

# THAYER SCALE

PROCESS MEASUREMENT & CONTROL EQUIPMENT

## **SANITARY** **Model MWF -OS** **Open Construction** **Weigh Belt**

**HIGH ACCURACY**  
**PRECISE MEASUREMENT**



**RUGGED**  
**DURABLE**  
**RELIABLE**



**EASY TO MAINTAIN**  
**LOW MAINTENANCE**  
**EASY TO CLEAN**



**SIMPLE OPERATION**  
**EASY CALIBRATION**  
**COMPACT**



PRELIMINARY

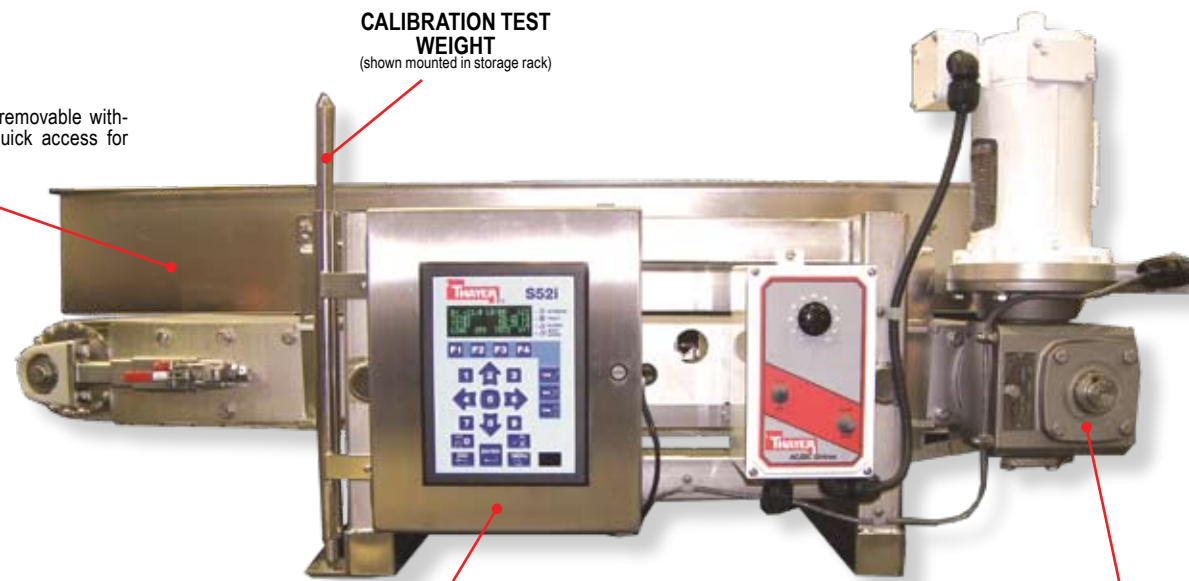


# MODEL MWF-OS Sanitary Weigh Belt

Thayer Scales new Model MWF-OS Sanitary Open Construction Weigh Belt is designed for food processing, Snack Food, Pasta, Chemical and other applications not requiring complete material containment. Depending on instrument used the MWF-OS provides either "closed loop" gravimetric control of material feed rate or "open loop" control for precise convey rate output and totalization of an uncontrolled or intermittent material supply.

