

Master Maintenance Schedule Register

Machine	Item/Task	Frequency in Hours									
		400	800	200/2050	3000	4000	5500	8000	14000	1600/6100	30000
2170	Oil Deublin rotating joints on drive side anilox mandrels										
2170	Check op side AR & PC bearings as they are greased										
2170	Grease PC adjusting spindle										
2170	Grease AR adjusting spindle										
2170	Grease PC mandrel bearing										
2170	Grease AR mandrel bearing										
2170	Grease nip roll bearing										
2170	Oil winder shaft bearing										
2170	Grease bow roller bearings										
2170	Spray lube on clean rag and wipe the slitter knife guide rail										
2170	Spray lube on clean rag and wipe cutoff knife guide shafts and linear bearing rails										
2170	Grease the treater drive belt guide rollers – WH2 – ½ pump										
2170	Check and drain if necessary, the air line coalescing filters on the unwind, rewind										
2170	Check drum cleaning system hoses and fittings										
2170	Check varisters in Eltainer										
2170	Check ink pump stroke counter										
2170	Check ink hose and connector condition										
2170	Check ink pump air supply filter condition – inside drive side guard doors										
2170	Check inking valves using input test procedure										
2170	Check indicator on compressed air dryer										
2170	Check air filter drain operation by depressing TEST button										
2170	Grease treater grounding roll bearings										
2170	Vacuum out electrical enclosures and enclosure air circulation filters										
2170	Clean Eltainer A/C filters										

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		400	800	2000/2050	3000	4000	5500	8000	14000	1600/6100	30000
2170	Check tunnel dryer tendency belt and threading chain/track.										
2170	Check stop pins on rewind shaft chucks for proper adjustment										
2170	Complete 400 hr service										
2170	Grease unwind shaft positioning screws										
2170	Grease op side bearing housing slide shaft										
2170	Spray lube on clean rag and wipe insetter guide rails										
2170	Check oil level in gearboxes for oil leakage and check noise while in operation for possible bearing damage										
2170	Grease bow roller hand crank threaded spindle										
2170	Check detonation flame arrestor – only specially trained personnel – Kleenair										
2170	lube Deublin rotating joints on unwind and rewind drive shafts										
2170	Grease chill roll rotating joints-5 pumps of Petamo										
2170	Check slitter bellows and knife bearings										
2170	Replace the battery in the Tidland slitter measuring device										
2170	Grease CI drum bearings										
2170	Grease turret gears										
2170	Check hoses in BC drying system										
2170	Check chill roll drive belt										
2170	Check oil level in turret drive gearboxes										
2170	Grease unwind drive shaft bearing										
2170	Grease rewind drive shaft bearing										
2170	Grease the cut offknife/ bump roller rack										
2170	Grease cut off knife/bump roller chain										
2170	Grease linear guide bearings										
2170	Check oil level in cut off knife/bump roller drive gear box										
2170	Grease the cut off knife/bump roller drive chain										
2170	Check oil level in cut off/bump roller assy drive gearbox										

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Machine	Item/Task	Frequency in Hours									
		400	800	200/2050	3000	4000	5500	8000	14000	1600/6100	30000
2170	Grease unwind dancer roll air cylinder upper & lower rod ends										
2170	Grease rewind dancer roll air cylinder upper & lower rod ends										
2170	Check oil level in unwind lift table gear box										
2170	Grease roll up door axle shaft bearing										
2170	Grease threading chain hand crank spindle										
2170	Grease the slider plates for the slitter/bow roller frame										
2170	Blow out turret drive motors										
2170	Blow out the rewinder drive motors										
2170	Blow out the unwinder drive motors										
2170	Blow out the cut off/bump roller drive motor										
2170	Clean the cut off knife guide shaft										
2170	Clean Turbowash tank supply/return inline filter screens										
2170	Check drives for dust buildup inside cover. If required, clean drives using a soft brush and vacuum cleaner.										
2170	Visually inspect motors/mounts/couplers/electrical connections										
2170	Check the brake on the cut off/bump roller motor										
2170	Check the bump roller covering for damage										
2170	Check brake on turret drive motor										
2170	Check brake on unwind shaft positioning motor										
2170	Check unwind shafts for wear on sliding portion of shaft										
2170	Check drive and brake at cut off assy on rewind										
2170	Check the timing belt tension on PC drive motor										
2170	Check AR drive belt										
2170	Check slitter air shaft for leakage and visually inspect for damage										
2170	Clean screen in Y strainer at water inlet to Turboclean fresh water tank										
2170	Check operation of overfill protection device on Turboclean										
		Frequency in Hours									

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Machine	Item/Task	400	800	200/2050	3000	4000	5500	8000	14000	1600/6100	30000
2170	Lube chains on unwind/rewind lift tables by brushing chains with #2 grease										
2170	Lube chain drive shaft bearings										
2170	Check oil level in gearboxes										
2170	Inspect OEM trim blower fan impeller										
2170	Inspect overhead trim blower fan impeller										
2170	Have refrigerant pressure tested										
2170	Replace operating unit in Donaldson air filter auto drain units										
2170	Replace filter element in Donaldson air filter units on top of press										
2170	replace filter element in Donaldson air filter unit inside drive side guard at west end										
2170	Have burner unit inspected										
2170	Have Temptek chiller and Donaldson air dryer inspected										
2170	Threading chain										
2170	Rebuild drum cleaning system pump										
2170	Grease turret support rollers										
2170	Grease all o-rings in slitter knife holders										
2170	Clean inline screens on gas supply lines										
2170	Change turboclean tank lid seals										
2170	Change gearbox oil in unwind/rewind turret and unwind cutoff knife drive										
2170	Change PLC battery/batteries-Renata typeCR2477N										
2170	Grease unwind lift table chains										
2170	change oil in threading chain drive gearbox										
2170	Clean out temp control unit inline screens with compressed air										
2170	Change PLC batteries										
2170	Check all PC drive motors										
2170	Check all AR drive motors										
2170	Check turboclean tank fill level indicators										
2170	Grease op side CI drum coolant rotating joint										

		Frequency in Hours									
Machine	Item/Task	150	300	1000	1500	2000	4000	8000			

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2175	Check mandrel bearing auto oiler reservoir												
2175	Grease op side anilox bearings – DELO EP 0. Check bearing for damage												
2175	Grease op side plate cylinder bearings – DELO EP O. Check bearing for damage												
2175	Clean and lube bearing housing sliding ways – CRC dry film PTFE lube spray												
2175	clean and lube deck sliding ways - op side and dr side–DELO EP O												
2175	Clean and lube ink chamber side plate guides – CRC dry film PTFE lube spray												
2175	Clean and lube ink drip pan ways – CRC PTFE dry lube spray												
2175	Clean and lube op side both bearing housing lock down mechanisms – CRC dry film PTFE lube spray												
2175	Check cooling system for leaks and damage												
2175	Check the air regulators and filters – 2 places												
2175	Clean/change cabinet air filter												
2175	Clean unwind cutoff mechanism rails and linear bearing rail												
2175	Clean rewind cutoff mechanism rails and linear bearing rail												
2175	Blow out chiller radiator filters and chiller electrical panel filters												
2175	Complete 150 hr service												
2175	Clean chiller screens and filter												
2175	Grease unwind roll lifting mechanism screws – 2 places – DELO EP 0												
2175	Grease rewind roll lifting mechanism screws – 2 places – DELO EP 0												
2175	Lube unwind shaft spindle bearings												
2175	Lube op side and dr side turret rollers												
2175	Grease CI drum bearings – 2 pumps. Verify grease level in reservoir –DELO EP 0												
		Frequency in Hours											
Machine	Item/Task	150	300	1000	1500	2000	4000	8000					

