ShinMaywa

Non-Clog Channel Submersible Pump

(3 inch Solid Passage with Chopper Mechanism) **CNMJ Series**

CNMJ Series

New Advanced Technology!

Solid passage up to 3-inch and self-cleaning with chopper

New Advanced Technology!

Improved passing capability, solid passage up to 3-inch (80㎜) in diameter.
Semi-open channel impeller has helix shaped channel,
and brand-new chopper mechanism.

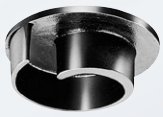
CNMJ Technology

Conventional Pumps

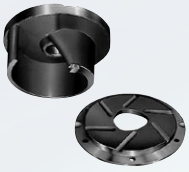
CNWX
(High passing with helix)

Combine these **Merit**

Conventional Non-clog type



Conventional Chopper type



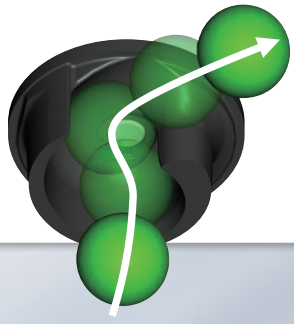
CNMJ Brand-New Pumps

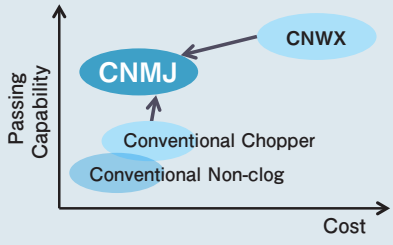
Improved Passing Capability
Impeller has a helix formed passage based on CNWX.

Solid Passage up to 3-inch (80mm) in diameter
Impeller is much better in solid passage diameter than ever before.

Simple Design
Impeller is single-vane semi-open channel impeller.

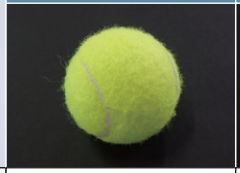
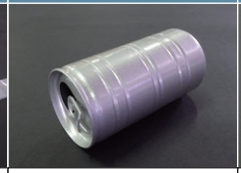
Brand-New Chopper Mechanism
CNMJ is equipped with a brand-new chopper mechanism, more advanced than the conventional chopper type.





Pass-through Test

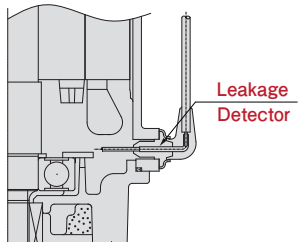
★★★★ = Excellent
★★★ = Very good
★★ = Good
★ = Poor/Normal

	Tennis ball ϕ2.6"	Sanitary items	Plastic bag	Steel can ϕ2.1" × 4.1"	Plastic bottle 17fl oz
					
CNWX	★★★★	★★★★	★★★★	★★★★	★★★★
CNMJ	★★★★	★★★★	★★★	★★★★	★★★★
Conventional Non-clog/Chopper type	★	★★	★★	★	★