**SKIRT BOARDS:**  
Skirt boards are both removable without tools, permitting quick access for cleaning.

**CALIBRATION TEST WEIGHT**  
(shown mounted in storage rack)



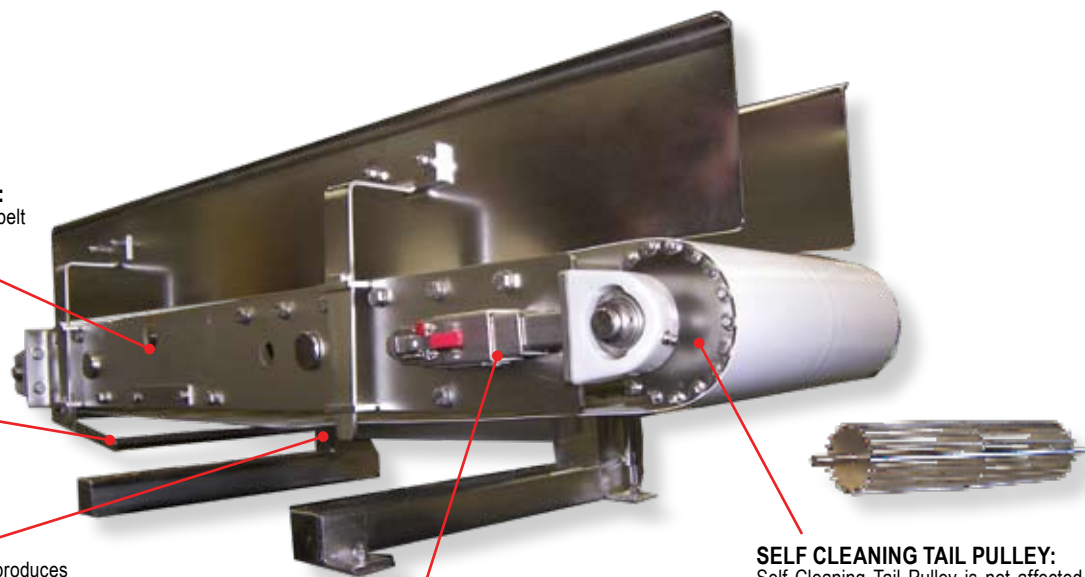
**INSTRUMENTATION & MOTOR DRIVE**  
Instrumentation can be mounted to weigh belt frame or remotely located.

**HEAD PULLEY DRIVE:**  
Lagged head pulley provides positive traction, eliminating belt slippage and tracking problems. Head pulley drive design reduces horsepower, belt wear and weighing errors.

**CANTILEVERED BELT FRAME:**  
Permits easy cleaning or removal of belt without disassembling feeder.

**BELT SCRAPER**  
Counter weighted

**SLACK BELT DESIGN:**  
Low belt tension increases belt life, produces more stable measurement and eliminates the need for belt tensioning and belt tracking devices.



**BELT TAKE-UP:**  
Belt take-up adjustment is conveniently located on the side of the pulley frame. Built with convenient hand operated "position memory" simplifies belt replacement and cleaning.

**SELF CLEANING TAIL PULLEY:**  
Self Cleaning Tail Pulley is not affected by material build up and therefore eliminates the need for an internal belt scraper and belt tracking mechanism, simplifying conveyor maintenance.

**WEIGH FRAME with LOAD CELL ASSEMBLY**



## THAYER SCALE MODEL MWF-OS Sanitary Open Construction WEIGH BELT FEEDER

The MWF-OS Sanitary Open Construction Weigh Belt Feeder provides Thayer Scale accuracy, ruggedness, and reliability.

Self cleaning pulley eliminates material build-up and belt tracking problems. Unique flared skirt design prevents material spillage and assures proper feed control. Rigid scale support system provides exceptional stability, assuring accuracy without frequent re-calibration.

Belt velocity is measured from the tail pulley, not the drive motor, providing a direct measurement of belt speed which improves both measurement and control of the material. The strain gauge load cell assembly can be easily removed then reinstalled without re-calibration of the feeder.

A standard design coupled with dimensions and rates that are tailored to each application add versatility to its capabilities. Its design for ease of maintenance and the ability to change its throughput rating gives it a long useful life in a rapidly changing industrial environment.

- Handles a wide range of materials and densities.
- Sanitary, all stainless steel construction.
- Unique belt tracking system assures positive belt tracking without the use of mechanical devices
- Easy access, low maintenance design, no tools disassembly.
- Excellent accuracy and stability.
- Rugged construction-built to survive.
- Cantilevered frame for fast belt removal.

## SPECIFICATION MODEL MWF OPEN SANITARY CONSTRUCTION

### Feed Rate:

- 13" (330 mm) wide weigh belt - up to 41,500 lbs/hr (18,820 kg/hr) with a material bulk density of 50 lbs/ft<sup>3</sup> (0.8 gr/cm<sup>3</sup>).
- 24" (609 mm) wide weigh belt - up to xxx lbs/hr (xxx kg/hr) with a material bulk density of 50 lbs/ft<sup>3</sup> (0.8 gr/cm<sup>3</sup>).

### Material Density Range:

- 15 to 100 lbs/ft<sup>3</sup> (0.24 to 1.6 gr/cm<sup>3</sup>).

### Weight Measurement System:

- Precision strain gauge force transducer.

### Speed Measurement System:

- Direct coupled optical pulse transmitter mounted to tail pulley shaft.

### Motor:

- 0.25-0.5 HP. 90 volt DC armature, permanent magnet, TENV, 115 VAC, 1ph, 50-60 Hz, continuous duty, Class B insulation or AC Inverter Duty Motor 230-460 VAC, 3 ph, 50-60 Hz volts AC, TENV.