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Machine	Item/Task	Frequency in Hours									
		150	300	1000	1500	2000	4000	8000			
2180	Check mandrel bearing oiler reservoir level.										
2180	Grease op side anilox bearings -DELO EP 0. Inspect bearings for damage and broken rollers.										
2180	Grease op side plate cylinder bearings – DELO EP0. Check bearings for damage and broken rollers.										
2180	Clean and lube bearing housing sliding ways – CRC dry film PTFE lube spray.										
2180	Clean and lube deck sliding ways – op side and r side – CRC dry film PTFE lube spray										
2180	Clean and lube ink chamber side plate guides – CRC dry film PTFE lube spray.										
2180	Clean and lube ink drip pan ways – CRC dry film PTFE lube spray										
2180	Clean and lube op side bearing housing lock down mechanisms on both sides – CRC dry film PTFE spray lube										
2180	Check air filter regulator/filters – 2 places.										
2180	Change air filter for pump control cabinet.										
2180	Clean unwind cutoff mechanism roller rails and linear bearing rails.										
2180	Clean rewind cutoff mechanism roller and linear bearing rails.										
2180	Clean cabinet filters on the second level.										
2180	Check pump cooling fan air inlet for debris.										
2180	Check pump for seal leakage.										
2180	Clean condenser.										
2180	Check filter differential gauges – change filter at 4psi difference.										
2180	Clean inline strainers as necessary***										
2180	Clean evaporator strainer***										
2180	Check radiator and blow out as necessary										
2180	Check cooling system for leaks and damage.										
2180	Clean cabinet filters.										
		Frequency in Hours									

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Machine	Item/Task	150	300	1000	1500	2000	4000	8000			
2180	Grease unwind roll lifting mechanism.										
2180	Grease rewind roll lifting mechanism.										
2180	Grease unwind shaft spindle bearings.										
2180	Grease rewind shaft spindle bearings.										
2180	Grease Ci drum bearings – 2 pumps. Verify grease level In reservoir – Delo EP 0.										
2180	Grease CI coolant rotating joint – Delo EP0.										
2180	Grease CI drive motor rotating joint – Delo EP 0.										
2180	Complete 2000 service										
2180	Check friction pads on CI disc brake. Grease op side bearing housing slider shafts – Delo EP0.										
2180	grease deck adjuster screws – op side – Delo EP0.										
2180	grease deck adjusting screws – dr side – Delo EP0										
2180	Lube deck adjuster linear bearing slides – CRC dry film PTFE lube spray.										
2180	Clean and lube unwind cutoff mechanism rails – CRC dry film PTFE lube.										
2180	Clean and lube rewind cutoff mechanism rails – CRC dry film PTFE lube spray.										
2180	Grease idler roller bearings.										
2180	Check oil level in gear boxes.										
2180	Grease unwind linear bearings – Delo EP 0.										
2180	Grease rewind linear bearings – Delo EP 0.										
2180	Grease unwind roll lifting mechanism slides – 2 places - Delo EP 0.										
2180	Grease rewind roll lifting mechanism slides – 2 places – Delo EP 0.										

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Machine	Item/Task	Frequency in Months										
		1	2	3	5	6	10	12	24	36	42	
3200/3205	Clean electrical panels and filters											
3200/3205	Grease treater grounding roll bearings											
3200/3205	Oil the rewind and both unwind side plate guide shafts											
3200/3205	Grease ball screw bearing housing											
3200/3205	Transfer roller side supports											
3200/3205	Grease transfer roller offset drive coupler											
3200/3205	Check oil level in treater gearboxes											
3200/3205	check oil level in unwind and rewind gearboxes											
3200/3205	Check drive belts											
3200/3205	Change chiller unit return line water filters											
3200/3205	Inspect and clean temp control units electrical components and enclosures.											
3200/3205	Grease air cylinder spherical rod ends											
3200/3205	Grease coating roller bearings											
3200/3205	Grease rotating metering roll bearings											
3200/3205	Grease metering roll cams											
3200/3205	Grease pivot bushings on of coating nip roller side											
3200/3205	grease nip roller side frame pivot bushings											
3200/3205	Grease cooling drum bearings											
3200/3205	R&R treater CPU batteries											
3200/3205	grease the load cell roller bearings											
Mounter	Grease camera adjuster rack gearboxes-2 places											
Mounter	Check pneumatic components for damage											
Mounter	Check cam rollers for excessive play											
Mounter	Check shock absorbers for mandrel for proper operation											

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Machine	Item/Task	Frequency in Months									
		1	2	3	5	6	10	12	24	36	42
Mounter	Check linear bearings for camera travel for proper operation										
Mounter	Check all electrical components for damage or wear										
Mounter	Check mandrel lifting mechanism for proper operation										
Mounter	Check machine for level										
4010	Grease rod and blind end unwind lift hyd. cylinder pivots										
4010	Grease rod and blind end of open and close hyd. cylinder pivots										
4010	Grease unwind main frame pivot bearings										
4010	Grease unwind arm pivot bearings.										
4010	Grease unwind spindle chuck bearings										
4010	Check oil level in rewind lay on head cylinder reservoirs										
4010	Check oil level in edge guide hydraulic unit, change filter quarterly										
4010	Check oil level in unwind hydraulic unit										
4010	Check all hydraulic hoses for damage										
4010	Clean drive cabinet dust filter and vacuum out electrical cabinet										
4010	Blow out motors										
4010	Check trim fan bearings, belts and housing for damage										
4010	Grease trim fan shaft and motor bearings annually										
4015	Lube rewind shaft felts										
4015	Lube rewind shaft tapers with H1 anti-seize – sparingly										
4015	Grease rewind support bearings-moly grease										
4015	Grease rewind shaft bearings – moly grease										
4015	Grease rewind rider roll skates – moly grease										
4015	Grease bearings on both ends of unwind nip support roll										
4015	Grease bearings on both ends on unwind rubber nip roll										
4015	Grease unwind ball screw support bearing – in frame and ball bearing housing										
4015	Check drive belts for wear and tension										
4015	Check coalescing filter for oil/water and drain if necessary										

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Machine	Item/Task	Frequency in Months									
		1	2	3	5	6	10	12	24	36	42
4015	Lube rewind shaft drive gears – open gear lube sparingly										
4015	Check wiring/sensors/airlines for damage										
4015	Check rewind cutoff blades										
4020	Grease rewind shaft support bearings – drive end.										
4020	Grease draw roller bearings – both ends.										
4020	Check all belts to include the layon carriage belts.										
4020	Grease unwind web guide linear bearings.										
4020	Clean laser unit housing filters.										
4020	Check laser smoke filter hoses.										
4020	Check compressed air filter bowl.										
4020	Lube rewind and laser nip roller cylinder pivots.										
4020	Check laser smoke filter.										
Core Saw	Grease roller bearings and check for wear										
Core Saw	Grease saw pivot bearings										
Core Saw	Grease saw arbor bearings										
Core Saw	Grease hold down pivot bearings										
Core Saw	lube roller drive chain										
Core Saw	check fluid in roller drive gearbox										
Core Saw	Loosen belt and check saw arbor bearings and pivot bearing										
Core Saw	clean out electrical enclosure										
Core Saw	fill airline oiler										
Core Saw	check dust collector and hoses for damage										
Dock Leveler	Check condition of safety brace and install for PM										
Dock Leveler	Lube dock plate hinges										
Dock Leveler	Lube lip pivot hinges										
Dock Leveler	Check condition of hydraulic components including cylinder										
Dock Leveler	Check hydraulic fluid level										
Dock Leveler	Check electrical components for damage										
Dock Leveler	Check structure for damage										
Dock Leveler	Check condition of deck and lip plate										
Dock Leveler	Check side brushes										
		Frequency in Months									

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Machine	Item/Task	1	2	3	5	6	10	12	24	36	42
Dock Leveler	Inspect structure and welds										
Dock Leveler	Lube cylinder pivots – penetrating oil										
Dock Leveler	Inspect control panel										
Dock Leveler	Inspect dock bumpers										
Dock Leveler	Cycle for proper operation										
Core Cutter	Observe LOTO procedure.										
Core Cutter	Grease linkage at drive end of mandrel - 3- places										
Core Cutter	Grease core gripper bearing on cutter end of mandrel- 1 place										
Core Cutter	Check belt for wear and tension										
Core Cutter	Check jackshaft bearings and shaft for wear										
Core Cutter	Lube dovetail slide on blade carriage										
Core Cutter	Lube all foot pedal linkage pins										
Core Cutter	Check cutter blade to see if it needs replaced or turned										
Core Cutter	Check oil level and usage in airline oiler										

