



# 3DWS

SUBMERSIBLE SEWAGE PUMPS



**Bell & Gossett**

a xylem brand

**FEATURES**

**Impeller:** Cast iron, two vane semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.

**Casing:** Heavy duty cast iron, volute type for maximum efficiency. 3" flange conforms to 125 # ANSI standard. Connects to A10-30 guide rail system.

**Dual Mechanical Seals:** Silicon carbide vs. silicon carbide outer seal and ceramic vs. carbon inner seal, stainless steel metal parts, BUNA-N elastomers. Upper and lower shaft seals are positioned independently and are separated by an oil-filled chamber.

**Seal Sensor Probe:** Located in oil-filled chamber. If pumpage should begin to leak past lower seal it indicates to pump control panel a fault has occurred. Requires optional Seal Fail Circuit in the control panel.

**Shaft:** 300 series stainless steel keyed design.  
**Fasteners:** 300 series stainless steel.

Capable of running dry without damage to components.

**APPLICATIONS**

Used in a variety of residential, commercial and industrial applications such as:

- Sewage systems
- Flood and pollution control
- Dewatering/Effluent
- Farms
- Hospitals
- Trailer courts
- Motels

**SPECIFICATIONS****Pump:**

- Maximum solid size: 2.5"
- Discharge size: 3", 125 # ANSI flange
- Maximum capacity: 470 GPM
- Maximum total head: 65 feet
- 300 Series stainless steel fasteners
- 20' Power cord
- Standard silicon carbide/silicon carbide outer seal

**Motor:**

- Maximum ambient temperature: 104° F (40° C) continuous duty, 140° F (60° C) intermittent duty
- Rated for continuous duty when fully submerged
- Insulation: Class F
- 60 Hertz
- Single row ball bearings
- 300 Series stainless steel keyed shaft

**Single Phase:**

- 1.5 - 5 HP; 208 and 230 volts
- Built-in thermal overloads with automatic reset
- Built-in capacitors

**Three Phase:**

- 1.5 - 5 HP; 200, 230, 460 and 575 volts
- Class 10 overload protection must be provided in control panel
- PSC design

**MOTORS**

- Fully submerged in oil-filled chamber. High grade turbine oil surrounds motor for more efficient heat dissipation, permanent lubrication of bearings and mechanical seal for complete protection against outside environment.
- Class F insulation
- Designed for Continuous Operation: Pump ratings are within the motor manufacturer's recommended working limits and can be operated continuously without damage when fully submerged.
- Bearings: Upper and lower heavy duty ball bearing construction for precision positioning of parts and to carry thrust loads.
- Power and Control Cables: Severe duty rated, oil and water resistant. Epoxy seal on motor end.

