



Non-destructive Spot Welding Inspection Equipment

# NUGGET PROFILER

**NUGGET PROFILER**

Accepted by 5 OEMs in Japan and overseas.

Model : NPH03



- Dimensions : 285(w)X205(d)X70(h)mm (excluding protrusions)
- Weight : Approx. 2.32 kg

- Small sensor probe!**
- Sensor body size : 20(w)X20(d)X100(h)mm
  - Sensor contact surface size : 18(w)X10(d)mm

## Features

- Non-destructive inspection equipment using magnetism.
- A nugget can be quantified.
- Can distinguish between nugget and cold-joint (pressure weld).
- Needs no gel, water or other medium.
- A sensor is applied lightly and inspected.
- The inspection speed is around 4 seconds per weld point.
- Can check the fluctuation of welding quality.
- Can be used on High Tensile Strength Steel.
- Automatically save results to electronic file (traceability).
- The powered is a battery.

**NUGGET PROFILER**

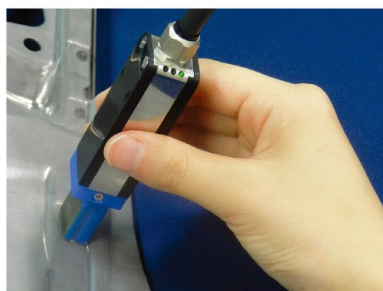
[http://www.magnegraph.com/eng/Nugget\\_eng/Nugget\\_eng.htm](http://www.magnegraph.com/eng/Nugget_eng/Nugget_eng.htm)





**Inspection method**

- The condition of the nugget is digitized and indicated on-screen together with the inspected waveform.
- Digitized data and inspection waveform differ in magnitude between defective products and non-defective products (pressure welding), allowing identification.



**Detection of nugget**

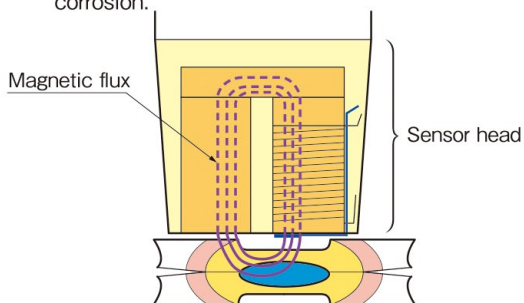
**Non-defective product**

**Defective product**

← OK/NG judgment  
← Indication of estimated nugget diameter

**Non-destructive**

- Will not damage test samples.
- 100% inspection possible.
- Will not cause shock or metal fatigue to nugget.
- Does not use solvents that may cause corrosion.



[Non-destructive inspection method using magnetism]

**Application**

- Inspection history can be reviewed.
- History can be managed in the assembly line, shipment inspection, receiving inspection, etc.



**Specifications**

Model		NPH03A	NPH03B
Dimensions		285(w)×205(D)×50(H)mm (excluding protrusions)	285(w)×205(D)×70(H)mm (excluding protrusions)
Weight		1.91 kg	2.32 kg
PC		Surface 10 inch	TOUGHPAD 10 inch
Welding inspection part	Inspection welding diameter	3 mm to 7 mm [Indentation diameter 8mm or less; Effective sensor width: 11 mm] (The equipment may support the ranges other than the above. Please inquire us.)	
	Specimen sheet thickness (Thickness of one inspection side)	0.7 to 2.3 mm (The equipment may support the ranges other than the left. Please inquire us.)	
	Materials	Ultra high tensile strength steel plate High tensile strength steel plate Mild steel plate (Two mild steel plates are handled individually.)	
	Specimen sheet surface treatment	No treatment, electrogalvanizing, hot-dip galvanizing (As for the aluminizing, please inquire us.)	
	Number of specimen mating sheets	Two sheets, three sheets (Inspection from both sides are necessary.)	
PC	Sensor edge material	FR	
	Data storage	XLS form	
	Setting of inspection condition	Set in the inspection screen. (The setting contents can be stored in the file.)	
	Judgment method	OK/NG judgment, The diameter of a presumed nugget, Growth degree	
Option	Option	Navigation mode, Inspection record management	
	OS	Windows10	
Operating temperature range		0°C to 45°C (32°F to 113°F)	
Operating humidity range		Up to 80%RH (No condensation occurs.)	
Power supply		Two kinds of power supplies selectable. (1) AC85V to 240V, 0.5A (2) Battery (8 size AA Ni-MH battery)	

● Contact:

**Nippon Kouatsu Electric**



8-288 Hiiragiyama, Obu, Aichi 474-0053, Japan  
 Phone : +81-562-88-3020 Fax : +81-562-46-1185  
 URL : [http://www.magnegraph.com/eng/Nugget\\_eng/Nugget\\_eng.htm](http://www.magnegraph.com/eng/Nugget_eng/Nugget_eng.htm)  
 Mail to : [mg\\_sales@nkeco.co.jp](mailto:mg_sales@nkeco.co.jp)