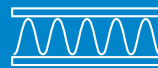




## INSPECTION MACHINES

Universal inspection and non-stop winding machines





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## Erhardt+Leimer

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## Machinery program

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# Erhardt+Leimer

## A family company between tradition and the modern age

Erhardt+Leimer is an internationally oriented, privately owned group of companies with its head office in Augsburg, Germany. It was founded in 1919 and, in 2016, employed 1.600 people around the world. In 2016 they generated a turnover of 175 million Euros.

## Subsidiaries

With 19 subsidiaries in Europe, Asia and America, as well as 115 trade representatives around the world, we are always close to the requirements of our customers.

Our dense service network and our five production locations in Germany, Italy, India, China and the USA guarantee optimum and individual support to our customers.

Wherever you are and whatever you require.



 5x in Germany

 Spain

 South East Asia

 England

 USA

 Taiwan

 France

 China

 Korea

 Italy

 Brazil

 Japan

 Romania

 India

# Worldwide service

## Always there when you need us

We place great emphasis on service. With a dense service network in all the key industrial nations, we are able to offer you a comprehensive range of service - from remote maintenance through to personal, on-site support. Simple, uncomplicated and whenever you need us.

## The E+L service packs

Flexible and tailored to market needs. Whether advice, training, commissioning or maintenance - the service packs from Erhardt+Leimer guarantee optimum support for your product. Your requests, ideas and requirements are always at the heart of this. Thus, we can help you to exploit all the options and benefits of your E+L product efficiently. Our service packs:

- + Commissioning service (incl. instruction of the customer's personnel)
- + Maintenance service
- + Assembly support (Supervisor)
- + Hotline service (through qualified Customer Services technician on the telephone or via remote service)
- + Training service (single or multi-day individual on-site training courses or at E+L for assembly and service technicians)

## Service tools

ELBUDDY is our software for maintenance, trouble-shooting and commissioning of E+L components and systems.

It must be installed on your computer and requires an E+L CAN dongle or alternatively an Ethernet connection.



# Standard composition

Erhardt+Leimer offers different inspection and non-stop winding machines for various purposes.

The machines have a very compact design to allow inspection in line with stenters or other finishing machines as compactors, calanders, sanforizers for knitted and woven fabric with different elasticity.

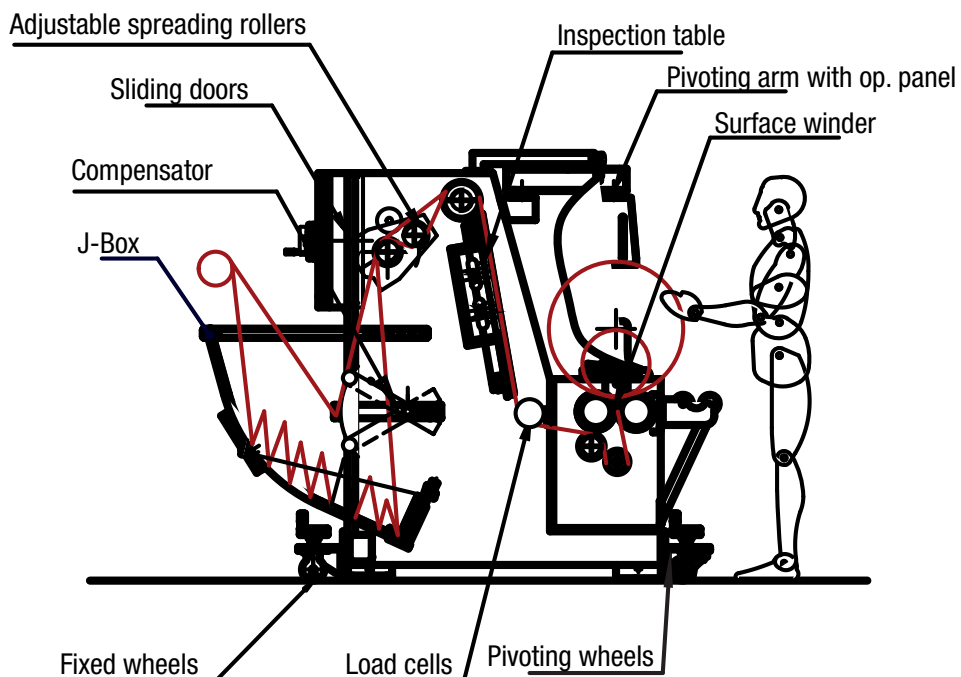
The inspection and non-stop winding machine is a fabric inspecting, winding and measuring machine that allows to wind the fabric on a roll directly at the exit of the drying process or of any other rolling press production type with no need to stop the machine upstream.

