

# STANCOR



# Oil-Minder® Simplex & Duplex Pump and Control Systems

Solid State, NEMA 4x  
Oil-Minder® Control



SE50 Pump  
with Float &  
Oil-Minder®  
Probe



The Stancor Oil-Minder® Control and Pump System allows water to be automatically pumped from elevator pits, transformer vaults, and industrial sumps without danger of ejecting potentially harmful oily substances into sewers, rivers and waterways. There is no need for a separate oil-water separator. The product is engineered for efficient and trouble free pumping, even under the most severe conditions. The Stancor Oil-Minder® System is the overwhelming choice among design engineers and compliance authorities worldwide, and has a proven record for protecting valuable equipment and the environment.

## Features

- NEMA 4x weathertight corrosion resistant polycarbonate enclosures
- Stainless steel sensor probe with patented electronic technology that repels dirt contamination
- Single direct plug-in power source for operation of entire system
- Solid state components
- Alarms, lights, silence switch, and remote monitoring circuit for oil, high liquid, and high amperage conditions
- Complete factory assembly and testing insures quality of entire pump and control system
- Patented - Pat. #4,715,785, #4,752,188, #6,203,281 and others pending
- Oil-Minder® System can be combined with a variety of different pumps and valves
- Choice of: 115v or 220v (1 phase) OR 230v/460v/575v (3 phase)
- LED indicator lights for oil spill, power, high liquid level, overload, and pump run
- UL 508 and 778 approved
- ENTELA tested and approved as a system

**“There Is Only One Oil-Minder® System and Stancor Makes It”**  
**Quality You Can Believe In**

## Description of Stancor Simplex Oil-Minder® Systems

The **Stancor Simplex Oil-Minder® System** is available in two primary configurations, as follows:

The **Multi-Option Oil-Minder® System** is designed for easy, fool-proof installation. All pump and control cables are factory wired into a wall mountable junction box. Between the junction box and the main Oil-Minder® control panel is a multi-pin quick connect cable. This single cord, 8-pin system allows the electrical cable between the junction box and control panel to be run through conduit and interconnected up to 250 feet long, using a single “push and turn” motion. There is no need for field wiring. Electrical installation costs are reduced by approximately 75% and all connections are secure and water-tight.

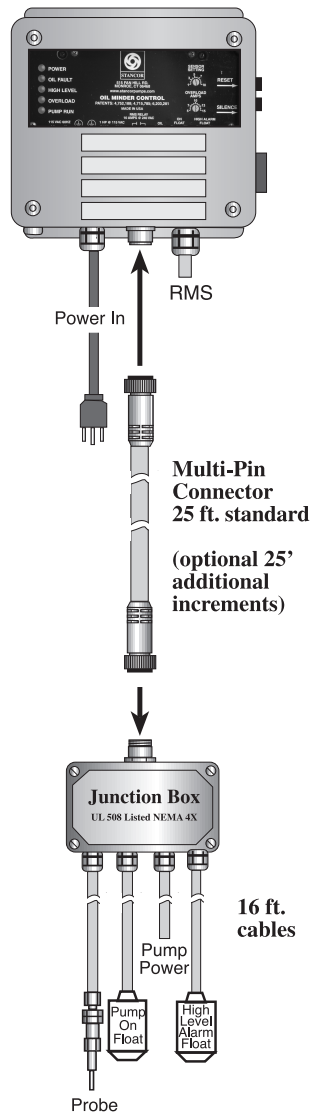
The **Junior Oil-Minder® System** is a good choice where the main control is located in the same area as the pump pit, or where the main control will be located remotely and conventional “hard wiring” is used between a junction box and the main control. Comparative features of each model are as follows:

