

RAZORGAGE

AUTOMATIC SAW MEASURING SYSTEMS

RAZORGAGE RG3

NOW WITH YASKAWA SERVO



BETTER BY DESIGN

Programmable saw stops and pusher systems that have set a new standard for accuracy, repeatability and Dependability.

RazorGage has always had the best hardware & software. Now it has the best motion control system. New for 2023, RG3 includes a Yaskawa Servo for maximum reliability.



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RazorGage RG3 *Automatic Saw Measuring System*



The RazorGage RG3 Automatic Saw Measuring System is at the heart of our product line. Whether you use the RG3 as an automatic pusher or a measuring stop, this digital measuring fence can be used with a chop saw, upcut saw, downcut saw, drill press, haunching, notching and punching machines.

When looking to improve the output and efficiency for your operations, the RazorGage RG3 offers the highest degree of accuracy, repeatability and long-lasting dependability.

This system features a hi-performance motion controller that reacts quickly to jams, eliminating stretched belts.

The carriage assembly features a Hiwin hardened & ground, linear bearing rail with 2 recirculating ball bearing blocks just like you see on CNC machining centers for near friction-free motion, maximum rigidity, accuracy and long life.

FEATURES

- ◆ Windows PC with hi-resolution touch screen
- ◆ Networks easily using ethernet or WiFi and has tons of features
- ◆ Store 1000's of cutlists
- ◆ Optional optimizing software reduces waste material. Sorts cutlists into 1000's of groups according to multiple criteria, and much more
- ◆ Fraction Keys adjust position in just a few key strokes
- ◆ Uses the same linear bearings found on CNC machining centers
- ◆ Near zero backlash planetary gearhead & drive pulley
- ◆ 5 Year Belt Warranty
- ◆ Available in stroke lengths up to 60'



PC, Software, & Controls

NEW TOWER PC

Includes a hi-resolution touch screen monitor. Cables pass through foam compression opening to prevent dust and chip penetration. Multiple USB & Ethernet port, Bluetooth, & Wi-Fi. Windows 10 Professional.

ALL NEW SOFTWARE

The RGST software has been re-written from the ground up. The new RG3 software retains all the same features as before but with an even simpler interface. A new UPDATE button allows you to update to the latest version instantly.

ALL NEW YASKAWA SERVO DRIVE

RazorGage is now driven by a Yaskawa servo. Yaskawa is the only industrial drives and motion control manufacturer to win the Deming Medal, the most prestigious quality award in manufacturing.



RazorGage RG3

Better Hardware

OUR PREMISE

An automatic saw measuring system only benefits your business if you can trust it to position accurately every day.

MECHANICAL FACT

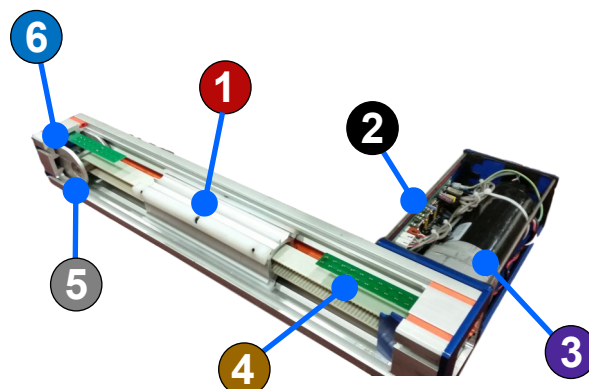
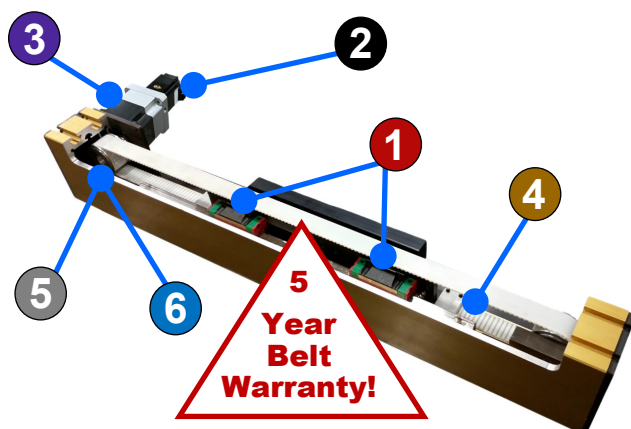
Since most automatic saw measuring systems calculate stop position based on motor rotation, drive component precision is crucial to long term accuracy.

OUR CONCLUSION

- The conclusion is simple - the quality of the drive components directly affects return on investment.

