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



**PUMP COMPANY**

Zoeller Family of Water Solutions™

MAIL TO: P.O. BOX 16347 • Louisville, KY 40256-0347  
SHIP TO: 3649 Cane Run Road • Louisville, KY 40211-1961  
(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

SECTION: 2.50.010

FM1478

0414

Supersedes

0609

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

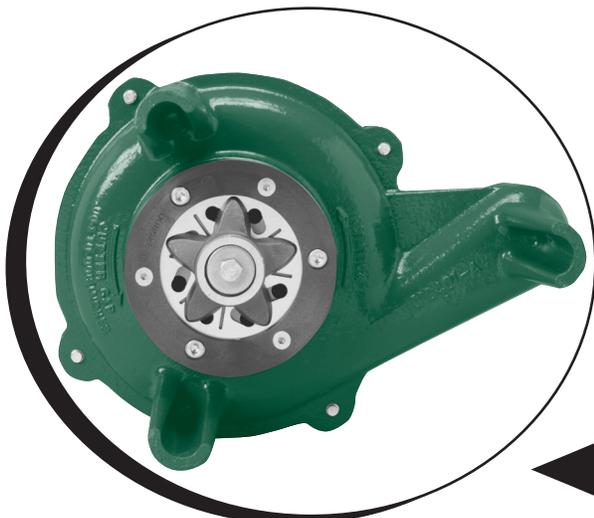
# THE SHARK Series 820 GRINDER PUMP

## UNIQUELY DESIGNED PUMP WITH INTEGRAL CONTROL

(For Pump Prefix Identification see News & Views 0052)

### FEATURES:

- Automatic with Integral Control, Nonautomatic available.
- UL Listed.
- Durable Heavy Duty Finned Cast Iron Construction.
- Legs provide for free standing installation.
- Motor - 2 HP, 60 Hz, 3450 RPM, Oil-filled, Hermetically Sealed with Class B Insulation, Automatic Reset Thermal Overload Protected.
- Upper and Lower Ball Bearings Running in Bath of Oil.
- Hardened Stainless Steel Cutter and Disc.
- Cutters Protected from Abrasive Solids.
- Stainless Steel Lifting Handle, Screws, and Bolts.
- Easily adapts to Rail Systems.
- Mechanical Shaft Seal - Carbon/Ceramic.
- Control panels are not required.
- Simplex Grinder Package Systems (Unassembled and Job Ready/Assembled) available.
- Corrosion resistant powder coated epoxy finish.
- Maximum operating temperature 130°F (54°C).
- 20' Power Cord.



Tested to UL Standard UL778



(Tested to UL778 and CSA22.2 108 Standards)



WD820/WH820  
AUTOMATIC

POWDER  
COATED  
**TOUGH™**

E820/I820  
NONAUTOMATIC



Submersible Wastewater  
Pump Association  
**SWPA**  
MEMBER

Product may not be exactly as pictured.

# GRINDER SYSTEMS

## (A) GRINDER MODEL 820

### STANDARD FEATURES:

- 1¼" NPT Vertical discharge
- Carbon/Ceramic Seal
- Thermal Overload protection
- Engineered, glass-filled plastic impeller with Stainless Steel insert
- Stainless Steel Cutter Plate/Cutter
- Stainless Steel Shaft
- Stainless Steel Hardware
- 20' Power Cord

### OPTIONS:

- Extra Length Cords (Consult Factory)

## (A)

### 820 GRINDER 2 HP, 1¼" N.P.T. VERTICAL DISCHARGE

P/N	WGT.	MODEL	VOLTS	PH	MODE	AMP
<input type="checkbox"/> 820-0011	89	WD820*	230	1	Auto	13.7
<input type="checkbox"/> 820-0004	88	E820	230	1	Nonauto	13.7
<input type="checkbox"/> 820-0005	89	WH820*	200	1	Auto	15.5
<input type="checkbox"/> 820-0006	88	I820	200	1	Nonauto	15.5

\* WD & WH grinder pumps are completely automatic with starting controls in pump switch case.

Note: 230V pumps are supplied with a 20 amp plug.

## (B) CONTROL PANELS & ALARM SYSTEMS

### STANDARD FEATURES:

- Audible & Visual Alarm
- Alarm Silence Switch
- Test Switch for Alarm and Light
- UL Listed

### Simplex Panels:

- P/N 10-1037 Includes Alarm & 3 Floats for E820.
- P/N 10-1038 Includes Alarm & 3 Floats for I820.
- P/N 10-0125\* Includes Alarm & 3 Floats for E or I Models.

