



**BUILT SMART
BUILT TO SURVIVE**

Series "SB" Weigh Belt Module

Simplified construction and calibration results from suspending a complete synchronous-speed conveyor from a Thayer Flexure Scale. The type "SB" unit adapts well to existing vibratory, screw or belt conveyor installations where it has been determined that weight measurement and/or flow control is desired. Also on new installations, the combination of a suitable pre-feeder and type SB unit often proves the best approach considering both cost and material handling requirements.

Components:

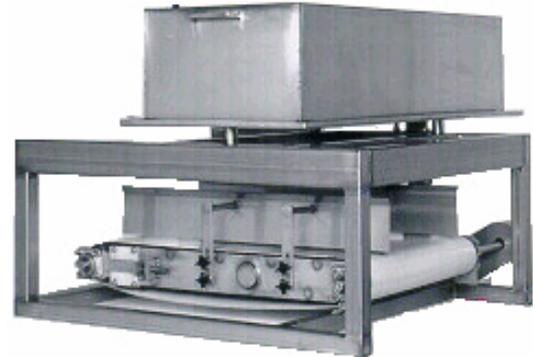
Scale: The SB Weigher uses Thayer Scales patented Model 18 precision flexure plate suspension scale with *FMSS* technology. The scale provides for complete mass counterbalancing of the dead load of the conveyor permitting the load sensor to react only to the net material load. This unique system is not affected by dirt, shocks or vibration, and can withstand overloads in excess of 1,000 pounds without causing damage or affecting calibration. The highly advanced and extremely robust sensing technology is based on the marriage of the LVDT, embedded temperature sensing and properly linerizing and temperature compensation algorithms. The scale is mounted above the conveyor, which is totally suspended. This design eliminates belt effects and permits immediate scale response when the flow rate varies.

Conveyor: Conveyor is heavy-duty construction, employing standard industrial idlers and pulleys. Conveyor belting is endless and is normally furnished with a molded edge flange. Side skirts are also supplied to eliminate side spillage. Since load measurements are not affected by the physical characteristics of the belting and its supporting means (stiffness, sliding friction, non-uniformity, splice effects tension/misalignment interaction, etc.) the construction of the belting and its material can be chosen on the basis of durability and belt-tracking ability without concern for accuracy compromise. The unique cantilevered conveyor support makes it possible to replace belting without dismantling the conveyor.

Pre-Feeder: Depending on material being handled, pre-feeder can be screw, rotary, belt, vibratory or pinch valve. Screw, rotary or pinch valve pre-feeders are normally used with fluid powders, while belt and vibratory pre-feeders are used with granular or fibrous materials.

Controls: The Series "SB" can be supplied with Thayer instrumentation and controls to function as either a process stream weigher only, or as a flow stream controller/weigher (providing the additional controller output to regulate the upstream delivery system. Thayer's patented "SLC" (scale location compensation) features can also be supplied to move the point of measurement further downstream adjacent to associated or "slaved" equipment.

Construction: Carbon or stainless steel, open or enclosed feeders. On enclosed feeders, all functional components are located outside of enclosure (scale, drive motor and sprockets).



Model "SB"