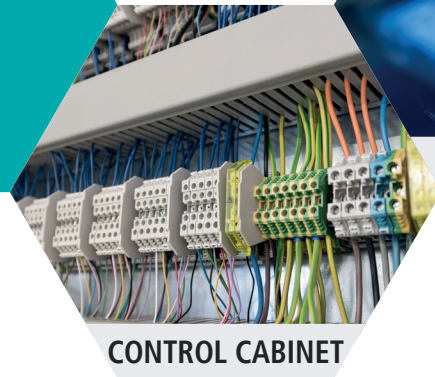


A FULL CATALOGUE OF SOLUTIONS

Cable and corrugated tube processing



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WE PROVIDE SOLUTIONS

Our task: Solve your processing and automation needs

When it comes to cutting, stripping, marking and down-stream processing of cables, Metzner makes the difference. We don't just supply you with a machine, but with a perfect solution according to your requirements.

At the Metzner group, you get everything from one single manufacturer:

- Cutting and stripping machines as well as feeders, dereelers, coilers and take-off-solutions
- Automatic processing lines with peripheral equipment and printing & marking solutions integrated
- Customized automation for individual requirements

As a long-time partner of different industry sectors we have a profound understanding of the high demands of modern cable and corrugated tube processing. Excellent processing quality, high productivity, easy-to-use software and MES integration are a standard of Metzner cable processing lines.

Our comprehensive range of equipment for processing of cables, wires and corrugated tubing ranges from bench-top cut-to-length machines right up to fully-automatic clocking lines.

Thanks to the modular design of all our machinery, coupled with both upward and downward compatibility you are not only well equipped to meet today's demands but you are also prepared for whatever the future might bring.



CUT AND STRIP

Designed for a very wide range of processing requirements



We offer a full range of cut and strip machines to meet all needs of the industry. All machines provide a high versatility so that they can be easily adapted to different production tasks.

Of course, all machines are designed to be operated easily. Blades and guides can be changed fast and simply. All machines use the same software, which makes transfer from one model to another very easy.



THE ENTRY-LEVEL OF CUT & STRIP REDEFINED

The Metzner AM 1000



AM 1000

The processing capabilities, high-production output and stand out software package make the AM 1000 the choice for small cable cross sections

Although the Metzner AM 1000 is our smallest model it is prepared for professional requirements. This applies to processing capabilities, interfaces for a full range of pre- and post-processing peripherals, and an outstanding software package as a standard.

Outstanding processing capabilities

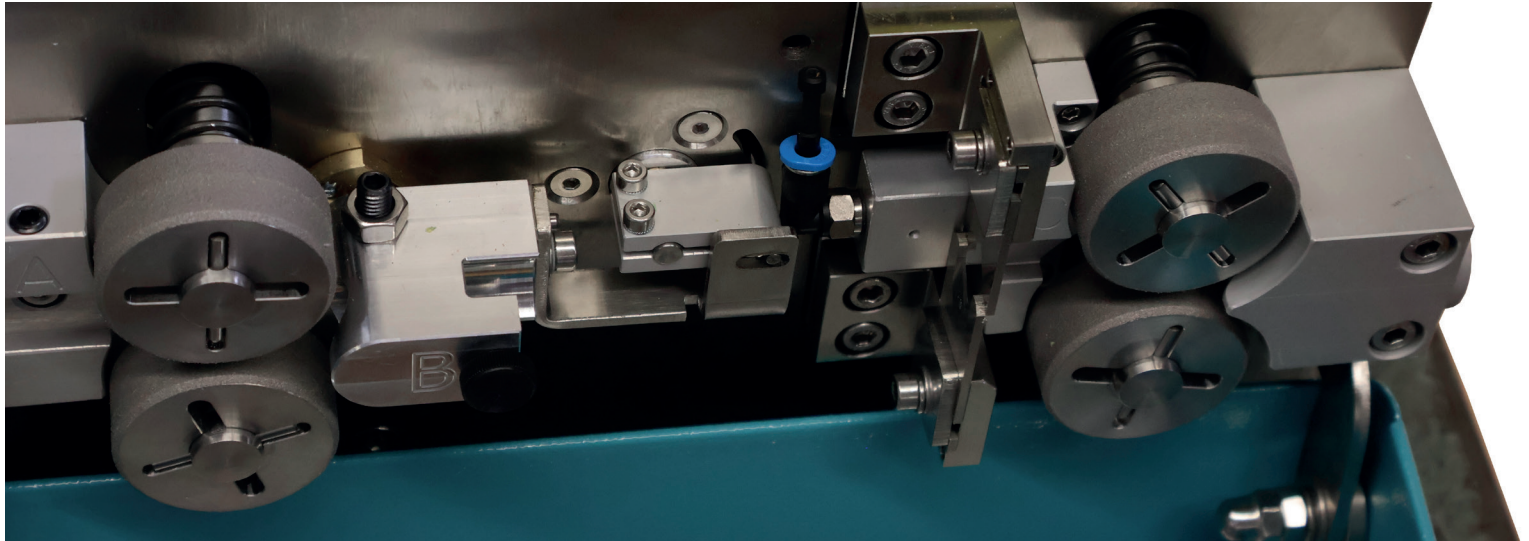
The Metzner AM 1000 offers you all the sensitivity required for 0.14 mm² (AWG 26) cables and at the same time power for 6.0 mm² (AWG 10); and the machine processes cables from 0.5 mm (0.02") to 10 mm (0.39") diameter.

Prepared for expansion

The Metzner AM 1000 is prepared for a full-set of interfaces to connect to pre- and post-processing peripherals and a variety of printing technologies that turn the bench-top model to a fully equipped processing line.

Superior user-friendliness

Metzner thought about user-friendliness and equipped the AM 1000 as a standard with a foldable 12" color touchscreen that makes the operation of the machine very comfortable. The graphic user interface is identical to other Metzner cut and strip machines that makes transition from one Metzner model to another very easy.



YOUR BENEFITS:

- **Convincing processing capabilities** from 0.14 mm² (AWG 26) up to 6.0 mm² (AWG 10)
- **Equipped for cable marking** with ink-jet, laser, label or hot-stamp
- Prepared for a full set of **pre- and post-processing peripherals**
- **Ready for MES / network integration** as standard
- Guides and blades in **quick change-over design**
- As standard, **cable list production on board**

TECHNICAL DATA	Model	AM 1000
	Cable outer diameter	0.5 - 10 mm 0.02" - 0.39"
	Cable length	35 mm - 999 m 1.38" - 3,278'
	Cable cross section – stranded conductor	0.14mm ² - 6 mm ² 26 AWG - 10 AWG
	Feeding speed max. ¹	220 m/min. 722 ft/min.
	Max. stripping length 1st side ² / 2nd side	40-120 mm / 0-30 mm 1.57" - 4.72" / 0" - 1.18"
	Electrical connection	230 V, 50/60 Hz
	Compressed air connection	6 bar 87 PSI
	Dimensions (L x W x H) ³	390 mm x 600 mm x 370 mm 15" x 24" x 15"
	Weight	28 kg 62 lbs

¹ infinitely adjustable | ² reduced speed due to extreme precision | ³ without screen

THE METZNER AM 3000 SERIES

The choice for cables up to 20 mm Ø and 70 mm² cross section



METZNER AM 3800

The Metzner AM 3800 is designed for a wide range of cables and offers multiple processing options with its standard double cutting head



METZNER AM 3850

All the advantages of the Metzner AM 3800 combined with a rotary cutting head for even higher versatility and excellent multi-level stripping capability

The automatic cut and strip machines of the Metzner AM 3000 series convince with power and versatility and represent a preferred choice for a very wide range of cables.

Double cutting head as standard

All models of the Metzner AM 3000 series are equipped with our patented double head cutting system that is designed to offer you additional processing options. The combination of 2 pairs of blades e.g. V-blades and radius blades or radius V-blades and slitting blades offer additional processing options that are not available with a single cutting head machine.

Convincing power to cut and strip and a robust long-life design

The Metzner AM 3000 machines offer additional cut and strip power that is not available elsewhere in this machine category. Our extra long belt drive units transfer the performance of the motors gently and efficiently onto the cable.

During the technical layout of the machines our engineers intentionally added extra strength at the key components to provide robust functions and long service life.



YOUR BENEFITS:

- **Double head cutting system** as standard for extended processing options
- **Power for 70 mm² as standard** – no optional equipment needed
- **Toolless change** of blades and guides
- **Prepared to add a wide range of pre- and post-processing peripherals** that expand the single machine to an automatic processing line
- **MES interface connection** on board
- **Marking and printing interfaces** for ink-jet, laser and label on board

	Model	AM 3800	AM 3850
TECHNICAL DATA	Cable outer diameter	0.5 mm - 20 mm 0.02" - 0.79"	0.5 mm - 20 mm 0.02" - 0.79"
	Cable length	75 mm - 999 m 1.38" - 3,278'	75 mm - 999 m 1.38" - 3,278'
	Cable cross section – stranded conductor	0.5 mm ² - 70 mm ² 21 - 00 AWG	0.5 mm ² - 70 mm ² 21 AWG - 00 AWG
	Feeding speed max. ¹	180 m/min. 591 ft/min.	180 m/min. 591 ft/min.
	Pull-off length max. 1st side ² / 2nd side	210 mm 8" / 110 mm 4"	210 mm 8" / 110 mm 4"
	Electrical connection	230 V, 50/60 Hz, 2 A	230 V, 50/60 Hz, 2 A
	Compressed air connection	6 bar 87 PSI	6 bar 87 PSI
	Dimensions (L x W x H) ³	691 mm x 880 mm x 490 mm 27" x 34" x 22"	928 mm x 880 mm x 490 mm 37" x 34" x 22"

¹ infinitely adjustable | ² reduced speed due to extreme precision | ³ without screen

