

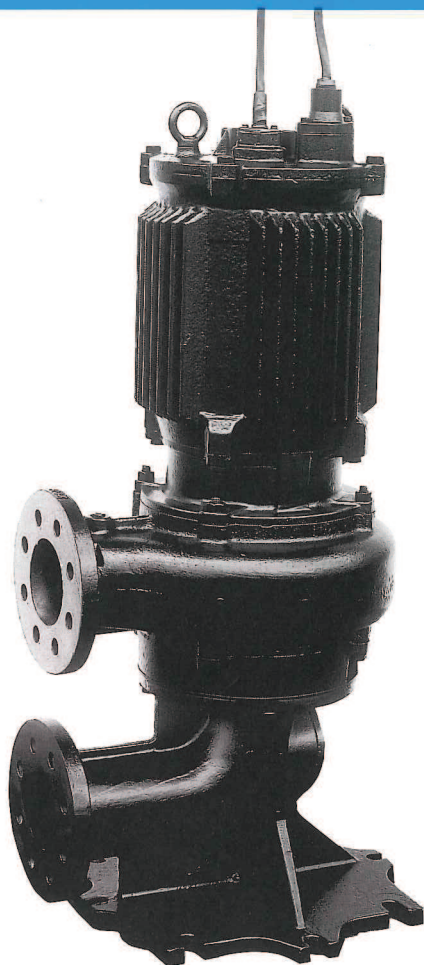
**ShinMaywa**

# **Dry Pit Submersible Pump**

**(Amphibian Type) CWT·CNT Series**

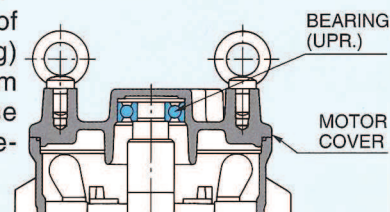


# Employing newly developed air-cooled type submersible motor



## ● Improved life time of bearing and seal components

To prevent overheat, upper bearing is installed at upper side of motor cover. (Patent pending) Also by reducing heat effect from motor, degradations of grease and O-ring are remarkably reduced.



## ● Employing newly developed air-cooled type submersible motor

By employing non-water jacket type air-cooled motor, this pump can be used even for sludge containing water. Also by reducing heat effect, continuous dry operation with class E insulation can be realized.

## ● Submersible application is also possible

By employing submersible motor, CWT, CNT series can be operated even though they are submerged.

## ● Employing high-quality 4 faces SiC Mechanical-Seal

This pump has wear-proof double mechanical seal, which realizes high reliability and long-life.

## ■ Main specifications

Applicable condition	Ambient temperature	-20 to 40°C		
	Ambient humidity	0 to 100%		
	Ambient Fluid type	Waste water, Sewage, Sludge		
	Liquid temperature	0 to 60°C(0 to 40°C:CNT150B)		
Materials	Motor shaft	SUS420J2		
	Pump casing	FC250(FC200:CNT150B)		
	Impeller	CWT	FC250(15kW or less)	
			FCD500(22kW)	
		CNT	FC200(7.5kW or less, CNT150B)	
FC250(11kW or more)				
Structure	Impeller	CWT	Screw type	
		CNT	Non-clogging type	
	Shaft seal	Double mechanical seal		
		4-faces SiC		
		CNT150B	LWR:2-faces Cemented carbide	
UPR:Carbon/Cemented carbide				
Motor	Name	Submersible induction motor		
	Insulation class	E(F:CNT150B)		
	Phase	3-phase		
	Starting Method	Direct on line(over 11kW:Star-Delta)		

## ■ Applications

\*For transfer and discharge of sewage and sludge at waste water treatment plants, etc.

\*For relaying sewage at the junctions in the sewage work.

\*For use in waste water treatment processes at combination treatment plants, etc.

\*For discharging various industrial waste water.

