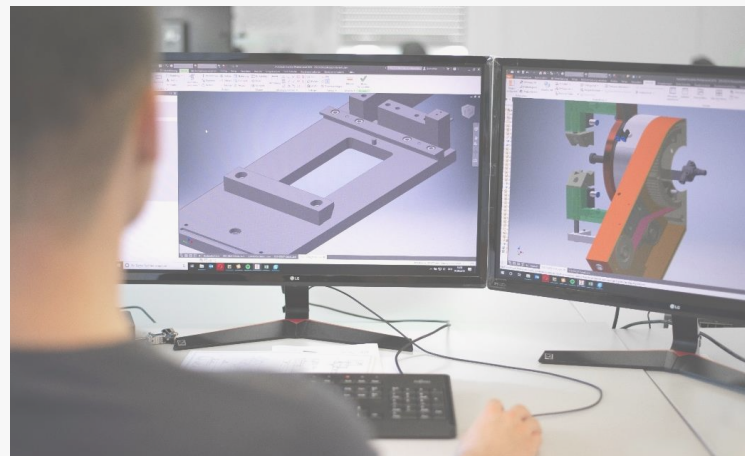
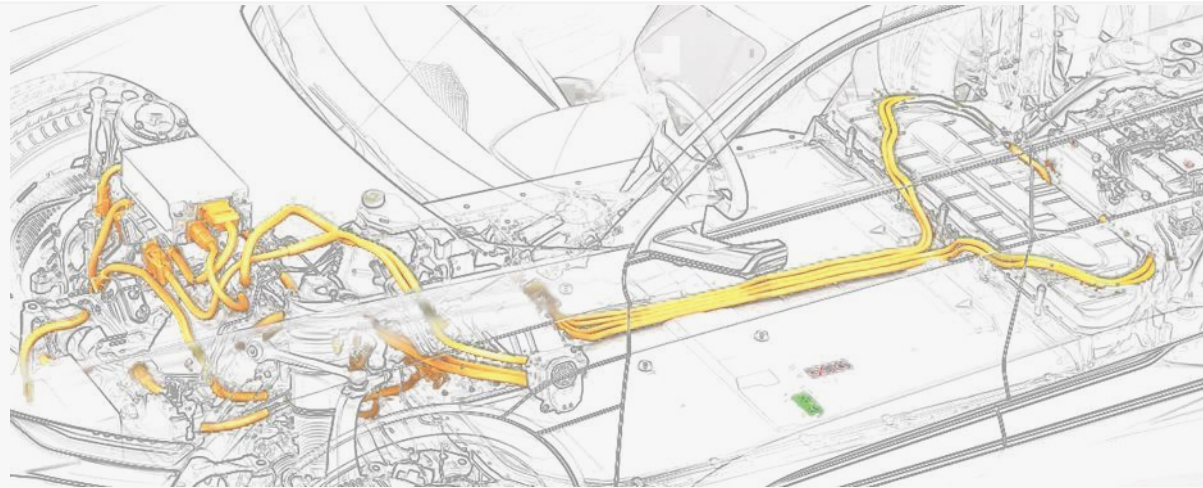
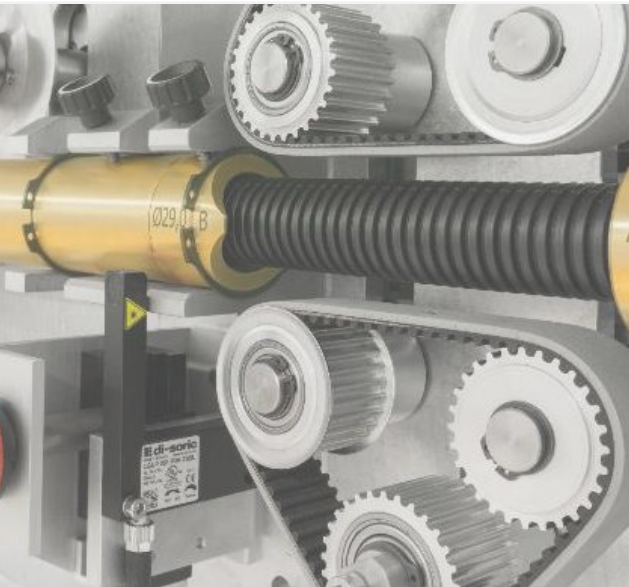


# CABLE- AND CORRUGATED TUBE PROCESSING

Stand 04/2021



# AGENDA

WHO WE ARE

CUT AND STRIP

TRIATHLON SYSTEM

UNIVERSAL CUTTING MACHINES

CORRUGATED TUBE PROCESSING

PERIPHERAL EQUIPMENT

EFFECTIVE SOFTWARE SOLUTIONS

INDIVIDUAL SOLUTIONS

CUSTOMER SERVICE

METZNER WORLDWIDE

REFERENCES



# WHO WE ARE

## BACK IN 1980: FULL OF INVENTIVE SPIRIT & DRIVE

### 1980

The success story of Metzner Maschinenbau begins in a small shed in Ringingen under the name "Metzner & Böhm Apparatebau". Here, the two founders, Mr Klaus Metzner and Mr Helmut Böhm, tinker with the first cutting machines.



## METZNER: ONE STEP AHEAD

### THEN AND NOW

1980

Foundation as „Metzner & Böhm Apparatebau GmbH“



1990

Mr Böhm retires for reasons of age, Klaus Metzner takes over the business shares from Mr Böhm. Since then, the company has been trading as "Metzner Maschinenbau GmbH".



2000

Gerhard Rauch joins as new managing partner



2007

Takeover of the mechanical engineering company Max Müller. Expansion of the product range to include impact knife, mandrel cutting and eccentric cutting machines.



2011

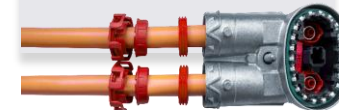
Takeover of the "automation solutions for the carbide industry" product division of Manz AG



2018

Foundation of the company Metzner E-Mobility GmbH in Neu-Ulm

**Metzner**  
E-Mobility



2019

Certification of the quality management system of Metzner Maschinenbau GmbH according to ISO 9001:2015



# FACTS AND FIGURES



**125 Employees**

full of competence,  
motivation & commitment



**>25 Patents**

for our unique & innovative  
automation solutions



**30 Representatives**

worldwide



**100 Years of  
Professional  
Experience**



**More than 100  
satisfied customers**

China, India, Europe,  
USA, Mexico, ....

