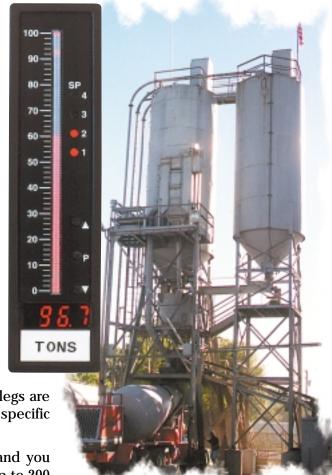## SCALE-TRON

Perfecting the Art of Concrete Production

SILOWEIGH

KNOW WHAT'S IN YOUR SILO AT ALL TIMES

Low cost, accurate, integrated indoor display . . . and you can install it yourself!

● **SiloWeigh** tells you the contents of your silo - not as an empty or full signal, or even a percentage full signal based on a level measurement; **SiloWeigh** measures the actual weight of the silo contents to give a true picture of the amount on hand - and it costs little more than a level sensor.

● **How do we achieve this breakthrough in capability, cost and convenience? SiloWeigh** is the first silo weighing system to use **WELDABLE STRAIN GAUGES**, which attach directly to the silo legs. This method eliminates the need to lift the silo onto load cells, making it easy to install. Unlike the more common bolt-on sensors, **SiloWeigh** uses high quality foil strain gauges, as used in high-accuracy load cells, to give superior stability and accuracy. We have adapted them to be spot-welded directly onto the silo legs; one on the front and one on the back to compensate for heat expansion and side stresses.

● **Choose the accuracy you need. SiloWeigh** is temperature compensated by matching the strain gauges to the metal of the legs. We have demonstrated typical accuracies of better than 2% when all four legs are gauged and 5% when two legs are gauged. The exact accuracy of your installation will depend on specific silo characteristics.

● **All-weather.** All components are carefully weatherproofed and you can set up the display system in a convenient indoor location up to 200 feet from the silo.

● **Integrated display.** The bar-graph displays for one or several silos are housed in a single convenient cabinet. The weight in each silo is shown separately by both bar graph and digital indicator.

● **Suits most types of steel legs.** Best on H-section but round, L and square section can be used. Call us for advice on unusual sections. We recommend that you measure the cross sectional area of the leg and calculate the loading factor; a load of 1500lb/sq. in. is required for adequate sensitivity.

● **Install and calibrate the system yourself.** We deliver a kit with complete instructions. You weld two gauges to each leg using an electrical spot welder which is rented from us on a weekly basis, along with a digital meter and magnifying visor. All required cables are provided and are colour coded. Calibration is straightforward, using the weighed deliveries as reference.

● We are available to provide complete technical support, both during and after installation.

SiloWeigh is not "Legal For Trade" in North America and cannot be used for transactions.

SiloWeigh is a self-install kit. You can do it yourself with a little practice, and we provide the tools for practice before you start, so that you won't mess up the real job. We also provide some spare gauges - the critical components - because we recognise that even a careful workman can mess up every once in a while! Now read on and see how simple it really is.

Choose the location

The location which gives best weighing accuracy is in the middle of the longest unobstructed run of the silo leg, but it should also be in a place where it is easy to work. Our manual gives you some tips but you make the choice.

Prepare the surface

Grind the surface down to bare metal over a 4" square area on both the front and back of the silo leg, then smooth it with a sanding disk until flat and perfectly smooth. This is the surface on which the gauges will be welded. Next drill three holes using the template supplied. Clean the area with paint thinner and you are ready to start welding.

Weld the gauges

Try out the welder by welding the practice piece included with the kit onto a piece of scrap steel. You'll find that it comes easy with practice. Tape the gauge onto the prepared surface using the template supplied, then carefully weld around each of the two gauges.

Test the gauges

Once the gauges have been welded in place, feed the wires from the rear gauge through the hole to the front and secure all wires with the sticky pad and Tyrap provided. Test the gauges for continuity and isolation from the beam using the digital meter supplied. When you are satisfied, paint the gauges with the protective coating supplied.

Make the connections

Connect the gauge wires to the screw connector block and then connect each leg to the next in daisy-chain fashion, using the cable provided. At each connector block, match all identical colors together for foolproof connection. The final connection is to the cable which goes to the indicator, mounted in a convenient indoor location.

Weatherproof the installation

Apply a thin layer of the silicone RTV sealant over each of the gauges to prevent rust or corrosion. This is the primary protection for the gauges and will weatherproof the installation without anything further. To be doubly certain, however, we include protective covers (seen at bottom of picture) which seal out water as well as giving mechanical protection. Apply a bead of the same sealant round the edges of the front and rear covers before fastening them down.

Seal and fasten cover

Run the two long bolts through the rear cover fastening lugs and thread them through the holes in the beam into the front cover lugs. Assemble washers and nuts and tighten down.

Test and calibrate

Apply power, measure the output of the complete silo weighing assembly and make a correction for the material in the silo. Enter your silo capacity into the indicator's calibration memory and wait until the silo is empty (or as empty as you ever want it to be). Acquire the silo's dead load value in the indicator, unload your delivery truck into the silo and enter the delivery ticket weight as the calibration value. That's it. You are ready to go!

That's all it takes; you can install SiloWeigh just as easily. Contact us now.

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For the latest information, visit our Web site: **www.scaletron.com**
or call us at **1-800-632-7083**