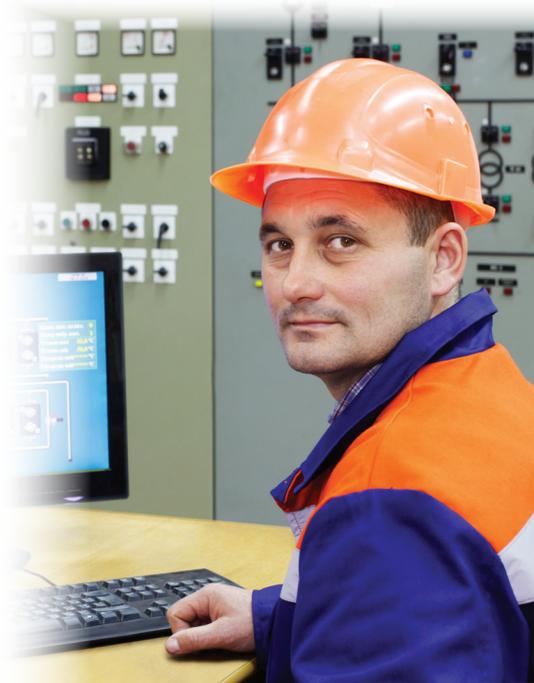


Your Weighing Partner for **Process and Packaging**



System Integrators Trends & Challenges



For over 100 years, Hardy has been helping System Integrators meet their customers' needs.

We understand the specific requirements SIs have and the challenges they face.

Our SI customers tell us they require solutions that help support their following three goals:

- **Software Productivity:** to minimize their engineering hours and their customers' time to market.
- **Scalability, Information Integration & Multi-Discipline Control:** Simplified Integration; Regulatory Compliance; System-wide Security.
- **Sustainable Platforms:** to ensure hardware scalability; simplified integration; machine performance; footprint reductions; regulatory requirements.

Our industrial weighing solutions support the above goals and help SIs meet system performance specifications and deliver the lowest total cost to integrate. Our solutions boost overall equipment effectiveness (OEE) significantly, reducing downtime by as much as 51% compared to other industrial weighing solutions. Hardy products are easy to integrate. They consistently, cost-effectively, and safely help produce high-quality products.

Let us show you how we can help you meet your goals with weighing solutions that really work for System Integrators

Industries We're Proud to Have Worked With:

- Food & Beverage
- Industrial Manufacturing
- Consumer Packaged Goods
- Mining & Minerals
- Metals
- Chemical Processing
- Pharmaceutical & Biotech

Measure | Monitor | Control | Inspect

In almost every industry segment, raw materials and finished product need to be weighed multiple times in the manufacturing process. This is especially true for food and beverage manufacturing processes, which need accurate inventory control, material feed and rate control in batch control, filling and dispensing of finished product in packaging, and checkweighing for final product inspection. These are all areas in which Hardy excels and has the expertise and solutions to assist your team in reducing cost and increasing yield, while limiting downtime and achieving Overall Equipment Effectiveness (OEE).

Our weighing solutions support weighing in processing and packaging equipment across all stages of manufacturing. Some examples are:



Applications

- Filling/dispensing
- Batching/blending
- Check Weighing
- Bulk bag/IBC
- Draft control
- Loss-in-weight rate control
- Loss-in-rate weight control
- Level control
- Tank farm monitoring
- Force measurement

Networks

- EtherNet/IP
- PROFINET
- DeviceNet
- ControlNet
- Ethernet
- Profibus DP
- Modbus RTU
- Modbus TCP
- Analog
- Serial



**Loss in Weight/Gain
in Weight Batch Control**



Feeder Control



Filling & Dispensing



**Single Lane or Multilane
Check Weighing**

We Provide EASY Integration Solutions



Stock



Inventory Management Solutions

In stage one of the manufacturing process, you must have reliable visibility to, and an accurate count of, all raw materials in your manufacturing supply chain. This is the first step to ensure your process runs smoothly. Hardy's inventory weighing solutions deliver both at the least total cost to own, safely operate and maintain.

Types of Applications

- Vessel / Tank Weighing
- Inventory Control
- IBC Weighing
- Throughput Weighing

Hardy Solutions

Hardy HI 1769-WS/2WS
Plug In Weigh Modules



Hardy HI 6600
Modular
Sensor
System

Hardy
Floor Scale



Hardy OneMount™
Advantage® Shear Beam



Make



Batching & Blending

The second stage of the manufacturing process involves sequentially or simultaneously adding one or more ingredients into vessels by weight and/or rate, then discharging the batch (sum of all the ingredients) to a downstream process. Hardy's material feed solutions ensure the accuracy of the mix (batch or blend), delivering highly repeatable results and ensuring good quality control at the least total cost to own, safely operate and maintain.

