All-Air Web Guiding Systems
Coast is the exclusive manufacturer of a simplified and unique All-Air Automatic Web Guiding System used in various roll to roll, web converting industries.

Materials that require guiding include all types of paper, various plastic films, label stock, cloth, etc. Guiding installations have been made on many different web processing lines such as printing presses, laminators, coating machines, slitters, plastic film extruders, plastic and paper bag machines, multi-wall tubers, envelope machines, packaging machines, etc.

Coast guiding systems are used in many different industries such as: Extruded Plastic Film, Paper & Plastic Bags, Envelope Manufacturing, Tire and Rubber Manufacturing, Flexographic Printing, Flexible Packaging, Non-Wovens, Label & Narrow Web Manufacturing, Coating & Laminating, Die Cutting, Slitting, Metalized Film, Pharmaceutical & Medical Packaging, Food Packaging, etc. In addition, many Original Equipment Manufacturers (OEM's) incorporate Coast systems on machines they build as well.

Coast Controls was established in 1992 by William C. and Douglas G. Fife, both of whom had many years of web guiding experience. Present management includes Thomas E. Marks, President and Kyle E. Koontz, VP of Manufacturing. The company operates from a modern facility in Sarasota, Florida and utilizes state of the art CNC machining centers and other manufacturing technology in their operation.

The Coast system is extremely simple and is based on a proportional All-Air Servo Controller which operates entirely on low-pressure plant air. The Servo Controller is used with an Air-Flow sensor, Air Cylinder, and a properly designed and applied intermediate or unwind guide to accurately align the moving web of material.

In addition to simplicity, the All-Air system has many significant advantages including ease of installation and dependability. Also, the system is intrinsically explosion-proof and does not require electricity, motors, electronics or hydraulics. The system has an unprecedented 10-Year Guarantee and is virtually maintenance free. In addition, all guiding applications are guaranteed to the customer’s complete satisfaction.

To adapt a design that is perfect for your application, Coast utilizes SolidWorks 3D Software which can be converted to just about any format so the customer can simply place the 3D model of the guiding system right into their design - which saves time and money.

Although we carry standard guiding systems to fit most machines in the converting industry, we will modify our designs to adapt to your machine so the installation of a new Coast guide is just like replacing the original - and Coast will do this at no extra charge to you.

Please visit www.coastcontrols.com to find out more about who we are and how we can help on future guiding applications.

Or give us a call at 1-800-513-2345 and speak with one of our Application Engineers to find out how guiding with air can benefit your company's bottom line.
1. Plant air is connected to the friction-free servo controller through a two-stage cartridge/coalescing air filter and precision low-pressure regulator/gauge. A small portion of the air is reduced in pressure before going to both sides of the air-flow sensor. Air continually bleeds from the sensor’s opposing nozzle and signal orifices, keeping them free of dust and other foreign matter.

2. As web misalignment occurs, the edge of the web moves in or out of the sensor. This causes the slightly higher nozzle air pressure to increase or decrease the backpressure in the signal air coming from the servo controller.

3. The change in pressure creates an imbalance between the opposing forces of the air diaphragm and the bias spring in the servo controller, causing the shuttle to move.

4. Movement of the shuttle directs the somewhat higher pressure actuation air to the proper end of the air cylinder. This causes the cylinder piston rod to move the guide the precise amount required to realign the web at the sensor.

5. With the web edge back in its proper position at the sensor, the guiding system is again balanced, completing the control loop. Sensing and correction continue to take place as misalignment occurs.
All web guiding systems should be installed as close to the incoming side of the converting process where accuracy is needed. The location of the guide will determine if you will be using a **Shifting Unwind Stand, Intermediate Displacement Guide, Intermediate Steering Guide, or a Shifting Rewind Stand.**

**UNWIND GUIDING** is obtained by automatically positioning an unwinding roll of material mounted on a laterally shifting roll stand. A shifting idler roller is attached to the stand. The sensor is fixed and mounted independent of the stand.

