



# ITT

Wastewater

## Red Jacket Water Products

### Model 2WS\_BHF

Submersible Sewage Pump



Red Jacket Water Products is a brand of ITT Water Technology, Inc. - a subsidiary of ITT Industries, Inc.

[www.redjacketwaterproducts.com](http://www.redjacketwaterproducts.com)

*Engineered for life*

### FEATURES

- **Impeller:** Cast iron, enclosed, non-clog, dynamically balanced with pump out vanes for mechanical seal protection.
- **Casing:** Cast iron flanged volute type for maximum efficiency. Designed for easy installation on A10-20 slide rail.
- **Mechanical Seal:** Silicon Carbide vs. Silicon Carbide sealing faces for superior abrasive resistance, stainless steel metal parts, BUNA-N elastomers.
- **Shaft:** Corrosion resistant, 300 series stainless steel. Threaded design. Locknut on all models to guard against component damage on accidental reverse rotation.
- **Fasteners:** 300 series stainless steel.
- Capable of running dry without damage to components.
- Designed for continuous operation, when fully submerged.



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## RED JACKET WATER PRODUCTS Wastewater

### APPLICATIONS

Specifically designed for the following uses:

- Homes
- Sewage systems
- Dewatering/Effluent
- Water transfer
- Light industrial
- Commercial applications

Anywhere waste or drainage must be disposed of quickly, quietly and efficiently.

### SPECIFICATIONS

#### Pump

- Solids handling capabilities: 2" maximum.
- Capacities: up to 220 GPM.
- Total heads: up to 81 feet TDH.
- Discharge size: 2" NPT threaded companion flange as standard. 3" option available but must be ordered separately. (Order no. A1-3A)
- Temperature: 104°F (40°C) continuous  
140°F (60°C) intermittent.

### MOTORS

- Fully submerged in high grade turbine oil for lubrication and efficient heat transfer. All ratings are within the working limits of the motor.
- Class B insulation on 1/3-1 1/2 HP models.
- Class F insulation on 2 HP models.

#### Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.

- SJTOW or STOW severe duty oil and water resistant power cords.
- 1/3 – 1 HP models have NEMA three prong grounding plugs.
- 1 1/2 HP and larger units have bare lead cord ends.

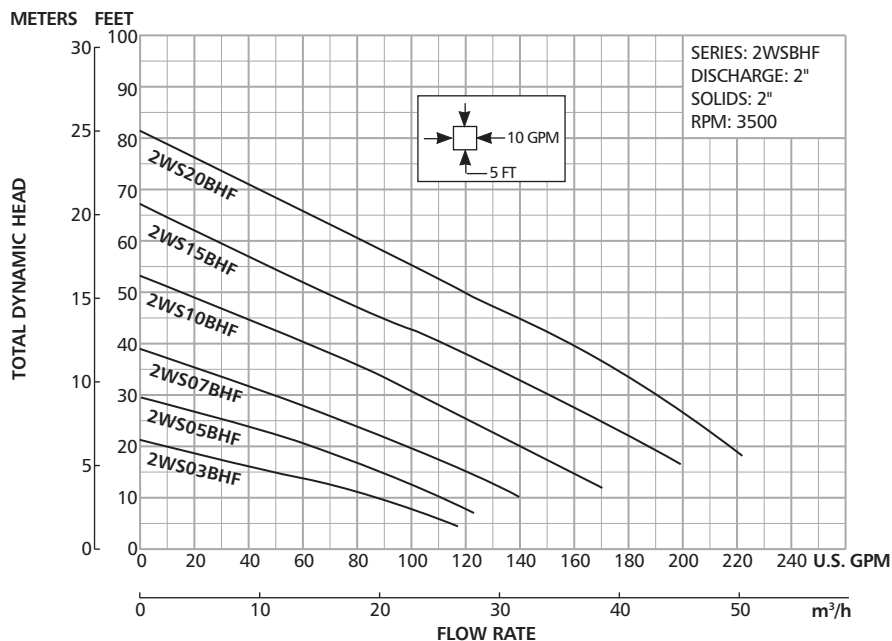
#### Three phase (60 Hz):

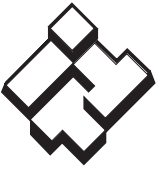
- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.
- **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.
- **Bearings:** Upper and lower heavy duty ball bearing construction.
- **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.
- **Motor Cover O-ring:** Assures positive sealing against contaminant and oil leakage.

### AGENCY LISTINGS



Tested to UL 778 and CSA 22.2 108 Standards  
By Canadian Standards Association — File #LR38549  
Goulds Pumps is ISO 9001 Registered.





