

Instrowest was established in 2006 to provide quality instrument and electrical contracting services to the mining and mineral processing industries. Instrowest can provide a comprehensive installation, maintenance, calibration, and repair service to all sites within Western Australia. Instrowest can also help in solving any instrument or control related problem that you may be facing.

At Instrowest we are committed to providing reliable, high quality sales and service while maintaining respect, integrity and trust to our clients and those within our organisation. We aim to provide this service by understanding our client's needs, wants and constraints while finding a solution that is fit for purpose.

At Instrowest we will always maintain an innovative approach that sets us apart from others; if a traditional method is not suitable or ineffective, we will endeavor to find an alternative or innovative approach to achieve our client's goals.

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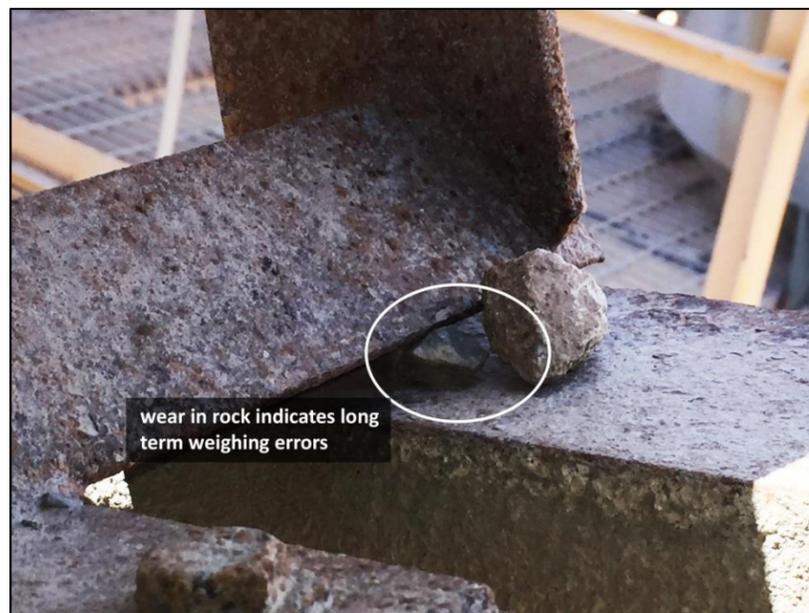
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Wiluna Gold Weightometer Upgrade, Supply and Installation

In June 2016 Instrowest visited Wiluna Gold to assist Practon Group with any instrumentation they required on their plant refurbishment. Multiple instruments were in need of replacements and multiple upgrades and new installations were also discussed. Soon after, Instrowest was asked to quote, supply and install a range of different instruments required to improve the plants process control and provide accurate and trustworthy monitoring for operations.

One instrument that required an upgrade was the Mill Feed Weightometer, as the currently installed weigher had reached the end of its serviceable life and other problems with the installation would also be corrected during fitment of the new weigher. Some of the existing issues were:

- The weigh frame was deteriorated and at the end of its serviceable life.
- The weigh frame had pinch points that allow rocks to become trapped between dynamic and static parts of the installation.
- Spacing of the lead in and lead out roller frames were not consistent over the weigh area and thus impacting on accuracy.
- Lead in and lead out roller frames and the weighing frame itself were not shimmed or aligned vertically.
- Rollers in the weighing area not balanced or height adjustable
- The integrator was very old and deteriorated; it was also located down at ground level making calibration co-ordination more difficult.



Scoping and Planning

While onsite in August, the weightometer project was scoped and planned in full, rollers and frames were measured so that they could be manufactured to suit the installation. The rollers are Australian made balanced, adjustable and fully machined steel shell, dynamically balanced to max 0.014Nm to ensure the most accurate results.

The idler frames were also measured and the weigh frame idlers were reengineered to reduce all possible catch/pinch points for dirt and debris. Pinch points like this can cause major zero errors when weightometers are not kept 100% clean.

Instrowest selected a Siemens MMI dual frame weightometer because of its reliability, reduction of pinch points, high accuracy and low initial purchase and running cost.

Installation and Calibration

During the installation Instrowest took great care to ensure that the entire weigh area was expertly aligned. Once everything was correctly installed all adjusters, bolts and threads were Denso taped to protect from corrosion and to allow easy servicing in future. This attention to detail will ensure greater accuracy and repeatability over the life of the installation.

The integrator was relocated next to the weigh frames in a stainless steel enclosure complete with a viewing window. Being located in this position allows easy viewing of process variables during maintenance and calibration.

After completing the install a calibration was performed on the weigher using Instrowest's calibration drag chains. Correctly sized drag chains provide a higher level of accuracy than static weights and it is for this reason Instrowest utilizes these whenever possible.

Results

Since the installation and commissioning the new belt weightometer has been performing accurately and without issue, Instrowest is currently arranging the first calibration with site.



If you would like assistance, please contact Instrowest.
 email: admin@instrowest.com.au
 or on our website: instrowest.com.au