**DYNAMIC INNOVATIONS SINCE 1908**

**WEIGHING, FEEDING, CONTROLS & ENVIRONMENTAL SOLUTIONS**

**MODEL 475**

**NTEP APPROVED BELT SCALE**

### STANDARD FEATURES

| **BELT WIDTH** | 12” (305 mm) to 54” (1372 mm) 35, 100, 200 kg  
|               | 42” (1067 mm) to 84” (2134 mm) 350, 1000 kg |
| **CAPACITY**   | 35, 100, 200 kg up to 2600 TPH (2359 MTPH)  
|               | 350, 1000 kg up to 11,000 TPH (9979 MTPH) |
| **ACCURACY**   | Based on a totalized weight over a 35 to 100% design capacity and material test calibration, installed in accordance with MERRICK’S guidelines and instructions:  
|               | ±0.5% Single weigh module with a commercial idler set  
|               | ±0.25% Single weigh module with a MERRICK precision, adjustable idler set  
| **NTEP INSTALLATIONS** |  
|               | ±0.25% of test load, repeatable to ±0.125% with three or four weigh modules, in accordance with NIST HB44 |

### CALIBRATION

- Electronic, material test, test chain (optional) or test weight (optional).

### OVERLOAD PROTECTION

- Infinite (mechanical stop). Models with 35, 100 and 200 kg load cells also have shock overload protection.

### LOAD CELL

- Factory calibrated, precision shear beam, strain gauge type, temperature compensated and environmentally sealed.

### LOAD CELL CONNECTION BOX

- Connects up to 4 weigh modules. Includes speed sensor pulse cut-off switch for measuring belt length. 304 stainless steel enclosure.

### SPEED SENSOR

- Digital, photo-electric pulse generator for direct coupling to tail pulley or optional type CF wheel assembly carriage mounted between belt strands. 304 stainless steel enclosure.

### WEIGH MODULE CONSTRUCTION

- Carbon steel with primer and painted safety orange enamel. All adjustment screws and bushings anodized for corrosion resistance.

### WEIGH MODULE MOUNTING BEAMS

- Structural channel, carbon steel construction, custom designed and pre-drilled for mounting the weigh module to the conveyor stringers. Two supplied per weigh module with primer and safety orange enamel.

### BELT WIDTH

- 12” (305 mm) to 54” (1372 mm) 35, 100, 200 kg  
- 42” (1067 mm) to 84” (2134 mm) 350, 1000 kg

### CAPACITY

- 35, 100, 200 kg up to 2600 TPH (2359 MTPH)  
- 350, 1000 kg up to 11,000 TPH (9979 MTPH)

### ACCURACY

- Based on a totalized weight over a 35 to 100% design capacity and material test calibration, installed in accordance with MERRICK’S guidelines and instructions:
  - ±0.5% Single weigh module with a commercial idler set
  - ±0.25% Single weigh module with a MERRICK precision, adjustable idler set

### NTEP INSTALLATIONS

- ±0.25% of test load, repeatable to ±0.125% with three or four weigh modules, in accordance with NIST HB44

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The Model 475 Belt Scale is designed to meet or exceed the accuracy requirements of the National Institute of Standards and Technology (NIST) Handbook 44. A certificate of conformance, Number 92-196, was issued under the National Type Evaluation Program (NTEP) of the National Conference of Weights and Measures. The certificate is for capacities of 14.5 - 145 lb/ft at belt speeds of 100 - 800 ft/min with weighbridge lengths of 9 - 20 feet.

1. MODULAR DESIGN
   - Easy to install
   - Adjustable elevation 3-point scale frame
   - Simply add weigh modules for increased accuracy

2. PARALLELOGRAM SUSPENSION
   - Superior design transfers material force directly to load cell
   - No levers, pivots, or moving parts
   - MERRICK double-sealed factory calibrated precision shear beam load cell
   - Shock overload protection

3. OPTIONAL MERRICK PRECISION ADJUSTABLE IDLER ROLLER SET AND FRAME
   - Superior alignment and total indicated run-out (TIR)
   - Adjustable roller alignment
   - Triple sealed roller bearings
   - Adjustable idler arm troughing angle

*Model 475 (3) module scale shown above with optional precision idlers. Available in (1) to (4) module versions. Minimum (3) modules required for NTEP compliance.

**GENETIX® PROCESS CONTROLLER**

Calibrate and monitor all scale readings including feedrate, belt load, and totalization. Genetix® has the flexibility to accommodate both simple and complex system configurations. With Genetix® you can choose where to add intelligence to your process and the best method to seamlessly integrate the information into your plant control system.

Genetix® is a registered trademark of MERRICK Industries, Inc. All other trademarks are the property of their respective owners.

**MODEL 475 WITH OPTIONAL CF TACH CARRIAGE**

- Trailing arm assembly enables tachometer to ride on the return belt
- Does not require use of tail pulley or bend pulley
- Maximum belt speed limited to 600 fpm
- Provides a calibrated belt length (No need to measure belt for calibration)