

Series:

**C**

Discharge Bore:

**50·80mm**

Motor Output / Pole:

**0.75 - 7.5kW / 2-pole**



The C-series is a submersible cutter pump for sewage and wastewater, which is made of casting 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 solid and fibrous matter during suction. The impeller and suction cover of the “CR” type are made of high-chromium cast iron, ensuring excellent durability and enabling the pump to maintain high performance for an extended period.

**Guide Rail Fitting System**

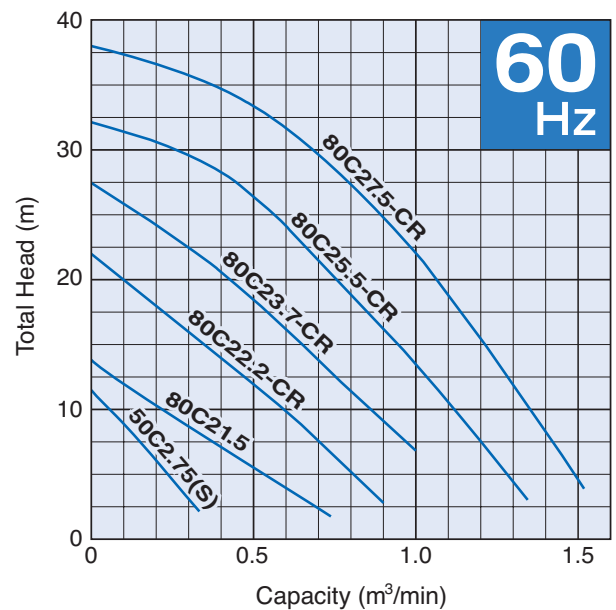
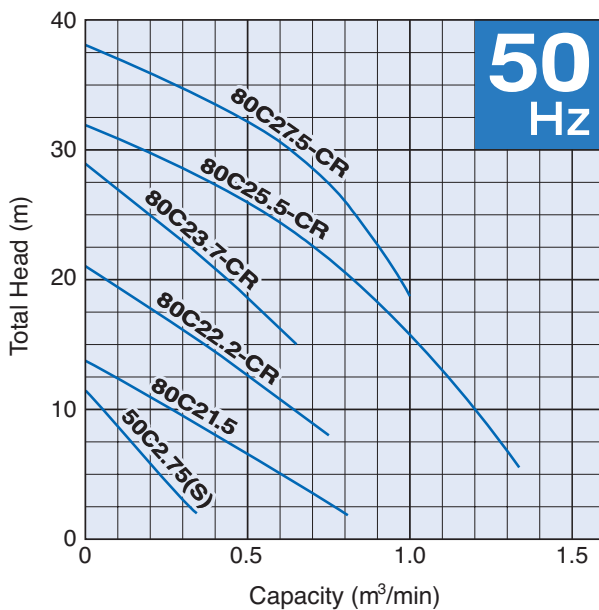
The guide rail fitting system connects the pump to and from the piping easily just by lowering or hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump.

**Selection Table**

Model	Discharge Bore mm	Motor Output kW	Phase	Pole	Optional Accessories for Types of Installation		
					Free Standing		Guide Rail Fitting
					Bend Set	Stand Set	“TOS” Set
50C2.75S	50	0.75	1-phase	2	BEND 50 (oval)	—	TOS3-50
50C2.75	50	0.75	3-phase	2	BEND 50 (oval)	—	TOS3-50
80C21.5	80	1.5	3-phase	2	BEND 80 (oval)	—	TOS3-80-80
80C22.2-CR	80	2.2	3-phase	2	BEND 80-80F	—	TOSH-80
80C23.7-CR	80	3.7	3-phase	2	BEND 80-80F	—	TOSH-80
80C25.5-CR	80	5.5	3-phase	2	BEND 80-80F	STAND SET	TOSH-80
80C27.5-CR	80	7.5	3-phase	2	BEND 80-80F	STAND SET	TOSH-80

● 0.75 to 5.5kW models are supplied without the discharge bend. Model 80C27.5-CR is supplied without the discharge bend and pump stand. Select the accessory for the desired type of installation.

**Performance Curves**



SPECIFICATIONS	Model	50C2.75S									
		C-series									
		0.75kW, 1-phase									
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 50mm</p> <p><b>Motor Output</b> 0.75kW</p> <p><b>Power Supply</b> Single-phase</p> <p><b>Starting Method</b> Capacitor Start</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: E Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>220V – 6.6A</td> <td>110V – 11.3A</td> </tr> <tr> <td>230V – 6.7A</td> <td>220V – 6.0A</td> </tr> <tr> <td>240V – 6.1A</td> <td></td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 5m 200 to 240V supply: 1 × 3 × 1.25mm<sup>2</sup>, O.D. 10.1mm 100 to 120V supply: 1 × 3 × 2.0mm<sup>2</sup>, O.D. 10.9mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 32kg Guide Rail Fitting Type: 30kg</p>	50Hz	60Hz	220V – 6.6A	110V – 11.3A	230V – 6.7A	220V – 6.0A	240V – 6.1A		<p><b>Impeller</b> Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.</p> <p>Solids Passage 50Hz – 31 × 27mm 60Hz – 28 × 27mm</p> <p><b>Serrated Suction Cover</b> Ductile Cast Iron</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 403 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: Ceramic + Carbon Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 590ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>		
50Hz	60Hz										
220V – 6.6A	110V – 11.3A										
230V – 6.7A	220V – 6.0A										
240V – 6.1A											
<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Discharge Bend</li> <li>• Threaded Oval Flange</li> </ul> <p><b>TOS Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>External Leakage Sensor</b> (Electrode)</p>											
TSURUMI MANUFACTURING CO., LTD.											

SPECIFICATIONS	Model	50C2.75	
		C-series 0.75kW, 3-phase	

<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 50mm</p> <p><b>Motor Output</b> 0.75kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F or E Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 1.9A</td> <td>220V – 3.5A</td> </tr> <tr> <td>400V – 1.9A</td> <td>380V – 1.9A</td> </tr> <tr> <td>415V – 2.0A</td> <td>440V – 1.7A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 6m 200 to 600V supply: 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 24kg Guide Rail Fitting Type: 23kg</p>	50Hz	60Hz	380V – 1.9A	220V – 3.5A	400V – 1.9A	380V – 1.9A	415V – 2.0A	440V – 1.7A	<p><b>Impeller</b> Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.</p> <p>Solids Passage 50Hz – 31 × 27mm 60Hz – 28 × 27mm</p> <p><b>Serrated Suction Cover</b> Ductile Cast Iron</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: Ceramic + Carbon Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 440ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>
50Hz	60Hz								
380V – 1.9A	220V – 3.5A								
400V – 1.9A	380V – 1.9A								
415V – 2.0A	440V – 1.7A								

### Optional Accessories

**Bend Set** (Free Standing Type)

- Discharge Bend
- Threaded Oval Flange

**TOS Set** (Guide Rail Fitting Type)

- Duckfoot Bend
- Guide Support
- Guide Hook
- Lifting Chain 5m (with Shackles)
- Threaded JIS 10kg/cm<sup>2</sup> Flange

**External Leakage Sensor** (Electrode)

### Special Specifications

**High Temperature Liquids Version (60°C)**

**Seawater-Resistant (DS or DF Version)\***

- \* DS: 316 Stainless Steel Casting Impeller
- DF: FC250 Cast Iron Impeller

SPECIFICATIONS	Model	80C21.5	C-series
			1.5kW, 3-phase

**Type of Pump**

Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications

**Type of Fluid**

Sewage, wastewater, and water carrying solid matters

Temperature: 0 to 40°C

**Discharge Bore**

80mm

**Motor Output**

1.5kW

**Power Supply**

Three-phase

**Starting Method**

Direct on Line

**Motor**

Continuous-duty rated, dry-type induction motor

Insulation Class: F

Degree of Protection: IP68

No. of Poles & Speed (Synchronous Speed)

2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)

Power Supply Voltages & Rated Currents

50Hz	60Hz
380V – 3.5A	220V – 6.0A
400V – 3.5A	380V – 3.4A
415V – 3.5A	440V – 3.2A

**Power Cable**

Sheath: PVC

Standard Length: 6m

200 to 600V supply:

1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm

**Dry Weight (excluding cable)**

Free Standing Type: 36kg

Guide Rail Fitting Type: 34kg

**Impeller**

Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.

