

# C 50 • 80mm

The C-series incorporates a channel impeller with cutter mechanism. A sintered tungsten carbide alloy tip is brazed on the impeller vane and rotates on the serrated part of the suction cover. This mechanism cuts fibrous matters flowed into the impeller and discharge them.



Free Standing

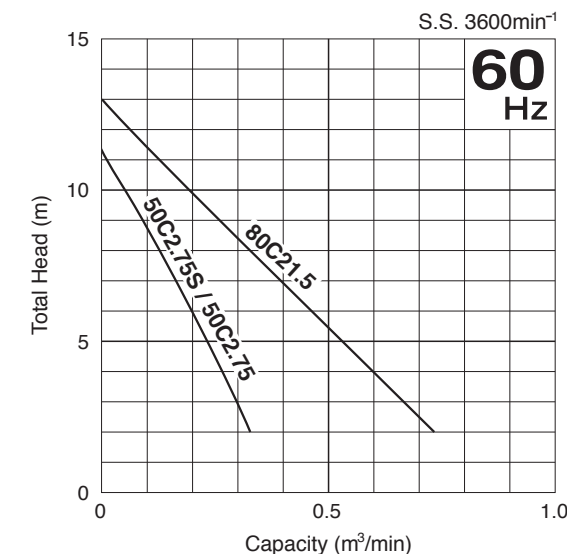
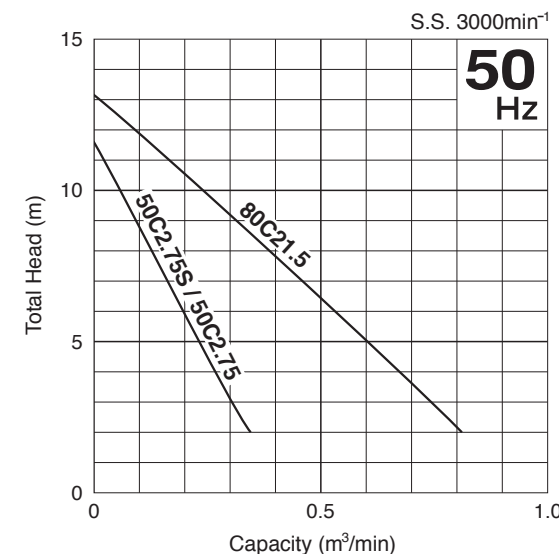


Guide Rail Fitting

### Major Standard Specifications

|                      |                              |   |  |  |
|----------------------|------------------------------|---|--|--|
| Discharge Bore       | mm                           | 50  | 80                                     |  |
| Pumping Fluid        | Type of Fluid                | Wastewater, and Liquid carrying Waste and Solid Matters |  |  |
|                      | Fluid Temperature            | 0 to 40°C   |  |  |
| Pump                 | Structure                    | Impeller  | Channel Impeller with Cutter Mechanism |  |
|                      |                              | Shaft Seal  | Double Mechanical Seal with Oil Lifter |  |
|                      |                              | Bearing   | Double-shielded Ball Bearing           |  |
|                      | Materials                    | Impeller  | Gray Iron Casting                      |  |
|                      |                              | Casing  | Gray Iron Casting                      |  |
|                      |                              | Suction Cover   | Ductile Iron Casting                   |  |
|                      | Shaft Seal                   | SiC   |  |  |
| Motor                | Type, Pole                   | Dry Type Submersible Induction Motor<br>2-pole          |  |  |
|                      | Class of Insulation          | Class E<br>Class F (1.5kW only)                         |  |  |
|                      | Phase                        | Single-phase (suffix "S")<br>Three-phase                |  |  |
|                      | Starting Method              | Capacitor Start (single-phase only)<br>Direct on Line   |  |  |
|                      | Protection Device (built-in) | Circle Thermal Protector                                |  |  |
|                      | Lubricant                    | Turbine Oil (ISO VG32)                                  |  |  |
|                      | Materials                    | Frame   | Gray Iron Casting                      |  |
|                      |                              | Shaft   | 420 Stainless Steel                    |  |
| Cable                |                              | PVC   |  |  |
| Discharge Connection | Screwed Flange               |   |  |  |

### Performance Curves



\* Standard, Automatic and Auto-Alternation models have the identical performance.

