

HCSS Overview – High Capacity Stacker Stapler

HCSS Overview

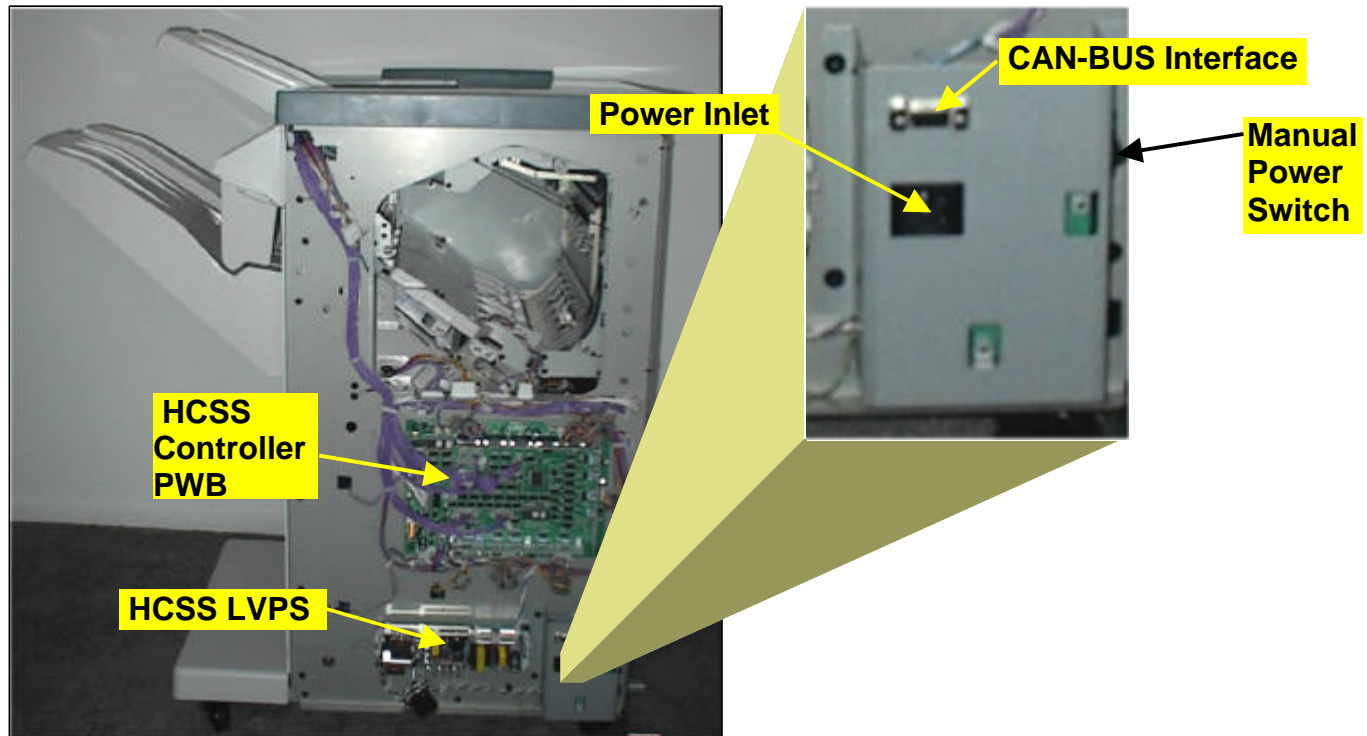
The High Capacity Stacker Stapler (HCSS) is installed on the right hand side of the IOT, or at the end of the accessory chain. It is connected to the IOT using the CAN-BUS and daisy chain. As with all accessories, the HCSS has a unique address and its own controller for HCSS internal control based on the commands provided by the FFIU PWB via the CAN-BUS interface from the host.



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HCSS Overview (continued)

115/120 VAC power is provided through the power inlet in the AC Power Panel and controlled by the electrical CAN-BUS Interface from the host. AC to DC power is provided by an internal HSCC LVPS and provides 5VDC for logic control and 24VDC for motor and solenoid operation. Machine interface and HCSS component control is provided and controlled by the HCSS Controller PWB. The Main Power Switch switches AC Power ON/OFF.



