

Magnetic Particle Inspection

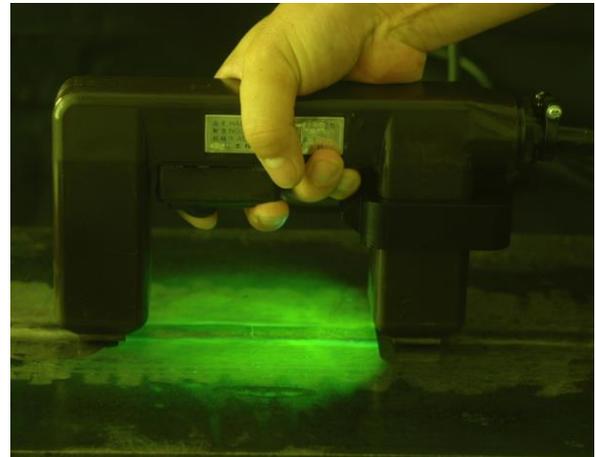
TASETO JIKI CHECK

● Applications

Ferromagnetic metals (mild steels, high tensile steels, steel castings)

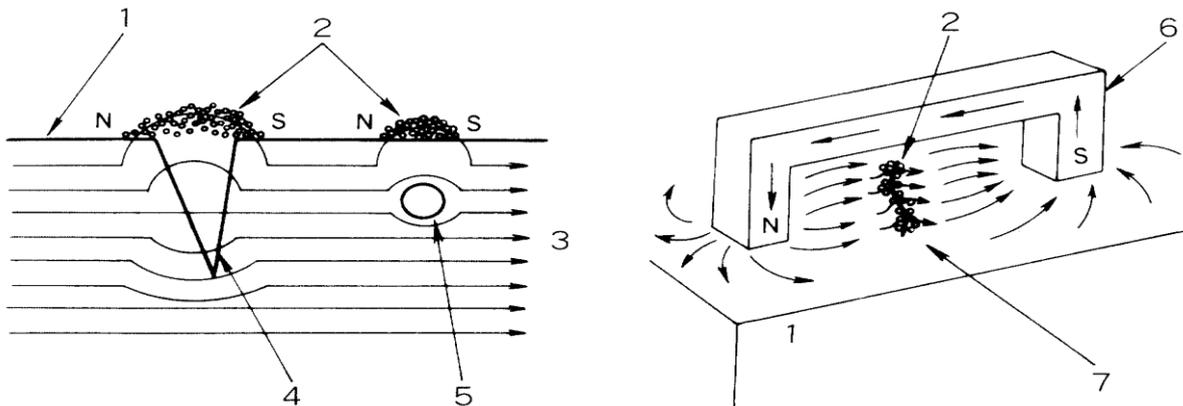
● Features

1. Excellent in detecting surface flaws on ferromagnetic steels (unusable for non-magnetic materials).
2. Can also detect flaws that not open to the surface.
3. Low testing cost
4. LED Blacklight is cordless



● Principle

Applying a high current to a magnetized object, or exciting an object placed in a strong magnetic field causes the magnetic field to bend by discontinuities such as cracks or pinholes, which exist on the object surface or relatively shallow subsurface, to leak out at the defective surface as if magnetic poles were produced there. If you apply TASETO JIKI CHECK to the leakage surface, its magnetic particles are absorbed over a wide range by the defective surface, thus making minute flaws visible to naked eyes. The magnetic particle testing method employs the principle.



Key : 1. Item to be inspected 2. Magnetic particles 3. Magnetic field
 4. Surface flaw 5. Internal flaw 6. Magnetic pole 7. Flaw

● Testing method

The magnetic particle testing follows the procedure as follows.

Pre-cleaning

Magnetization (direct current, current induction, prod, coil or yoke method)

Application of TASETO JIKI CHECK

(continuous, residual, spraying, immersion, wet or dry method)

Interpretation (under white light or black light in a dark room)

Demagnetization (attenuation or transmission method)

● Product List

Fluorescent magnetic Particles

Designation	Fluorescent color	Mean particle size	Application	Characteristics
F-300	Greenish yellow	7.0μm	Raw materials	General inspection
F-330(E)	〃	5.0μm	Precision parts	Precision inspection. Standard type
F-660	〃	4.5μm	〃	Precision inspection.
F-910	〃	10μm	Automated testing	Very high brightness, good durability.
G-660	〃	4.5μm	Precision parts	Instant type, no dispersing agent is required.

Non-fluorescent magnetic particles

Designation		Appearance	Mean particle size	Method
Black	B-100	Black powder	15μm	Dry
	B-200	〃	5μm	Wet
	B-200	Aerosol	1μm	Wet

Contrast Paint

Contrast Paint M1	Aerosol
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Dispersible agents for magnetic particles

Designation	Addition rate	Characteristics
SP-700	1~2%	Good dispersibility and wettability of magnetic particles. Also excellent in defoaming and rust resistance.



York



Induced type LED blacklight
(cordless)