

CNC

# Digital Express

Reliable turnkey solutions for any application requiring value, performance and versatility.



**MULTICAM**  
Complete CNC Solutions

# HIGH PERFORMANCE...

# ...MADE AFFORDABLE

## DIGITAL EXPRESS

The MultiCam Digital Express is loaded with features normally found on competitive X/Y/Z cutting systems at a price that's better than the competition. It combines high-speed digital registration with powerful routing and knife cutting capabilities in a fast, wide format sheet feed or conveyORIZED cutting platform. Companies that are looking for a versatile, affordable platform that can register, route and knife-cut at high speeds will appreciate the price point and features of the MultiCam Digital Express.



## FEATURES & SPECIFICATION GUIDE

PERFORMANCE / EASE OF USE / PRODUCTIVITY

# FEATURES

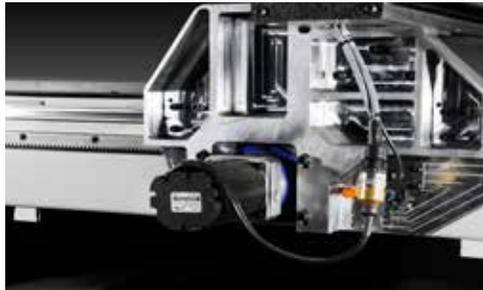
No machine offers more features than the innovative and versatile Digital Express.



## Gantry

### Engineered for Performance

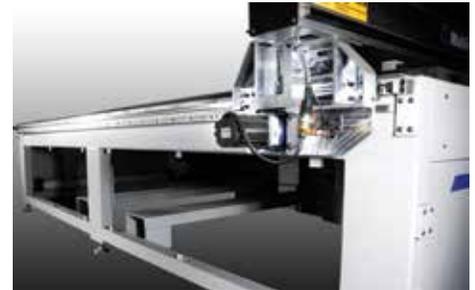
The gantry is engineered for maximum stiffness from 10mm thick aircraft quality aluminum extrusion. References for the precision linear bearings and rack are engineered into the design and have excellent parallelism.



## Gantry Supports

### High Strength, Minimal Vibration

The gantry supports are precision machined from 2 inch thick, cast aluminum tooling plate, using a 4-Axis horizontal machining center to guarantee perpendicularity. The cast aluminum support has inherent vibration dampening characteristics while giving rigid support to the gantry tube.



## Base Frame

### Solid, Heavy-Duty Construction

The base frame is a one-piece tubular steel frame that is welded, stress-relieved and precision machined. One-piece construction allows for a very accurate, rigid and smooth cutting system, while essentially removing the possibility for any after installation errors that could affect the performance and accuracy of the system.



## Working Surfaces

### Versatile, Effective, Multi-functional

The standard working surface is 1" thick 80-82 Durometer phenolic with a machined 30mm grid pattern utilizing 25" x .25" foam gasket tape. Phenolic makes an excellent work surface because of its dependable mechanical strength and dimensional stability.



## Router Spindles

### High Speed for Increased Productivity

The standard spindle is an air cooled, 4 HP, 24,000 RPM, 100% Duty Cycle spindle with a tool diameter capacity of up to 5/8" (16mm). An optional water cooled, 5.5 HP, 50,000 RPM spindle gives the user increased flexibility with high-speed routing in rigid materials. Capable of handling tools up to 3/8" (10mm) in diameter.



## Drive Assembly

### High Acceleration, Excellent Cut Quality

Both the X and Y axes are driven by high-torque, brushless digital AC servo drives coupled to zero backlash gearboxes. This results in both high acceleration of motion as well as excellent cut quality.

# FEATURES

No machine offers more features than the innovative and versatile Digital Express.



## **Vacuum Pumps** **Optimum Performance**

Standard vacuum pump includes an 8.5 HP (225 CFM) or 17 HP (335 CFM), two stage regenerative blower. These heavy-duty pumps will maximize material hold down and are designed for optimal performance in the wide variety of materials used in the digital finishing market. Other pump options available for application needs.



## **MultiVision Digital Registration** **Flexible & Accurate**

The MultiVision Digital Registration System is a digital camera/software based system that can visually recognize media registration marks and automatically compensate for slew, stretch, distortion, rotation and image drift. The MultiVision system easily integrates into your existing workflow while providing the additional flexibility of utilizing state-of-the-art CAD/CAM software for enhanced tool path generation as well as high-end 3D sign and graphics applications.



## **Digital Servo Drive System** **Smooth & Reliable**

Digital servo drives and brushless AC servo motors combine to form a digital vector servo drive system that seamlessly integrates position, velocity and torque loops to provide uncompromisable tracking accuracy, smoothness and reliability. You will achieve tighter tracking, smoother motion and faster rapid traverse - all of which yield superior cutting throughput and reliability.



## **EZ Control** **Easy-To-Use**

MultiCam EZ Control is one of the most powerful yet easy-to-use motion control systems available on the market. Allows for multiple job reference positions as well as automatic Z surfacing, electronic depth safety system, proximity restart and cut speed & spindle RPM override.



## **EZ Knife Tangential Cutting System** **Versatility to Meet Demand**

The MultiCam EZ Knife cartridge system is designed to perform mechanized knife cutting, creasing and perforation operations for the digital finishing market. Two (2) independent tangential knife receivers come standard on all MultiCam Digital Express machine.



## **Z -Axis Assembly** **Precise & Robust**

The Digital Express comes standard with three (3) 10mm precision ground Z-Axis Ball screws. Each screw is held firmly in place by a precision mounting block with dual angular contact ball bearings for high axial force loads. Each Z-Axis screw is driven by a high torque, brush-less digital AC servo drive.