### Alarm Paks Only:

- P/N 10-0053 Indoor only. † **NEMA 4X SIMPLEX CONTROL PANEL WITH ALARM**
- P/N 10-0623 Outdoor.
- P/N 10-0126 Outdoor w/ Dry Alarm Contacts.

\*Branch circuit protection provided by electrical installer.



**INDOOR/OUTDOOR SYSTEM  
NEMA 4X SIMPLEX CONTROL  
PANEL WITH ALARM**



**INDOOR INSTALLATIONS  
NEMA 1**

P/N 10-1494

**INDOOR/OUTDOOR SYSTEM  
STANDARD  
DELUXE**

P/N 10-0623

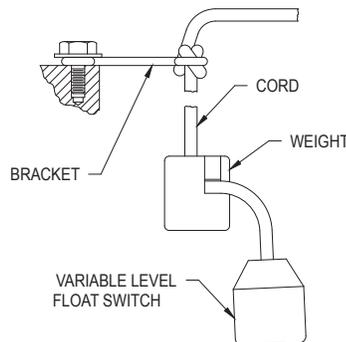
P/N 10-0682

† Low voltage terminal connector for float switch.

## (C) VARIABLE LEVEL FLOAT SWITCHES

- P/N 10-0033\* Switch without Weight & Bracket for E820. WGT. 2.0
  - P/N 10-0748 Switch without Weight & Bracket for I820. WGT. 2.0
  - P/N 10-0661 1 Weight & Bracket only. WGT. 3.0
  - P/N 10-0689 1 Weight only. WGT. 2.5
  - P/N 10-1366 Set of Weights & Brackets. WGT. 6.5
- Use with 10-0125/10-1037 and 10-1038.**

\*Remove plug.

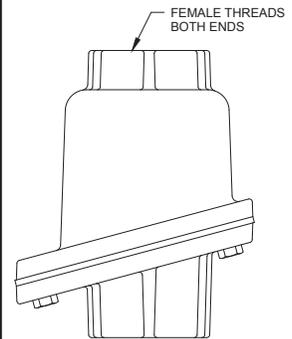


SK1328

Note: All variable level float switches in this section are mechanically activated and do not contain mercury.

## (D) CHECK VALVES

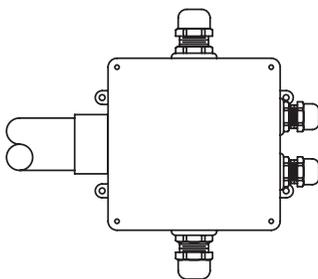
- 1¼" Cast Iron NPT Female
- P/N 30-0163 WGT. 7.5
- 1½" Cast Iron NPT Female
- P/N 30-0164 WGT. 7.5
- 2" Cast Iron NPT Female
- P/N 30-0152 WGT. 10.0



SK1330

## (E) JUNCTION BOXES (Contact factory if used in conjunction with a control panel)

### INDOOR BASIN INSTALLATIONS

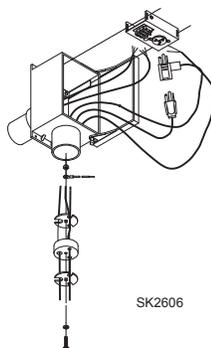


SK1628A

4 Holes with Seals for (1) Power Cord, (1) Pump Cord, (1) Alarm Switch, & (1) Alarm Return Feed.

P/N 10-0666 WGT. 2.5

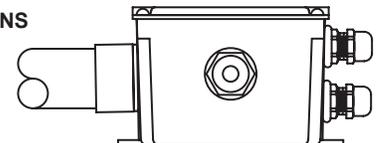
### OUTDOOR BASIN INSTALLATIONS



SK2606

Qwik-Box Connection (**For use with WD Models only**) with Seals for (1) Power Cord, (1) Pump Cord, and (1) Alarm Switch Cord. Alarm float switch must operate on low voltage to be used w/ Qwik Box.

