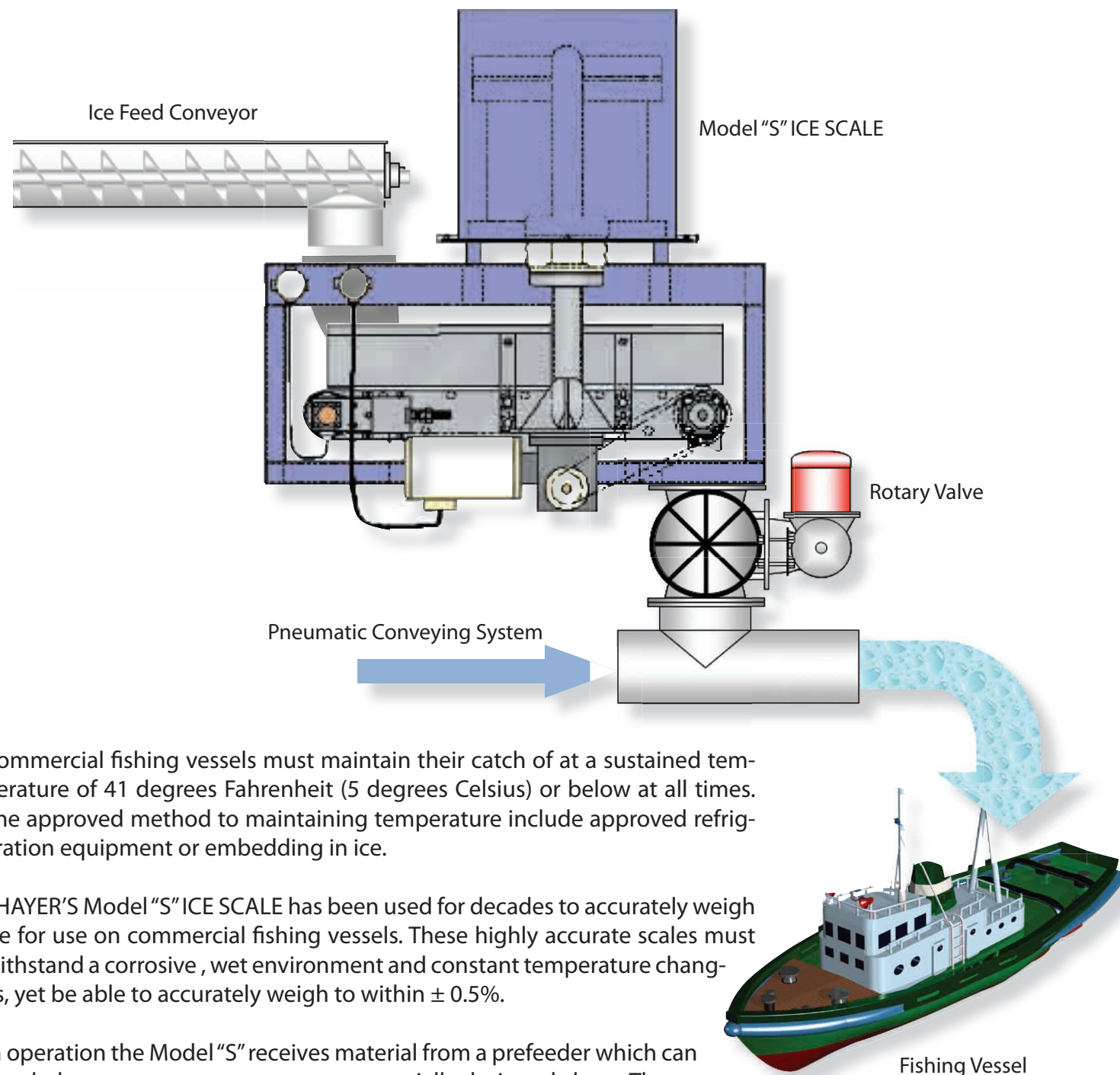


"KEEPING THE CATCH FRESH"



Commercial fishing vessels must maintain their catch of at a sustained temperature of 41 degrees Fahrenheit (5 degrees Celsius) or below at all times. The approved method to maintaining temperature include approved refrigeration equipment or embedding in ice.

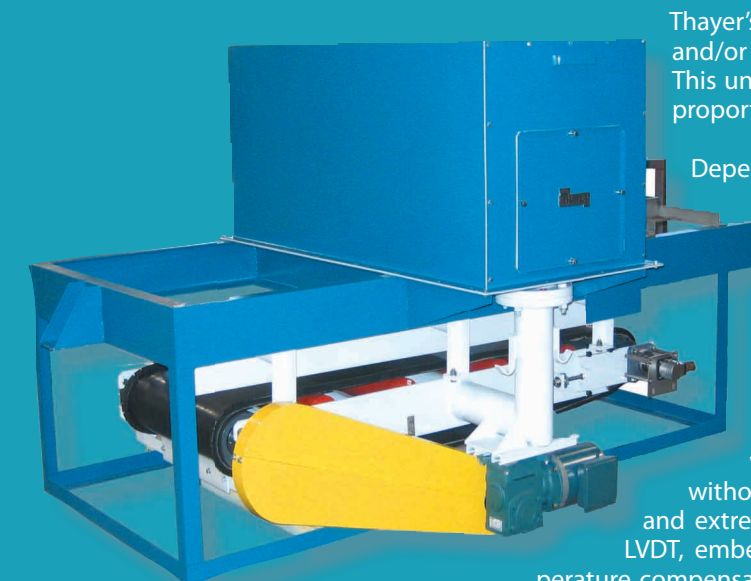
THAYER'S Model "S" ICE SCALE has been used for decades to accurately weigh ice for use on commercial fishing vessels. These highly accurate scales must withstand a corrosive, wet environment and constant temperature changes, yet be able to accurately weigh to within $\pm 0.5\%$.

In operation the Model "S" receives material from a prefeeder which can be a belt conveyor, screw conveyor or specially designed chute. The material then passes over the Model "S" where it is weighed and totalized and fed to a rotary valve that is part of a pneumatic transport system that conveys the material to the ship.

Monitoring of the amount of material supplied to the ship can be done through several different models of process integrators.

Innovative ideas from... THAYER SCALE

Process Case Study



Thayer's Series "S" gravimetric scales are designed for continuous control and/or measurement of solid material which can be conveyed on a belt. This unit can be applied singularly or in combination for batch weighing, proportioning, blending, metering or inventory control.

Depending on the material 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.

Scale: The S Weigher uses Thayer Scale's 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 proprietary linearizing and temperature compensating 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 (belt stiffness, sliding friction, belt non-uniformity, splice effects, tension/misalignment interaction, etc.) the type of belting construction 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.

THAYER SERIES 5200 INTEGRATOR

The simplest high precision Belt Scale Integrator in industry today, the SERIES 5200 is the product of a careful, well thought-out program to eliminate the fears of many scale users that electronic instruments are too complex for the average plant maintenance man.

- The SERIES 5200, Thayer Scale's new generation of operator interface for control and monitoring of any process weighing and flow control equipment.
- For use with any Strain Gauge or LVDT type load cell.
- Powerful internal 24 bit (1 part in 4,000,000) load resolution produces unparalleled system accuracy.
- Minimal customer wiring. The Scale Unit (SU-5200) mounted at the conveyor gathers load, speed and temperature data and communicates this information to the central processor (CPU) through a 2-wire RS422/485 connection.



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