| Feature included in standard package                                                                                                             | O/M<br>Multi-Option | O/M<br>Junior |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|
| SE-40 (.4 HP) or SE-50 (.5 HP) 115V or 230V single phase pump                                                                                    | x                   | x             |
| Solid state NEMA 4x control panel                                                                                                                | x                   | x             |
| Separate LED indicator lights on NEMA 4x control for A) oil alert, B) high water, C) high motor amps, D) power to system, and E) pump activation | x                   | x             |
| Self cleaning, hermetically sealed stainless steel oil detection probe                                                                           | x                   | x             |
| Float switches for pump activation and high water alert                                                                                          | x                   | x             |
| Monitoring relays for alert conditions at remote locations                                                                                       | x                   | x             |
| High decibel, water tight horn and silence switch for alert conditions                                                                           | x                   | x             |
| Direct plug-in activation of entire pump and control system from the main control panel (6' cord and molded plug included)                       | x                   | x             |
| Factory hard wiring of pump, oil probe, and floats into NEMA 4x junction box                                                                     | x                   |               |
| Factory hard wiring of pump, oil probe, and floats directly into main NEMA 4x control panel                                                      |                     | x             |
| Junction box with female 8-pin cable receptacle and disconnect                                                                                   | x                   |               |
| 25' 8-pin Quick Connect cable (expandable to 250' with interconnecting extension cables)                                                         | x                   |               |
| Female 8-pin cable receptacle installed in the NEMA 4x control panel                                                                             | x                   |               |

# Stancor Simplex Oil-Minder® Controls

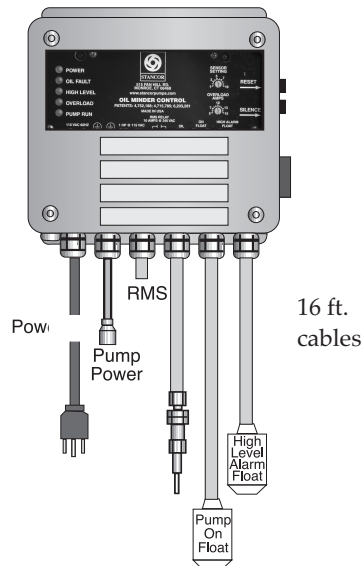
# Standard Pump Selection Chart

## Oil-Minder® Multi-Option

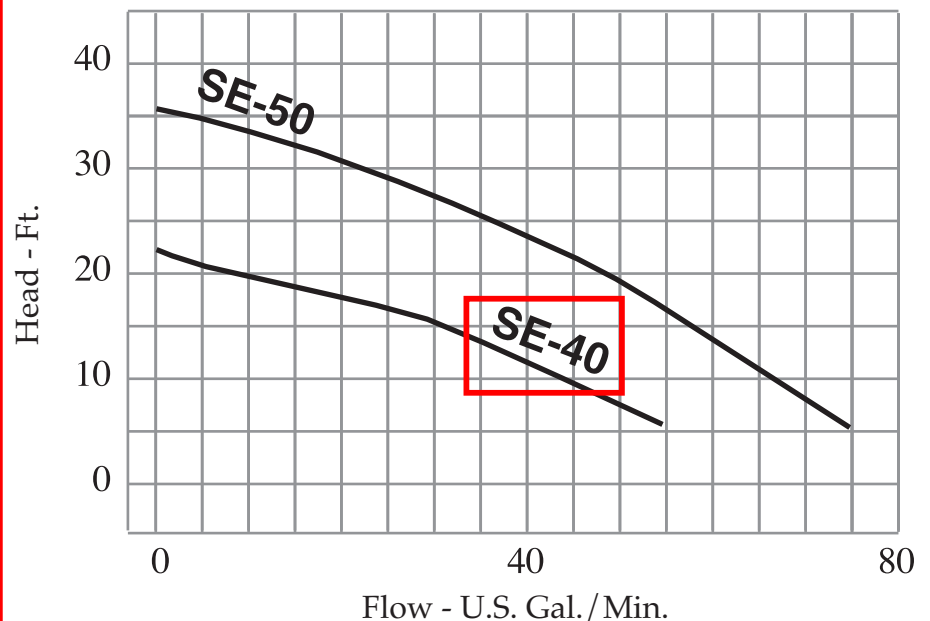
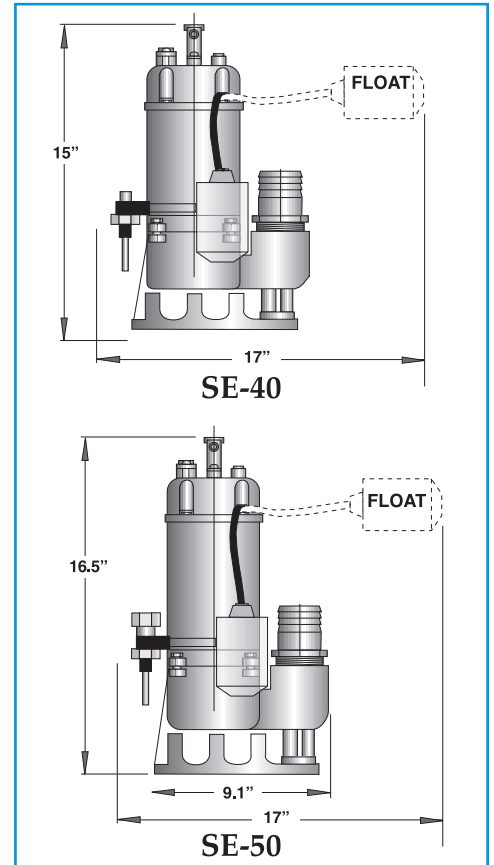


