



DEFENDER® 6000

Extreme Washdown Bench Scales



WEIGHT IT. SPRAY IT.

Precise, versatile, and remarkably durable.
Defender 6000 is equipped to handle your most demanding weighing applications.

Ingeniously Practical



WEIGH IT. SPRAY IT.

Precise, Versatile, and Remarkably Durable.

The new NSF-certified **Defender 6000** is built to withstand your most demanding weighing applications. This all new line of extreme washdown bench scales are specifically designed to enhance food safety and reduce downtime with durable, water-tight construction and advanced features to suit a range of weighing applications.

Defender 6000 supports HACCP systems with a 316 stainless steel platform and frame, and an advanced washdown indicator with an IP69K stainless steel load cell, so it can endure high-pressure wash downs and extreme temperatures common in food and chemical industry applications.

DEFENDER 6000

Extreme Washdown Bench Scale

A Higher Level of Performance and Durability

It's versatile, precise, and extremely durable. The new Defender 6000 Extreme Washdown Bench Scale is thoughtfully designed for IP69K washdown protection and constructed to meet the demands of industries where reliable precision is essential and the working conditions can be harsh, such as in industrial packaging and processing.

The easy-to-clean Defender 6000 is rugged enough to handle the extreme rigors of the food, chemical, and pharmaceutical industries, yet it boasts all the advanced features operators require to meet their complex weighing needs.

For years, the OHAUS Defender has been the bench scale preferred by operators in the food, chemical, and pharmaceutical industries for their remarkable durability, precision, and versatility. The all new Defender 6000 takes industrial weighing performance to a higher level.

Defender 6000 is easy to clean, easy to operate, and offers the reliable precision you've come to expect from OHAUS. And its durable construction allows you to simply weigh it and spray it.



Models



Column Mount Bench Scale - Stainless Steel Indicator					
Model	i-D61XWE5K1S6	i-D61XWE12K1R6	i-D61XWE25K1R6	i-D61XWE50K1L7	i-D61XWE150K1L7
Capacity x Default Readability	5 kg x 0.5 g 10 lb x 0.001 lb	12.5 kg x 1 g 25 lb x 0.002 lb	25 kg x 2g 50 lb x 0.005 lb	50 kg x 5 g 100 lb x 0.01 lb	150 kg x 10 g 300 lb x 0.02 lb
Maximum Displayed Resolution	1: 10,000	1: 12,500	1: 12,500	1: 10,000	1: 15,000
Capacity x Certified/Approved Readability	5 kg x 1 g 10 lb x 0.002 lb	12.5 kg x 5 g 25 lb x 0.005 lb	25 kg x 5 g 50 lb x 0.01 lb	50 kg x 10 g 100 lb x 0.02 lb	150 kg x 50 g 300 lb x 0.1 lb
Maximum Certified Resolution	1:5,000	1:5,000	1:5,000	1:5,000	1:3,000

Column Mount Bench Scale - Polycarbonate Indicator					
Model	i-D61PW5K1S6	i-D61PW12K1R6	i-D61PW25K1R6	i-D61PW50K1L7	i-D61PW150K1L7
Capacity x Default Readability	5 kg x 0.5 g 10 lb x 0.001 lb	12.5 kg x 1 g 25 lb x 0.002 lb	25 kg x 2g 50 lb x 0.005 lb	50 kg x 5 g 100 lb x 0.01 lb	150 kg x 10 g 300 lb x 0.02 lb
Maximum Displayed Resolution	1: 10,000	1: 12,500	1: 12,500	1: 10,000	1: 15,000
Capacity x Certified/Approved Readability	5 kg x 1 g 10 lb x 0.002 lb	12.5 kg x 5 g 25 lb x 0.005 lb	25 kg x 5 g 50 lb x 0.01 lb	50 kg x 10 g 100 lb x 0.02 lb	150 kg x 50 g 300 lb x 0.1 lb
Maximum Certified Resolution	1:5,000	1:5,000	1:5,000	1:5,000	1:3,000

Front Mount Bench Scale - Polycarbonate Indicator					
Model	i-D61PW5K1S5	i-D61PW12K1R5	i-D61PW25K1R5	i-D61PW50K1L5	i-D61PW150K1L5
Capacity x Default Readability	5 kg x 0.5 g 10 lb x 0.001 lb	12.5 kg x 1 g 25 lb x 0.002 lb	25 kg x 2g 50 lb x 0.005 lb	50 kg x 5 g 100 lb x 0.01 lb	150 kg x 10 g 300 lb x 0.02 lb
Maximum Displayed Resolution	1: 10,000	1: 12,500	1: 12,500	1: 10,000	1: 15,000
Capacity x Certified/Approved Readability	5 kg x 1 g 10 lb x 0.002 lb	12.5 kg x 5 g 25 lb x 0.005 lb	25 kg x 5 g 50 lb x 0.01 lb	50 kg x 10 g 100 lb x 0.02 lb	150 kg x 50 g 300 lb x 0.1 lb
Maximum Certified Resolution	1:5,000	1:5,000	1:5,000	1:5,000	1:3,000

Food Safe Design

The Defender 6000 is NSF certified, USDA-AMS accepted, supports HACCP systems and makes an excellent choice for food processing environments. The base has an open frame base design with no exposed threads, tight corners or other places where material can build up. The column has been designed with an open back for easy cleaning, and optional overpans reduce the build-up of material on the frame. All these features work together to limit the risks from food cross contamination and food-borne illness.



