## *Multifunctional Bench Scale for Standard Industrial Applications*

The OHAUS next generation Defender 5000 Series multifunctional bench scale is ideal for a multitude of applications, including production, packaging, inventory and shipping. Built durably and equipped with advanced features such as maximum configurability print output, GMP/GLP data output, library/ user management, and multiple connectivity options - the Defender 5000 Series is designed to handle demanding industrial and commercial applications.

### *Unique Features:*

- **Indicator Guides The User with On-Screen Prompts**
  See results clearly on the large backlit display. The alphanumeric keypad and function keys allow for a simplified user experience. On-screen prompts and soft keys will guide you through the operation.

- **Durably Constructed To Withstand Industrial Environments**
  Durably constructed with a stainless steel platform, frame, IP67 loadcell and IP68 indicator, the Defender meets OIML/EC Type approvals.

- **Multiple Application Modes and High Storage Capacity for Greater Flexibility**
  Features common industrial modes and supports a 50,000 item library and 1,000 user profiles which can be downloaded/uploaded for easy set-up (with SD Card.) Also equipped with GMP/GLP capability with time/date for result traceability.

- **Multiple Connectivity Options for Convenient Data Transfer and Storage**
  Results can be stored in the Micro SD card. Data output via built-in RS232 or optional interfaces including RS232/RS485/USB device, Ethernet and Bluetooth/WiFi, Analog Output and Discrete I/O with relays.

# DEFENDER™5000 *Washdown Bench Scales*

## Simplified Use

Results can be read easily on the Defender™ 5000's large transflective dot matrix display, even in bright sunlight. The SmarText 3.0 interface will guide you through all of the Defender™ 5000's unique and advanced features. With five soft keys, SmartText 3.0 makes an advanced scale very simple to use, and reduces training time for operators.

## Durable Construction

With OIML/EC-type approvals, the Defender™ 5000 can be used for both general and legal-for-trade applications. For standard industrial applications, the Defender™ 5000 bench scales offer durable performance at a practical price.
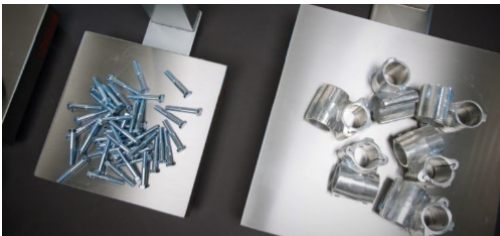
## Simple Operation

Featuring most common applications including Percent Weighing, Parts Counting with APW optimization, Checkweighing or Checkcounting, Filling and Dynamic Weighing or Display Hold, the Defender™ 5000 meets the weighing and measurement needs of practically every industrial application or manufacturing process. Many application modes eliminate the need for long and complicated manual calculations. GMP/GLP with time/date allows for traceability of results.

Equipped with Micro SD card, the Defender™ 5000 can support storage of up to 50,000 items and 1,000 user profiles. Weighing results can also be stored in Alibi or regular format, addressing all your data storage needs.

## Multiple Connectivity Options

Weighing results can be easily exported through the standard RS232 port. Additional connectivity options include a second RS232, RS485 or USB device; USB Host, Ethernet, and WiFi/Bluetooth.

Using the Analog option (either 4-20mA or 0-10V) or two In/four Out discrete I/O, the new Defender™ 5000 indicator can also be used for systems including PLC.