## METZNER CABLE PROCESSING MACHINES



### AM-SERIES

- Processing of shielded cables
- Multi-stage stripping of multicore cables
- Outstanding cutting and stripping force
- With or without rotary cut
- Patented double blade cutting system

### TRIATHLON-SERIES

- For precise cutting to length and stripping on one or both sides at the exact position
- For crimping the wire end ferrules
- For individual labeling of the stranded wires with different printing methods
- For sorting the strands according to assembly



### UNIVERSAL CUTTING MACHINES

- Quick change of cutting tools
- Programmable logic controller
- Standard stepper motor for precise positioning and variable speeds
- Sensitive contact pressure

# CUT AND STRIP





# METZNER AM 1000

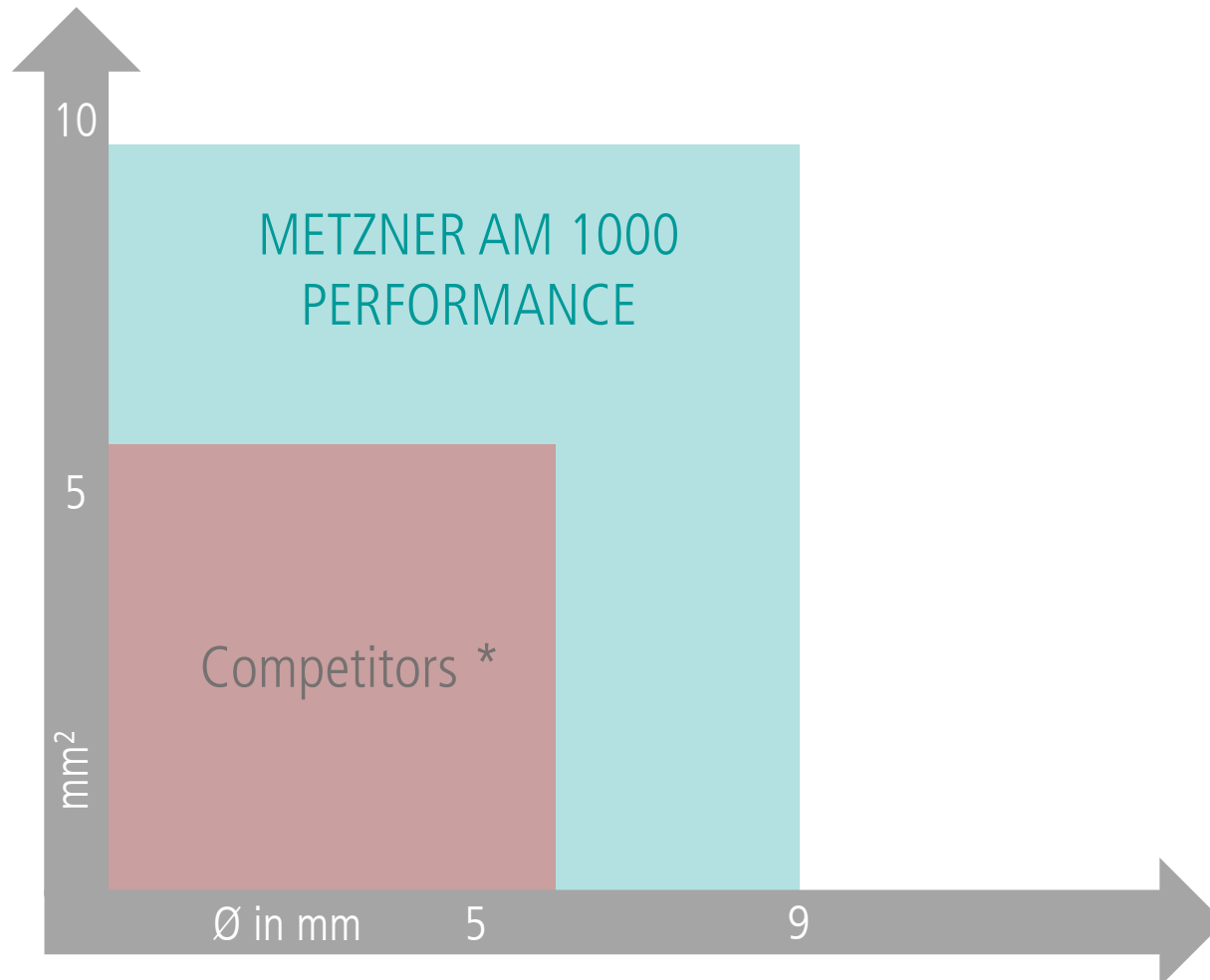
## FEATURES

- For cables, stranded wires and wires up to 9 mm diameter and 6 mm<sup>2</sup> cable cross-section (10 mm<sup>2</sup>; depending on material)
- Short changeover times thanks to tool-free change of transport rollers and guides in less than 60 seconds
- Equipped as standard for processing cable lists and controlling printers
- Effortless transport due to retractable touch screen and low weight of only 28 kg
- Easy expansion with peripheral devices thanks to extensive interface



# SUPERIOR PERFORMANCE

66% more power in terms of diameter and cross-section

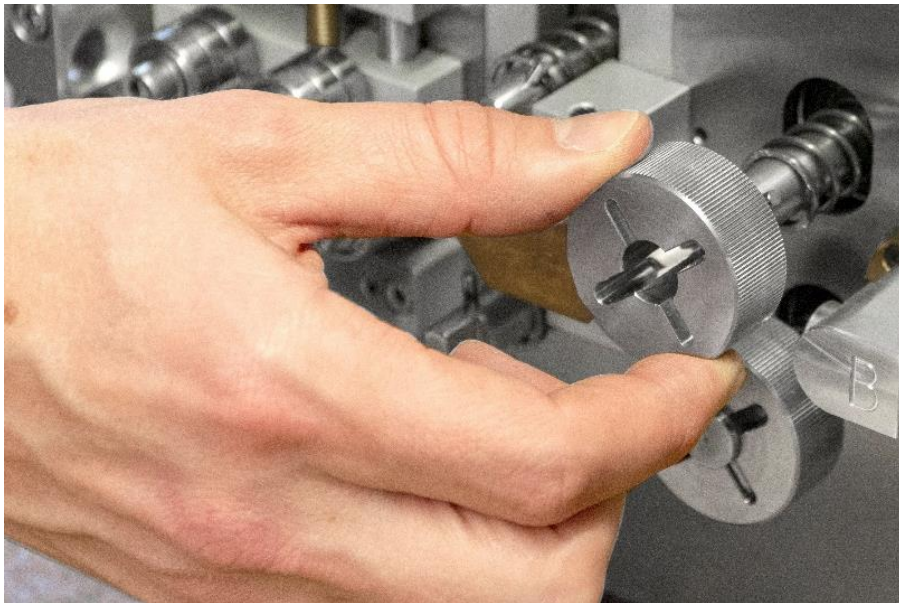


- More power
- More diameter
- More cross section
- More versatility
- Ready for bigger tasks

\* e.g. Ecostrip 9850 and Kappa 310

# SHORTEST CHANGEOVER TIMES

With tool-free change



Tool-free change  
of rollers and  
guide tube in  
less than 60  
seconds.