P/N 10-0580 WGT. 3.0



SK1628B

4 Holes with Seals for (1) Pump Cord, (3) Control Float Switch Cords and (1) Conduit Connection, **use with Control Panel/s (B).**

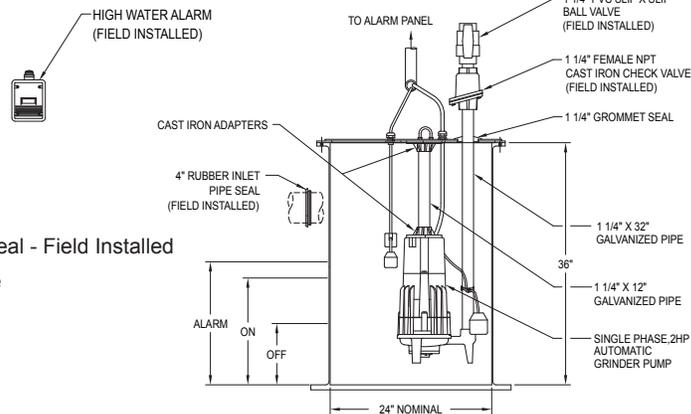
P/N 10-0647 WGT. 2.5

4 Holes with Seals for (1) Pump Cord, (1) Control Float, (1) Alarm Switch, and (1) Conduit Connection for incoming power and alarm return.

P/N 10-0677 WGT. 2.5

**(F) INDOOR BASIN, COVER, AND HARDWARE - PREPACKAGED STANDARD EQUIPMENT**

- Fiberglass Basin
- Rust Resistant Steel Cover (epoxy coated)
- Inspection Plate
- Pump Cover
- 3" Adaptaflex Vent Seal
- 1 1/4" Adaptaflex Discharge Pipe Seal
- Cord Seal
- 1-4" Rubber Inlet Pipe Seal - Field Installed
- Pump Support Hardware
- 1 1/4" Check Valve
- Ball Valve



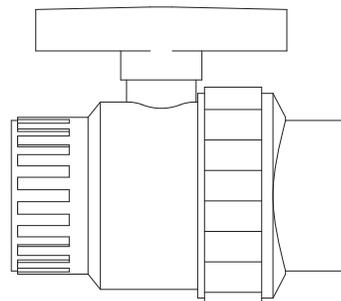
**SIMPLEX**

□ 24" x 36" P/N 32-0011 WGT. 107

USE WITH AUTOMATIC PUMPS ONLY

**(I) BALL VALVE**

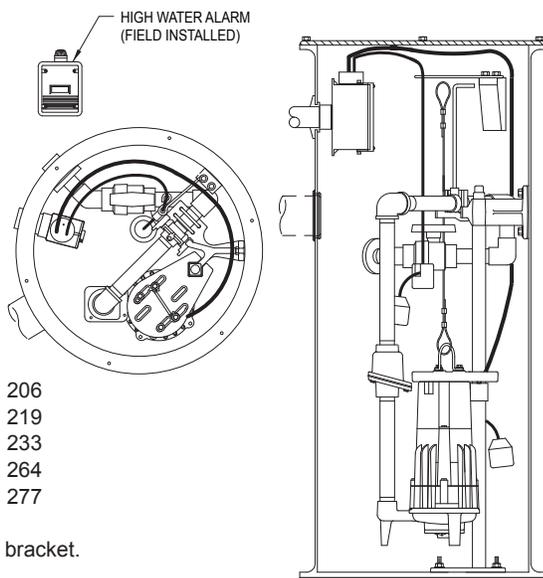
- 1 1/4" IPS  
□ P/N 30-0165 WGT. 2.0
- 1 1/2" IPS  
□ P/N 30-0166 WGT. 2.0
- 2" IPS  
□ P/N 30-0167 WGT. 2.5



SK1333

**(G) OUTDOOR BASIN, COVER, AND RAIL SYSTEM ASSEMBLIES - STANDARD EQUIPMENT**

- Fiberglass Basin with Anti-flotation Ring
- 1 1/4" PVC Discharge Pipe
- 1 1/4" Rubber Discharge Pipe Seal
- Stainless Steel Square Guide Rail
- 1' Pull Rod
- 8' SS Lifting Cable for basin depths to 84" (12' SS Lifting Cable for basin depths of 96")
- 1 1/4" PVC Ball Valve
- 1 1/4" Cast Iron Check Valve
- 1-4" Rubber Inlet Pipe Seal - Field Installed
- Fiberglass Cover



