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.

Basic Information

Job Name:		Location:	
Installing Contractor:		Contractor Phone#:	
Engineer:		Installation Date:	/ /
Rep Agency:		Start-Up Date:	/ /
Start-Up Technician:		Technician Phone#:	

System Information

Round Basin Size: " x "

Square Basin Size: " x " x "

Is Valve Box present? Do Valves Operate Correctly?

Depth of Discharge from Cover: Distance Between Pump and Control Panel:

Size of Inlet(s): and Depth from Cover

Number of Pumps Junction Box Used:

Float Depths from Cover in Off Position

Off Float*: *Lowest float in system		Tethered Length			
Start/Lead Float		Tethered Length		Pressure Switch:	
High Water Float		Tethered Length		Number of Backup Floats	
Lag Float		Tethered Length		Other Switches Used	

Verify floats operate in sequence

Pump Information

Pump 1

Pump Model Number: Ex. E621 or G6222		Pump Part Number: Ex. 840-0004 or 6124-0008			
Voltage on Pump Tag:		Phase:		Horsepower:	

Run Pumps manually to be sure discharge main is full before testing pump(s) amps and voltage.

Serial Number / Product ID Number		Check pumps for any damage, cuts on power and sensor cords before startup.	
Impeller spins freely with hand			
Moisture Sensors ohms		Continuity Check on Thermal Sensor:	
Is pump Single Phase or Three Phase			
Impeller rotates with rotation arrows on side of pump housing:			

Single Phase

Voltage supply (Pump off): L1-L2 _____ Amp draw (Pump on) L1 _____

Voltage supply (Pump on): L1-L2 _____ v Amp draw (Pump on) L2 _____

Three Phase

Voltage supply (Pump off): L1-L2 _____ v Amp draw (Pump on) L1 _____

Voltage supply (Pump off): L1-L3 _____ v Amp draw (Pump on) L2 _____

Voltage supply (Pump off): L2-L3 _____ v Amp draw (Pump on) L3 _____

Voltage supply (Pump on): L1-L2 _____ v Voltage supply (Pump on): L1-L3 _____ v

Voltage supply (Pump on): L2-L3 _____ v

Impeller rotates with rotation arrows on side of pump housing: _____

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

Pump 2

Pump Model Number: _____ Ex. E621 or G6222 Pump Part Number: _____ Ex. 840-0004 or 6124-0008

Voltage on Pump Tag: _____ Phase: _____ Horsepower: _____

Run Pumps manually to be sure discharge main is full before testing pump(s) amps and voltage.

Serial Number / Product ID Number _____ Check pumps for any damage, cuts on power and sensor cords before startup.

Impeller spins freely with hand _____

Moisture Sensors _____ ohms Continuity Check on Thermal Sensor: _____

Single Phase

Voltage supply (Pump off): L1-L2 _____ Amp draw (Pump on) L1 _____

Voltage supply (Pump on): L1-L2 _____ v Amp draw (Pump on) L2 _____

Three Phase

Voltage supply (Pump off): L1-L2 _____ v Amp draw (Pump on) L1 _____

Voltage supply (Pump off): L1-L3 _____ v Amp draw (Pump on) L2 _____

Voltage supply (Pump off): L2-L3 _____ v Amp draw (Pump on) L3 _____

Voltage supply (Pump on): L1-L2 _____ v Voltage supply (Pump on): L1-L3 _____ v

Voltage supply (Pump on): L2-L3 _____ v

Impeller rotates with rotation arrows on side of pump housing: _____

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

Control Panel

Panel Manufacturer:		Panel Part Number:	
Be sure panel is securely mounted:			
Panel Amp Range:		Overload Amp Range(3Ph):	
Measured Incoming Voltage at Terminal:	v	Supply Voltage Wire Gauge Size:	
Is the Panel Connected to a SCADA System?			

Notes:
Pumps are able to 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 thier terminal block.

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 after you've added water to your basin and write it down (a).
3. Using the HOA switch, put in HAND to manually run the pump at the same time using a stop watch to track your time limit.
4. After one minute, measure again from the top of the basin to the water level and write this down (b).
5. Use a tape measure to find the inside diameter (in inches) and use the chart below to get the gallons per inch for your basin (c).
6. Once you have determined the GPM, use the provided performance curve included in the pump packet to determine where the GPM falls within the curve and it's correlating TDH.

Pump 1

a.	"	at start of test		Seconds of pump draw down	
b.	"	at end of test			
a-b=	"	pumped			
Basin diameter		=	Gal/inch (see chart below)		
Gallons/inch		x Inches pumped*		=	GPM

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

Pump 2

a.	"	at start of test		Seconds of pump draw down	
b.	"	at end of test			
a-b=	"	pumped			
Basin diameter		=	Gal/inch (see chart below)		
Gallons/inch		x Inches pumped*		=	GPM

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

Gallons Per Inch Reference Guide

Round Basin:
3.142 X radius square then divide by 231
Example - 72" dia. basin: 3.142 x 36 x 36 = 4,072 cu in.
4,072/231 = 17.63 gallons/inch

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

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

Final Checklist

- ☐ Is control panel securly installed?
- ☐ Is wiring diagram in control panel?
- ☐ Motor protection switches set to FLA?
- ☐ Do pump(s) run in HAND?
- ☐ Do pump(s) run in AUTO?
- ☐ Does the alarm light activate?
- ☐ If applicable, does the audible alarm activate?
- ☐ Basin clear of any foreign debris?
- ☐ Valves are in the open position?
- ☐ Verify HOA switch in the AUTO.

System Pictures

*Pump Tag
Pump Overview
Exterior Panel
*Internal Panel
Basin Picture
*Inside of Basin
Inside of Value Box, if applicable

* required

File Name	File Size	Delete

Comments

Signatures

/ /
Date

Phone Number

Signature

Email