

A Roper Technologies Company

# Hardy Bench & Floor Scales





Easiest to Use | Highest Performance | Lowest Total Cost

# **BENCH & FLOOR SCALES**



#### Hardy Bench Scales

- Choose between hermetically sealed, IP68/69K, C2 load cells OR environmentally sealed, IP67 load cells with NTEP Certification, depending on your application
- All Hardy Bench Scales come standard in 12"x12", 18"x18", and 24"x24" sizes, and range in capacity from 5lbs – 1,000lbs (2.27kg to 454 kg)
- Custom sizes and capacities are available upon request

#### Hardy HIBSX Washdown & Hazardous Area Bench Scale

- Choose between hermetically sealed, IP68/69K, C2 load cells OR environmentally sealed, IP67 aluminum load cells depending on your application All HIBSX scales come standard in 12"x12" size, and
- range in capacity from 5lbs – 165lbs (2.27kg to 454 kg) Very low profile at just 2" tall
- The HIBSX with stainless steel load cell is both Washdown and Hazardous

## Hardy HIBSD Bench Scale with Integrated Display

- HIBSD Washdown Bench Scales include an 7-in integrated display for easy operation
- Zero and tare functions on the display
- Aluminum Load Sensors IP65 with +/- 0.02% Rated Output Accuracy
- ADC Update Rate: 100ms.
- Capacities from 33 lbs to 330 lbs
- Check weighing & animal weighing modes
- Does not include C2<sup>®</sup> or IT

#### ANY-WEIGH Bench Scales and ENVIRO Bench Scales

#### ANY-WEIGH® Bench Scales

- Feature a very low profile, rugged construction, and stainless steel tops
- Choice of DeviceNet or 4-20mA Analog output

#### Enviro Bench Scales

**ACCESSORIES** 

- Industrial 304SS washdown bench scales
- Includes IP67 load cells and are NTEP certified

### Hardy Floor Scales

- Includes IT diagnostics and C2® calibration
- Matched hermetically sealed ADVANTAGE® load sensors eliminate the need for potentiometers
- Rated for more than 250,000 load cycles (normal loading)
- Available accessories, include access ramps, pit frames, lifting eyes, bumpers, indicator pedestals, and portability frames
- Available in stainless or painted steel, in sizes from 30"x30" to 6'x8', with capacities ranging from 1,000 to 10,000 lbs



#### Hardy Lift Deck Floor Scales

- Designed and built for harsh chemical and washdown industrial environments, yet are easy to use and install
- Just level the deck, attach the included twenty-foot cable, calibrate (if a C2<sup>®</sup> instrument, then set your reference), verify and begin weighing
- Available in three sizes from 24 x 24 to 60 x 60 inch in 1Klb, 2Klb, and 5Klb capacities
- Handles on the decks for easy lifting & to facilitate cleaning in pit frames

#### C2<sup>®</sup> Certified Cable

- Certified load point cable is designed and tested to easily handle the low voltages found in weighing systems, and the load point's performance characteristics
- Eight conductors, each a 22 AWG stranded copper wire for flexibility, carry the signals to and from the weighing instrument and the junction box

#### **Junction Boxes**

- Contains a Summing Card in a NEMA 4 or 4X enclosure that distributes the excitation voltage for up to four load points, and transfers their weight signals to the weighing instrument
- Boxes are available in fiberglass, stainless, or painted steel
- Optional INTEGRATED TECHNICIAN circuitry provides easy isolation and trouble-shooting of each component of your weighing system when used with a Hardy instrument
- Summing Cards are also available separately
- HI 6020JB-SSX-Y & HI 6020IT-SSX-Y models: Class I, II, III, Division 1, Class I, Zone 0 and Zone 20
- HI 6020JB-SSX-Y-EX & HI 6020IT-SSX-Y-EX: ATEX: Cert No. DEMKO 17 ATEX 1819 and IECEx: Cert. No. IECEx UL 17.0009



# **Hardy Bench Scales**



## Applications

## PROCESS WEIGHING

- Minor Ingredients or Hand-Add applications
- Small Batch Reactor Applications in Chemical/Biochemical
- Machine Filling and Dispensing
- Conveyor Scales
- Product Inspection: Checkweighing,
- Piece Count, Portion Control
- Shipping

## Features THE HARDY PROCESS TOOLBOX

The Hardy Process Toolbox is a set of productivity tools that delivers value across process

weighing functions. Each tool saves time, increases accuracy, improves efficiency or reduces risk in your process weighing applications.



# Electronic calibration without test weights (400 Series)

#### **HARDY Load Sensors**

- Stainless Steel or Aluminum
- True Hermetic Seal or Potted
- Corner adjusted

#### Capacities from 5 lbs to 1,000 lbs

Hazardous: FM IS, Class 1, Div 1

#### NTEP Certification (200 & 300 Series Only)

#### **Overload Protection**

- 300% R.O.\* Overload
- 100% R.O. End Loading
- 100% R.O. Corner Loading

(\*Rated Output)

Hardy Bench Scales offer the ultimate in product configurability and customization for use in all industrial weighing applications, offering customers the ability to choose the right product at a price that fits their budget. Hardy Bench Scales are available in either stainless or carbon steel base construction, with 304 Stainless Steel platters. Choose between hermetically sealed, IP68/69K, C2 load cells OR environmentally sealed, IP67 load cells with NTEP, depending on your application.

All Hardy Bench Scales come standard in 12"x12", 18"x18", and 24"x24" sizes, and range in capacity from 5lbs – 1,000lbs (2.27kg to 454 kg). Custom sizes and capacities are available upon request. Tell us what will work best for your application and budget, and let us create the solution.

#### 400 Series - HIBS400-xxxx

The 400 Series is Hardy's top of the line industrial bench scale. With all stainless steel construction and a hermetically sealed, IP68/IP69K, FM Hazardous approved, stainless steel Advantage® load cell, the HI BS400 is built for the heaviest wash down applications and corrosive environments. Hardy has built its C2 weight-free calibration technology into every scale, delivering the lowest total cost of ownership on the market. C2 calibration saves time during commissioning and replacement, removes personnel from processing areas, and keeps your process cleaner by eliminating the need for potentially contaminated test weights. No NTEP.

#### 300 Series - HIBS300-xxxx

The Hardy 300 Series is a Hardy's lowest cost stainless steel industrial scale, built to handle light wash down and humid environments. Each bench scale is equipped with an FM approved IP67 Non-C2 aluminum load cell, and comes with NTEP certification standard.

#### 200 Series - HIBS200-xxxx

The 200 Series is Hardy's lowest cost industrial scale, featuring a painted carbon steel base and IP67, Non-C2 aluminum load cell made for use in dry and dusty environments. Each aluminum load cell is FM approved, and the HI BS200 comes with NTEP certification standard.

For seamless integration into your manufacturing control system, attach any of the Hardy Bench Scales to a Hardy Weight Processor or Weight Controller with EtherNet/IP, Profibus-DP, Modbus, or Analog 4-20mA output. Or connect to a Hardy PAC or PLC plug-in weight module for the cleanest installation on the market.

All Hardy Scales can be paired with an optional 12" or 24" Indicator Column for instrument mounting. Hardy Bench Scales are also available

with a ball-top platter to streamline roll-on, roll-off weighing applications.



## Hardy Bench Scales, **Floor Scales and Load** Points

Hardy carries a wide variety of strain gauge load points and scale mounts to accommodate your application requirements.