## ■ Options

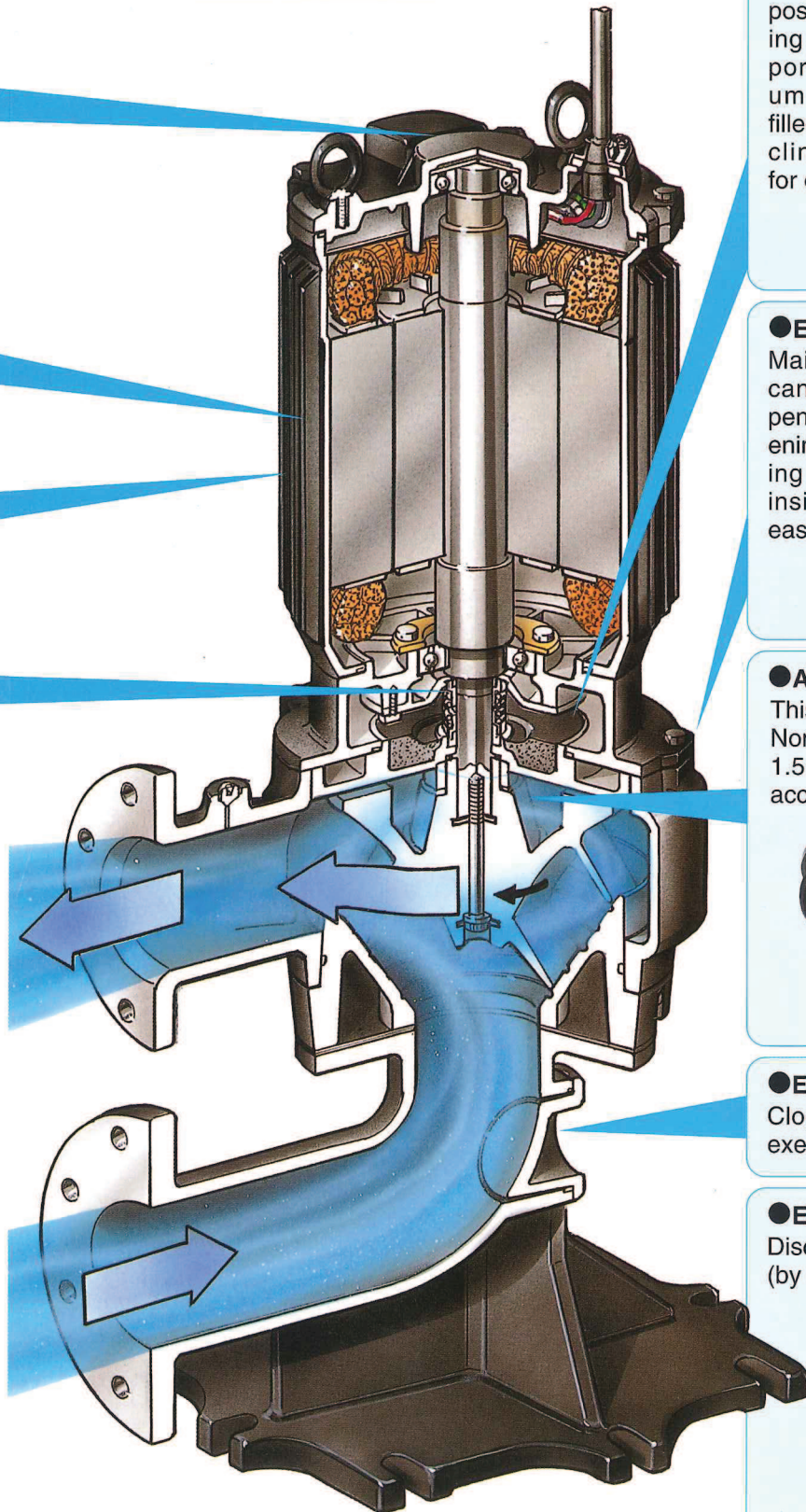
Cable extension	15, 20m
Material change	Impeller : SCS13 or High-chrome alloyed iron casting Base Cover : SCS13
Protector	Moisture Detector

For custom specifications other than the above, please consult with us

# DRY PIT SUBMERSIBLE PUMP (AMPHIBIAN TYPE)

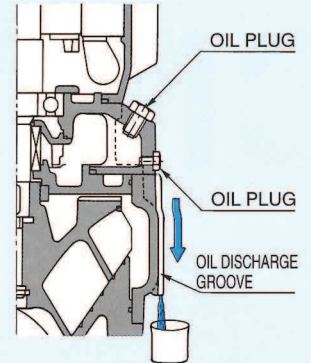
## CWT · CNT series

**OUTPUT: 1.5~22kW**



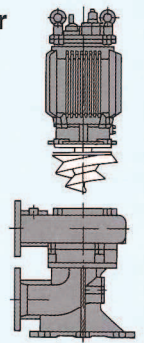
### ● Easy oil change

Oil discharge can be fully done at vertical position. By full pouring of oil at pouring port, adequate volume of oil can be filled. No need to inclining pump body for oil change.