# OPERATING COMFORT WHAT OTHERS DREAM OF

12" Touchscreen

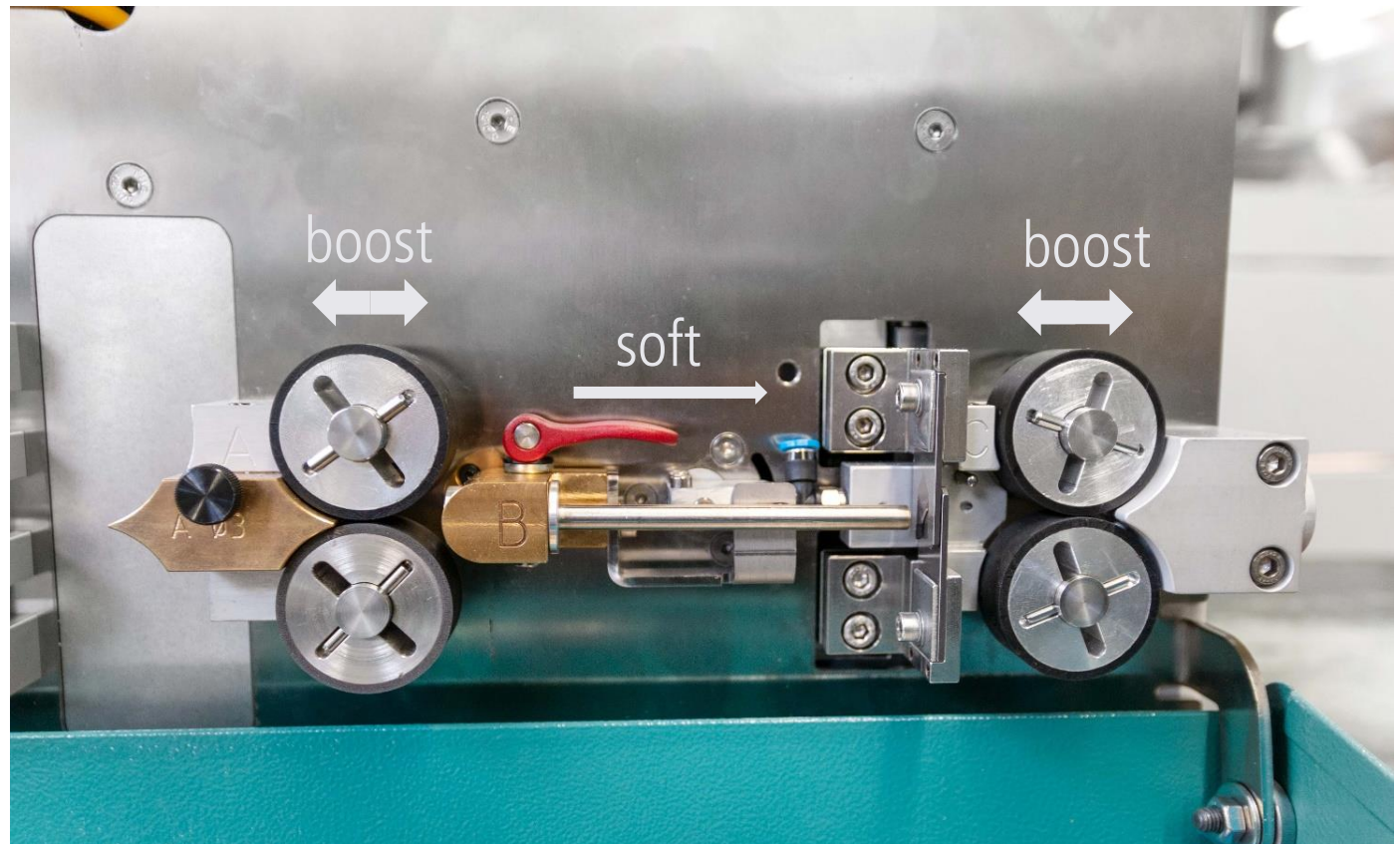
- Largest display (Ecostrip 9380 only 5.7")
- Most convenient data entry
- Best readability
- Foldable screen



# AUTOMATIC PRESSURE CONTROL SERIES

## FEATURES

- For particularly gentle cable handling
- "soft" for cable transport
- "boost" for cable take-off



