

## VWR® FOR WEIGHING

Balances

Calibration weights

Weighing boats

Accessories



**Lighten the load of weighing**

# LIGHTEN THE LOAD OF WEIGHING

**We hope that you enjoy this collection of our range for weighing – from mg to kg there’s something for everyone.**

You’ll notice several things about the VWR range of products for weighing:

**Choice** – enough to cover almost every application packed into a series of models without being overwhelming

**Performance** – market leading consistency and reliability backed up with warranties that run to many years

**Value for money** – well built products that last and don’t cost a fortune to buy



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## SYMBOLS



Sustainable



Sterile



Autoclavable



RS232 interface



USB interface



Warranty

## Metrology and balances: Approved or verified models

Legal metrology was established in order to ensure public faith in commercial transactions, with the main purpose of guaranteeing the safety and quality of measurements made for contract or for lawful prescriptions. According to EU directive 2009/23/EC a verified balance, or a balance with an EC-type approval certificate i.e. conforms to legal metrology, must be used in all the following situations:



Model: M124Ai-M	VVRI611-3261	DK0199.332
Max 120g	e= 1mg	
Min 10mg	d=0.1mg	
Ser. No. :		
24V 550mA		
Temp. Range +15°C / +30°C		Type: Mnn4Ai-M MADE IN ITALY

DECLARATION OF CONFORMITY EU			
We hereby certify that the following precision balance :			
<b>Manufacturer :</b>			
<b>Non automatic weighing instrument</b>			
<b>Balance model :</b>	220	<b>Serial number :</b>	ITA1700446
<b>Max (g / ct) :</b>	120	<b>Min (g / ct) :</b>	0,01
<b>Class :</b>	1	<b>e (g / ct) :</b>	0,001
<b>EC Type Certificate number :</b>	DK0199.332	<b>Issued by Notified body number :</b>	0199
complies with the European Directives and Harmonized Standards listed hereinafter:			
<b>European Directive</b>	<b>Harmonized Standard</b>		
2014/31/EU (NAWI)	EN45501:2015		
2014/30/EU (EMC)	EN 61326-1:2013		
2014/35/EU (LVD)	EN 61010-1:2010	EN 61010-2-010:2014	
2011/65/EU (RoHS)	EN 50581:2012		
This declaration of conformity is issued under the sole responsibility of the manufacturer.			
Place:	Management Representative		
03-02-2017	_____		
	Company stamp :		
QP-1002 Declaration of conformity_rev_3 13/07/2016			

- Determination of mass for the calculation of a toll, tariff, tax, bonus, penalty, remuneration and compensation
- Determination of mass for the application of laws or regulations; expert judicial
- Determination of mass in a medical context for weighing patients for reasons of control, diagnosis and treatment, determination of mass for the manufacture of medicines on prescription in a pharmacy and determination of mass in analyses carried out in medical and pharmaceutical laboratories
- Pricing based on the mass for direct sales to the public and the making of pre-packages

This documented qualification of the instrument guarantees operations conform to legal metrology requirements and to quality assessment systems.

Please see the two following product entries for 'Analytical' balances, (LA and LAG series) and 'Precision' balances, (LP series) which include a table of balances with EC-type approval certificates - see models denoted -M (e.g. LA 214i-M). Balances are supplied with a declaration of conformity to EU standards.

## Portable balance, Traceable® SpatulaBalance™



A unique product that combines the simplicity of a spatula with a balance, to quickly and more accurately measure the samples. Particularly useful in food and veterinary applications. Detachable, translucent scoop, graduated for liquid measurement, made of corrosion resistant ABS plastic which is dishwasher safe for effortless cleaning.

- Digital LCD with an easy grip handle and low battery indicator
- 5 - 30 ml graduations on scoop in 5 ml increments
- Three-position soft touch keys for tare, freezing display and conversion from grams to ounces
- Accuracy  $\pm 0,2$  g or 0,25% in the level position
- Traceable® certificate (indicates traceability to standards provided by NIST)

Spoon volume: 32 ml

WxDxH: 230x30x15 mm

Weight: 85 g

**Delivery information:** Supplied with Traceable® certificate and 2x AAA batteries.

Model	Readability (g)	Weighing cap. (g)	Pk	Cat. No.
SpatulaBalance™	0,1	0 - 300	1	611-1565
Description			Pk	Cat. No.
<b>Accessories</b>				
Replacement plastic scoop			1	611-1876



611-2610

## Precision balances with draught shield, Science Education



Competitively priced electronic balances for precise weighing (to 1 mg) with applications in the education sector.

- Easy to use balances with small footprint
- Selectable measuring units and counting function
- Round glass shield with top access for the 611-2600 and 611-2601
- Conventional 'square' draught shield with sliding doors for 611-2610
- Hook for under-balance weighing
- Software for liquid and solid density determination requires optional density kit (please ask for details)

Note: All these balances are now supplied **without** an internal battery to meet recent transport regulations. An optional external rechargeable battery (611-8684) may be purchased for portable operation.

**Accessories information:** Optional Tablet System (611-8683) is suitable for use with models denoted with \*.



611-2601

Model	Readability (g)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
SE 300 D *	0,001 / 0,01	150 / 310	Ø 80	1	611-2601
SE 203 LR *	0,001	210	Ø 110	1	611-2600
SE 203 LW *	0,001	210	Ø 110	1	611-2610
Description				Pk	Cat. No.
<b>Rechargeable external battery pack</b>					
External rechargeable battery for portable operation				1	611-8684
<b>Accessories</b>					
7 inch Tablet System for VWR balances and moisture analysers including Tab-Box connecting interface, Bluetooth® interface, Bluetooth® dongle for instrument applications and tilting support				1	611-8683



SE 523i

## Precision balances, Science Education



Competitively priced electronic balances for the education sector.

- Easy to use
- Small footprint
- Selectable measuring units
- Mains supply or optional external rechargeable battery for portable use

Additional benefits of the models (except 611-2605, 611-2606, 611-2607, 611-3236, 611-3246, 611-3299 and 611-3344) include:

- RS232 serial interface
- Hook for under-balance weighing suitable for external calibration models only (not for model number ending in i)
- Capable of liquid and solid density determination, checking-weighing, weight totalising, piece-counting, animal weighing, percentage weighing and peak hold functions
- Balances, except those listed above, are compatible with the optional weighing Tablet System

Note: All these balances are now supplied **without** an internal battery to meet recent transport regulations. An optional external rechargeable battery (611-8684) may be purchased for portable operation.

**Ordering information:** These balances are also available with a calibration certificate. Please contact your local VWR sales office for details of this option.

**Accessories information:** Optional Tablet System (611-8683) is suitable for use with models denoted with \*.



SE 622, SE 1202, SE 202, SE 202-C, SE 402, LPC-4202p



SE 1501, SE 2201 EU, SE 2201-C

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
LPC-423p *	0,001	±4	420	Ø 80	1	611-3468
LPC-523p *	0,001	±5	520	Ø 80	1	611-3477
SE 523i *	0,001	±5	520	Ø 110	1	611-3478
SEG 523i	0,001	±5	520	Ø 110	1	611-3479
SE 202	0,01	±20	200	Ø 130	1	611-2605
SE 202-C	0,01	±20	200	Ø 130	1	611-3246
SE 402	0,01	±20	420	Ø 130	1	611-3299
SE 622 *	0,01	±20	620	Ø 130	1	611-2602
SE 622-C *	0,01	±20	620	Ø 130	1	611-3260
SE 1202 *	0,01	±20	1200	Ø 130	1	611-2604
LPC-4202p *	0,01	±40	4200	Ø 130	1	611-3476
LPG-4202i	0,01	±40	4200	Ø 160	1	611-3475
LP-5202 *	0,01	±50	5200	Ø 160	1	611-3480
LPG-5202	0,01	±50	5200	Ø 160	1	611-3481
SE 1501	0,1	±200	1500	150×140	1	611-2606
SE 2201	0,1	±300	2200	150×140	1	611-2607
SE 2201-C	0,1	±300	2200	150×140	1	611-3236

Description	Pk	Cat. No.
<b>Rechargeable external battery pack</b>		
External rechargeable battery for portable operation	1	611-8684
<b>Accessories</b>		
7 inch Tablet System for VWR balances and moisture analysers including Tab-Box connecting interface, Bluetooth® interface, Bluetooth® dongle for instrument applications and tilting support	1	611-8683

-C balances are supplied with a factory calibration certificate.  
Models with suffix G have large graphic display.



## Precision balances, LP series



Rugged, economical, balances that are ideal for educational establishments and laboratory use. A series that ranges from simple weighing to operation with automated internal calibration and with GLP date/time functionality.

- Selectable filter levels and measuring units
- Choice of simple LCD display or large graphic display (G) with added functionality for GLP and formulation

Note: Balances are now supplied **without** an internal battery to meet recent transport regulations. An optional external rechargeable battery (611-8684) may be purchased for portable operation of models shown with \*\*.

**Accessories information:** Optional Tablet System (611-8683) is suitable for use with models denoted with \*.

**Ordering information:** For details of the full range of accessories including printer, software, external keypad and PC connection cable please visit [vwr.com](http://vwr.com) or contact your local VWR sales office. **These balances are also available with a calibration certificate. Please contact your local VWR sales office for details of this option.**

Tablet Systems are not currently accredited for use with verified/EC-type approved balances.

Tablet Systems are not suitable for LPxG models (large graphic display precision balances).

Models with a large graphic display are denoted by G in the model name. Similarly models with a W or C in the model name have a three-door or a circular windshield, D indicates dual range and i shows internal calibration. FC models are supplied with a factory calibration certificate. See [vwr.com](http://vwr.com) for details of the full range of models.



LPC-313/LPC-423p



LP-4202i/LP-3102

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Balances with automatic internal calibration and 3-door draught shield</b>						
LPW-213i **/**	0,001	±3	210	Ø 110	1	611-2296
LPWG-213i **	0,001	±3	210	Ø 110	1	611-2297
LPW-503i *	0,001	±2	520	Ø 110	1	611-2278
LPWG-503i	0,001	±2	520	Ø 110	1	611-2286
LPW-723i *	0,001	±2	720	Ø 110	1	611-2279
LPWG-723i	0,001	±2	720	Ø 110	1	611-2287
LPWG-1203i	0,001	±3	1200	Ø 110	1	611-3460
LPW-2103i *	0,001	±5	2100	Ø 110	1	611-3283
LPWG-2103i	0,001	±5	2100	Ø 110	1	611-3284
<b>Balances with automatic internal calibration and circular draught shield (ØxH: 150x70 mm)</b>						
LPC-213i **/**	0,001	±3	210	Ø 110	1	611-2293
LPCG-213i **	0,001	±3	210	Ø 110	1	611-2295
LPC-313i **/**	0,001	±3	310	Ø 110	1	611-3466
LPCG-313i **	0,001	±3	310	Ø 110	1	611-3467
LPCG-423i **	0,001	±4	420	Ø 110	1	611-3463
LPC-423i **/**	0,001	±4	420	Ø 110	1	611-3462
LPC-503i *	0,001	±2	520	Ø 110	1	611-2274
LPCG-503i	0,001	±2	520	Ø 110	1	611-2282
LPC-723i *	0,001	±2	720	Ø 110	1	611-2275
LPCG-723i	0,001	±2	720	Ø 110	1	611-2283
LPC-1203i *	0,001	±3	1200	Ø 110	1	611-3458

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Balances with external calibration and 3-door draught shield</b>						
LPW-503 *	0,001	±2	520	Ø 110	1	611-2276
LPWG-503	0,001	±2	520	Ø 110	1	611-2284
LPW-723 *	0,001	±2	720	Ø 110	1	611-2277
LPWG-723	0,001	±2	720	Ø 110	1	611-2285
LPWG-1203	0,001	±3	1200	Ø 110	1	611-3461
<b>Balances with external calibration and circular draught shield (ØxH: 150x70 mm for pan Ø 110 mm and 133x70 for pan Ø 80 mm)</b>						
LPC-123 **/**	0,001	±3	120	Ø 80	1	611-2312
LPC-163 **/**	0,001	±3	160	Ø 110	1	611-2292
LPC-213 **/**	0,001	±3	210	Ø 80	1	611-2313
LPC-313 **/**	0,001	±3	310	Ø 80	1	611-2314
LPC-303 **/**	0,001	±2	310	Ø 110	1	611-2548
LPC-423 **/**	0,001	±4	420	Ø 110	1	611-3464
LPCG-423 **	0,001	±4	420	Ø 110	1	611-3465
LPC-503 *	0,001	±2	520	Ø 110	1	611-2272
LPCG-503	0,001	±2	520	Ø 110	1	611-2280
LPC-723 *	0,001	±2	720	Ø 110	1	611-2273
LPCG-723	0,001	±2	720	Ø 110	1	611-2281
LPC-1203 *	0,001	±3	1200	Ø 110	1	611-3459



Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Balances with automatic internal calibration without draught shield</b>						
LP-212i */**	0,01	±20	210	Ø 160	1	611-3329
LP-1002i */**	0,01	±30	1000	Ø 160	1	611-2629
LP-2102i */**	0,01	±30	2100	Ø 160	1	611-2302
LPG-2102i **	0,01	±30	2100	Ø 160	1	611-2307
LP-4102i *	0,01	±30	4200	Ø 160	1	611-2289
LPG-4102i	0,01	±30	4200	Ø 160	1	611-2291
LP-4202i */**	0,01	±40	4200	Ø 160	1	611-2565
LP-6202i *	0,01	±30	6200	Ø 160	1	611-3472
LPG-6202i	0,01	±30	6200	Ø 160	1	611-3474
<b>Balances with external calibration without draught shield</b>						
LP-1002 ***	0,01	±20	1000	Ø 160	1	611-2298
LPG-1002 **	0,01	±20	1000	Ø 160	1	611-2303
LSP-1502 */**	0,01	±20	1500	Ø 130	1	611-2315
LP-1502 */**	0,01	±20	1500	Ø 160	1	611-2299
LPG-1502 **	0,01	±20	1500	Ø 160	1	611-2304
LP-2102 */**	0,01	±30	2100	Ø 160	1	611-2300
LPG-2102 **	0,01	±30	2100	Ø 160	1	611-2305
LP-2202 *	0,01	±30	2200	Ø 160	1	611-2288
LPG-2202	0,01	±30	2200	Ø 160	1	611-2290
LSP-3102 */**	0,01	±30	3100	Ø 130	1	611-2316
LP-3102 */**	0,01	±30	3100	Ø 160	1	611-2301
LPG-3102 **	0,01	±30	3100	Ø 160	1	611-2306
LP-4102 */**	0,01	±40	4200	Ø 160	1	611-2319
LPG-4202 **	0,01	±40	4200	Ø 160	1	611-2371
LP-6202 *	0,01	±30	6200	Ø 160	1	611-3471
LPG-6202	0,01	±30	6200	Ø 160	1	611-3473
LP-8202 *	0,01	±40	8200	Ø 160	1	611-3469
LPG-8202	0,01	±40	8200	Ø 160	1	611-3470
LP-6501 */**	0,1	±100	6500	195×175	1	611-2308
LPG-6501 **	0,1	±100	6500	195×175	1	611-2310

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Balances with external calibration without draught shield</b>						
LP-12001 */**	0,1	±200	12000	195×175	1	611-2309
LPG-12001 **	0,1	±200	12000	195×175	1	611-2311
LP-16001 */**	0,1	±30	16000	195×175	1	611-2320
LPG-16001 **	0,1	±400	16000	195×175	1	611-2372
LP-20001 */**	0,1	±400	20000	195×175	1	611-2321
LPG-20001 **	0,1	±400	20000	195×175	1	611-2373
<b>Metrology balances with EC-type approval certificates and internal calibration (not suitable for use with Tablet Systems)</b>						
LPC-523i-M	0,001	±2	520	Ø 110	1	611-3269
LPW-523i-M	0,001	±2	520	Ø 110	1	611-3271
LPCG-523i-M	0,001	±2	520	Ø 110	1	611-3273
LPGW-523i-M	0,001	±2	520	Ø 110	1	611-3275
LPC-723i-M	0,001	±2	720	Ø 110	1	611-3270
LPW-723i-M	0,001	±2	720	Ø 110	1	611-3272
LPCG-723i-M	0,001	±2	720	Ø 110	1	611-3274
LPGW-723i-M	0,001	±2	720	Ø 110	1	611-3276
LP-4102i-M	0,01	±30	4200	Ø 160	1	611-3277
LPG-4102i-M	0,01	±30	4200	Ø 160	1	611-3278
LPGW303i-M	0,01	±2	330	Ø 110	1	611-3506
LPGW203i-M	0,01	±2	220	Ø 110	1	611-3505
<b>Balances with factory calibration certificate</b>						
LP-4102i-C *	0,01	±30	4200	Ø 160	1	611-3235
LP-6501-C	0,1	±100	6500	195×175	1	611-2796

Description	Pk	Cat. No.
<b>Ioniser, for neutralising electrostatic build-up in weighing samples, ION-15A</b>		
ION-15A, ioniser for removing static build-up of weighing samples	1	611-3446
<b>Rechargeable external battery pack</b>		
External rechargeable battery for portable operation	1	611-8684

Description	Pk	Cat. No.
<b>Accessories</b>		
7 inch Tablet System for VWR balances and moisture analysers including Tab-Box connecting interface, Bluetooth® interface, Bluetooth® dongle for instrument applications and tilting support	1	611-8683
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug	1	630-1485
Paper roll for thermal printer (630-1485)	1	630-1488
Labels, self-adhesive, 500 on a roll for thermal printer	1	630-1487
Printer DPP-250 with Bluetooth® interface for Tablet System	1	611-2793
Paper roll for DPP-250 printer (611-2793), 1 roll	1	611-2795
Circular draught shield for LP balances with pan Ø 110 mm	1	611-3572
Density kit DT002 for solids and liquids for VWR balances with readability 0,001 g and 0,0001 g	1 KIT	611-2553
Density kit DT004 for solids and liquids for VWR precision balances with readability 0,01 g	1 KIT	611-2551
Serial RS232 to USB converter	1	611-2786
Serial cable	1	611-2787



## VWRCATALYST SERVICES

Delivering complete solutions in and around the laboratory and production area

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## Precision balances with touch screen, TP series



Laboratory precision balances with 5" colour touch screen display with advanced applications and large databases for professional weighing. The user has easy and intuitive access to balance functions, via interactive, icon-driven menus ensuring efficient and productive weighing. Balances can be used by up to 10 different users, each with their own customisable settings and password protection. Ideal for laboratories requiring GLP compliance.

- Internal and external calibration (optional factory calibration certificate)
- Multilanguage (English, German, French, Italian, Spanish or Portuguese)
- Check-weighing, statistics, dynamic weighing, formulation and advanced piece-counting function with statistics report
- Advanced density function, with density index calculation for quality assessment of metals
- Special textile function to measure fibres/filaments (cotton, linen, wool, nylon, polyester) with statistics report
- Serial output for connection to printer, USB port for database import or export and test results

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Models without factory calibration certificate</b>						
TPW213i	0,001	±3	210	Ø 110	1	611-3687
TPW 313i	0,001	±3	310	Ø 110	1	611-3688
TPW 523i	0,001	±2	520	Ø 110	1	611-3689
TPW 723i	0,001	±2	720	Ø 110	1	611-3690
TP 2102	0,01	±30	2100	Ø 160	1	611-3695
TP 4202	0,01	±30	4200	Ø 160	1	611-3696
TP 6202i	0,01	±30	6200	Ø 160	1	611-3697
TP 6501	0,1	±100	6500	195×175	1	611-3701
TP 12001	0,1	±100	12	195×175	1	611-3702
TP 20001	0,1	±400	20	195×175	1	611-3703
<b>Models with factory calibration certificate</b>						
TPW 213i	0,001	±3	210	Ø 110	1	611-3691
TPW 313i	0,001	±3	310	Ø 110	1	611-3692
TPW 523i	0,001	±2	520	Ø 110	1	611-3693
TPW 723i	0,001	±2	720	Ø 110	1	611-3694
TP 2102	0,01	±30	2100	Ø 160	1	611-3698
TP 4202	0,01	±30	4200	Ø 160	1	611-3699

Model	Readability (g)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Models with factory calibration certificate</b>						
TP 6202i	0,01	±30	6200	Ø 160	1	611-3700
TP 6501	0,1	±100	6500	195×175	1	611-3704
TP 12001	0,1	±100	12	195×175	1	611-3705
TP 20001	0,1	±400	20	195×175	1	611-3706

Description	For	Pk	Cat. No.
<b>Ioniser, for neutralising electrostatic build-up in weighing samples, ION-15A</b>			
ION-15A, ioniser for removing static build-up of weighing samples		1	611-3446
<b>Accessories</b>			
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug		1	630-1485
Roll of 54x24 mm labels (500)	TLP-50 printer (630-1485)	1 Roll	611-3662
Density kit DT002 for solids and liquids for VWR balances with readability 0,001 g and 0,0001 g		1 KIT	611-2553
Density kit DT004 for solids and liquids for VWR precision balances with readability 0,01 g		1 KIT	611-2551





## Analytical balances, LA and LAG series



An economical range of reliable, high performance analytical balances.

- Check-weighing (alarm function), weight totalising, density determinations of samples and piece-counting functions
- LAG models have large graphic displays with added functionality for formulation, GLP, date and time, multi-language
- Option of external or internal calibration, RS232 included as standard
- Weighing chamber LxWxH: 162x171x225 mm

**Ordering information:** For details of the full range of accessories, including printer, software, density determination kit for LA and LAG series, external keypad, serial connection cable and serial to USB converter, please visit [vwr.com](http://vwr.com) or contact your local VWR sales office. **These balances are also available with a factory calibration certificate. Please contact VWR for details of this option.**

**Delivery information:** Supplied with mains adapter and universal plug. Calibration weights are available from VWR. Please see 'Calibration weights'.

**Accessories information:** Optional Tablet System (611-8683) is suitable for use with models denoted by \*. Tablet Systems are not currently accredited for use with verified/EC-type approved balances.

Models with a large graphic display are denoted by G in the model name. Similarly models with a W or C in the model name have a three-door or a circular windshield, D indicates dual range and i shows internal calibration. FC models are supplied with a factory calibration certificate. See [vwr.com](http://vwr.com) for details of the full range of models.

Model	Readability (mg)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Models with standard LCD and external calibration</b>						
LA 124 *	0,1	0,3	120	Ø 80	1	611-2258
LA 164 *	0,1	0,3	160	Ø 80	1	611-2259
LA 214 *	0,1	0,3	220	Ø 80	1	611-2260
<b>Models with standard LCD and internal calibration</b>						
LA 124i *	0,1	0,3	120	Ø 80	1	611-2261
LA 164i *	0,1	0,3	160	Ø 80	1	611-2262
LA 214i *	0,1	0,3	220	Ø 80	1	611-2263
LA 254i *	0,1	0,3	250	Ø 80	1	611-2264
LA 314i *	0,1	0,4	310	Ø 80	1	611-2265
LA 414i *	0,1	0,4	410	Ø 80	1	611-3279
LA 514i *	0,1	0,4	510	Ø 80	1	611-3281
LA 614i *	0,1	0,6	610	Ø 80	1	611-3456
<b>LAG models with large graphic display and external calibration (not suitable for use with Tablet Systems)</b>						
LAG 124	0,1	0,3	120	Ø 80	1	611-2266
<b>LAG models with large graphic display and internal calibration (not suitable for use with Tablet Systems)</b>						
LAG 124i	0,1	0,3	120	Ø 80	1	611-2267
LAG 164i	0,1	0,3	160	Ø 80	1	611-2268
LAG 214i	0,1	0,3	220	Ø 80	1	611-2269
LAG 254i	0,1	0,3	250	Ø 80	1	611-2270
LAG 314i	0,1	0,4	310	Ø 80	1	611-2271
LAG 414i	0,1	0,4	410	Ø 80	1	611-3280
LAG 514i	0,1	0,4	510	Ø 80	1	611-3282
LAG 614i	0,1	0,6	610	Ø 80	1	611-3457

Model	Readability (mg)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Models with standard LCD and external calibration and factory calibration certificate</b>						
LA 164-FC *	0,1	0,3	160	Ø 80	1	611-3122
LA 214-FC *	0,1	0,3	220	Ø 80	1	611-3123
<b>Models with standard LCD and internal calibration and factory calibration certificate</b>						
LA 124i-FC *	0,1	0,3	120	Ø 80	1	611-3343
LA 164i-FC *	0,1	0,3	160	Ø 80	1	611-3386
LA 254i-FC *	0,1	0,3	250	Ø 80	1	611-3351
LA 314i-FC *	0,1	0,4	310	Ø 80	1	611-3350
LA 414i-FC *	0,1	0,4	410	Ø 80	1	611-3448
LA 514i-FC *	0,1	0,4	510	Ø 80	1	611-3450
<b>Models with large graphic display, internal calibration and factory calibration certificate (not suitable for use with Tablet Systems)</b>						
LAG 124i-FC	0,1	0,3	120	Ø 80	1	611-3372
LAG 164i-FC	0,1	0,3	160	Ø 80	1	611-3447
LAG 254i-FC	0,1	0,3	250	Ø 80	1	611-3382
LAG 314i-FC	0,1	0,4	310	Ø 80	1	611-3297
LAG 414i-FC	0,1	0,4	410	Ø 80	1	611-3449
LAG 514i-FC	0,1	0,4	510	Ø 80	1	611-3451
<b>Metrology models with EC-type approval certificates and internal calibration (not suitable for use with Tablet Systems)</b>						
LA 124i-M	0,1	0,3	120	Ø 80	1	611-3261
LA 164i-M	0,1	0,3	160	Ø 80	1	611-3262
LA 214i-M	0,1	0,3	220	Ø 80	1	611-3263
LA 254i-M	0,1	0,3	250	Ø 80	1	611-3264
LAG 124i-M	0,1	0,3	120	Ø 80	1	611-3265
LAG 164i-M	0,1	0,3	160	Ø 80	1	611-3266
LAG 214i-M	0,1	0,3	220	Ø 80	1	611-3267
LAG 254i-M	0,1	0,3	250	Ø 80	1	611-3268

Description	Pk	Cat. No.
<b>Ioniser, for neutralising electrostatic build-up in weighing samples, ION-15A</b>		
ION-15A, Ioniser for removing static build-up of weighing samples	1	611-3446
<b>Accessories</b>		
7 inch Tablet System for VWR balances and moisture analysers including Tab-Box connecting interface, Bluetooth® interface, Bluetooth® dongle for instrument applications and tilting support	1	611-8683
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug	1	630-1485
Paper roll for thermal printer (630-1485)	1	630-1488
Labels, self-adhesive, 500 on a roll for thermal printer	1	630-1487
Printer DPP-250 with Bluetooth® interface for Tablet System	1	611-2793
Paper roll for DPP-250 printer (611-2793), 1 roll	1	611-2795
Density kit DT002 for solids and liquids for VWR balances with readability 0,001 g and 0,0001 g	1 KIT	611-2553
Serial RS232 to USB converter	1	611-2786



## Analytical balances with touch screen, TA series



Laboratory analytical balances that have 5" colour touch screen display with advanced applications and large databases for professional weighing. The user has easy and intuitive access to balance functions, via interactive, icon-driven menus ensuring efficient and productive weighing. Balances can be used by up to 10 different users, each with their own customisable settings and password protection. Ideal for laboratories requiring GLP compliance.

