

## Process door faces, edges and jambs all on one machine.





# PHD150 CNC Prehung Door Processing Machine from iCAM

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This Machine is designed specifically for processing prehung doors. The bed accomodates one door and two lengths of jamb at one time.

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Process door faces, edges and jambs all on one machine.



### Workpiece Holdown and Clamping Systems

The iCAM PHD150 is equipped with vacuum pods for hold-down of the door



while processing. A powerful vacuum pump is used for maximum effect. Automatically retracting load rollers allow easy loading and

unloading of doors.

Jambs are held in place with a pnuematic clamping system which is enabled by the operator with a foot pedal. This leaves the operators hands free to accurately load the jambs into the clamps.





#### **Pin Stop Registration**

PHD 150 + 0000000

Pins are located for registering of the door and the jamb on the machine bed to enable quick and easy part registration - the pins automatically retract out of the way of the cutter when the job is started.



#### **Machining Head**

The PHD150 is equipped with an ISO30 7.5kw high frequency spindle with programmable speeds of up to 18,000 RPM. The spindle is fitted with ceramic bearings to withstand high temperatures.





The PHD150 is equipped with a 4 output horizontal aggregate to allow the processing of the edges of the door.



#### **Quattro Aggregate**

The PHD150 is equipped with a 4 output horizontal aggregate to allow the processing of the edges of the door. The aggregate is stored in the aggregate station and protected by an automatically retracting cover when not in use leaving the machining head free to utilise the tools in the 10 station auto tool change unit and continue to process the face of the door and the jambs.







#### **Auto Tool Cange Unit**

The on board10 station rotary tool-changer is bi-directional and will take the shortest path between any two tools, allowing the quickest change times possible. The tool-changer eliminates the need for the operator to stop the machine to change tools manually, allowing the program to continue uninterrupted.

## Easy to use Operator Interface

The most user friendly on the market, the iCAM Operator Interface is based on touch screen technology and allows each operator interface to be customised to suit a specific machine and application. They are designed to be simple to use and to provide the operator with maximum feedback - as well as ensuring safe operation of the machine.

Unlike most other systems, which rely on your memory to scroll through lists of options or punch in number codes, the iCAM virtual control panels clearly display each function of the machine. With the ability to create multiple virtual control panels, panels can be customised to meet the specific needs of an individual within an organisation. The system supervisor will

#### Automatic Tool length Sensor

Tool lengths are digitised by the automatic tool length sensing unit. Tool lengths are stored and automatically recalled when a tool is selected from the auto tool change unit.



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probably need access to more functionality on the machine than one of the operators, who only requires a limited set of functions. Password protection ensures low skilled operators are only able to use the functions they have been trained to use.



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### Industry Standard G-Code Programming Language

Genuine industry standard ISO G-Code programming language means the end user can choose machining software that best suits their application. Commonly used software packages include AlphaCAM and ASPAN.

The iCAM control system supports tool compensation. This means toolpath files are not tool dependant, giving more flexibility on the factory floor.



Another important feature of the iCAM Operator Interface is the Graphic Trace Panel. This feature not only allows you to view the file graphically at the machine to confirm it is correct before you run the job, it also graphically displays the job you are processing showing in real-time how much of the job is completed.



The iCAM PHD150 CNC Prehung Door Processing Centre employs the latest technologies from Europe in both electronics and machine construction.

The machine base and gantry are fully welded, heavy steel structures that are precision machined, allowing the ultimate in accuracy and rigidity. Weighing in at around 2900kgs, the PHD150 is no lightweight.

To move the heavy structure with speed and accuracy iCAM uses powerful digital AC servo drives and motors. The brushless motors use high resolution encoders that constantly feed their position back to the controller. This high-tech drive system allows feed rates of up to 60m/min while maintaining ultimate accuracy.

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The European sourced AMC controller sets the standard for advanced motion control. Using special motion algorithms combined with a 'distance based look-ahead' and 'independent axis intersect speed optimisation', iCAM machines achieve unmatched productivity. The motion algorithms determine the fastest feed rate at which each stroke or vector can be blended into the next on all moving axes simultaneously, without unnecessary stopping, and precisely control the speed between vectors. The result is higher accuracy, smoother motion and higher actual feed rates, especially with complex part geometry. This allows greater machine productivity.



## iCAM PHD150 CNC Prehung Door Processing Centre

PHD 150+=

3D Mode

Job panel

features

ISO 30 - 10 HP spindle

Onboard Rotary Auto Tool Changer

Precision Machined Steel Chasis

Machining Head Enclosure

Advanced Motion Control

Expert Local Support

Brushless digital AC Servo on all axes

Automated tool length measurement Pneumatic part location pins











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Process Sizes	One door upto 1200x3000mm and two Jambs upto 30000mm
Drive Motors	Digital brushless AC servo on all axes. (Including tool changer)
Axis Traverse/Feedrates	X axis rapid traverse/feedrate up to 60 m/min
	Y axis rapid traverse/feedrate up to 60 m/min
	Z axis rapid traverse/feedrate up to 20 m/min
Spindle	10 HP ISO 30 with programmable spindle speeds up to 18,000 RPM
Auto Tool Changer	One on-board rotary tool-changer, servo-controlled and bi-directional.
	Max. number of tools - 10 (upto 20mm shank)
	Max. tool diameter 80mm
Aggregate	One Quattro 4 output horizontal boring head
Weight	2900 kg approx.
Extraction Requirements	Extraction capacity min. 2000 m3/hr
	Extraction vacuum min. 2000 PA
	Extraction air speed min. 20m/sec
	Connector diameter 150mm
Electrical Requirements	Connected power 440 V / 50 Hz
	Total load 16-20 kW (excluding vacuum pump)
Compressed Air Requirements	Operating pressure 7 bar
	Max. pressure 8 bar
	Air consumption 100-200 l/min
Electrical Requirements Compressed Air Requirements	Extraction air speed min. 20m/sec Connector diameter 150mm Connected power 440 V / 50 Hz Total load 16-20 kW (excluding vacuum pump) Operating pressure 7 bar Max. pressure 8 bar Air consumption 100-200 l/min



Stop 1

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PHD 150 + Pre-Hung Door Processing Centre



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