

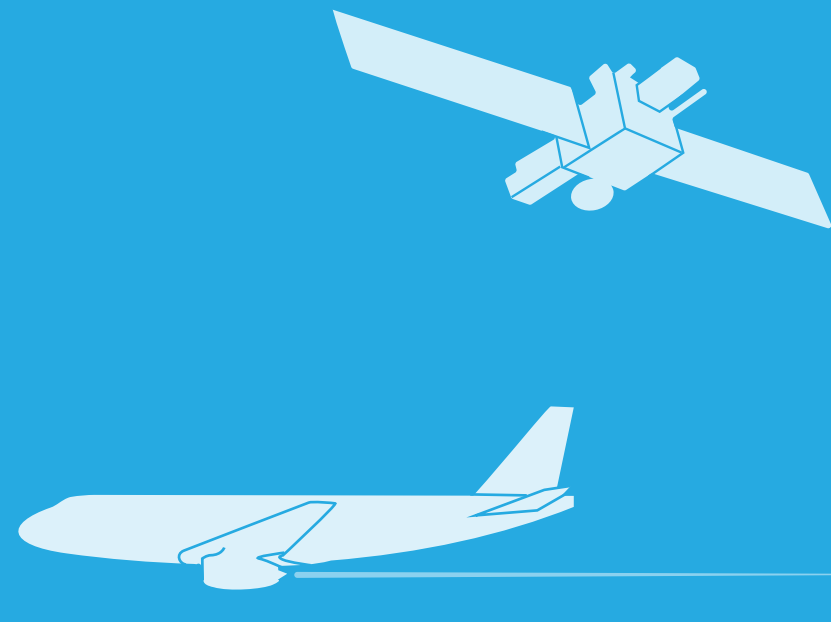
Choosing the Right Stand for Metrology Instruments

Precision measurement...

using a laser tracker, laser radar or a CMM arm requires a constant instrument position to generate valid data.

The stability of the stand is paramount.

But you knew that.



Consider and rank the criteria below to find the perfect stand for your application.

PLANE TALK

Three points define a plane, which is why restaurants have disposable coasters, and it's why metrology stands have three feet. With a tripod, the three legs define a plane that can adapt to any three points on the floor, no matter how uneven.