- Internal and external calibration (optional factory calibration certificate)
- Multilanguage (English, German, French, Italian, Spanish or Portuguese)
- Check-weighing, statistics, dynamic weighing, formulation and advanced piece-counting function with statistics report
- Advanced density function, with density index calculation for quality assessment of metals
- Special textile function to measure fibres/filaments (cotton, linen, wool, nylon, polyester) with statistics report
- Serial output for connection to printer, USB port for database import or export and test results

Model	Readability (mg)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Models without factory calibration certificate</b>						
TA 164i	0,1	±0,3	160	Ø 80	1	611-3673
TA 224i	0,1	±0,3	220	Ø 80	1	611-3674
TA 254i	0,1	±0,3	250	Ø 80	1	611-3675
TA 314i	0,1	±0,4	310	Ø 80	1	611-3676
TA 414i	0,1	±0,5	410	Ø 80	1	611-3677
TA 514i	0,1	±0,5	510	Ø 80	1	611-3678
TA 614i	0,1	±0,6	610	Ø 80	1	611-3679
<b>Models with factory calibration certificate</b>						
TA 164i-C	0,1	±0,3	160	Ø 80	1	611-3680
TA 224i	0,1	±0,3	220	Ø 80	1	611-3681
TA 254i	0,1	±0,3	250	Ø 80	1	611-3682
TA 314i	0,1	±0,4	310	Ø 80	1	611-3683
TA 414i	0,1	±0,5	410	Ø 80	1	611-3684
TA 514i	0,1	±0,5	510	Ø 80	1	611-3685
TA 614i	0,1	±0,6	610	Ø 80	1	611-3686

Description	For	Pk	Cat. No.
<b>Ioniser, for neutralising electrostatic build-up in weighing samples, ION-15A</b>			
ION-15A, ioniser for removing static build-up of weighing samples		1	611-3446
<b>Accessories</b>			
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug		1	630-1485
Roll of 54x24 mm labels (500)	TLP-50 printer (630-1485)	1 Roll	611-3662
Density kit DT002 for solids and liquids for VWR balances with readability 0,001 g and 0,0001 g		1 KIT	611-2553



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## Semi-micro balances, SM series



Semi-micro balances with resolution of 0,01 mg, they are equipped with a new highly integrated electromagnetic cell. All models feature automatic internal calibration and are characterised by a high level of precision and repeatability. These VWR semi-micro balances provide an excellent price/performance ratio, thanks to continuous intensive research and study of how weighing works.

- Integrated weighing sensor for enhanced stability and quick response time
- Selectable filter levels and selectable measuring units
- Check-weighing (alarm function), weight totalising, piece-counting functions and density determination
- Automatic internal calibration and RS232 connection as standard
- Large graphic display available, includes GLP procedures, time/date, formulation with database capability and multilinguals

**Delivery information:** Supplied with mains adapter and universal plug suitable for use in EU and UK. Optional accessories include density determination kit and serial printer.

**Accessories information:** Optional Tablet System (611-8683) is suitable for use with models denoted with \*.

Model	Readability (mg)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Models without a factory calibration certificate</b>						
SM425i *	0,01	±0,05	42	Ø 80	1	611-3547
SM625i *	0,01	±0,08	62	Ø 80	1	611-3548
SM1245Di *	0,01 / 0,1	±0,05/±0,2	42 / 120	Ø 80	1	611-3533
SM1265Di *	0,01 / 0,1	±0,08/±0,2	62 / 120	Ø 80	1	611-3534
SM2245Di *	0,01 / 0,1	±0,1/±0,2	42 / 220	Ø 80	1	611-3535
SM2265Di *	0,01 / 0,1	±0,1/±0,2	62 / 220	Ø 80	1	611-3536
SM2285Di *	0,01 / 0,1	±0,1/±0,2	82 / 220	Ø 80	1	611-3537
<b>Models with a factory calibration certificate</b>						
SM425i *	0,01	±0,05	42	Ø 80	1	611-3549
SM625i *	0,01	±0,08	62	Ø 80	1	611-3550
SM1245Di *	0,01 / 0,1	±0,05/±0,2	42 / 120	Ø 80	1	611-3538
SM1265Di *	0,01 / 0,1	±0,08/±0,2	62 / 120	Ø 80	1	611-3539
SM2245Di *	0,01 / 0,1	±0,1/±0,2	42 / 220	Ø 80	1	611-3540
SM2265Di *	0,01 / 0,1	±0,1/±0,2	62 / 220	Ø 80	1	611-3541
SM2285Di *	0,01 / 0,1	±0,1/±0,2	82 / 220	Ø 80	1	611-3542
<b>Large display models without a factory calibration certificate</b>						
SMG425i	0,01	±0,05	42	Ø 80	1	611-3551
SMG625i	0,01	±0,08	62	Ø 80	1	611-3552
SMG1245Di	0,01 / 0,1	±0,05/±0,2	42 / 120	Ø 80	1	611-3553
SMG1265Di	0,01 / 0,1	±0,08/±0,2	62 / 120	Ø 80	1	611-3554
SMG2245Di	0,01 / 0,1	±0,1/±0,2	42 / 220	Ø 80	1	611-3555
SMG2265Di	0,01 / 0,1	±0,1/±0,2	62 / 220	Ø 80	1	611-3556
SMG2285Di	0,01 / 0,1	±0,1/±0,2	82 / 220	Ø 80	1	611-3557
<b>Large display models with a factory calibration certificate</b>						
SMG425i	0,01	±0,05	42	Ø 80	1	611-3558
SMG625i	0,01	±0,08	62	Ø 80	1	611-3559
SMG1245Di	0,01 / 0,1	±0,05/±0,2	42 / 120	Ø 80	1	611-3560
SMG1265Di	0,01 / 0,1	±0,08/±0,2	62 / 120	Ø 80	1	611-3561
SMG2245Di	0,01 / 0,1	±0,1/±0,2	42 / 220	Ø 80	1	611-3562
SMG2265Di	0,01 / 0,1	±0,1/±0,2	62 / 220	Ø 80	1	611-3563
SMG2285Di	0,01 / 0,1	±0,1/±0,2	82 / 220	Ø 80	1	611-3564

Description	Pk	Cat. No.
<b>Ioniser, for neutralising electrostatic build-up in weighing samples, ION-15A</b>		
ION-15A, ioniser for removing static build-up of weighing samples	1	611-3446
<b>Accessories</b>		
7 inch Tablet System for VWR balances and moisture analysers including Tab-Box connecting interface, Bluetooth® interface, Bluetooth® dongle for instrument applications and tilting support	1	611-8683
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug	1	630-1485
Paper roll for thermal printer (630-1485)	1	630-1488
Labels, self-adhesive, 500 on a roll for thermal printer	1	630-1487

Models with suffix D have dual range, i denotes internal calibration.

## Semi-micro balances with touch screen, TS series



Semi-micro balances that have 5" colour touch screen display also advanced applications and large databases for professional weighing. The user has easy and intuitive access to balance functions, via interactive, icon-driven menus ensuring efficient and productive weighing. Balances can be used by up to 10 different users, each with their own customisable settings and password protection. Ideal for laboratories requiring GLP compliance.

- Internal and external calibration (optional factory calibration certificate)
- Multilanguage (English, German, French, Italian, Spanish or Portuguese)
- Check-weighing, statistics, dynamic weighing, formulation and advanced piece-counting function with statistics report
- Advanced density function, with density index calculation for quality assessment of metals
- Special textile function to measure fibres/filaments (cotton, linen, wool, nylon, polyester) with statistics report
- Serial output for connection to printer, USB port for database import or export and test results

Model	Readability (mg)	Linearity (mg)	Weighing cap. (g)	Pan (mm)	Pk	Cat. No.
<b>Models without factory calibration certificate</b>						
TS 425i	0,01	±0,05	42	Ø 80	1	611-3663
TS 1245Di	0,01 / 0,1	±0,08/±0,2	62 / 120	Ø 80	1	611-3664
TS 2265Di	0,01 / 0,1	±0,1/±0,2	62 / 220	Ø 80	1	611-3665
TS 2285Di	0,01 / 0,1	±0,1/±0,2	82 / 220	Ø 80	1	611-3666
TS 2215Di	0,01 / 0,1	±0,1/±0,2	102 / 220	Ø 80	1	611-3667
<b>Models with factory calibration certificate</b>						
TS 425i	0,01	±0,05	42	Ø 80	1	611-3668
TS 1245Di	0,01 / 0,1	±0,08/±0,2	62 / 120	Ø 80	1	611-3669
TS 2265Di	0,01 / 0,1	±0,1/±0,2	62 / 220	Ø 80	1	611-3670
TS 2285Di	0,01 / 0,1	±0,1/±0,2	82 / 220	Ø 80	1	611-3671
TS 2215Di	0,01 / 0,1	±0,1/±0,2	102 / 220	Ø 80	1	611-3672

Description	For	Pk	Cat. No.
<b>Ioniser, for neutralising electrostatic build-up in weighing samples, ION-15A</b>			
ION-15A, ioniser for removing static build-up of weighing samples		1	611-3446
<b>Accessories</b>			
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug		1	630-1485
Roll of 54x24 mm labels (500)	TLP-50 printer (630-1485)	1 Roll	611-3662
Density kit DT002 for solids and liquids for VWR balances with readability 0,001 g and 0,0001 g		1 KIT	611-2553



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## Ioniser, for neutralising electrostatic build-up in weighing samples, ION-15A

The ioniser is used to remove static electricity that accumulates in many kinds of samples that are being weighed, like plastic samples (and containers) or films. Using the ioniser the weighing sample is neutralised in seconds.

- Distance from sample to ion source approx - 50 to 400 mm
- Discharge time with fan turned on: 9 seconds at 50 mm, 13 seconds at 100 mm and approx 100 seconds at 400 mm
- For indoor use only

Ozone concentration: 0 ~ 0,05 ppm (2 cm from ion source)

Maximum air volume: 0,06 cm<sup>3</sup>/min

Ambient operating conditions: 0...50 °C; 20 - 80% RH; altitude <2000 m

Rated electrical power supply: 12 V DC, 500 mA,  
AC adapter (primary) AC 100 - 240 V, 50/60 Hz

Pollution degree: 2

Over-voltage category: Category II



Description	WxDxH (mm)	Pk	Cat. No.
ION-15A, ioniser for removing static build-up of weighing samples	110x105x45	1	611-3446

## Density kits for VWR balances

Complete kits that, together with the appropriate balance, allow the user to calculate the density of liquids (such as beverages) or non absorbent solids (rocks, polymers, gems, glass, metals etc). The density wizard function is already included as a built-in function of the balance (except for SE models: 611-2605, 611-2606, 611-2607, 611-3236, 611-3246, 611-3299, 611-3344). Density kits are not designed for use with moisture analysers

**Density kit DT002 for VWR® SM, SMG, LA, LAG, LP, LPG, LPW, LPWG, LPC, LPCG, SE or TS, TA, TP, TPW or TPC series of analytical balances with readability of 0,01; 0,1 or 1 mg.**

**Density kit DT004 for VWR® LP, LPG, SE or TP and TP series precision balances with readability of 0,01 g**

Both kits contain similar items, the difference is the balance cone attachment:

- Measuring glass cup 150 mm high, Ø 50 mm, 250 ml
- Measuring glass cup 95 mm high, Ø 65 mm, 250 ml
- Thermometer
- Glass sinker
- Sample holder for floating/non floating samples
- Hanging arm for sample holder or sinker
- Sample holder/sinker support
- Measuring glass cup support



Description	Pk	Cat. No.
Density kit DT002 (solids and liquids) for VWR balances with readability 0,001 g and 0,0001 g	1 KIT	611-2553
Density kit DT004 (solids and liquids) for VWR precision balances with readability 0,01 g	1 KIT	611-2551



## Density measurement system, portable

A complete portable system for density measurements, comprising of a portable balance plus a density kit for solids and liquids with the required accessories, all presented in a customised carrying case.