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Machine	Item/Task	Frequency in Months									
		1	2	3	5	6	10	12	24	36	42
5600/5610/5620	Grease gear on unwind shaft										
5600/5610/5620	Grease cutoff end draw roll gear										
5600/5610/5620	Oil edge guide screw on unwind- food grade machine oil										
5600/5610/5620	Oil rollers on unwind edge guide- food grade machine oil										
5600/5610/5620	Lightly oil guide plates, gears and threads on sliding adjustments – food grade machine oil										
5600/5610/5620	Lube gusset punch guide shaft bearings										
5600/5610/5620	Grease the gusset cutoff punch/guide shaft bearings – FM grease										
5600/5610/5620	Inspect the zipper opener and the bottom gusset former nose extension										
5600/5610/5620	Check dancer roll section draw roll drive belt										
5600/5610/5620	Check draw rolls drive belts at infeed to longitudinal sealer, between longitudinal and cross sealer and at cutoff knife infeed.										
5600/5610/5620	Grease inline frame auto adjust worm gear										
5600/5610/5620	Clean in line screen on chiller										
5600/5610/5620	Grease eccentric shaft bearings										
5600/5610/5620	Grease bevel gears										
5600/5610/5620	clean coolant inline strainer										
650	check oil level in unwind gear box										
650	grease unwind dancer pivot – 2 places										
650	check lube on tension chains – lube as necessary										
650	check unwind draw roller drive belt for wear and tension										
650	Check draw roll dia.										
650	grease fold over/gusset section accumulator dancer pivot – 2 places										
650	grease #5 draw roll gears – 2 places										
650	grease the pivot for the bottom gusset plow section accumulator dancer roll frame – 2 places										
650	check oil level in #4 draw roll drive gear box										
650	check #4 draw roll drive chain – lube/adjust as necessary										
650	grease the bottom gusset plow section bottom draw roll bearings										
650	grease side gusset lower draw roll bearings – 2 places										

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Machine	Item/Task	Frequency in Months									
		1	2	3	5	6	10	12	24	36	42
650	check side gusset draw roll drive chain – lube as necessary										
650	check oil level in lower draw roll drive gearbox										
650	grease dancer roll frame pivot bearings – 2 places										
650	check roller chain on dancer roll pivot tensioner – lube as necessary										
650	check side gusset draw roll drive belt										
650	Check draw roll dia.										
650	lube draw roll gears										
650	grease upper knife linear bearings – 2 places										
650	check wear on upper knife cylinder, side pressure cylinder and timing linkage ball ends										
650	check for wear on knife blade bar bushings end										
650	lube upper knife bar pivot bearings – FG oil										
650	grease gusset gripper head linear bearings – 2 places										
650	check gripper head drive belt for wear and tension										
650	grease lower gusset seal bar linear bearings 4 places										
650	grease 1st inline seal linear bearings – 12 places										
650	check #3 draw roll drive belt										
650	grease linear bearings in 2nd inline sealer – 12 places										
650	grease #2 draw roll gears										
650	grease 1st and 2nd cross sealer chiller linear bearings										
650	grease 3 rd and 4 th cross seal linear bearings										
650	grease linear bearings on cut off knife head – 2 places										
650	check chiller fluid level										
650	check chiller hoses, wiring etc.										
650	vacuum out electrical panels and filters										
650	grease #1 draw roll gears										
650	Check draw roll dia.										
650	check oil in shingling belt drive gear box										
650	check shingling table drive belt for wear										
650	check for wear on knife blade bar rod end bushings										
		Frequency in Months									

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Machine	Item/Task	1	2	3	5	6	10	12	24	36	42
650	check for wear on cylinder rod end balls, knife side load linkage and timing linkage ball ends										
650	grease upper knife blade bar linear bearings										
650	check shingling belt for damage										
650	Disassemble #5 draw roller support rollers- 1 on top roller / 2 on bottom roller										
665	Draw roll sections 1,2,3,4: lube drive gears and check belt for wear. Check draw roller for wear and all other rolls										
665	Inline #1 and #2: check liner bearings, check air cylinders, check main drive belt for wear.										
665	Zipper track: check for leaks in cooling water, check liner bearings.										
665	K seals and ultrasonic: check liner bearings and air cylinders										
665	Cross seals A, B, C, D: check liner bearings and air cylinders										
665	Cooling cross sections: check liner bearings and air cylinders										
665	Knife sections: check fly knife belt and pulleys for wear. Check rod ends for play and wear										
665	Check takes away belts and gear box for wear										
665	Check trim winder and Zipper unwind										
665	Lube liner bearings and main shaft bearing on inline #1 and #2.										
665	Zipper track: check for leaks in cooling water, lube liner bearings										
665	K seals and ultrasonic: lube liner bearings and check air cylinders										
665	Cross seals A, B, C, D: lube liner bearings and check air cylinders										
665	Main drive system: check all drive belts and lube all bearings										

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		1	2	3	5	6	10	12	24	36	42
Uponder	grease platform rollers		█								
Uponder	lubricate chains		█								
Uponder	check chain adjustment		█								
Uponder	check hydraulic oil level		█								
Uponder	change hydraulic filter yearly		█								
Uponder	check for hydraulic leaks and damaged lines and fittings		█								
Uponder	check electrical connections and switches		█								
Bailers	Check filter indicator for filter condition			█							
Bailers	Check hydraulic fluid level			█							
Bailers	Check hydraulic system for leaks and damaged components			█							
Bailers	Check fluid level safety switch			█							
Bailers	Check electrical components and clean cabinets			█							
Bailers	Check hopper door safety switch for proper operation			█							
Bailers	Clean tank magnet			█							
Bailers	Check door hinges and latch and lube with penetrating oil			█							
Bailers	Check structure for damage and cracks			█							
Bailers	Check bale dogs and springs and lube with penetrating oil			█							
Bailers	Grease motor bearings – electric motor bearing grease							█			
FlexoWash	Change sump filter	█									
FlexoWash	Check electrical components for damage or loose wires	█									
FlexoWash	Check hoses for damage	█									
FlexoWash	Check units for leaks	█									
FlexoWash	Check air line inlet filter and drain if necessary	█									
FlexoWash	Check oil level in high pressure pump	█									
FlexoWash	Check clean water filter at high pressure pump and clean as necessary	█									
FlexoWash	Check Nozzles for clogging	█									
FlexoWash	Drain ink sediment from bottom of tank	█									
Wrappers	Check oil level in carriage gearbox		█								
Wrappers	Check oil level in table gearbox		█								

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		1	2	3	5	6	10	12	24	36	42
Wrappers	Check carriage lift chain lube and tension.										
Wrappers	Check table drive chain for lube and tension.										
Wrappers	Grease table carrier wheels and check for damage.										
Wrappers	Check limit switches for proper operation and damage.										
Wrappers	Check load height sensor for proper operation and damage.										
Wrappers	Lube table pivot bearings.										
RTO	check linkage and operation of burner control valve										
RTO	check gas piping for leaks										
RTO	check blowers for proper operation										
RTO	check valves and linkages for operation and damage										
RTO	inspect exterior of unit for discoloration due to hot spots										
RTO	lube cylinder pivots–aerosol chain lube–lube spherical rod ends										
RTO	complete all the above maintenance										
RTO	lubricate main fan shaft bearings – Shell Gadus s2 v100 2										
RTO	lubricate main blower drive coupler – gpg										
RTO	check gas system for leakage										
RTO	perform visual inspection of electrical system/pressure switches/exposed sensor wires for damage										
RTO	inspect electrical junction boxes/switch covers for moisture										
RTO	complete all the above maintenance										
RTO	lube bearings on all dampers – gpg										
RTO	lube main fan shaft bearings										
RTO	check air lines for wear or weather damage										
RTO	check damper position sensors and wiring for damage										
RTO	check ducting and connections for damage										
RTO	check gas pressure safety switches for physical damage										
RTO	check exposed conduit and gas piping for damage										
RTO	complete all the above maintenance										
RTO	replace the thermocouples on the top of the unit – 3 places										
RTO	check graphite bushings for toggle shaft – 5 places										
		Frequency in Months									

