

## EMC Vessel Weighing Systems Engineering support for weighing of 30 tonne skirted Flour Silo

EMC were delighted to be recently selected to provide a weighing system for a 30 tonne skirted Flour Silo.

The weighing system is required to provide accurate inventory monitoring.

Due to the skirted silo design and potential wind loadings, the Project Manager required a top quality installation with plenty of safety margin.

EMC supplied 5 rugged DSM2 11,000kg Loadcell Mount Assemblies for this application which incorporate built-in vertical and horizontal restraints.

Five Mounts were selected as this provides greater stability and enabled the load to be spread more effectively.

### Full Engineering Support

EMC's Service Engineer, Steve Hill, supervised the complete installation and commissioning.

In order to weigh a skirted silo it is necessary to lift the complete vessel so the load is taken by the loadcells.

Prior to installation, steel strengthening plates were fabricated for each Loadcell Mount position. These plates were fitted on-site to strengthen the skirt and enable the silo to be lifted approx 10mm and be supported by the Mounts.



Inside the silo base showing one of the Loadcell Mounts and Strengthening Plates



The 30 tonne skirted Flour Silo



Panel Mounted EMC2060 Weighing Indicators

EMC bolted the Loadcell Mounts to the concrete base and silo and ensured that all fabrication modifications were painted and sealed to a high standard.

A rubber sealing strip was fitted around the base of the silo to stop water ingress. Conduit was run between the loadcells and junction box to provide a very tidy installation.

An EMC 2060 Weight Indicator is installed in a cabinet, with other existing EMC 2060 Instruments, providing a display of weight and 4-20mA output.

Accuracy is excellent and the customer is well pleased with the installation.

We would welcome the opportunity to provide the same level of service for all your weighing applications.

### More information?

Circle Enquiry No: 1101

Contact: John Ball

# Radar Level Measurement

Endress+Hauser 

## reliable level measurement of IBC contents with non-invasive radar

Amcor Beverage Cans Ltd in Manukau City recently had an application for reliable Level Measurement in their Intermediate Bulk Containers (IBCs).

As the contents were highly corrosive and the IBCs are regularly replaced, it was essential that a non-contact / non-invasive technique was used.

EMC suggested that the Endress+Hauser FMR240 Micropilot M could be suitable for the job and a successful trial was arranged.

The FMR240 Microwave Radar is able to reliably and accurately detect the liquid level through the IBC tank ceiling ensuring that Amcor can monitor their inventory levels without problem.



IBC at Amcor - FMR240 circled



FMR240 Micropilot M mounted above IBC

### Micropilot M - safe level measurement of liquids in extreme process conditions

The FMR240 used in the above application is just one model in Endress+Hauser's Micropilot M series of Radar instruments. They are used for continuous, non-contact level measurement of liquids, pastes, and slurries.

The measurement is not affected by changing media, temperature changes, gas blankets or vapours. Typical models include:

- FMR230 - especially suited for measurement in buffer and process tanks
- FMR231 has its strengths wherever high chemical compatibility is required
- FMR240 with horn antenna is ideal for small vessels and has an accuracy of  $\pm 3\text{mm}$ . The Wave Guide provides the

- solution for horizontal cylindrical tanks
- FMR244 combines horn antenna advantages with high chemical resistance
- FMR245 - highly resistant, easy to clean

### Micropilot M benefits

- 2-wire technology, low price: A real alternative to differential pressure, floats and displacers. Reduces wiring costs and allows easy implementation into existing systems
- Measurement is non-contact & almost independent from product properties
- Easy on-site operation via menu-driven alphanumeric display
- Easy commissioning, documentation and diagnostics via operating software (ToF Tool)
- 2 frequency ranges - 6 GHz (FMR230/FMR231) and 26 GHz (FMR240/244/245): No compromises, the right frequency for every application
- HART (standard), PROFIBUS PA or FOUNDATION Fieldbus all optional
- Suitable for process temperatures up to 200°C (400°C with high temperature antenna)
- Rod antenna with inactive length: Reliable measurement in narrow nozzles, with condensation and build-up
- Application in safety related systems (overspill protection) with requirements for functional safety up to SIL 2

### More information?

Circle Enquiry No: 1102  
Contact: Howard Berry

## enviroNZ05

### EMC supports the NZWWA 47th Annual Conference and Expo

As mentioned in our last Newsletter, the New Zealand Water and Wastes Association's annual conference and Expo was held at the Aotea Centre in Auckland at the end of September.

EMC were to pleased to participate in the successful expo and to demonstrate our support for this important industry.

