

Decades in the Making: ANSI/AGMA 2101-E25

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Publishing technical standards is a lengthy process that takes place over several years. After the process of the working group writing the document, AGMA staff making changes from the General Ballot, and completing all associated ANSI documents, it is finally time for the working group to turn the document over to AGMA staff for publication. These final publication tasks are to:

- Create publication draft and final formatting to AGMA style guide requirements.
- Go through the publication checklist.
- Final review by the working group leader/volunteers to make sure all final changes from the General Ballot are correctly incorporated.
- File the ANSI BSR 9 form to report the voting summary and register the project as complete with ANSI.
- Final AGMA publication actions:
 - Send the new publication to online resellers.
 - Add a new publication to the online store.
 - Announce the publication via AGMA newsletter, press release, *Gear Technology* and other AGMA media, etc.
 - Notify the technical representative at each AGMA member company of the new publication and how to obtain it.

Sometimes the process can be extra complicated. This leads us to the case of ANSI/AGMA 2101-E25.

Work on the new edition began soon after the publication of the 2004 edition. The committee set out with the goal of using ISO 6336 as the base document and incorporating the unique features of ANSI/AGMA 2001. As this process continued, many in the gear community felt the need to maintain ANSI/AGMA 2101 for use as a fundamental standard and in various application standards derived from it. This resulted in a major course correction back to the basis of the 2101-D04 document and improvement to rating methods and specifications. Having reached the final agreement on the draft, two committee ballots and a general ballot were held to confirm that we had reached consensus.

And without further ado, AGMA is pleased to announce the publication of: ANSI/AGMA 2101-E25, *Fundamental Rating Factors and Calculation Methods for Involute Spur and Helical Gear Teeth*, written by the AGMA Cylindrical Gear Rating Committee.

ANSI/AGMA 2101-E25 provides a choice of methods by which different gear designs can be theoretically rated and compared.

ANSI/AGMA 2101-E25 added an extensive discussion of safety and service factors, and removal of the unity factors for size and surface condition. New factors added to the standard

ANSI/AGMA 2101-E25— AGMA Cylindrical Gear Rating Committee

Chair: Frank C. Uherek, Regal Rexnord Corporation

Kevin Acheson, The Gear Works, a Division of Machinists Inc.

John Amendola, Sr., Artec Machine Systems

Richard Calvert, Chalmers & Kubeck

Robert Errichello, Geartech

Vanyo Kirov, Caterpillar Global Mining

Yefim Kotlyar, Machine Tool Builders / Emeritus

Jose Martinez Escanaverino, Atlantic Bearing Services

Andrew Milburn, Milburn Engineering

Robin Olson, Regal Rexnord Corporation

Mark Perkins, Peerless-Winsmith

Ernie Reiter, Web Gear Services

Janusz Roszczenko, Philadelphia Mixing Solutions – SPX FLOW

Charles Schultz, Beyta Gear Service

Seth Stelpflug, Metso Minerals

Al Swiglo, Swiglo Metallurgical Consulting

Walt Weber, Flender

were Y_1 reverse bending factor and K_γ mesh load factor. The grade requirements for non-metallic inclusion, ultrasonic, and microstructure characteristics apply only to those portions of the gear material where the teeth will be located to a depth below the finished tooth tip of at least 1.5 times the tooth height, was 1.2 times the tooth height. The term pitting was replaced with macropitting to match the usage in ANSI/AGMA 1010. Maximum case depth is now measured at the tooth tip rather than on the flank.

On behalf of the gearing industry, AGMA would like to extend a sincere appreciation for the participation and the valuable contributions of the listed experts. In addition, AGMA would like to thank the companies of these experts during their time of contribution whose foresight and generosity made their participation possible.

