



## **POCKET MAGNETOMETERS**

DUAL PURPOSE, TWO COLOR SCALE makes the Model 25 Magnetometer more useful. The upper "Black" scale (the one more usually used) reads directly in gauss of a uniform magnetic field oriented parallel with the centerline of the instrument scale. The lower "Red" scale is used in determining the *magnitude and direction* of an unknown magnetic field by merely orienting the instrument for maximum reading. When shown in the "Red" scale, at such a maximum reading, direction of the measured field is parallel with the instrument pointer and magnitude in gauss.

SENSITIVE INSTRUMENTS AVAILABLE - The one gauss full scale, Model 25 instrument, is so sensitive it will deflect approximately half-scale in the earth's magnetic field. The half gauss (0.5-0-0.5) full-scale instrument is twice as sensitive and will indicate changes of field strength in the order of 10 milligauss.

On request, we can furnish still more sensitive Magnetometers to determine local magnetic anomalies as caused by shallowly buried "curb boxes" or other magnetic materials, etc.

MAGNETOMETER READINGS ACCURATELY INDICATE magnetic field strength in the area of the movement staff. It does not hold, however, that readings may be compared directly with those taken with any other type instrument, except under uniform magnetic field conditions. Variations in staff spacing from the work or the surface shape of steel parts being measured will affect Magnetometer readings. Surface shape also affects the retention of "magnetic dirt" and cleaning characteristics of such parts. As the sharpness of the surface shape increases ("A" in sketch), the local concentration of magnetic flux causes increased retention of magnetic dirt and particles. Therefore, place surfaces ("C" in sketch) may give somewhat higher readings that corners, points, or ends of small bars without causing increased cleaning troubles.

## NOTE TO MAGNETOMETER USERS

Whenever the instrument pointer fails to properly return to center zero, it is indication that it has been exposed to a very high magnetic field, in excess of 400 gauss, as from permanent or electro magnets or demagnetizing equipment.

Accidentally dropping the instrument onto a hard surface often cracks the pivot jewels, creating unwanted friction and sluggish action.

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