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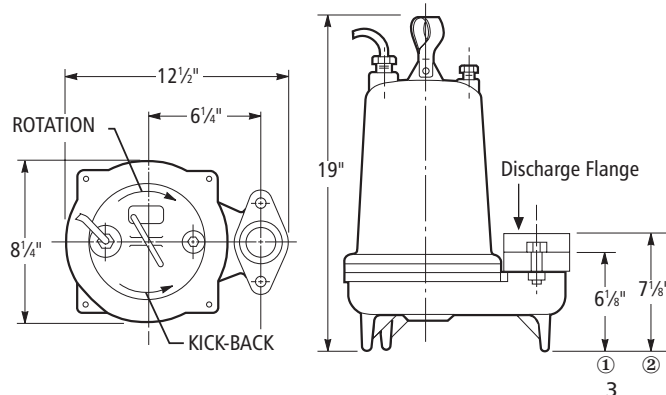
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### MOTOR AND MODEL INFORMATION

| ORDER NUMBER | HP   | PHASE | VOLTS | RPM  | IMPELLER DIA. (IN.) | MAX. AMPS | LOCKED ROTOR AMPS | KVA CODE | LOAD MOTOR EFF. % | RESISTANCE |           |     |
|--------------|------|-------|-------|------|---------------------|-----------|-------------------|----------|-------------------|------------|-----------|-----|
|              |      |       |       |      |                     |           |                   |          |                   | START      | LINE-LINE |     |
| 2WS0311BHF   | 0.33 | 1     | 115   | 3500 | 2.94                | 12.4      | 46.0              | M        | 54                | 7.5        | 1.0       |     |
| 2WS0318BHF   | 0.33 | 1     | 208   |      |                     | 6.8       | 31.0              | K        | 68                | 9.7        | 2.4       |     |
| 2WS0312BHF   | 0.33 | 1     | 230   |      |                     | 6.2       | 34.5              | M        | 53                | 9.6        | 4.0       |     |
| 2WS0511BHF   | 0.5  | 1     | 115   |      | 3.19                | 14.5      | 46.0              | M        | 54                | 7.5        | 1.0       |     |
| 2WS0518BHF   | 0.5  | 1     | 208   |      |                     | 8.4       | 31.0              | K        | 68                | 9.7        | 2.4       |     |
| 2WS0512BHF   | 0.5  | 1     | 230   |      |                     | 7.6       | 34.5              | M        | 53                | 9.6        | 4.0       |     |
| 2WS0538BHF   | 0.5  | 3     | 200   |      |                     | 4.9       | 22.6              | R        | 68                | —          | 3.8       |     |
| 2WS0532BHF   | 0.5  | 3     | 230   |      |                     | 3.6       | 18.8              | R        | 70                | —          | 5.8       |     |
| 2WS0534BHF   | 0.5  | 3     | 460   |      |                     | 1.8       | 9.4               | R        | 70                | —          | 23.2      |     |
| 2WS0537BHF   | 0.5  | 3     | 575   |      |                     | 1.5       | 7.5               | R        | 62                | —          | 35.3      |     |
| 2WS0718BHF   | 0.75 | 1     | 208   |      |                     | 3.44      | 11.0              | 31.0     | K                 | 68         | 9.7       | 2.4 |
| 2WS0712BHF   | 0.75 | 1     | 230   |      |                     |           | 10.0              | 27.5     | J                 | 65         | 12.2      | 2.7 |
| 2WS0738BHF   | 0.75 | 3     | 200   |      | 6.2                 |           | 20.6              | L        | 64                | —          | 5.7       |     |
| 2WS0732BHF   | 0.75 | 3     | 230   |      | 5.4                 |           | 15.7              | K        | 68                | —          | 8.6       |     |
| 2WS0734BHF   | 0.75 | 3     | 460   |      | 2.7                 |           | 7.9               | K        | 68                | —          | 34.2      |     |
| 2WS0737BHF   | 0.75 | 3     | 575   |      | 2.2                 |           | 9.9               | L        | 78                | —          | 26.5      |     |
| 2WS1018BHF   | 1    | 1     | 208   |      | 3.75                | 14.5      | 59.0              | K        | 68                | 9.3        | 1.1       |     |
| 2WS1012BHF   | 1    | 1     | 230   |      |                     | 13.0      | 36.2              | J        | 69                | 10.3       | 2.1       |     |
| 2WS1038BHF   | 1    | 3     | 200   |      |                     | 8.6       | 27.6              | M        | 77                | —          | 2.7       |     |
| 2WS1032BHF   | 1    | 3     | 230   |      |                     | 7.5       | 24.1              | L        | 79                | —          | 4.1       |     |
| 2WS1034BHF   | 1    | 3     | 460   |      |                     | 3.8       | 12.1              | L        | 79                | —          | 16.2      |     |
| 2WS1037BHF   | 1    | 3     | 575   |      |                     | 3.1       | 9.9               | L        | 78                | —          | 26.5      |     |
| 2WS1512BHF   | 1.5  | 1     | 230   |      | 4.00                | 18.0      | 52.0              | J        | 67                | 2.76       | 0.53      |     |
| 2WS1538BHF   | 1.5  | 3     | 200   |      |                     | 10.0      | 42.4              | K        | 78                | —          | 1.7       |     |
| 2WS1532BHF   | 1.5  | 3     | 230   |      |                     | 9.6       | 42.4              | K        | 78                | —          | 1.7       |     |
| 2WS1534BHF   | 1.5  | 3     | 460   |      |                     | 4.8       | 21.2              | K        | 78                | —          | 6.6       |     |
| 2WS1537BHF   | 1.5  | 3     | 575   |      |                     | 3.9       | 16.3              | L        | 78                | —          | 10.5      |     |
| 2WS2012BHF   | 2    | 1     | 230   |      | 4.44                | 18.0      | 49.6              | F        | 78                | 3.2        | 1.1       |     |
| 2WS2038BHF   | 2    | 3     | 200   |      |                     | 12.0      | 42.4              | K        | 78                | —          | 1.7       |     |
| 2WS2032BHF   | 2    | 3     | 230   |      |                     | 11.6      | 42.4              | K        | 78                | —          | 1.7       |     |
| 2WS2034BHF   | 2    | 3     | 460   |      |                     | 5.8       | 21.2              | K        | 78                | —          | 6.6       |     |
| 2WS2037BHF   | 2    | 3     | 575   |      |                     | 4.7       | 16.3              | L        | 78                | —          | 10.5      |     |