With Selected Pump

## Oil-Minder® Junior



With Selected Pump

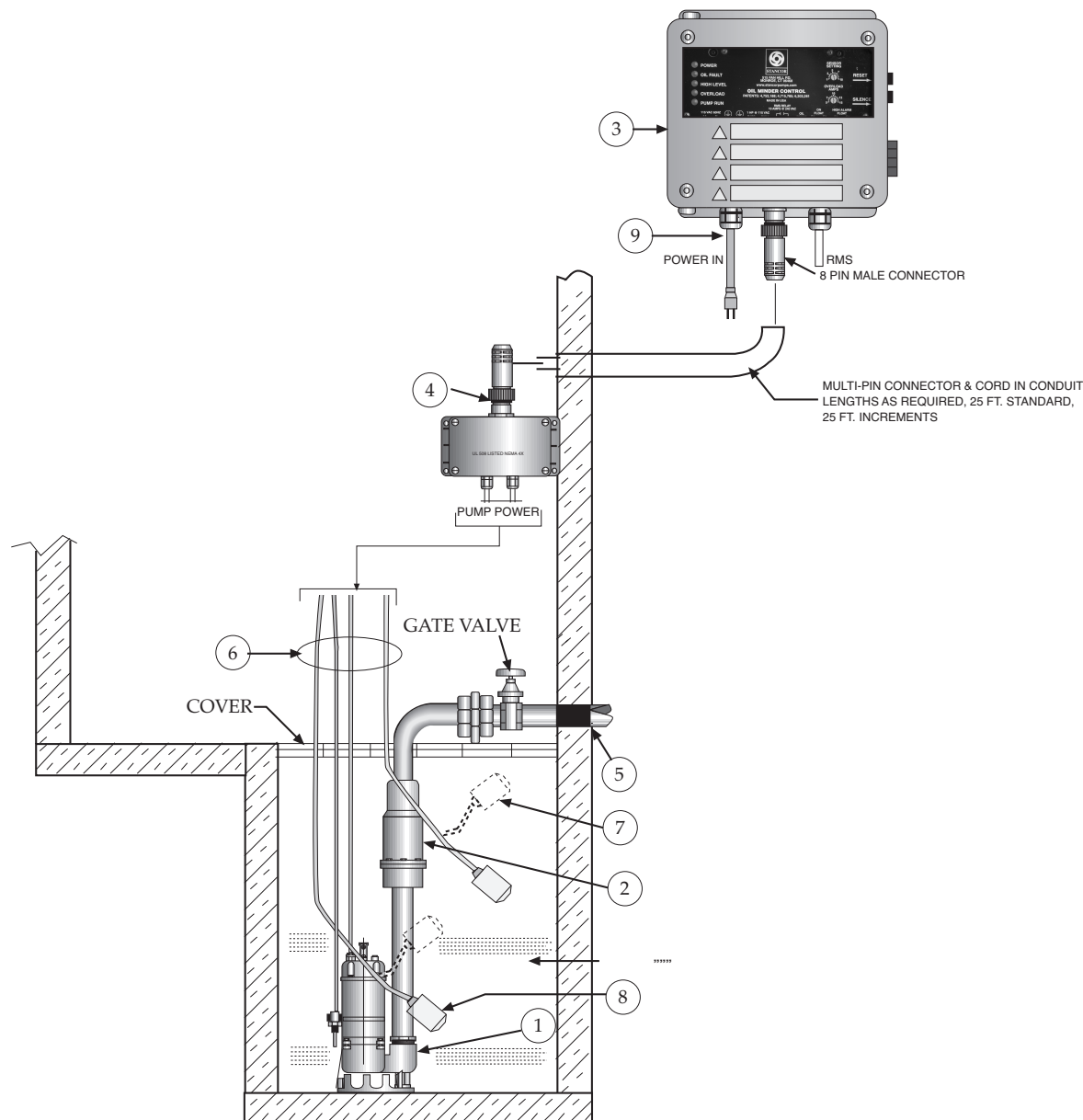


General & Electrical Specifications (Special voltages and pump models available upon request)