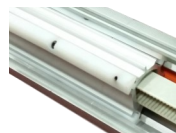
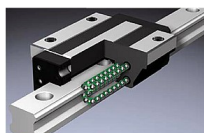
RazorGage continually exceeds expectations due to the design and quality of our components.

Compare RazorGage to other Positioners



1

The RazorGage positioning carriage mounts on two re-circulating ball bearing blocks sliding on a hardened & ground steel rail. Just like you see on CNC machining centers!



Competitor uses plastic strips sliding on aluminum as the positioning carriage bearing.

2

RazorGage electronics are sealed inside IP54 rated housing impervious to chips.



Electronics sensitive to chips are inadequately protected.

3

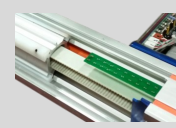
RazorGage utilizes a planetary gear-head with 3 load paths transmitting torque & less than 7 arc minutes of backlash to maximize accuracy.



Spur gear style reducer others use, with 1.2 gear teeth transmitting load, is prone to excessive backlash.

4

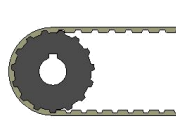
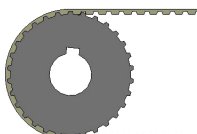
RazorGage uses no sensors for homing or end of travel eliminating the need for failure prone components and wiring.



Contamination sensitive sensors inside the beam require long cable runs around sharp corners.

5

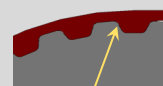
30 tooth drive pulley used on RazorGages has a larger bend radius increases belt life and twice the teeth to resist tooth shear.



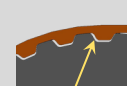
15 tooth pulley competitor uses, has a tighter bend radius reducing belt life and half the teeth to resist tooth shear.

6

The RazorGage drive pulley is machined to match the belt tooth profile eliminating backlash.



Zero Clearance



1/64" Clearance

Standard pulleys have 1/64" clearance allowing backlash which reduces accuracy.

RazorGage RG3 *Better Software*

The WINDOWS application software provides a bright, bold user interface. No menus to memorize. Operation is obvious. Setup and calibration functions are just a screen touch away.

Built-in functions such as fraction keys, pages of Presets, Cutlist screens in both pusher and stop mode, help eliminate operator mistakes and improve productivity.

- ◆ Our **PRESETS Screen** features hot keys to which you can assign positions and labels.
- ◆ Assign **infinite offsets** to picture buttons for secondary operations.
- ◆ Password protected **SETTINGS** has parameters with plain labels like SPEED, ACCEL, & SAW KERF make setup obvious. Our calibration utility tells you step by step how to calibrate.
- ◆ **Fraction Keys** minimize keystrokes reducing human error. Only 3 strokes to move to a position like 39 - 15/32.
- ◆ Select Stop Mode or Pusher Mode. Then select the type of operation based on your cutlist requirements. Screens are simple to use.

Position: 0
Move To:
UNLOAD
MOVE TO LOW LIMIT
MOVE TO HIGH LIMIT
Units: ☒ Inches ☐ Millimeters
READY TO MOVE

7	8	9	CLEAR ALL				
4	5	6					
1	2	3	GO				
Backspace							
1/32 0.03125	1/16 0.0625	3/32 0.09375	1/8 0.125	5/32 0.15625	3/16 0.1875	7/32 0.21875	1/4 0.250
9/32 0.28125	5/16 0.3125	11/32 0.34375	3/8 0.375	13/32 0.40625	7/16 0.4375	15/32 0.46875	1/2 0.500
17/32 0.53125	9/16 0.5625	19/32 0.59375	5/8 0.625	21/32 0.65625	11/16 0.6875	23/32 0.71875	3/4 0.750
25/32 0.78125	13/16 0.8125	27/32 0.84375	7/8 0.875	29/32 0.90625	15/16 0.9375	31/32 0.96875	CLEAR ALL

STOP MODE
PUSHER MODE
AUTOLIST
SETTINGS

PUSHER SCREEN - REPEATING PATTERN

Index: 00 Load Position: 00 Lead Trim: 1 Saw Kerf: 0.2 Home Offset: 1

INDEX	LENGTH
1	20
2	24
3	12
4	12

READY FOR LOAD

LOAD

PUSHER SCREEN - SIMPLE LIST

Index: 00 Load Position: 00 Lead Trim: 1 Saw Kerf: 0.2 Home Offset: 1

INDEX	LENGTH
1	20
2	24
3	12
4	12

READY FOR LOAD

LOAD

AUTOLIST UPGRADE *Optimize the Yield on Your Material!*

The popular & powerful **AUTOLIST Screen** calculates optimal cutting solutions to maximize yield on your valuable material. AutoList can be mapped to your cutlist layout. Quantities can be multiplied to accommodate today's schedule. Switch between pusher & stop any time. Include the Tool Safe Sensor to automate the operation!