EMC Sales Engineers were on hand to discuss the diverse range of Endress+Hauser instrumentation on display which included:

- magnetic flowmeters
- level switches / measurement
- ultrasonic level / flow measurement
- portable water sampler
- suspended solids measurement
- pH and other analytical sensors
- displays and data loggers
- temperature measurement

EMC are your ideal partner - we can



EMC's exhibition stand at enviroNZ05

supply the whole basket of instruments used in the water and wastewater industries and support this with trained and knowledgeable staff.

### More information?

Circle Enquiry No: 1103  
Contact: Howard Berry / Stephen Wells

# Ecograph T

## Cost effective solution for all recording and monitoring applications

Wherever you have a need to display, monitor, record and analyse process parameters the new Endress+Hauser **Ecograph T** is your economic solution.

Endress+Hauser are one of the worlds largest industrial recorder manufacturers, with 25 years of experience and more than 100,000 installations worldwide.

The new **Ecograph T**, maintenance free paperless recorder, integrates the latest technology in multi-channel displaying, recording, monitoring and communication at an economical price.

The unit is a perfect replacement for existing paper recorders, is easy to use and comes with a host of features to save costs and simplify data acquisition.



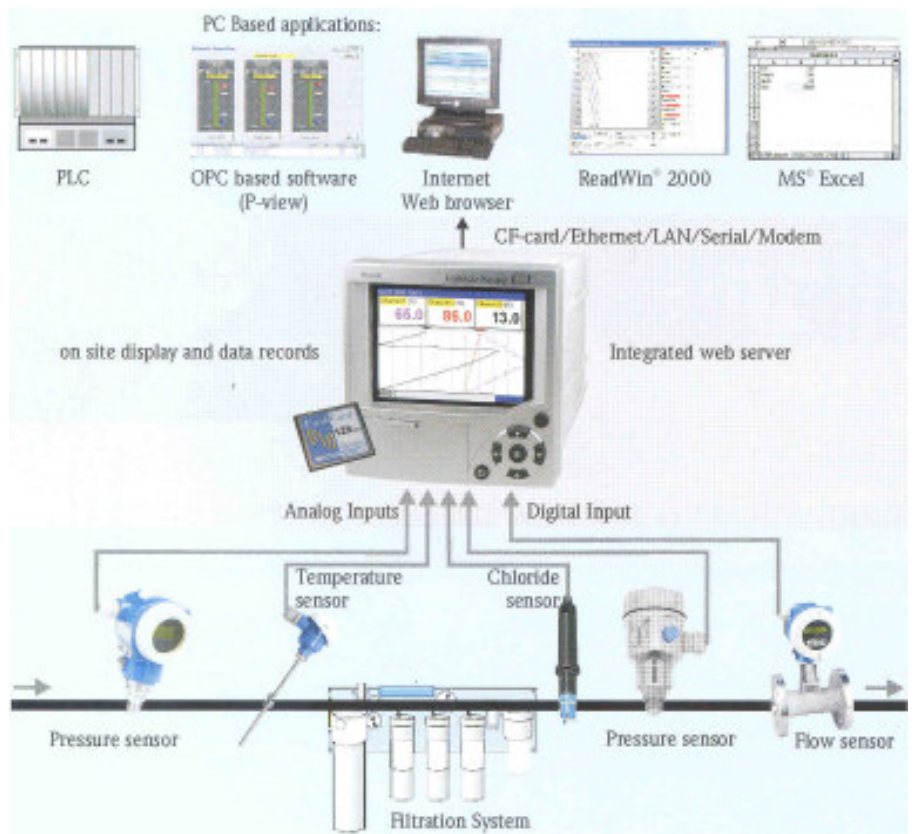
### Ecograph T advantages

- connect up to 6 analogue signals (loop powered) and one digital input
- 100ms scan rate, 18 bit resolution
- 4 relay outputs and 14 setpoints with freely definable limits (soft alarms)
- integrated 250mA, 24V sensor power supply - no need for external supplies
- secure recording with digital memory and lockable compact flash cards
- easy to read 4.7" LCD display
- robust, compact housing: 138x138mm cut out, 170mm depth
- state-of-the-art communication via Ethernet, USB, RS232/RS485
- an embedded web server allows online monitoring using a simple web browser

