

# WIREFORM

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3/2024

September

English edition of the  
magazine for the spring,  
wire and cable industry  
[www.wire-magazine.de](http://www.wire-magazine.de)

NEW DEDICATED MACHINE  
FOR THE PRODUCTION OF MICROSPRINGS

WIRE DIAMETER FROM 0.05 MM

*Simplex Rapid*

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SIMPLEX RAPID S.R.L.

MILAN - ITALY



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## Research

Innovative lubricants for cold forming  
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New forming technology  
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## FUL 36+

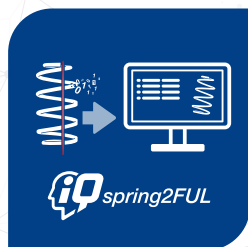
### CNC SPRING COILING MACHINE WITH ASSISTED FUNCTIONS

Machines with assisted or automated functions help the user and make everyday processes faster. The compression spring coiler FUL 36+ features individual, assisted and automated functions that the operator can use without operator guidance.

**OPERATOR  
LEVEL**

**1 2 3 4**

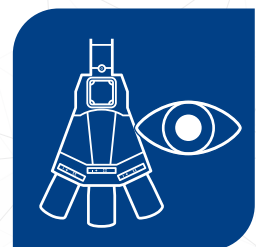
Machine with individual assistance and automation functions



Copying a compression spring by means of an external measuring device



Pay-off unit with residual weight detection



Motor-driven and electrically controlled sorting device



# Plenty of opportunities

There are still a number of ways this autumn to see live the new products and innovations that were presented in Düsseldorf at 'wire 2024'. Users who were unable to come to Germany in April can now catch up with these in Asia and America, and have two opportunities to do so in Europe.

'wire China 2024' will be held on 25 to 28 September at Shanghai New International Expo Centre. After 20 years of growth and accumulation, the fair has developed into the flagship exhibition of the industry, says the organiser, Messe Düsseldorf. In 2024, the exhibition's scale will be expanded to 10 pavilions. These trade fairs are expected to cover an exhibition area of 114,500 sqm, with more than 1,900 companies exhibiting. In addition, 'Tube China' will also set up two special zones, 'Thermoprocess China 2024' and 'Saw and Laser Cutting China 2024'. Visitor pre-registration is free of charge and open now.



The Chicago Association of Spring Manufacturers, Inc. (Casmí) and the Spring Manufacturers Institute (SMI) have partnered to combine the two organisations' semi-annual events into one principal industry event. The joint 'Spring World Expo and Symposium' will be held from 2 to 4 October at the Donald E. Stephens Convention Center in Rosemont, Illinois. In addition to the Casmí-hosted exhibition hall, SMI will also host two mornings of business and technical content, including 24 educational sessions. Exhibition hall hours will be as in previous years and the technical theatre and receptions are returning. Preparations are underway for the 4<sup>th</sup> edition of "Fastener Fair Italy", the biennial event dedicated to the fastener and fixing industry. The event will kick off on 29 October in Milan, in Hall 3 at 'CityLife Allianz MiCo'. Online registrations are open for free entry. This is an unmissable two-day event dedicated to the fastening and fixing technologies, where national and international producers and distributors will showcase their products, equipment and services. The great success of the 3<sup>rd</sup> edition saw over 2,800 industry experts turn out, as well as more than 2,300 visitors including managers, executives and engineers, and over 200 exhibitors from 18 countries.

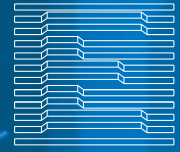
The 'MSV International Industrial Fair' from 8 to 11 October in Brno, Czech Republic, is "the most important industrial fair in Central Europe", according to organiser BVV. All key fields in the machinery and electrical engineering industry are represented, with primary focus on machining and forming. MSV's spotlight is Industry 4.0 and the Digital Factory – that is, digitalisation in production, one of the key trends of the innovation process. Other highlighted topics include the circular economy and the management of material resources.

For all those who are unable to attend these fairs either, we aim to keep everyone up to date with our coverage of the spring, wire and cable sector.

