


ELIMINATOR LIQUID RING PACKAGE  
WITH TM3 LIQUID RING PUMP & HYDRAULIC MOTOR  
**PART # ELH-TM3R**

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CREATED	I.P.	03/05/2024	
CHECKED			TITLE: ELIM TM3 LIQUID RING PACKAGE - EXP. VIEW
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL OR .X = ±.015 .XX = ±.010 .XXX = ±.005			DWG. NO. ELH-TM3R
MATERIAL	--	SCALE: 1:16	REV P1
		WEIGHT:--	SHEET 1 OF 5

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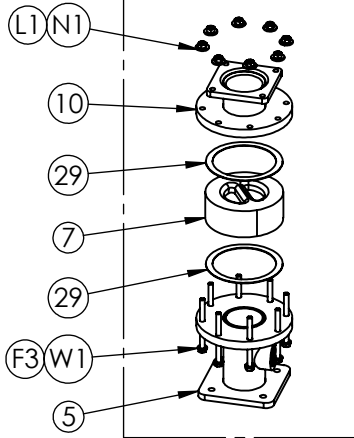
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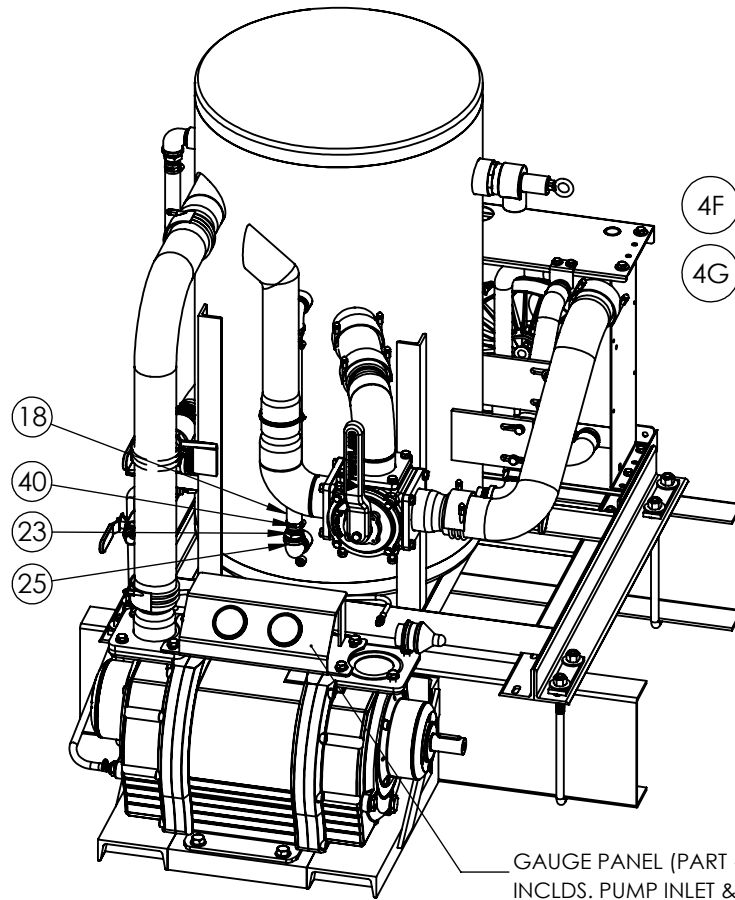
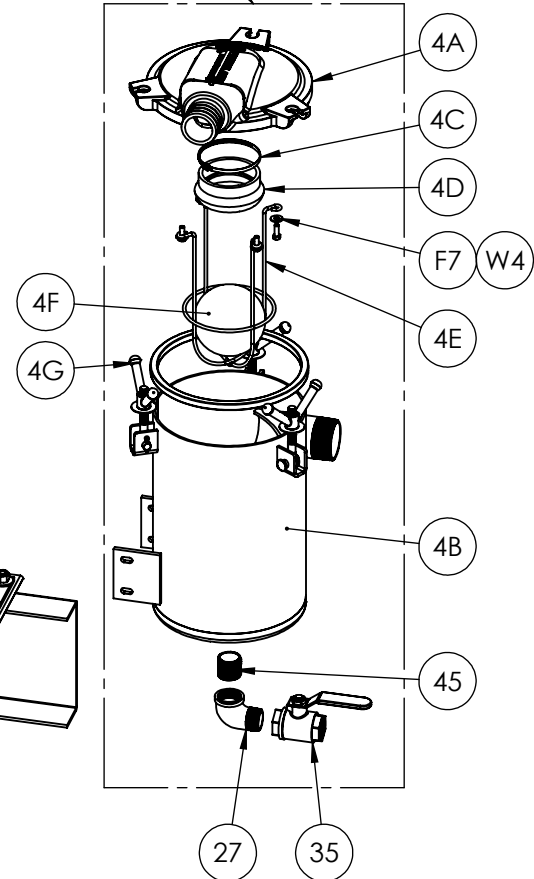
# SECONDARY SHUT-OFF & BACK-UP VALVE ASSEMBLY