The LPC-313 portable balance has an internal rechargeable battery and round draught shield Ø 135 mm to fit the Ø 90 mm round pan.

- Precision balance
- Density kit for solids and liquids
- Calibration weight class F1 200 g
- Software installed on the balance for the automatic calibration of solids and liquids
- Density values are shown directly on the balance display

Carrying case: WxDxH: 370x480x150 mm

Weight: 4,5 kg

**Delivery information:** System is supplied with a balance, round draught shield, calibration weight, graduated cylinder (250 ml), graduated beaker (250 ml), analogue thermometer, glass sinker, sample basket, suspension arm and supports in a carrying case.

Description	Readability (g)	Weighing cap. (g)	Pk	Cat. No.
Density measurement system	0,001	310	1 KIT	611-3131

Description	Pk	Cat. No.
<b>Accessories</b>		
7 inch Tablet System for VWR balances and moisture analysers including Tab-Box connecting interface, Bluetooth® interface, Bluetooth® dongle for instrument applications and tilting support	1	611-8683
Printer DPP-250 with Bluetooth® interface for Tablet System	1	611-2793

## Rechargeable external battery pack

Eco friendly battery pack to replace lead-acid batteries which are now restricted/prohibited for transportation.

These batteries can be used to make some VWR balances portable for use around the laboratory, factory or on any flat surface. However, the battery pack has other very useful applications with Smart Phones, Tablet PCs, iPods or a range of devices powered via a USB port.

- Long-lasting Li-ion battery - up to 40 hours (depending on connected device and use)
- Quick battery charge time of 5 hours
- Charge status indicated by 4 LED lights
- Three outputs (2x USB 5V 2100 mA and 1x DC 9 V/12 V)
- Capacity: 10000mAh/37 W

Weight: 304 g

WxDxH: 120x80x23 mm

**Ordering information:** Suitable for use with the following VWR balances: 611-2292; 611-2293; 611-2295; 611-2296; 611-2297; 611-2298; 611-2299; 611-2300; 611-2301; 611-2302; 611-2303; 611-2304; 611-2305; 611-2306; 611-2307; 611-2308; 611-2309; 611-2310; 611-2311; 611-2319; 611-2320; 611-2321; 611-2371; 611-2372; 611-2373; 611-2548; 611-2565; 611-2600; 611-2605; 611-2606; 611-2607; 611-2610; 611-2629; 611-8622; 611-8623; 611-8624.

**Delivery information:** Supplied with USB spiral cable; 10 miscellaneous output-to-device adapters (Micro-USB, Mini-USB, PSP, NDS Nokia N70, LG KG800, Sony K750, Samsung G600, Samsung D800, Apple iPhone/iPad/iPod) - 6 Notebook and Netbook Adapter A = Sony B= Toshiba, NEC C= IBM, Acer, Toshiba D= HP, NEC, Compaq, Asus G= Acer, Benq H=Samsung); car charger 12 V and mains supply adapter with EU-plug.



Description	Pk	Cat. No.
External rechargeable battery for portable operation	1	611-8684

## High capacity balances, IS series



A robust, reliable series of balances for a wide range of applications in the laboratory, but also for general industrial use.

- Backlit LCD with adjustable contrast
- Rugged metal case with plastic, in-use protective cover
- Selectable measuring units
- Piece-counting, check-weighing, percentage weighing, animal weighing and density determination
- Hook for below-balance weighing can be used for weighing large samples or solid density determination (software included)
- Max. load determination (Peak hold)

Note: All these balances are now supplied **without** an internal battery to meet recent transport regulations. An optional external rechargeable battery (611-8684) may be purchased for portable operation.

**Accessories information:** Optional Tablet System (611-8683) is suitable for use with models denoted with \*.

**Ordering information:** These balances can be equipped with optional Tablet System to expand functions and weighing actions.

Tablet Systems are not currently accredited for use with verified/EC-type approved balances.

Model	Readability (g)	Weighing cap. (kg)	Pan (mm)	Pk	Cat. No.
IS 32001 *	0,1	32	210×320	1	611-8622
IS 32001.5 *	0,5	32	210×320	1	611-8623
IS 32001D *	0,1 / 1	4,5 / 32	210×320	1	611-8624

Description	Pk	Cat. No.
<b>Rechargeable external battery pack</b>		
External rechargeable battery for portable operation	1	611-8684
<b>Accessories</b>		
7 inch Tablet System for VWR balances and moisture analysers including Tab-Box connecting interface, Bluetooth® interface, Bluetooth® dongle for instrument applications and tilting support	1	611-8683
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug	1	630-1485
Printer DPP-250 with Bluetooth® interface for Tablet System	1	611-2793
Paper roll for DPP-250 printer (611-2793), 1 roll	1	611-2795
Serial RS232 to USB converter	1	611-2786

## Moisture analysers, MB series



Rugged compact instruments for moisture determination of raw materials and finished products in the food, cosmetics, dairy, pharmaceutical, chemical and ceramics industries.



- Choice of models to meet user-requirements of capacity and precision
- Halogen-infrared heat source
- Double-case design to protect the weighing unit from irradiated heat
- PT100 temperature sensor ensures process repeatability
- Time and date information is available with printed output

### MB series with optional Tablet System (611-8683)

MB 64M: Features an electromagnetic force restoration weighing system with drying resolution of 0,001%

MB 163L: Features a high resolution load cell weighing system

MB series moisture analysers can be connected to a tablet via Bluetooth® and tablet to Bluetooth® printer. The optional 7 inch tablet has been designed specifically for moisture analysis and features the following:

- Multi-touch, with Android operating system
- Selection of temperature profile (ramp, fast, steps, standard)
- See live, real time graph of drying process
- Store data and then export the information through local area network (LAN) or Internet (Wi-Fi)
- Create up to 10 different user profiles
- Multi-language, customisable settings

**Ordering information:** The internal thermometer can be calibrated using the optional calibration kit.

Model	MB 64M	MB 163L
Heater type	Halogen-infrared lamp	
Capacity (g)	60	160
Pan size (Ø mm)	100	
Moisture range (%)	0 - 100	
Moisture resolution (%)	0,001	0,01
Readability (%) / (mg)	0,1 mg	1 mg
Repeatability (Std. Dev. %)	±0,18% (~2g sample)	±0,20% (~2g sample)
Temperature range (°C)	35...160	
Temperature programs	Standard	
Program memory	5	
Timer	1 - 99 min (1 min intervals)	
Endpoint/analysis mode	Manual, time, autostop %	
Displayed results	Moisture %, dry residual %, ATRO, temperature, remaining time (only when in time mode)	
Display	LCD, backlit	
Data printed	Temperature, time, initial weight, final weight, moisture content, (date and time if using 630-1485 printer)	
WxDxH (mm)	215x345x235	
Weight	6,1 kg	4,7 kg



Description	Pk	Cat. No.
<b>MB 64M</b>		
Moisture analyser MB 64M	1	611-3233
Moisture analyser MB 64M, with certificate	1	611-3293
<b>MB 163L</b>		
Moisture analyser MB 163L	1	611-2318
Moisture analyser MB 163L, with certificate	1	611-3295
<b>Description</b>	<b>Pk</b>	<b>Cat. No.</b>
<b>Accessories</b>		
Reusable sample dishes are essential for use with moisture analysers	80	611-2788
Disposable glass fibre discs are used in conjunction with the test dish (611-2788) when analysing liquids and semi-solid samples. These ensure accurate results when testing samples that contain large amounts of liquid, facilitate better heat distribution throughout the sample and prevent liquid splashing during the sample drying process	200	611-3715
Temperature calibration kit for VWR moisture analysers	1	611-3248
7 inch Tablet System for VWR balances and moisture analysers including Tab-Box connecting interface, Bluetooth® interface, Bluetooth® dongle for instrument applications and tilting support	1	611-8683
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug	1	630-1485
Paper roll for thermal printer (630-1485)	1	630-1488
Printer DPP-250 with Bluetooth® interface for Tablet System	1	611-2793
Paper roll for DPP-250 printer (611-2793), 1 roll	1	611-2795



## Moisture analysers, MBT series with touch screens



Moisture balances with large 5" colour touch screen display that gives a user friendly access to advanced applications and internal databases. Test results complete with graph of the full drying cycle. Units have a serial output for connection to printer, USB port for database export or import, test results.



- Graphic icon-driven menus with up to 10 hot keys for fast recall of drying cycles from internal database
- Graph of real time drying process is displayed live
- Halogen-infrared lamp
- Default database stored already with more than 30 products
- Database user-definable with up to 3000 products, for each user
- Customisable settings for up to 10 users with the possibility of password protection
- Save results with test reports and drying graphic for up to 3000 records

A double-case structure protects the heart of the balance with an aluminum inner case and a composite plastic external case. There is also the possibility of calibrating the internal thermometer using the optional KIT.

### MBT 64M and MBT 163M

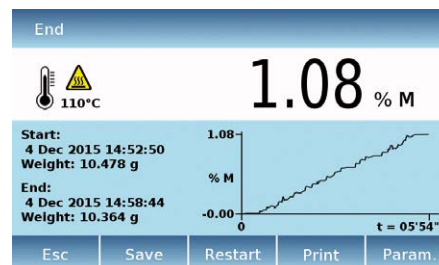
These balances feature an electromagnetic force restoration weighing system with drying resolution of 0,001% for MBT 64M.

### MBT 62L and MBT 163L

These balances feature high resolution load cell weighing system.

Model	MBT 62L	MBT 64M	MBT 163L	MBT 163M
Heater type	Halogen-infrared lamp			
Capacity (g)	60			160
Pan size (Ø mm)		100		
Moisture range (%)		0 - 100		
Readability (%) / (mg)	10 mg	0,1 mg		1 mg
Repeatability (Std. Dev. %)	±0,50% (~2g sample)	±0,18% (~2g sample)	±0,20% (~2g sample)	±0,18% (~2g sample)
Temperature range (°C)	35...160			
Program memory	300/user (max. 10 users)			
Timer	1 - 99 min (1 min intervals)			
Endpoint/analysis mode	Drying modes: Time mode (1 - 99 min), Autostop % or absolute autostop in grams, manual			
Displayed results	Humidity%, dry residue%, ATRO%, weight (g)			
Display	Touch screen TFT 5" display 800x480			
Data printed	Test results complete with graph of full drying cycle, product description, customisable heading, GLP data, balance and thermometer calibration data			
WxDxH (mm)	215x345x235			
Drying programs	Standard, Fast, Slow, Ramped steps			
Linearity	±0,03 g	±0,0003 g		±0,003 g
Weight	4,9 kg	6,1 kg	4,9 kg	6,1 kg

Description	Pk	Cat. No.
<b>MBT 62L/MBT 64M</b>		
Moisture analyser MBT 62L	1	611-3455
Moisture analyser MBT 62L with certificate	1	611-3719
Moisture analyser MBT 64M	1	611-3452
Moisture analyser MBT 64M with certificate	1	611-3716
<b>MBT 163L/MBT 163M</b>		
Moisture analyser MBT 163L	1	611-3454
Moisture analyser MBT 163L with certificate	1	611-3718
Moisture analyser MBT 163M	1	611-3453
Moisture analyser MBT 163M with certificate	1	611-3717



Description	Pk	Cat. No.
<b>Accessories</b>		
Reusable sample dishes are essential for use with moisture analysers	80	611-2788
Disposable glass fibre discs are used in conjunction with the test dish (611-2788) when analysing liquids and semi-solid samples. These ensure accurate results when testing samples that contain large amounts of liquid, facilitate better heat distribution throughout the sample and prevent liquid splashing during the sample drying process	200	611-3715
Temperature calibration kit for VWR moisture analysers	1	611-3248
Thermal printer TLP-50 for VWR LA, LP, SM balances and MB moisture analysers, EU-plug + UK-plug	1	630-1485
Paper roll for thermal printer (630-1485)	1	630-1488



## Anti-vibration weighing surface

### Polished granite

Four absorbing feet dampen the transmission of extraneous vibrations to this slab making it suitable, not only for high precision weighing, but also microscopy and other similar delicate instrumentation.

Description	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
Anti-vibration weighing surface, granite	560x450x65	44	1	611-2536



## Weighing table, granite, for micro and analytical balances

High performance microbalances and analytical balances should be placed in an environment where interfering vibration is at a minimum, to give fast stabilisation of the reading. The VWR weighing table features a sturdy, stable frame.

- Granite weighing surface
- Adjustable feet
- Meets highest standards of anti-vibration with four vibration dampers
- Facilitates fast stabilisation times

**Ordering information:** Installation is not included.

Description	Colour	WxDxH (mm)	Weight (kg)	Pk	Cat. No.
Balance table, granite, with vibration dampers and adjustable feet	Grey	900x600x760	267	1	611-2549



## Balance and weight cleaning kit

Cleaning kit containing a puffer brush (lens cleaning brush), cotton cloth and pair of nitrile gloves, contained in a resealable plastic bag.

