

TAG #	Qty	Description1	Manufacturer	Part Number	Description
<b><u>MAIN COMPONENTS</u></b>					
01	1	Air flow Control valve (0-50 SCFM)	Pneutrol	N30SSK	1/2" Needle valve. NPT connections, SS
02	2	Moyno Product Pump (2-4 gpm)	Moyno	500-33204	Moyno pump, 500 series, model 33204, Viking production # 3910000208, 316 SS housing, chrome plated 316 SS rotor, viton stator and elastomers
03	2	Motor	Baldor	WDM3538	Motor, 1/2 hp, 208V, 1750 rpm, wash down, with feet, non-Cface
04	1	Condenser, shell and tube	ITT Standard	PN #BN516004036004 Mod #SSCF04036	ITT shell and tube HX, 1.25" npt all ports, 4" dia, 36" long, SS tubes, SS shell
05	1	Vacuum pump, liquid ring	SIHI	LEMR15-AZ-AAA-0B-0AT	SIHI Vacuum pump, buna elastomers, standard seal, stainless impeller, integral TEFC motor, 3/4-208/230/460-3500 with feet
06	1	CFF Ball Valve (vacuum pump water)	CFF	CFFSS11S05	1/2" 3-pc, socket weld ball valve, SS
07	1	Vacuum chamber	TBA		Per drawing G5039A
08	1	A204 Hydro-Heater with positioner	Hydro Thermal	A204ALU	
09	1	Back Pressure Regulating Valve	Sharpe	40276	1.5" Globe valve, threaded ends, manual, SS
10	1	Ball Valve, vacuum break	CFF	CFFSS11S05	1/2" 3-pc, socket weld ball valve, SS
<b><u>Valves</u></b>					
11	1	Relief Valve	Kunkle	171S-C01-MG0150	SS pressure relief valve, rated for 8 gpm @25% overpressure set at 150 psig, SS
12	1	sight guage			guage, liquid level, SS and glass, composite handles, no checks, 1/2" npt, 12" long, drain valve
13	1	Mag Flowmeter	Burkert	426498R - Insertion, 428742 - Body	
14	3	RTD	Pyromation	R1T185L483-001-00-8HN63 - RTD	
15	1	pressure gauges	Miljoco	P4520L-06	Process pressure gauge, acrylic cover, polypropylene case, 1/4" npt bottom connection, 0-160 psi range
16	1	pressure gauges	Miljoco	P4520L-05	Process pressure gauge, acrylic cover, polypropylene case, 1/4" npt bottom connection, 0-100 psi range
17	2	pressure gauges	Miljoco	P4520L-001	Process pressure gauge, acrylic cover, polypropylene case, 1/4" npt bottom connection, 30 " Hg - 0 psi range
18	1	Pressure transducer	IFM	PM2059, U30035, E10832	Non-sanitary pressure transmitter, NPT connection, no display, scalable 4-20 mA output, -14 to 43.5 psig range with 6-meter cable and instrument fitting.
<b><u>INSTRUMENTS</u></b>					
19	2	Temperature Gauges	Miljoco	B3099A-94-2	Bi-Metal thermometer, stainless steel case, 316 SS 1/2" npt connection, 2.5" stem length, 50-500°F range, adjustable face
20	3	Temperature Gauges	Miljoco	B3099A-54-2	Bi-Metal thermometer, stainless steel case, 316 SS 1/2" npt connection, 2.5" stem length, 0-250°F range, adjustable face
21	2	VFD	Allen Bradley	22b-b2p3N104	VFD, Allen Bradley powerflex 4, 1/2 hp, built in control interface, 200-240Volt 3ph, NEMA 1
	2	VFD	Allen Bradley	22-him-c2	HIM module, NEMA 4, with connector for above drive
22	2	Coolingwater Isolation valves	CFF	CFFSS11S12	1.25" 3-pc, socket weld ball valve, SS

23	2	Steam Isolation Valves	CFF	CFFSS11S05	1/2" 3-pc, socket weld ball valve, SS
24	1	Pressure transducer	IFM	PM2054, E33001, E18032	Sanitary pressure transmitter, 1.5" TC connection, no display, scalable 4-20 mA output, -7 to 145 psig range with 6-meter cable and instrument fitting.
25	1	Pressure transducer	IFM	PM2054, U30035, E18032	Non-sanitary pressure transmitter, NPT connection, no display, scalable 4-20 mA output, -7 to 145 psig range with 6-meter cable and instrument fitting.
26	2	Check valves	Check All	#SCV-075-SS-V-1/2-O	check valves, 3/4", 1/2 psi cracking, non-food viton
27	1	Orifice	Alfa	A80MPU-3/4-316L	orifice, 3/32" hole, 3/4" Tri-Clamp, Viton
28	2	PID controllers	Watlow	96A0-FFAM-00RG	Watlow PID loop controller with special set up
29	1	I/P transducer	ControlAir	EL0015	I/P TRANSDUCER CONTROL AIRE 4-20MA 3-15PSI
	2	Coupling for pumps		LO95 5/8"x5/8" Complete	Coupling
	1	Frame	FAB		
	1	Lot Misc. pipe fittings and tubing			
	4	siphon			siphon, 1/4" npt, SS, 360 degree turn
		<b><u>CONTROLS</u></b>			
		<b><u>DAQ System</u></b>			
	1	Laptop	Dell		Dell laptop
	1	DAQ System components	Omega		DAQ components per quote
		<b><u>Fab Items</u></b>			
	2	Coupling Guard	FAB		Coupling guard for Moyno pumps, not designed, sketch and fab after assembled
	1	Laptop shelf	FAB		Shlef for Laptop to sit adjacent to control panel, 40" off floor, S/S; not designed
		<b><u>Tank Parts</u></b>			
	2	cap			cap, 16" schd 10, 316L SS
	1	pipe 16"			pipe, 16" schd 10, 316L SS, cut flat and square to 20" long +- 1/4"
	8	shoulder bolt			
	2	flange			
	1	gasket			
	1	Spray ball	Toftjorg/ALFA	TE10B102(clip on) option if needed is TE10B202(weld on)	Spray ball, Toftjorg, midget, clip on
	1	Dip tube	FAB		Dip Tube with spray device above welded on, per sketch