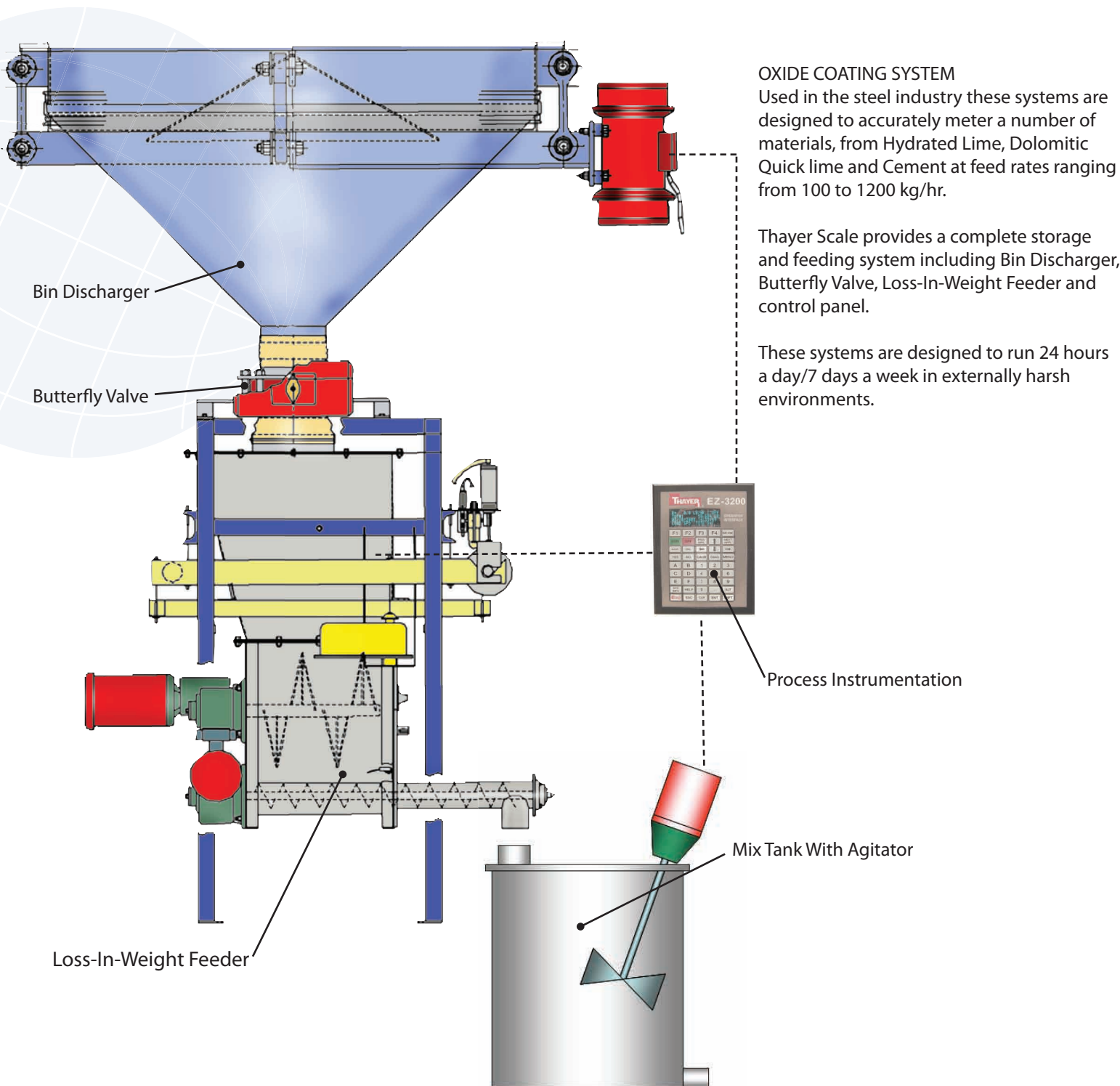


# LIME FEEDING SYSTEM



**OXIDE COATING SYSTEM**  
Used in the steel industry these systems are designed to accurately meter a number of materials, from Hydrated Lime, Dolomitic Quick lime and Cement at feed rates ranging from 100 to 1200 kg/hr.

Thayer Scale provides a complete storage and feeding system including Bin Discharger, Butterfly Valve, Loss-In-Weight Feeder and control panel.

These systems are designed to run 24 hours a day/7 days a week in externally harsh environments.

Process Instrumentation

Mix Tank With Agitator

Loss-In-Weight Feeder

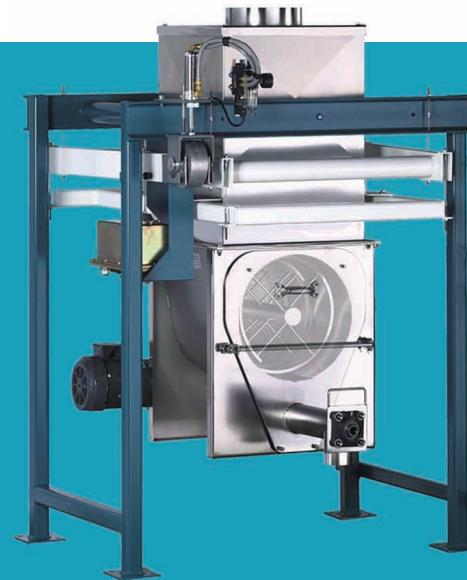
## THAYER SCALE-HYER INDUSTRIES, INC.