Description	Pk	Cat. No.
Cleaning kit for weights and balances	1 KIT	611-2886

## Calibration weights

### Why use them?

To ensure that your weighing scales or balances are weighing correctly, VWR (and probably the balance manufacturer) recommends that balances are checked with calibrated weights on a daily, weekly or monthly basis, depending on how important the measurement is to your product or process, and what the implications would be if the weighing equipment was out of tolerance.

The more advanced balances available on the market have calibration/adjustment checks with an appropriate internal calibration weight, which is suitable for frequent (daily) calibration. But most balances require external calibration on a regular basis, and good quality management systems would recommend that even advanced balances are regularly calibrated/checked with external calibration weights.

You will probably have a company calibrating and certifying your weighing equipment six monthly or annually, but this only ensures that the scales are correct at the time of certification, and if the weighing results are important to you then we recommend additional checks to ensure that any damage or a fault has not caused a calibration error. It is particularly important to recalibrate a balance if the balance location is changed or the balance re-levelled. The balance manual often recommends the weight and class that is most suitable for recalibration. In general terms, VWR would also recommend that for a check of linearity, you should use two or three weights to carry out a calibration check (user-defined), which span across the normal usage of the balance. For example if using an analytical balance of 120 g weighing capacity, but the user only weighs in the 1 - 10 g range, then selecting 1 g, 5 g and 20 g weights would be reasonable. VWR has designed, and made available, a range of frequently used weights. 'Class F1 Cal-Box', is a set of three weights provided in a convenient aluminium case for routine calibration of most balances.

### Which class of weights should you use?

There are no definitive rules on which class of weights should be used for testing weighing equipment, but VWR would advise that the weight should be more accurate than the scale or balance that you are checking, unless your internal standard operating procedures allow for tolerances of different accuracy.

The classes of weights supplied by VWR meet the requirements described in OIML R 111-1 (2004).

**Class E1:** Weights ensure traceability between the national mass standards and class E2 and lower weights. They are also used with microbalances. Class E1 weights, or weight sets, are accompanied by a calibration certificate.

**Class E2:** Weights intended for use in the verification or calibration of class F1 weights and for use with weighing instruments of special accuracy class I. Class E2 weights or weight sets are accompanied by a calibration certificate.

**Class F1:** Weights intended for use in the verification or calibration of class F2 weights and for use with weighing instruments of special accuracy class I, and high accuracy class II.

**Class F2:** Weights intended for use in the verification or calibration of class M1 and possibly class M2 weights. Also intended for use in important commercial transactions (e.g. precious metals and stones) on weighing instruments of high accuracy class II.

**Class M1:** Weights intended for use in the verification or calibration of class M2 weights, and for use with weighing instruments of medium accuracy class III.

**Class M2:** Weights intended for use in the verification or calibration of class M3 weights and for use in general commercial transactions and with weighing instruments of medium accuracy class III.

**Class M3:** Weights intended for use with weighing instruments of medium accuracy class III and ordinary accuracy class IIII.

Set	Weights included													
	1 mg	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg	200 mg	500 mg					
1 - 500 mg	1	2	1	1	2	1	1	2	1					
20 - 500 mg					2	1	1	2	1					
	<b>Includes 1 - 500 mg set +</b>	<b>1 g</b>	<b>2 g</b>	<b>5 g</b>	<b>10 g</b>	<b>20 g</b>	<b>50 g</b>	<b>100 g</b>	<b>200 g</b>	<b>500 g</b>	<b>1 kg</b>	<b>2 kg</b>	<b>5 kg</b>	<b>10 kg</b>
1 mg - 50 g	1	1	2	1	1	2	1							
1 mg - 100 g	1	1	2	1	1	2	1	1						
1 mg - 200 g	1	1	2	1	1	2	1	1	2					
1 mg - 500 g	1	1	2	1	1	2	1	1	2	1				
1 mg - 1 kg	1	1	2	1	1	2	1	1	2	1	1			
1 mg - 2 kg	1	1	2	1	1	2	1	1	2	1	1	2		
1 mg - 5 kg	1	1	2	1	1	2	1	1	2	1	1	2	1	
1 mg - 10 kg	1	1	2	1	1	2	1	1	2	1	1	2	1	1
1 g - 50 g		1	2	1	1	2	1							
1 g - 100 g		1	2	1	1	2	1	1						
1 g - 200 g		1	2	1	1	2	1	1	2					
1 g - 500 g		1	2	1	1	2	1	1	2	1				
1 g - 1 kg		1	2	1	1	2	1	1	2	1	1			
1 g - 2 kg		1	2	1	1	2	1	1	2	1	1	2		
1 g - 5 kg		1	2	1	1	2	1	1	2	1	1	2	1	
1 g - 10 kg		1	2	1	1	2	1	1	2	1	1	2	1	1

## VWR calibration weights E1 with calibration certificate



Individual E1 OIML class weights are intended to ensure traceability between the national mass standards (with values derived from the International Prototype of the kilogram) and Class E2 and lower weights. They are also used with microbalances. Anti-magnetic, cobalt alloy weights are available from 1 to 500 mg. Packaged in a plastic case, the wire weights are easy to store. Anti-magnetic, corrosion resistant, highly polished stainless steel knob weights are available from 1 to 200 g. Packed in a plastic case the weights are easy to store. Sets of weights are also available in either cobalt alloy or stainless steel with a choice of a plastic or wooden storage box.

- Identification number guarantees traceability for weights from 1 g upwards
- Laser engraving improves legibility of the markings
- Supplied with COFRAC certificate

Conform to OILM R111 recommendations.

Weight	Tolerance	Type	Pk	Cat. No.
<b>E1 cobalt alloy weights in plastic box with COFRAC certificate</b>				
1 mg	±3 µg	Wire weight	1	611-3635
2	±3 µg	Wire weight	1	611-3636
5	±3 µg	Wire weight	1	611-3637
10	±3 µg	Wire weight	1	611-3638
20	±3 µg	Wire weight	1	611-3639
50	±4 µg	Wire weight	1	611-3640
100	±5 µg	Wire weight	1	611-3641
200	±6 µg	Wire weight	1	611-3642
500	±8 µg	Wire weight	1	611-3643
<b>E1 stainless steel weights in plastic box with COFRAC certificate</b>				
1	±0,010 mg	Knob weight	1	611-3644
2	±0,012 mg	Knob weight	1	611-3645
5	±0,016 mg	Knob weight	1	611-3646
10	±0,020 mg	Knob weight	1	611-3647
20	±0,025 mg	Knob weight	1	611-3648
50	±0,030 mg	Knob weight	1	611-3649
100	±0,05 mg	Knob weight	1	611-3650
200	±0,10 mg	Knob weight	1	611-3651

### Weight sets

For full details of the which weights are included in the VWR® E1, E2, F1 and F2 calibration weight sets, please see table on page 19.

Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
<b>Set of 12 cobalt alloy weights in plastic box with COFRAC certificate</b>				
1 - 500 mg	12	1,11	1 SET	611-3652
<b>Set of 12 cobalt alloy weights in wooden box with COFRAC certificate</b>				
1 - 500 mg	12	1,11	1 SET	611-3653
<b>Set of 21 stainless steel weights in plastic box with COFRAC certificate</b>				
1 mg - 100 g	21	211,11	1 SET	611-3654
<b>Set of 21 stainless steel weights in wooden box with COFRAC certificate</b>				
1 mg - 100 g	21	211,11	1 SET	611-3655
<b>Set of 23 stainless steel weights in plastic box with COFRAC certificate</b>				
1 mg - 200 g	23	611,11	1 SET	611-3656
<b>Set of 23 stainless steel weights in wooden box with COFRAC certificate</b>				
1 mg - 200 g	23	611,11	1 SET	611-3657

Description	Pk	Cat. No.
<b>Accessories</b>		
Cleaning kit for weights and balances	1 KIT	611-2886

## Calibration weights, class E2



Weights made from solid, anti-magnetic, polished stainless steel. Suitable for high resolution electronic balances.

- Wire weights up to 500 mg in cobalt alloy
- Identification number guarantees traceability for weights from 1 g upwards
- Laser engraving improves legibility of the markings
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.



**Ordering information:** All weights from 1 mg to 20 kg are available with or without COFRAC certificate - please visit [vwr.com](http://vwr.com) or contact your local VWR sales office. A range of weight sets are also available - please search for product 'Calibration weight sets, class E2'.

Weight	Tolerance (± mg)	Pk	Cat. No.
<b>E2 weights in plastic cases with COFRAC certificate</b>			
1 mg	0,006	1	611-8131
2 mg	0,006	1	611-8132
5 mg	0,006	1	611-8133
10 mg	0,008	1	611-8134
20 mg	0,010	1	611-8135
50 mg	0,012	1	611-8136
100 mg	0,016	1	611-8137
200 mg	0,020	1	611-8138
500 mg	0,025	1	611-8139
1 g	0,03	1	611-8140
2 g	0,04	1	611-8141
5 g	0,05	1	611-8142
10 g	0,06	1	611-8143
20 g	0,08	1	611-8144
50 g	0,10	1	611-8145
100 g	0,16	1	611-8146
200 g	0,30	1	611-8147
500 g	0,75	1	611-8148
1 kg	1,6	1	611-8149
2 kg	3,0	1	611-8150
5 kg	7,5	1	611-8151
10 kg	16,0	1	611-8152
20 kg	30,0	1	611-8428
<b>E2 weights in wooden boxes with COFRAC certificate</b>			
500 g	0,75	1	611-8399
1 kg	1,6	1	611-8400
2 kg	3	1	611-8423
5 kg	7,5	1	611-8424
10 kg	16	1	611-8425
20 kg	30	1	611-8426
50 kg	50	1	611-8427

Weight	Tolerance (± mg)	Pk	Cat. No.
<b>E2 weights in plastic cases without certificate</b>			
1 mg	0,006	1	611-8101
2 mg	0,006	1	611-8102
5 mg	0,006	1	611-8103
10 mg	0,008	1	611-8104
20 mg	0,010	1	611-8105
50 mg	0,012	1	611-8106
100 mg	0,016	1	611-8107
200 mg	0,020	1	611-8108
500 mg	0,025	1	611-8109
1 g	0,03	1	611-8110
2 g	0,04	1	611-8111
5 g	0,05	1	611-8112
10 g	0,06	1	611-8113
20 g	0,08	1	611-8114
50 g	0,10	1	611-8115
100 g	0,16	1	611-8116
200 g	0,30	1	611-8117
500 g	0,75	1	611-8118
1 kg	1,6	1	611-8119
2 kg	3,0	1	611-8120
5 kg	7,5	1	611-8121
10 kg	16,0	1	611-8122
20 kg	30,0	1	611-8398
<b>E2 weights in wooden boxes without certificate</b>			
500 g	0,75	1	611-8391
1 kg	1,6	1	611-8392
2 kg	3	1	611-8393
5 kg	7,5	1	611-8394
10 kg	16	1	611-8395
20 kg	30	1	611-8396
50 kg	50	1	611-8397

## Calibration weight sets, class E2



Weights made from solid, anti-magnetic, polished stainless steel. Suitable for high resolution electronic balances.

- Wire weights up to 500 mg in cobalt alloy
- Identification number guarantees traceability for weights from 1 g upwards
- Laser engraving improves legibility of the markings
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

**Ordering information:** All weight sets listed in the 'set contents' table are available with or without COFRAC certificate - please visit [vwr.com](http://vwr.com) or contact your local VWR sales office. Weights are also available individually - please search for product 'Calibration weights, class E2'.

For full details of the which weights are included in the VWR® E1, E2, F1 and F2 calibration weight sets, please see table on page 19.

Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
<b>E2 weight sets in wooden boxes with certificate</b>				
1 mg - 500 mg	12	1,11	1	611-8742
1 mg - 50 g	20	111,11	1	611-8743
1 mg - 100 g	21	211,11	1	611-8744
1 mg - 200 g	23	611,11	1	611-8745
1 mg - 500 g	24	1111,11	1	611-8746
1 mg - 1 kg	25	2111,11	1	611-8747
1 mg - 2 kg	27	6111,11	1	611-8748
1 mg - 5 kg	28	11111,11	1	611-8749
1 mg - 10 kg	29	21111,11	1	611-8750
1 g - 50 g	8	110	1	611-8751
1 g - 100 g	9	210	1	611-8752
1 g - 200 g	11	610	1	611-8753
1 g - 500 g	12	1110	1	611-8754
1 g - 1 kg	13	2110	1	611-8755
1 g - 2 kg	15	6110	1	611-8756
1 g - 5 kg	16	11110	1	611-8757
1 g - 10 kg	17	21110	1	611-8758
<b>E2 weight sets in plastic cases with certificate</b>				
1 mg - 500 mg	12	1,11	1	611-8454
1 mg - 100 g	21	211,11	1	611-8455
1 mg - 200 g	23	611,11	1	611-8456
1 mg - 500 g	24	1111,11	1	611-8457
1 g - 100 g	9	210	1	611-8458
1 g - 200 g	11	610	1	611-8459
1 g - 500 g	12	1110	1	611-8460

Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
<b>E2 weight sets in wooden boxes without certificate</b>				
1 mg - 500 mg	12	1,11	1	611-8722
1 mg - 50 g	20	111,11	1	611-8723
1 mg - 100 g	21	211,11	1	611-8724
1 mg - 200 g	23	611,11	1	611-8725
1 mg - 500 g	24	1111,11	1	611-8726
1 mg - 1 kg	25	2111,11	1	611-8727
1 mg - 2 kg	27	6111,11	1	611-8728
1 mg - 5 kg	28	11111,11	1	611-8729
1 mg - 10 kg	29	21111,11	1	611-8730
1 g - 50 g	8	110	1	611-8731
1 g - 100 g	9	210	1	611-8732
1 g - 200 g	11	610	1	611-8733
1 g - 500 g	12	1110	1	611-8734
1 g - 1 kg	13	2110	1	611-8735
1 g - 2 kg	15	6110	1	611-8736
1 g - 5 kg	16	11110	1	611-8737
1 g - 10 kg	17	21110	1	611-8738

## Calibration weights, class F1

Weights made from anti-magnetic, polished stainless steel. Suitable for medium resolution precision electronic balances. Weights have adjustment cavities for weights of more than 20 g.



