

Your Weighing Partner in All Stages of **Pet Food Manufacturing**



## Pet Food Processing Trends & Manufacturing Challenges



### Food & Beverage Manufacturing

For nearly 100 years, Hardy has helped large Food Industry customers navigate market changes, increasing government regulations, consolidation and changing consumer preferences.

We understand the specific challenges PET FOOD manufacturers face, and we know that weighing is a crucial factor throughout the process – from pre-weighing wet and dry ingredients to controlling the spraying rate for kibble, from filling tubs, cans and boxes to check weighing each container of finished product, packed case and loaded pallet.

Our PET FOOD customers tell us they need:

- **More Flexibility**
- **Sustainable Quality**
- **Increased Throughput**
- **Easier Line Changeovers**
- **Rapid System Conversions**
- **Compliance of Multiple Regulations**

Hardy's industrial weighing solutions meet all of these challenges and more – at the lowest possible total cost. Our solutions also boost Overall Equipment Effectiveness (OEE) significantly by reducing downtime by as much as 51%\*.

Hardy products are easy to integrate. They consistently, cost-effectively, and safely help produce high-quality products. Our weighing solutions can also assist you in complying with the FDA regulations and consumer satisfaction. Let us show you how we can help you meet your goals with weighing solutions that work for pet food manufacturers!

\* when compared to other industrial weighing solutions.

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

- General Mills
- Kraft Heinz
- Hershey's
- FritoLay
- Nestle
- Campbell Soup
- Mars
- Lindt
- Pepsi
- Coca-Cola
- Conagra Foods
- Ghirardelli
- Coors Miller
- Bimbo Bakeries
- Heinz
- JM Smucker
- Starbucks
- Flowers Foods

# 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 the pet food manufacturing process, 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).

**Our weighing solutions support pet food processing in all stages and forms of the manufacturing process. Some examples are:**



**Wet Food**



**Dry Food / Kibble**



**Biscuits**



**Dental Sticks / Specialty**

## 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

# 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
- Inventory Control
- IBC Weighing
- Throughput Weighing

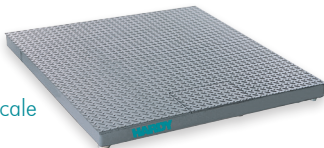
#### Hardy Solutions

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



Hardy HI 6600 Modular Sensor System

Hardy Floor Scale



Hardy 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
- 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



Hardy OneMount™ Advantage® Shear Beam



Food & Beverage  
Manufacturing

# 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

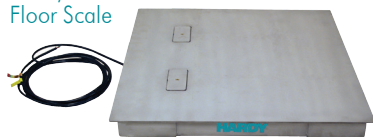
- Packing by Gain/Loss in Weight
- Piece/Portion Weighing
- IBC Dispensing
- Floor Scale

#### 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
- Bench Scale
- Dynamic Checkweighing
- Portable Scale

#### Hardy Solutions

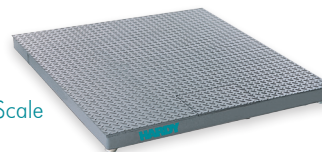
Hardy  
HI 1769-WS  
Weigh Scale  
Module



Hardy Dynamic  
Checkweigher



Hardy  
Floor Scale



Hardy  
HI SP6 Single  
Point





# Solutions for all Types of Customers

## Food & Beverage Manufacturing

### Your Business Need:

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

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

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



### Manufacturers

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



### OEMs

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



### System Integrators

#### 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 AOs to make setup and configuration easy.
- 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 more than 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/media-center/view](http://www.hardysolutions.com/media-center/view)



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