

# 3WS

## Submersible Sewage Pump 3" Flanged Discharge, 2½" Solids Handling



*Specifically designed for the following uses: Sewage systems, flood and pollution control, dewatering/effluent, farms, hospitals, trailer courts, motels.*

### **MOTOR INFORMATION**

#### **General:**

Class "F" insulation  
Oil-filled design

#### **Single Phase:**

Built-in automatic reset overload  
208 V – 1.5-3 HP  
230 V – 1.5-5 HP

#### **Three Phase:**

Capacitor start  
Built-in automatic reset overload  
200 V – 1.5-5 HP  
230 V – 1.5-5 HP  
460 V – 1.5-5 HP  
575 V – 1.5-5 HP

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 (lower) seals

Impeller: Cast iron, ASTM A48, Class 30, two vane semi-open, non-clog design with pump out vanes for mechanical seal protection. Dynamically balanced for smooth operation. Silicon bronze impeller is an option.

Casing: Heavy duty gray cast iron, ASTM A48, Class 30. Volute type casing with 3", 125#, flanged, horizontal discharge conforming to ANSI standards. Compatible with A10-30 cast iron or A10-30B cast iron and brass (non-sparking) guide rail assembly.

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.

Components: Capable of running dry without damage to components.



Tested to UL 778 and  
CSA 22.2 108 Standards  
By Canadian Standards  
Association

Red Jacket Water Products is a licensed trademark.

The ITT Engineered Blocks symbol is a registered trademark and tradename of ITT Industries.

Visit us at: [www.redjacketwaterproducts.com](http://www.redjacketwaterproducts.com)

Effective March, 2003

BRJ3WS-R0

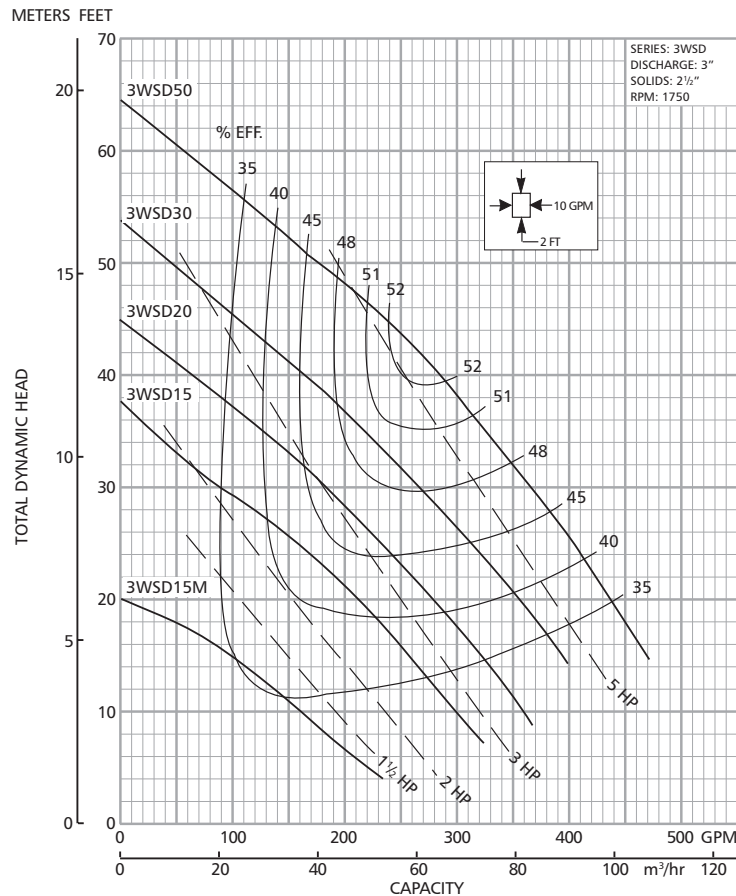


**ITT Industries**

# 3WS

## Submersible Sewage Pump 3" Flanged Discharge, 2½" Solids Handling

### PERFORMANCE CURVE



### MOTOR FEATURES

Maximum ambient temperature: 104° F (40° C) continuous duty; 140° F (60° C) intermittent duty

RPM: 1750; 60 Hertz

300 Series stainless steel keyed shaft

Silicon bronze impeller.

Tungsten carbide outer seals.

Oil-filled: Fully submerged in O-ring sealed, 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.

Single phase: 1.5 and 2 HP have 14/3 STOW and 3 to 5 HP have 10/3 STOW cords. Built-in capacitors and on-winding overload protection.

Three phase: Have 14/4 STOW cords except 5 HP 200/230 volt which have 10/4 STOW cords. Overload protection must be provided in control panel or starter unit.

Continuous duty design: Motor is designed for continuous operation when fully submerged.

Ratings: Pump ratings are within the motor manufacturer's working limits.

Bearings: Upper and lower ball bearing construction to carry all radial and thrust loads.

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.



