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

ZOELLER®
ENGINEERED PRODUCTS

ZM3416
04/22
Supersedes
NEW

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Start-Up Report

Start-up reports assist in assuring Zoeller products are installed the way the manufacturer has intended. It is also a tool used in warranty claims and troubleshooting. Once this report is properly filled out, signed for approval, and on file with Zoeller Company. Failure to do so could result in loss of warranty.

_____

Job Name: Location:

Installing Contractor: Contractor Phone Number:

Engineer: Installation Date:

Rep Agency: Start-up Date:

Rep Email: Rep Phone Number:

System Information

Round basin: in x   in   or   Square/rectangular basin: in x   in x   in

Valve box, if applicable: in x   in   Do valves operate correctly: Yes or   No

Discharge depth from cover: in   Distance between pump and control panel: ft

Size of inlet(s):   in   Depth of inlet from cover: in

Junction box used: Yes or   No   Pressure switch: Yes or   No   Number of backup floats:

_____

Control Panel

Panel Manufacture: Panel Part Number:

Panel amp range: A   50 Hz or   60 Hz   Panel securely mounted   Yes or   No

Measured incoming voltage at terminal   V   Supply voltage wire gauge size:

Panel connected to a SCADA system: Yes or   No

Multi-tap transformer is set to match the correct pump voltage: (3 phase ONLY):   200V,   230V, or   460V

Notes:
Pumps can operate on voltage that is +/- 5% of the pump's tag voltage.

Check all field and manufacturing wiring in the panel to be secure on the terminal block.

Float Height from Bottom of Basin in Off Position

Simplex System		Duplex System		Triplex System	
Off Float (Lowest Float):	in	Off Float (Lowest Float):	in	Off Float (Lowest Float):	in
Lead Float	in	Lead Float:	in	Lead 1 Float:	in
				Lead 2 Float:	in
High Water Float:	in	High Water Float:	in	High Water Float:	in
		Lag Float:	in	Lag Float:	in

Notes

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Pump Information

- Run pumps manually to be sure discharge main is full before testing pump(s) amps and voltage.
- Check pumps for any damage, cuts on power and sensor cords before startup.

Pump 1

Model Number: Part Number: Horsepower/kW:

            Ex. E621 or G6222   Ex. 840-0004 or 6124-0008

Serial Number/Product ID: Voltage on pump tag: v   Phase: 1 Ph or   3Ph

Impeller spins freely: Yes   or   No   Impeller has proper rotation: Yes   or   No

Moisture sensor, if applicable: k Ohms   Continuity check on thermal sensor:

Pump 2

Model Number: Part Number: Horsepower/kW:

            Ex. E621 or G6222   Ex. 840-0004 or 6124-0008

Serial Number/Product ID: Voltage on pump tag: v   Phase: 1 Ph or   3Ph

Impeller spins freely: Yes   or   No   Impeller has proper rotation: Yes   or   No

Moisture sensor, if applicable: k Ohms   Continuity check on thermal sensor:

Pump 3

Model Number: Part Number: Horsepower/kW:

            Ex. E621 or G6222   Ex. 840-0004 or 6124-0008

Serial Number/Product ID: Voltage on pump tag: v   Phase: 1 Ph or   3Ph

Impeller spins freely: Yes   or   No   Impeller has proper rotation: Yes   or   No

Moisture sensor, if applicable: k Ohms   Continuity check on thermal sensor:

Single Phase

	Pump 1	Pump 2	Pump3		Pump 1	Pump 2	Pump3
Voltage Supply (Pump Off): L1-L2	V	V	V	Amp Draw (Pump On): L1	A	A	A
Voltage Supply (Pump On): L1-L2	V	V	V	Amp Draw (Pump On): L2	A	A	A

Three Phase

	Pump 1	Pump 2	Pump3		Pump 1	Pump 2	Pump3
Voltage Supply (Pump Off): L1-L2	V	V	V	Amp Draw (Pump On): L1	A	A	A
Voltage Supply (Pump Off: L1-L3	V	V	V	Amp Draw (Pump On): L2	A	A	A
Voltage Supply (Pump Off: L2-L3	V	V	V	Amp Draw (Pump On): L3	A	A	A
Voltage Supply (Pump On): L1-L2	V	V	V				
Voltage Supply (Pump On): L1-L3	V	V	V	Impeller rotates with rotation arrow on side of			
Voltage Supply (Pump On): L2-L3	V	V	V	pump housing: Yes No			

Check all voltages on the motor contactor side for the pumps. This will verify functionality of the motor contactor.

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Functional Draw Down Test

This test will determine the gallons per minute (GPM) produced from the pumps in this application.
1. Fill the basin with enough water below the inlet to run a pump for a period of one minute. If this is not possible, you can run for 15 or 30 seconds then multiply that out to meet one minute.
2. Using a tape measure, measure from the top of the basin lip down to the top of the water level.
3. Using the HOA switch, put in HAND to manually run the pump at the same time using a stopwatch to track your time.
4. After one minute, measure again from the top of the basin to the water level.
5. Once you have the GPM calculated, use the provided performance curve included in the pump packet to determine where the GPM falls within the curve and it's correlating TDH.

Gallons per Inch Reference Guide

Round Basin: 3.142 X radius square then divide by 231

Example - 72in dia. basin: 3.142 x 36 x 36 = 4,072 cu in.

4,072/231 = 17.63 gallons/inch

Round Basin Dia.	Gallons/Inch
24in	1.96
30in	3.06
36in	4.41
48in	7.83
60in	12.24
72in	17.63
96in	31.34

Square/Rectangular Basin: (Length x Width) / 231 = gallons/inch

Pump 1

        in (A) Water level at start of test   Basin diameter: in =   (D) Gallons/inch (see chart above)

        in (B) Water level at end of test   B-A =   in (C) pumped*

Seconds of draw down: 15 seconds   30 Seconds   60 Seconds

Gallons/inc (D)   **x inches pumped* (C)**   =   GPM

*If pump runs for 15 seconds multiply by 4, if 30 seconds, multiply by 2.

Pump 2

        in (A) Water level at start of test   Basin diameter: in =   (D) Gallons/inch (see chart above)

        in (B) Water level at end of test   B-A =   in (C) pumped

Seconds of draw down: 15 seconds   30 Seconds   60 Seconds

Gallons/inc (D)   **x inches pumped* (C)**   =   GPM

*If pump runs for 15 seconds multiply by 4, if 30 seconds, multiply by 2.

Pump 3

        in (A) Water level at start of test   Basin diameter: in =   (D) Gallons/inch (see chart above)

        in (B) Water level at end of test   B-A =   in (C) pumped

Seconds of draw down: 15 seconds   30 Seconds   60 Seconds

Gallons/inc (D)   **x inches pumped* (C)**   =   GPM

*If pump runs for 15 seconds multiply by 4, if 30 seconds, multiply by 2.

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Final Check List

Is control panel securely installed?   Does the alarm light activate?

Is wiring diagram in control panel?   If applicable, does the audible alarm activate?

Motor protection switches set to FLA?   Basin clear of any foreign debris?

Do pump(s) run in HAND?   Valves are in the open position?

Do pump(s) run in AUTO?   Verify HOA switch in the AUTO.

Notes:

Add any system pictures that you might have. This could include: pump tag, control