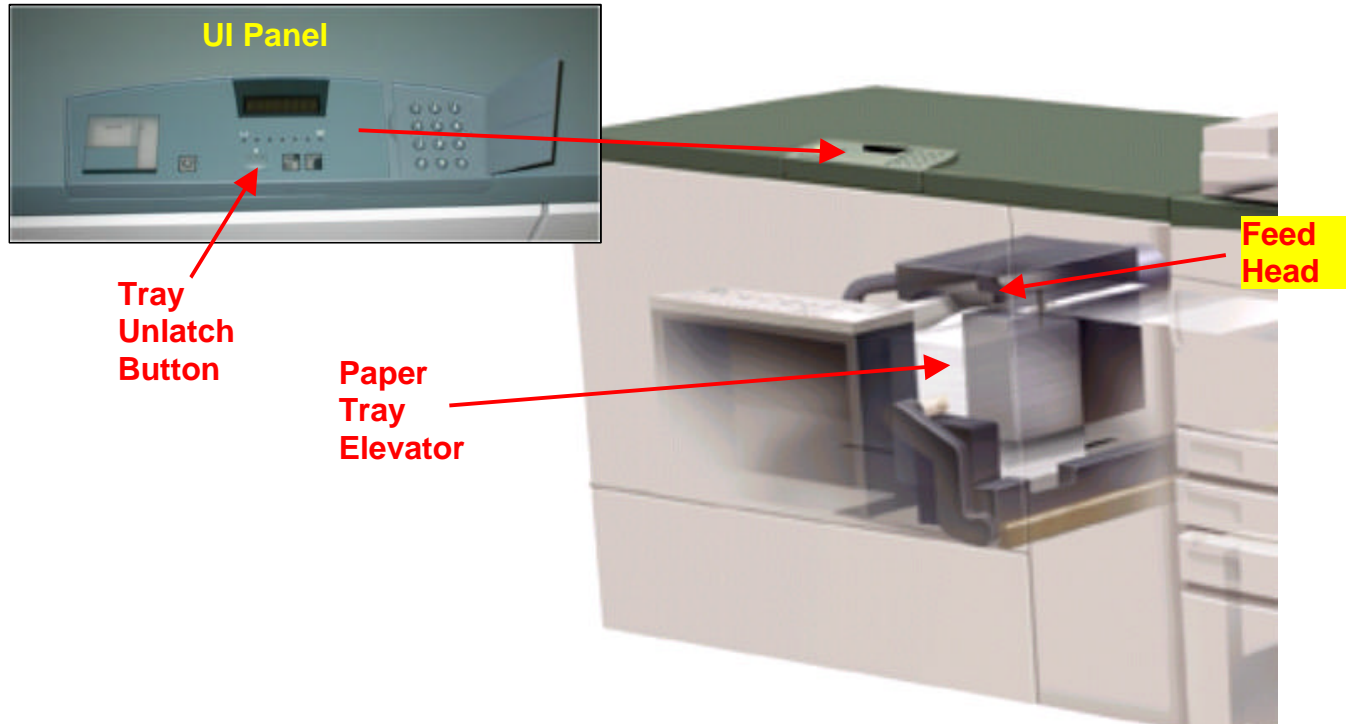


High Capacity Feeder Module - HCF Overview

HCF Overview

The High Capacity Feeder (HCF) contains a cut-sheet feeder that can handle a wide range of coated and uncoated substrates, including offset, cover, bond, writing, index, bristol, tag and fancy text stocks from 60 GSM (40lb offset) to 220 GSM (100lb cover). The HCF connects to the left side of the machine and is capable of feeding up to 60ppm (max) on demand to the print engine. The paper tray in the HCF holds up to 2,500 sheets of 24lb / 90gsm stock. The feeder can feed sheet sizes that are from 5.8x8.3 in. (min), to 12.6x19.2 in. (max).



High Capacity Feeder Module - HCF Overview

HCF Overview (continued) - OPERATIONAL DESCRIPTION

The HCF has a sliding vacuum corrugated feed head that picks a sheet off the top of the stack and delivers it to a set of takeaway rolls. The Exit Transport then carries the sheet to the Paper Handling Module. A fluffer and an air knife are used to separate the top few sheets of the stack to prevent multiple feeds.