# OPTIONS

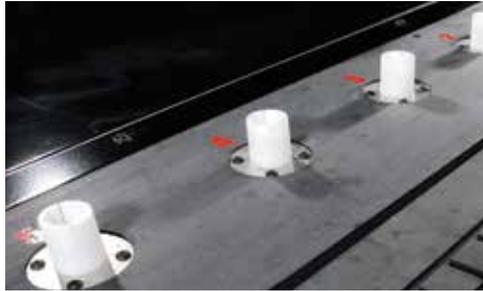
The Digital Express provides a number of options to optimize your throughput and production capabilities.



## Automatic Knife Changer (AKC)

### Increased Efficiency

MultiCam's exclusive Automatic Knife Changer allows changing up to six (6) knife cartridges in a single cut program.



## Automatic Tool Changer (ATC)

### Optimized for Faster Throughput

Automatic tool changing (ATC) is available with the water cooled, 5.5 HP, 50,000 RPM spindle giving the user increased flexibility and throughput. Up to eight (8) tools can be automatically changed out under CNC program control.



## Conveyor System/ Roll Feed Options

### Accelerate Your Production

The Digital Express can also be ordered with an optional conveyor system for rolled materials and jobs longer than the table. The conveyor system belt serves as a vacuum cutting surface and automatically advances the material during jobs. Material can be continuously retrieved from a roll or sheets can be automatically fed.

## EZ Knife Cartridge Options

**A** Rotary Knife

**B** Kiss Cut Knife

**C** Drag Knife

**D** Electric Oscillating Tool

**E** Rotary Knife

**F** 45° Knife

**G** Creasing Wheel



# OPTIONS

The Digital Express provides a number of options to optimize your throughput and production capabilities.



## **Integrated Computer Workstation** **Ergonomic & Convenient**

The ergonomically designed computer workstation is constructed from solid steel and aircraft quality aluminum components. The stand places the computer workstation at the front of the Digital Express for easy access to the controls.



## **Bar-code Scanning Interface** **Automatic File Setup**

The optional bar-code scanning interface can be used to simply scan a bar-code off your jobsheet and run the file automatically.



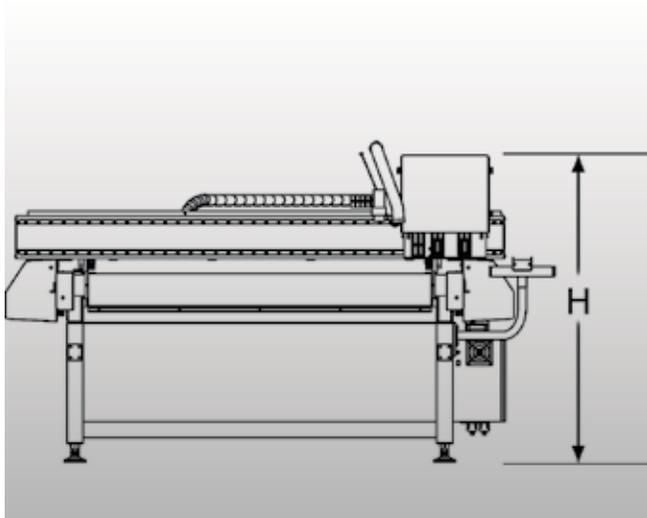
## **Dust Collection System** **Decrease Cleanup Time**

Our dust collector's XtremeClean feature prevents clogging with maximum chip collectors. A burst of air cleans the washable filter automatically every 20 seconds while you work. This helps the system function at maximum efficiency. Includes an anti-static hose.

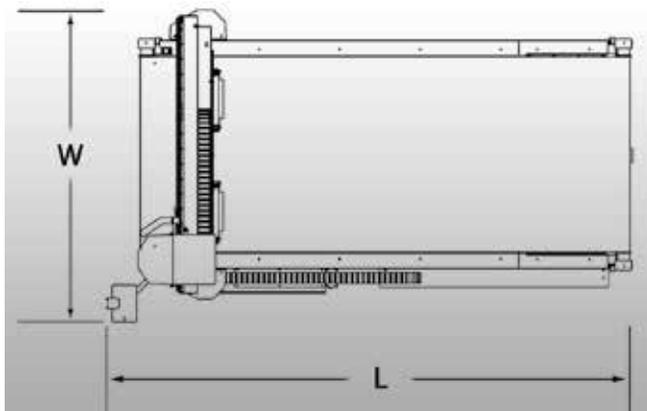
# SPECIFICATIONS

## \*Models Available with Conveyor Systems

Model	L (in/mm)	W (in/mm)	H (in/mm)	Working Area (in/mm)	Weight (lbs./Kg)
D-202*	88/2235	84/2134	51/1295	60 x 60 / 1524 x 1524	2302/1043
D-103	128/3251	74/1880	51/1295	100 x 50 / 2540 x 1270	2612/1183
D-204*	148/3759	84/2134	51/1295	120 x 60 / 3048 x 1524	3157/1430
D-304*	148/3759	104/2642	51/1295	120 x 80 / 3048 x 2032	3828/1734
D-208	268/6350	84/2134	51/1295	240 x 60 / 6096 x 1524	5926/2684
D-308	268/6350	104/2642	51/1295	240 x 80 / 6096 x 2032	6418/2907
D-504*	148/3759	148/3759	51/1295	120 x 120 / 3048 x 3048	7241/3284



Specifications	Inches	Metric
Z-Axis Clearance	2"	50mm
Z-Axis Travel	5"	127mm
Repeatability	+/-0.001"	+/-0.025mm
Cutting Speed	4000 IPM	76.2 MPM
Rapid Traverse	7000 IPM	177.8 MPM
Drive System (X,Y)	Helical	Helical
Drive System (Z)	Ball Screw	Ball Screw
Standard Work Surface	1" Phenolic	25.4mm Phenolic





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