



# *Botanicals Brochure*



*Grow More With Us*

***Ingeniously Practical***

## Cultivation



Growing & Harvesting

Bulk Packaging

Prepackaging & Direct Sales

Cultivation sites are where cannabis plants are grown and harvested. Light, water, and nutrients are critical to maintaining healthy plants. Mature plants are harvested; stalks, leaves, and flower are measured, tracked, and packaged for resale or sent for further processing.

## Dispensary & Point Of Sale



Prepackaging & Direct Sales

Dispensaries are where various cannabis products, such as flower for smoke, vape oils, infused products, or edibles are sold to customers. Product may be supplied in pre-packaged ready for sale form or in bulk to be dispensed at the point of sale.

### Processing



Bulk Packaging

Prepackaging  
& Direct Sales

Production

Processing facilities are where harvested cannabis plant materials are turned into other products for sale. Oils and terpenes are extracted and packaged for resale or used in other consumable products such as infused products or edibles.

### Testing & R&D



Analytical  
Sample Prep

Research,  
Development &  
Testing

Testing labs determine potency and test for cannabinoids, terpenes, solvents, pesticides, etc. Research labs explore the plant's medicinal properties and effects as well as develop new methods for growing, strains, products, and delivery methods.

# Areas and Applications

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Cultivation



Cultivation



Cultivation



Processing



Testing & R&D



Testing & R&D



Processing



Processing



Dispensary & P.O.S

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## Explorer® Series

**Built for Sophisticated, Professional Weighing**



- Exceptional weighing performance for applications requiring high accuracy
- Fully featured to handle advanced workflows and weighing applications
- Durably constructed and suitable for use in a wide variety of environments

## Adventurer® Series

**Ready For Your Lab, Wherever That May Be**



- Well-equipped to handle routine weighing operations for a variety of applications
- Highly intuitive operation, easy to setup and use
- Excellent weighing performance and fast stabilization times

## **Pioneer® Series**

**Combining Economy and High Performance  
for Essential Weighing**



- Competitive Performance at an Economical Price
- Provides exceptional value and are well suited for basic weighing applications
- Durable constructed to withstand longterm use in classroom, laboratory, and industrial environments

## Explorer® Semi-Micro Balances

*Built for Sophisticated, Professional Weighing*

- Explorer Semi-Micro balances are capable of weighing with a readability of 0.01 mg and capacities up to 220 g
- Standard RS-232, USB, and optional Ethernet interfaces allow for easy connectivity to printers or PC based software systems
- Achieves and maintains stability quickly and can be used in standard lab environments without the need for specialized equipment such as weighing tables



Model	AutoCal	Capacity	Readability	Item No
EX125	*	120 g	0.01 mg	30139511
EX125D	*	51 g ; 120 g	0.01 mg; 0.1 mg	30139510
EX225D	*	120 g ; 220 g	0.01 mg; 0.1 mg	30139512
EX225D/AD	*	120 g ; 220 g	0.01 mg; 0.1 mg	30139513
EX225/AD	*	220 g	0.01 mg	30139514

/AD = Equipped with motorized draftshield doors & built in static ionizer



## Explorer® Analytical

*Intelligent Performance No Matter How  
Difficult the Task*

- Explorer analytical balances have a readability of 0.1 mg and capacities up to 320 g
- Standard RS-232, USB, and optional Ethernet interfaces allow for easy connectivity to printers or PC based software systems
- Achieves and maintains stability quickly and can be used in standard lab environments without the need for specialized equipment such as weighing tables



Model	AutoCal	Capacity	Readability	Item No
EX124	*	120 g	0.1 mg	83021331
EX124/AD	*	120 g	0.1 mg	30061976
EX224	*	220 g	0.1 mg	83021332
EX224/AD	*	220 g	0.1 mg	30061977
EX324	*	320 g	0.1 mg	83021335
EX324/AD	*	320 g	0.1 mg	30061978

/AD = Equipped with motorized draftshield doors



Processing



Testing &  
R&D

# Analytical Balances

## Adventurer® Analytical

*Ready For Your Lab, Wherever That May Be*

- Adventurer analytical balances have a readability of 0.1 mg and capacities up to 320 g
- A 4.3" color touch screen and intuitive user interface along with fixed mechanical keys make the Adventurer balances easy and efficient to use
- RS-232 and USB communication interfaces allow for printer and PC communication. A USB host port allows internally stored records to be transferred to a PC via memory stick



Model	AutoCal	Capacity	Readability	Item No
AX124/E		120 g	0.1 mg	30100601
AX124	*	120 g	0.1 mg	30100600
AX224/E		220 g	0.1 mg	30100603
AX224	*	220 g	0.1 mg	30100602
AX324	*	320 g	0.1 mg	30100604



## Pioneer® Analytical

*The Economical Choice for Everyday Weighing*

- Pioneer analytical balances have a readability of 0.1 mg and capacities up to 220 g
- A brightly lit dual line display displays the weight in an easy to read manner, while a second dot-matrix second line provides additional information or guidance prompts to the user
- PX units feature a cast metal lower housing and stainless steel weighing pan; the Pioneer PX is durably constructed for long-term use and suitable for a variety of applications



Model	In Cal	Capacity	Readability	Item No
PX84/E		82 g	0.1 mg	30429845
PX84	*	82 g	0.1 mg	30429837
PX124/E		120 g	0.1 mg	30429846
PX124	*	120 g	0.1 mg	30429838
PX224/E		220 g	0.1 mg	30429847
PX224	*	220 g	0.1 mg	30430053



# Precision Balances

## Explorer® Series

Intelligent Performance No Matter How  
Difficult the Task



- Exceptional weighing performance for applications requiring high accuracy
- Fully featured to handle advanced workflows and weighing applications
- Durably constructed and suitable for use in a wide variety of environments

## Adventurer® Series

Ready For Your Lab, Wherever That May Be



- Well-equipped to handle routine weighing operations for a variety of applications
- Highly intuitive operation, easy to setup and use
- Excellent weighing performance and fast stabilization times

## Pioneer® Series

Combining Economy and High Performance  
for Essential Weighing



- Competitive weighing performance and essential functionality at an economical price.
- Durably constructed with a metal lower housing, sub-pan and stainless steel weighing pan.
- Standard RS-232 and USB ports make connection to PC systems easy

# Precision Balances

## Explorer® Precision

*Intelligent Performance No Matter How  
Difficult the Task*

- Explorer precision balances have readabilities from 0.1g to 1 mg and capacities up to 10kg
- Standard RS-232, USB, and optional Ethernet interfaces allow for easy connectivity to printers or PC based software systems
- A modular design allows the terminal to be detached from the base and column- or rack mounted, perfect for fume hoods, vacuum boxes, or when weighing oversized objects



Model	AutoCal	Capacity	Readability	Item No
EX223/E		220 g	1 mg	30061979
EX223	*	220 g	1 mg	83021341
EX423/E		420 g	1 mg	30061980
EX423	*	420 g	1 mg	83021342
EX623	*	620 g	1 mg	83021348
EX1103	*	1100 g	1 mg	83021350
EX2202/E		2200 g	0.01 g	30061981
EX2202	*	2200 g	0.01 g	83021356
EX4202/E		4200 g	0.01 g	30061982
EX4202	*	4200 g	0.01 g	83021357
EX6202/E		6200 g	0.01 g	30061983
EX6202	*	6200 g	0.01 g	83021360
EX10202	*	10200 g	0.01 g	83021362
EX6201/E		6200 g	0.1 g	30061984
EX6201	*	6200 g	0.1 g	83021361
EX10201	*	10200 g	0.1 g	83021365



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Processing



Testing &  
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## Explorer® Precision High Capacity

*Intelligent Performance No Matter How*

*Difficult the Task*



- Explorer High Capacity balances have a readability of 0.1 g and capacities up to 35kg
- Explorer High Capacity balances provide large weighing pans as well as a rugged weigh-below hook for weighing oversized objects and are ultra durably constructed and IP54 rated making them suitable for use in industrial environments
- An optional rechargeable battery, column mount, and wheel kits allow for untethered portability for up to 10 hours



Model	AutoCal	Capacity	Readability	Item No
EX12001	*	12000 g	0.1 g	30057099
EX24001	*	24000 g	0.1 g	30057100
EX35001	*	35000 g	0.1 g	30057101



Cultivation



Processing



Testing &  
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# Precision Balances

## Adventurer® Precision

*Ready For Your Lab, Wherever That May Be*

- Adventurer precision balances have readabilities from 0.1g to 1 mg and capacities up to 8kg
- A 4.3" color touch screen and intuitive user interface along with fixed mechanical keys make the Adventurer balances easy and efficient to use
- RS-232 and USB communication interfaces allow for printer and PC communication. A USB host port allows internally stored records to be transferred to a PC via memory stick



