

SPS — Stamper Preparation System

Workflow Processing Routine

SPS — Punching

Note: For L0 Reverse Punching, the Stamper must have a cleared centre



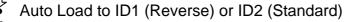
Process Design & Selection



Press Start Cycle



Auto Pick Stamper from Entry Station



Auto Optics Positioning

Auto Focus to Tracking Band or Data Edge

Auto Centring of Data to Program Prescription

Auto ID Punching

Auto Stamper Pick and Place to OD Punching Station

Auto ID Waste Removal

Auto OD Punching

Auto Stamper Pick from OD

Auto Stamper Place to Entry Station

Auto OD Waste Removal

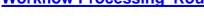


Reverse ID Punched L0



Standard ID Punched L1

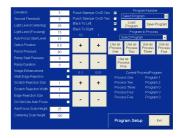




Manual Stamper Load to Entry Station protective coating applied or alternatively processed bare without any protection.



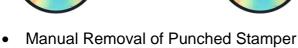
Program Set Up Screen



Main Operator Screen



Automatic Processing





SPS — Punching (Usage Optimisation and Preventative Maintenance List)

Daily / Each Shift Rotation

- **(OPERATOR)** Twice per shift, wipe surfaces of Stamper Input Station & 3 x P&D's using a clean lint free dry cloth.
- **(OPERATOR)** Empty Waste Bin of nickel and replace carefully, so not to damage microswitch at rear of compartment.
- (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) Hourly check of 3 x P&D lower surfaces for nickel fragments/debris.
- **(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)** Check condition of Handling Arm Suction Cups and wipe clean using a cloth lightly dowsed with Isopropanol.
- (SERVICE TECH) Ensure Input Station has not been adjusted.

General

- **(SERVICE TECH)** Every 500 shots remove, clean & lightly oil Upper Stripper on Reverse Punch and every 1500 shots for Lower Stripper on Standard Punch.
- **(SERVICE TECH)** High usage only. Once per week, use Sibert specified oil P403-001 to lubricate the ID & OD die shafts. Apply only a small amount, as trained. Do not use turpentine.
- **(SERVICE TECH)** High usage only. Once per week, replace centre waste pick up suction cup on handling arm.
- **(SERVICE TECH)** High usage only. Recheck datums as per latest training at least once per week. Ensure handling arm Up/Down pressure is not adjusted to high.
- **(SERVICE TECH)** Ensure the OD strip adjustment flow regulator is not set too high, in order to eject the most stressed stampers. Setting this too high has resulted in OD waste removal unreliability and increased the ejection force transferred through to the Handling Arm to an unacceptable level.
- (SERVICE TECH) Keep top of machine clear (so inside of machine can be seen working more easily/clearly).
- **(SERVICE TECH)** Once per week inspect the 3 off Handling Arm and 3 off Turntable Vacuum filters at the rear of the machine.
- (SUPERVISOR ONLY) Monitor Optics position for both ID stations, in order to maintain best position for BD LBR diameter(s). This will ensure centring is optimised. Also, use a reference Stamper to confirm optics position has remained consistent.
- (SUPERVISOR ONLY) Ensure latest training practices are being used for P&D changing, stripper cleaning, vacuum checking, and datum adjustments.
- (SUPERVISOR ONLY) When using Test Outputs, Set Up Machine Datums and Handling Input/Output service screens, please ensure that prior to exiting these screens the Optics is in the <u>Home</u> position, the Handling Arm is in the <u>Safe</u> position and Transfer Arm and Finisher Head (if combined) are returned to their <u>Home</u> positions. Please Note: Manual Set Up Controls, Manual Mode and all 3 P&D Change screens reset the Optics and Handling Arm to <u>Home</u> and <u>Safe</u> positions automatically.



- (SUPERVISOR ONLY) For additional safety in Combined Mode (where applicable), 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. Upon restarting the machine, ensure that by pressing the Open Guards To Clear Machine button, the Handling Arm is fully retracted and at the <u>Safe</u> position, the Optics is in the <u>Home</u> position and the Transfer Arm (where applicable) is correctly arranged in the <u>Home</u> position inside the SPS Finisher.