THE METZNER AM 5000 series

Powerhouse for large cables up to 35 mm | 1.38" diameter



METZNER AM 5800

This machine stands for excellent repeatability due to the extra-long belts; and its double head cutting system offers multiple processing options in one automatic work flow



METZNER AM 5850

All the advantages of the AM 5800 combined with rotary cutting module for increased multi-step processing capability

The Metzner AM 5000 series is designed for single and multi-conductor cables and shielded cables up to 35 mm (1.38") diameter and 185 mm² (350 MCM) cross section. They offer unique advantages:

Superior cutting power

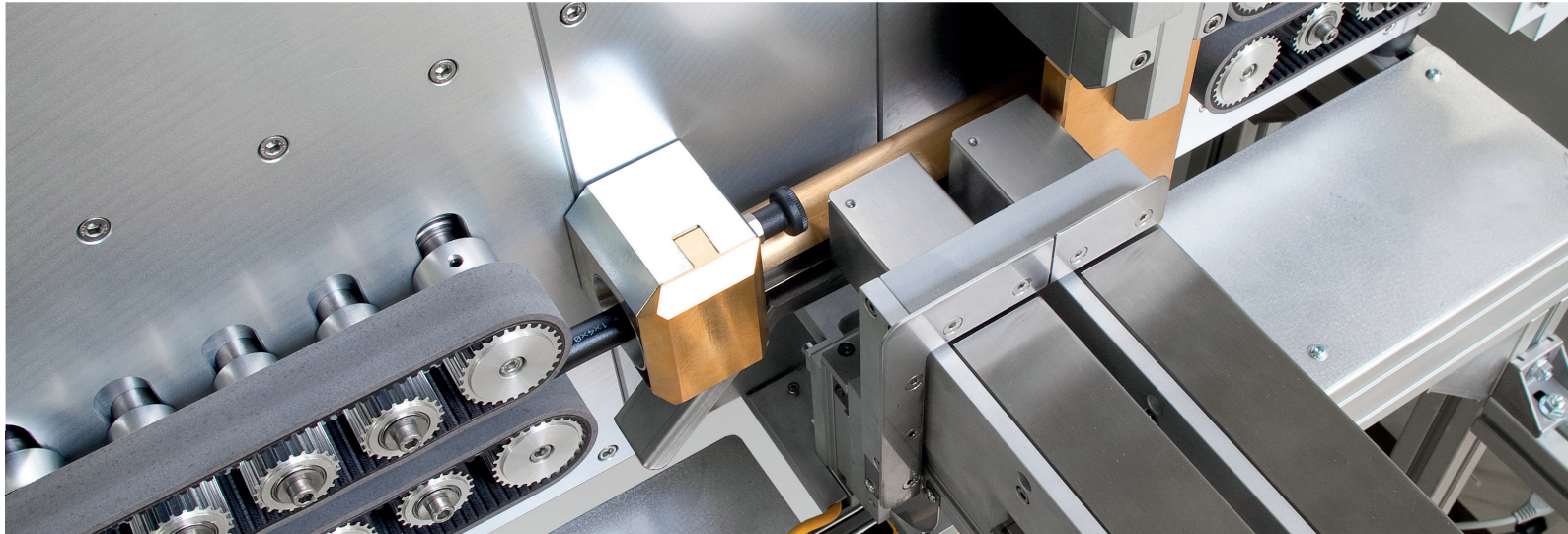
The machines are equipped as a standard with cutting power for 185 mm² – without need of an optional "booster unit". Even when you process smaller cross sections for now, you can be assured the machine is prepared for bigger tasks and there is always sufficient cutting power.

Double head cutting system

All models of the AM 5000 series offer our double head cutting system as standard for increased versatility in one automatic work-flow.

Extra-long and smooth belt feed units

Thanks to the extra-long belt feed units, the outstanding power of the AM 5000 series is transferred to the cable smoothly and this effectively avoids compressing of the cable even for tough pull-off jobs.



YOUR BENEFITS:

- **Superior power** for 185 mm² cross-section without the need for a power booster
- **Precise multi-step stripping** and increased versatility thanks to double head cutting system as standard
- **Fully equipped software** on board without the need of extra packages
- **Scrap avoidance by Ink-jet printer head** positioning either downstream of the cutting head or upstream very close to cutting head















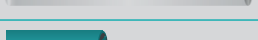

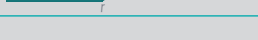
	Model	AM 5800	AM 5850
TECHNICAL DATA	Cable outer diameter	2.5 mm - 35 mm 0.1" - 1.38"	2.5 mm - 30 mm 0.1" - 1.18"
	Cable length	20 mm - 999 m 0.79" - 3,278'	20 mm - 999 m 0.79" - 3,278'
	Cable cross section – stranded conductor	1.5 mm ² - 185 mm ² 16 AWG - 350 MCM	1.5 mm ² - 185 mm ² 16 AWG - 350 MCM
	Feeding speed max. ¹	150 m/min. 492 ft/min.	150 m/min. 492 ft/min.
	Pull-off length max. 1st side ² / 2nd side	400 mm 15" / 260 mm 10"	400 mm 15" / 260 mm 10"
	Electrical connection	3~400 V, 50/60 Hz, 2.6 A	3~400 V, 50/60 Hz, 2.6 A
	Compressed air connection	–	6 bar 87 PSI
	Dimensions (L x W x H)	1,010 mm x 970 mm x 1,685 mm 36" x 14" x 66"	1,376 mm x 970 mm x 1,685 mm 40" x 14" x 66"

¹ infinitely adjustable | ² reduced speed due to extreme precision

THE MODELS OF OUR METZNER AM-SERIES

High-performance automatic + precise cutting and stripping

Metzner cable processing machines offer flexible processing possibilities matched to the planned application.

		AM 1000	AM 3800	AM 3850	AM 5800	AM 5850
	Cut-to-length	●	●	●	●	●
	Stripping with partial and full pull-off	●	●	●	●	●
	Window stripping	●	●	●	●	●
	Extremely long pull-off in multiple stages	●	●	●	●	●
	Jacket stripping of multi conductor cables	●	●	●	●	●
	Inner conductor stripping	–	●	●	–	–
	Flat ribbon stripping and inner strands processing ¹⁾	○	●	●	●	●
	Teflon cable stripping	●	●	●	●	●
	Incise cutting and length slitting	–	●	●	●	●
	Stripping of very thin insulations	●	●	●	●	●
	Metal braid stripping with protection cap	–	●	●	●	●
	Multi-step stripping	–	●	●	●	●
	Multi-step processing of coaxial cables	–	–	●	–	●
	Marking and printing	●	●	●	●	●
	Cutting wire	●	●	●	●	●
	Max. diameter in mm	10	20	20	35	35
	Max. cross section in mm ²	6	70	70	185	185

1) depending on material | ● = standard, ○ = optional, – = not available | Specifications are subject to change without notice.

FOR ANY TASK THE RIGHT BLADE

Examples of our cutting blade types

EXEMPLARY BLADE TYPES FOR THE AM-RANGE:



V-BLADE

Cable cut-to-length



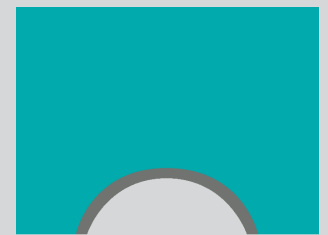
COMBINED RADIUS- & V-BLADE

Cut-to-length and stripping



DOUBLE RADIUS- & V-BLADE

Cutting through very thick cables



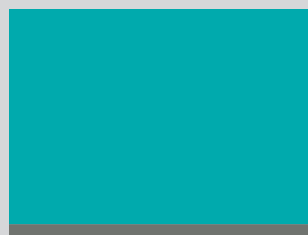
RADIUS-BLADE

Precise cutting into the cable isolation



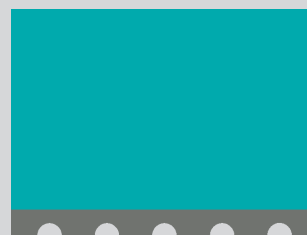
SLITTING BLADE

Lengthways slitting of the insulation



FLAT BLADE

Processing flat cables



CUSTOMIZED BLADE

Processing very thin wire and other demanding processes

New.

Inner conductor stripping with Metzner AM 3000 series



Metzner expands the capabilities of the AM 3000 series by adding inner conductor stripping to the processing options of the series.

Cable preparation requirements quite often include the stripping of multiple inner conductors in addition to outer jacket stripping. When a machine offers this capability in one automatic workflow this saves a secondary manual operation.

