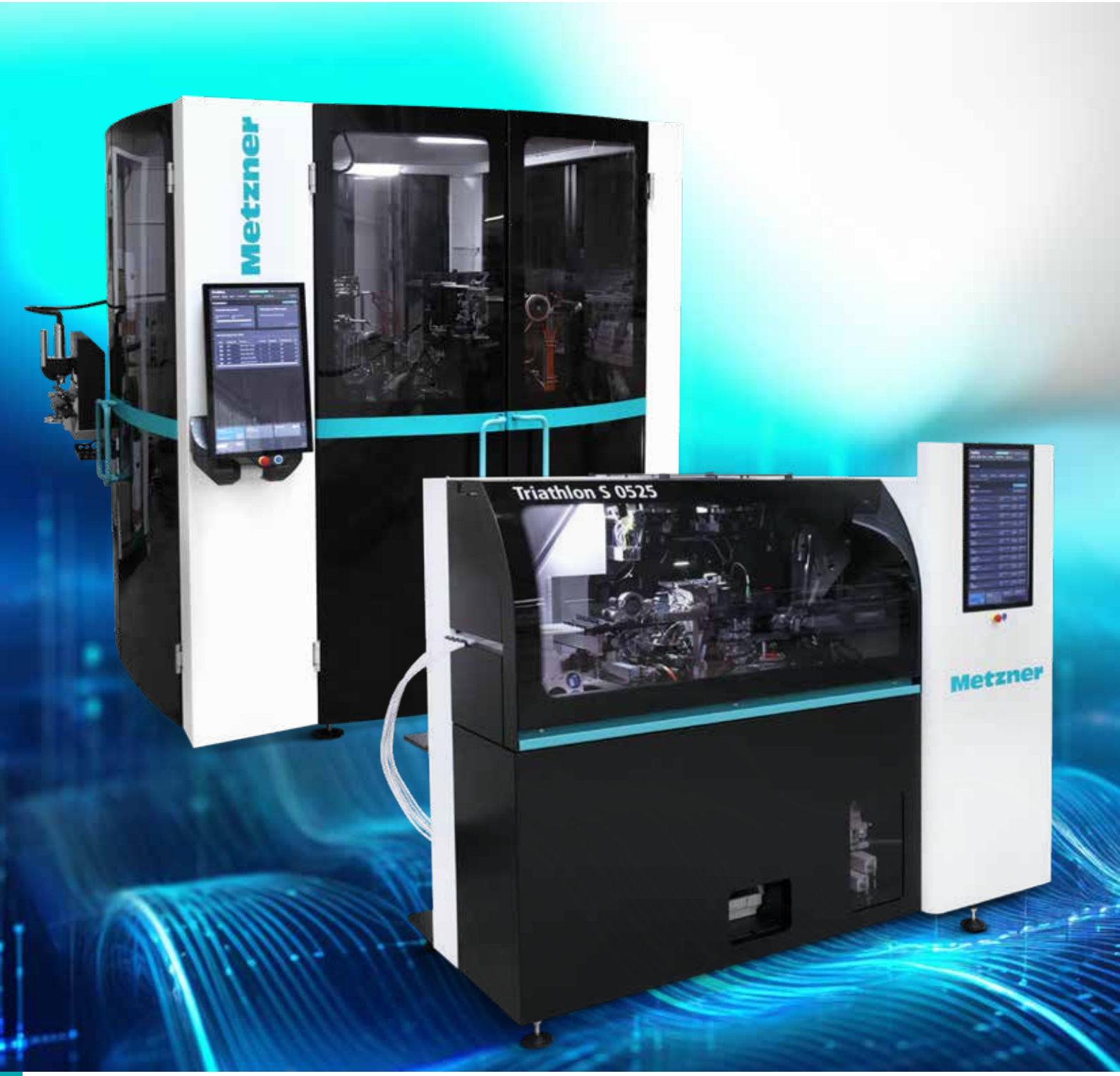
Metzner



METZNER TRIATHLON SERIES

Fully automatic. Fast. Efficient.

METZNER TRIATHLON

Reducing Costs in Control Cabinet Manufacturing

The Metzner Triathlon machines deliver all wires for a control cabinet, fully assembled, ready for installation, and in the correct wiring sequence. **Fully automatic and requiring minimal personnel!**

The machines use a file as input that contains a list of all wires for a control cabinet.