## Front Mount Bench Scale Specifications

| Model | D52XW6WQDR5 | D52XW15WQDR5 | D52XW15WQDL5 | D52XW30WQDL5 | D52XW60WQDL5 | D52XW60WQDX5 | D52XW150WQDX5 |
|---|---|---|---|---|---|---|---|
| Capacity × Readability | 3/6 kg × 0.2/0.5 g | 6/15 kg × 0.5/1 g | | 15/30 kg × 1/2 g | 30/60 kg × 2/5 g | | 60/150 kg × 5/10 g |
| Min APW (g) | 0.01 | 0.025 | | 0.05 | 0.1 | | 0.25 |
| Internal Counting Resolution | 1:600000 | | | | | | |
| **Certified Model** | D52XW6WQDR5-M | D52XW15WQDR5-M | D52XW15WQDL5-M | D52XW30WQDL5-M | D52XW60WQDL5-M | D52XW60WQDL5-M | D52XW150WQDX5-M |
| Certified Capacity × Readability | 3/6 kg × 1/2 g | 6/15 kg × 2/5 g | | 15/30 kg × 5/10 g | 30/60 kg × 10/20 g | | 60/150 kg × 20/50 g |
| Min APW (g) | 0.05 | 0.1 | | 0.25 | 0.5 | | 1 |
| Internal Counting Resolution | 1:120000 | 1:150000 | | 1:120000 | | | 1:150000 |
| Linearity/Repeatability | ±2d | | | | | | |
| Indicator | TD52XW | | | | | | |
| Mount | Stainless steel front-mount bracket with handle | | | | | | |
| Base Construction | Stainless steel removable weighing platform with stainless steel frame, silicon sealed IP67 aluminium loadcell | | | | | | |
| Safe Overload Capacity | 150% of maximum capacity | | | | | | |
| Stabilization Time | Within 1 second | | | | | | |
| Operating Temperature Range | -10°C to 40°C | | | | | | |
| Scale Dimensions (A x B x C x D x E x F) | 305 × 305 × 95 × 60 × 118 x 588 mm | 400 × 400 × 110 × 70 × 118 × 677 mm | | | 500 × 500 × 120 × 80 × 118 × 772 mm | | |
| Shipping Dimensions (L x W x H) | 480 × 445 × 363 mm | 800 × 600 × 235 mm | | | 994 × 680 × 235 mm | | |
| Approx. Net Weight | 9 kg | 17 kg | | | 21 kg | | |
| Approx. Shipping Weight | 11 kg | 19 kg | | | 24 kg | | |

# DEFENDER™ 5000 *Washdown Bench Scales*

## Column Mount Bench Scale Specifications

| Model | D52XW6WQDR6 | D52XW15WQDR6 | D52XW15WQDL7 | D52XW30WQDL7 | D52XW60WQDL7 | D52XW60WQDX7 | D52XW150WQDX7 |
|---|---|---|---|---|---|---|---|
| Capacity × Readability | 3/6 kg × 0.2/0.5 g | 6/15 kg × 0.5/1 g | | 15/30 kg × 1/2 g | 30/60 kg × 2/5 g | | 60/150 kg × 5/10 g |
| Min APW (g) | 0.01 | 0.025 | | 0.05 | 0.1 | | 0.25 |
| Internal Counting Resolution | 1:600000 | | | | | | |
| Certified Model | D52XW6WQDR6-M | D52XW15WQDR6-M | D52XW15WQDL7-M | D52XW30WQDL7-M | D52XW60WQDL7-M | D52XW60WQDX7-M | D52XW150WQDX7-M |
| Certified Capacity × Readability | 3/6 kg × 1/2 g | 6/15 kg × 2/5 g | | 15/30 kg × 5/10 g | 30/60 kg × 10/20 g | | 60/150 kg × 20/50 g |
| Min APW (g) | 0.05 | 0.1 | | 0.25 | 0.5 | | 1 |
| Internal Counting Resolution | 1:120000 | 1:150000 | | 1:120000 | | | 1:150000 |
| Linearity/Repeatability | ±2d | | | | | | |
| Indicator | TD52XW | | | | | | |
| Column | 350 mm stainless steel | | 680 mm stainless steel | | | | |
| Base Construction | Stainless steel removable weighing platform with stainless steel frame, silicon sealed IP67 aluminium loadcell | | | | | | |
| Safe Overload Capacity | 150% of maximum capacity | | | | | | |
| Stabilization Time | Within 1 second | | | | | | |
| Operating Temperature Range | -10°C to 40°C | | | | | | |
| Scale Dimensions (A x B x C x D x E x F) | 305 × 305 × 95 × 60 × 604 × 442 mm | | 400 × 400 × 110 × 70 × 934 × 570 mm | | | 500 × 500 × 120 × 80 × 934 × 665 mm | |
| Shipping Dimensions (L x W x H) | 480 × 445 × 363 mm | | 800 × 600 × 235 mm | | | 994 × 680 × 235 mm | |
| Approx. Net Weight | 10 kg | | 20 kg | | | 23 kg | |
| Approx. Shipping Weight | 11 kg | | 21 kg | | | 27 kg | |