Solids Passage

50Hz – 43 × 60mm

60Hz – 37 × 60mm

**Serrated Suction Cover**

Ductile Cast Iron

**Cable Entry with Anti-Wicking Block**

Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.

**Bearing**

Permanently lubricated, deep-groove, double-shielded C3 ball bearings

**Shaft**

420 stainless steel

**Shaft Seal (Mechanical Seal)**

Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.

Upper Seal Face: Ceramic + Carbon

Lower Seal Face: SiC + SiC

**Oil Seal (Lip Seal)**

Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.

**OIL LIFTER**

Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.

Type of Lubricating Oil & Volume

Turbine Oil (ISO VG32), 900ml

**Motor Protection Device**

A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.

**Optional Accessories**
**Bend Set (Free Standing Type)**

- Discharge Bend
- Threaded Oval Flange

**TOS Set (Guide Rail Fitting Type)**

- Duckfoot Bend
- Guide Support
- Guide Hook
- Lifting Chain 5m (with Shackles)
- Threaded JIS 10kg/cm<sup>2</sup> Flange

**External Leakage Sensor (Electrode)**
**Special Specifications**
**High Temperature Liquids Version (60-80°C)**
**Seawater-Resistant (DS or DF Version)\***

\* DS: 316 Stainless Steel Casting Impeller

DF: FC250 Cast Iron Impeller

SPECIFICATIONS	Model <b>80C22.2-CR</b>	C-series								
		2.2kW, 3-phase								
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 80mm</p> <p><b>Motor Output</b> 2.2kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 5.3A</td> <td>220V – 9.0A</td> </tr> <tr> <td>400V – 5.2A</td> <td>380V – 5.6A</td> </tr> <tr> <td>415V – 5.2A</td> <td>440V – 5.0A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 10m 200 to 600V supply: 1 × 4 × 2.0mm<sup>2</sup>, O.D. 11.8mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 70kg Guide Rail Fitting Type: 64kg</p>	50Hz	60Hz	380V – 5.3A	220V – 9.0A	400V – 5.2A	380V – 5.6A	415V – 5.2A	440V – 5.0A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 22 × 31mm 60Hz – 20 × 31mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 1890ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>	<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Discharge Bend</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>TOS Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)</b></p>
50Hz	60Hz									
380V – 5.3A	220V – 9.0A									
400V – 5.2A	380V – 5.6A									
415V – 5.2A	440V – 5.0A									
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SPECIFICATIONS	Model	80C23.7-CR							
		C-series 3.7kW, 3-phase							
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 80mm</p> <p><b>Motor Output</b> 3.7kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 8.0A</td> <td>220V – 13.8A</td> </tr> <tr> <td>400V – 7.7A</td> <td>380V – 7.9A</td> </tr> <tr> <td>415V – 7.5A</td> <td>440V – 6.9A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 10m 380 to 600V supply: 1 × 4 × 2.0mm<sup>2</sup>, O.D. 11.8mm 200 to 240V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 13.9mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 70kg Guide Rail Fitting Type: 64kg</p>	50Hz	60Hz	380V – 8.0A	220V – 13.8A	400V – 7.7A	380V – 7.9A	415V – 7.5A	440V – 6.9A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 22 × 31.3mm 60Hz – 22 × 31 mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 1890ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>
50Hz	60Hz								
380V – 8.0A	220V – 13.8A								
400V – 7.7A	380V – 7.9A								
415V – 7.5A	440V – 6.9A								
<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Discharge Bend</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>TOS Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)</b></p>									
TSURUMI MANUFACTURING CO., LTD.									

SPECIFICATIONS	Model	80C25.5-CR									
		C-series 5.5kW, 3-phase									
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 80mm</p> <p><b>Motor Output</b> 5.5kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line (Star-Delta available on special request)</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 12.0A</td> <td>220V – 21.7A</td> </tr> <tr> <td>400V – 11.6A</td> <td>380V – 11.8A</td> </tr> <tr> <td>415V – 11.4A</td> <td>440V – 10.9A</td> </tr> </table> <p><b>Power Cable</b> Sheath: Chloroprene rubber Standard Length: 8m 200 to 600V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 14.1mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 120kg Guide Rail Fitting Type: 106kg</p>		50Hz	60Hz	380V – 12.0A	220V – 21.7A	400V – 11.6A	380V – 11.8A	415V – 11.4A	440V – 10.9A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 29 × 23.2mm 60Hz – 29 × 23 mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 2090ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>	
50Hz	60Hz										
380V – 12.0A	220V – 21.7A										
400V – 11.6A	380V – 11.8A										
415V – 11.4A	440V – 10.9A										
<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Discharge Bend</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>Stand Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Stand</li> </ul> <p><b>TOS Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>External Leakage Sensor</b> (Electrode)</p>		<p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)</b></p>									

SPECIFICATIONS	Model <b>80C27.5-CR</b>	C-series							
		7.5kW, 3-phase							
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 80mm</p> <p><b>Motor Output</b> 7.5kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line (Star-Delta available on special request)</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 15.3A</td> <td>220V – 26.1A</td> </tr> <tr> <td>400V – 14.9A</td> <td>380V – 14.4A</td> </tr> <tr> <td>415V – 14.6A</td> <td>440V – 13.1A</td> </tr> </table> <p><b>Power Cable</b> Sheath: Chloroprene rubber Standard Length: 8m 200 to 600V supply: 1 × 4 × 5.5mm<sup>2</sup>, O.D. 16.8mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 125kg Guide Rail Fitting Type: 111kg</p>	50Hz	60Hz	380V – 15.3A	220V – 26.1A	400V – 14.9A	380V – 14.4A	415V – 14.6A	440V – 13.1A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 26 × 25.5mm 60Hz – 29 × 23 mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 2090ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>
50Hz	60Hz								
380V – 15.3A	220V – 26.1A								
400V – 14.9A	380V – 14.4A								
415V – 14.6A	440V – 13.1A								
<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Discharge Bend</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>Stand Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Stand</li> </ul> <p><b>TOS Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>External Leakage Sensor</b> (Electrode)</p>	<p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)</b></p>								



Series:

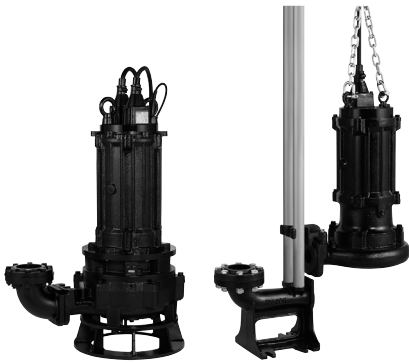
**C**

Discharge Bore:

**80·100mm**

Motor Output / Pole:

**11 - 22kW / 2-pole**



The C-series is a submersible cutter pump for sewage and wastewater, which is made of casting 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 solid and fibrous matter during suction. The impeller and suction cover of the “CR” type are made of high-chromium cast iron, ensuring excellent durability and enabling the pump to maintain high performance for an extended period.

**Guide Rail Fitting System**

The guide rail fitting system connects the pump to and from the piping easily just by lowering or hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump.

**Selection Table**

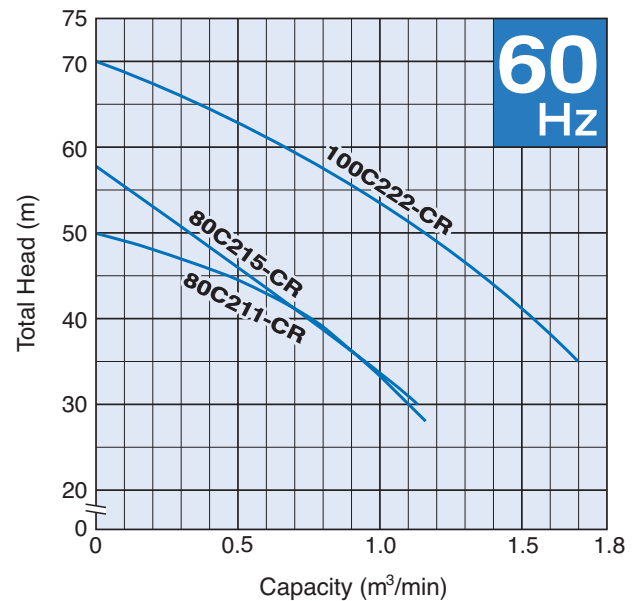
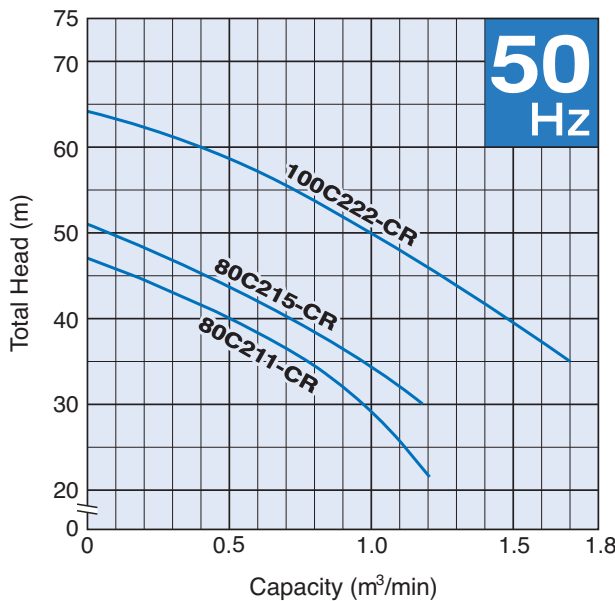
Model	Discharge Bore mm	Motor Output kW	Phase	Pole	Optional Accessories for Types of Installation		
					Free Standing		Guide Rail Fitting
					Bend Set	Stand Set	“TOS” Set
80C211-CR	80	11	3-phase	2	BEND 80-80F	STAND SET	TOSH-80

