

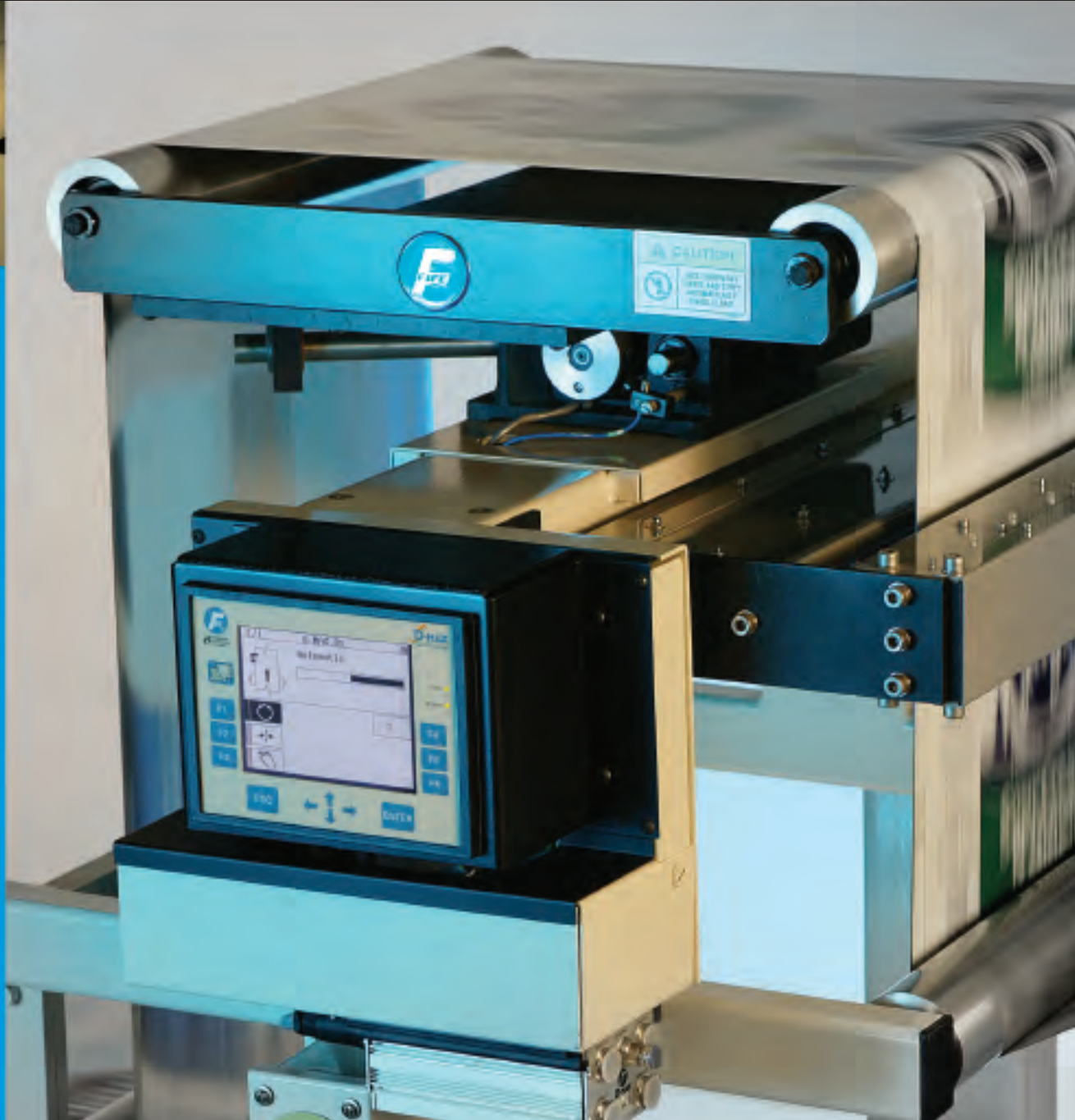
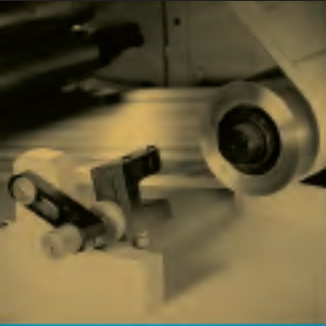