| Model | H.P. | Voltage        | RPM  | Rated Full-Load Amps | Discharge Size | Max Head Ft. | Max Flow GPM |
|-------|------|----------------|------|----------------------|----------------|--------------|--------------|
| SE50  | 0.5  | 115/230<br>460 | 3600 | 8/4                  | 2"             | 37'          | 74           |
| SE40  | 0.4  | 115            | 3600 | 5                    | 2"             | 22'          | 64           |



# Typical Stancor Simplex Multi-Option Oil-Minder® System



1. Stancor Model SE-50 submersible effluent pump .5 HP, 115 volt, 3600 RPM, 2" discharge connection
2. Check valve (2")
3. Stancor Oil-Minder 115V, 1Ø control system with built-in audible and visual alarm when pump does not run due to oil in pit or high liquid or high amperage condition. Provide silencing button for audible alarm built into panel. Panel shall have two contacts for a remote alarm location (one each for oil and high water or amperage alert). Junction box will be provided with multi-pin connector and cord in lengths as required, 25 ft. standard, optional 25 ft. increments.
4. Junction box will be provided with multi-pin connector and cord in lengths as required; 25 ft. is standard, optional 25 ft. increments available up to 250 ft.
5. All buried pump pressure discharge piping shall be protected with tapecoat CT corrosion protection tape
6. Pump cable, probe cable, high liquid alarm cable, and pump "on" float cable (16 ft. lengths)
7. High liquid alarm float with clamp device to mount to pump discharge piping
8. Pump On float
9. Power cord and molded ground plug (6 ft. length)

ITEMS 1, 2, 3, 4, 6, 7, 8 AND 9 PROVIDED BY STANCOR AS A STANDARD PACKAGE

**MOTOR SPECIFICATIONS**

|                              |                            |
|------------------------------|----------------------------|
| <b>Motor Design</b>          | Induction                  |
| <b>Motor Type</b>            | Enclosed submersible       |
| <b>Insulation Class</b>      | Class B                    |
| <b>Motor Protection</b>      | Bi-metallic Thermal Switch |
| <b>Bi-Metallic Temp Trip</b> | 120° C ± 5° C              |
| <b>Service Factor</b>        | 1.15                       |
| <b>Voltage Tolerance</b>     | ± 10% from nominal         |


**MOTOR DATA, 60Hz**

| Model | Phase | Output Power BHP | Volts | Full Load Amps | Locked Rotor Amps | NEMA Code Letter | Power Factor 100% Load | Motor Efficiency 100% Load | Pole/Speed (rpm) |
|-------|-------|------------------|-------|----------------|-------------------|------------------|------------------------|----------------------------|------------------|
| SE-40 | 1     | 0.4              | 115   | 5.2            | 26                | J                | 0.943                  | 0.600                      | 2/3450           |
|       | 1     | 0.4              | 208   | 2.9            | 14.5              | J                | 0.943                  | 0.600                      | 2/3450           |
|       | 1     | 0.4              | 230   | 2.6            | 13                | J                | 0.937                  | 0.600                      | 2/3450           |
|       | 3     | 0.4              | 208   | 2.2            | 11                | L                | 0.856                  | 0.674                      | 2/3450           |
|       | 3     | 0.4              | 230   | 2              | 10                | L                | 0.803                  | 0.676                      | 2/3450           |
|       | 3     | 0.4              | 460   | 1              | 5                 | L                | 0.801                  | 0.692                      | 2/3450           |
|       | 3     | 0.4              | 575   | 0.8            | 4                 | L                | 0.832                  | 0.684                      | 2/3450           |

