



28th International North Sea Flow Measurement Workshop
26th – 29th October 2010

Exhibitor List

TUV NEL is pleased to announce that the following companies are exhibiting



28th International North Sea Flow Measurement Workshop
26th – 29th October 2010

Exhibitor List



GL Noble Denton



Flow Centre



hibré instruments bv

28th International North Sea Flow Measurement Workshop
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Exhibitor List

Honeywell Enraf



KELTON[®]

KROHNE

Oil&Gas

National
Measurement
System



OGS

28th International North Sea Flow Measurement Workshop
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Exhibitor List



Schlumberger



SICK

SIEMENS

28th International North Sea Flow Measurement Workshop
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Exhibitor List

solartronISA

Spirit 
Innovative Technologies

ST
swinton
TECHNOLOGY

 **Tekna**

 **Terrington**
DATA MANAGEMENT

Thermo
SCIENTIFIC



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Exhibitor List



Weatherford®



28th International North Sea Flow Measurement Workshop
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Sponsors List



Best Paper Prize 2010



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technology for life

North Sea
FLOW
Measurement Workshop



**28th International North Sea Flow
Measurement Workshop**
26 – 29 October 2010

Vendor Brochure

Fairmont St Andrews Hotel,
Scotland, UK

Organised by
TUV NEL Ltd, East Kilbride, Glasgow, UK
BOOKING HOTLINE: +44 (0) 1355 272858
ONLINE BOOKING: www.tuvnel.com

In Association With:

**National
Measurement
System**





CAMERON MEASUREMENT SYSTEMS – CALDON® ULTRASONICS is a leading provider of advanced transit time ultrasonic technology. We have achieved a dominant world-wide share in both the petroleum and nuclear markets through continual development.

We are exhibiting our 8-path ultrasonic meter for heavy crude oil, LNG and pipeline custody transfer measurement applications. Our meters are supported with **eCheck** – a local and remote user friendly **Performance Auditing** package, plus our internationally accredited hydrocarbon calibration laboratory located at our Technology Centre. The capabilities of our laboratory and **eCheck** will be displayed on Stand 2.

Presentations on our operational challenges and history will be provided during our manufacturer's presentation sessions in the Duncan MacIntyre room.

Cameron Measurement Systems

Caldon® Ultrasonics

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Shootash, Romsey, Hampshire, SO51 6DP, UK

Tel: +44 (0)870 850 8855

Mobile: +44 (0)7785 571986

E-mail: jim.gray@c-a-m.com

Website: www.c-a-m.com/caldon

Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: Duncan MacIntyre

Reducing measurement uncertainty is our business.

With 80 years of experience in oil and gas custody transfer and fiscal flow measurement, we understand that a small change in measurement accuracy can have a major impact on profitability. That's why Daniel is committed to helping you:

- **Measure and understand your oil and gas flows using intelligent meters with advanced diagnostics**
- **Control and verify all key metering parameters with predictive metering systems that detect potential system failures before they happen**
- **Sustain your metering equipment throughout its life-cycle with expert services**

Emerson Process Management
Daniel Measurement and Control, Inc.,
www.daniel.com

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Europe: Stirling, Scotland, UK

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Middle East, Africa: Dubai, UAE

T +971.4.811.8100

Asia Pacific: Singapore

T +65.6777.8211

Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: William Dunbar A





GE Measurement & Control Solutions

GE Measurement & Control Solutions is a global business that provides sensing elements, devices, instruments and systems that enable our customers to monitor, protect, control and validate their critical processes and applications.

We deliver accuracy, productivity and safety to a wide range of industries, including oil & gas, power generation, aerospace, transportation and healthcare.

The Sensing business of GE Measurement & Control Solutions offers a wide range of solutions to meet your specific needs:

- Flow
- Gas
- Moisture & Humidity
- Pressure & Level
- And much more ...

For more information visit: www.gesensinginspection.com



Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: James Graham A



OMNI is the largest independent manufacturer of custody transfer flow computers for oil and gas measurement. The OMNI flow computer continues to be the product against which all others must be judged in flow computing technology. With more than 20 years of product excellence, OMNI has earned the trust of energy companies in 70 countries across six continents, and our flow computers are connected to more than 30,000 oil and gas custody meters. Meeting strict specifications and exacting worldwide standards, OMNI's unrivalled experience and knowledge, combined with product flexibility, reliability, and advanced cyber-secure network connectivity, are central traits that keep OMNI flow computers center stage in international oil and gas metering systems. OMNI's people are dedicated to continuous improvement, integrity and teamwork in relentless pursuit of being the gold standard of the industry.