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Location	Item/Task	1	2	3	5	6	10	12	24	36	42
RTO	Inspect main fan impeller										
RTO	inspect toggle damper seals										
RTO	inspect burner per manufacturer's instructions										
RTO	replace the UV scanner										
RTO	check air flows										
RTO	check instruments for calibration										
RTO	check safety switches for proper operation										
170 Mokon	Check for plumbing leaks and fluid level.										
170 Mokon	Gauge readings should be checked daily when the machine is at operating temps –										
170 Mokon	Check motor cooling fan for obstructions.										
170 Mokon	Check pump motor current draw –										
170 Mokon	Check panel instruments/lights for proper operation.										
170 Mokon	Check system cooling solenoid valve while in heating mode.										
170 Mokon	Check heater current draw.										
170 Mokon	Check electrical components for visual damage or discoloration.										
170 Mokon	Check electrical connections for loose connections.										
170 Mokon	Take drum loop fluid sample for test for PH and P.G. ratio.										
170 Mokon	Clean fluid system inline screens.										
170 Mokon	Change drum heater relays.										
Carbon Bed	Lube fan shaft bearings – Shell Gadus										
Carbon Bed	Change beds										
Carbon Bed	Inspect the outside, including the top, of the unit for damage										
Carbon Bed	Inspect the water lines, valves and insulation for damage										
Carbon Bed	Inspect drive belts for wear and tension										
Carbon Bed	Inspect the fan housing, inlet duct and discharge stack for damage										
Carbon Bed	Record motor amp draw readings										
Carbon Bed	Grease motor bearings										
Genie Manlift	Grease rotating gear.										
Genie Manlift	Grease turntable bearing.										
Genie Manlift	Check oil level in hydraulic tank. Use Dexron III.										
Genie Manlift	Change hydraulic filter.										
		Frequency in Months									
Location	Item/Task	1	2	3	5	6	10	12	24	36	42

Master Maintenance Schedule Register

Genie Manlift	Check battery connections for corrosion and tightness.										
Genie Manlift	Check battery condition – check fully charged and record hydrometer readings										
Genie Manlift	Check hydraulic hoses and wiring harness for damage.										
Genie Manlift	Check circuit boards, relays and components for damage and terminal screw torque.										
Genie Manlift	Check drive motor brush condition and blow/vacuum out motors as necessary.										
Genie Manlift	Check drive hubs for oil level and oil condition.										
Genie Manlift	Check tire condition and inflation. (100psi)										
Genie Manlift	Lube boom pivots with penetrating oil and inspect for damage/wear.										
Genie Manlift	Check operator console legends for readability.										
Genie Manlift	Check machine structure for cracks or damage.										
Genie Manlift	Check boom extension pads for wear.										
Genie Manlift	Check the 1" flex nut on the platform rotating mechanism for tightness. (190 ft/lbs)										
Genie Manlift	Check steer axle hub bearings for lube – repack as necessary.										
Genie Manlift	Replace filter screens and breather on hydraulic tank.										
Roll Handers	check chain and chain roller condition and adjustment.										
Roll Handers	check pump and cylinder for proper operation and leaks.										
Roll Handers	check steer wheels and linkage for play and alignment.										
Roll Handers	check all wheels for damage.										
Roll Handers	check brake linkage condition and operation.										
Roll Handers	frame and carriage for cracks and damage.										
Lighting	High Bay										
Lighting	Emergency Exist Lights: East wall										
Lighting	Emergency Exist Lights: North Wall										
Lighting	Emergency Exist Lights: West wall										
Lighting	Emergency Exist Lights: Maintenance pedestrian door										
Lighting	Emergency Exist Lights: Admin office hallway										
		Frequency in Months									
Location	Item/Task	1	2	3	5	6	10	12	24	36	42
Lighting	Laminators										

Master Maintenance Schedule Register

Lighting	Pouch Machines													
Lighting	Presses													
Lighting	Dock lights													
Lighting	LIGHT BOOTH AT 170 PRESS													
Lighting	LIGHT BOOTH AT 175 PRESS													
Lighting	INK OFFICE													
Lighting	SHIPPING OFFICE													
Lighting	MAINT. OFFICE													
Lighting	PRESS BREAK ROOM													
Lighting	PLANT REST ROOMS													
Lighting	COMPRESSOR ROOM													
Lighting	DRYER/RECEIVER ROOM													
Lighting	ADMIN OFFICES													
Lighting	LOCKER ROOM													
Lighting	SAMPLE ROOM													
Lighting	JANITORS CLOSET													
Lighting	OUTSIDE LIGHTS													
Lighting	MAINT. AREA													
Lighting	SOUTH SWITCH GEAR ROOM													
Lighting	MID SWITCH GEAR ROOM													
Lighting	NORTH SWITCH GEAR ROOM													
Building	visually inspect building exterior for damage or needed repairs.													
Building	Visually inspect the building interior, insulation & covering for damage.													
Building	Check gates in handrail area on east end side of production floor.													
Building	Check perimeter fence for damage or needed repairs.													
Building	Check plant heater support and heater exterior for damage or needed repairs.													
Building	Check switch gear room doors on south, midand north.													
Building	Check air compressor dryer room door.													

Master Maintenance Schedule Register

Location	Item/Task	Frequency in Months									
		1	2	3	5	6	10	12	24	36	42
Building	Check roof for damage or needed repairs.										
Building	Check operation of ink room alarm and alarm light.										
Building	Check building 211.										
Building	Check building 215.										
Building	Check building 217.										
Building	Check building 219.										
Building	Check building 223.										
Building	Check building 227.										
Building	Fire extinguishers (FSF-22-22)										
Building	Plant door inspection (FSF-22-23)										
Building	Service for roll up door – audit done by third party comp.										
Building	Lube hinges and locks with FG Light Machine Oil										
RT-200 WW	Grease discharge belt bearings. 1 pump of GP grease.										
RT-200 WW	Inspect discharge belt.										
RT-200 WW	Inspect unit structure and tank for damage or leaks.										
RT-200 WW	Inspect pumps for signs of leakage or damage.										
RT-200 WW	Inspect hoses and clamps.										
RT-200 WW	Inspect electrical components for signs of damage or loose connections.										



FSF-22-27	RT-200 WasteWater PM		
Issued by: Maintenance Manager	Effective Date: 11/1/2022	Rev. 0	Pg. 1 of 1
Approved: 11/1/2022 10:48 AM - Staci Mocerino (SQF Practitioner)			

_____ Following the completion of repair or maintenance work on this machine, it has been inspected to insure all tools, parts and equipment not necessary to the proper function of this machine have been accounted for.

_____ Following any lubrication procedure, be sure to clean off the excess lubricant from the grease fittings and from the mechanism being lubricated. This includes lubricant being applied as well as lubricant that has been expelled during machine operation.

_____ Observe LOTO procedure

EVERY 6 MONTHS

___ Grease discharge belt bearings. 1 pump of GP grease.

___ Inspect discharge belt.

___ Inspect unit structure and tank for damage or leaks.

___ Inspect pumps for signs of leakage or damage.

___ Inspect hoses and clamps.

___ Inspect electrical components for signs of damage or loose connections.

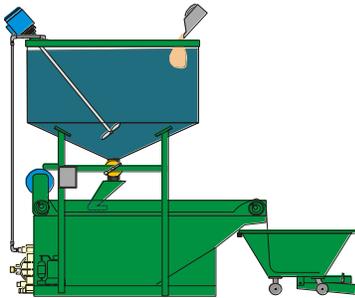
Wastewater Management

Simple, Safe, and Cost Effective

- Sophisticated yet user-friendly technology.
- Guaranteed to meet local sewer discharge limits.
- Excellent choice for recycling.
- Clear advantages over ultra-filtration and evaporation.
- No hazardous by-products.
- Compact: typical dimensions are only 80" x 70"
- Batch Sizes of 65, 100, 200, 350, 500, 750, and 1000 Gallons. Batch cycle takes 30 minutes and requires only 10 minutes of low skilled attendance.
- Very low maintenance: WE, Inc. offers a 3- year, 100% parts replacement warranty.
- Handles almost any aqueous based fluid, including metal plating, vibratory, equipment and parts washing, floor cleaning, metal working fluids, etc.