**MATERIALS OF CONSTRUCTION**

|                          |                                           |
|--------------------------|-------------------------------------------|
| <b>Upper Motor Lid</b>   | Nylon 66                                  |
| <b>Motor Housing</b>     | AISI 304 Stainless Steel                  |
| <b>Oil Chamber</b>       | FC-20 Cast Iron                           |
| <b>Volute</b>            | FC-20 Cast Iron                           |
| <b>External Hardware</b> | AISI 304 Stainless Steel                  |
| <b>O-Rings</b>           | Nitrile (Buna N)                          |
| <b>Motor Shaft</b>       | Stainless Steel (410)                     |
| <b>Upper Bearing</b>     | Single row Sealed                         |
| <b>Lower Bearing(s)</b>  | Single row Sealed                         |
| <b>Upper Shaft Seal</b>  | CA/CE (carbon/ceramic)                    |
| <b>Lower Shaft Seal</b>  | SIC/SIC (silicon carbide/silicon carbide) |
| <b>Impeller</b>          | FC-20 Cast Iron                           |

**DIMENSIONS, WEIGHT, AND MISC.**

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Pump weight single phase</b>      | 24lbs (11kg)               |
| <b>Pump weight three phase</b>       | 24lbs (11kg)               |
| <b>Maximum submergence</b>           | 30 feet (9m)               |
| <b>Discharge size, standard</b>      | 2-inch NPS female vertical |
| <b>Maximum temp. of pumped fluid</b> | 104°F (40°C)               |
| <b>Free Passage size</b>             | 1.38" (35mm)               |

**CABLE SPECIFICATIONS**

| MODEL | PHASE/VOLTAGE | POWER CABLE | LENGTH  | OUTER JACKET |
|-------|---------------|-------------|---------|--------------|
| SE-40 | 1Ø-115V       | SJTOW 16/3  | 16'(5m) | PVC          |
|       | 1Ø-208V       | SJTOW 16/3  | 16'(5m) | PVC          |
|       | 1Ø-230V       | SJTOW 16/3  | 16'(5m) | PVC          |
|       | 3Ø-208V       | STOW 16/4   | 16'(5m) | PVC          |
|       | 3Ø-230V       | STOW 16/4   | 16'(5m) | PVC          |
|       | 3Ø-460V       | STOW 16/4   | 16'(5m) | PVC          |
|       | 3Ø-575V       | STOW 16/4   | 16'(5m) | PVC          |

Power cable suitable for all standard voltages listed in "MOTOR DATA" section.  
Document valid only for pump with serial number 1327-001 and up.  
Refer to previous document revision for earlier serial number.