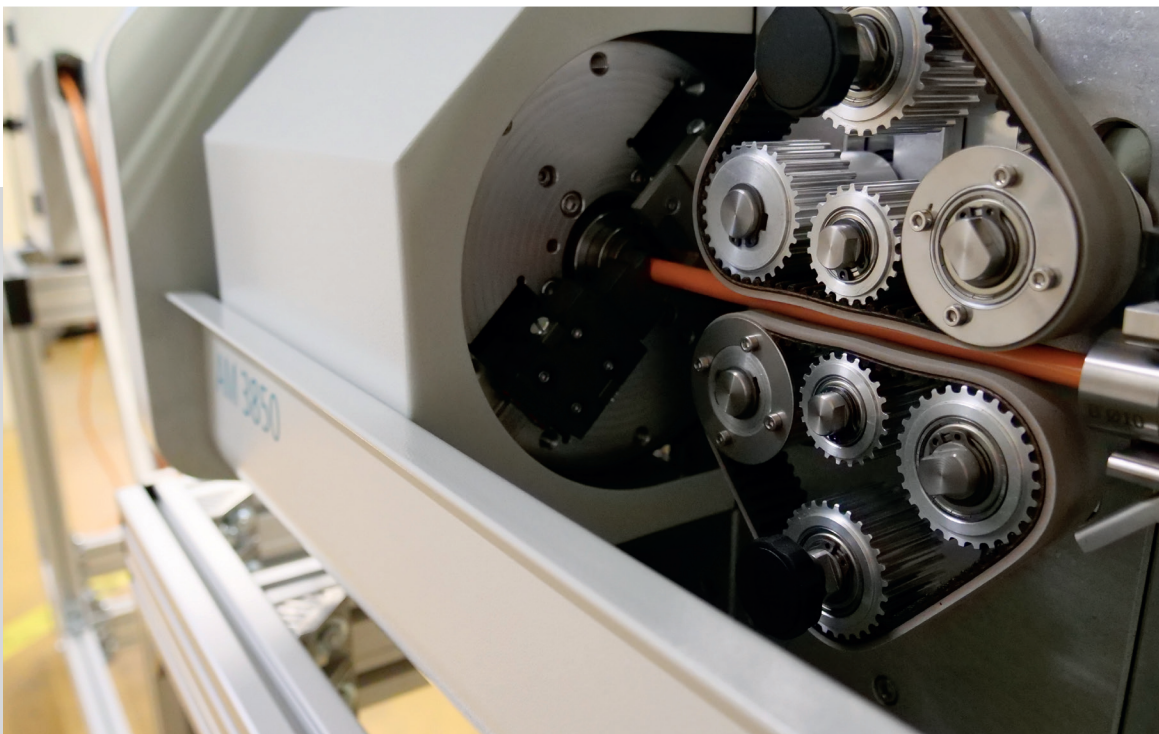


With the new option for the AM 3000 series up to 5 inner conductors of various cables can be processed. The design of the cable and the stiffness of the inner conductors impact the function of this process. In case of doubt, we recommend to test the process on your specific cable.

Thanks to the modular design of the Metzner cut and strip machines, this optional process can be ordered together with a new machine and also as retrofit for an existing Metzner AM 3800 or AM 3850.

Metzner AM 3000 & AM 5000: Rotary cutting

When you process a wide range of cables



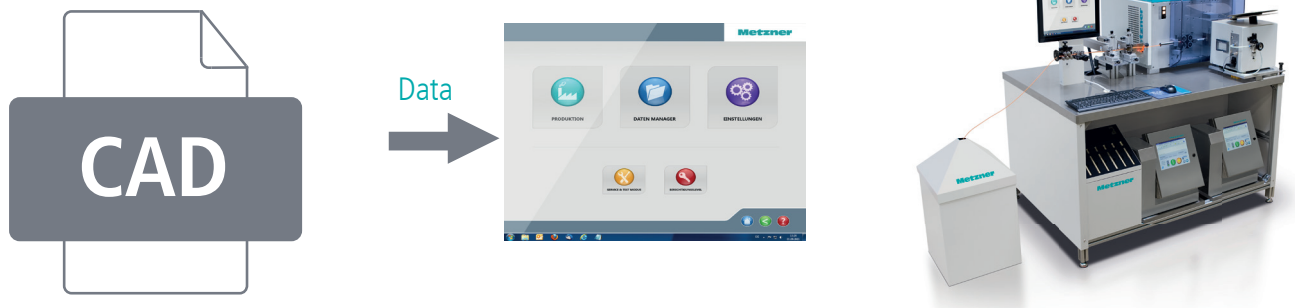
Rotary cutting makes the best solution for you, when you need to process a wide range of different cables, shielded cables, multi-level cables e.g., coax cables. It offers precise homogeneous and all-round cuts into the selected cable layer. A rotary module provides a drawing cut around the cable while a radius blade performs according to its different zones in some areas a drawing cut and at other areas a shearing cut. Cutting speed and cutting depth is easily adjusted by different parameters and is not limited to the shape of a radius blade.

It offers outstanding flexibility by adjusting to different cable diameters simply by selecting different software parameters. This eliminates blade changeover. With rotary cutting it is also very easy to adjust to changing processing requirements without the need to order different blades. Rotary cutting offers savings due to reduced blade requirement, such as cable specific radius blades. Furthermore, rotary cutting offers additional processing possibilities when multi-level processing in combination with longitudinal slitting is required. Another example is processing of shielded cables in combination with inner conductor stripping.

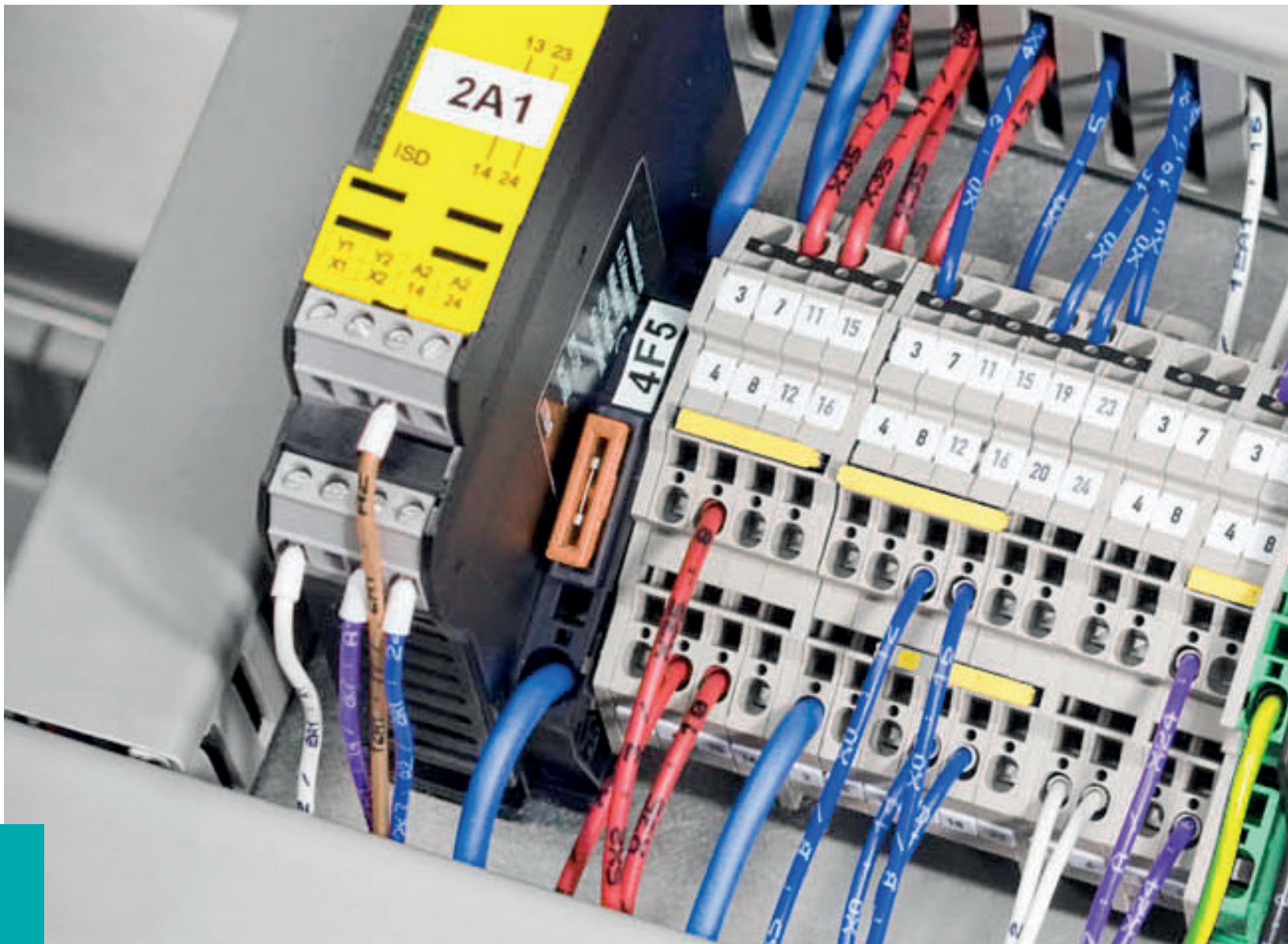
- Rotary cutting convinces with shorter changeover times and flexibility to adapt to different cable diameters.
- Flexibility to adjust to variations of different cable batches or different cable manufacturers.
- It allows savings with the blade assortment required.
- New types of cable can be processed immediately without procurement time of different radius blades.
- Additional processing capabilities, saving an otherwise additional process e.g., inner conductor stripping or longitudinal slitting.