**DISPLACEMENT GUIDES** correct by geometrically displacing the web and are used where there are space limitations. The guide’s entry and exit spans must be parallel. These spans and the guide span are determined by the material, web width, and total web misalignment.

**STEERING GUIDES** correct by moving the web laterally while simultaneously pivoting the web in the same direction. This offsets the web’s inclination to return to its prior position. The guide (**single or double roller**) must be installed after a long, free-entering span to avoid wrinkling.

**REWIND GUIDING (chasing)** provides edge position controls by having the shifting stand and attached sensor ‘chase’ any web misalignment as the roll is winding. A fixed idler roller is required between the sensor and the rewinding roll.
DISPLACEMENT GUIDES

APPLICATION
Correcting web misalignment by pivoting a set of guide rollers about a fixed point to geometrically displace (align) the web. A displacement guide provides correction with minimal entry and exit web span requirements. It is ideal for applications with space limitations. It minimizes web stress to avoid compromising the material's integrity (wrinkling). Dual sensor Center guiding options available.

REQUIREMENTS
- Entry and exit web spans must be parallel to each other and perpendicular to the plane of the guide’s motion
- Spans should be approximately 1/2 to 1x the maximum web width
- Web must enter and exit the guide at a 90° angle (however, ±5° is an acceptable tolerance)
- Guide span should be approximately 1x the maximum web width
- The air-flow sensor must be securely mounted after the guide’s exit roller and within the first 1/3 of the exit span
- At least one idler roller must be located between the exit roller and the process (i.e. printing, laminating, die cutting) to avoid guiding directly into a process

MDG SERIES FOR WEBS UP TO 13-INCHES WIDE

RDG SERIES FOR WEBS UP TO 30-INCHES WIDE

CD SERIES FOR WEBS UP TO 130-INCHES WIDE
APPLICATION

Correcting web misalignment by positioning the guide roller(s) laterally, while simultaneously pivoting in the same direction (guide moves in an arcing manner). The preferred threading is a single or double roller guide with a 90° wrap. When necessary, a straight-through 'S' wrap threading can be used. Dual Sensor guiding options available!

REQUIREMENTS

- The steering guide must be installed after a long, free-entering web span (less than 10° wrap on the rollers) to prevent wrinkling. A web entry span of at least 2x the maximum web width must be maintained.
- The pre-entry span must be shorter than the entry span.
- The preferred exit span should be at least 1/2 to 1x the maximum web width.
- The air-flow sensor must be securely mounted after the guide’s exit roller (within the first 1/3 of the exit span).
- At least one idler roller must be located between the exit roller and the process (i.e. printing) to avoid guiding directly into a process.
SHIFTING ROLL STANDS (SRS)

SRS1-U-C (CANTILEVERED) FOR WEBS UP TO 20-INCHES

SRS2-U SHIFTING UNWIND STANDS FOR WEBS UP TO 100-INCHES

SRS2-R SHIFTING REWIND STANDS FOR WEBS UP TO 100-INCHES
Maybe it’s time to do something about it. If you answer yes to any of the following questions, then now is the time to replace the old hydraulic or electronic controls on your web guide with Coast’s exclusive All-Air control system:

• Does your current web guide control system require any routine maintenance?
• Are you tired of leaky hydraulics?
• Have you had to replace expensive electronic components?
• Do you have to carry spare parts?
• Do you want to eliminate down time?

The following are just a few of the benefits you will receive by upgrading to the All-Air system:

• Accuracy - guiding results guaranteed to your satisfaction
• Dependable - backed by our full 10-Year Guarantee
• No routine maintenance
• No spare parts required
• Simple to understand and install - control system attaches directly to existing guide frame

Retrofit Requirements:

• Existing guide must be in good mechanical condition and move freely (without bind)
• Guide must be properly located and installed on a web processing machine
• It may be necessary to relocate the existing guide to obtain desired guiding results

To find out more about retrofitting the controls on your existing guide with the Coast All-Air control system, complete the RFQ-Web Guides form or call one of our Application Engineers at 800.513.2345.