Model	AutoCal	Capacity	Readability	Item No
AX223/E		220 g	1 mg	30100606
AX223	*	220 g	1 mg	30100605
AX423/E		420 g	1 mg	30100608
AX423	*	420 g	1 mg	30100607
AX523/E		520 g	1 mg	30100610
AX523	*	520 g	1 mg	30100609
AX422/E		420 g	0.01 g	30127981
AX622	*	620 g	0.01 g	30122632
AX822/E		820 g	0.01 g	30127983
AX1502/E		1500 g	0.01 g	30100612
AX1502	*	1500 g	0.01 g	30100611
AX2202/E		2200 g	0.01 g	30100614
AX2202	*	2200 g	0.01 g	30100613
AX4202/E		4200 g	0.01 g	30100616
AX4202	*	4200 g	0.01 g	30100615
AX5202	*	5200 g	0.01 g	30100617
AX2201/E		2200 g	0.1 g	30248912
AX4201	*	4200 g	0.1 g	30122634
AX4201/E		4200 g	0.1 g	30122635
AX8201	*	8200 g	0.1 g	30100618
AX8201/E		8200 g	0.1 g	30100619



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Testing &  
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## Pioneer® Precision

*The Economical Choice for Everyday Weighing*

- Pioneer precision balances have readabilities from 0.1g to 1 mg and capacities up to 4kg
- A brightly lit dual line display displays the weight in an easy to read manner, while a second dot-matrix second line provides additional information or guidance prompts to the user
- PX units feature a cast metal lower housing and stainless steel weighing pan; the Pioneer PX is durably constructed for long-term use and suitable for a variety of applications



Model	In Cal	Capacity	Readability	Item No
PX163/E		160 g	1 mg	30429848
PX163	*	160 g	1 mg	30429839
PX323/E		320 g	1 mg	30429849
PX323	*	320 g	1 mg	30429840
PX523/E		520 g	1 mg	30430057
PX523	*	520 g	1 mg	30430054
PX1602/E		1600 g	0.01 g	30430058
PX1602	*	1600 g	0.01 g	30430055
PX2202/E		2200 g	0.01 g	30429850
PX2202	*	2200 g	0.01 g	30429841
PX3202/E		3200 g	0.01 g	30429851
PX3202	*	3200 g	0.01 g	30429842
PX4202/E		4200 g	0.01 g	30429852
PX4202	*	4200 g	0.01 g	30429843
PX2201/E		2200 g	0.1 g	30430059
PX2201	*	2200 g	0.1 g	30430056
PX4201/E		4200 g	0.1 g	30429853
PX4201	*	4200 g	0.1 g	30429844



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## Explorer® Series

Intelligent Performance No Matter How  
Difficult the Task



- Exceptional weighing performance for applications requiring high accuracy
- Class I NTEP certified and Measurement Canada approved balances
- Fully featured to handle advanced workflows and weighing applications

## Adventurer® Series

Ready For Your Lab, Wherever That May Be



- Well-equipped to handle routine weighing operations for a variety of applications
- Class I and II NTEP certified and Measurement Canada approved balances
- Highly intuitive operation, easy to setup and use

### **PR Series Precision**

**Designed for Routine Weighing Applications  
in Your Workplace**



- Benchtop balances suitable for direct sale and pre-packaging applications
- Class II and III NTEP certified and Measurement Canada approved balances
- Economical balances with basic functionality for routine weighing applications

### **Scout SJX**

**A Dynamic Weighing Experience with the  
Next Generation of Portable Balances**



- Portable balances suitable for direct sale and pre-packaging applications
- Class II and III NTEP certified and Measurement Canada approved balances
- Fast stabilization times and excellent overload protection

# Point of Sale (Type-Approved) Balances

## Explorer® Series

*Intelligent Performance No Matter How*

*Difficult the Task*

- High accuracy Class I analytical and precision balances for legal for trade applications
- Standard RS-232, USB, and optional Ethernet interfaces allow for easy connectivity to printers or PC based software systems.
- Achieves and maintains stability quickly and can be used in standard lab environments without the need for specialized equipment such as weighing tables



Model	AutoCal	Capacity	Readability	Certified Readability	Class	Item No
EX124N/AD	*	120 g	0.1 mg	1 mg	I	30061997
EX224N	*	220 g	0.1 mg	1 mg	I	83021334
EX224N/AD	*	220 g	0.1 mg	1 mg	I	30061998
EX324N	*	320 g	0.1 mg	1 mg	I	83021337
EX324N/AD	*	320 g	0.1 mg	1 mg	I	30061999

/AD = Equipped with motorized draftshield doors & built in static ionizer

Model	AutoCal	Capacity	Readability	Certified Readability	Class	Item No
EX423N	*	420 g	1 mg	0.01 g	II	83021344
EX1103N	*	1100 g	1 mg	0.01 g	I	83021352
EX4202N	*	4200 g	0.01 g	0.1 g	II	83021359
EX10202N	*	10200 g	0.01 g	0.1 g	I	83021364
EX10201N	*	10200 g	0.1 g	0.1 g	I	83021367



Cultivation



Processing



Dispensary  
& P.D.S.

# Point of Sale (Type-Approved) Balances

## Adventurer® Series

*Ready For Your Lab, Wherever That May Be*

- Easy to use Class and II analytical and precision balances for legal for trade applications
- A 4.3" color touch screen and intuitive user interface along with fixed mechanical keys make the Adventurer balances easy and efficient to use
- RS-232 and USB communication interfaces allow for printer and PC communication. A USB host port allows internally stored records to be transferred to a PC via memory stick



Model	AutoCal	Capacity	Readability	Certified Readability	Class	Item No
AX224N	*	220 g	0.1 mg	1 mg	I	30100630

Model	AutoCal	Capacity	Readability	Certified Readability	Class	Item No
AX223N/E		220 g	1 mg	0.01 g	II	30100631
AX423N	*	420 g	1 mg	0.01 g	II	30100632
AX423N/E		420 g	1 mg	0.01 g	II	30100633
AX523N/E		520 g	1 mg	0.01 g	II	30100634
AX622N/E		620 g	0.01 g	0.1 g	II	30100635
AX1502N/E		1500 g	0.01 g	0.1 g	II	30100636
AX2202N/E		2200 g	0.01 g	0.1 g	II	30100637
AX4202N/E		4200 g	0.01 g	0.1 g	II	30122655
AX8201N/E		8200 g	0.1 g	1 g	II	30100639



Cultivation



Processing



Dispensary  
& P.D.S.

# Point of Sale (Type-Approved) Balances

## PR Series Precision

### *Economical Balances For Legal-For-Trade Applications*

- The PR is equipped with three essential weighing modes, standard RS-232 and optional USB or Ethernet connectivity for data transfer to a printer or integration into a POS system
- Equipped with an easy-to-read, bright backlit display and a simple user interface, the PR is incredibly easy to setup and operate
- A compact design saves desktop space while providing a large weighing surface with a stainless steel pan to withstand day-to-day use in the workplace



Model	InCal	Capacity	Readability	Certified Readability	Class	Item No
PR323N/E		320 g	1 mg	0.01 g	II	30455605
PR523N/E		520 g	1 mg	0.01 g	II	30455606
PR523N	*	520 g	1 mg	0.01 g	II	30452494
PR322N/E		320 g	0.01 g	0.01 g	II	30515026
PR522N/E		520 g	0.01 g	0.01 g	II	30515027
PR822N/E		820 g	0.01 g	0.1 g	III	30455607
PR2202N/E		2200 g	0.01 g	0.1 g	II	30455668
PR5202N/E		5200 g	0.01 g	0.1 g	II	30455670
PR2201N/E		2200 g	0.1 g	0.1 g	II	30455671
PR5201N/E		5200 g	0.1 g	0.1 g	II	30515038
PR6201N/E		6200 g	0.1 g	1 g	III	30455673



Cultivation



Processing



Dispensary  
& P.D.S.

# Point of Sale (Type-Approved) Balances

## Scout® SJX

*A Dynamic Weighing Experience with the Next Generation of OHAUS Portable Balances*

- Easy to use interface and a large backlit display that allows for use in low light working conditions
- Integrated overload protection and impact-resistant pan support safeguard against shock and overloading the balance
- Stabilization time as fast as 1 sec increases efficiency in pre-packaging operations and point of sale transactions



Model	Capacity	Readability	Certified Readability	Class	Item No
SJX323N/E	64 g	1 mg	0.01 g	II	30253054
SJX622N/E	620 g	0.01 g	0.1 g	III	30253055
SJX1502N/E	1500 g	0.01 g	0.1 g	II	30253056
SJX6201N/E	6200 g	0.1 g	1 g	III	30253057



Cultivation



Processing



Dispensary  
& P.D.S.