A Maxcess
International
Company

Guiding Solutions

Advanced Guiding Systems for Web Handling

F I F E G U I D I N G P R O D U C T S



Sensors



Actuators



Unwind/Rewind Stands

Controllers

Guides





 A Maxcess
International
Company

Guiding components and systems for every application.

T A B L E O F C O N T E N T S

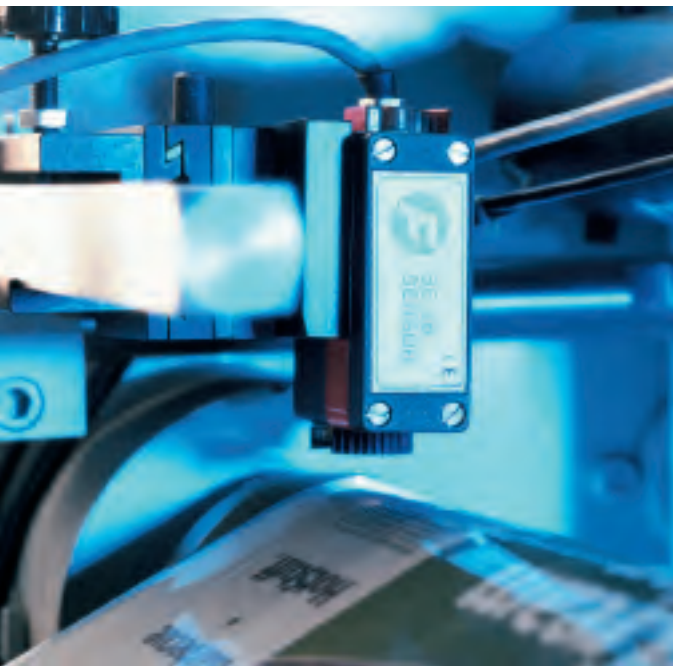
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A History of Innovation

Since the invention of the first web guiding system over 70 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 process line.



Superior Service



Fife is committed to providing you with only the best quality guiding products and services. Our experienced, factory-trained 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 sponsor a number of training opportunities, including Maxcess University, on-site and online training that covers the theory and implementation of web handling technology in multiple formats that are easy to use and understand.



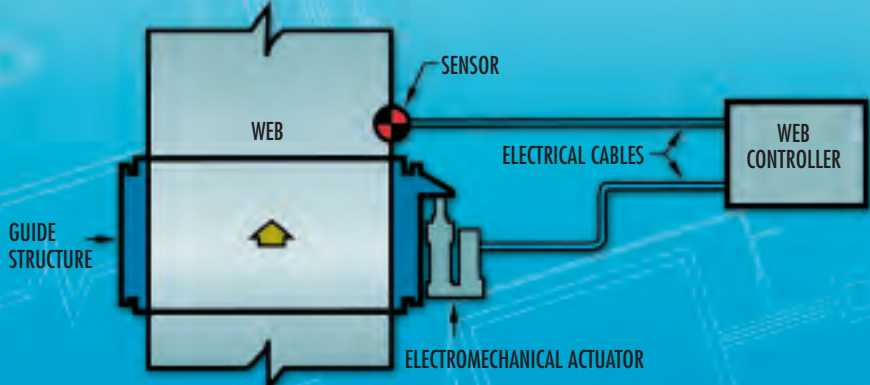
Global Presence • Comprehensive Offering

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 Australia.

