

990-APEX

The New Standard

The 990-APEX redefines door and jamb machining flexibility by bridging the interior, exterior, and architectural and commercial markets. Designed with 75 years of experience the 990-APEX easily outperforms the competition. The unprecedented control provided by our powerful KvalCAM® platform makes the 990-APEX the perfect machine for those looking to serve several markets with a single high-performance solution.

- Flexible Pre-Drill System** Screw holes are drilled quickly and cleanly, supporting virtually any pattern.
- Advanced Hinge Applicators** Operator controlled hinge applicators provide efficient hinge application.
- Programmable Jamb** Programmable Lock Section – Most types of locks can be programmed including multi-point locks, deep mortise
- High Frequency Routers** Improve cut quality and machine longevity while minimizing downtime.
- Laser Encoder** Realtime door measurements ensure the proper routing hardware is used.

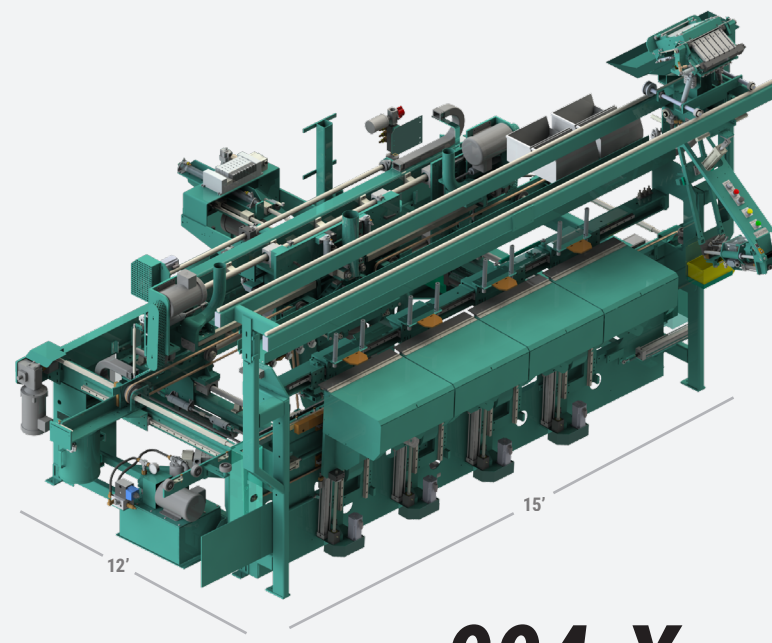
Door Specifications

Thickness	1 3/8" - 1 3/4"
Length	6'6" - 8'0"
Width	12" - 48"

Door-to-Door Cycle Time*

- Approximately 50 seconds.
- Approximate realized machine output is 350 pre-hung units in 8 hours.

* Pre-hung unit with hinge jamb attached and lock or ball-catch bored.



994-X

Flexibility, Agility, Speed

The 994-X offers quick change-over between different styles of doors, jambs, and hinges for pre-hanging interior or exterior doors. By leveraging this technology, door distributors are able to supply vast markets with a single machine that can handle 1 3/8" and 1 3/4" doors with virtually zero change over time. This allows for entire orders to be loaded, processed, and shipped from a single line, which reduces logistical demands and costly errors.

- Counter Rotating Routers** Ensures exceptional quality cutting without the need for chip-out blocks.
- Simple Adjustment** From door thickness and bevel to hinge radius selection, parameters are easily changed via touchscreen.
- Efficient Feature Selection** Programmable pre-drill and hinge size for immediate changeover.
- High Frequency Routers** Improve cut quality and machine longevity while minimizing downtime.
- Advanced Hinge Applicator** Operator controlled hinge applicators provide efficient hinge application.

