



# RANGER® 7000

Bench Scales



## *Top-of-the-Line Counting Scales for Complex Industrial Applications*

The Ranger 7000 offers the highest level of counting features in the OHAUS industrial products lineup. Ranger 7000 boasts the highest weighing and counting resolution, the largest color display, advanced software for both counting and checkcounting, multiple connectivity options, as well as a large memory library for parts management.

### *Standard Features Include:*

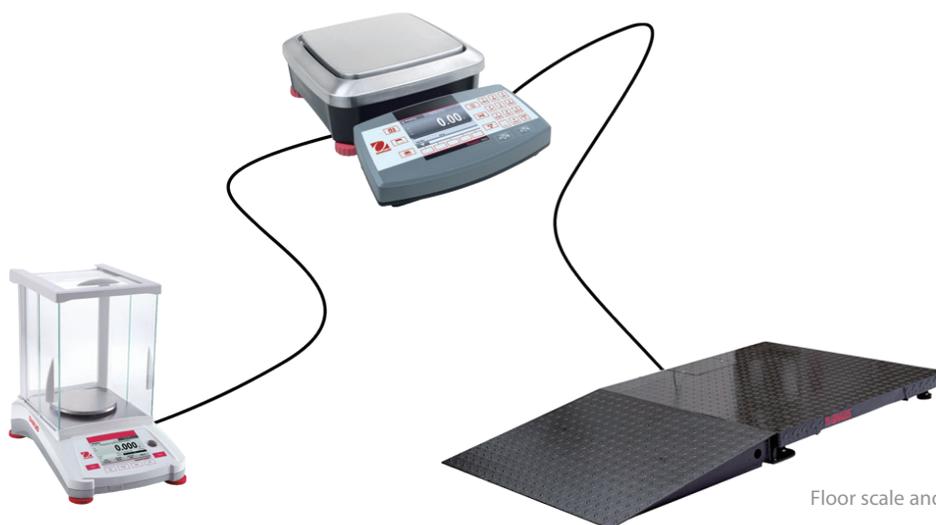
- Advanced counting software to increase the accuracy of part average piece weights (APWs), the ability to store up to 2,000 items in the Library, and the ability to support both barcode readers and barcode/label printers for enhanced parts management.
- The most precise scale in its class with one-second stabilization time and internal counting resolutions up to 1:7,000,000.
- Large 4.3 inch color graphic display clearly shows weights and counts to the operator. The keypad can be used to recall parts by ID number as well as enter tare and APW weights. SoftKeys work with the display to guide users through use – all keys can be locked-out to minimize operator key errors.
- Durable cast aluminum housings hold up to daily industrial use.

# RANGER® 7000 *Bench Scales*

## Advanced Counting Features Take Counting to the Next Level

In addition to eight other application modes, the Ranger 7000 offers advanced counting features for packaging, kitting, inventory control and shipping:

- **APW Optimization** recalculates the Average Piece Weight for the part during counting, quickly refining APW accuracy within the first few boxes.
- **Sample APW Alert** warns the operator if the total weight of the part sample is too light, ensuring that the APW accuracy is within 99% of the pieces in the sample.
- **APW Auto Save** updates the APW in memory for a recalled part, ensuring that the count is always based on the latest average.
- The **Library function** stores up to 2,000 items for fast recall of part number, name, tare weights, APWs and total count accumulations. All information in the Library can be downloaded to a PC and managed using the new OHAUS ScaleMate™ software.
- **Easy Sampling** allows fast changes to sample size, and supports sampling onto the scale (positive sampling) or out of a full box (negative sampling).
- The standard **USB Host** allows a bar code scanner to quickly recall items based on the barcode on a box. This port can also store data on a flash drive for traceability.
- **Barcode Reader and Label Printer** can be supported for parts bagging and kitting.
- **Smart Sampling** feature ensures that when using a reference balance or 2nd platform, sampling will always be done on the higher precision platform.
- **Reference Balance** automatically accepts higher-precision APW data from an OHAUS scale or balance through the included RS232 port.
- **Remote Bases** can be connected using the optional board -- even a floor scale base -- for a two-scale counting. Use the Ranger to determine the APW and then use the weight from the external base to quickly get a count for large boxes, bins and skids. This option can even be combined with high-precision APW data from a balance for a system with the precision of a lab analytical balance and an industrial floor scale's capacity.



