# Verderhus

### HSTA-50-50 A submersible screw channel pump



#### **Description**

Verderhus submersible screw centrifugal pumps combine the best features of centrifugal and submersible positive displacement pumps. They define a new standard for low-head, high-flow pumps. These pumps have a large clearance screw impeller, which gently feeds product into the pump chamber efficiently transferring into the discharge line allowing large solids to be easily pumped. The screw design impeller is ideal for high solid contents and viscous liquids. It produces a high efficiency low NPSHr pump, lowering both energy usage and operational costs, generating a lower overall cost of ownership.

#### Features and benefits

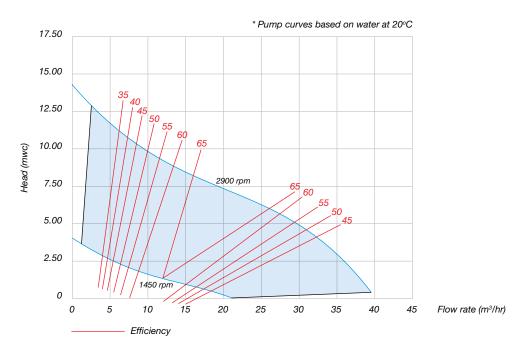
- Large solid handling with <10% sludge, <30% slurry</p>
- → Gentle low shear pumping action
- Reduced energy use compared to other technologies
- Low abrasive wear meaning reduced maintainance costs

#### **Technical data**

| Ambient operating temperature | -20, 40 °C                        |
|-------------------------------|-----------------------------------|
| Maximum pump noise            | up to 68 dB                       |
| Maximum flow                  | 40 m³/h                           |
| Motor - 4 pole option         | 1.5 kW, 2.2 kW,<br>3.0 kW, 4.0 kW |
| Maximum viscosity             | 3000 cP                           |

| Maximum solid size                          | 40 mm  |
|---|--|
| Solid content percentage                    | Sludge: 10% - Slurry: 30%                              |
| Maximum head                                | 13 mwc   |
| Minimum submergence for 2 pole motor option | 707 mm for 1.5 kW, 2.2 kW, 3.0 KW<br>882 mm for 4.0 KW |

#### Performance curve



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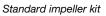


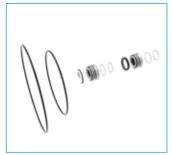
#### **Materials**

| Description                           | Material   |
|---------------------------------------|--|
| Impeller housing/Cone                 | Cast Iron GG25                                   |
| Impeller                              | Ductile Cast Iron GGG50 Hardened                 |
| Mechanical seal-product side          | Silicone Carbide / Viton                         |
| Mechanical seal-motor side            | Carbon / Ceramic / Viton                         |
| Suction flange                        | DN50 PN10  |
| Discharge flange                      | 2" BSPP  |
| Motor options and overall pump weight | 53 kg (1.5 kW / 2.2 kW / 3.0 kW), 86 kg (4.0 kW) |
| O-rings material                      | Nitrile (NBR)                                    |
| Paint (pump-motor)                    | Two Pack Epoxy Paint Blue RAL5012                |

#### **Spares**



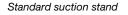




Standard Seal kit

#### Accessories







Standard auto-coupling

#### **Ordering Spares and Accessories**

| Pump model   | Part number           |                   |                        |                        |
|--------------|-----------------------|-------------------|------------------------|------------------------|
|              | Standard impeller kit | Standard seal kit | Standard suction stand | Standard auto-coupling |
| HSTA 50-50-A | 381.000050            | 381.000039        | 381.000058             | 381.000062             |

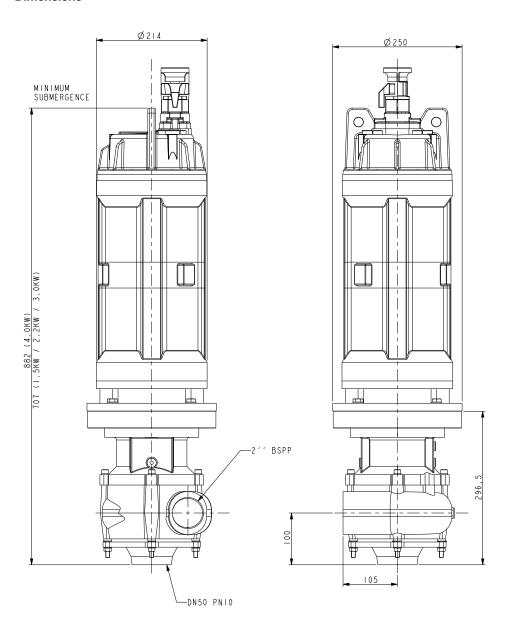
<sup>\*\*</sup>Please note above images are for illustration purposes only

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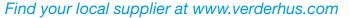
#### **Dimensions**



All dimensions are in mm.

All dimensions are for guidance only.





For construction, installation and floor mounting drawings please contact your local authorised Verderhus® distributor.

