# SCIENTECH

**SERIES** 12000



ISO 9001 REGISTERED

# The EASURE of Confidence

## **SERIES 12000**

This new and improved Series incorporates Scientech's unique and unequalled displacement detector, which is the heart of our state of the art, self-adjusting digital servo. The result is a ten-fold increase in weighing performance while maintaining our proven, simple, easy to

use, operator interface. The attractive quality of this new design is demonstrated by the CE mark of conformity along with Scientech's ISO 9001 registration.

Every Series 12000 model is a precise weighing device incorporating an impressive list of standard features. Although capable of weighing heavyweight loads, these exemplary performers were designed to indicate featherweight readabilities such as:

- SM Semi-Mirco Balances with readabilities of 0.01mg
- SA Analytical Balances with readabilities of 0.1mg
- SP Precision Balances with readabilities of 1mg
- SL Laboratory Balances with readabilities of 0.01g
- ► SG General Balances with readabilities of 0.1g

All Series 12000 balances are microprocessor controlled with Scientech's exclusive real time temperature compensation algorithm. This revolutionary internal software yields accurate, reproducible results without the need to recalibrate your balance as the ambient temperature varies.

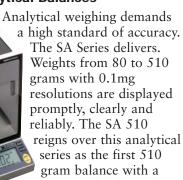
#### SM Semi-Mirco Balances



Semi-Micro (0.01mg) weighing has never been easier as the SM series comprises an impressive list of both single and dual range units. What is even more remarkable is every dual range model possesses Scientech's exclusive Floating Tare<sup>TM</sup> feature. This powerful feature give you two balances in one unit.

Used hand-to-hand with autoranging, Floating Tare provides low range readability (0.01mg) throughout the entire high range capacity of the balance. Access Floating Tare with the press of a button and you have ten times more resolution anywhere within the high range domain. This powerful feature is rarely found in semi-micro balances. In addition, you can now choose a unit with a motorized automatic internal calibration feature utilizing internal weights or choose a unit which uses an external weight for calibration which is the preferred method of calibration by ISO auditors.

#### **SA Analytical Balances**

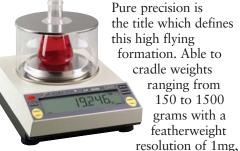


0.1mg readability. This makes the SA 510 the

unrivaled heavyweight of all analyticals. The SA 80 is the workhorse of the SA realm. This handy performer is perfect for the value conscious user who wants ultra-featherweight readability for a lightweight price.

Also now you can select an analytical model with a motorized automatic internal calibration feature utilizing internal weights or choose a unit which uses an external weight for calibration which is the preferred method of calibration by ISO auditors.

#### **SP Precision Balances**



Pure precision is the title which defines this high flying formation. Able to cradle weights ranging from 150 to 1500 grams with a featherweight

this high performance series speedily displays results on an easy to use control panel.

The first and only 1500 gram balance with a 1mg readability, the SP 1500 is the unequaled heavyweight in this division. Although the SP 150 is the lightweight model in this ensemble, it also boasts an inspiring list of standard features including a circular glass windscreen, as do all SP models.

#### **SL Laboratory Balances**

Ranging from modest to formidable birds of prey, the SL models have an impressive

wing span of 400 to 6000 grams and still perceive the touch of a single feather down to

0.01g. With two different sized weighing platforms, these laboratory balances can also be configured to handle your specific weighing environment.

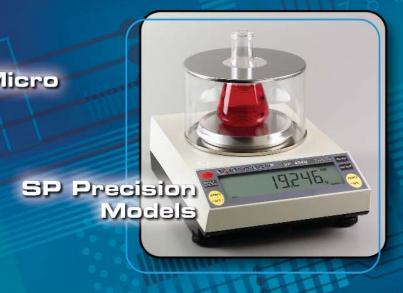
#### **SG General Balances**

The SG Series is a high capacity family of balances sporting flat, rectangular pans as standard equipment. Easily handling up to 12,000 grams with a feather touch of 0.1g, this species is an

accurate, feature-rich line perfect for any high capacity application.