## Standard composition

- + Infeed non-stop scray accumulator
- + Double scroll rolls with manual angle adjustment
- + Light dancing compensator
- + Driven pull roller
- + Black inspection table
- + Electronic meter-counter
- + Additional scroll roller in front of the winder
- + Surface winder for rolls up to 600mm
- + Winding batch hardness control
- + Automatic self-alignment winding by E+L edge sensor technology
- + Manual cross cutter device
- + Forward and backward run
- + Control cabinet with PLC into the machine's frame
- + Use friendly touch screen and control unit



Standard composition



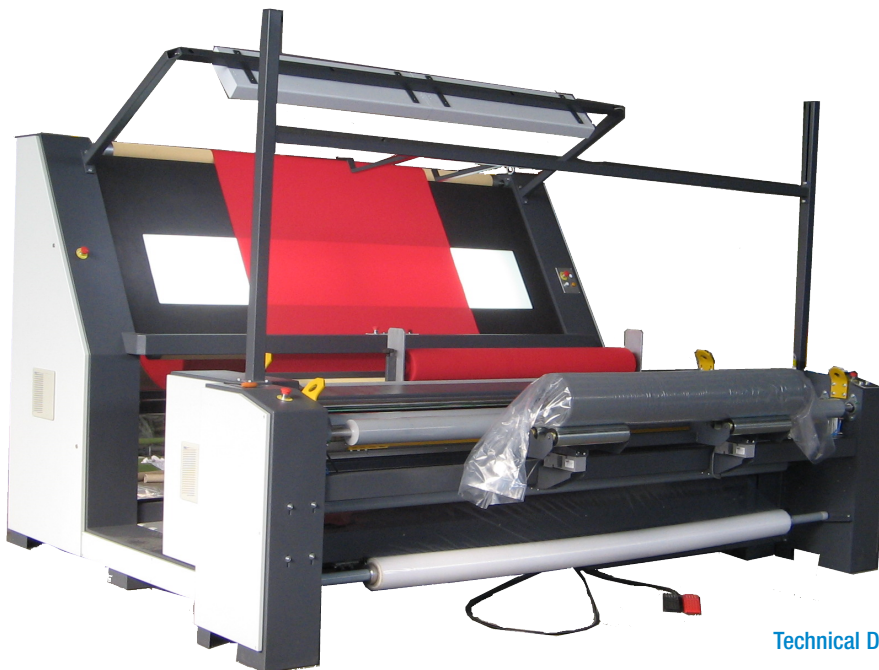
Standard composition - layout



- + Entry with J-Box accumulator
- + Synchronism by photocells loop control
- + N° 2 adjustable spreading rollers after J-Box
- + Pull roller with rubber tape surface and A.C. gearmotor and frequency converter
- + Two winder rollers with rubber tape surface and A.C. geared motor
- + Possibility to control the hardness roll by electromagnetic clutch
- + TP 170B to display the partial web meters, pre-set web meters, automatic/manual centring left/right
- + 4 meters length cable without power connection
- + Insulation transformer
- + Option accessories: weight measurement, automatic cutting unit, external light, and internal light, winding tension control by load cells, air condition, and insulation transformer.