An ISO 9001:2008 certified company
Measure the Difference®

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Email: sales@omniflow.com

Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: Robert Aytoun

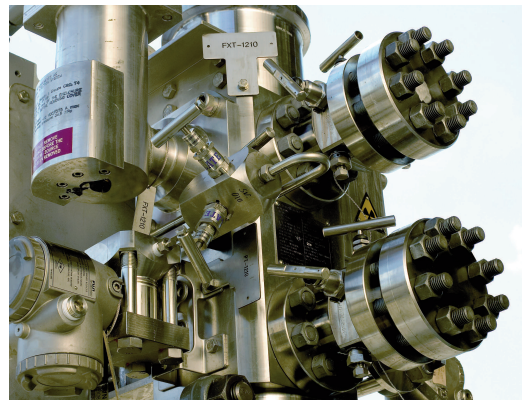
Schlumberger

Schlumberger is the leading oilfield services provider, trusted to deliver superior results and improved E&P performance for oil and gas companies around the world. Our testing and measurement services help our clients get key answers to questions about productivity, fluid properties, composition, and flow. Incorporating advanced Vx technology into our multiphase well testing offerings, we measure flow rates without prior separation, directly in the flow line. This capability offers many advantages, including

- improved test quality and availability
- quick well performance trend analyses
- immediate well diagnostics
- reduced costs per well tested.

Join us to learn how to get more efficient and reliable flow rate measurements, how Vx technology has revolutionized testing for 10 years, and how Schlumberger will change the future of multiphase well testing.

For more information about Vx technology, please email us at: Vx@slb.com. For additional information about Schlumberger Testing Services, please visit our website: www.slb.com/BeCertain.



Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: William Dunbar B

SICK

Sensor Intelligence.

With more than 25 years of experience in ultrasonic technology, SICK continues to develop and manufacture pioneering product solutions for custody and non custody gas flow measurement. This results in more than 8000 installations.

FLOWSIC600: Fiscal accuracy is assured

Our robust and innovative technology is the key to your success. We provide added value with our compact and easy-to-install units. Maintenance only if required. Minimum risk of failure. Unique long-term reliability. Fiscal accuracy is assured with FLOWSIC600: The permanent comparison of the diagnostics data with the original data set within the meter ensures, regardless of the condition, the measurement is always accurate.

Ultrasonic Flare Meter

All devices use an innovative and unique ultrasonic sensor design qualified for high velocity of gas flow up to 120 m/s. With optional retraction mechanism the probes can be easily inserted and removed without interruption of pipeline operation.



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Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: Robert Louis Stevenson B

solartronISA

For over 40 years, Solartron ISA has provided primary, single phase and wet gas (multiphase) flow measurement instruments for topside (surface) and subsea deepwater applications. The Seastream (single phase) flow meters were specifically developed for subsea injection and gas lifts. Our patented Dualstream wet gas meters provide multiphase flow data (gas/water/ condensate) in real time at the wellhead or transmission pipeline. The Dualstream III (shown below) is the latest development in wet gas measurement, with an added water fraction measurement giving an extremely accurate record of the liquid phase fractions. Dualstream meters have been successfully used worldwide in over 200 gas fields providing solutions for hydrocarbon allocation and reservoir optimization.

Visit one of our Vendor Sessions to learn more about recent developments.

Solartron ISA

AMETEK OIL & GAS

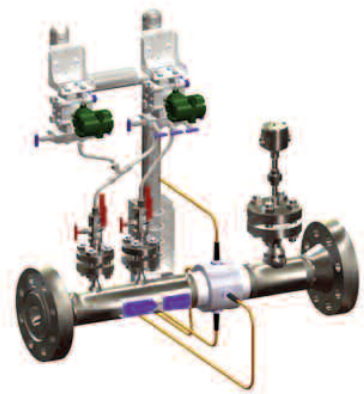
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Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: Edwin Muir Suite

Spirit

Innovative Technologies

Automation for Oil & Gas

Spirit Innovative Technologies is an independent company providing innovative technologies for versatile automation products for the oil & gas industry. Our products enable highly integrated solutions for demanding custody transfer measurement applications.

Many solutions using our products have found their successful entrance to the market and operate 24/7 at major terminals, metering stations, depots and central control rooms for major companies worldwide.

Our state-of-the-art hardware and software offer a highly integrated approach: from flow computers through advanced metering supervisory computers, terminal automation and pipeline SCADA solutions.

Improving Business Performance

Our suite of innovative products helps to improve the business performance of our customers by providing leading edge energy consultancy and innovative technology.