● Model 80C211-CR is supplied without the discharge bend and pump stand. Select the accessory for the desired type of installation.

Model	Discharge Bore mm	Motor Output kW	Phase	Pole	Types of Installation	
					Free Standing	Guide Rail Fitting
80C215-CR	80	15	3-phase	2	80C215-CR	TOS80C215-CR
100C222-CR	100	22	3-phase	2	100C222-CR	TOS100C222-CR

● 15 and 22kW models are supplied either in the form of free standing type (complete with bend and stand) or in the form of guide rail fitting type (complete with prefix “TOS”).

**Performance Curves**



SPECIFICATIONS	Model	80C211-CR							
		C-series 11kW, 3-phase							
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 80mm</p> <p><b>Motor Output</b> 11kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 23.6A</td> <td>220V – 39.7A</td> </tr> <tr> <td>400V – 23.0A</td> <td>380V – 22.1A</td> </tr> <tr> <td>415V – 22.8A</td> <td>440V – 19.9A</td> </tr> </table> <p><b>Power Cable</b> Standard Length: 8m 200 to 600V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 14.1mm, Chloroprene rubber 1 × 3 × 3.5mm<sup>2</sup>, O.D. 12.9mm, Chloroprene rubber 1 × 2 × 1.25mm<sup>2</sup>, O.D. 9.6mm, PVC</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 147kg Guide Rail Fitting Type: 133kg</p>	50Hz	60Hz	380V – 23.6A	220V – 39.7A	400V – 23.0A	380V – 22.1A	415V – 22.8A	440V – 19.9A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 26 × 26.7mm 60Hz – 26 × 25.5mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 2090ml</p>
50Hz	60Hz								
380V – 23.6A	220V – 39.7A								
400V – 23.0A	380V – 22.1A								
415V – 22.8A	440V – 19.9A								
<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Discharge Bend</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>Stand Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Stand</li> </ul> <p><b>TOS Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul>	<p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p> <p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b> <b>High Temperature Liquids Version (60-80°C)</b></p>								
TSURUMI MANUFACTURING CO., LTD.									

SPECIFICATIONS	Model	80C215-CR							
		C-series 15kW, 3-phase							
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 80mm, Threaded JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Motor Output</b> 15kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 30.3A</td> <td>220V – 52.3A</td> </tr> <tr> <td>400V – 28.8A</td> <td>380V – 30.3A</td> </tr> <tr> <td>415V – 27.7A</td> <td>440V – 26.1A</td> </tr> </table> <p><b>Power Cable</b> Standard Length: 10m 200 to 600V supply: 1 × 4 × 5.5mm<sup>2</sup>, O.D. 16.8mm, Chloroprene rubber 1 × 3 × 5.5mm<sup>2</sup>, O.D. 15.2mm, Chloroprene rubber 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm, PVC</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 260kg Guide Rail Fitting Type: 235kg</p>	50Hz	60Hz	380V – 30.3A	220V – 52.3A	400V – 28.8A	380V – 30.3A	415V – 27.7A	440V – 26.1A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 26 × 25.5mm 60Hz – 26 × 25.5mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 3300ml</p> <p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p> <p><b>Leakage Sensor (Float)</b> Detects flooding in the incursion water storage chamber and sends a signal through a control panel.</p>
50Hz	60Hz								
380V – 30.3A	220V – 52.3A								
400V – 28.8A	380V – 30.3A								
415V – 27.7A	440V – 26.1A								
<p><b>Optional Accessory</b></p> <p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)</b></p>									

SPECIFICATIONS	Model	100C222-CR	C-series								
			22kW, 3-phase								
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 100mm, Threaded JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Motor Output</b> 22kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 2-pole, 3000/3600min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 42.4A</td> <td>220V – 73.2A</td> </tr> <tr> <td>400V – 40.3A</td> <td>380V – 42.4A</td> </tr> <tr> <td>415V – 38.8A</td> <td>440V – 36.6A</td> </tr> </table> <p><b>Power Cable</b> Standard Length: 10m 200 to 600V supply: 1 × 4 × 14mm<sup>2</sup>, O.D. 21.7mm, Chloroprene rubber 1 × 3 × 14mm<sup>2</sup>, O.D. 19.7mm, Chloroprene rubber 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm, PVC</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 420kg Guide Rail Fitting Type: 380kg</p>			50Hz	60Hz	380V – 42.4A	220V – 73.2A	400V – 40.3A	380V – 42.4A	415V – 38.8A	440V – 36.6A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 26 × 30mm 60Hz – 26 × 30mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 3400ml</p> <p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p> <p><b>Leakage Sensor (Float)</b> Detects flooding in the incursion water storage chamber and sends a signal through a control panel.</p>
50Hz	60Hz										
380V – 42.4A	220V – 73.2A										
400V – 40.3A	380V – 42.4A										
415V – 38.8A	440V – 36.6A										
<p><b>Optional Accessory</b></p> <p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60°C)</b></p>											
TSURUMI MANUFACTURING CO., LTD.											

Series:

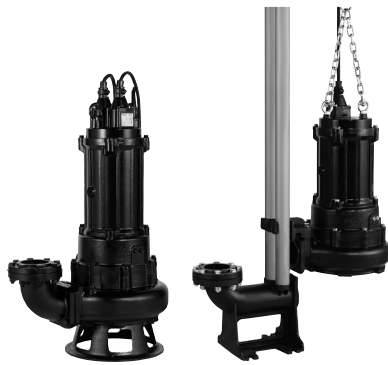
**C**

Discharge Bore:

**100mm**

Motor Output / Pole:

**2.2 - 15kW / 4-pole**



The C-series is a submersible cutter pump for sewage and wastewater, which is made of casting 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 solid and fibrous matter during suction.

**Guide Rail Fitting System**

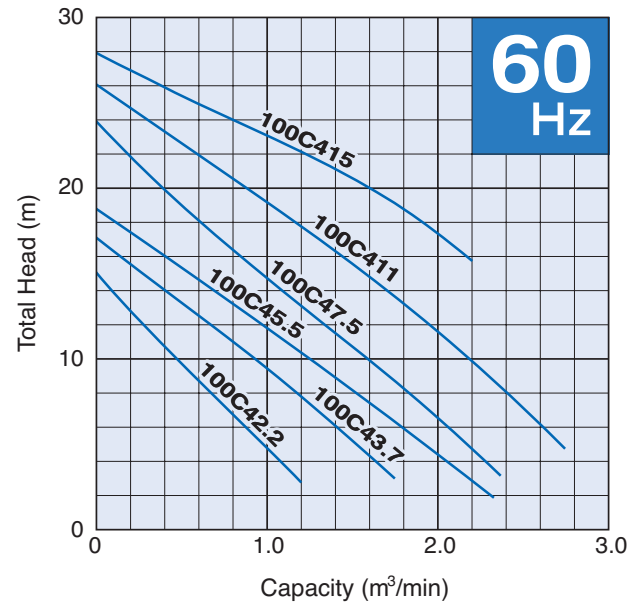
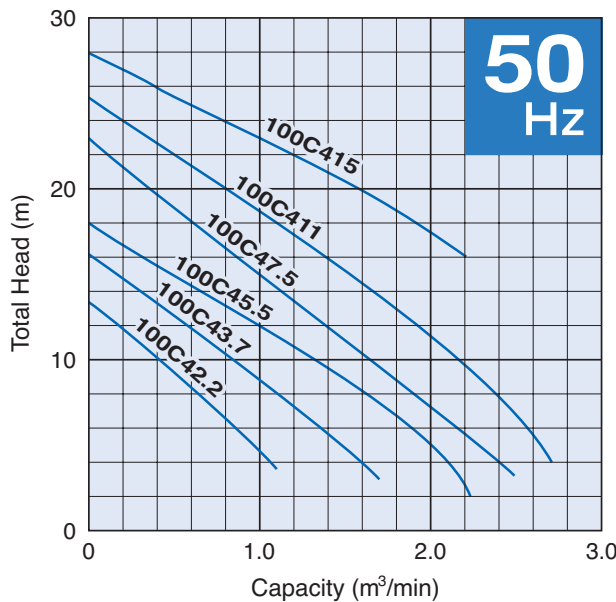
The guide rail fitting system connects the pump to and from the piping easily just by lowering or hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump.