## Weighing Instruments Dedicated to Your Applications

Controllers, Weigh Modules, Weight Processors & Transmitters

> Allen-Bradley® Compatible Plug-in Weigh Scale Modules





## **SPECIFICATIONS**

#### Platter Construction

• 304 Stainless Steel (all models)

• Size: 12" x 12", 18" x 18" and 24" x 24 (custom sizes are available)

#### **Deck Height**

- 12" x 12": 5, 25, 50, 150 lbs: 3.75" to 4.5" (9.5 to 11.4 cm) adjustible 18" x 18": 50, 25, 50, 150 lbs: 3.75" to 4.5" (9.5 to 11.4 cm) adjustible
- 18 x 18": 300, 500 lbs: 5.5" x 6.5"
- (14 to 16.5 cm) adjustible 24" x 24": all capacities 5.5" x 6.5"
- (14 to 16.5 cm) adjustible **Capacity Range**

## • 5 lbs to 1000 lbs (2.27 to 454 kg)

- Rated Output
  - Overload: 300% R.O.
  - End loading: 100% R.O.
  - Corner loading: 100% R.O.
- Cable Length
  - Platform to Instrument 9 to 10 feet nominal (3 meters) (for longer cable lengths, contact the Factory)
- **Base Construction** 
  - HIBS400 & HIBS300: Stainless Steel
  - HIBS200: Painted Carbon Steel

#### Load Sensors

- HIBS400: C2<sup>®</sup> stainless steel, hermetically sealed IP68/IP69K
- HIBS300 & HIBS200: Non-C2 aluminum. environmentally potted, IP67

#### Resolution

- 5000 divisions of scale capacity Accuracy
  - Combined Error: 0.02%

#### Warranty

• Two year limited warranty

#### Approvals

- NTEP (HIBS300 and HIBS200 Only)
- FM IS Hazardous Class I, Div 1 Load Cell
- Shipping Weight
- 12" x 12": 38 lbs (17.2 kg)
- 18" x 18": 59 lbs (26.8 kg)
- 24" x 24": 104 lbs (47.2 kg)

## Visit our website for:

- full product specifications
- ordering information
- application notes technical description
- operator's manual

www.hardysolutions.com or call vs: 800-821-5831 +1-858-278-2900

## **Hardy Bench Scale Models**

HI BS400: Purpose built to handle the toughest industrial applications, ensuring a long life when used in harsh, corrosive, wet or humid environments (IP68/IP69k). 304SS base and platter with stainless steel, hermetically sealed, C2 load cell. FM certified.

HI BS300: Rugged industrial scale with stainless steel construction for use in harsh and wet environments (IP67). 304SS base and platter construction with a Non-C2 Aluminum Load Cell. FM certified. NTEP Certification.

HI BS200: A versitile and cost-effective industrial scale that satisfies a variety of weighing applications in dry environments (IP67). Carbon steel base and 304SS Platter, with a Non-C2 Aluminum Load Cell. FM certified, NTEP Certification.

#### **Standard Sizes and Capacities**

Model	Dimensions	Capacity	Safe Load Limit
HIBS_00-1212-5LB	12"x12"	5 lbs/2.268 kg	10 lbs
HIBS_00-1212-25LB	12"x12"	25 lbs/11.34 kg	25 lbs
HIBS_00-1212-50LB	12"x12"	50 lbs/22.68 kg	98 lbs
HIBS_00-1212-150L	B 12"x12"	150 lbs/68.04 kg	208 lbs
HIBS_00-1818-50LB	18"x18"	50 lbs/2.268 kg	90 lbs
HIBS_00-1818-150L	B 18"x18"	150 lbs/68.04 kg	200 lbs
HIBS_00-1818-300L	B 18"x18"	300 lbs/136.08 kg	420 lbs
HIBS_00-1818-500L	B 18"x18"	500 lbs/226.8 kg	527 lbs
HIBS_00-2424-50LB	24"x24"	50 lbs/2.268 kg	66 lbs
HIBS_00-2424-150L	B 24"x24"	150 lbs/68.04 kg	176 lbs
HIBS_00-2424-300L	B 24"x24"	300 lbs/136.08 kg	506 lbs
HIBS_00-2424-500L	B 24"x24"	500 lbs/226.8 kg	506 lbs
HIBS_00-2424-1000	DLB 24"x24"	1000 lbs/453.6 kg	1000 lbs
Note. — 1 for 11	10 3 for 300 and 2 for 2	00 models	

Note: = 4 for 400, 3 for 300 and 2 for 200 models

Hardy Bench Scale Accessories Enable you to easily configure a solution to meet your individual applications!

- Instrument pedestal
- Roll Top



Instrument Pedestal 12" and 24" Stainless and Carbon Steel





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- Minor Ingredients or Hand-Add applications
- Small Batch Reactor Applications in Chemical/Biochemical
- Machine Filling and Dispensing
- Conveyor Scales
- Product Inspection: Checkweighing
- Piece Count, Portion Control
- Shipping



**Hardy HIBSX Bench Scales** 

## Features THE HARDY PROCESS TOOLBOX

The Hardy Process Toolbox is a set of productivity tools that delivers value across process

weighing functions. Each tool saves time, increases accuracy, improves efficiency or reduces risk in your process weighing applications.



## Electronic calibration without test weights

#### HARDY Load Sensors

- Stainless Steel or Aluminum
- True Hermetic Seal or Potted
- IP68/69K or IP67

## Capacities from 10 lbs (5kg) to 165 lbs (75 kg)

#### Intrinsically Safe: FM IS, Class 1, Division 1

#### **Overload Protection**

- 150% or 200% R.O.\* Overload
- 100% R.O. Corner Loading

(\*Rated Output)

Hardy HIBSX Bench Scales are easy to clean, low-profile stainless steel washdown bench scales. The HIBSX series offers simplicity and robust performance for light duty industrial weighing applications. With an optimized internal 'X' design, the scales reduce the time required to sanitize them while still offering one of the lowest profiles in the industry. Hardy HIBSX Bench Scales come with RoHS compliant 304 Stainless steel hardware, frames and platters. Users may choose between stainless steel hermetically sealed, IP68/69K, C2<sup>®</sup> load cells OR aluminum, environmentally sealed, IP67 C2<sup>®</sup> load cells, depending on their application.

Made in the USA, all Hardy HIBSX Bench Scales come standard in 12''x12'' size, ranging in capacity from 10 lbs – 165 lbs (5 kg to 75 kg).

With all stainless steel construction and hazardous FM approval, the HIBSX with a stainless steel load cell is built for wash down applications and hazardous environments. With an IP67 aluminum load cell, the HIBSX is designed for use in dry and dusty hazardous environments. Each load cell is also FM approved and has a +/- 0.02% accuracy specification.

Hardy has built its C2<sup>®</sup> weight-free calibration technology into every scale, delivering the lowest total cost of ownership on the market. C2 calibration saves time during commissioning and replacement, removes personnel from processing areas, and keeps your process cleaner by eliminating the need for potentially contaminated test weights.

To ensure durability in industrial applications, Hardy has performed corner, overload and cycle testing to over 8 million cycles. The HISBX series is ideal for manual checkweighing, piece portioning, counting, and adding minor ingredients (to a process or a batch).

## Hardy Bench Scales, Floor Scales and Load Points

Hardy carries a wide variety of strain gauge load points and scale mounts to accommodate your application requirements.



## Weighing Instruments Dedicated to Your Applications

Controllers, Weigh Modules, Weight Processors & Transmitters







## SPECIFICATIONS

#### Common Specifications to All Scales

- 304 Stainless Steel frame and platter (all models)
- Size: 12" x 12"
- + Load Cell Error Specification < +/- 0.02%
- Weight: 22 lbs (9.98 kg)
- Cable Platform to Instrument: 10 ft (SS Models) or 6.5 ft. (AL Models)

#### Deck Height

- •12" x 12": SS: 2.95" (75 mm) adjustable
- •12" x 12": AL: 2.02" (51.3 mm) adjustable

#### Capacity Range

- SS Versions: 10 lbs to 165 lbs (5 to 75 kg)
- AL Versions: 10 lbs to 100 lbs (5 to 45 kg)

#### Rated Output

- Overload: 200% R.O. with Stainless Steel HISP6
   150% R.O. with Aluminum HISPA22
- Corner loading: 100% R.O.