Types of Applications

- Sequential Batching by Gain in Weight
- Blending by Loss in Weight
- Simultaneous Batching by Loss in Weight
- Loss in Weight Feeder Control

Hardy Solutions

Hardy HI 1756-FC Feeder
Controller
Module and
HI 1756-2WS
Weigh Scale
Module



Hardy HI 4050
Weight Controller
and HI 6500
Weight Processor

Hardy Bench
Scales





In Every Stage of Process & Packaging

Quality, Safety, Solutions, Savings



Pack

Filling, Dispensing, Dosing
 Packing lines need precise filling solutions (for gross weight applications), and/or dispensing solutions (for net weight applications) to control the very fast feeds needed to sustain the throughputs required as finished product is packed into containers. Weighing provides the best accuracy for this task, and the most repeatable result. Hardy's filling solutions (gain-in-weight) and dispensing solutions (loss-in-weight) deliver the best material feed results, at the least total cost to own, safely operate and maintain.

Types of Applications

- Packing by Gain/Loss in Weight
- Piece/Portion Weighing
- IBC Dispensing
- Floor Scale

Hardy Solutions

Hardy HI 1756-1DF/2DF Dispenser Filler and HI 2080-WS Weigh Scale

Hardy HI 1734-Weigh Scale for POINT I/O



Hardy Lift Deck Floor Scale



Hardy One Mount Beam Type, Low Capacity



Ship

Product Inspection
 The last step in the manufacturing process calls for filled containers to be reweighed to check proper filling, meet regulatory requirements, and ensure customer satisfaction. Hardy's checkweighing solutions static (manual or semi-automated weighments) or dynamic (automated in-motion weighments) can be used for a wide variety of applications including verifying package, weight, piece count, grading or sorting. Once again delivering fast product inspection solutions, at the least total cost to own, safely operate and maintain.

Types of Applications

- Static Checkweighing
- Bench Scale
- Dynamic Checkweighing
- Portable Scale

Hardy Solutions

Hardy E-Scale IIoT-Ready Bench Scale

Hardy Caseweigher



Hardy Floor Scale



Hardy HI SP6 Single Point



Solutions for all Types of Customers

Your Business Need:

Integrating, configuring and deploying your customer's systems can be a waste of time, money and resources. You realize you can't be an expert at everything. So how do you avoid the trap of spending hours and hours, trying to meet tough customer specifications, when you don't really have deep experience in the area of weighing solutions for process and packaging?

You partner with Hardy and leverage our expertise, experience and solutions. We can help you take a shortcut to the best solution and reduce both your integration cost and time to deployment. Getting it wrong has always been easy. Getting it right with Hardy is a far better option.



Integrate

Less TIME to integrate & configure. EASIER to connect. VERY scalable.

- Choose from a range of scalable, intelligent Allen-Bradley modules and load cells that plug into the PLC backplane
- Select from a wide range of field instruments, load cells and wired fieldbus communications
- to make setup and configuration easy, use Rockwell validated integration tools: AOPs (Add-On-Profiles), EDS_AOPs or AOlS
- Deploy our Faceplates, reuse and repurpose your PLC code

SYSTEMS INTEGRATORS

HARDY'S PROCESS WEIGHING SOLUTIONS SUPPORT THE LOWEST TOTAL COST OF SCALABILITY, INTEGRATION & STARTUP EFFORT NEEDED TO OPTIMIZE MANUFACTURING PRODUCTIVITY

		HARDY TOOLBOX										ALIGNED CUSTOMER VALUE	
		Fast Accurate calibration (C2)	Semiable operator diagnostics (D)	Vibration elimination (W/VERSAVER)	Predictive level management (REDMASTER)	Remote product integration (W/VERSAVER)	Re mote instrument access (W/VERSAVER)	Auto save & copy of setup (SMM)	Validated integratio n tools (AOP /AOI/Coabe)	Use r-definable linking of data to I/O (MAP/ING)			
		> Safety	> Safety	> Quality	< Waste	> Quality	> Visibility	> Accuracy	> Accuracy	> Accuracy	> Easy		
		< Time(3-5hrs)	< Time(2-3hrs)	> Accuracy	< Time	< Time	< Time	< Time(1-2hrs)	< Time(1-2days)	< Time			
TCI (THE TOTAL COST OF INTEGRATION & MEETING ENGINEERING SPECS)	Software Productivity	Reduce Cost to Engineer	•								•	Reduces time to design/develop/deploy	
		Reduce Time to Market									•	Reduces time to develop/deploy	
		Asset Management									•	Supports remote firmware/serial number visibility	
	Scalability, Integrated Information, Multi-Discipline Control (e.g. PID, Feed Forward, etc.)	Alarms, Data log & Reporting		•		•						•	Supports local & remote access
		Automation/Network Standardization				•	•				•	Delivers repeatable, robust performance in any location	
		Safe Operations	•	•		•	•						Increases safety of people, product & production
		Energy Efficiency				•							Can reduce the number of control elements (valves/feeders)
		Decision Making Agility		•	•	•	•						Supports maintenance & process improvement decision making
		System Quality & Reliability	•			•	•						Delivers robust deployment, anywhere
		Simplified Integration									•		Supports integration via backplane or wire
	Sustainable Platforms	Regulatory Compliance											Meets regulatory requirements for process weighing
		System-wide Security											Supports multilevel password control
		Automation Common/Current to reduce costs				•	•						Reduces time to design/develop

Tools to Increase Productivity



The Hardy Process Toolbox is a unique set of productivity tools that support industrial weighing functions. Each tool saves time, increases accuracy, improves efficiency or reduces risk in weighing applications, while saving SIs considerable systems integration and configuration time. Another key benefit is the ability to differentiate your product offering.