PART # ELH-TM3R

BACK-UP VALVE ASSEMBLY




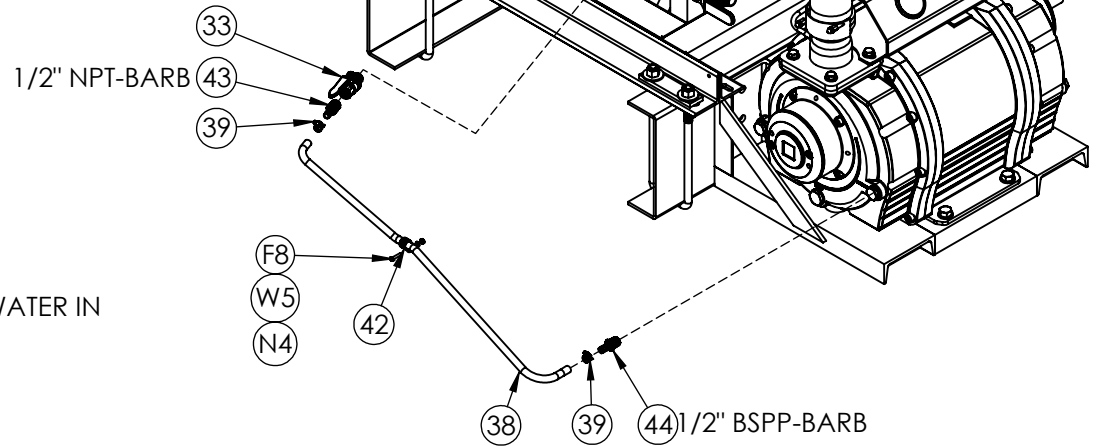
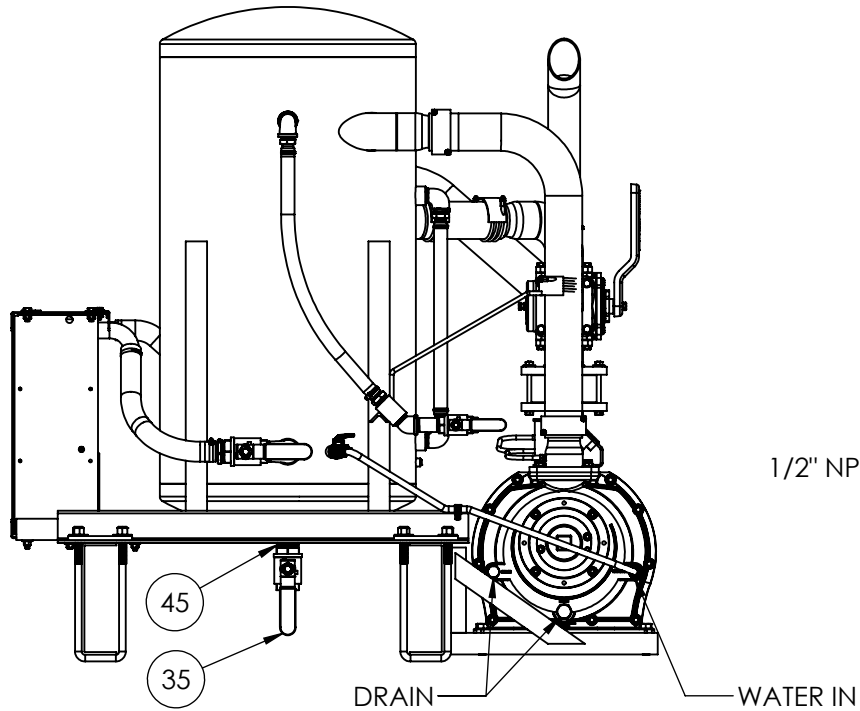
SECONDARY SHUT-OFF ASSEMBLY