# 3WS

## Submersible Sewage Pump 3" Flanged Discharge, 2½" Solids Handling

### MODEL INFORMATION

Order Number	HP	Phase	Volts	RPM	Impeller Dia. (in.)	Max. Amps	LRA	KVA Code	Full Load Motor Eff.	Resistance		Wt. (lbs.)	
										Start	Line-Line		
3WS1518DM*	1.5	1	208	1750	5.25	15.0	50.8	B	80	1.1	0.9	192	
3WS1512SDM*			230			11.0	32.7	F	73	1.5	1.4		
3WS1538DM*		3	200			11.5	43.0	H	81	NA	1.7		190
3WS1532DM*			230			10.0	40.0	K	81	NA	2.3		
3WS1534DM*			460			5.0	20.0	E	74	NA	9.3		
3WS1537DM*			575			4.0	11.8	E	74	NA	14.8		
3WS1518D		1	208		15.0	50.8	B	80	1.1	0.9	192		
3WS1512D			230		11.0	32.7	F	73	1.5	1.4			
3WS1538D			3		200	11.5	43.0	H	81	NA		1.7	190
3WS1532D					230	10.0	40.0	K	81	NA		2.3	
3WS1534D					460	5.0	20.0	E	74	NA		9.3	
3WS1537D					575	4.0	11.8	E	74	NA		14.8	
3WS2018D	2	1	208	19.0	50.8	B	80	1.1	0.9	196			
3WS2012D			230	15.0	37.4	D	76	1.4	1.3				
3WS2038D		3	200	11.5	43.0	H	81	NA	1.7	194			
3WS2032D			230	10.0	40.0	F	83	NA	2.3				
3WS2034D			460	5.0	20.0	F	83	NA	9.3				
3WS2037D			575	4.0	14.4	H	74	NA	14.8				
3WS3018D	3	1	208	25.5	50.8	B	80	1.1	0.9	205			
3WS3012D			230	21.5	46.4	C	79	1.0	1.0				
3WS3038D		3	200	15.2	43.0	G	85	NA	1.3	200			
3WS3032D			230	12.0	49.5	H	83	NA	1.9				
3WS3034D			460	6.0	24.8	H	83	NA	7.5				
3WS3037D			575	4.8	17.3	G	78	NA	11.6				
3WS5012D	5	1	230	26.5	57.7	A	80	1.0	0.8	210			
3WS5038D			200	18.8	77.8	F	84	NA	0.9				
3WS5032D		3	230	16.4	63.6	E	85	NA	1.2	205			
3WS5034D			460	8.2	31.8	E	85	NA	4.8				
3WS5037D			575	6.8	22.8	E	80	NA	7.4				

\* M denotes a minimum diameter impeller.

### PERFORMANCE RATINGS

Series No. ▶	3WS15DM	3WS15D	3WS20D	3WS30D	3WS50D
HP ▶	1½	1½	2	3	5
RPM ▶	1750				
Total Head Feet of Water	10	160	300		
	15	90	260	320	
	20		210	280	350
	25		160	235	310
	30		100	185	265
	35			130	210
	40			60	160
	45				100
	50				
	55				
60					

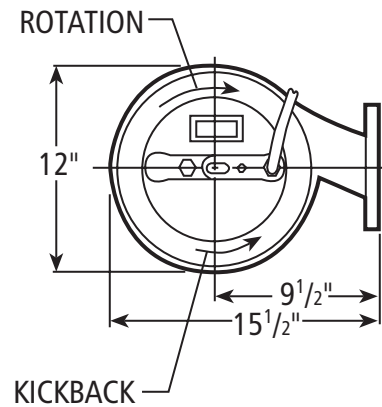
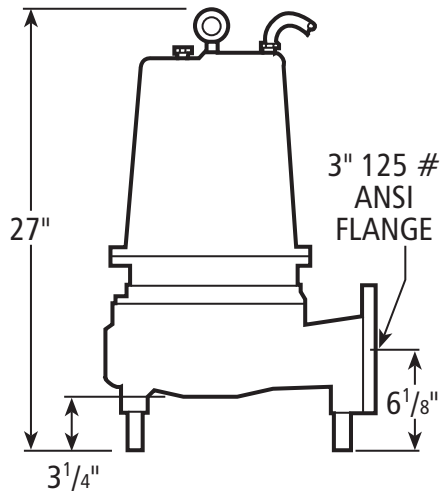


# 3WS

## Submersible Sewage Pump 3" Flanged Discharge, 2½" Solids Handling

### DIMENSIONS

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



### MATERIALS OF CONSTRUCTION

Item No.	Part Name		Material				
			Standard		Optional		
1	Impeller, non-clog		1003		1101		
2	Castings		1003				
3	Shaft-keyed		300 Series SS				
4	Fasteners		300 Series SS				
5	Ball bearings		Steel				
6	Power cable		STOW, 20 feet		Addl. lengths		
7	O-ring		BUNA-N				
8	Mechanical Seals		Service	Rotary	Stationary	Elastomers	Metal Parts
	Inner (Upper)	All	All	Carbon	Ceramic	BUNA-N	300 Series SS
	Outer (Lower)	STD	Mild abrasives	Silicon carbide			
		OPT	Heavy Duty	Tungsten carbide			
Material Code			Engineering Standard				
1003			Cast iron — ASTM A48 Class 30				
1101			Bronze — ASTM C87500				