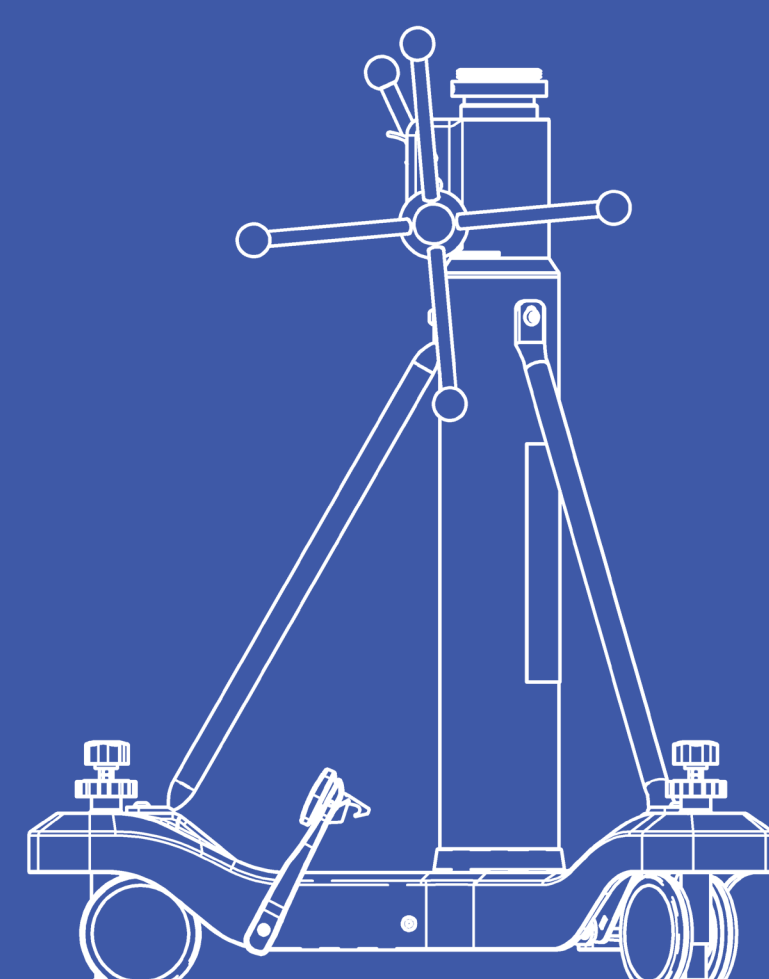
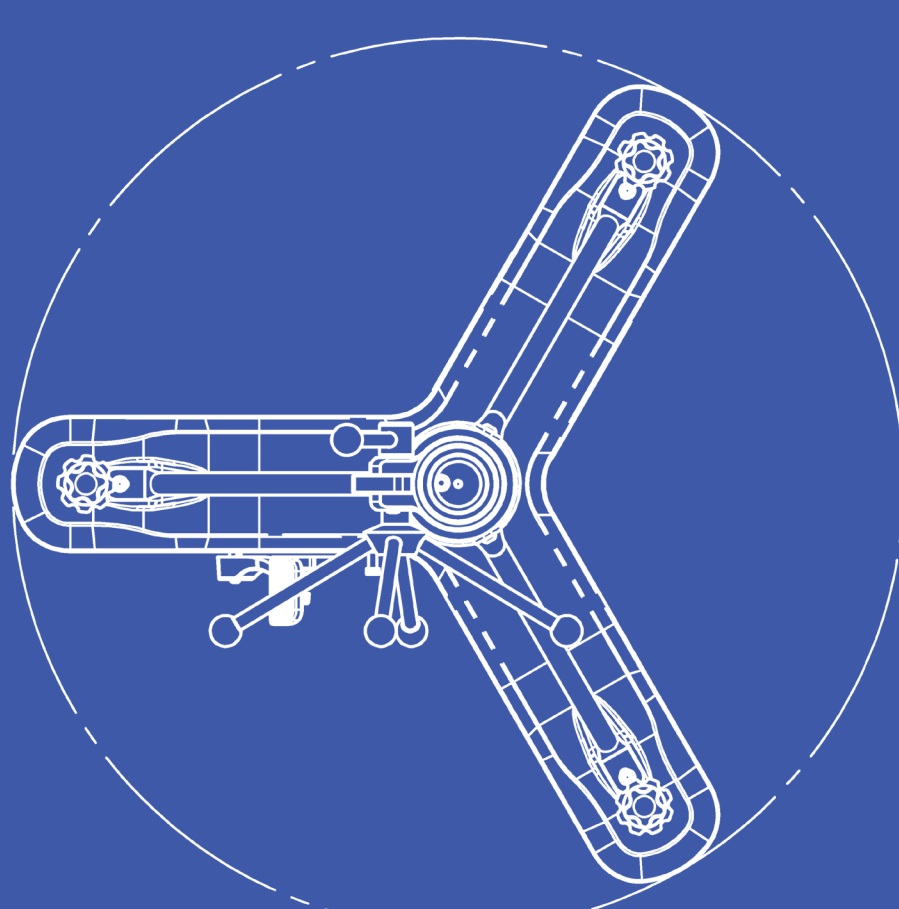
Stability is achieved.



Stand. Still. MACRO-STABILITY

At the macro-level, stability is primarily a function of footprint size and the height of the center of gravity (COG).

Taking this into account, a good metrology stand provides macro-stability throughout its full range of vertical motion.



CMM arms can introduce a moment load at the top of a stand, influencing micro-stability.

RESISTANCE TO MOVEMENT

The Rock Steady 230 Metrology Stand



Stand. Still. MICRO-STABILITY

The metrology stand must resist even the most subtle of inputs:

- Machine motion and vibration *inside* the metrology instrument: beware **Harmonic Resonance**.
- Instrument loads—including a wide variety of weights, torques and stresses.
- **Environmental**: re-route the forklift traffic!
- **User interface**: don't bump that stand.

TEMPERATURE

If changes to the ambient temperature in the stand's environment cause it to expand or contract, your measurements will be affected. The thermal factor interacts with the time factor if the temperature changes sufficiently between measurements.

At Brunson we consider the coefficient of thermal expansion (CTE) of all materials used to build our metrology stands.



PORTABILITY

Most metrology stands offer some degree of *mobility*—moving around the shop floor with greater or lesser effort. However, some applications require true *portability* with stands that can be tossed (gently, please) into the back of a truck or checked onto a flight.

Remember: reducing the weight risks sacrificing stability.



