



## New Balluff-Leuze Distribution Agreement for New Zealand

Bob Jones (left) and Chris Gailer, Managing Directors of CSL and EMC, confirm the Balluff-Leuze agreement

In recent years EMC's core business activities have focussed on four key product groups:

- EMC Weighing Systems
- Endress+Hauser Process Automation
- Unitronics OPLCs and Systems
- Balluff-Leuze Sensors

The continued excellent growth of Endress+Hauser Process Automation products, combined with many new developments in the pipeline, has made it clear that EMC must commit significant additional resources to this area in order to continue providing the professional service demanded by our customers.

With strong growth being achieved in other key product areas, together with excellent potential for the Balluff-Leuze range, we have found it necessary to review our Company strategy in light of the conflicting demands.

### New Distributor - CSL Controls

Being aware of Cuthbert Stewart's desire to expand into the Factory Automation business, our discussions with them showed that a strategic partnership could be of benefit to both organisations.

EMC, CSL and Balluff-Leuze have therefore agreed that in order for Balluff-Leuze to expand their presence in the NZ Sensor market, EMC will relinquish the agency and, effective from 1st May 2005, CSL Controls will be the Sole NZ distributor.

This decision enables EMC to focus resources on the growth of the Endress+Hauser brand in the New Zealand Process Automation market.

## Endress+Hauser

### MIV - Main Instrumentation Vendor

EMC is dedicated to providing the best possible support for all your process automation requirements, and our decision to focus in this area is your assurance of our commitment.

Endress+Hauser is acknowledged as one of the world's few MIVs - Main Instrumentation Vendor, with the widest range of field instrumentation worldwide. This means they are your ideal partner for all small and large process automation projects alike.

Endress+Hauser prides itself on having arguably the world's best process instrument range and is Europe's leading manufacturer of flow, level, pressure, temperature, analysis, recording devices and system components for all industries.

In New Zealand, E+H is fast becoming the choice of companies who appreciate the quality and reliability of their instruments, not to mention the ease of set-up and back-up service provided by EMC.

### Now available: Endress+Hauser 2005 Catalogue



Containing Technical Data and Operating Manuals on all E+H product groups, the 2005 CD Catalogue is an indispensable tool for all Process Control Engineers.

Circle Enquiry **501** to obtain your copy

## A message from Cuthbert Stewart Limited

As a result of extensive customer feedback Cuthbert Stewart Limited (CSL) has decided to broaden its product portfolio to include Factory Automation and Safety products.

This decision has led to the establishment of CSL Controls (a division of Cuthbert Stewart Ltd) to market and support the new range of products.

Potential partners were sought who offered a synergy with CSL's existing product and customer focus and it was quickly evident that the Balluff-Leuze range and EMC would be ideal strategic partners.

The partnership objective is to provide high support levels for both the factory automation and process markets. CSL's distribution network and level of technical expertise will bring benefits to the factory automation market.

The team at CSL is excited about the opportunities that this strategic partnership will provide and the elevated levels of market support that this joint approach will deliver.

For assistance with all Balluff-Leuze enquiries please contact Andrew Leader at CSL Controls: Phone: 09-489 0841, Email: [andrewl@cslcontrols.co.nz](mailto:andrewl@cslcontrols.co.nz)

Yours Sincerely  
*Bob Jones,*  
Managing Director



**EMC INDUSTRIAL GROUP LTD**

The Instrumentation & Weighing Specialists



## End of an Era

The strategic decision to relinquish our Sensor agency (*see front page*) confirms EMC's future direction and also marks the end of an era.

On a personal note, it ends a 22 year association with Sensors and as such gives pause for reflection.

My first encounter with Photoelectric Sensors came in 1983 (pre EMC) when appointed Sales Engineer for the then relatively unknown Erwin Sick range.

My brief was to launch the brand in New Zealand and, with little knowledge of the product or the market, this was certainly a challenge. The agency was transferred to EMC in 1987 and, as Product Manager, I was responsible for growing EMC's Sensor market share.