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## EUROBEND



### Innovation & History



- Mesh welding lines for standard mesh-Non-Stop System
- Flexible mesh welding lines for special and engineering mesh
- Mesh welding lines for 3D Fence panels
- Mesh welding machines for spacers and bar supports
- Rotor straightening machines for wire up to 50mm
- Multi-rotor straightening machines
- 2D/3D Wire bending machines
- Multi-line 3D wire bending machines



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**12 Innovative lubricants revolutionize cold forming**

Metals can be processed into wires by cold forming. However, the lubricants needed for this often do not meet the requirements of the end processors. Five partners from industry and research have developed a new class of polymer lubricants.

**14 Short cycle times, quick tooling and flexibility**

Always the same cycle with always the same travels and setup times of hours and days are a thing of the past. The flexibility of the modular CNC transfer bending machine “BQ 10” is hard to beat. Each individual transfer of the workpiece can be separately adjusted.



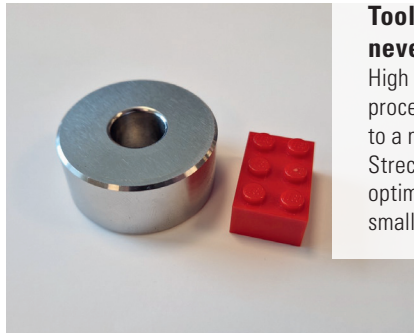
**20 Welding trapezoidal wire**

Cold pressure welding, well-established as a method of bonding round wire and rod, can also be used to bond other forms of nonferrous material, such as strip and profile. PWM has developed specialist machines



**18 Tool strength has never been more compact**

High tool loads are a challenge in cold forging processes of all sizes. While previously limited to a minimum outer diameter of 80mm, compact Strecon stripwound containers now offer optimized prestressing in installation spaces as small as 36mm in outer diameter.



**24 Emerging for EV demand**

The “YJ-320” spring machine pushes the boundaries of cold coiling technology, enabling the production of suspension springs with diameters up to 22mm and tensile strengths reaching 2,000MPa.



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**Springs manufacture**

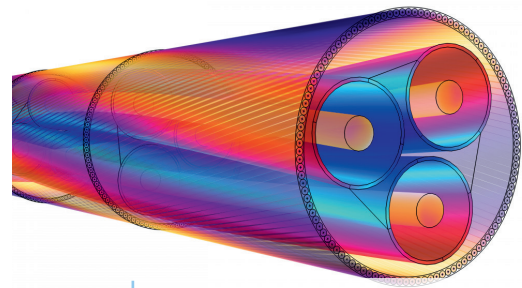
Innovations in spring manufacturing 30





**25 Investment doubles hot coiling manufacturing capacity**

The Lesjöfors Group has seen an increase in demand for its large diameter spring product range and consequently has invested over one million euros in the purchase of an additional hot coiling line.



**38 Cable analysis using 3D modeling and simulation technology**

NKT in Sweden uses numerical modeling to investigate electromagnetic fields and calculate armor losses in 3D cable designs. The modeling results were validated with experimental measurements in order to be able to carry out design analyses with the aid of simulations.

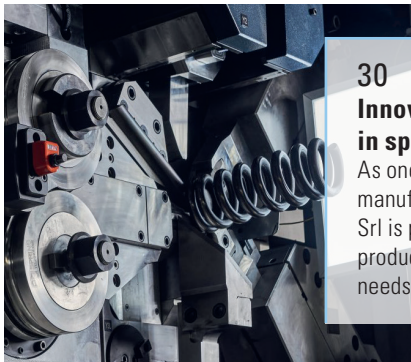
**34 Compact spark tester**

Zumbach has developed a new spark tester to fit applications where space and positioning flexibility are critical. The "DST 10's" compact size and mounting capabilities ensure successful installation in any application, including horizontal, vertical or diagonal.



**44 Payoffs and takeups for braiding and spiralling**

Spirka Schnellflechter (SSB) embodies more than 100 years of tradition in braiding machine construction and has its origins in Schnellflechter Berlin, whose origins go back to the company Guido Horn (founded in 1908) and Spirka Maschinenbau, founded in 1951 in Alfeld /Leine.



**30 Innovations in spring manufacturing**

As one of the leading names in the spring manufacturing industry, BB Spring Technology Srl is proud to offer a comprehensive range of products designed to meet diverse production needs.



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