# Moisture Analyzers

## MB Series

Moisture Analysis Made Simple and Powerful



- Quickly determine the moisture content of all types of samples
- High precision with readabilities to 1mg / 0.01%
- Halogen and metal heating elements available



## MB120

### *Moisture Analysis Made Simple and Powerful*

- Provides on board storage for up to 100 methods and 1000 measurement results which can be recalled on the device or exported
- Offers method creation tools such as temperature guide which assists the user in determining the optimum drying temperature for their sample
- Advanced functionality such as 4 drying programs, customizable shut off criteria, and drying temperatures up to 230°C allow for creation of advanced methods



Model	Heating	Capacity	Readability	Moisture Readability	Item No
MB120	Halogen	120 g	1 mg	0.01%	30241165



## MB90

### *Combining Speed and Precision in One Moisture Analyzer —Test More Samples in Less Time*

- A 4.3" color touch screen and intuitive user interface make the MB90 easy to use. An on-screen keyboard makes data input simple
- The heating chamber can be disassembled without tools making the MB90 easy to clean and maintain
- The advanced halogen heating system provides even heat to the surface of the sample providing high precision (low variance across multiple measurements) and 0.01% moisture readability



Model	Heating	Capacity	Readability	Moisture Readability	Item No
MB90	Halogen	90 g	1 mg	0.01%	30241164



# Moisture Analyzers

## MB27

### *The Affordable High Capacity Moisture Analyzer*

- The MB27 features a halogen heating system and 1mg weight readability provides precise results with a moisture readability of 0.01%
- Setup and operation are extremely easy; the drying temperature and shut off criterion can be set through a simple interface
- A small footprint takes up less space on a lab countertop or production area



Model	Heating	Capacity	Readability	Moisture Readability	Item No
MB27	Halogen	90 g	1 mg	0.01%	30251683



## MB23

### *Redefining Value in Moisture Analysis*

- A metal heating element allows for a glass-less design to accommodate certain regulations where glass is prohibited
- Setup and operation are extremely easy; the drying temperature and shut off criterion can be set through a simple interface
- A small footprint takes up less space on a lab countertop or production area



Model	Heating	Capacity	Readability	Moisture Readability	Item No
MB23	Metal IR	110 g	0.01 g	0.1%	83999801



### Defender® 5000

**Multifunctional Bench Scale for Standard Industrial Applications**



- Precision weighing minimizes loss in manufacturing and in the warehouse
- Stainless steel bases available for wet processing use
- Multiple software modes and password control for admins/supervisors/users

### Ranger® 7000

**Simplifying Even the Most Complex Industrial Applications**



- Precision and high resolution weighing for R&D lab to the warehouse
- Cast metal base for use in dry areas
- Multiple software modes and password control for admins/supervisors/users

### Defender® 3000

Economical Bench Scales for Basic Industrial Applications



- Economical weighing for use in packaging, warehousing and shipping
- All stainless steel for washdown areas, dry-use scales for general industrial areas
- Weigh and Basic Counting software for the most common applications

### Ranger® 4000

The Best Value for Durable Industrial Weighing



- Standard benchtop weighing with metal housing for use in packaging line and warehouse
- Cast metal housing for extra durability
- Weigh, Counting, Checkweighing and % software for packaging and inventory control

### Ranger® 3000

**Multipurpose Compact Bench Scales for Basic Applications**



- Standard benchtop weighing for use in packaging line and warehouse
- ABS plastic housing for easy portability
- Weigh, Counting, Checkweighing and % software for packaging and inventory control

### Valor® 7000

**The Best Compact Food Scale in its Class**



- Standard benchtop weighing with NSF listing and USDA-AMS acceptance for use in processing and packaging
- ABS plastic housing for easy portability
- Weigh, Checkweighing and % software for packaging

## Bench Scales

### Valor® 3000

**Rugged, Full Stainless Steel Design in a High Performance, Portable Scale**



- Small foot print precision weighing with NSF listing and USDA-AMS acceptance for use in processing and packaging
- Stainless steel housing, IP65 models for washdown areas and high-res models for R&D
- Weigh, Checkweighing and % software for packaging and R&D use

### FD Series

**Speed, Durability and Cleanliness Designed for Food Service Use**



- Precision benchtop weighing with NSF listing and USDA-AMS acceptance for use in processing and packaging
- Stainless steel housing -- high-res models for R&D
- Weigh, Checkweighing and % software for packaging and R&D use

### Valor® 4000

**Legal for Trade Food Scale That Enhances Efficiency in Harsh Environments**



- Precision weighing NSF listed and USDA-AMS accepted for use in wet processing areas
- IPX8 housing protected for use in harsh washdown areas -- available in ABS or stainless steel
- Weigh and Checkweighing software for packaging -- legal-for-trade certified for packaging retail products

**Defender® 5000 Washdown**  
*High Performance Bench Scales for Advanced Applications*

- All steel construction in models for dry or wet areas, with precision to 25,000d (or 6,250e LFT legal-for-trade), capacities from 5 to 1,000 lb and multiple platforms from 10x10 to 24x32"
- Users are guided through use by bright, backlit graphical display, application-specific SoftKeys, 6 configurable weighing modes, GMP/GLP data, and 50,000 SKUs/1,000 users Library function
- RS232 included; RS485, USB, analog output, relays, Ethernet, WiFi, Bluetooth options for PLCs/LANs/external equipment. Includes MicroSD data storage. Internal universal power supply



Models with Stainless Steel Column						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52XW2WQS6	5 lb / 2.5 kg	0.0002 lb / 0.1g	0.001 lb / 0.5 g	10 x 10 in / 254 x 254 mm	III	30461673
D52XW5WQS6	10 lb / 5 kg	0.0005 lb / 0.2 g	0.002 lb / 1 g	10 x 10 in / 254 x 254 mm	III	30461674
D52XW12WQS6	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 5 g	10 x 10 in / 254 x 254 mm	III	30461675
D52XW12WQR6	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461676
D52XW25WQR6	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461677
D52XW50WQR6	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	12 x 12 in / 305 x 305 mm	III	30461678
D52XW25WQL7	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	18 x 18 in / 457 x 457 mm	III	30461679
D52XW50WQL7	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 18 in / 457 x 457 mm	III	30461680
D52XW125WQL7	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	18 x 18 in / 457 x 457 mm	III	30461681
D52XW50WTX7	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 24 in / 457 x 610 mm	III	30461682
D52XW125WTX7	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461683
D52XW250WTX7	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461684



## Defender® 5000 Washdown

High Performance Bench Scales for Advanced Applications

Models with Stainless Steel Column						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52XW50WQV8	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	24 x 24 in / 610 x 610 mm	III	30461685
D52XW125WQV8	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	24 x 24 in / 610 x 610 mm	III	30461686
D52XW250WQV8	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	24 x 24 in / 610 x 610 mm	III	30461687
D52XW500WQV8*	1,000 lb / 500 kg	0.05 lb / 20 g	0.2 lb / 100 g	24 x 24 in / 610 x 610 mm	III	30461688

\* Aluminum IP67 loadcell

Models with Front Mounted Indicator						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52XW2WQS5	5 lb / 2.5 kg	0.0002 lb / 0.1g	0.001 lb / 0.5 g	10 x 10 in / 254 x 254 mm	III	30461661
D52XW5WQS5	10 lb / 5 kg	0.0005 lb / 0.2 g	0.002 lb / 1 g	10 x 10 in / 254 x 254 mm	III	30461662
D52XW12WQS5	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 5 g	10 x 10 in / 254 x 254 mm	III	30461663
D52XW12WQR5	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461664
D52XW25WQR5	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461665
D52XW50WQR5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	12 x 12 in / 305 x 305 mm	III	30461464
D52XW25WQL5	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	18 x 18 in / 457 x 457 mm	III	30461465
D52XW50WQL5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 18 in / 457 x 457 mm	III	30461466
D52XW125WQL5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	18 x 18 in / 457 x 457 mm	III	30461467
D52XW50WTX5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 24 in / 457 x 610 mm	III	30461668
D52XW125WTX5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461669
D52XW250WTX5	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461670
D52XW50WQV5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	24 x 24 in / 610 x 610 mm	III	30461671
D52XW125WQV5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	24 x 24 in / 610 x 610 mm	III	30461672



Cultivation



Processing



Testing & R&D

## Defender® 5000

### High Performance Bench Scales for Advanced Applications

- Steel construction in models for dry areas, with precision to 25,000d (or 6,250e LFT legal-for-trade), capacities from 5 to 1,000 lb and multiple platforms from 10x10 to 24x32"
- Users are guided through use by bright, backlit graphical display, application-specific SoftKeys, 6 configurable weighing modes, GMP/GLP data, and 50,000 SKUs/1,000 users Library function
- RS232 included; RS485, USB, analog output, relays, Ethernet, WiFi, Bluetooth options for PLCs/LANs/external equipment. Includes MicroSD data storage. Internal universal power supply