Except for communication and interlock connections, the HCF Module is essentially a stand-alone unit: AC and DC power, the control system, drives, and all functionality associated with positioning and feeding paper are independent of the IOT Print Engine.

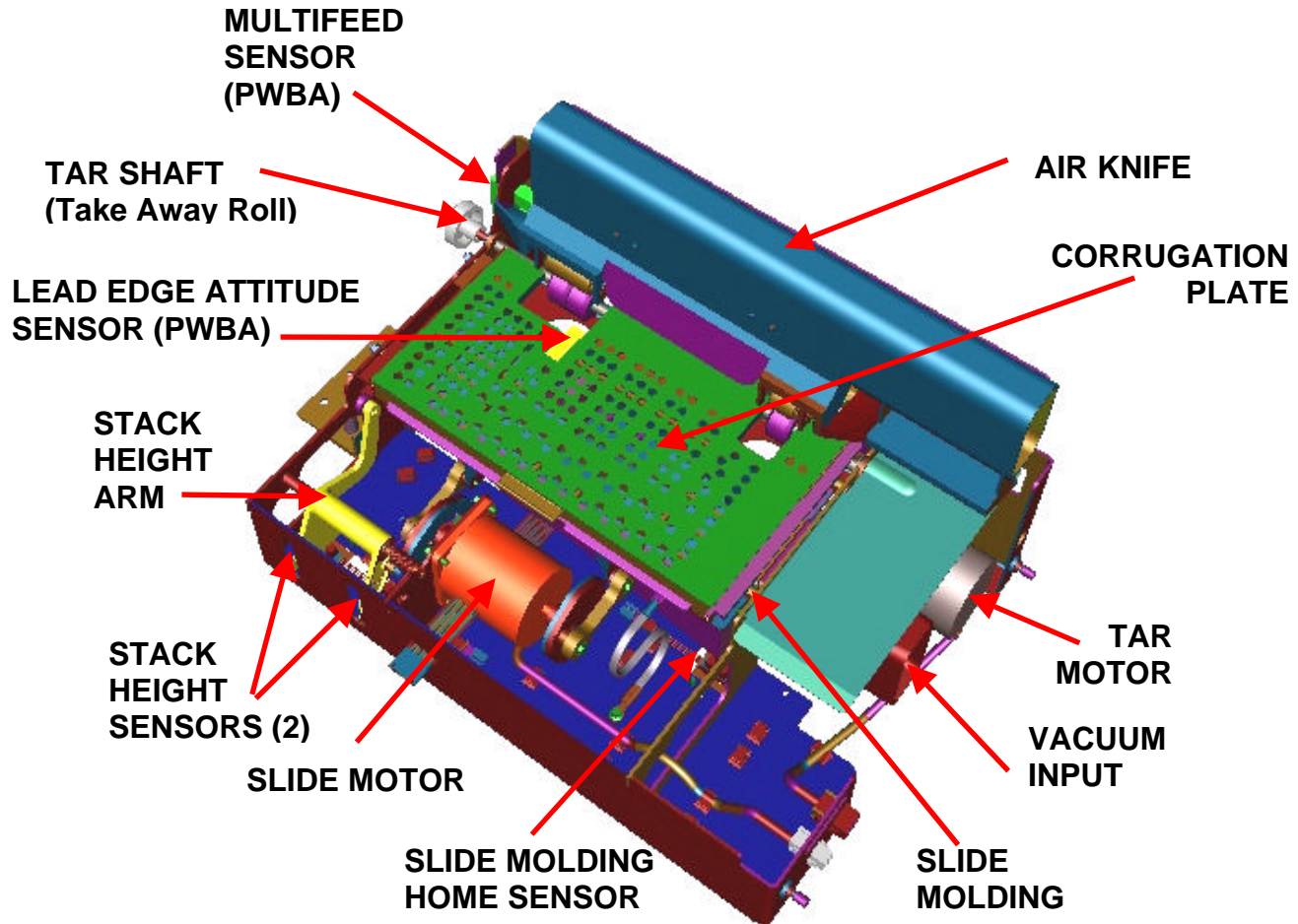
At the start of a print job, the feed head is in the home position and the stack height arm is down, checking stack height. The blower switches on to provide air to the fluffers and the air knife. (The vacuum valve is closed.) The takeaway roll motor switches on and turns the takeaway rolls at a surface speed equal to the forward velocity of the feed head.

