

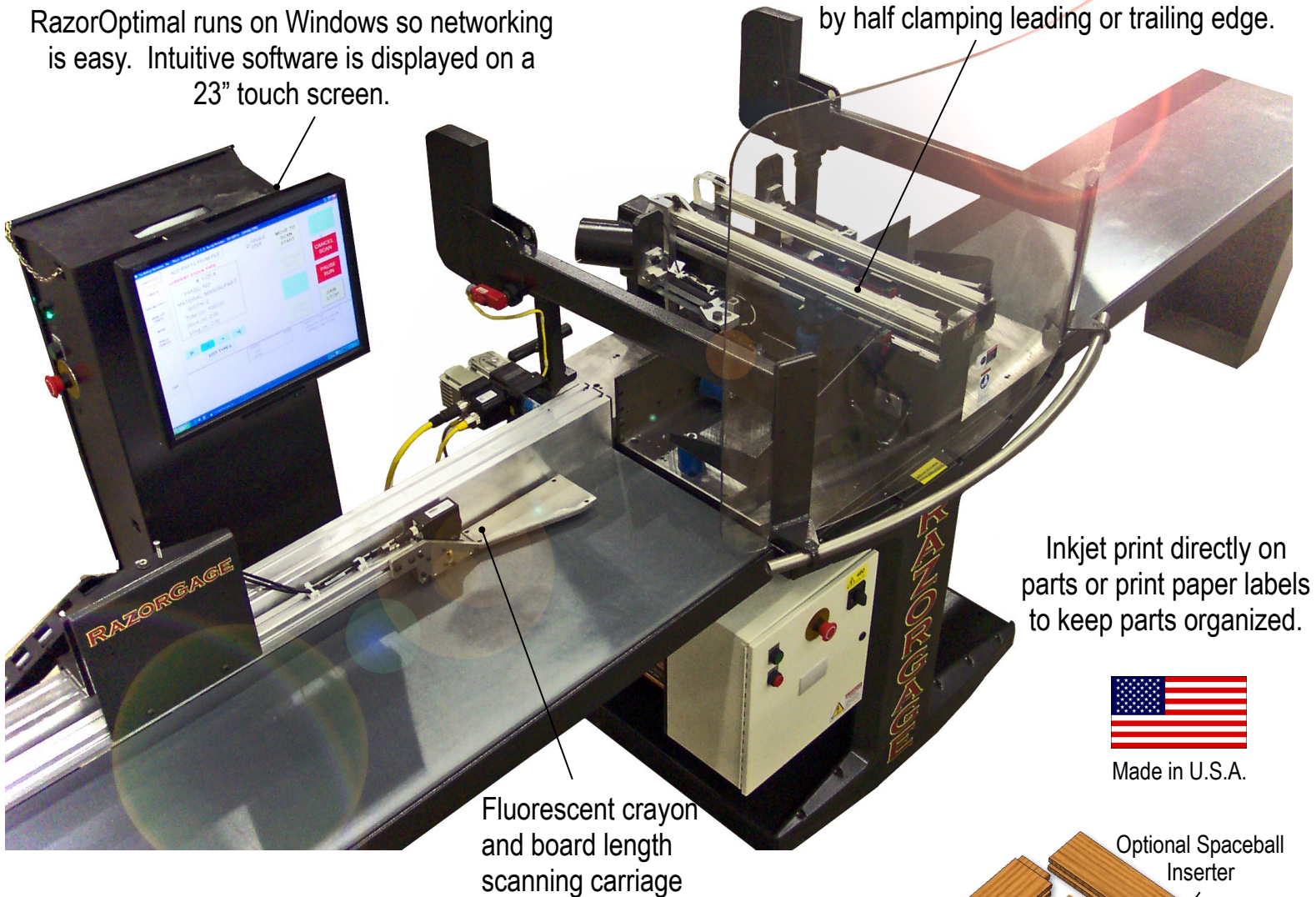
# RAZOROPTIMAL

The RazorOptimal Systems are offered with either our Cyclone Upcut Saw or the exclusive RazorGage PocketHole Saw. Defecting can be accomplished using a fluorescent crayon. Once stock is scanned for length and the location of defects, the RazorOptimal software creates a cutting solution to optimize lumber yield, and automatically advances the stock to cutting positions while inkjet printing information from the cut-list directly on the stock. On the PocketHole version, pocket holes are bored and lines are scribed at all joining locations. Space Balls can also be inserted on both the Cyclone and Pockethole systems.