### Standard Specifications

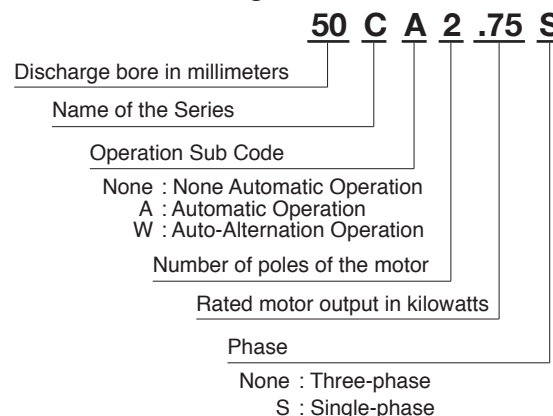
| Discharge Bore<br>mm | Standard Model |                    |            | Automatic Model |                    |             | Auto-Alternation Model |                    |            | Motor Output<br>kW | Starting Method | Speed (S.S.)<br>50Hz/60Hz<br>min <sup>-1</sup> | Impeller Passage<br>50Hz/60Hz<br>mm | Dry Weight * kgs |                    |                                    |                    | Cabtyre Cable |                         |               |                         |               |             |          |
|----------------------|----------------|--------------------|------------|-----------------|--------------------|-------------|------------------------|--------------------|------------|--------------------|-----------------|--|-------------------------------------|------------------|--------------------|------------------------------------|--------------------|---------------|-------------------------|---------------|-------------------------|---------------|-------------|----------|
|                      | Free Standing  | Guide Rail Fitting |            | Free Standing   | Guide Rail Fitting |             | Free Standing          | Guide Rail Fitting |            |                    |                 |  |                                     | Standard Model   |                    | Automatic & Auto-Alternation Model |                    | No. of Cables | 200 ~ 240 V             |               | 380 ~ 575 V             |               | Length<br>m | Material |
|                      |                | TOS                | TS         |                 | TOS                | TS          |                        | TOS                | TS         |                    |                 |  |                                     | Free Standing    | Guide Rail Fitting | Free Standing                      | Guide Rail Fitting |               | Cores × mm <sup>2</sup> | Outer Dia. mm | Cores × mm <sup>2</sup> | Outer Dia. mm |             |          |
| 50                   | 50C2.75S       | TOS50C2.75S        | TS50C2.75S | 50CA2.75S       | TOS50CA2.75S       | TS50CA2.75S | —                      | —                  | —          | 0.75               | Capacitor       | 3000/3600                                      | 31x27/28x27                         | 32               | 30                 | 34                                 | 32                 | 1             | 3 × 2.0                 | 10.9          | 3 × 1.25                | 10.1          | 5           | PVC      |
| 50                   | 50C2.75        | TOS50C2.75         | TS50C2.75  | 50CA2.75        | TOS50CA2.75        | TS50CA2.75  | 50CW2.75               | TOS50CW2.75        | TS50CW2.75 | 0.75               | D.O.L           | 3000/3600                                      | 31x27/28x27                         | 24               | 23                 | 25                                 | 24                 | 1             | 4 × 1.25                | 11.1          | 4 × 1.25                | 11.1          | 6           | PVC      |
| 80                   | 80C21.5        | TOS80C21.5         | TS80C21.5  | 80CA21.5        | TOS80CA21.5        | TS80CA21.5  | 80CW21.5               | TOS80CW21.5        | TS80CW21.5 | 1.5                | D.O.L           | 3000/3600                                      | 43x60/37x60                         | 36               | 36                 | 40                                 | 39                 | 1             | 4 × 1.25                | 11.1          | 4 × 1.25                | 11.1          | 6           | PVC      |

\* Dry weight  
All weights excluding cable  
Weights of guide rail fitting excluding duckfoot bend

### Applications

- Transferring sewage and wastewater to wastewater treatment plant
- Draining wastewater from industrial plant
- Draining effluent from residence, hotel, commercial complex, etc

### Model Number Designation



### Standard Accessories

#### Free Standing

- Discharge Bend (with Packing & Bolts)
- Screwed Flange

#### Guide Rail Fitting - TOS

- Lifting Chain 5m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook (with Bolts)
- Duckfoot Bend
- Guide Connector (with Bolts)
- JIS 10kg/cm<sup>2</sup> Flange (with Packing, Bolts & Nuts)
- Foundation Bolts (with Nuts)

#### Guide Rail Fitting - TS

- Lifting Chain 5m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook (with Bolts)
- Duckfoot Bend
- Guide Connector (with Bolts)