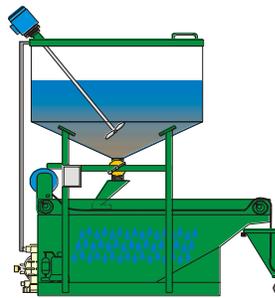


The Heart of the "Turn-Key" System



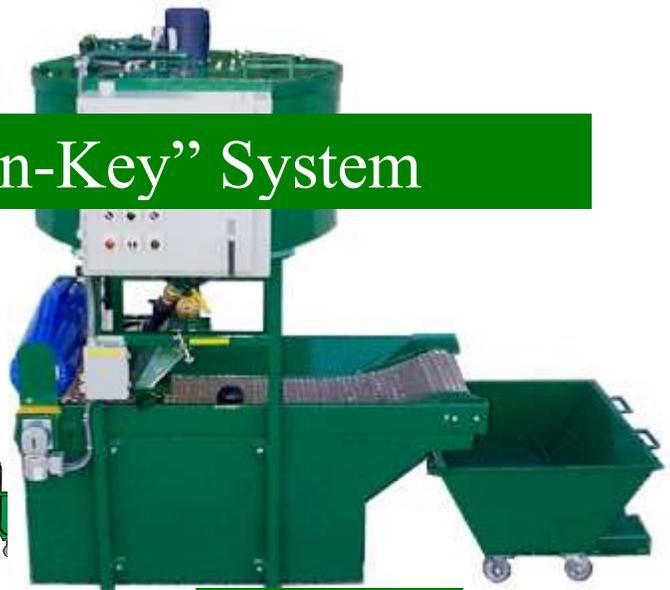
Stage One

The RT Unit is filled with effluent. The turbine mixer is started and WE Reactant is added. After (5) minutes of mixing a large floc will form. The mixer is then stopped and settling of the floc to the bottom of the tank occurs, usually in a couple of minutes.



Stage Two

Once the settling, or phasing, of the floc has occurred, draining and filtering begins. Clarified water from the upper area of the tank is drained first, followed by the floc (sludge). Filter media captures the solids, allowing the clarified water through to a clean compartment. A discharge pump automatically transfers the fluids to sewer or recycling vessel.



Stage Three

An automated conveyor advances the filter media and sludge as needed. This usually requires only (5) feet of filter media. An included self-tipping sludge gondola captures the filter media and sludge for disposal. The sludge dries to a cake, without need of a filter press. The process is now complete. The water will pass local discharge limits, and the sludge will pass TCLP.



Unit	Batch Size	Capability (up to)	Dimensions (L x W x H)	Filter	Electrical	Control Options
RT-65-DB	65 gal.	130 gal. /hr	46"x40"x84"	Dump Bag	115VAC	Manual
RT-65-HO	65 gal.	130 gal. /hr	46"x40"x84"	Dump Bag	115VAC	Semi Auto
RT-100-HO	100 gal.	200 gal. /hr	70"x39"x84"	29" Roll	115VAC	Semi Auto
RT-200-HO	200 gal.	400 gal. /hr	74"x48"x92"	33" Roll	240/480VAC	Semi/Full Auto
RT-350-HO	350 gal.	700 gal. /hr	86"x60"x93"	44" Roll	240/480VAC	Semi/Full Auto
RT-500-HO	500 gal.	1000 gal. /hr	96"x72"x96"	44" Roll	240/480VAC	Semi/Full Auto
RT-750-HO	750 gal.	1500 gal. /hr	120"x90"x105"	52" Roll	240/480VAC	Semi/Full Auto
RT-1000-HO	1000 gal.	2000 gal. /hr	120"x90"x114"	52" Roll	240/480VAC	Semi/Full Auto

**RT-65-DB
RT-65-HO**

- Designed for the low volume generator, these units feature a pull out cart and filter.
- The *base model* includes an on/off switch and an on-board, float-activated discharge pump – for transferring treated fluids to sewer or recycle vessel. No special skills are required to operate. A full cycle requires about (15) minutes of attendance.
- *HO model* comes equipped with an electrical control panel, an on-board auto sump pump. An auto fill function: simply push “fill start” button and the on-board pump will draw fluids from storage source into the mix tank. Other features include a rinse down package, countdown mixer timer and a final stage canister filter. A cycle requires only (5) minutes of attendance.
- Both models utilize a reusable filter bag that can handle from 2 to 5 batches of sludge before emptying is required.
- 3-year, 100% parts replacement warranty

**RT-100-HO
RT-200-HO
RT-350-HO
RT-500-HO
RT-750-HO
RT-1000-HO**

- All HO models are semi-automatic and engineered to be operated by custodial personnel.
- Operator simply pushes “fill start” on the control panel to activate the “auto fill” function. An on-board pump will draw fluids from storage vessel and continue to transfer effluent until ‘full’ capacity is reached. A float sensor will deactivate the transfer pump, and illuminate a “RT Full” light on the control panel.
- Operator then sets the countdown mixer timer, adds Reactant and allows (5) minutes for a reaction to occur, e.g. separation of contaminants from water.
- Operator will allow (1) minute for settling, then open the drain/filter valves.
- The entire process limits operator attendance to approximately (10) minutes per batch – regardless of the model size.
- Other features include electrical control panel, rinsing package, auto-indexing filter bed, self-tipping sludge gondola, final stage canister filter, and an on-board discharge pump for clarified liquid.
- Further options include *fully automatic* package (totally operator free), choice of 240 or 480VAC, choice of many more labor saving/convenience features. Please talk to your WE, Inc. Salesperson for details.
- The most noteworthy feature of all RT units **and** accompanying systems components is our 3-year, 100% parts replacement warranty!



WI-35-01	Plant Shutdown		
Issued by: Food Defense/Safety	Effective Date: 3/20/2020	Rev. 8	Pg. 1 of 12
Approved: 3/20/2020 4:15 PM - Staci Mocerino (SQF Practitioner)			

SCOPE:

- This procedure applies to the securing of Portco Packaging facility ensuring that Food Defense and Plant Safety systems remain in place at all times.

OBJECTIVE:

- The objective of this procedure is to provide instructions and responsibilities in securing the premises at Portco Packaging prior to leaving the plant unattended at the shutdown of weekly operations. This procedure also addresses the long-term shut down of the plant (for shutdowns over 5 days).

RESPONSIBILITY:

- It is the responsibility of all personnel involved with securing Portco Packaging to follow this procedure.
- It is the responsibility of Management to ensure that all personnel are trained on this procedure.
- It is the responsibility of the SQF Practitioner to validate this procedure as effective and verify this procedure if followed as outlined.

PROCEDURE:

- A. Production Management, Supervisors and or Leadhands are responsible for completing the task of securing the premises of Portco Packaging during the shutdown of operations. In the case that no Production Management, Supervisors and or Leadhands are on shift Portco Packaging personnel are responsible for ensuring that all steps of this procedure are followed.
- B. Training refresher must be completed anytime a change is made to the steps to ensure Food Defense Compliance and Plant Safety is maintained at all times.

The following are steps to be completed by personnel each time operations are to be **routinely shut down** and left unattended at the end of operations:

1. Lock the north end gate to facility
2. Lock east gate # 1 to facility
3. Lock east gate # 2 to facility
4. Check all doors around the building outside perimeter to assure locked and secured

5. Make sure chemical storage areas are locked
 - a. Maintenance shop area
 - b. Storage Lockers in parking lot
 - c. Fenced area on West end of property
6. Walk through the offices and assure office doors are closed and locked
7. Set alarm for office
8. Make sure all exit doors are locked from the inside of facility
9. Shut water and air valves off in ink department
10. Turn water supply valve to the off position for the Anilox Cleaner
11. Turn air supply valve to the off position for the Reclaimed Solvent Transfer Pump
12. Turn water supply valve to the off position for the hose at the wash station
13. Turn water supply valve to the off position for the Press
14. Turn power supply to the off position for the Carbon Bed.
15. Turn lights off at the Pro Control for 170 Press
16. Turn of Control Voltage to the Pro Control for 170 Press
17. Shut down press chiller & close both valves.
18. Shut both Mokon units down in upstairs unit.
19. Assure all loading dock bay doors are shut secured, and locked
20. Shut valve to air compressor #1 and turn to off position. Leave #s 2 & 3 on for RTO unit.
21. Put RTO unit into Idle Mode. (see posted procedure on RTO unit)
 - a. Key is located within exit door hook on West end of warehouse.
22. Close and lock emergency shut valve to propane tank.
 - a. Key is located within exit door hook on West end of warehouse.
23. Return both keys following steps 21 and 22.
24. Shut and latch bay door in compressor room
25. Shut off AC unit in the break room by the 170 Press
26. Shut down AVT and TV off on the 170 Press
27. Unplug light at the sample table by 170 Press
28. Shut off light switch to Scan-a-Web area of press
29. Close and lock shipping door
30. Close and lock shipping office
31. Make sure the golf cart is plugged in and charging in maintenance department.
32. Close back door by mounting department
33. Set alarm for warehouse
34. Shut and lock entrance when leaving