### ● Easy maintenance for impeller

Maintenance of impeller can be executed by suspending pump after loosening 4 places of tightening nuts. Also, cleaning inside of casing can be easily done.



### ● Abundant series for various application

This pump offers Screw type impeller (CWT) or Non-clogging type impeller. Output variation is 1.5 to 22kW. Suitable model can be selected according to application.



(CWT)



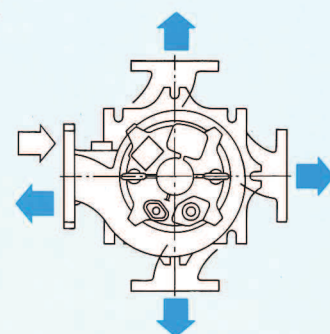
(CNT)

### ● Easy debris removal inside of suction pipe

Clogged debris inside of suction pipe can be executed from inspection port.

### ● Easy selection of discharge direction

Discharge direction can be selected 4 direction (by 90°).



# Screw action is particularly powerful for sludge transfer.

## Screw type

# CWT Series



### Standard specifications

Discharge bore mm	Intake bore mm	Model	Output kW	Phase	Capacity - Total head m <sup>3</sup> /min-m		Poles P	Weight kg
					50Hz	60Hz		
65	80	CWT65	1.5	Three	0.65 - 7.3	0.57 - 8.9	4	130
			2.2		0.79 - 8.3	0.75 - 9.6		
80	100	CWT80	3.7	Three	1.11 - 11.4	1.10 - 11.7	4	230
			5.5		1.40 - 13.4	1.36 - 14.4		
100	125	CWT100	7.5	Three	1.70 - 15.0	1.50 - 17.2	4	300
			11		3.0 - 11.5	2.9 - 12.3		
150	200	CWT150	15	Three	3.7 - 14.0	3.3 - 14.3	4	610
			22		4.0 - 16.9	3.7 - 18.1		

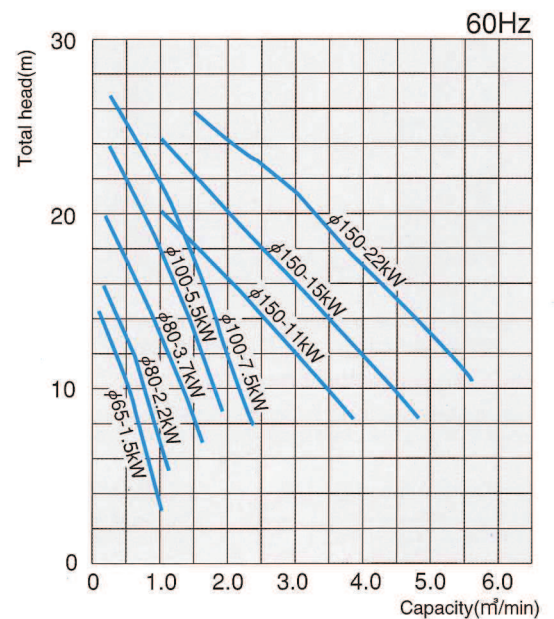
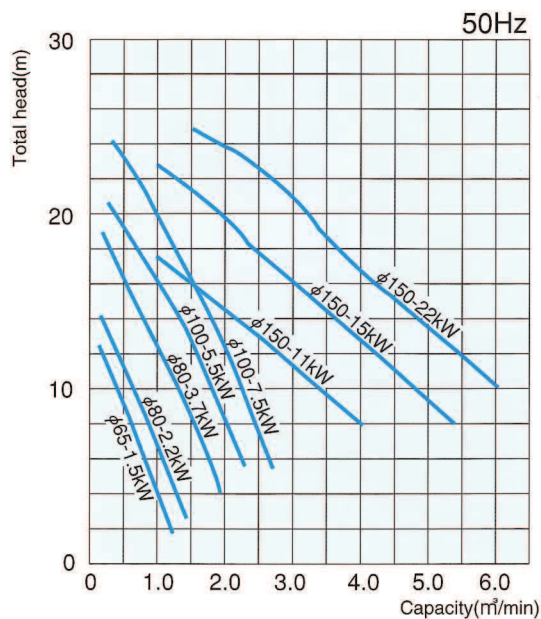
### Standard accessories

- Cable (8m) under 7.5kW ..... 2pcs.  
over 11kW ..... 3pcs.
- Stand (Suction Pipe) ..... 1pc.

