



CON-E-CO
BLAIR, NE

Concrete Batch Plant Preventative Maintenance and Inspection Schedule

Follow all appropriate Lockout-Tagout Procedures and Safety precautions

Plant Structure/Components

Daily

- Inspect all guards and safety chains and make sure they are in place

Weekly

- Remove build up from plant structure
- Inspect all safety decals and verify they are in place, replace as needed

Pneumatic System

Daily

- Check plant high pressure air regulator setting (100 PSI)
- Inspect system and listen for leaks.
- Drain all air tanks, compressor tanks, manifold, and water filters
- Check oil level in oilers, fill as needed

Weekly

- Inspect all hoses, piping and connections for wear, leaks, and damage.

Monthly

- Check operation of solenoid valve manual overrides.

Air Compressor

Daily (8 Hours)

- Check compressor pump oil level
- Drain air compressor tank
- Inspect all guards to assure they are in place
- Inspect for unusual noises or vibrations
- Check for lubricant leaks
- Check air compressor cycle pressures **Weekly (40 Hours)**
- Check operation of tank auto drain
- Manually operate the pressure relief valves to be certain they are free
- Clean the cooling surfaces of intercooler, aftercooler, and compressor
- Check the compressor for air leaks
- Inspect lubricant for contamination and change if necessary
- Clean or replace the air intake filter. Check more often under humid or dirty conditions.

Monthly (160 Hours)

- Check and document compressor pump up time (0-100 PSI)
- Inspect and check V Belt tension

Quarterly (500 Hours)

- Change oil and filter (more frequently in harsher environments)
- Torque pulley clamp screws or jamnuts.

Semi-Annually (1000 Hours)

- Inspect compressor valves for leakage and/or carbon build-up.

Yearly (2000 Hours)

- Inspect the pressure switch diaphragm and contacts.

Aggregate Feed Gates/Bin

Weekly

- Observe operation of feed gates for consistent operation
- Grease all aggregate gate pivot pins
- Inspect remote grease lines for damage or leakage
- Check that exhaust valves on cylinder are operating

Monthly

- Inspect gate pivot pins and bushings
- Inspect cylinder lugs and lug bushings for wear
- Inspect air cylinders for leaks and wear

Semi-Annually

- Inspect gates and bin for wear

Aggregate Batcher (Lo-Pro and Gravity)

Daily

- Inspect all load cell systems/load cells for loose parts or misalignment.
- Inspect all guards to assure they are in place.

Weekly

- Grease all aggregate gate pivot pins (Gravity)
- Inspect remote grease lines for damage or leakage
- Observe operation of discharge cylinder for consistent operation (Gravity)

Monthly

- Inspect gate pivot pins and bushings (Gravity)
- Inspect cylinder lugs and lug bushings for wear (Gravity)
- Inspect air cylinders for leak and wear (Gravity)

Semi-Annually

- Inspect gates and batcher for wear
- Check Scale accuracy

Mixer Charging Conveyor/Aggregate Batcher Conveyor

Daily

- Inspect conveyor belts for alignment and excessive wear.
- Inspect all guards to assure they are in place.
- Remove material build up from conveyor components

Weekly

- Grease all bearings (one pump)
Head Pulley, Snub Pulley, Tail Pulley, Bend Pulley (Two) (if applicable)

Gravity Take Up Pulley (if applicable)

- Check tension of Belt Wiper and adjust as needed
- Check all idlers that cans are spinning freely
- Check all self-training idlers that frame pivot freely
- Adjust and/or replace skirtboard and conveyor seals as needed.
- Verify Conveyor Pull Cords are functioning proper and stop conveyor when tripped
- Verify operation of Start Warning Horn

Monthly

- Check oil level in gear reducer
- Inspect tension on all V Belts
- Inspect all bearing set screws and torque as needed
- Inspect all pulley bushings and torque as needed
- Inspect V Belt drive sheave bushing bolts and torque as needed
- Inspect reducer output shaft bushings and torque as needed

Semi-Annually

- Change oil in gear reducers

Plant Discharge Hood

Daily

- Inspect for buildup in hood and cement discharge pipe and remove

Weekly

- Inspect hood for wear and repair as necessary
- Inspect cement tube liner for wear and replace as necessary
- Inspect gum rubber discharge boot for wear and replace as necessary
- Inspect cement discharge boot for wear and replace as necessary

Cement Batcher (Lo-Pro Style)

Daily

- Grease reducer adaptor grease cavity (one pump)
- Check batcher for excessive vibration when running.
- Inspect all guards to assure they are in place.
- Inspect all load cell systems/load cells for loose parts or misalignment.