The M-Series Portable Stand

ERGONOMICS



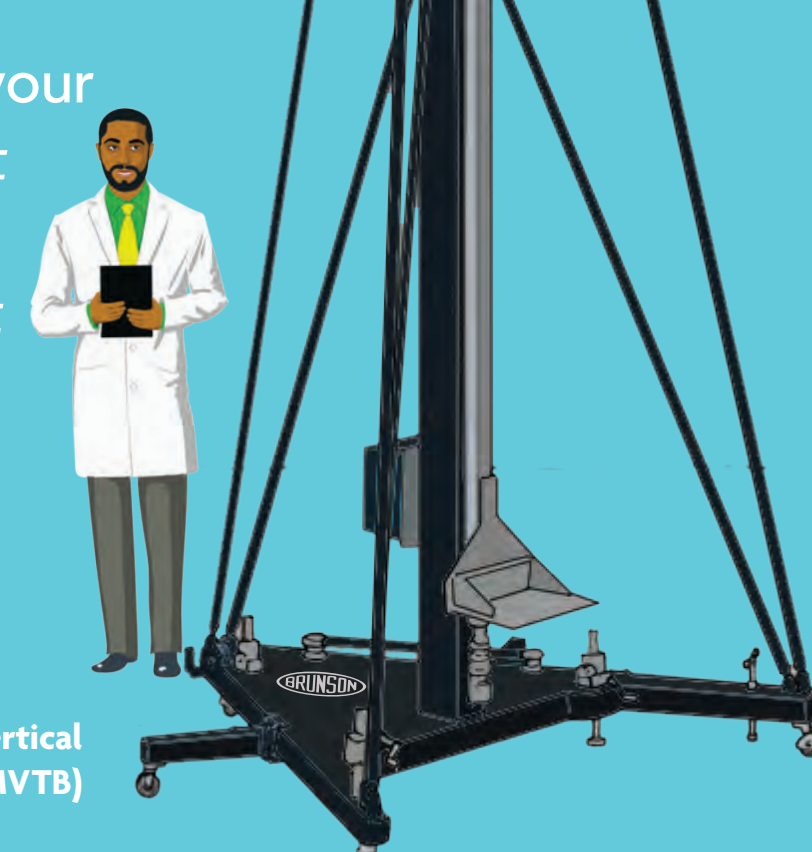
Ergonomics is a **priority** that may seem like a **luxury**. But clunky, awkward stands do not optimize your critical measurement process.

Even if a stand isn't used every day (but especially if it is!) each measurement is important and merits a stand that reflects your commitment to precision and accuracy.

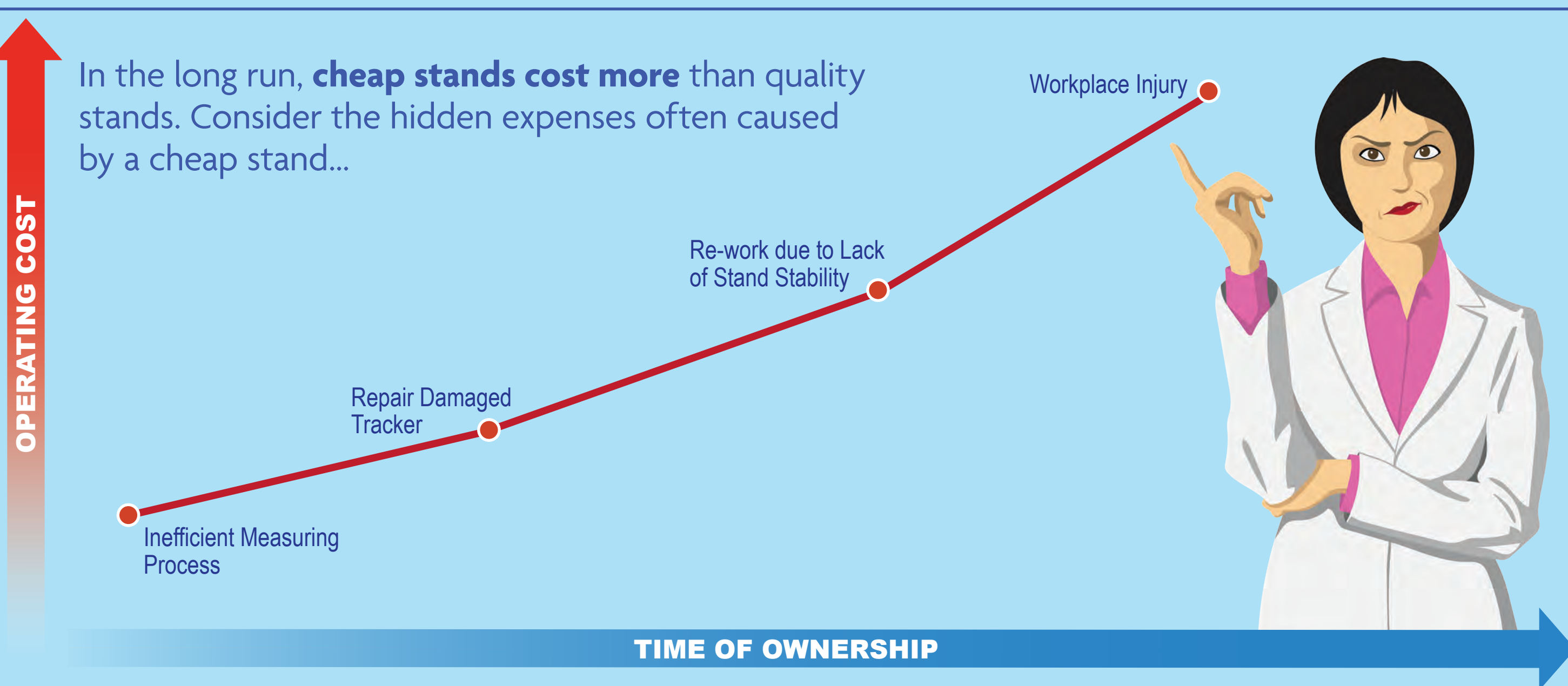
STAND. UP.