# VERSATILE RANGE OF APPLICATIONS



V-KNIFE

For cutting cables

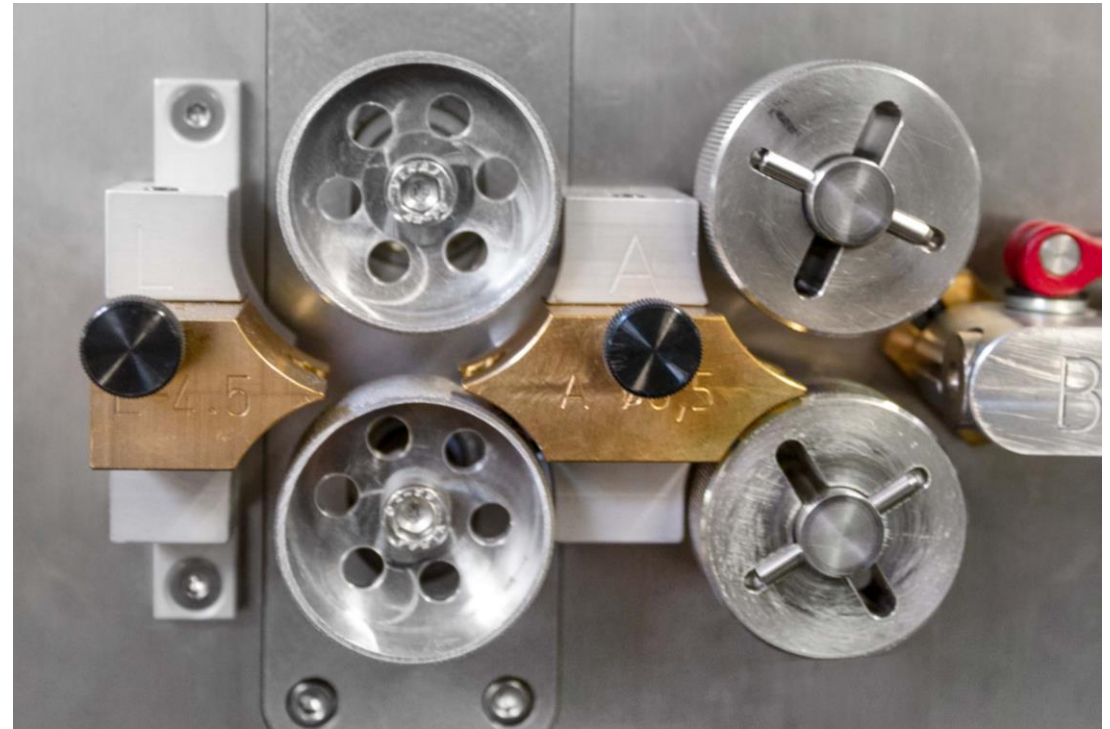


RADIUS-V-KNIFE

For cutting and stripping

## LENGTH MEASURING SYSTEM

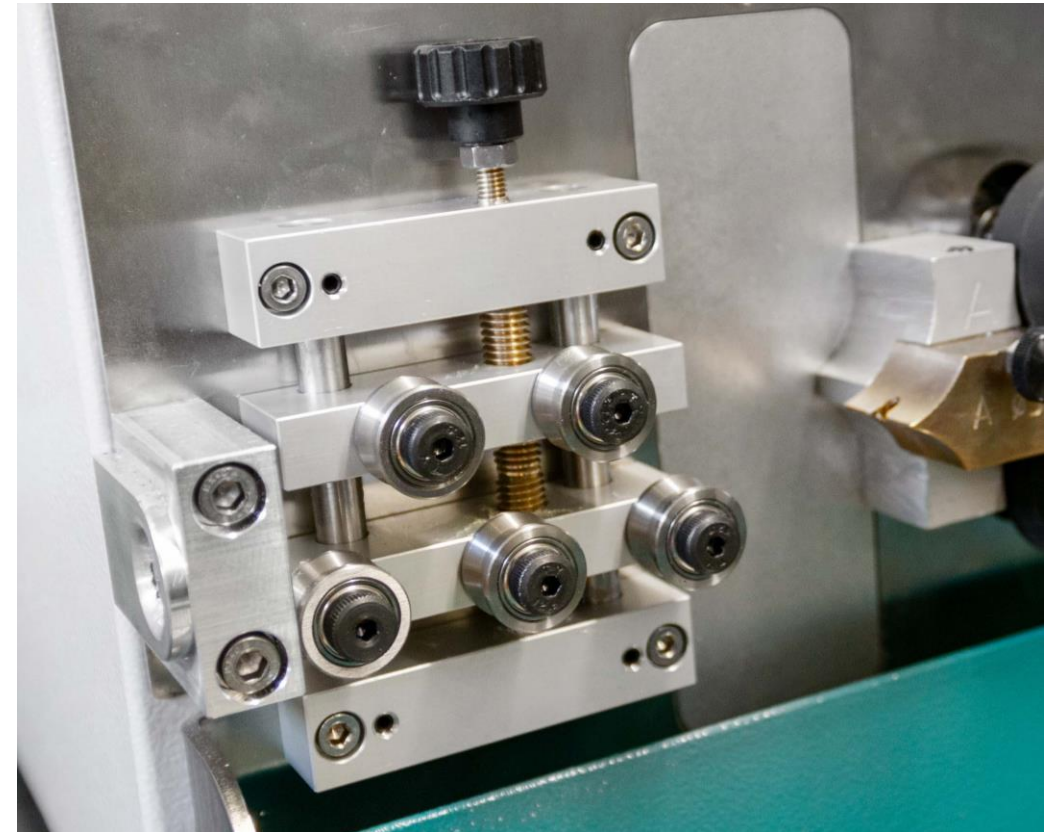
- In the basic version, the length is reliably determined via the feed motor
- The optional length measuring system provides precise length measurement even when the material "slips" under the rollers during machining



# STRAIGHTENER

Curved cables become straight

- Cables that are processed from a spool or from a drum are always curved
- The centrally adjustable straightener straightens these cables - a great advantage for subsequent processing







# METZNER AM 3000



HIGH PRODUCTIVITY



OUTSTANDING CUTTING FORCE



VARIABLE FEED SYSTEM



SIMPLE OPERATION



DOUBLE BLADE CUTTING SYSTEM



ROTARY CUTTING MODULE

# THE RELIABLE MODELS



## AM 3500

AM 3500: up to 15 mm<sup>2</sup>  
AM 3700: up to 25 mm<sup>2</sup>

Cable diameter: up to 15 mm



## AM 3550 / AM 3750

AM 3550: up to 35 mm<sup>2</sup>  
AM 3750: up to 50 mm<sup>2</sup>

Cable diameter: up to 15 mm



## AM 3550 Semi Rigid

Machining lengths: from 20 mm

Cable diameter: up to 8 mm



One complete set of guide bushings included in price



# AM 3000 LINE

DEREELER

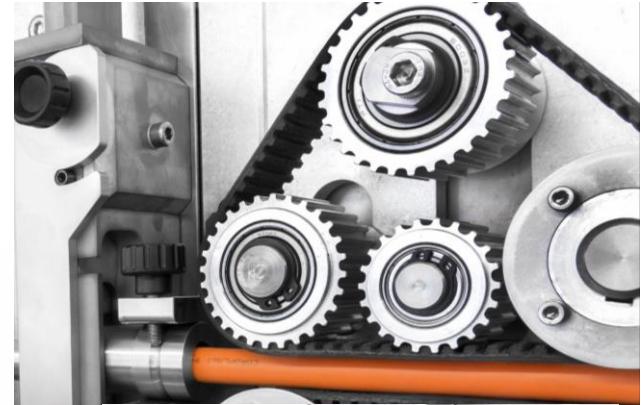


AM 3000



# METZNER AM 3800 | AM 3850

AND VERSATILITY



LARGER  
DIAMETERS



## AM 5000 RANGE

### FEATURES

- Automatic cut-to-length and multi-stage stripping
- Double system monitoring
- Powerful »Heavy-Duty« version for very thick and hard process cables
- Integration of an Ink-Jet printer
- Transport speed of 150 m/min
- For cables up to 30 mm diameter and with a conductor section of 0.5 mm<sup>2</sup> to 240 mm<sup>2</sup>.
- Cutting and pull-off power for cables up to 240 mm<sup>2</sup> with the AM 5800
- Cable processing up to 185 mm<sup>2</sup> with AM 5850

