



Brilliant balancing ideas

for better tools, longer wheel life, and more durable spindles



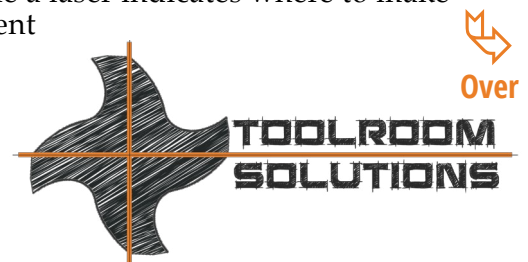
Smart solutions for balancing: Clamping nuts with movable weights and the Equi'Z balancing machine

Even if you already make beautiful tools without doing it, balancing your grinding wheels will make an *immediate improvement* in your *surface finish* and *edge quality*. That means happier customers and higher sales. Plus your wheels and spindles will last longer, reducing your costs. Balancing your finished tools will improve their performance in high speed machining, again making your customers happy. We've got *two* very bright ideas for balancing:

Idea #1: The Equi'Z balancing machine

- **Accurate:** Easily detects an imbalance of less than 0.1g and compensates for any imbalance by >95%, achieving qualities of <G2.5
- **Economical:** Much less than competing systems of comparable capability
- **Easy!** Requires no PC or programming knowledge to operate. Automatically positions the spindle while a laser indicates where to make the adjustment

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Over

More on the EQUI'Z.

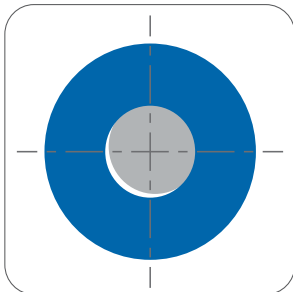
- **Self-sufficient:** No additional computers required, though it can interface to one if needed (e.g. for logging data). Self-calibrating. Works on any stable bench
- **Light** enough to move without special equipment
- **Versatile:**
 - Offers 4 different corrective methods: material removal, material addition, fixed position compensation, & adjustable rings/weights.
 - Displays results as DIN quality grade, unbalance in grams, or unbalance in gmm with a resolution of 0.1 gmm!
 - Handles a variety wheel sets and tool holders (e.g. SK40, HSK 40, HSK 50, etc)
 - Change spindles in seconds

If you prefer a larger screen and graphical menus, you can get the Equi'Z with a Windows interface to use your tablet or PC as the control

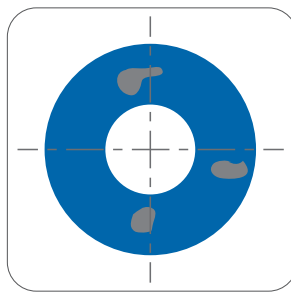


Imbalance factors:

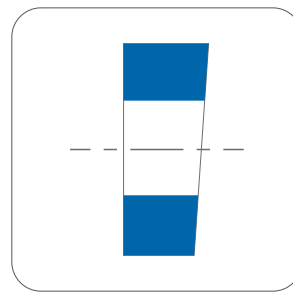
Tolerance of the grinding wheel bore



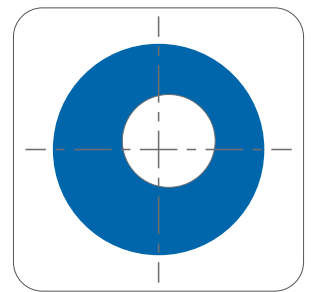
Homogeneity of the grinding wheel



Parallelism of the grinding wheel



Concentricity of the grinding wheel



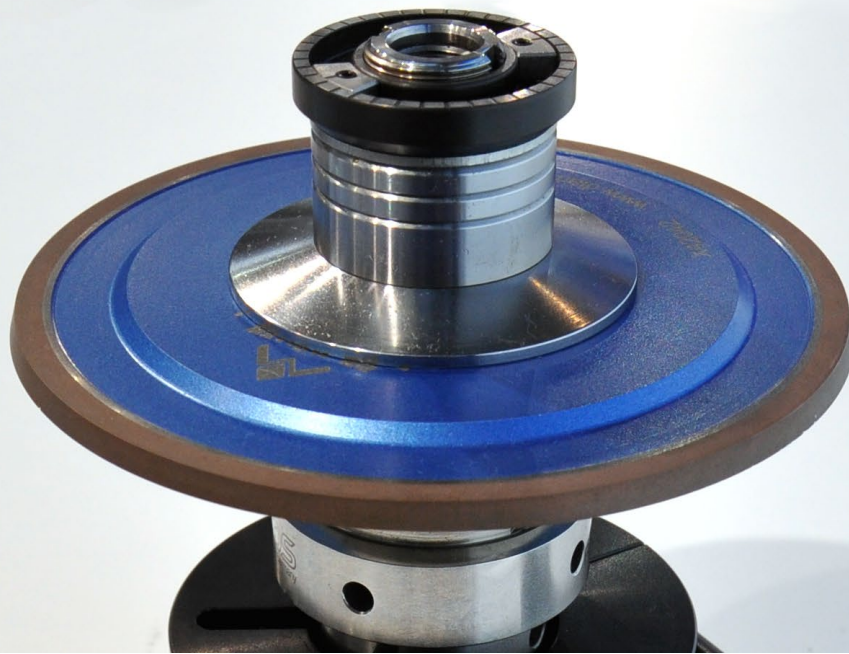
Imbalance consequences:

Reduced surface quality (chatter)

Reduced dimensional accuracy of the work-piece and increased dressing costs

High grinding wheel wear (short service life)

Spindle wear (unnecessary repairs and machine down-time)



Here's a clever way to add balancing capability to all your wheel sets

Many standard wheel adapters offer no mechanism for balancing, and many which *do* have such a mechanism are a hassle to use. We offer an excellent solution for virtually all adapters:

Clamping nuts with movable weights

- **Simple:** Just replace the existing clamping nut
- **Easy:** Your Equi'Z or comparable balancing machine will tell you where to position the precision ground weights. They slide easily in the track and are secured with a standard hex wrench
- **Effective:** Depending on the wheel arbor you can add up to 150 gmm
- **Versatile:** Balancing nuts are available for most major tool grinders, including Walter, ANCA, EWAG, Reinecker, Saacke, & Schneeburger. See the next page for examples.



We offer balancing clamping nuts for most major tool grinders for both 20 mm and 1 1/4 inch shanks



We also offer adjustable ring balancing systems

Choose from the most commonly needed balancing locknuts & associated hardware

For Strausak & Walter w/31.75 mm (1¼") shaft	
Item No.	Description
350020022	Locknut with balancing track ø60 x 9 M32x1.5 (without weights)
350020023	Balancing weight pair for locknut ø60 150gmm
350040030	Locknut wrench TK 39 for ø47

For ANCA w/31.75 mm (1¼") shaft	
Item No.	Description
350020026	Locknut with balancing track ø47 x 12 M31.5x1.5 (w/o weights)
350020021	Balancing weight pair for locknut ø50 100gmm
350040030	Locknut wrench TK 39 for ø47

For Deckel/ISOG, EWAG, Haas, Reinecker, Saacke, Schneeberger, Schütte, TTB, & Walter w/20 mm shaft & 35 mm ring set	
Item No.	Description
350020080	Locknut with balancing track ø35 x 40 x 8 M20x1.0 (w/o weights)
350020081	Balancing weight pair for locknut ø35 40gmm
350040040	Locknut wrench TK 29 for ø20

For ANCA, Haas, Reinecker, Saacke, Schneeberger, Schütte, Strausak, & Walter w/20 mm shaft & 50 mm ring set	
Item No.	Description
350020020	Locknut with balancing track ø50 x 8.5 M20x1.0 (without weights)
350020021	Balancing weight pair for locknut ø50 100gmm
350040010	Locknut wrench TK 27 for ø20



Don't see what you need? We may still have it and if it's not in stock delivery can be as fast as one week. Give us a call!

A "universal assembly device" and locknut wrench. The assembly device grips a wide variety of wheel adapters, giving you a handy station to build wheel sets for multiple machines



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**BECAUSE IT WON'T
GRIND
ITSELF**