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HCSS Overview (continued)

Tray Capacities

Tray capacity is as follows:

Top Tray - 250 sheets

Stack Tray - 2,000 sheets

Max Number of stapled sheets - 50 sheets

Operational Modes

The HCSS has three operational modes:

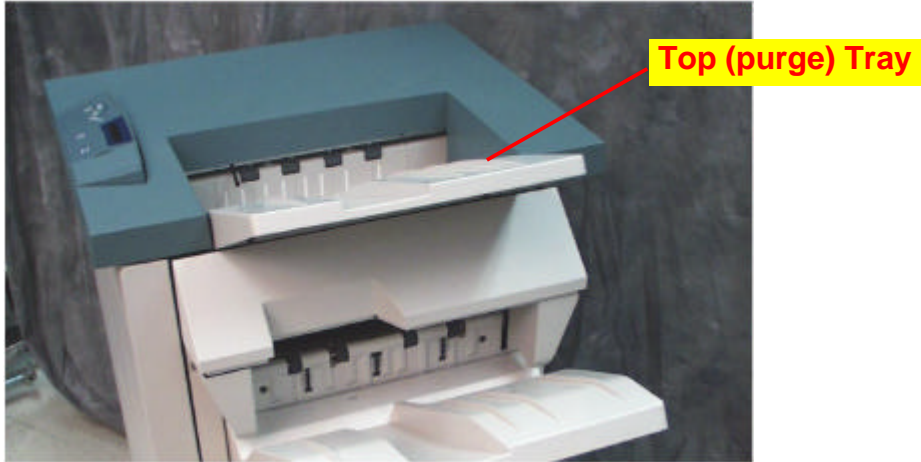
1. Purge Mode where incoming sheets are sent to the Top Tray
2. Stack Mode where sheets/sets are transported to the Stack Tray
3. Staple Mode where the sets are compiled jogged and stapled.

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HCSS Overview (continued)

Purge Mode (Top Tray)

The HCSS feeds paper to the Top Tray (purge) when requested by the host IOT or if the destination of the sheet is undetermined. The Sheet Exit command is sent from the FFIU PWB, but it needs to be sent 300msec before the Leading Edge of the sheet enters the Host Exit NIP.