AM 5800

WITHOUT ROTARY PROCESSING



AM 5850

WITH ROTARY PROCESSING



# AM 5000 LINE

## WITH CLEANING STATION

DEREELING

PREFEEDING

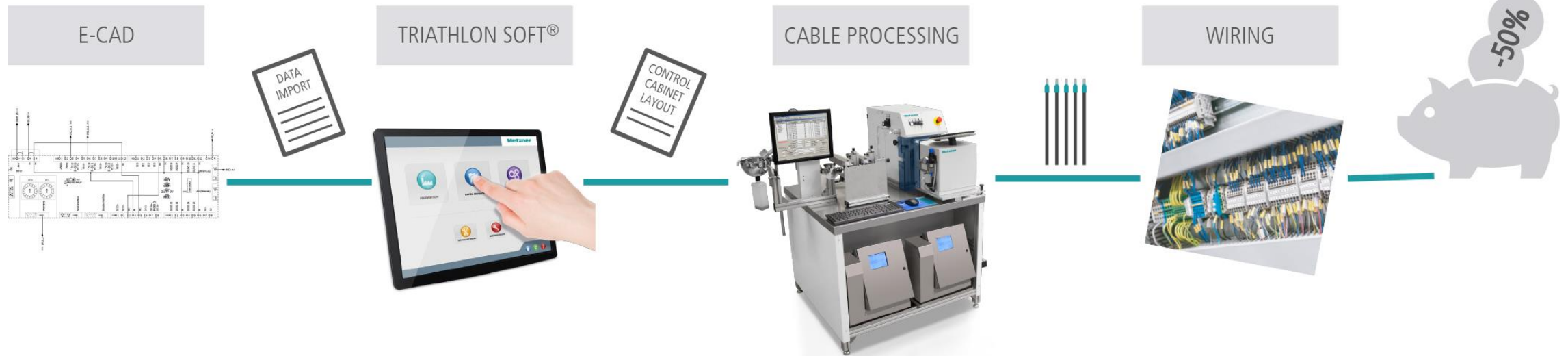
CUTTING: AM 5000

WINDING

CLEANING STATION



# TRIATHLON SYSTEM



# TRIATHLON SERIES

## FEATURES

- Precision cut-to-length stripping and single or double-sided stripping
- Crimping of cable ends
- Single-wire marking (inkjet or Brady Wraptor printing)
- Sorting the strands according to assemblies
- Triathlon 3000 offers the entire performance range of the AM 3000 series

## TRIATHLON 2000

Cross section : 0,14 mm<sup>2</sup> - 6 mm<sup>2</sup>  
Crimping up to 4 mm<sup>2</sup>  
Ø max.: 6 mm



## TRIATHLON 3000

Cross section: 0,5 mm<sup>2</sup> - 35 mm<sup>2</sup>  
Crimping: bis 4 mm<sup>2</sup>  
Ø max.: 15 mm

## TRIATHLON 3000+

Cross section: 0,5 mm<sup>2</sup> - 35 mm<sup>2</sup>  
Crimping: bis 6 mm<sup>2</sup>  
Ø max.: 15 mm





# TRIATHLON SECTION



## TRIATHLON 2000

- Precision cut-to-length and single or double sided stripping
- Crimping of cable ends (single or double-sided)
- Automatic single wire labelling



## TRIATHLON 3000

- Processing of strands and cables up to 35 mm<sup>2</sup> and up to 15 mm outer diameter
- Multi-stage cable processing and lengthway slitting unit
- Automatic printing of all cables and wires in normal use for control cabinets



## TRIATHLON 3000+

- Modular crimping unit
- Automatic crimping up to 6mm<sup>2</sup> cable cross-section



# UNIVERSAL CUTTING MACHINES



## CUT-TO-LENGTH MACHINES

- Cutting to length of strands, cables and other materials with dimensions up to 150 mm x 30 mm (WxH)



# CUT-TO-LENGTH MACHINES

## FEATURES

- Material changeover in less than three minutes
- PLC control with CoDeSys programming
- Stepper motor for exact positioning and variable speeds
- Very smooth belt pressure adjustment
- Cable cross-section stranded wire/solid wire: 50 mm<sup>2</sup> / 10 mm<sup>2</sup>

## EQUIPMENT LEVELS



Red

Solid and robust basic functions, attractive price, combination with peripheral devices as autonomous individual devices



Green

Convenient control, increased operating speed, integrated connections for peripherals, PC operation and printing



Blue

Touch screen control and Metzner SPS, highest operating speed, integrated connections for peripheral devices, PC operation and printing

# CUT-TO-LENGTH MACHINES



## VARIOCUT

Material dimension max.: 95 x 30 mm (WxH)

Equipment lines: Red, Green, Blue

## ST-OB

Material dimension max.: 145 x 30 mm (BxH)

Equipment lines: Red, Green



# CORRUGATED TUBE PROCESSING



## CORRUGATED TUBE PROCESSING

- High-performance precision machines (slotted, unslotted or with sleeves) from 4.5 mm - 39 mm diameter
- Different machine models with different features:
  - Lengthway slitting unit
  - Rotary module
  - Gear laser system



# CT-RANGE

## FEATURES

- Optimum adaptation to material requirements
- Very short set-up time
- Cuts corrugated tubes exactly on the crest
- Material outer diameter: 4.5 mm to 39 mm
- Feed rate: 90 m/min

### CT 4100

Cuts corrugated tubes exactly on the crest



### CT 4200

Additional lengthways slitting unit for automatic slitting of non-slit corrugated tubes

Cutting height adjustable by height adjustment of the slitting blade

# OCTABINE DISPENSER

## FEATURES

- Unwinding device for octabins with electric motor drive for unslit corrugated tubes from octabins (without ramp)
- Turntable 1600 mm
- Speed 10 revolutions/min
- Stepless speed control of the turntable via dancer arm
- Including protective fence with doors and safety device







# METZNER CT 4100 | CT 4200

THE SOLUTION FOR SLIT AND NON-SLIT CORRUGATED TUBES

INCREASED COMFORT  
BY AUTO-SETTING

SHORT  
EQUIPMENT TIME

EXCELLENT  
PRODUCTIVITY



UNIQUE  
DIAMETER RANGE

LENGTHWAY  
SLOT DEVICE

PRECISE  
TUBE CUT



# SM 4000

## FEATURES

- For corrugated tubes from  $\varnothing$  4.5 mm to 40 mm
- Patented Metzner "Toothed wheel laser system".
- Laser sensors monitor the position of the gear wheels
- "Toothed-wheel" transport system as standard
- Feed rate: 120 m/min