Weekly

- Grease head end bearing (one pump)
- Oil head end lip seal housing waste packing
- Observe operation of discharge cylinder for consistent operation
- Check operation of pulse jet batcher vent
- Check pressure on batcher filter vent high pressure regulator (95 PSI)

Monthly

- Check oil level in gear reducer
- Inspect tension on all V Belt
- Inspect all bearing set screw and torque as needed
- Inspect V Belt drive sheave bushing bolts and torque as needed
- Inspect reducer output shaft bolt and torque as needed
- Inspect air cylinders for leaks and wear
- Inspect cylinder lugs and lugs bushings for wear
- Inspect bags/cartridges in batcher vent for buildup, wear and damage and replace as necessary

Semi-Annually

- Change oil in gear reducer
- Replace head end bearing waste packing.
- Inspect screw conveyor flighting for wear or damage
- Inspect Butterfly Valve seat for wear or damage
- Check Water Scale accuracy

Cement Batcher (Gravity)

Daily

- Inspect all load cell systems/load cells for loose parts or misalignment.

Weekly

- Observe operation of discharge cylinder for consistent operation
- Check operation of pulse jet batcher vent
- Check high pressure air setting for aeration pads (8 PSI)
- Check pressure on batcher filter vent high pressure regulator (95 PSI)

Monthly

- Inspect air cylinders for leaks and wear
- Inspect cylinder lugs and lug bushings for wear
- Inspect bags/cartridges in batcher vent for buildup, wear and damage and replace as necessary

Semi-Annually

- Inspect Butterfly Valve seat for wear or damage
- Inspect and/or replace scale aeration pads
- Check Scale accuracy

Cement Feed Screw Conveyors

Daily

- Grease reducer adaptor grease cavity (one pump)
- Check feeder screw for excessive vibration when running.
- Inspect for leaks
- Inspect all guards to assure they are in place.

Weekly

- Grease all bearings (one pump)
Head Bearing and Tail Bearing
- Inspect Vinyl Boot for leaks, build up and wear and replace as needed.
- Oil head/tail end lip seal housing waste packing

Monthly

- Check oil level in gear reducer
- Inspect tension on all V Belts
- Inspect all bearing set screws and torque as needed
- Inspect V Belt drive sheave bushing bolts and torque as needed

Semi-Annually

- Change oil in gear reducers
- Inspect screw conveyor flighting for wear or damage
- Inspect hanger bearing for wear and replace as needed

Silo Feed Valves

Weekly

- Observe operation of feed gates for consistent operation
- Check that exhaust valves on cylinder are operating

Monthly

- Inspect cylinder lugs and lug bushings for wear
- Inspect air cylinders for leaks and wear

Semi-Annually

- Check that emergency slide gates(s) move freely
- Inspect Butterfly Valve seat for wear or damage

Silo Aeration

Weekly

- Check that Aeration Blower PR Valve(s) move freely
- Check all air lines and hoses for leaks

Monthly

- Replace Aeration Blower Filter

Semi-Annually

- Inspect and/or replace bin aeration pads

Silo Pressure Relief Valve

Weekly

- Check that silo PR Valve(s) move freely

Silo Level Indicators (Bin Signals)

Weekly

- Check Pinch Valve solenoid valve pressure (30 PSI)

Monthly

- Manual trip bin signals and verify that proper signals are received
 - High Light Turns On
 - Low Light Turns On
 - Pinch Valve closes after appropriate time
- Inspect and check for tightness of bin signal pipe and paddles.

Silo Filter Vent (Pulse Jet)

Daily

- Check pressure on filter vent high pressure regulator
- Drain high pressure air filter
- Inspect all blower guards to assure they are in place.

Weekly

- Check operation of filter vent, verifying that all valves are pulsing.
- Verify timing of valves for proper delay between valves.
- Drain air manifold on filter vent exhausting all moisture.

Monthly

- Inspect internal roof of filter vent for dust leakage.
- Inspect blower (if applicable for any vibration or build up on fan)

Semi-Annually

- Remove bags/cartridges from filter vent and inspect and replace as needed.