**Selection Table**

Model	Discharge Bore mm	Motor Output kW	Phase	Pole	Optional Accessories for Types of Installation		
					Free Standing		Guide Rail Fitting
					Bend Set	Stand Set	“TOS” Set
100C42.2	100	2.2	3-phase	4	BEND 80-100F	—	TOS3-80-100
100C43.7	100	3.7	3-phase	4	BEND 80-100F	—	TOS3-80-100
100C45.5	100	5.5	3-phase	4	BEND 100-100F	STAND SET	TOS3-100-100
100C47.5	100	7.5	3-phase	4	BEND 100-100F	STAND SET	TOS3-100-100
100C411	100	11	3-phase	4	BEND 100-100F	STAND SET	TOS3-100-100
100C415	100	15	3-phase	4	BEND 100-100F	STAND SET 6 A2	TOS3-100-100

● 2.2 and 3.7kW models are supplied without the discharge bend. 5.5 to 15kW models are supplied without the discharge bend and pump stand. Select the accessory for the desired type of installation.

**Performance Curves**



SPECIFICATIONS	Model	100C42.2	
		C-series 2.2kW, 3-phase	

<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 100mm</p> <p><b>Motor Output</b> 2.2kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 4-pole, 1500/1800min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 5.1A</td> <td>220V – 8.8A</td> </tr> <tr> <td>400V – 5.0A</td> <td>380V – 4.9A</td> </tr> <tr> <td>415V – 5.0A</td> <td>440V – 4.4A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 6m 380 to 600V supply: 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm 200 to 240V supply: 1 × 4 × 2.0mm<sup>2</sup>, O.D. 11.8mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 68kg Guide Rail Fitting Type: 64kg</p>	50Hz	60Hz	380V – 5.1A	220V – 8.8A	400V – 5.0A	380V – 4.9A	415V – 5.0A	440V – 4.4A	<p><b>Impeller</b> Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.</p> <p>Solids Passage 50Hz – 67 × 56mm 60Hz – 62 × 56mm</p> <p><b>Serrated Suction Cover</b> Ductile Cast Iron</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: Ceramic + Carbon Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 1350ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>
50Hz	60Hz								
380V – 5.1A	220V – 8.8A								
400V – 5.0A	380V – 4.9A								
415V – 5.0A	440V – 4.4A								

### Optional Accessories

**Bend Set** (Free Standing Type)

- Discharge Bend
- Threaded JIS 10kg/cm<sup>2</sup> Flange

**TOS Set** (Guide Rail Fitting Type)

- Duckfoot Bend
- Guide Support
- Guide Hook
- Lifting Chain 5m (with Shackles)
- Threaded JIS 10kg/cm<sup>2</sup> Flange

**External Leakage Sensor** (Electrode)

### Special Specifications

**High Temperature Liquids Version (60-80°C)**

**Seawater-Resistant (DS or DF Version)\***

- \* DS: 316 Stainless Steel Casting Impeller  
DF: FC250 Cast Iron Impeller

<b>SPECIFICATIONS</b>	Model	<b>100C43.7</b>	<b>C-series</b>
			<b>3.7kW, 3-phase</b>

<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 100mm</p> <p><b>Motor Output</b> 3.7kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 4-pole, 1500/1800min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 8.2A</td> <td>220V – 14.2A</td> </tr> <tr> <td>400V – 7.9A</td> <td>380V – 8.0A</td> </tr> <tr> <td>415V – 7.7A</td> <td>440V – 7.1A</td> </tr> </table> <p><b>Power Cable</b> Sheath: PVC Standard Length: 6m 380 to 600V supply: 1 × 4 × 2.0mm<sup>2</sup>, O.D. 11.8mm 200 to 240V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 13.9mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 84kg Guide Rail Fitting Type: 80kg</p>	50Hz	60Hz	380V – 8.2A	220V – 14.2A	400V – 7.9A	380V – 8.0A	415V – 7.7A	440V – 7.1A	<p><b>Impeller</b> Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.</p> <p>Solids Passage 50Hz – 70 × 81mm 60Hz – 64 × 81mm</p> <p><b>Serrated Suction Cover</b> Ductile Cast Iron</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: Ceramic + Carbon Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 1350ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>
50Hz	60Hz								
380V – 8.2A	220V – 14.2A								
400V – 7.9A	380V – 8.0A								
415V – 7.7A	440V – 7.1A								

### Optional Accessories

**Bend Set** (Free Standing Type)

- Discharge Bend
- Threaded JIS 10kg/cm<sup>2</sup> Flange

**TOS Set** (Guide Rail Fitting Type)

- Duckfoot Bend
- Guide Support
- Guide Hook
- Lifting Chain 5m (with Shackles)
- Threaded JIS 10kg/cm<sup>2</sup> Flange

**External Leakage Sensor** (Electrode)

### Special Specifications

**High Temperature Liquids Version (60-80°C)**

**Seawater-Resistant (DS or DF Version)\***

- \* DS: 316 Stainless Steel Casting Impeller
- DF: FC250 Cast Iron Impeller

SPECIFICATIONS	Model	100C45.5							
		C-series 5.5kW, 3-phase							
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 100mm</p> <p><b>Motor Output</b> 5.5kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Direct on Line (Star-Delta available on special request)</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 4-pole, 1500/1800min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 12.4A</td> <td>220V – 21.4A</td> </tr> <tr> <td>400V – 12.1A</td> <td>380V – 12.1A</td> </tr> <tr> <td>415V – 12.0A</td> <td>440V – 10.7A</td> </tr> </table> <p><b>Power Cable</b> Sheath: Chloroprene rubber Standard Length: 8m 200 to 600V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 14.1mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 133kg Guide Rail Fitting Type: 126kg</p>	50Hz	60Hz	380V – 12.4A	220V – 21.4A	400V – 12.1A	380V – 12.1A	415V – 12.0A	440V – 10.7A	<p><b>Impeller</b> Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.</p> <p>Solids Passage 50Hz – 82 × 68mm 60Hz – 68 × 68mm</p> <p><b>Serrated Suction Cover</b> Ductile Cast Iron</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: Ceramic + Carbon Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 4200ml</p> <p><b>Motor Protection Device</b> A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.</p>
50Hz	60Hz								
380V – 12.4A	220V – 21.4A								
400V – 12.1A	380V – 12.1A								
415V – 12.0A	440V – 10.7A								
<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Discharge Bend</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>Stand Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Stand</li> </ul> <p><b>TOS Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul>	<p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)*</b></p> <p>* For Rank 80 (80°C) of this model, when motor is not completely submerged, continuous pump operation should not exceed 20 minutes.</p> <p><b>Seawater-Resistant (DS or DF Version)*</b></p> <p>* DS: 316 Stainless Steel Casting Impeller DF: FC250 Cast Iron Impeller</p>								
TSURUMI MANUFACTURING CO., LTD.									



