

Table of Contents

Summer 2010

Vol. 13, No. 3

Wire Forming Technology

International



Rod, wire & bar plant expanded...24



Stress relief for wire coils...26



High-precision bending...30



Multi-line straightening, bending & cutting machine...44



Feature Articles

24 Increased Production & Product Portfolio: Phase One Expansion Is Complete

Dan Buba - Rod, wire and bar supplier enhances its ability to serve the forming market from its North American and European facilities.

26 Stress Relief

Daniel H. Herring - Stress relief is a simple heat-treating operation that depends strongly on the proper selection of temperature, time at temperature and a proper cooling rate for success.

29 Mechanical Properties – Part 6, Torsional Strength & Ductility

Dr. Roger N. Wright - *The Strength of Steel* column, dedicated to the metallurgy of spring making and wire formed parts manufacturing.

30 Tough Manufacturers Work Smarter in a Tight Economy

Diana Gruhn - In a price-driven market, manufacturers need to do everything they can to keep their production costs down in order to maintain a safe profit margin.

33 Stress Corrosion Cracking

Mark Hayes - "Technically Speaking" column.

40 Enhancement of Shot Peening Performance on Spring Components

François-Xavier Adabie - Use of high-strength steels with proper component and process design is an effective solution for greater vehicle efficiency in terms of weight reduction and fuel savings.

44 Wire Forming & Tube Bending Roundup

Editorial Staff - Suppliers have responded to our call for the state-of-the-art in wire forming and tube bending equipment and technology.

50 Spotlight On Heat Treatment

Michael McNulty - Heat treatment is used to achieve stress relief and changes in softness, hardness, ductility and strength for wire, springs and wire formed parts.

58 Water-Reducible, Non-Electrolytically Applied, Zinc-Aluminum Flake Coating

Kalyan Dhakane/Digamber Dhake - Environmentally-friendly, micro-layer corrosion protection technology for mass produced springs and metal formed components.

Industry Events

13 SPRING WORLD® 2010 Preview

Preview of SPRING WORLD®, to be held October 13-15, 2010 in Rosemont (Chicago), IL, USA.

34 Straight From The Show

More images, facts and news from *wire 2010*, held April 12-16, 2010 in Düsseldorf, Germany.

52 Scale of *wire China 2010* Reaches Historic Level

Preview of *wire China 2010*, to be held September 21-24, 2010 in Shanghai, China.

Tech Brief

32 High-Yield Spring Grinding Capability

Departments

Wire Forming Events.....	4
Editorial.....	6
News Wire.....	8
Product Showcase.....	61
Advertisers' Index.....	63
Classified Advertising.....	63
Editorial Index.....	64

Next Issue: Fall 2010

Company Profiles

Technical Achievement Awards

Emphasis: Fence Making

Roundups: Spring Grinding & Wire Handling

Spotlight: Testing