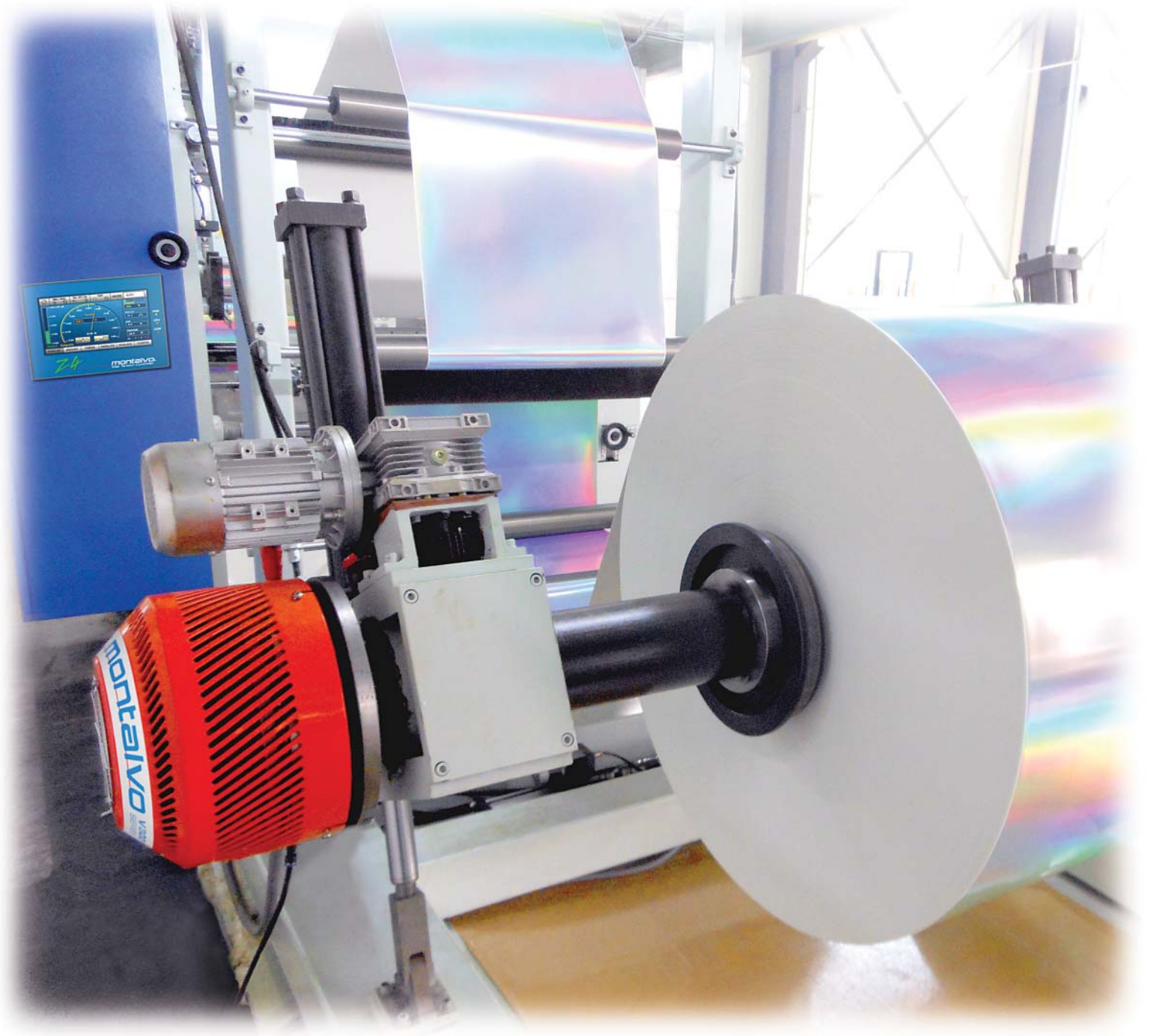


IT'S ALL ABOUT CONTROL

2016



EST. 1947

montalvo

Better Web Control®

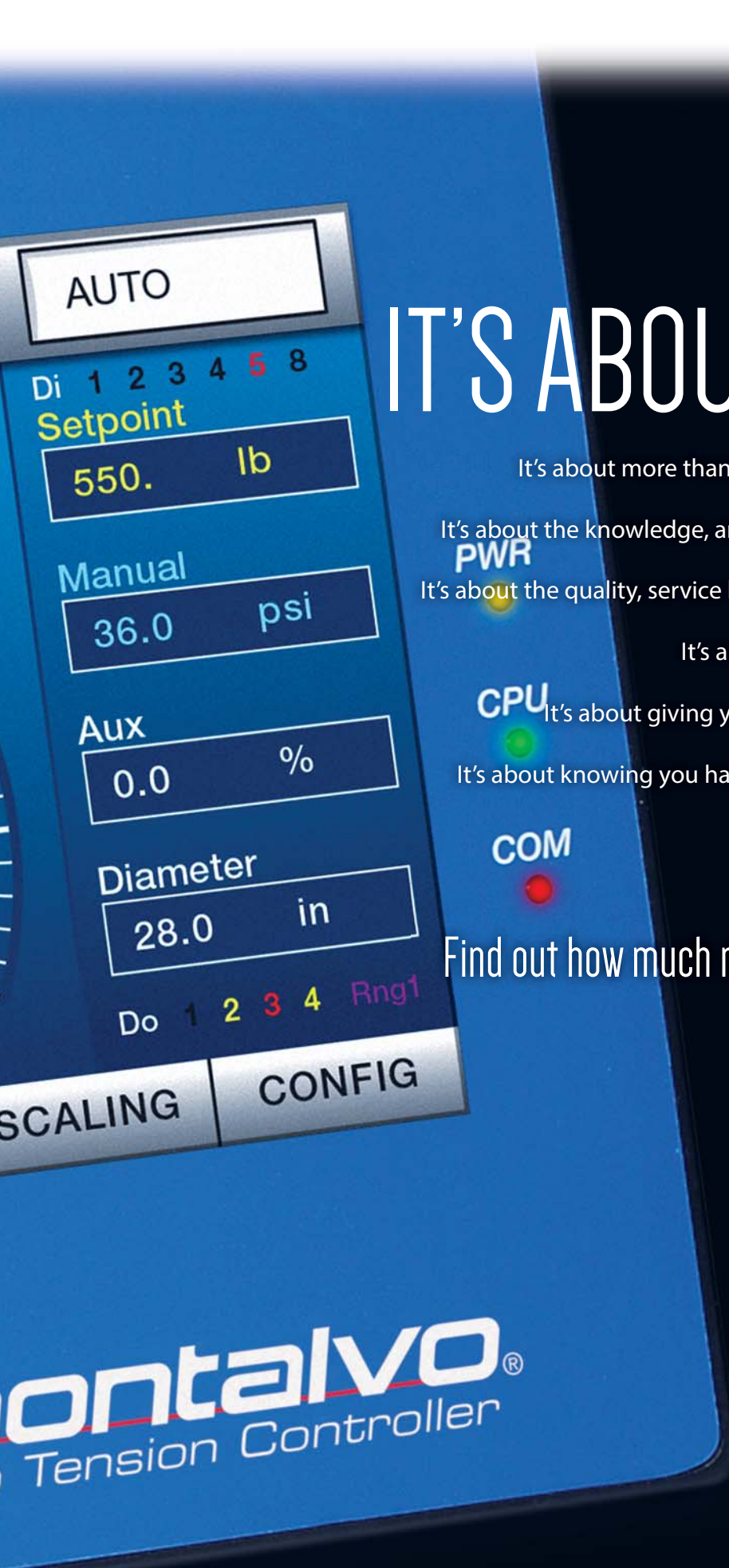
Man / Auto Ten Off / On Cal2 MODE



Output Setpoint DISPLAY ADJUST TREND DATALOG

Z4

m Web



IT'S ABOUT MORE

It's about more than just precise tension and pinpoint control.

It's about the knowledge, and expertise that goes into every product.

It's about the quality, service life, and performance of each component.

It's about removing any doubt in your process.

It's about giving you the ability to truly "Set It and Forget It".

It's about knowing you have Montalvo; so you know it works, and it does its job, better than any other.

It's as simple as that.

Find out how much more *you* can do with Montalvo.

Montalvo[®]
Tension Controller

WE MEASURE UP.

Always know the exact tension of your material. Only Montalvo load cells provide the industry leading precision, accuracy, and repeatability you rely on to monitor and control your web processing, while being more cost effective.



ES Load Cells

Industry leading resolution and sensitivity for superior accuracy and response.



OVERVIEW

Series	ES	N	U	X	TNT	LCR
Load Range	<0.25 lb (1 N) to 1000 lb(5000 N)	0.5 lb (2 N) to 200 lb (1000 N)	2 lb (9 N) to 20000 lb (100000 N)	<0.25 lb (1 N) to 25 lb (125 N)	From <0.5 lb (2 N) up	<0.25 lb (1 N) to 20000 lb (100000 N)
Strain Gauge Type	Full or Half	Full Bridge	Half Bridge	Full Bridge	Full Bridge	Full or Half
Roller Type*	DS / LS / LR	CL	DS / LS	Custom CL	Custom DS	DS / LS / LR
Roller or Pulley Supplied	Option	Yes	Option	Option	Yes	Yes
Mount Type**	S/F/P	S/F	P	S/F	S/F/P	S/F/P
Body Sizes	3	3	4	1	Custom	7
Connector Type	4 Pin M12	4 Pin M12	4 Pin M12	4 Pin M12	4 Pin M12	4 Pin M12
Classification	IP54	IP54	IP67	IP54	IP54	IP54 or IP67
Controller Compatibility	Z4/S4/3000 Series	Z4/S4/3000 Series	Z4/S4/3000 Series	Z4/S4/3000 Series	Z4/S4/3000 Series	Z4/S4/3000 Series
Amplifier Compatibility	A4/M32 Series	A4/M32 Series	A4/M32 Series	A4/M32 Series	A4/M32 Series	A4/M32 Series

* DS=Dead Shaft LS=Live Shaft LR=Live Roller CL=Cantilevered

** S=Standard Mount F=Flange Mount P=Pillowblock Mount

Montalvo Load Cells