*A younger Russell Mason pictured in 1991*

We achieved great success with the Sick brand for many years, which combined with Balluff Inductives in 1993 to provide an excellent Sensor package.

Two other long-term EMC employees, Howard Berry and Stephen Wells, started as Sensor Sales Engineers and have moved on to be valuable members of our process automation team.

By mid 1999 it was clear that, as distributor, we had grown the market for Sick as far as we could and at that time they opened their own NZ operation.

Our interest in a replacement Sensor was to source a brand offering continuation of high quality. Leuze proved to be an ideal fit, (they also had a combined operation with Balluff), and the association has lasted to the present.

It has been a difficult decision to relinquish the agency but, in the end, EMC did not believe we could continue to do justice to Balluff-Leuze or our Sensor customers, while at the same time meet the expectations of our other suppliers.

Our growth in the Process Automation market, and its huge business potential, has led to the strategic decision to focus additional resources into Endress+Hauser products and services.

It has been a pleasure to be associated with the Sensor market and I would like to thank all our loyal customers for their past support.

EMC now looks forward to an exciting future in the Process Automation, Weighing and OPLC System markets.

*Russell Mason*

Marketing Manager

# EMC Belt Weighers

## Weights and Measures approved



*W&M approved EMC B152 Dual Idler Belt Weigher installed on the enclosed load-out conveyor. Inset shows the B152 model.*



EMC were delighted to be awarded the contract to supply two EMC B152 Dual Idler Belt Weighers for installation in the coal handling facility at the Port of Tauranga, now run by Toll Owens Ltd.

Our customer, Works Infrastructure / Cortex Joint Venture, required two different sized B152 Belt Weighers complete with EMC Control Package, to measure the weight of coal on their inward and outward conveyor lines.

Coal is shipped into Mount Maunganui, from Indonesia in 30,000 tonne lots and is loaded into a large coal storage building via conveyor (the building can hold up to 65,000 tonnes of coal).

The EMC Belt Weigher system on this conveyor line has a belt width of 1200mm and a flowrate capacity of 2000 tonnes per hour.



*Enclosed coal load-out conveyor system. Picture below shows a train being loaded from the storage hoppers.*



Using front end loaders the coal is loaded onto the outwards conveyor which is fitted with a Weights & Measures approved EMC Belt Weigher. This coal is placed into storage hoppers above the railway line and 16 times a week, trains are loaded and the coal taken to Huntly power station.

The EMC Belt Weigher system on the load-out conveyor line has a 1050mm width and 800 tph capacity. As mentioned, this particular Belt Weigher required Weights & Measures approval.

### W&M Approval

The Trading Standards Service (Ministry of Consumer Affairs) specifies the size of load required for testing an approved Belt Weigher. This is based on the length of the conveyor and flowrate.

To be approved we were required to pass loads of between 50 and 60 tonnes over the Belt Weigher. Consecutive tests had to be within 1% of the load, as confirmed on a recently checked weighbridge.

W&M tests on the installed Belt Weigher were carried out in March. Bruce Scott from Toll Owens Ltd and John Ball from EMC were on site and the whole test went without a hitch.



*Loading the truck in coal storage building prior to weighbridge checking*

### W&M test results

**Test 1:** Belt Weigher: 52.99t  
Weighbridge: 53.232t  
Error: 0.45%

**Test 2:** Belt Weigher: 51.39t  
Weighbridge: 51.357t  
Error: 0.06%

This was an excellent result and the Belt Weigher was approved and stamped and is required to be checked and tested again in 12 months.

### More information?

Circle Enquiry No: 0502

Contact: John Ball

# Micropilot M FMR250 Radar

Endress+Hauser 

Reliable continuous non-contact level measurement in **SOLIDS**  
Cost-effective 4-20mA 2-wire technology

The Micropilot M FMR250 is specifically designed to provide reliable continuous, non-contact level measurement in powdery to granular bulk solids.

Dust, filling noises, temperature layers and gas stratification do not affect measurement.



