INNOVATIVE, INTUITIVE AND VERSATILE WEB GUIDING TECHNOLOGY

GAME CHANGING SENSORS AND CONTROLLER FOR ANY WEB GUIDING APPLICATION

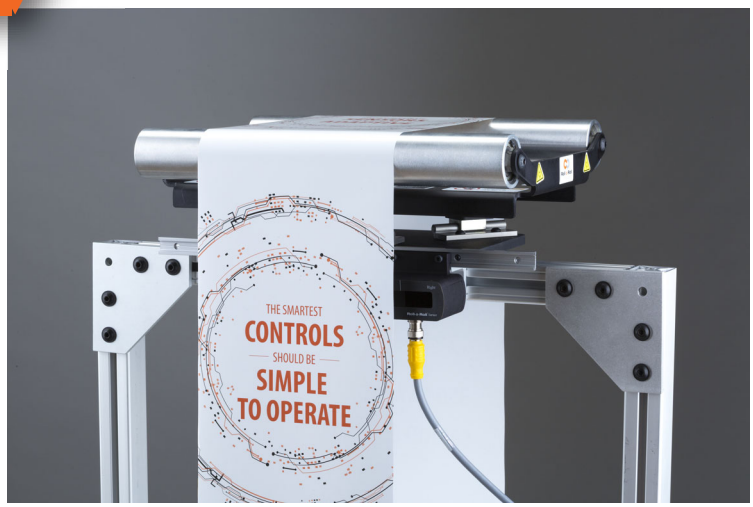
Roll-2-Roll
Technologies
1110 S Innovation Way
Stillwater, OK 74074
https://r2r.tech

Narrow Web Guides

Our narrow web guides are the perfect solution for label, tag, and narrow web applications with roller lengths ranging from 80 mm (3.14 in) to 508 mm (20in). We offer three types in this family:

- Low Profile
- Compact
- Mini.

Our Low Profile guides are ideal for tight installation locations and hard-to-access areas, while our Compact guides feature a built-in operator interface. Our Mini guides are custom built for narrow webs from 10 mm to 175 mm.



Roller Face: Up to 500 mm
Correction: Up to ± 20 mm
Correction Speed: Up to 60 mm/sec
Tension: Up to 200 N
Motor Type: Linear Hybrid Stepper

When paired with **Roll-2-Roll**® Sensor and **Roll-2-Roll**® Controller, our web guides can handle a variety of web guiding applications, including edge guiding, center guiding, line/contrast/pattern guiding, master/slave, chase/follow, and oscillation.

With our expert team on hand to provide personalized solutions, we can help you achieve any web guiding application. Whether you're dealing with a new, old, or obsolete system, we have the expertise and technology to upgrade it.

Wide Web Guide

Our wide web guides are ideal for web widths from 600 mm (24 in) to 2000 mm (78 in) with roller diameters up to 200 mm. These guides are custom built for every application based on web speed, web tension, correction, and location.

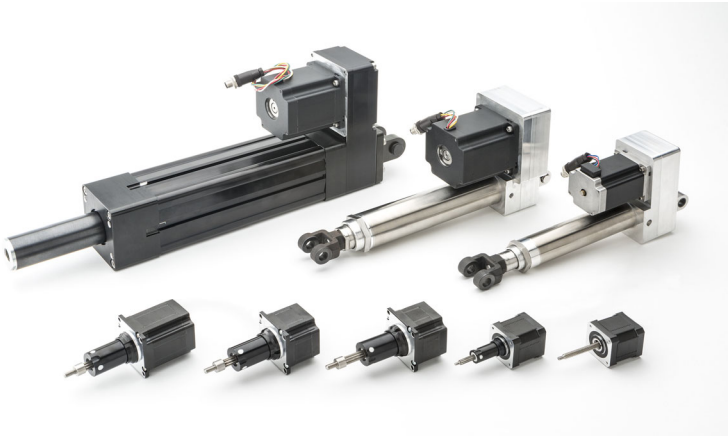
Roller Face: Up to 2000 mm
Correction: Up to ± 80 mm
Correction Speed: Up to 60 mm/sec
Tension: Up to 1000 N
Motor Type: Linear Hybrid Stepper

