

SPS – *Stamper Preparation System*

Workflow Processing Routine

SPS – *Finishing*

- Correctly Protected Stamper from Electroforming
Note: this should be a clear protective coating



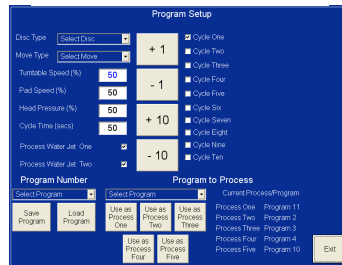
- Manual Load to Entry Station



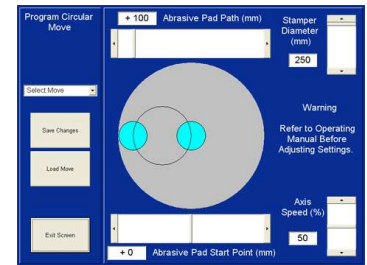
- Process Design & Selection



Program Set Up Screen



Finish Pattern Set Up Screen



- Press Start Cycle



Auto Pick Stamper from Entry Station



Auto Load to Process Chamber



Auto Pick of Finishing Discs



Auto Finishing Process (to Program Prescription)



Auto Stamper Cleaning Process (Wash & Wipe)



Auto Stamper Spin & Drying



Auto Stamper Unload from Process Chamber

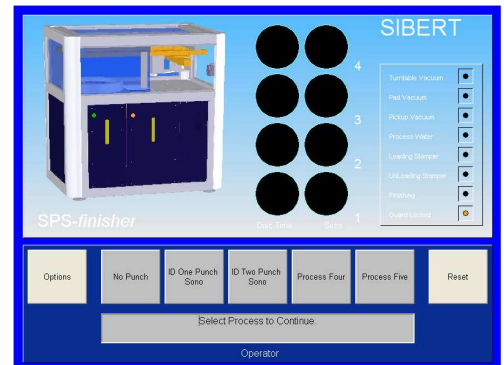


Auto Stamper Place to Entry Station



Manual Removal of Finished Stamper

Main Operator Screen



SPS – Finishing (Usage Optimisation and Preventative Maintenance List)

Daily / Each Shift Rotation

- **(OPERATOR)** Twice per shift, wipe surfaces of 2 x Stamper Input Stations & Process Chamber and Guards.
- **(OPERATOR)** Empty waste bin of Finishing Discs.
- **(OPERATOR)** Remove any excess nickel fragments from OD of stampers prior to placing into machine.
- **(OPERATOR)** Wipe rear of stamper clean from any remaining nickel debris.
- **(OPERATOR)** Use Finishing Disc Insertion Tool for Magazine refilling.
- **(OPERATOR)** Ensure good Protective Tape application with especially no bubbles or creases around Data OD & Tracking Band. Use a sharp knife to cut away excess tape ensuring no overhang around outside edge of stamper.
- **(SERVICE TECH)** Open LHS Perspex Guard, remove lid of Process Chamber, make sure drain hole is clear, make sure any finishing discs are removed & clean lid thoroughly. Be careful not to disturb the water jet positions. Clean the turntable, inspect & clean the vacuum mat, check all rivets present and replace where necessary. Do not clean the inside of the Process Chamber walls. If fitted, make sure the DI input and Waste Water output pipes are clear of any obstructions and are routed correctly to and from the machine.
- **(SERVICE TECH)** Ensure Finishing Discs are not overloaded or overly compressed in magazines.
- **(SERVICE TECH)** Inspect & clean using an Isopropanol wipe the Stamper Pick Up Head Vacuum suction cups, especially the central 3 x 8mm type. Replace where necessary.
- **(SERVICE TECH)** Ensure Input Station has not been adjusted.
- **(SERVICE TECH)** Check Water Level in Filtration Tank and inspect the 2 x filters as described in the Operating & Commissioning Manual.

General

- **(SERVICE TECH)** Once per week, go to Technician Settings (Input/Output Test) and check vacuum to Finishing Head and purge for 1 – 2 minutes, using a cloth under head to collect debris.
- **(SERVICE TECH)** Check & adjust Datums only if report of misalignment (Note: this point should only really need checking once per month).
- **(SERVICE TECH)** Check Turntable Spin & Dwell working to correct time settings.
- **(SERVICE TECH)** Keep top of machine clear, so the inside of machine can be seen working more easily.
- **(SERVICE TECH)** Using Isopropanol, once per week inspect & clean the 3 off Transfer suction cups at the rear Input Station (Combined Machines Only).
- **(SERVICE TECH)** Once per week remove the lower left hand Side Panel and inspect the 3 filters for Turntable, Pick Up and Head vacuums, replacing where necessary.
- **(SUPERVISOR ONLY)** Monitor water jet positions & flow onto stamper is correct to latest preferred set up.
- **(SUPERVISOR ONLY)** For additional safety in Combined Mode, please ensure that after exiting any service screen a full machine reset is conducted.
- **(SUPERVISOR ONLY)** In the event of an Emergency Stop situation, always establish the reason for activation and resolve accordingly prior to restarting the machine.