35. Shut off the valve marked MAIN PROCESS WATER SHUT OFF VALVE, located outside the locker room entrance door
36. Close and lock door by time clocks entering offices

The following are steps to be completed by personnel each time operations are to be shut down and left unattended for a non-routine, **prolonged shut down** (over 5 days):

1. Lock the north end gate to facility
2. Lock east gate # 1 to facility
3. Lock east gate # 2 to facility
4. Make sure the switches to power the outside controls are turned off for doors 13 and 14.
5. Check all doors around the building outside perimeter to assure locked and secured
6. Make sure chemical storage areas are locked
 - d. Maintenance shop area
 - e. Storage Lockers in parking lot
 - f. Fenced area on West end of property
7. Walk through the offices and assure office doors are closed and locked
8. Set alarm for office
9. Make sure still is shut down prior to turning off production water supply valve.
10. Make sure all exit doors are locked from the inside of facility
11. Shut water and air valves off in ink department
12. Turn water supply valve to the off position for the Anilox Cleaner
13. Turn air supply valve to the off position for the Reclaimed Solvent Transfer Pump
14. Turn water supply valve to the off position for the hose at the wash station
15. Turn water supply valve to the off position for the Press
16. Turn power supply to the off position for the Carbon Bed.
17. Turn lights off at the Pro Control for 170 Press
18. Turn of Control Voltage to the Pro Control for 170 Press
19. Shut down press chiller & close both valves.
20. Shut both Mokon units down in upstairs unit.
21. Assure all loading dock bay doors are shut secured, and locked
22. Shut valve to air compressor #1 and turn to off position. Leave #s 2 & 3 on for RTO unit.
23. Put RTO unit into Idle Mode. (see posted procedure on RTO unit)
 - b. Key is located within exit door hook on West end of warehouse.
24. Turn all compressor controls to the off position & close manifold after the RTO has reached the shut down temp. It will take a few hours to drop to shutdown temp. After it has reached shut down temp, the blower can be turned off on

- the control panel. Make sure the fumes and flame switches are in the off position and shut down the control power on the control panel.
25. Make sure the door is locked when leaving the RTO control room.
 26. Close and lock emergency shut valve to propane tank.
 - b. Key is located within exit door hook on West end of warehouse.
 27. Solvent Tank: The valve on outside solvent tank is to be turned off and locked.
 28. Return both keys following steps 23 and 26.
 29. Shut and latch bay door in compressor room
 30. Shut off AC unit in the break room by the 170 Press
 31. Shut down AVT and TV off on the 170 Press
 32. Unplug light at the sample table by 170 Press
 33. Shut off light switch to Scan-a-Web area of press
 34. Close and lock shipping door
 35. Close and lock shipping office
 36. Do not plug the golf cart in the maintenance shop in to charge.
 37. Close back door by mounting department
 38. Set alarm for warehouse
 39. Shut and lock entrance when leaving
 40. Shut off the valve marked MAIN PROCESS WATER SHUT OFF VALVE, located outside the locker room entrance door
 41. Close and lock door by time clocks entering offices

Control power to all production machines can be turned off as if doing a normal weekend shut down.

Clean Planet Solvent Still- Long term shut down for Clean Planet solvent still requires a 24hr shut down procedure.

Nova Flow- The ink dispenser needs to be backed up which the ink tech will do. prior to shut down, solvent will need to be run through all the lines/valves. We will use a drum of solvent and wash ea color out 1 at a time as if we were dispensing ink.

See Attached Nova flow back up document on following page



Tel. (+01) 613 925 5926 option #4 Email support.novaflow@corob.com

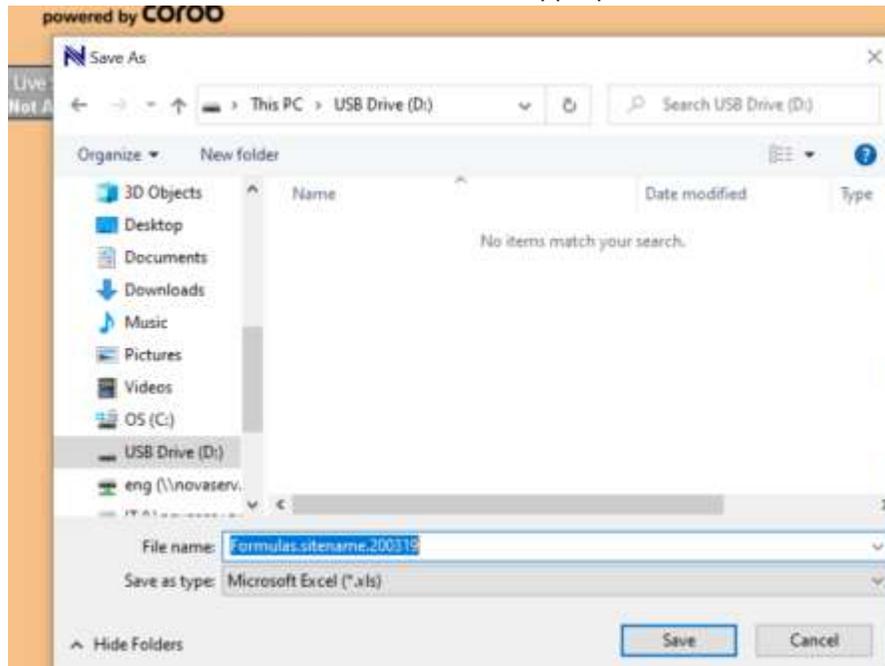
Data Export Process

This Procedure will allow the user to back up formulas, designs, and Materials Along with a current snapshot of their entire Data in case of disaster recovery.

1. Insert blank USBstick into PC
2. Open Windows as Administrator and login to EMMS with administrator permissions
3. Follow dropdown menu to export in your choice of formats



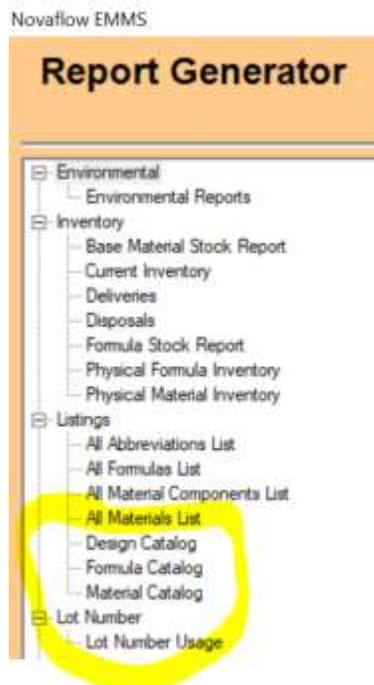
4. Save on a blank USB stick with appropriate name.



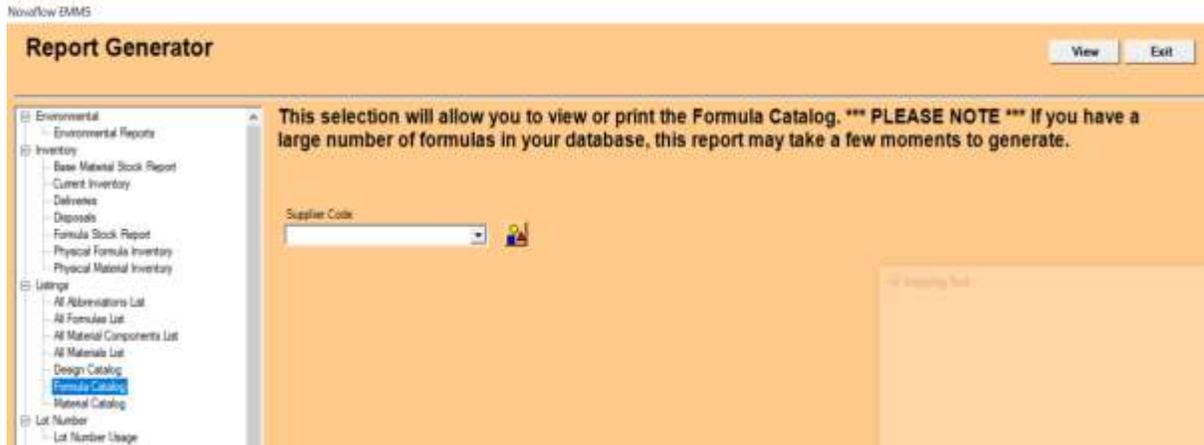
5. Repeat for designs (if necessary)
6. Now we will export a catalog of materials/formulas/designs as PDF's
7. Go to Reports