Next, the vacuum valve opens and a sheet is acquired by the feed head. The slide motor then turns part way through its cycle to raise the stack height arm and to slide the feed head forward and deliver the sheet to the takeaway rolls. The vacuum valve closes to release the sheet, and the takeaway rolls accelerate to the velocity of the Exit Transports. When the trail edge of the sheet clears the takeaway roll sensor, the takeaway rolls decelerate to the feed head forward velocity.

To complete the feed cycle, the slide motor returns the feed head to the home position and releases the stack height arm.

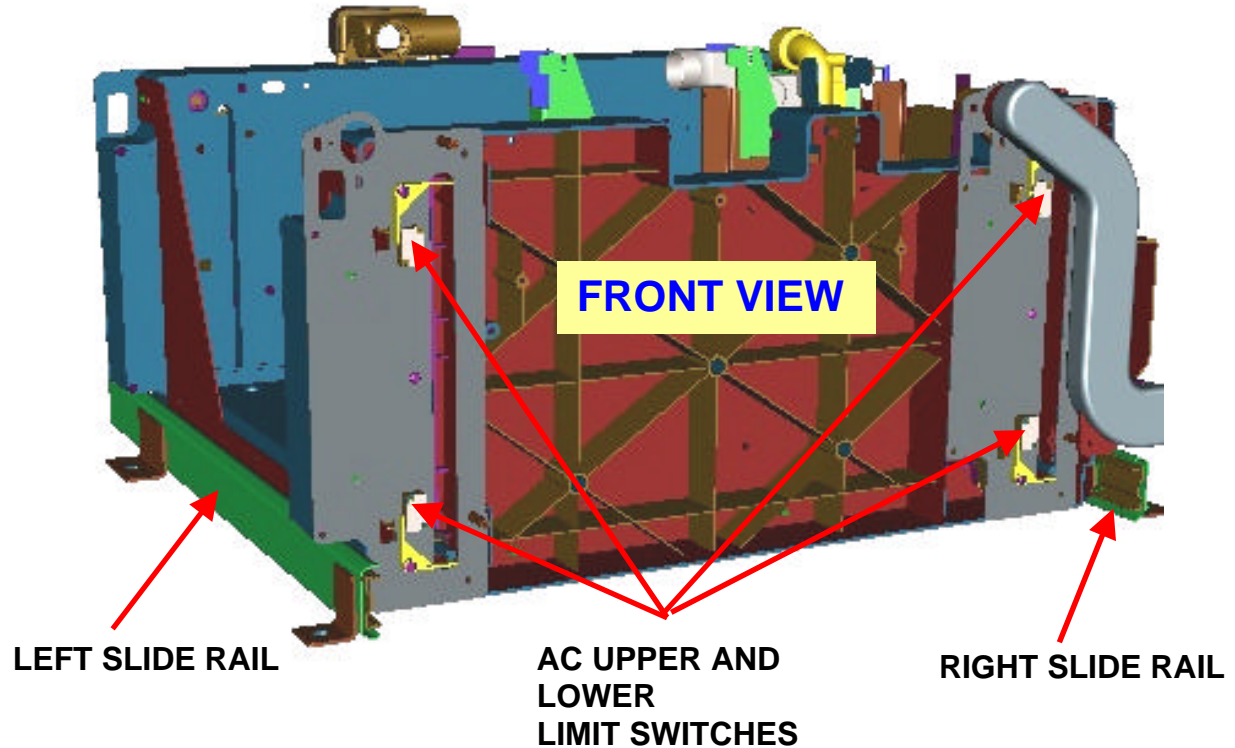
High Capacity Feeder Module - HCF Overview

