



## NextGen Telebrineller Brinell Hardness Testing System

Standards: [ASTM E10](#)



ULTIMATE USER-FRIENDLINESS



LEADING DEPENDABILITY AND RELIABILITY



STRICT COMPLIANCE WITH INDUSTRY STANDARDS



STOCKED CONSUMABLES AND SPARES



TRUSTED AFTER SALES TECHNICAL SUPPORT



LIFETIME PRODUCT SUPPORT ADVANTAGE



### Description

The Telebrineller Brinell Hardness Testing System stands out as the best QA solution for ensuring top-notch quality. Developed specifically for welding crews, Telebrineller draws on over fifty years of field experience and solid metallurgical knowledge.

Portable and practical, the entire Telebrineller system, housed in a case, weighs less than ten pounds. It's an ideal choice for Brinell hardness testing in any situation.

Operating the system is straightforward – a single hammer blow, measuring the resulting impressions, and manipulating a basic equation on the included computer. No specialized training required; anyone can quickly and accurately determine BHN in minutes.

Certified for accuracy, the core of the system relies on test bars calibrated within +/- 2% of the labeled BHN. These bars undergo hardness measurement using equipment which complies with the National Standards Institute, allowing for precise readings within .05 millimeters.

Built for field use, the Telebrineller Brinell Hardness Testing System is built with weatherproof design in mind. Rugged, solid components, ensure accurate measurements in all weather

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conditions and under rough field circumstances. Read more in our [MEGA BLOG!](#)

## Telebrineller Brinell Hardness Testing System Principle Of Operation

1. Select a test bar with a known Brinell Hardness Number (BHN), closely mirroring the expected hardness of the specimen under examination.
2. Consistent accuracy is maintained when the test bar BHN is within + or -15% of the specimen BHN and is of the same general material. (For non-ferrous materials tested with carbon steel bars, correct for impact errors by applying designated correction factors to the test results.)
3. Insert the chosen test bar into the Telebrineller instrument and position the instrument accurately on the specimen.

The Telebrineller instrument comes complete with essential components: a test bar (1), an anvil (2) encased in a soft molded rubber head (3), which securely rests on the test bar. Both the rubber head and a corresponding resting block (4) ensure a non-skid footing. Positioned below the test bar, a steel impression ball (5), securely embedded in the base of the rubber head, makes contact with both the test bar and the specimen.

Executing the test involves a sharp strike to the anvil using a two to five-pound hammer. The impact, irrespective of force, is uniformly transmitted to both the test bar and the specimen through the impression ball (6), resulting in impressions in both materials. The diameters of these impressions directly correlate with the respective hardness of the test bar and the specimen.

To facilitate each test, a spacing bar (7), operated by a spring catch and button, adjusts the test bar to a clear area, ensuring precision and efficiency in the testing process.



## Telebrineller Brinell Hardness Testing System Accuracy

Our Standard Telebrineller Test Bars guarantee uniform hardness within a tight margin of plus or minus 2% of the Brinell Hardness Number (BHN) etched on the bar's end. Crafted from assorted alloys of carbon steel and precision ground to a 9/16" square finish, these bars ensure reliability and consistency.

To determine BHN, the diameters of the resulting impressions are meticulously measured and converted using the King-Scan, a computerized calibration system. The system's accuracy complies with the National Institute of Standards, and the obtained BHN values are rounded to the nearest standard BHN at a .05mm interval, as per Table I of ASTM Standard E10. The finalized BHN is then etched on the end of the bar for clear identification.

The accuracy of Telebrineller tests hinges on the relative hardness of both the test bar and the specimen. When used correctly, a commendable accuracy of +/- 5% is consistently achievable, provided that the BHN of the test bar doesn't deviate by more than 15% from that of the test piece.

### Test Bars

The test bars which are the core of this system are calibrated to a uniform hardness of ± 2% of the labeled BHN. Hardness of the bars is measured by equipment whose accuracy is certified traceable to the National Standards Institute. Readings may be made within .05 millimeters.

Telebrineller Hardness Test Bars (BHN Values)

627	477	388	321	269	229	194	160	135	114
578	461	375	311	262	223	188	156	131	111
555	444	363	302	255	217	182	151	127	111
534	429	352	293	248	212	176	147	124	109
514	415	341	285	241	207	170	142	121	106
495	401	331	277	235	200	165	138	117	



Item #	Description of Part	Part No.
<b>Ass'y</b>	Telebrineller Bar Holder Assembly	239-35
<b>1</b>	Anvil	239-17
<b>2</b>	Rubber Front Piece	239-18
<b>3</b>	Test Bar	
<b>4</b>	Impression Ball - Standard	239-14
<b>5</b>	Impression Ball - Tungsten Carbide	239-29
<b>6</b>	Spacer Button	239-19
<b>7</b>	Spacer Block	239-10
<b>8</b>	Spacer Spring	239-12
<b>9</b>	Rubber Rear Piece	239-11
<b>10</b>	Bar Tube	239-16
<b>Not Shown</b>	Flashlight (LED)	239-37
	<b>Computer</b>	239-34
	<b>Calculation &amp; Record Pad (25 Sheets)</b>	239-33
	<b>Carrying Case</b>	239-20
	<b>Calibration Disk</b>	239-31



## Halteman Filletester

The Halteman Filletester is designed for the Brinell hardness testing of fillet welds and other hard to reach areas. It is used in conjunction with the Telebrineller. For easier handling, it is recommended that the standard Telebrineller Test Bars be cut in half. Impressions can be measured by using the 5/8" diameter end of the microscope nose piece.

## Who Can Benefit from a Telebrineller System?

The Telebrineller Brinell Hardness Testing System is a valuable asset for a range of professionals and industries. Welding crews, in particular, will find immense benefit from its user-friendly design. It allows for efficient Brinell hardness testing without the need for specialized training. With its portability and weatherproof build, it's an excellent choice for on-site applications.

Materials testing laboratories, quality control departments, and research facilities can also gain significantly from the Telebrineller System. Its certified accuracy, ease of use, and robust design make it a versatile tool for ensuring the quality and hardness of various materials.

The system's utility extends to industries where the Brinell hardness of materials plays a critical role, such as construction, manufacturing, and engineering. Anyone requiring precise hardness measurements, from metal fabricators to engineers working on structural projects, can benefit from the reliability and portability offered by the Telebrineller System from NextGen Material Testing.

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