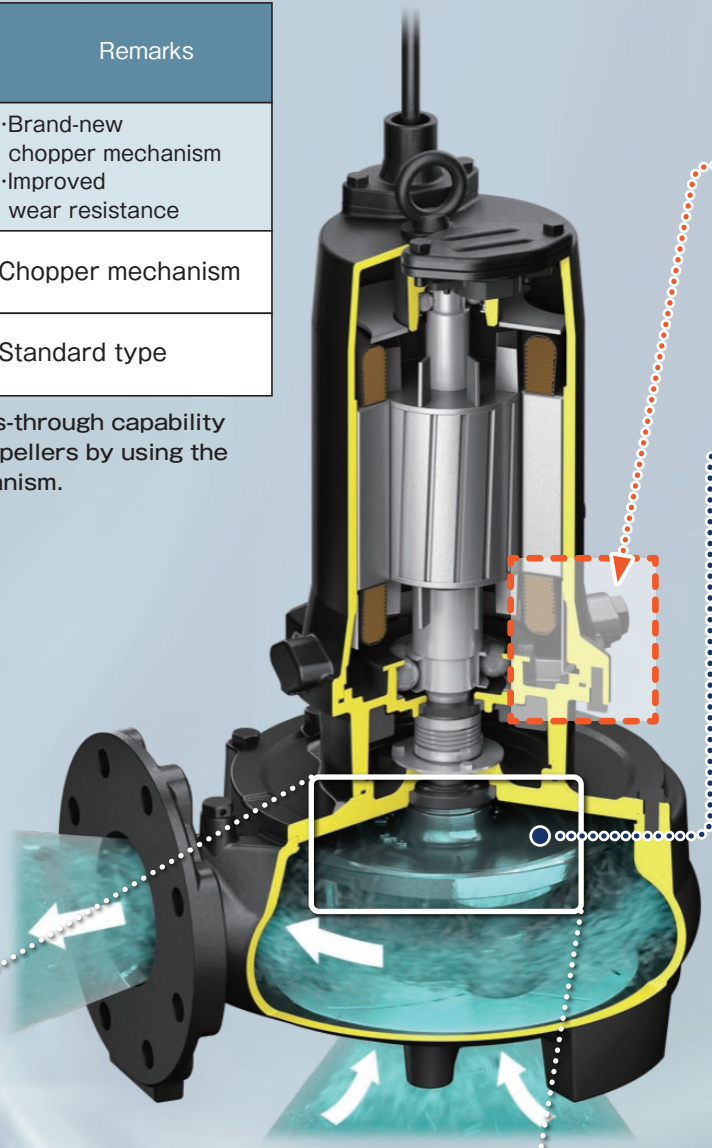
Pump type	Pass-through test	Remarks
CNMJ	★★★	·Brand-new chopper mechanism ·Improved wear resistance
Conventional Chopper	★★	Chopper mechanism
Conventional Non-clog	★	Standard type

CNMJ overcomes the pass-through capability weakness of semi-open impellers by using the brand-new chopper mechanism.

Seal Leakage Detector (OPTION)



Chopper plate (AISI 304 Stainless steel)

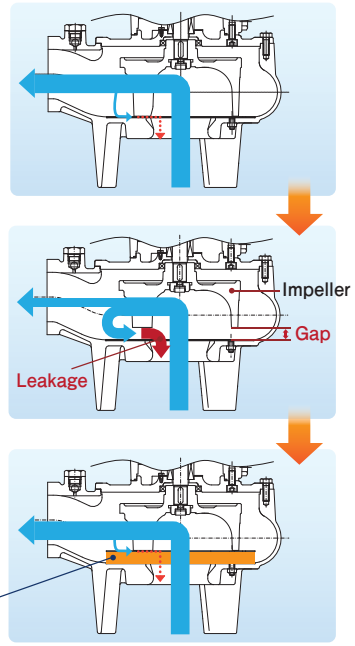


Quick, Easy Maintenance

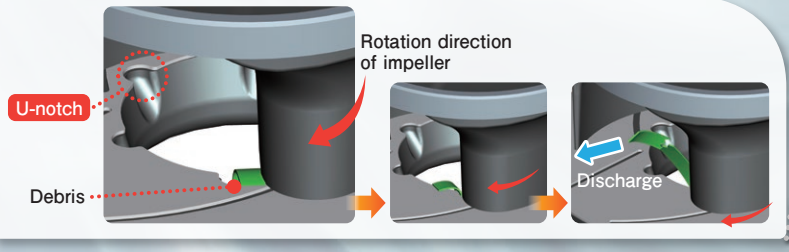
The pull out design allows for easier and more efficient inspection and part replacement.
The pump unit can be detached without removing the impeller from the motor shaft.

Pumping performance restoration mechanism

Generally, in a semi-open type impeller, if the gap between the suction port of the impeller and the casing is widened due to wear, the pumping capacity is lowered and the pump efficiency is also lowered.
In the developed CNMJ series, the gap can be adjusted by inserting shims between the chopper plate and the pump housing, and the pumping capacity and pump efficiency can be restored.