The **Metzner Triathlon machines work approximately 15 times faster than a qualified specialist.**

The **Triathlon S delivers 300 wires per hour**, and the **Triathlon L delivers 450 wires** a length of 150 mm and ferrules on both ends.





Return on Investment

This means the Metzner Triathlon machines pay for themselves **in approximately 2 years**, with an annual production volume of 200 control cabinets each with about 500 wires.

METZNER TRIATHLON SERIES S AND L





METZNER TRIATHLON S 0525/ 1060

– Automatic wire change: 12-fold
– Wire output: Chain bundles or wire magazines
– Max. number of wire magazines: 5 pcs.
– Cycle time: 11 sec.

METZNER TRIATHLON L 0525/ 1060

– Automatic wire change: 36-fold
– Wire output: Chain bundles and/or wire magazines
– Max. number of wire magazines: 15 pcs.
– Cycle time: 8 sec.



TRIATHLON ADVANTAGES

1. Wire Output as Chain Bundles or in Magazines – Always in the Correct Sequence

The produced wires are optionally stored either between two adhesive tapes as chain bundles with different cross-sections from 0.5 mm² to 6 mm² or in wire magazines.

No matter which output form you choose, the wires are always sorted to match the sequence of the control cabinet wiring process.

When outputting wires into magazines, each cross-section is placed in a separate wire magazine. After the assembly is complete, the wire magazines are removed from the machine and transported directly to the wiring workstation using an optionally available transport cart.

Removal occurs in the predefined order without removing the adhesive tape.





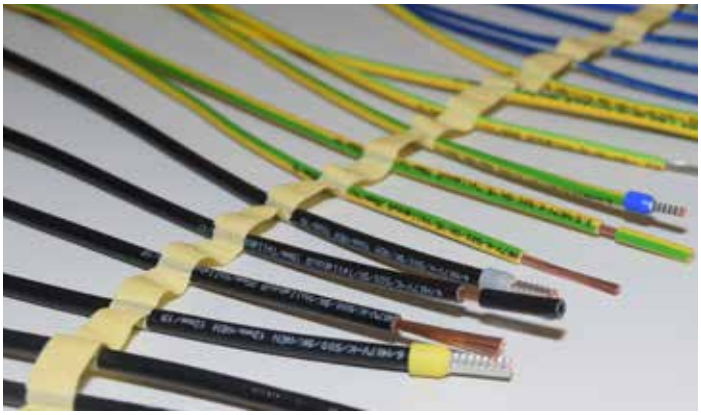


2. Automatic Wire Marking with Source/ Destination Labeling

Modern inkjet printers label the wires with excellent readability and automatic selection of the correct contrast color relative to the wire color.

The marking is done automatically in-line, without loss of time and without additional drying times. The labeling can be applied at adjustable positions or continuously, as desired.



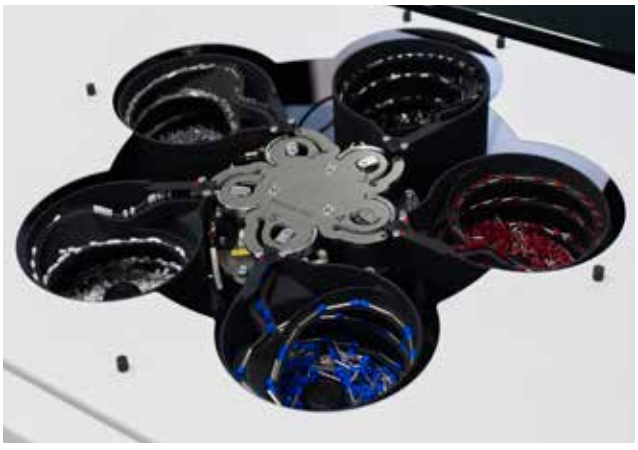




3. Automatic Crimping Device with 5 or 10 Feeder Bowls

The feeder bowls, covering a cross-section range from 0.5 mm² to 6 mm², are selected according to customer requirements and automatically process loose wire end ferrules with lengths from 8 mm to 18 mm using a quattro crimping tool, without requiring retooling.

