

NDTS NEWS LETTER

Last quarter was full of activity for NDTs, where we participated in two exhibitions (Petrosafe 2007 and INDE 2007) organized three seminars (one in Jamshedpur and two in Mumbai) and tied up with two new principals (Proceq SA for portable hardness testers & Aqua Communications for SnakeEye)

Portable Hardness Testing

NDTS is pleased to announce its co-operation with M/s. Proceq SA, Switzerland for its complete line of metal hardness testing products.



PROCEQ® manufactures the highest quality testing instruments for the Metal, Concrete, and Paper industries.

EQUOTIP 3 Portable Hardness Tester



The EQUOTIP 3 is the latest evolution of the popular EQUOTIP series of portable metal hardness testers. With the EQUOTIP 3, Proceq has merged today's technology with customer suggestions - and over 30 years of experience - to create an instrument that is as capable as you need it to be, yet as easy to operate as you want it to be.

Applications: EQUOTIP 3 is ideal for production level testing and well-suited to on-site testing of heavy or large components before or after installation - the compact design makes it useful in difficult to access or confined test locations. It is excellent for material selection and acceptance tests and its accuracy (R>10mm) on curved test surfaces is ensured. EQUOTIP 3 is good for all metals and features custom conversions for uncommon alloys.

Operation: The EQUOTIP 3 measures the Leeb value (L) for materials, which is a ratio of the impact velocity to the rebound velocity. This L value is then converted to standard hardness scales such as Rockwell, Brinell, Shore and Vickers using conversion tables stored in the display unit and generated from the original Leeb block. Thus, an EQUOTIP instrument reading from today will match - within tolerance - that of an EQUOTIP instrument from 1975, when production first started!

Versatility: EQUOTIP 3 portable hardness testers can be used with many different Impact Devices and Support Rings which allow for measurement of a wide variety of part geometries.

Key Features: Some key features of the EQUOTIP 3 are:

- Simple operating menu structure & extensive on-screen help files
- Large, clear display with adjustable contrast and backlight
- Fast display of measurements
- Automatic correction for impact direction
- Converts directly to all common hardness scales (HV, HB, HRC, HRB, HRA, HS)
- Create and store up to 20 custom conversion curves
- Change conversions at any time - even while still testing
- Highly accurate ± 4 HL (0.5% at 800 HL)
- Direct keys for measurement setup
- Easy-to-use menu structure for other instrument settings
- User profiles for fast change of setup - password protection option
- Rugged shock-resistant housing and sealed membrane keypad
- Internal rechargeable Li-Ion batteries or standard "C" cells
- Free and easy upgrades of firmware via internet
- Internal storage of ~100,000 measured values in a file/folder structure
- Download to PC via USB, Ethernet, or RS-232

EQUOTIP PICCOLO Portable Hardness Tester



The EQUOTIP PICCOLO metal hardness tester is a revolutionary new rebound hardness tester. It features a new patented load & release mechanism - the impact body is launched at the surface and loaded for the next test in a single motion!

The EQUOTIP PICCOLO also features:

- Automatic impact direction compensation - highly accurate in any direction automatically
- Large, high contrast LCD display - easy to read
- Converts directly to common hardness scales (HV, HB, HRC, HRB, Rm, HS)

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- 3 button keypad for simple and easy control of the features
- Self diagnostics and error checking
- Scratch proofed anodized Aluminum housing - rugged and durable
- Intelligent On/Standby power switching for optimum battery charge life
- Durable Li-Ion rechargeable battery - charges through the USB port from host computer or optional computer-independent AC charger/adaptor
- Bi-Directional USB communication with remote control
- Internal, non-volatile data storage of 2'000 readings complete with tagging of important information like day, time, and statistics
- Compact size for easy carrying - just 145mm x 44mm x 20mm
- Ready for integration into automatic testing

EQUOPEN Portable Hardness Tester



The Equopen portable hardness tester is a lightweight, portable instrument for measuring the hardness of steels. The revolutionary pen-style form factor makes it ideal for mobile, periodic use in the field, where fast, accurate hardness readings are essential.

The Equopen works according to a rebound principle, a dynamic hardness measurement technique. An impact body with a hard metal indenter ball is launched against the surface to be tested by a spring force. The displayed hardness value is then calculated from the measured data.

- Direct display of hardness values in the Rockwell C scale (HRC)
- Large measurement range - 20 to 70 HRC
- High degree of accuracy - ± 1 HRC
- Automatic switching on and off
- Simple handling and low test cost
- Suitable for iron-based metallic materials
- For test pieces that are heavy or already installed

EQUOstat Portable Hardness Tester



The EQUOstat hardness tester is a light weight, yet powerful portable hardness tester for all metallic materials.

The EQUOstat portable hardness tester measures in a similar fashion to the Rockwell principle where penetration depth under a defined load force is measured before and after application of a larger force. The differential between the before and after penetration depths reflects the plastic deformation and, therefore, the hardness.

The probe can be used in either a clamp (as shown below), bench press or freehand. The EQUOstat portable hardness tester then displays both the native HRZ and converted values for Rockwell, Vickers and Brinell on a large LCD display. Mobile and accurate, the EQUOstat portable hardness tester has a large measuring range - from soft to extremely hard and gives measurements in seconds. Internal data storage of ~ 6,000 readings and RS-232C interface make the EQUOstat portable hardness tester a powerful quality tool.

