-6224-0728  
Fax : +65-6224-9678  
E-mail : asia.ad@shinmaywa.com.sg

### ShinMaywa (Malaysia) Sdn. Bhd. ShinMaywa (Shanghai) Trading Co., Ltd.

Suite 7.3, 7th Floor, Menara Aik Hua, Changkat  
Raja Chulan, 50200 Kuala Lumpur, Malaysia  
Phone : +60-3-2026-2388  
Fax : +60-3-2026-2399  
E-mail : info@shinmaywa.com.my

Room3201, Shanghai Maxdo Centre,  
No. 8 Xing Yi Road,  
Hong Qiao Development Zone, Shanghai,  
China 200336  
Phone : +86-21-5208-1375  
Fax : +86-21-5208-1379  
E-mail : miura.t@sb.shinmaywa.co.jp

<http://www.shinmaywa.co.jp>



### ShinMaywa ONO PLANT

ISO 9001(No.956445)/ISO 14001(No.771888)

Printed on recycled paper.

'08. 3. Z-E104B

Printed in Japan2.6