Industrial Weighing Systems

9 Richmond St. Picton, ON Canada K0K 2T0

Ph: 613-786-0016 Cell: 613-921-0397 Fax: 613-476-5293

E-mail info@iwsystems.ca **Website:** www.iwsystems.ca

Installation and Calibration

Once a load cell is installed in an application the system accuracy specification is normally affected.
To improve the performance of your weighing system minimize the influence of attachments by following the manufacturers installation recommendations. Having long horizontal runs for any piping to your scale provides the best flexibility and repeatability.

Consider the rigidity of any vertical connection and make it as flexible as possible.
Most flex coupling are designed for free movement horizontally but can be difficult to compress.
Picture yourself as the scale and how the connections would affect you.

When installing couplings they should slide into a space equal to the manufactured coupling length.
Do not compress couplings or stretch to close a gap, this greatly affects accuracy and repeatability.

Weights are an accurate method of calibration and indicate areas of mechanical influence when randomly placed on your scale. In cases like large silos, applying weights is not practical.
Electronic calibration or simulation to factory specifications is often done for these applications.
The electronic calibration can be adjusted to a known load such as a transfer of product from a truck.

Electronic calibration uses the factory load cell Mv/V specifications to set system accuracy.
With minimal mechanical influences you can typically expect 0.25% or better.
Some indicators/controllers have menu items to enter the load cell capacity and rated Mv/V.

For other instruments a load cell simulator can be used to input known Mv/V signals.
Using multiple Mv/V settings and the vernier the input can be adjusted to the same signal as your scale.
A step Mv/V change on the simulator can then be used to adjust or verify the span.

Electronic calibration can be tested by filling with a known quantity of liquid or dry products depending on the application. The weights can be compared against a truck transfer or by performing a fill/dump and then weigh the product for comparison.