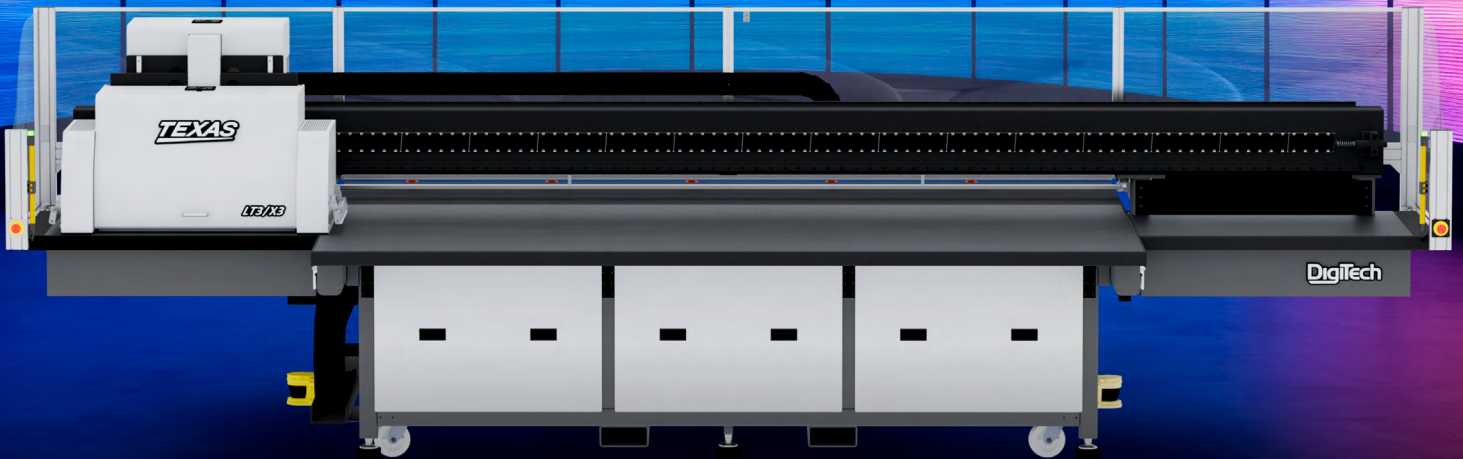


AUTOMATION: FROM PRINT TO PALLET



Don't just print fast. Discover the true definition of flatbed throughput.

BEYOND THE ISOLATED FLATBED

Redefining Print Shop Profitability

Flatbed printing doesn't have to be an isolated task. Make it the launchpad for a fully integrated industrial process.

In high-volume graphics manufacturing, profitability is no longer defined solely by how fast a printer is. True competitive advantage belongs to operations that control the cost of material velocity. By bridging precision American manufacturing with advanced material handling automation, **Canon U.S.A., Infinite Motion Control (IMC), and DigiTech** introduce a modular, high-output ecosystem. This design transitions your print floor from an isolated flatbed workflow into a unified, touchless print-to-pallet assembly line. By reducing manual handling bottlenecks and minimizing costly human error, it helps maximize your profitability while shifting the focus from "boards per minute" to **"finished boards per hour."**

The Concept of Material Velocity

Material Velocity is the speed at which a raw substrate becomes a finished, sellable asset. A fast printer gives you a major advantage, but manual touchpoints can stall that momentum. Adding automation turns high-speed printing into a continuous hands-free workflow.

Achieving peak throughput requires an exact physical handoff where each stage of production efficiently balances the next. This engineering ensures that the high-speed imaging of the DigiTech Texas printer seamlessly syncs with downstream finishing tools, helping to significantly reduce idle engine time. By replacing slow, unpredictable manual touchpoints with heavy-duty, synchronized mechanics, you establish an unbroken, machine-driven rhythm across the entire production floor.

This hands-free sequence is executed by specialized automated modules operating in total alignment. Substrates navigate seamlessly from initial print and unloading through dynamic buffering, panel flipping, digital cutter processing, and final pallet stacking. On the following page, we dissect the inner workings, engineering specifications, and distinct strategic advantages of the core components driving this automated workflow.



CRUSHING THE MARGIN TAX

Every time a human hand manually lifts, flips, or carries a rigid board, your facility pays an invisible tax in labor, lost time, and potential material scrap. By bridging high-output printing with advanced material handling automation, the IMC ecosystem converts human variables into predictable, machine-driven throughput, safeguarding your margins and your sanity simultaneously.

