

10. Production Support

Item	Qty	Description	Make	Equip #
300	3	<b>Thermal Oil Press Heating Systems</b>	Ness	
		Type WEH8.000, 8000kw rated thermal power		
		3x100 min volume flow,		
		17.2 bar max working pressure,		
		0/320 centigrade allow min/max temp,		
		7280 content V, 27.2 bar test pressure		
		(mfg 2018)		
303	1	<b>Thermal Oil Heater</b>		<b>7250</b>
		provides thermal oil for press process as follow:		
		280 degree C oil feed temp. to press,		
		Design oil Delta T of 25 degree C,		
		410 m3/h oil flow rate,		
		330 degree C flue gas outlet temperature,		
		operating pressure of 10 bar(op)		
		ASME coded with		
		helical coil type heater with double coils		
		flow indicator, pressure and temp guages		
		drain, safety and associate hand valves & pipping		
		(2) 75 kW primary circulation pumps with thermal fittings		
		aux. thermal system with associated components		
		natural gas burner with reducing station and 15 kW comb air fan		
304	1	<b>Steam Generator</b>		<b>7390</b>
		provides steam to refiner & sifter		
		22,000 kg/saturated steam		
		13 bar (max) operating pressure		
		105 degree C feed water temperature,		
		consists of: natural gas firetube heater/burner		
		(2) 30 kW feed water pumps +1 standby with fittings		
		feed water and blow down systems		
		pressure and level control for the steam generator		
		natural gas burner with air fan and gas train reducing station		
		blowdown and feedwater tanks with level controls		
		stainless dearator tank with pressure controller		
		associated safety relief and hand valves		
305	1	<b>Shared Therm. Oil / Generation Equip</b>		<b>7395</b>
		consisting of steam system within the energy plant which includes (3) horizontal receivers, vertical buffer receiver, deareator feed water pumps and buffer tank		
306	1	<b>Ness Control Panel</b>		
307	1	<b>Foam Bladder Tank</b>		
315	1	<b>Evaporative Condensor</b>	Evapco	
		AXS12-11M22		
320	3	<b>Plant Compressed Air System</b>	Rogers	

10. Production Support

		consisting of: (3) Rogers model RMC-KRV-150-125 air compressors, includes Zeks air dryer, associated filters, water separator and vertical receiver within compressed air bldg.		
326	1	<b>Plantwide Secondary Air Receiving Network</b>		
		includes a minimum of (4) Machester Tank 1550 gal approx vertical air receivings locations throughout the facility with associated pipework extending from main air compressor bldg (quantity to be confirmed)		
330	2	<b>Reverse Osmosis System</b>		
		includes (2) RO membrane skids, associated RO CIP skid and buffer tank		
333	1	<b>RO Permeate Storage Tank</b>		<b>T-9300</b>
		7300 gal		
334	2	<b>RO Reject &amp; Cooling Tower Make-up Tanks</b>		<b>T-9500 &amp; T-9600</b>
		2500 gal with associated pumps		
336	2	<b>Recyled Water &amp; PWW Clearwell Tanks</b>		<b>T-8150 &amp; T-8055</b>
		3650 and 5100 gal, with associated pumps		
338	1	<b>Marlo Filtering System</b>		
		with associated vertical pump sets		
339	2	<b>Clarifier Holding Tanks</b>		<b>T-8000 &amp; T-8050</b>
		5350 gallon, with associated pumps		
340	1	<b>Group of (4) Clarifier Additive Tanks</b>		
		designed for caustic, coagulant and flocculant use with metering		
350	1	<b>Caterpillar Standby Diesel Gen Set</b>		
351	1	<b>Press Area Extraction System</b>		<b>4998</b>
		handling exhaust in general press areas to equalizing bin 7421	Ventapp	
		air volume of approx 100,000 m3/h,		
		fan pressure drop of 5000 PA,		
		air temp of up to 40 degree C		
		System includes:		
		230 kW TE1120/140-63 4150v radial fan motor		
		bearing temp control		
		compensators at suction and exhaust side		
		pipng, flanges and support framework		
352		<b>Dissolved Air Flotation System</b>		
		includes Reko & Conoscreen Microfilter		
360	1	<b>Sanding Dust Silo</b>	SHW	<b>7110</b>
		rotating drag arm design with fixed discharge screw and dosing screw to HP pneumatic conveyor pos 7112		
		discharge volume of 20 m3h (80 Hz),		
		200 m3 silo net volume,		
		6 meter dia, 9 meter silo cylindrical wall height,		
		5 meter silo skirt height,		

10. Production Support

		complete unit with:		
		8.5 meter x 200 mm dia variable discharge screw		
		full continuous and empty level indicators		
		remote display and controls		
		(2) safety sliding gates		
		foundation ring, nozzle sockets, relief wedges,		
		walk in door and inspection cover		
		burst discs with rupture detection and firefighting nozzles		
		steel support structure with maintenance platform, stairs, ladders, walkway:		
361	1	<b>Board Breaker Hog Silo</b>		7130
		rotating drag arm design with fixed discharge screw and dosing screw to refiner process		
		discharge volume of 30 m3h (80 Hz),		
		200 m3 silo net volume,		
		6 meter dia, 9 meter silo cylindrical wall height,		
		5 meter silo skirt height,		
		complete unit with:		
		8.5 meter x 380 mm variable discharge screw		
		full continuous and empty level indicators		
		remote display and controls		
		(2) safety sliding gates		
362	1	Radial Fan (associated with board breaker silo)	Ventapp	
364	1	Rotary Blower	Kaiser	
365	1	<b>Trough Chain Conveyor</b>	SKR	7131
		13 meter long x 540 mm wide with 5.5 kW drive motor		
		with infeed, intermediate and discharge sections		
		chain guides, carrier elements and tensioner		
		bursting discs and return pulley station		
366	1	<b>Trough Belt Conveyor</b>		
		extends form chain conveyor discharge to metering bin		
367	1	<b>Diagonal Saw Extraction / Recovery System</b>		4970?
		utilized for exhaust of diagonal saw located behind press with design specs of:	Ventapp/LHS	
		air volume of approx 47,000 m3/h,		
		gravimetric throughput of 500 kg/h eff.,		
		fan pressure drop of 6000 PA,		
		System includes:		
		63 kW E710/90-63 radial fan motor		
		variable speed supervision of rotating equipment		
		bearing temp control and suction board breaker		
		steel support with walkways, stairs and ladder		
368	1	<b>Reject Separator Silo</b>	SHW	7120.1
		rotating drag arm design with fixed discharge screw to dump or process dosing screw		
		50 m3/h (80Hz) discharge volume,		

10. Production Support

	200 m3 silo net volume,		
	6 meter dia, 9 meter silo cylindrical wall height,		
	5 meter silo skirt height,		
	complete unit with:		
	8.5 m x 380 mm variable discharge screw		
	full continuous and empty level indicators		
	remote display and controls		
	LHS ZLF-080-EX-5.5 kW rotary valve		
369	<b>Truck Loadout Bin</b>		