### Drive Reducer:

- C faced coupled to motor, right angle worm & gear type, service factor 1.5, complies with A.G.M.A. standards.

### Turndown:

- 20:1. from full scale.

### Contact Material:

- 304 Stainless Steel
- Option: 316 Stainless Steel.

### Non-Contact materials:

- 304 Stainless Steel.
- Option: 316 Stainless Steel.

### Temperature Limits:

- Ambient 32°F-130°F (0°C-54°C). Material: 0°F to 250°F (-18°C -121°C).

### Belt:

- Endless two ply polyester carcass with BUNA-N, top cover, raised 5/16" (8 mm) flanges, rated for material temperature up to 250°F (121°C) FDA approved.

### Accuracy (Combined Error):

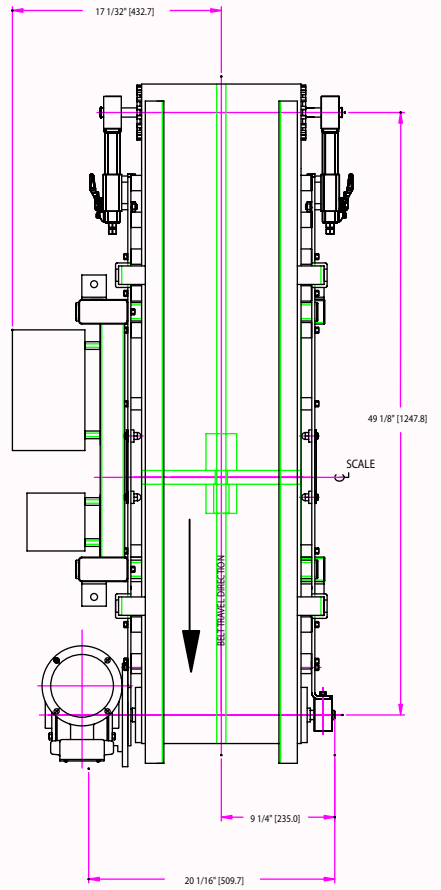
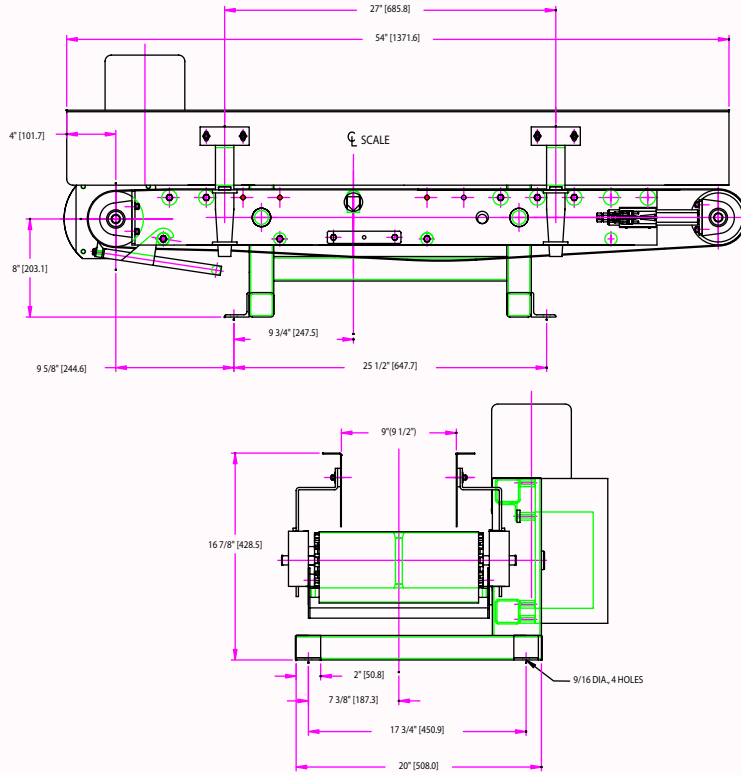
- 0.25 to 1.0% of set rate (@ 2 sigma) based on a minimum sample of 1 minute or 2 circuits of the belt, whichever is greater.



THAYER® and the THAYER logo are Registered Trademarks of Hyer Industries, Inc.  
© Hyer Industries, Inc. 2004. All rights reserved

**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

# MODEL MWF-OS-13



# MODEL MWF-OS-24

