Bryan R. Fischer

President – TDP360 LLC

Mr. Fischer is a leading expert and published author with over 35 years of experience in GD&T/GPS, tolerance analysis, 3D MBD/MBE, engineering standards, drawing quality, and dimensional management. He has worked as a designer, engineer, checker, cad programmer, tolerance analyst, trainer and consultant in many industries, commercial and government, with companies of all sizes. He consults with software developers (CAD, CAM, inspection, analysis, etc.) to improve their implementation of GD&T, GPS, PMI, and 3D model-based practices. He is a lifetime member of American Society of Mechanical Engineers (ASME). He is an ASME Certified Senior Level GD&T Professional and a leading expert in GD&T, GPS, and tolerance analysis in the US. He was President of the NW Chapter of the American Design Drafting Association from 1992-1993.

Mr. Fischer has an Associate of Science Degree in Drafting Technology – Design from Ohlone College; Associate Degree in Arts and Science from Columbia Basin College; Bachelor of Science in Mechanical Engineering Technology, Oregon Institute of Technology (OIT). Mr. Fischer has been an Adjunct Professor at OIT.

Standards Management

Mr. Fischer has been active in corporate, national, and international standards development and management throughout his career. He is a member of many standards committees and organizations as follows:

Chairman: ASME Y14.48 Sub-committee: Directional and Load Indication (2017–present)

Founding Member: ASME Model-Based Enterprise (MBE) Steering Group (2018–present)

Member: ASME Y14.5 Sub-committee: Dimensioning and Tolerancing (1999–present)

Member: ASME Y14.41 Sub-committee and Support Group: 3D Product Definition Data Practices (2003-present)

Member: ASME Y14.45 Sub-committee: Measurement Data Reporting (2008–present)

Member: ASME Y14.100 Sub-committee: Engineering Drawing Practices (1993–present)

Member: AIA-ASD LOTAR International Team: Processes for STEP and 3D Digital Data Product Definition (2009-present)

Member: Drawing Practices Group (DRPRG): Conversion of MIL-STD-100 to ASME Y14.100 (1993–1996)

Member/Delegate: ASME/ANSI Technical Advisory Groups for ISO TC 10 and ISO TC 213 GPS Engineering Standards

Member: ISO TC213 Geometrical Product Specifications (GPS)

Member: ISO TC184/SC4 Industrial Data: STEP ISO 10303 Product Data Representation and Exchange

Notable Publications

Fischer, Bryan R., Understanding Engineering Drawings, Advanced Dimensional Management Press, 2000-2006. Manual and workbook for training industrial staff in reading engineering drawings.

Fischer, Bryan R., Journeyman's Guide to Geometric Dimensioning and Tolerancing: GD&T for a New Millennium, Advanced Dimensional Management Press, 2002-2009. Training and reference manual for GD&T.

Fischer, Bryan R., Mechanical Tolerance Stackup and Analysis, Marcel-Dekker/CRC Press, 2004. Exhaustive technical reference and textbook for teaching Mechanical Tolerancing, Tolerance Stackups and Tolerance Analysis.

Fischer, Bryan R., Tolerance Stackups, Tolerance Analysis & Tolerancing: Fundamentals, Philosophy, Techniques and Application – Plus and Minus Edition, Advanced Dimensional Management Press, 2005. Training and reference manual for Tolerancing, Tolerance Stackups and Tolerance Analysis using Plus and Minus Dimensioning and Tolerancing.

Fischer, Bryan R., Workbooks for Tolerance Stackup and Tolerance Analysis: GD&T and Plus and Minus Editions, Advanced Dimensional Management Press, 2005. Workbooks to accompany Tolerance Analysis reference manuals.

Fischer, Bryan R., Geometric Dimensioning and Tolerancing Visual Glossaries, Advanced Dimensional Management Press, 2006-2009. Visual Training Reference for GD&T. Adjuncts to "Journeyman's Guide to GD&T."

Fischer, Bryan R., Drawing Requirements Manual: 11th Ed. IHS Global, (1216 pgs: J. Leiblich orig. auth.); Revised 10th Ed. and wrote a new section on 3D PMI, Digital Modeling, Annotation, and Using Digital Data as Design Deliverables, 2008.

Fischer, Bryan R., GD&T Update Guide: ASME Y14.5-2009 – Changes, Improvements, and Clarifications, Advanced Dimensional Management Press, 2009. Training and reference manual detailing changes in the ASME Y14.5-2009 standard.

Fischer, Bryan R., GD&T, CAD and MBD – Today's Tools and Techniques Evolve for Tomorrow, Machine Design Magazine, March 17, 2011; Addresses 3D model-based concepts in industry and role of traditional engineering standards in 3D model-based context.

Fischer, Bryan R., A STEP Up – A Neutral File Format Brings More Information Into Play, Mechanical Engineering Magazine, March 2015; Addresses the promise of the new STEP standard ISO 10303-242 and the 3D model-based concepts it supports for industry.

Notable Design Accomplishments

Void Fraction Instrument: Westinghouse Hanford Co., 1993–1994. Lead Mechanical Designer for Sampling Arm, remotely deployed to assess mitigation of hazardous gas accumulation. Highlighted in *Mechanical Engineering Magazine*, June 1995. Developed and defined NIST 3D PMI Test Model Suite, for analysis and validation of 3D CAD Software systems, 2011-2013.

Consulting

Mr. Fischer has consulted and led in-house training and public seminars in Drawing Practices, Drawing Standards, Drawing Quality, Geometric Dimensioning and Tolerancing, Tolerance Analysis and 3D MBx practices since 1997. Mr Fischer is a leader in research and development of 3D-MBD, 3D-MBE, 3D-GD&T, and PMI standards, techniques, and implementation.