

# THE 21 TAO TOLERANCING PRINCIPLES

from *The Tao of Tolerancing*, by Alex Krulikowski

- 1 Nominal thinking will always result in Tolerancing Hell.
- 2 You can *ignore* the effects of tolerances, but you cannot *avoid* the effects of tolerances.
- 3 Tolerances protect part function and allow for economical production.
- 4 A common tolerance specification method will benefit the entire organization.
- 5 Tolerances should be optimized, not compromised.
- 6 When you compromise the customer goals, the customer never wins.
- 7 You must understand the role of a component in the system before you can tolerance its features.
- 8 Component tolerancing is where the functional relationships of a component should be communicated.
- 9 What is best for the system, is best for the components.
- 10 The amount of tolerance on a part directly affects the costs to produce the part.
- 11 If part tolerances are too loose or too tight, your company will fail.
- 12 It is the ultimate goal of all companies to make a profit.
- 13 The optimum tolerance protects the part function without unnecessarily restricting the mfg process.
- 14 If a company bases tolerances on the functional requirements of the product, it can produce products that are a good customer value.
- 15 Rewarding the wrong behavior (or not rewarding the correct behavior) encourages the wrong behavior.
- 16 The core tolerancing beliefs should guide your daily decisions regarding tolerancing matters.
- 17 For any skill, practice and feedback are essential to becoming or staying proficient.
- 18 Documenting GD&T business cases is critical to demonstrating its importance to the organization.
- 19 Before employees can embrace a dimensioning philosophy, they must have the skills and appreciation for using tolerances properly.
- 20 The organization that can harness the power of proper tolerancing will be the global leader.
- 21 It is better to solve problems on paper than with hardware.

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*The 21 Tao Tolerancing Principles are from the article "The Tao of Tolerancing" in ETImail, the free online GD&T newsletter on the etinews.com website.*