Standard composition - entry side



#### Technical Data

Web type:	Cotton, blends, knits and woven
Condition:	Dry
Web width:	1800 ÷ 3600 depending on web material
Roller width:	Web width + 200 mm
Web speed:	5 m/min ÷ 60 m/min
Web tension:	3 ÷ 15 daN

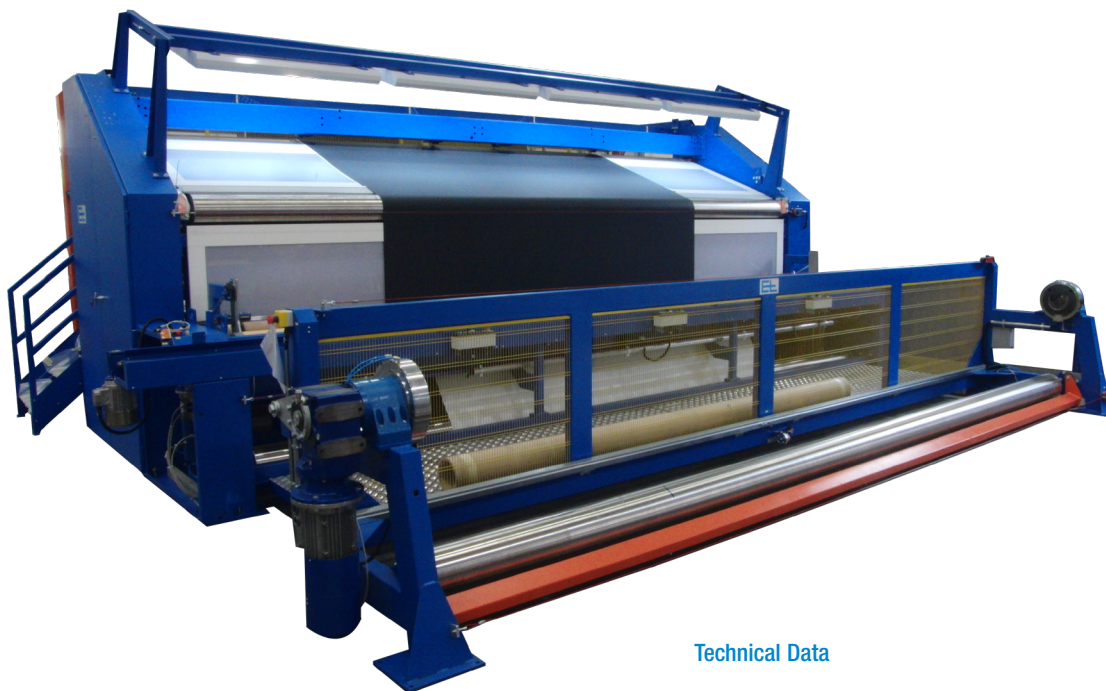
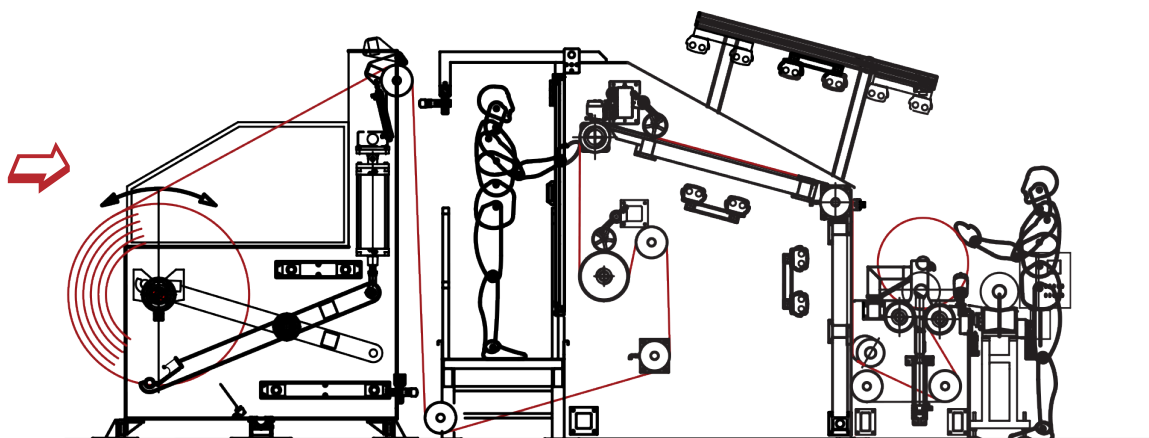
# Customized Options

Erhardt+Leimer offers customized inspection machines for different applications.

Our customers appreciate the flexible approach to their requests and that they can make trials on their machines with their own material before shipment.

