

www.BoeschPumps.com



# OIL SENTINEL BC200 SERIES

**60HZ-ANSI** 

2" FULL FREE PASSAGE SUBMERSIBLE SEWAGE PUMP



BOESCH PUMPS LLC Art Chibli achibli@boeschpumps.com

14031 SW 143rd Court Miami, FL 33186

(305) 999-1769



## 60HZ BC SERIES

#### **MOTOR / PUMP SPECIFICATIONS**

|          | ITEM                 | DESCRIPTION                                      |  |  |  |  |  |  |
|----------|----------------------|--------------------------------------------------|--|--|--|--|--|--|
| LIMITS   | Liquid Temp          | 0~40°C                                           |  |  |  |  |  |  |
| LIMITS   | Application          | Commercial / Industrial / Municipal use          |  |  |  |  |  |  |
|          | Frequency            | 60Hz                                             |  |  |  |  |  |  |
|          | Motor                | 2P (3450RPM) Dry Motor                           |  |  |  |  |  |  |
|          | Insulation           | Class B                                          |  |  |  |  |  |  |
|          | Start Method         | Direct On Line                                   |  |  |  |  |  |  |
| TYPE     | Protection           | IP 68                                            |  |  |  |  |  |  |
|          | Protector            | Auto-Cut                                         |  |  |  |  |  |  |
|          | Bearing              | Ball Type                                        |  |  |  |  |  |  |
|          | Mech. Seal           | Dual. Mechanical Seal                            |  |  |  |  |  |  |
|          | Impeller             | Vortex Impeller                                  |  |  |  |  |  |  |
|          | Motor Cover          | 0.5~1HP:PA66+30GF; 1.5~2HP: ASTM A48<br>Class 30 |  |  |  |  |  |  |
|          | Motor Housing+Stator | AISI 304                                         |  |  |  |  |  |  |
|          | Shaft with Rotor     | AISI 410                                         |  |  |  |  |  |  |
| MATERIAL | Mech. Seal           | Upper: CA/CE; Lower: SIC/SIC                     |  |  |  |  |  |  |
|          | Pump Casing          | ASTM A48 Class 30                                |  |  |  |  |  |  |
|          | Impeller             | ASTM A48 Class 30                                |  |  |  |  |  |  |
|          | Cable                | H07RN-F / SJTOW / STOW                           |  |  |  |  |  |  |



#### **MOTOR / PUMP DATA CHART**

| MODEL   | OUTPUT DISCHARGE PHASE |      | PHASE  |              | FREE<br>PASSAGE | WEIGHT<br>W/O<br>CABLE |       |   |    |
|---------|------------------------|------|--------|--------------|-----------------|------------------------|-------|---|----|
|         | HP                     | KW   | INCHES | VOLTAGE      | 115V            | INCHES                 | LBS   |   |    |
| BC50/1  | 0.5                    | 0.37 | 2      |              | 9A              | 5A                     | 4.5A  | 2 | 29 |
| BC75/1  | 0.75                   | 0.55 | 2      | FULL         | 11A             | 6A                     | 5.5A  | 2 | 31 |
| BC100/1 | 1                      | 0.75 | 2      | LOAD<br>AMPS | 14A             | 7.7A                   | 7A    | 2 | 34 |
| BC150/1 | 1.5                    | 1.1  | 2      |              | 18.6A           | 10.3A                  | 9.3A  | 2 | 53 |
| BC200/1 | 2                      | 1.5  | 2      |              | -               | 11.6                   | 10.5A | 2 | 55 |