Brand-new chopper mechanism with chopper plate



Specifications

Material	Power Cable	50ft. Submersible Cable
	Motor Shaft	AISI 420 Stainless Steel
	Pump Housing	ASTM A-48 Class 35 Gray Cast Iron
	Impeller	
	Chopper Plate	AISI 304 Stainless Steel
	Shaft Seal (Mechanical Seal)	Motor Side: SiC/SiC Wet Side: SiC/SiC
Electric Motor	Type	Dry-Type Submersible Induction Motor
	Insulation	Class F
	Phase	3-Phase
	Voltage	208/230V, 460V
	Motor Protector	Auto Reset Type Motor Protector

Applications

Sewage treatment plant & Onsite wastewater treatment system
Handling of raw water and other treatment process

Pump station
Collection of sewage, wastewater or stormwater

Building & Shopping complex
Drainage of sanitary and kitchen wastewater

Road, Underpass & Subway
Drainage of stormwater

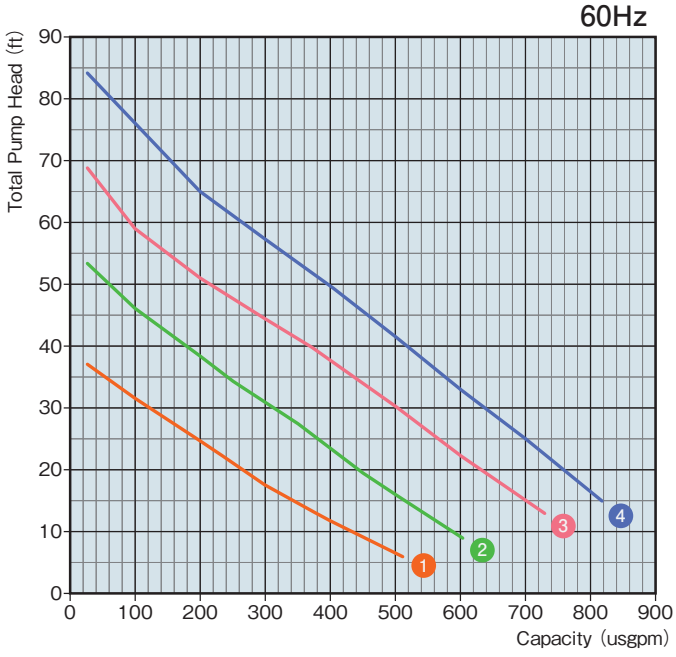
Factory & other facilities
Handling of industrial wastewater, etc.

Standard Specifications

Discharge	Solid Size	Model	HP(kW)	Voltage	Pole	Pump Weight		Curve No.
						lb	(kg)	
3"	3" (80mm)	3CNMJ42.2T*	3(2.2)	208/230V 3-phase or 460V 3-phase	4	159	(72)	1
		3CNMJ43.7T*	5(3.7)			183	(83)	2
4"		4CNMJ42.2T*	3(2.2)			159	(72)	1
		4CNMJ43.7T*	5(3.7)			183	(83)	2
		4CNMJ45.5T*	7.5(5.5)			243	(110)	3
		4CNMJ47.5T*	10(7.5)			267	(121)	4

Note: "*" mark within the model code should be replaced to 2 (for 208V/230V) or 3 (for 460V).

Performance Curves



Cable Details (50ft/15m)

Power Cable Size

- 3HP : 208/230V, VCT 1.25mm² (AWG16) - 4 Cores
  460V, VCT 1.25mm² (AWG16) - 4 Cores
- 5HP : 208/230V, VCT 2.0mm² (AWG14) - 4 Cores
  460V, VCT 1.25mm² (AWG16) - 4 Cores
- 7.5HP : 208/230V, 2PNCT 3.5mm² (AWG12) - 4 Cores
  460V, VCT 2.0mm² (AWG14) - 4 Cores
- 10HP : 208/230V, 2PNCT 5.5mm² (AWG10) - 4 Cores
  460V, VCT 3.5mm² (AWG12) - 4 Cores

Note: VCT=PVC insulated PVC sheathed cable
2PNCT=EPR insulated PCP sheathed cable

Optional Accessories

Stand Alone Installation Set

- Pump Stand (Gray Cast Iron)

Guide Rail Installation Set

- Guide Rail Base Elbow
- Slide Bracket
- Upper Guide Rail Bracket (with nuts and bolts)

Optional Specifications

- Cable Length Extension
- Leakage Detector (Electrode type)

Specifications and dimensions are subject to change without notice.

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