LEGENDARY SUBMERSIBLE DP

Heavy duty submersible slurry pump design for the world’s toughest applications

www.hevvypumps.com
The Toyo submersible DP series and its hydraulically driven cousin the TO series were specifically designed to pick up and transport abrasive materials with the least amount of water. The DP/TO is a pump and excavator in one. The design incorporates the patented Toyo agitator, attached directly to the pump shaft, which together with the closed impeller, large open passages for the easy passage of solids, heavy duty shaft/bearing configuration and custom built motor with 1.35 service factor, result in the most rugged submersible slurry pump on the market today.

**DP Quick facts**

- Capacities up to 3200 Usgpm @ BEP
- Heads to 130 ft @ BEP
- Pumps up to 70% solids
- Handles solids up to 4.72" in diameter
- Sizes up to 10" in diameter
- Patented high chrome agitator as standard – attached directly to the pump’s shaft
- Front (adjustable) and Back high chrome wear plates
- Unique 1.35 S.F. motor
- Heavy duty motor housing
- Low RPM for reduced wear
- Additional bearing support between primary and secondary seal elements

**Available adders**

- Hydraulic drive available (TO)
- Optional jet ring attachment to dislodge tough solids
- High temperature package
- Mechanical seals
- Further designs up to 600HP (non standard)

The Toyo patented agitator eliminates solids accumulating on the sump floor and can significantly reduce maintenance costs resulting from digging out sumps and downtime due to solids building up and choking off the suction of conventional pumps. It is because of the Toyo Agitator’s patented blade that the highest efficiency in material mixing can be achieved.

In applications where solids are especially difficult to pump, or simply where more agitation is required, Toyo offers a special high pressure jet ring. This combination of jet ring and agitator have proven to be a truly effective ‘agitation team’.
TOYO DP Series

- Oversized shaft
- Seal Option
  - Heavy Duty mechanical seal
- Front (adjustable) and Back High Chrome wear plates
- Standard Design
  - Slurry lip seal
- First response Moisture sensor
- Rugged motor housing
- Unique 1.35 service factor motor
- Special protection from water ingress
- Patented Toyo agitator

www.hevypumps.com
The Legendary Toyo DP has been working in the world’s toughest and most abrasive applications for 6 decades.

Visit www.toyopumps.com to see full pictorial case studies and download videos showing this heavy duty pump at work.

You’ll find the Toyo DP pumps working in the applications below as well as many others:

- Dredging
- Ocean Sand mining
- Tailings ponds
- Fly ash/ bottom ash
- Sand and Gravel excavation
- Hazardous waste clean-up
- Tank clean up (replacing vacuum trucks)
- Cleaning out numerous sumps including at:
  - Cement plants
  - Agricultural wash down pits (carrots, beats etc)
  - Pipeline burial
  - Coke pits
  - Mill scale/ slag pits
  - Barge unloading
  - Silt removal
  - Removal of filter media at waste treatment plants
  - Island building
The DP’s heavy duty construction makes it the toughest submersible slurry pump on the market today.
## Legendary DP Specifications

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DPT-10</th>
<th>DPT-15</th>
<th>DPT-20</th>
<th>DPT-25</th>
<th>DPT-30</th>
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<th>DPT-80</th>
<th>DPT-85</th>
<th>DPT-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge diameter - inch (mm)</td>
<td>3 (76)</td>
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<td>4 (102)</td>
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<tr>
<td>Flow at rated point - Lpm (m³/min)</td>
<td>130 (35)</td>
<td>130 (35)</td>
<td>130 (35)</td>
<td>130 (35)</td>
<td>209 (54)</td>
<td>280 (71)</td>
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<tr>
<td>Head at rated point - ft (m)</td>
<td>22 (7)</td>
<td>38 (12)</td>
<td>46 (15)</td>
<td>56 (17)</td>
<td>56 (17)</td>
<td>64 (19)</td>
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<tr>
<td>Impeller diameter - inch (mm)</td>
<td>7.28 (185)</td>
<td>8.29 (210)</td>
<td>8.29 (210)</td>
<td>8.29 (210)</td>
<td>13.22 (335)</td>
<td>19.51 (495)</td>
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<tr>
<td>Implume number of impeller</td>
<td>4</td>
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<tr>
<td>Max. weld size - inch (mm)</td>
<td>0.16 (4)</td>
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<tr>
<td>Weight without the cable - lb (kg)</td>
<td>342 (155)</td>
<td>383 (175)</td>
<td>436 (198)</td>
<td>436 (198)</td>
<td>436 (198)</td>
<td>495 (225)</td>
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<tr>
<td>Standard motor hp</td>
<td>3</td>
<td>5</td>
<td>7.5</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Optional motor hp</td>
<td>N/A</td>
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<td>N/A</td>
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<tr>
<td>Oil capacity</td>
<td>U.S. gal (l)</td>
<td>0.88 (3.4)</td>
<td>0.88 (3.4)</td>
<td>0.88 (3.4)</td>
<td>0.88 (3.4)</td>
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<tr>
<td>Number of stages</td>
<td>4</td>
<td>4</td>
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</table>

### Electric motor data - 50 Hz

#### Speed (rpm)
<table>
<thead>
<tr>
<th>Model</th>
<th>DPT-10</th>
<th>DPT-15</th>
<th>DPT-20</th>
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<th>DPT-80</th>
<th>DPT-85</th>
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<tbody>
<tr>
<td>1750</td>
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<td>1500</td>
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</table>

### Power data (replacement type)

#### Voltage
<table>
<thead>
<tr>
<th>Model</th>
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<th>DPT-20</th>
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</tr>
</thead>
</table>

### Key Specifications

- **Max. pump head**: 1750 rpm
- **Voltage**: 220/480 V/50Hz
- **Impeller number of impeller**: 4
- **Max. weld size**: 0.16 (4) inch
- **Weight without the cable**: 342 (155) lb (kg)
- **Standard motor hp**: 3
- **Oil capacity**: 0.88 (3.4) U.S. gal (l)
- **Number of stages**: 4
- **Rated Speed**: 1750 rpm

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**Legend:**
- Dbl. Mech. Seal: Double mechanical seal
- Mech. Seal: Mechanical seal
- Dbl. Seal: Double seal
- N/A: Not available
- **U.S. gal**: U.S. gallon
- **rpm**: Revolutions per minute
The Toyo Modular Program allows you the flexibility of using the wet ends below on various drive configurations. This advantage of the Toyo Product Line can significantly reduce spare parts inventory to an absolute minimum.

- Heavy solid handling capability
- Closed impeller
- Heavy metal sections for longer wear life
- Increased efficiencies in state of the art slurry pump design

- Heavy solid handling capability
- Closed and semi-open impellers available
- Patented Agitator Option
- Heavy metal sections for longer wear life

- Spiral casing design for increased efficiency and reduced wear
- Fully recessed impeller allows for large solids passage
- Only approx 15% of pumped liquid is in contact with impeller
- Wet end standard in High Chrome and CD4
- Patented Agitator and Chopper options available

For more information, please visit: www.hevvypumps.com