



WS_D4 Series

Model 3888D4

SUBMERSIBLE SEWAGE PUMPS

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 gray cast iron, ASTM A48, Class 30. Volute type casing with 4", 125#, ANSI flanged, horizontal discharge. Compatible with A10-40 cast iron or A10-40B 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.

Shaft: 300 series stainless steel keyed design.

Fasteners: 300 series stainless steel.

Capable of running dry temporarily without damage to seals or motor.

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: 3"
- Discharge size: 4", 125 # ANSI flange
- Maximum capacity: 620 GPM
- Maximum total head: 60 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 - 7.5 HP; 200, 230, 460 and 575 volts
- Class 10 overload protection must be provided in control panel

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 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. 20 foot standard with optional lengths available.
- O-ring: Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS



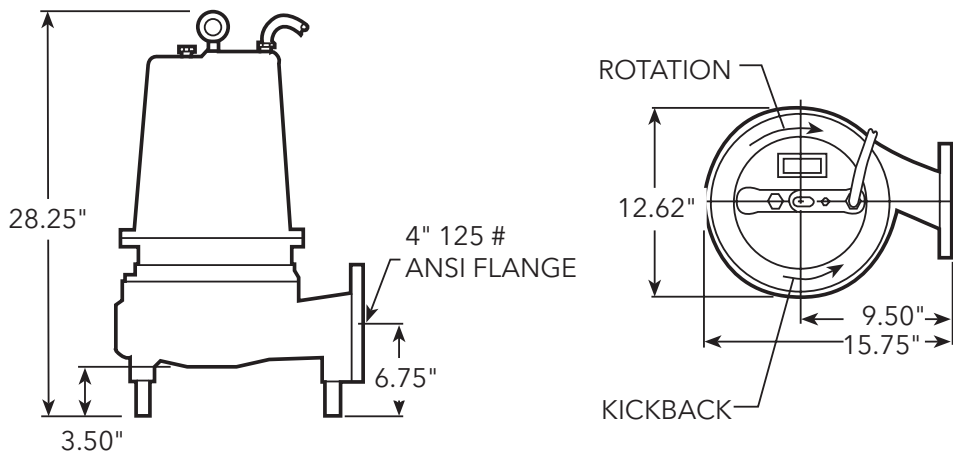
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By Canadian Standards Association
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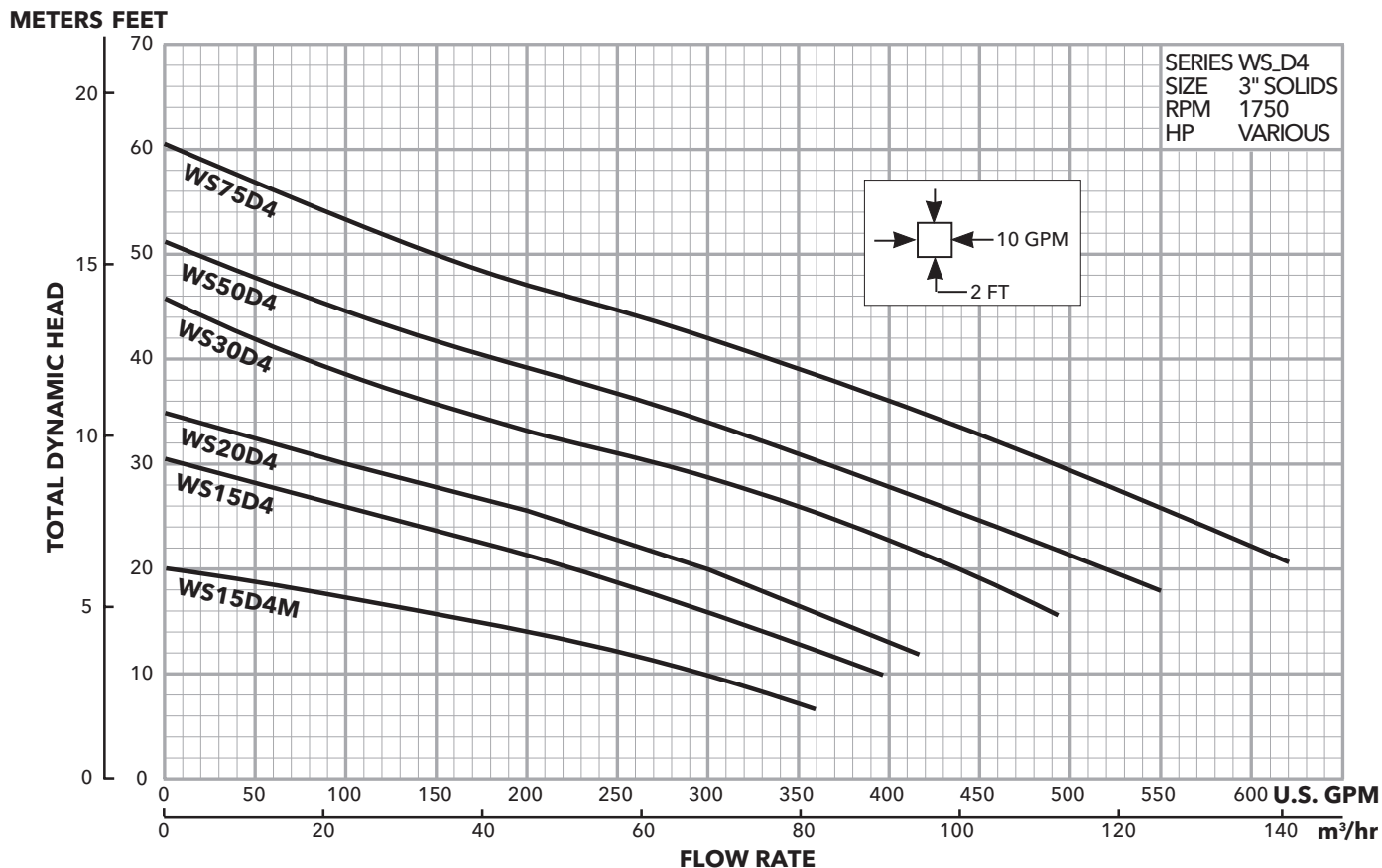
MODEL AND MOTOR INFORMATION

