

ZINGO UK

Limited

THE KETTLE INSPECTION
DEVICE
(K.I.D.)

WHAT IS THE K.I.D?

The Kettle Inspection Device is a special immersed scanning system which uses ultrasonic signals to measure the wall thickness of your kettle



K.I.D. Mounted over a galvanizing kettle

WHAT IS IT MADE OF?

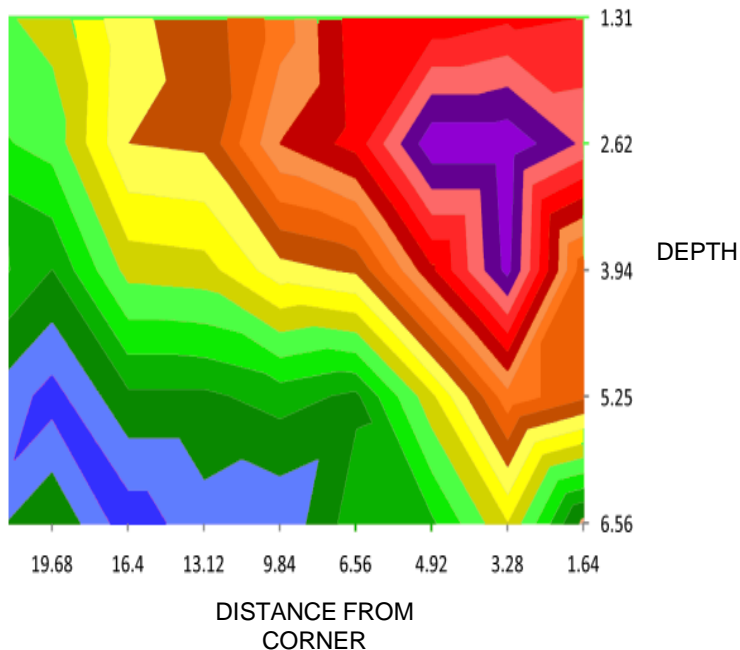


- ❑ **An immersed ultrasonic probe:**
built along with the Industrial Materials Institute of the National Research Council of Canada, it is specifically designed to be highly temperature resistant

- ❑ **A framework with 4 axis movement to move the probe.**
it sits on top of the kettle and moves the probe along the kettle walls.

- ❑ **A computerised system called the GIMIS:** Connected to the probe and to a control panel, it records the ultrasonic echo.

WHAT RESULTS DO YOU GET FROM A K.I.D. SERVICE?



A THICKNESS MAP

- A Report, providing collected thickness values in table form, written by an experienced ultrasound technician.
- Two dimensional thickness maps showing in graphical terms the thickness of each wall.
- Technical comments based upon furnace geometry and Zinco UK's experience in similar set up's.

HOW ACCURATE IS THE DATA PROVIDED?

- ❑ In normal circumstances, the measurements we take are accurate up to +/- 1.5mm. However, all of the comparative data that we have collected so far tell us that the average margin of error is 0.7mm

- ❑ In order to verify this level of accuracy we have measured the same kettles first with our K.I.D. System, and then, once the kettle has been changed, we have revisited the site and taken cold ultrasonic readings. These readings were then compared to each other.

WHAT WILL ZINCO UK NEED FROM YOU IN ORDER TO PROVIDE THIS SERVICE?

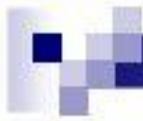
- Electrical industrial plug with 4 poles (380V – 32A)
- Compressed air, 6 BAR with a humidity filter required
- CO2 bottles marked liquid withdrawal.
- Available over-head crane ON the kettle. Ideally this would have two hoists.
- Access to the kettle surface with the equipment
- 4T Forklift for movement of equipment container.
- Crane Operator.

WHEN AND WHY SHOULD I CHECK THE CONDITION OF MY KETTLE?

- To test the level of wear in a kettle approaching the end of its life in order to check if it is time to change.
- To understand how your kettle ages. After three years of use you may wish to inspect your kettle to assess the level of wear over this time. This will help you to assess the likely life of the kettle.
- Your kettle may have had a problem such as an overheat and you may be concerned about the damage that may have been done to it.
- To evaluate a kettle with no known history

WHY IS THE K.I.D. SERVICE INNOVATIVE AND ADVANTAGIOUS?

- No kettle pump out or zinc transfer required to inspect the kettle.
- Inspection done in one day. This can be a weekend or a holiday so no impact on production.
- We can measure up to 200 points on the wall surface.
- All data provided is accurate to within 1.5 mm



WHO HAVE WE HELPED?

☐ Companies who have benefitted from our services include:-

Austria

ZinkPower Brunn GmbH

Belgium

Galva Power Group, Gent
Galva Power Group, Houthalen
Limburgse Galvanisatie nv

Denmark

J P Petersen Beslagfabrik

France

Galva Caux, Yerville
Ronot, Saint Dizier
SBG, La Chapelle-Caro
Yonne Galv

Germany

KFK Verzinkerei GmbH Sinshiem
Verzinkerei Meckenheim GmbH & Co
Verzinkerei Pflingsten GmbH Hagen
Verzinkerei Plauen GmbH & Co
Verzinkerei Netzschkau GmbH & Co
Grosverzinkerei Landsberg GmbH & Co
Verzinkerei Lausitz GmbH & Co
Verzinkerei Mannheim-Rheinau GmbH & Co
Verzinkerei Henssler Maintal GmbH & Co
Verzinkerei Aschaffenburg GmbH & Co
Verzinkerei Schulze GmbH & Co
Verzinkerei Wirtz GmbH & Co
Verzinkerei Essen GmbH & Co
Verzinkerei Duisburg GmbH & Co

Verzinkerei Alsdorf GmbH & Co
Verzinkerei Leipzig GmbH & Co
Verzinkerei Castrop-Rauxel GmbH & Co
Verzinkerei Bruschal GmbH & Co
Grosverzinkerei Heldrungen GmbH & Co

Ireland

Galco Steel Ltd, Dublin
Irish Pioneer Works (Fabricators) Ltd,
Cork
Shannonside Galvanizing Ltd,
Drombanna

Latvia

Baltic Zinc Technics SIA, Riga

Netherlands

Verzinkerij Kampen B.V.
Verzinkerij Meerveldhoven

Norway

Vik Orsta SA

Sweden

Smekab AB, Onnestad

United Kingdom

Arkinstall Galvanizing Ltd, Birmingham
Barkers Engineering Ltd, Stoke-on-Trent
British Metal Treatment Ltd
Cardiff Galvanizers Ltd
Forfar Galvanizers Ltd
Hereford Galvanizers Ltd
Highland Metals Ltd, Elgin
IAE Ltd, Stoke-on-Trent
Joseph Ash Bilston
Joseph Ash Bridgend
Joseph Ash Chesterfield
Joseph Ash London
Joseph Ash Walsall
Joseph Ash Hereford
Leeds Galvanizing Ltd
McArthur Group Ltd, Bristol
NK Coatings Ltd, Mallusk
Roebuck & Clarke (Galvanizing) Ltd, Rotherham
Roften Galvanizers Ltd, Ellesmere Port
Shropshire Galvanizers Ltd
Silverwood Enterprise Ltd, Craigavon
Ultra Building Products Ltd, Newtown Stewart

Contact Us

If you are interested about this process, or have any questions relating to our services please do not hesitate to contact us at:

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