SPECIFICATIONS	Model	100C47.5	
		C-series 7.5kW, 3-phase	

**Type of Pump**

Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications

**Type of Fluid**

Sewage, wastewater, and water carrying solid matters

Temperature: 0 to 40°C

**Discharge Bore**

100mm

**Motor Output**

7.5kW

**Power Supply**

Three-phase

**Starting Method**

Direct on Line (Star-Delta available on special request)

**Motor**

Continuous-duty rated, dry-type induction motor

Insulation Class: F

Degree of Protection: IP68

No. of Poles & Speed (Synchronous Speed)

4-pole, 1500/1800min<sup>-1</sup> (50/60Hz)

Power Supply Voltages & Rated Currents

50Hz	60Hz
380V – 16.6A	220V – 28.4A
400V – 16.4A	380V – 16.0A
415V – 16.1A	440V – 14.2A

**Power Cable**

Sheath: Chloroprene rubber

Standard Length: 8m

200 to 600V supply:

1 × 4 × 5.5mm<sup>2</sup>, O.D. 16.8mm

**Dry Weight (excluding cable)**

Free Standing Type: 144kg

Guide Rail Fitting Type: 137kg

**Impeller**

Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.

Solids Passage

50Hz – 76 × 69mm

60Hz – 71 × 68mm

**Serrated Suction Cover**

Ductile Cast Iron

**Cable Entry with Anti-Wicking Block**

Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.

**Bearing**

Permanently lubricated, deep-groove, double-shielded C3 ball bearings

**Shaft**

420 stainless steel

**Shaft Seal (Mechanical Seal)**

Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.

Upper Seal Face: Ceramic + Carbon

Lower Seal Face: SiC + SiC

**Oil Seal (Lip Seal)**

Used as a "Dust Seal"; it protects the mechanical seal from abrasive particles.

**OIL LIFTER**

Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.

Type of Lubricating Oil & Volume

Turbine Oil (ISO VG32), 4800ml

**Motor Protection Device**

A circle thermal protector built in the motor housing. Directly cuts the motor circuit if excessive heat builds up or an overcurrent condition occurs in the motor.

**Optional Accessories**
**Bend Set (Free Standing Type)**

- Discharge Bend
- Threaded JIS 10kg/cm<sup>2</sup> Flange

**Stand Set (Free Standing Type)**

- Stand

**TOS Set (Guide Rail Fitting Type)**

- Duckfoot Bend
- Guide Support
- Guide Hook
- Lifting Chain 5m (with Shackles)
- Threaded JIS 10kg/cm<sup>2</sup> Flange

**External Leakage Sensor (Electrode)**
**Special Specifications**
**High Temperature Liquids Version (60-80°C)\***

\* For Rank 80 (80°C) of this model, when motor is not completely submerged, continuous pump operation should not exceed 20 minutes.

**Seawater-Resistant (DS or DF Version)\***

\* DS: 316 Stainless Steel Casting Impeller  
DF: FC250 Cast Iron Impeller

SPECIFICATIONS	Model	100C411	C-series
			11kW, 3-phase

<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 100mm</p> <p><b>Motor Output</b> 11kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 4-pole, 1500/1800min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 24.5A</td> <td>220V – 39.2A</td> </tr> <tr> <td>400V – 23.4A</td> <td>380V – 22.8A</td> </tr> <tr> <td>415V – 22.8A</td> <td>440V – 19.6A</td> </tr> </table> <p><b>Power Cable</b> Standard Length: 8m 200 to 600V supply: 1 × 4 × 3.5mm<sup>2</sup>, O.D. 14.1mm, Chloroprene rubber 1 × 3 × 3.5mm<sup>2</sup>, O.D. 12.9mm, Chloroprene rubber 1 × 2 × 1.25mm<sup>2</sup>, O.D. 9.6mm, PVC</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 179kg Guide Rail Fitting Type: 172kg</p>	50Hz	60Hz	380V – 24.5A	220V – 39.2A	400V – 23.4A	380V – 22.8A	415V – 22.8A	440V – 19.6A	<p><b>Impeller</b> Semi-open single-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on the impeller vane.</p> <p>Solids Passage 50Hz – 82 × 75mm 60Hz – 87 × 75mm</p> <p><b>Serrated Suction Cover</b> Ductile Cast Iron</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”; it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 6500ml</p> <p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p>
50Hz	60Hz								
380V – 24.5A	220V – 39.2A								
400V – 23.4A	380V – 22.8A								
415V – 22.8A	440V – 19.6A								

<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Discharge Bend</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul> <p><b>Stand Set</b> (Free Standing Type)</p> <ul style="list-style-type: none"> <li>• Stand</li> </ul> <p><b>TOS Set</b> (Guide Rail Fitting Type)</p> <ul style="list-style-type: none"> <li>• Duckfoot Bend</li> <li>• Guide Support</li> <li>• Guide Hook</li> <li>• Lifting Chain 5m (with Shackles)</li> <li>• Threaded JIS 10kg/cm<sup>2</sup> Flange</li> </ul>	<p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)</b></p> <p><b>Seawater-Resistant (DS or DF Version)*</b></p> <p>* DS: 316 Stainless Steel Casting Impeller DF: FC250 Cast Iron Impeller</p>
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<b>SPECIFICATIONS</b>	Model	<b>100C415</b>	<b>C-series</b>
			<b>15kW, 3-phase</b>

<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore</b> 100mm</p> <p><b>Motor Output</b> 15kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 4-pole, 1500/1800min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 32.4A</td> <td>220V – 53.4A</td> </tr> <tr> <td>400V – 30.9A</td> <td>380V – 30.5A</td> </tr> <tr> <td>415V – 30.5A</td> <td>440V – 26.7A</td> </tr> </table> <p><b>Power Cable</b> Standard Length: 8m 200 to 600V supply: 1 × 4 × 5.5mm<sup>2</sup>, O.D. 16.8mm, Chloroprene rubber 1 × 3 × 5.5mm<sup>2</sup>, O.D. 15.2mm, Chloroprene rubber 1 × 2 × 1.25mm<sup>2</sup>, O.D. 9.6mm, PVC</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 221kg Guide Rail Fitting Type: 201kg</p>	50Hz	60Hz	380V – 32.4A	220V – 53.4A	400V – 30.9A	380V – 30.5A	415V – 30.5A	440V – 26.7A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 87 × 45mm 60Hz – 77 × 40mm</p> <p><b>Serrated Suction Cover</b> Ductile Cast Iron</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 5500ml</p> <p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p>
50Hz	60Hz								
380V – 32.4A	220V – 53.4A								
400V – 30.9A	380V – 30.5A								
415V – 30.5A	440V – 26.7A								

<p><b>Optional Accessories</b></p> <p><b>Bend Set</b> (Free Standing Type) • Discharge Bend • Threaded JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Stand Set</b> (Free Standing Type) • Stand</p> <p><b>TOS Set</b> (Guide Rail Fitting Type) • Duckfoot Bend • Guide Support • Guide Hook • Lifting Chain 5m (with Shackles) • Threaded JIS 10kg/cm<sup>2</sup> Flange</p>	<p><b>External Leakage Sensor</b> (Electrode)</p> <p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)</b></p> <p><b>Seawater-Resistant (DS or DF Version)*</b> * DS: 316 Stainless Steel Casting Impeller DF: FC250 Cast Iron Impeller</p>
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Series:

**C**

Discharge Bore:

**150·200mm**

Motor Output / Pole:

**11 - 37kW / 4·6-pole**



The C-series is a submersible cutter pump for sewage and wastewater, which is made of casting 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 solid and fibrous matter during suction. The impeller and suction cover of the “CR” type are made of high-chromium cast iron, ensuring excellent durability and enabling the pump to maintain high performance for an extended period.