Order Number	HP	Phase	Volts	RPM	Impeller Dia. (in.)	Maximum Amps	L.R. Amps	KVA Code	Power Cable	F.L. Motor Efficiency %	Resistance		Wt. (lbs.)		
											Start	Line-Line			
WS1518D4M	1.5	1	208	1750	5.63	17.2	50.8	B	14/3	80	1.1	0.9	195		
WS1512D4M			230			14.7	29.5	E		70	1.4	1.8			
WS1538D4M			3			200	11.5	40.9	H	14/4	81	NA		1.7	195
WS1532D4M						230	10.0	40.0	F		83			2.3	
WS1534D4M						460	5.0	20.0	F		83			9.3	
WS1537D4M						575	4.0	14.4	H		74			14.8	
WS1518D4		1	208		17.2	50.8	B	14/3	80	1.1	0.9	195			
WS1512D4			230		14.7	29.5	E		70	1.4	1.8				
WS1538D4			3		200	11.5	40.9	H	14/4	81	NA		1.7	195	
WS1532D4					230	10.0	40.0	F		83			2.3		
WS1534D4					460	5.0	20.0	F		83			9.3		
WS1537D4					575	4.0	14.4	H		74			14.8		
WS2018D4	2	1	208		6.63	20.3	50.8	B	14/3	80	1.1	0.9	200		
WS2012D4			230			17.3	36.9	D		75	1.4	1.5			
WS2038D4		3	200			13.3	40.9	H	14/4	81	NA	1.7		200	
WS2032D4			230			11.6	40.0	F		83		2.3			
WS2034D4			460			5.8	20.0	F		83		9.3			
WS2037D4			575			4.6	14.4	H		74		14.8			
WS3018D4	3	1	208		7.00	25.5	50.8	B	10/3	80	1.1	0.9	208		
WS3012D4			230			21.5	46.4	C		79	1.0	1.0			
WS3038D4		3	200			16.6	53.8	G	14/4	85	NA	1.3	205		
WS3032D4			230			14.4	49.5	H		83		1.9			
WS3034D4			460			7.2	24.8	H		83		7.5			
WS3037D4			575			5.8	17.3	G		78		11.6			
WS5012D4	5	1	230	7.25	26.5	57.7	A	10/3	80	1.0	0.8	213			
WS5038D4			200		19.1	73.9	F		10/4	84	0.9				
WS5032D4		3	230		16.6	63.6	E	14/4		85	NA	1.2	210		
WS5034D4			460		8.3	31.8	E		85	4.8					
WS5037D4			575		6.6	22.8	E		80	7.4					
WS7532D4	7.5	3	230	7.69	23.0	105.0	G	10/4	83	NA	0.7	225			
WS7534D4			460		11.5	52.5	G		83		2.8				
WS7537D4			575		9.2	42.0	E		84		4.4				