# C 100mm

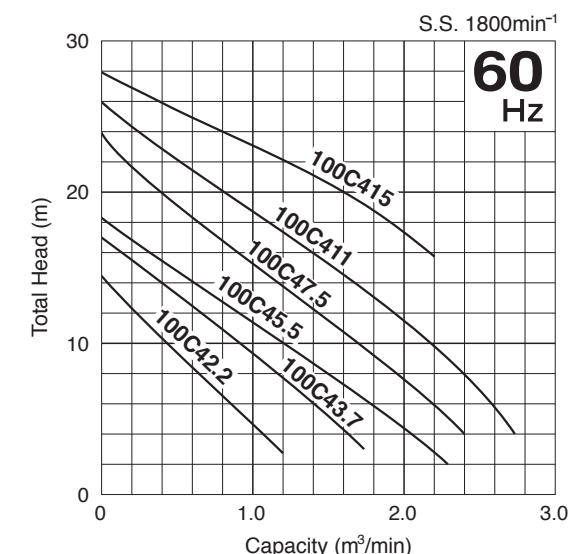
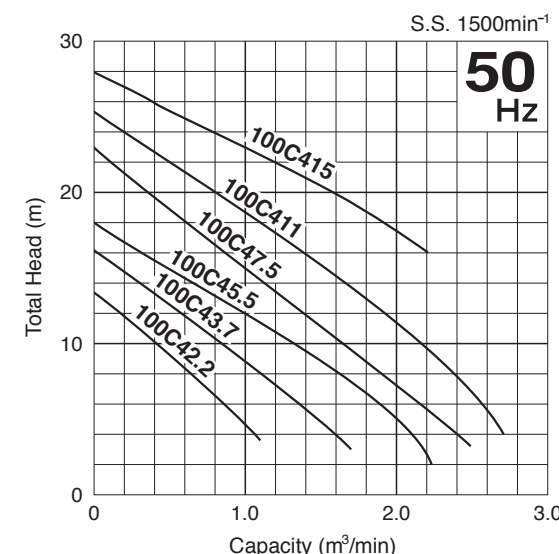
The C-series incorporates a channel impeller with cutter mechanism. A sintered tungsten carbide alloy tip is brazed on the impeller vane and rotates on the serrated part of the suction cover. This mechanism cuts fibrous matters flowed into the impeller and discharge them.



### Applications

- Transferring sewage and wastewater to wastewater treatment plant
- Draining wastewater from industrial plant
- Draining effluent from residence, hotel, commercial complex, etc

### Performance Curves



### Major Standard Specifications

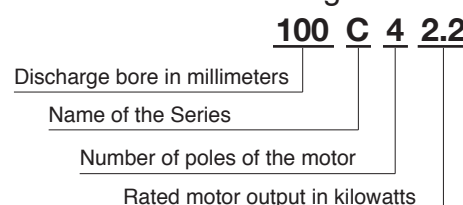
|                      |                              |  |  |  |
|----------------------|------------------------------|--|--|--|
| Discharge Bore       |                              | mm   | 100                                    |  |
| Pumping Fluid        | Type of Fluid                | Wastewater, and Liquid carrying Waste and Solid Matters                                    |  |  |
|                      | Fluid Temperature            | 0 to 40°C  |  |  |
| Pump                 | Structure                    | Impeller   | Channel Impeller with Cutter Mechanism |  |
|                      |                              | Shaft Seal   | Double Mechanical Seal with Oil Lifter |  |
|                      |                              | Bearing  | Double-shielded Ball Bearing           |  |
|                      | Materials                    | Impeller   | Gray Iron Casting                      |  |
|                      |                              | Casing   | Gray Iron Casting                      |  |
|                      |                              | Suction Cover  | Ductile Iron Casting                   |  |
| Shaft Seal           | SiC                          |  |  |  |
| Motor                | Type, Pole                   | Dry Type Submersible Induction Motor<br>4-pole   |  |  |
|                      | Class of Insulation          | Class E (3.7kW and below)<br>Class F (5.5kW and above)                                     |  |  |
|                      | Phase                        | Three-phase  |  |  |
|                      | Starting Method              | Direct on Line (7.5kW and below)<br>Star-delta (11kW and above)                            |  |  |
|                      | Protection Device (built-in) | Circle Thermal Protector (7.5kW and below)<br>Miniature Thermal Protector (11kW and above) |  |  |
|                      | Lubricant                    | Turbine Oil (ISO VG32)   |  |  |
|                      | Materials                    | Frame  | Gray Iron Casting                      |  |
|                      |                              | Shaft  | 420 Stainless Steel                    |  |
| Cable                |                              | PVC (3.7kW and below)<br>Chloroprene Rubber (5.5kW and above)                              |  |  |
| Discharge Connection |                              | JIS 10K Flange   |  |  |