**SIMPLEX**

- 24" x 48" P/N 33-0185 WGT. 206
- 24" x 60" P/N 33-0186 WGT. 219
- 24" x 72" P/N 33-0187 WGT. 233
- 24" x 84" P/N 33-0188 WGT. 264
- 24" x 96" P/N 33-0189 WGT. 277

**OPTIONS:**

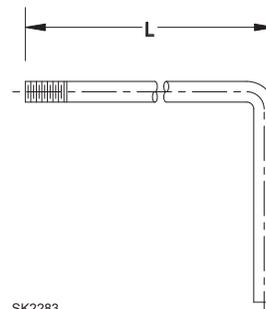
- 1 1/4" Stainless Steel pipe from pump to bracket.
- Anti-siphon Device.
- Pre-wired Conduit. (Consult Factory)
- \*Other sizes available. (Consult factory).

PUMP NOT INCLUDED

SK1670

**(J) PULL RODS FOR SQUARE GUIDE RAIL SYSTEMS ONLY (Field Installed Systems)**

- 1 Ft. "L"  
□ P/N 39-0069 WGT. 0.5
- 2 1/2 Ft. "L"  
□ P/N 39-0006 WGT. 1.0
- 3 1/2 Ft. "L"  
□ P/N 39-0007 WGT. 1.5
- 4 1/2 Ft. "L"  
□ P/N 39-0008 WGT. 1.5
- 5 1/2 Ft. "L"  
□ P/N 39-0009 WGT. 2.0



SK2283

**(H) RAIL SYSTEMS - (FIELD INSTALLED)**

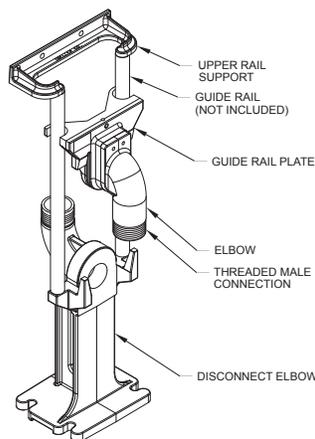
**Z-Rail Disconnect System for 1 1/4" pump discharges (Rail System discharge is 2" NPT male thread)**

**Ductile Iron Constructions**  
□ P/N 39-0134 Wgt. 43

**With Stainless Steel Upper Rail Support**  
□ P/N 39-0135 Wgt. 43

**Intermediate Stabilizer Bracket for every 12' of depth.**

**Stainless Steel**  
□ P/N 39-0139 Wgt. 6.0



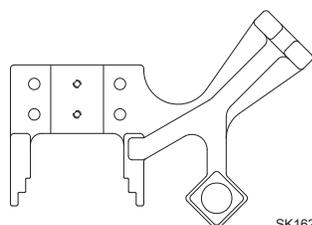
SK2976

**Square Guide Rail System for systems less than 96" deep**  
**BASIN DEPTH**

- 48" P/N 39-0057 WGT. 90.5
- 60" P/N 39-0058 WGT. 94.5
- 72" P/N 39-0059 WGT. 98.5

Fits both round and square basins  
Includes Square Guide Rail

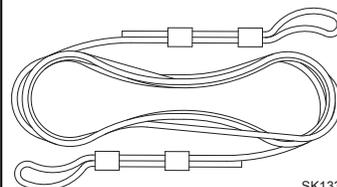
Basins over 72" deep require one additional angle arm bracket.  
□ P/N 39-0070 WGT. 11



SK1626

**(K) SS LIFTING CABLE (Field Installed Systems)**

- 8 Ft.**  
□ P/N 39-0031 WGT. 1.0
- 12 Ft.**  
□ P/N 39-0032 WGT. 1.0
- 16 Ft.**  
□ P/N 39-0033 WGT. 1.0
- 20 Ft.**  
□ P/N 39-0034 WGT. 1.0
- 24 Ft.**  
□ P/N 39-0035 WGT. 1.0



SK1335

# PREPACKAGED AND JOB READY SYSTEMS

INDOOR	
<b>REQ.</b>	
1 Grinder (Auto or Nonauto)	P/N _____ (A)
1 Alarm System (Optional)	P/N _____ (B)
1 Weight Only (Required if alarm is used)	P/N <u>10-0689</u> (C)
1 Junction Box (Optional)	P/N <u>10-0666</u> (E)
1 Basin, Cover and Hardware	P/N _____ (F)