P: +1-888-290-3215 ext 1 **E:** sales@r2r.tech **W:** https://r2r.tech/request-quote

Upgrade Kit

Our upgrade kit is the ultimate solution for upgrading any type of intermediate web guide or unwind/rewind web guide. With this cost-effective upgrade, you can retain your existing web guide mechanism and simply replace all other components with our advanced technology. The upgrade kit includes: **Roll-2-Roll**® Sensor, **Roll-2-Roll**® Controller, **Roll-2-Roll**® Actuator and **Roll-2-Roll**® Driver.

Key step involved in the upgrade process is the installation of the **Roll-2-Roll**® Actuator in the existing web guide mechanism, and we offer several front and rear mounting options to make this process simple. Whether you have a new, old, or obsolete web guiding system, our upgrade kit is the perfect solution to improve efficiency and reduce downtime.



Roll-2-Roll® Actuator

Our reliable brushless stepper or brushless servo actuators offer high thrust, speed, and precision for your web guiding needs. With our actuators, you can upgrade any type of intermediate web guide or unwind/rewind web guide, while eliminating the need for maintenance often associated with traditional brushed actuators. Our actuators can handle a wide range of thrusts, from 200 N (50 lbf) to 18,000 N (4000 lbf), and can move stands weighing up to 18,000 Kg (40,000 lb).

Stroke: Up to 300 mm
Speed: Up to 60 mm/sec
Thrust: Up to 18000 N (4000 lbf)
Motor Type: Brushless Stepper and Brushless Servo
Screw Type: Lead Screw, Ball Screw or Planetary Roller Screw

Roll-2-Roll® Driver

Our advanced stepper and servo drives provide the perfect solution for any of our **Roll-2-Roll**® Actuator. With options such as high power drives with separate power input for added safety and optional limit switches for reliable operation, our drives are designed with safety and reliability in mind.

We offer high resolution microstepping drives with power outputs from 10 W to 250 W, available with either 24 V or 48 VDC input, to drive **Roll-2-Roll**® Actuators with up to 9000 N (2000 lbf) thrust. And for even higher thrust actuators, our AC servo drives can provide power outputs in excess of 1kW.

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Roll-2-Roll® Sensor

The **Roll-2-Roll**® Sensor is the key component of our web guiding system, delivering reliable and accurate feedback for precise control. The compact, one-sided, retro-reflective sensor head includes a light source, optics, and a 1D camera, making it easy to install in tight spaces.

Our patented sensor technology is based on light scattering and spatial filtering, which allows for the use of a wide range of materials including paper, clear film, plastics, clear glass, rubber, textile, mesh, nonwovens, carbon fiber, metals, foil, and even flexible printed electronics to be guided. The same sensor can be used for edge, line, contrast, or pattern guiding.

Sensor Type: Fiber-optic (Optical)
Sensor Resolution: 0.0635[#] mm (0.0025”) or 0.127[$] mm (0.005”)
Sensor Range: 48[#], 96[#$], 192[#$], 221[#$], 288[$], 384[$], 440[$], 480[$], 768[$], 900[$], 960[$] mm
Light Source: Infrared, Ultraviolet, White Light, and Custom Wavelengths

Roll-2-Roll® Controller

The image captured by the **Roll-2-Roll**® Sensor is processed using propieratory image processing algorithms within the **Roll-2-Roll**® Controller. The sensing principle along with the image processing algorithm leads to a system that requires no setup or calibration with any web material.

The user-friendly touchscreen operator interface allows for easy control and setup, while industrial ethernet connectivity options and digital I/O options enable fully automated web guiding.

Input Voltage: 24 VDC ± 5 % **Current Required:** 3 - 5 Amps
Operator Interface: 3.2” Capacitive Touch Screen
Connectivity: EtherNet/IP, PROFINET, EtherCAT, Modbus/TCP
Digital I/O: 2x NPN Input or 4x Dry Contact Input
Communication: RS485 Motor Communication
Control Frequency: 50 Hz to 200 Hz

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