Ferrules processed comply with DIN 46228. In addition to output with ferrules, wires can also be delivered with full strip lengths from 2 mm to 22 mm or with partial strip lengths from 6 mm to 20 mm.





4. Automatic Wire Change

Automatic wire changing for all wires required in a control cabinet project is a prerequisite for wire output according to the wiring sequence. The Triathlon S offers automatic wire changing for 12 wires, and the Triathlon L for up to 36 wires.

Each quickly exchangeable wire cassette contains 12 wires, which are automatically processed by the Triathlon machines via an RFID chip.

The Triathlon L is designed to hold 3 cassettes simultaneously, each with 12 wires, and the Triathlon S for 1 cassette with 12 wires. With both machines, the cassettes can be changed tool-free in approximately 30 seconds.

The machine automatically recognizes the wires and independently sets all processing parameters for the new wires.





5. Intelligent Wire Storage

As an accessory to the Triathlon machines, Metzner offers an ideally matched and intelligent wire storage system with space for 12 wire bundles/drums.

The wires are guided through Teflon tubes to the wire cassette, where the machine automatically detects the loaded wires as soon as the cassette is fed into the machine.

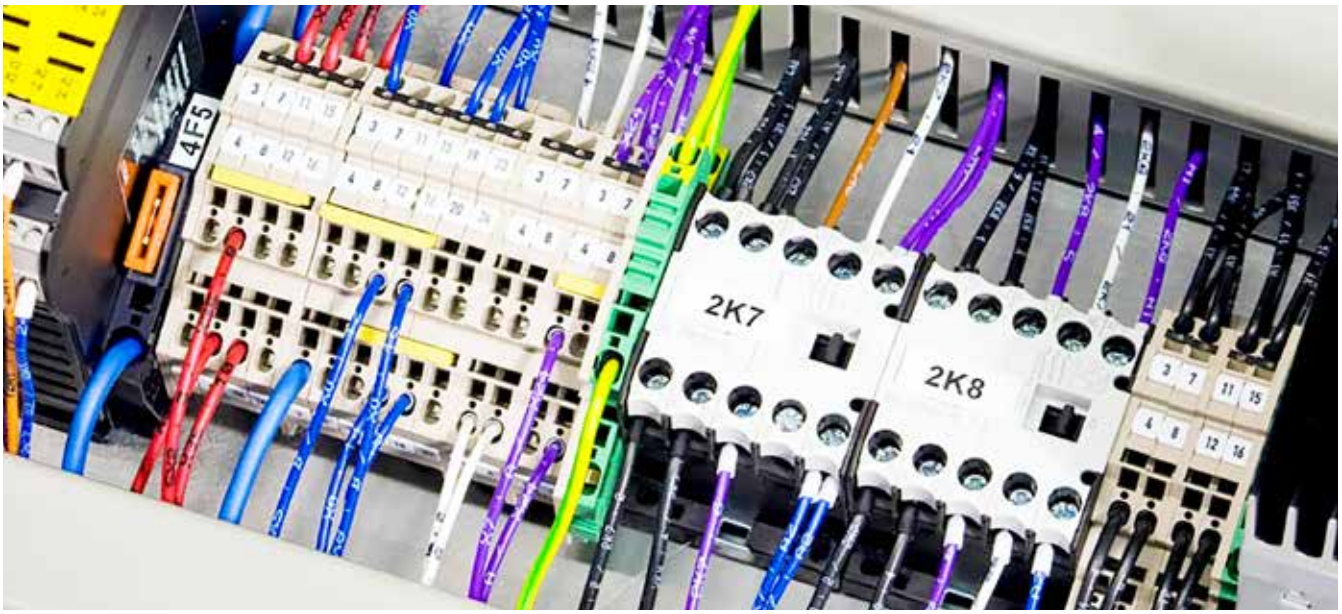
With the quick-change device and convenient castors, replacing a wire storage unit takes minimal time. The Triathlon L can process 3 wire storage units simultaneously.



