

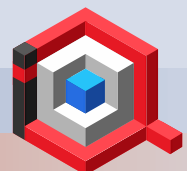
# **C<sup>2</sup> METER**

## **Online Carbon Concentration Measurement**



**MINTEK**

*A Global Leader in Mineral and Metallurgical Innovation*



**PROCESS IQ**



A critical parameter in the efficient operation of CIL/CIP processes is the accurate measurement and control of carbon concentration in the pulp. Traditional measurement methods are manual, time consuming and often inaccurate. This leads to poor process control and loss of gold.

The **MINTEK C<sup>2</sup> Meter v2** is fully self-contained and comprises an immersion probe and its associated control panel. The probe, designed and constructed to measure continuously in the pulp of adsorption tanks, contains a matched transmitter/receiver pair of piezoelectric (PZT) ceramic transducers to generate and measure the attenuation of the ultrasonic signal.

The meter allows quick setup, easy installation and calibration. It is supplied with a 100-240 VAC power supply, a 4 to 20 mA output, an error output relay and one 4 to 20 mA optional slurry density input.

The C<sup>2</sup> Meter can be used together with the Carbon Transfer Controller to reduce gold losses. The controller is part of Leachstar, Mintek's advanced control suite specifically designed for gold circuits.



### Example: Measurement vs. Pump

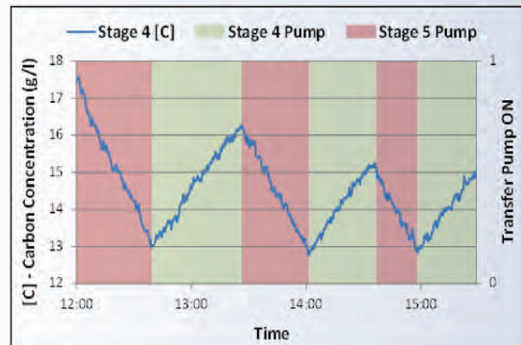
The concentration measurement from a leach tank shows the sensitivity of the C<sup>2</sup> Meter. Transferring carbon to the tank with pump 4 shows the concentration increases. Transferring to tank 5 shows the drop in concentration. The C<sup>2</sup> Meter together with the Carbon Transfer Controller can be used to ensure carbon concentrations remain optimal.

#### FEATURES

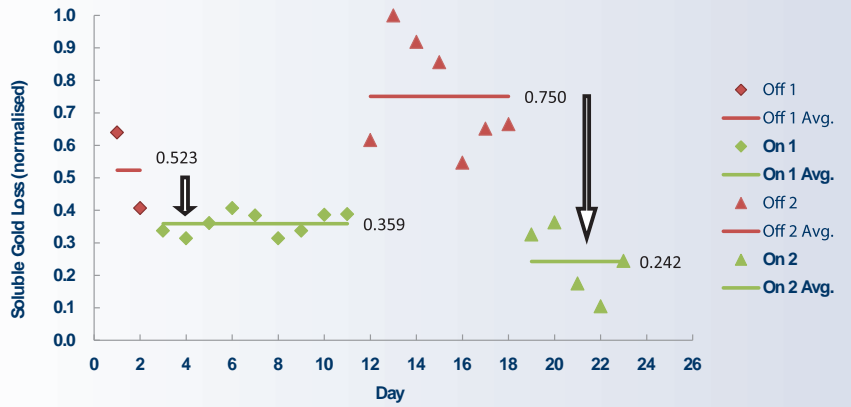
- Continuous on-line measurement of carbon concentration.
- Detection limit of 0.2 g/l
- Operator-friendly
- Robust construction
- Self-contained
- Easy installation and calibration

#### BENEFITS

- Accurate and Continuous monitoring of CIP/CIL processes
- Improved gold recovery through continuous carbon profiling
- Reduced carbon losses through early detection of carbon screen leakages
- Reduced dependence on plant personnel
- Improved carbon transfer control using Mintek's Carbon Transfer Controller Module (option)

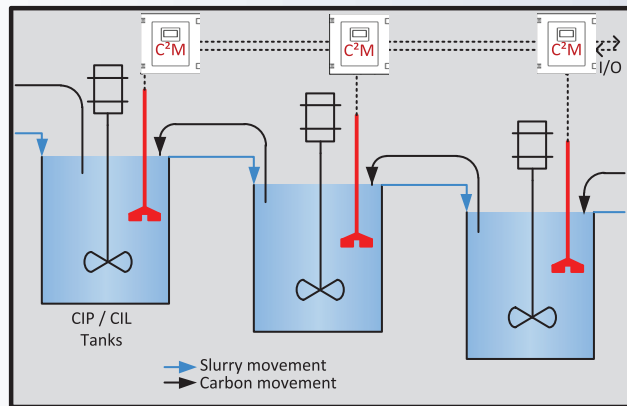


Reduction in soluble gold losses.



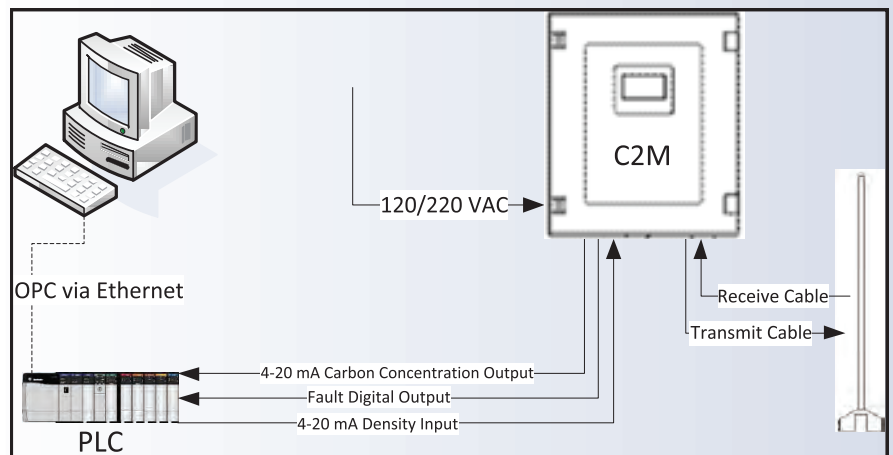
Actual reduction achieved at a mine using the C<sup>2</sup> Carbon concentration meter together with the Carbon Movement Controller

Typical Installation



Typical C<sup>2</sup> Meter installation on a section of a leach circuit

C<sup>2</sup> Meter and Carbon Movement Controller



## Process IQ Pty Ltd

Distributor: Australia and South East Asia

### Sales

Pieter Strobos

Mobile: +61 (0) 407 851 679

pieter@processIQ.com.au

### Technical Support

Daniel van der Spuy

Mobile: +61 (0) 400 206 115

daniel@processIQ.com.au

### Service Agreements and Spares

Process IQ Pty Ltd

Unit 1 / 23 Gibberd Road, Balcatta WA 6021

Tel: +61 (08) 9240 4357 or

+61 (08) 9240 4767

Fax: +61 (08) 6316 0486

admin@processIQ.com.au

www.processIQ.com.au

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FloatStar	Flotation Circuit Control
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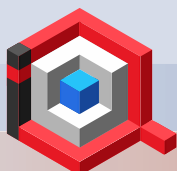
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- Commissioning Support.
- A comprehensive 1-year warranty.
- On-Going Performance analyses and reporting.
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### OTHER RELATED SERVICES

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- Plant simulation and Virtual plant setup.
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- On-going Performance analyses and reporting.
- Training and re-training of Operators systems, engineers and metallurgists.



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