Floor scale and balance sold separately

# RANGER® 7000 *Bench Scales*

## SmarText™ 2.0 Makes the Advanced Ranger 7000 Easy to Configure and Use

The SmarText 2.0 interface makes this advanced scale very simple to use, and will greatly reduce training time for operators.

The large color display clearly shows the number of pieces on the platform, as well as the total weight, tare weight of the box or container, and the APW in memory.

In Counting mode, the graphical bar shows the weight on the scale compared to the scales' capacity; in Checkcounting mode it quickly tells the operator if the count on the platform is under (yellow), over (red) or accept (green).

SoftKeys are available below the display to quickly change the number of pieces used for the sample, to key in a preset APW weight directly without sampling, to use a fast preset sample size, or to accumulate the number of parts on the scale into memory.

The Ranger 7000 can be configured to lock some or all of the keys out to minimize operator errors.

The Ranger 7000 also supports three levels of User Management (Admin, Supervisor and Operator) for 50 users with password protection against accidental changes to the scale.

## Standard Connectivity with Flexible Options

The Ranger 7000 comes standard with a RS232 and USB Device port for connecting to printers and additional hardware.

It also has a USB Host port that can be used to store data on a USB drive or connect to a barcode scanner.

Options include a second RS232 or Ethernet port, 2 in/4 out Discrete I/O for driving equipment and relays, a Remote Base Kit for connecting to a 2nd bench or floor base, RS232 cable to connect to a reference balance, internal Li-ion rechargeable battery, a column kit to mount the indicator above the base, a 9 m/27' indicator cable extension kit, indicator in-use cover, and auxiliary display.



# RANGER®7000 Bench Scales

## General Specifications

Weighing Units	kg, g, lb, oz, lb:oz, Custom Units
Application Modes	Weighing with Statistics, Parts Counting, Percent Weighing, Check Weighing/Counting, Dynamic Weighing (Display Hold), Filling, Formulation, Differential Weighing, Density Weighing, Sieve Analysis
Display	109 mm / 4.3 in TFT Graphic LCD
Keypad	8 function, 5 soft, 12 numeric membrane keys
Construction/Protection	Stainless Steel Platform / IP54 Die Cast Housing
Stabilization Time	1 second
Zeroing Range	2% or 10% of Capacity
Safe Overload Capacity	150% of Capacity
Interface	Standard RS232, USB Device, USB Host Optional Ethernet, 2 <sup>nd</sup> RS232, 2 <sup>nd</sup> scale, 2 In/4 Out Discrete I/O
Power	100-240 VAC / 50/60 Hz Universal Power Supply, rechargeable lithium battery (Optional)
Display Dimensions (W x D x H)	267 x 118 x 72 mm / 10.5 x 4.6 x 2.8 in

## Technical Specifications

Model	R71MD3	R71MD6	R71MD15	R71MD35	R71MD60
Capacity x Readability	3 kg x 0.00005 kg 3,000 g x 0.05 g 6 lb x 0.0001 lb 96 oz x 0.002 oz	6 kg x 0.0001 kg 6,000 g x 0.1 g 15 lb x 0.0002 lb 240 oz x 0.005 oz	15 kg x 0.0002 kg 15,000 g x 0.2 g 30 lb x 0.0005 lb 480 oz x 0.01 oz	35 kg x 0.0005 kg 35,000 g x 0.5 g 70 lb x 0.001 lb 1,120 oz x 0.02 oz	60 kg x 0.001 kg 60,000 g x 1 g 150 lb x 0.002 lb 2,400 oz x 0.05 oz
Min. Recommended APW	0.0025 g / 0.000005 lb	0.005 g / 0.00001 lb	0.01 g / 0.000025 lb	0.025 g / 0.00005 lb	0.05 g / 0.0001 lb
Min. Recommended Sample Weight	1 g / 0.002 lb	2 g / 0.004 lb	4 g / 0.01 lb	10 g / 0.02 lb	20 g / 0.04 lb
Maximum Displayed Resolution	1:60,000	1:75,000	1:75,000	1:70,000	1:75,000
Internal Counting Resolution	1:1,200,000	1:1,500,000	1:1,500,000	1:1,400,000	1:1,500,000
Base Housing Dimensions (W x D x min. H)	280 x 280 x 114 mm / 11 x 11 x 4.5 in		377 x 311 x 128 mm / 14.9 x 12.2 x 5 in		
Platform Dimensions (W x D x H)	280 x 280 x 31 mm / 11 x 11 x 1.2 in		377 x 311 x 48 mm / 14.8 x 12.2 x 1.9 in		
Net Weight	6.8 kg / 15 lb		9.9 kg / 21.8 lb		
Shipping Weight	8.5 kg / 18.7 lb		13.4 kg / 29.5 lb		
Shipping Dimensions	605 x 405 x 244 mm / 23.8 x 15.9 x 9.6 in		665 x 525 x 330 mm / 26.2 x 20.7 x 13 in		
Calibration	Span or Linear				
Optional Battery Life	12 hours continuous use				