GAUGE PANEL (PART # ELX-TM3R-23)  
INCLDS. PUMP INLET & OUTLET PRESSURE GAUGES

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			SHEET 2 OF 5



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		WEIGHT:--	SHEET 3 OF 5

ITEM #	PART #	DESCRIPTION	QTY.
1	PLA-TM3R	FRUITLAND LIQUID RING PUMP - 3"	1
2	ELX-TM3R-01	PEDESTAL FRAME - TM2 & TM3 PUMPS	1
3	ELX-TM3R-11	WATER RESERVOIR & FRAME ASSEMBLY	1
4	ELX-TM3R-10	S12 SECONDARY SHUT-OFF - 3" NPTM	1
4A	P12LP-3W-3HB	12" PRIMARY LOW PROFILE LID WITH 3" HOSE BARB & 3WN - CAST ALUMINUM	1
4B	ELX-TM3R-101	TM3 SECONDARY NECK ASSEMBLY - Ø12", 18" NECK, 3" NPT	1
4C	HCI-300-72	HOSE CLAMP - 3"-5"	2
4D	S14-A-12	RUBBER BALL SEAT - FITS OVER 4" PIPE FOR 6" BALL	1
4E	BC6S-13	6" BALL CAGE - 13" LONG	1
4F	S14-A-04	FLOAT BALL - Ø6" - STAINLESS STEEL	1
4G	WNKIT5	5 PC. WING NUT KIT: WN01, WN02, WN03, WN05, WN06	3
5	ELX-TM3R-02	PUMP INLET FLANGE (FROM BUY)	1
6	ELX-TM3R-03	PUMP OUTLET FLANGE (TO RESERVOIR) - 3" HB	1
7	BVA-100-SA	BACK-UP VALVE DN100	1
8	DVA-04	4-WAY DIVERTER VALVE ASSEMBLY	1
9	ELX-TM3R-04	FLANGE - DIVERTER VALVE TO SECONDARY	1
10	ELX-TM3R-06	FLANGE - DIVERTER VALVE TO BUY	1
11	ELX-TM3R-05	FLANGE - DIVERTER VALVE TO RESERVOIR	1
12	ELX-TM3R-12	FLANGE - DIVERTER VALVE TO EXHAUST	1
12A	ELX-TM3R-1201	EXHAUST STACK - Ø3" - CHROME	1
13	RF870-65	GASKET - DIVERTER FLANGE	4
14	ELX-TM3R-20	Ø3" CORRUGATED RUBBER HOSE - 40" LG. - PUMP TO RES.	1
15	ELX-TM3R-21	Ø3" CORRUGATED RUBBER HOSE - 28" LG. - DV TO SEC.	1
16	ELX-TM3R-22	Ø3" CORRUGATED RUBBER HOSE - 8" LG. - RES. TO DV	1
17	ELX-TM3R-23	GAUGE PANEL - WITH 2x PRESSURE GAUGE & TEMP. GAUGE	1
17A	FGC-021-PVP	PRESSURE GAUGE - 1/4" NPT - CENTER-BACK PANEL MOUNT	2
18	RHS-100-PVC	CLEAR HOSE - Ø1" x 18" LONG (SIGHT HOSE)	18'
19	ELX-TM3R-15	RUBBER HOSE - Ø1" x 26" LONG (FOR RESERVOIR FILLING)	1
20	FM700RAD-WR	75kW COOLER ASSEMBLY	1
21	RHS-150-EXF	RUBBER HOSE - Ø1.5" x 21" LONG - RESERVOIR TO COOLER INLET	8"
22	RHS-150-EXF	RUBBER HOSE - Ø1.5" x 19" LONG - COOLER OUTLET	19"
23	FPA-101-105-BR	PIPE ADAPTOR - 1" NPT x 1" HB	4
24	FPA-151-155-BR	PIPE ADAPTOR - 1-1/2" NPT x 1-1/2" HB - BRASS	2


