

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

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www.zoeller.com

COMPARE THESE FEATURES

- Non-clogging vortex impeller design bronze class 88-8-0-4 (180 Series).
- Enclosed impeller design (191 Series).
- Float operated, submersible (NEMA 6) 2-pole mechanical switch.
- Durable cast construction. Cast iron switch case, base, motor and pump housing. No sheet metal parts to rust or corrode.
- Stainless steel screws, bolts, float rod, handle, guard, arm and seal assembly.
- 20 ft. UL Listed 3-wire neoprene cord and plug. Extra cord lengths available in 25-35-50 foot length only.
- Motor - 60 Hz, 3450 RPM, oil-filled, hermetically sealed, automatic reset, thermal overload protected (1 PH only).
- Maximum temperature for effluent or dewatering 130°F (54°C), WD189 120°F (49°C).
- Variable level control systems available.
- Square Ring & Gasket - Neoprene.
- Shaft Seal - Stainless steel carbon & ceramic rotary.
- Upper sleeve bearing and lower ball bearing running in bath of oil.
- All 180/4180 series pass 3/4-inch spherical solids. Model 191 pump passes 5/8 - inch spherical solids.
- On point 14 3/4" • Off point 5" (automatic units).
- Major width 12 3/4" • Height 18 9/16". (Single seal pumps)
- 1 1/2" NPT discharge with 2" or 3" flange available. (Model 191 is not available with 3" flange)
- Corrosion resistant powder coated epoxy finish.

**MODELS 4185-4186-4188-4189
DOUBLE SEAL PUMPS (Nonauto only)**

- Protects motor from seal leaks.
- Improved bearing lubrication.
- Helps eliminate seal and bearing damage from dry runs.
- Major width 12 3/4". Height 20 7/16".

Note: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with nonautomatic pumps.

AUTOMATIC UNITS NOT RECOMMENDED FOR USE IN EFFLUENT SYSTEMS

*NOTE: No UL Listing for 200/208 1 Phase Pumps, Model 186 & 191, or Double Seal Series. See Back Page for UL & CSA Listings

Nonautomatic Model for variable level systems

185 - 186 - 188 - 189 Single Seal Series
4185 - 4186 - 4188 - 4189 Double Seal Series
191 Single Seal Drip Pump
(For Pump Prefix Identification see News & Views 0052)

HIGH HEAD
"FLOW-MATE"
FOR SEPTIC TANK • LOW PRESSURE PIPE (LPP)
AND ENHANCED FLOW STEP SYSTEMS
EFFLUENT
OR DEWATERING PUMP • SUBMERSIBLE
1 1/2" NPT DISCHARGE STANDARD • 2" or 3" FLANGE AVAILABLE

UL
*
Tested to UL Standard UL778 & Certified to CSA Standard C22.2 No. 108

SA
*

QUALITY MADE
America's
Pump Co.
BY U.S. CRAFTSMEN

SSPMA
MEMBER
SUMP
AND SEWAGE
PUMP MFRS. ASSN.

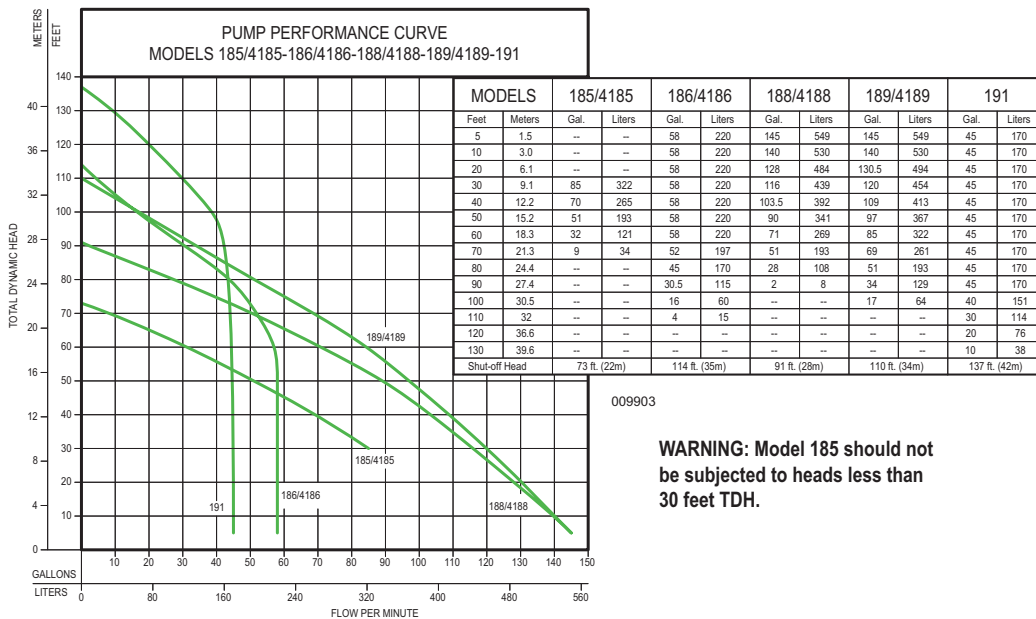
230V Automatic Controlled by variable level float switch integral to the pump in WD189/WD4189 Series only.

Double Seal Pump

230V/1PH Automatic Available in 185, 186, 188, 189 Series

230V/1PH Nonautomatic Available in 185/4185, 186/4186, 188/4188, 189/4189 Series

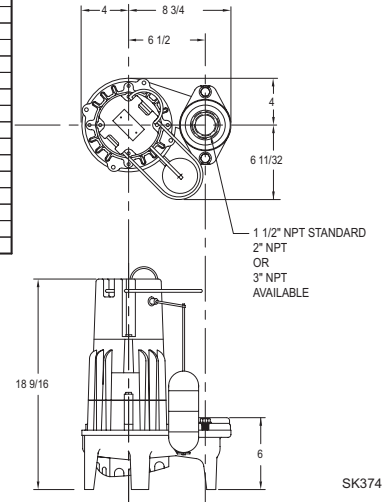
POWDER COATED TOUGH™



009903

WARNING: Model 185 should not be subjected to heads less than 30 feet TDH.