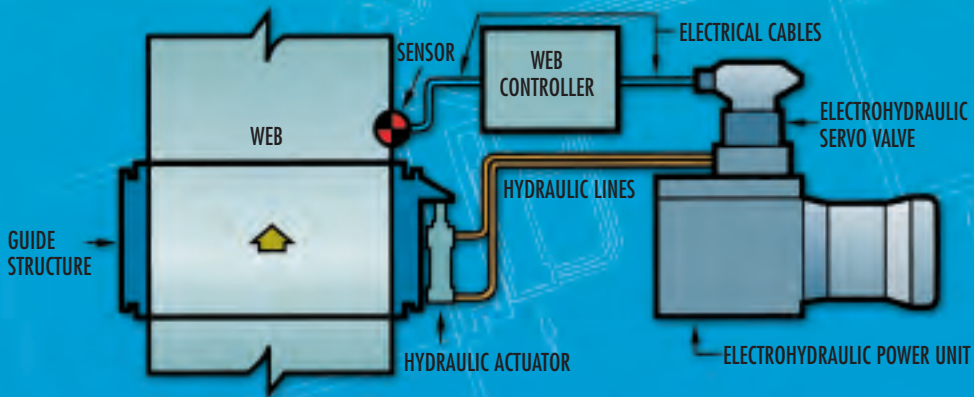
Guiding Controls

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.

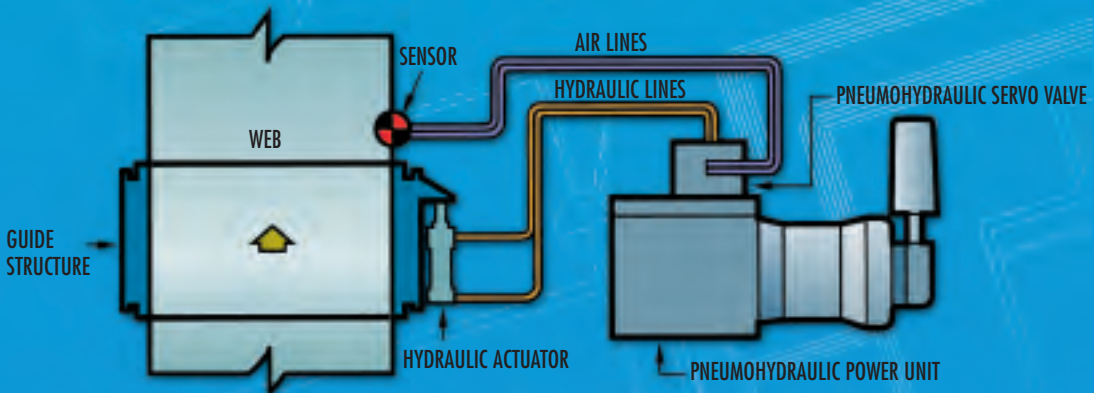
Types of Automatic Guiding Control Systems



Electromechanical



Electrohydraulic



Pneumohydraulic

Web Guide Controls

Fife web guide controls are powerful, yet easy to install and operate, providing the highest levels of dynamic response to increase accuracy and reduce waste.

D-MAX™ Series Web Guide Systems

- A complete system made up of powerful, modular components to improve efficiency and roll quality
- Modular design is available as a pre-wired system or feature-rich stand-alone components
- Low-profile controller provides the highest levels of guiding accuracy and powerful options like high-speed networking and remote system monitoring
- Operator Interface displays graphics and speaks your language to simplify setup and operation



CDP-01 Web Guide Controller

- Produces consistent quality with high dynamic response in single, dual or triple guide 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 5.67" x 5.67" x 4.06" (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