ES SERIES

Extended Sensitivity Roller Load Cells

Our most popular and versatile load cell. Fits multiple roller types (Dead Shaft-Idler, Live Roller, or Live Shaft) with multiple mounting options.

N SERIES

Narrow Web Cantilever Load Cells

Designed for webs on single side frame machines, common in tag, label and tape machines, the N Series are an all-in-one load cell and roller with anti-deflection design.

U SERIES

Under Pillow Block Bearing Roller Load Cells

For applications utilizing pillow block bearings, and relying on the perfect combination of sensitivity and strength. Built to perform even in wet, dusty, chemical, corrosive or other harsh environments.

X SERIES

Wire and Ribbon Cantilever Pulley Load Cells

Completely customizable up to 7.5" web widths for a wide range of wire, cable, ribbon and filament sizes and types.

TNT SERIES

Custom Tension Sensing Rolls

A drop in, all-in-one load cell and roller solution, with customizable length and finish options to fit virtually any application.

LCR SERIES

Custom Load Cell / Roll Assemblies

Built to customer specifications using Montalvo load cells. Roll options include material, finish, and length; and all with maintenance free, low drag bearings.



HIGH RESOLUTION Cut Out the Noise

Montalvo load cells are the most sensitive tension sensors on the market. Superior engineering, high quality materials and precision manufacturing produce load cells that exceed design parameters. The result is phenomenal resolution and performance in web tension measurement.



RUGGED CONSTRUCTION Bring It On

Montalvo load cells are the most durable tension sensors on the market. Stainless steel construction, models up to IP67 classification, rugged shaft clamps, heavy duty bearings, sealed connectors, durable mounting options and overload protection assure a long service life.



EXTREME ACCURACY No Guesswork Here

Montalvo load cells are the most precise tension sensors on the market. Critical tension control starts with accurate tension measurement. Our load cells are engineered to produce consistent, reliable tension signals not only in the most demanding environments but also from the most delicate of webs.