Expensive digital flatbeds routinely sit completely idle while operators struggle to manually clear finished sheets, flip corrugated panels, or carry boards to isolated cutting tables. This manual touchpoint bottleneck forces your most advanced printing assets to operate well below their true earning capacity.



Transforming Handoffs into Profitable Metrics

By removing user interaction from the physical post-print lifecycle, you turn manual graphics management into a highly disciplined industrial process.

- **Labor Efficiency:** Consolidates multi-operator offloading, carrying, and stacking steps into a single continuous loop managed entirely by one operator.
- **Registration Accuracy:** Removes manual alignment variables to achieve precise, handoffs to your digital cutter conveyor bed.
- **Substrate Protection:** Employs surface-safe pneumatic arms and vacuum-plated gantries to help safeguard against scratches, scuffs, and fingerprint blemishes.

Ultimately, this connected, touchless workflow minimizes printer waiting time while the cutter processes jobs. It accelerates job completion from start to finish, empowering your team to meet higher demands while dramatically reducing human error.



SCALABLE ARCHITECTURE

Custom Footprints Configured for Every Production Floor

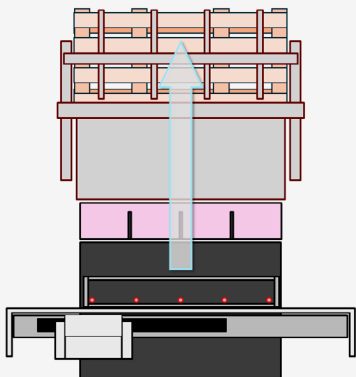
No two graphic manufacturing facilities share identical floor space, volume requirements, or finishing equipment. The IMC automation ecosystem is natively modular, engineered with flexible inline layouts designed to fit seamlessly alongside your exact capacity metrics.

Automation Workflow Examples

Inline Offload to Pallet

High-Velocity, Direct-to-Ship Automation

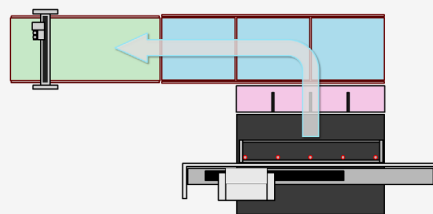
Engineered for bulk print runs that require no post-print finishing. Materials move seamlessly in a straight line from the flatbed, past the pusher table, and output directly to an automated pallet offload stacker. This automated sequence minimizes manual material handling, helping protect printed surfaces from damage, and drastically accelerates turnaround times.



Single Cutter

Synchronized Production

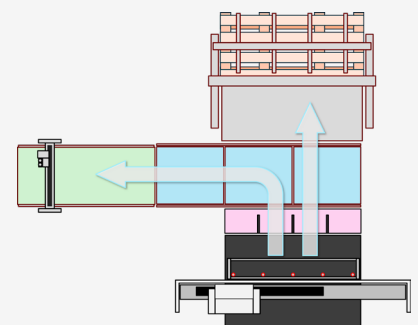
This configuration links your Texas printer to a digital cutting table via pusher and conveyor tables, creating a seamless, automated loop. By synchronizing the printing and finishing cycles, it allows your print engine to run more efficiently.



