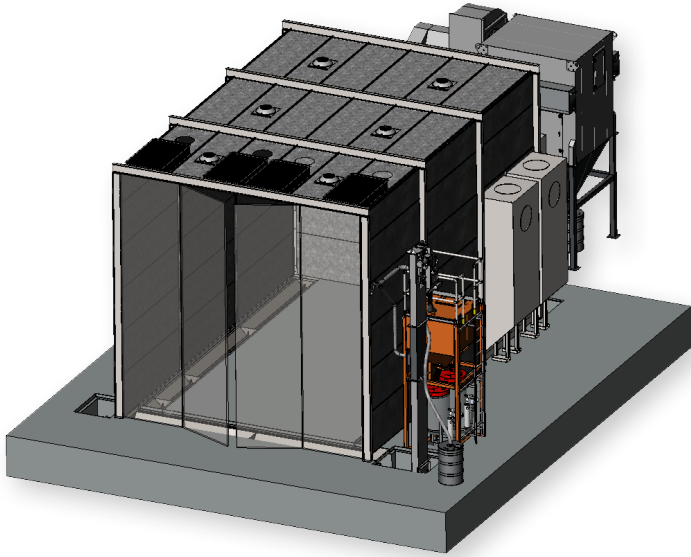




# TECHNICAL SERVICES PREVENTATIVE MAINTENANCE CHECKLISTS



# PREVENTATIVE MAINTENANCE CHECK-LIST



| BLAST BOOTHS  | INT. |
|---|------|
| Check the trash sieve on the cross conveyor and clear if required. Empty trash bins.  |      |
| Look for any abrasive spillage at transfer points – clean up and investigate reason for spillage.   |      |
| Visual inspection of general conditions surrounding blast room. Clear split abrasive from surrounds of blast room and blast machine and return it to the system.  |      |
| BLAST MACHINE   | INT. |
| Check abrasive level in blast machine.  |      |
| Check deadman control lines and deadman handles, particularly at each connection point for damage or air leaks – repair / replace as necessary.   |      |
| Drain inline brass strainers to clear any entrapped abrasive.   |      |
| With the pot pressurized but not blasting, take a piece of rubber or rag and cover the end of the nozzle. If it is detected that there is a leakage or a pressure build-up – there is a valve leak that will need repair within 24 hours. |      |
| BLAST MACHINE (WHILE BLASTING)  | INT. |
| While blasting check both sides of Abrasive Metering Valve for air leaks. Tighten/re-seal as required.  |      |
| Check Blast hose couplings for leaks, including back end of coupling.   |      |
| Check that air is not leaking thru blowdown hose from the pot.  |      |
| Place hands over ends of mufflers and check for no leakage around end of combo valve.   |      |

| BLAST HOSES   | INT. |
|---|------|
| Check blast hoses for any external wear / damage.   |      |
| Are the screws penetrating blast hose coupling? Recut and replace couplings as required.  |      |
| BLAST NOZZLE  | INT. |
| Check nozzle holder gasket for correct placement and wear/tear.   |      |
| BLASTING HELMETS  | INT. |
| Check no dust leakage inside blasting helmet(s).  |      |
| Check condition of inner cape of blasting helmet(s) <b>*Very Important</b>  |      |
| Check blasting helmet lenses – inner lens in place? <b>*Important</b>   |      |
| BREATHING AIR   | INT. |
| Drain moisture from bottom of filter canister on breathing air supply.  |      |
| Check for odors in the breathing air.   |      |
| Check breathing air pressure on gauge / flow inside helmets.  |      |
| BUCKET ELEVATOR   | INT. |
| Abrasive airwash function: (If necessary, adjust splitter plate in airwash or dampers in the duct outlet to achieve a more desirable "split" / cleaning outcome.) |      |
| Abrasive from storage hopper should not be dusty. Increase airflow to airwash if abrasive dusty.  |      |
| CONTROL/ELECTRICAL CABINET  | INT. |
| Check for blown circuit breakers.   |      |
| Check for faulty lamps and burnt out light bulbs and replace.   |      |
| CONVEYORS   | INT. |
| Check eccentric bearings for noise – report any "knockings", "squeaks" or "free play" immediately.  |      |
| Check for debris build up on hopper sieves. Debris should be removed prior to each use.   |      |
| DUST COLLECTOR  | INT. |
| Clear bins from base of dust collector as often as necessary to prevent overfilling.  |      |
| Fines bin from elevator – empty bin from fines chute as often as necessary to prevent overfilling. (At least 1 – 2 times per day).                                |      |
| Drain any condensation / moisture from dust collector header tanks.   |      |

