



Leading Edge Guiding Systems for Web Handling



Sensors



Actuators

Unwind/Rewind Stands

WEB DIRECTION

Juides

F

Controllers





Guiding components and systems for every application.

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INTRODUCTION



A History of Innovation

Since the invention of the first web guiding system over 60 years ago, Fife has continued to engineer and develop truly innovative guiding products and systems that accommodate your web handling application.

Whether you're working with thin film or thick steel strip, narrow webs or wide, Fife can provide you with options and solutions that are sure to increase your web handling efficiency and productivity.



Application Expertise

With more guiding installations worldwide than anyone, our industry knowledge is unsurpassed. Our highly-trained Customer Service Representatives and Field Sales Engineers will work closely with you to identify the guiding solution that is right for your application.





INTRODUCTION



Superior Service

Fife is committed to providing you with only the best quality guiding

products and services. Our experienced, factorytrained staff can assist in all areas of guiding: application analysis, design, engineering, manufacturing, and installation assistance.

Industry Leadership

Training and education are extremely important to the growth of our industry. Along with our involvement in the Web Handling Research Center at Oklahoma State University, we are proud to host a number of seminars around the world, putting our unrivaled industry knowledge and application expertise at your disposal.





Global Presence • Comprehensive Offering

As a Maxcess International Company, we can provide you with the most comprehensive line of accessory products and systems - Fife Guiding and Inspection, Tidland Slitting and Winding, and MAGPOWR Tension Control. Our factory-direct Field Sales Engineers also provide you with a local resource for certified product knowledge and application expertise. You also have additional resources online; at www.fife.com, where you'll find extensive product sales and support data, 24 hours a day, 7 days a week, 365 days a year. You can access Fife products and services all over the world with operations in North America, South America, Europe and Asia, and factory-trained representatives in Africa and Australia.

Guiding Controls

Smooth, efficient web handling operations begin with the right guiding control system. Fife offers a full line of automatic controls designed to deliver precise, dependable performance, and flexibility to upgrade your operations in the future.



G U I D I N G C O N T R O L S

Web Guide Controllers and Power Units

Regardless of the type of guiding control system you choose, Fife web guide controllers and power units are versatile enough to accommodate almost any web material and load requirement.

Electrohydraulic and Pneumohydraulic Power Units

For Electrohydraulic or Pneumohydraulic Guiding Systems with large unwind/rewind loads.



- Compact, modular construction is completely self-contained
- Virtually maintenance free

CDP-01 Web Guide Controller

Produces consistent quality with high dynamic response in single, dual or triple guide applications.

- Advanced web guide controller technology with automatic setup features
- Configurable for line, edge or center guiding applications
- Built-in amplifier for transparent web detection with infrared sensors
- Control up to 3 guiding systems without a PLC





Polaris Web Guide Controller

Precise web guide control that's easy to setup and operate.

- Small form factor (144 mm x 144 mm x 103 mm) is easily integrated into machine panel
- Intuitive setup and user-friendly operation reduces downtime between runs
- High dynamic response ensures consistent, high quality rolls

Serial Bus Communications

Streamlines operations by controlling guiding equipment over an existing network.

- Transfer guide information in real-time data, from 500 kbits/sec to 10 Mbits/sec.
- Customize your control with additional alarm outputs
- Improve efficiency on short runs store and run an infinite number of guide setups

Ether 1

SBPC-21-EN/IF

SBPC-21-DN

SBPC-21-PB

SBPC-21-CN

SBPC-21-EN

INTERBU

SBPC-21-IB

- Simplify guide setup and maintenance with minimal wiring
- Network languages: ControlNet, DeviceNet, InterBus, Profibus, Modbus/TCP Ethernet, Ethernet IP



Sensors

One size does not fit all. For that very reason, Fife develops sensors to suit any guiding application. Our versatile line of sensors can accommodate edge guiding, line/pattern guiding, or center guiding (fixed or moving) in any type of environment, and, more importantly, for any type of material.

Infrared

For Single-Edge or Center Guiding Applications.

- Very versatile, widely used on opaque materials
- Also used on materials with opacity as low as 10%
- Best-cost solution for any application
- Range from (.2" to 6.3") proportional bands provides a range of accuracy and web width
- Sensor gap (1" and up) responsive during web plane change



SE-38 First*Edge Sensor Advanced technology for materials with varying opacity (down to .4 oz/sq yard spunbond)

Pneumatic

For Edge and Center Guiding in a variety of web widths in applications where air is already available.

- An intrinsically safe component
- Will sense any material opacity 0 to 100%
- Fife's unique pneumatic design is virtually maintenance free





SENSORS

Ultrasonic

For Single-Edge or Center Guiding Applications. UL, cUL and CE certified.

- Closed-face design helps with immunity towards dust and contaminants
- Ambient shop noises have no effect of Fife's unique ultrasonic technology
- UL and CE approved
- Band width

Intrinsically Safe

Single or Center Edge Guiding in hazardous environments.