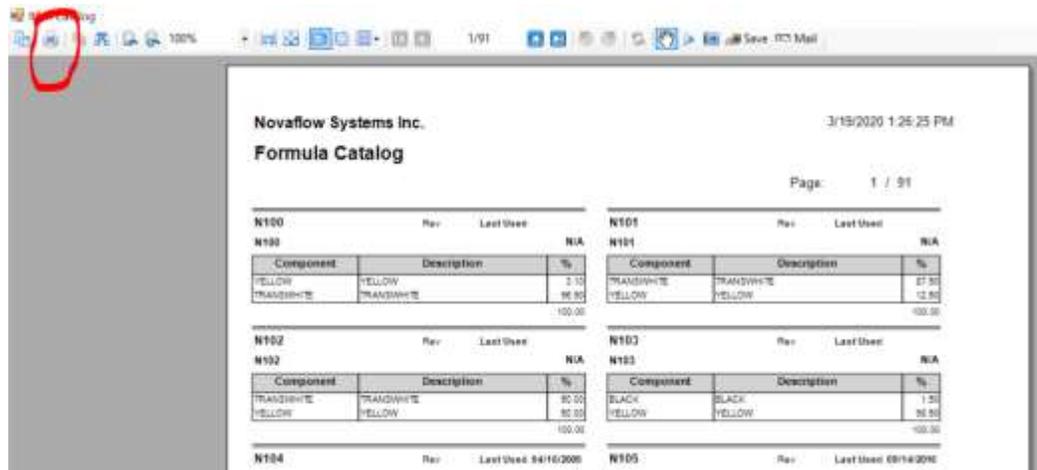
8. Look for catalogs under Listings



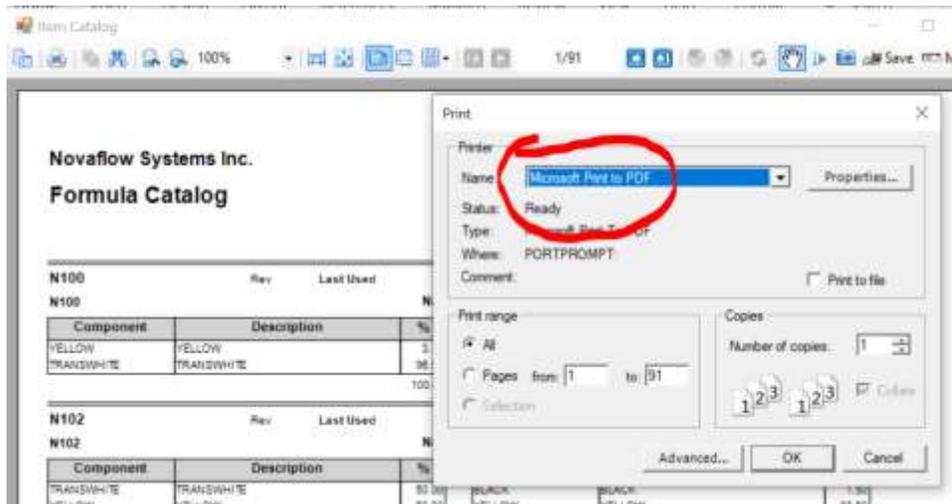
9. Click on Formula and then View



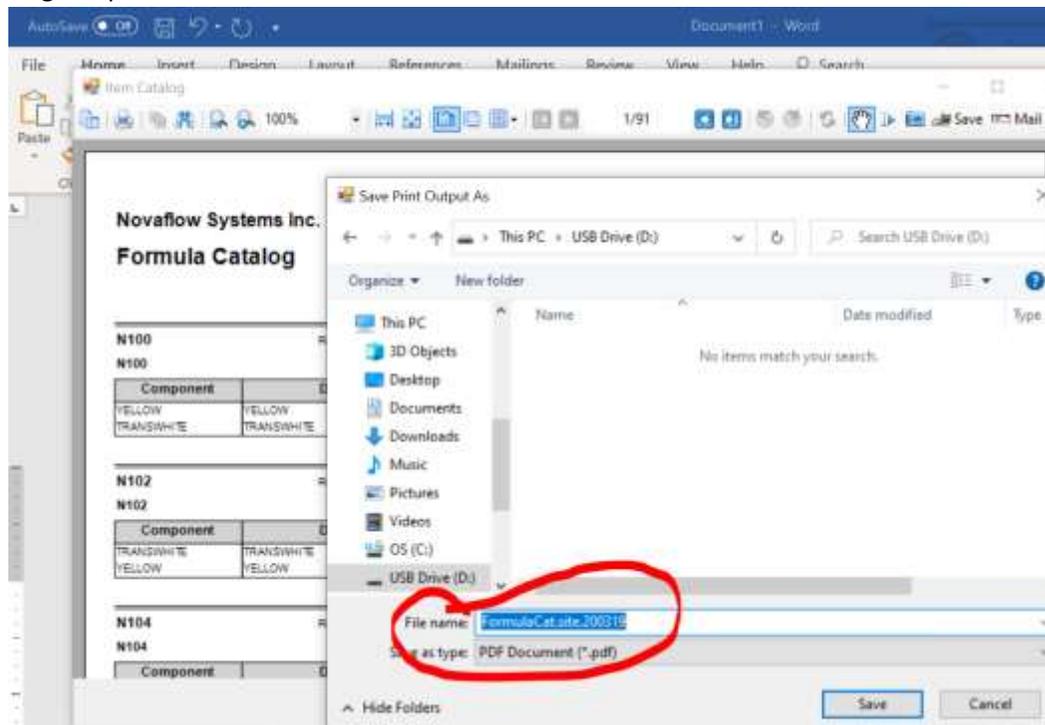
10. You will see this. Click the “print” button. Note that my demo software has 91 pages, you could have more.



