



BESS-calibrated edge sharpness testers show edge apex radius in nm.

E.g. DE safety razors score 50 on the tester and have 50 nm apex radius, i.e. 100 nm or 0.1 micron edge apex width.

BESS Universal (BESSU – <u>www.bessu.org</u>) is an unaffiliated, registered non-profit organization committed to education and manufacturing excellence and integrity. BESSU manufactures BESS test media for repackaging and certifies third party instrumentation. BESSU also administers and regulates the "BESS Partner Program". The BESS Partner Program is a member group of industrial/commercial users authorized to promote and use the BESS logo and BESS scores on member products.

Edge On Up (EOU – <u>www.edgeonup.com</u>) factory in Arizona, USA manufactures a full line of consumer, professional, and industrial edge sharpness testers as well as industrial needle sharpness testers and consumables. Please contact your Australian and New Zealand distributor with any questions regarding our products – **Knife Grinders** (<u>www.knifeGrinders.com.au</u>)

Shed a little light on your sharpening operations with the SHARP ✓ [™] PT50 SERIES line of edge sharpness



testers and, yes, every Edge On Up (EOU) instrumentation user is part of the **BESS™** worldwide community.

Only the BESS[™] (Brubacher Edge Sharpness Scale), in conjunction with EOU instrumentation, enables you to not only *measure* the sharpness of an edge but to *numerically quantify* that sharpness level, and tell the edge apex width to a fraction of micron. EOU sharpness testers are hard at work today in every corner of the world at jobs that touch nearly every segment of our lives. From Slovenia to Thailand and home kitchens to carpet mills you can find our instruments teaching good sharpeners to become better and more efficient sharpeners. In industrial and medical applications we help make production processes more energy efficient, improve throughput and quality... and safer too with fewer work related injuries!

But we've saved the best for last! Sharpness is now a number! A highly defined number on a scale ranging from 1 - 2000! Gone are the anecdotal days of trying to describe a sharpness level via cutting demonstrations or use of erroneous terms like "razor sharp". EOU instrumentation users know *exactly* how sharp a given razor edge is and they know exactly how the knife edges they sharpen compare with those razor edges.

That's the beauty of the BESS[™] in conjunction with an EOU sharpness tester. The output of your PT50 SERIES edge tester *is your* BESS sharpness number! Now you can simply log that number for future reference and comparison or share it with anyone in the world. When you do share your BESS scores with other sharpeners they will immediately be able to grasp and understand the sharpness level of your edge. The BESS gives sharpeners a voice, the ability to communicate and transfer sharpness data accurately. Communication equals community so please join with us as a member of the BESS worldwide community!

So... how does it work?

Well, it's just this simple with EOU instrumentation...



When cutting or severing a material, we all know that a dull edge will require more applied force than a sharp edge to accomplish the same task. It is this well-known and simple premise that EOU has used as a design basis for our edge testers. Less force = a sharper edge and more force = a duller edge. It's a simple instrumentation recipe and that has only two main ingredients: (1) an accurate instrument capable of recording and calculating the maximum test force

applied and (2) a reproducible test media capable of maintaining predictable shear characteristics over time and varying environmental conditions. After three years of joint development involving both EOU and BESS Universal, dinner was served!

This new system turned out to be much, much more than just a device that shows how sharp an edge is at the end of a sharpening session. EOU products are instruments of discovery. These instruments will show you which sharpening techniques, materials and equipment are useful and which are a waste of time and money. Not only can a PT50 SERIES instrument detect the presence of burr on an edge but actually measure the extent of that burr! It will also allow you to deduce when the burr has been completely removed. Sharpeners all over the world have been able to reduce their

sharpening times by 2/3 while improving the quality of their edges simply through discoveries made via their PT50 Series instruments.

Blade geometry has no effect on the data delivered by your EOU edge tester. EOU instruments are pure edge sharpness testers. We measure and convert to BESS numbers the width/radius of the extreme edge apex and that's all.

Engineered test media and fixtures used by all of our electronic line of edge testers are available in two forms. The standard fixture included with the PT50A and PT50B is the ATF10. The ATF10 includes a self-contained canister of test media that is easily and quickly fed through the fixture for fast test media reloads. Refill canisters (TM02) are available that will provide, on average, 300 measurements at about 7 cents per test.

Our test clip system is composed of a test clip base (DCB10) and 100 packs of disposable, one time use, test clips (DTC100). Our clip system serves a wide spectrum of users. They are extremely fast and easy to reload as well as offering the means to measure a much wider type, assortment and shape of cutting tools. Test clips utilize BESS Certified test media but their form factor has not yet been certified by BESSU.



The SHARP ✓ PT50B is the workhorse instrument for professional sharpeners, knife enthusiasts and woodworkers. The PT50B has a steel measurement platform and delivers 5 BESS units of resolution with a 1 year warranty. 5 BESS of resolution delivering 400 data points across the BESS range is more than adequate for all the sharpening room discoveries you will soon be making! The PT50B includes a knife fulcrum and our ATF10 test media fixture with test media and is compatible with our DTC clip system.

The **SHARP**✓**PT50A** is our PT50 Series crossover product with the industrial world. It is the only PT50 Series product that is warranted for commercial/industrial use (3 years). The PT50A features a heavy steel measurement platform, an industrial strain sensor, our fastest processor and 1 BESS unit of resolution (2,000 data points).

The PT50A is a very versatile product. While it is rated for up to 3000 gram loads it will very accurately measure laboratory edges.

This portable and lightweight design has already found its way onto factory, hospital, and laboratory floors around the world. The PT50A package includes both our ATF10 fixture and our Disposable Clip system giving manufacturers, and those sharpeners who will have only the best, maximum latitude in measuring both standard and non-standard cutting tools and edges.