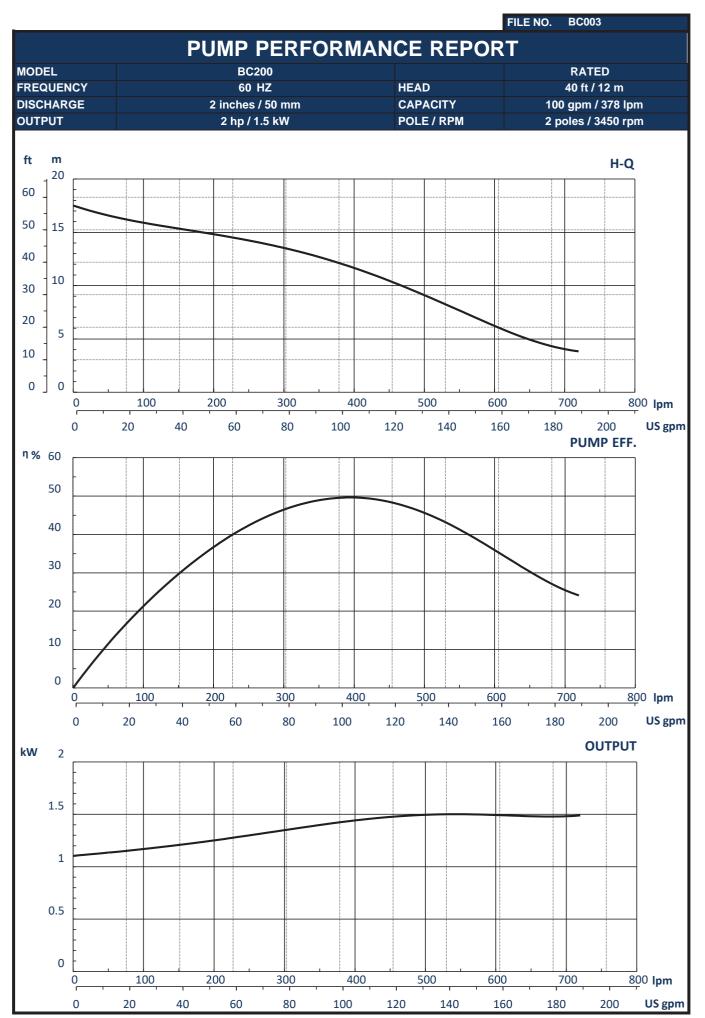
| MODEL   | OUTPUT DISCHARGE |      | PHASE  |              | FREE<br>PASSAGE | WEIGHT<br>W/O<br>CABLE |      |        |     |
|---------|------------------|------|--------|--------------|-----------------|------------------------|------|--------|-----|
|         | HP               | KW   | INCHES | VOLTAGE      | 208V            | 230V                   | 460V | INCHES | LBS |
| BC50/3  | 0.5              | 0.37 | 2      |              | 3.3A            | 3A                     | 1.5A | 2      | 29  |
| BC75/3  | 0.75             | 0.55 | 2      | FULL<br>LOAD | 4A              | 3.6A                   | 1.8A | 2      | 31  |
| BC100/3 | 1                | 0.75 | 2      | AMPS         | 5.6A            | 5A                     | 2.5A | 2      | 34  |
| BC150/3 | 1.5              | 1.1  | 2      |              | 6.9A            | 6.2A                   | 3.1A | 2      | 53  |
| BC200/3 | 2                | 1.5  | 2      |              | 7.7A            | 7A                     | 3.5A | 2      | 55  |

#### **MOTOR / PUMP CONSTRUCTION MATERIAL**

| PART                   | MATERIAL                    |
|------------------------|-----------------------------|
| Cable                  | H07RN-F/STJOW/STOW          |
| Handle                 | Nylon 6                     |
| Motor Cover            | PA66+30GF (0.5~1HP)         |
| Motor Cover            | ASTM A48 Class 30 (1.5~2HP) |
| Bracket                | ASTM A48 Class 30           |
| Motor Housing + Stator | AISI 304                    |
| Shaft with Rotor       | AISI 410                    |
| Oil Chamber            | ASTM A48 Class 30           |

| PART            | MATERIAL          |
|-----------------|-------------------|
| Mechanical Seal | Upper: CA / CE    |
| Mechanical Seal | Lower: SIC / SIC  |
| Seal Housing    | ASTM A48 Class 30 |
| Lip Seal        | BUNA N            |
| Impeller        | ASTM A48 Class 30 |
| Pump Casing     | ASTM A48 Class 30 |
| Upper Bearing   | NTN/TPI           |