THE ONE FOR YOU A Match Made in Heaven

Multiple mounting options, a variety of styles, wide load ranges, and the ability to customize. We've got the load cell you're looking for to produce higher quality end product, less scrap, expanded capabilities, and greater performance. Performance, quality, and precision - it's time to meet the one for you.

CONTROL FREAKS.



Montalvo's System 4 features the broadest range of web tension control technology available today! Precise load cell control, dynamic dancer control, or non-contact ultrasonic control. Open loop, closed loop or any combination. We have it for you.

Z4 Operator Interface

Offers remote control and detailed feedback of all Z4 controlled functions.



OVERVIEW

Model	Z4	S4	U4
Zone Control	Unwind/NIP/Rewind	Unwind/Rewind	Unwind/Rewind
Control Type	Closed Loop	Closed Loop	Open loop
Supply Input	110-240AC or 24DC	110-230AC or 24DC	110-230AC or 24DC
Signal Output (selectable)	0-10V / 4-20mA	0-10V / 4-20mA	0-10V / 4-20mA
Load Cell Support	Strain	Strain/Foil	No
Dancer Support	Yes	No	No
Non-Contact Sensor Support	DPS/MDP/US4/Prox/Laser	No	US4/TS/Prox/Laser
Drive Support	Yes	Yes	Yes
Brake/Clutch Support	Yes	Yes	Yes
Mounting Options	3	2	2
Remote HMI Interface Option	Yes	No	No
Communication Options	USB for Setup/Ethernet/DeviceNET/Profibus	No	No

Montalvo Tension Controllers

Z4 Unwind/Intermediate-Nip/Rewind Zone Closed Loop Tension Controller

Hybrid digitally controlled analog processing is optimized to produce accurate, repeatable web tension within any tension control zone. Available with an exclusive 7" HD Operator HMI interface and enclosure or remote mounting options.

S4 Unwind/Rewind Zone Closed Loop Tension Controller

One of the easiest controllers in the industry to set up, calibrate, and operate while still offering a full range of features designed to make your process more productive, while allowing you to simply "Set It & Forget It".

U4 Unwind/Rewind Zone Non-Contact Open Loop Tension Controller

Bringing advanced features (typically found only in closed-loop control systems) such as soft start, anti-coast, and taper tension, to open loop tension control. Compatible with a variety of inputs, the U4 ensures accurate tension control from full roll to core in open loop control systems.

Controller Functions Include:

- Soft Start
- Anti Coast
- Splice
- Taper
- Inertia Compensation
- Web Break Detection
- Remote Setpoint
- Remote Tension On/Off
- Progressive Gain
- Process Memory Storage
- Process Trend Storage
- Diameter Alarm
- Trim Adjust
- Variable Wrap Angle Compatible
- Range Expansion Compatible
- Dual Calibration

Submenu	Enter to edit optional functions.
Control Menu	Enter to edit regulator parameters.
Options Menu	Enter to edit roll change parameters.
Regulator Menu	Enter to edit parameters related to the starting process.
Roll Change Menu	Enter to edit parameters related to the stopping process.
Start Menu	Enter to edit parameters related to hold mode menu.
Stop Menu	Enter to edit set-up diameter parameters.
Hold Menu	Enter to edit set-up diameter parameters.
Diameter Menu	Enter to edit taper parameter.
Taper Menu	Enter to edit digital output parameters.
Digital Out Menu	Enter to edit splice parameters.
Splice Menu	Enter to edit range expander parameters.
Range Exp Menu	Enter to edit analog auxiliary 1 input parameter.
Aux1 Input Menu	Enter to edit analog auxiliary 2 input parameter.
Aux2 Input Menu	Enter to edit analog auxiliary 1 output parameter.
Aux1 Output Menu	Enter to edit analog auxiliary 2 output parameter.
Wrap Angle Menu	Enter to edit variable wrap angle parameters.
Com Menu	Enter to edit optional communications parameters.

ULTIMATE CONTROL Every Little Change Counts

Montalvo tension controllers maximize process capability and quality. Instantaneous corrections to the slightest changes in tension keep your web in precise control, giving you higher quality end product and less scrap. Do more. Achieve more.



MULTIPLE MOUNTING OPTIONS If the controller fits, buy it!

Montalvo tension controllers provide extreme flexibility. All our controllers offer multiple mounting options. Flush mount in a control panel. Surface mount at an operator's work station. Mount inside a cabinet. Or with the Z4 you can mount the operator interface remotely from the main controller board.



EASY OPERATION Operator approved!

Montalvo tension controllers provide intuitive web management. Once set up, you can run a web from full roll to core (or core to full roll) with little or no operator input. And with parameter storage and recall your high quality process is easily repeatable from run to run and shift to shift.

