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



ZM3416
03/22
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	in	or	Square/rectangular basin:	in x	in x	in
Valve box, if applicable:	in x	in		Do valves operate correctly:	Yes	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	No		Pressure switch:	Yes	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	No
Measured incoming voltage at terminal	V			Supply voltage wire gauge size:		
Panel connected to a SCADA system:	Yes	No				
Multi-tap transformer is set to match the correct pump voltage: (3 phase ONLY):	200V,	230V,	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

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 3Ph

Impeller spins freely: Yes No Impeller has proper rotation: Yes 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 3Ph

Impeller spins freely: Yes No Impeller has proper rotation: Yes 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 3Ph

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

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: $3.142 \times \text{radius square}$ then divide by 231

Example - 72in dia. basin: $3.142 \times 36 \times 36 = 4,072$ cu in.
 $4,072 / 231 = 17.63$ gallons/inch

Square/Rectangular Basin: $(\text{Length} \times \text{Width}) / 231 =$
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

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 A-B = 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 A-B = 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 A-B = 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.**

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 panel, basin, site overall, etc.