# SM 4000 LINE

SCHNEIDEN: SM 4000

OCTABINE DEREELER

THROW-OFF

PREFEEDING

LOOP CONTROL



# PERIPHERAL EQUIPMENT

DEREELING AND FEEDING



PRINTING AND MARKING



TAKE-OFF AND COILING



# DEREELING AND FEEDING



MOTORISED HIGH-PERFORMANCE  
DEREELER  
DR RANGE



LOOP CONTROL SYSTEMS  
DHS RANGE



PASSIVE  
DEREELERS  
DRS RANGE

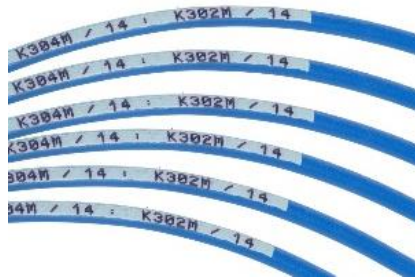


FEEDING DEVICES  
PF RANGE

# PRINTING AND MARKING



LASER-MARKING



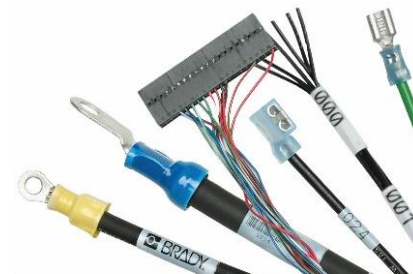
INK-JET-PRINTING



THERMAL-TRANSFER-PRINTING



HOT-STAMP-MARKER



BRADY-WRAPTOR-PRINTING

# PRINTING AND MARKING



## INK-JET-PRINTING

- Prints freely programmable texts, logos and markings on the fly
- Low-cost procedure



## THERMAL-TRANSFER-PRINTING

- High print quality
- Individual design of texts, logos and graphics



## BRADY WRAPTOR

- High print quality
- Application of the texts on a white background and subsequent wrapping with foil

# TAKE-OFF AND COILING



CABLE RING COILER  
CPC- AND CRC RANGE



WIRE STACKER  
MA RANGE



# CABLE REEL RACK SYSTEM

## SEMI-AUTOMATIC SYSTEMS



- Enormous productivity advantages
- Reduction of set-up times
- Improved use of the production area
- Advanced level of integration with Metzner software

## FULLY-AUTOMATIC SYSTEMS

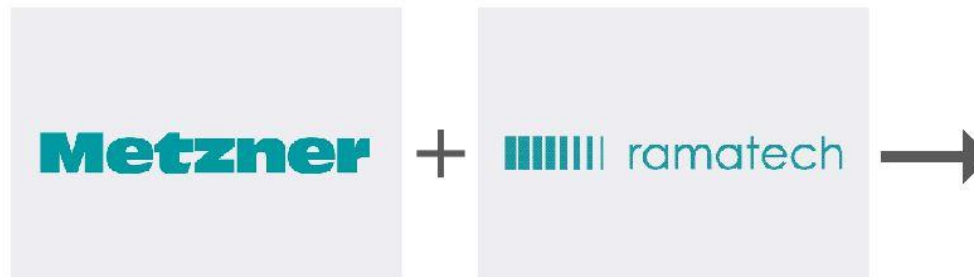


- Increased productivity by up to 50%.
- Individual capacity planning
- Solutions with autonomous and fully automatic transport vehicles

# CABLE REEL RACK SYSTEM

## BENEFITS

- Optimal use of space
- Minimization of set-up times
- Reduction of internal material transport
- Gentle working process
- Flexible feeding of the bobbins
- Avoidance of heavy labour and dangerous situations
- Cost-effective expansion of storage capacity
- Customized production



## SYSTEM ADVANTAGE

### UNIQUE SOFTWARE INTEGRATION

Both firms have the software of their products optimally co-ordinated with each other and offer additional automation functions via intelligent interfaces for the spool storage system, directly on the Metzner machine operator panel.