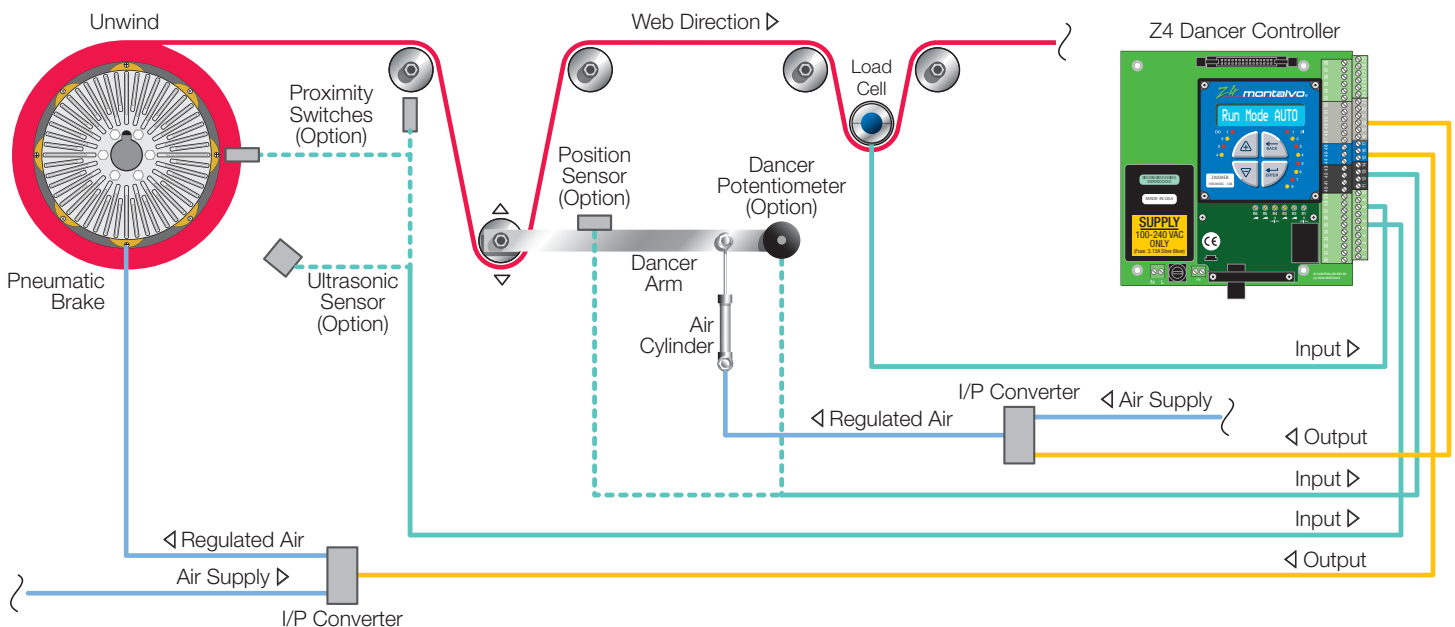


RELIABLE A virtual babysitter

Montalvo tension controllers provide "set it and forget it" peace of mind. A Montalvo Open or Closed Loop controller or system provides all the feedback necessary to confidently and automatically run your web at maximum efficiency and productivity.

Montalvo Dancer Control

Having invented the first ever controller capable of utilizing both dancer and load cell feedback, Montalvo continues to pioneer the automated control capabilities of applications utilizing Dancer Arms. We manufacture two Dancer specific tension controllers (dancer feedback only or dancer and load cells) featuring our unique progressive PID control algorithm which ensures optimum dancer regulation and tension control from full roll to core, every time.



Montalvo TSC™ (Torque Sensing Control)

For the first time ever in an open loop control system, you get a precise, reliable tension reference that operators can use to ensure consistent, high quality production runs. Montalvo has reinvented and accelerated the capabilities of Open Loop Tension Control with patent pending technology that easily integrates into existing machines as well as new machine builds.



The TSC™ Torque Sensing Control System is ideal for applications where...

- ✓ The machine cannot accommodate load cells or retrofits (e.g., space limitations, costs, etc.).
- ✓ The web cannot be contacted after unwind by rollers or requires minimal roller contact (e.g., coating, films, foils, etc.).
- ✓ Multiple unwind stands that each require cost effective, simple control, and a simple web path (e.g., sheeters, laminators).
- ✓ Your existing open-loop system requires improved consistency and quality of production.
- ✓ Multiple web paths or web is traveling directly from unwind roll into the process.
- ✓ A PLC controls torque and minimal modification and effort is desired.

The TSC™ Torque Sensing Control System offers...

- ✓ Easy Installation, Set Up and Operation
- ✓ Reduced Machine Build Cost
- ✓ An Easy Upgrade to Existing Machines
- ✓ Smooth, Precise, Repeatable Tension Control from Full Roll to Core
- ✓ Compact, Space Saving Tension Control in a Simple Package
- ✓ Performance Driven, High Quality Components



Montalvo Range Expansion

When your machine is required to do more; expand it's range and not your budget. Montalvo's exclusive Range Expander gives you unparalleled control over your unwind, while at the same time allowing you to run the widest range and tensions for different materials. Power and performance, delicately controlled!

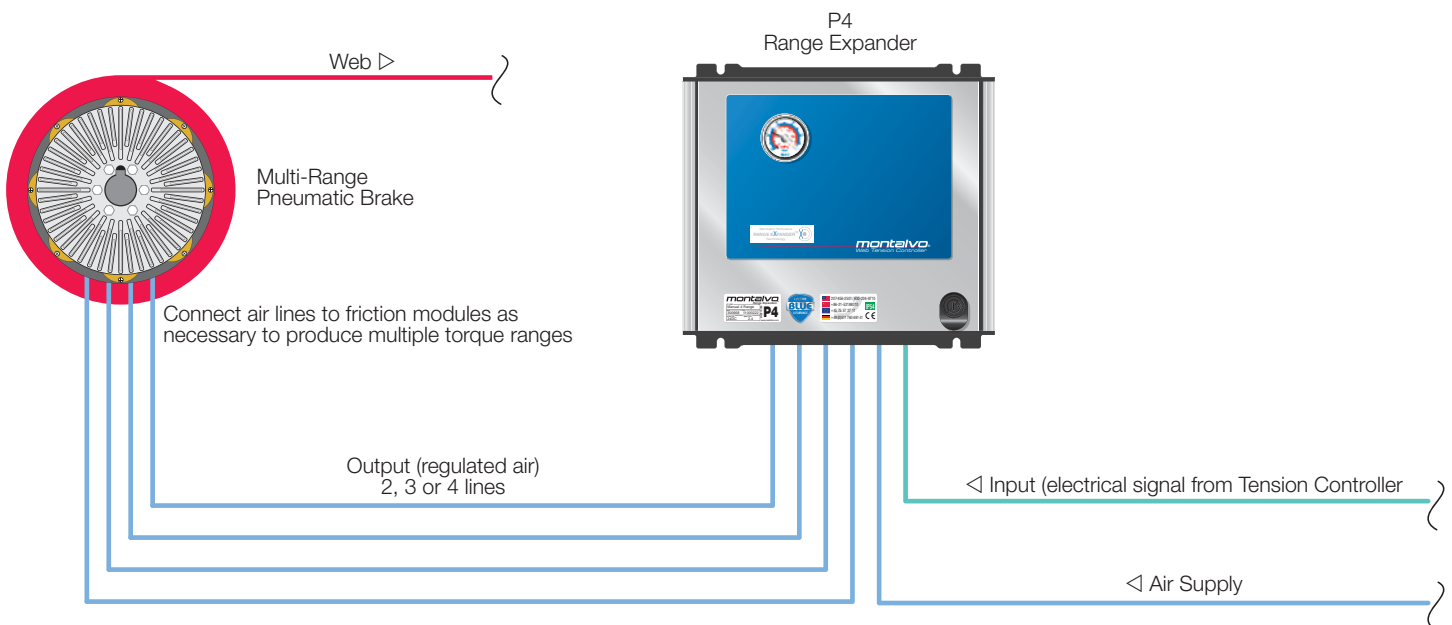


The Montalvo Range Expander allows you to...