#### Load Sensors

- SS Versions: C2<sup>®</sup> stainless steel, hermetically sealed IP68/IP69K
- AL Versions: C2<sup>®</sup> aluminum, environmentally potted, IP67

#### Warranty

- Two year limited warranty
- Approvals
  - FM IS Hazardous Class I, Div 1 Load Cells

#### • RoHS 3 and REACH Compliant

#### Shipping Weight

• 12" x 12": 22 lbs (9.98 kg)

#### Hardy HIBSX Bench Scale Sizes and Capacities

SS Versions	Capacity	Load Cell	Load Cell Material	Safe Load Limit
HIBSX-12SS-SS-5KG	10 lbs/5 kg	HISP6-10	17-4PH SS	10 lbs
HIBSX-12SS-SS-15KG	30 lbs/15 kg	HISP6-20	17-4PH SS	55 lbs
HIBSX-12SS-SS-40KG	100 lbs/45kg	HISP6-50	17-4PH SS	187 lbs
HIBSX-12SS-SS-75KG	165 lbs/75 kg	HISP6-100	17-4PH SS	319 lbs
AL Versions	Conneitu	Load Cell	Load Cell Material	Safe Load Limit
	Capacity	Load Cell	Muleilui	LIIIII
HIBSX-12SS-AL-5KG	10 lbs/5 kg	SPA22-10	2024 AL	10 lbs
HIBSX-12SS-AL-5KG	10 lbs/5 kg	SPA22-10	2024 AL	10 lbs
HIBSX-12SS-AL-5KG HIBSX-12SS-AL-15KG	10 lbs/5 kg 30 lbs/15 kg	SPA22-10 SPA22-20	2024 AL 2024 AL	10 lbs 38.5 lbs

Load Cell Specifications	HISP6	HISPA22
Rated Output (ES)	2±0.10mV/V	2±10% mV/V
Non-Linearity	$<\pm$ 0.0166 % R.O.	$<\pm$ 0.0166 % R.O.
Hysteresis	$<\!\pm$ 0.0166 % R.O.	$<\!\pm$ 0.0166 % R.O.
Zero Balance	$<\!\pm5.0$ % R.O.	$<\!\pm$ 5.0 % R.O.
Combined Error	$<\!\pm0.02$ % R.O.	$<\!\pm0.02$ % R.O.
Creep @ 30 Min.	$<\pm$ 0.0166 % R.O.	$<\!\pm$ 0.0166 % R.O.
Temp Effect Output	$<\!\pm0.0112$ % R.O./C	$<\!\pm0.0233$ % R.O./C
Temp Effect Sensitivity	$<\!\pm0.010$ % R.O./C	$<\pm$ 0.010 % R.O./C
Input Resistance	1100 $\pm$ 50 ohm	413 $\pm$ 20 ohm
Output Resistance	960 $\pm$ 50 ohm	$350\pm25~\text{ohm}$
Insulation Resistance	$\geq$ 5000 Mohm	$\geq$ 5000 Mohm
Excitation	5 - 15 vdc	5 - 15 vdc
Safe Load Limit	200 % Emax	150 % Emax
Safe Side Load	100 % Emax	100 % Emax
Hazardous	FM IS, Class1, Div 1	FM IS, Class1, Div 1
Approvals	IP68/IP69K	IP67



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The HIBSX bench scale is designed with a durable all

stainless-steel 'X' construction



# Hardy HIBSD Bench Scales

## **Applications**

- Minor Ingredients or Hand-Add applications
- Small Batch Reactor Applications in Chemical/Biochemical
- Animal Scale
- Product Inspection: Checkweighing
- Piece Count, Portion Control
- Shipping



## Features

## Large, bright integrated display

#### Zero and Tare buttons

## **Aluminum Load Sensors**

- IP65
- +/- 0.02% R.O. Combined Error
- ADC Update Rate: 100ms.

# Capacities from 33 lbs to 330 lbs

## **Stainless Steel Platter**

#### Washdown Rated to IP65

#### **CE Rated**

## **Overload Protection**

- 200% R.O.\* Overload
- 100% R.O. End Loading
- 100% R.O. Corner Loading

(\*Rated Output)

Hardy HIBSD Washdown Bench Scales offer simplicity and robust performance for light duty industrial weighing applications. With a bright integrated backlit display with integrated zero and tare functions, it's easy to operate for all kinds of weighing applications. Hardy HIBSD Bench Scales are washdown-rated with Stainless Steel platters. They come with an aluminum, environmentally sealed, IP65 load cell with an ADC response rate of 100 ms.

All Hardy HIBSD Bench Scales come standard in either 12''x14'' with a 15-inch indicator column or 16" x 20" with a 33-inch indicator column. They range in capacity from 33lbs – 330 lbs (15 kg to 150 kg).

They are available with either Painted or Stainless Steel frames.

The HIBSD bench scale is ideal for checkweighing, piece and portion weighing and counting functions. They are also perfect for adding minor ingredients or hand-ads in batch processes. A special mode for animal weighing accounts for animal movement to determine an accurate measurement.

## Hardy Bench Scales, Floor Scales and Load Points

Hardy carries a wide variety of strain gauge load points and scale mounts to accommodate your application requirements.



## Weighing Instruments Dedicated to Your Applications

Controllers, Weigh Modules, Weight Processors & Transmitters Allen-Bradley® Plug-in Weigh Scale





HI 3000 & HI 4000 Controllers and HI 6000 Series Weight Processors





#### **SPECIFICATIONS**

### Common Specifications to All Scales

- 304 Stainless Steel platter (all models)
  Frame: Painted Steel or Stainless Steel
- Frame: Painted Steel or Stainless Steel
- Size: 12" x 14" or 16" x 20"
- AC Cable 5 ft
- Battery: 72 hours on full charge **Deck Height** 
  - 12" x 14": 4.5-5.5" 114-140 mm adjustable
  - Indicator Column 15 inches high
     16" x 20": 4.5-5.5" 114-140 mm adjustable
  - Indicator Column 33 inches high

## Capacity Range

33 lbs to 330 lbs (15 to 150 kg)

- <u>Rated Output</u>
  - Overload: 200% R.O.
  - Corner loading: 100% R.O.

#### Load Sensors

- Aluminum, environmentally potted, IP65 Combined Error
  - +/- 0.02 % Rated Output

#### Warranty

• Two year limited warranty

- Approvals
- CE

#### Shipping Weight

- 12" x 14": 30 lbs (13.6 kg)
- 16" x 20": 45 lbs (20.4 kg)

Visit our website for:

www.hardysolutions.com or call us: 800-821-5831 +1-858-278-2900

full product specifications
ordering information

application notes technical description

operator's manual

## Hardy HIBSD Bench Scale Models

#### **Standard Sizes and Capacities**

Painted Steel Frame Versions	Capacity	Indicator Column	Platter Size	Safe Load Limit
HIBSD-12PS-15KG	30 lbs/15 kg	15"	12" x 14"	66 lbs
HIBSD-12PS-30KG	60 lbs/30 kg	15"	12" x 14"	132 lbs
HIBSD-12PS-60KG	130 lbs/60kg	15"	12" x 14"	264 lbs
HIBSD-16PS-30KG	60 lbs/30 kg	33"	16" x 20"	132lbs
HIBSD-16PS-60KG	130 lbs/60kg	33"	16" x 20"	264 lbs
HIBSD-16PS-150KG	330 lbs/150kg	33"	16" x 20"	660 lbs
Stainless Steel Frame Versions	Capacity	Indicator Column	Platter Size	Safe Load Limit
	Capacity 30lbs/15 kg			Safe Load Limit 66 lbs
Frame Versions		Column	Size	
Frame Versions HIBSD-12SS-15KG	30lbs/15 kg	Column 15"	Size	66 lbs
Frame Versions HIBSD-12SS-15KG HIBSD-12SS-30KG	30lbs/15 kg 60 lbs/30 kg	Column 15" 15"	Size 12" x 14" 12" x 14"	66 lbs 1 32 lbs
Frame Versions HIBSD-12SS-15KG HIBSD-12SS-30KG HIBSD-12SS-60KG	30lbs/15 kg 60 lbs/30 kg 130 lbs/60kg	Column 15" 15" 15"	Size 12" x 14" 12" x 14" 12" x 14"	66 lbs 132 lbs 264 lbs