**AGENCY LISTINGS**

**Tested to UL 778 and CSA 22.2 108 Standards  
By Canadian Standards Association  
File #LR218526**

Order No.	HP	Phase	Volts	RPM	Impeller		Maximum Amps	L.R. Amps	KVA Code	Power Cable	F.L. Motor Efficiency %	Resistance		Weight (lbs.)
					Dia. (in.)	Code						Start	Line-Line	
3DWS1F2A2E1A	1.5	1	208	1750	5.25	E	15.0	50.8	B	14/3	80	1.1	0.9	192
3DWS1F3A2E1A			230				13.5	29.5	E		70	1.4	1.8	
3DWS3F2A2E1A		3	200				11.5	40.9	H	14/4	81	NA	1.7	190
3DWS3F3A2E1A			230				10.0	40.0	F		83		2.3	
3DWS3F4A2E1A			460				5.0	20.0	F		83		9.3	
3DWS3F5A2E1A			575				4.0	14.4	H		74		14.8	
3DWS1F2A2D1A	1.5	1	208	1750	6.50	D	15.0	50.8	B	14/3	80	1.1	0.9	192
3DWS1F3A2D1A			230				13.5	29.5	E		70	1.4	1.8	
3DWS3F2A2D1A		3	200				11.5	40.9	H	14/4	81	NA	1.7	190
3DWS3F3A2D1A			230				10.0	40.0	F		83		2.3	
3DWS3F4A2D1A			460				5.0	20.0	F		83		9.3	
3DWS3F5A2D1A			575				4.0	14.4	H		74		14.8	
3DWS1G2A2C1A	2	1	208	1750	7.00	C	19.0	50.8	B	14/3	80	1.1	0.9	196
3DWS1G3A2C1A			230				16.0	36.9	D		75	1.4	1.5	
3DWS3G2A2C1A		3	200				11.5	40.9	H	14/4	81	NA	1.7	194
3DWS3G3A2C1A			230				10.0	40.0	F		83		2.3	
3DWS3G4A2C1A			460				5.0	20.0	F		83		9.3	
3DWS3G5A2C1A			575				4.0	14.4	H		74		14.8	
3DWS1H2A2B1A	3	1	208	1750	7.25	B	25.5	50.8	B	10/3	80	1.1	0.9	205
3DWS1H3A2B1A			230				21.5	46.4	C		79	1.0	1.0	
3DWS3H2A2B1A		3	200				15.2	53.8	G	10/4	85	NA	1.3	200
3DWS3H3A2B1A			230				12.0	49.5	H		83		1.9	
3DWS3H4A2B1A			460				6.0	24.8	H	14/4	83		7.5	
3DWS3H5A2B1A			575				4.8	17.3	G		78		11.6	
3DWS1J3A2A1A	5	1	230	1750	8.00	A	26.5	57.7	A	10/3	80	1.0	0.8	210
3DWS3J2A2A1A			200				18.8	73.9	F		10/4	84	0.9	
3DWS3J3A2A1A		3	230				16.4	63.6	E	14/4		85	NA	1.2
3DWS3J4A2A1A			460				8.2	31.8	E		85	4.8		
3DWS3J5A2A1A			575				6.8	22.8	E	80	7.4			

### NOMENCLATURE DESCRIPTION

#### 1<sup>st</sup> - 3<sup>rd</sup> Characters

3 = 3" 125# ANSI Flanged Discharge  
 D = Dual Seal with Seal Fail (moisture) Sensors  
 W = Wastewater (Sewage)

#### 4<sup>th</sup> Character - Impeller Design

S = Semi-open Impeller

#### 5<sup>th</sup> Character - Phase

1 = Single Phase  
 3 = Three Phase  
 4 = Three Phase with On-Winding, Pilot Duty, Thermal Sensors

#### 6<sup>th</sup> Character - Horsepower

F = 1.5    G = 2    H = 3    J = 5

#### 7<sup>th</sup> Character - Voltage

1 = 115    2 = 200/3Ø or 208/1Ø  
 3 = 230    4 = 460  
 5 = 575

#### 8<sup>th</sup> Character - Discharge Style

A = ANSI Vertical Flange for Horizontal Discharge

#### 9<sup>th</sup> Character - Motor RPM / Hertz

2 = 1750/60                  6 = 1450/50

#### 10<sup>th</sup> Character - Impeller Code

A = 8.0" 5 HP                  D = 6.5" 1.5 HP  
 B = 7.25" 3 HP                E = 5.25" 1.5 HP  
 C = 7.0" 2 HP                 T = SPECIAL TRIM

#### 11<sup>th</sup> Character - Lower (outer) Mechanical Seal

1 = Standard Lower Seal - Silicon carbide/silicon carbide, BUNA elastomers and 304 SS metal parts.  
 2 = Optional Lower Seal - Silicon carbide/tungsten carbide, BUNA elastomers and 304 SS metal parts.

#### 12<sup>th</sup> Character - Cord Length

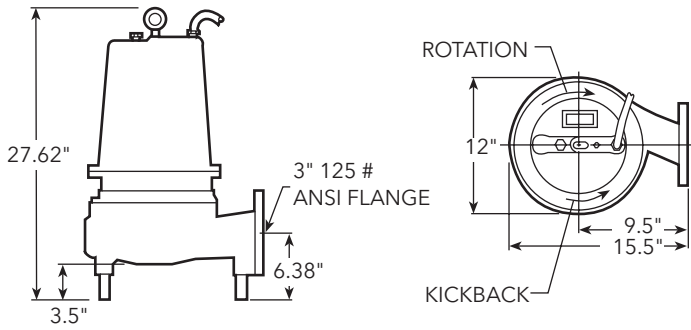
A = 20' (standard)    D = 30'    F = 50'    J = 100'

#### 13<sup>th</sup> Character - Options

1 = Silicon bronze impeller    3 = Both 1 & 2  
 2 = Epoxy coating

## DIMENSIONS

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



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