- ✓ Run multiple types of materials with various tension requirements on one machine..
- ✓ Gain greater control at lower torque ranges.
- ✓ Run high mass rolls at lighter tensions (e.g., films and foils).
- ✓ Run low torque and tension applications that require high torque to stop (e.g., sheeters).
- ✓ Minimize operator interaction and set-up processes when switching material types.
- ✓ Reduce friction pad wear.

Range Expander

Offers optimal tension control through fully automated brake tension range settings.
(*P4 available Q4 2016)



Montalvo Amplifiers



A4 Digital Amplifier

Amplifies load cell / sensor signals to indicate web tension or other measurable characteristics.

The quality of your process often comes down to the quality of your load cell signal. When such a small product can have such a big impact, go with the perfect blend of performance, functionality, and quality. Go with **Montalvo Amplifiers!**



OVERVIEW

Series	A4	M3200	M3200 LTR	M3224
Load Cell Gauge Type	Semi-Conductor Strain or Foil	Semi-Conductor Strain	Semi-Conductor Strain	Semi-Conductor Strain
Supply Voltage	24 VDC	115/230 VAC	115/230 VAC	24 VDC
PC Functionality	Programming-Trends-Filtering	N/A	N/A	N/A
Alarm Output	No	Yes	Yes	Yes
Left/Total/Right Selectable	Yes	No	Yes	No

Montalvo Tension Indicators

Knowledge is power. Always know the exact tension of your material with a Montalvo Tension Indicator. Incorporating a Montalvo Amplifier with a digital or analog tension meter in one convenient package gives you greater knowledge of your process to ensure you are always running at maximum quality.

i4 Digital Tension Indicator

Using the A4 Digital Amplifier, the i4 Indicator is available in single zone or multi-zone analog or digital models. (*enclosure shown - available Q4 2016)



i3200 Analog Tension Indicator

Using the i3200 Analog Amplifier, the i3200 Indicator is available in single zone or multi-zone analog or digital models. (*enclosure shown - available Q4 2016)

GOT CHUCK?



Safer. Tougher. Easier. Better. The all new patent pending Guardian Safety Chucks have been expertly engineered to have a higher safety factor, with a rugged, hardened design, while being easier to load. Guardian Safety Chucks are simply BETTER!

Guardian Safety Chuck

The best safety chuck on the market today offering the lowest total cost of ownership and shorter lead times.



OVERVIEW

Model	G1000	G1800	G3000
Max. Roll Weight	2248 lb (10000 N)	4047 lb (18000 N)	6744 lb (30000 N)
Max. Torque	1770 lb (200 Nm)	3363 lb (380 Nm)	10621 lb (1200 Nm)
Journal Size Range (A2-Diamond)	1.00-1.25 in (20-30 mm)	1.25-1.50 in (30-40 mm)	1.50-2.00 in (40-50 mm)
Journal Size Range (A3-Triangle)	0.787-1.181 in (20-30 mm)	1.260-1.496 in (32-38 mm)	1.575-1.850 in (40-47 mm)
Max. Shaft Extension	Ø35k6 x 90	Ø50k6 x 100	Ø65k6 x 140
Pedestal Mount	Option	Option	Option
Flange Mount	Option	Option	Option
With Shaft End	Option	Option	Option
Free Sliding	NA	Option	NA
Sliding w/ Handwheel Drive	NA	Option	NA
Handwheel Lock	Option	Option	Option
Replaceable Journal Seat Inserts	Standard	Standard	Standard
Replaceable Handwheel - Complete Assembly	Standard	Standard	Standard

Montalvo Safety Chucks

ADDITIONAL OPTIONS Enhance Your Safety Chucks

Reversible Safety Lock

Prevents unintentional opening of the hand wheel and are field reversible to improve operator accessibility.

Axial Carrier

Maintains precise shaft positioning and axial adjustment.

Conical Chuck Journal Seat

Allows use of simple journals without the risk of excessive stress and wear. This is a cost effective alternative to machining journals with difficult and expensive undercuts.

Handwheel Open/Closed Indicator

Indicates whether hand wheel is open or closed via an electronic sensor.

Handwheel Opening Position Indicator

Indicates when hand wheel is in precise open position via an electronic sensor.

High Speed Capacity

Handles web speeds in excess of 300 m (980 ft.) per minute. This is achieved by balancing the hand wheel (with safety lock) and shaft.

Sliding Housing - G1800

Allows for up to +/- 50mm Axial Adjustment

Winding Shaft Direct Inflation Connection - G1800

Offers ease and convenience of automatically inflating winding shafts while shafts are installed in the chuck. This is important in applications requiring differential winding shafts or for automated shaft and roll handling.



JAWS Insert Here

Montalvo safety chucks offer hardened jaw inserts that can be easily swapped out if worn. Replace just the inserts and not the entire handwheel when maintenance is required. Save Time. Save Money. They can also be swapped out to accommodate other shaft sizes, making the Guardian a very cost effective web handling solution.



DEFINE SAFETY Making Safe Safer

Guardian Chucks feature a re-designed A2 and A3 journal seat to provide one of the highest safety factors in the industry. Combined with automatic locking in the case of accidental rotation and easier roll loading for operators; they put the 'safe' in Safety Chucks.



WE'VE GOT YOU COVERED Keeping Your Budget Safe Too

A longer service life combined with reduced maintenance costs give the Guardian Chucks the lowest total cost of ownership over the lifetime of a chuck. You really can have it all!



RUGGEDLY HANDSOME More Than Just Good Looks

Montalvo safety chucks may get old but they don't retire. A rugged, hardened design ensures a safe and long service life. Backwards compatible with Montalvo's KL chucks, they are the next generation in safety chuck design and engineering.