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## **PROCESS WEIGHING**

- Piece Count. Portion Control
- Minor Ingredients or Hand-Add applications
- Small Batch Reactor Applications in Chemical/Biochemical
- Machine Filling and Dispensing
- Conveyor Scales
- Shipping



## Features THE HARDY **PROCESS TOOLBOX**

The Hardy Process Toolbox is a set of productivity tools that delivers value across process

weighing functions. Each tool saves time, increases accuracy, improves efficiency or reduces risk in your process weighing applications.



#### **Electronic calibration without test** weights

Vibration immunity from mechanical noise

## WAVERSAVER®

#### 33 lbs to 1,300 lbs Capacities

**EDS Add-On-Profiles** 

Faceplate/AOIs (6500/6510 models)

#### **Overload Protection**

- 300% R.O.\* Overload
- 400% R.O. Ultimate Load

(\*Rated Output)

#### **IIoT Ready Intelligent Scale with Integrated Communications**

The new Hardy E-Scale Bench scale series is the world's first IIoT-ready (Industrial Internet of Things) scale base. It includes an integrated Hardy weight processor for direct network connection for either EtherNet/IP® or Profibus-DP<sup>®</sup> networks. Depending on configuration, the E-Scale offers complete flexibility in size and capacity for use in many weighing applications. E-Scales eliminate possible failure points and save the cost of extra splice-boxes and other components.

With their rugged construction and stainless steel tops, E-Scales are a great fit for dry food processing, laboratory and industrial installations. The E-Scale line of bench scales comes in a variety of configurations with a built-in interface for direct connection to a PLC, PAC, DCS or PC. All E-Scales come standard in 12"x12" and 24"x24" sizes, and range in capacity from 33 lbs – 1300lbs (15 to 600 kg).

The covers are all stainless steel for durability. The bases have no bearings, spirit levels, or moving parts that can be damaged or wear out. They feature the Hardy Process Toolbox, including Waversaver<sup>®</sup>, C2<sup>®</sup>, Webserver, and Rockwell Automation integration tools such as Faceplates, and Add-on-profiles.

#### E-SCALE-6500 or 6510\*\*

IoT ready scale with integrated weight processing and communications. No DIN or panel space is required. The E-Scale-6500 or 6510 delivers stable processed weight with a resoluton of 1:10:000, and a speed of 110 updates per

second (processor, display and comm.). Industrial Network protocols supported include:

Hardy E-Scale<sup>™</sup>

World's First IIoT Ready Scale Base

- EtherNet/IP (-EIP models)
- Ethernet UDP
- Ethernet TCP/IP(Embedded Webserver)
- Modbus RTU
- Modbus TCP (-EIP models)
- Profibus-DP (-PB models)
- Analog 4-20 mA (6510 models only)

\*\* User must supply 24VDC power to the scale

#### E-SCALE-6610\*

Capable of powering up to 20 scales daisy chained up to 50 ft from beginning to end to a single Hardy HI 6600 Gateway Module. The Gateway Module provides a Single Ethernet connection back to the PLC/PAC or PC - No additional power is required! Gateway Module has an optional panel mount multichannel display (multichannel) that can be used to operate connected E-Scales.

HI6600 Gateway communications include:

- EtherNet/IP (-EIP models)
- Ethernet TCP/IP(Embedded Webserver) Modbus RTU

Even in noisy environments with excessive amounts of mechanical vibration, the E-Scale-6610 provides a steady 1:10:000 resolution with 110 updates per second over its variety of communications protocols.



## **Hardy Floor Scales and Load Points**

Hardy carries a wide variety of strain gauge load points and scale mounts to accommodate your application requirements.



## Weighing Instruments Dedicated to Your Applications

Controllers, Weigh Modules, Weight **Processors & Transmitters** 

> Allen-Bradley® Compatible Plug-in Weigh Scale Modules







## **SPECIFICATIONS**

#### Platter Construction

- 304 Stainless Steel (all models) • Size: 12" x 12" and 24" x 24
- Rated Output • 0.900 ± 0.0009mV/V
- **Combined Error**
- 0.030 %R.O.
- Creep @ 30 min
- 0.030 %R.0.
- Zero Balance
  - 5.0 % R.O.
- Temp Effect Output
- 0.0015% R.O./ °F
- Temp Effect Sensitivity
- 0.0008 % R.O./ °F

#### Temp. Range

- Operating -10 +40°C Storage -10 - +65°C
- <u>Resistance</u>
  - Input: 297.5  $\pm$  10% ohm
  - Output:  $250 \pm 5\%$  ohm
- Safe Load Limit: 300 % Emax

#### Ultimate Load Limit: 400 % Emax Max. Cornering Error

- 0.06% 1/2 full scale load, 1/2 way to corner Resolution
  - Stable processed weight 1:10,000
  - Maximum displayed resolution: 1:999,999
  - Internal resolution 1:8.388.608

#### Update Rate

- 110 times per second (processed weight, display, communications)
- Unprocessed weight (A/D conversion) 4800 times per second
- Modes: Gross, Net, Count

#### Units of Measure

- Ounce, Pound, Ton, Gram, Kg, Pieces
- Weight Processing
  - WAVERSAVER<sup>®</sup>: .25 Hz to 7.5 Hz
- Averaging: 1 to 255 User-selectable in single increments

#### **Calibration Methods:**

- C2<sup>®</sup> calibration without test weights
- Traditional calibration with test weights

#### **Communications Interface**

- Terminal, RJ-45 (6500)
- RJ45 / Cat5e (6610)
- Optional HI 6110 Display (6610 only)
  - 80:1 contrast ratio with 4.3" effective viewing area
  - 140° viewing angle
  - Control configure, and view one to four scales on a single front panel simultaneously

#### Power

- 24 VDC from supplied power source (6500 models)
- 24 VDC, Class 2 Source, max 3.9 Watts from HI 6600 Gateway (6610 models)

Approvals: UL and CE

Warranty: Two years against defects in workmanship

#### **Hardy E-Scale Models**

E

E

Model Number	Dimensions		Recommended Capacity	
HI6610 Models	Inches	mm	Lbs / Kg	Divisions Lb/Kg
E-SCALE-6610-1212-33	11.75" x 11.75"	298 x 298	33 / 15	0.01 / 0.01
E-SCALE-6610-1212-66	11.75" x 11.75"	298 x 298	66 / 30	0.02 / 0.01
E-SCALE-6610-1212-130	11.75" x 11.75"	298 x 298	130 / 60	0.05 / 0.02
E-SCALE-6610-2424-130	23.62" x 23.62"	600 x 600	130 / 60	0.05 / 0.02
E-SCALE-6610-2424-330	23.62" x 23.62"	600 x 600	330 / 150	0.1 / 0.05
E-SCALE-6610-2424-660	23.62" x 23.62"	600 x 600	660 / 300	0.2 / 0.1
E-SCALE-6610-2424-1300	23.62" x 23.62"	600 x 600	1,300 / 600	0.5 / 0.2