Products include the Flow-X family of flow computers, eXtreme SCADA/HMI and Virtual Flow Computing software, Flow-Xpert flow calculation library, and more.

Spirit Innovative Technologies

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Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: James Graham B



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Web: www.swintontechnology.com

Swinton Technology is expert in Flow Computing and Metering Computer System Integration offering:

- Turnkey Project Solutions
- Project Engineering
- Installation & Commissioning
- And introducing ...
- Independent Upgrade Consultancy
- Support Services
- Innovative Products
- Training & System Testing



Real-time mismeasurement alerts and accuracy assurance
for ANY Differential Pressure Meter system measuring gas or liquid

Manufacturer Session – Wednesday 27th October

Times: 1045 hrs, 1130 hrs, 1215 hrs

Room: Mary MacLeod



TUV NEL is a leading provider of pipeline fluid management services to the global energy industry. We have an impressive track record in the development, design and application of leading-edge technology. We provide consulting, training, R&D and laboratory testing services in the following areas:

- Flow Measurement (oils up to 1500 cSt, gas, water, wet gas, multiphase & LNG)
- Leading Independent Consultant in all Key Areas
- Software Design & Implementation (PPDS, HTFS, DVAL & Uncertainty)
- Erosion Assessment and Validation
- Flow Calibrations in the UK National Standard Test Facility
- Environmental Services (produced water, oil-in-water, emissions and carbon capture & storage)



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ADVANCE NOTICE 8 - 10 March 2011

The established South East Asia Hydrocarbon Flow Measurement Workshop returns to Kuala Lumpur, Malaysia, for the 10th in this series of workshops.

The workshop will give local and worldwide industrial experts the opportunity to present a series of technical papers on the latest developments and issues within the region today.

Operators, regulators, equipment suppliers, engineering contractors, service companies and researchers will be brought together to discuss, share and address through information and experience the changes in practices and technologies which affect the region. Networking plays an important part of the workshop so suitable time and environments have been set aside to do this.

The workshop will be preceded by an optional training course aimed at giving delegates intensive subject based knowledge on Multiphase & Wet Gas. There will be a half day complimentary presentation on Measurement Uncertainty.



ADVANCE NOTICE 26 - 28 April 2011

TUV NEL is pleased to announce the 4th Americas Workshop which will be held at The Woodlands Resort & Conference Center, Houston, USA from 26 - 28 April 2011.

The aim of this workshop is to bring together operators, regulators, equipment suppliers, engineering contractors, service companies and researchers to share information and experience. In the same way that the North Sea Workshop and the South East Asia Workshop are unique within their regions, this event is the only major forum to address the changes in practice and technology which affect the Americas.

This event will comprise of a series of technical papers, presenting industrial experience and research to a collected audience of engineers, scientists, regulators and policy makers. Networking plays an important part of the workshop so suitable time and environments have been allowed to do this.

The workshop will be preceded by two optional training courses on Measurement Uncertainty or Multiphase & Wet Gas.

Full details on both Workshops can be found at www.tuvnel.com, alternatively contact the Events Team on +44 (0) 1355 272858 or by Email: events@tuvnel.com



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Spirit 
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technology for life



28th International North Sea Flow Measurement Workshop

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TUV NEL is a leading provider of pipeline fluid management services to the global petroleum industry. We have an impressive track record in the development, design and application of leading-edge technology in order to reduce production costs and increase profitability.

We provide consultancy, R&D, testing, measurement, calibration and knowledge transfer services in the following areas:

- Flow Measurement (oil, heavy oil, water, gas, wet gas & multiphase)
- Environmental (produced water, emissions and oil-in-water)
- Computation Fluid Dynamics Modelling and Interpretation
- Erosion Assessment and Validation
- Umbilical Acceleration Life Testing
- Calibration of Metering Systems

TUV NEL also holds the UK National Standards for flow measurement.

TUV NEL CONTACT DETAILS

For further information on TUV NEL and its services contact:

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For further details on how TUV NEL can help your business please visit our website:
www.tuvnel.com

PAPERS AND PRESENTATIONS

While every effort has been made to ensure clarity and quality of content, TUV NEL cannot be held responsible for errors or omissions. The documents were published from camera ready copy provided by the authors. The authors hold sole responsibility for the content of these proceedings.

WORKSHOP QUESTIONNAIRE

We would be grateful if you could take time to complete the Workshop Questionnaire within Section 2 of the Proceedings and hand it to any member of TUV NEL staff before you leave. On receipt of this, you will receive your electronic copy of the proceedings.

Thank You

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