# **Environmental Submersible Pumps**

## **Grundfos 16S Enviro Retrofitted Submersible Pumps**

These Grundfos submersible pumps are made of stainless steel and retrofitted with PTFE to handle the rigors of contaminated groundwater pumping and continuous operation in remediation applications. Built to deliver optimum efficiency during periods of high demand, all Grundfos pumps provide low, long-term operating costs and high operating reliability regardless of the application.

Grundfos Enviro retrofitted submersibles meet government guidelines for environmental equipment and have been proven through extensive use in the field.

#### **FEATURES**

- Made For 4" (10 cm) and Larger Wells Flow rates of 10 to 20 GPM (37.8 to 75.7 LPM).
- State-of-the-art Hydraulics
  Pump efficiency is maximized by constant improvement of the highperformance hydraulic design, and precise manufacturing process.
- Manufactured With High-grade Stainless Steel Rugged stainless steel construction inside and out resists corrosion and attack from aggressive liquids.
- Wear-resistant Design Designed to flush abrasive particles from the pump, and made from stainless steel to resist wear caused by abrasives.
- Built-in Check Valve Prevents back-flow into the well once the pump is shut down.
- User Friendly Cable Guard For Easy Installation
- 1/2 to 10 HP Motors Stainless steel construction and quality design.
- Motor Controls and Protection Available controls to protect the motor against burnout and dry-running, plus the ability to monitor the system allowing the user to optimize settings.

#### **OPERATION**

Typical clean-up operations include water table depression techniques to isolate and remove dissolved contaminants.

With correct placement of the recovery well and proper sizing of the depression pump, the water table is depressed to stop and reverse the movement of the contamination plume. Once isolated, the contaminant is removed for treatment, re-use, or proper disposal.





**Grundfos Master Distributor** 

### **CALL GEOTECH TODAY (800) 833-7958**

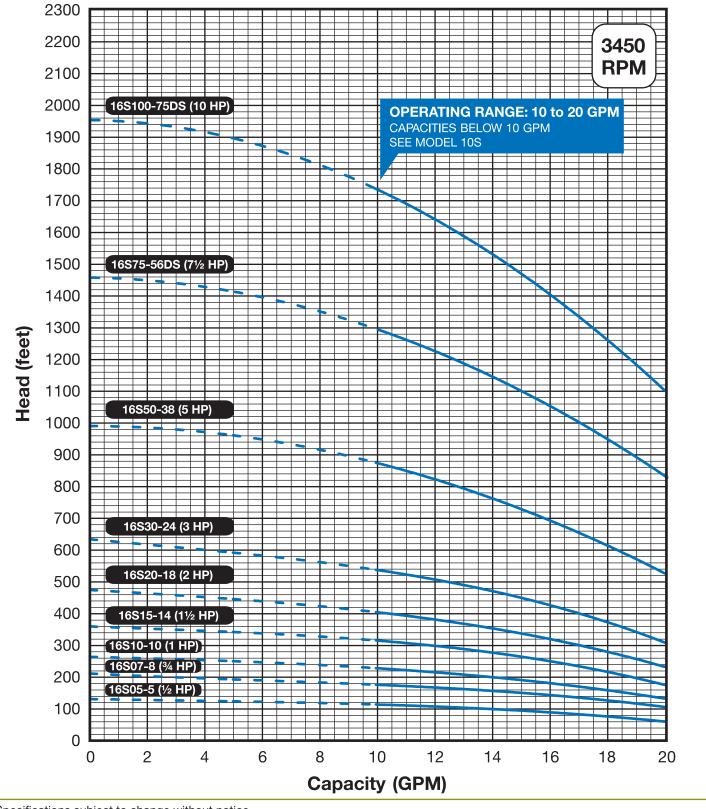
Geotech Environmental Equipment, Inc. 2650 East 40th Avenue • Denver, Colorado 80205 (303) 320-4764 • (800) 833-7958 • FAX (303) 322-7242 email: sales@geotechenv.com website: www.geotechenv.com 16 GPM (60.6 LPM)

**Performance Curves** 

FLOW RANGE: 10 - 20 GPM

OUTLET SIZE: 1 ¼" NPT

NOMINAL DIA. 4"



Specifications subject to change without notice. 4" motor standard, .5-5 HP/3450 RPM.

6" motor standard, 7.5-10 HP/3450 RPM.

DS = Deep Set model version for high head requirements.

Performance conforms to ISO 2548 Annex B @ 2 ft. minimum submergence.