NOTE: All E-SCALE-6610 versions require HI6600 Gateway Module to Operate

Model Number	Dimens	ions	Recommended Capacity	
HI 6500 Models with EIP	Inches	mm	Lbs / Kg	Divisions Lb/Kg
E-SCALE-6500EIP-1212-33	11.75" x 11.75"	298 x 298	33 / 15	0.01 / 0.01
E-SCALE-6500EIP-1212-66	11.75" x 11.75"	298 x 298	66 / 30	0.02 / 0.01
E-SCALE-6500EIP-1212-130	11.75" x 11.75"	298 x 298	130 / 60	0.05 / 0.02
E-SCALE-6500EIP-2424-130	23.62" x 23.62"	600 x 600	130 / 60	0.05 / 0.02
E-SCALE-6500EIP-2424-330	23.62" x 23.62"	600 x 600	330 / 150	0.1 / 0.05
E-SCALE-6500EIP-2424-660	23.62" x 23.62"	600 x 600	660 / 300	0.2 / 0.1
E-SCALE-6500EIP-2424-1300	23.62" x 23.62"	600 x 600	1,300 / 600	0.5 / 0.2

Model Number HI 6510	Dimensions		Recommended Capacity	
With EIP & Analog	Inches	mm	Lbs / Kg	Divisions Lb/Kg
E-SCALE-6510EIP-1212-33	11.75" x 11.75"	298 x 298	33 / 15	0.01 / 0.01
E-SCALE-6510EIP-1212-66	11.75" x 11.75"	298 x 298	66 / 30	0.02 / 0.01
E-SCALE-6510EIP-1212-130	11.75" x 11.75"	298 x 298	130 / 60	0.05 / 0.02
E-SCALE-6510EIP-2424-130	23.62" x 23.62"	600 x 600	130 / 60	0.05 / 0.02
E-SCALE-6510EIP-2424-330	23.62" x 23.62"	600 x 600	330 / 150	0.1 / 0.05
E-SCALE-6510EIP-2424-660	23.62" x 23.62"	600 x 600	660 / 300	0.2 / 0.1
E-SCALE-6510EIP-2424-1300	23.62" x 23.62"	600 x 600	1,300 / 600	0.5 / 0.2

#### NOTE: All E-SCALE-6500 versions require separate 24VDC Powe

Model Number	Dimensions		Recommended Capacity	
HI 6500 with Profobus DP	Inches	mm	Lbs / Kg	Divisions Lb/Kg
E-SCALE-6500PB-1212-33	11.75" x 11.75"	298 x 298	33 / 15	0.01 / 0.01
E-SCALE-6500PB-1212-66	11.75" x 11.75"	298 x 298	66 / 30	0.02 / 0.01
E-SCALE-6500PB-1212-130	11.75" x 11.75"	298 x 298	130 / 60	0.05 / 0.02
E-SCALE-6500PB-2424-130	23.62" x 23.62"	600 x 600	130 / 60	0.05 / 0.02
E-SCALE-6500PB-2424-330	23.62" x 23.62"	600 x 600	330 / 150	0.1 / 0.05
E-SCALE-6500PB-2424-660	23.62" x 23.62"	600 x 600	660 / 300	0.2 / 0.1
E-SCALE-6500PB-2424-1300	23.62" x 23.62"	600 x 600	1,300 / 600	0.5 / 0.2

NOTE: All E-SCALE-6500 versions require separate 24VDC Power



#### **Hardy Process Solutions**

10075 Mesa Rim Road San Diego, CA 92121 tel. +1-858-278-2900 tel. 800-821-5831 www.hardysolutions.com hardyinfo@hardysolutions.com



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E-SCALE 032020 0400-E-SCALE-01D



# **ANY-WEIGH® Bench Scales**

## **Applications**

## **PROCESS WEIGHING**

- Check Weighing
- Hand Ads
- Filling
- Laboratory
- Force



## Features

## C2<sup>®</sup> Electronic Calibration

 Electronic calibration without test weights



## ANY-WEIGH<sup>®</sup> Standard Features

- Stainless Steel
- Solid Construction
- Low Profile

#### Universal

• C2 Electronic Calibration

#### Analog

- Built-in 4-20mA Communications
- Pre-Calibrated

#### **DeviceNet**

- Built-in DeviceNet Communications
- Pre-Calibrated
- WAVERSAVER®
- C2 Electronic Calibration
- THE BUTTON One Touch Calibration

The ANY-WEIGH<sup>®</sup> Bench scales provide complete flexibility in size and capacity for use in a wide range of weighing applications. With their rugged construction and stainless steel tops, ANY-WEIGH Scales are a great fit for both laboratory and industrial installations.

The ANY-WEIGH line of bench scales can be configured with standard interfacing to a weight instrument or with a built-in, direct connection to a PLC, PAC, DCS or PC.

#### **C2® ELECTRONIC CALIBRATION**

With a push of a button in a Hardy Controller, C2 enables a fast, accurate, electronic calibration without test weights. The C2 system reduces downtime for installation or repairs and eliminates test weight related injuries.

#### **UNIVERSAL SCALE (HI SBU Series)**

Directly attach the scale's 15-foot cable to any weighing instrument or controller. If interfacing with a Hardy Controller, you can take full advantage of WAVERSAVER<sup>®</sup>, and C2 Electronic Calibration.

#### **ANALOG SCALE (HI SBA Series)**

Use the Analog output scale to provide 4-20mA output directly proportional to the weight reading. This version offers a low-cost, effective solution for bringing an analog weight reading directly into a control system, with minimal additional wiring or hardware, and comes with a 15-foot two-wire shielded cable. The scale comes pre-calibrated from the factory but provides potentiometers for coarse and fine zero adjustment as well as span.

#### **DEVICENET SCALE (HI SBD Series)**

With its built-in DeviceNet interface you can use this scale to provide a weight output to any point on a DeviceNet Network. This version also incorporates both the WAVERSAVER and C2 technologies, and comes with a six-inch pig-tailed connector.

Just set an address, connect to your network, configure and you're up and running. The scale features outputs for Gross, Net and Tare weight values and inputs for Zero and Tare commands. A Command interface provides easy access to all parameters without the need for explicit messages.

Need to recalibrate? One push of "THE BUTTON" automatically recalibrates the scale. The scale also supports C2 electronic calibration over its DeviceNet interface. WAVERSAVER eliminates the effects of vibration on the scale resulting in a clean accurate weight signal being transmitted over DeviceNet. The scale provides 20-bit resolution with a selectable conversion rate choice of 10 or 55 updates per second.

## **Use ANY-WEIGH Bench Scales for:**

- Filling & Dispensing
- IBC Dispensing
- Batching/Blending
- Check Weighing
- Flow Rate Monitoring
- Flow Rate Control
- Force Measurement
- Level Measurement/Control

## Weighing Instruments **Dedicated to Your Applications**

**Controllers, Weight Modules, Transmitters** 

Allen-Bradley<sup>®</sup> Compatible Plug-in Weigh Scale Modules



HI 3000 & HI 4000 Controllers and HI 6000 Series Weight Processors



## **Hardy Load Cells**

Hardy carries a wide variety of Load Cells to accommodate your application requirements.