- Fully certified to Class
 I, Division 1, Groups
 C and D hazardous
 environments
- UL, cUL and CENELEC certified for use throughout Europe and North America



SE-31-IS Intrinsically Safe Sensor Extremely accurate for applications with varying web widths. Analog or digital web width measurement available with Fife Serial Bus Communications.

• See our certification at www.ul.com



Visible Light and Laser

Single edge or center guiding and web width measurement.

- The most intense, incandescent light bulbs are used to ensure high contrast for maximum guiding accuracy
- Laser based technology provides flexibility for web width measurement and changes
- Ideal for opaque materials

Special Application Sensors

- Fiber optic sensors
- Capacitance center guide sensor
- Inductive sensors
- Camera sensors



Use the selection chart on page 13 to find the sensors that are the best fit for your application.

DAC-004 Diode Array Camera An extremely flexible sensor able to see virtually any material.

POSITIONERS

Positioners

The remote positioning of sensors is another way to save time, reduce waste, improve accuracy and eliminate potential injuries. Fife has developed a range of positioners to accommodate a wide variety of applications.

Electromechanical Positioners:

Pro-Trac 100

Edge or Center Guiding Applications

- Low-cost, self-contained positioner
- Display and motor controls are combined for easy installation

Pro-Trac 200

Edge or Center Guiding Applications

- Heavy-duty positioner designed for continuous operation
- Ideal for use in chasing systems, moving sensor center guide systems, web width measurement systems, or simple sensor positioning
- Virtually maintenance-free, dust-tight design

M-23 Oscillator

Winding or Guiding Applications

- Used to unwind uniform staggered rolls, avoiding rippled material and non-cylindrical rolls due to caliper variation
- Provides complete, independent control of oscillation magnitude and rate
- Sensor position is variable to accommodate changes in web width

Electromechanical or Hydraulic Positioners:

EM-8

Chasing Applications

- Durable positioner capable of handling loads up to 1,252 lbs. (568 Kg)
- Strokes from 2.0 to 6.0 inches (51 to 152 mm)

EM-11

Chasing Applications

- Dual sensor positioner, with placement up to 60.0 inches (1524 mm) apart
- Strokes up to 16.0 inches (406 mm)



Pro-Trac 200 Extremely accurate positioning for consistent performance 24 hours a day, 7 days a week, 365 days a year.

Manual Positioners:

M-12

Center Guiding Applications

- Dual sensor positioning for most fixed-sensor center guiding applications
- Capable of handling up to 64.0 inches (1,626 mm) web width variations
- Position indicating hand-wheel provides simple, accurate operation

Custom positioners are available for a wide variety of chasing applications. Contact Fife or your local Field Sales Engineer for an application review.



M-12 Easy to use dual sensor positioner for virtually any center quiding application.

A C T U A T O R S

Actuators

Fife actuators are designed to be trouble-free and extremely accurate, providing the highest dynamic performance in the industry.

Fife electromechanical actuators are designed to provide minimal backlash (typically less than 0.002") and an industry L10 product life standard — typically three to five years of continuous duty at designed load and correction speed. Required application thrust will be a function of total load, coefficient-of-friction, and performance requirements.

Anti-friction bearings are currently published with coefficient-of-friction as low as 0.01. Fife uses a design coefficient-of-friction of 0.05 to 0.1, which allows for misalignments, contamination, seal drag and acceleration/deceleration of mass. A common coefficient-of-friction for Fife actuators is 0.1, ensuring high system performance and extended actuator life.

GAB-1

- Belt-driven actuator with a maximum designed thrust of 87 lbf (387 N)
- Maximum shifting speed: 1.22 in/sec (31 mm/sec)
- Standard actuator strokes range from 1 to 12 inches (25 to 305 mm)

GAG-2

- Gear-driven actuator with a maximum designed thrust of 174 lbf (774 N)
- Maximum shifting speeds: 0.61 in/sec (15 mm/sec)
- Standard actuator strokes range from 1 to 12 inches (25 to 305 mm)

GAG-3

- Gear-driven actuator with maximum designed thrust of 224 lbf (996 N)
- Maximum shifting speeds: 0.87 in/sec (22 mm/sec)
- Standard actuator strokes range from 1 to 12 inches (25 to 305 mm) in 1-inch (25 mm) increments

AG-9

- Gear-driven actuator with a designed thrust from 179 lbf (796 N) to 391 lbf (1,739 N)
- Maximum shifting speeds: 0.66 to 0.50 in/sec (17 to 13 mm/sec)
- Standard actuator strokes range from 1 to 10 inches in 1-inch increments, or 12 to 18 inches in 2-inch increments

LAB-10

- Belt-driven actuator with a designed thrust from 450 lbf (2,002 N) to 800 lbf (3,558 N)
- Maximum shifting speeds: 0.55 in/sec (14 mm/sec)
- Standard actuator strokes range from 1 to 10 inches in 1-inch increments

AG-11

- Advanced actuator ideal for demanding, continuousduty operations
- Gear-driven actuator with a designed thrust from 860 lbf (3,835 N) to 1,150 lbf (5,115 N)
- Maximum shifting speeds: 0.57 in/sec (14 mm/sec)
- Standard actuator strokes range from 1 to 10 inches in 1-inch increments, and 12 to 18 inches in 2-inch increments