- ✓ **Accurate**
- ✓ **Stable**
- ✓ **Fast**
- ✓ **Flexible**
- ✓ **Easy**



C2® - Calibrate Without Weights

The Hardy C2® Process Toolbox function provides quick and easy electronic calibration of a weighing system without the need for heavy test weights.



WAVERSAVER® - Stabilize Noisy Weight Readings

Hardy's WAVERSAVER core technology eliminates the effects that surrounding vibration has on the scale weight signal, providing only true data for fast, accurate weight reading.



WAVERSAVER+ - Increase Scale Resolution

Filters both external and internal noise under a static weight condition to go beyond the 1 in 10,000 limitation, providing repeatable weighing results the first time and every time.



INTEGRATED TECHNICIAN® - Diagnostic Tools for Operators

Hardy's INTEGRATED TECHNICIAN (IT) core feature helps you troubleshoot your weighing system and diagnose problems from the front of the instrument or via the PLC.



Embedded Web Server - Connect from Anywhere

Access your instrument from any computer browser. Use the embedded web server to set up all parameters from anywhere on the Ethernet network



Secure Memory Module - Safe Configuration Backups

Hardy's Secure Memory Module (SMM) uses a standard SD card or USB stick to automatically back up critical weighing system data, and allowing you to transfer it to another like controller in a few minutes. You can also use the card to easily back up your controller data onto a PC.



FEED-MASTER - Mitigate Feed Disturbances

Hardy's proprietary FEED-MASTER predictive/adaptive algorithm adapts for the flow variation in real time during every feed.



CHECK-MASTER - Weigh Stationary or In-Motion Items or Finished Product

Hardy's CHECK MASTER is a set of software tools that support check weighing functions and are part of every Hardy Check Weighing solution. A fully automated Check Weighing system is designed to weigh static items or automatically weigh in-motion items. The check weight controller then directs downstream diverter gates to route product based on weight.

Proven Solutions

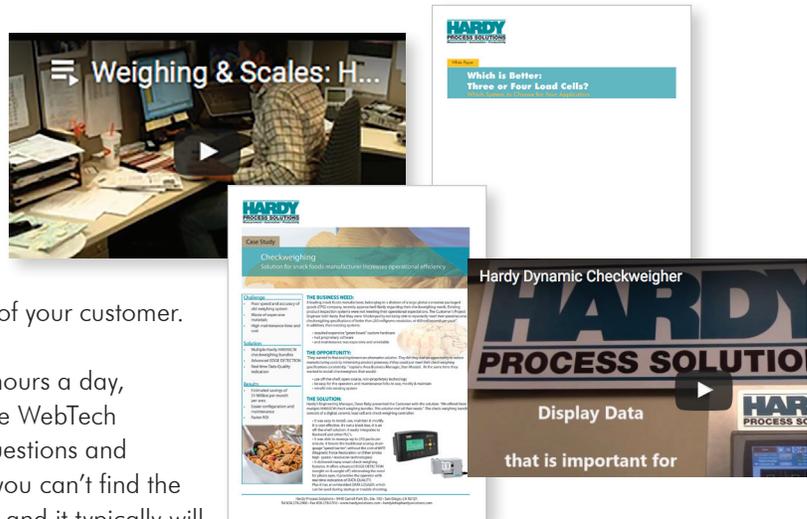
For nearly 100 years Hardy Process Solutions, headquartered in San Diego, California, has been providing weighing solutions for process control and packaging. With that, we have saved our customers thousands of production hours and millions of dollars. Our goal is to provide superior weighing equipment as an industrial scale company that stays on the pulse of innovations in the field. At Hardy, we pride ourselves on the ability to continuously provide superior product quality and excellent customer support, which enables our customers to achieve their process or packaging goals.

Hardy delivers high performance weighing solutions with the **LOWEST TOTAL COST** to own. We include Industry Leading Technology in all of our scales and instruments to make it **EASY** for you to install, integrate, and maintain. Powerful solutions that are easy to use is why our customers realize increased production efficiency.

Instant Information

Our technical support team will not only help you to establish which type of weight measurement and control best suits your application, but also to guide you on applications and integration. The resulting solution is tailored to meet the business needs of your customer.

Your technical questions can be answered 24 hours a day, 7 days a week, 365 days a year from the online WebTech Knowledgebase. It was developed with real questions and answers from Hardy customers just like you. If you can't find the answer to your question, post your question on and it typically will be answered the same or next business day.



Simply go to:

www.hardysolutions.com/support-center/view



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Unrestricted Access to Manuals and Drawings Online.
Free Dial-In Technical Support and Applications Support.
Onsite Certified Technicians for Hire.



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