## **SPECIFICATIONS**

#### **Universal Scale (SBU)** Rated Output

• 0.900 ± 0.0009mV/V Combined Error • 0.030 %R.O. Creep @ 30 min • 0.030 %R.O. Zero Balance • 5.0 % R.O. Temp Effect Output • 0.0015% R.O./ °F TempEffect Sensitivity • 0.0008 % R.O./ °F Comp.Temp. Range • -10 - + 40°C Oper. Temp. Range •  $-10 - +65^{\circ}C$ Input Resistance • 297.5 ± 10% ohm **Output Resistance** • 250 ± 5% ohm **Excitation** • 5-15 Volts Safe Load Limit • 300 % Emax Ultimate Load 400% Emax Max. Cornering Error • 0.06% 1/2 full scale load, 1/2 way to corner

#### Warranty

**MODEL** #

• Two year warranty against defects in workmanship

**ORDERING INFORMATION** 

## **DeviceNet Out (SBD)**

Resolution • 20 bit

Update Rate • 10 or 55 per second depending on WAVERSAVER settings

#### Averages • 0-255 selectable

Temp Coefficient

• <0.0023%/C</p>

Input Power 11-25VDC

```
Type
```

• Generic I/O Slave Message

Polling

**Baud Rates** • 125K, 250K, 500K

Inputs

## • Gross, Net, Tare

- **Outputs** • Weight: Metric/Engl.,Zero & Tare
  - WAVERSAVER
  - Calib . Type

  - Span Weight (Hard Cal) Cal Low Value

  - Cal High Value
- # of Averages

#### Warranty

SIZE

in/mm

- Two year warranty against defects in workmanship

CAPACITY

lh/ka

## Analog Out (SBA)

#### Loop Power

- 15-50VDC across scale.
- A 15V min, would be with 0 ohm load; add 20mV/ohm to the min. loop voltage.
- A 500 ohm load would require 25V min. loop voltage.

#### Linearity

• 0.11% of full scale

#### **Response Time**

- 250 milliseconds
- Temp. Range
  - 0 to 60°C

#### Temp. Coefficient

• 0.025%/°C

#### Warranty

**HEIGHT** 

in /mm

• Two year warranty against defects in workmanship

All specifications subject to change without notice. Please contact the Hardy factory or visit our website for the latest specifications.

WEIGHT

lh/ka

	111/11111	ib/kg		ID/ Kg
HI 1212SB33	12″ x 12″ / 298 x 298	33/15	1.54/39.1	14/6.4
HI 1212SB66	12″ x 12″ / 298 x 298	66/30	1.56/39.6	14/6.4
HI 1212SB130	12″ x 12″ / 298 x 298	130/60	1.62/41.2	14/6.4
HI 2424SB130	24" x 24" / 600 x 600	130/60	1.62/41.2	52/23.6
HI 2424SB330	24" x 24" / 600 x 600	330/150	1.65/41.9	52/23.6
HI 2424SB660	24" x 24" / 600 x 600	660/300	1.87/47.5	52/23.6
HI 2424SB1.3K	24" x 24" / 600 x 600	1300/590	2.05/52.1	52/23.6

#### SBU: Universal SBD: DeviceNet SBA: Analog

## **Hardy Process Solutions**

10075 Mesa Rim Road San Diego, CA 92121 tel. +1-858-278-2900 tel. 800-821-5831 fax +1-858-278-6700 www.hardysolutions.com hardyinfo@hardysolutions.com





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AW BS 0621 0400-0014-01D



## **PROCESS WEIGHING**

- Minor Ingredients or Hand-Add applications
- Small Batch Reactor Applications in Chemical/Biochemical
- Product Inspection: Checkweighing,
- Piece Count, Portion Control
- Shipping





## **Features**

#### **Sanitary Washdown**

- 304 Stainless Steel base and platter
  - IP67 Rated Load Cell
  - Closed corners on platform cover
  - Withstands high pressure and high temperatures

#### **HARDY Load Sensor**

- Stainless Steel
- Corner adjusted

#### Capacities from 2 lbs to 100 lbs

#### Sizes from 10" x 10" to 18" x 18"

#### **NTEP Certification**

#### **Overload Protection**

- 300% R.O.\* Overload
- 100% R.O. End Loading
- 100% R.O. Corner Loading

(\*Rated Output)

The Hardy Process Solutions Enviro<sup>™</sup> bench scale meets the needs of the food and chemical industries for sanitary scales that withstand high-pressure, high-temperature washdown environments.

All Hardy Enviro Scales come standard in 10"x10", 12"x12" and 18"x18" and range in capacity from 2 lbs – 100 lbs (0.90 kg to 45.4 kg).

Made of 304 stainless steel and featuring an IP67 rated load cell, the Enviro washdown bench scales are designed for easy cleaning and sanitizing. Welds are continuous, which prevents processing materials and mosture from accumulating and forming colonization points for harmful bacteria like Salmonella, E. Coli, and Listeria Monodytogenes.

Closed corners on the platform cover prevent splash collection of water or processing materials inside the scale. Busing and spacers are used to eliminate lap joints and faciltate quick and easy cleaning. The ultra-smooth stainless platter resists surface penetration and is easy to clean, adhering to the AMI's strict standards for safety in RTE areas and other production applications. The superior sanitary design and durable stainess steel construction of the Enviro<sup>™</sup> washdown bench scales are a perfect foundation for a reliable sanitary bench scale configuration.

At Hardy, we believe that industrial weighing systems should be EASY to engineer and to operate. Simplicity drives the LEAST TOTAL COST. Want MORE PRODUCTIVITY at the LEAST TOTAL COST to own? Call Hardy to discover how today!



## Hardy Floor Scales and Load Points

Hardy carries a wide variety of strain gauge load points and scale mounts to accommodate your application requirements.



## Weighing Instruments Dedicated to Your Applications

Controllers, Weigh Modules, Weight Processors & Transmitters

> Allen-Bradley® Compatible Plug-in Weigh Scales





## Hardy Enviro Bench Scale

#### **Specifications**

- IP Rating: • IP67
- Load Cell Type:
- Stainless Steel, Potted Base Construction:
  - 304 Stainless Steel
- Platter Construction:
  - 304 Stainless Steel
- Capacity Range:
- 2lb to 100lb
- Minimum Overload Protection:
- 300% Rated Capacity Minimum End Loading Protection:
- 100% Rated Capacity
- Minimum Corner Loading Protection:
  - 100% Rated Capacity
- Legal for Trade Rating:
  - NTEP
- Resolution:
  - 5,000 divisions of full scale

Sanitary Specification:

 Follows sanitary specifications for processing equipment developed by the American Meat Institute (AMI)

<u>Standard Sizes:</u>

- 10" x 10" x 2.89" H
- 12" x 12" x 3.10" H
- 18" x 18" x 3.87" H

#### Shipping Weight

- 10" x 10": 25 lbs (11.34kg)
- 12" x 12": 38 lbs (17.2 kg)
- 18" x 18": 59 lbs (26.8 kg)

#### **Standard Sizes and Capacities**

Model #	Platter Size	Capacity
HIWDPS-1010-0002	10" x 10"	2 lb
HIWDPS-1010-0006	10" x 10"	6 lb
HIWDPS-1010-0010	10" x 10"	10 lb
HIWDPS-1010-0025	10" x 10"	25 lb
HIWDPS-1212-0030	12" x 12"	30 lb
HIWDPS-1212-0050	12" x 12"	50 lb
HIWDPS-1818-0050	18" x 18"	50 lb
HIWDPS-1818-0100	18" x 18"	100 lb





#### Hardy Process Solutions

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- Visit our website for:
- full product specifications
- ordering information
- application notes technical description
- reconnical description
   operator's manual
  - www.hardysolutions.com or call us: 800-821-5831 +1-858-278-2900



# **Hardy Floor Scales**

## **Applications**

## **PROCESS WEIGHING**

- Inventory Management
- Batching & Blending
- Dispensing & Filling
- Check Weighing
- Shipping



## Features THE HARDY PROCESS TOOLBOX

The Hardy Process Toolbox is a set of productivity tools that delivers value across process

weighing functions. Each tool saves time, increases accuracy, improves efficiency or reduces risk in your process weighing applications.