Models with Powder-Coated Frames and Columns						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52P12RQR1	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 2 g	12 x 12 in / 305 x 305 mm	III	30461630
D52P25RQR1	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461631
D52P50RQR1	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	12 x 12 in / 305 x 305 mm	III	30461632
D52P12RTR1	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 2 g	12 x 14 in / 305 x 355 mm	III	30461633
D52P25RTR1	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	12 x 14 in / 305 x 355 mm	III	30461634
D52P50RTR1	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	12 x 14 in / 305 x 355 mm	III	30461635
D52P50RQL2	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 18 in / 457 x 457 mm	III	30461636
D52P125RQL2	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 20 g	18 x 18 in / 457 x 457 mm	III	30461637
D52P50RTX2	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 24 in / 457 x 610 mm	III	30461638
D52P125RTX2	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 20 g	18 x 24 in / 457 x 610 mm	III	30461639
D52P250RTX2	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461640
D52P50RQV3	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	24 x 24 in / 610 x 610 mm	III	30461641



**Defender® 5000****High Performance Bench Scales for Advanced Applications****Models with Powder-Coated Frames and Columns**

Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52P125RQV3	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 20 g	24 x 24 in / 610 x 610 mm	III	30461642
D52P250RQV3	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	24 x 24 in / 610 x 610 mm	III	30461643
D52P500RQV3	1,000 lb / 500 kg	0.05 lb / 20 g	0.2 lb / 100 g	24 x 24 in / 610 x 610 mm	III	30461644
D52P125RTV3	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 20 g	23.6 x 31.5 in / 600 x 800 mm	III	30461645
D52P250RTV3	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	23.6 x 31.5 in / 600 x 800 mm	III	30461646
D52P500RTV3	1,000 lb / 500 kg	0.05 lb / 20 g	0.2 lb / 100 g	23.6 x 31.5 in / 600 x 800 mm	III	30461647

**Models with Powder-Coated Frames and Front-Mounted Indicators**

Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52P12RQR5	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 2 g	12 x 12 in / 305 x 305 mm	III	30461648
D52P25RQR5	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461649
D52P50RQR5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	12 x 12 in / 305 x 305 mm	III	30461650
D52P12RTR5	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 2 g	12 x 14 in / 305 x 355 mm	III	30461651
D52P25RTR5	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	12 x 14 in / 305 x 355 mm	III	30461652
D52P50RTR5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	12 x 14 in / 305 x 355 mm	III	30461653
D52P50RQL5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 18 in / 457 x 457 mm	III	30461654
D52P125RQL5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 20 g	18 x 18 in / 457 x 457 mm	III	30461655
D52P50RTX5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 24 in / 457 x 610 mm	III	30461656
D52P125RTX5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 20 g	18 x 24 in / 457 x 610 mm	III	30461657
D52P250RTX5	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461658
D52P50RQV5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	24 x 24 in / 610 x 610 mm	III	30461659
D52P125RQV5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 20 g	24 x 24 in / 610 x 610 mm	III	30461660
D52P250RQV5	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	24 x 24 in / 610 x 610 mm	III	30467606
D52P125RTX5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 20 g	23.6 x 31.5 in / 600 x 800 mm	III	30467607



Cultivation



Processing

Testing &  
R&D

## Ranger® 7000

*Simplifying Even the Most Complex Industrial Applications*

- Available in both high 300,000d (35,000e LFT) and standard 75,000d (7,500e LFT) resolutions from 6 to 150lb and platforms from 11x11 to 12.15". Indicator can be installed on wall or optional column
- Users are guided through use by bright, backlit color graphical display, application-specific SoftKeys, 11 weighing modes, GMP/GLP data, and 2,500 SKUs Library function
- RS232 and USB included; relays, Ethernet options for PLCs/LANs/external equipment. Internal universal power supply



Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
R71MHD3	6 lb / 3 kg	0.00002 lb / 0.01 g	0.0002 lb / 0.1 g	9.4 in x 9.4 in / 240 mm x 240 mm	II	30088840
R71MD3	6 lb / 3 kg	0.0001 lb / 0.05 g	0.001 lb / 0.5 g	11 in x 11 in / 280 mm x 280 mm	III	30070289
R71MHD6	15 lb / 6 kg	0.00005 lb / 0.02 g	0.0005 lb / 0.2 g	9.4 in x 9.4 in / 240 mm x 240 mm	II	30088841
R71MD6	15 lb / 6 kg	0.0002 lb / 0.1 g	0.002 lb / 1 g	11 in x 11 in / 280 mm x 280 mm	III	30070310
R71MHD15	30 lb / 15 kg	0.0002 lb / 0.1 g	0.002 lb / 1 g	12.2 in x 14.8 in / 311 mm x 377 mm	II	30088842
R71MD15	30 lb / 15 kg	0.0005 lb / 0.2 g	0.005 lb / 2 g	12.2 in x 14.8 in / 311 mm x 377 mm	III	30070311
R71MHD35	70 lb / 35 kg	0.0002 lb / 0.1 g	0.002 lb / 1 g	12.2 in x 14.8 in / 311 mm x 377 mm	II	30088843
R71MD35	70 lb / 35 kg	0.001 lb / 0.5 g	0.01 lb / 5 g	12.2 in x 14.8 in / 311 mm x 377 mm	III	30070312
R71MD60	150 lb / 60 kg	0.002 lb / 1 g	0.02 lb / 10 g	12.2 in x 14.8 in / 311 mm x 377 mm	III	30212873



## Defender® 3000 Washdown

### Economical Stainless Steel Bench Scales for Basic Industrial Washdown Applications

- All steel construction in models for dry or wet areas, with precision to 6,000d (or 3,000e LFT), capacities from 33 to 660 lb and multiple platforms from 12x14 to 20x26".
- Easy-to-use with backlit numeric LCD, 5 function keys, and weigh or basic counting modes.
- Includes RS232. Powered by AC wallpack or internal rechargeable battery.



Models with Stainless Steel Column						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D32XW15VR	30 lb / 15 kg	0.005 lb / 2 g	0.01 lb / 5g	14 in x 12 in / 355 mm x 305 mm	III	30369114
D32XW30VR	66 lb / 30 kg	0.01 lb / 5 g	0.02 lb / 10 g	14 in x 12 in / 355 mm x 305 mm	III	83999817
D32XW60VR	132 lb / 60 kg	0.02 lb / 10 g	0.05 lb / 20 g	14 in x 12 in / 355 mm x 305 mm	III	83999818
D32XW60VL	132 lb / 60 kg	0.02 lb / 10 g	0.05 lb / 20 g	21.7 in x 16.5 in / 550 mm x 420 mm	III	83999819
D32XW150VL	330 lb / 150 kg	0.05 lb / 20 g	0.1 lb / 50 g	21.7 in x 16.5 in / 550 mm x 420 mm	III	83999820
D32XW150VX	330 lb / 150 kg	0.05 lb / 20 g	0.1 lb / 50 g	25.6 in x 19.7 in / 650 mm x 500 mm	III	83999821
D32XW300VX	660 lb / 300 kg	0.1 lb / 50 g	0.2 lb / 100 g	25.6 in x 19.7 in / 650 mm x 500 mm	III	83999822



Cultivation



Processing



Testing &amp; R&amp;D

**Defender® 3000**  
*Economical Bench Scales for Basic Industrial Applications*

- Steel construction in models for dry areas, with precision to 6,000d (or 3,000e LFT), capacities from 33 to 660 lb and multiple platforms from 12x14 to 20x26".
- Easy-to-use with backlit numeric LCD, 5 function keys, and weigh or basic counting modes.
- Includes RS232. Optional USB and Ethernet converters available for dry use versions. Powered by AC wallpack or internal rechargeable battery.