| Model | D52XW60WQDV8 | D52XW150WQDV8 | D52XW300WQDV8 | D52XW150WTDV8 | D52XW300WTDV8 | D52XW600WTDV8 |
|---|---|---|---|---|---|---|
| Capacity × Readability | 30/60 kg × 2/5 g | 60/150 kg × 5/10 g | 150/300 kg × 10/20 g | 60/150 kg × 5/10 g | 150/300 kg × 10/20 g | 300/600 kg × 20/50 g |
| Min APW (g) | 0.1 | 0.25 | 0.5 | 0.25 | 0.5 | 1 |
| Internal Counting Resolution | 1:600000 | | | | | |
| Certified Model | D52XW60WQDV8-M | D52XW150WQDV8-M | D52XW300WQDV8-M | D52XW150WTDV8-M | D52XW300WTDV8-M | D52XW600WTDV8-M |
| Certified Capacity × Readability | 30/60 kg × 10/20 g | 60/150 kg × 20/50 g | 150/300 kg × 50/100 g | 60/150 kg × 20/50 g | 150/300 kg × 50/100 g | 300/600 kg × 100/200 g |
| Min APW (g) | 0.5 | 1 | 2.5 | 1 | 2.5 | 5 |
| Internal Counting Resolution | 1:120000 | 1:150000 | 1:120000 | 1:150000 | 1:120000 | |
| Linearity/Repeatability | ±2d | | | | | |
| Indicator | TD52XW | | | | | |
| Column | 980 mm stainless steel | | | | | |
| Base Construction | Stainless steel removable weighing platform with stainless steel frame, silicon sealed IP67 aluminium loadcell | | | | | |
| Safe Overload Capacity | 150% of maximum capacity | | | | | |
| Stabilization Time | Within 1 second | | | | | |
| Operating Temperature Range | -10°C to 40°C | | | | | |
| Scale Dimensions (A x B x C x D x E x F) | 610 × 610 × 130 × 90 × 1234 × 773 mm | | | 600 × 800 × 132 × 90 × 1234 × 963 mm | | |
| Shipping Dimensions (L x W x H) | 1165 × 780 × 235 mm | | | | | |
| Approx. Net Weight | 37 kg | | | 45 kg | | |
| Approx. Shipping Weight | 42 kg | | | 50 kg | | |

| Model | TD52XW |
|---|---|
| Construction | 304 stainless steel with sand blasted surface treatment |
| Protection | IP68 |
| Weighing Units | kg, g, lb, oz, lb:oz, metric tonnes, short ton, custom unit |
| Application Modes | Weighing, Percent weighing, Piece Counting with Optimized APW, Checkweighing/Checkcounting, Filling, Dynamic Weighing/Display Hold |
| Display | Dot matrix LCD with white LED backlight, 256 x 80 pixels |
| Keyboard | 6 function, 5 quick, 12 alpha numeric membrane switches |
| Auto-zero Tracking | Off, 0.5 d, 1 d or 3 d |
| Zeroing Range | 2% or 100% of capacity |
| Interface | Standard RS232, Optional Ethernet, WiFi/Bluetooth, RS232/RS485/USB, USB Host, Analog output, 2 In/4 Out digital I/O |
| Power | 100-240 VAC / 50/60 Hz Universal Power Supply, Rechargeable Lithium battery (Optional) |
| Battery Life | 20 hours continuous use |
| Calibration | Zero, Span or 3 point-Linear |

## Application Modes

**Weighing:**
Determine the weight of items in the selected unit of measure.

**Percent Weighing:**
Measure the weight of a sample displayed as a percentage of a pre-established reference weight.

**Parts Counting:** Count samples of uniform weight. Advanced auto-optimization software recalculates the average piece of weight as the overall weight increases.

**Filling:**
Fill a container to a target weight. Progress bar displays filling status. Connect with Discrete I/O option kit for auto-filling system.

**Checkweighing/Counting:** Compare the weight/count of a sample against target limits. Connect with Discrete I/O and Light Tower Kit for external check lights.

**Dynamic Weighing and Display Hold:** Weigh an unstable load. Scale takes an average of weights over a period of time. The Display Hold feature manually and automatically holds the last stable weight on the display.

## Other Standard Features and Equipment

User-configurable resolution up to dual range 15,000d/3,000e, 150% overload capacity protection, checkweighing symbols with selectable operation and audible signal settings, menu lock switch, multiple selectable operating languages, selectable environmental and auto-print settings, stability indicator, overload/underload indicators, selectable adjust contrast settings, auto-dim display, auto-off, auto tare, 100-240 VAC 50/60 Hz internal universal power supply - Lithium Ion rechargeable battery with 20 hour standard continuous use (optional), 304-grade stainless steel platform and frame, stainless steel IP68 indicator, IP67 load cell, non-slip adjustable rubber feet, a Wheel Kit option is also available for scales up to 300 kg.