# EFFECTIVE SOFTWARE SOLUTIONS



LANGUAGES



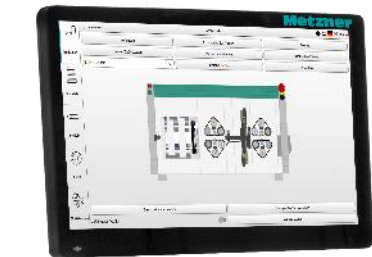
TOUCH KEYBOARD



PRODUCTION

PROCESSING DATA

MANUAL MACHINE OPERATION



# INDIVIDUAL SOLUTIONS



# MINERAL INSULATED (MI) CABLES

SOLUTION FOR AUTOMATIC CUT-TO-LENGTH OF RIGID MINERAL INSULATED THERMOCOUPLES

STRAIGHTENING  
STATION

AUTOMATIC INCISE  
CUTTING AND CUT-  
TO-LENGTH

DEREELING OF CABLES  
WITH METAL OUTER JACKET

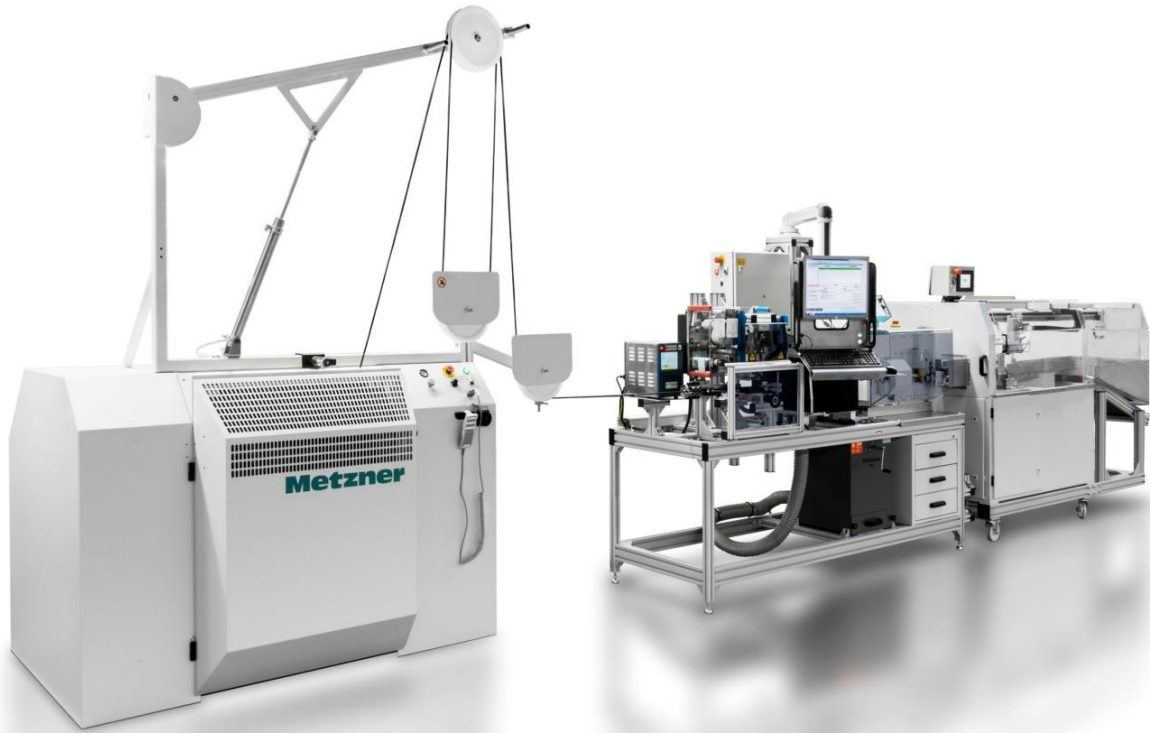


OPTIMAL EXTENSION



## INDUSTRIAL

ONE SYSTEM COVERING ALL REQUIREMENTS- FULLY AUTOMATIC



- Dereeling
- Cable marking
- Grinding the outer jacket
- Cut to length and stripping
- Coiling with laying system
- Cable ring binding
- Evacuation on roller conveyor