## **BC200**

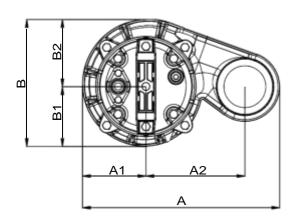


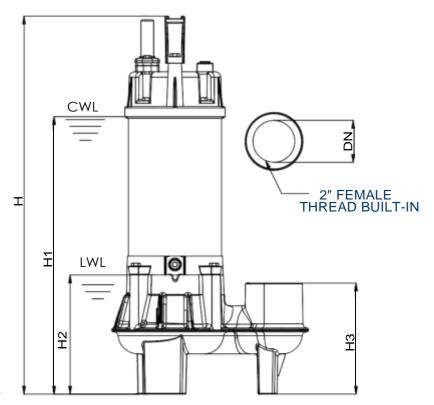


### 60HZ BC SERIES

**DIMENSIONAL DRAWING** 

MODELS: BC50 - BC200 (0.5 - 2HP) THREADED DISCHARGE





**DIMENSIONS: INCHES** 

**WEIGHT: LBS** 

PIPE CONNECTION TYPE: NPT

| MODEL | Α     | A1   | A2   | В    | B1   | B2   | DN | Н     | H1    | H2   | Н3   | WT    |
|-------|-------|------|------|------|------|------|----|-------|-------|------|------|-------|
| BC50  | 10.24 | 3.50 | 4.92 | 6.70 | 3.54 | 3.15 | 2  | 18.35 | 13.23 | 5.94 | 5.55 | 28.40 |
| BC75  | 10.24 | 3.50 | 4.92 | 6.70 | 3.54 | 3.15 | 2  | 18.98 | 13.86 | 5.94 | 5.55 | 30.60 |
| BC100 | 10.24 | 3.50 | 4.92 | 6.70 | 3.54 | 3.15 | 2  | 19.53 | 14.41 | 5.94 | 5.55 | 34.00 |
| BC150 | 10.71 | 3.66 | 5.12 | 7.36 | 3.43 | 3.94 | 2  | 19.92 | 14.80 | 5.94 | 5.63 | 53.24 |
| BC200 | 10.71 | 3.66 | 5.12 | 7.36 | 3.43 | 3.94 | 2  | 20.47 | 15.59 | 5.94 | 5.63 | 55.44 |

CWL: CONTINOUS RUNNING WATER LEVEL LWL: LOWEST RUNNING WATER LEVEL

WT: WEIGHT WITHOUT CABLE

#### **BOESCH OIL SENTINEL**



The Boesch Oil Sentinel is used in elevator sump pits to remove water while retaining oil and other hydrocarbons. The Boesch Oil Sentinel is a UL listed system.



**Control Panel** 





Remote Alarm

Preset Level Sensor

#### **KEY FEATURES**

#### **ONE SENSOR**

One preset level sensor for easy installation.

#### **REMOTE ALARM**

A remote alarm is included with the Oil Sentinel. Includes auxiliary contacts for High Oil, High Water and Pump Overload (on overload models).

#### **MULTIPLE INDICATOR LIGHTS**

Power On, Pump Run, High Water, High Oil and Pump Overload (on overload models).

#### **ASME A17.1 COMPLIANT**

WORKS WITH AUTO DIALERS OR BAS



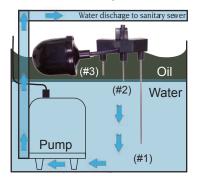
(Building Automation Systems)

#### OPERATION OF DISCHARGE

Water and oil fill the elevator sump pit. As the sump is filling, the oil will float on top of the water. This layer of oil will not be pumped from the tank. The water underneath the oil will be pumped out through the discharge pipe to the sewer or other proper disposal area.

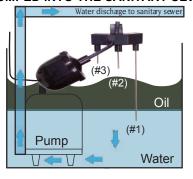
#### 1. WATER RISES & PUMP TURNS ON

When the water reaches probe (#2) the system will turn on and pump the water out of the sump.



