

END-TO-END AUTOMATED WEB HANDLING SOLUTIONS







BETTER, FASTER, SMARTER



Tire & Rubber Solutions

Advanced Solutions for Unmatched Tire and Rubber Performance

The One Company For you Tire and Rubber Needs

Because Maxcess provides parts and service for every stage of the tire and rubber process, we can often spot trouble areas before they become a problem. This allows us to improve the efficiency of your operation and help eliminate downtime with innovative, cost-effective and reliable products.



- A single tire and rubber resource for Fife, Tidland, MAGPOWR, Webex, Valley Roller, Componex, and RotoMetrics solutions and services
- Factory-trained representatives understand how Rubber Covered Rolls, Precision Rolls, Guiding, Vision Inspection, Slitting, Winding, Die Cutting and Tension Control work together to improve efficiency
- Modern manufacturing facilities all over the world provide consistent service and support in the places you do business



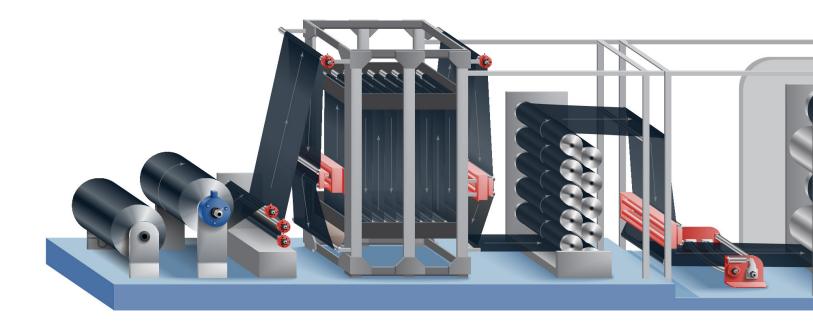












TYPICAL APPLICATIONS

Global Sales and Service

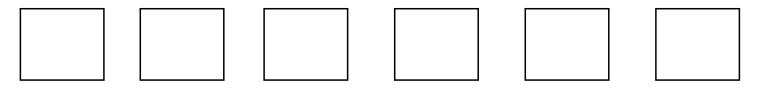
Having a global presence means more than a responsive, convenient sales representative. It also means vertical integration with local manufacturing facilities and technical support throughout North America, South America, Europe, India, China, and Southeast Asia. This allows us to offer unparralleled support worldwide, with the ability to have local contacts that are available when you do business.





Problem Solvers

We welcome the opportunity to solve the most difficult tire and rubber challenges. Our engineering, R&D and manufacturing teams have decades of extensive experience. The value our Maxcess associates bring to each project is unique in the industry.





CONTROLLERS

Fife H6630EM

The H6630EM Controller combines a simple, userfriendly, quick setup operator interface with a powerful AC servo motor drive for a wide range of guiding applcations, particularly for tire and rubber applications. While in automatic mode, the closed loop control provides smooth and efficient electromechanical operations. When linked via industrial networks, the H6630EM Controller can communicate to other H6630WM Controllers, PLC's and SCADA systems.



FIFE-500 MAX

Building off the legacy of the FIFE-500 web guiding system, the FIFE-500 MAX is accuacy perfected with 10x the accuracy of other systems. Featuring added faster networking and communications, an intuitive 5 inch color touchscreen, 8 pole brushless motor for smoother guiding at the fastest speeds, the FIFE-500 MAX leverages the latest technology at a great price point to improve performance, reduce scrap, and minimize maintenance.





FIEE

Fife SmartDrive Actuator

Featuring a fully integrated controller, drive and motor, The Fife SmartDrive Actuator is a powerful easy-toinstall, all-in-one solution for automated web guiding. The unit's speed, responsiveness, and industry leading accuracy continuously corrects material position errors without slowing down. The direct drive, gearless design maintains maximum thrust throughout the entire stroke with zero backlash. The factory-calibrated servo center maintains absolute position with zero drift and no recaliration needed.



Fife DMAX-E

With the ability to control up to three guides from a single unit, the D-MAX Enhanced is an OEM friendly controller that builds on the power and poplarity of the original D-MAX with features like "dual rail" power, single, dual or triple drive options and ISaGRAF-based state machine programmability. The D-MAX Enhanced offers power input reverse polarity protection, standard PTP-2 and PTP-1, Device Level Ring (DLR) connectivity, Add On Profile (AOP) for Rockwell Automation• PACs, any language support, a C-script programming language and backward compatibility with existing D-MAX controllers.

GUIDING SOLUTIONS

ACTUATORS

Fife H5535 Actuator

The H5535 series actuator combines the rugged design of roller screw technology with the efficiency and reliability of an AC servo motor. This results in an actuator that is brushless for reduced maintenance, provides position feedback without external devices, maintains position accuracy during loss of power without a homing sequence, outlasts ball screw designs by doubling the travel life, and is available in thrust ranges of 500 lbs (2.2 kN) to 40,000 lbs. (178 kN).