91 Schoosett St., Pembroke, MA 02359  
Ph: 781-826-8101 Fax: 781-826-7944  
e-Mail: Sales@ThayerScale.com  
WEB: www.ThayerScale.com



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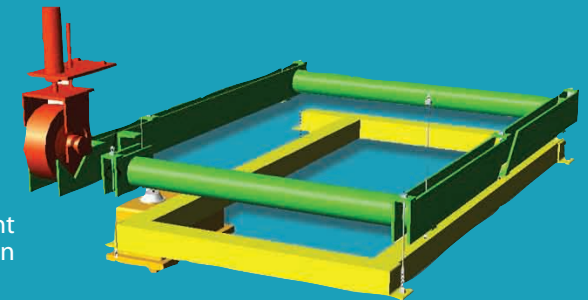
# Process Case Study



Thayer Scale Loss-In-Weight feeders are designed to provide precision class accuracy and repeatability even in the harshest of industrial environments. They range in capacity from grams per minute to tons per hour.

These are the most versatile feeders in the industry. At the heart of each Loss-In-Weight Feeder is a THAYER scale that has been designed exclusively for the stringent requirements of Loss-In-Weight feeding.

Thayer Scale offers a powerful set of proprietary add-on accessories that are designed to defeat the problematic flow issues encountered by industry such as bridging, flushing, adhesion and cohesion. Comprehensive process solutions that can only come from a company with over fifty years experience.



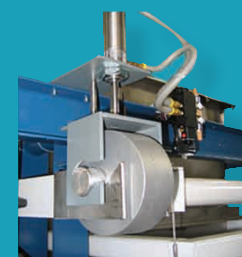
The Thayer Cable Scale (patented) is the most rugged and forgiving Force Measurement Weighing System available on today's market. It can take more physical abuse and can tolerate more foundation distortion/deflection than all other known designs.

The exclusive Thayer Scale "FMSS" (Force Measurement Suspension System) design provides extremely high sensitivity. Feeder and weigh hopper "dead load" are mass-counterbalanced so that only material weight (live load) is measured. This feature helps assure excellent control in "noisy" environments.

All of the articulate parts of the scale mechanism are supported from "axially inextensible, but laterally yieldable" suspension elements (stainless steel pre-stressed aircraft cable), which are arranged to hang freely, thereby avoiding any appreciable spring or hysteresis effect, variation in mechanical advantage, or binding due to imperfect leveling.

Because of this unique mechanical property of the force transmission system, any laterally directed forces and shock on the scale or its supported feeder can not cause destructive shear and bending stresses to develop in the elements themselves or at the load cell junction. The system, being yieldable in the lateral direction, is therefore effectively and completely protected by using laterally placed "stops" in proximity of the weighed structure.

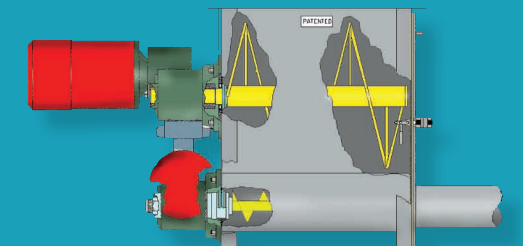
Weight loss is measured by a highly accurate, very sensitive, high output electronic force measurement sensor. The Thayer Series LC-137 weight resolver is a force measuring device designed specifically for use with Thayer Scale weighing systems. It is a precision-built, heavy duty device designed for long term stability and accuracy under the most demanding applications. It is initially calibrated and installed by the factory and normally requires no routine maintenance. So rugged is the "FMSS" Scale System that the LC-137 Weigh Resolver is guaranteed for 15-years.



### Automatic Test Weight Lifter (ATWL)

More and more weigh feeders are being used in conjunction with statistical process control where performance records are routinely generated and delivered with the product as required by a customer's quality assurance program. Such a record should contain a "validation of scale calibration" step to be truly meaningful as a quality assurance tool. Thayer Scale's automatic test weight lifter ("ATWL") provides a means for automatically applying a known test load and going through a calibration sequence on computer or push-button command to check scale calibration. A "foolproof" self-checking software algorithm in the feeder control instrumentation prevents erroneous calibration.

The test weight calibration method has proven accurate and reliable over decades of in-plant use. Unlike material sampling, it is always clean, fast and safe. Unlike electronic signal simulation, it actually tests the performance of critical electro-mechanical components under the full deflection range of the load cell.



- Patented "U-Trough" feed chamber with independently driven agitator assures precise, reliable delivery of material to the feed screw.
- Eliminates material build-up, controls material aeration and delivers a steady and constant flow of material.
- Trough is designed for fast, easy, and thorough clean out. Feeder completely disassembles in less than one minute. High quality, rugged, stainless steel construction assures years of reliable, trouble free operation

Innovative ideas from... **THAYER SCALE**