DIMENSIONS

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





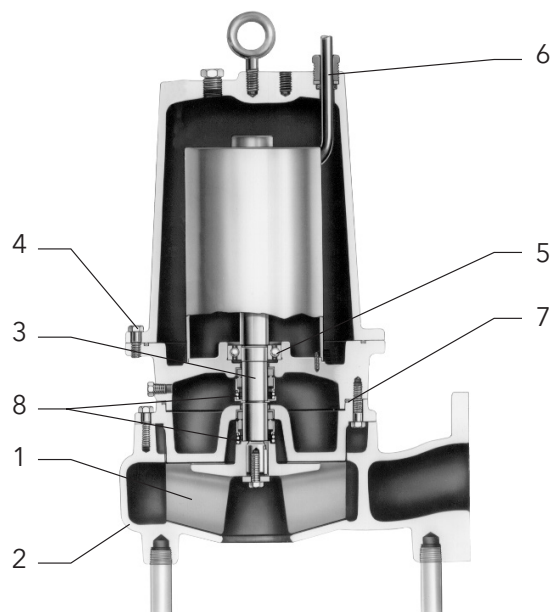
PERFORMANCE RATINGS (gallons per minute)

Series No.	WS15D4M	WS15D4	WS20D4	WS30D4	WS50D4	WS75D4
HP	1½	1½	2	3	5	7½
RPM	1750					
Total Head Feet of Water						
10	300	395				
15	170	320	370			
20		230	300	440	520	
25		120	205	365	440	
30			100	270	360	510
35				160	275	440
40				80	175	355
45					85	260
50						155
55						80

APPLICATION DATA AND CONSTRUCTION DETAILS

Maximum Solid Size	3"	
Minimum Casing Thickness	5/16"	
Casing Corrosion Allowance	1/8"	
Maximum Working Pressure	30 PSI	
Maximum Submergence	50 feet	
Minimum Submergence	Fully submerged for continuous operation	
	6" below top of motor for intermittent operation	
Maximum Environmental Temperature	40° C (104° F) continuous operation, 60° C (140° F) intermittent operation	
Power Cable - Type (See Motor Information for AWG data/size.)	Type SJTOW: single phase, 1 1/2 and 2 HP	
	Type STOW: single phase, 1 1/2 - 3 HP and 5 HP, 460 V	
	Type STOW: single phase, 3 and 5 HP, three phase 5 HP, 230 V and 7 1/2 HP	
Motor Cover, Bearing Housing, Seal Housing, Casing	Gray Cast Iron - ASTM A48, Class 30	
Impeller - Standard, Optional	Gray Cast Iron - ASTM A48 or Cast Bronze - ASTM B584 C87600	
Motor Shaft	AISI 300 Series Stainless Steel	
Motor Design	NEMA 56 Frame, oil filled with Class F Insulation	
Motor Overload Protection	Single phase: on winding thermal overload protection auto reset	
	Three phase: requires Class 10 overloads in control panel	
External Hardware	300 Series Stainless Steel	
Impeller Type	Semi-open with pump out vanes on back shroud	
Oil Capacity - Seal Chamber	1.5 quarts	
Oil Capacity - Motor Chamber	1 1/2-5 HP single and three phase: 7 quarts	
	7 1/2 HP three phase: 6.5 quarts	
Mechanical Seals - Standard	Upper	Carbon/Ceramic; Type 21
	Lower	Silicon Carbide/Silicon Carbide; Type 31
Mechanical Seals - Optional Lower		Silicon Carbide/Tungsten Carbide; Type 31

