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AISI Specification Changes

This Technical Bulletin summarizes recently approved changes to Section A3.1.3 Steels with a Specified Minimum Elongation of Less Than Three Percent (Elongation < 3%) of the *North American Specification for the Design of Cold-Formed Steel Structural Members*, AISI S100. These approved Committee on Specifications changes will be published in the next edition of AISI S100. They are being summarized here to enable users of the specification to implement the new provisions with approval of the local building official. This information is printed with permission from the American Iron and Steel Institute

Regarding Section A3.1.3 (c), in 2020, the upper limit on F_u was adjusted to 80 percent of the specified minimum *tensile strength*, or 65 ksi (448 MPa or 4570 kg/cm²), whichever is lower, which aligns with commonly used Grade 50 steels. The modest increase from 62 ksi (427 MPa or 4360 kg/cm²) to 65 ksi (448 MPa or 4570 kg/cm²) did not negatively affect the recalibrated *safety and resistance factors* for welds and screws determined in the research (Blackburn and Sputo, 2016; and Stevens, Sputo and Bridge 2020).

References

Blackburn, B.P. and Sputo (2016), "Resistance of Arc Spot Welds – Update to Provisions," *Proceedings of the International Specialty Conference on Cold-Formed Steel Structures*, Missouri University of Science and Technology, Rolla MO, November, 2016.

Stevens, T., Sputo, T., and Bridge, J. (2020) "Strength of Steel-to-Steel Screw Connections – Update to Provisions," *Proceedings of Cold-Formed Steel Research Consortium Colloquium 2020*, <https://jscholarship.library.jhu.edu/handle/1774.2/63180>

Disclaimer

The material contained herein has been developed by a joint effort of the American Iron and Steel Institute (AISI) Committee on Specifications, CSA Group Technical Committee on Cold Formed Steel Structural Members (S136), and Camara Nacional de la Industria del Hierro y del Acero (CANACERO) in Mexico. The organizations and the Committees have made a diligent effort to present accurate, reliable, and useful information on cold-formed steel design. The

Committees acknowledge and are grateful for the contributions of the numerous researchers, engineers, and others who have contributed to the body of knowledge on the subject. Specific references are included in the Commentary on the Specification.

With anticipated improvements in understanding of the behavior of cold-formed steel and the continuing development of new technology, this material may eventually become dated. It is anticipated that future editions of this Specification will update this material as new information becomes available, but this cannot be guaranteed.

The materials set forth herein are for general information only. They are not a substitute for competent professional advice. Application of this information to a specific project should be reviewed by a registered professional engineer. Indeed, in most jurisdictions, such review is required by law. Anyone making use of the information set forth herein does so at their own risk and assumes any and all resulting liability arising therefrom.