Specifications subject to change without notice

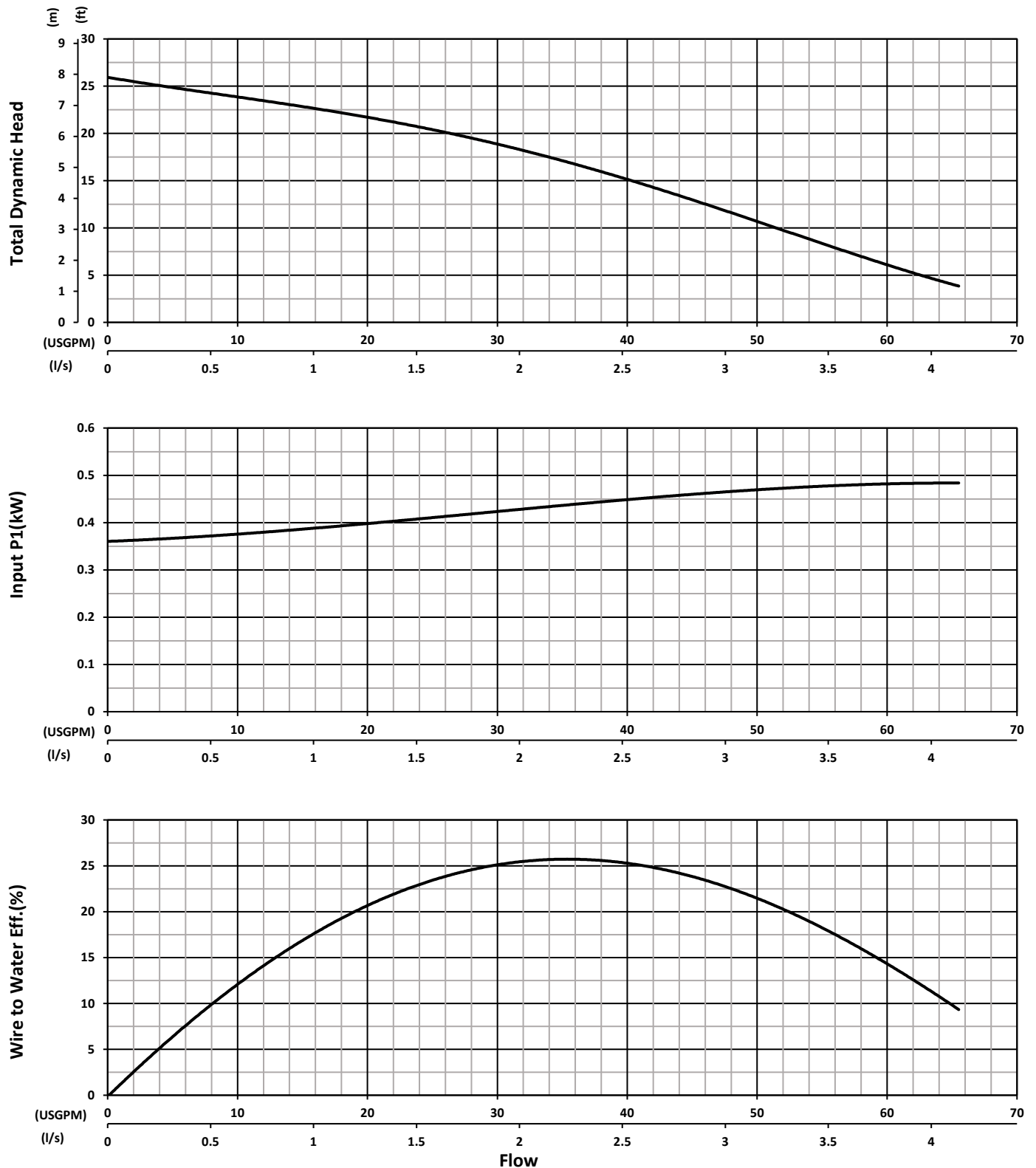


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Dwg: DS-A09-003

Rev: 3

Date: 12/1/2017



Test Standard : HI 11.6 Gr 3B  
Tested with water at 20°C

**Pump Performance Test - Dual Units**

Frequency 60 Hz  
Pump Speed 3450 RPM  
Impeller Ø74mm

Specifications subject to change without notice



## Dimensions

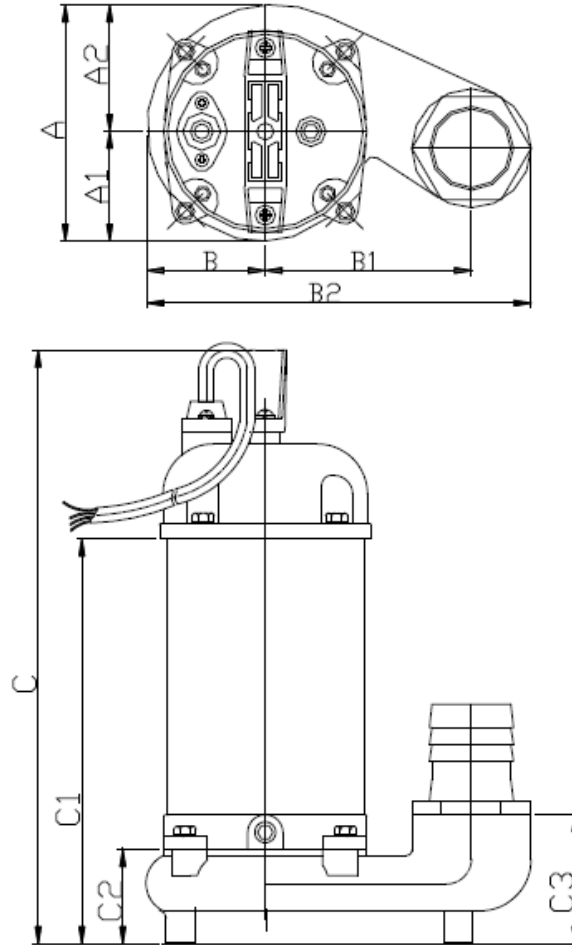
## AVENGER SERIES

SE-40

STANCOR

Dwg: DS-A09-004 Rev: 1 Date: 05/15

### SE-40



| Type   | DISCHARGE | A     | A1    | A2    | B     | B1    | B2    | C      | C1     | C2    | C3    |
|--------|-----------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|
| INCHES | 2"        | 5.71" | 2.60" | 3.07" | 5.20" | 2.83" | 9.09" | 15.59" | 10.47" | 4.33" | 4.33" |



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Specifications subject to change without notice

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