HCF Overview (continued) - FEEDHEAD MAJOR COMPONENTS



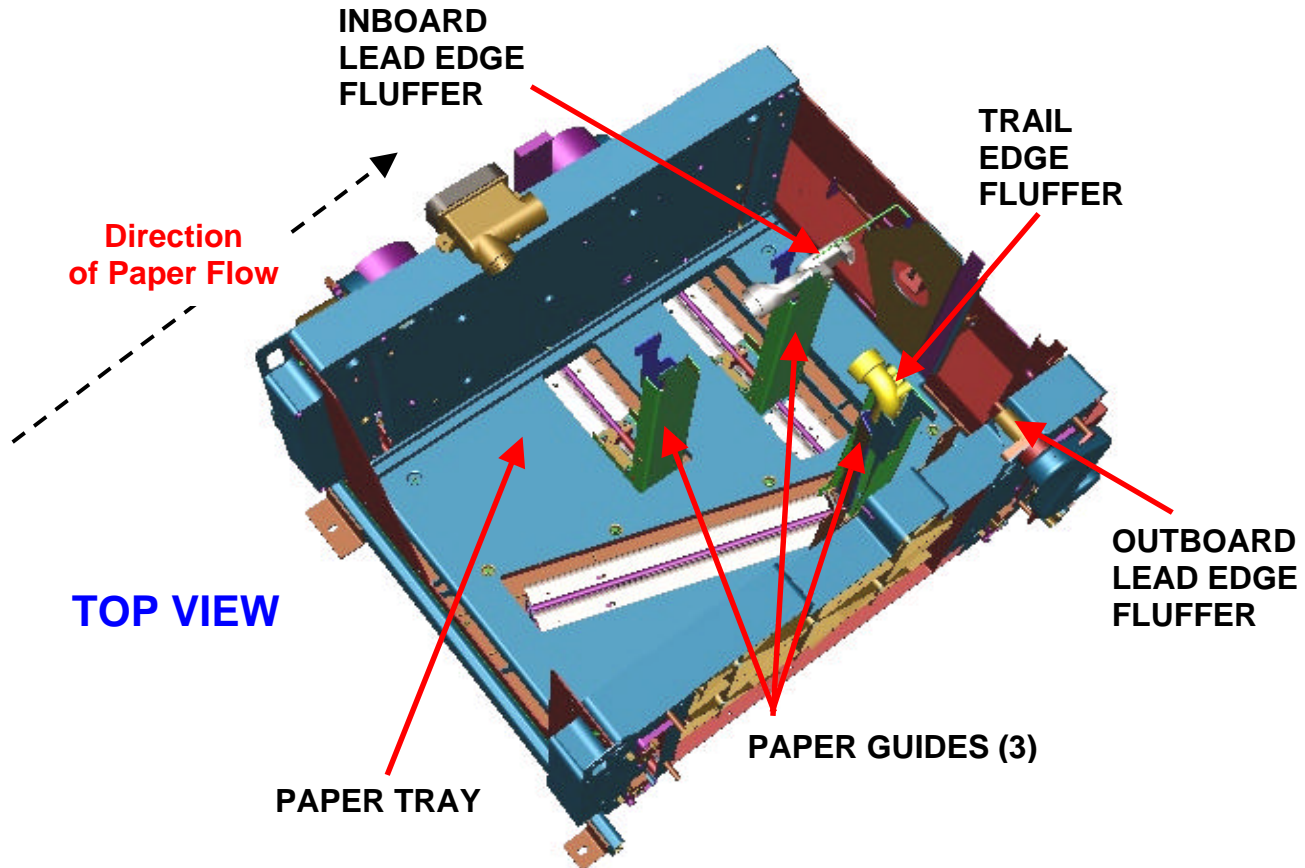
High Capacity Feeder Module - HCF Overview

HCF Overview (continued) - ELEVATOR MAJOR COMPONENTS (1)