# Electronic calibration without test weights

Weighing system monitoring and troubleshooting

#### HARDY ADVANTAGE<sup>®</sup> Load Cells

• Factory Matched, Stainless Steel with True Hermetic Seals; No Cornering

## **Hazardous Area Certification**

• Class I, II, 111, Div 1 and Div 2

Capacities Range from 1,000 to 10,000 lbs

#### **Top Access Summing Card**

**100% End Loading** 

Hardy's accurate, rugged and reliable floor scales provide value and flexibility in size and capacity for use in a wide range of industrial weighing applications. Rated for 250,000 load cycles under normal loading conditions,\* they are built to last.

#### **HAZARDOUS AREA CERTIFICATION**

Hardy Floor Scales are designed and built for industrial environments, including heavy washdown and hazardous areas, with Class I, II, III, Div. 1 & 2 certification. Incredibly easy to install and use; just level the deck, attach the included twenty-foot cable, calibrate (if a C2<sup>®</sup> compatible instrument, set your reference), verify and begin weighing.

Available in eight sizes from 30 x 30 inch to 72 x 96 inches in 1, 2.5, 5, and 10 klb capacities, Hardy floor scales have two threaded holes in the decks for attaching eyebolts to facilitate installation and cleaning.

#### **C2® ELECTRONIC CALIBRATION**

Used with a Hardy weight processor or controller, C2 enables fast, accurate, electronic calibration without test weights. The C2 system reduces downtime for installation or repairs and eliminates test weight related injuries.

#### **INTEGRATED TECHNICIAN®**

Each scale has built-in INTEGRATED TECHNICIAN (IT) circuitry. Coupled with a Hardy controller or instrument, the scale provides diagnostic and troubleshooting tools that read individual weights and voltages to aid you in isolating problems and ensure the integrity of your scale system.

#### **SERVICE BY DESIGN**

Along with C2 and INTEGRATED TECHNICIAN, all Hardy floor scales feature a top access plate for quick and easy access to the NEMA 4X summing box containing the Hardy 6011 Summing Card, ensuring that general maintenance is easier and more time-efficient.

#### **HERMETICALLY SEALED LOAD SENSORS**

The heart of any scale is the load sensors. All Hardy floor scales come standard with four matched Hardy ADVANTAGE<sup>®</sup> stainless steel, true hermetically-sealed sensors — sealed at both the gauging area and cable entry for long life. All are matched and calibrated for mV/V and mV/V/ohm. This eliminates the need for corner adjustment and potentiometers in the junction box, allowing a sensor to be replaced without calibration. Instead of the typical threaded hole into which the load cell foot is attached, the ADVANTAGE sensors use a blind hole technique ensuring the load is applied at a precise location to provide an accurate reading, weighment after weighment.

#### **RUGGED, LOW PROFILE DESIGN**

With a deck height of only 4.0 inches and 100% end loading, these floor scales enable easy, anyside access and maneuvering of all types of load handling equipment onto the scale.

Each scale features a field-proven, rugged structural rib design with 1/4 inch thick smooth or diamond plate deck that can withstand overloads of up to 100% of its capacity. Durable rubber encapsulated feet provide easy height adjustment.

\*Contact Hardy for more information

www.hardysolutions.com • 800-821-5831

## Hardy Bench Scales, Floor **Scales and Load Points**

Hardy carries a wide variety of strain gauge load points and scale mounts to accommodate your application requirements.



#### Weighing Instruments **Dedicated to Your** Applications

Controllers, Weigh Modules, Weight Processors & Transmitters

> Allen-Bradley® Compatible Plug-in Weigh Scale Modules







## **SPECIFICATIONS**

#### Platform

- 0.25" inch thick smooth or safety tread deck Deck Height
  - 4.0 inches (10.2 cm) (adjustable 0.2" or 5 mm)

## **Overload Capacity**

- 200% of rated scale capacity
- End Loading
  - 100% of rated scale capacity

## Cable Length

- Platform to Instrument 20 feet (for longer cable lengths, contact the Factory)
- Construction • 304 SS Stainless Steel
  - Painted Carbon Steel with Two-part UV resistant
- Polyurethane 2 to 4 mil top coat

## Load Sensors

- C2<sup>®</sup> stainless steel
- hermetic seal
- blind hole loading
- Junction Box
- NEMA 4X
- Power Rating
  - 5 VDC, Class 2 source, max. 50 mA

#### Hardy 6011IT Summing Card

- 4 Individual load sensor terminal blocks with integrated cable glands
- INTEGRATED TECHNICIAN<sup>®</sup> circuitry
- For Class I and II, Division 1 Hazardous (Classified)
- Locations, and Class 1, Zone O and 2 Groups IIC, Zone 20 and 22 Groups IIIC, power must be supplied through intrinsically safe barriers per control drawing 0594-0010

## Scale Excitation

- 5vdc +/-5%
- **Optional Eye Bolts** 
  - 1/2 13 x 1-1/2", 2-1/4" diameter eye

#### Duty Cycle

• +250,000 load cycles under normal loading conditions\*

\*Contact Hardy for further information

- Accuracy
  - Combined Error: 0.02%
- Repeatibility: 0.01%
- Certifications
  - UL, CUL, CE RoHS and REACH Compliant
  - Hazardous Areas: Class I, Division 1, Groups A, B, C, D, T4; Zone O, Group IIC, T4; Division 2, Groups A, B, C, D, T5
  - Class II, Division 1, Groups E, F, G, T4; Zone 20, Group IIIC: Division 2. Groups F. G. T5
  - Class III, Division 1, T4; Division 2, T5

#### Warranty

-T

• Two year limited warranty

#### **ORDERING OPTIONS**

- -PS Painted Steel Platform Top
- -SS Stainless Steel Platform Top
- -S Smooth Platform Top
  - Tread Plate Platform Top

## **STANDARD SIZES AND CAPACITIES**

SIZE (feet/cm)	CAPACITY (lb/kg)	HEIGHT (in/cm)	SHIP (lb/kg)
30" x 30" / 76 x 76	1000/500	3.375″/8.6 cm	200/91
	2500/1000	3.375″/8.6 cm	200/91
	5000/2500	3.375″/8.6 cm	200/91
3′ x 3′ / 91 x 91	1000/500	3.375″/8.6 cm	250/113
	2500/1250	3.375″/8.6 cm	250/113
4′ x 4′ / 122 x 122	2500/1250	3.375″/8.6 cm	405/184
	5000/2250	3.375″/8.6 cm	405/184
	10,000/4500	3.375″/8.6 cm	405/184
4′ x 5′ / 122 x 152	5000/2250	3.375″/8.6 cm	500/227
	10,000/4500	3.375″/8.6 cm	500/227
4′ x 6′ / 122 x 183	5000/2250	3.375″/8.6 cm	600/272
	10,000/4500	3.375″/8.6 cm	600/272
5′ x 5′ / 152 x 152	5000/2250	3.375″/8.6 cm	650/295
	10,000/4500	3.375″/8.6 cm	650/295
5′ x 7′ / 152 x 213	5000/2250	3.375″/8.6 cm	900/408
	10,000/4500	3.375″/8.6 cm	900/408
6' x 8' / 183 x 244	10,000/4500	3.375″/8.6 cm	1150/522

#### HARDY FLOORSCALE ACCESSORIES

Enables you to easily configure a solution to meet your individual applications!