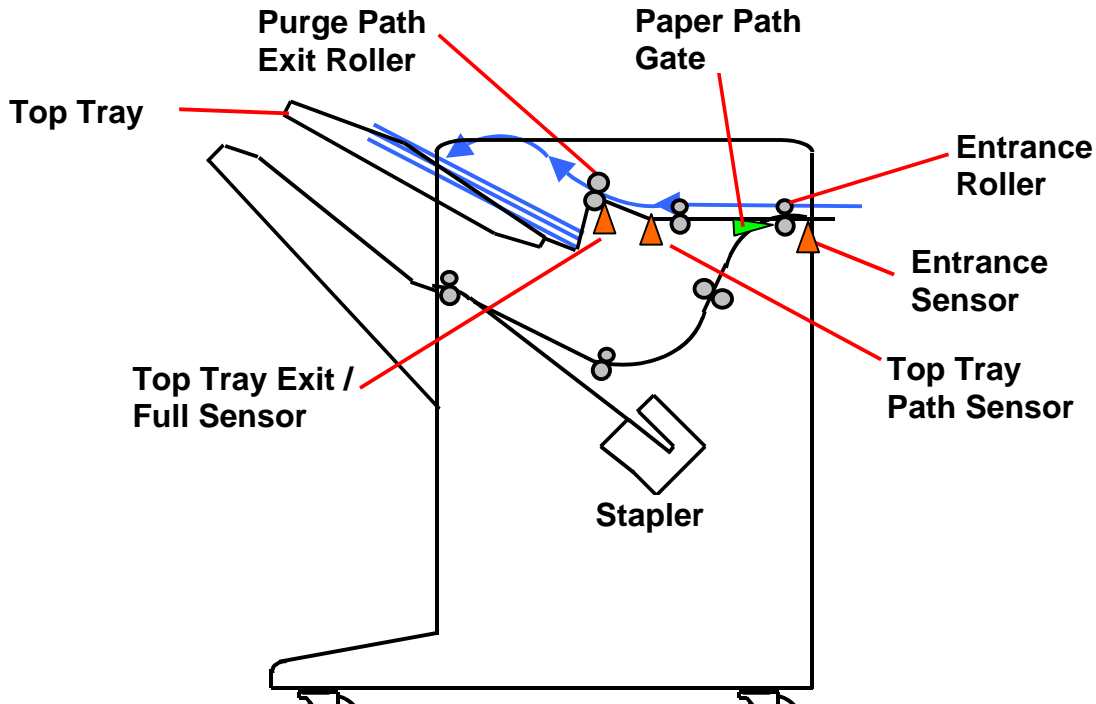


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HCSS Overview (continued)

Purge Mode (continued)

In purge mode the sheets are not stapled or stacked, they are sent directly to the Top (purge) Tray. The Paper Path Gate is down and the sheets are fed at the same speed as the processor (450mm/sec). The sheets enter at the HCSS Entrance Roller, go past the Entrance Sensor, the Top Tray Path Sensor, and are delivered to the Top (purge) tray after passing and actuating the Top Tray Exit / Full Sensor.

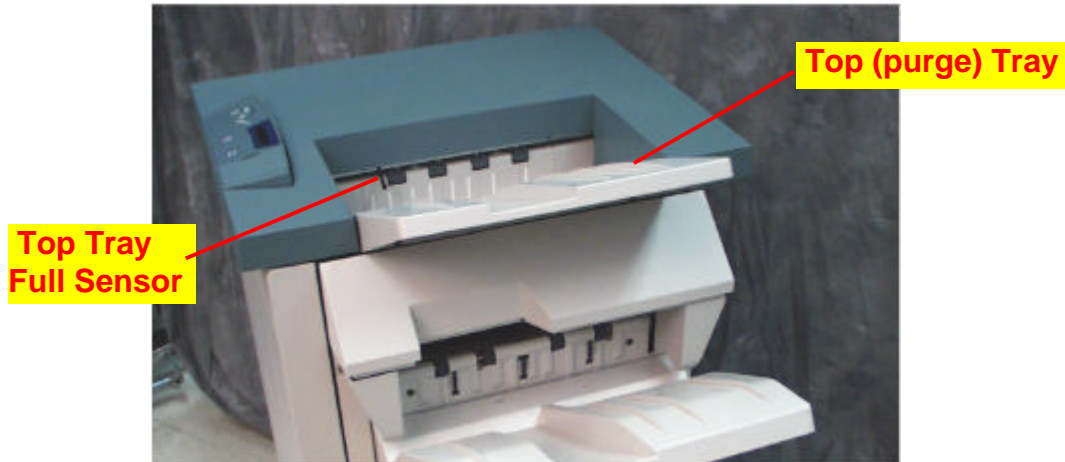


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HCSS Overview (continued)

Purge Mode (continued)

The Top Tray Exit / Full Sensor monitors paper entering the tray by sending a momentary signal to the Control Logic. A continuous signal indicates that the tray has reached capacity and the machine is shut down



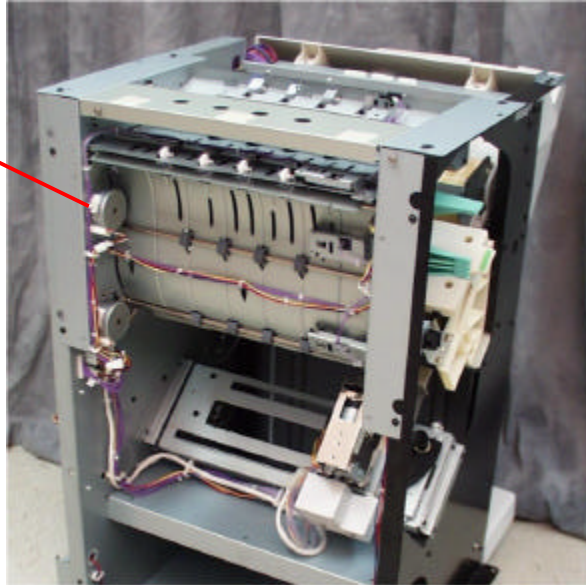
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HCSS Overview (continued)

Purge Mode (continued)

Purge Mode mechanical drive is provided by the Entrance Motor, which drives all the rollers in the purge path at 450mm/sec.