MAY THE TORQUE BE WITH YOU.

Montalvo literally invented the genre of air cooled, multi range pneumatic tension control brakes and since 1947 we haven't stopped providing the industry standard in brake technology.

We deliver the performance, quality, torque range, and ease of use you rely on for smooth, reliable, consistent control.



HP High Performance Brake

Our most powerful, widest range brake evolving from almost seventy years of web tension experience.



OVERVIEW

Series	CS	CD	V	Standard	HP	CD	HPS
Type / # of Discs	Brake / Single	Brake / Dual	Brake / Single	Brake / Dual	Brake / Dual	Clutch / Dual	Clutch / Single
Shaft Dia Max _ in (mm)	1.375 (35)	1.75 (45)	3-3/4 (100)	5 (125)	4.5 (115)	1-3/8 (35)	2-1/2 (60)
Shaft Dia Min _ in (mm)	0.50 (12)	0.625 (15)	7/8 (22)	7/8 (22)	1.25(35)	0.75 (19)	1 (25)
Torque Max. _ in-lb	600	2608	10692	20905	51120	1200	7021
RPM Max	5500-7000	4285-7000	2300-4300	1940-4285	1300-4300	5500-7000	2900-4300
Heat Dis. Max. _ HP	2.4	9	24	42	64	5.2	17
Pad Style	C	C	V	Standard or V	Standard or V	C	Standard
Module Style	CS2	CD2	V	Dual S or Dual V	Dual S or Dual V	CD2	Standard
Sizes	2	3	4	5	6	2	3
Safety Cover	Option	Option	2 Options	Option	Option	-	-
Friction Pad Types	Options*	Options*	Options*	Options*	Options*	Options*	Options*
Auxiliary Cooling	-	-	Option	Custom	Custom	-	-
Max Power Supply	75 psi	75 psi	75 psi	75 psi	75 psi	75 psi	75 psi
Type	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Pneumatic

*Friction Pad Options: High, Medium and Low COF

Montalvo Brakes and Clutches

C-Series Compact Pneumatic Brakes and Clutches

Compact, low profile, single and dual disc brakes and clutches designed for light to medium duty applications. High capacity and low inertia.

V-Series High Performance Single Disc Pneumatic Brakes

From bolt to disc to pad, the V-Brake is designed to increase your productivity. No other brake in the industry is as easy to install, operate, and maintain as the V-Brake, while still delivering leading performance and quality standards. V Pads standard.

Standard-Series Dual Disc Pneumatic Brakes

Compact, dual disc performance and control with higher heat dissipation and easy maintenance. Quick and simple installation, wide available torque ranges, and V Pad compatible.

HP-Series High Performance Dual Disc Pneumatic Brakes

The ultimate tension control brakes with greater torque capacity, greater heat dissipation and enhanced performance to give you the crucial smooth, linear, control you require, of even the largest rolls. V Pad compatible.

HPS-Series High Performance Single Disc Pneumatic Clutches

Ensure a uniform, precise and high quality rewind process when you require higher heat dissipation, higher performance, and a wider torque range. Featuring high capacity and low inertia, for smooth, consistent control.

MP-Series Magnetic Particle Electric Brakes and Clutches

Ideal for clean room environments - delivering smooth, repeatable, linear and proportional torque to the electric current with silent operation.



MP-B	MP-C
Brake / NA	Clutch / NA
(80)	(80)
(10)	(10)
8851	8851
1000-3000	1000-2000
9.3	4.6
-	-
-	-
13	10
-	-
-	-
Options	Option
1.75 A@24VDC	1.70A@24VDC
Electric	Electric



EASY MAINTENANCE Pads...Gone in sixty seconds (or less)!

Time is money. So we've engineered our V Pad compatible brakes to save you money by minimizing the time it takes to change brake pads, when maintenance is required. No one makes a faster changing system. Our most popular brakes (V, HP and Standard) feature tool-less quick change pads. See for yourself at montalvo.com/goneinsixtyseconds

