



2075 Corte del Nogal, Suite T
 Carlsbad, CA USA 92011
 Tel. (760) 431-2655 Fax. (760) 431-0904
 jtoth@ascscientific.com
 www.ascscientific.com

Impulse Magnetizer



ASC Model IM-10-30

Based on the design of Kirschvink (1982), this instrument generates short duration magnetic fields within the sample coil. It enables a variety of high-field magnetic studies to be conducted on geologic samples without the need for a large electromagnet. The **Model IM-10-30** has interchangeable coils capable of generating fields from approximately 30 Gauss to 50 Kgauss (5 Tesla).

The ASC Impulse Magnetizer is ideally suited for IRM and anisotropy of IRM acquisition studies. The electronics and sample coils are housed in a single high impact ABS plastic case. The magnetic field is produced by discharge of energy from a capacitor bank through a coil surrounding the sample cavity. The capacitor bank is first charged to the desired voltage (corresponding to the desired field). It is then discharged through the coil very quickly using a high capacity SCR as a switch. Because very high current levels are involved, the coil and all circuitry are totally contained in a single case. Each IM-10-30 and supplied field coil are factory calibrated, using a high-precision peak reading gaussmeter, and the supplied calibration curve of voltage vs field is used to apply precise magnetic fields to the sample.

The IM-10-30 has interchangeable coils and is capable of generating fields in excess of 28 K Gauss (2.8 Tesla) for full size paleomagnetic specimens and 50 K Gauss (5 Tesla) for smaller samples. Four different plug in-coils are available with the capability of accurately generating fields ranging from 30 Gauss to 50 K Gauss. Each coil comes with sample holders for accurately positioning and aligning the sample during field exposure. The basic price of the unit includes your choice of two of the four available coils. The following table provides details of the field ranges, sample cavity sizes, and sample holders which are available for each of the coils.

Coil	Field Range	Sample Cavity	Sample Holder
#1	30 - 600 Gauss	2.00"	1" cubes/cores
#2	0.5 - 11 K Gauss	2.00"	1" cubes/cores
#3	1.5 - 28 K Gauss	1.25"	1" cores
#4	3 - 50 K Gauss	0.5"	7/16" x 3/4" vials/cores