25	FPE-100-91-CS	STREET ELBOW, 90° (MxF) - 1" NPT - STEEL	3
26	FPE-100-41-CS	STREET ELBOW, 45° (MxF) - 1" NPT - STEEL	1
27	FPE-150-91-CS	STREET ELBOW, 90° (MxF) - 1-1/2" NPT - STEEL	3
28	AI-870-83	S.S. BRAIDED HOSE - 1/4" NPT x 14" LONG	2
29	RF120-65	GASKET - PUMP OUTLET / BACK-UP VALVE	2
30	FPN-101-030-CS	PIPE NIPPLE - 1" NPT x 3" LONG - STEEL	1
31	PRV-2	PRESSURE RELIEF VALVE - 2" NPT	1
32	ELX-TM3R-19	COOLER MOUNTING ANGLE	2
33	FVB-051-052-BR	BALL VALVE - 1/2" NPT (MxF)	1
34	FVB-102-BR	BALL VALVE - 1" NPT	1
35	FVB-152-BR	BALL VALVE - 1-1/2" NPT	4
36	FPA-101-077-BR	GARDEN HOSE FITTING - 3/4" GHT x 1" NPT - BRASS	1
37	HCI-300-PLD	POWER LOCK HOSE CLAMP - 3" - DOUBLE BOLT	6
38	ELX-TM3R-16	HOSE - Ø1/2" x 36" LG. (RESERVOIR TO PUMP)	1
39	HCI-040-625	HOSE CLAMP, SAE4 (7/32" - 5/8")	2
40	HCM-060-035	HOSE CLAMP - 1" (32-35mm)	4
41	HCM-080-055	HOSE CLAMP - 1-1/2" (52-55mm)	4
42	HCI-062-SVD	LOOP CLAMP - 5/8" - SNUG FIT VIBRATION DAMPENING	1
43	FPA-051-055-BR	PIPE ADAPTOR - 1/2" NPT x 1/2" HOSE BARB - BRASS	1
44	FPA-053-055-BR	PIPE ADAPTOR - 1/2" BSPT x 1/2" HOSE BARB BRASS	1
45	FPN-151-017-CS	CLOSE NIPPLE - 1-1/2" NPT	2
46	FPP-021-SBR	PIPE PLUG - 1/4" NPT - BRASS	1
47	FPE-022-45-CS	ELBOW, 45° (FxF) - 1/4" NPT - STEEL	2
48	VB	VACUUM RELIEF VALVE - 1-1/2" NPT	1

HARDWARE LIST				
F1	HBM-100-301	HEX BOLT - M10 x 30mm LONG - Z.P.	16	
F2	HBM-100-401	HEX BOLT - M10 x 40mm LONG - Z.P.	4	
F3	HBM-100-1201	HEX BOLT - M10 x 120mm LONG - Z.P.	8	
F4	HBM-120-401	HEX BOLT - M12 x 40mm LONG - Z.P.	8	
F5	HBI-620-252	HEX BOLT - 5/8"-11 NC x 2-1/2" LONG - Y.Z.P.	4	
F6	HBI-380-122	HEX BOLT - 3/8"-16 NC x 1-1/4" LONG - Y.Z.P.	4	
F7	HBI-380-102	HEX BOLT - 3/8"-16 NC x 1" LONG - Y.Z.P.	4	
F8	HBI-100-102	HEX BOLT - #10-24 NC x 1" LONG - Z.P.	1	
N1	HNM-100-H1	HEX NUT - M10 x 1.5mm - Z.P.	12	
N2	HNI-620-N2	NYLOCK HEX NUT - 5/8"-11 NC - Y.Z.P.	4	
N3	HNI-380-N2	NYLOCK HEX NUT - 3/8"-16 NC - Y.Z.P.	6	
N4	HNI-100-N2	NYLOCK HEX NUT - #10-24 NC - Y.Z.P.	1	
L1	HWM-100-21	LOCK WASHER - M10 - Z.P.	28	
L2	HWM-120-21	LOCK WASHER - M12 - Z.P.	8	
W1	HWM-100-01	FLAT WASHER - M10 - Z.P.	23	
W2	HWI-620-32	FLAT WASHER, SAE (SMALL) - 5/8" - Y.Z.P.	8	
W3	HWI-380-32	FLAT WASHER, SAE (SMALL) - 3/8" - Y.Z.P.	4	
W4	HWI-380-42	FLAT WASHER, USS (LARGE) - 3/8" - Y.Z.P.	8	
W5	HWI-100-01	FLAT WASHER - #10 - Z.P.	1	
TFM-11R - REGULAR INSTALLATION KIT				4
K1	TFM-11-A3	U-BOLT - 3-1/2" x 5/8"-11 NC	4	
K2	TFM-11-09	TIE BAR PLATES FOR 3-1/2" U-BOLTS	4	
K3	HWI-620-42	FLAT WASHER, USS (LARGE) - 5/8" - Y.Z.P.	8	
K4	HNI-620-N2	NYLOCK HEX NUT - 5/8"-11 NC - Y.Z.P.	8	

