MAGNUM PRESS OPERATING INSTRUCTIONS

WARNING:

DO NOT OPERATE PRESS WITHOUT GUARDS AND SIDE PANELS IN PLACE.

NOTE: The operating ranges shown below are for initial start-up and testing only. Actual belt speed and pressure operating ranges are determind by the Parkson Field Service Engineer. This information will be documented (by others) and used with instructions below to achieve optimum performance from the Magnum Press. Please refer to the MCC Operating Instructions for information regarding total system operation.

1. Before starting the press refer to the " Maintenance Lubrication Helpful Hints" in the maintenance section of this manual.

2. Set upper and lower doctor blade weights to the mid position by loosening the 3/8" bolt located at each end of the weight. Slide weight into position and tighten bolts.

3. Set the upper and lower screen tension to approximately 30 psig with the air regulators located in the press panel.

4. Set the air pressure for the hydraulic pump to approximately 10 psig (with regulator located on the press panel) in the same manner as the screen tension.

   NOTE: If the pump does not start, open the hydraulic relief valve located on the left hand side of the press panel. When the pump starts, close this valve. The pump will stop when the set pressure is reached. The pump has a 25:1 hydraulic pressure to air pressure ratio.

5. Set the spray water pressure to approximately 80 psig with valves prior to each spray box.

6. Set the press drive to the lowest speed.

7. Set polymer pump to lowest speed.

8. Add dilution water as required.

9. Set the sludge pump to lowest speed.

10. The settings of the spray water, air pressure for the hydraulic pump, press sludge pump, polymer pump, and dilution water can remain as set if operating conditions will be the same for the next press run.

11. Check that the screens and perforated rollers are clean. Wash down as necessary. Never allow the sludge to dry on the screens or rollers. Approximately 15-20 PSIG should be maintained during shut-down period to prevent wrinkles/creases in the screens.

    WARNING: NEVER RUN THE PRESS WITHOUT AIR PRESSURE AS THIS MAY CAUSE SERIOUS DAMAGE TO THE SCREENS.

MECHANICAL FAULT FINDING CHART

SYMPTOM #1. PRESS STOPS OR DOES NOT START.

	CAUSE		ACTION
1.	No electrical power.	1.	Check single and three-phase power supply to panel. Check breakers.
2.	No air pressure	2.	Check supply, check signal from air pressure switch.
3.	MP MODELS ONLY. No hydraulic pressure	3.	Check oil. Check air supply. Check signal from hydraulic press switch.
4.	Safety switches not adjusted.	4.	Adjust as per note on GA drawing.
5.	Safety switches actuated.	5.	Check screen overrun. Jog press in reverse or relieve pressure in air & hydraulic system and pull screen back to center by hand.

SYMPTOM #2: SCREEN TRACKING DOES NOT FUNCTION.

	CAUSE		ACTION
1.	No electrical power.	1.	Check 110V, 1 PH supply.
2.	No air pressure.	2.	Check supply.
3.	Solenoid valve malfunction.	3.	Check 110V, 1 PH supply. Check air intake and exhaust through valve.
4.	Limit Switch malfuntion.	4.	Check 110V, 1 PH supply. Check to see if arm actuates. Check arm position, See GA.

SYMPTOM #3: SCREEN WEARS ON EDGE.

	CAUSE		ACTION
1.	Tracking not adjusted.	1.	See Symptom No. 2
2.	Safety switch not actuating.	2.	Check position. Check function.
3.	Worn doctor blades.	3.	Resharpen or replace.

SYMPTOM #4: FEED BOX LEAKS, FLOODS.

	CAUSE		ACTION
1.	Worn gaskets.	1.	Replace gaskets.
2.	Incorrect positon.	2.	Reposition see GA drawing.
3.	Slack screen	3.	Increase screen tension.
4.	Float switch	4.	Check function.

SYMPTOM #5: HYDRAULIC PUMP KEEPS RUNNING. (MP only)

	CAUSE		ACTION
1.	Hydraulic system	1.	Check pipework & pressure switch.
2.	Pump non-return valve leaks	2.	Check valve seating.
3.	Hydraulic cylinder leaks	3.	Check for worn parts.
4.	Air leak at pump.	4.	Check air supply to pump.

SYMPTOM #6: LOSS OF PRESSURE ON SLUDGE IN HIGH PRESSURE SECTION.