Position: 0
Move To:
UNLOAD
MOVE TO LOW LIMIT
MOVE TO HIGH LIMIT
Units: ☒ Inches ☐ Millimeters
READY TO MOVE

CLOSE FILE service glass cutlist - Copy (7) 3d
PUSHER
Switch to STOP Mode
STOP MODE
PUSHER MODE
AUTOLIST
SETTINGS

QTY: 128 LENGTH LEFT: 12817

QTY	ORIG QTY	LENGTH	PROJECT#	JOB NAME	JOB #	PART DESC	FINISH	PART #	INCUTLIST	POCKET #
1	1	249	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	CW5-A	0	
1	1	34	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	CW10-E	0	
1	1	240	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	GG-59	0	
1	1	47	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	CC-49	0	
1	1	240	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	JJ-62	0	
1	1	47	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	EE-50	0	
1	1	218	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	DDL-52	0	
1	1	69	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	G-21	0	
1	1	218	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	DDL-53	0	
1	1	66	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	B-2	0	
1	1	218	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	DDR-54	0	
1	1	66	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	B-2	0	
1	1	218	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	DDR-55	0	
1	1	66	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	B2-4	0	
1	1	203	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	B81-46	0	
1	1	84	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	X-40	0	
1	1	192	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	B82-47	0	
1	1	90	Enter project #	Century Center	9879	Stool trim type 2	Finish 1 Finish 2	CW6-C	0	

VIEW LABEL

- ◆ Optimize at the machine or run pre-optimized lists according to a cutting plan.
- ◆ Sort your cut list into hundreds of groups by multiple criteria.
- ◆ Contains unlimited cut list mappings.
- ◆ Accommodates Secondary Operations.
- ◆ Print custom labels.



RazorGage RG3

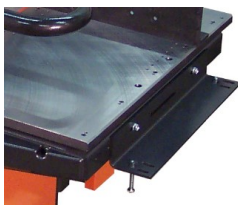
Options & Accessories

CHOP SAW TABLE

- Height adjusts from 34.5" to 44.5"
- Works with all saw brands
- Durable powder coat finish
- Saw platform adjust to allow perfectly flat transition from table to saw



TABLE ATTACHMENT BRACKET



- Easy to adjust height and front-to-back table position for perfect transition to the work surface and fence
- Secures table to machine to eliminate movement
- Durable finish

TABLE OPTIONS



Table comes with one leg only

- Height adjusts from 34.5" to 44.5"
- 3 surface options;
 - ⇒ 1/4" Solid PVC Sheet
 - ⇒ PVC Rollers
 - ⇒ Steel Rollers
- Durable powder coat finish

BASIC STOP EXTENSION (BSE)



- Allows the material Stop to be adjusted so it extends close to the blade
- Available in 2' to 6' lengths

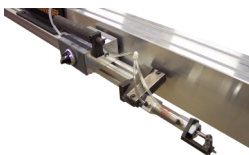
Picture shows 2' BSE attached to RazorGage

GANG STOP



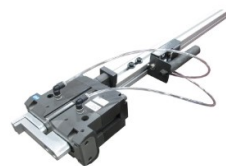
- Use when pushing boards that are stacked or placed side by side
- Standard size—13" wide x 3.5" high
- Custom sizes available

GRIPPER



- Grips material so it doesn't roll away when being pushed on a roller table
- Only works on hollow extrusions or solid material that has a "fin" like feature

HEAVY DUTY GRIPPER



- Grips heavier material so it doesn't roll away when being pushed on a roller table
- Only works on hollow extrusions or solid material that has a "fin" like feature

ADJUSTABLE BRACKET



- Front-to-Back adjustability for the extension arm

Shown with "birds mouth" stop which is used for double miter saw stop applications

MITER STOP



Safely secures 45° mitered ends against the stop when pushing material



RazorGage RG3

Specifications

Technical Details

Accuracy: $\pm .004''$ over 12 feet if calibrated with a capable measuring device.

Repeatability: .001"

Push Force: 200 lb at 40 ips

Max Speed: 50 ips

Power Req'd: 120 VAC / 10 Amps

Interface: Hi-resolution Touchscreen with Tower PC

Networking: Wifi or Ethernet Operating System: Windows 10 Pro

Length: Available in 4-60 Foot Stroke



Space Requirements for Tower Enclosure w/ PC Option and Tables