### Cable specifications

For power supply	Power (kW)	VCT	Core Size (mm <sup>2</sup> )	Cores	Outer Diameter (φ)
For protector	1.5-2.2kW	VCT	1.25mm <sup>2</sup>	4-cores	φ 11.5
	3.7kW	VCT	2.0mm <sup>2</sup>	4-cores	φ 12.0
	5.5kW	VCT	3.5mm <sup>2</sup>	4-cores	φ 14.0
	7.5kW	VCT	5.5mm <sup>2</sup>	4-cores	φ 16.5
	11kW	(2PNCT)	5.5mm <sup>2</sup>	4-cores	φ 17.0
			5.5mm <sup>2</sup>	3-cores	φ 15.5
	15kW	(2PNCT)	8.0mm <sup>2</sup>	4-cores	φ 18.5
			8.0mm <sup>2</sup>	3-cores	φ 17.0
	22kW	(2PNCT)	14.0mm <sup>2</sup>	4-cores	φ 22.0
			14.0mm <sup>2</sup>	3-cores	φ 20.0
For protector		2PNCT	1.25mm <sup>2</sup>	2-cores	φ 9.8

### Performance curves



Performs extremely well with sewage, sludge and soil containing foreign matter of fixed shape.

Non-clogging type

# CNT Series



Standard specifications

Discharge Bore mm	Intake Bore mm	Model	Output kW		Phase	Capacity-Total head m <sup>3</sup> /min-m		Poles P	Weight kg	
			50Hz	60Hz		50Hz	60Hz			
65	80	CNT651	1.5	1.5	Three	0.75 - 6.5	0.65 - 7.0	4	130	
80	100	CNT801	2.2	2.2	Three	0.90 - 6.7	0.84 - 7.1	4	205	
			3.7	3.7		1.18 - 10.1	1.14 - 9.9		230	
100	125	CNT1001	5.5	5.5	Three	1.50 - 11.6	1.49 - 11.6	4	275	
			7.5	7.5		1.79 - 14.0	1.70 - 14.5		300	
150	200	CNT1501	11	11	Three	2.5 - 15.0	2.5 - 15.2	4	550	
			15	15		2.9 - 17.0	2.9 - 16.8		610	
			22	22		3.5 - 21.2	3.4 - 22.7		680	
	150	150	CNT150B	6	6.5	Three	[40] 2.5 - 6.0	[10] 2.8 - 6.8	6	230
							[30] 2.5 - 7.7	[40] 2.8 - 8.8		
							[20] 2.5 - 11.0	[15] 2.8 - 11.8		
			11	13		[20] 2.8 - 15.0	[80] 1.8 - 22.8	4	230	
						[10] 2.5 - 13.5	[80] 1.8 - 22.8			

[ ] A value within parentheses indicates an impeller number.

Standard accessories (for CNT651~CNT1501)

- Cable (8m) under 7.5kW ..... 2pcs. over 11kW ..... 3pcs.
- Stand (Suction Pipe) ..... 1pc.

(for CNT150B)

- Cable (16m · 6/6.5kW) ..... 1pcs. (16m · 11/13kW) ..... 2pcs.
- Stand ..... 1pc.
- Suction Pipe ..... 1pc.

Cable specifications (for CNT651~CNT1501)

For power supply

1.5-2.2kW	VCT 1.25mm <sup>2</sup> 4-cores	φ 11.5	15kW	(2PNCT 8.0mm <sup>2</sup> 4-cores	φ 18.5)
3.7kW	VCT 2.0mm <sup>2</sup> 4-cores	φ 12.0		(2PNCT 8.0mm <sup>2</sup> 3-cores	φ 17.0)
5.5kW	VCT 3.5mm <sup>2</sup> 4-cores	φ 14.0	22kW	(2PNCT 14.0mm <sup>2</sup> 4-cores	φ 22.0)
7.5kW	VCT 5.5mm <sup>2</sup> 4-cores	φ 16.5		(2PNCT 14.0mm <sup>2</sup> 3-cores	φ 20.0)
11kW	(2PNCT 5.5mm <sup>2</sup> 4-cores	φ 17.0)	For protector		
	(2PNCT 5.5mm <sup>2</sup> 3-cores	φ 15.5)	2PNCT 1.25mm <sup>2</sup> 2-cores	φ 9.8	