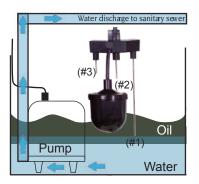
#### 2. WATER IS REMOVED/OIL CONTAINED

As the water is being pumped from the sump pit, the oil will remain floating on top of the water. THE OIL WILL NOT BE PUMPED INTO THE SANITARY SEWER



#### 3. PUMP TURNS OFF

When the water is pumped below probe (#1) the pump will turn off.



#### PRESET LEVEL SENSOR AND CONTROL PANEL OPERATION



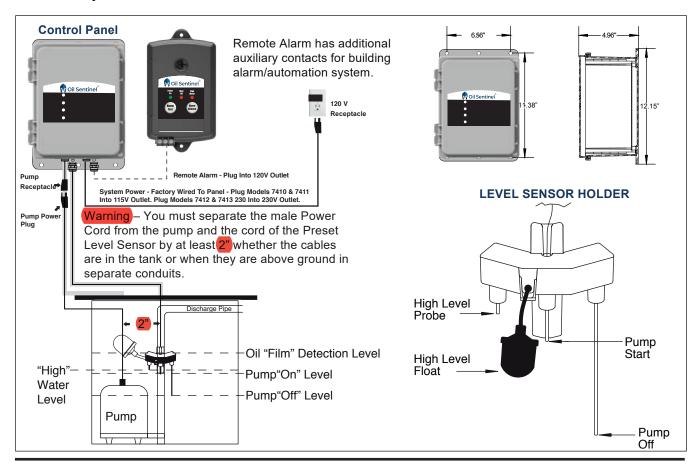
- ▶ When water touches probes (#1) and (#2) the pump will turn on.
- If the pump can not keep up, loses power or fails the water will reach probe (#3). The "High Water" light will illuminate on the control panel and the remote alarm will activate.
- If the water continues to rise the float switch will activate. If the float switch is activated and probe (#3) is touching water the "High Water" alarm will remain on. If OIL is touching probe (#3) and the float switch is activated, the "High Oil" light will illuminate and the remote alarm will activate.

# OIL SENTINEL CONTROL / ALARM SYSTEM



#### DESCRIPTION OF OPERATION

On liquid rise, level reaches pump "Start" probe to start the pump. The pump will remain on until level is below "Off" probe. The "Off" probe senses air or oil and turns the pump off so the oil layer will not be pumped out of the tank. If the level reaches high level probe and high level float, the system will differentiate between water and oil and activate the remote alarm.