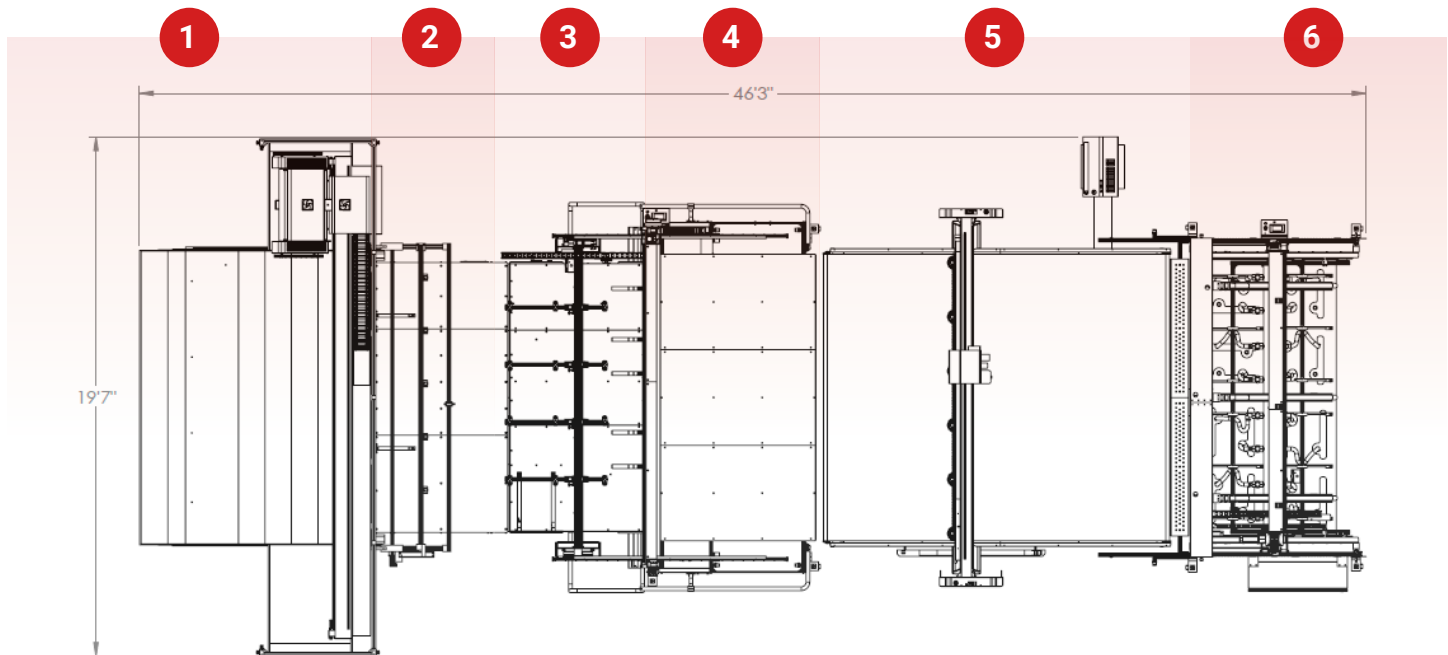
Cutter and Pallet Offload

Dynamic Routing and Workflow Flexibility

The ultimate solution for high-volume facilities managing diverse print queues. This configuration allows prints to be dynamically routed in real time: utilizing a pusher table and conveyor system, send complex jobs straight to the digital cutter for immediate finishing, or bypass the cutter entirely to stack raw prints onto a pallet for shipping or secondary offline processing.



IN-LINE PRINT-TO-CUT-TO-PALLET PROCESSING EXAMPLE



Component System Blueprint

1. Texas LT3 Series LED-UV Flatbed Printer

The automation-ready, Texas printers come equipped with an auto-unloader, making it the ideal solution for automation integration.

2. IMC PT510 Pusher Table

Transfers imaged media from the printer, moving it forward to the next step in automation.

3. IMC T510 Accumulator Tray

A staging buffer that collects rigid sheets. Helps to regulate the offset speeds of the printer and cutter.

4. IMC VF3200T Vector Feeder

Extracts indexed sheets from the accumulator tray and places them onto the digital cutter or board flipper.

Board Flipper (not shown)

Pre-cutter, will flip the printed material for backside creasing, cutting, and scoring, or placed ahead of the printer to facilitate 2nd-side printing.

5. Digital Cutter

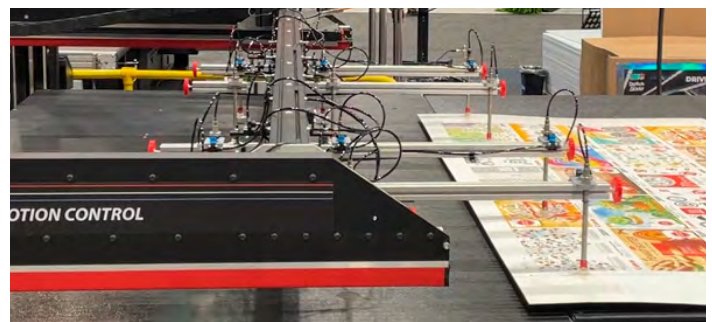
IMC components are engineered for integration with digital cut systems such as Kongsberg, Colex, and Zund.