AUTOMATION FOR CABINET MANUFACTURERS

The Metzner Triathlon range

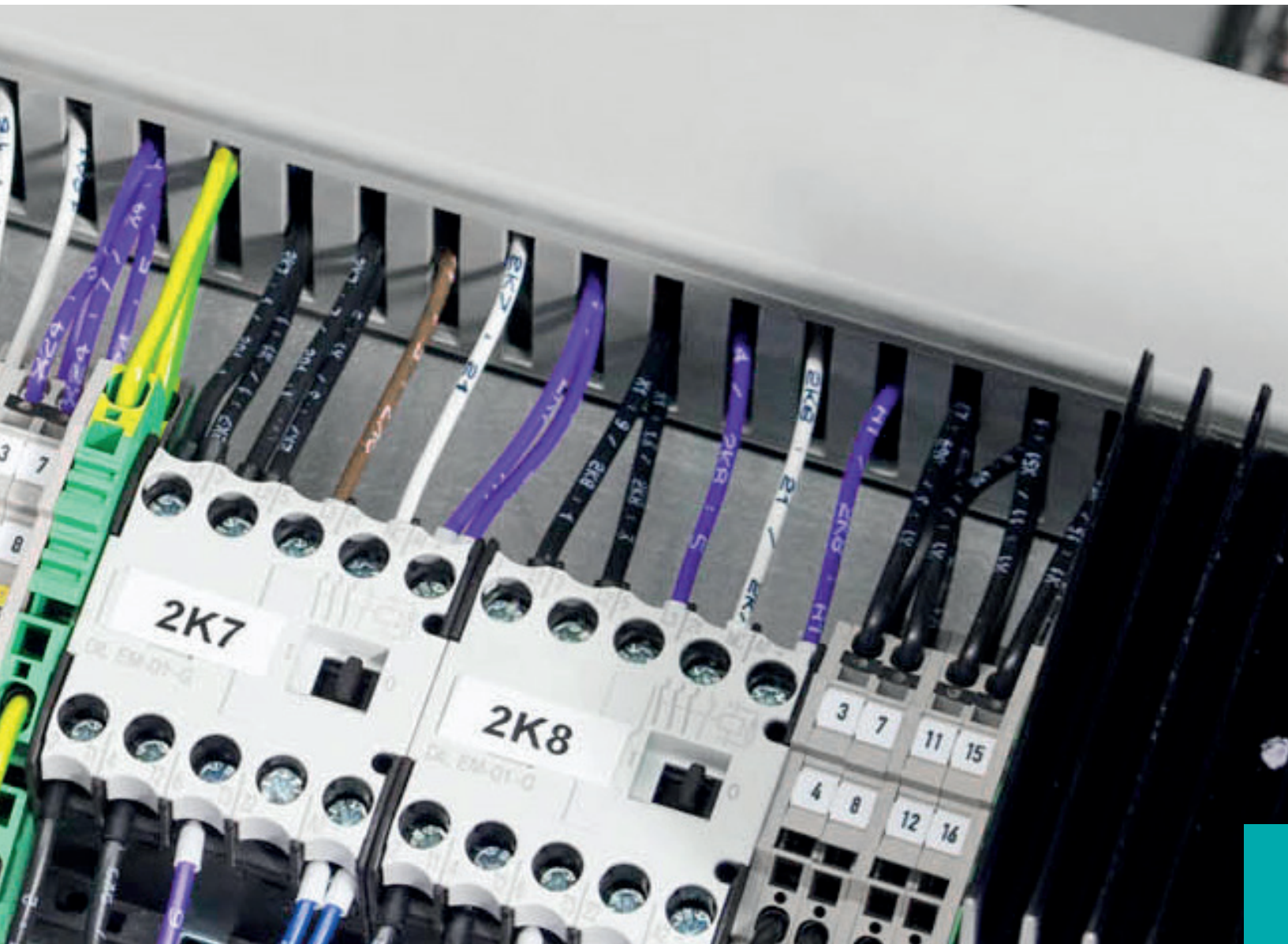


The original CAD data is imported into the software of the Triathlon machine.



Thanks to the Triathlon system, control cabinet manufacturers can reduce their cost effectively. This system offers you 4 key processes of cable preparation for control cabinets:

- Precise and automatic cut to length of each wire according to the calculated routing in the cabinet
- Wire stripping
- Ferrule crimping
- Individual marking of the wire according to the electrical diagram; with various marking technologies, ink-jet, laser, label.



COST REDUCTION FOR YOUR PRODUCTION

The Triathlon range for control cabinet manufacturers



Triathlon 2000

Precise cut-to-length and marking of cables from 0.14 mm² | 26 AWG up to 6 mm² | 10 AWG cross section. Single or double side crimping up to 2.5 mm² | 14 AWG.

Triathlon 3000

Precise processing of cables with cross section from 0.5 mm² | 21 AWG up to 35 mm² | 2 AWG. Single or double side crimping up to 2.5 mm² | 14 AWG.

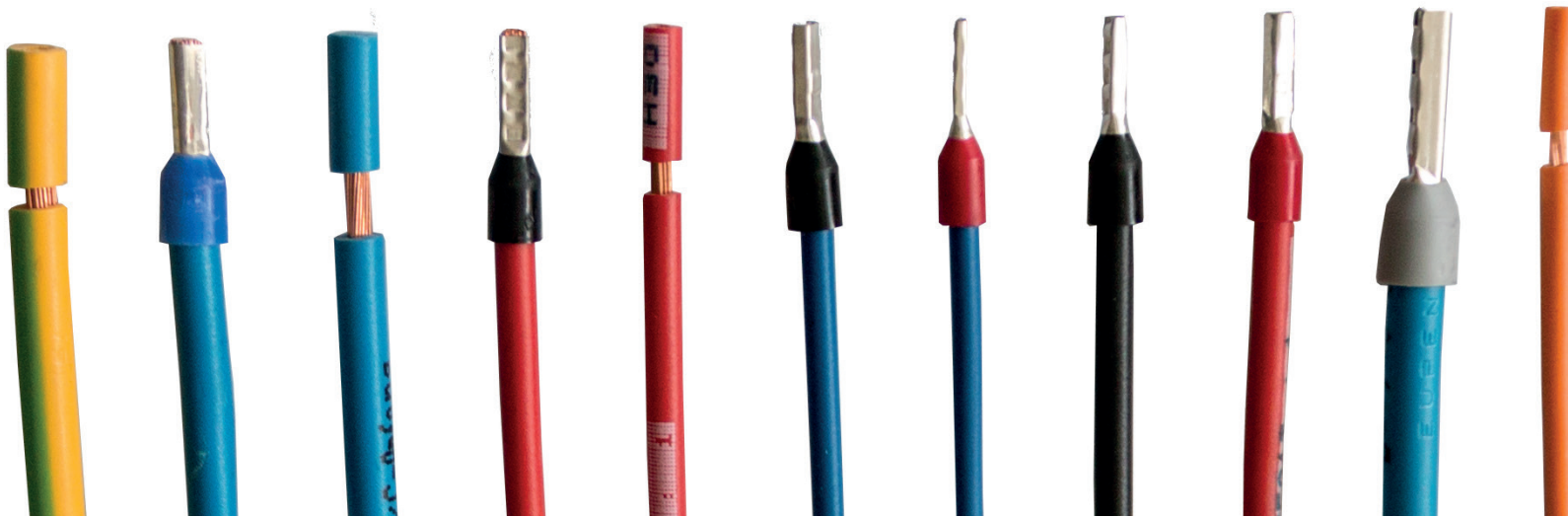
Triathlon 3000 +

Due to a modular crimping unit, single or double side crimping up to 4 mm² | 12 AWG or 6 mm² | 10 AWG. Processing of cables with cross section from 0.5 mm² up to 35 mm² (21 AWG to 2 AWG).

The Triathlon system is a complete solution for automating the cable production of control cabinet manufacturers. Depending on machine utilization, up to 70% of time and costs can be saved. This means that the Triathlon pays for itself in less than 2 years – based on an annual number of 100 or more cabinets with 500 or more wires.

All 3 models take over the CAD data via data import. Triathlon cuts the cables, it can strip them single- or double side and crimp the ends. Of course, Triathlon offers an individual printing of the cable. Therefore you can choose between solutions with one or two ink jet printers and laser or label marking.

Last but not least, Triathlon pre-sorts the cables according to your preferences.



YOUR BENEFITS:

- **Lower production costs**, savings can be as high as 70%
- **Continuous data process** due to a direct import of the CAD data
- **Exactly tailored to the industry's needs**, as it cuts, strips, crimps, prints and pre-sorts
- **Top quality** Made in Germany

Model	Triathlon 2000	Triathlon 3000	Triathlon 3000+
Cable outer diameter: cutting-to-length	max. 6 mm 0.2"	max. 15 mm 0.6"	max. 15 mm 0.6"
Cable cross section: cutting-to-length ¹	0.14 mm ² to 6 mm ² 26 AWG to 10 AWG	0.5 mm ² to 35 mm ² 21 AWG to 2 AWG	0.5 mm ² to 35 mm ² 21 AWG to 2 AWG
Cable cross section: crimping	2.5 mm ² 14 AWG (4 mm ² 12 AWG) ²	2.5 mm ² 14 AWG (4 mm ² 12 AWG) ²	2.5 mm ² 14 AWG (4 mm ² ; 6 mm ² 12 AWG; 10 AWG) ²
Cable length min. ³	160 mm 6.3"	250 mm 9.8"	250 mm 9.8"
Cable length max.	999 mm 3'3"	999 mm 3'3"	999 mm 3'3"
Feeding speed max.	60 m/min. 197 ft/min.	120 m/min. 394 ft/min.	120 m/min. 394 ft/min.
Stripping length max. 1st side / 2nd side	70 mm 2.8" / 40 mm 1.6"	220 mm 8.7" / 170 mm 6.7"	220 mm 8.7" / 170 mm 6.7"
Electrical connection	230 V, 50/60 Hz, 2 A	230 V, 50/60 Hz, 1.4 A	230 V, 50/60 Hz, 1.4 A
Compressed air connection	6 bar 87 PSI	6 bar 87 PSI	6 bar 87 PSI
Dimensions (L x W x H)	1,450 mm x 1,050 mm x 1,450 mm 57" x 41" x 57"	1,750 mm x 1,100 mm x 1,520 mm 68" x 43" x 59"	1,750 mm x 1,100 mm x 1,520 mm 68" x 43" x 59"

¹ depending on material | ² option | ³ shorter length possible without crimping or stripping

VALLEY OR CREST? ACCURATE IN ANY CASE

Cutting machines for slit and non-slit corrugated tubes



We at Metzner offer you cutting machines for the processing of standard and pre-split corrugated tubes of up to 40 mm diameter.

All our three types of machines offer an accurate processing and many advantages:

- Exact cut in the valley or on the crest of the material
- Optimal feeding systems: precise belt conveyors for unslit tubes, toothed wheel transport for slit ones
- Very short down times thanks to significantly short changeover times in case of material changes
- Made in Germany



POWERFUL AND PRECISE PROCESSING

Cutting of non-slit and pre-slit tubes



Metzner CT 4100

Cuts non-slit corrugated tubes exactly on the crest. Optimal processing of corrugated tubes from 4.5 mm to 39 mm diameter.



Metzner CT 4200

Cuts and slits corrugated tubes exactly on the crest. Optimal processing of non-slit corrugated tubes from 4.5 mm to 39 mm diameter.