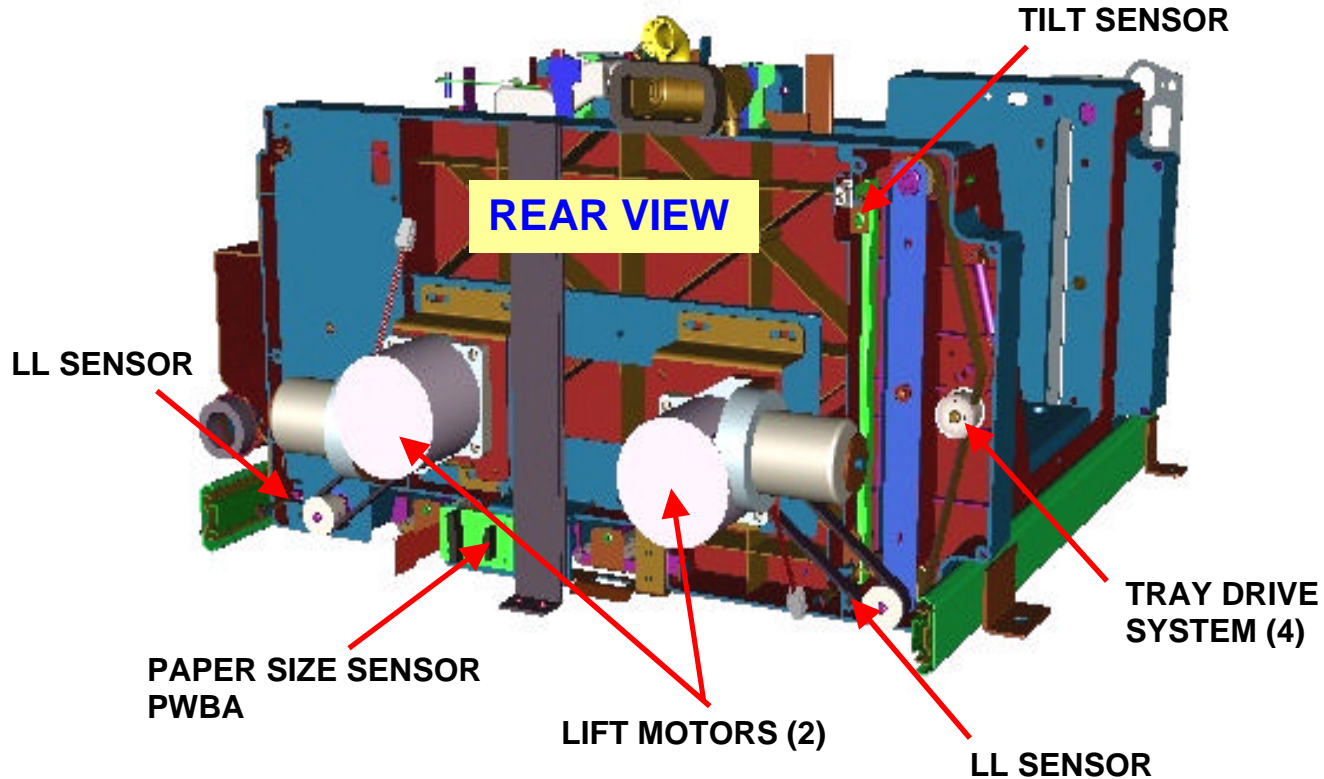
High Capacity Feeder Module - HCF Overview

HCF Overview (continued) - ELEVATOR MAJOR COMPONENTS (2)



High Capacity Feeder Module - HCF Overview

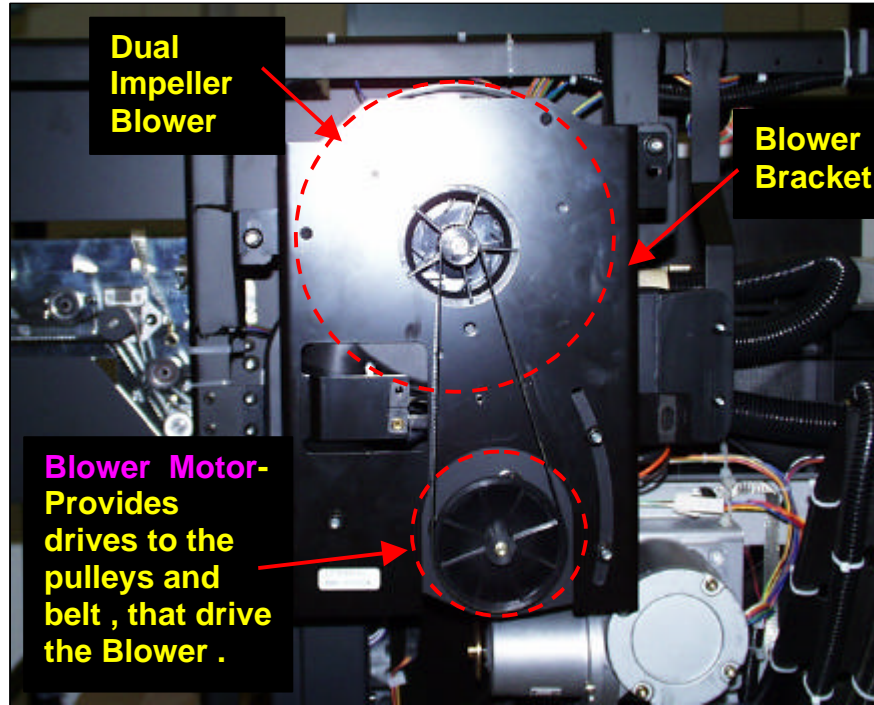
HCF Overview (continued) - ELEVATOR MAJOR COMPONENTS (3)