Metrology stands that offer a fixed instrument position are less complex and less costly than their adjustable counterparts.

Carefully consider your required instrument height and the range of instrument positioning needed for your metrology application.



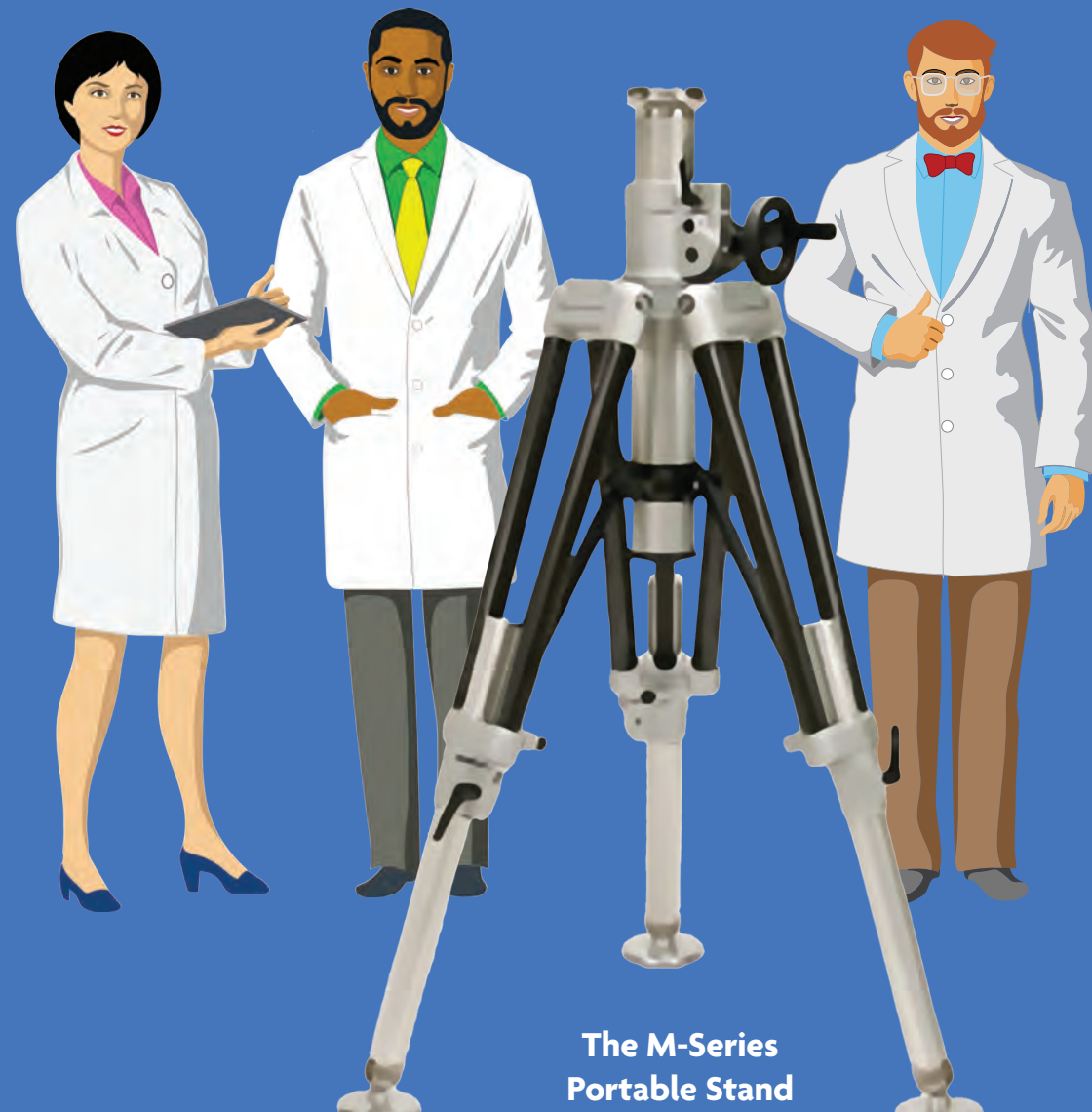
The Motorized Vertical Tooling Bar (MVTB)