## Typical applications

- Level measurement in tall silos up to 70m with extremely dusty bulk solids e.g. cement, raw meal or animal feed
- Applications with high process temperature requirements up to 200°C, e.g. clinker or fly ash
- Applications with highly abrasive bulk solids e.g. ferrite

The FMR250 with DN200 parabolic antenna offers high beam focussing of 4° and is therefore ideally suited to applications with many obstacles or with measuring ranges greater than 30m

The FMR250 with DN80 or DN100 horn antenna is optimised for narrow openings, small bins, open stock piles, etc.

## Your benefits

- 2-wire technology reduces wiring costs and allows easy implementation into existing systems
- Non-contact measurement - almost independent of product properties
- No mechanical moving parts and no pull-down forces to consider
- Easy on-site operation via menu-driven alphanumeric display
- Easy commissioning, documentation and diagnostics via ToF Tool software
- Integrated air purge connection for dusty conditions or build-up
- Suitable for temperatures to +200°C and pressure up to 16 bar
- HART communication
- Optional remote display & operation
- Optional alignment device: +/- 15°

## More information?

Circle Enquiry No: 0503

Contact: Chris Gailer / Howard Berry

## FMR250 - Excellent results at Golden Bay Cement

Golden Bay installed 5 Endress+Hauser FMR230 standard Radars on their 5 cement silos in Whangarei last year.

Although the standard Radars operated well on some of the silos, signal loss caused others to give unreliable readings. This was especially evident in the silos with side load-out causing an unusual angle of repose compared to normal filling and emptying angles.

When the E+H FMR250 Solids Radar became available, NZ was one of the first countries outside of Germany to receive a unit for evaluation. This unit was installed at GBC on the most difficult silo in place of the standard radar.



Golden Bay Cement Silos



Glen Lewis (GBC) and Howard Berry (EMC)

From initial installation the difference in signal strength and reliability was clearly evident (see envelope curves below). Virtually no adjustment was required to the instrument other than full /empty setting and an initial silo mapping.

GBC have also allowed EMC to install a Levelflex Guided Radar Level Transmitter on one of the problematic silos to allow comparison with the free-space radars.

Glen Lewis (GBC Instrument Engineer) is very impressed with the signal integrity and reliability of the Levelflex and can track the small level changes as the silo is filled and emptied.

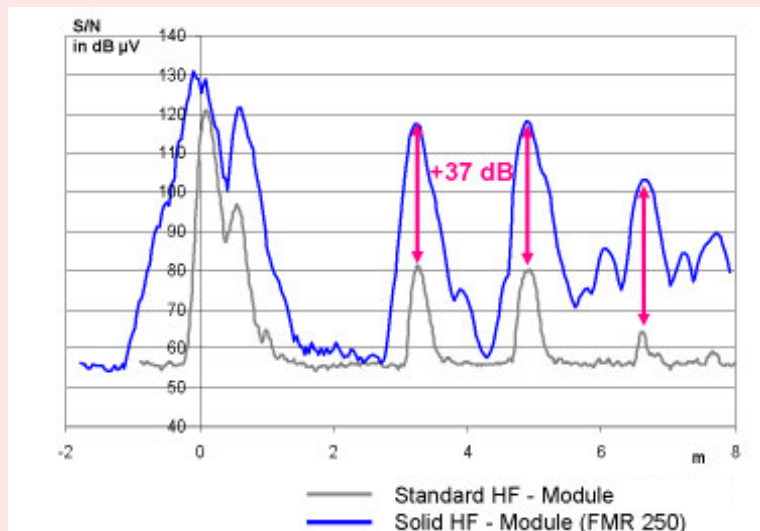
Glen says that along with the reliability of the FMR250 Solids Radar, this now gives GBC two options for reliable level measurement - lower cost guided radar with Levelflex M FMP40 and reliable non-contact free space radar level measurement with Micropilot M FMR250.

"The support and commitment of EMC to ensure that the solutions they provide give the customer the required benefits and reliability have been excellent", comments Glen.