Network Communications

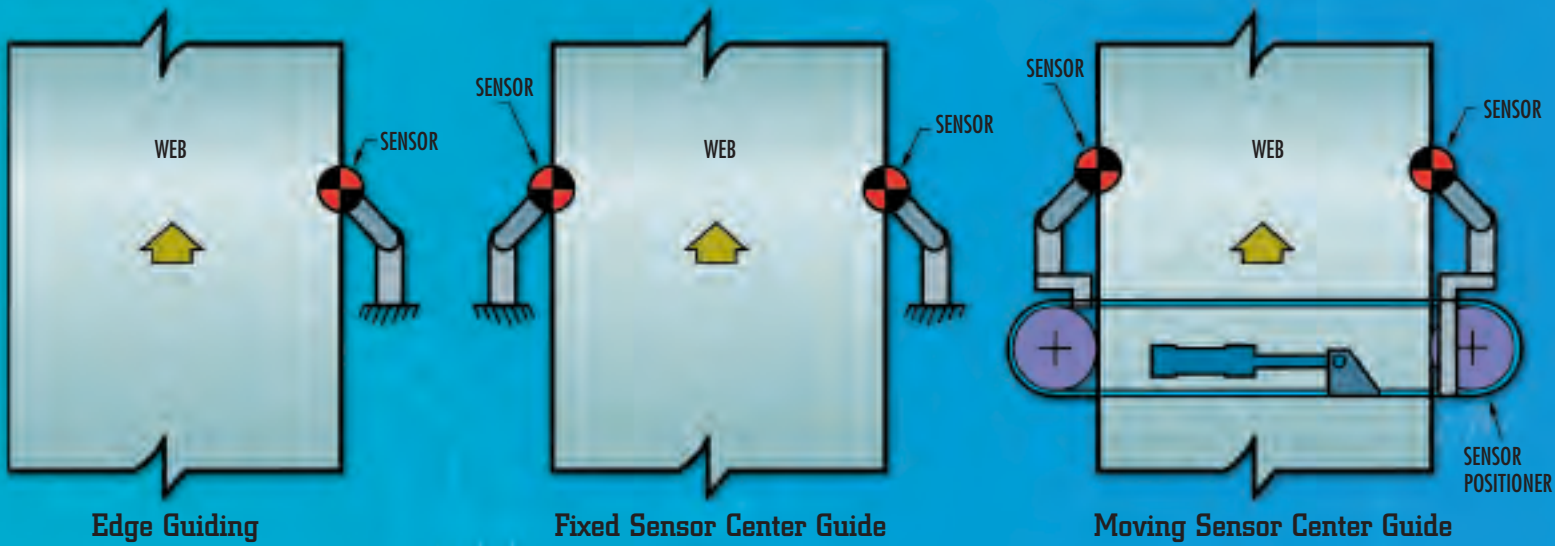
Optional Serial Bus Protocol Converters give you access to guiding data over an existing ControlNet, DeviceNet, InterBus, Profibus, Modbus/TCP Ethernet, or Ethernet IP network.

Power Units

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

- For Electrohydraulic or Pneumohydraulic guiding systems with large unwind/rewind loads
- Compact, modular construction is completely self-contained
- Virtually maintenance free





S E N S O R S

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 application
- Very versatile, widely used on opaque materials
- Also used on materials with opacity as low as 10%
- Best-cost solution for most applications
- Proportional band range from .2" to 6.3" (5.08 mm to 160.02 mm) provides accuracy for a varying web widths
- Sensor gap of 1" (25.4 mm) and up responsive during web plane change



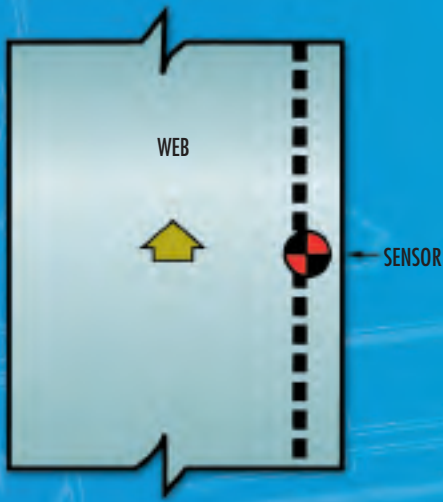
SE-38 First*Edge Sensor
Advanced technology for
materials with varying opacity
(down to .4 oz/sq yard spunbond)