High Capacity Feeder Module - HCF Overview

HCF Overview (continued) - BLOWER ASSEMBLY COMPONENTS

The HCF Blower is a dual-impeller blower, one impeller for air the other for vacuum.

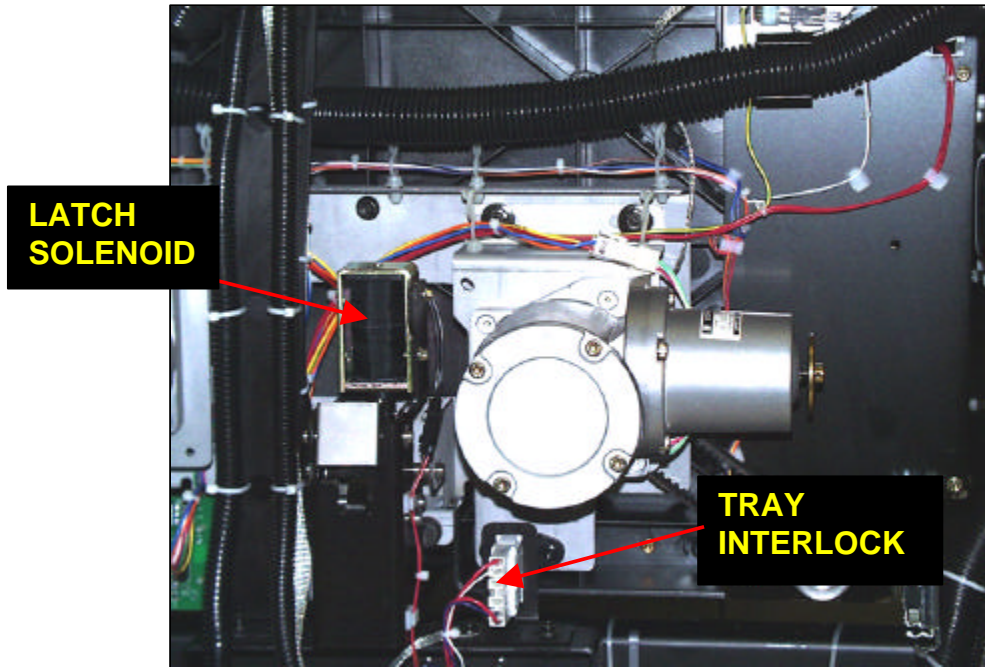


NOTE: The Blower and Blower Motor in the photo above are not visible, they are mounted to the rear of the Blower Bracket. See PL 22.33 for more detail.

High Capacity Feeder Module - HCF Overview

HCF Overview (continued) - ELEVATOR TRAY LATCHING COMPONENTS

Inserting the tray actuates the interlock and signals the Control Logic to actuate the Latch Solenoid. When the solenoid actuates it latches the tray.



High Capacity Feeder Module - HCF Overview

HCF Overview (continued) - Horizontal Transport Components

The Horizontal Transports moves paper from the Feedhead Takeaway Rolls to the F-Transport in the Paper Handling Module. An Exit Sensor in the transport checks for jams. The Front Door Interlock Switch Interlock disables the HCF when the Door is open.