Models with Painted Bases and Column						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D31P15BR	30 lb / 15 kg	0.005 lb / 2 g	0.01 lb / 5 g	14 in x 12 in / 355 mm x 305 mm	III	30369116
D31P30BR	66 lb / 30 kg	0.01 lb / 5 g	0.02 lb / 10 g	14 in x 12 in / 355 mm x 305 mm	III	83998111
D31P60BR	132 lb / 60 kg	0.02 lb / 10 g	0.05 lb / 20 g	14 in x 12 in / 355 mm x 305 mm	III	83998112
D31P60BL	132 lb / 60 kg	0.02 lb / 10 g	0.05 lb / 20 g	21.7 in x 16.5 in / 550 mm x 420 mm	III	83998113
D31P150BL	330 lb / 150 kg	0.05 lb / 20 g	0.1 lb / 50 g	21.7 in x 16.5 in / 550 mm x 420 mm	III	83998114
D31P150BX	330 lb / 150 kg	0.05 lb / 20 g	0.1 lb / 50 g	25.6 in x 19.7 in / 650 mm x 500 mm	III	83998115
D31P300BX	660 lb / 300 kg	0.1 lb / 50 g	0.2 lb / 100 g	25.6 in x 19.7 in / 650 mm x 500 mm	III	83998116

**Defender® 3000***Economical Bench Scales for Basic Industrial Applications*

Models with Painted Bases and Front-Mounted Indicators						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D31P15BR5	30 lb / 15 kg	0.005 lb / 2 g	0.01 lb / 5 g	14 in x 12 in / 355 mm x 305 mm	III	30490640
D31P30BR5	66 lb / 30 kg	0.01 lb / 5 g	0.02 lb / 10 g	14 in x 12 in / 355 mm x 305 mm	III	30490641
D31P60BR5	132 lb / 60 kg	0.02 lb / 10 g	0.05 lb / 20 g	14 in x 12 in / 355 mm x 305 mm	III	30490642
D31P60BL5	132 lb / 60 kg	0.02 lb / 10 g	0.05 lb / 20 g	21.7 in x 16.5 in / 550 mm x 420 mm	III	30490643
D31P150BL5	330 lb / 150 kg	0.05 lb / 20 g	0.1 lb / 50 g	21.7 in x 16.5 in / 550 mm x 420 mm	III	30490644



Cultivation



Processing

Testing &  
R&D

Ranger® 4000  
The Best Value for Durable Industrial Weighing

- Compact scale design with cast metal housing, 30,000d (or 3,000e legal-for-trade) precision, capacities from 6 to 60lb with a 9x12" platform
- Backlit LCD display, simple 5 key operation, added application modes for counting, checkweighing and %, LEDs for Checkweighing, option for bulk base
- RS232 included; Ethernet or USB options for PLCs/LANs/external equipment. Optional remote base input. Internal universal power supply and internal rechargeable battery included



Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
R41ME3	6 lb / 3 kg	0.0002 lb / 0.1 g	0.002 lb / 1 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30236775
R41ME6	15 lb / 6 kg	0.0005 lb / 0.2 g	0.005 lb / 2 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30236776
R41ME15	30 lb / 15 kg	0.001 lb / 0.5 g	0.01 lb / 5 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30236777
R41ME30	60 lb / 30 kg	0.002 lb / 1 g	0.02 lb / 10 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30236778





## Ranger® 3000

### Multipurpose Compact Bench Scales for Basic Industrial Applications

- Compact scale design with ABS plastic housing, 30,000d (or 3,000e legal-for-trade) precision, capacities from 3 to 60lb with a 9x12" platform
- Backlit LCD display, simple 5 key operation, added application modes for counting, checkweighing and %, LEDs for Checkweighing
- RS232 included; Ethernet or USB options for PLCs/LANs/external equipment. Internal universal power supply and internal rechargeable battery included



Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
R31P1502	3 lb / 1.5 kg	0.0001 lb / 0.05 g	0.001 lb / 0.5 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031707
R31P3	6 lb / 3 kg	0.0002 lb / 0.1 g	0.002 lb / 1 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031708
R31P6	15 lb / 6 kg	0.0005 lb / 0.2 g	0.005 lb / 2 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031709
R31P15	30 lb / 15 kg	0.001 lb / 0.5 g	0.01 lb / 5 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031710
R31P30	60 lb / 30 kg	0.002 lb / 1 g	0.02 lb / 10 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031711



Cultivation



Processing

Testing &  
R&D

Valor® 7000  
The Best Compact Food Scale in its Class

- Compact scale design with ABS plastic housing, 30,000d (or 3,000e legal-for-trade) precision, capacities from 3 to 60lb with a 9x12" platform
- Backlit LCD displays on front/back of scale, simple 5 key operation, added application modes for checkweighing and %, LEDs for Checkweighing. NSF listed/USDA-AMS accepted
- RS232 included; Ethernet or USB options for PLCs/LANs/external equipment. Internal universal power supply and internal rechargeable battery included



Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
V71P1502T	3 lb / 1.5 kg	0.0001 lb / 0.05 g	0.001 lb / 0.5 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031827
V71P3T	6 lb / 3 kg	0.0002 lb / 0.1 g	0.002 lb / 1 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031828
V71P6T	15 lb / 6 kg	0.0005 lb / 0.2 g	0.005 lb / 2 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031829
V71P15T	30 lb / 15 kg	0.001 lb / 0.5 g	0.01 lb / 5 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031830
V71P30T	60 lb / 30 kg	0.002 lb / 1 g	0.02 lb / 10 g	8.9 in x 11.8 in / 225 mm x 300 mm	III	30031831



## FD Series

*Speed, Durability and Cleanliness Designed for Food Service Use*



- Compact scale design with stainless steel housing, up to 30,000d (or 3,000e legal-for-trade) precision by model, capacities from 6 to 30lb with 8x8" platform
- Backlit LCD display, 4 key operation, added application modes for checkweighing and %, LEDs for Checkweighing. Includes input for remote tare switch. NSF listed/USDA-AMS accepted
- AC wallpack or internal rechargeable battery power (both included)

Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
FD3H	6 lb / 3 kg	0.0002 lb / 0.1 g	N/A	8.2 in x 8.2 in / 209 mm x 209 mm	N/A	83998147
FD6H	15 lb / 6 kg	0.001 lb / 0.2 g	N/A	8.2 in x 8.2 in / 209 mm x 209 mm	N/A	83998148
FD15H	30 lb / 15 kg	0.001 lb / 1 g	N/A	8.2 in x 8.2 in / 209 mm x 209 mm	N/A	83998149
FD3	6 lb / 3 kg	0.001 lb / 0.5 g	0.002 lb / 1 g	8.2 in x 8.2 in / 209 mm x 209 mm	III	83998117
FD6	15 lb / 6 kg	0.002 lb / 1 g	0.005 lb / 2 g	8.2 in x 8.2 in / 209 mm x 209 mm	III	83998118
FD15	30 lb / 15 kg	0.005 lb / 2 g	0.01 lb / 5 g	8.2 in x 8.2 in / 209 mm x 209 mm	III	83998119



Cultivation



Processing



Dispensary  
& P.O.S



Testing &  
R&D

## Valor® 3000

*Rugged, Full Stainless Steel Design in a High Performance Portable Scale*

- Compact scale design with stainless steel housing, up to 40,000d precision by model, capacities up to 13lb with 5 or 6x6" platform
- Backlit LCD display, 3 key operation, added application modes for % and specific gravity, IP65 washdown versions available. NSF listed/ USDA-AMS accepted
- AC wallpack (included) or disposable battery power. Options for extra-wide sandwich pan, taco or ice cream cone holders



Model	Capacity	Readability	Washdown Protection	Platform Size	Item No
V31XH202	0.441 lb / 200 g	0.00005 lb / 0.01 g	N/A	Ø 4.7 in / Ø 120 mm 83998130	83998130
V31XW301	0.662 lb / 300 g	0.0005 lb / 0.1 g	IP65/NEMA 4X	6.2 in x 5.7 in / 158 mm x 146 mm	83998134
V31XH402	0.88 lb / 400 g	0.00005 lb / 0.01 g	N/A	Ø 4.7 in / Ø 120 mm	83998178
V31X501	1.1 lb / 500 g	0.0005 lb / 0.1 g	N/A	Ø 4.7 in / Ø 120 mm 83998176	83998176
V31XH2	4.4 lb / 2 kg	0.0005 lb / 0.1 g	N/A	6.2 in x 5.7 in / 158 mm x 146 mm	83998131
V31X3	6 lb / 3 kg	0.005 lb / 1 g	N/A	6.2 in x 5.7 in / 158 mm x 146 mm	83998132
V31XH4	8.8 lb / 4 kg	0.0005 lb / 0.1 g	N/A	6.2 in x 5.7 in / 158 mm x 146 mm	83998177
V31X6	15 lb / 6 kg	0.005 lb / 1 g	N/A	6.2 in x 5.7 in / 158 mm x 146 mm	83998133
V31XW3	6 lb / 3 kg	0.005 lb / 0.5 g	IP65/NEMA 4X	6.2 in x 5.7 in / 158 mm x 146 mm	83998135
V31XW6	15 lb / 6 kg	0.005 lb / 1 g	IP65/NEMA 4X	6.2 in x 5.7 in / 158 mm x 146 mm	83998136