## CYCLONE OPTIMAL

RazorOptimal runs on Windows so networking is easy. Intuitive software is displayed on a 23" touch screen.

Intelligent front roller clamps don't retract between cuts; clamp incoming side only then switch to outfeed side near end of board eliminating scrap parts caused by half clamping leading or trailing edge.



Inkjet print directly on parts or print paper labels to keep parts organized.

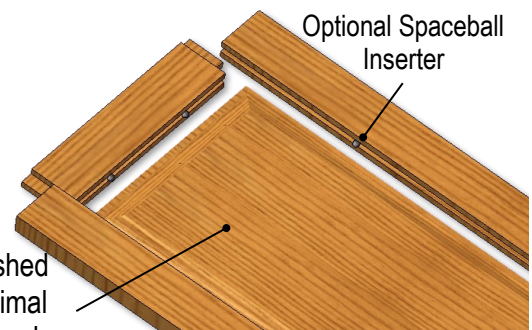


Made in U.S.A.

Fluorescent crayon and board length scanning carriage

Direct drive 500mm blade slides on Hiwin Linear bearings for maximum rigidity. Optional 600mm blade can cut up to 1" thick by 20" wide.

From downloaded finished panel sizes, RazorOptimal turns random width boards into parts ready to glue up.



For detailed information, videos, & manuals, visit [www.razorgage.com](http://www.razorgage.com)



# POCKETHOLE OPTIMAL

**Defect, optimize, cut to length, drill pocket holes, scribe face frame layout marks, and insert space balls on one machine at a rate that exceeds ONE HOUSE PER HOUR.**



Made in Ames, Iowa

RazorOptimal runs on Windows so networking is easy.

Simple touch screen menus allow for easy access to all the features of your system.

Direct drive 18" blade slides on Hiwin Linear bearings for maximum rigidity.

Intelligent roller clamps don't retract between cuts reducing cycle time while improving accuracy.

Inkjet print directly on parts or print paper labels to keep parts organized.

From downloaded finished panel sizes, RazorOptimal turns random width boards into parts ready to glue up.

Optional Spaceball Inserter

Face frame layout marks are scribed to increase accuracy and efficiency during assembly.

Pocket holes are drilled when the part is cut to length.

**For detailed information, videos, & manuals, visit [www.razorgage.com](http://www.razorgage.com)**

Technical Services, Inc.: Razor Optimal MD (1.31) - [OPERATION]

PARTS LIST

OPEN PARTS FILE

LABELS

DIAGNOSTICS

VIEW CUT PARTS

MORE

Purge Printer

EXIT

**CURRENT STOCK TYPE**

|          |             |
|----------|-------------|
| #        | 12 OF 12    |
| PANEL    | NO          |
| MATERIAL | 3/4 Hickory |
| WIDTH    | 2           |
| TOTAL    | 786.5       |
| SHORT    | 10          |
| LONG     | 40.25       |

MOVE TO SCAN START

SCAN & GO

SCAN & WAIT

CANCEL SCAN

GO

PAUSE RUN

QUEUED BOARD

SAW STOP

LIST TYPES

|          |         |
|----------|---------|
| POSITION | 98.2783 |
| MOVE     |         |
| ACTION   |         |

PARTS CUT 2333

OPERATOR JIM

SUPPLIER MIGHTY OAK

## USER FRIENDLY INTERFACE

Simple touch screen menus allow for easy access to all the features of your system.

Scan Results

USE & GO

USE & WAIT

CANCEL

On-screen fluorescent scan results make verification easy.

Got a rush job? Want to get all the door rails out first? With RazorOptimal you can re-sort right at the machine.

Stock (Material Type) Definition

Determines the Fields used to define different feed stocks

Available fields

THICK

R00M

UF\_3

UF\_4

UF\_5

UF\_6

UF\_7

UF\_8

UF\_9

PART

FILE\_NAME

Stock definition: Parts are sorted by first item, then second item, then third item, etc.