6. TS3200 Telestacker

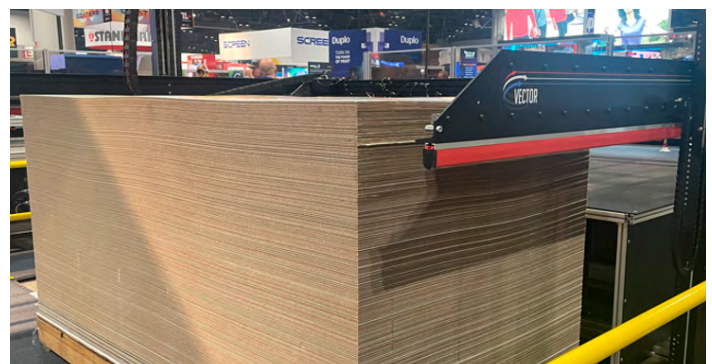
Removes finished prints from the cutter and stacks them onto transport-ready pallets.



DigiTech Texas LT3/X2 with In-Line Automation



IMC Vector Feeder



IMC VF3200S Vector Stacker

AUTOMATION COMPONENTS



**IMC PT510
Pusher Table**

Minimizes Post-Print Idle Time

The Engineering: Utilizes precise direct push mechanics to automatically transport imaged media from flatbed's auto-unloader.

Operational Benefit: Reduces the need to manually move the printed piece downstream in the finishing cycle.



**DigiTech
Conveyor Table**

Automated Media Transportation

The Engineering: Utilizes sensors and conveyor belts to automatically move media downstream in the automation cycle.

Operational Benefit: Dramatically reduces the need for manual media transportation



**IMC T510
Accumulator Tray**

Dynamic In-Line Staging Buffer

The Engineering: Collects printed sheets natively to balance variable timing differences between print and cut cycles.

Operational Benefit: Provides an integrated vertical accumulation capacity to absorb continuous printer output without pausing production.



IMC VF3200 Vector Feeder

Precision Continuous Media Loading

The Engineering: Automatic pneumatic arms with multi-suction points to smoothly lift and place panels.

Operational Benefit: Solves manual loading bottlenecks by delivering a steady stream of media and heavy repeated manual-lifting.



IMC Board Flipper

Dynamic In-Line Staging Buffer

The Engineering: 180 degree vacuum-held panel rotation

Operational Benefit: Automatically flips sheets print-side-down onto the cutter bed for immediate creasing, scoring, and cutting. Used pre-printer to facilitate 2nd side printing.



IMC TS3200 Telestacker

Direct-to-Pallet Building

The Engineering: Pneumatic suction plates unload fully processed graphics directly from the cutter.

Operational Benefit: Eliminates manual loading bottlenecks by delivering a steady stream of media that automatically stacks transport-ready substrate.

COMPONENT SPECIFICATIONS



	IMC TP510 Pusher Table	DigiTech CNV-3 Conveyor Table	IMC T510 Accumulator Tray	IMC VF3200 Vector Feeder	IMC TS3200 Telestacker	IMC Board Flipper
Maximum Substrate Size	5' x 10'					
Max Substrate Weight	Main Frame Capacity	50 lbs	Main Frame Capacity	50 lbs.		
Footprint (LxWxH)	122.25" x 61" x 36.64"	210" x 88" x 36"	176.17" x 62.56" x 35.09"	174.45" x 137.91" x 96.30"	173.94" x 140.44" x 78.78"	165.84" x 159.67" x 133.85"
Processing Speed	Syncs with printer unloader	.	Continuous Passive Buffering	Up to 2 boards per minute*		
Power Requirements	Supplied from Feeder	120V / 60Hz, 15 Amp	.	208-240V, 1-Phase, 15 Amp, 50/60Hz	208-240V, 1-Phase, 40 Amp, 50/60Hz	208-240V, 1-Phase, 15 Amp, 50/60Hz
Compressed Air	System Integrated	80-100 psi (Can be used with Texas air system)	.	10 SCFM @ 90 psi (Type M Connection)	10 SCFM @ 90 psi	10 SCFM @ 90 psi
Sensors	Board Detection Sensor	Belt: Ultrasonic Push Actuators: Magnetic	Stack Height	Proximity Sensors	Stacking Threshold Tracker	Camera-Ready System
Accumulation Capacity	Single Sheet	.	18" Vertical Stack	Single Sheet	51" Vertical Stack	44" Master Stack
Printer Interface	DigiTech Texas	.	.	Kongsberg, Colex, Zund	.	Certified for leading industrial digital tables, and printers

**Performance results, labor reduction, and processing speeds may vary based on media size, substrate material, orientation, machine settings, and facility workflow configurations. Up to 2 boards per minute throughput based on standardized internal testing using 5' x 10' rigid substrates.*



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