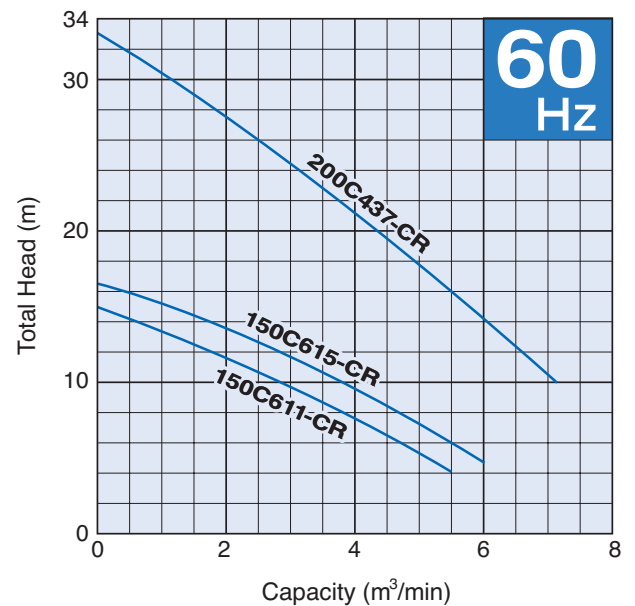
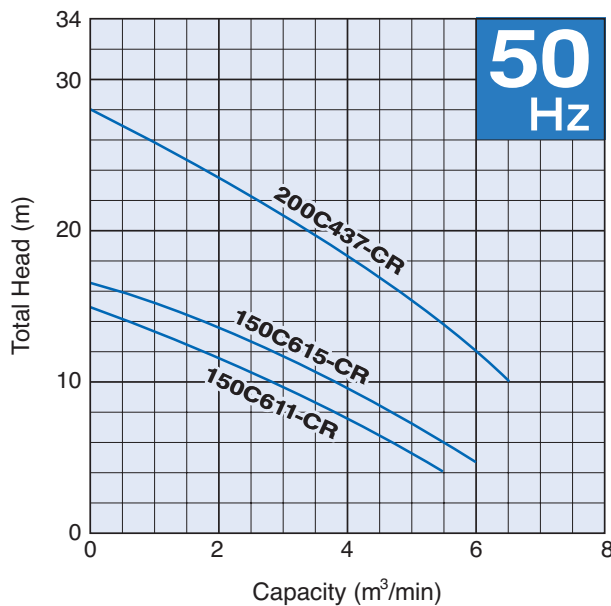
**Guide Rail Fitting System**

The guide rail fitting system connects the pump to and from the piping easily just by lowering or hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump.

**Selection Table**

Model	Discharge Bore mm	Motor Output kW	Phase	Pole	Optional Accessories for Types of Installation		
					Free Standing		Guide Rail Fitting
					Bend Set	Stand Set	“TOS” Set
150C611-CR	150	11	3-phase	6	BEND 150-150F	STAND SET 6E	TOS-150A
<ul style="list-style-type: none"> <li>● Model 150C611-CR is supplied without the discharge bend and pump stand. Select the accessory for the desired type of installation.</li> </ul>							
Model	Discharge Bore mm	Motor Output kW	Phase	Pole	Types of Installation		
					Free Standing	Guide Rail Fitting	
150C615-CR	150	15	3-phase	6	150C615-CR	TOS150C615-CR	
200C437-CR	200	37	3-phase	4	200C437-CR	TO 200C437-CR	
<ul style="list-style-type: none"> <li>● 15 and 37kW models are supplied either in the form of free standing type (complete with bend and stand) or in the form of guide rail fitting type (complete with prefix “TOS”).</li> </ul>							

**Performance Curves**



SPECIFICATIONS	Model	150C611-CR	
		C-series	
		11kW, 3-phase	

<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 150mm, Threaded JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Motor Output</b> 11kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 6-pole, 1000/1200min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 25A</td> <td>220V – 40A</td> </tr> <tr> <td>400V – 24A</td> <td>380V – 23A</td> </tr> <tr> <td>415V – 23A</td> <td>440V – 20A</td> </tr> </table> <p><b>Power Cable</b> Sheath: Chloroprene rubber Standard Length: 8m 380 to 600V supply: 1 × <math>\left( \begin{matrix} 7 \times 3.5\text{mm}^2 \\ 2 \times 2 \text{ mm}^2 \end{matrix} \right)</math> O.D. 21.3mm 200 to 240V supply: 1 × <math>\left( \begin{matrix} 7 \times 5.5\text{mm}^2 \\ 2 \times 2 \text{ mm}^2 \end{matrix} \right)</math> O.D. 24.4mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 430kg Guide Rail Fitting Type: 390kg</p>	50Hz	60Hz	380V – 25A	220V – 40A	400V – 24A	380V – 23A	415V – 23A	440V – 20A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 100 × 70mm 60Hz – 100 × 70mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 6000ml</p> <p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p>
50Hz	60Hz								
380V – 25A	220V – 40A								
400V – 24A	380V – 23A								
415V – 23A	440V – 20A								

<p><b>Optional Accessory</b></p> <p><b>External Leakage Sensor</b> (Electrode)</p>	<p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60-80°C)</b></p>
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SPECIFICATIONS	Model	150C615-CR							
		C-series							
		15kW, 3-phase							
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 150mm, Threaded JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Motor Output</b> 15kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 6-pole, 1000/1200min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 34A</td> <td>220V – 54A</td> </tr> <tr> <td>400V – 32A</td> <td>380V – 31A</td> </tr> <tr> <td>415V – 32A</td> <td>440V – 27A</td> </tr> </table> <p><b>Power Cable</b> Sheath: Chloroprene rubber Standard Length: 8m 380 to 600V supply: 1 × <math>\left( \begin{matrix} 7 \times 3.5\text{mm}^2 \\ 2 \times 2 \text{ mm}^2 \end{matrix} \right)</math> O.D. 24.4mm 200 to 240V supply: 1 × <math>\left( \begin{matrix} 7 \times 8\text{mm}^2 \\ 2 \times 2\text{mm}^2 \end{matrix} \right)</math> O.D. 25.6mm</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 500kg Guide Rail Fitting Type: 410kg</p>	50Hz	60Hz	380V – 34A	220V – 54A	400V – 32A	380V – 31A	415V – 32A	440V – 27A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 100 × 70mm 60Hz – 100 × 70mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 6000ml</p> <p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p>
50Hz	60Hz								
380V – 34A	220V – 54A								
400V – 32A	380V – 31A								
415V – 32A	440V – 27A								
<p><b>Optional Accessory</b></p> <p>External Leakage Sensor (Electrode)</p>	<p><b>Special Specifications</b></p> <p>High Temperature Liquids Version (60-80°C)</p>								
TSURUMI MANUFACTURING CO., LTD.									

SPECIFICATIONS	Model	C-series							
	200C437-CR	37kW, 3-phase							
<p><b>Type of Pump</b> Submersible cast iron cutter pump suitable for sewage, wastewater, and heavy-duty industrial applications</p> <p><b>Type of Fluid</b> Sewage, wastewater, and water carrying solid matters</p> <p>Temperature: 0 to 40°C</p> <p><b>Discharge Bore &amp; Connection</b> 200mm, JIS 10kg/cm<sup>2</sup> Flange</p> <p><b>Motor Output</b> 37kW</p> <p><b>Power Supply</b> Three-phase</p> <p><b>Starting Method</b> Star-Delta</p> <p><b>Motor</b> Continuous-duty rated, dry-type induction motor</p> <p>Insulation Class: F Degree of Protection: IP68</p> <p>No. of Poles &amp; Speed (Synchronous Speed) 4-pole, 1500/1800min<sup>-1</sup> (50/60Hz)</p> <p>Power Supply Voltages &amp; Rated Currents</p> <table border="0"> <tr> <td>50Hz</td> <td>60Hz</td> </tr> <tr> <td>380V – 75A</td> <td>220V – 133A</td> </tr> <tr> <td>400V – 73A</td> <td>380V – 77A</td> </tr> <tr> <td>415V – 72A</td> <td>440V – 68A</td> </tr> </table> <p><b>Power Cable</b> Standard Length: 10m 200 to 600V supply: 1 × 4 × 22mm<sup>2</sup>, O.D. 28.8mm, Chloroprene rubber 1 × 3 × 22mm<sup>2</sup>, O.D. 26.1mm, Chloroprene rubber 1 × 4 × 1.25mm<sup>2</sup>, O.D. 11.1mm, PVC</p> <p><b>Dry Weight</b> (excluding cable) Free Standing Type: 660kg Guide Rail Fitting Type: 555kg</p>	50Hz	60Hz	380V – 75A	220V – 133A	400V – 73A	380V – 77A	415V – 72A	440V – 68A	<p><b>Impeller</b> Semi-open two-channel impeller for solid-handling design, made of high-chromium cast iron, dynamically balanced. A sintered tungsten carbide alloy edge is blazed on each impeller vane.</p> <p>Solids Passage 50Hz – 76 × 73mm 60Hz – 76 × 73mm</p> <p><b>Serrated Suction Cover</b> Made of high-chromium cast iron, ensuring excellent durability</p> <p><b>Cable Entry with Anti-Wicking Block</b> Watertight cable entry with strain-relief device. The anti-wicking block prevents water incursion due to capillary action should the power cable be damaged or the end submerged.</p> <p><b>Bearing</b> Permanently lubricated, deep-groove, double-shielded C3 ball bearings</p> <p><b>Shaft</b> 420 stainless steel</p> <p><b>Shaft Seal (Mechanical Seal)</b> Furnished with a double-face mechanical seal located in oil chamber. Both upper and lower seal faces always run in a clean environment.</p> <p>Upper Seal Face: SiC + SiC Lower Seal Face: SiC + SiC</p> <p><b>Oil Seal (Lip Seal)</b> Used as a “Dust Seal”, it protects the mechanical seal from abrasive particles.</p> <p><b>Pressure Relief Port</b> Protects the mechanical seal against excessive pressure, and also protects the seal faces from abrasive particles by drawing the particles away.</p> <p><b>OIL LIFTER</b> Equipped in oil chamber. It forcibly supplies lubricating oil to the mechanical seal and continues to supply the oil to the upper seal faces even if lubricant falls below the rated volume.</p> <p>Type of Lubricating Oil &amp; Volume Turbine Oil (ISO VG32), 9500ml</p> <p><b>Motor Protection Device</b> A miniature thermal protector is embedded in each winding of the motor. Should excessive heat builds up, the bimetal strip opens to cause the control panel to shut the power supply.</p> <p><b>Leakage Sensor (Electrode)</b> Made of 304 stainless steel. It can be wired to a control panel to alert operators of water incursion into the oil chamber.</p>
50Hz	60Hz								
380V – 75A	220V – 133A								
400V – 73A	380V – 77A								
415V – 72A	440V – 68A								
<p><b>Special Specifications</b></p> <p><b>High Temperature Liquids Version (60°C)</b></p>									