**Valor® 4000***Speed, Durability and Cleanliness Designed for Food Service Use*

- Compact IPX8 washdown scale design with stainless steel housing, up to 7,250d (or 3,000e legal-for-trade) precision by model, capacities from 6 to 30lb with 8x8" platform
- Backlit LCD display, 4 key operation, added application modes for checkweighing and %, LEDs for Checkweighing. Includes input for remote tare switch. NSF listed/USDA-AMS accepted
- AC wallpack or internal rechargeable battery power (both included)



IPX8 Stainless Steel Housing						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
V41XWE1501T	3 lb / 1.5 kg	0.0005 lb / 0.2 g	0.001 lb / 0.5 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035444
V41XWE3T	6 lb / 3 kg	0.001 lb / 0.5 g	0.002 lb / 1 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035445
V41XWE6T	15 lb / 6 kg	0.002 lb / 1 g	0.005 lb / 2 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035446
V41XWE15T	30 lb / 15 kg	0.005 lb / 2 g	0.01 lb / 5 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035447

IPX8 ABS Plastic Housing						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
V41PWE1501T	3 lb / 1.5 kg	0.0005 lb / 0.2 g	0.001 lb / 0.5 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035434
V41PWE3T	6 lb / 3 kg	0.001 lb / 0.5 g	0.002 lb / 1 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035435
V41PWE6T	15 lb / 6 kg	0.002 lb / 1 g	0.005 lb / 2 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035436
V41PWE15T	30 lb / 15 kg	0.005 lb / 2 g	0.01 lb / 5 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035437



Cultivation



Processing



Testing &amp; R&amp;D

## Floor Scales

### **VN & VX Series**

**Economical Floor Scales for Basic Industrial Applications**



- Capacities up to 10,000lb with thick top treadplate
- Weigh and count modes for use in shipping receiving and the warehouse.
- Available in 4'x4' and 5'x5' for the most common warehouse needs

### **Defender 3000 Drum Scale**

**Convenient Portability with Floor Scale Capacity**

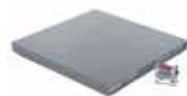


- Movable scale for weighing drums and boxes from 500 to 2,500 lb
- Includes dynamic weighing mode for use with people or animals to filter-out movement
- Quick portability where needed in the warehouse or production floor

## VX & VN Series

### Economical Floor Scales for Basic Industrial Applications

- Tough painted steel treadplate base with stainless steel indicator. Capacities from 2,500 to 10,000lb and platforms in 4 x 4' and 5 x 5'
- Easy-to-use with backlit numeric LCD, 5 function keys, and weigh or basic counting modes. Stainless steel or ABS plastic indicator
- Includes RS232. Powered by AC wallpack or internal rechargeable battery. Optional ramps, USB or Ethernet converters, foot plates and free-standing indicator stands available



VX Floor Scale



VN Floor Scale

VX Models					
Model	Capacity	Readability	Platform Size	Indicator	Item No
VX32XW2500L	2,500 lb / 1,000 kg	0.5 lb / 0.2 kg	4 ft x 4 ft / 1,219 mm x 1,219 mm	Stainless Steel	80253294
VX32XW5000L	5,000 lb / 2,200 kg	1 lb / 0.5 kg	4 ft x 4 ft / 1,219 mm x 1,219 mm	Stainless Steel	80253295
VX32XW10000L	10,000 lb / 4,500 kg	2 lb / 1 kg	4 ft x 4 ft / 1,219 mm x 1,219 mm	Stainless Steel	80253297
VX32XW5000X	5,000 lb / 2,200 kg	1 lb / 0.5 kg	5 ft x 5 ft / 1,524 mm x 1,524 mm	Stainless Steel	80253296
VX32XW10000X	10,000 lb / 4,500 kg	2 lb / 1 kg	5 ft x 5 ft / 1,524 mm x 1,524 mm	Stainless Steel	80253298

VN Models					
Model	Capacity	Readability	Platform Size	Indicator	Item No
VN31P5000L	5,000 lb / 2,500 kg	1 lb / 0.5 kg	4 ft x 4 ft / 1,219 mm x 1,219 mm	ABS Plastic	80252563
VN31P5000X	5,000 lb / 2,500 kg	1 lb / 0.5 kg	5 ft x 5 ft / 1,524 mm x 1,524 mm	ABS Plastic	80252564



Cultivation



Processing

**Defender 3000 Drum Scale**  
*Convenient Portability with Floor Scale Capacity*



NEW  
Available Early/Mid 2019

- Rugged painted steel treadplate base with integrated ramps. Indicator with 19.8' cord and wall mount bracket. Easily moved using integrated heavy-duty wheels and folding handles
- Easy-to-use with backlit numeric LCD and LEDs for checkweighing, 4 function keys, and added modes for Counting, Checkweighing, Dynamic Weighing and Display Hold
- Includes RS232. Powered by AC wallpack. Optional USB and Ethernet converters, and free-standing indicator stands available

Model	Capacity	Readability	Platform Size	Item No
DFD32M500ES	500 lb / 250 kg	0.1 lb / 0.05 kg	30 x 30 in / 762 x 762 mm	30469909
DFD32M1000ES	1,000 lb / 500 kg	0.2 lb / 0.1 kg	30 x 30 in / 762 x 762 mm	30469910
DFD32M2500ES	2,500 lb / 1,250 kg	0.5 lb / 0.2 kg	30 x 30 in / 762 x 762 mm	30469911
DFD32M1000ER	1,000 lb / 500 kg	0.2 lb / 0.1 kg	36 x 36 in / 914 x 914 mm	30469912
DFD32M2500ER	2,500 lb / 1,250 kg	0.5 lb / 0.2 kg	36 x 36 in / 914 x 914 mm	30469913



## Defender® 5000 Stainless Steel

High Performance Bench Scales for Advanced Applications



- Standard resolution weighing and 1 second update reduces loss on the packaging line
- All stainless steel design protected to IP67 for use with food and chemical production
- Check by weight or count with advanced password control for admins/supervisors/users.

## Valor® 4000

Legal for Trade Food Scale That Enhances Efficiency in Harsh Environments



- NSF listed and USDA-AMS accepted for use in food processing and packaging
- IPX8 housing protected for use in harsh washdown areas -- available in ABS or stainless steel
- Weigh and Checkweighing software for packaging -- legal-for-trade certified for packaging retail products

## Valor® 2000

**Food Scale for Efficiency in Harsh Environments**



- NSF listed and USDA-AMS accepted for use in food processing and packaging
- IPX8 stainless steel housing protected for use in harsh washdown areas
- Weigh and Checkweighing software for packaging

## Defender® 5000 Stainless Steel

### High Performance Bench Scales for Advanced Applications

- All stainless steel IP67/NEMA4X design for washdown areas, with precision to 25,000d (or 6,250e legal-for-trade), capacities from 5 to 1,000 lb and multiple base sizes from 10x10 to 24x24
- Operators are guided through use by the bright graphical display, application-specific SoftKeys, configurable weighing modes, GMP/GLP data, and 50,000 SKUs and 1,000 users Library function
- Serial RS232/485, USB device, analog output, relays, Ethernet, WiFi and Bluetooth communications to interface with PLCs, LANs and external equipment. Includes MicroSD card for data storage



Models with Stainless Steel Column						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52XW2WQS6	5 lb / 2.5 kg	0.0002 lb / 0.1g	0.001 lb / 0.5 g	10 x 10 in / 254 x 254 mm	III	30461673
D52XW5WQS6	10 lb / 5 kg	0.0005 lb / 0.2 g	0.002 lb / 1 g	10 x 10 in / 254 x 254 mm	III	30461674
D52XW12WQS6	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 5 g	10 x 10 in / 254 x 254 mm	III	30461675
D52XW12WQR6	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461676
D52XW25WQR6	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461677
D52XW50WQR6	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	12 x 12 in / 305 x 305 mm	III	30461678
D52XW25WQL7	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	18 x 18 in / 457 x 457 mm	III	30461679
D52XW50WQL7	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 18 in / 457 x 457 mm	III	30461680
D52XW125WQL7	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	18 x 18 in / 457 x 457 mm	III	30461681
D52XW50WTX7	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 24 in / 457 x 610 mm	III	30461682
D52XW125WTX7	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461683
D52XW250WTX7	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461684



## Defender® 5000 Stainless Steel

### High Performance Bench Scales for Advanced Applications

Models with Stainless Steel Column						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52XW50WQV8	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	24 x 24 in / 610 x 610 mm	III	30461685
D52XW125WQV8	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	24 x 24 in / 610 x 610 mm	III	30461686
D52XW250WQV8	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	24 x 24 in / 610 x 610 mm	III	30461687
D52XW500WQV8*	1,000 lb / 500 kg	0.05 lb / 20 g	0.2 lb / 100 g	24 x 24 in / 610 x 610 mm	III	30461688