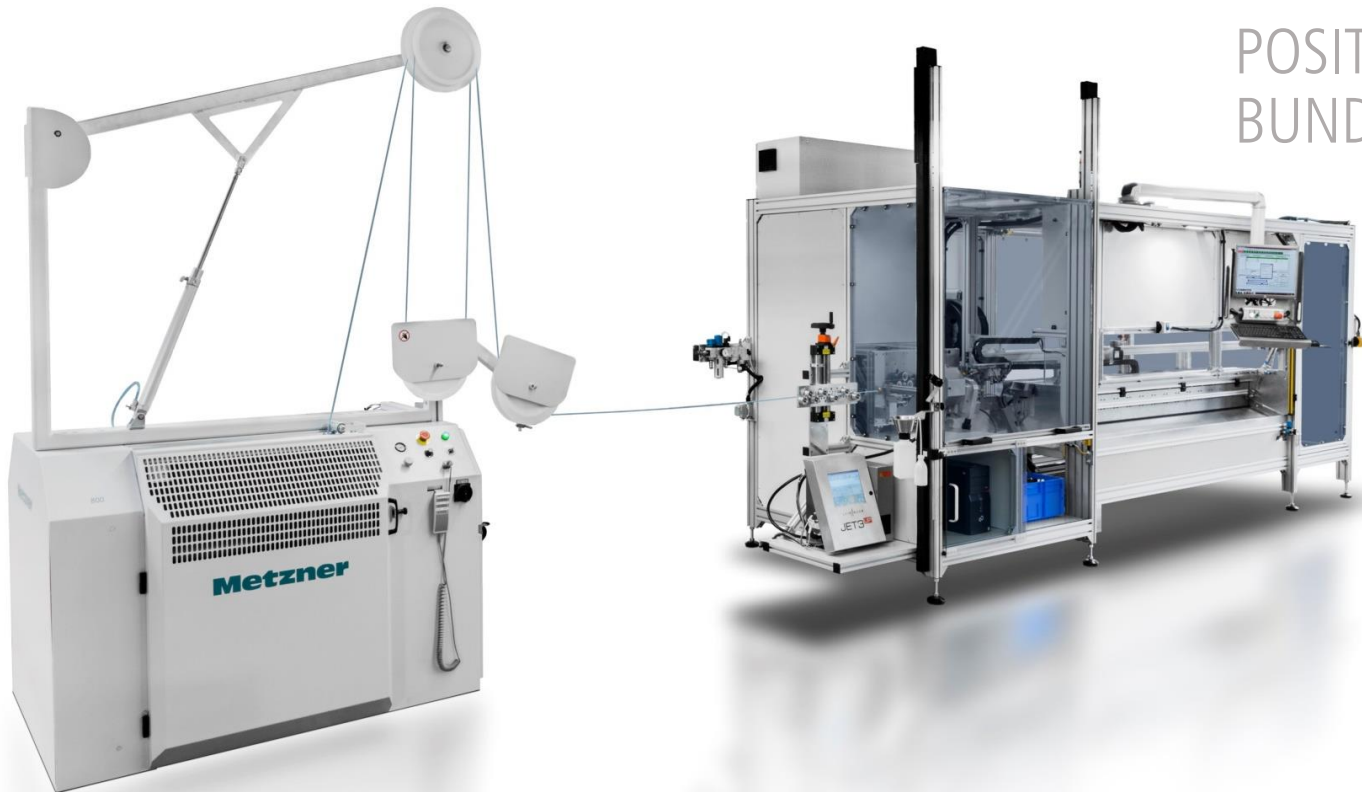


# TELECOMMUNICATION

AUTOMATIC MULTI-LEVEL CABLE PREPARATION OF TELECOMMUNICATION CABLE KITS

MULTI-LEVEL CABLE  
PROCESSING

POSITIONED DROP-OFF  
BUNDLING AND BINDING



# TELECOMMUNICATION

FULLY AUTOMATED PROCESSING AND WINDING OF HIGH-FREQUENCY COAX CABLES

AUTOMATIC COILING



AUTOMATIC BINDING OF THE CABLE COILS



CABLE PREPARATION





# STEEL CABLES

AUTOMATIC  
CUT-TO-LENGTH

AUTOMATIC WRAPPING AND  
PRINTING OF THE STEEL CABLES

AUTOMATIC AND  
SYSTEMATIC TAKE-OFF UP  
TO A LENGTH OF 12 M

PC-CONTROLLED PRODUCTION



# STEEL CABLES



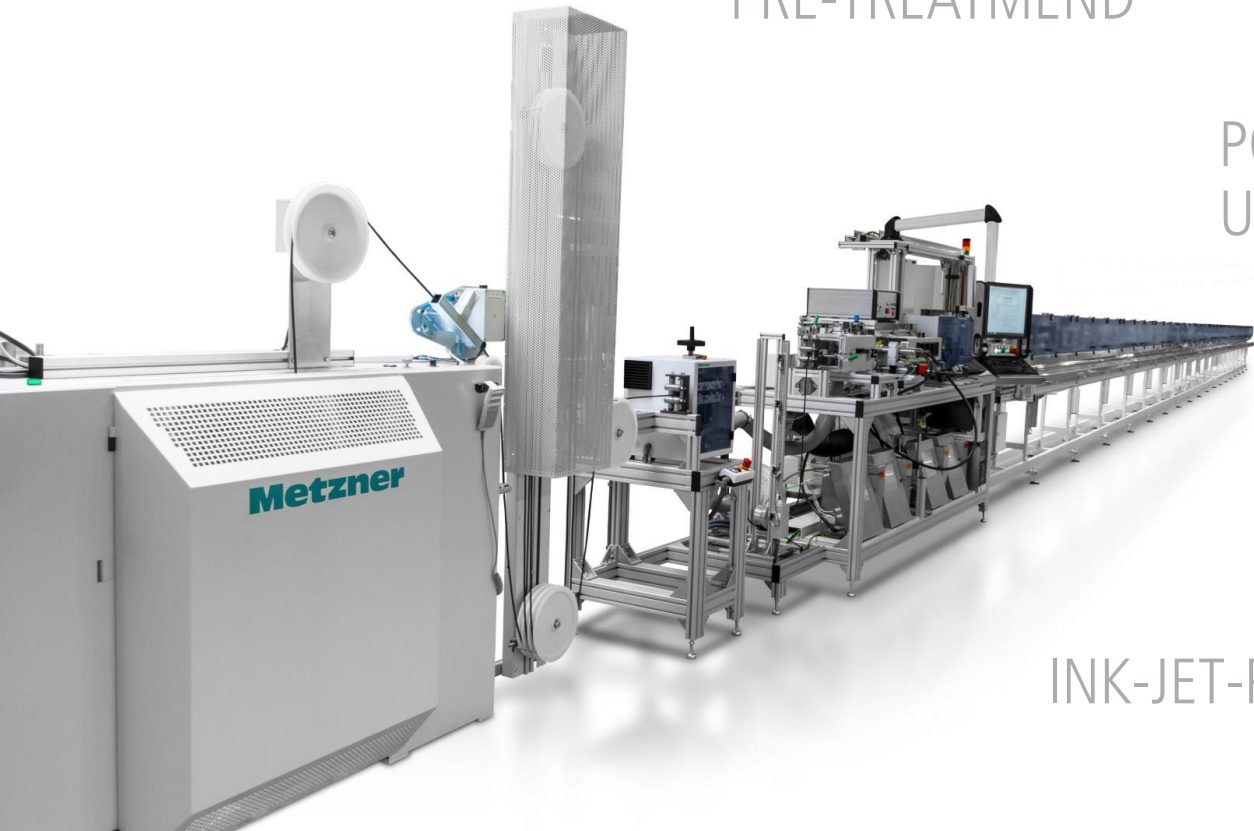
STRIPPING OF STEEL ROPES WITH  
PLASTIC OUTER JACKET

TAKE-OFF

AUTOMATIC CUT-TO-LENGTH



# RAILWAY INDUSTRY

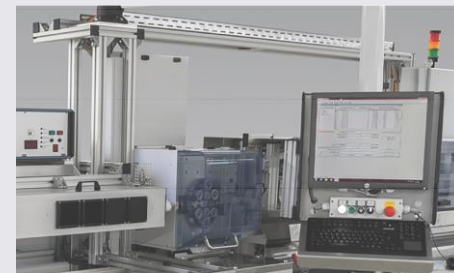
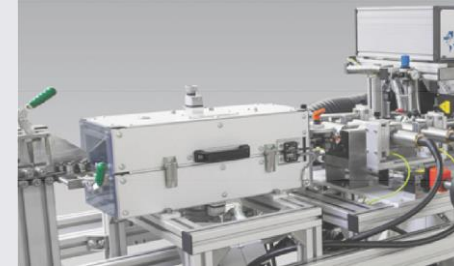


CORONA  
PRE-TREATMENT

POST-TREATMENT WITH  
UV-LIGHT

POSITIONED TAKE-OFF

INK-JET-PRINTING



# SALES AND SERVICE

## SALES PARTNER WORLDWIDE

Metzner is represented internationally by efficient partners for sales and service in numerous countries and is actively working to further expand its global presence. Specialized partners for the business areas of cable processing and rubber and plastics processing offer sound sales advice and service know-how.



# METZNER CUSTOMER SERVICE

WE ARE THERE FOR YOU- WE ARE HAPPY TO HELP AND ADVISE YOU



**Sven Baumann**

Service fault messages

[service@metzner.com](mailto:service@metzner.com)



**Michael Erhardt**

Service Spare parts inquiries

[spareparts@metzner.com](mailto:spareparts@metzner.com)

# METZNER AFTER SALES SERVICES



## Maintenance and servicing

Your machine or your Leibinger printer needs maintenance? We will do it for you or even just have the scope of maintenance determined by our qualified service technicians. In addition, we offer the (preventive) exchange of spare and wear parts to ensure the process-safe function of your machine



## On-site operations

We come to your site! Wherever you need us for maintenance, servicing, troubleshooting or to determine the scope of maintenance - our service technicians will be happy to visit you and carry out the appropriate measures:



## Spare parts

Do you need a spare part for one of our standard or special machines? Or would you like us to determine the spare part on the basis of pictures using the machine number? Then simply contact us and we will take care of it.

# METZNER AFTER SALES SERVICES



## Conversions

We convert your machine - e.g. because you have subsequent special requests, you want to expand the machine scope or because the parts availability of the suppliers has changed. This is usually carried out at Metzner, but in special cases conversions can also be carried out on site.



## Remote maintenance

In terms of software, many of our machines can be diagnosed with errors etc. via remote access or the system can be repaired via remote maintenance. Current software statuses or error descriptions can also be viewed via remote access.



## Technical support

Do you have questions about our machines, spare parts or special requests? Or do you need information that goes beyond the operating instructions or spare parts list? Simply contact us by e-mail or telephone - we will be happy to help you.



## Operator training

To make sure that you know how to operate your machine correctly, we offer appropriate training courses before delivery as well as machine training courses for fundamental modifications after a conversion. Our range of services also includes company-/machine-specific training courses that enable you to perform your own maintenance.



# OUR REFERENCES

**SIEMENS**



*KraussMaffei*

**STILL**



**JUNGHEINRICH**

*N*exans



**YAZAKI**

TESLA

**MURR**  
ELEKTRONIK



**LEONI**

Dräxlmaier **D**

**JMA**  
WIRELESS

*LMC*

**Rosenberger**



**KUKA**



**wieland**

**KnausTabbert**

**AK**  
AUTO-KABEL

**ELTRONA**  
VERBINDUNGEN DIE HALTEN



**PRETTL**

**DELPHI**



**JUMO**

**中国中车**  
**CRRC**

FIND MORE INFORMATION AT

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