## Inspection machine from big rolls to small rolls

- + Automatic centering unwinding by edge sensor and electric actuator
  - + Loading bobbins device by a pair of arms
  - + Load cells for tension control
  - + Set of length crash cutting units
- + Black inspection table with inside and outside LED lamps
  - + Meter-counter
  - + Surface winder with automatic unloading device
  - + Cross cutting device
  - + Conveyor belt to move out the finished bobbin



Inspection machine from big rolls to small rolls

### Technical Data

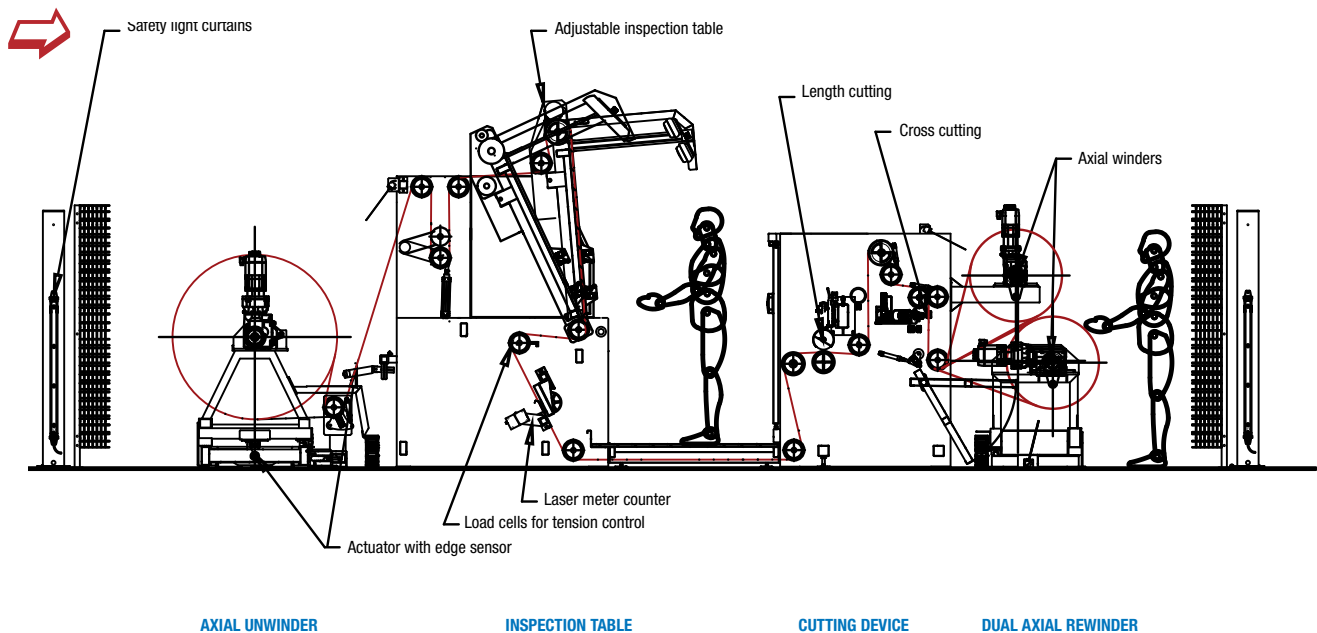
Web type: Black curtains  
 Max. web width: 5.400 mm



### Inspection machine for high quality synthetic leather with measuring certificated control

The machine is realized with the technology of keeping the possible elongation of the fabric under control, for different kind of synthetic leather. An external certification body performs conformity assessments within the scope of length measuring instruments.

- + The machine unwinds the batch of from big or small rolls on cardboard, with different width and diameter of the cores, by axial unwinder actuated by a geared motor.
- + A low friction pneumatic compensator is used to synchronize the unwinder with the pull unit on the inspection machine.
- + Black inspection table with external LED light; the angle of the table can be adjustable for a better inspection, according to the different materials.
- + Inspection table with black inspection table can be supplied with adjustable tilt angles.
- + The external LED light is dimmer able; if required, it is possible to have the internal light.
- + Roller with load cells is used to synchronize the pull unit with the winder.
- + A non-contact length measurement of moving fabric which are based on laser-Doppler technology, replace the standard contact wheels, which due to possible slippage, aging or dirt built up, do not work reliably.
- + This device avoids the dependency of the measurement on the type of material, surface or thickness, or the injury of the surface of the material by traces or scratches.
- + The sensor is certified by the national metrological institution of Germany PTB (Physikalisch Technische Bundesanstalt).
- + Set of length cutting device (if required) with crash or scissor type (according to the web type) and edge trim pull unit (or winder).
- + Cross cutting device.
- + Axial winder with one axe for single material or two axes for slitted material, on cardboard.