#### **SERIES 12000**







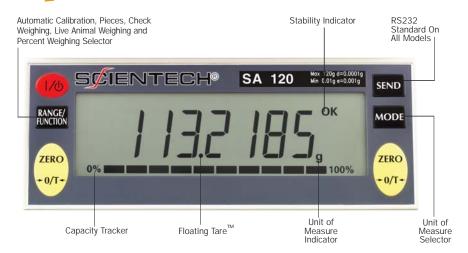


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#### SERIES 12000 STANDARD FEATURES

- ► GLP/GMP/ISO compatible
- Automatic calibration programs
- ▶ RS232 data interface with user selectable baud rates up to 19,200
- Automatic zero tracking
- Automatic system checkout sequencing
- Built-in security bracket
- Stability indicator
- Live animal weighing
- Percent weighing
- Capacity tracker
- Below balance weighing
- ► Microprocessor control
- Exclusive real time temperature compensation software
- Parts counting
- Check weighing
- Selectable filtering
- Multiple units of measure
- Floating Tare™ (dual range models only)
- Autoranging (dual range models only)

# Special FEATURES



#### **Capacity Tracker**



This dynamic graphical display automatically depicts the used and unused portions of your weighing range. The tracker is indispensable in taring out container weight and then weighing several components sequentially. You always know how much capacity remains.

#### **Stability Indicator**



The balance tells you when the reading is valid, insuring reliable results. Stability sensitivity is user selectable which allows you to customize your balance setup. You may disable the indicator at any time.

#### **Check Weighing**



Here is Scientech's answer to a go/no-go weight gauge. The balance tells if your sample weight is too high, too low, or OK. Interpretive error is eliminated. This application is ideal for JIT environments where quality of each sample must be assured.

#### **Floating Tare**<sup>™</sup> (Dual range models only.)

Dual range balances offer you two balances in one. Used hand-in-hand with autoranging, Floating Tare™ provides low range readability throughout the entire high range capacity of the balance. Access Floating Tare™ with the press of a button and you have ten times more resolution anywhere within the high range domain.

#### **Percent Weighing**



By quickly selecting the % mode, you are able to weigh a sample in percent in order to easily determine percent moisture loss, percent solids, or compounding by percent.

#### **Parts Counting**



You can even use a Scientech balance for piece counting. Every model empowers you to count very small to large components quickly and accurately. The minimum fixed sample number is ten with a user selectable larger sample size feature at your fingertips.

#### Vibration Filters



This feature authorizes you to select a filter setting which is best suited to your task. If your surroundings are vibration-free, set the filtering to low which yields results in the fastest possible time. In more adverse conditions, select either the normal or high filter parameter. These selections will insure reliable readings during your different weighing applications.

#### Units of Measure

These multifunctional balances present a choice of eight different standard units of measure: grams (g), carats (ct), ounces (oz), troy ounces (ozt), pennyweight (dwt), milligrams (mg), kilograms (kg), and pounds (lb). Just push the mode button to select your desired unit of measure. Also available as an option is a custom weight register which allows any unit of measure you wish.

#### **Live Animal Weighing**



Weighing using the time averaging mode is ideal for live animal or severe environment weighing. This feature also includes a reset function which allows you to arrive at the final weight reading in seconds rather than minutes with just the push of a button.

# SERIES Specifications











MODEL		SM50	SM50IW	SM99	SM99IW	SM124D
WEIGHING MODE		Single	Single	Single	Single	Dual
CAPACITY/RANGE	g	50	50	99	99	40/120
READABILITY	mg	0.01	0.01	0.01	0.01	0.01/0.1
REPEATABILITY (std dev)	mg	0.02	0.02	0.04	0.04	0.02/0.1
LINEARITY	±mg	0.03	0.03	0.03	0.03	0.03/0.2
CALIBRATION		External	Internal	External	Internal	External
STABILIZATION TIME	S	~8	~8	~8	~8	~8
PAN SIZE	in	Circular 3.5 diamet	ter			
WINDSCREEN	in	7.5W x 8.25D x 9.	5H			
BALANCE HOUSING	in	7.5W x 11.25D x 3	3.25H			











MODEL		SA 410	SA 410IW	SA 510	SA 510IW	SA 210D
WEIGHING MODE		Single	Single	Single	Single	Dual
CAPACITY/RANGE	g	410	410	510	510	100/200
READABILITY	mg	0.1	0.1	0.1	0.1	0.1/1
REPEATABILITY (std dev)	mg	0.15	0.15	0.2	0.2	0.1/.5
LINEARITY	±mg	0.2	0.2	0.2	0.2	0.2/.5
CALIBRATION		External	Internal	External	Internal	External
STABILIZATION TIME	S	~5	~5	~5	~5	~3
PAN SIZE	in	Circular 3.5 diameter				
WINDSCREEN	in	7.5W x 8.25D x 9.5H				
BALANCE HOUSING	in	7.5W x 11.25D x 3.2	5H			









