

## Y-8 Battery Powered Yoke

A portable yoke for versatile and reliable magnetic particle inspection.



**W**hen it comes to detecting surface cracks and subsurface flaws, there's no telling where you might end up. The Y-8 Battery Powered Yoke offers greater operator flexibility and provides up to 8 hours of reliable inspection per charge.

- *Double-jointed legs contour to any part shape for precise inspection*
- *12 ft. coiled cord and easy-to-grip handle allow for greater range-of-motion*
- *Meets NDT industry specifications for DC yokes*

**MAGNAFLUX<sup>®</sup>**

# Y-8 Battery Powered Yoke

## Technical Specifications

- Yoke Weight: 7 3/4 lbs.
- Leg Capacity: 0"-12" (0-30 cm) across poles
- Cord length: 12 ft., coiled
- Battery: 6 volt, 12 amp-hour
- Battery weight: 5 1/4 lbs.
- Battery Dimensions (in.): 4 1/4" x 2 3/4" x 5 1/2"
- Battery output voltage range: 6.84/7.35 V
- Battery output current: 1.6 amps maximum with Y-8 Yoke
- Battery operating temperature range: -40°C to 60°C (-40°F to +140°F)
- Yoke Kit includes: Battery charger, powder, powder bulb, padded battery pack with shoulder strap, carrying case and instructions (part #611710). Individual items also sold separately.
- Kit Weight: 23 1/2 lbs.
- Powder: 1 lb. (.45 kg) bottle of #1 Gray

## Features & Benefits

The Magnaflux® Y-8 Yoke is designed for reliable, one person magnetic particle inspection of ferrous parts when portability is essential. Ideal for in-plant structures and field work, the Y-8 is ready to go whenever the need arises. Complete with battery charger, powder, powder bulb, padded battery pack with shoulder strap and yoke carrying case – the Y-8 kit comes with everything you need to get the job done.

■ 6 volt, 12 amp-hour battery provides up to 8 hours of reliable inspection per charge ■ Battery has a wide operating temperature range ■ Articulating, double-jointed legs contour easily to any part shape to assure good contact ■ Ergonomically designed for operator comfort ■ Pull force complies with ASTM specifications for DC yokes ■ 30 second ON/OFF duty cycle for fast, efficient inspections

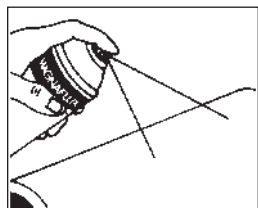
## Operating Instructions

When yoke is connected to the battery and energized, an intense longitudinal magnetic field is created in the area between the yoke legs. Any surface cracks will create flux leakage, which will attract magnetic particles that form indications and allow for detection. There are two testing methods:

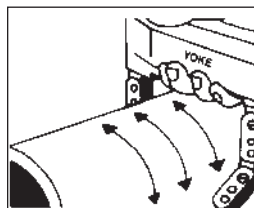
MAGNAFLUX® Dry Non-Fluorescent Method does not require a black light and is more sensitive for finding subsurface defects on components with rough surfaces, such as castings and forgings.

MAGNAGLO® Wet Fluorescent Method, using the yoke and a black light, can find very fine surface flaws or slightly subsurface discontinuities.

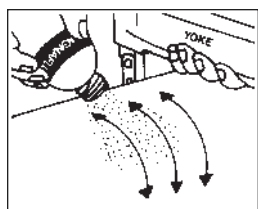
Whichever method you use, the testing procedures are the same:



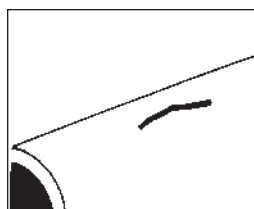
Step #1



Step #2



Step #3



Step #4

### Step #1 – Cleaning

Apply cleaner on the area to be inspected, allow time for dirt/film to dissolve. Then, wipe with a clean cloth and allow to dry completely.

### Step #2 – Energize Yoke

Position the yoke perpendicular to the direction of the suspected defects, then depress the switch to energize the yoke.

### Step #3 – Apply Magnetic Particles

With the magnetic field continuously energized, apply magnetic particles between the legs of the yoke. Apply dry particles with powder bulb and wet particles with an aerosol can.

### Step #4 – Inspect for Defects

Flaw indications will form immediately. With non-fluorescent particles, they are visible in normal light. With fluorescent particles, they can only be seen under a black light, model ZB-100 (part #600000) or model ZB-100F (part #600004).

# MAGNAFLUX®

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