6. Further Savings

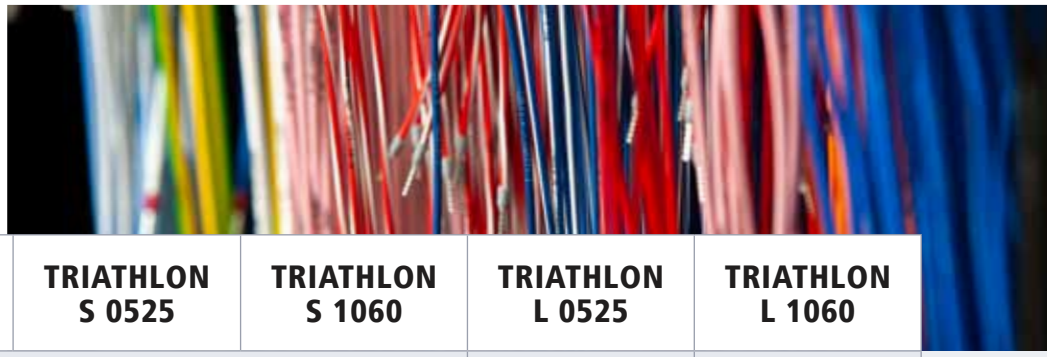
With the output of wires in the correct wiring sequence and automatic individual labeling, the wiring technician can identify the source and destination of a wire without further checking the circuit diagram.

By outputting in wiring sequence, the source position is also automatically predefined. This reduces errors and simultaneously achieves further significant savings in wiring, which additionally improves the ROI consideration mentioned at the beginning.









PERFORMANCE OVERVIEW TRIATHLON	TRIATHLON S 0525	TRIATHLON S 1060	TRIATHLON L 0525	TRIATHLON L 1060
EQUIPMENT				
Wire Cross-section	0.5 – 2.5 mm²	0.5 – 6 mm²	0.5 – 2.5 mm²	0.5 – 6 mm²
Wire Diameter	1.5 – 4.0 mm	1.5 – 5.5 mm	1.5 – 4.0 mm	1.5 – 5.5 mm
Automatic Wire Change	12 Wires	12 Wires	up to 36 Wires	up to 36 Wires
Automatic Ferrule Change	5	10	5	10
Sequential Wire Output	Bundle or Rail system	Bundle or Rail system	Bundle and/or Rail system	Bundle and/or Rail system
Max. Number of Wire Magazines	up to 5 pcs.	up to 5 pcs.	up to 15 pcs.	up to 15 pcs.
Printing	1 or 2 Inkjet	1 or 2 Inkjet	1 or 2 Inkjet	1 or 2 Inkjet
Data Import	XLSX, CSV, TXT	XLSX, CSV, TXT	XLSX, CSV, TXT	XLSX, CSV, TXT
PERFORMANCE DATA				
Shortest Wire Length	150 mm	150 mm	150 mm	150 mm
Longest Wire Length	7,000 mm	7,000 mm	7,000 mm	7,000 mm
Stripping Length	bis 22 mm	bis 22 mm	bis 22 mm	bis 22 mm
Ferrule Length	8 – 18 mm	8 – 18 mm	8 – 18 mm	8 – 18 mm
Partial Strip	6 – 20 mm	6 – 20 mm	6 – 20 mm	6 – 20 mm
Full Strip	2 – 22 mm	2 – 22 mm	2 – 22 mm	2 – 22 mm
Cycle Time with Ferrules on both sides	11 sec	11 sec	8 sec	8 sec
TECHNICAL DATA				
Operating Voltage	230 V, 1~, 50 Hz/ 60 Hz	230 V, 1~, 50 Hz/ 60 Hz	230 V, 1~, 50 Hz/ 60 Hz	230 V, 1~, 50 Hz/ 60 Hz
Power Consumption (approx.)	1 KW	1 kW	1 kW	1 kW
Compressed Air Connection	min. 6 bar, max. 10 bar	min. 6 bar, max. 10 bar	min. 6 bar, max. 10 bar	min. 6 bar, max. 10 bar
Dimensions (L x W x H)	2,170 mm x 1,080 mm x 1,.870 mm	2,170 mm x 1,080 mm x 1,870 mm	1,960 mm x 2,255 mm x 2,255 mm	1,960 mm x 2,255 mm x 2,255 mm
Weight	800 kg	800 kg	1,390 kg	1,390 kg

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