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



Capacitive and Inductive Sensors
for strip guiding of metals



Line or Pattern Guiding



S E N S O R S

Ultrasonic

- Multiple-web and web-width detection
- 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 on Fife's unique ultrasonic technology

Intrinsically Safe

- Single-edge or center 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



A complete family of wide-band sensors for changing web widths and materials

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

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



DAC-004 Diode Array Camera

An extremely flexible sensor able to see virtually any material

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

Positioners

The remote positioning of sensors is another way to save time, reduce waste, improve accuracy and eliminate potential injuries. Fife positioners feature a dust-proof design that is virtually maintenance-free.

Electromechanical Positioners

Pro-Trac 100

For edge or center guiding applications.

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

Pro-Trac 200

For 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

M-23 Oscillator

For 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



Pro-Trac 200
Extremely accurate positioning, dust-proof and maintenance-free

Electromechanical or Hydraulic Positioners

EM-8

For chasing applications.

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

EM-11

For chasing applications.

- Dual sensor positioner, with placement up to 60.0" (1,524 mm) apart
- Strokes up to 16.0" (406 mm)

Manual Positioners

M-12

For center guiding applications.

- Dual sensor positioning for most fixed-sensor center guiding applications
- Capable of handling up to 64.0" (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.

Actuators

Fife electromechanical actuators are designed to be trouble-free with minimal backlash, producing the highest Dynamic Response in the industry, typically less than 0.002" (.051 mm), for higher accuracy and longer product life. 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 to ensure performance through misalignments, contamination, seal drag and acceleration/deceleration factors.

GAB-1

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

GAG-2

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

GAG-3

- Gear-driven actuator with maximum designed thrust of 224 lb ft (996 N)
- Maximum shifting speeds: 0.8"/sec (22 mm/sec)
- Standard actuator strokes range from 1" to 12" (25 mm to 305 mm) in 1" (25 mm) increments

AG-9

- Gear-driven actuator with a designed thrust from 179 lb ft (796 N) to 391 lb ft (1,739 N)
- Maximum shifting speeds: 0.66" to 0.50"/sec (17 mm to 13 mm/sec)
- Standard actuator strokes range from 1" to 12" (25 mm to 305 mm) in 1" (25 mm) increments, or 12" to 18" (305 mm to 457 mm) in 2" (50 mm) increments

LAB-10

- Belt-driven actuator with a designed thrust from 450 lb ft (2,002 N) to 800 lb ft (3,558 N)
- Maximum shifting speeds: 0.55"/sec (14 mm/sec)
- Standard actuator strokes range from 1" to 10" (25 mm to 250 mm) in 1" (25 mm) increments

AG-11

- Advanced actuator ideal for demanding, continuous-duty operations
- Gear-driven actuator with a designed thrust from 860 lb ft (3,835 N) to 1,150 lb ft (5,115 N)
- Maximum shifting speeds: 0.57"/sec (14 mm/sec)
- Standard actuator strokes range from (25 mm to 250 mm) in 1" (25 mm) increments, and 12" to 18" (305 mm to 457 mm) in 2" (50 mm) increments

AB-12

- Gear-driven actuator with a designed thrust from 880 lb ft (3,914 N) to 2,100 lb ft (9,341 N)
- Maximum shifting speeds: 0.57"/sec (14 mm/sec)
- Standard actuator strokes range from (25 mm to 250 mm) in 1" (25 mm) increments, and 12" to 16" (305 mm to 406 mm) in 2" (50 mm) increments





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 (4,536 kg).