Stands Up to Harsh Cleaning

The durable Defender 6000 is built to withstand harsh use and cleaning with IP68 immersion/IP69K washdown protection. A 316 stainless steel platform and frame, stainless steel loadcell, and sturdy indicators allows Defender 6000 to handle the extreme temperatures, water pressure, and cleaning products commonly used in food processing areas. Defender 6000 will stand up to daily use with 150% overload protection. The knife-proof polycarbonate front panels on the indicators make the displays and keypads puncture resistant to stand up to the knives and shears used on processing lines.

Simple Setup and Operation

Setup is simple with EasyConnect, which downloads the factory calibration from Defender 5000 and 6000 bases into the indicator when the scale is first powered up. If the base is ever replaced, the indicator will automatically sense the change and download the factory information, making service calls more productive.

The Defender 6000 also uses the same menu approach used in all OHAUS industrial scales, reducing time spent on training your service team. For checkweighing operations, a dedicated Target key allows for quick changeovers between product runs and the display shows the weight result in less than a second, speeding throughput.

The Defender 6000 includes menu password protection and key lockouts to avoid downtime and errors due to accidental changes by the operator.

The advanced stainless steel Defender 6000 with the i-D61XWE indicator supports 300 items with item ID, part number, targets, tare weights, and more, allowing for fast changeovers, reducing downtime and packaging errors. Up to 100 user IDs can be stored on this scale for secure user access and traceability.

Software to Fit Operational Needs

Defender 6000 meets the weighing needs of practically any food or chemical processing and packaging application with advanced software, including configurable checkweighing, parts counting, check counting, percent weighing, dynamic weighing, and display hold.

The **Checkweighing mode** can be configured to check portions added onto the platform or portions removed from a full box for both checkweighing and grading uses in processing and packaging. The status of weight on the scale against the targets is clearly shown to the operator by the bright checkweighing light displays, and data on each weight result can be sent to a system with full GMP/GLP data.

The **Counting mode** is widely used in assembly, manufacturing, packaging, and inventory operations and the Defender 6000 can support both standard parts counting and check counting. This mode features APW recalculation which reduces the risk of part count errors due to incorrect sampling.

The **Dynamic Weighing mode** allows the scale to average-out vibrations from other machinery in weighing mode, increasing accuracy in unstable environments. The **Display Hold** feature allows the scale to retain the weight of a package on the display for packaging and material handling applications.

The D61XWE models also provide a **Filling mode** for general processing and packaging applications which can interface with external machinery to create a dedicated filling station. Up to four set points can be used for Filling. The status of weight on the scale against the targets is clearly shown to the operator by the bright dot matrix LED.

Easily Link to Systems

The Defender 6000 is designed for easy connectivity with any standard system and offers GMP/GLP data output with time and date, reducing losses due to manual record keeping, supporting processing efficiency and traceability. The output features configurable print templates customizable for each serial connection – RS232, USB, Ethernet, Wi-Fi or Bluetooth – allowing the print format sent to a label printer to differ from the data sent to a PLC or PC for the same packaged weighed.

With the built-in RS232 and USB host, i-D61XWE models also support a range of connectivity options to interface with printers, PLCs, PCs, and analog loop systems through a 2nd RS232 or RS485 or USB device connection, Analog Output, Ethernet, WiFi or Bluetooth. The included USB host can support a flash drive for logging data for downloading at the end of the shift. Alibi Memory can be supported with an optional kit. In Check or Filling modes, the optional discrete I/O can also be used to drive equipment, like the 3-Color Light Tower accessory which gives an external Hi/Lo/OK status clearly seen across the shop floor.

Using the optional RS232 connector, i-D61PW models can store up to 1,000 weighing results that can be printed or transferred to a PC or system for traceability.

Fast Configuration with ScaleMate

The easy-to-use OHAUS ScaleMate™ software allows for scale configuration, and item data loading and maintenance. Covering most OHAUS industrial scales, ScaleMate also supports manual data transfer from Excel to support the 300 items the i-D61XWE indicator can retain in memory. Alibi data can be exported by ScaleMate for quick reference.





Easy-to-Use Model for Dedicated Operations

The Defender 6000 scale with the i-D61PW indicator features polycarbonate IP69K-protected indicator housings for superior protection against moisture during the hot and cold cycles experienced in processing operations. A moisture meter sticker included inside the clear back housing warns the service team if there is a build-up of moisture in the indicator.