Metzner SM 4000

Cuts pre-slit corrugated tubes exactly on the crest. Optimal processing of slit corrugated tubes from 4.5 mm to 40 mm diameter.

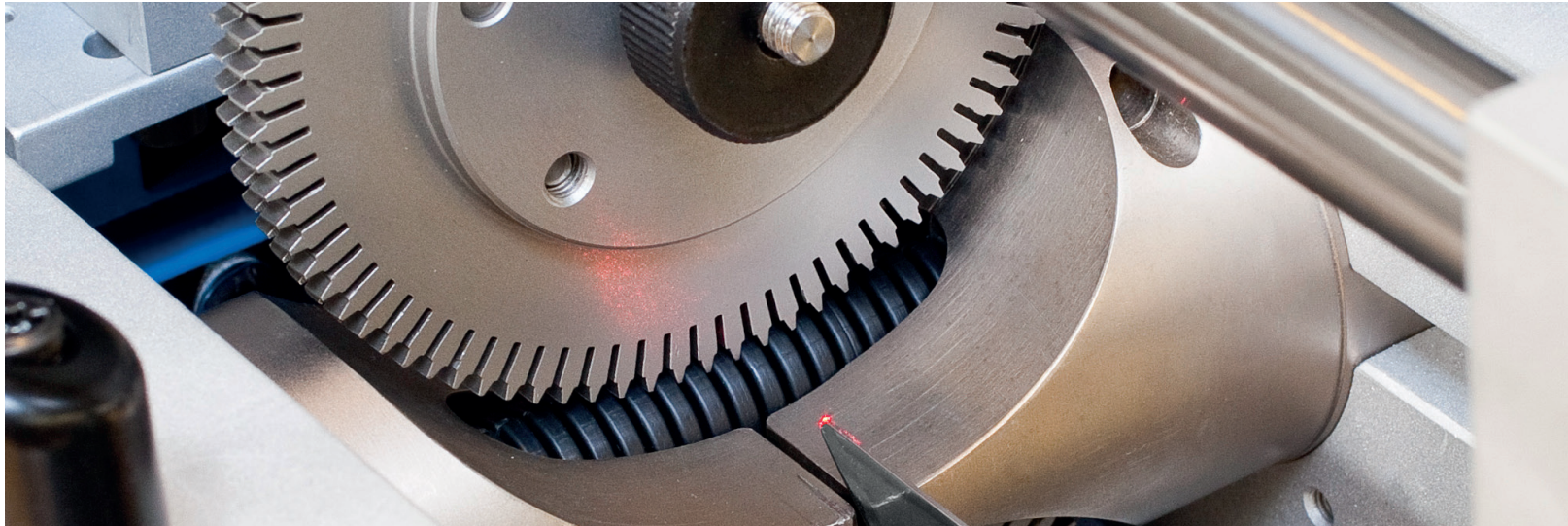


All our Metzner machines for cutting tubes stand out for their accurate working. This starts with the feeding of the tubes. Precise working belt conveyors transport unslit tubes into the machine. Thanks to the long belt conveyors, the tube is accurately brought to the knife, which cuts automatically at the right place – as you want it, either in the valley or on the top.

The Metzner 4200 can additionally apply longitudinal cuts to the tube.

Unique in the world

Metzner SM 4000 is the only machine in the world which is able to cut pre-slit tubes. A toothed wheel transport system feeds the machine and guides the very movable slit tube accurately to the knife.



YOUR BENEFITS:

- **Highest cutting quality** due to exact cuts in the valley or on the top
- **Short downtimes** thanks to short change-over-times in case of material changes
- **Unique solution:** the patented SM 4000 is the worlds only machine for cutting pre-slit tubes
- **More output** thanks to high processing speed (feeding up to 160 m/min.)
- **Top quality** Made in Germany

TECHNICAL DATA	Model	CT 4100	CT 4200	SM 4000
	Corrugated tube diameter min. ¹	4.5 mm 0.18"	4.5 mm 0.18"	4.5 mm 0.18"
	Corrugated tube diameter max. ¹	39 mm 1.54"	39 mm 1.54"	40 mm 1.57"
	Feeding speed max.	90 m/min. 229 ft/min.	90 m/min. 229 ft/min.	160 m/min. 525 ft/min.
	Electrical connection	230 V, 50/60 Hz, 1.2 A	230 V, 50/60 Hz, 1.2 A	230 V, 50/60 Hz, 1.5 A
	Power source	electric	electric	electro pneumatic
	Compressed air connection	6 bar 87 PSI	6 bar 87 PSI	6 bar 87 PSI
	Dimensions (L x W x H)	667 mm x 600 mm x 840 mm 2'2" x 1'11" x 2'9"	791 mm x 600 mm x 840 mm 2'7" x 1'11" x 2'9"	1,215 mm x 1,175 mm x 1,400 mm 3'11" x 3'10" x 4'7"

¹ depending on material

PERIPHERAL EQUIPMENT

Turning a single machine into an automated processing line



Cable processing peripherals represent effective solutions to turn a single processing machine into an automatic processing line. At the same time they also increase efficiency and the quality of the processing machine. Metzner offers proven solutions for:

Pre-processing

- Electrical driven dereelers
- Passive dereelers
- Prefeeder

Post-processing

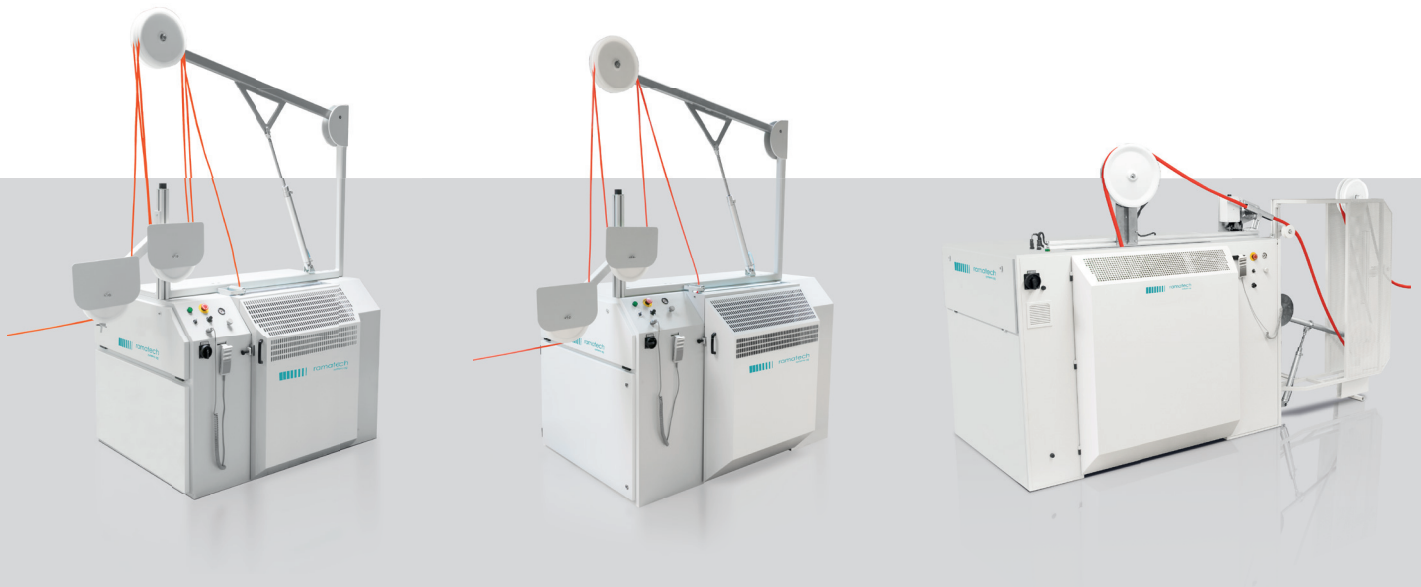
- Cable stackers
- Cable coilers

Printing and marking solutions for cables



ELECTRICALLY DRIVEN DEREELERS

Automatic and tension-free cable feeding



rama 800 – automatically tension-free

Drum diameter: max. 800 mm | 2'7"
 Drum weight: max. 300 kg | 661 lbs
 Drum speed: max. 190 RPM

rama 1000 – high speed feeding

Drum diameter: max. 1,050 mm | 3'5"
 Drum weight: max. 600 kg | 1,323 lbs
 Drum speed: max. 190 RPM

rama 1250 with pneumatic swinging arm

Drum diameter: max. 1,260 mm | 4'1"
 Drum weight: max. 1,000 kg | 2,205 lbs
 Drum speed: max. 145 RPM

Tension-free automatic feeding

The dereelers rama 800, rama 1000 and rama 1250 represent the perfect solution for smooth and tension-free cable feeding from cable reels of 300 kg, 600 kg or 1,000 kg (661 lbs; 1,323 lbs or 2,205 lbs) to an automatic cut and strip machine.

They also ensure fast changeover times and easy handling with powerful electrical drives of all movements. The cable reel is rolled at floor level into the cabinet of the cable dereeler, then the reel is clamped by remote control, afterwards lifted from the floor and electrically rotated to feed the cable.

The integrated cable accumulator guarantees smooth and tension-free cable feeding and manages speed adjustments between the demand of the cut and strip machine and the drive of the dereeler.

PASSIVE DEREELEERS

For all kinds of packaging formats



DRS 1.600 – for spools

Outer diam.: max. 800 mm | 31"
 Width: max. 250 mm | 9.8"
 Spool weight: max. 20 kg | 44 lbs

DRS 3.1000 – for drums

Outer diam.: max. 800 mm | 31"
 Width: max. 600 mm | 23,6"
 Drum weight: max. 1,000 kg | 2,204 lbs

DRS 2.850

Outer diam.: max. 850 mm | 31"
 Width: max. 250 mm | 9.8"
 Drum weight: max. 50 kg | 110 lbs

DRC 1.800 and DRC 1.1000

Outer diam.: max. 800 mm | 31"
 max. 1,000 mm | 39"
 Cable weight: max. 30 kg | 66 lbs
 max. 50 kg | 110 lbs

Passive dereelers for spools and drums

No matter whether the cable is coiled on a light-weighted spool or a heavy reel, on a big sized wooden drum or coiled on cardboard or loose bundles, Metzner offers a range of solutions to handle the packaging format of your cables.