Applications of the EQUOstat portable hardness tester include scratch sensitive polished surfaces, hardness of the heat affected zone in weldments, sheet and coiled metals, and pieces as thin as 0.008".

EQUOmatic2 - Automatic Hardness Measuring System



A hardness measuring system based on EQUOTIP® 2 portable hardness testers for automatic 100% hardness control inline during production.

- Automatic good/bad evaluation of the hardness values.
- Easily integrated in to existing process lines.
- The position of the measuring head is controllable up to 8mm on the horizontal axis.
- Standard impact device D and special impact device E with diamond ball are available to suit production volume needs for durability.
- 1 point or 3 point measurements can be triggered manually, automatically or by remote.
- The following can be displayed graphically: hardness values HL (Leeb-Value, standardized according to ASTM 956-02), statistical values, converted hardness values and control parameters.
- Can automatically convert HL and display in HRC, HV, HB, HRB, and HS.

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- Data can be transmitted live online to an external PC or printer via RS232.
- Stored data (~5,000 values) can be transferred to a PC or an external printer via RS232.
- EQUOMATIC2 automatic hardness tester can be outfitted with an optional internal printer.

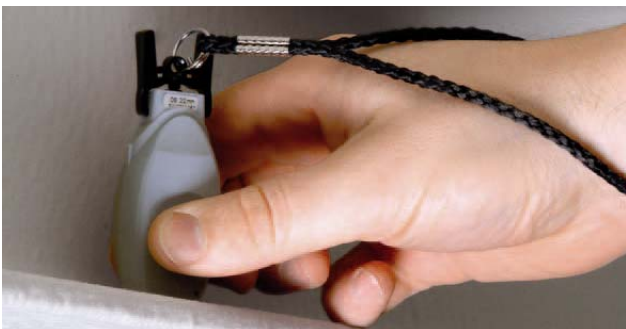
For more information on [portable hardness tester](#), kindly log to www.proceqasia.com or write to us.

Wireless Coating Thickness Gauge

The **QNix** series of coating thickness gauges are of high quality and reliability, robust gauges, easy-to-use, no calibration and - last but not least - products "Made in Germany".



The **QNix® sat** is an innovative development that enunciates, in combination with QNix 8500®. QNix® sat, is not only the world's first and smallest precision probe for non-destructive Fe and NFe measuring of coating thickness. It extends the application scope with a wireless and trouble-free transfer of statistical data via radio frequency. The radio control probe is the right answer to the demand of many end users for a gauge that fulfils norms in the paint and corrosion protection industries, especially allowing for measurement sat difficult-to-access points.



The QNix® sat makes it possible to take precise measurements every where, even where in the past hand held gauges and probes

on extension cables could not reach: Non-destructive measuring of coating thickness of lacquer and corrosion protection on buildings, restoration objects and safety projects for airplanes, ship and bridge inspections is made simple.



For more information on **QNix** series of coating thickness gauges, kindly write to us.

What's New in RVI (Remote Visual Inspection)

NDTS is pleased to announce its co-operation with M/s. **Aqua Communications, Inc., USA** for **SnakeEye™** - a Low Cost Remote Visual Inspection tool.



SnakeEye™ III is a low-cost hand held remote video inspection system. Combining a CCD camera and TFT-LCD display technology, SnakeEye delivers crystal-clear full color images which can be stored on a removable card. The SnakeEye™ III also includes an audio function. With the audio function, you can add stand-alone voice notes during live video mode or you can add audio comments to individual stored images.

SnakeEye™ III is modular in design so that it can be easily configured to inspect ... behind walls, inside ceilings, in and around pipes and machinery, under vehicles and aircraft, inside engine compartments, behind computer equipment, underneath automobile dashboards ... the possible uses are endless.

SnakeEye™ III is ideal for quick, non-destructive, qualitative inspections in hard-to-reach places.

For more information on **SnakeEye™ III**, kindly log on www.snakeeye.com or write to us.

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Inspection Services 24X7

Presently, we offer 24X7 inspection services in following disciplines:

- Boroscopy/Remote Visual Inspection (RVI) Services



- Ultrasonic Flaw Detection & Thickness Gauging



- Magnetic Particle & Liquid Penetrant Inspection



- Coating Thickness Measurements & Hardness Testing



For more information on [Inspection Services](#), kindly write to us.

Upcoming Events: NDE - 2007

NDE 2007 is an annual National seminar organized by the Indian Society for Non Destructive Testing (ISNT). This year's annual National seminar i.e. NDE 2007 is being organized at Vadodara.

The Seminar is also supported by an Industrial exhibition, which renders a good opportunity for NDT professionals to interact with each other, their counterparts, and host of vendors and suppliers in this field. For more information on NDE 2007 you may visit NDE 2007 website at <http://www.nde2007.com/>

Date: November 28 to 30, 2007 **Venue:** Hotel Surya Palace, Vadodara

Company News

In last quarter NDTs organized and sponsored couple of seminars on Electro Magnetic Acoustic Transducer (EMAT) Technology and Phased Array Technologies. These Seminars were organized in Jamshedpur with the help of ISNT, Jamshedpur Chapter & Tata Steel and in Mumbai with the help of BARC.



NDTS displayed a gamut of NDT Equipments & latest Inspection technologies at Petrosafe 2007 in Cochin and INDE 2007 in Kalpakkam.



For suggestions, please write to us:



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