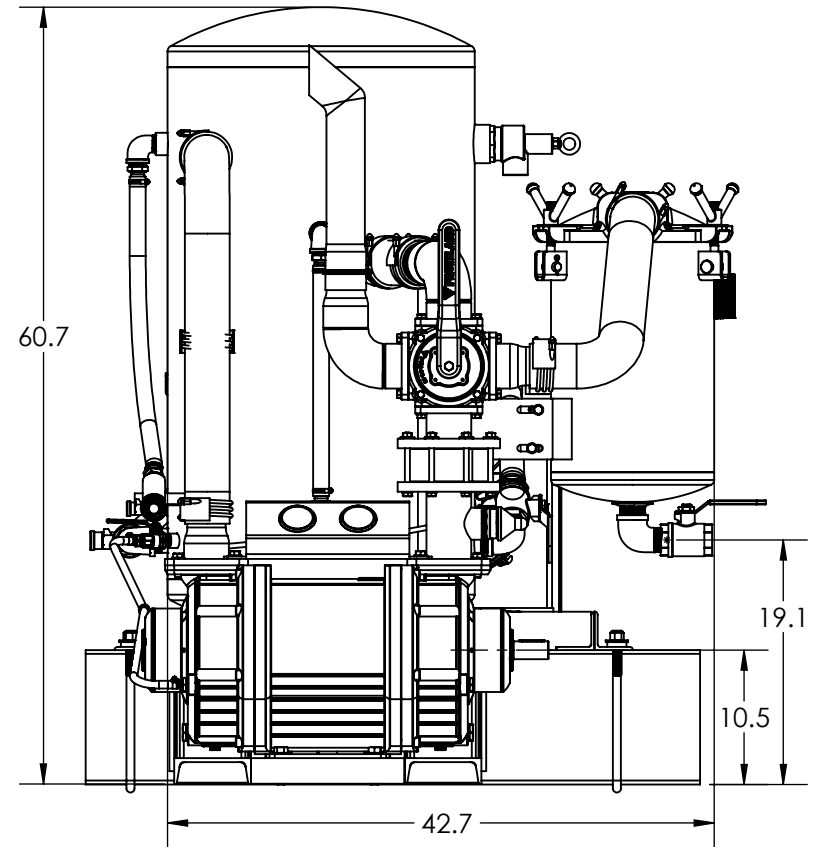
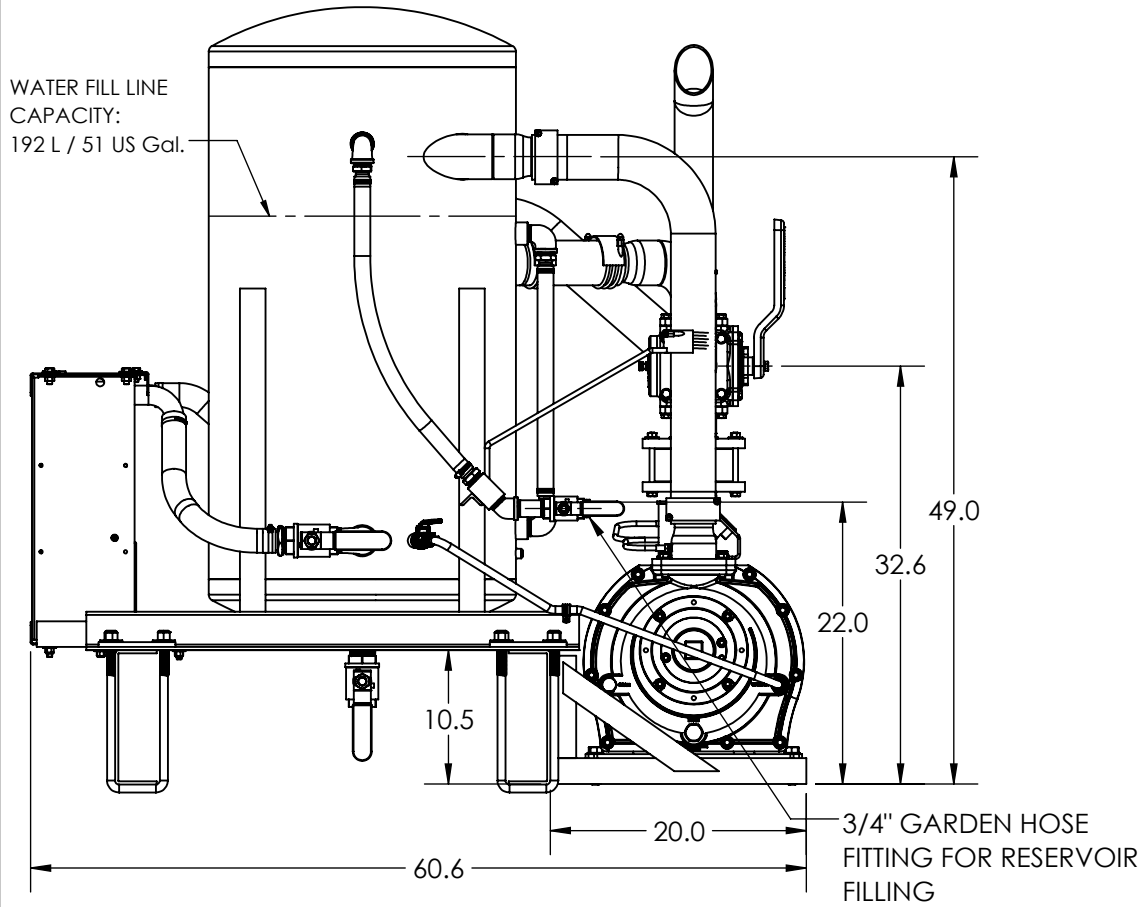
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TOLERANCES:			DWG. NO.
FRACTIONAL OR .X = ±.015			ELH-TM3R
.XX = ±.010			REV
.XXX = ±.005			P1
MATERIAL	--	SCALE: 1:1	WEIGHT:--
		SHEET 3 OF 5	