Entrance Motor



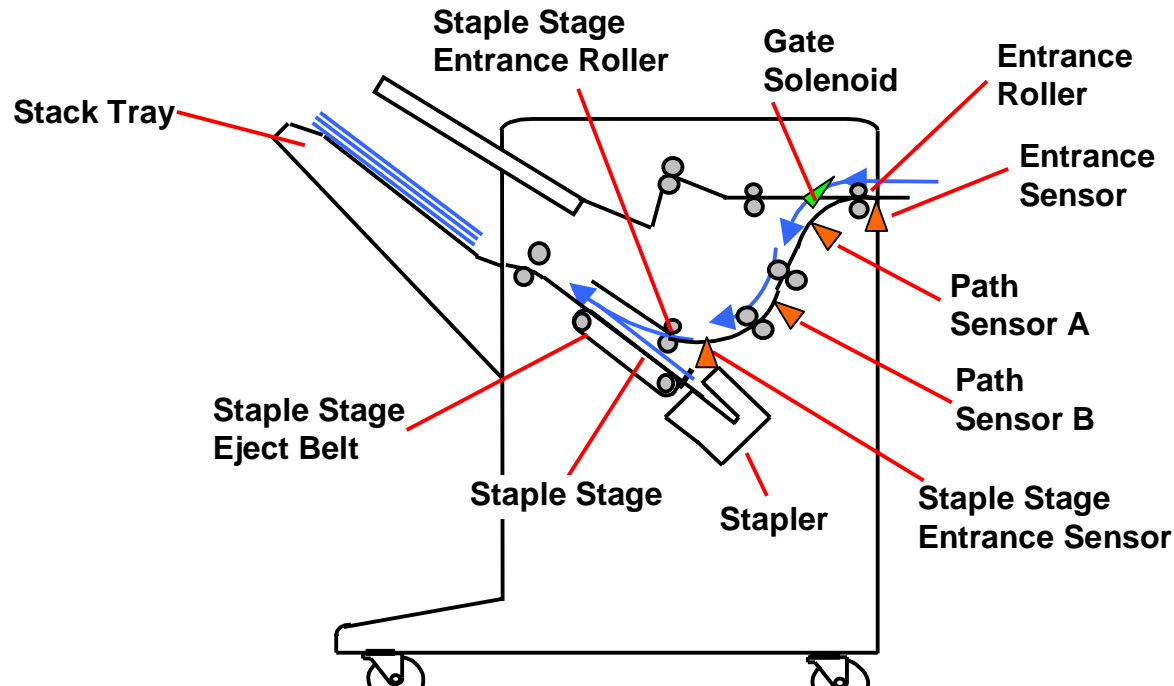
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HCSS Overview (continued)

Stack Mode

In the Stack Mode the Gate Solenoid is up and the sheets are transported from the Entrance Roller to the Stack Tray after entering and exiting the Staple Stage.

The sheet is received at the Entrance Roller at 450mm/sec. After the trail edge clears the Entrance Sensor, the sheet is accelerated to 800mm/sec by the Main Feed Motor and Staple Stage Entrance Motor. The sheet continues to be transported and clears the Path Sensor A and B, Staple Stage Entrance Sensor and drops into the Staple Stage. Paddles on the Staple Stage Entrance Roller push the sheets down against the stops on the Staple Stage Eject Belt.

