SYSTEM TRAINING

Job Name:		**Date:**	
Address:		**System Serial #:**	
Project:		**Model #:**	
Description:			

SYSTEM TRAINING OUTLINE **Number in Attendance**

TOPIC	Tech's Initials	TOPIC	Tech's Initials
1. Mechanical Overview		7. Touch Screen Review of all Screens	
2. Impeller/Seal Replacement		8. HOA Switch Review	
3. Motor Servicing and Maintenance		9. Alarm Acknowledgement	
4. Control Panel: Internal Review of Components / Operation		10. System Troubleshooting (Alarms)	
5. Transducer Replacement			
6. System Operation			

COMMENTS:

S I G N A T U R E S

The undersigned individual certifies that training on the above topics was performed and questions were answered to their satisfaction.

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_____

TRAINER Sencillo Systems (SIGNATURE) (PRINTED)

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_____

OWNER/Contractor's Representative (SIGNATURE) (PRINTED)

966 Argyle Road Warrington PA 18976
Phone: (610) 340-2848
www.sencillosystems.com

STARTUP LOG

Job Name:		**Date:**	
Address:		**System Serial #:**	
Project No.:		**Model #:**	
Description:			

JOB SITE DATA RECORDS

DESIGN SETTINGS

Worst Case Suction Pressure	psi
Set-Point	psi
High Pressure Alarm Setting	psi

ACTUAL SETTINGS

Suction PSI	
Low Suction Alarm	10
Set-Point	
High Alarm Warning	

VOLTAGE

Pump 1	L1		L2		L3	
Pump 2	L1		L2		L3	
Pump 3	L1		L2		L3	
Pump 4	L1		L2		L3	

AMPERAGE

Pump 1	L1		L2		L3		Hz	
Pump 2	L1		L2		L3		Hz	
Pump 3	L1		L2		L3		Hz	
Pump 4	L1		L2		L3		Hz	

TRANSFORMER VOLTAGE

PRIMARY TRANSFORMER VOLTAGE		VAC	AMPS
SECONDARY TRANSFORMER VOLTAGE		VAC	AMPS

SIGNATURES

_____

_____

Start up performed by: (Signature) Date PRINTED

Sencillo Systems

_____

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STARTUP CHECKLIST

Prior to going to jobsite confirm: System is Fully Piped and Water and Power are available to System.

1.	▪ Inspect the Pumps & Piping System for Visible Damage ▪ Check for Loose Fittings (Flanges, Electrical, Tubing, etc.) ▪ Bleed Air from Sensing Lines ▪ Inspect that all Sensing line Isolation Valves are Open
2.	▪ Verify the incoming Suction Pressure meets or exceeds the Design (PSI) ▪ If Suction Pressure doesn't meet or exceed Specification, contact Contractor to correct the Problem. ▪ If the System is to be operated with less Suction Pressure than Specified, contact the Project Manager. • Check hydropneumatics bladder tank installation and piping, if applicable. Bladder tank must be charged with air pressure PRIOR to filling the tank with water to insure proper operation. Air pressure should be set to 5 psi below system pressure setpoint.
3.	▪ Open the Suction Side Isolation Valves and let the System fill with Water. ▪ Inspect all fittings and Tubing Connections for Leakage and/or Correct. ▪ Bleed air from pumps prior to running.
4.	• Open Controller door, inspect component mounting, wires for signs of looseness in shipping. • Check voltage at the disconnect switch for correctness. • Turn on power to panel via disconnect switch handle • Turn on circuit breakers for control power circuit and wait for HMI to power up and load. • Turn on circuit breakers for pumps. • Check light on PLC for all green lights to indicate there are no faults or errors.
5.	▪On Touchscreen, use the PUMPS button to access the HOA switch for each pump. ▪
6.	▪ Check the Motors for freedom of rotation and proper direction by "bumping" each pump. ▪ "Bumping" is completed by placing the pump in "Hand" position, then "OFF" position. ▪ Check motor rotation direction and compare with pump arrows to insure correct rotation. ▪ Correct pump rotation if necessary. ▪ (Note: Switch any two Leads on the Load Side of the Drives ONLY, NOT at the Line In Side)
7.	▪ Ask the customer to open several faucets at high points to vent out all of the air in the building during the pressurization steps. ▪ Turn Pump 1 into the "Hand" position at 20 Hertz and start to pressurize building ▪ Continue increase Hertz until all air has been vented and pressure has been satisfied. ▪ Check the following: ➢ Unusual noise or vibration ➢ Leakage at pumps or piping
	(Note: The pump Shaft Seal may weep slightly until the Seal Faces Seat)
8.	▪ Place Pump 1 into the "Auto" Position ▪ Place all other pumps into the "Auto" position ▪ Initially, the other pumps may start due to the demand of filling the piping system ▪ If there is little or no demand in the building, the lag Pumps will turn off. ▪ Verify that the system is operating correctly. ▪ Change Setpoint pressure to value specified by customer. ▪ Be sure all pumps are in the AUTO position before leaving the site.

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