Shifta-Roll Positioning Stands

Unwind Stands

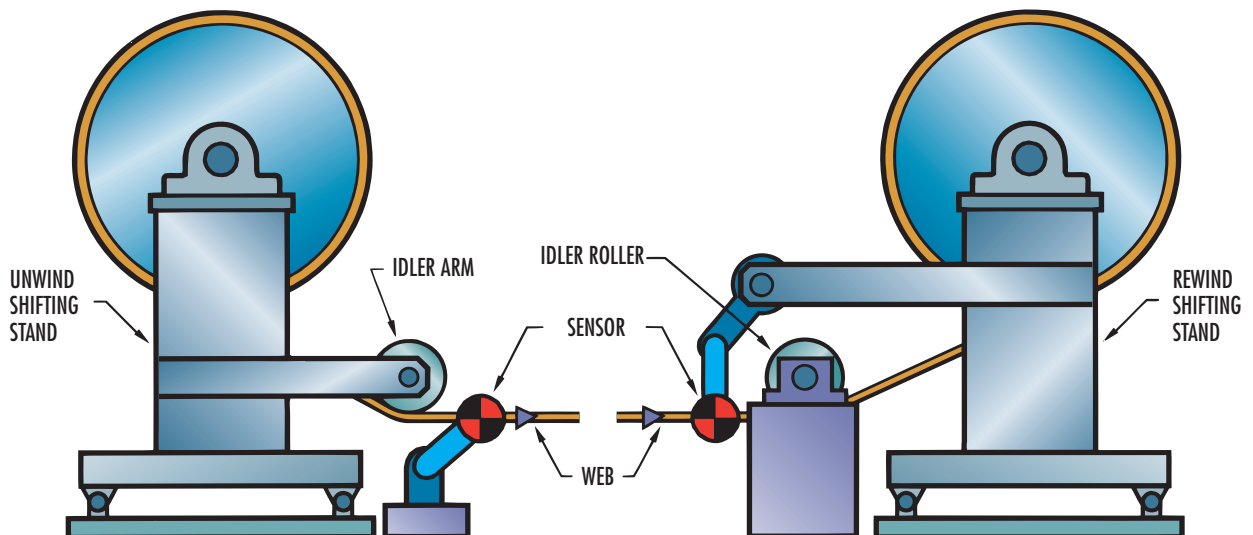
- Roll stands shift laterally to compensate for web misalignment
- May require a directly mounted or slaved idler
- Easily adapts to existing assemblies

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 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