- Wire weights up to 500 mg in cobalt alloy
  - Identification number guarantees traceability for weights from 1 g upwards
  - Laser engraving improves legibility of the markings
  - Available with or without COFRAC certificate
- Conform to OILM R111 recommendations.



### Ordering information:

All weights from 1 mg to 20 kg are available with or without COFRAC certificate - please visit [vwr.com](http://vwr.com) or contact your local VWR sales office. A range of sets of weights are also available - please search for product 'Calibration weight sets, class F1'.

Weight	Tolerance ( $\pm$ mg)	Pk	Cat. No.
<b>F1 weights in plastic cases with certificate</b>			
1 mg	0,020	1	611-8231
2 mg	0,020	1	611-8232
5 mg	0,020	1	611-8233
10 mg	0,025	1	611-8234
20 mg	0,03	1	611-8235
50 mg	0,04	1	611-8236
100 mg	0,05	1	611-8237
200 mg	0,06	1	611-8238
500 mg	0,08	1	611-8239
1 g	0,10	1	611-8240
2 g	0,12	1	611-8241
5 g	0,15	1	611-8242
10 g	0,20	1	611-8243
20 g	0,25	1	611-8244
50 g	0,30	1	611-8245
100 g	0,50	1	611-8246
200 g	1,0	1	611-8247
500 g	2,5	1	611-8248
1 kg	5	1	611-8249
2 kg	10	1	611-8250
5 kg	25	1	611-8251
10 kg	50	1	611-8252
20 kg	100	1	611-8094
<b>F1 weights in wooden boxes with certificate</b>			
500 g	2,5	1	611-8040
1 kg	5	1	611-8041
2 kg	10	1	611-8042
5 kg	25	1	611-8049
10 kg	50	1	611-8058
20 kg	100	1	611-8071
50 kg	250	1	611-8093

Weight	Tolerance ( $\pm$ mg)	Pk	Cat. No.
<b>F1 weights in plastic cases without certificate</b>			
1 mg	0,020	1	611-8201
2 mg	0,020	1	611-8202
5 mg	0,020	1	611-8203
10 mg	0,025	1	611-8204
20 mg	0,03	1	611-8205
50 mg	0,04	1	611-8206
100 mg	0,05	1	611-8207
200 mg	0,06	1	611-8208
500 mg	0,08	1	611-8209
1 g	0,10	1	611-8210
2 g	0,12	1	611-8211
5 g	0,16	1	611-8212
10 g	0,20	1	611-8213
20 g	0,25	1	611-8214
50 g	0,30	1	611-8215
100 g	0,50	1	611-8216
200 g	1,0	1	611-8217
500 g	2,5	1	611-8218
1 kg	5	1	611-8219
2 kg	10	1	611-8220
5 kg	25	1	611-8221
10 kg	50	1	611-8222
20 kg	100	1	611-8039
<b>F1 weights in wooden boxes without certificate</b>			
500 g	2,5	1	611-8028
1 kg	2,5	1	611-8029
2 kg	10	1	611-8033
5 kg	25	1	611-8035
10 kg	50	1	611-8036
20 kg	100	1	611-8037
50 kg	150	1	611-8038

## Calibration weight sets, class F1

Weights made from anti-magnetic, polished stainless steel. Suitable for medium resolution, precision electronic balances. Weights of more than 20 g have adjustment cavities.

- Wire weights up to 500 mg in cobalt alloy
- Identification number guarantees traceability for weights from 1 g upwards
- Laser engraving improves legibility of the markings
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

**Ordering information:** All weight sets listed in the 'set contents' table are available with or without COFRAC certificate - please visit [vwr.com](http://vwr.com) or contact your local VWR sales office. Weights are also available individually - please search for product 'Calibration weights, class F1'.

For full details of the which weights are included in the VWR® E1, E2, F1 and F2 calibration weight sets, please see table on page 19.



Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
<b>F1 weight sets in wooden boxes with certificate</b>				
1 mg - 500 mg	12	1,11	1	611-8632
1 mg - 50 g	20	111,11	1	611-8633
1 mg - 100 g	21	211,11	1	611-8634
1 mg - 200 g	23	611,11	1	611-8635
1 mg - 500 g	24	1111,11	1	611-8636
1 mg - 1 kg	25	2111,11	1	611-8637
1 mg - 2 kg	27	6111,11	1	611-8638
1 mg - 5 kg	28	11111,11	1	611-8639
1 mg - 10 kg	29	21111,11	1	611-8640
1 g - 50 g	8	110	1	611-8641
1 g - 100 g	9	210	1	611-8642
1 g - 200 g	11	610	1	611-8643
1 g - 500 g	12	1110	1	611-8644
1 g - 1 kg	13	2110	1	611-8645
1 g - 2 kg	15	6110	1	611-8646
1 g - 5 kg	16	11110	1	611-8647
1 g - 10 kg	17	21110	1	611-8648
<b>F1 weight sets in plastic cases with certificate</b>				
1 mg - 500 mg	12	1,11	1	611-8461
1 mg - 100 g	21	211,11	1	611-8462
1 mg - 200 g	23	611,11	1	611-8463
1 mg - 500 g	24	1111,11	1	611-8464
1 mg - 2 kg	27	6111,11	1	611-8649
1 mg - 5 kg	28	11111,11	1	611-8650
1 g - 100 g	9	210	1	611-8465
1 g - 200 g	11	610	1	611-8466
1 g - 500 g	12	1110	1	611-8467
1 g - 2 kg	15	6110	1	611-8651
1 g - 5 kg	16	11110	1	611-8652

Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
<b>F1 weight sets in wooden boxes without certificate</b>				
1 mg - 500 mg	12	1,11	1	611-8602
1 mg - 50 g	20	111,11	1	611-8603
1 mg - 100 g	21	211,11	1	611-8292
1 mg - 200 g	23	611,11	1	611-8604
1 mg - 500 g	24	1111,11	1	611-8605
1 mg - 1 kg	25	2111,11	1	611-8606
1 mg - 2 kg	27	6111,11	1	611-8607
1 mg - 5 kg	28	11111,11	1	611-8608
1 mg - 10 kg	29	21111,11	1	611-8609
1 g - 50 g	8	110	1	611-8610
1 g - 100 g	9	210	1	611-8611
1 g - 200 g	11	610	1	611-8612
1 g - 500 g	12	1110	1	611-8613
1 g - 1 kg	13	2110	1	611-8614
1 g - 2 kg	15	6110	1	611-8615
1 g - 5 kg	16	11110	1	611-8616
1 g - 10 kg	17	21110	1	611-8617
<b>F1 weight sets in plastic cases without certificate</b>				
1 mg - 2 kg	27	6111,11	1	611-8618
1 mg - 5 kg	28	11111,11	1	611-8619
1 g - 2 kg	15	6110	1	611-8620
1 g - 5 kg	16	11110	1	611-8621





## Calibration weights, class F1, Cal-Box, certified

An economical range of calibration sets, with only three stainless steel weights, to meet routine calibration requirements of precision and analytical balances.

- Class F1 tolerances
- Each set has a individual serial number and calibration certificate
- Each weight, from 1 g upwards, has a unique identification number for traceability
- Laser engraving improves legibility of the markings

**Delivery information:** Weights supplied in modern aluminium case with tweezers and balance brush.

Weight set	No. of weights	Type	Pk	Cat. No.
200 mg; 5 g; 50 g	3	With certificate	1	611-2428
200 mg; 10 g; 100 g	3	With certificate	1	611-2429
200 mg; 20 g; 200 g	3	With certificate	1	611-2430
200 mg; 50 g; 500 g	3	With certificate	1	611-2432
2 g; 20 g; 200 g	3	With certificate	1	611-2431
2 g; 50 g; 500 g	3	With certificate	1	611-2433
2 g; 100 g; 1 kg	3	With certificate	1	611-2434
20 g; 100 g; 1 kg	3	With certificate	1	611-2435
20 g; 200 g; 2 kg	3	With certificate	1	611-2436
20 g; 500 g; 5 kg	3	With certificate	1	611-2437



## Calibration weight sets, class F2

Stainless steel.

- Wire weights up to 500 mg in cobalt alloy
- Identification number guarantees traceability for weights from 1 g upwards
- Laser engraving improves legibility of the markings
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

For full details of the which weights are included in the VWR® E1, E2, F1 and F2 calibration weight sets, please see table on page 19.

Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
<b>F2 weight sets in wooden boxes with certificate</b>				
1 mg - 500 mg	12	1,11	1	611-8692
20 mg - 500 mg	7	1,09	1	611-8691
1 mg - 50 g	20	111,11	1	611-8693
1 mg - 100 g	21	211,11	1	611-8694
1 mg - 200 g	23	611,11	1	611-8695
1 mg - 500 g	24	1111,11	1	611-8696
1 mg - 1 kg	25	2111,11	1	611-8697
1 mg - 2 kg	27	6111,11	1	611-8698
1 mg - 5 kg	28	11111,11	1	611-8699
1 mg - 10 kg	29	21111,11	1	611-8700
1 g - 50 g	8	110	1	611-8701
1 g - 100 g	9	210	1	611-8702
1 g - 200 g	11	610	1	611-8703
1 g - 500 g	12	1110	1	611-8704
1 g - 1 kg	13	2110	1	611-8705
1 g - 2 kg	15	6110	1	611-8706
1 g - 5 kg	16	11110	1	611-8707
1 g - 10 kg	17	21110	1	611-8708
<b>F2 weight sets in plastic cases with certificate</b>				
1 mg - 2 kg	27	6111,11	1	611-8709
1 mg - 5 kg	28	11111,11	1	611-8710
1 g - 2 kg	15	6110	1	611-8711
1 g - 5 kg	16	11110	1	611-8712
<b>F2 weight sets in wooden boxes without certificate</b>				
1 mg - 500 mg	12	1,11	1	611-8662
1 mg - 50 g	20	111,11	1	611-8663



Weight set	No. of weights	Total weight (g)	Pk	Cat. No.
<b>F2 weight sets in wooden boxes without certificate</b>				
1 mg - 100 g	21	211,11	1	611-8664
1 mg - 200 g	23	611,11	1	611-8665
1 mg - 500 g	24	1111,11	1	611-8666
1 mg - 1 kg	25	2111,11	1	611-8667
1 mg - 2 kg	27	6111,11	1	611-8668
1 mg - 5 kg	28	11111,11	1	611-8669
1 mg - 10 kg	29	21111,11	1	611-8670
1 g - 50 g	8	110	1	611-8671
1 g - 100 g	9	210	1	611-8672
1 g - 200 g	11	610	1	611-8673
1 g - 500 g	12	1110	1	611-8674
1 g - 1 kg	13	2110	1	611-8675
1 g - 2 kg	15	6110	1	611-8676
1 g - 5 kg	16	11110	1	611-8677
1 g - 10 kg	17	21110	1	611-8678
<b>F2 weight sets in plastic cases without certificate</b>				
1 mg - 2 kg	27	6111,11	1	611-8679
1 mg - 5 kg	28	11111,11	1	611-8680
1 g - 2 kg	15	6110	1	611-8681
1 g - 5 kg	16	11110	1	611-8682

## Calibration weights, class F2



### Stainless steel

Class F2 weights for users who require moderate levels of tolerance values in their calibration and day to day weighing.

- Wire weights up to 500 mg in cobalt alloy
- Identification number guarantees traceability for weights from 1 g upwards
- Laser engraving improves legibility of the markings
- Available with or without COFRAC certificate

Conform to OILM R111 recommendations.

### Ordering information:

All weights from 1 mg to 20 kg are available with or without COFRAC certificate - please visit [vwr.com](http://vwr.com) or contact your local VWR sales office. A range of sets of weights are also available - please search for product 'Calibration weight sets, class F2'.

