WHAT IS TARE VALUE?

Learn how tare value is used in weighing systems.

By the Hardy Instruments Technical Support Team

In your weighing system, the tare value is the numerical difference between gross weight and net weight. This article illustrates how tare values are used. The examples are described using modules from Hardy Instruments, a participating Encompass™ Product Partner in the Rockwell Automation PartnerNetwork™.

When the tare function is activated on the HI 1746WS, HI 1756WS, HI 1769WS, HI 1771WS, HI 200DNWM, HI 2110WI, HI 2151/30WC, HI 3010, HI 3030 and HI 4050, the current gross weight is placed in the Tare Value register. You also can input this data from the front keypad or across communications. The process of doing a tare or updating the Tare Register varies slightly from model to model. Consult the model type user manual for procedures.

The following examples explain how tare value is used.

Example No. 1: Filling

- The operator places an empty container weighing 30 pounds on a scale.
- He pushes the tare button.
- A value of 30 is automatically entered into the Tare Register.
- The gross weight is 30 pounds, the tare value is 30 pounds and the net weight is 0 pounds (gross weight - tare value = net weight).
- As the container is filled, the difference between gross weight and net weight will remain a constant 30 pounds.

Example No. 2: Discharging

- A vessel is permanently installed on load cells and calibrated.
- The vessel is filled with 1,000 pounds of material.
- An operator pushes the tare button.
- A value of 1,000 is automatically entered in the tare register.
- The gross weight is 1,000 pounds, the tare value is 1,000 pounds and the net weight is 0 pounds.
- When 100 pounds is discharged from the vessel, the net weight will read "-100 pounds" and the gross weight will read "900 pounds."
- A tare is performed before each discharge.

Example No. 3: Intermediate Bulk Containers

- Full containers arrive with the empty container weight listed.
- An operator enters the empty container weight into the tare register via the front panel, or downloads it from a PC or programmable logic controller (PLC).
- The net weight is now the weight of the material in the container.
- The gross weight is the total of the material and container.
- The tare value is the weight of the container.

You can use your weighing systems more effectively by understanding how tare values are used. □

Rockwell Automation Encompass Product Partner Hardy Instruments, San Diego, designs and manufactures process weighing instrumentation.

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