\* Aluminum IP67 loadcell

Models with Front Mounted Indicator						
Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
D52XW2WQS5	5 lb / 2.5 kg	0.0002 lb / 0.1g	0.001 lb / 0.5 g	10 x 10 in / 254 x 254 mm	III	30461661
D52XW5WQS5	10 lb / 5 kg	0.0005 lb / 0.2 g	0.002 lb / 1 g	10 x 10 in / 254 x 254 mm	III	30461662
D52XW12WQS5	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 5 g	10 x 10 in / 254 x 254 mm	III	30461663
D52XW12WQR5	25 lb / 12.5 kg	0.001 lb / 0.5 g	0.005 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461664
D52XW25WQR5	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	12 x 12 in / 305 x 305 mm	III	30461665
D52XW50WQR5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	12 x 12 in / 305 x 305 mm	III	30461464
D52XW25WQL5	50 lb / 25 kg	0.002 lb / 1 g	0.01 lb / 5 g	18 x 18 in / 457 x 457 mm	III	30461465
D52XW50WQL5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 18 in / 457 x 457 mm	III	30461466
D52XW125WQL5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	18 x 18 in / 457 x 457 mm	III	30461467
D52XW50WTX5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	18 x 24 in / 457 x 610 mm	III	30461668
D52XW125WTX5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461669
D52XW250WTX5	500 lb / 250 kg	0.02 lb / 10 g	0.1 lb / 50 g	18 x 24 in / 457 x 610 mm	III	30461670
D52XW50WQV5	100 lb / 50 kg	0.005 lb / 2 g	0.02 lb / 10 g	24 x 24 in / 610 x 610 mm	III	30461671
D52XW125WQV5	250 lb / 125 kg	0.01 lb / 5 g	0.05 lb / 50 g	24 x 24 in / 610 x 610 mm	III	30461672



Cultivation



Processing

**Valor® 4000***Speed, Durability and Cleanliness Designed for Food Service Use*

- Compact scale design with ABS or stainless steel housings, IPX8 washdown protection, 7,500d (or 3,000e LFT) precision, capacities 3 to 30 lb with 8x10 platform
- Red LED displays on front/back of scale, knife-proof overlay with 4 key operation, added application modes for % and Checkweighing, LEDs for Checkweighing, NSF listed/USDA-AMS accepted
- AC wallpack and internal rechargeable battery included. Option for extra-wide pan

**IPX8 Stainless Steel Housing**

Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
V41XWE1501T	3 lb / 1.5 kg	0.0005 lb / 0.2 g	0.001 lb / 0.5 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035444
V41XWE3T	6 lb / 3 kg	0.001 lb / 0.5 g	0.002 lb / 1 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035445
V41XWE6T	15 lb / 6 kg	0.002 lb / 1 g	0.005 lb / 2 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035446
V41XWE15T	30 lb / 15 kg	0.005 lb / 2 g	0.01 lb / 5 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035447

**IPX8 ABS Plastic Housing**

Model	Capacity	Readability	Certified Readability	Platform Size	Class	Item No
V41PWE1501T	3 lb / 1.5 kg	0.0005 lb / 0.2 g	0.001 lb / 0.5 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035434
V41PWE3T	6 lb / 3 kg	0.001 lb / 0.5 g	0.002 lb / 1 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035435
V41PWE6T	15 lb / 6 kg	0.002 lb / 1 g	0.005 lb / 2 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035436
V41PWE15T	30 lb / 15 kg	0.005 lb / 2 g	0.01 lb / 5 g	7.5 in x 9.5 in / 190 mm x 242 mm	III	30035437



Cultivation



Processing

## Valor® 2000

*A Rapid-Response Food Scale That Enhances Productivity in Harsh Environments*



- Compact scale design with stainless steel housings, IPX8 washdown protection, 7,500d precision, capacities 3 to 60 lb with 8x10 platform
- Red LED displays on front/back of scale, knife proof overlay with 4 key operation, added application mode for Checkweighing, NSF listed/USDA-AMS accepted
- AC wallpack and internal rechargeable battery included. Option for extra-wide pan

IPX8 Stainless Steel Housing				
Model	Capacity	Readability	Platform Size	Item No
V22XWE1501T	3 lb / 1.5 kg	0.0005 lb / 0.2 g	7.5 in x 9.5 in / 190 mm x 242 mm	30035439
V22XWE3T	6 lb / 3 kg	0.001 lb / 0.5 g	7.5 in x 9.5 in / 190 mm x 242 mm	30035440
V22XWE6T	15 lb / 6 kg	0.002 lb / 1 g	7.5 in x 9.5 in / 190 mm x 242 mm	30035441
V22XWE15T	30 lb / 15 kg	0.005 lb / 2 g	7.5 in x 9.5 in / 190 mm x 242 mm	30035442
V22XWE30T	60 lb / 30 kg	0.01 lb / 5 g	7.5 in x 9.5 in / 190 mm x 242 mm	30251705



## Starter Series

### Accurate Electrochemistry Measurement



- Configured for water and soil analysis in laboratory, or field applications
- Allows for the easy testing of pH, total dissolved solids (TDS) and conductivity to ensure ideal plant nutrient absorption
- Intuitive software and controls allow for ease of operation with all models

Starter 5000 & 3100M Bench  
High Performance & Versatile Bench Meters

- High Performance Bench Meter for Universal pH Applications
- pH measurement range of -2.00 – 20.00
- Large color touchscreen for simple programming and reading of values



Model	Meter Type	Measurement Range	Measurement Resolution	Item No.
ST5000-F	pH, ORP	-2.00 to 20.00 pH; -2000.00 to +2000.00 ; mV-30 to 130°C	0.001 pH; 0.01 mV; 0.1 °C	30129896
ST3100M-N	pH, ORP, Conductivity, TDS, Salinity, Resistivity	-2 - 20 pH; -1999 - 1999 mV; 0.0 μS/cm - 19.99 mS/cm; 0.1 mg/l - 199.9 g/l; 0 - 20MΩ•cm; 0 - 100 psu	0.01 pH; 1 mV; 0.01 μS/cm; 0.01 mg/L; .01 Ω•cm; 0.01 psu	30332140





## Starter 300 & 300C Portable

**Convenient Portable Conductivity Meter  
for Wherever Your Work Takes You**

- Convenient Portable meter ideal for field or other remote applications
- pH measurement range of 0.00 – 14.00
- Long battery life of approximately 500 hours



Model	Meter Type	Measurement Range	Measurement Resolution	Item No.
ST300	pH	0.00 to 14.00 pH; -1999 to 1999 mV ; 0 to 100 °C	0.01 pH ; 1 mV ; 0.1 °C	83033961
ST300-G*	pH	0.00 to 14.00 pH; -1999 to 1999 mV ; 0 to 100 °C	0.01 pH ; 1 mV ; 0.1 °C	30219114
ST300C	Conductivity	00.0 µS/cm to 199.9 mS/cm ; 0.1 mg/L to 199.9 g/L (TDS); 1 to 100 °C	0.01 µS/cm; 0.1 mg/L ; 0.1 °C;	83033964
ST300C-G*	Conductivity	00.0 µS/cm to 199.9 mS/cm ; 0.1 mg/L to 199.9 g/L (TDS); 1 to 100 °C	0.01 µS/cm; 0.1 mg/L ; 0.1 °C;	30219115

\* Includes case



Cultivation



Testing &  
R&D

**Starter Pen Meters**  
*Accurate Electrochemistry Measurement At Your Fingertips*

- Designed as an economical option for accurate pH measurement
- pH measurement range of 0.00 – 14
- Fully waterproof IP 67 rated



Model	Meter Type	Measurement Range	Measurement Resolution	Item No.
ST20	pH	0.00 – 14 pH ; 0.0 – 99.0 °C	0.01 pH	30073971
ST20C-A	Conductivity	0.00 – 199.9 µs/cm ; 0.0 – 99.0 °C	0.1 µs/cm	30073975
ST20C-B	Conductivity	0 – 1999 µs/cm; 0.0 – 99.0 °C	1 µs/cm	30073976
ST20C-C	Conductivity	0.00 – 19.99 ms/cm ; 0.0 – 99.0 °C	10 µs/cm	30073977
ST20T-A	TDS	0.0 – 100.0 mg/L; 0.0 – 99.0 °C	0.1 mg/L	30073980
ST20T-B	TDS	0.0 – 1000 mg/L; 0.0 – 99.0 °C	1 mg/L	30073981



## Vortex Series

### Stable and Reliable Vortexing Action



- Sturdy and stable design to withstand high-speed vortexing action
- Multi-tube model accommodates 15 x 50mL tubes, ideal for QuEChERS method for pesticides analysis
- Multiple orbit sizes to choose from ranging from 2.5mm to 4.9mm to optimize vortex mix