We are confident that once you have tried the All-Air guiding system, you will agree that it is the best web guide on the market!
**DID YOU KNOW?**

Many customers who have come to Coast Controls with their most demanding web guiding applications, have also used our custom Precision Rollers. After all, we’ve been making quality rollers since 1992.

We engineer precision rollers for a wide range of converting applications. Each roller is designed to meet the exact specifications of its intended use. Rollers are dynamically balanced to ISO grade G6.3 and quality inspected for workmanship and order accuracy.

**Capabilities**

Coast Controls can manufacture various types of Precision Rollers based on your specifications. We can make, but are not limited to:

- Live Shaft
- Dead Shaft
- Light Weight
- Custom Coverings
- Air Entrainment Groves
- Aluminum, Stainless, Steel

**Satisfaction Guaranteed**

Coast Controls is committed to ensure that our product meets your satisfaction. We will be able to meet or exceed your expectations because of the following:

- Quick turn-around
- Precision engineered
- The use of high quality bearings
- Dynamic balanced to ISO grade G6.3
- Straightness over roller face width within the greater of 0.002" or 0.0005"/ft of face length
- OEM and quantity discounts available
Do You Have a Specific Need?
Coast Controls offers custom manufacturing to meet the needs of all our customers.

Visit www.coastcontrols.com or call 800.513.2345 to speak with one of our Application Engineers.
Since 1992 Coast Controls, Inc. has manufactured the world’s most reliable and simplistic web guiding system on the market. Listed below are some of the advantages Coast Controls’ All-Air Guiding System has to offer over other web guiding systems!

- **Simplistic** – Easy to understand, install and operate. Just bolt it up and connect to plant air!
- **Dependable** – Backed by an exclusive 10-Year Guarantee!
- **Accurate** – Guiding results are 100% satisfaction guaranteed on all applications.
- **No Routine Maintenance** – No lubrication or routine maintenance required. Pop-Up indicator on Filter Package will let you know when to replace filter elements.
- **Self Cleaning** – The Air-Flow, Edge Sensor orifices have positive air flow on both sides! No Vacuum! Essentially self cleaning!
- **Hard to Detect Materials** – If the material is translucent, opaque, porous, reflective, etc. the air stream from the Air-Flow Edge sensor will detect it.
- **Explosion Proof** – No Electricity! No Circuit Boards! No wiring! No Problems!
- **Economical** – Air consumption is approximately 1.5 cfm @ 5 psi.
- **Harsh Environments** – All Stainless Steel guide systems are available for the most rigorous environments!
- **Clean Room & Sterilization** – Used in numerous Food and Medical Packaging facilities.
- **Reduced Spare Parts Inventory** – Normally we do not recommend keeping an inventory of spare parts. But if it makes you sleep better, please know that we keep 99% of replacement parts on the shelf for same day shipping.
- **No Obsolete Parts** – When something works and works well, there’s no need for change. That’s why Coast Controls continues to use the same Servo Controller design since 1992.
- **Dirty & Dusty Environments** – Where electronic guide components fail due to heat, humidity, and production dust, Coast’s unique all-air web guide design blows the competition away!

And remember, all you have to do is...

**Just Add Air!**
Quality Assurance

Coast Controls All-Air Guiding Systems are 100% guaranteed to perform to the Customer’s complete satisfaction when installed as recommended.

The simplified design and dependability of the friction free All-Air Servo Controller and related components, allows Coast to provide a 10-Year Guarantee on each guiding system. The warranty is from date of shipment and covers defects or premature wear of any guiding system component.

To ensure years of trouble free operation, tandem mounted particulate and coalescing air filters are provided with each guiding system.

Contact Coast’s Technical Support Department for various answers to warranty or other questions.