Commissioning the Micropilot M FMR250 with the ToF Tool software package

The following Envelope Curve clearly illustrates the superior performance of the new FMR250 Solids Radar vs standard Radar



## Prosonic Ultrasonic Transmitters maintain constant flow at weir penstock

In order to ensure the integrity of the UV Dosing performance at the Manukau Waste Water Treatment Plant it is necessary to continuously control each UV Channel level to a fixed value and measure the thickness of the water plume at the weir penstock.

The level of each channel is measured by a fixed Endress+Hauser Prosonic M FMU40 Ultrasonic Level Transmitter. The level in each channel is controlled by a weir penstock and the flow rate is derived from the thickness of the water plume over the penstock which is measured by another FMU40.

The FMU40s used to derive flow are installed on the moving penstock (right) which modulates to maintain a fixed water level at varying flows. This ensures the water level is maintained within the required design parameters and accurate measurement of channel flow occurs.



Endress+Hauser Prosonic M FMU40 Ultrasonic Level Transmitters at Manukau WWTP  
"Photos courtesy of Watercare Services Ltd"



FMU40 mounted on the penstock weir

Positioning of the E+H Prosonics in this installation created some challenges that required the unique FMU40 software package to overcome.

The FMU's are mounted on the penstock with special brackets to ensure the target area was clear of the curve and turbulence of the weir.

However this resulted in the FMU being in close proximity to the maintenance walkway. At higher flows when the penstock was open to a lower position this was not an issue, however at lower flows, when the penstock was at a higher position, a high risk of false readings caused by the maintenance walkway falling into the sensor target area existed.

This issue was overcome by using the mapping feature of the Prosonic M software. Unwanted signals from specific objects in the target area are ignored resulting in total reliability.

This feature not only resolved this problem but is beneficial in any application where framework, or piping in vessels for example, give unwanted signals.

### Wedeco UV Systems

EMC's involvement with this project has led to a close working association with Wedeco Water Technology Ltd - a wholly owned subsidiary of Wedeco Ag, operating as a unit of the Advanced Water Treatment division of the ITT Group.

Wedeco Ag is a world leader in ultraviolet and ozone disinfection equipment for the water and wastewater industry.

As well as supplying, installing and providing ongoing support for Wedeco ultraviolet and ozone disinfection systems Wedeco also represents some of the world's leading water and wastewater equipment suppliers.

### Technical Advice and Service

Ian Hyland, Engineering Manager of Wedeco has responsibility for the UV installation at Manukau WWTP and comments as follows:

"Wedeco has been involved with EMC in recent years due to various project specifications requiring Endress+Hauser equipment.

In their role as equipment supplier EMC have been helpful with technical aspects, particularly in advising on applications and setting up of equipment.

Our experiences with EMC have only been good and we are more than happy with the service they provide".

### More information?

Circle Enquiry No: 0504

Contact: Chris Gailer / Howard Berry

### Prosonic M FMU40

- Continuous, non-contact level measurement in fluids, pastes, sullages and coarse bulk materials
- Flow measurement in open channels and measuring weirs
- System integration via: HART (standard), 4-20mA, PROFIBUS PA, Foundation Fieldbus
- Maximum measuring range: 5m fluids, 2m bulk materials
- Simple, menu-guided on-site operation with 4-line plain text display



- Envelope curves on the on-site display for simple diagnosis
- Easy operation, diagnosis & measuring point documentation with the supplied ToF Tool software
- Alignable IP68 housing
- Integrated temperature sensor for time-of-flight correction provides accurate measurement
- Linearisation function (up to 32 pts) for measured value output in any unit of length, volume or flow rate



## EMC INDUSTRIAL GROUP LTD

56 Tarnedale Grove, Albany  
PO Box 101 444, NSMC  
Auckland 1333  
New Zealand

Phone 09-415 5110  
Fax 09-415 5115  
Email sales@emc.co.nz  
Web www.emc.co.nz