### More information?

Circle Enquiry No: 1104

Contact: Howard Berry



System overview: application example for a filtration system

### Typical Ecograph T Applications

- Monitoring critical parameters in drinking water filtration systems & river waters
- Ensuring safe limits of chemical and biological elements in wastewater
- Remote monitoring of deep wells, mineral water springs and pumping stations
- Tracking emissions, wastes and gases at manufacturing and processing plants
- Monitoring tanks for level, overflow and recording consumption trends
- Enables traceability to achieve cost/quality leadership in manufacturing processes
- Tracks critical parameters during processing, packaging and cold storage
- Data acquisition units on special stand alone skids such as filling machines, wine sterilizers, milk pasteurizers, cheese processors and milk collection stations
- Multi-channel display application in process and machine industry
- A reliable multi channel gateway, with / without redundant data logging, between intranet / internet / visualisation software and process sensors
- Recording and billing consumption of gases, fluids and energy in industries
- Recording and monitoring of performance characteristics of turbines and boilers



## South Island Support

### Welcome to our new Sales Engineer

EMC are pleased to announce the appointment of our new South Island Sales Engineer - **Jared Curry**.

Jared is an experienced and qualified Instrumentation and Control Systems Engineer who is well known from his involvement in a variety of projects throughout NZ.

Based in Christchurch, Jared will provide full South Island sales and technical support for all EMC products. Jared can best be contacted on his mobile 029-365 2671.

*Picture: Jared on site commissioning E+H Promag 50 Flowmeters for a new Dairy Factory water treatment plant.*

*Other instruments commissioned included Endress+Hauser Turbidity Meters and Memosens pH Sensors.*

# Excell Crane Scales

## New affordable FJ Series

The new FJ Series of Crane Scales from Excell are exceptionally well priced and provide rugged and reliable operation in 4 capacities ranging from 1 tonne up to 5 tonne.

### Features:

- Easy operation and rugged construction.
- Capacities from 1 tonne to 5 tonne (overload safety up to 500%)
- Large (25.4mm) bright red LED display with wide view angle.
- Tare; Zero; Hold function; Adjustable gravity value.
- Auto-zero tracking; Setpoint control; Power-saving mode.
- Includes remote control (max. distance 24 metres).
- Power supply: 110/230Vac and rechargeable battery.
- Low power indication and auto power off.

### More information?

Circle Enquiry No: 1105  
Contact: Steve Watkins



## EMC Platform Scales

### Rugged and economical platforms with EMC 2000 Series Indicators

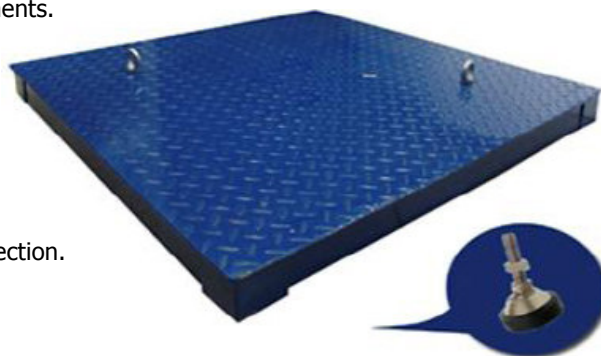
EMC are pleased to introduce a new Series of Platform Scales designed to provide an economical solution for your factory and warehouse weighing requirements.

Available in four capacities from 1 to 4 tonne and three platform sizes (up to 1.5 x 1.5m), these new scales come with either adjustable feet or with a 'pit frame'.

For additional versatility and reliability we recommend and supply EMC 2060 Weighing Indicators.

### Features:

- Platforms made of A36 constructional steel. Pit frame from rigid C-section.
- Freestanding model with 4 adjustable feet; Pit mounted model supplied with the pit frame.
- 4 loadcells included along with an IP67 cornering junction box. (Loadcells can be replaced individually)
- Used for weighing of goods in factories, warehouse and other industrial applications.
- EMC 2000 Series Weighing Indicators available on request
- Indicators can be connected with printer interface or RS232 serial data output.
- Supplied with M12 eye bolts for easy lifting.
- Options: Customized size available, On/Off ramp



Free standing model with 4 adjustable feet

### More information?

Circle Enquiry No: 1106  
Contact: Steve Watkins

## EMC Holiday Arrangements

Seasons Greetings to all our customers.

EMC take this opportunity to thank you all for your tremendous support throughout 2005 and to wish you a very happy and safe holiday season.

EMC will be closed on statutory holidays only. At other times we will operate to ensure your needs are supported.

Should our phones be unanswered, please leave a message, send a fax or email and we will get back to you as quickly as possible.

## Join Unitronics' 100,000 Celebrations

See Unitronics special 1+1 OPLC offer on the enclosed Flyer.

Buy one - get one free until the end of 2005



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