# Vortex Mixers

## Mini Vortex Mixers

*Built Sturdy to Provide Stable and Reliable Vortexing Action*

- Sturdy design remains stable on the bench even during high mixing
- Over 20 accessories to accommodate a variety of tubes and microplates
- Analog and digital models available for precise speed control



Model	Controls	Speed Range	Timer	Orbit	Item No.
VXMNAL	Analog	300 to 3200 rpm		4.9 mm (0.19")	30392115
VXMNDG	Digital	500 to 3000 rpm	*	4.9 mm (0.19")	30392122



## Heavy Duty Vortex Mixers

*Designed for Continuous Duty Applications*

- Designed for large volume vortexing with sample weight up to 2.5lbs
- Wide range of accessories for tube sizes from 0.5-50mL and microplates
- Digital units display exact speed and time for critical applications



Model	Controls	Speed Range	Timer	Orbit	Item No.
VXHDDG	Analog	300 to 3500 rpm		4.9 mm (0.19")	30392148
VXHDAL	Digital	300 to 3500 rpm	*	4.9 mm (0.19")	30392146



## Multi Tube Vortex Mixers

*Improve Efficiency by Processing up to 50 Samples at a Time*

- Designed for high throughput vortexing applications
- Interchangeable foam racks accommodate popular 1.5, 15 and 50mL tubes
- Digital models have programmable pulse mode, creating a vigorous mix



Model	Controls	Speed Range	Timer	Orbit	Item No.
VXMTAL	Analog	1200 to 2400 rpm	*	"3.6 mm (0.14")"	30392164
VXMTDG	Digital	"500 to 2500 rpm"	*	"3.6 mm (0.14")"	30392171

## HT Lysing Homogenizer

**Providing Flexible Solutions for Rapid High-Throughput Sample Processing**



- Flexibility to process any sample container that fits. Entire food/plant samples can be homogenized at one time
- Ideal for the grinding plant samples, Extracting processes or homogenizing human and animal tissue
- Intuitive control panel features five preset programs to quickly set speed and time

## HT Lysing Homogenizer

*Providing Flexible Solutions for Rapid High-Throughput Sample Processing*

- High speed linear motion ideal for grinding plant tissue
- Designed to handle multiple tubes, microplates or deep-well plates
- Intuitive controls with 5 preset programs optimized for speed and time



Model	Speed Range	Timer	Motion	Capacity	Item No.
HOHTDG	300 to 1600 rpm	1 second to 10 minutes	Reciprocal, 31 mm	1 deep well plate, 4 microplates, or any sample matrix that can fit in the 10.2 × 12.7 × 6.4 cm adjustable holder	30391393

## Frontier® Series

Dependable Benchtop Micro Centrifuges,  
Ideal for High-speed Lab Applications



- Refrigerated and non-refrigerated models for high speed sample processing up to 21,953 x g
- Intuitive user interface to quickly set parameters such as speed, temperature and time
- Safety features such as rotor imbalance sensor, auto-rotor recognition and aerosol tight rotors protect the user and delicate samples



## Frontier™ 5513 Series Micro

*Dependable Benchtop Micro Centrifuges, Ideal for High-speed Lab Applications*

- Reaches RCF of 17,317 x g, ideal for high-speed lab applications
- Rotors for 1.5/2/5mL tubes, spin columns, PCR strips and hematocrits
- Touch-wheel control for quick setting of parameters



TBD	Speed Range	Max G Force	Temperature Range	Capacity	Item No.
FC5513	200 rpm -13,500 rpm	17,317 x g	N/A	24 x 1.5/2.0 ml	30393188



## Frontier™ 5515 Series Micro

*Dependable Benchtop Micro Centrifuges, Ideal for High-speed Lab Applications*

- Reaches RCF of 17,317 x g, ideal for high-speed lab applications
- Rotors for 1.5/2/5mL tubes, spin columns, PCR strips and hematocrits
- Refrigerated or non-refrigerated models



Model	Speed Range	Max G Force	Temperature Range	Capacity	Item No.
FC5515	200 rpm- 15,200 rpm	21,953 x g	N/A	24 x 1.5/2.0 ml	30130867
FC5515R	200 rpm- 15,200 rpm	21,953 x g	-20° to 40°C	24 x 1.5/2.0 ml	30130869



## Mini Hotplates & Stirrers

**Ideal for Lab Environments**



- Compact design with high maximum temperature and stirring capabilities
- Easy-to-clean, chemical-resistant ceramic top plate with a reflective white surface
- Ideal for routine biology or chemistry lab applications

## Mini Hotplates & Stirrers

*Ideal for Lab Environments*

- Ceramic top plate reaches maximum temperature of 500°C
- Variable speed range from 100 rpm – 1200 rpm
- Stirring capacity up to 1000mL



Model	Temperature Range	Speed Range	Capacity	Plate Size	Item No.
HSMNHP4CAL	to 500°C	N/A	1000 mL	4 × 4" (10.2 × 10.2 cm)	30392010
HSMNST4CAL	N/A	100 to 1200 rpm	1000 mL	4 × 4" (10.2 × 10.2 cm)	30392017
HSMNHS4CAL	to 500°C	100 to 1200 rpm	1000 mL	4 × 4" (10.2 × 10.2 cm)	30392024

## **Incubating & Cooling Shaker Series**

**Intuitive Incubating Cooling Thermal  
Shakers for Consistent High-Speed Shaking**



- Precise temperature and speed control to protect delicate samples
- 11 block configurations that can handle microplates and tubes from 0.5-50mL in size
- Heating and cooling capabilities replicate environments between 17°C below ambient to 100°C

## Incubating Cooling Thermal Shakers

*Intuitive Incubating Cooling Thermal Shakers  
for Consistent High-Speed Shaking*

- Designed for applications requiring precise shaking and temp control
- Able to set up to five separate, 5-step programs
- Cooling model has temperature range from 17°C below ambient to 100°C



Model	Temperature Range	Temperature Accuracy	Speed Range	Orbit	Item No.
ISTHBLHTS	"4°C above ambient to 100°C"	$\pm 1^{\circ}\text{C}$ between 20°C and 45°C $\pm 2^{\circ}\text{C}$ above 45°C	300 to 3000 rpm	3 mm (0.12")	30392003
ISTHBLCTS	"17°C below ambient to 100°C"	$\pm 0.5^{\circ}\text{C}$ between 20°C and 45°C $\pm 2^{\circ}\text{C}$ below 20°C and above 45	300 to 3000 rpm	3 mm (0.12")	30391996

## Shakers Series

**Orbital, Waving, Rocking, and Reciprocating**



- Multiple models with 4 different platform motions to choose from including orbital, waving, rocking, and reciprocating
- Large assortment of tube and flask accessories to meet specific workflow needs
- Rugged design with microprocessor controls for long-lasting accurate performance

## Light Duty Orbital Shaker

### *Models for Light Duty Shaking*

- Designed for applications with loads under 8 lbs
- Available with 3mm or 15mm orbit to optimize sample mix
- Sturdy counterbalanced drive offers years of reliable use



Model	Controls	Speed Range	Maximum Weight Capacity	Orbit/Angle/Stroke	Item No.
SHLD0415AL	Analog	40 to 300 rpm	8 lbs (3.6 kg)	15 mm (0.6")	30391891
SHLD0415DG	Digital	40 to 300 rpm	8 lbs (3.6 kg)	15 mm (0.6")	30391912



## Rocking and Waving Shakers

### *Easiest to Use in the Market with Onboard Adjustments for Tilt Angle*

- Designed for applications with loads up to 15 lbs
- Electronic or manual tilt adjustment while unit is running
- Designed to work in CO2 environments from -10-60° C and 80% RH



Model	Controls	Speed Range	Maximum Weight Capacity	Orbit/Angle/Stroke	Item No.
SHRK07AL1	Analog	1 to 75 rpm	16 lbs (7.3 kg)	0 to 15°	30391959
SHRK04DG	Digital	1 to 50 rpm	10 lbs (4.5 kg)	0 to 15°	30391994
SHWV02AL	Analog	1 to 75 rpm	5 lbs (2.3 kg)	0 to 16°	30391973
SHWV02DG	Digital	1 to 30 rpm	5 lbs (2.3 kg)	0 to 20°	30391947



Reciprocating Shaker

Providing Consistent Shaking Action for a Range of Applications



- Designed for applications with loads up to 15 lbs
- Microprocessor control provides consistent uniform shaking action
- 19mm stroke

Model	Controls	Speed Range	Maximum Weight Capacity	Orbit/Angle/Stroke	Item No.
SHRC0719DG	Digital	20 to 300 rpm	15 lbs (6.8 kg)	19 mm (0.75")	30391828









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*With offices throughout  
Europe, Asia, and  
Latin America*

**\*ISO 9001:2015**  
Registered Quality  
Management System