## Additional Features

A total of six print templates are available to ensure you can print out all of the data you need. A simple template is predefined for quick printing, as well as five templates you can customize so you can print the exact information necessary for your application - eliminating confusion and time to sift through excess unnecessary data.
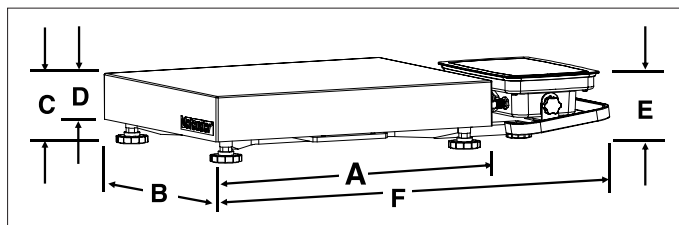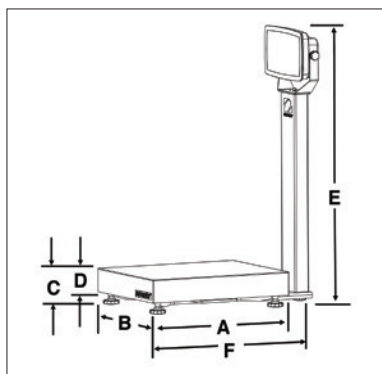
## Compliance

• **Metrology:** OIML R76 (Indicators: Certificate R76-2006-A-NL1-18.13, Load Cells: Certificates R60/2000-NL1-12-41, R60/2000-NL1-12-42, R60/2000-NL1-12-43, R60/2000-NL1-14.24)

• **Product Safety:** IEC/EN 61010-1;CAN/CSA C22.2 61010-1; UL61010-1

• **Electromagnetic Compatibility:** IEC/EN 61326-1 Class B, basic environments; FCC Part 15 Class B; Canada ICES-003 Class B

• **Compliance Marks:** CE; CSA; RCM

## Accessories

Battery Kit, Li-ion, TD52 . . . . . . . . . . . . . . . . . . . . . . . . . 30424405
USB Host for Dongle, TD52 . . . . . . . . . . . . . . . . . . . . . . 30424406
Light Tower, R-Y-G, IP65, 24VDC . . . . . . . . . . . . . . . . . 30424021
In-use Cover Kit, TD52P. . . . . . . . . . . . . . . . . . . . . . . . . . 30424022
In-use Cover Kit, TD52XW . . . . . . . . . . . . . . . . . . . . . . . 30424023
In-use Cover set (10), TD52P . . . . . . . . . . . . . . . . . . . . . 30469948
In-use Cover set (10), TD52XW . . . . . . . . . . . . . . . . . . . 30469949
Printer Holder Kit, D52 . . . . . . . . . . . . . . . . . . . . . . . . . . 30424025
Wall Mount Kit, SST, TD52XW . . . . . . . . . . . . . . . . . . . 30424026
Wall Mount Kit, CS, TD52P . . . . . . . . . . . . . . . . . . . . . . 30424027
LC Extension Cable, 9 meters, D52[1] . . . . . . . . . . . . . . 30424409

M16 Gland with Ferrite, to TD52 . . . . . . . . . . . . . . . . . 30379716
Micro SD Card, 8G . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30303533
Analog Output Kit, TD52[3]. . . . . . . . . . . . . . . . . . . . . . . 30424403
Second RS232/RS485/USB Kit, TD52[3] . . . . . . . . . . . 30424404
I/O with Relay (2 In/4 Out)[3] . . . . . . . . . . . . . . . . . . . . . 30097591
WiFi/BT Dongle, OHAUS[2] (Requires 30424406) . . . . . . . . . 30412537
Ethernet Kit, D52[2] . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30429666
Wheel Kit[1] (up to 300 kg models). . . . . . . . . . . . . . . . . . . . . . 30372146
Wheel Kit, SST[1] . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30616409
Printer SF40A . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30045641
USB[2]. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30572923

*1 Cannot be used for legal-for-trade applications*
*2 Only one of them can be used at the same time*
*3 Only one of them can be used at the same time*

## Outline Dimensions