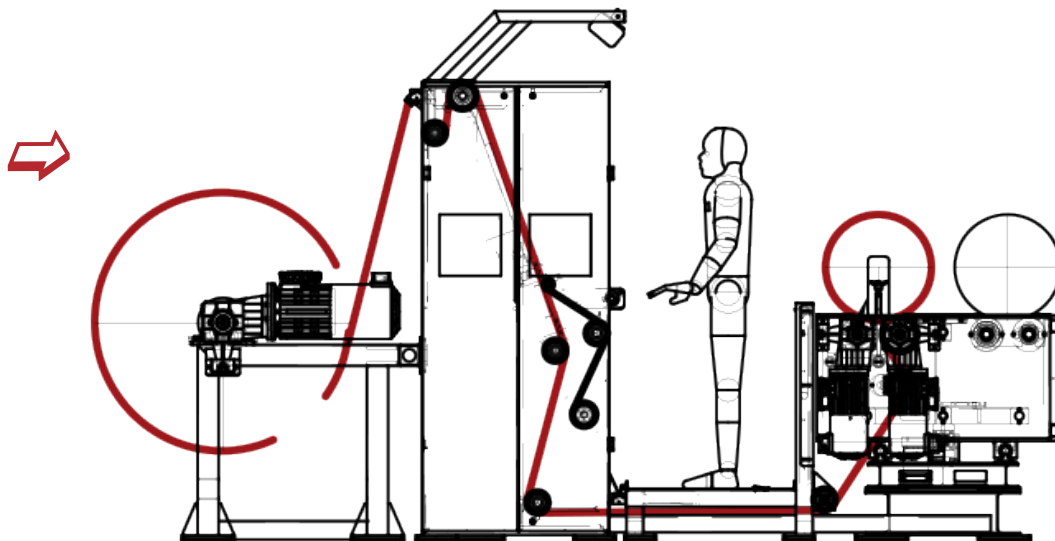


#### Technical Data

Web type: Artificial leather for automotive  
 Max. web width: 2.400 mm

### Customized inspection machine

- + Axial unwinder with safety chucks and pneumatic expanding shaft for cardboard
- + Roller with load cells for tension control
- + Driven pull roller
- + Black inspection table with inside light. Outside UV light
- + Manual splicing device with clamping bars at the bottom of the splicing table
- + Axial winder for small scrap batch with safety chucks and pneumatic expanding shaft for cardboard
- + Electronic meter-counter
- + Operating platform
- + Surface winder for rolls up to 600mm
- + Winding batch hardness control by two motors
- + Automatic self-alignment winding by E+L edge sensor technology
- + Semi-automatic unloading batch
- + Automatic cross cutter device
- + Additional surface winder for packing
- + Forward and backward run
- + Control cabinet with PLC into the machine's frame
- + Use friendly touch screen and control unit

