OHAUS®

Smart Functionality, Durability, OHAUS Quality & Value

The OHAUS Defender™ 5000 Series is a feature-rich line of indicators, bases and bench scales that is ideal for washdown environments in shipping and receiving, production, packing and general commercial and industrial weighing applications. The Defender 5000 for washdown applications features durable all-stainless steel bases and columns. Its IP66 stainless steel indicator is a powerful weighing machine; by enabling its various modes, you have the flexibility to customize the scale for a wider variety of specific applications at no additional cost or complexity. With rugged construction, comprehensive yet intuitive software operations, multiple connectivity options, optional NiMH battery operation and flexible mounting capabilities, the Defender 5000 is your dependable one-product solution for an expandable range of weighing operations.
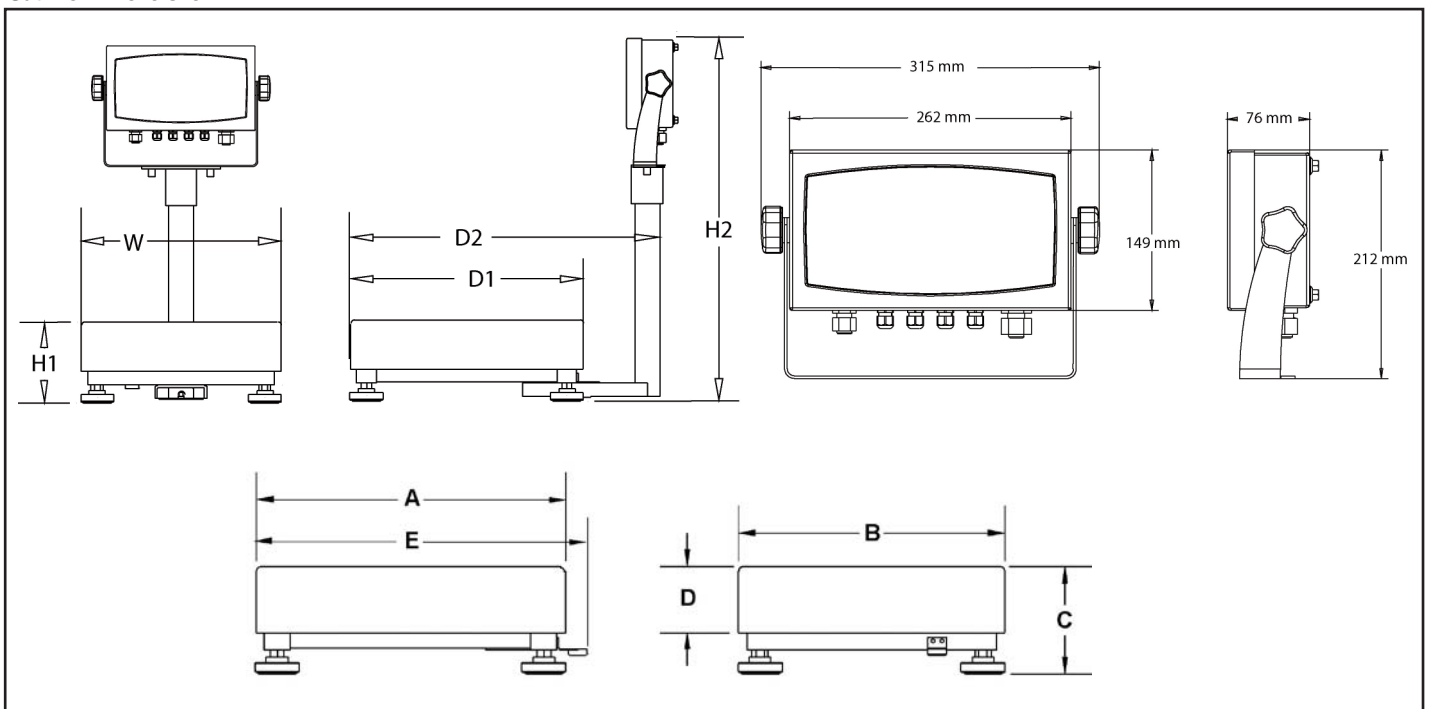
Standard Features Include:

- Five popular capacities: 15kg, 30kg, 60kg, 150kg and 300kg, three platform sizes: 30.5 x 30.5cm, 45.7 x 45.7cm and 61 x 61cm
- All stainless steel bases and scales with OIML R60 approved IP67 stainless steel load cell
- Scale displayed resolutions 1:12,000-15,000 (with temporary high resolution display), approvable to 1:3000e
- Stainless steel IP66 indicator with displayed resolutions up to 1:30000, and drives up to 8 x 350 ohm load cells
- High contrast single-line backlit LCD display with 25mm tall digits, 3-color checkweigh LED and setpoint beeper
- Four function keys, raised, tactile membrane switches with menu navigation text and key-press beeper
- Multiple weighing units: kg, g, lb, oz, lb:oz, t and custom unit
- Multiple user-activated modes: counting (with auto-optimization), checkweighing, percent weighing, dynamic-animal weighing and display hold
- Universal switching power supply with optional rechargeable NiMH battery
- Built-in RS232 and external input, with optional 2nd RS232, RS422/485, AC and DC relay kits

Indicator Specifications

Model	T51XW
Construction/Protection	304 stainless steel NEMA 4X / IP66 enclosure, 304 stainless steel wall mount bracket with adjustment knobs
Full Scale Capacity Range	1 to 999,950 kg/lb
Max Displayed Resolution	1:30,000d
Maximum Approved Resolution	1:10,000e / Dual range 1:3000e
Maximum Counting Resolution	1:300,000d
Min Average Piece Weight (APW)	0.1d
Weighing Units	kg, lb, g, oz, lb:oz, tonnes, custom
Weight Display	6-digit, 7-segment LCD, 25mm High digits, with high-contrast white LED backlight
Checkweigh Indication	3-color LED with configurable beeper signal
Keyboard	4 function membrane switches, with positive feedback
Extra Functions/Modes	Display Hold, Dynamic Weighing, Counting, Checkweighing, Percent Weighing
Other Software Features	Zero calibration, Calibration test, Geographical gravity adjustment, Auto-tare, Auto-tare on-accept, GMP Time-Date, Key function lock, temporary display of higher resolution
Load Cell Excitation Voltage	5V DC
Load Cell Input Sensitivity	up to 3 mV/V
Load Cell Drive	up to 8 x 350 ohm load cells
Stabilization Time	within 2 seconds
Zeroing Range	2% or 100% of capacity
Span Calibration	1 kg/lb to 100% of capacity
Interface	Built-in RS232 and external input / Optional RS422/485 / optional AC Relay / optional DC relay / optional 2nd RS232
Operating Temperature Range	-10°C to 40°C
Relative Humidity Range	Maximum 80% up to 31°C, decreasing linearly to 50% at 40°C
Power	100-240 VAC / 50-60 Hz, internal universal power supply, hard-wire cord, optional internal rechargeable NiMH battery (30-hr. typical operation)
Enclosure Dimensions	262W x 76D x 149H mm
Overall Dimensions (inc. bracket)	315W x 76D x 212H mm
Net / Shipping Weight	3.5 kg / 4.3 kg
Shipping Dimensions	330W x 240D x 180H mm

Outline Dimensions

Standard Features

Optional NiMH Battery
Allows for use in environments where an electrical outlet may not be readily available

3-Color LED Checkweigh Indication
with configurable beeper alert

Included Table/Wall Mount Bracket
With large ergonomic adjustable knobs to maximize viewing angles.

Hinged Front Cover
Only four sealing screws secure the housing for ease of servicing, while still ensuring IP66 seal integrity

Universal Switching Power Supply
Automatically adapts to different voltages and frequencies; plug anywhere, anytime

Durable Base Frame Construction
Stainless steel pans and form-and-weld frames provide maximum durability, rigidity and structural integrity. Load-unload cycle tested to ensure accurate long-term performance.

Internal Slot for Capacity Label
Protects label from the effects of moisture and external environments

Stainless Steel 304 IP66 Enclosure
Dust-tight and protected against powerful water jets from any direction. Indoor/outdoor protection against falling dirt, rain, sleet, snow, windblown dust, splashing and corrosion

High-Visibility LCD Display
with bright white LED backlight. Fast display stable weight within 2 seconds

One-Key, Multiple Mode Selection
Counting, Dynamic Weighing, Display Hold, Percent Weighing and Checkweighing

Stay Connected
Built in RS232 bi-directional, built-in external input, optional RS422/485, optional second RS232 and optional AC or DC relay

Stainless Steel Columns
Available in both short and tall lengths with compatible base mounting, they offer flexible mounting possibilities.