Passive dereelers typically work in combination with an electrically driven pre-feeder.

PULLING CABLES FROM PASSIVE DEREEELERS

Pre-Feeders and loop control



PF 235.30 – Pre-feeder



PF 235.30 – with dancing arm



DHS – loop control

Tension-free material feeding

Metzner electrical driven pre-feeders pull cables from a passive dereeler and feed it free of tension to an automatic cut and strip machine. The feed speed follows automatically the speed of the cut and strip machine. They avoid effectively the strong initial jolt and potential slippage of the cable in the cut and strip machine.

The feed speed is automatically adjusted by either a dancing arm or a loop control.

Metzner pre-feeders stand out with their easy handling and adaptability to various cable types up to 35 mm. They also represent an economic solution for feeding cables from heavier spools and reels.

PRINTING – MARKING – LABELING

Perfectly compatible printers and markers



Ink jet printing

Thermal transfer printing

Laser marking

Brady Wraaptor labeling

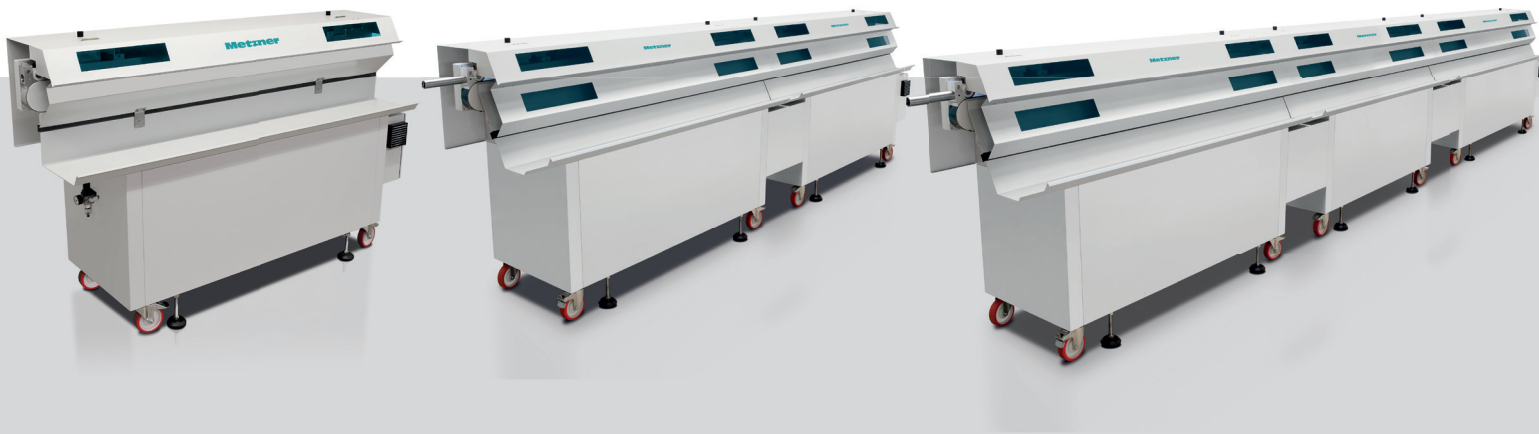
Hot stamp marking

Metzner provides solutions for automatic cable printing or marking with text, logos, barcodes or graphics. Based on your requirements, Metzner offers ink-jet printers, thermal transfer printers, label printers, laser printers or hot stamp units. Cables are marked and printed in an automatic workflow with the cut and strip machine both the print information and the print position.

CHARACTERISTICS	Printing technology	Readability	Printing / marking time	Special features
	Ink-jet printing	Very good text contrast thanks to choice of ink color	On the fly without lost time	Freely programmable graphics, barcodes and texts
	Thermal transfer printing	Excellent photo-like quality with 300 dpi	Approx. 1.5 seconds	Freely programmable graphics, barcodes and texts
	Laser marking	Excellent for graphics, barcodes and texts	On the fly without lost time	Works without consumables
	Brady Wraaptor labeling	Very good: Black print on white surface with 300 dpi	Approx. 2 seconds	Long-term durability. Adapts automatically to cable diameters from 1,5 - 15 mm (0.06" - 0.6")
	Hot stamp marking		Approx. 0.5 seconds	

ACTIVE CABLE STACKERS

Increasing the productivity of cable processing lines



MA 2000 – active take-off unit

Material length: max. 2,000 mm | 6' 7"
Cable diameter: max. 30 mm | 1.18"

MA 4000 – active take-off unit

Material length: max. 4,000 mm | 13' 1"
Cable diameter: max. 30 mm | 1.18"

MA 6000 – active take-off unit

Material length: max. 6,000 mm | 19' 8"
Cable diameter: max. 30 mm | 1.18"

Metzner cable stackers with 2 collection trays as standard for increased autonomy

The Metzner wire stackers MA 2000, MA 4000 and MA 6000 are convincing solutions for the automated axial collection of cables. The system is available in length of 2,000 mm (6' 7"); 4,000 mm (13' 1") and 6,000 mm (19' 8"). The inbuilt driven and synchronized transport belt ensures careful, straight and safe stacking of cables without jam.

Metzner cable stackers come with an inbuilt batch tray and an additional collection tray. When one batch has been off-loaded to the collection tray the production of the next batch is automatically continued without mixing both batches. This allows for extra independent working of the operator.

CABLE RING COILERS

Productivity increase for post-processing



Ramatech KRI 450 C and KRI 850 C

Cable diameters up to 18 mm | 0.71" resp. 35 mm | 1.38"

Ramatech KRI 450 CB and KRI 850 CB

Cable diameters up to 18 mm | 0.71" resp. 35 mm | 1.38"

Metzner CRC 450 DUO

Cable diameters up to 15 mm | 0.59"

Ramatech KRI 450 CBP and KRI 850 CBP

Cable diameters up to 18 mm | 0.71" resp. 35 mm | 1.38"

Ramatech KRI 450 C and KRI 850 C

Automatic coiling of long cables in synchronized work flow with cut and strip machine

Ramatech KRI 450 CB and KRI 850 CB

All the benefits of KRI 450 C resp. KRI 850 C and in addition cable ring binding

Metzner CRC 450 DUO

Double coiler with increased productivity. During off-loading, the next cable is coiled automatically

Ramatech KRI 450 CBP and KRI 850 CBP

Cable ring coiling, binding and off-loading in one automated work-flow – unattended cable processing

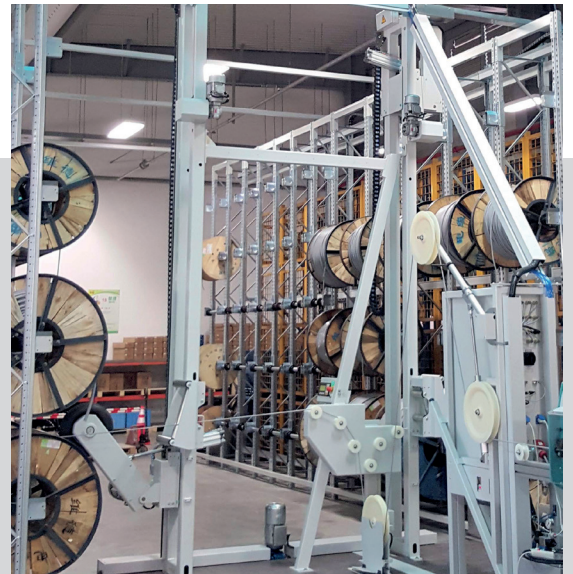
AUTOMATION OF CABLE REEL HANDLING

Increased productivity and utilization of floor space



Cable rack with automated cable reel handling

Cost saving handling for customers with 15 - 60 cable reels



Moving platform with 2-sides cable reel rack

Cost saving handling for customers with 60 - 240 cable reels

Your Benefits

Labor cost saving

- 50% - 90% labor cost saving for reel change and reel transportation
- 100% increase of machine utilization by dramatically reduced change over times

Floor space saving

- 50 % - 75% saving of floor space compared to floor handling of cable reels

Work place safety

- Very significant increase of work safety by avoidance of manual reel handling



Robotic and MES controlled reel handling

Cost saving handling for customers with up to 600 cable reels

WE ARE AT YOUR SIDE

Metzner Service and Support



Picture source: Drazen Zigic via Freepik.

Remote service and service at your site

Of course, most of our machines can be supported via remote service. Either they use their own IP-address or you can connect them via your mobile to our support team. Sometimes, e.g. in case of damage through wear, a service team has to travel to your site. Of course, we offer this service for you. But you can also order different service packages. These cost-interesting service packages cover remote support as well as service at your site. Ask your Metzner contact for these packages.

Spare part service

Metzner machines are part of your production. They must run. That's why we have a huge selection of spare parts in store. If something is broken, we can usually send replacement immediately.

Modification service

Metzner machines live long. Often your requirements change more quickly. In many cases, we can adapt your machine to the new requirements.

THE CALL FOR AUTOMATION

Individual automation solution made by Metzner



YOUR ANSWER

AUTOMATION

YOUR SOLUTION

Metzner

Automation of industrial manufacturing and assembly processes is going to play an increasingly important role in the years to come. This is particularly true for cable processing and harness manufacturing where today still approx. 80% of all labor is manual labor and only 20% is currently automated.

A continuous rise of labor cost, the trend to miniaturization, the requirement for full traceability and not the least a growing lack of workers drives the need for economically feasible automation.

Metzner has over many years acquired a high level of competence in providing automation solutions that impress customers with constant quality, very short cycle times and surpassing customer OEE specifications.