Identify your priorities. Rank them. And find your best metrology stand.

Make the most of your money and space:

- Don't shop for bells, whistles, and features you don't need.
- Don't compromise on a stand that constantly reminds you that you settled every time you use it.

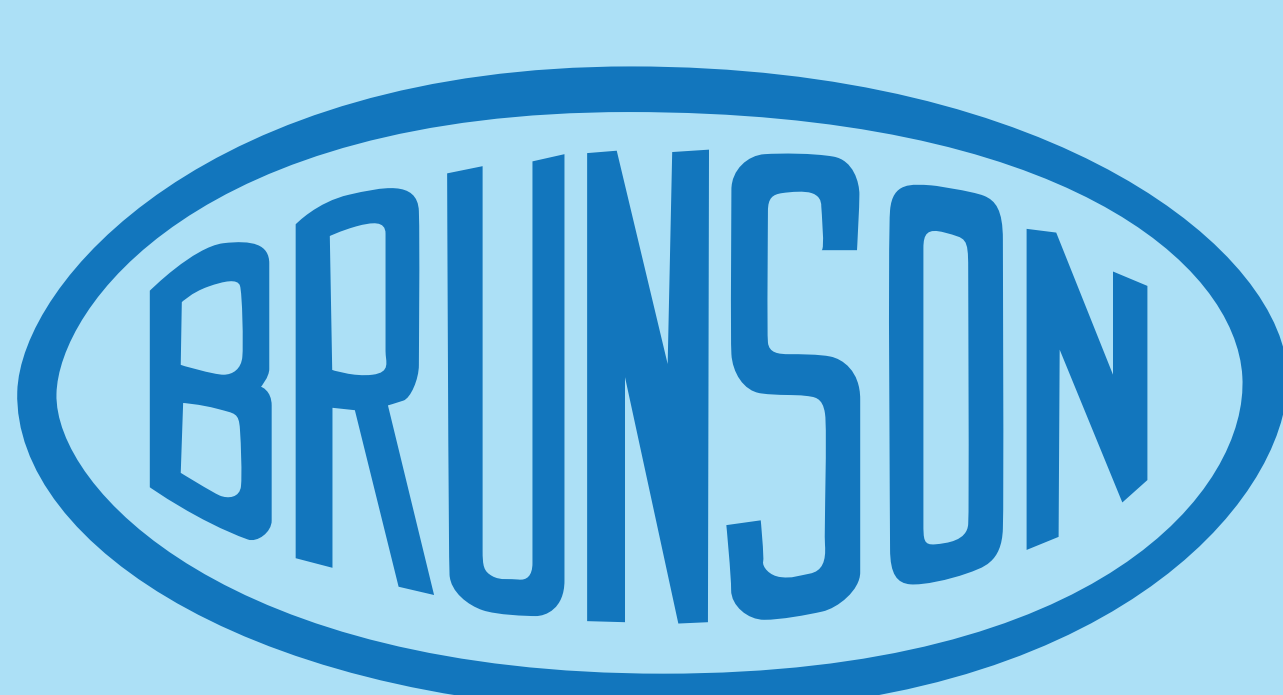


The M-Series Portable Stand

TAKE YOUR BEST STAND

Your metrology applications are critical. We can guide you through our diverse selection of stands and positioners.

We also build custom to meet unique needs.



Contact sales@brunson.us

HELPING THE WORLD MEASURE

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