Water System

Daily

- Inspect water system for leaks

Weekly

- Inspect all hoses, piping and connections for wear, leaks, and damage.
- Check water valve, actuators, and air cylinders for smooth operation.

Semi-Annually

- Inspect Butterfly Valve seat for wear or damage
- Check Water Meter accuracy
- Check Water Scale accuracy

Electrical Systems

*****Greasing of electric motor should be done on the recommendation of the motor manufacture. See motor manufacture guidelines.*****

Monthly

- Inspect all electrical panels, junction boxes and motor junction boxes for moisture and dirt and address as needed.

Semi-Annually

- Tighten all electrical connections in service panels, junction boxes and motor junction boxes this includes control wiring and three phase wiring and connections.

Truck Dust Collector/Central Dust Collector

Daily

- Reclaim waste material/verify reclaim system is working properly
- Check pressure on filter vent high pressure regulator (95 PSI)
- Drain high pressure air filter
- Inspect all blower guards to assure they are in place.
- Record Magnahelic Gauge reading

Weekly

- Check operation of collector cleaning system, verifying that all valves are pulsing.
- Verify timing of valves for proper delay between valves.
- Drain air manifold on filter vent exhausting all moisture.

Monthly

- Inspect internal roof of filter vent for dust leakage.
- Inspect blower (if applicable for any vibration or build up on fan)

Semi-Annually

- Remove bags/cartridges from filter vent and inspect and replace as needed.
- Inspect all ducting and pipe and remove any build
-

Dust Collector Reclaim Systems

Weekly

- Check that Aeration Blower PR Valve(s) move freely
- Check all air lines and hoses for leaks
- Grease vane feeder (one pump)
- Check operation of reclaim system and verify proper operation
- Ensure the hopper is cleaning out properly
- Inspection plumbing and hose for leaks

Monthly

- Replace Blower Filter
- Inspect vane feeder for wear

Semi-Annually

- Inspect all ducting and pipe and remove any build up

Plant Charging Conveyor(s)

Daily

- Inspect conveyor belts for alignment and excessive wear.
- Inspect all guards to assure they are in place.
- Remove material build up from conveyor components

Weekly

- Grease all bearings (one pump)
Head Pulley, Snub Pulley, Tail Pulley, Bend Pulley (Two) (if applicable)

Gravity Take Up Pulley (if applicable)

- Check tension of Belt Wiper and adjust as needed
- Check all idlers that can spin freely
- Check all self-training idlers that frame pivot freely
- Adjust and/or replace skirtboard and conveyor seals as needed.
- Check Material on Belt Sensors (MOB) for proper operation
- Verify Conveyor Pull Cords are functioning proper and stop conveyor when tripped
- Verify operation of Start Warning Horn

Monthly

- Check oil level in gear reducer
- Inspect tension on all V Belts
- Inspect all bearing set screws and torque as needed
- Inspect all pulley bushings and torque as needed
- Inspect V Belt drive sheave bushing bolts and torque as needed
- Inspect reducer output shaft bushings and torque as needed

Semi-Annually

- Change oil in gear reducers

Turnhead (Pivot Distributor)

Weekly

- Grease wheel bearing supports
- Check location of turnhead discharge in relation to bin
- Verify operation of Start Warning Horn

Monthly

- Check oil level in gear reducer
- Inspect turnhead liners

Semi-Annually

- Change oil in gear reducers

Radial Stacker

Weekly

- Grease roller wheel bearings
- Check location of stacker discharge in relation to bin

Monthly

- Check oil level in gear reducer
- Check alignment of rollers to track

Semi-Annually

- Change oil in gear reducers

Receiving Hopper

Weekly

- Check receiving hopper vibrator for proper operation

Monthly

- Inspect hopper for wear and damage and repair as needed

Batch Plant Maintenance and Inspection Intervals Based on Yardage

Weekly	3,000 cubic yards
Monthly	12,000 cubic yards
Quarterly	40,000 cubic yards
Semi-Annually	80,000 cubic yards
Yearly	160,000 cubic yards

Maintenance and Inspection intervals based on time and production amounts are recommendations, it is up to Plant Owners, Operator and Maintenance Personnel to determine best practices based on equipment needs