**PART # ELH-TM3R**



RESERVOIR TOTAL CAPACITY:  
213L / 56 US GAL.

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MATERIAL	--	SCALE: 1:16	WEIGHT:--
			SHEET 5 OF 5

RESERVOIR VOLUME:  
 TOTAL CAPACITY - 213L (56 US GAL)  
 WATER CAPACITY - 192L (51 US GAL)

## FRUITLAND LIQUID RING PUMP START-UP INSTRUCTIONS

### IMPORTANT:

Please Read Liquid Ring Pump Installation, Operation, and Maintenance Manual to Understand Pump Operation.

### BEFORE START-UP:

1. Check liquid level in the Tank #1. Add up to the **Fill Line** through filling connection #6 if required.
2. Check liquid level in pump through hose location #2. It is important to have the liquid up to the center line of the pump.
3. Use Valve #3 to add liquid to the Vacuum Pump

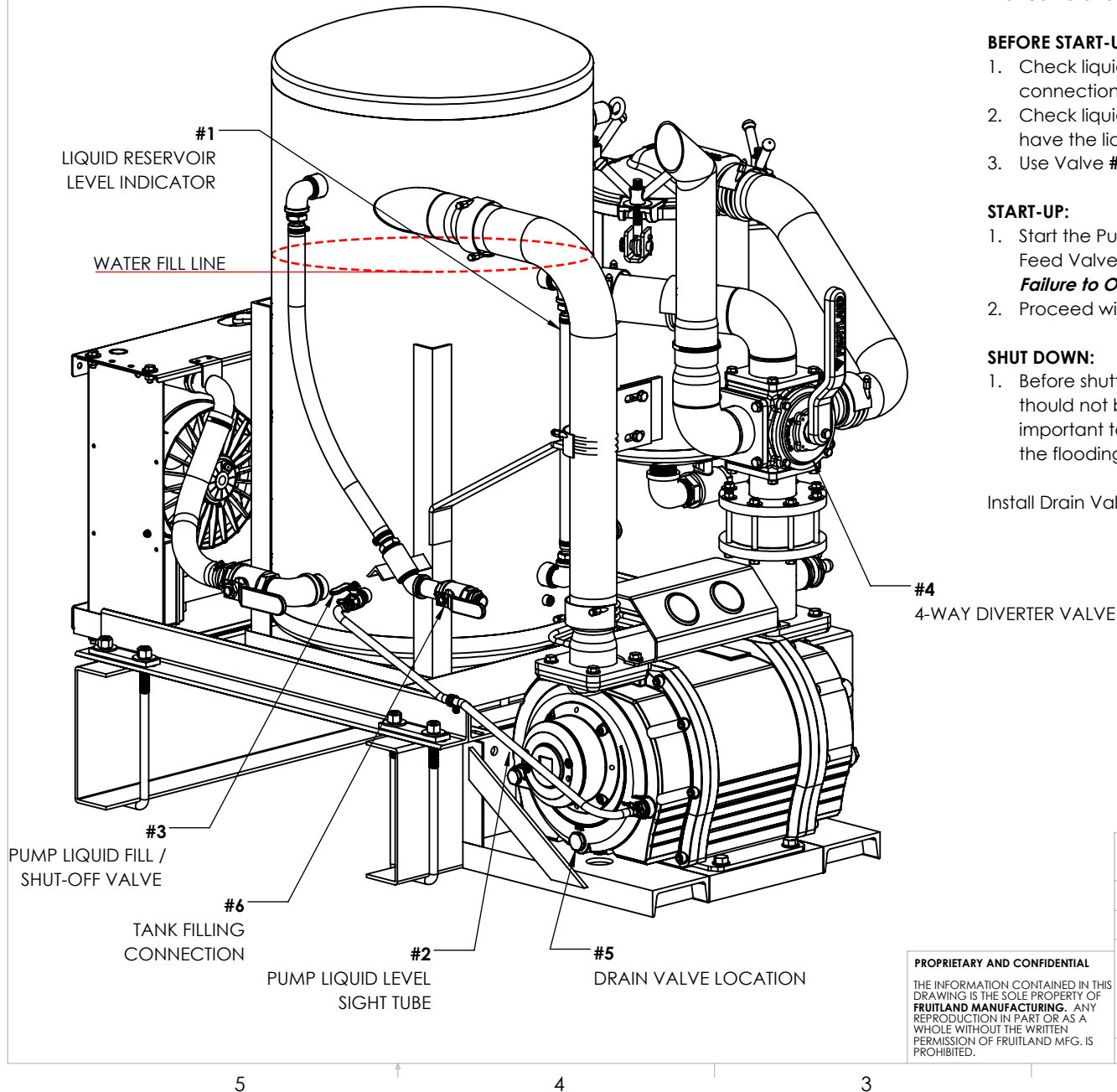
### START-UP:

1. Start the Pump and within 20sec of starting the pump, open the Liquid Feed Valve #3 to start feeding liquid to the pump.  
**Failure to Open the Valve will Result in Serious Pump Damage.**
2. Proceed with regular pump operation.


### SHUT DOWN:

1. Before shutting off the pump, turn off the Liquid Supply Valve #3. There should not be more than a 10sec delay between the two steps. It is important to shut off the water when the pump is not running to prevent the flooding of the pump, diverter valve, and other parts of the system.

Install Drain Valve #5 at the bottom of the pump to drain a flooded pump.



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			ELH-TM3 - START-UP INSTRUCTIONS		
			DWG. NO.		REV
			ELH-TM3-STARTUP		PO
MATERIAL		--	SCALE: 1:12	WEIGHT:--	SHEET 1 OF 1

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