### Standard Specifications

| Discharge Bore<br>mm | Model         |                    |            | Motor Output<br>kW | Starting Method | Speed (S.S.)<br>50Hz/60Hz<br>min <sup>-1</sup> | Impeller Passage<br>50Hz/60Hz<br>mm | Dry Weight*<br>kgs |                    | Cabtyre Cable |                          |                     |                          |                     |             |                    |
|----------------------|---------------|--------------------|------------|--------------------|-----------------|--|-------------------------------------|--------------------|--------------------|---------------|--------------------------|---------------------|--------------------------|---------------------|-------------|--------------------|
|                      | Free Standing | Guide Rail Fitting |            |                    |                 |  |                                     | Free Standing      | Guide Rail Fitting | No. of Cables | 200 ~ 240 V              |                     | 380 ~ 575 V              |                     | Length<br>m | Material           |
|                      |               | TOS                | TS         |                    |                 |  |                                     |                    |                    |               | Cores × mm <sup>2</sup>  | Outer Dia. mm       | Cores × mm <sup>2</sup>  | Outer Dia. mm       |             |                    |
| 100                  | 100C42.2      | TOS100C42.2        | TS100C42.2 | 2.2                | D.O.L           | 1500/1800                                      | 67×56/62×56                         | 68                 | 64                 | 1             | 4×2.0                    | 11.8                | 4×2.0                    | 11.8                | 6           | PVC                |
| 100                  | 100C43.7      | TOS100C43.7        | TS100C43.7 | 3.7                | D.O.L           | 1500/1800                                      | 70×81/64×81                         | 84                 | 80                 | 1             | 4×3.5                    | 13.9                | 4×2.0                    | 11.8                | 6           | PVC                |
| 100                  | 100C45.5      | TOS100C45.5        | TS100C45.5 | 5.5                | D.O.L           | 1500/1800                                      | 82×68/68×68                         | 142                | 135                | 1             | 4×3.5                    | 14.1                | 4×3.5                    | 14.1                | 8           | Chloroprene Rubber |
| 100                  | 100C47.5      | TOS100C47.5        | TS100C47.5 | 7.5                | D.O.L           | 1500/1800                                      | 76×69/71×68                         | 155                | 148                | 1             | 4×5.5                    | 16.8                | 4×5.5                    | 16.8                | 8           | Chloroprene Rubber |
| 100                  | 100C411       | TOS100C411         | TS100C411  | 11                 | Star-Delta      | 1500/1800                                      | 82×75/87×75                         | 178                | 171                | 3             | 4×3.5<br>3×3.5<br>2×1.25 | 14.1<br>12.9<br>9.8 | 4×3.5<br>3×3.5<br>2×1.25 | 14.1<br>12.9<br>9.8 | 8           | Chloroprene Rubber |
| 100                  | 100C415       | TOS100C415         | —          | 15                 | Star-Delta      | 1500/1800                                      | 87×45/77×40                         | 322                | 315                | 3             | 4×5.5<br>3×5.5<br>2×1.25 | 16.8<br>15.2<br>9.8 | 4×5.5<br>3×5.5<br>2×1.25 | 16.8<br>15.2<br>9.8 | 8           | Chloroprene Rubber |

\* Dry weight  
All weights excluding cable  
Weights of guide rail fitting excluding duckfoot bend

### Model Number Designation



### Standard Accessories

#### Free Standing

- Discharge Bend (with Packing & Bolts)
- JIS 10kg/cm<sup>2</sup> Flange (with Packing, Bolts & Nuts)

#### Guide Rail Fitting - TOS

- Lifting Chain 5m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook (with Bolts)
- Duckfoot Bend
- Guide Connector (with Bolts)
- JIS 10kg/cm<sup>2</sup> Flange (with Packing, Bolts & Nuts)
- Foundation Bolts (with Nuts)

#### Guide Rail Fitting - TS

- Lifting Chain 5m, (with Shackles)
- Guide Support (with Bolts & Nuts)
- Guide Hook (with Bolts)
- Duckfoot Bend
- Guide Connector (with Bolts)