The high thrust and high duty cycle of the H5535 series make it an excellent replacement for hydraulic cylinder applications. When compared to a hydraulic cylinder, the lower cost of operation in energy savings and the elimination of contamination issues related to hydraulic oil leaks, make the H5535 a perfect choice to upgrade existing hydraulic actuators.

Fife GMA Actuators

The GMA Series of Electromechanical Actuators give you the thrust, speed, stoke and precision in a single convenient product. This new design includes the servo-center to efficiently position a guide structure, sensor, chasing equipment and/or web.

A single global design replaces and is backwards compatible to all existing Fife Actuators. This new, electromechanical design provides accuracy and simplicity through clean, electronic operation while eliminating the continuous maintenance required using traditional hydraulic cylinder operation. With a wide variety of thrust, speed, and stroke models available, you have the flexibility to solve even the most demanding applications.

- 1,000 pounds (4,448 newtons) thrust
- In-line and flange mount options
- Standard 6 inch (152 mm), 9 inch (229 mm) and 12 inch (305 mm) strokes
- Brake option provides positive lock when actuator motor is inhibited
- Clean operation, free of hydraulic oil
- Smooth, linear ball screw actuation
- Low backlash drive for optimum performance
- Reliable, maintenance-free operation



- Ball screw and nut design for low-friction, efficient operation
- Clean, electronic operation
- Durable construction for continuous duty reliability
- Non-sticking end of stroke design





Sensors

Fife GuideLine Digital Sensor

The GuideLine digital sensor with a 32mm wide field of view is capable of detecting lines, edges of lines and graphic patterns. It can be used in low contrast conditions, black on black, or with different patterns located close together, where traditional line sensors do not work. The operator interface features a color touch screen, allowing for the web to be displayed in full color, making sensor calibration easy and intuitive.





Fife DST-1 Sensor

The DST-1 Sensor guides a wide array of materials with ease. Whether you need to change materials throughout the day or run a challenging material, the DST-1 is te right sensor for the job. It requires no external light source or reflector and offers the ability to detect the web from one side, eliminating the potential of the sensor contacting the web. The intuitive color toughscreen makes setup, calibration and material changes quick and easy.

Fife H3662 Line Scan Sensor

The H3662 Line Scan Sensor is an edge, centerline or width detecting sensor. Using IR light, it illuminates a retroreflective tape (reflector). The light returned by the reflector is imaged onto a linear array within the sensor. An integrated microcontroller analyzes the signal from the array and detects the exact position of the web's edges.



GUIDING SOLUTIONS



Guides and Spreaders

Fife Kamberoller Steering Guide

The innovative Kamberoller Steering Guide delivers precise web or strip position by bending the web through a long entering span. This versatile guiding assembly provides immediate lateral correction for transient errors, while at the same time compensating for the web or strip steady state errors.

Kamberoller steering guides are designed for dependable fast, accurate operation in the most demanding environments.

Fife LRB Offset Pivot Guide

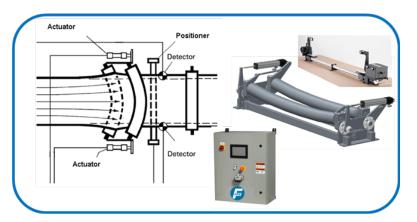
The LRB offset pivot guide is designed for reliable performance using either an electromechanical actuator or hydraulic cylinder as a power source. Constructed with low-friction ball bushings and precision race rod supports, this versatile guide delivers low-maintenance operation for edge, line, or center guiding applications.

This offset pivot guide can accommodate web widths up to 76.0" (1,930 mm) wide, and tensions up to 563 lbf (2,504 N). Standard guides are equipped with a mounting base for mounting either inside your framework (Type 40) or on top (Type 50).

Fife Three Finger Spreader

Our independent edge, three-finger spreader using firstedge non-contact H3662 sensors with ZERO-RESET control technology ensures edge cord count distribution. Our patented ZERO-RESET[™] control technology offers superior spreading stability, optimal width performance, and an industry standard platform for reliability.





Fife T&R Fabric Spreader System

Our NEW Fabric Spreader System is a robust solution for guiding, spreading and width control for fabric calendar trains. Engineered specifically to provide best in class width control for calendar lines producing high colume automobile and light truck tire calendared mateial. Utilizing state-of-the-art linear motion sensors for center guide and spreading contols, the system integration achieves consistent width contol and incresed throughput



MAGPOWR

Tension Controllers and Amplifiers

MAGPOWR Cygnus Tension Controller

A variety of advanced yet easy-to-use features are apparent immediately to operators using MAGPOWR's compact, powerful Cygnus® Tension Controls. Operators can easily navigate through advanced tension control functions and codes using on-screen prompts displayed in full text, making the tension setup process faster. Web tension is maintained or adjusted using multifunction "smart keys". Converters improve consistency with powerful features like automatic tuning and out of round roll compensation (previously only possible with a dancer control).



MAGPOWR DLCA-NET Digital Load Cell Amplifiers

The DLCA NET is a new load cell amplifier with embedded dual port communications including EtherNet/IP, PROFINET, Modbus TCP and EtherCAT. Also included are Rockwell features like EDS File based AOP add on profile, DLR Device Level Ring and PTP time stamping.