- Ramps • Pit Frames
- Bumper Guards
- Bolt Down Plates
- Instrument pedestal
- Portability Frames





Instrument Pedestal

Pit Frames **HIFSPF** Series Also Available: Lift Deck Scales

**Portability Frames** 

**Bumper Guards HIFSBG** Series

#### **Hardy Process Solutions**

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**HIFSPK** Series

PROCESS SOLUTIONS

Measurement • Automation • Productivity

## HAR FLR 042020 0400-0024-01D



## **PROCESS WEIGHING**

- Inventory Management
- Batching & Blending
- Dispensing & Filling
- Shipping



**Hardy Lift Deck Floor Scales** 

**Designed for Use In Hazardous Areas** 

## Features THE HARDY PROCESS TOOLBOX

The Hardy Process Toolbox is a set of productivi-

ty tools that delivers value across process weighing functions. Each tool saves time, increases accuracy, improves efficiency or reduces risk in your process weighing applications.



Electronic calibration without test weights

Weighing system monitoring and troubleshooting

Hardy ADVANTAGE<sup>®</sup> Load Sensors • Factory Matched, Stainless Steel with True Hermetic Seals; No Cornering

#### Capacities Range from 1,000 to 5,000 lbs

Hazardous Area Certification • Class I, II, 111, Div 1 and Div 2

#### **Top Access Summing Card**

**100% End Loading** 

Hardy Process Solutions now has a line of lift-deck, hazardous area wash down scales to meet the needs of the most demanding, applications.

These process weighing scales combine best-inclass durability with Hardy's Process Toolbox features: weightless calibration (C2<sup>®</sup>) and operator diagnostics (INTEGRATED TECHNICIAN<sup>®</sup>). Hardy Lift Deck Floor Scales offer manufacturers multiple ways to reduce their maintenance costs and downtime.

#### **DESIGNED FOR ANY ENVIRONMENT**

Hardy Lift Deck Floor Scales are designed and built for industrial environments, including heavy washdown and hazardous areas, with Class I, II, III, Div. 1 & 2 certification. Incredibly easy to install and use with the latest advancements in weighing technology. Just level the deck, attach the included twenty-foot cable, calibrate (if a C2<sup>®</sup> compatible instrument, set your reference), verify and begin weighing.

Available in three sizes from 36 x 36 inch to 60 x 60 foot in 1, 2, and 5 thousand pound capacities. Hardy Lift Deck floor scales have two handles on the decks for easy lifting to facilitate installation and cleaning.

#### **C2® ELECTRONIC CALIBRATION**

With a Hardy weight controller, C2<sup>®</sup> load sensors enable fast, accurate, electronic calibration without test weights at just a push of a button The easy-to-use C2<sup>®</sup> system reduces downtime for installation and repairs and eliminates test weight related safety risks.

#### **INTEGRATED TECHNICIAN®**

Each scale has built-in INTEGRATED TECHNICIAN<sup>®</sup> (IT) circuitry. When coupled with a Hardy controller, the scale provides diagnostic and troubleshooting tools that read individual weights and voltages to aid you in isolating problems. Together, Hardy C2<sup>®</sup> and IT eliminate the need to open the junction box. The junction box remains sealed reducing the risk of sparks in hazardous areas.

#### HERMETICALLY SEALED LOAD SENSORS

The heart of any scale is the load sensors. All Hardy Lift Deck floor scales come standard with four matched Hardy ADVANTAGE<sup>®</sup> IP69K stainless steel, true hermetically-sealed sensors — sealed at both the gauging area and cable entry for long life. All are matched and calibrated for mV/V and mV/V/ ohm. This eliminates the need for corner adjustment and potentiometers in the junction box, allowing a sensor to be replaced without calibration. Hardy ADVANTAGE<sup>®</sup> sensors use a blind hole technique ensuring the load is applied at a precise location to provide an accurate reading, weighment after weighment.

#### **RUGGED, LOW PROFILE DESIGN**

Rated for 250,000+ load cycles under normal loading conditions,\* these lift deck floor scales are built to last. With a deck height of only 4.2 inches and 100% end loading, Hardy Lift Deck Floor Scales feature a hydraulic system that enables one person to easily lift the deck for cleaning. Durable rubber-based feet are height adjustable from below the platform for easy leveling.

\*Contact Hardy for more information

## Hardy Bench Scales, **Floor Scales and Load Points**

Hardy carries a wide variety of strain gauge load points and scale mounts to accommodate your application requirements.

**ADVANTAGE** Series



## **Weighing Instruments** Dedicated to Your Applications

Controllers, Weigh Modules, Weight **Processors & Transmitters** 

> Allen-Bradley® Compatible Plug-in Weigh Scale Modules



HI 3000 & HI 4000 Controllers and HI 6000 Series Weight Processors





## **SPECIFICATIONS**

#### Platform

• 0.25 inch thick smooth or safety tread deck

## Height

- 4.2-4.4 inches (10.6 -11.2 cm) adjustable 0.2" or 5 mm
- Accuracy
  - Combined Error: 0.02%
- Repeatability: 0.01%
- **Overload Capacity** 
  - 100% of rated scale capacity

#### End Loading

- 100% of rated scale capacity
- Cable Length
- Platform to Instrument 20 feet
- (for longer cable lengths, contact the Factory) Construction
  - Stainless Steel Type 304
- Duty Cycle
  - +250,000 load cycles under normal loading conditions\*

#### Load Sensor

- IP69K rating for washdown applications
- C2<sup>®</sup> or manual calibration
- Stainless Steel, hermetically sealed
- blind hole loading
- Summing Card Enclosure
  - NEMA 4x stainless steel

#### Power Rating

- 5 VDC, Class 2 source, max. 50 mA Hardy 6011IT Summing Card
  - 4 Individual load sensor terminal blocks with integrated cable glands

  - For Class I and II, Division 1 Hazardous (Classified) Locations, and Class 1, Zone 0 and 2 Groups IIC, Zone 20 and 22 Groups IIIC, power must be supplied through intrinsically safe barriers per
  - UL, CUL, CE RoHS and REACH Compliant
  - C, D, T4; Zone O, Group IIC, T4; Division 2, Groups

  - Group IIIC; Division 2, Groups F, G, T5
- Warranty



#### **STANDARD SIZES AND CAPACITIES**

SIZE feet/cm	CAPACITY Ib/kg	HEIGHT in/cm	SHIP WEIGHT lb/kg
3′ x 3′ / 91 x91	1000/454	4″/10.2 cm	290/131.5
	2000/907	4″/10.2 cm	290/131.5
	5000/2268	4″/10.2 cm	290/131.5
4′ x 4′ / 122 x 122	1000/454	4″/10.2 cm	440/199.6
	2000/907	4″/10.2 cm	440/199.6
	5000/2268	4″/10.2 cm	440/199.6
5′ x 5′ / 152 x 152	1000/454	4″/10.2 cm	695/315.2
	2000/907	4″/10.2 cm	695/315.2
	5000/2268	4″/10.2 cm	695/315.2

All sizes and capacities are available with either a smooth or tread deck.

#### **ORDERING OPTIONS**

- -S Smooth Platform Top
- -T Tread Plate Platform Top

#### HARDY LIFT DECK FLOOR SCALE ACCESSORIES

A complete line of

- Instrument Pedestals
- Ramps
- Pit Frames

enable you to easily configure a solution to meet your individual applications







Pit Frames **HI FSLDPF Series**  Instrument Pedestal HIFSI-48-SS

\*Contact Hardy for further information

PROCESS SOLUTIONS Measurement • Automation • Productivity

#### **Hardy Process Solutions**

10075 Mesa Rim Road tel. +1-858-278-2900 tel. 800-821-5831

www.hardysolutions.com hardyinfo@hardysolutions.com



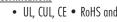
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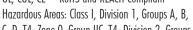
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- Scale Excitation • 5vdc +/-5% **Certifications**
- INTEGRATED TECHNICIAN® circuitry

control drawing 0594-0010







A, B, C, D, T5



• Class III, Division 1, T4; Division 2, T5









# Notes:

# **Proven Solutions**

For more than 100 years Hardy Process Solutions, headquartered in San Diego, California, has been providing innovative process control solutions. 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.

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