**DIMENSIONS**

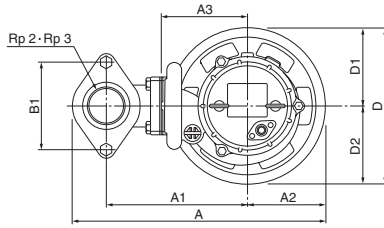
**Model 50C2.75S to 200C437-CR**

**C-series  
50 - 200mm**

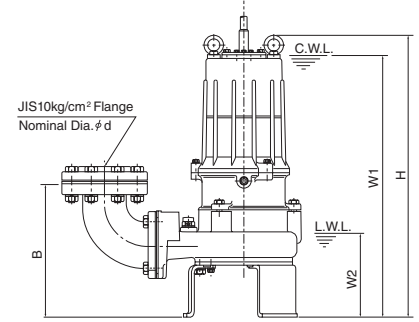
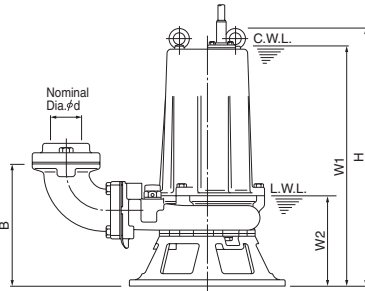
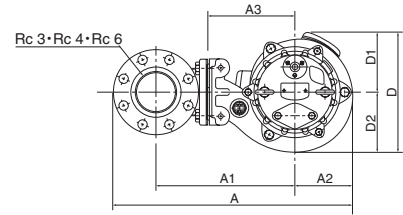
**Free Standing Type**

C. W. L. : Continuous Running Water Level  
L. W. L. : Lowest Running Water Level

50C2.75S  
50C2.75  
80C21.5



80C22.2-CR  
80C23.7-CR  
80C25.5-CR  
80C27.5-CR  
80C211-CR  
80C215-CR  
100C42.2  
100C43.7  
100C45.5  
100C47.5  
100C411  
100C415  
100C222-CR  
150C611-CR  
150C615-CR  
200C437-CR



Unit: mm

Model	d	A	A1	A2	A3	B	B1	D	D1	D2	W1	W2	H
50C2.75S	50	405	226	125	138	196	140	250	125	125	500	145	523
50C2.75	50	405	226	125	138	196	140	250	125	125	385	145	415
80C21.5	80	446	267	125	165	234	140	250	125	125	465	190	536
80C22.2-CR	80	519	302	125	190	290	—	260	128	132	565	180	611
80C23.7-CR	80	519	302	125	190	292	—	260	128	132	565	180	613
80C25.5-CR	80	615	362	160	250	320	—	345	166	179	755	225	879
80C27.5-CR	80	615	362	160	250	320	—	345	166	179	755	225	879
80C211-CR	80	615	362	160	250	320	—	345	166	179	775	225	927
80C215-CR	80	730	422	215	310	345	—	430	215	215	965	280	1086
100C42.2	100	596	337	154	210	328	—	324	158	166	600	225	641
100C43.7	100	601	337	159	210	333	—	333	158	175	675	235	715
100C45.5	100	686	387	194	260	372	—	410	205	205	785	335	908
100C47.5	100	686	387	194	260	372	—	410	205	205	805	335	929
100C411	100	709	387	217	260	372	—	436	205	231	875	300	1000
100C415	100	707	387	215	260	372	—	436	205	231	955	335	1080
100C222-CR	100	837	477	255	350	370	—	510	255	255	995	330	1184
150C611-CR	150	1043	603	300	420	545	—	602	300	302	1070	500	1211
150C615-CR	150	1043	603	300	420	545	—	602	300	302	1135	545	1261
200C437-CR	200	1190	663	362	450	673	—	724	362	362	1360	580	1571