The DLCA NET transmits calibrated tension values over the communications to a PLC, HMI or drive to display tension or be used in a tension control loop when not using a MAGPOWR tension control. The DLCA NET is available in 3 mounting options and is available as a single channel version to monitor tension in a single zone with separate left and right load cell inputs or as a dual channel amplifier for 2 separate tension zones.





Brakes

MAGPOWR Global Series Brakes

Versatility and flexibility are the real benefits found in MAGPOWR's Global Series Magnetic Particle Brakes, as they provide smooth, repeatable, controllable torque independent of speed. This makes them suitable for all kinds of power transmission and tensioning applications. Sizes are available from 5.5 to 325 lb-ft of torque.

This line of brakes features state-of-the-art magnetic particle technology and its compact size is due to through-bores on all machined housings for ease of mounting. The M (Metric) series boasts full metric bores and keyways, as well as metric mounting hardware and setscrews to support international design requirements. The brakes are also available as 24 vdc or 90 vdc.





MAGPOWR HEB 250 High Efficiency Brake

The MAGPOWR HEB250 pneumatic brake packs many powerful features into a compact design. Ideal for the demands of general converting and corrugating operations, the HEB produces higher torque at cooler brake pad temperatures. These cooler temperatures along with a thicker brake pad will ensure longer pad life to minimize downtime.

The HEB is engineered for rugged environments, utilizing a single, ventilated cast iron rotor with a bi-directional flute design which allows for efficient cooling when used in either direction of rotation, a through bore and keyway design for easy mounting of the rotor to the brake shaft and an integrated set of caliper mounting brackets that can be mounted directly to the machine frame. These caliper mounting brackets are also an integral part of the safety guarding along with the caliper bodies to reduce the overall size of the brake.

Load Cells

MAGPOWR TS Load Cells

TS Load Cells provide the most consistent control of tension, no matter how the temperature changes throughout the day. All MAGPOWR Load Cells are designed with foil strain gauges that provide the lowest temperature drift rating possible (0.02% per °C), which can mean the difference between a profitable web and a floor of wasted material.

These rugged load cells are extremely accurate devices used to measure tension in any unwind, rewind or intermediate web processing application. The unique low profile design minimizes space requirements inside the machine frames, thus maximizing the potential for web width. TS Load Cells are designed with mechanincal overload stops in both force directions to eliminate sensor damage and the need to recalibrate even after extreme overloads.











Maxcess Precision Rolls

Industry leaders trust Webex and Componex for Precision Rolls that perform in the most challenging environments

Throughout a combined 65 years of producing Idler Rolls, Webex and Componex have been the premier supplier for the web handling industry. Our rolls are configured to your requirements by a knowledgeable staff who understand your application and what roll properties will provide the best solution. From proper bearing selection, construction materials and final coatings, our Idler Rolls are built with the precision and robustness to make your application a success. In addition, our WINertia[™] Dead Shaft Idler Rolls offer the shortest lead times in the industry, with a five-day delivery guarantee.





Webex Chill & Heat Transfer Rolls

Webex have compiled a wide range of design options to manufacture the most efficient Heat Transfer and Chill Rolls. Our engineers evaluate roll size, internal geometry and fluid dynamics to develop the most efficient roll for each application.

Our engineers rely on industry experience and computerized software analysis to predict what the exact thermal performance of each Heat Transfer Roll will be. By controlling the diameter and flow of fluid velocity, our Heat Transfer Rolls can be accurate to within $\pm 0.5^{\circ}$ C ($\pm 1^{\circ}$ F).

Lightweight, high-performance shafts

TIDLAND



Tildand GX Ultra Lightweight Air Shaft

The Ultra-Lightweight GX Air Shaft is made with lightweight, high-strength aluminum and an innovative 2-piece expanding element. It delivers unmatched performance in many unwind and rewind applications. Operators' backs will be saved as this shaft is one of the leading ergonomic solutions for converting applications and has helped many converters reduce or eliminate workers' compensation claims due to overexertion and heavy lifting.

Tidland Boschert Safety Chucks

Tidland System Boschert Safety Chucks are a pre-engineered solution for roll support and torque transfer in unwind and rewind applications. With a variety of options depending upon the level of safety and automation required, these versatile chucks deliver reduced setup times, improved roll quality, and lower maintenance costs.

Manual Safety Chucks are available in fixed or sliding designs, with a unique self-closing feature to ensure safe performance even if the operator neglects to close the chuck after loading. An effective load bearing design ensures long life and smooth rotation. Optional replaceable socket inserts and adapters for MAGPOWR global brakes make these chucks suitable for virtually any application.





Modular Web Solutions

A wholly owned subsidiary of Maxcess, Modular Web Solutions (MWS) has an extensive background in producing custom designs, and buids modular equipment that can make manufacturing more profitable, including unwinds / rewinds, calendars / nips, web path managemnet and temperature plus coating control.