MATERIAL

WIDTH

POCKET HOLE

Shift Up

Shift Down

Update Stock Definition

DONE

Board Part Labels

CUT PARTS

DELETE TOP BOARD

CLOSE

BOARD 6

3/4 MAPLE 16 1/4 18 1/4

3/4 MAPLE 16 1/4 18 1/4

3/4 MAPLE 16 1/4 18 1/4

3/4 MAPLE 16 1/4 18 1/4

BOARD 7

3/4 MAPLE 16 1/8 34 3/4

3/4 MAPLE 16 1/8 34 3/4

BOARD 8

Enable

DELETE ALL

TOP

ONE UP

ONE DOWN

PAGE UP

PAGE DOWN

BOTTOM

Return Selected Part to Parts List

View a list of cut parts and seamlessly add cut parts back into the cutlist.

Track yield & productivity associated with operators and wood suppliers.

OPERATORS/SUPPLIERS

OPERATORS

SUPPLIERS

DONE

OPERATORS

SELECT THE OPERATOR

JIM

DELETE SELECTED NAME

ENTER NEW OPERATOR

ADD NEW NAME

Label setup is easy and intuitive.

You can even chose to print decimals in fraction format.

Print Label Layout

PRINT LABELS

DONE

CANCEL

Ink Jet Parameters

PRINT HEAD OFFSET 5 INCHES

MINIMUM DISTANCE OF LABEL START FROM START OF PART 0.75 INCHES

FIELD 1

FIELD 2

FIELD 3

LINE 1 MATERIAL WIDTH x LENGTH

LINE 2 PART ROOM FILE\_NAME

Print Length as fraction

Print Width as fraction

Print Thickness as fraction

On-Screen Keyboard

For detailed information, videos, & manuals, visit [www.razorgage.com](http://www.razorgage.com)



# SPECIFICATIONS

Power Requirement - 120 VAC at 10A

PLUS ONE OF THE FOLLOWING:

Cyclone Saw: 230 VAC 3φ 30A OR 460 VAC 3φ 20A

Pockethole Saw: 230 VAC 3φ 40A OR 460 VAC 3φ 30A

Part Accuracy +/- 0.008" or better

Up to 200 lbs Push Force

21.5" Touch Screen

Network Port AND Wi-Fi

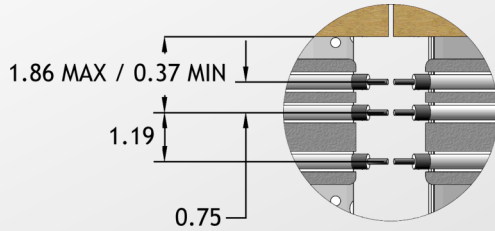
USB Ports

Space Ball Size 260P

Two 4" Dust Ports min 1200 CFM

60 psi min compressed air pressure

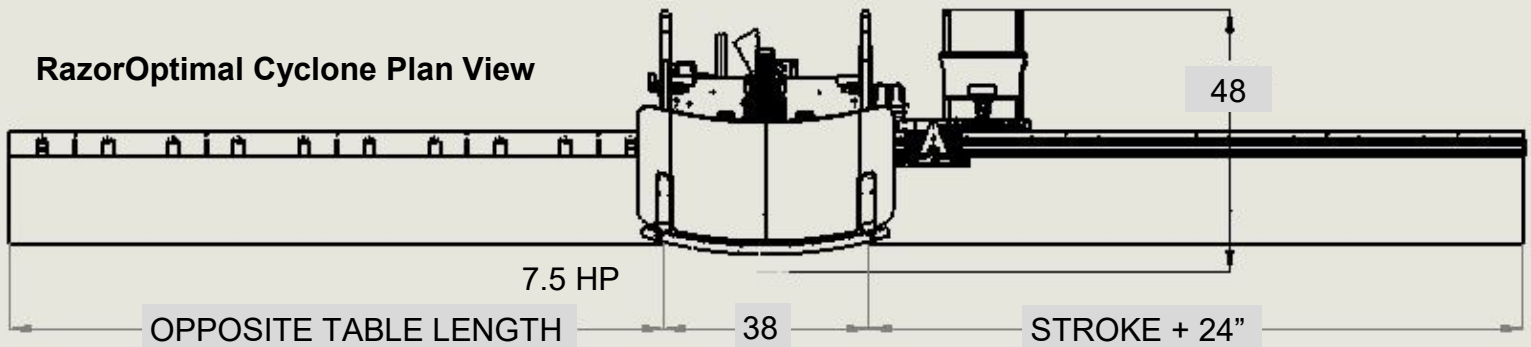
Minimum Defect Scanning Width: 1.5"



