# HARDY
## PROCESS SOLUTIONS
Measurement ▪ Automation ▪ Productivity

Your Weighing Partner in All Stages of Consumer Packaged Goods

# Consumer Packaged Goods Trends & Manufacturing Challenges

**Consumer Packaged Goods**

Hardy understands the challenges Consumer Packaged Goods (CPG) manufacturers face. Our customers tell us they must deal with...

- Changing Consumer Demands
- Data Granularity and Visibility
- Shrinking Operating Margins
- Compliance and Regulatory Pressures
- Easier Line Changeovers
- Rapid System Conversions

We have developed a variety of industrial weighing solutions that supports addressing the above challenges, driving Overall Equipment Effectiveness (OEE) up, no matter where they are located in the manufacturing process. Solutions to assist you in effectively assessing the priorities and criticality of these challenges and develop strategies to effectively overcome them.

At the same time, we help our customers take on their challenges at the least total cost.

Our solutions enable processors and manufacturers to increase accuracy and speed, while enabling increased throughput and sustainability. Consolidation, changing consumer preferences, and increasing government regulations dramatically impact manufacturing and business strategies. In this fiercely competitive marketplace manufacturers must consistently and cost-effectively produce high quality products.

Our solutions deliver reductions in waste, while enhancing quality, safety and productivity. They do this by reducing downtime by as much as 51%, compared to other industrial weighing solutions.

With close to 100 years of experience, Hardy has navigated several large customers through market changes, increasing government regulations, consolidation, and changing preferences of the Consumer Packaged Goods Industry.

## Companies We're Proud to Have Worked With Include:

- 3M Company
- Avery Dennison
- BASF
- Bissell
- Colgate-Palmolive Company
- Estee Lauder, Inc.
- Glaxo Smith Kline (GSK)
- Kimberly Clark Corp
- Kohler
- Procter & Gamble
- Henkel
- MERCK
- Bristol Myers Squibb
- Energizer Battery
- Novartis

# Measure | Monitor | Control | Inspect

In almost every industry segment, raw materials and finished product need to be weighed multiple times in the manufacturing process. With margins already thin, this is especially true for Consumer Packaged Goods which has the need for 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).

## 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

- DeviceNet
- ControlNet
- Ethernet
- EtherNet/IP
- Remote I/O
- Profibus DP
- Modbus RTU
- Modbus TCP
- Analog
- Serial

**Hardy process weighing solutions support the Consumer Packaged Goods (CPG) manufactures of an immense assortment of household and personal care products such as:**



**Bath & Shower Care**



**Laundry Care**



**Cosmetics & Cosmeceuticals**



**Dental & Oral Care**



**OTC Drugs & Vitamins**



**Home Cleaning Products**

## Also Includes:

- Hair Care Products
- Skin Care Products
- Hygiene Products
- Personal Care Products
- Herbal Supplements
- Tobacco Products

# We Provide Solutions that Support Your Business —



## 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
- IBC Weighing
- Inventory Control
- Throughput Weighing

### Hardy Solutions

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



Hardy
HI 6600
Modular
Sensor
System

Hardy
Floor Scale

Hardy HI LPRC03 High
Capacity Load Point

## 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
- Simultaneous Batching by Loss in Weight
- Blending 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

Hardy OneMount™
Advantage® Shear Beam

# In Every Stage of the Process

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
- IBC Dispensing
- Piece/Portion Weighing
- Floor Scale

### Hardy Solutions

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

Hardy HI 3010 and HI 3030 Weight & Rate Controllers

Hardy Lift Deck Floor Scale
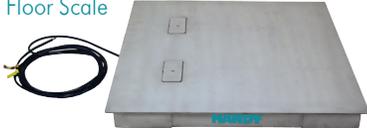
Hardy HI LPRE05 Load Point

## 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
- Dynamic Checkweighing
- Bench Scale
- Portable Scale

### Hardy Solutions

Hardy HI 1769-WS Weigh Scale Module

Hardy Caseweigher

Hardy HI SP6 Single Point

Hardy Floor Scale

Hardy HIBSD Bench Scale with Display

# Solutions for all Types of Customers

**Consumer
Packaged Goods**

## Your Business Need:

You've been looking to deploy a weighing solution to upgrade your manufacturing system.  Perhaps you want to:

- **Increase productivity**
- **Reduce costs**
- **Improve product quality**
- **Respond faster to your customer's needs**

**Hardy lowers the total cost to OWN, DESIGN and INTEGRATE almost any weighing application. Here's how!**

### Own & Operate

**Less WASTE, less RISK, more PRODUCTIVITY**

- Simplify use and training with easy to use operator/maintenance interfaces.
- Increase measurement stability/resolution to reduce cycle times and increase throughput.
- Replace expensive, risky, time consuming traditional calibrations with fast, easy, safe, accurate electronic calibrations.

**Manufacturers**

- Decrease scale downtime with operator and internet enabled tools to trouble shoot and diagnose your scales.

### Design, Develop & Deliver

**Less TIME to engineering, EASIER to implement, VERY scalable**

- Choose from a variety of instruments, PLC plug-in modules and sensors, scalable to the economy of your machines.
- Use an open-architecture that delivers complete freedom of design and optimizable footprint.
- Deploy weight processors or weight controllers with in-built material feeds by weight, rate, or check weighing.

**OEMs**

- Take advantage of validated integration tools, easy configuration and FREE phone support from experts in process weighing.

### 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.
- Use Rockwell validated integration tools- AOPs (Add-On-Profiles), EDS_AOPs or AOIs to make setup and configuration easy.

**System
Integrators**

- Deploy our Faceplates, reuse and repurpose your PLC code.

# 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 process weighing applications, while saving OEMs considerable development and systems integration 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 innovative process control solutions for the food processing industry. 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 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

We offer instant access to videos, white papers, articles, case studies brochures, application notes, and more.
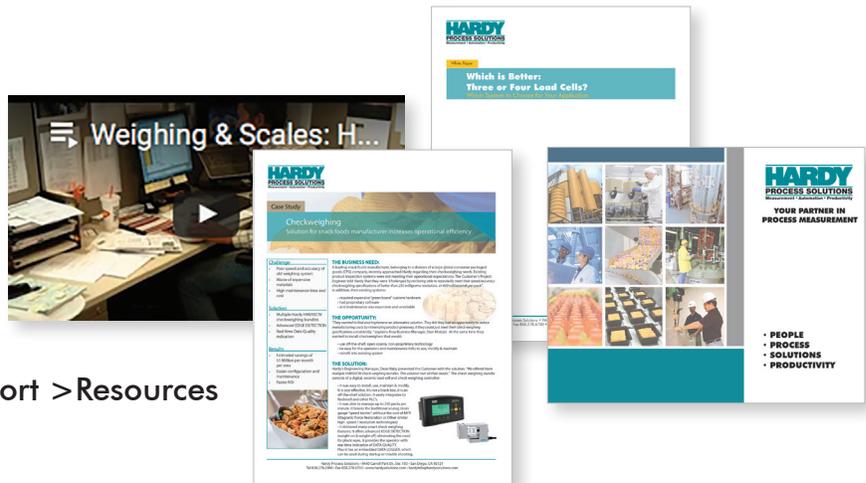
Simply go to:

www.hardysolutions.com >Support >Resources

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