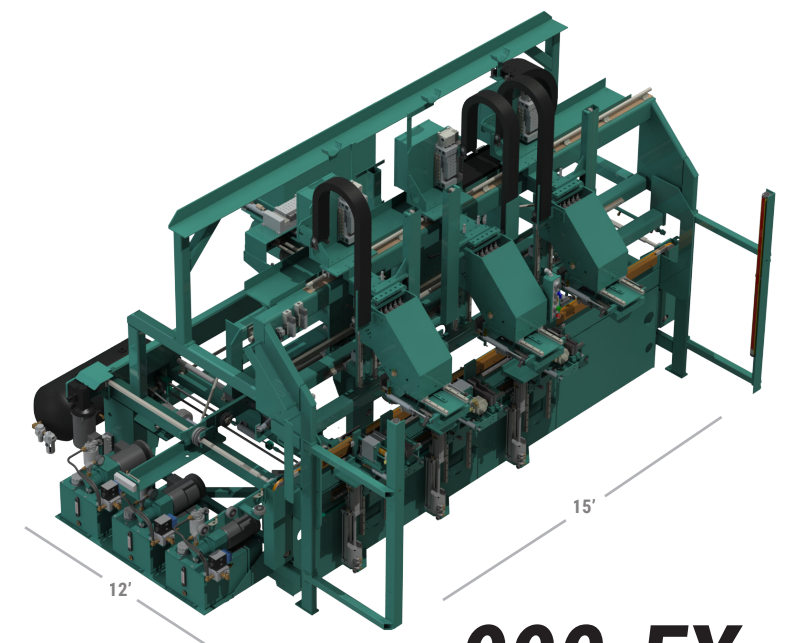
Door Specifications

Thickness	1 3/8" - 1 3/4"
Length	6'8" - 8'0"
Width	12" - 42"

Door-to-Door Cycle Time*

- Approximately 50 seconds.
- Approximate realized machine output is 350 pre-hung units in 8 hours.

* Pre-hung unit with hinge jamb attached and lock or ball-catch bored.



990-FX

High Production Interior

The 990-FX is designed for a single purpose: to reliably produce 6'8", 7'0", and 8'0" interior doors at record speed. Heavily utilized by the distributors supplying box stores, new construction, and the multi-family markets, this machine is the fastest and most durable pre-hanging line in the industry, a true workhorse that will easily handle multiple shifts for years to come and produce millions of units throughout its life.

- Auto Hinge Applicators** Four automatic hinge applicators provide a repeatable 24 second cycle time regardless of door height.
- High Frequency Routers** Improve cut quality and machine longevity while minimizing downtime.
- Advanced Safety Systems** Light curtains, a hinge applicator brake system, low-to-high pressure clamping, and thorough safety programming.
- Enduring Construction** Square linear shafts and bearings ensure machine longevity for multiple shifts.
- Common Options** Ball Catch drills, Split-Jamb staplers, Narrow Door (12"-18" doors).

Door Specifications

Thickness	1 3/8"
Length	6'8" - 8'0"
Width	18" - 42" 12" - 42"†

Door-to-Door Cycle Time*

- 24 seconds, while our competitors are limited to 6'8" doors and a 29 second cycle time.
- Approximate realized machine output is 800 pre-hung units in 8 hours.

* Pre-hung unit with hinge jamb attached and lock or ball-catch bored.
† With option ND-1

Software	990-APEX	994-X	990-FX	Commander 3
KvalCAM® Control	✓			✓
Hinge Mortising				
3" - 3.5" Hinge	✓	✓	✓	✓
4" Hinge	✓	✓		✓
4.5" Hinge	✓			✓
5" Hinge				✓
Concealed Hinge*	✓			✓
CNC Hinge Spacing Control	✓			✓
Point to Point Pre-Drill	✓	✓		✓
Pre-Drill Gear Box			✓	
Counter Rotating Router	✓	✓		✓
Chipout Blocks			✓	
Square Hinge Capability	✓	✓		✓
Hi Frequency Routers as Standard		✓	✓	✓
0-3 Degree Auto-Shift (Option)	✓	✓	✓	✓
Hinge Application				
Auto-Hinge Applicator			✓	
Operator Actuated Hinge Applicator	✓	✓		
Lock Mortising				
Servo Controlled Lock Bore Location	✓	✓	✓	✓
Hi Frequency Plate Router as Standard	✓	✓	✓	✓
3-Point Lock/Deep Mortise/Flush Bolt	✓			
CNC Face/Function Holes	✓			
Ball Catch Bore (Option)	✓	✓	✓	✓
CNC Roller Catch Mortise	✓			
CNC Latch Plate	✓			✓
Door Specifications				
1-3/8" Door Thickness	✓	✓	✓	✓
1-3/4" Door Thickness	✓	✓		✓
2-1/4" Door Thickness				✓
6'8" - 8'0" Door Height	✓	✓	✓	✓
9'0" Door Height				✓
48" Door Width	✓			✓
0-3 Degree Shift (Option)	✓	✓	✓	

The Kval Advantage

Kval differentiates itself within the industry by controlling each step of the manufacturing process at their production facilities in California and Texas: raw steel is received, and finished machinery is shipped. Kval designs, cuts, machines, welds, paints, wires, and programs each and every machine in-house using the best components and materials available, enabling a hands-on approach to quality control and reducing unforeseen complications caused by outside vendors.

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The World's Most Advanced Door Machinery