STATED ACCURACY VERSUS ACCREDITED ACCURACY

	STATED ACCURACY	ACCREDITED ACCURACY
	The accuracy that a manufacturer claims its measuring devices have. Stated accuracy is a **claim**.	An objective measurement of the product's true accuracy. Accredited accuracy is a **verified fact**.
ACCURACY: MORE THAN A SPECIFICATION	✗ Only a number mentioned on a specification sheet	**An indicator of the manufacturer's:** ✓ Seriousness and commitment to quality ✓ Level of technical expertise, knowledge, and proficiency ✓ Quality standards and best practices ✓ Countless tests and verifications
QUALITY STANDARDS	✗ Lacks verification or proof ✗ Fails to meet the criteria of a confirmed fact or a quality standard	**ISO 17025, A Mark of Excellence** The manufacturer's calibration laboratory meets the high standards set by the certification: - Technical competence - Quality management - Ability to perform accurate and reliable calibration results The product's calibration certificate with a certification logo shows: - Calibration date - Conditions under which the calibration was performed - Measurement uncertainty - Traceability of the measurements **VDI/VDE 2634 part 3, Assurance to Users of Optical 3D Scanners** 3D scanners meet the requirements in 3D measurements for: - Accuracy - Repeatability - Reliability **ISO 10360, More Tests for More Assurance** 3D scanners meet more requirements: - Probing form and size errors - Uni and bidirectional length measurement errors (volumetric accuracy) - Flat form measurement errors (flatness)
KNOW HOW TO INTERPRET A SPECIFICATION	**Beware of Specifications with Prefix "up to"** - Can be less accurate. - Indicate that the error can be anywhere above that specified value. - Do not guarantee that the error will not exceed that value. - Leave some uncertainty about the worst-case performance of the device.	**Certified manufacturers use the term maximum permissive error (MPE).** - MPE is more specific and rigorous. - MPE expresses the allowable error in a measurement. - MPE sets a strict upper limit on the error permissible under specified conditions. - MPE indicates that the manufacturer has defined a clear boundary for the maximum error. - MPE ensures that all measurement results are within the specifications.
INDICATOR OF A MANUFACTURER'S MARKET STATUS AND VALUE	✗ Is unverified or questionable ✗ Implies a lack of reliability **Users should expect lower-quality 3D scan data.**	✓ Synonym for a High-End Manufacturer ✓ Commitment to maintaining high-quality standards ✓ Dedication to: - Quality - Continuous improvement - Customer satisfaction - Operational excellence ✓ Guarantee of the manufacturer's seriousness and rigor **Users can be assured that the accuracy of their 3D scanners is a verified fact they can fully trust.**