Weight	Tolerance (± mg)	Pk	Cat. No.
<b>F2 weights in plastic cases with certificate</b>			
1 mg	0,06	1	611-8179
2 mg	0,06	1	611-8180
5 mg	0,06	1	611-8181
10 mg	0,08	1	611-8182
20 mg	0,10	1	611-8183
50 mg	0,12	1	611-8184
100 mg	0,16	1	611-8185
200 mg	0,20	1	611-8186
500 mg	0,25	1	611-8187
1 g	0,3	1	611-8188
2 g	0,4	1	611-8189
5 g	0,5	1	611-8190
10 g	0,6	1	611-8195
20 g	0,8	1	611-8196
50 g	1,0	1	611-8197
100 g	1,6	1	611-8198
200 g	3,0	1	611-8199
500 g	7,5	1	611-8200
1 kg	15	1	611-8223
2 kg	30	1	611-8224
5 kg	75	1	611-8225
10 kg	150	1	611-8226
20 kg	300	1	611-8227
<b>F2 weights in wooden boxes with certificate</b>			
500 g	7,5	1	611-8172
1 kg	15	1	611-8173
2 kg	30	1	611-8174
5 kg	75	1	611-8175
10 kg	150	1	611-8176
20 kg	300	1	611-8177
50 kg	750	1	611-8178

Weight	Tolerance (± mg)	Pk	Cat. No.
<b>F2 weights in plastic cases without certificate</b>			
1 mg	0,06	1	611-8126
2 mg	0,06	1	611-8127
5 mg	0,06	1	611-8128
10 mg	0,08	1	611-8129
20 mg	0,10	1	611-8130
50 mg	0,12	1	611-8154
100 mg	0,16	1	611-8155
200 mg	0,20	1	611-8156
500 mg	0,25	1	611-8157
1 g	0,3	1	611-8158
2 g	0,4	1	611-8159
5 g	0,5	1	611-8160
10 g	0,6	1	611-8161
20 g	0,8	1	611-8162
50 g	1,0	1	611-8163
100 g	1,6	1	611-8164
200 g	3,0	1	611-8165
500 g	7,5	1	611-8166
1 kg	15	1	611-8167
2 kg	30	1	611-8168
5 kg	75	1	611-8169
10 kg	150	1	611-8170
20 kg	300	1	611-8171
<b>F2 weights in wooden boxes without certificate</b>			
500 g	7,5	1	611-8095
1 kg	15	1	611-8096
2 kg	30	1	611-8097
5 kg	75	1	611-8098
10 kg	150	1	611-8099
20 kg	300	1	611-8100
50 kg	750	1	611-8125

## Calibration weights, ASTM class 1

Stainless steel masses adjusted to ASTM class 1, for precise checking and adjustment of electronic balances.



**Delivery information:** Individual weights are supplied in a plastic storage box without certificate.

Weight (g)	Tolerance ( $\pm$ mg)	Pk	Cat. No.
50	120	1	611-8759
100	250	1	611-8760
200	500	1	611-8761
500	1200	1	611-8762
1000	2500	1	611-8763
2000	5000	1	611-8764
5000	12000	1	611-8765
10000	25000	1	611-8766

## Calibration weights, class M1

Weights from 1 g to 50 g are monobloc weights, with larger weights having an adjusting cavity. All weights are supplied in plastic cases.



Weight	Tolerance ( $\pm$ mg)	Pk	Cat. No.
<b>Aluminium sheet weights with certificate, M1</b>			
1 mg	0,2	1	611-8272
2 mg	0,2	1	611-8273
5 mg	0,2	1	611-8274
10 mg	0,25	1	611-8275
20 mg	0,3	1	611-8276
50 mg	0,4	1	611-8277
100 mg	0,5	1	611-8278
200 mg	0,6	1	611-8279
500 mg	0,8	1	611-8280
<b>Stainless steel weights with certificate, M1</b>			
1 g	1,0	1	611-8281
2 g	1,2	1	611-8282
5 g	1,6	1	611-8283
10 g	2,0	1	611-8284
20 g	2,5	1	611-8285
50 g	3,0	1	611-8286
100 g	5	1	611-8287
200 g	10	1	611-8288
500 g	25	1	611-8289
1 kg	50	1	611-8294
2 kg	100	1	611-8295
5 kg	250	1	611-8296
10 kg	500	1	611-8297
<b>Aluminium sheet weights without certificate, M1</b>			
1 mg	0,2	1	611-8228
2 mg	0,2	1	611-8229
5 mg	0,2	1	611-8230
10 mg	0,25	1	611-8253
20 mg	0,3	1	611-8254
50 mg	0,4	1	611-8255
100 mg	0,5	1	611-8256
200 mg	0,6	1	611-8257
500 mg	0,8	1	611-8258
<b>Stainless steel weights without certificate, M1</b>			
1 g	1,0	1	611-8259
2 g	1,2	1	611-8260
5 g	1,6	1	611-8261
10 g	2,0	1	611-8262
20 g	2,5	1	611-8263
50 g	3,0	1	611-8264
100 g	5	1	611-8265
200 g	10	1	611-8266
500 g	25	1	611-8267

Weight	Tolerance ( $\pm$ mg)	Pk	Cat. No.
<b>Stainless steel weights without certificate, M1</b>			
1 kg	50	1	611-8268
2 kg	100	1	611-8269
5 kg	250	1	611-8270
10 kg	500	1	611-8271

## Calibration weight sets, class M1, 3 weights

- 10 g stainless steel knob weight
- 50 g stainless steel knob weight
- 100 g nickel plated brass knob weight

**Delivery information:**

Weights are supplied in a bag.



Weight set	No. of weights	Pk	Cat. No.
10; 50; 100 g	3	1	611-1854

## Calibration weights, class M2

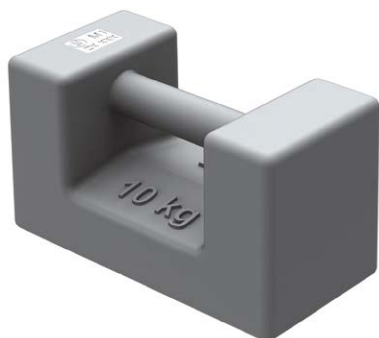
Test weights in either stainless steel or aluminium.

**Delivery information:** Supplied in a plastic box.



Weight	Tolerance ( $\pm$ mg)	Pk	Cat. No.
<b>Aluminium sheet weights with certificate, M2</b>			
100 mg	1,6	1	611-8367
200 mg	2,0	1	611-8368
500 mg	2,5	1	611-8369
<b>Stainless steel weights with certificate, M2</b>			
1 g	3	1	611-8370
2 g	4	1	611-8371
5 g	5	1	611-8372
10 g	6	1	611-8373
20 g	8	1	611-8374
50 g	10	1	611-8375
100 g	16	1	611-8376
200 g	30	1	611-8377
500 g	75	1	611-8378
1 kg	160	1	611-8379
2 kg	300	1	611-8380
5 kg	750	1	611-8381
10 kg	1600	1	611-8382
<b>Aluminium sheet weights without certificate, M2</b>			
100 mg	1,6	1	611-8328
200 mg	2,0	1	611-8329
500 mg	2,5	1	611-8330
<b>Stainless steel weights without certificate, M2</b>			
1 g	3	1	611-8353
2 g	4	1	611-8354
5 g	5	1	611-8355
10 g	6	1	611-8356
20 g	8	1	611-8357
50 g	10	1	611-8358
100 g	16	1	611-8359
200 g	30	1	611-8361
500 g	75	1	611-8362
1 kg	160	1	611-8363
2 kg	300	1	611-8364
5 kg	750	1	611-8365
10 kg	1600	1	611-8366

## Block weights, class M1



Rectangular weights made from cast iron (density 7,2 g/cm<sup>3</sup>).

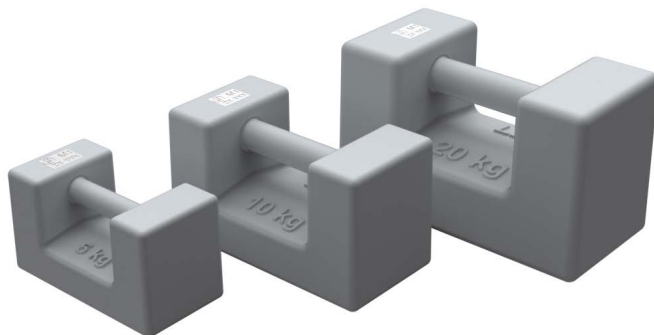
- Indelible unique identification number guarantees traceability

Colour: Grey

Conforms to OILM, COFRAC accredited.

Weight (kg)	Tolerance (± mg)	Type	Pk	Cat. No.
5	250	Without certificate	1	611-8298
5	250	With certificate	1	611-8324
10	500	Without certificate	1	611-8299
10	500	With certificate	1	611-8325
20	1000	Without certificate	1	611-8300
20	1000	With certificate	1	611-8326
50	2500	Without certificate	1	611-8323
50	2500	With certificate	1	611-8327

## Block weights, iron, class M2



Rectangular weights made from cast iron, permanently magnetised.

- Indelible unique identification number guarantees traceability
- Painted grey
- Adjustment cavity sealed with a lead plug

Conforms to OILM, COFRAC accredited.

Weight (kg)	Tolerance (± mg)	Pk	Cat. No.
<b>Block weights with certificate</b>			
5	750	1	611-8387
10	1600	1	611-8388
20	3000	1	611-8389
50	7500	1	611-8390
<b>Block weights without certificate</b>			
5	750	1	611-8383
10	1600	1	611-8384
20	3000	1	611-8385
50	7500	1	611-8386

## School weights



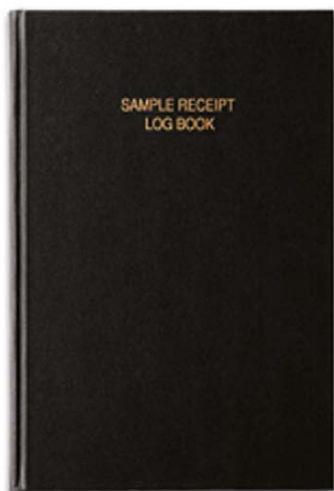
611-1852

Brass weights which are ideal for schools introducing the concepts of weights and forces.

Set	Weights included								
	1 g	2 g	5 g	10 g	20 g	50 g	100 g	200 g	500 g
500 g	1	2	1	2	1	1	2	1	
1 kg	1	2	1	2	1	1	2	1	1

Weight (g)	Tolerance	Pk	Cat. No.
<b>Single weight</b>			
1	3%	1	611-1843
2	3%	1	611-1844
5	3%	1	611-1845
10	3%	1	611-1846
20	3%	1	611-1847
50	3%	1	611-1848
100	3%	1	611-1849
200	3%	1	611-1850
500	3%	1	611-1851
<b>Set of weights in plastic case</b>			
1 - 500		1	611-1852
1 - 1000		1	611-1853

## Laboratory log books, special purpose



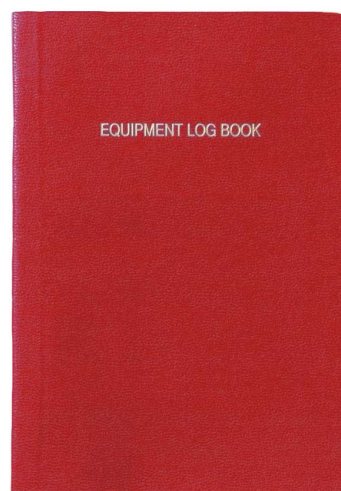
Imitation leather cover with coating, for durability in laboratory environments. Acid-free, archive-safe paper (90 gsm). Used to record and log data relating to laboratory equipment, temperature, balance calibration, reagents, animal maintenance and sample receipts.

- All pages for logging documentation have specific column headings for easy data entry
- Pages sewn in sections, books have round binding so that they lay flat
- Waterproof and tough

All books made in accordance with GLP, GMP and GCP guidelines.

Description	Colour	Pk	Cat. No.
Log book, laboratory equipment, 96 pages	Red	1	818-0102
Log book, animal maintenance, 168 pages	Black	1	818-0103
Log book, balance calibration, 168 pages	Green	1	818-0104
Log book, reagents, 168 pages	Dark red	1	818-0105
Log book, sample receipt, 168 pages	Red	1	818-0106
Log book, temperature, 168 pages	White	1	818-0107

## Mini equipment log books



'FLEX' covers with coating, for durability in laboratory environments. Acid-free archival safe paper (90 gsm).

- Pages specifically designed for logging and recording equipment data
- Tough coated cover

Format: A5 (14,8×21 cm) or A6 (10,5×14,8 cm), 96 pages, numbered.

All books made in accordance with GLP, GMP and GCP guidelines.

Description	Colour	Pk	Cat. No.
Mini equipment log book, A5, 96 pages	Red	1	818-0108
Mini equipment log book, A6, 96 pages	Red	1	818-0109



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## VWRCATALYST SERVICES

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## Weighing paper, grade 531



For weighing a range of substances (viscous products, powders, paste and liquids).

Size (mm)	Weight	Thickness (mm)	Pk	Cat. No.
100x100	45 g/m <sup>2</sup>	0,06	250	516-0318

## Disposable weighing boats



### PS, square

These sturdy weighing boats, with smooth surfaces, are ideal for weighing solid products. Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases.