#### **SPECIFICATIONS**

#### Sensor

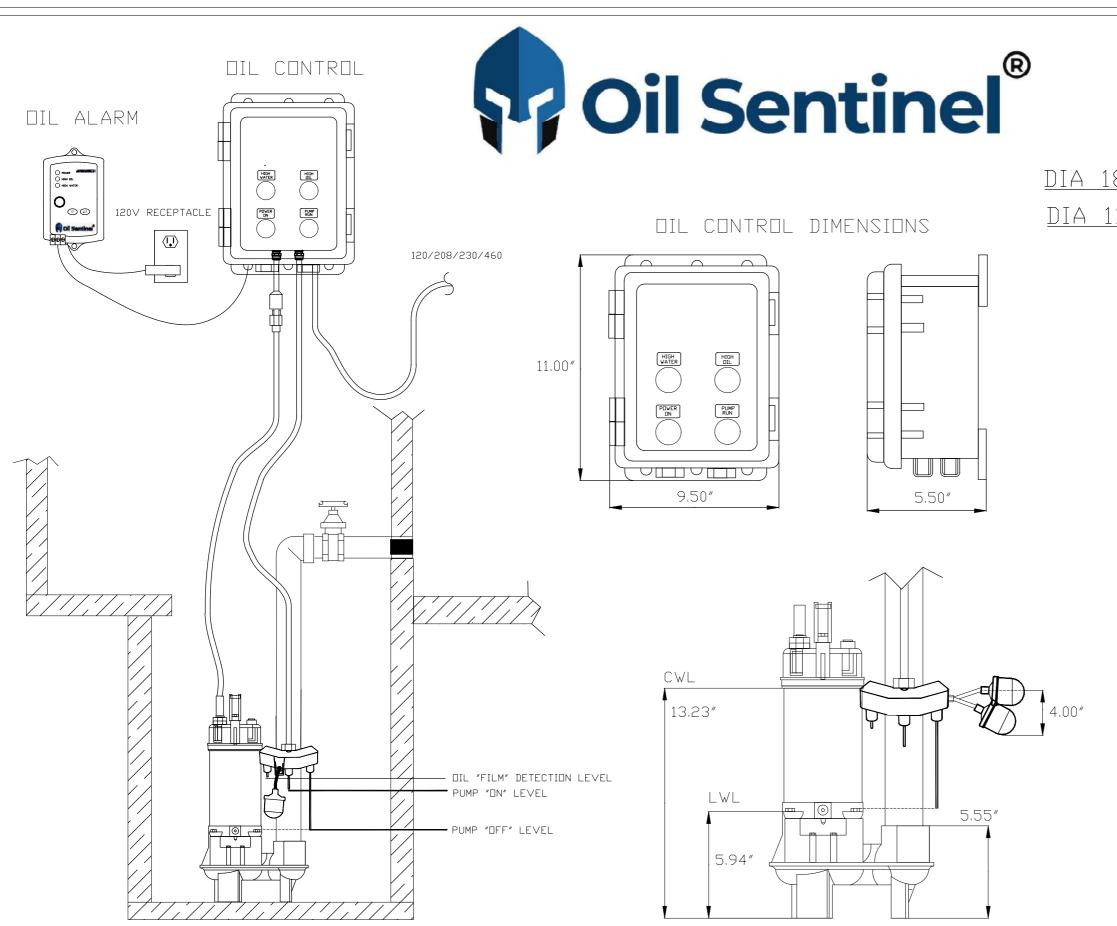
- Housing: ABS
- Probe: Stainless Steel
- Float: PVC

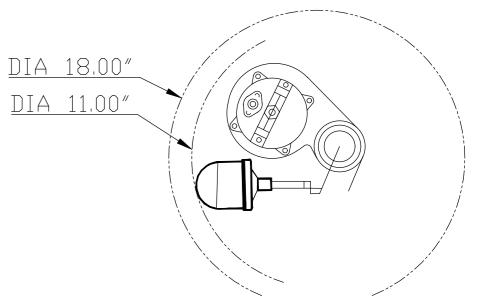
#### **Control Panel**

- Enclosure: Type 1
- ▶ Power Cord: 6' SJT, 120 VAC
- ▶ Receptacle: 6" SJT, 120 VAC, 15 Amp

#### **Alarm Panel**

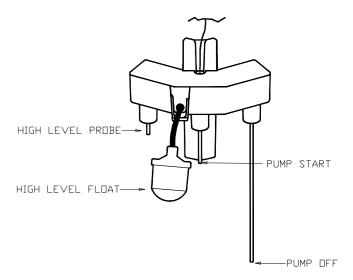
- Enclosure: Type 1
- ▶ Power Cord: Plug in transformer, 120 VAC
- ▶ Backup Power: 9 VDC battery backup
- LED Alarm Indicators
- Audible Alarm: 103 db buzzer, auto/test rest
- ▶ Auxiliary Contact: High Water, High Oil, Optional Pump Fail





LEVEL SENSOR HOLDER

PUMP TOP VIEW



# **MBOESCH**

**BOESCH PUMPS LLC** Art Chibli (305) 999-1769 achibli@boeschpumps.com BoeschPumps.com

BOESCH DIL SENTINEL

| Revisio | on notes: |         |
|---------|-----------|---------|
| Rev:    | Date:     | Notes:  |
| A       | 06/15/21  | PROJECT |
|         |           |         |
|         |           |         |
|         |           |         |
|         |           |         |

Drawn by: Project: BOESCH C.Grajeda Client:

Drawing Title: OIL SENTINEL

Revision:

Date:

06/14/2021

Scale @ A3: XXXX