MATERIALS OF CONSTRUCTION



Item No.	Part Name	Material				
		Standard	Optional			
1	Impeller, non-clog	1003	1179			
2	Casing	1003				
3	Shaft-keyed	300 Series SS				
4	Fasteners	300 Series SS				
5	Ball bearings	Steel				
6	Power cable	STOW, 20 feet			Additional lengths	
7	O-ring	BUNA-N				
8	Outer Mech. Seal	Service	Rotary	Stationary	Elastomers	Metal Parts
	OPT	Heavy duty	Silicon Carbide	Tungsten Carbide	BUNA-N	300 Series SS
	STD	Mild abrasives	Silicon carbide		BUNA-N	300 Series SS
Material Code		Engineering Standard				
1003		Cast iron - ASTM A48 Class 30				
1179		Silicon bronze - ASTM C87600				

STANDARD PANEL OPTIONS

Pump Order Number	Boulay Series		Disconnect Style	
	Simplex	Duplex	Simplex	Duplex
WS1518D4M	S10020	D10020	CSD11620	CDD11620
WS1512D4M	S10020	D10020	CSD11016	CDD11016
WS1538D4M	S31016	D31016	CSD31016	CDD31016
WS1532D4M	S31016	D31016	CSD31016	CDD31016
WS1534D4M	S34063	D34063	CSD34063	CDD34063
WS1537D4M	S34063	D34063	CSD34063	CDD34063
WS1518D4	S10020	D10020	CSD11620	CDD11620
WS1512D4	S10020	D10020	CSD11016	CDD11016
WS1538D4	S31016	D31016	CSD31016	CDD31016
WS1532D4	S31016	D31016	CSD31016	CDD31016
WS1534D4	S34063	D34063	CSD34063	CDD34063
WS1537D4	S34063	D34063	CSD34063	CDD34063
WS2018D4	S12136	D12127	CSD12025	CDD12025
WS2012D4	S10020	D10020	CSD11620	CDD11620
WS2038D4	S31016	D31016	CSD31016	CDD31016
WS2032D4	S31016	D31016	CSD31016	CDD31016
WS2034D4	S34063	D34063	CSD34063	CDD34063
WS2037D4	S34063	D34063	CSD34063	CDD34063
WS3018D4	S12136	D12127	CSD12232	CDD12232
WS3012D4	S12136	D12127	CSD12025	CDD12025
WS3038D4	S31620	D31620	CSD31620	CDD31620
WS3032D4	S31016	D31016	CSD31016	CDD31016
WS3034D4	S36310	D36310	CSD36310	CDD36310
WS3037D4	S34063	D34063	CSD34063	CDD34063
WS5012D4	S12136	D12127	CSD12232	CDD12232
WS5038D4	S31620	D31620	CSD31620	CDD31620
WS5032D4	S31620	D31620	CSD31620	CDD31620
WS5034D4	S36310	D36310	CSD36310	CDD36310
WS5037D4	S36310	D36310	CSD36310	CDD36310
WS7532D4	S32232	D32232	CSD32232	CDD32232
WS7534D4	S31016	D31016	CSD31016	CDD31016
WS7537D4	S36310	D36310	CSD36310	CDD36310

Note: All panel part numbers above have additional available features, see page 7 for more information.

Note: Panel part numbers above do not include float switches.



BOULAY SERIES

- NEMA 4X outdoor rated enclosure
- Red alarm beacon
- HOA selector switch
- Through door pump run light(s)
- Through door alarm test and horn silence button
- Single phase models handle 120, 208 and 230V service
- Three phase models handle 200, 230, 460 and 575V service
- Accepts single or dual power feed
- See brochure "BCP3 R11" for additional information on simplex models
- See brochure "BCP4 R14" for additional information on duplex models information

DISCONNECT STYLE

- NEMA 4X outdoor rated enclosure, NEMA 1 also available
- Red alarm beacon
- Through door HOA selector switch
- Through door control on/off switch
- Through door main disconnect switch
- Single phase models handle 120, 208 and 230V service
- Three phase models handle 200, 230, 460 and 575V service
- Accepts single or dual power feed
- See brochure "BCPSDWWP R3" for additional information

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- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com



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