TSURUMI PUMP
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C

SEWAGE PUMPS
WITH CUTTER IMPELLER

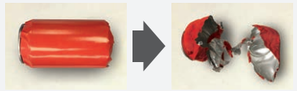
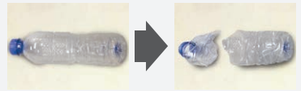
Submersible Sewage Pumps with Cutter Impeller

Tsurumi C-series pumps are heavy-duty, submersible cutter pumps for sewage and wastewater, which are made of castings and equipped with cutting mechanism. Featuring a combination of impeller vane with brazed sintered tungsten carbide alloy edge and a suction cover of serrated shape, the C-series pumps enable smooth pumping, while cutting fibrous foreign objects during suction. These pumps have been used to drain sewage and wastewater from buildings and kitchens, and to transfer sewage and wastewater in water treatment facilities of factories and commercial complexes.

The C-series comes in a wide product lineup, covering discharge bore diameters of 50 to 200 mm and motor outputs of 0.75 to 37 kW. Among the C-series pumps, “CR” models are available as highly-durable cutter pumps, whose impeller and suction cover are made of high-chromium cast iron as a standard feature.
All models of the C-series can be used in combination with a guide rail fitting device that enables easy installation and maintenance. In addition, a new model of dry pit type is optionally available. The dry pit type pump can be installed indoors, and outside a tank. With Tsurumi’s original specifications for dry pit, the dry pit pump delivers the performance of conventional submersible pumps in a variety of sites.

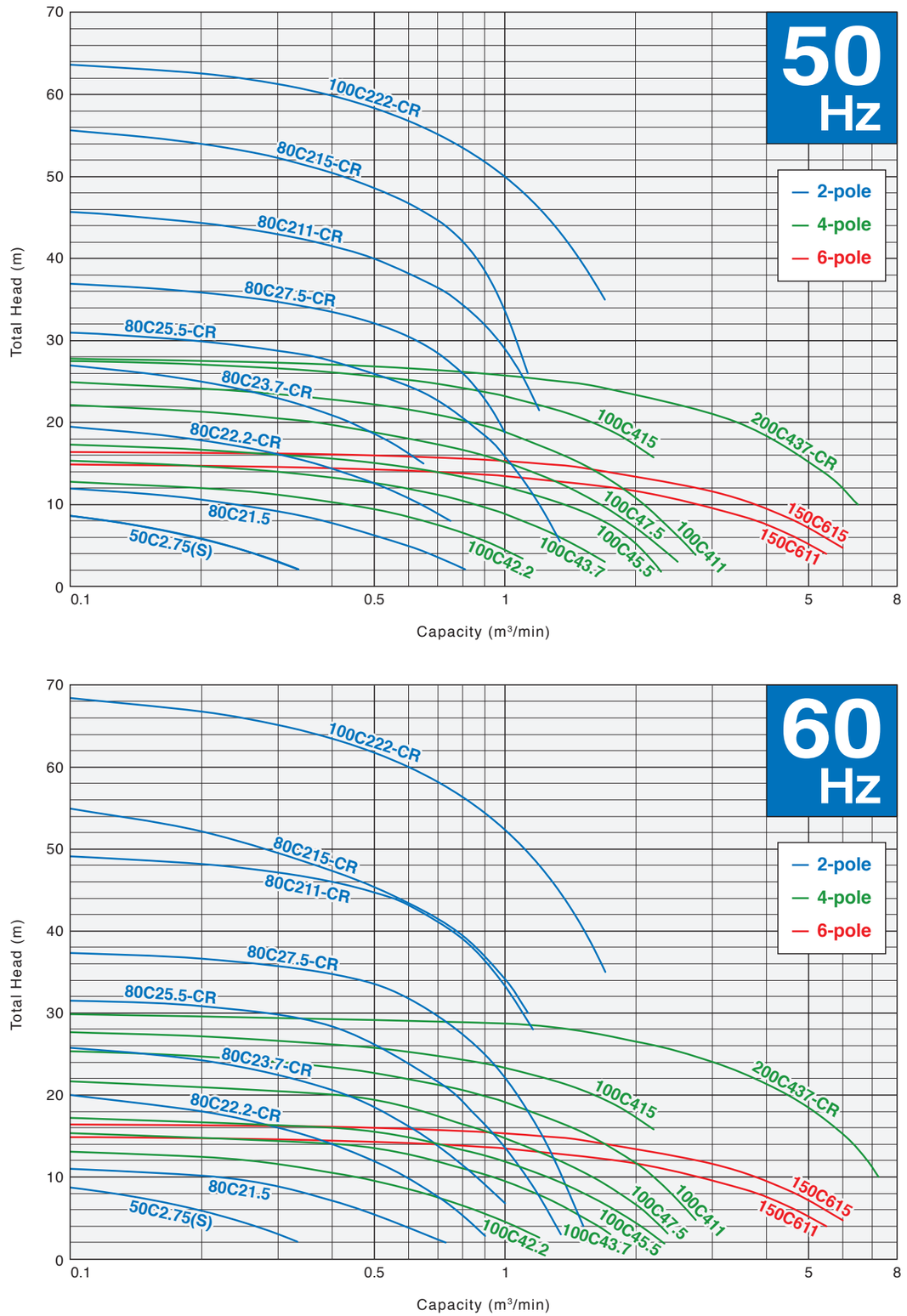
These pumps integrate original technologies that Tsurumi has researched and proven in the field over many years, such as anti-wicking cable, dual inside mechanical seals with silicone carbide face and Oil Lifter, etc.
Furthermore, durability and wear resistance have been thoroughly considered in their design, so these pumps enable continuous duty over long periods of time.
Tsurumi products are designed to provide excellent durability and sound quality, thus contributing to the stable operation of facilities and enabling a considerable reduction in maintenance cost.