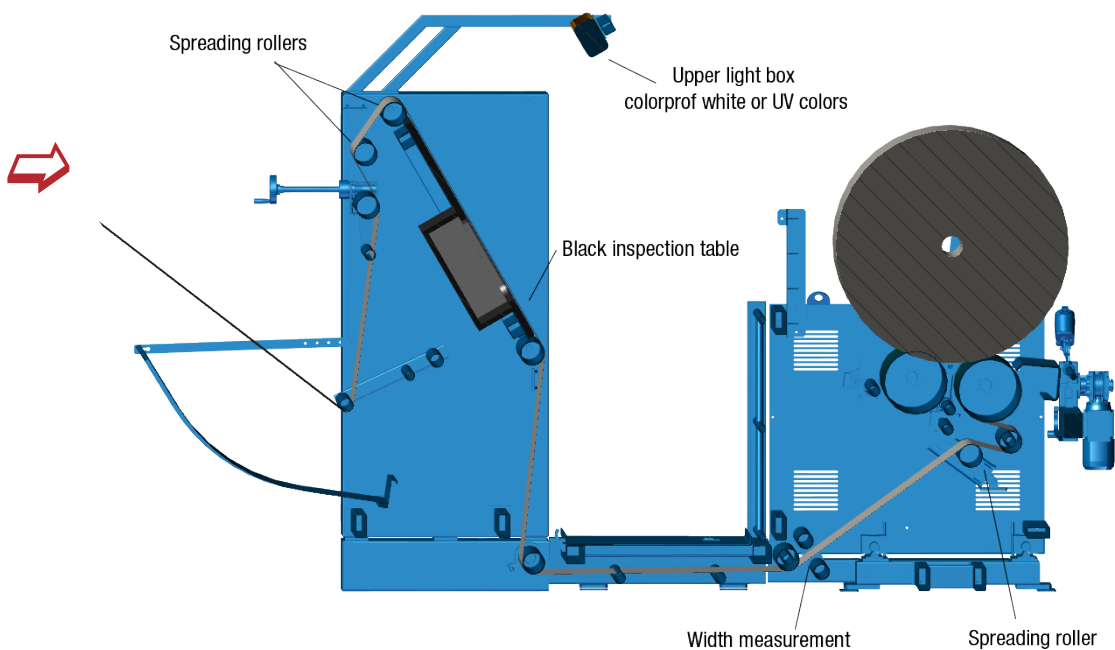
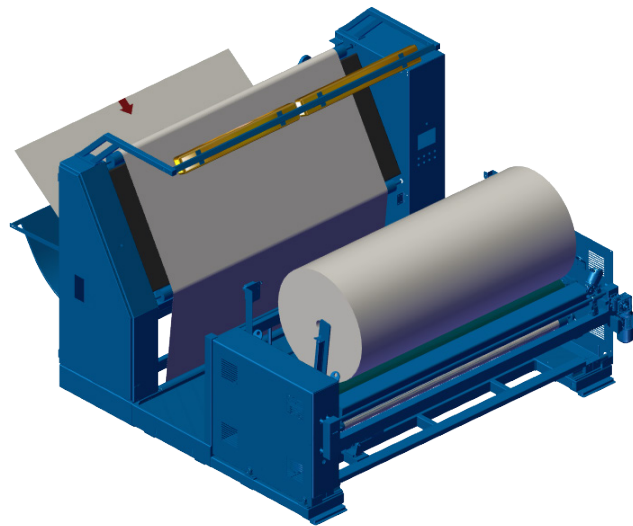


#### Technical Data

Web type:	Coated fabric
Min. web width:	1.200 mm
Max. web width:	1.600 mm
Speed production:	60 m
Max. web tension:	600 N

### Customized inspection machine for fabric non-stop

- + Non-stop stainless steel box
- + Syncro roller, adjustable fabric tension with weight change of the unit
- + N°2 spreading rollers motorized
- + System for increase or decrease the expanding effect
- + Black inspection table
- + Inspection rollers driven by motor and AC drive
- + Lighted box on the inspection table for white colorprof black fabric lightning
- + Upper light box colorprof white or UV colors
- + Machine version with plaform for fabric winding behind the operator
- + Fabric rolling-up with automatic alignmen of the fabric edge



#### Technical Data

Min web width:	240 cm
Max. web width:	120 cm
Roller width:	260 cm
Web type:	Knitted and woven fabrics
Web entry type:	Non-stop