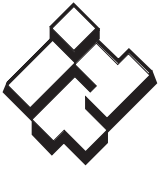
### DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)



#### Discharge Flange:

- ① 2" NPT standard
- ② 3" NPT optional (order an A1-3)



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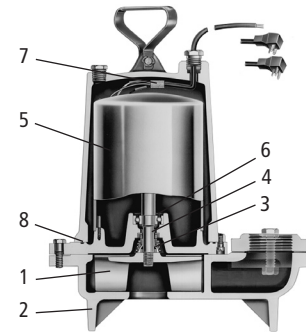
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### PERFORMANCE RATINGS (gallons per minute)

| Order No.                       | 2WS03BHF | 2WS05BHF | 2WS07BHF | 2WS10BHF | 2WS15BHF | 2WS20BHF |
|---------------------------------|----------|----------|----------|----------|----------|----------|
| <b>HP ▶</b>                     | 1/3      | 1/2      | 3/4      | 1        | 1 1/2    | 2        |
| <b>RPM ▶</b>                    | 3500     | 3500     | 3500     | 3500     | 3500     | 3500     |
| <b>Total Head Feet of Water</b> | 10 ▶     | 86       | 110      | 140      | –        | –        |
|                                 | 15       | 48       | 88       | 120      | 158      | –        |
|                                 | 20       | –        | 62       | 98       | 139      | 186      |
|                                 | 25       | –        | 32       | 74       | 120      | 170      |
|                                 | 30       | –        | –        | 49       | 101      | 150      |
|                                 | 35       | –        | –        | 21       | 82       | 130      |
|                                 | 40       | –        | –        | –        | 60       | 110      |
|                                 | 45       | –        | –        | –        | 38       | 88       |
|                                 | 50       | –        | –        | –        | –        | 67       |
|                                 | 55       | –        | –        | –        | –        | 47       |
|                                 | 60       | –        | –        | –        | –        | 29       |
|                                 | 65       | –        | –        | –        | –        | –        |
|                                 | 70       | –        | –        | –        | –        | –        |
|                                 | 75       | –        | –        | –        | –        | –        |

### COMPONENTS

| Item No. | Description     |
|----------|-----------------|
| 1        | Impeller        |
| 2        | Casing          |
| 3        | Mechanical Seal |
| 4        | Motor Shaft     |
| 5        | Motor           |
| 6        | Ball Bearings   |
| 7        | Power Cable     |
| 8        | Casing O-Ring   |



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SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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