Fully Adjustable Feet
Four rugged, adjustable feet help prevent slippage on wet or uneven surfaces

Options and Accessories

Interface Options	OHAUS Number
AC Relay Kit, T51P/T51XW	80500720
DC Relay Kit, T51P/T51XW	80500727
RS422/485 Interface Kit, T51P/T51XW	80500731
RS232 Interface Kit, T51P/T51XW	80500733
Foot Switch	71173378

Power Options	
Rechargeable Battery Kit, T51P/T51XW	80500729

Mounting Accessories	
Wall Mount Kit, T51P	72200227
Wall Mount Kit, T51XW	80500735
Base Mount Kit, T51P	80500722
Column Mount Kit, 35cm, painted, T51	80500723
Column Mount Kit, 68cm, painted, T51	80500724

Mounting Accessories (continued)	OHAUS Number
Column Mount Kit, 35cm, stainless steel, T51	80500725
Column Mount Kit, 68cm, stainless steel, T51	80500726
Compatible with all existing columns for Champs-CD/CW11/CD3X/CKW	

Other Accessories	
Load Cell Cable Adapter Kit	80500736
RS232 Cable, T31-51XW/CW11 to SF42 Printer	80500574
RS232 Cable, T31-51XW/CW11 to PC 25-pin	80500553
RS232 Cable, T31-51XW/CW11 to PC 9-pin	80500552
Compact Impact Printer, 42 Column	SF42
Paper for SF42 printer (5 pack)	12101511
Ribbon for SF42 printer	12101512

Defender™ 5000 *Washdown Bench Scales*

Base Specifications

Base Model: W Series	D15WR	D30WR	D60WL	D150WL	D300WX
Capacity (max)	15kg	30kg	60kg	150kg	300kg
Construction	304 stainless steel pan and frame, non-slip rubber leveling feet				
Leveling Components	Externally visible level bubble and adjustable leveling feet				
Operating Temperature	-10°C to 40°C				
Safe Overload Capacity	150% of rated capacity				
Load Cell Type	IP67, stainless steel, single point / C3				
Load Cell Cable	2m L x 6-wire		2.5m L x 6-wire		
Load Cell Rated Output	2 mV/V ± 10%				
Load Cell Excitation Voltage	Maximum 20V (AC/DC) / Recommended 5~15V (AC/DC)				
Load Cell Input / Output Resistance	387 ± 10 ohms / 350 ± 4 ohms				
Base Dimensions (A x B x C x D x E)	305 x 305 x 95 x 52 x 335 mm		457 x 457 x 115 x 70 x 487 mm		610 x 610 x 137 x 90 x 640 mm
Shipping Dimensions	490L x 410W x 440H mm		810L x 600W x 240H mm		1000L x 760W x 250H mm
Net / Shipping Weight	12.2kg / 14.2kg		27.2kg / 29kg		35kg / 41kg

Scale Specifications

Scale Models: W Series	D51XW15WR3	D51XW30WR3	D51XW60WL4	D51XW150WL4	D51XW300QX4
Base Model	D15WR	D30WR	D60WL	D150WL	D300WX
Indicator Model	T51XW				
Capacity x Max Readability (d)	15kg x 1g / 1:15000d	30kg x2g / 1:15000d	60kg x 5g / 1:12000d	150kg x 10g / 1:15000d	300kg x 20g / 1:15000d
Capacity x Appr'vd Readability (e)	15kg x 5g / 1:3000e	30kg x10g / 1:3000e	60kg x 20g / 1:3000e	150kg x 50g / 1:3000e	300kg x 100g / 1:3000e
Column	350 mm fixed height, hollow tubular, stainless steel		680 mm fixed height, hollow tubular, stainless steel		
Scale Dimensions (WxH1xH2xD1xD2)	305 x 95 x 590 x 305 x 425 mm		457 x 115 x 940 x 457 x 577		610 x 137 x 940 x 610 x 730
Shipping Dimensions	490L x 410W x 440H mm		810L x 600W x 240H mm		1000L x 760W x 250H mm
Net / Shipping Weight	16.1kg / 18.5kg		31.6kg / 33.8kg		39.4kg / 45.8kg

Compliance

- **Safety and EMC:** EN60950, EN61326, FCC, CE, $_\text{c}$UL$_\text{US}$
  Compliant to Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)
- **Type Approval/Legal-for-Trade:**
  - T51xx Series Indicator: EC Type approval and Test Certificate: TC7132 / T5980
  - Load Cells: OIML R60-2000-NL-02.14 / TC6046; OIML R60-2000-NL-02.12 / TC6043
- **Quality:** Ohaus quality management system registered to ISO 9001:2000

OHAUS®