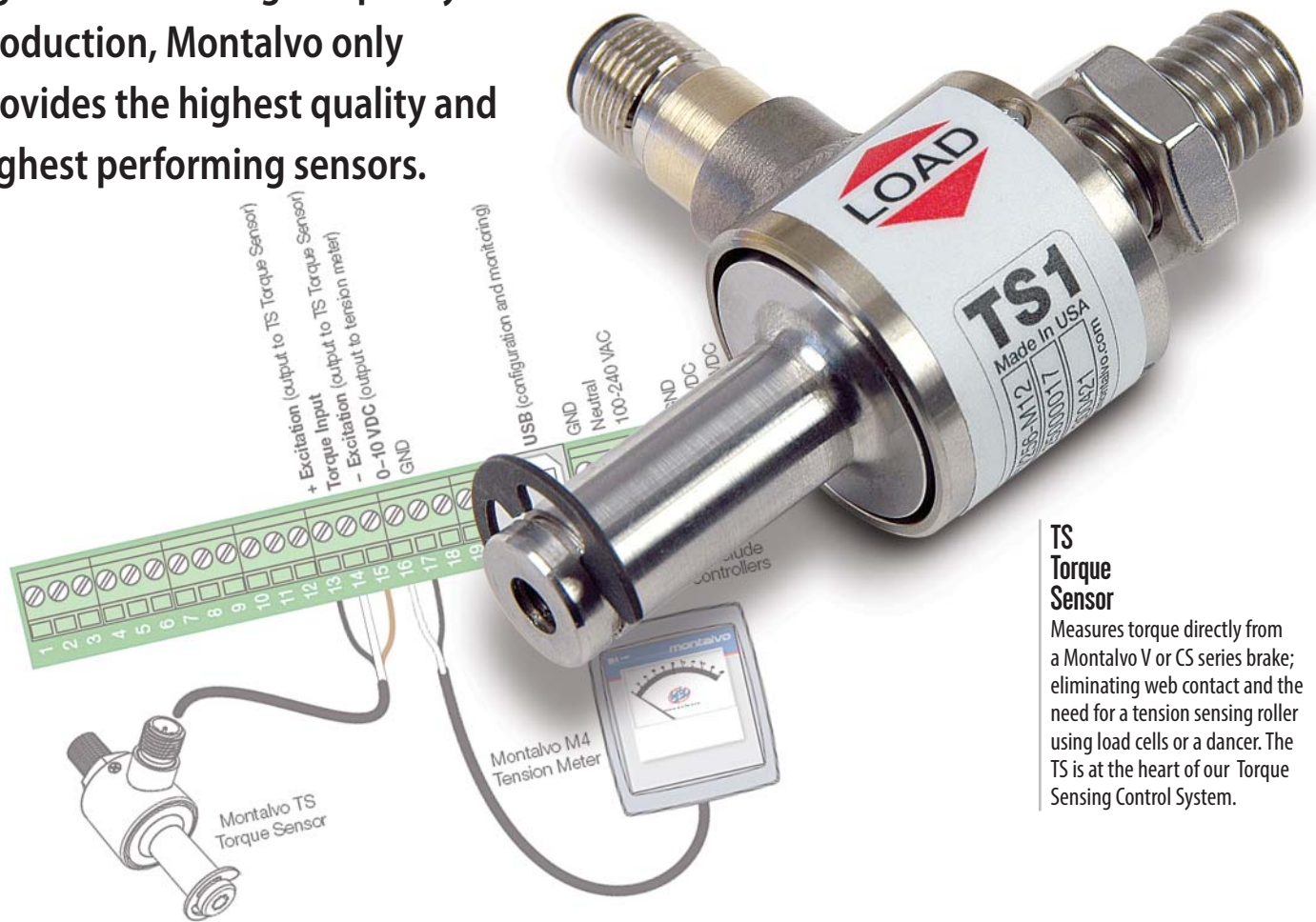


COOL UNDER PRESSURE Keep Out of the Heat

Montalvo brakes and clutches... Superior products that run really cool. With heat dissipation capabilities to 64 horsepower, and torque output to over 50,000 in-lb, our deep finned V and HP brakes cool off more heat than any other brake on the market.

Montalvo Sensors

Critical to delivering key process signals used for higher quality production, Montalvo only provides the highest quality and highest performing sensors.



TS Torque Sensor

Measures torque directly from a Montalvo V or CS series brake; eliminating web contact and the need for a tension sensing roller using load cells or a dancer. The TS is at the heart of our Torque Sensing Control System.



US4 Ultrasonic Sensor

Provides an accurate, roll diameter signal. Simple to set-up and calibrate, with high accuracy and a IP67 classification. Compatible with U4 and Z4 Tension Controllers.



DPS Dancer Position Sensor

Provides a dancer position signal used by the Z4 for Closed Loop tension control of dancer unwinds. No wear parts and zero maintenance. Responds quickly and accurately to the slightest changes in the dancer's position.



MDP6 Dancer Position Sensor

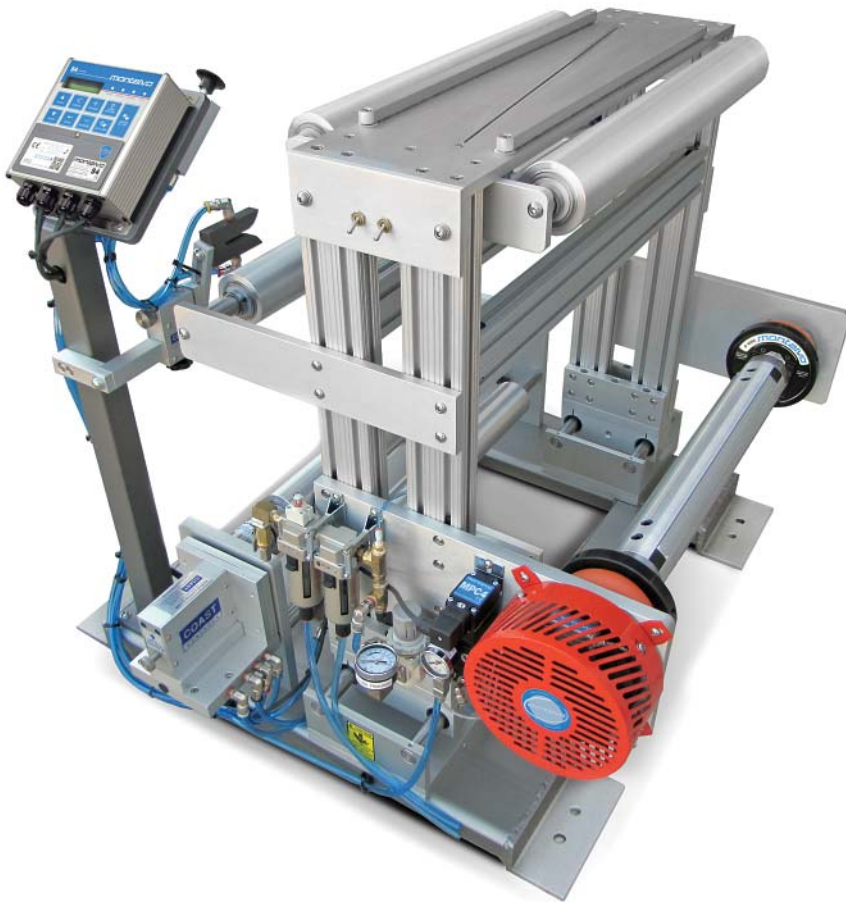
Provides an analog dancer position signal used by the Z4 for Closed Loop tension control of dancer unwinds. Highly accurate signal and engineered for minimal wear for an extended service life.



PXS Proximity Sensor

Used to supply an accurate diameter value. Simple to install and utilize; perfect for applications where other sensor signals may be difficult, ex: foam, narrow web, etc.

Web Guides



Montalvo has partnered with Coast Controls to be your single source for the best in Web Tension Control and Web Guide technology. Coast Controls All-Air-Web Guides are simple to install, simple to operate, are highly cost effective and have a longer service life. No electricity. No electronics. No hydraulics. And don't forget the unparalleled 10 YEAR warranty!



Displacement Web Guides

Corrects web misalignment by pivoting a set of guide rollers about a fixed point to geometrically displace (align) the web. Ideal for applications with space limitations a displacement guide provides correction with minimal entry and exit span requirements



Unwind Web Guides

Provides accurate edge alignment for unwinding rolls of material at the beginning stage of a converting process. Montalvo tension controls and components insure proper web tension throughout the expiration of the roll.



