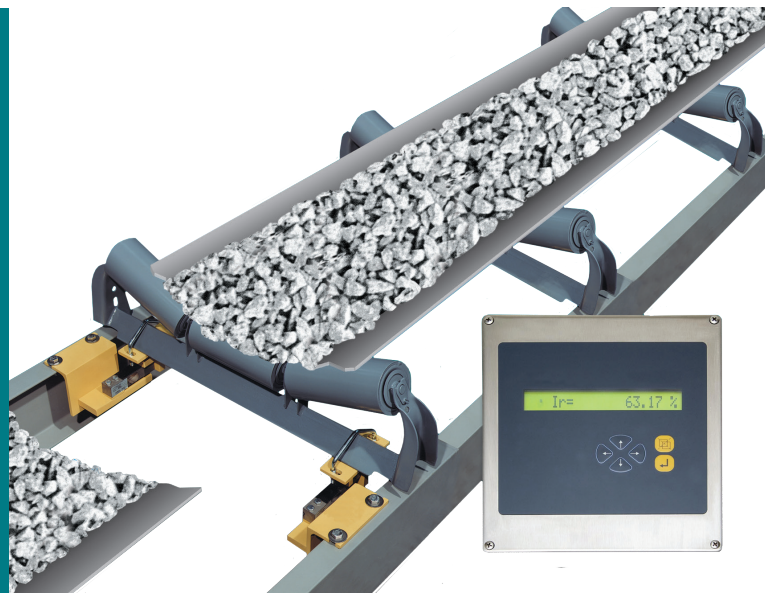


BEMP™ Modular Single-Idler Belt Scale/Indicator

- Measures and totalizes continuous flow rates up to 15,000 tons per hour
- Easily mounts on 18" to 60" wide CEMA idlers using only (4) bolts
- (2) NTEP approved single point load cells and the indicator system provides weighing accuracies of $\pm 1\%$
- Perfect for measuring flow rates of sand, gravel, crushed rock, synthetic gypsum and many other bulk materials



Application

Single-idler belt scales are commonly used in belt conveying applications to continuously measure and report flow rates and totalized material amounts. Applications include:

- Measurement of throughput and/or material consumption
- Reporting of alarm conditions
- Totalizing batch weights for load-out stations

Operation

"Material weight," measured by the BEMP™ Belt Scale and "belt speed" are multiplied by the indicator system to produce a "flow rate" value. Flow rate is then integrated by the indicator system to produce a "totalized weight" value.

(NOTE: For variable speed conveyor belts, an optional speed sensor can be used in place of a belt speed parameter.)

Construction

The modular BEMP™ Belt Scale features epoxy painted, mild steel construction and is suitable for use with trough or flat idlers 18" to 60" (450 mm to 1,500 mm) CEMA. Stainless steel construction is available as an option.

Load cells

(2) NTEP-approved, single-point, stainless steel, strain gage load cells with rated capacities of 66#, 132#, 220#, 330#, or 660# (30, 60, 100, 150, or 300 kg). The load cells are mounted in compression for optimum accuracy.

Accuracy

$\pm 1\%$ totalized weight over a 3:1 design capacity range when installed on a Coperion-approved conveyor. Dual-idler belt scales with $\pm 0.5\%$ accuracy are also available.

Overload protection

Positive mechanical stops are provided for optimum protection.

Operating temperature range

+0 °F to +110 °F (-18 °C to +43 °C)

Calibration

Via static test weights (supplied).

BEMP™ Belt Scale / Indicator Specifications (continued)...

Installation

The BEMP™ Belt Scale can be easily added to a new or existing belt conveyor frame as follows:

Step 1

Using the supplied drawing, drill (2) holes on each side of the conveyor frame.

Step 2

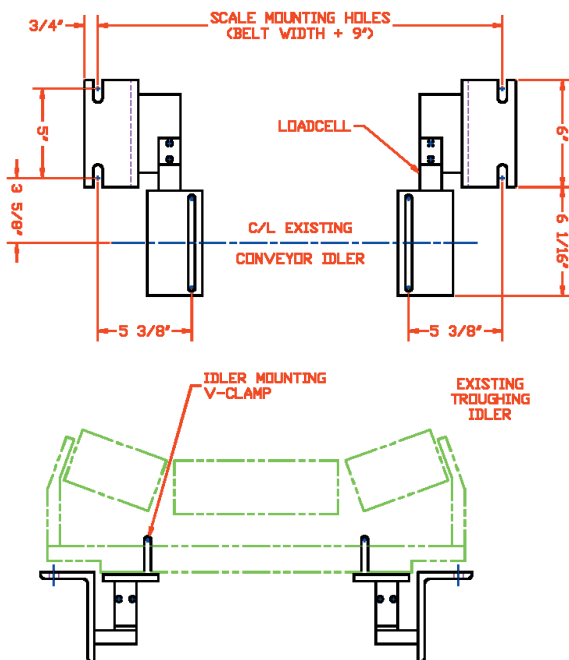
Clamp an existing conveyor idler to the BEMP™ weigh modules using the supplied "V" clamps.

Step 3

Connect the load cells to the indicator electronics.

Step 4

Calibrate using the supplied test weights.

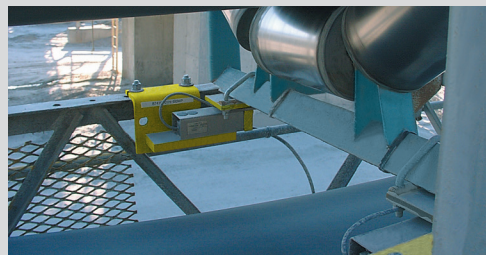


Indicator System

"Simple" is the key word when describing the belt weighing system. Industrially packaged in an IP65 stainless steel enclosure, the unit features:

- 115 or 230 VAC power source compatibility
- -22° to +140° F (-30° to +60° C) operating temperature
- Single line 0.49" (12.4 mm) LCD alpha numeric display
- User friendly, menu driven interface for programming, calibration and operation
- Internal totalizer (resettable)
- Totalizing counter output
- 4-20mA feed rate output
- Programmable alarm outputs
- Calibration data stored on load cell dongle to simplify hardware replacement
- Built-in Modbus RTU (RS485) port
- Built-in Ethernet port supporting a web server and Modbus/TCP communication
- Web pages to monitor and diagnose belt scale operation
- Optional Ethernet/IP, DeviceNet, and Profibus communication
- Optional programming software for commissioning assistance and parameter backup

Coperion controllers can also be used with BEMP™ Belt Scales. For additional information on controls, weighfeeders, solids flow meters, vibratory screens, static bin weighing systems, or in-motion truck / train weighing systems, contact Coperion.



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