MODEL		SL 400	SL 600	SL 1000	SL 2000	
WEIGHING MODE		Single	Single	Single	Single	
CAPACITY/RANGE	g	400	600	1000	2000	
READABILITY	g	0.01	0.01	0.01	0.01	
REPEATABILITY (std dev)	g	0.01	0.01	0.01	0.01	
LINEARITY	±g	0.015	0.015	0.015	0.015	
CALIBRATION		External	External	External	External	
STABILIZATION TIME	S	~3	~3	~3	~3	
PAN SIZE	in	Circular 4.5 diamet	er			
WINDSCREEN	in	Optional				
BALANCE HOUSING	in	7.5W x 11.25D x 3	.25H			
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SM124DIW	SM128D	SM128DIW		SA 80	SA 80IW
Dual	Dual	Dual		Single	Single
40/120	80/120	80/120		80	80
0.01/0.1	0.01/0.1	0.01/0.1		0.1	0.1
0.02/0.1	0.03/0.1	0.03/0.1		0.1	0.1
0.03/0.2	0.03/0.2	0.03/0.2		0.2	0.2
Internal	External	Internal		External	Internal
~8	~8	~8		~3	~3
				Circular 3.5 diar	meter
				7.5W x 8.25D x	9.5H
				7.5W x 11.25D	x 3.25H
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SA 210DIW	SA 525D	SA 525DIW	SP 150	SP 250	SP 350
Dual	Dual	Dual	Single	Single	Single
100/200	250/500	250/500	150	250	350













SA 210DIW	SA 525D	SA 525DIW	SP 150	SP 250	SP 350
Dual	Dual	Dual	Single	Single	Single
100/200	250/500	250/500	150	250	350
0.1/1	0.1/1	0.1/1	1	1	1
0.1/.5	0.2/.5	0.2/.5	1	1	1
0.2/.5	0.2/.5	0.2/.5	1.5	1.5	1.5
Internal	External	Internal	External	External	External
~3	~5	~5	~3	~3	~3
			Circular 4.5 diameter	-	
			Circular 6 diameter x	3.25H	
			7.5W x 11.25D x 3.2	25H	











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SL 3000	SL 5000	SL 6000	SL 3100D	SL 5200D	
Single	Single	Single	Dual	Dual	
3000	5000	6000	1000/3000	2000/5000	
0.01	0.01	0.01	0.01/0.1	0.01/0.1	
0.01	0.01	0.01	0.01/0.05	0.01/0.05	
0.015	0.015	0.015	0.015/0.05	0.015/0.05	
External	External	External	External	External	
~3	~3	~3	~3	~3	
Circular 6.5 diame	eter		·	·	<u> </u>













SA 120	SA 120IW	SA 210	SA 210IW	SA 310	SA 310IW
Single	Single	Single	Single	Single	Single
120	120	210	210	310	310
0.1	0.1	0.1	0.1	0.1	0.1
0.1	0.1	0.1	0.1	0.15	0.15
0.2	0.2	0.2	0.2	0.2	0.2
External	Internal	External	Internal	External	Internal
~3	~3	~3	~3	~5	~5













SP 500	SP 1000	SP 1500	SP 404D	SP 510D	SP 2050D	
Single	Single	Single	Dual	Dual	Dual	
500	1000	1500	40/400	100/500	500/2000	
1	1	1	1/10	1/10	1/10	
1	1	1	1/5	1/5	1/5	
1.5	1.5	1.5	1.5/5	1.5/5	1.5/5	
External	External	External	External	External	External	
~3	~3	~3	~3	~3	~5	









SG 3000	SG 5000	SG 8000	SG 12000
Single	Single	Single	Single
3000	5000	8000	12000
0.1	0.1	0.1	0.1
0.1	0.1	0.1	0.1
0.1	0.1	0.15	0.15
External	External	External	External
~3	~3	~3	~3
Rectangular 7.5V	V x 8D		
Not Available			
7.5W x 11.25D x	3.25H		

# Optional ACCESSORIES

#### GLP/GMP/ISO Compatible

All Scientech balances are GLP/GMP/ISO compatible. Using a computer and one of our small, optional RS232 printers, you may print a hardcopy of either the GLP/GMP Compliance Report and/or a Balance Test for ISO calibration compliance anytime you desire.



#### Windscreens

Two windscreens are available for Scientech balances:

- 9.5" high analytical glass windscreen with 3 sliding glass doors
- circular glass windscreen with stainless steel cover

#### **Printers**



These small thermal printers utilize the standard RS232 data interface which is in each Series 12000 model. Each printer includes interconnecting cable and is ideal for recording your reading for later review.

#### **Custom Weight Register**

This factory installed option allows you to weigh in any unit of measure you desire. It is ideal for results in basis weight, any weight per unit area measurement, or even dollars.

#### **Anti-Vibration Table**



Ideal for high vibration environments, this small, compact, vibration plate was designed to fit any Scientech balance or scale.

#### Other accessories include:

Optional remote weighing, NIST traceable calibration weights, spill covers, weighing bowls, rectangular pans, dust covers and software.



## SCIENTECH

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