Cutting various foreign objects with cutting mechanism

ALUMINIUM CAN		PLASTIC BOTTLE	
NON-FLUSHABLE WIPES		NYLON PANTYHOSE	

Cutter Pump Operation

Performance Range



Selection Table

		C (2-pole)	C (4·6-pole)
Discharge Bore	mm	50 – 100	100 – 200
Motor Output	kW	0.75 – 22	2.2 – 37
Impeller		**Cutter** (Channel Impeller with Cutting Edge)	
Leakage Sensor		● (Float type, 15 • 22kW only)	● (Electrode type, 37kW only)
Seal Pressure Relief Ports		● (5.5 – 22kW only)	● (37kW only)
Automatic or Auto-alternation Operation		● (0.75 • 1.5kW only)	
Guide Rail Fitting System		●	●
Page No.		9 - 10	11 - 12

Motor Output	0.75kW	1.5kW	2.2kW	3.7kW	5.5kW	7.5kW	11kW	15kW	22kW	37kW
2” 50mm	★									
3” 80mm		★	CR	CR	CR	CR	CR	CR		
4” 100mm									CR	
6” 150mm							CR	CR		
8” 200mm										CR

★: Automatic or Auto-alternation model available
CR: Made of high-chromium cast iron impeller & suction cover

Advanced Model “CR”

Among the C-series pumps, the “CR” models have been developed to transfer wastewater containing foreign matter efficiently and smoothly, while maintaining high head and high volume. Since high-chromium cast iron is used for the impeller and the suction cover, the “CR” model pumps provide high durability, and enable continuous duty over long periods of time.
Also, with other models, the impeller and suction cover material can be changed to high-chromium cast iron, as an option.

Model Number Designation

TOS / TO : Guide rail fitting
D : Dry pit

Made of high-chromium cast iron impeller & suction cover

TOS / TO / D **80** **C** **A** **2** **11** **S** **-** **CR**

Discharge bore in mm
Name of the series
Operation sub code
None : None automatic operation
A : Automatic operation
W : Auto-alternation operation
Rated motor output in kW
Number of poles of the motor
Phase
None : Three-phase
S : Single-phase

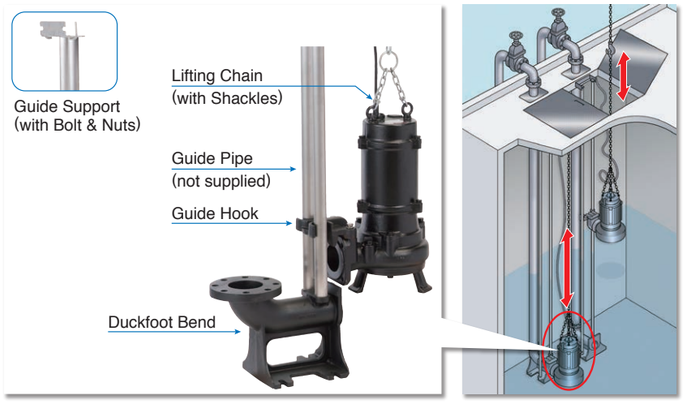
Guide Rail Fitting System

The guide rail fitting system connects the pump to and from the piping easily just by lowering and hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump.
The TOS/TO is the guide rail fitting system made of cast iron and is compatible with cast iron pumps.

Accessories

- Duckfoot Bend
- Guide Support
- Guide Hook
- Lifting Chain 5m (with Shackles)
- JIS 10kg/cm² Flange

Guide Rail Fitting Operation



Automatic & Auto-Alternation Model

Tsurumi offers an automatic alternation system by a duplex pump comprising an automatic model “A” unit and auto-alternation model “W” unit. The “A” unit is a stand-alone automatic pump and the “W” unit is a pump that has an alternating circuitry. All without the need of extra wiring, level sensors, or control panels.

Automatic Model

The automatic model has an integral control circuit and two float switches that operate at a low voltage. It operates automatically in response to the change in water levels. This model can be identified by the suffix "A."

Automatic Operation

Auto-Alternation Model

The auto-alternation model is used along with an automatic model. The combinational use of these two pumps enables each pump to operate alternately without control panel. This model can be identified by the suffix "W."

Automatic & Auto-alternation Operation

Options

- ☑ **Seawater-resistant version;** Galvanic anode & special Impeller
- ☑ **High temperature liquids version;** Max. 90°C
- ☑ **Special material version;** Made of high-chromium cast iron impeller & suction cover
- ☑ **Dry pit version;** Available upon request

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We reserve the right to change the specifications and designs for improvement without prior notice.

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MANUFACTURING CO., LTD.

Your Dealer

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