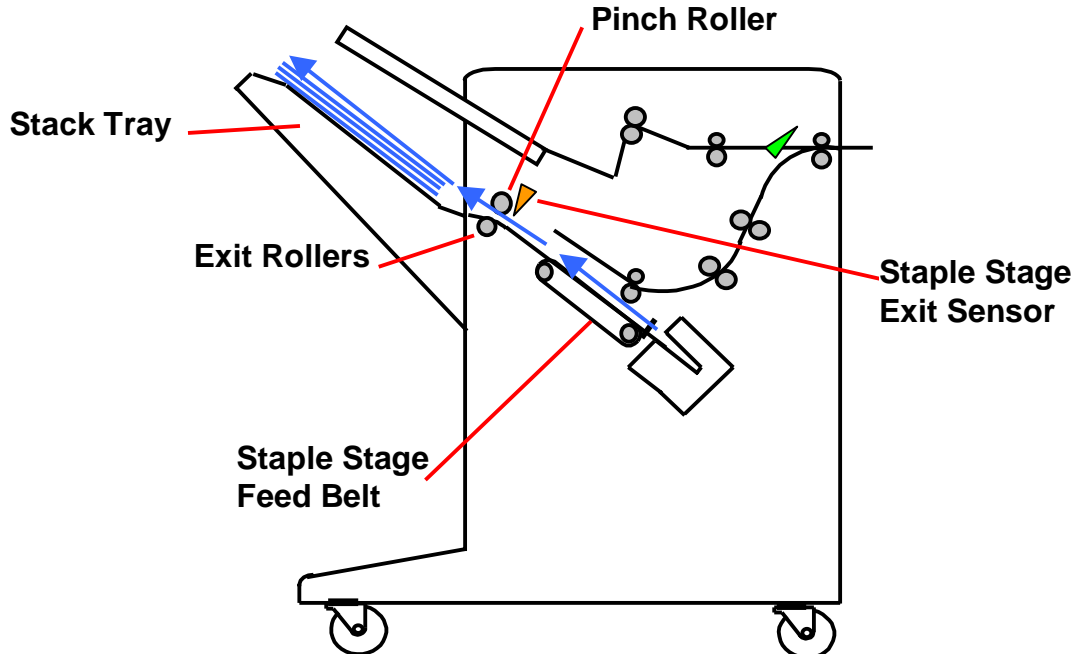


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HCSS Overview (continued)

Stack Mode (continued)

The Staple Stage Transport Motor actuates to rotate the Staple Stage Eject Belt and ejects the set. At this time the Pinch Roller Motor lowers the Pinch Roller and the Exit Motor provides drive to the Exit Rollers. The two rolls grip the set and move it into the Stack Tray. As the set exits the Staple Stage it clears the Staple Stage Exit Sensor.

