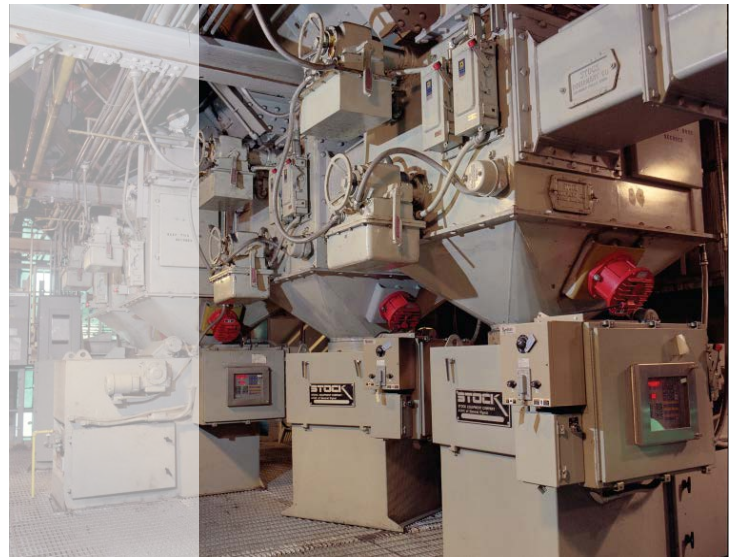


Batch Scales

Electronic scale with microprocessor control

- Improved fuel accountability
- Scale accuracy better than $\pm 0.25\%$
- Increased reliability by using a pneumatic gate latching system
- Reduced downtime by indicating faults and required corrective action
- In-kind replacement of existing Coperion batch scales



Batch Scales offer the ability to easily upgrade an existing installation in order to improve plant availability and boiler control. Made with the same mounting and envelope dimensions as the previous Coperion Models 46 and 50 mechanical scales, the new models are direct, in-kind replacements. With the addition of a simple adapter kit, the new electronic scale can easily replace other mechanical scales.

Fuel accountability is significantly improved by eliminating the mechanical components that required adjustment. Tare adjustment and dribble compensation have been eliminated by the use of the electronic control. In addition, the gate latch is replaced with pneumatic control cylinders; therefore, brake adjustment is eliminated. Calibration is only required at six-month intervals which eliminates daily calibration. Scale accuracy is better than one-fourth of one percent.

The microprocessor control displays the total weight delivered, the actual batch weight delivered, the rate of material feed and the material density. The controls can be coupled to the feeder below to accurately meter material by weight. Also, loss of feed to and away from the scale can be alarmed and coupled to flow-promoting equipment.

During the load cycle, strain gauge load cells sense the weight and send a signal to the controller. The controller compares the measured weight with the pre-selected weight, compensates for dribble and turns off the belt drive at precisely the right moment. During each cycle, in the short time between the hopper dump and the start of the belt drive, the system measures the tare weight to ensure the most accurate measurement possible. Even if material sticks to the hopper, the system will make the necessary compensation and give an indication of abnormal conditions. Should any operational fault occur, the display will indicate the nature of the fault and required corrective action in order to minimize downtime.

Batch Scale Design Options

- Remote electronic totalizer
- Turn count alarm tie-in
- Feed rate feedback signals
- Keylock of control panel
- Tropical service construction
- Stainless steel construction
- Lump relief

Batch Scale Features

Microprocessor Controller

Batch Scales are engineered to weigh with an accuracy of $\pm 0.25\%$. The controller compensates for material dribble and maintains batch weight within $\pm 0.5\%$. Automatic calibration and self diagnostics eliminate all manual adjustments. A keyboard is used for access to controller information and for entering operation parameters. All operating data is stored in permanent memories, eliminating the need for battery backup power. Inputs and outputs are electrically isolated to protect the system from outside EM1 and RFI interference. A serial communication port is provided to connect each scale to a central data logging system.

Load Cells

Temperature-compensated and pressure-insensitive. They are sealed to keep out contaminants.

Access Doors

Easy access to all parts of the scale and provide dust-tight construction.

Hopper Gate

Latched by dual pneumatic cylinders that also help cushion the opening and closing operation. Proximity switch senses gate closure. The gate pivots around a dead shaft.

Drive Assembly

Located externally to avoid the harsh environment inside the scale.

Feeder Assembly

Contains design features for long, trouble-free life. Feeder support frame traverses on rollers, located above the coal flow, for easy conversion to bypass operation or removal. Feeder belt is endless style construction for maximum life.

Dust-Tight Scale Bow

Fabricated from 114" welded steel plate for long life.

Rugged Design

Based on many years of field input by utility engineers and operating personnel with demanding utility applications in the field.

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