# PREVENTATIVE MAINTENANCE CHECK-LIST

| AIRWASH  | INT. |
|--|------|
| Inspect Airwash fines and trash bins. Check that they do not contain usable abrasive. If they do, re-tune airwash.   |      |
| BLAST HOSES  | INT. |
| While blasting (get operator to hold the nozzle) check the blast hoses, couplings and nozzle holders for leaks. Replace gaskets, couplings or refit hoses as required. |      |
| BLAST MACHINE  | INT. |
| While blasting check abrasive flow from the nozzles for optimum abrasive / air mixture. Retune abrasive metering valves as required.                                   |      |
| Ensure quick response of pilot valves (shuttles not sluggish).   |      |
| BLAST NOZZLE   | INT. |
| Replace nozzle holder gasket   |      |
| BLASTING HELMETS   | INT. |
| Check over for cracks, loose or worn cape & bib, damaged side wings & linings, breathing tube assembly functioning.  |      |
| Remove & clean.  |      |
| BOOTH DOORS  | INT. |
| Check latches operation – must have a positive action (not loose).   |      |
| Check rubber flaps for wear – abrasive escape.   |      |

| BREATHING AIR   | INT. |
|---|------|
| Check unit generally for operation, condition, looseness of fittings etc.                             |      |
| Record gauge readings   |      |
| CONVEYORS   | INT. |
| Check mounting plates & brackets for integrity  |      |
| Check V-Belt tensioning   |      |
| Check Tray rubber pins visually for wear. Replace if necessary.                                       |      |
| DUST COLLECTOR  | INT. |
| Verify differential pressure on Dust Collector is in specification. Adjust pulse sequence to rectify. |      |
| Listen to pulse (should sound crisp and sharp, not long and drawn out)                                |      |





# PREVENTATIVE MAINTENANCE CHECK-LIST

**AIR WASH** **INT.**

|   |  |
|---|--|
| Check airwash operation. Ensure full width curtain and appropriate splitting of dust, abrasive and fines. |  |
| Check clean abrasive for fines. Adjust airwash as necessary.  |  |

**BLAST BOOTH** **INT.**

|  |  |
|--|--|
| Check operation of booth lighting. Clean/replace glass or the protective covers as required. |  |
| Verify proper operation of door interlock switches. Rectify if not working.                  |  |

**BLAST HOSES** **INT.**

|  |  |
|--|--|
| Check coupling gaskets and safety clips are present. Replace if required.  |  |
| Check safety whip cables are installed and extended correctly. Replace if required.  |  |
| Feel along all blast hoses for thin spots and replace as necessary.  |  |
| While blasting (get operator to hold the nozzle) check the blast hoses, couplings and nozzle holders for leaks. Replace gaskets, couplings or refit hoses as required. |  |

**BLAST MACHINE** **INT.**

|   |  |
|---|--|
| Check deadman control lines and deadman handles, particularly at each connection point for damage or air leaks – repair / replace as necessary. |  |
| Check breather vent is clear.   |  |
| Check blow down hose for wear & leaks around pinch points (if running a Combo valve).   |  |
| Check blow down mufflers (if installed).  |  |
| Check auto air valve breather vent is clear & no internal leaks.  |  |
| Disassemble, Clean and lubricate all Pilot Valves. Check for scores on spool. Test operation.   |  |
| Remove Abrasive Metering Valves and disassemble. Check for internal wear and replace worn seals/seats as required.                              |  |
| No leaks on exhaust port (from Tera, Thompson or Auto Air valves).  |  |
| Check operation of wall switch for depressurization system.   |  |
| Check Combo valve response for depressurization system.   |  |
| Check operation of door interlock(s).   |  |
| Check valve shaft and internal piping on pop-up valve assembly.   |  |
| Check valve for wear and seating ring on pop-up valve assembly  |  |

**BLAST MACHINE** **INT.**

|   |  |
|---|--|
| Check handway assembly for leaks, gasket condition. Replace if leaking or if rubber has deteriorated. |  |
|---|--|

**BLAST MACHINE (WHILE BLASTING)** **INT.**

|  |  |
|--|--|
| Inspect all control hoses and joints for leaks. Tighten and replace as required. |  |
|--|--|

**BLAST NOZZLE** **INT.**

|  |  |
|--|--|
| Check for nozzle for internal and external cracks. Dispose of any cracked nozzles & replace.   |  |
| Use Nozzle Size Analyzer to measure the nozzle size from back of nozzle. If worn more than 1/16" from new size, dispose and replace. |  |
| Check nozzle holder gasket for correct placement and wear/tear.  |  |
| Replace nozzle holder gasket.  |  |

**BLAST POT FASTENERS & PIPE FITTINGS** **INT.**

|  |  |
|--|--|
| Check all nuts and bolts for tightness, and ball valves, barrel unions, elbows, fittings etc., for leaks |  |
|--|--|