	CAUSE		ACTION
1.	Loss of Hydraulic Pressure	1.	Check oil level check for leaks.
2.	Loss of Air Pressure	2.	Check Air Supply. Check for air leaks.
3.	Hydraulic Cylinders fully extended (11").	3.	Poly V Belts over streched. Run at reduced pressure or replace.

SYMPTOM #7: LOSS OF PRESSURE ON SLUDGE WITH SCREEN TENSION.

	CAUSE		ACTION
1.	Loss of air pressure	1.	Check air supply. check for air leaks.
2.	Bellows fully extended (10").	2.	Check screen length

SYMPTOM #8: DIRTY SCREENS.

	CAUSE		ACTION
1.	Spray nozzles blocked	1.	Clean nozzles
2.	Nozzles not directed at screen.	2.	Reposition
3.	Water pressure low.	3.	Increase pressure
4.	Doctor Blades	4.	Check for wear. Increase pressure.

PROCESS FAULT FINDING MAGNUM PRESS MODELS MP & MPL

SYMPTOM #1: SLUDGE LEVEL TOO HIGH

	CAUSE		ACTION
1.	Incorrect polymer dosage.	1.	Check dosage.
2.	Dirty screen.	2.	Check spray system. Clean nozzles. Check doctor blades. Decrease pressure.
3.	Feed rate too high	3.	Reduce feed rate.
4.	Speed too low	4.	Slowly increase speed, observe.
5.	Feed solids changed	5.	Reduce feed rate or increase speed. Check no. 1.

SYMPTOM #2: SLUDGE SLIDES BACK ON SCREEN

	CAUSE		ACTION
1.	Dirty screen	1.	Clean screen. Check spray system. Check doctor blades.
2.	Pressure too high on sludge.	2.	Decrease pressure.
3.	Incorrect polymer dosage or wrong polymer.	3.	Check polymer dosage. Try new type.

SYMPTOM #3: SLUDGE SQUEEZES WIDE IN PRESS SECTION

	CAUSE		ACTION
1.	Too high screen tension	1.	Decrease screen tension. Shut off feed. Slow down press.
2.	Too low polymer dosage.	2.	Increase polymer dosage.
3.	Too high speed.	3.	Reduce speed.
4.	Too high feed rate.	4.	Reduce feed rate.

SYMPTOM #4: SLUDGE BUILD UP PRIOR TO HIGH PRESS SECTION.

	CAUSE		ACTION
	MODEL MP ONLY		
1.	Too high pressure	1.	Decrease pressure.
2.	Too low screen tension	2.	Increase screen tension.
3.	Too low polymer dosage.	3.	Increase polymer dosage.
4.	Too high feed rate.	4.	Reduce feed rate.
5.	Too low speed.	5.	Increase speed.
6.	Too high speed.	6.	Reduce speed.

SYMPTOM #5: OUTPUT CAKE SOLIDS LOW

	CAUSE		ACTION
1.	Too high speed.	1.	Reduce speed.
2.	Too low screen tension.	2.	Increase screen tension.
3.	Too low pressure (MP ONLY)	3.	Increase pressure.
4.	Too thin cake output	4.	Reduce feed rate or increase speed.

SYMPTOM #6: SCREEN NOT CLEAN AFTER DOCTOR BLADE.

	CAUSE		ACTION
1.	Too high pressure (MP ONLY)	1.	Decrease pressure.
2.	Too low polymer dosage.	2.	Increase polymer dosage.
3.	Too low pressure on	3.	Increase pressure. doctor blade.

SYMPTOM #7: SCREEN WRINKLES

	CAUSE		ACTION
1.	Too low screen tension	1.	Increase screen tension
2.	Uneven sludge distribution	2.	Check feed box gate, feed rate too low.
3.	Sludge build-up.	3.	See symptom #4

SYMPTOM #8: DIRTY FILTRATE LOW RETENSION

	CAUSE		ACTION
1.	Feed box leaks	1.	Check gaskets
2.	Feed box not adjusted	2.	Check position.
3.	Too low polymer dosage.	3.	Increase polymer dosage.
4.	As symptom #3	4.	Check no. 3
5.	Sludge sticking to screen	5.	Decrease screen tension and/or high pressure
6.	Doctor blades	6.	Check wear. Increase pressure.