The following pages present just a small selection of solutions provided. Our team is ready to move your production to the future by automation made by Metzner.

Line for EV charging cables with integrated cleaning station



For downstream processes cables often need to be cleaned and either talcum used during the cable manufacturing process or surface dirt has to be removed. This job is successfully mastered by the Metzner inline cable cleaning station.

The cleaning process makes use of electrically driven brushes and a powerful vacuum system. Material and hardness of the brushes is selected specifically for the task and cable surface.

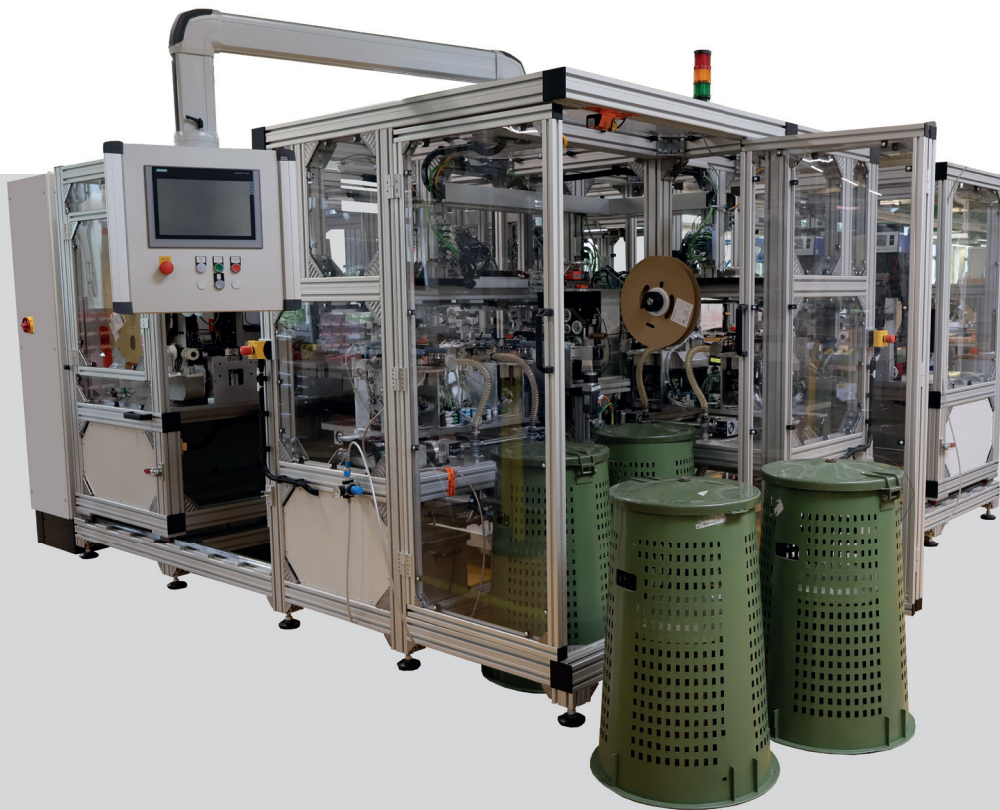
Also the integration of 3rd part equipment is possible

This is just an example to highlight the flexibility and the competence of Metzner to integrate additional process stations or third-party equipment to a cable processing line.



Cable cleaning unit with brushes

Integrated automation for various manual processes



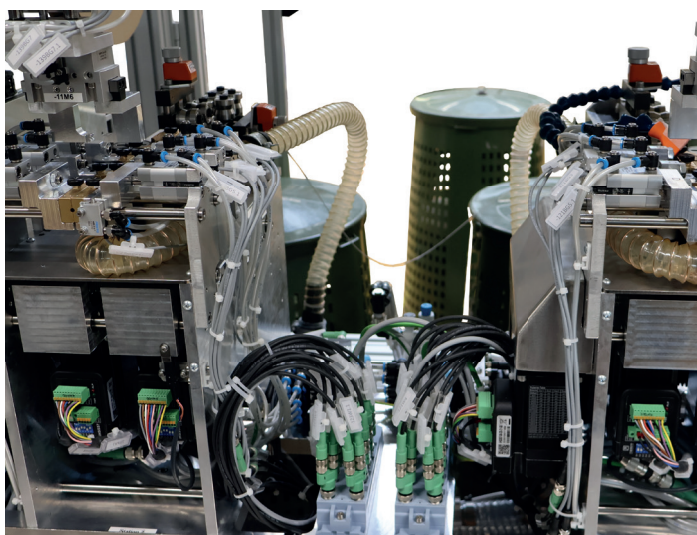
The customer produces wire harnesses that are used in dashboards. For this, cables have to be cut to length, stripped and crimped. In addition, a shrink hose is pulled-over. Up to 4 cables are welded together.

- Constant high-quality thanks to integrated process control by machine vision and smart sensors
- Output: < 10 sec. per harness

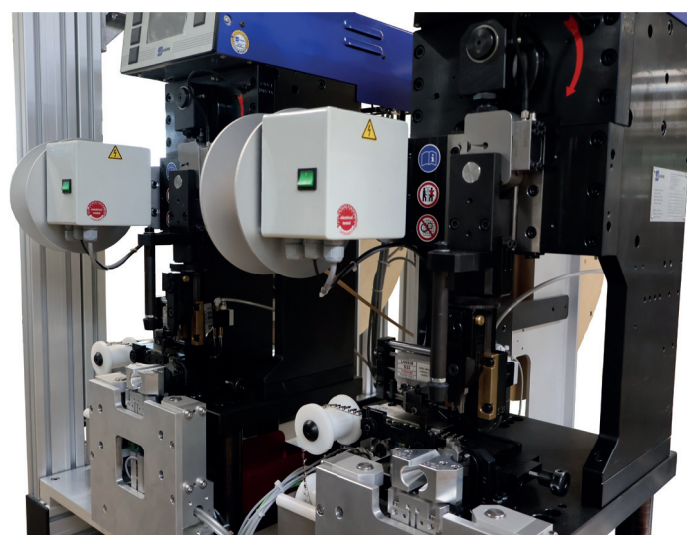
This machine automates all processes:

- Cutting and stripping
- Crimping the contacts
- Ultrasonic welding of up to 4 cables
- Cutting and pull-over a shrink hose
- Moving the hose as protection cover onto the welding area
- Infrared shrinkage of the hose
- Automatic separation of O.K. and N.O.K. parts



