

Impeder & Ferrite Tester



EHE's new impeder & ferrite tester reduces mill downtime by testing impeders **before** they are installed.

A single clean break in the ferrite will result in an indication 30% below normal.

Every year, thousands of hours of production are lost as a result of damaged impeders, at great cost to the industry. EHE Instruments new impeder tester provides a simple, fast and inexpensive method of testing impeders prior to installing them on a tube mill.

Price reduced! Now only \$399.00

(Now includes rechargeable battery & charger) The impeder or ferrite to be tested is simply placed within the instruments test cylinder, and the built in digital display immediately indicates the relative permeability. If the ferrite in the impeder has been damaged in any way, the meter will indicate as much as 50% below a normal reading.

Different types and grades of ferrite can also be tested to determine their suitability for use in impeders.

The impeder & ferrite tester is housed in a heavy duty ABS enclosure measuring approximately $6" \times 7" \times 2"$ (150mm x 180mm x 50mm), and will test impeders or ferrite rods up to 1.312" (33mm) in diameter. Optional external test fixtures are available to accomodate impeders up to 6" (150mm) in diameter.

The instrument is powered by a standard 9 volt transistor battery which will last for several months of normal usage. An optional 100-240 volt AC adapter is available.

Principle of Operation

Impeders increase the efficiency of the induction welding process by increasing the inductive reactance of the inside surface of the tube within the area of the welding coil. This forces a greater amount of the available energy along the edges of the strip, thus heating it to a temperature where a forged weld can occur.

The EHE Instruments impeder tester simulates this effect at a low energy level by measuring and displaying the increase in inductance that occurs when a ferrite core is introduced into the test fixture.

The instrument is calibrated to display a direct reading of relative permeability. Since the permeability of air (and most non magnetic materials) is unity, the meter should display 1.00 with nothing in the test cylinder. Small variations may occur due to the proximity of metal objects, but these will not affect the accuracy of the results. A front panel calibration control allows the instrument to be zeroed.

Operating Range

The impeder tester can accommodate ferrite and complete impeder assemblies up to 1.312" (33.4mm) in diameter, and of any length. External test fixtures are available for larger sizes. These are provided with a cable which plugs into the jack marked "External Fixture".



Calibration

All units are calibrated prior to shipment, and should not require recalibration.

Power Supply

The PM-35B is powered by a replaceable 9 volt NiMH rechargeable battery. A standard 9 volt alkaline battery (Duracell® MN1604 can also be used. A universal 100-250v 50/60Hz.charger & power supply is included. Multi plug power supply shown below is an optional extra priced at \$35.00.

External Test Fixtures

Plug-in external fixtures are available for testing impeders and ferrite larger than 1-1/4" in diameter. These are priced as follows:-

\$125.00
\$145.00
\$180.00
\$220.00
\$260.00



Photo shows fron & rear views of basic PM-35A unit with optional internation power supply including adapters for USA, Europe, UK & Australia.

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