# Certifications

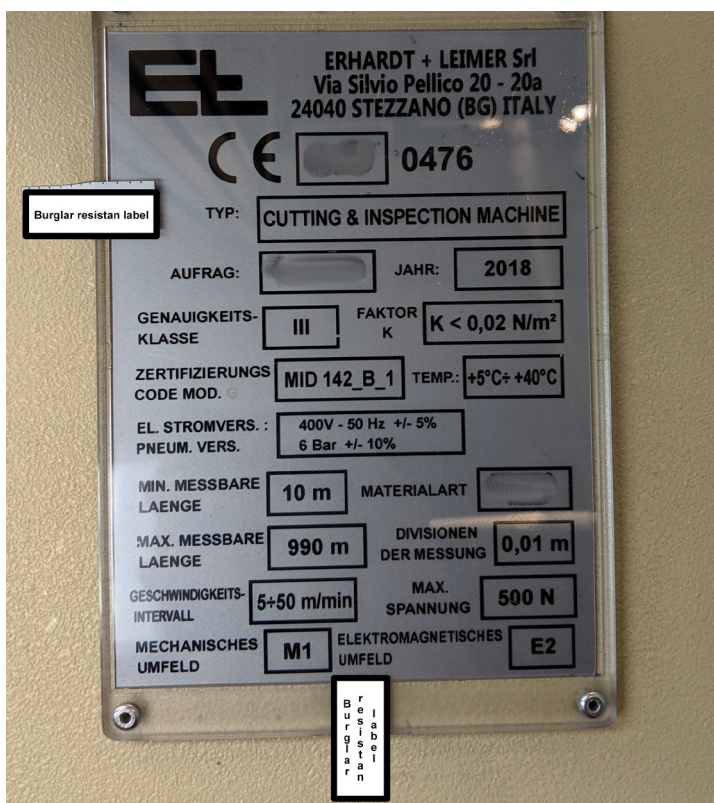
One of the main characteristics of inspection machines is that their design and construction make them suitable for the MID certification when processes require high precision and low elongation of the materials.

Erhardt+Leimer collaborates with different certification agencies in order to demonstrate that our product, service, (management) system or employees meet the expectations of our customers.

The CE marking for measuring instruments, carried out in accordance with the MID Directive, is aimed to all manufacturers who design and produce measuring instruments, to guarantee the market compliance with specific metrological requirements of the instruments themselves.

The 2014/32 / EU Measurement Instruments (MID) Directive is aimed to protecting the consumer and the market with regard to compliance with specific metrological requirements for the measuring instruments used to quantify the amount for the purchase of a product, in the scope of a commercial transaction, and for various functions aimed at satisfying needs relating to the public interest, the protection of the environment and consumers, and the imposition of taxes and fees.

The MID tests are performed directly at Erhardt+Leimer facilities before the shipment using actual process material (provided by the customer) in order to ensure the correct functionality and normal production conditions.



Example of a certified inspection machine

The MID certification includes:

- + Machine type
- + Working condition
- + Material type and data
- + Burglar resistant label

The MID certification means:

- + Safe product
- + Respect to the environment
- + Effectiveness and efficiency

# Questionnaire

## General data

Customer			
Street			
Zip code		City/town	
Country		Internet	
Telephone		Fax	
Contact person			
Telephone		E-mail	
Project			

## Technical data

Type of machine			
Make			
Position on the machine			
Web type	<input type="checkbox"/> Woven fabrics	<input type="checkbox"/> Knitted fabrics	<input type="checkbox"/> Carpet <input type="checkbox"/> Non-woven fabric <input type="checkbox"/>
Web elasticity	<input type="checkbox"/> Lengthwise elasticity	<input type="checkbox"/> Crosswise elasticity	
Web surface	<input type="checkbox"/> Not transparent	<input type="checkbox"/> Transparent	<input type="checkbox"/>
Web edge	<input type="checkbox"/> Straight	<input type="checkbox"/> Frayed	<input type="checkbox"/> Wavy <input type="checkbox"/> Rolled up
Web width	Min. _____ mm	Max. _____ mm	
Web thickness	Min. _____ mm	Max. _____ mm	
Web weight	Min. _____ g/m <sup>2</sup>	Max. _____ g/m <sup>2</sup>	
Web speed	Min. _____ m/min	Max. _____ m/min	
Web tension	Min. _____ N	Max. _____ N	
Condition in operation	<input type="checkbox"/> Dry	<input type="checkbox"/> Damp	<input type="checkbox"/> Wet <input type="checkbox"/>
Ambient temperature	_____ °C		
Ambient conditions	<input type="checkbox"/> Dry	<input type="checkbox"/> Damp	<input type="checkbox"/> Wet <input type="checkbox"/>
Infeed error	+/- _____ mm		
Operating pressure	_____ bar		
Reference voltage	Machine speed	<input type="checkbox"/> 0-10 V DC	<input type="checkbox"/> 0/4-20 mA
Operating side	In direction of production	<input type="checkbox"/> Left	<input type="checkbox"/> Right
Drive side	In direction of production	<input type="checkbox"/> Left	<input type="checkbox"/> Right
Control voltage	_____ V	_____ Hz	<input type="checkbox"/> 24 V DC
Operating voltage	3x _____ V	_____ Hz	