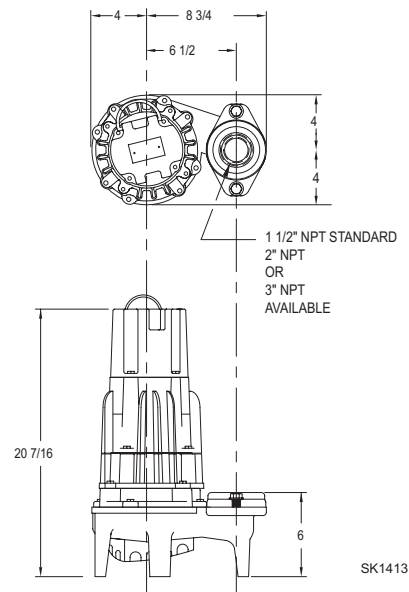
Single Seal-180 Series Automatic Design Weight 82-89 lbs.



SK374

185 MODELS	4185 MODELS	Standard all models - 20 ft. cord - 1 H.P.				Control	Selection	Listings	
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
D185	---	230	1	Auto	9.8	1	---	Y	Y
E185	E4185	230	1	Non	9.8	2 or 3	4	Y ⁽²⁾	Y
* H185	---	200-208	1	Auto	11.5	1	---	N	N
* I185	* I4185	200-208	1	Non	11.5	2 or 3	4	N	N
* F185	* F4185	230	3	Non	7.4	3 & 5	4 & 5	Y	Y
* J185	* J4185	200-208	3	Non	7.5	3 & 5	4 & 5	Y	Y
* G185	* G4185	460	3	Non	3.7	3 & 5	4 & 5	Y	Y
* BA185	---	575	3	Non	3.3	3 & 5	4 & 5	Y	N

Double Seal-4180 Series / Weight 89-94 lbs.



SK1413

186 MODELS	4186 MODELS	Standard all models - 20 ft. cord - 1 1/2 H.P.				Control	Selection	Listings	
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
D186	---	230	1	Auto	13.7	1	---	N	N
E186	E4186	230	1	Non	13.7	2 or 3	4	N	N
* F186	* F4186	230	3	Non	9.2	3 & 5	4 & 5	N	N
* G186	* G4186	460	3	Non	4.6	3 & 5	4 & 5	N	N

188 MODELS	4188 MODELS	Standard all models - 20 ft. cord - 1 1/2 H.P.				Control	Selection	Listings	
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
D188	---	230	1	Auto	14.0	1	---	N	Y ⁽¹⁾
E188	E4188	230	1	Non	14.0	2 or 3	4	Y ⁽²⁾	Y ⁽¹⁾
* H188	---	200-208	1	Auto	16.8	1	---	N	N
* I188	* I4188	200-208	1	Non	16.8	2 or 3	4	N	N
* F188	* F4188	230	3	Non	8.9	3 & 5	4 & 5	Y	Y
* J188	* J4188	200-208	3	Non	10.3	3 & 5	4 & 5	Y	Y
* G188	* G4188	460	3	Non	4.6	3 & 5	4 & 5	Y	Y
* BA188	---	575	3	Non	3.5	3 & 5	4 & 5	Y	N

189 MODELS	4189 MODELS	Standard all models - 20 ft. cord - 2 H.P.				Control	Selection	Listings	
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
⁽³⁾ D189	---	230	1	Auto	17.1	1	---	N	Y ⁽¹⁾
⁽³⁾ E189	⁽³⁾ E4189	230	1	Non	17.1	2 or 3	4	Y ⁽²⁾	Y ⁽¹⁾
* H189	---	200-208	1	Auto	20.5	1	---	N	N
* I189	* I4189	200-208	1	Non	20.5	2 or 3	4	N	N
* F189	* F4189	230	3	Non	11.2	3 & 5	4 & 5	Y	Y
* J189	* J4189	200-208	3	Non	13.2	3 & 5	4 & 5	Y	Y
* G189	* G4189	460	3	Non	6.0	3 & 5	4 & 5	Y	Y
* BA189	---	575	3	Non	5.8	3 & 5	4 & 5	Y	N
⁽³⁾ WD189	* WD4189	230	1	Auto	17.1	1	4	N	N

191 MODEL	Standard all models - 20 ft. cord - 2 H.P.				Control	Selection	Listings		
Single Seal	Double Seal	Volts	Ph	Mode	Amps	Simplex	Duplex	CSA	UL
E191	---	230	1	Non	14.5	2 or 3	4	N	N

SELECTION GUIDE

1. Integral float operated mechanical switch, no external control required.
2. For automatic use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
3. See FM1228 for correct model of simplex control panel.
4. See FM0712 for correct model of duplex control panel.
5. Variable level control switch 10-0225 used as a control activator, specify simplex (3) float or duplex (4) float system.

CAUTION

All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA).

For information on additional Zoeller products refer to catalog on Piggyback Variable Level Float Switches, FM0477; Electrical Alternator, FM0486; Mechanical Alternator, FM0495; Sump/Sewage Basins, FM0487; Simplex Pump Control, FM1596; Alarm Systems, FM0732; and Disconnect/Rail Systems, FM0787.

* No Molded Plug
 (1) UL Listed unit available with 20 Amp Plug.
 (2) CSA Approval without plug cap.
 (3) 20 Amp Outlet, P/N 10-0060 must be used.

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

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