The indicator includes six keys and a large, bright, backlit LCD screen for clear display of the weight on the scale. The easy-to-read 3-color check light bar spans the width of the display. This makes the status of the weight on the pan against targets clearly visible – yellow for Low or under target, green for OK, and red for Hi or over target – and increases throughput and accuracy in portioning, packaging, and grading applications.

The i-DT61PW operates for up to 1,600 hours on one set of batteries for months of use. The battery-powered design eliminates the need for a mains connection for increased flexibility in the processing area. The clear, rear battery housing allows for an easy visual check for battery damage. Batteries can be changed without breaking the approval seal for legal-for-trade applications.



Advanced Model for More Complex Use

The more advanced i-D61XWE model features a 316 stainless steel IP69K-protected indicator for enhanced protection against corrosion from cleaners and additives.

The indicator includes a configurable, multicolor 0.75" x 1.6" bar matrix display for use in Check or Filling modes, dedicated keys and numeric keypad for quick item changeovers, and a touchless sensor for hands-free operation, reducing the risk of contamination.

In addition to the standard software, the i-D61XWE includes a Filling mode for general processing and packaging use. The numeric keypad can also be used to recall any of the 300 items, or up to 100 users stored on the scale, supporting traceability and reducing the risk of processing errors.

i-D61XWE models run on standard mains AC power, and an optional external USB power bank battery holder is available as an accessory.



DEFENDER 6000

Extreme Washdown Bench Scale

Comparison Guide

Features	Defender 6000 PW	Defender 6000 XW	Defender 5000 XW
Indicator	i-DT61PW Indicator	i-D61XWE Indicator	TD52XW Indicator
Platform and Frame Construction	316 stainless steel		304 stainless steel
Loadcell Construction	IP69K hermetically-sealed stainless steel		IP67 stainless steel
Indicator Construction	IP68/IP69K polycarbonate	IP68/IP69K 316 stainless steel	IP68 304 stainless steel
Food Safety Certifications	NSF indicator and base, USDA-AMS bench scale		NSF indicator only
Checkweighing Display	Wide colorbar	Configurable multi-color dot matrix	On-screen only
Filling Mode	-	●	●
Knife-Proof Keypad	●	●	-
Keys	6, including target	6, including target, numeric keypad	6, including target, alphanumeric keypad
Hands-Free Touchless Sensor	-	●	-
Library Mode	-	300 items	50,000 items
User Control	-	100 users	1,000 Users
Standard Connectivity	-	RS232 & USB host	RS232 & Micro SD
Optional Connectivity	Infrared (IR) communication	2 nd RS232/485/USB Device, Analog Output, Discrete I/O, Ethernet, WiFi or Bluetooth	2 nd RS232/485/USB Device, Analog Output, Discrete I/O, Ethernet, WiFi or Bluetooth, USB Host
Power	"D" Cell Batteries for up to 1,600 hours	Hard-wired AC mains or optional USB battery pack	Hard-wired AC mains or optional Li-ion Battery

Accessories



Accessories for Scales with i-DT61XWE Indicator

- Wi-Fi/Bluetooth Dongle 30412537
- RS232/RS485/USB Device Kit 30424404
- Ethernet Kit 30429666
- Analog Output Kit 30424403
- Discrete I/O with Relay Kit (2 In/4 Out) 30097591
- Light Tower, 3 Colors, 243 mm, IP65 (requires 30097591) 30424021
- External Power Bank Holder (requires external USB power bank) 30572907
- RS232 Cable 80500552
- M16 Gland with Ferrite 30379716
- Alibi Memory..... 80500503

Accessories for Scales with i-DT61PW Indicator

- Front Mounting Kit (316 Stainless Steel) 30626654
- IR Communication Kit 30572910



Other Accessories

- 12" x 12" Pan (305 mm x 305 mm, 304 Stainless Steel) 30427798
- 10" x 10" Pan (254 mm x 254 mm, 304 Stainless Steel) 30427799
- 10.2" high Column Kit (260 mm, 316 Stainless Steel) 30572908
- 26.4" high Column Kit (670 mm, 316 Stainless Steel) 30572909
- 30' Loadcell Extension Cable (9 m) 30424409
- Wheel Kit (304 Stainless Steel) 30616409



OHAUS Corporation

Headquartered in Parsippany, NJ, OHAUS Corporation manufactures an extensive line of balances and scales, lab equipment and lab instruments that meet the weighing, sample processing and measurement needs of multiple industries. We are a global leader in the laboratory, industrial and education markets, as well as a host of specialty markets, including the food preparation, pharmacy and jewelry industries. An ISO 9001:2008 manufacturer, OHAUS produces lab balances, industrial scales, lab equipment and lab instruments that are precise, reliable and affordable, and backed by industry-leading customer support.

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