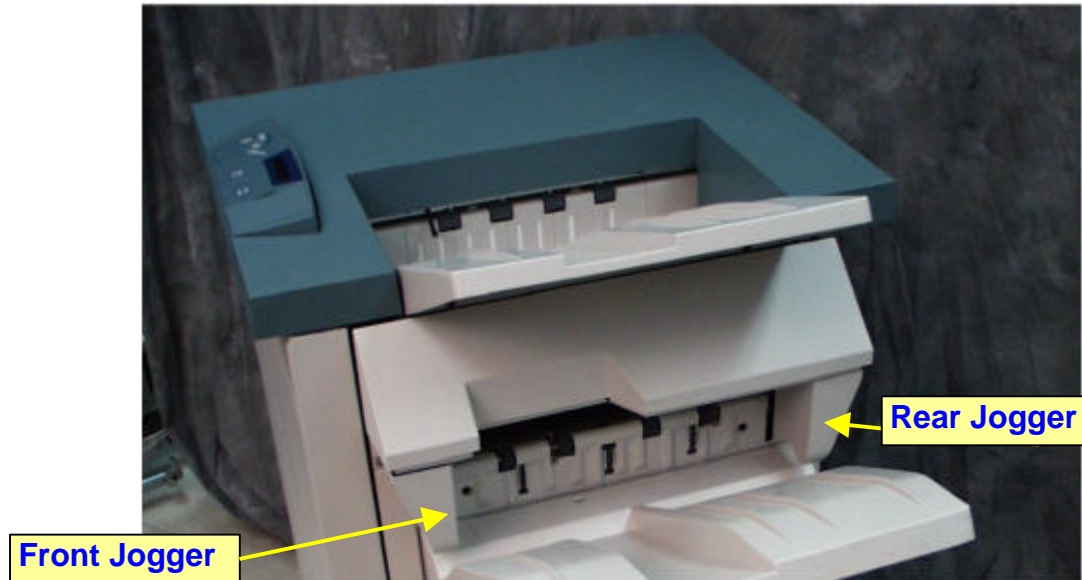


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HCSS Overview (continued)

Stack Mode (continued)

As sets enter the Stack Tray the operator has the option of offsetting the sets. If offsetting is selected the Offset Joggers open to a home position. As each set enters the Stack Tray one Jogger will remain in the home position while the other guide pushes the top set against it. The active guide will then move back to the home position and the other guide will push the next set against it and the Stack Tray will move down. This alternating process of pushing and returning to home position continues until the job is completed. (see Off setting and Stack Tray Operation)

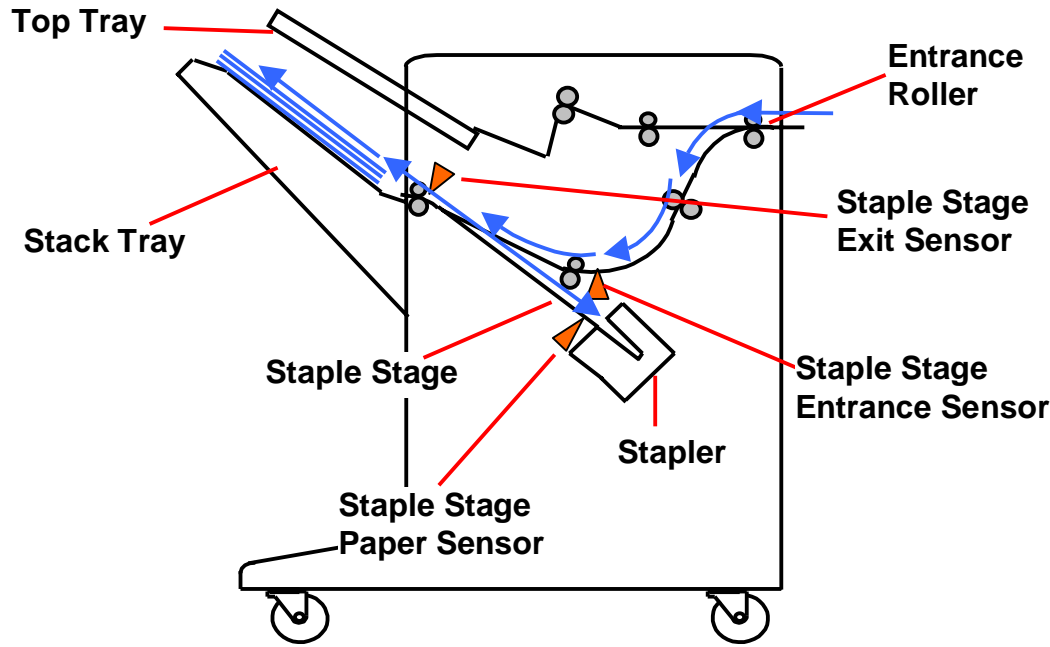


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HCSS Overview (continued)

Staple Mode

The sheet is received by the Entrance Roller at 450mm/sec. After the trail edge clears the Entrance Sensor, the sheet is accelerated to approx. 800mm/sec. Upon clearing the Staple Stage Entrance Sensor, the sheet speed is decreased and it drops into the Staple Stage actuating the Staple Stage Paper Sensor. When the entire set is in the Staple Stage, it is jogged and stapled. After stapling, the set is ejected from the Staple Stage, clears the Staple Stage Exit Sensor and is transported to the Stack Tray by the Exit and Pinch Rollers.



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HCSS Overview (continued)

Control Panel

