

MODEL F-52 WEIGH BELT FEEDER



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The **Model F-52 Weigh Belt Feeder** System is designed to feed industrial materials with high accuracy at intermediate flow rates. Its robust cantilevered design allows for easy belt removal. Either an I-beam or channel type frame provides a heavy duty platform for the scale carriage. These features along with a state of the art electronics package will provide effective process control and vital information to the operation of your plant.

Unique Features:

- Cantilevered design: allows for easy belt removal without having to deal with splices or cutting the belt.
- Customizable to your application: Bearings, motors, belts, scrapers, idlers, almost anything can be modified to meet your specification.
- Full floating weighbridge design: provides a more accurate response to material variations.
- Enclosed or open construction.
- Hazardous or non-hazardous locations.
- Constant or variable speed drives.
- Optional drag chain or auger type clean-out devices.

The **Model F-52 Weigh Belt Feeder** is designed for high accuracy on materials with intermediate flow rates and bulk density. It is built for heavy industrial environments. The Model F-52 allows you to accurately control feed rates to your process with a guaranteed accuracy of $\pm 0.5\%$. It can help you automate your blending system, provide more efficient process control and provide you with crucial information for the running of your plant.

The Model F-52 Weigh Belt Feeder incorporates a single idler full floating weighbridge assembly, the Model N60 Belt Speed Sensor, the powerful microprocessor based electronics of the Bulk Pro Systems Model 6805 Integrator.

Material is fed into the weigh belt via a feed hopper, this hopper is equipped with a manually adjustable profile gate which controls the bed depth on the feeder belt. The weighbridge assembly built into the feeder measures the gravimetric force applied by the material traveling down the belt and converts this force into a mV signal which is proportional to the loading on the belt. A digital speed sensor continuously monitors the belt speed and the powerful microprocessor based electronics of 6000 series electronics integrates these two signals to give you an instantaneous rate of flow and totalized weight of material that has passed through the feeder. The 6000 series integrator also provides analog or digital outputs that allow you to control and monitor your process.

SPECIFICATIONS

Model F-52 Weigh Belt Feeder

- Accuracy: $\pm 0.5\%$ based upon factory approved applications.
- Belt widths: 18 inch (457mm) to 36 inch (914mm)
- Length: 5' (1,524mm) to 20' (6096mm) centerline of inlet to centerline of discharge.
- Capacity: 0.5 TPH to 100 TPH with 50 PCF material (0.5 MTPH to 91 MTPH with 801 kg/m³ material)
- Belt Loading: 10 lb/ft to 72 lb/ft (15 kg/m³ to 107 kg/m³)
- Typical Weigh Span: 1.5' (457mm)
- Belt Type: Endless polyester carcass with Grade 2 SBR covers, corrugated or vanner edging. Other belt types available.
- Idlers: 4" (102mm) diameter idlers rated CEMA C with sealed for life bearings. Other models available.
- Head Pulley : 10" (254mm) diameter with rubber lagging.
- Speed Reducer: Sumitomo or equal shaft mounted. Other types available.
- Scale: Single load cell, single idler, full floating weighbridge assembly.
- Frame Design: Cantilevered frame with quick release take-ups for easy belt removal. Belt can be removed from either the right or left hand side of feeder.
- Load Cell: Single platform type, strain gauge transducer, in compression.
- Load Cell Excitation: 10 VDC recommended, 15 VDC maximum.
- Non-Linearity: 0.03% of rated output.
- Repeatability: 0.02% of rated output.
- Hysteresis: 0.02% of rated output.
- Temperature Sensitivity Zero: $<0.0015\%$ full scale/degrees F ($<0.0015\%$ full scale/degrees C)
- Temperature Sensitivity Span: $<0.0008\%$ of reading/degrees F (0.0014% of reading/degrees C)

Speed Sensor

- Type: Direct coupled, brushless pulse generator.

Accessory Equipment:

- Safety Stop Switches
- Conveyor Misalignment Switches
- Plugged Chute Switches
- Variable Speed Drives
- Constant Speed Drives
- Class 1 and 2 Motors and J-boxes
- Drag Chain or Auger Clean-out
- AR or Stainless Steel Liners
- Top Covers
- Side Covers
- Bottom Covers
- Corrugated or Vanner Edge Belts
- Skirt Boards

