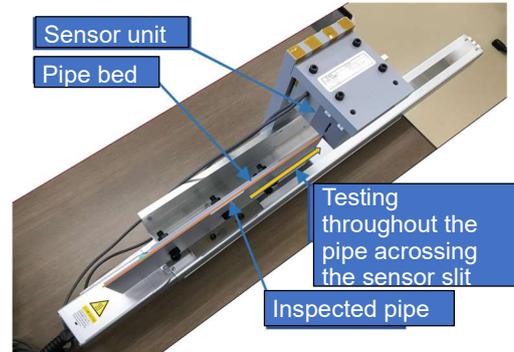


Mr. Eddy: Eddy-current Flaw Detector for Small Pipe

1. What is Mr. Eddy?

We have newly developed the *Eddy-current flaw detector, Mr. Eddy*, for detecting fine structure defects in the wall of a small pipe. We have had difficulties in finding invisible cracks or structure defects causing liquid leakage on a small diameter pipe during its thinning process. This detector is being used in our production line for securing our high-quality manufacturing.



- Specification

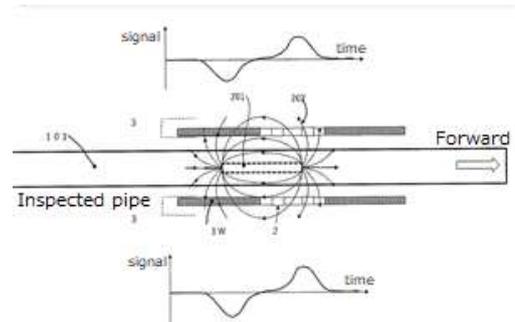
Device size: 800 mm width, 135 mm long, 270 mm high

Inspectable size: 0.4 mm – 1.2 mm in diameter, 300 mm at longest (NiTi, β-titanium)

2. Detection principle of Mr. Eddy

(Patent pending.)

If magnetic fields are applied to a pipe by an exciting coil energized with high frequent currents, an eddy-current is generated through the wall of the pipe. The magnetic field varies with changes of the eddy-current caused by a structure flaw in the pipe. By monitoring the magnetic field exceeding a threshold value, the presence of defects can be found.



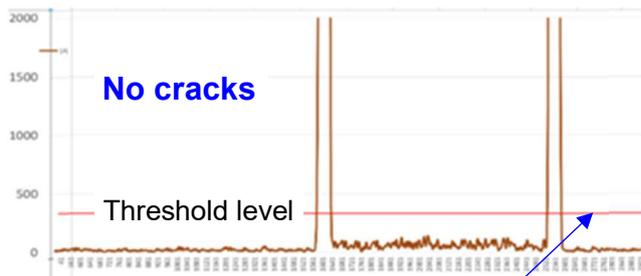
3. Testing example

Pipe's outer diameter: 1.0 mm

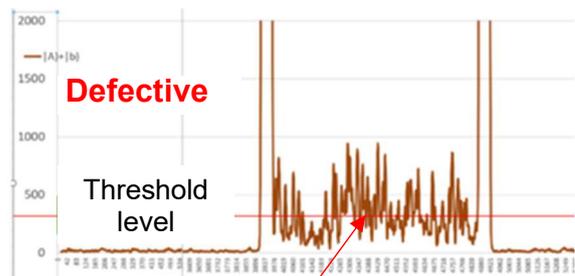
Material: NiTi with a wall thickness of 0.08 mm



Defects may not be found by looking!



No cracks
The eddy-currents keep under the threshold level.



Defective
The eddy-currents are larger than the threshold level.

FUTA-Q Co., Ltd.

URL <https://futaku.co.jp>

E-mail futaku-info@futaku.co.jp

[Headquarters]
33-3 Karahashi-keiden-cho, Minami-ku, Kyoto
City, Kyoto Pref. 601-8454
Tel: +81-75-661-2931

[Tokyo Office]
San-Roze Musashino No.501,
1-2-9, Naka-cho Musashino-shi 180-0006
Tel: +81-422-27-7629