# Questionnaire

## Inspection details

How to bring the material in front of the machine			
Lenght cutting: how much knives			
Lighting	<input type="checkbox"/> Internal	<input type="checkbox"/> External	
Cross cutting	<input type="checkbox"/> Manuell	<input type="checkbox"/> Semi automatic	<input type="checkbox"/> Automatic
Certification	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

## Unwinder

From Coil	Shell type	<input type="checkbox"/> Card board	<input type="checkbox"/>
	Shell diameter	Internal _____ mm	External _____ mm
	Coil	Max. Diameter _____ mm	Max. weight _____ kg
From A-Frame	<input type="checkbox"/> Drawing	<input type="checkbox"/> Hand sketch	<input type="checkbox"/>
	Shell diameter	Max. _____ mm	Min. _____ mm
	Coil	Max. Diameter _____ mm	Max. weight _____ kg

## Rewinder

From Coil	Shell type	<input type="checkbox"/> Card board	<input type="checkbox"/>
	Shell diameter	Internal _____ mm	External _____ mm
	Coil	Max. Diameter _____ mm	Max. weight _____ kg
Ascending batch winder	Semi automatic unloading	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Weighing device	<input type="checkbox"/> Yes	<input type="checkbox"/> No

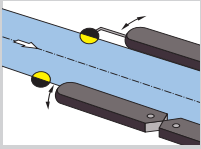
## Transport/packaging/assembly and commissioning

Transport	<input type="checkbox"/> Truck freight	<input type="checkbox"/> Sea freight	<input type="checkbox"/> Air freight
Packaging	<input type="checkbox"/> Wooden crate	<input type="checkbox"/> Wooden crate seaworthy	<input type="checkbox"/> For container
Assembly	<input type="checkbox"/> By customer	<input type="checkbox"/> By E+L	
Commissioning	<input type="checkbox"/> By customer	<input type="checkbox"/> By E+L	

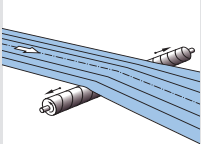
## Comments

Date:	Issuer:
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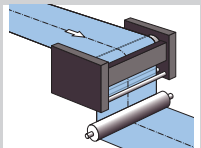
## Other products for the textile industry



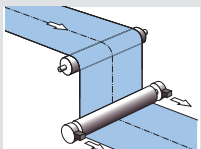
**ELFEED** – Tenter infeed system



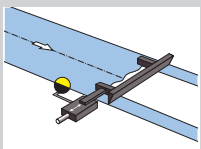
**ELSPREADER** – Web spreading systems



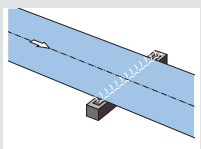
**ELSMART** – Web guiding systems



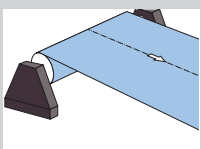
**ELTENS** – Web tension control systems



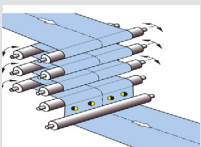
**ELPOSER** – Positioning and follow-up control systems



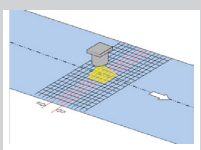
**ELMETA** – Metal detection systems



**ELWEBTEX** – Infeed and exit systems for textile production processes



**ELSTRAIGHT** – Textile straightening systems



**ELCOUNT** – Thread counting systems

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E+L Steuerungstechnik St. Egidien, Germany · E+L Corrugated Bielefeld, Germany · Dr. Noll GmbH,  
Bad Kreuznach, Germany · E+L Bradford, England · E+L Mulhouse, France · E+L Stezzano, Italy  
E+L Bucharest, Romania · E+L Barcelona, Spain · E+L Burlington, Canada · E+L Duncan, S.C.,  
USA · E+L Guarulhos-São Paulo, Brazil · E+L Ahmedabad, India · E+L Hangzhou, China · E+L Tao  
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