Model	R71MHD3	R71MHD6	R71MHD15	R71MHD35
Capacity x Readability	3 kg x 0.00001 kg 3,000 g x 0.01 g 6 lb x 0.00002 lb 96 oz x 0.0005 oz	6 kg x 0.00002 kg 6,000 g x 0.02 g 15 lb x 0.00005 lb 240 oz x 0.001 oz	15 kg x 0.0001 kg 15,000 g x 0.1 g 30 lb x 0.0002 lb 480 oz x 0.005 oz	35 kg x 0.0001 kg 35,000 g x 0.1 g 70 lb x 0.0002 lb 1,120 oz x 0.005 oz
Min. Recommended APW	0.0005 g / 0.000001 lb	0.001 g / 0.000002 lb	0.005 g / 0.00001 lb	0.005 g / 0.00001 lb
Min. Recommended Sample Weight	0.2 g / 0.0004 lb	0.4 g / 0.001 lb	2 g / 0.004 lb	2 g / 0.004 lb
Maximum Displayed Resolution	1:300,000	1:300,000	1:150,000	1:350,000
Internal Counting Resolution	1:6,000,000	1:6,000,000	1:3,000,000	1:7,000,000
Base Housing Dimensions (W x D x min. H)	280 x 280 x 114 mm 11 x 11 x 4.5 in		377 x 311 x 128 mm 14.9 x 12.2 x 5 in	
Platform Dimensions (W x D x H)	210 x 210 x 12 mm 8.3 x 8.3 x 0.5 in		377 x 311 x 48 mm 14.8 x 12.2 x 1.9 in	
Net Weight	7.2 kg / 16 lb		10.9 kg / 24 lb	
Shipping Weight	9.2 kg / 20.3 lb		14.4 kg / 31.7 lb	
Shipping Dimensions	605 x 405 x 244 mm / 23.8 x 15.9 x 9.6 in		665 x 525 x 330 mm / 26.2 x 20.7 x 13 in	
Calibration	InCal™ internal calibration, Span or Linear			
Optional Battery Life	9 hours continuous use			

## Accessories

Alibi Memory Kit.....	80500503
2nd RS232 Kit.....	30037448
19.6 inch / 498mm High Painted Column Kit.....	30095408
Discrete I/O Kit 2 in/4out.....	30097591
Ethernet Kit.....	30037447
Cable Extension Kit, 29.5 ft / 9 m.....	30101495
2nd Platform / Remote Base Kit.....	30097590
Li-ion Rechargeable Battery Kit.....	30041295
SF40A Impact Printer.....	30064203
In Use Cover.....	30135320
RS232 Cable for Reference Balance.....	30057595
Auxiliary Remote Weight Display.....	30472064
Cable, RS232, IBM 9P.....	80500525
Zebra Label Printer GC420t.....	30593702
Datalogic Barcode Scanner QD2131.....	30593703

### OHAUS CORPORATION

7 Campus Drive  
Suite 310  
Parsippany, NJ 07054 USA

Tel: 800.672.7722  
973.377.9000  
Fax: 973.944.7177

[www.ohaus.com](http://www.ohaus.com)

The management system  
governing the manufacture  
of this product is  
ISO 9001:2015 certified.