Rewind Web Guides

Provides accurate edge alignment for winding rolls of material at the last stage of a converting process. Lateral stand movement insures constant alignment of the web from the converting/printing process.



Steering Web Guides

Steering guides are used to compensate for web errors during the converting process. A Steering Guide is also called an Intermediate Guide because it is positioned between the beginning and the end of the web handling/ converting process.

PARTS AND ACCESSORIES

Whether your system needs those extra high quality bits and pieces or you are performing maintenance, get your genuine spare parts and accessories direct from Montalvo. Longer service lives, greater reliability, and unmatched performance with factory direct pricing. You won't find a better place to get your Montalvo parts than Montalvo.



DV/DS Friction Modules

Module fits both HP and Standard brake and is available in two friction pad styles.

MPC4 I/P Converter

Converts electrical tension control signal to regulated air pressure to brakes/clutches.



PDA Pneumatic Distribution Assembly

Standard duty pneumatic on-off valves in a gang of four controlling air supply to brake/clutch modules or manual range expansion.



Montalvo Friction Pads

OEM friction pads equipped on all new brakes/clutches and available as the recommended replacement for optimum tension control.



MAF3 AIR FILTER

Protects connected devices from moisture and fine dirt. Recommended for use with the MPC4.



MPR Pressure Regulator

High quality, compact MPR regulates brake air supply at any point in the system.



Safety Covers and Mounting Plates

OEM plates and covers provide hassle free mounting, easy service and exceptional operator safety.



MPV Push Valve

Heavy duty pneumatic on-off push valves in gangs of two, three or four controlling air supply to brake modules.



MRU Micro Rotary Union

Provides continuous air supply connection to clutch on rotating shaft.



Montalvo Friction Modules

OEM friction modules equipped on all new brakes/clutches with full line of service parts and expedited shipping.



CUSTOM SATISFACTION



With almost seventy years in the business, Montalvo and its engineers, sales team and applications specialists have worked with just about every kind of tension application in use. If you require something special, Montalvo will work with you to engineer a custom solution to meet your tension control needs. Let us consult with you on your next project.



COLLABORATION How may we help you?

Building on our core tension control products and knowledge, we'll work with you to achieve your goals. From simple modifications of standard products, to complete system design, we'll apply our engineering and industry know-how to give you the exact component your application requires. We specialize in custom solutions!

Montalvo Services

On Site or In the Field;
We Are Here for You.
Whether it's getting
operators up to speed
on your tension control
equipment, keeping
your equipment running
at optimal capacity,
education, presenting
engineers with the
latest tension control
technology, or more; we
offer a variety of services
for you.

INSTALLATION & START UP ASSISTANCE

Let us do the work for you. Montalvo's Application Specialists ensure proper installation and start up, saving you time and effort. We will perform any necessary mounting, wiring, calibration, programming, etc, and will assist in getting your operators comfortable using the equipment, answering any questions and ensuring everything is in proper working order as you run your production.

ROUTINE CONTRACTED MAINTENANCE

Nothing lasts forever but proactive routine maintenance can make it seem like it will. Montalvo's Routine Contracted Maintenance can include:

- Thoroughly inspecting all systems in your facility (including competitive equipment)
- Provide a written report summarizing results of inspection
- Recommend & perform corrective action
- Provide operator & maintenance personnel training

APPLICATION CONSULTATION

Let us inspect all equipment and systems, provide consultation and recommendations for corrective action, and update/optimize any existing Montalvo equipment. Stay proactive and catch problems before they occur. Compared to the costs of your machine going down or needing costly repairs a simple application consultation keeps you ahead.

FIELD REPAIR SERVICES

In the event that you need repair, when you need us on site, we are there for you, getting your equipment back up and running as soon as possible.

PRODUCT & APPLICATION SEMINARS

For larger groups or for those looking to learn more about tension control concepts and how it can define successful production, Montalvo offers tension control product and application seminars. We have a library of topics to choose from or we can tailor a seminar around your specific goals. Past topics have included:

- The latest methods/tools in tension control
- Hints/tips/tricks for maximizing profitable webs
- Common symptoms & common solutions
- Accurate, consistent tension control for maximum productivity

1-ON-1 or GROUP TRAINING

Montalvo Applications Specialists can provide hands on one on one training or group training on your Montalvo Tension Control Equipment. Give your operators, maintenance staff, and trainers the specific knowledge they need to maximize the use of your Montalvo equipment ensuring maximum productivity from your machines.

TENSION

Tension is defined as the torque applied at the center of the roll, divided by the roll radius.

Tension = Torque / Radius $T = TQ/R$

For Unwinds	For Rewinds
$T = \frac{TQ}{R}$	$T = \frac{TQ}{R}$
• R is decreasing	• R is increasing
• TQ must decrease for constant tension	• TQ must increase for constant tension

Montalvo Lifetime Assurance

Our Promise to YOU



B

BACK to BETTER WEB CONTROL

Things happen. And when they do, our first priority is to get you back up and running as quickly as possible. We want your machine running.

L

LOCAL ACCESS

In Person, Phone, E-mail, or Online. With four worldwide offices (USA, Germany, Denmark, China) and an authorized licensee & representative network throughout five continents, we give you the local dependability you rely on.

U

UNCOMPROMISING SERVICE & SUPPORT

Whether you have a single question, need a tension control consultation, require technical support or service, we are committed to you for the entire life of your Montalvo products and beyond. We are here for you.

E

EXPERTISE

Since 1947 Montalvo has differentiated itself by offering more than just high quality & high performance tension control products. We are your resource for the tension control expertise required to expand the capabilities of your machinery & production line.

**THE STANDARD FOR
RELIABILITY - DEPENDABILITY - PERFORMANCE**





WHAT'S IN A NAME?

Montalvo is a name that has become synonymous with higher quality, higher performing tension control products, backed by the industry's most knowledgeable and experienced team of sales, engineering, manufacturing, and customer service. We are Here for You!

Quality. Experience. Trust. Since 1947.

The name is everything.

HERE FOR YOU!

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