#### **DIMENSIONS & WEIGHTS**

|              |      |       | Mo  | otor |           | Dimensions |       |      |      |      |       |     |      |     | Approximate |      |         |
|--------------|------|-------|-----|------|-----------|------------|-------|------|------|------|-------|-----|------|-----|-------------|------|---------|
|              |      |       | Si  | ze   | Discharge | ł          | 4     | 1    | 3    |      | c     | [   | C    | 1   | E           |      | ing Wt. |
| Model No.    | Fig. | HP    | In. | СМ   | Size      | In.        | СМ    | In.  | СМ   | In.  | СМ    | In. | СМ   | In. | СМ          | Lbs. | Kg      |
| 16S05-5      | А    | 1⁄2   | 4   | 10   | 1 ¼" NPT  | 19.7       | 50.0  | 9.5  | 24.1 | 10.2 | 25.9  | 3.8 | 9.7  | 3.9 | 9.9         | 27   | 12.2    |
| 16507-8      | А    | 3⁄4   | 4   | 10   | 1 ¼" NPT  | 23.4       | 59.4  | 10.7 | 27.2 | 12.7 | 32.3  | 3.8 | 9.7  | 3.9 | 9.9         | 29   | 13.2    |
| 16S10-10     | А    | 1     | 4   | 10   | 1 ¼" NPT  | 26.2       | 66.5  | 11.8 | 30.0 | 14.4 | 36.6  | 3.8 | 9.7  | 3.9 | 9.9         | 32   | 14.5    |
| 16S15-14     | А    | 1 1⁄2 | 4   | 10   | 1 ¼" NPT  | 32.8       | 83.3  | 15.1 | 38.4 | 17.7 | 45.0  | 3.8 | 9.7  | 3.9 | 9.9         | 36   | 16.3    |
| 16S20-18     | А    | 2     | 4   | 10   | 1 ¼" NPT  | 36         | 91.4  | 15.1 | 38.4 | 20.9 | 53.1  | 3.8 | 9.7  | 3.9 | 9.9         | 40   | 18.1    |
| 16S30-24     | А    | 3     | 4   | 10   | 1 ¼" NPT  | 46.5       | 118.1 | 20.6 | 52.3 | 25.9 | 65.8  | 3.8 | 9.7  | 3.9 | 9.9         | 64   | 29.0    |
| 16550-38     | А    | 5     | 4   | 10   | 1 ¼" NPT  | 61.1       | 155.2 | 23.6 | 59.9 | 37.5 | 95.3  | 3.8 | 9.7  | 3.9 | 9.9         | 94   | 42.6    |
| 16S75-56DS*  | В    | 7 1⁄2 | 6   | 15   | 1 ¼" NPT  | 93         | 236.2 | 24.2 | 61.5 | 68.8 | 174.8 | 5.4 | 13.7 | 4.6 | 11.7        | 220  | 99.8    |
| 16S100-75DS* | В    | 10    | 6   | 15   | 1 ¼" NPT  | 109.9      | 279.1 | 25.4 | 64.5 | 84.5 | 214.6 | 5.4 | 13.7 | 4.6 | 11.7        | 245  | 111.1   |

NOTES: All models suitable for use in 4" (10 cm) wells, unless otherwise noted.

Weights include pump end with motor in lbs.

\*Built into sleeve 1 ¼" MPT discharge, 6" minimum well diameter.

#### **MATERIALS OF CONSTRUCTION**

| COMPONENT              | SPLINED SHAFT (5-24 Stgs.)  | CYLINDRICAL SHAFT (38 Stgs.) | DEEP SET (56-75 Stgs)     |  |  |
|------------------------|-----------------------------|------------------------------|---------------------------|--|--|
| Check Valve Housing    | 304 Stainless Steel         | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Check Valve            | 304 Stainless Steel         | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Diffuser Chamber       | 304 Stainless Steel         | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Impeller               | 304 Stainless Steel         | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Suction Interconnector | 304 Stainless Steel         | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Inlet Screen           | 304 Stainless Steel         | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Pump Shaft             | 304 Stainless Steel         | 431 Stainless Steel          | 431 Stainless Steel       |  |  |
| Straps                 | 304 Stainless Steel         | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Cable Guard            | 304 Stainless Steel         | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Priming Inducer        | 304 Stainless Steel         | 316 Stainless Steel          | 316 Stainless Steel       |  |  |
| Coupling               | 329/420/431 Stainless Steel | 329/420/431 Stainless Steel  | 329/416 Stainless Steel** |  |  |
| Check Valve Seat       | NBR/304 Stainless Steel     | NBR/316 Stainless Steel      | NBR/316 Stainless Steel   |  |  |
| Top Bearing            | PTFE/304 Stainless Steel    | PTFE/316 Stainless Steel     | PTFE/316 Stainless Steel  |  |  |
| Impeller Seal Ring     | PTFE                        | PTFE                         | PTFE                      |  |  |
| Intermediate Bearings  | PTFE                        | 304 Stainless Steel          | PTFE/316 Stainless Steel  |  |  |
| ShaftWasher            | Not Required                | LCP (Vectra®)                | LCP (Vectra®)             |  |  |
| Split Cone             | NotRequired                 | 304 Stainless Steel          | 304 Stainless Steel       |  |  |
| Split Cone Nut         | NotRequired                 | 316 Stainless Steel          | 304 Stainless Steel       |  |  |
| Sleeve                 | NotRequired                 | Not Required                 | 316 Stainless Steel       |  |  |
| Sleeve Flange          | NotRequired                 | Not Required                 | Zincless Bronze*          |  |  |
| Coupling Key           | NotRequired                 | NotRequired                  | 302/304 Stainless Steel** |  |  |

NOTES: Specifications subject to change without notice.

Valox® is a registered trademark of General Electric Co.

Vectra® is a registered trademark of Hoechast Calanese Corporation.

Ryton® is a registered trademark of Phillips 66.

\* Stainless Steel option available.

\*\* If using 4" non-standard motors, refer to 329/420/431 Stainless Steel for coupling. A coupling key is not required.



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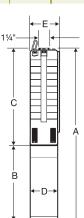


Fig. A