**BLAST POT REMOTE FILLING CONTROL & DOOR INTERLOCKS** **INT.**

|  |  |
|--|--|
| Check hoses for leakage, switches for operation. |  |
|--|--|

**BLAST POT VESSEL** **INT.**

|   |  |
|---|--|
| Inspect exterior for dents, gouges or bulges. |  |
|---|--|

**BREATHING AIR** **INT.**

|   |  |
|---|--|
| Check CO Alarm is in operation. Recalibrate as required. Refer to Owners Manual for Checks. |  |
| Breathing air hoses - check for contamination, wear & leaks.                                |  |
| Breathing air hose connections - check for leaks.   |  |
| Filter housing - inspect for integrity, odor, leaks.  |  |
| Replace Filter cartridge (or sooner if bad odors or tastes in the air occur).               |  |

**BREATHING AIR FILTER & CO MONITOR** **INT.**

|                                   |  |
|-----------------------------------|--|
| Check for tightness of lid bolts. |  |
|-----------------------------------|--|

**BUCKET ELEVATOR** **INT.**

|   |  |
|---|--|
| Check belt tensioning. Turn off & isolate unit. Open up bottom access door of elevator. Reach as far up as possible and use both hands to draw the two sides of belt together. If belt is tightened correctly, it cannot be drawn any closer together than 1.5 to 2" apart (belts should never be able to touch each other). Refer to Elevator manual for further info. |  |
|---|--|

# PREVENTATIVE MAINTENANCE CHECK-LIST

| BUCKET ELEVATOR  | INT. |
|--|------|
| Check for dust build up on motor & drive. Clean as necessary.  |      |
| Check belt join for security and ensure it is sound.   |      |
| Check belt alignment. Open up bottom access door and check belt tracking for 2 minutes. Open up top access door and check run for belt tracking for 2 minutes – ensure is aligned to middle of pulley. |      |
| BUCKET ELEVATOR  | INT. |
| Check suction pipe work  |      |
| Grease bearings - top and bottom   |      |
| Check fines discharge. Ensure no back up in fines tube. Ensure fines waste drum is empty.  |      |
| Check conveyor discharge to elevator. Ensure no dust build up.   |      |
| CONTROL/ELECTRICAL CABINET   | INT. |
| Check for blown circuit breakers.  |      |
| Check for faulty lamps and burnt out light bulbs and replace.  |      |
| Blow out any dust accumulation.  |      |
| CONVEYORS  | INT. |
| Check for dust build up on motors, drives etc. Clean as required.  |      |
| Check pulleys and belts for wear, alignment etc. Replace belts as required.  |      |
| Ensure Grub screws are tight. The use of Loctite is highly recommended to prevent loosening.   |      |
| Check motor drive, eccentric bearings & supports. Measure amp draw on each motor.  |      |
| Grease bearing assembly.   |      |
| DUST COLLECTOR   | INT. |
| Record differential pressure on Dust Collector.  |      |
| Check all valves pulse in sequence (audible test).   |      |
| Drain manifolds.   |      |
| Inspect flexible joints, ductwork supports and guy wires on dust collector.  |      |
| Inspect for worn steel, dust leaks, rust, structural integrity of frame and body.  |      |
| Check for excessive dust build up or splits on filter cartridges, replace as necessary.  |      |

| DUST COLLECTOR  | INT. |
|---|------|
| Check operation, record parameters, zero display if required.   |      |
| Check that inspection/access doors are closed firmly, gaskets are in place, and no leaks occurring. Replace gaskets as necessary. |      |
| Check filter cartridge condition, change if necessary.  |      |
| Check clean air side for dust accumulation, clean out if necessary.   |      |
| ELECTRIC MOTORS   | INT. |
| Check terminals for tightness and overheating, lubricate bearings.  |      |
| ELECTRICAL CABINET  | INT. |
| Check contractors & overload set points.  |      |
| Check for any overheated terminals.   |      |
| Record hour run meter hrs.  |      |
| Check indicator lamps and replace any globes as required.   |      |
| Check circuit breakers.   |      |
| Check time delay relays for correct function.   |      |
| Check incoming voltages, voltages on transformers & power supplies.   |      |
| Record current drawn on motors.   |      |
| Remove dust & debris. Check for water or dust ingress.  |      |
| Check terminals & bus bars for tightness and signs of overheating.  |      |
| Check circuit breakers for correct operation, test R.C.D. breakers.   |      |
| Check Switch board overload set points and compare to amps drawn.   |      |
| Check transformer and power supply output voltages and for signs of overheating.  |      |
| Check VFDs for cable tightness, evidence of overheating, etc.   |      |