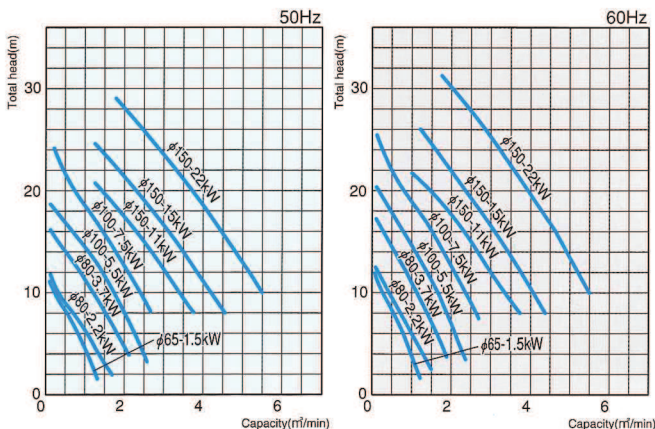
(for CNT150B)

For power supply

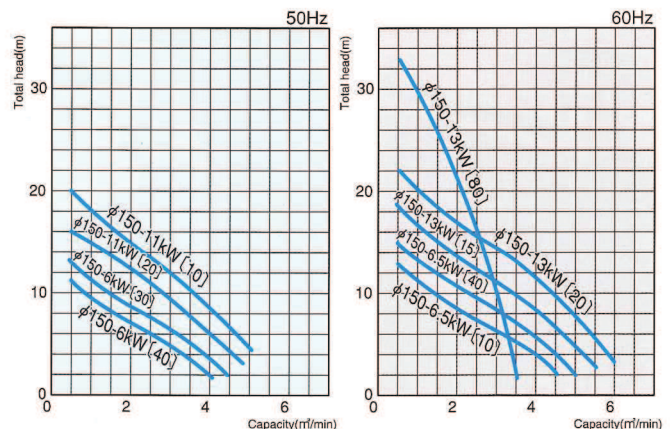
2PNCT 8.0mm<sup>2</sup> 4-cores φ 18.5

Performance curves

CNT651~CNT1501



CNT150B



[ ] A value within parentheses indicates an impeller number.

# Dimension

Unit: mm

CWT Series  
CNT651~CNT1501

CNT150B

Model	Output kW	A	B	C	D	E
CWT65 CNT651	1.5	865	354	210	273	130
CWT80 CNT801	2.2 3.7	920 995	470	265	170	145
CWT100 CNT1001	5.5 7.5	1,050 1,110				
CWT150 CNT1501	11 15 22	1,340 1,450 1,550	550	320	345	193

# Sectional View

CWT801

No.	Parts Name	Material
1	Motor	—
2	Cable	VCT
3	Cable Cover	FC200
4	Ball Bearing	—
5	Stator Casing	FC200
6	Oil Casing	FC200
7	Mechanical Seal	SiC/SiC
8	Mech.Seal.Br.	FC250
9	Impeller	FC250
10	Pump Casing	FC250
11	Base Cover	FC250
12	Stand	FC200
13	Ins.Hole Cover	FC200

CNT801

No.	Parts Name	Material
1	Motor	—
2	Cable	VCT
3	Cable Cover	FC200
4	Ball Bearing	—
5	Stator Casing	FC200
6	Oil Casing	FC200
7	Mechanical Seal	SiC/SiC
8	Mech.Seal.Br.	FC200
9	Impeller	FC200
10	Pump Casing	FC250
11	Base Cover	FC250
12	Stand	FC200
13	Ins.Hole Cover	FC200

CNT150B

No.	Parts Name	Material
1	Cable	2PNCT
2	Ball Bearing	—
3	Motor	—
4	Outer Casing	FC200
5	Mechanical Seal	—
6	Pump Casing	FC200
7	Impeller	FC200
8	Stand	SS400
9	Suction Pipe	SS400
10	Stator Casing	FC200
11	Handle	SS400

Specifications and dimensions are subject to change without notice.

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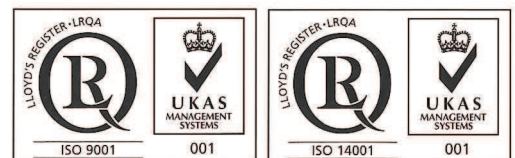
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