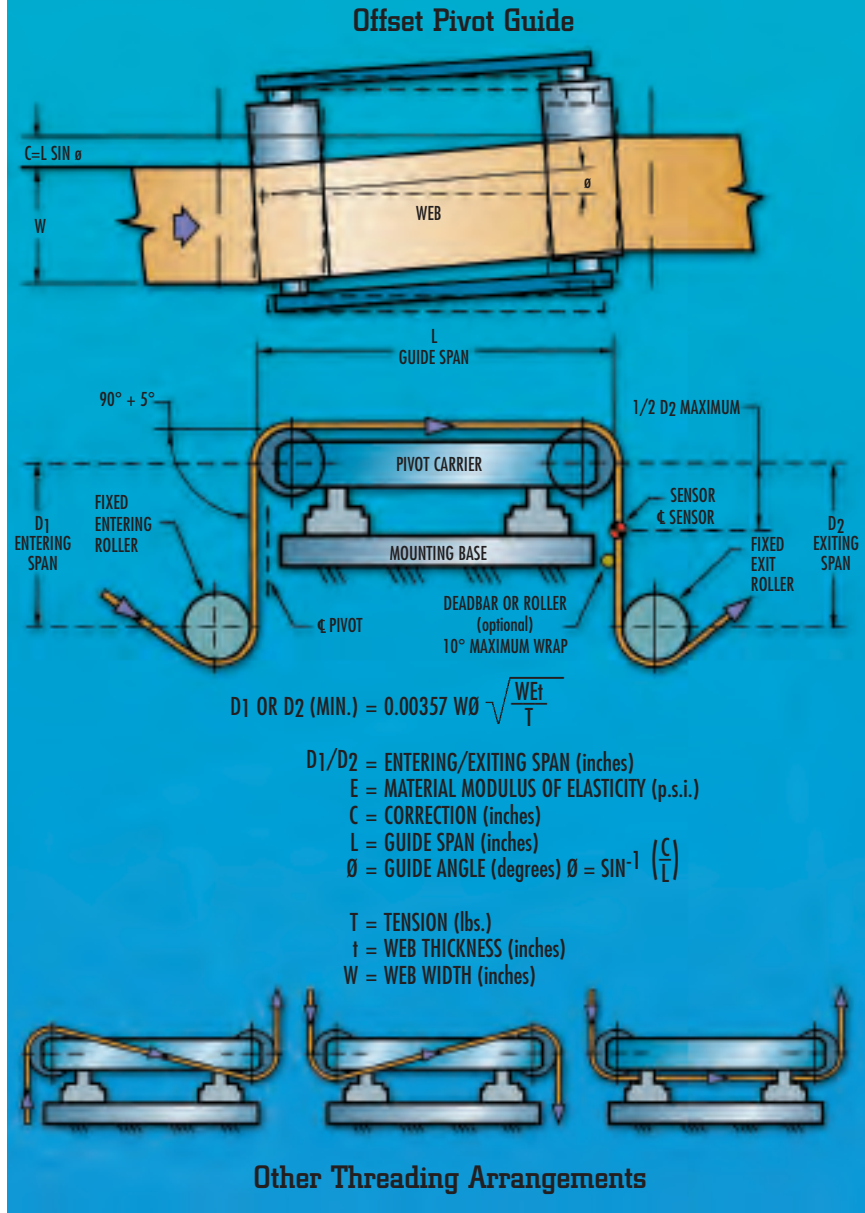
- Super-compact, single-roller design for guiding under tight space constraints
- Standard roller faces: 3.15" (80 mm) and 3.94" (100 mm)
- Maximum allowable tension: 22.5 lb ft (100 N)

