

# How Do You Evaluate Accuracy

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Arguably, the world's most accurate machine. Yasda is the machine tool brand that many other machine tool builders use to make their own most demanding components. In order to produce machine tools that can literally split microns, they take accuracy to an extreme...standard linear scales, hand scraping not just way seats but actually all mating surfaces on the machine, thermal control of all structures, and a host of other advanced build techniques.

What's right for your business? This is certainly not a one size fits all proposition. If you're making components and trying to hold relatively open tolerances, you might be just fine with a budget level machine tool with JIS measured accuracies and feedback coming off the ball screw encoders. Yasda uses ISO 230-2 which measures the entire travel, 5 passes bi-directionally, not 1 pass uni-directional. (Most machine tool builders quote to JIS or similar standards, if accuracy is important, ask what standards are quoted) If you're trying to make parts with tolerances of several "tenths" you probably want to consider a higher quality machine with linear scale feedback, because once your ballscrews start to wear and the structure settles in with time, you'll be fighting to hold tolerances without linear scales. And if you're making parts with 1-2 "tenth" tolerance or even less than that (and you want to hold those tolerances for more than the warranty period of the machine,) you probably need the sophisticated construction techniques and ultimate performance of a machine like a Yasda.