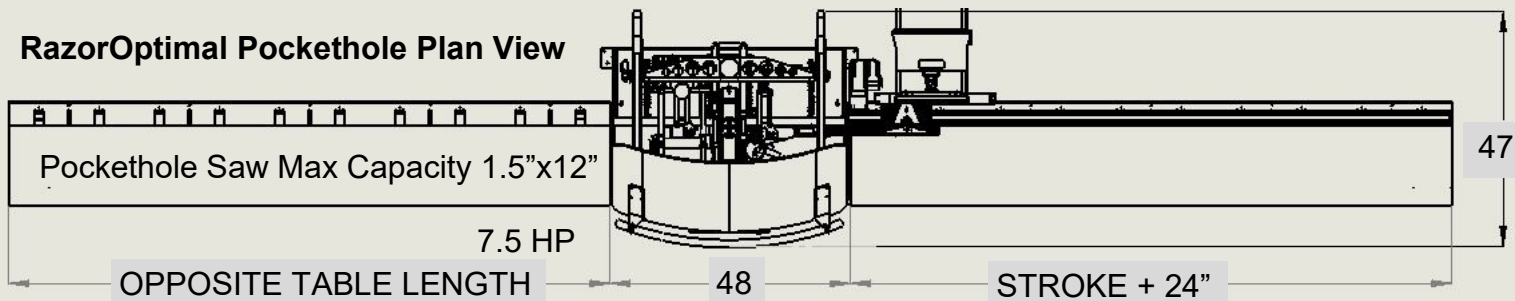
## Pockethole Saw Max Capacity 1.5"x12"

| Material Thickness | Cyclone 600 Width Capacity for Common Blade Diameters |           |           |             |           |           |
|--------------------|---|-----------|-----------|-------------|-----------|-----------|
|                    | 14" Blade   | 16" Blade | 18" Blade | 500mm Blade | 22" Blade | 24" Blade |
| 0.5                | 6.97  | 10.38     | 13.23     | 15.42       | 18.27     | 20.62     |
| 0.75               | 6.04  | 9.77      | 12.76     | 15.02       | 17.93     | 20.32     |
| 1                  | 4.89  | 9.10      | 12.25     | 14.59       | 17.57     | 20.00     |
| 1.25               | 3.32  | 8.35      | 11.70     | 14.13       | 17.19     | 19.67     |
| 1.5                |   | 7.49      | 11.10     | 13.64       | 16.79     | 19.32     |
| 1.75               |   | 6.49      | 10.44     | 13.11       | 16.36     | 18.95     |
| 2                  |   | 5.25      | 9.72      | 12.54       | 15.90     | 18.55     |
| 2.25               |   | 3.56      | 8.91      | 11.92       | 15.42     | 18.14     |
| 2.5                |   |           | 7.98      | 11.24       | 14.90     | 17.70     |
| 2.75               |   |           | 6.90      | 10.50       | 14.35     | 17.24     |
| 3                  |   |           | 5.58      | 9.68        | 13.75     | 16.74     |
| 3.25               |   |           | 3.78      | 8.75        | 13.11     | 16.22     |
| 3.5                |   |           |           | 7.68        | 12.42     | 15.67     |
| 3.75               |   |           |           | 6.40        | 11.67     | 15.08     |
| 4                  |   |           |           | 4.75        | 10.84     | 14.45     |
| 4.25               |   |           |           | 1.99        | 9.92      | 13.77     |
| 4.5                |   |           |           |             | 8.88      | 13.03     |
| 4.75               |   |           |           |             | 7.68      | 12.24     |
| 5                  |   |           |           |             | 6.20      | 11.37     |
| 5.25               |   |           |           |             | 4.20      | 10.40     |
| 5.5                |   |           |           |             |           | 9.30      |
| 5.75               |   |           |           |             |           | 8.03      |
| 6                  |   |           |           |             |           | 6.49      |

RazorOptimal Cyclone Plan View



RazorOptimal Pockethole Plan View



Proudly Made in Ames, Iowa

Phone 515.232.3188

Fax 515.232.2953

Your Local Dealer:



RazArray - LEDs indicate in which bin parts belong.

For detailed information, videos, & manuals, visit [www.razorgage.com](http://www.razorgage.com)