Symat 25

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

Symat 50

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



LRB

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

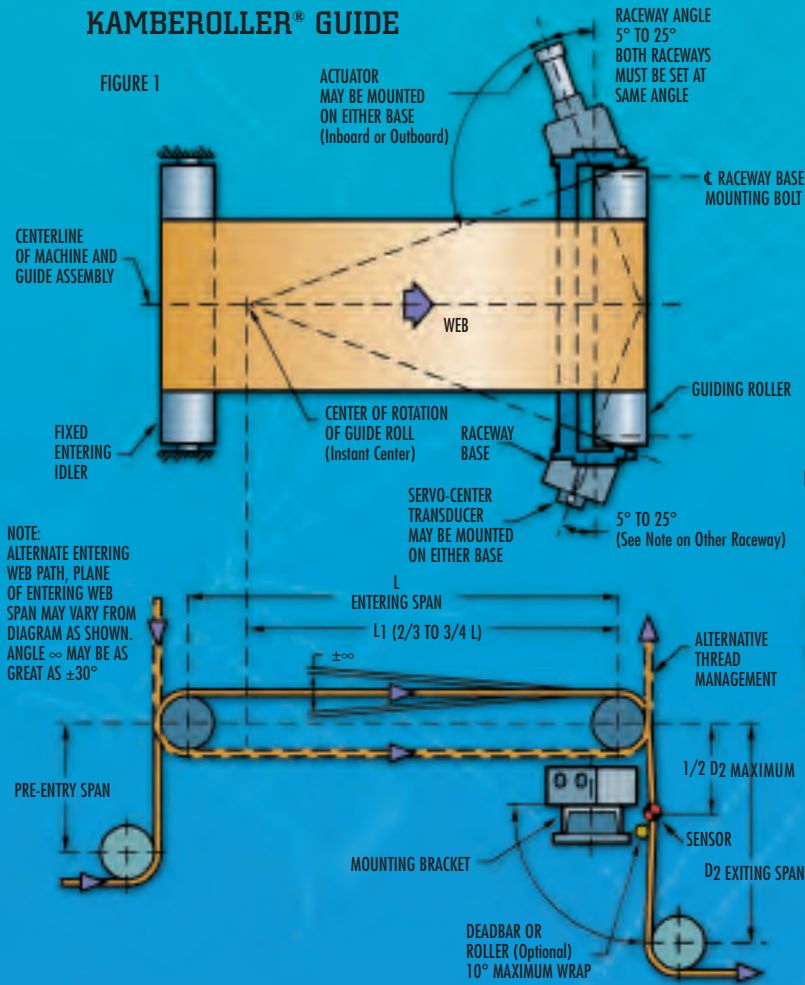
LRC

- 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



KAMBEROLLER® GUIDE

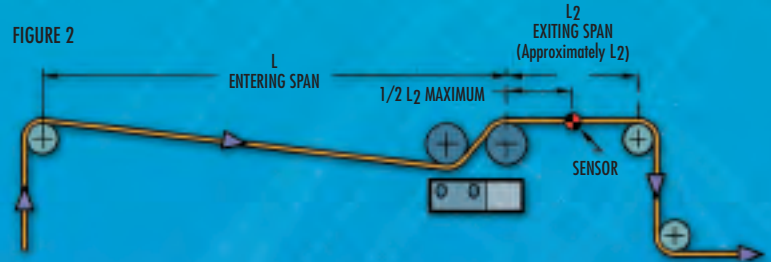


Kamberoller Entry Span Formulas

$$1. C = \frac{9T \left(\frac{L}{W}\right)^2}{tE}$$

$$2. L = \frac{W}{3} \sqrt{\frac{CtE}{T}}$$

- C = ± GUIDE CORRECTION (inches)
- E = MATERIAL MODULUS OF ELASTICITY (p.s.i.)
- L = LENGTH OF ENTRY SPAN (inches)
- T = TENSION (lbs.)
- t = MATERIAL THICKNESS (inches)
- W = MATERIAL WIDTH (inches)



Typical Straight-Through Threading (S-Wrap)

INTERMEDIATE GUIDES - STEERING - TYPE

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" (381 mm 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" (203 mm to 356 mm)
- Single, double or tri-roller arrangements available
- Available for both electromechanical and hydraulic control systems



Kamberoller® Steering Guide

S E N S O R S E L E C T I O N C H A R T

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.

Matrix Legend:
 A = Accuracy
 C = Center Guide
 G = General Purpose
 H = High Temperature
 I = Intrinsically Safe
 W = Width Measurement

	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
Infrared Sensors																
Infrared SE-11	A	A	A	A	GA	GA										
Infrared SE-17	CG	CG	CG	CG			CG			CG	CG					
Infrared SE-22	G	G	G	G	GA	G		A								
Infrared SE-23	G	G	G	G					A			G				
Infrared SE-30							A		A							
Infrared SE-32	H	H	H	H												
Infrared SE-33															A	
Infrared SE-38							G			A	A					
Ultrasonic Sensors																
Ultrasonic SE-31		I	I		A	AI										
Ultrasonic SE-37					A	A										
Ultrasonic SE-45	CGW	CGW	CGW	CGW	CGW	CGW	CGW	CGW	CGW		CGW		CGW	CGW	CGW	CGW
Line Guide Sensors																
Line Guide SE-26						G	A									
Line Guide DAC-004	AW	AW	AW	AW	AW				AW	AW	AW	AW	AW	AW	AW	AW
Visible Light Sensors																
Visible Light SE-15	G	G	G	G										G		G
Visible Light SE-34	A	A	A	A												A



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