OUTDOOR	
<b>REQ.</b>	
1 Grinder (Auto or Nonauto)	P/N _____ (A)
1 Control Panel/Alarm System	P/N _____ (B)
1 Float Switch/es (if required)	P/N _____ (C)
1 Weight/s and Bracket/s	P/N _____ (C)
1 Junction Box	P/N _____ (E)
1 Basin, Cover and Rail System	P/N _____ (G)

## FIELD MOUNT SYSTEMS

SIMPLEX	
<b>REQ.</b>	
1 Grinder (Auto or Nonauto)	P/N _____ (A)
1 Alarm System (Optional)	P/N _____ (B)
1 Variable Level Fl. Sw. Assm. <sup>(2)</sup> (Not required for auto pumps)	P/N _____ (C)
1 Weight and Bracket Only (2 required if alarm is used)	P/N <u>10-0661</u> (C)
1 Junction Box (Optional)	P/N _____ (E)
1 Rail System (Optional)	P/N _____ (H)
1 Angle Arm/Intermediate Bracket <sup>(1)</sup>	P/N _____ (H)
1 Pull Rod <sup>(3)</sup>	P/N _____ (J)
1 S.S. Cable	P/N _____ (K)

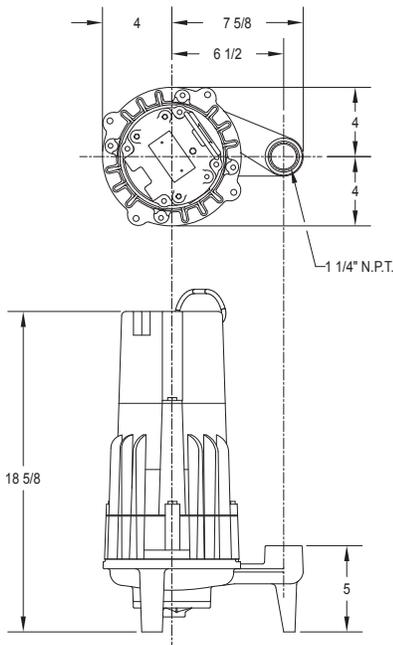
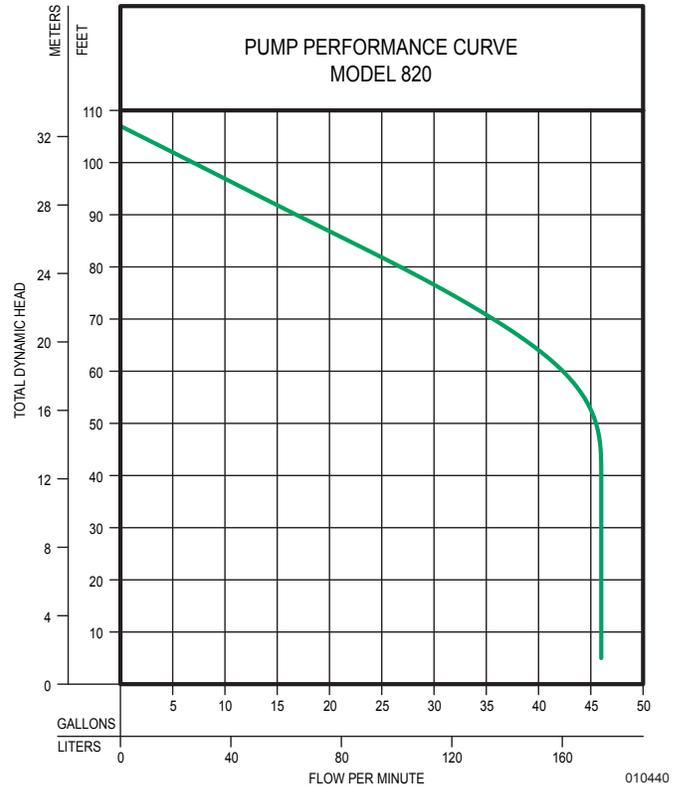
<sup>(1)</sup> Required for basins over 72" deep (Square Guide Rail) and over 12" (E-Z Out Rail). Allow for overhead clearances.

<sup>(2)</sup> Hardwire pump, float switch, and power supply inside junction box.

<sup>(3)</sup> For Square Guide Rail Only

**Note:** Contact factory for control panel selection.

**Note:** Access Doors Available on Field Mount Systems - Consult Factory  
Special Basin Configurations - Consult Factory



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