- Shallow form with wide, flat bottom to resist tipping
- Temperature resistant up to +70 °C

WxDxH (mm)	Pk	Cat. No.
90x90x7	500	611-2249

## Disposable weighing boats



### PS, diamond

These flexible boats feature smooth surfaces to provide accurate pour-out with minimal sample loss. They are ideal for use with microwaves and moisture analysers.

- Wide, flat bottom avoids tipping
- Temperature resistant up to +70 °C



Capacity (ml)	WxDxH (mm)	Colour	Pk	Cat. No.
<b>Standard</b>				
5	55x35x6	Black	500	611-1996
5	55x35x6	White	500	611-1993
25	80x50x14	Black	500	611-9184
25	80x50x14	White	500	611-0097
30	80x60x14	Black	500	611-9185
30	80x60x14	White	500	611-9161
100	125x100x19	Black	500	611-9186
100	125x100x19	White	500	611-9162
<b>Anti-static</b>				
5	55x35x6	Black	500	611-1995
5	55x35x6	White	500	611-1994
25	80x50x14	Black	500	611-9190
25	80x50x14	White	500	611-9187
30	80x60x14	Black	500	611-9191
30	80x60x14	White	500	611-9188
100	125x100x19	Black	500	611-9192
100	125x100x19	White	500	611-9189

## Disposable weighing boats



### PS, square

These flexible weighing boats, with smooth surfaces, enable accurate pour-out with minimal sample loss. They are biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bleaches. Ideal for use with microwaves, balances or moisture analysers.

- Shallow form with wide, flat bottom avoids tipping
- Rounded corners simplify transfer
- Temperature resistant up to +70 °C

Capacity (ml)	WxDxH (mm)	Colour	Pk	Cat. No.
<b>Standard</b>				
7	46x46x8	Blue	500	611-9168
7	46x46x8	Black	500	611-9175
7	46x46x8	White	500	611-0093
100	85x85x24	Blue	500	611-9169
100	85x85x24	Black	500	611-9176
100	85x85x24	White	500	611-0094
250	140x140x22	Blue	500	611-9170
250	140x140x22	Black	500	611-9177
250	140x140x22	White	500	611-0095
<b>Anti-static</b>				
7	46x46x8	Blue	500	611-3113
7	46x46x8	Black	500	611-9181
7	46x46x8	White	500	611-9178
100	85x85x24	Blue	500	611-3114
100	85x85x24	Black	500	611-9182
100	85x85x24	White	500	611-9179
250	140x140x22	Blue	500	611-3115
250	140x140x22	Black	500	611-9183
250	140x140x22	White	500	611-9180

## Disposable, anti-static weighing boats



### PS, hexagonal

These boats feature smooth surfaces to enable accurate pour-out with minimal sample loss. Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases. These flexible boats bend at points to form pouring spouts.

- Flat bottom avoids tipping
- Sloping sides provide accurate transfer
- Temperature resistant up to +70 °C

Description	I-Ø bottom (mm)	I-Ø top (mm)	Colour	Pk	Cat. No.
Small	25	38	White	500	611-9171
Medium	51	64	White	500	611-9172
Large	76	102	White	500	611-9173
X-Large	89	127	White	500	611-9174

## Pour-boat weighing dishes



### PS

Samples are easily dispensed with the pour spout design without flexing the dish. These flat bottomed dishes are made from 0,3 mm thick polystyrene for better strength, stability and handling.

The anti-static versions help reduce the risk of static build up on samples, and helps maximise sample transfer when weighing out products.

- Flat bottom avoids tipping
- Temperature resistant to +70 °C
- Maximise recovery of often very expensive chemicals
- Biologically inert and resistant to dilute and weak acids, aqueous solutions, alcohols and bases

Description	WxDxH (mm)	Colour	Pk	Cat. No.
<b>Standard</b>				
Small	43x58x13	White	500	611-9163
Medium	83x132x26	White	500	611-9164
Large	108x183x26	White	500	611-9165
<b>Anti-static</b>				
Small	43x58x13	White	500	611-3116
Medium	83x132x26	White	500	611-3117
Large	108x183x26	White	500	611-3118

## Weighing boats, paper



Description	WxDxH (mm)	Colour	Pk	Cat. No.
FSC® Certified	35x35x15	White	500	611-3258
FSC® Certified	35x35x15	Brown	500	611-3256
FSC® Certified	45x45x15	White	500	611-3259
FSC® Certified	45x45x15	Brown	500	611-3257
FSC® Certified	92x92x25	White	250	611-3625
FSC® Certified	92x92x25	Brown	250	611-3624

VWR® paper weighing boats are a first in eco friendly laboratory consumables.

- Control contents like a polystyrene weighing boat making them easier to handle than standard, flat weighing paper
- Made of greaseproof paper that meets FDA 21 CFR 176.170, components of paper in contact with aqueous and fatty foods, with 21 CFR 176.180 and contact with dry foods
- Compatible with heat applications up to a maximum of 210 °C

They are both **Eco-In** and **Eco-Out**.

**Eco-In** because they are FSC® Certified. The papers used to manufacture our boats are made from responsibly forested wood products.

**Eco-Out** because they are naturally biodegradable in the standard municipal waste stream.

## Disposable weighing dishes



### Aluminium, light gauge

Ideal for weighing, sampling, dispensing, storage, food processing, evaporating or general laboratory use.

- Flanged edge with curled lip for increased stability
- Contaminant- and oil-free
- Stackable

Capacity (ml)	I-Ø×H (mm)	Pk	Cat. No.
20	44×13	100	611-1374
70	63×18	100	611-1373
75	65×30	100	611-1376
200	110×29	50	611-1377
500	180×25	50	611-1375

## Disposable weighing dishes with tabs



### Aluminium

Sturdy, disposable dishes feature crimped sides and tabs. Ideal for general purpose weighing, dispensing and storage applications. Can also serve as evaporating dishes, parts containers or dust covers.

- Flat bottom and crimped sides for rigidity
- Dishes feature tabs for easy handling
- Oil-free
- Slightly tapered for easy stacking

Capacity (ml)	I-Ø×H (mm)	Pk	Cat. No.
8	28×10	500	611-1362
20	43×13	100	611-1378
60	57×16	100	611-1372
60	57×16	144	611-1371
80	70×16	100	611-1379

## Disposable weighing and drying dishes or pans



611-1354, 611-1350 & 611-1353



611-1351 & 611-1352



611-1380, 611-3658 & 611-3659

Dishes and pans, made of aluminium.

- Compatible with most balances and dryers
- Oil-free
- Slightly tapered for easy stacking

Sturdy, disposable dishes and pans. Ideal for general purpose weighing, dispensing, storage and drying applications.

Description	Capacity (ml)	I-Ø×H (mm)	Pk	Cat. No.
<b>Disposable smooth-walled aluminium weighing dishes</b>				
Smooth-sided, flat bottom, multipurpose 'utility' dish.	80	70×16	100	611-1380
<b>Disposable aluminium weighing/drying pans</b>				
Weighing pan, ideal for general purpose weighing and dispensing. Compatible with both open and enclosed balances with a small weighing area (70 - 95 mm).	40	70×6,3	50	611-1354
Weighing/drying pan, ideal for general purpose weighing, dispensing, storage and drying. Compatible with Mettler, Sartorius, AND, Denver Instruments.	60	102×7,9	50	611-1353
Flat-top balance pan. Compatible with Ohaus balances and moisture analysers or any flat-top balance.	50	127×54,8	100	611-1350
<b>Disposable aluminium drying pans for solids/liquids</b>				
Drying pan for solids (compatible with Cenco moisture analyser).	30	110×9,5	25	611-1351
Drying pan for liquids (compatible with Cenco moisture analyser).	50	110×7,9	25	611-1352



## Disposable micro weighing dishes



### Aluminium

These micro weighing boats are compatible with most commercially available analysers and microbalances, and are packed in easy to use plastic containers for storage and dispensing.

Capacity (ml)	WxDxH (mm)	I-ØxH (mm)	Pk	Cat. No.
<b>Round form</b>				
0,035	-	6x2,5	250	611-1355
0,35	-	13x3,5	100	611-1356
<b>Oval form</b>				
0,04	6,5x3,5x2,5	-	250	611-1357
0,11	10x4x4,5	-	250	611-1358
0,12	12x4x2,7	-	250	611-1360
0,12	12x2x4,5	-	250	611-1361
1,12	25x7x7	-	50	611-1359

## Weighing boats, borosilicate glass



### Borosilicate 3.3 glass

- Ideal for weighing small samples
- Powders can be tapped or rinsed through the tubular stem of the weighing boats into the receiving vessel

Capacity (ml)	Length (mm)	Pk	Cat. No.
3	70	3	611-9194
6	85	3	611-9195
10	100	3	611-9196

## Weighing boats



### Porcelain, glazed

Length (mm)	Width (mm)	Pk	Cat. No.
37	17	3	611-2386
53	23	3	611-2387
64	29	3	611-2388

## Sampling spoons



### PS, white

These disposable spoons are produced in a cleanroom environment and gamma radiation sterilised. They are ideal for the sampling of powder, granules and pastes.

- Available in two different sizes: 2,5 ml (similar to a teaspoon) and 10 ml (similar to a tablespoon)
- Production, assembling and packaging according to cleanroom Class 7 (10 000)
- According to EU food and FDA guidelines
- Individually packed, gamma radiation sterilised

Length (mm)	Capacity (ml)	Pk	Cat. No.
127	2,5	100	231-0493
170	10	100	231-0494

## Sampling scoops



### PS, white

These sterile scoops are ideal for the sampling of powder, granules and pastes. Thanks to the special handle construction, and the slightly angled edge, the scoop stands horizontally and can be laid down without the material trickling out.



- Production, assembling and packaging according to cleanroom Class 7 (10 000)
- According to EU food and FDA guidelines
- Individually packed, gamma radiation sterilised

Capacity (ml)	Length (mm)	Colour	Pk	Cat. No.
50	160	White	100	231-0490
150	216	White	100	231-0491

## Scoop

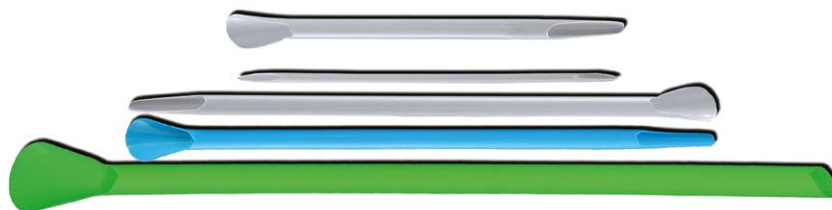


### PTFE

- Totally chemically inert

Length (mm)	Width (mm)	Ø (mm)	Pk	Cat. No.
140	30	20	1	231-0501

## Spatulas, disposable



### PP

Multipurpose, robust, inexpensive tools for collecting, transferring and processing samples of chemical and biological materials. The innovative shape of these spatulas allows them to be used as a spatula, spoon, scoop, scraper, mixing rod or for wiping. Ideal for recovering samples that have been frozen in liquid nitrogen. The macro type disposable spatulas are 50% larger than standard disposable spatulas. The long shaft makes it easier to transfer material from larger containers.

- Resistant to dilute acids and alkalis
- Reduce cross-contamination
- Autoclavable
- Compliant with FDA standards for applications involving contact with food

Description	Sterile	Length (mm)	Blade width (mm)	Colour	Pk	Cat. No.
Standard disposable spatulas	-	210	7	Opaque	300	231-0104
Standard disposable spatulas	-	210	7	Blue	300	231-0103
Sterile disposable spatulas	+	210	7	Natural	100	231-0369
Sterile disposable spatulas, non pyrogenic	+	210	7	Natural	100	231-0593
Micro disposable spatulas, anti-static	-	140	3	Natural	300	231-0106
Macro disposable spatulas	-	310	13	Green	150	231-0105
Disposable Eco spatulas, biodegradable (EcoPure® additive)	-	140	7	Natural	300	231-0416



## Spatulas




### PS, white

This spatula, with its long, ergonomic solid handle and pointed blade, can easily pierce paper and plastic bags. Ideal for the sampling of powder, granules and pastes.

- Production, assembling and packaging according to cleanroom Class 7 (10 000)
- According to EU food and FDA guidelines
- Individually packed, gamma radiation sterilised

Length (mm)	Colour	Pk	Cat. No.
263	White	100	231-0492



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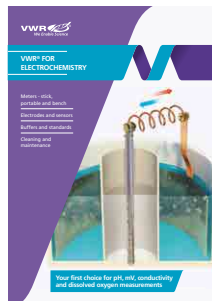
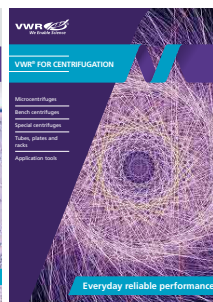
Sieves

Stirring and shaking

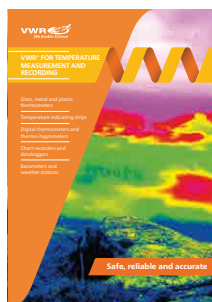
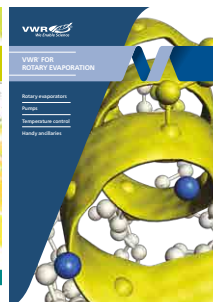
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