AB-12

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- Gear-driven actuator with a designed thrust from 880 lbf (3,914 N) to 2,100 lbf (9,341 N)
- Maximum shifting speeds: 0.57 in/sec (14 mm/sec)
- Standard actuator strokes range from 1 to 10 inches in 1-inch increments, and 12 to 16 inches in 2-inch increments

Zero Backlash Actuators

UNWIND/REWIND GUIDES



Unwind/Rewind Guides

A typical unwind or rewind system consists of an actuator to move the roll laterally, a sensor, and a controller. In some cases, however, traditional guiding systems will not work. If a suitable roll stand is not available, Fife will provide the Shifta-Roll Positioning Stand. Powered by either electromechanical or hydraulic cylinders, these durable stands are capable of handling loads up to 10,000 lbs (4536 Kg).

Shifta-Roll[™] Positioning Stands Unwind Stands

- Roll stands shift laterally to compensate for web misalignment
- May require a directly mounted or slaved idler
- Easily adapts to existing assemblies

Rewind Stands

- Roll stands laterally shift to align with the edge of the approaching web
- Helps to prevent telescoping, ensuring straight-sided wound rolls
- Easily adapts to existing assemblies

SRS-Type Unwind Stands

- Specifically designed to accommodate large polyethylene rolls used in making bags
- Two-high, light-duty roll design allows one roll to be loaded while the other roll is being used
- Includes roll shafts and drag brakes



INTERMEDIATE GUIDES – DISPLACEMENT-TYPE

Intermediate Guiding - Displacement-Type

When space is limited, Fife Offset Pivot Guides deliver web/strip position correction with minimal entry and exit span requirements. This type guide is usually furnished with two rollers. The entire guide pivots to control web position and minimize web stress.

MicroSymat

- Super-compact, single-roller design for guiding under tight space constraints
- Standard roller faces: 3.15 inches (80 mm) and 3.94 inches (100 mm)
- Maximum allowable tension: 22.5 lbf (100 N)

Symat 25

- Versatile, compact guide capable of accommodating all threading styles
- Standard roller faces: 6.30 inches (160 mm),
 7.88 inches (200 mm) and 9.84 inches (250 mm)
- Maximum allowable tension: 45 lbf (200 N)

Symat 50

- Fast, accurate web positioning for web widths up to 21.0 inches (533 mm)
- Standard roller faces: 8.0 inches (203 mm) to 24.0 inches (610 mm)
- Maximum allowable tension: 140 lbf (623 N)





Other Threading Arrangements

LRB

- Designed to accommodate web widths up to 76.0 inches (1,930 mm)
- Maximum allowable tension: 563 lbf (2,504 N)
- Available for both electromechanical and hydraulic control systems

LRC

- Designed to accommodate large applications
- Available for both electromechanical and hydraulic control systems

All guiding systems are engineered for your specific application. For higher tensions or wider webs contact Fife or your local Field Sales Engineer.

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Intermediate Guides - Steering Type

Fife's innovative Steering Guides deliver precise web position by utilizing a long entering span. These versatile guiding assemblies provide immediate lateral correction for transient errors, while at the same time compensating for the web's steady state errors.

Kamberoller[™] Steering Guide

- Standard roll face lengths range from 15 to 120 inches (381 to 3,048 mm)
- Available for both electromechanical and hydraulic control systems
- Single, double or tri-roller arrangements available

Kantiroller[™] Steering Guide

- Versatile guide ideal for applications such as envelope machines and label presses
- Accommodates web widths from less than 8.0 to 14.0 inches (203 to 356 mm)
- Single, double or tri-roller arrangements available
- Available for both electromechanical and hydraulic control systems



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One size does not fit all. For that very reason, Fife has and will continue to develop sensors that meet the needs of nearly any guiding application. Use this chart to find the Fife sensor that best suits your application needs. For assistance, please contact your Field Sales Engineer at 800-639-3433, or visit us at www.fife.com.

			Opaque			Transparent			Woven				Nonwoven	Carpet		
	Paper	Colored Film	Foil	Felt	Opaque & Transparent	Film	Line Guide	Irregular Edge	Cloth	Window Screen	Gauze	Spunbond	Tire Cord	Roofing	Tuft	Scrim
Sensors																
SE-11	Α	A	A	Α	GA	GA										
SE-15	G	G	G	G										G		G
SE-17	CG	CG	CG	CG				CG			CG	CG				
SE-22	G	G	G	G	GA	G			Α							
SE-23	G	G	G	G						Α			G			
SE-26						G	Α									
SE-28											G		Α			
SE-29														Α		
SE-30								A		Α						
SE-31		Ι	I		Α	AI										
SE-32	Н	H	Η	Η												
SE-33															Α	
SE-34	Α	Α	Α	Α												Α
SE-37					Α	Α										
SE-38								G			Α	Α				

Matrix Legend:

A = Accuracy

C = Center Guide

G = General Purpose

H = High Temperature

I = Intrinsically Safe



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