11. Choose "Print to PDF" from menu



12. Save it on same USB stick with appropriate name. Make sure it's a PDF file, otherwise you will clog the printer...

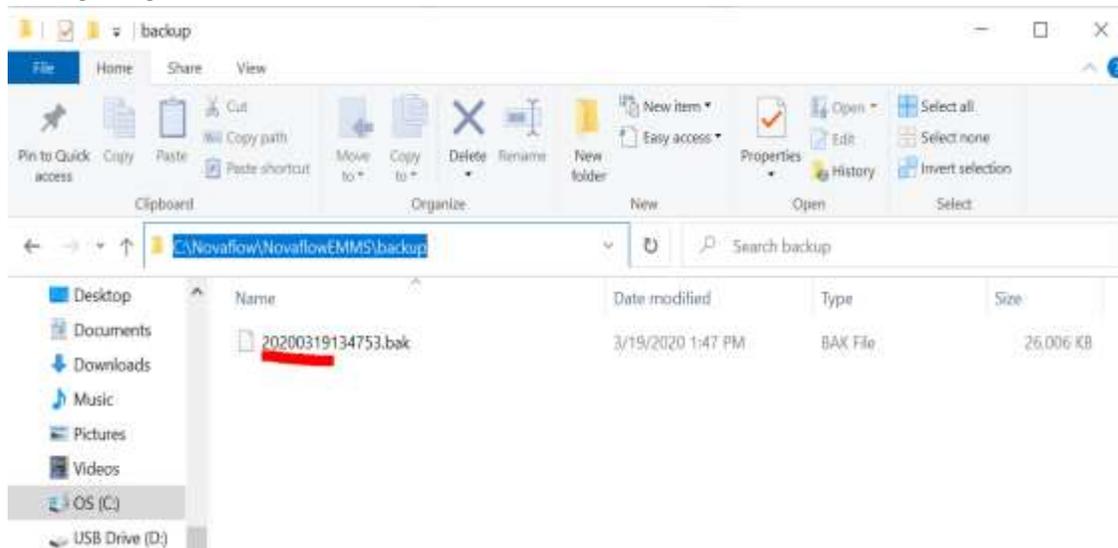


13. Repeat 8-11 for Materials and Designs

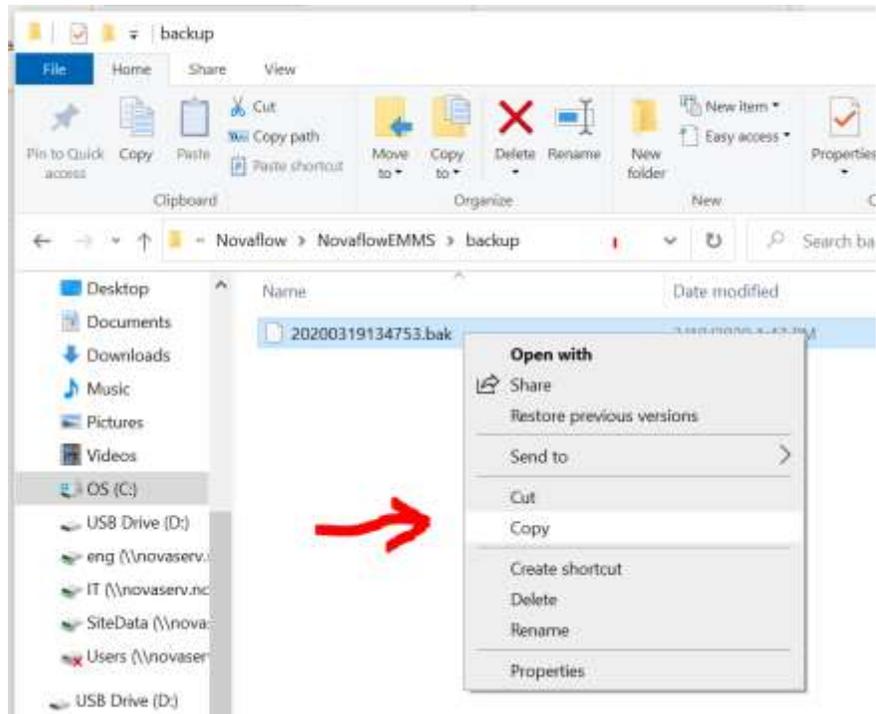
14. Now we will backup all your dispenser's history. Just click Backup from main screen.



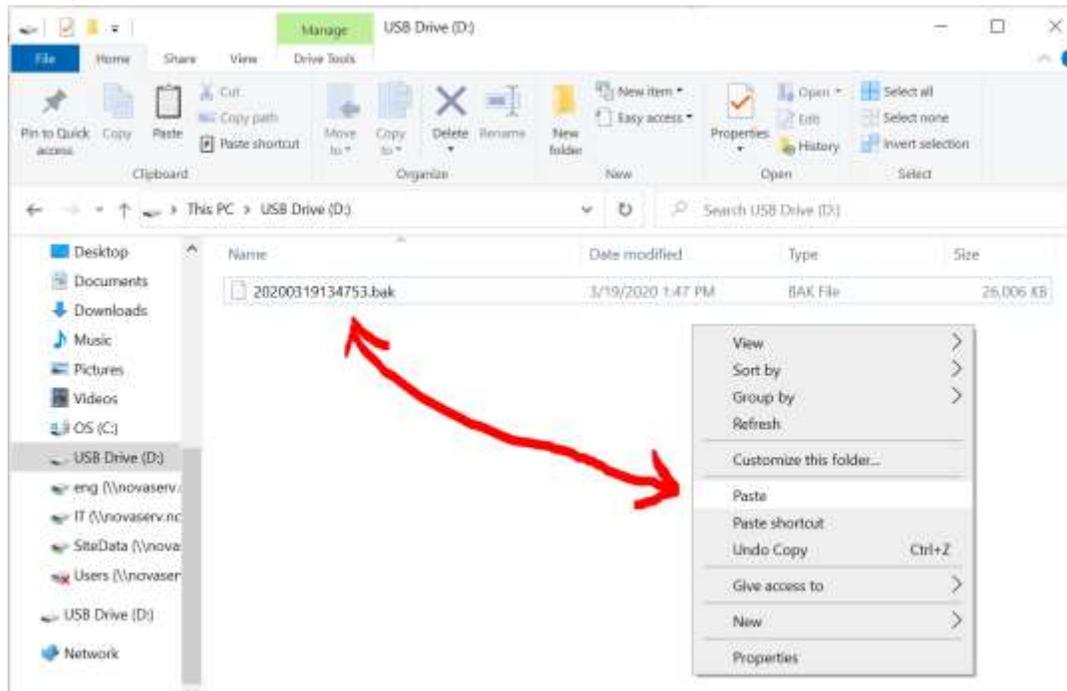
15. We now want to move this backup to USB stick. Go to file explorer. You want the backup directory of the NovaflowEMMS. You may have dozens of files, look for the current date in the 1st eight digits.



16. Right click the file and copy



17. Now paste this to the USB stick.



You now have all your records backed up on the external USB stick. Th

WI-35-01	Plant Shutdown	Rev. 8	Pg. 12 of 12
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QOP-76-01	Calibration of Devices		
Issued by: Quality Assurance	Effective Date: 6/29/2022	Rev. 4	Pg. 1 of 3
Approved: 6/29/2022 9:36 AM - Staci Mocerino (SQF Practitioner)			

I. SCOPE:

- This procedure applies to the accuracy of measuring, and inspection equipment that is used to test raw materials and food packaging safety and quality parameters.

II. OBJECTIVE:

- To ensure that products provided by Portco Packaging meet regulatory, legal and customer requirements and that information and instructions on the handling of calibration tasks and services for devices are provided for all relevant staff.

III. RESPONSIBILITY:

1. It is the responsibility of Production Operators who are involved with the use of measuring devices to notify Supervisors and Leadhands if at any time devices are not operating properly.
2. It is the responsibility of Production Supervisors and Leadhands to ensure that any notification of faulty measuring devices is followed up by removing faulty equipment from production process and placing all material into Quarantined Product Hold and Release Program traced back to last calibration check with normal tolerances recorded.
3. The SQF Practitioner is responsible for undertaking calibration for services provided by certified contractors, recording the results of all calibrations and labeling equipment to indicate when it was last calibrated and when recalibration is due. SQF Practitioner is to ensure that work instructions for calibrating PH Meters in house are provided for all relevant staff.

IV. POLICY:

1. The methods and responsibility for the calibration and re-calibration of measuring, test and inspection equipment used for monitoring activities outlined in the pre-requisite program, food safety plans and food quality plans and other process controls, or to demonstrate compliance with customer specifications shall be documented and implemented.
2. Procedures shall be documented and implemented to address the disposition of potentially affected product should measuring, test and inspection equipment be found to be out of calibration state.
3. Calibrated measuring, test and inspected equipment shall be protected from damage and unauthorized adjustment.
4. Equipment shall be calibrated against national or international reference standards and methods or to accuracy appropriate to its use. In cases where standards are not available the supplier shall provide evidence to support the calibration reference method applied.
5. Calibration shall be performed according to regulatory requirements and/or to the equipment manufacturers recommended schedule.
6. Calibration records shall be maintained.

V. PROCEDURE:**A. Externally Calibrated Measuring Devices**

1. Monitoring and measuring devices are stored in designated and secured storage areas. The devices are maintained, stored, and handled in such a way as to preserve their accuracy and fitness for use.
2. Calibrated devices are only calibrated by qualified personnel or outside accredited ISO 17025:2005 certified service providers. All calibration certificates are maintained electronically on file indefinitely or for at least two calendar years.
3. All services for devices are performed according to regulatory requirements and within manufacturer's recommendation.
4. Equipment is calibrated against national or international referenced standards and methods as required to ensure accuracy appropriate to designated use.
5. If a measuring device is found to be out of calibration or appears to give inaccurate readings, the device is checked. If it is confirmed that the device is indeed out of calibration and the readings are outside of required accuracy the device is removed from use until service is provided and device verified to be accurate.

6. Any product involved with the use of a substandard calibration device is to be quarantined and placed into Product Hold & Release Program until investigated by the SQF Practitioner.
7. Any non-conforming product found during the investigation will be disposed of to ensure customer specifications and quality assurance is met.
8. A calibration register and records of service are verified, monitored and maintained by SQF Practitioner or designee.

RELATED DOCUMENTS:

- QF-76-01 Calibration Register
- Calibration Work Instructions
- Accreditation Records
- Certification Documents