**DIMENSIONS**

**Model TOS50C2.75S to TOS80C215-CR**

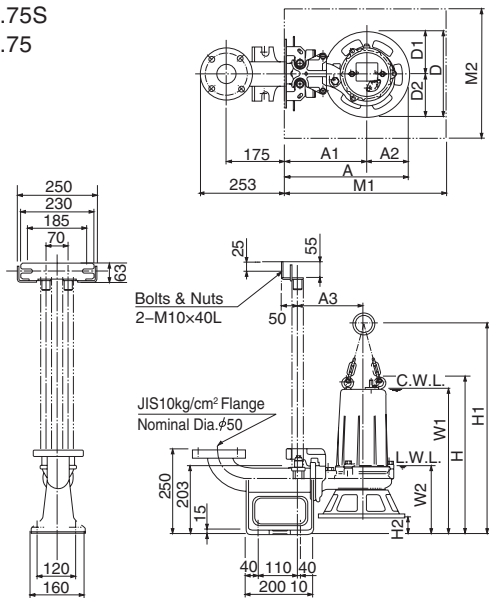
**C-series**

**50·80mm**

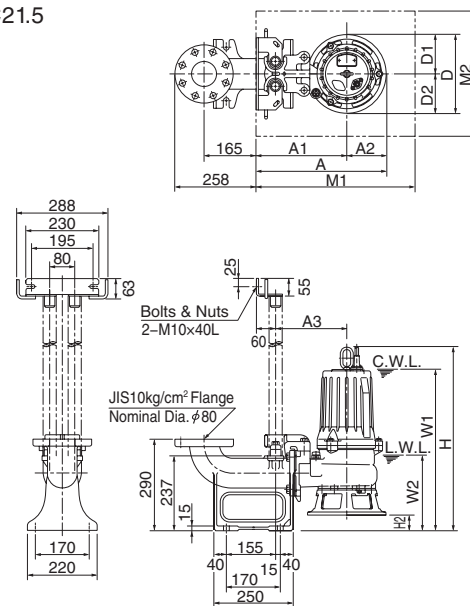
**Guide Rail Fitting Type: TOS Set**

C. W. L. : Continuous Running Water Level  
L. W. L. : Lowest Running Water Level

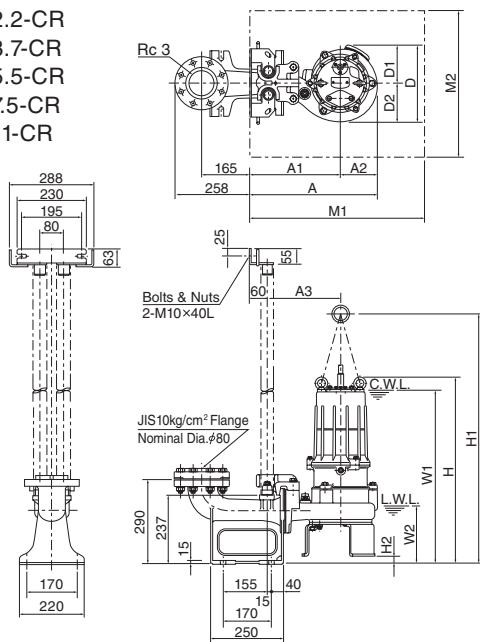
TOS50C2.75S  
TOS50C2.75



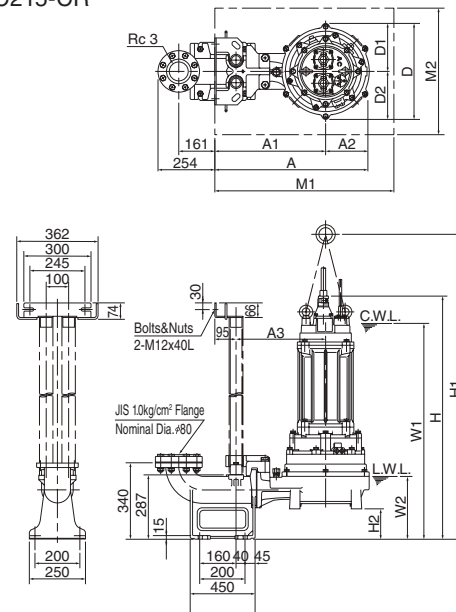
TOS80C21.5



TOS80C22.2-CR  
TOS80C23.7-CR  
TOS80C25.5-CR  
TOS80C27.5-CR  
TOS80C211-CR



TOS80C215-CR



Unit: mm

Model	A	A1	A2	A3	D	D1	D2	W1	W2	H	H1	H2	M1	M2
TOS50C2.75S	368	243	125	193	250	125	125	545	190	567	695	44	550	350
TOS50C2.75	368	243	125	193	250	125	125	430	190	458	589	44	550	350
TOS80C21.5	410	285	125	225	250	125	125	515	240	586	—	50	500	400
TOS80C22.2-CR	435	310	125	250	260	128	132	595	205	640	1054	29	600	500
TOS80C23.7-CR	435	310	125	250	260	128	132	595	205	640	1054	27	600	500
TOS80C25.5-CR	530	370	160	310	320	141	179	755	220	877	1239	127	600	500
TOS80C27.5-CR	530	370	160	310	320	141	179	755	220	877	1239	127	600	500
TOS80C211-CR	530	370	160	310	320	141	179	770	220	925	1291	127	600	500
TOS80C215-CR	683	495	188	400	430	215	215	965	280	1086	1365	136	900	700

**DIMENSIONS**

**Model TOS100C42.2 to TOS100C222-CR**

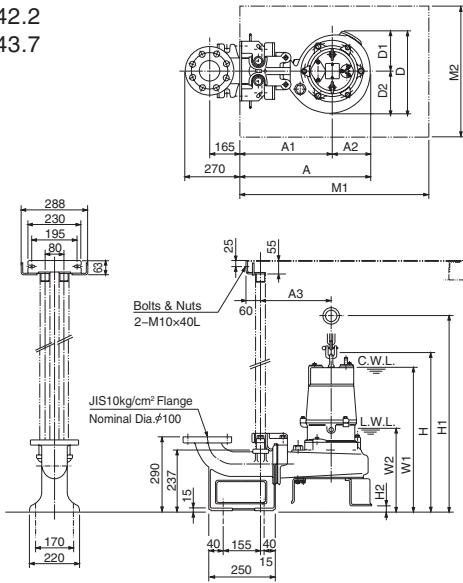
**C-series**

**100mm**

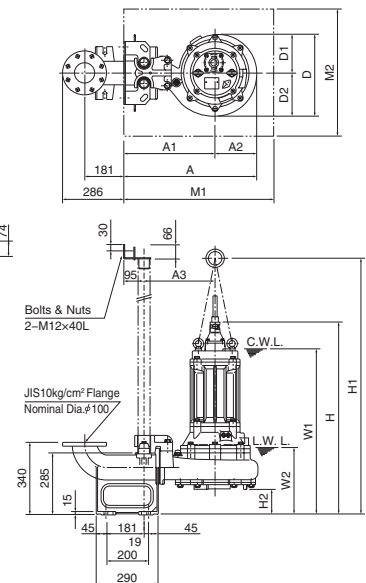
**Guide Rail Fitting Type: TOS Set**

C. W. L. : Continuous Running Water Level  
L. W. L. : Lowest Running Water Level

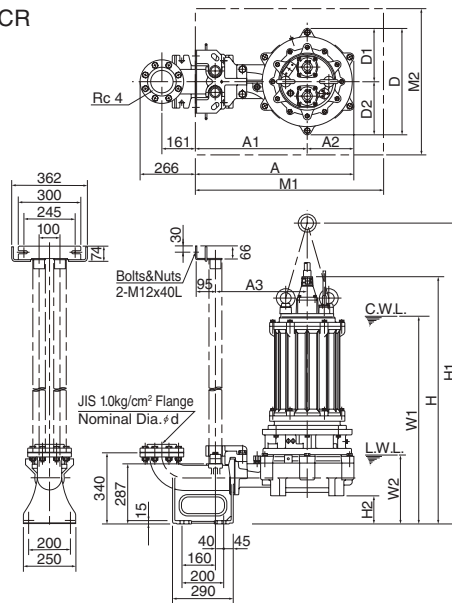
TOS100C42.2  
TOS100C43.7



TOS100C45.5  
TOS100C47.5  
TOS100C411  
TOS100C415



TOS100C222-CR



Unit: mm

Model	A	A1	A2	A3	D	D1	D2	W1	W2	H	H1	H2	M1	M2
TOS100C42.2	484	330	154	270	324	158	166	615	240	656	778	15	600	500
TOS100C43.7	489	330	159	270	333	158	175	685	245	725	847	10	600	500
TOS100C45.5	619	425	194	330	384	181	203	785	305	906	1268	118	700	600
TOS100C47.5	619	425	194	330	384	181	203	805	305	927	1293	118	700	600
TOS100C411	642	425	217	330	431	200	231	875	300	998	1364	118	700	600
TOS100C415	640	425	215	330	424	193	231	955	335	1078	1452	127	700	600
TOS100C222-CR	759	535	224	440	510	255	255	995	330	1184	1440	135	900	700

**DIMENSIONS**

**Model TOS150C611-CR to TO200C437-CR**

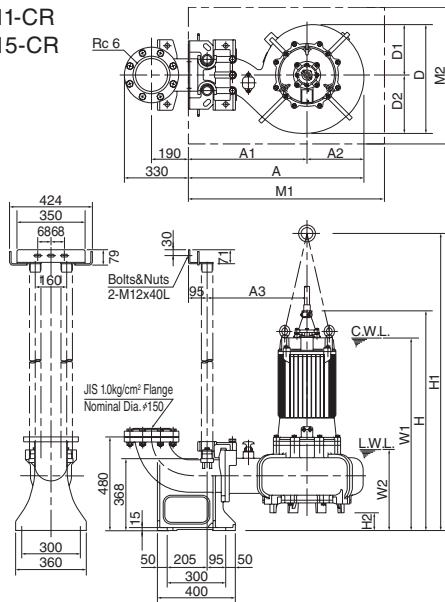
**C-series**

**150·200mm**

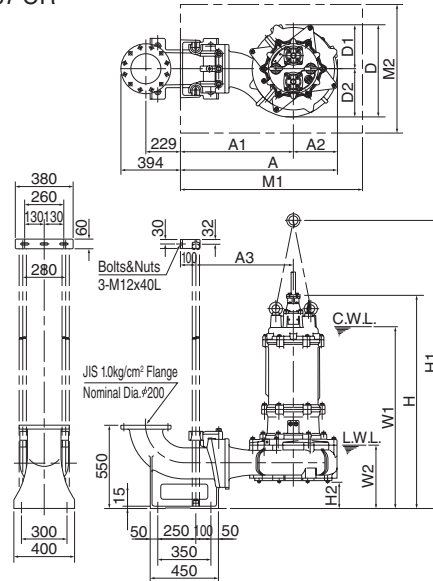
**Guide Rail Fitting Type: TOS/TO Set**

C. W. L. : Continuous Running Water Level  
L. W. L. : Lowest Running Water Level

TOS150C611-CR  
TOS150C615-CR



TO200C437-CR



Unit: mm

Model	A	A1	A2	A3	D	D1	D2	W1	W2	H	H1	H2	M1	M2
TOS150C611-CR	898	607	291	512	559	257	302	985	415	1126	1525	91	1200	850
TOS150C615-CR	898	607	291	512	559	257	302	1050	460	1176	1573	91	1200	850
TO 200C437-CR	1034	744	290	644	608	290	318	1200	420	1408	1901	172	1200	850