



PORTABLE MAGNETIZING COILS

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PARKER RESEARCH CORP.

NONDESTRUCTIVE TEST METHODS, SYSTEMS, INSTRUMENTS
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Parker's portable magnetizing coils are designed for magnetic particle inspection of ferrous metal parts. The coils allow for the use of either dry powder or wet fluorescent inspection media and may be used for demagnetizing as well.

The coils are molded in a tough, black polyurethane and comes equipped with a foot switch and 10' (3.048 m) neoprene power cord. The sealed electrical connection box has a 2" (50.8 mm) X 5" (127.00 mm) flat base allowing the coil to stand in a vertical position.



The PL-8, PL-10, PL-8PDC, and PL-10PDC operate from a standard 115VAC, 60 Hz single phase grounded power source.

The PL-8S and PL-10S are for use on 230VAC 50-60 Hz single phase grounded power source. The PL-8S and PL-10S are sold without power cord plugs. Only locally approved plugs should be used and installed by certified personnel. Using an approved GFCI is recommended.

Specifications

Model No.	PL-10	PL-10S	PL-10PDC	PL-8	PL-8S	PL-8PDC
Inside Dia.	9 7/8"	9 7/8"	9 7/8"	8"	8"	8"
Outside Dia.	14 1/2"	14 1/2"	14 1/2"	11 1/2"	11 1/2"	11 1/2"
Width	2 1/2"	2 1/2"	2 1/2"	2 1/4"	2 1/4"	2 1/4"
Line Voltage	115 VAC	230 VAC	115 VAC	115 VAC	230 VAC	115 VAC
Turns	225	425	425	271	520	520
Frequency	60Hz	50 Hz 60 Hz	60 Hz	60 Hz	50 Hz 60 Hz	60 Hz
Line Current (air)	13.4	9.6 7.8	5A	12	8.1 6.8	4 A
Amp-Turns (air)	3015	4080 3315	2,125	3252	4212 3536	2,080
Weight	14 7/8 LB	14 7/8 LB	13 7/8 LB	9 7/16 LB	9 7/16 LB	8 7/16 LB

General safety rules.

Always wear eye protection

Please read all instructions. Failure to follow all instructions listed below may result in serious injury. If the equipment is used in a manner other than as specified in these operating instructions, the protection provided by the equipment may be impaired.

Operating & Environmental conditions

Operating temperature: 32 F (0 C) degrees to 104 F (40 C) degrees. Relative Humidity 10% to 95% non-condensing. Always operate from a grounded power source. Do not operate from a DC output.

General Cleaning

The outside surface of the instrument can be periodically wiped with a clean cloth. Avoid using cleaners such as lacquer thinner, or mineral spirits that could damage the outside polyurethane housing.

Do not abuse the power cords. Never carry the instrument by the cord or attempt to unplug the instrument using the cord. Always operate the instrument with the standard installed cable. Changing or using a damaged cord can increase the risk of electrical shock. The cord should be checked periodically for any damage.

Do not position the instrument such that it would be difficult to operate the disconnect device (plug) on the end of the power cord.

The outside polyurethane housing should remain intact and solid. Any damage or chipping exposing internal wires is a hazard. Instruments should not be used in this condition. The outside housing should be periodically checked for damage.

Never attempt field service.

All PL series coils should be returned to the factory for repairs.

The coils are designed for a 50% duty cycle, or approximately two minutes on and two minutes off. The coils are equipped with an internal thermal switch. Continuous operation may cause overheating and damage the coil.

OPERATION:

Plug the power cord of the coil into the appropriate outlet. Depress the foot switch. A magnetic pull will be felt by insertion of a ferrous metal object into the center of the coil. Inspection is accomplished by placing the part longitudinally parallel to the axis of the coil, within the coil nearer to the outer circumference. (Fig. 1) Activate the foot switch and apply the inspection medium while the coil is energized. This is referred to as the continuous method and will reveal defects at right angles to the coil or object axis.

When using the wet method, allow the coil to remain energized for approximately two seconds after applying the wet medium. Remove the part for inspection.

To demagnetize a part after inspection, simply place the part within the coil near the outer circumference. While the coil is energized, remove or pull the part approximately two feet (.609 m) away from the coil before turning the coil off. Larger parts may be demagnetized by placing the coil directly over the part and withdrawing the coil in the same manner.

CAUTION

For the correct and safe use of this equipment, proper training of operating personnel to required inspection techniques, specifications and safety requirements is necessary, and is the obligation of the user.



PL-10 with Case

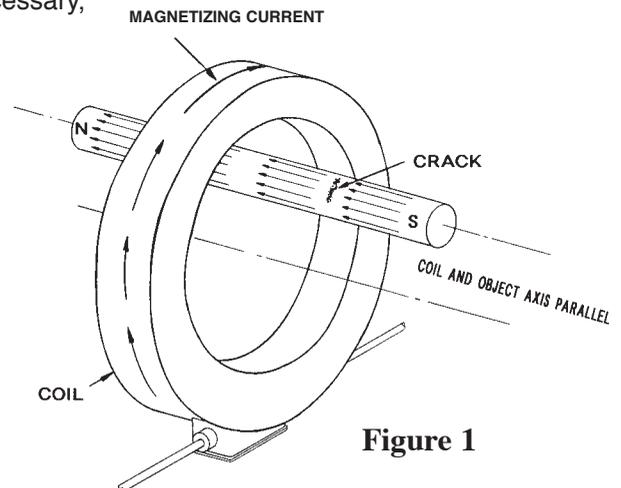


Figure 1



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