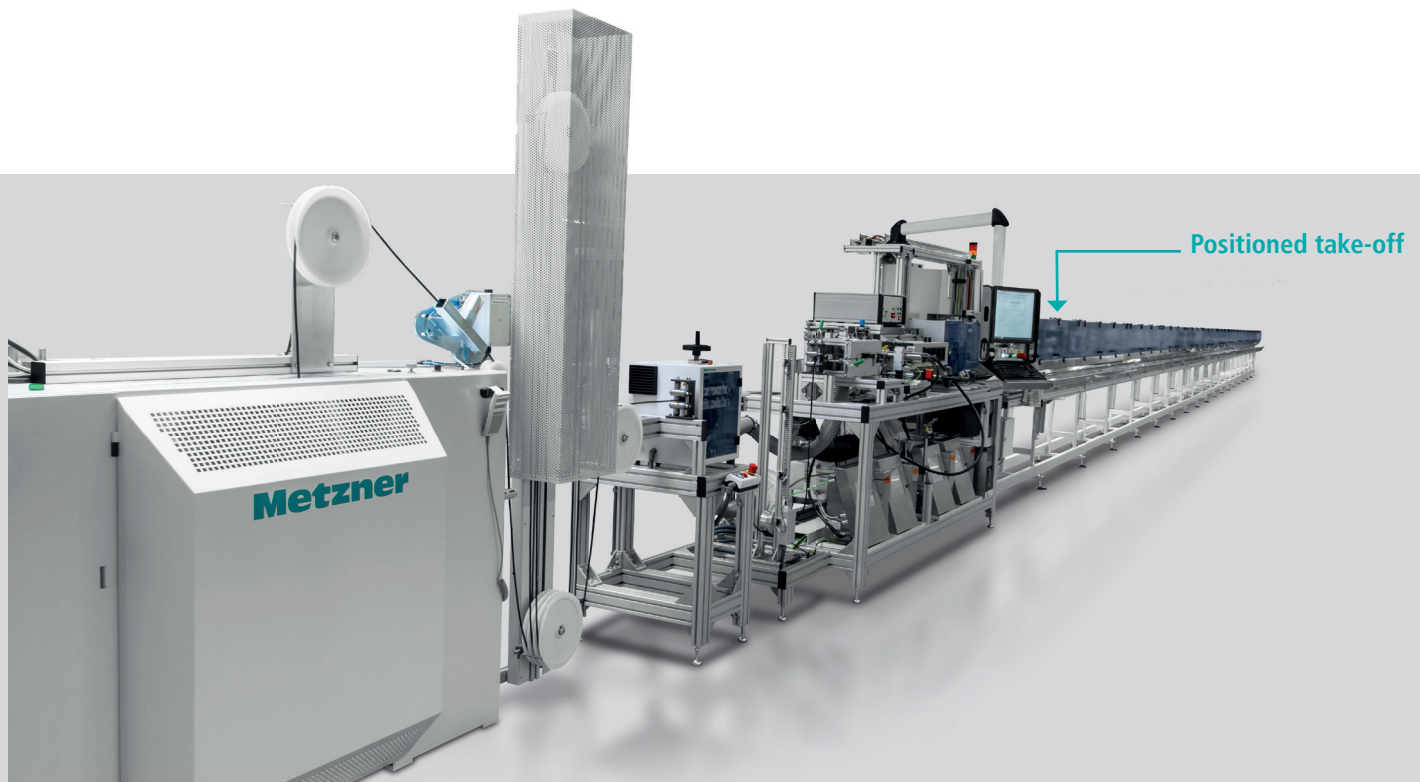


Cutting and stripping unit

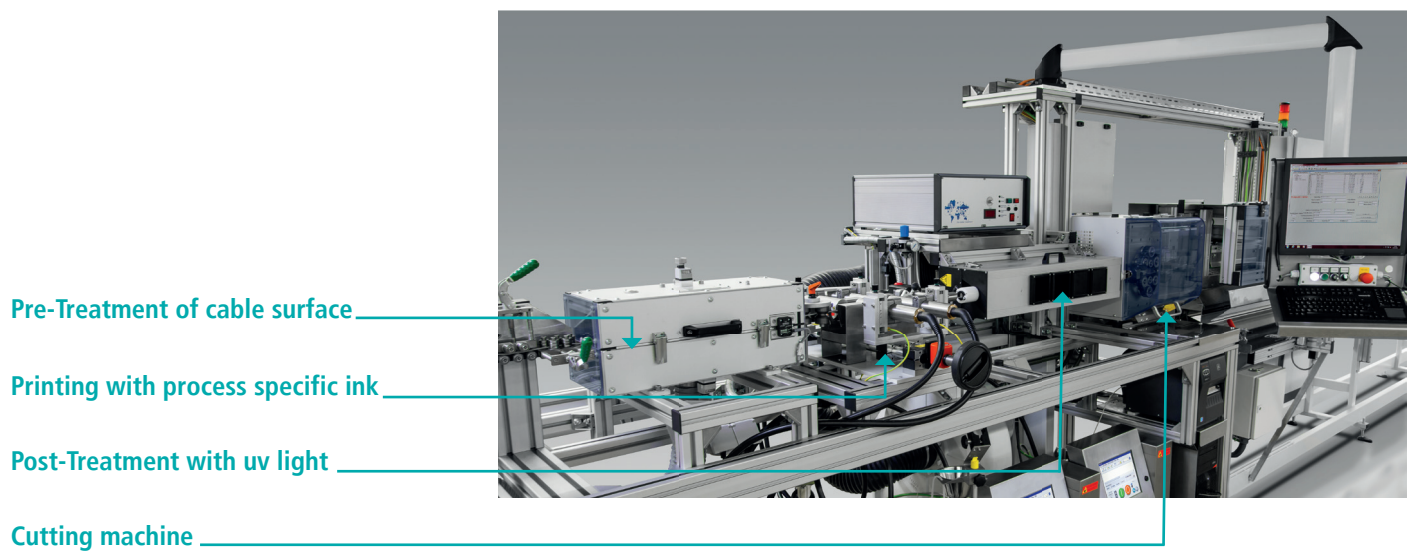


Crimping unit

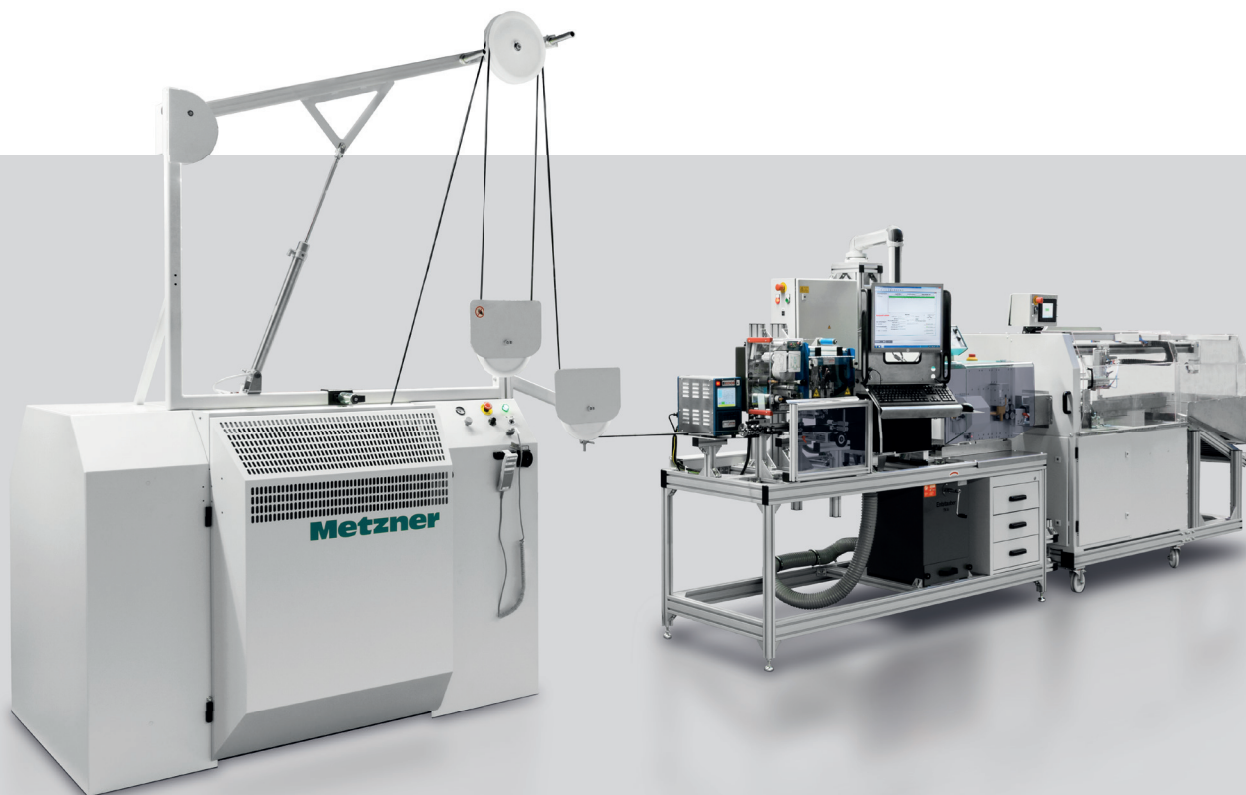
Cable processing for the railway industry



Automatic cable preparation for railway carriage harnesses; marking with modified ink-jet process that meets the durability requirements of the railway industry



Fully automatic solution for network cable processing



One system covering all tasks – fully automatic:

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

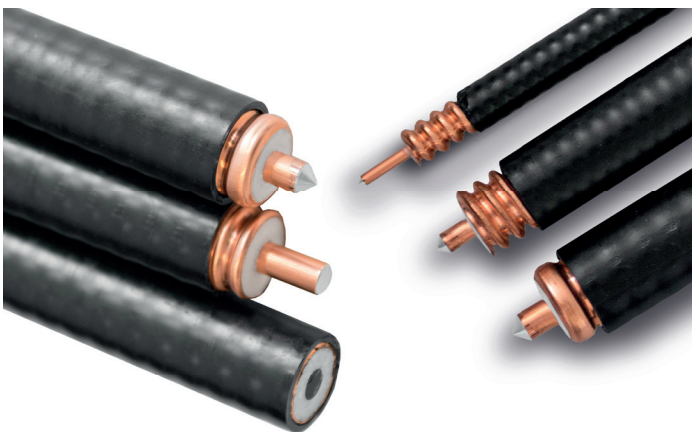


Fully automatic processing of high-frequency coaxial cables



Due to their unique design, high-frequency coaxial cables call for very different processes compared to standard coaxial cables. Metzner developed the required process stations for those cables and integrated them into an automatic processing machine for cable preparation results shown below.

Long HF coaxial cables are automatically re-coiled with specific coiling patterns as requested by customers.



Automatic processing of MI-insulated cables



MI cables are used for power and control circuits of critical equipment, such as nuclear reactors, exposure to dangerous gasses, high temperature measurement devices or critical process valves in the petrochemical industry.

Due to their very special design with copper conductors inside a metal sheath, insulated by inorganic magnesium oxide powder, standard cable processing equipment is unsuitable for those cables. Metzner has developed specific processes to prepare MI-cables in an automatic sequence and integrated in an automatic processing machine:

- Straightening with roller straightener or rotational straightener
- Cut to length with precision cutting disc
- Incise cutting for stripping with high precision real-time process control
- Ultra-sonic stripping
- Inner conductor cleaning with sandblast

With the dedicated process know-how and the machine base installed, Metzner is seen as a leader in this area of application.



ALL OUR EXPERIENCE FOR YOUR SOLUTION

4 succesfull companies – 1 group



Metzner
Maschinenbau

Rubber & Plastic Processing

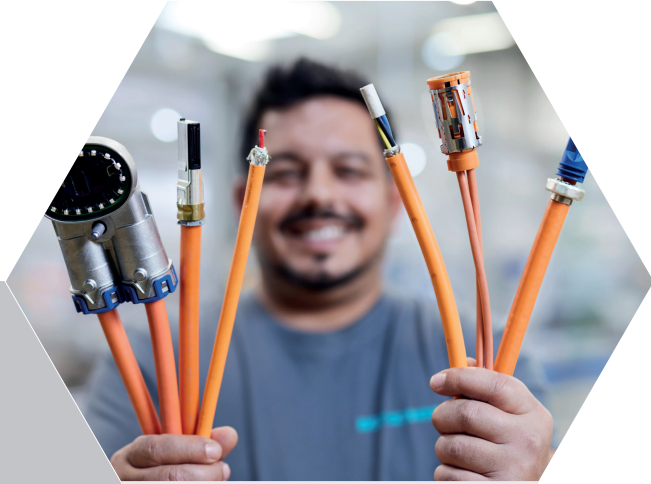
Corrugated Tube Processing

Cable Processing



ulmer GmbH
MASCHINENBAU

Metzner
E-Mobility



High-voltage Cable Processing



Cable Winding

Cable Processing



ramatech
systems

METZNER SALES PARTNERS WORLDWIDE

Internationally, Metzner is represented in more than 30 countries by qualified partners for sales and service. Metzner is working actively on further developing its global presence. Specialised partners for the business segments cable processing or rubber and plastic processing offer professional sales consulting and service know-how. A list, you can find here: www.metzner.com/company

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