

OIML Weights



Comprehensive Portfolio

WeightLink™

CarePacs®

Signature Line E1, E2, F1

Premium Line E2, F1

Standard Line F1, F2, M1

Industrial Weights F1 – M3

Accessories



Expertly Crafted Weights
for Consistent Performance

METTLER TOLEDO

Unrivalled Expertise

Brought to You with Passion

METTLER TOLEDO's world leading expertise in metrology extends to weights, weight sets and weight calibration services. The weight portfolio covers OIML weights from fifty micrograms to five tons in all accuracy classes. Our weights are used all over the world, not only for testing balances but also as primary standards in mass laboratories.



Vacuum melted steel for highest material purity

Vacuum melting of steel ensures consistent high quality through reduction of undesired trace elements, removal of dissolved gases and improvement of oxide cleanliness.

Page 4



Expertise

Overview of weight portfolio, technical specifications and weight calibration services

6



Weight Calibration Service

Description of calibration service for weights

8



CarePacs® for Routine Testing

Benefits of routine testing with CarePacs®



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Weight Verification System

How to guarantee fully traceable balance testing with WeightLink™

12

	E1	E2	F1
	mg	mg	mg
5000 kg			25000
3000 kg			
2000 kg			10000
1000 kg		1600	5000
500 kg		800	2500
300 kg			
200 kg		300	1000
100 kg		160	500
50 kg	25	80	250

Traceability and Weight Classes

Material numbers of complete weight portfolio

14

△	△	△	△
△△	△△	△△	△△
△	△	△	△
△	△	△	△
△△	△△	△△	△△
△	△	△	△
△	△	△	△
△△	△△	△△	△△
△	△	△	△

Material Numbers

Material numbers of complete weight portfolio

An Extensive Weight Portfolio at Reasonable Cost

Choose from a comprehensive selection of weights and related calibration services. We offer you weights and services of the highest quality – even for users with limited budget. Building on many years of experience and customer feedback, our weight boxes and accessories have an unmatched reputation. Profit from short recalibration times and trustworthy services with our global network of accredited mass laboratories.



Polishing is an industrial art

Experience and specialist skills acquired through years' of weight polishing guarantee the consistent high quality our customers demand.



OIML Weights

Weights are available in OIML classes E1, E2, F1, F2, M1, M2 and M3 matching all requirements of OIML R111. Nominal values range from 50 µg to 5 tons, satisfying all industry and customer specific needs.



Design and Construction

All weights are made of premium stainless steel to make them corrosion resistant. Monobloc weights are specially designed for long term stability, and weights with an adjusting cavity provide best value for money. Electrolytic polishing ensures glossy surfaces for anti adhesion effects.



Technical Specifications

Magnetization and susceptibility of all weights are strictly controlled to ensure compliance with standards. The steel used is vacuum melted and has a density of 8.0 kg/dm³, a homogenous structure, and best purity.



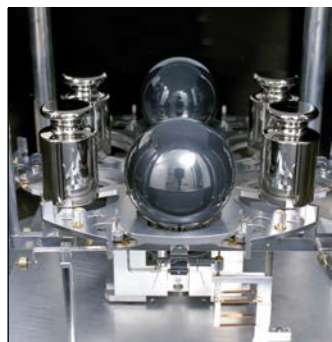
Traceability of Weights

All weights are manufactured with reference and traceability to the International Prototype Kilogram at the BIPM (International Bureau of Weights and Measures) near Paris. In addition, METTLER TOLEDO's WeightLink™ system guarantees fully traceable balance testing.



Weight Boxes

Traditional wooden boxes are still preferred in many mass labs while plastic and aluminum boxes better serve regulated and other industries. Impact resistant boxes and high quality foam inserts do not show any dissolve effects or residues even after years of use. Labels are tested for high resistance against cleaning liquids.



Weight Calibration

A global network of weight calibration laboratories, in Switzerland and other key markets, guarantee a fast and cost effective calibration service regardless of where you are based.



Accessories

Ergonomic tweezers and weight forks as well as clean-room approved gloves and cleaning cloths meet highest requirements of all industries and assure professional testing.

Weight Calibration

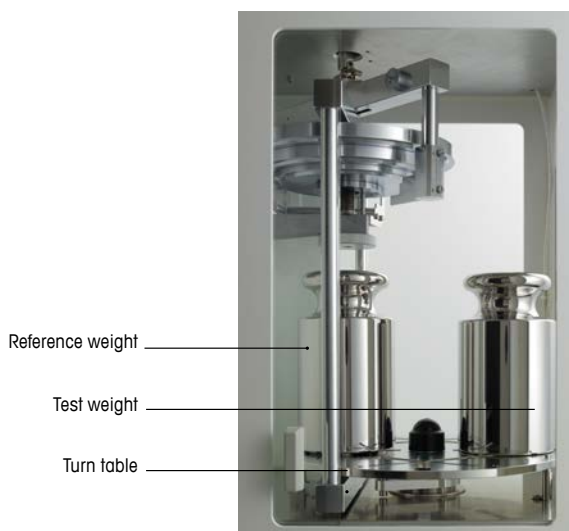
the Cornerstone for Secure Testing

Accurately calibrated weights are the basis of accurate weighing results. Balances should always be checked with reference weights you can rely on and trust. At our accredited mass laboratories, we clean, calibrate, adjust and document the results in a calibration certificate. The calibration services cover the basic reporting of conventional mass correction, uncertainty and traceability information in accordance with ISO/IEC 17025 requirements.



Unique weight adjustment procedure

Electrolytic adjustment of weights is a unique technique of METTLER TOLEDO to achieve surface smoothness which far exceeds required specifications.



Offering*

- Calibration by ISO/IEC 17025 accredited laboratory ("as left" values)
- Traceable, accredited calibration certificate
- Statement of conformity for the accuracy class
- Certificates in German, English, French, Spanish and Italian
- Professional weight cleaning
- Faulty weights replaced by METTLER TOLEDO original weights
- Re-adjustment of adjustable weights
- Statement of additional "as found" values (e. g. before cleaning or before adjustment)
- Reminder service from METTLER TOLEDO for weights due for calibration
- Priority service for quickest turn-around time
- Archiving of calibration history of weights

* Offering may vary from country to country

Feature

Accredited Mass Laboratory

Weight cleaning

Re-adjustment of weights

Benefit

Accreditation in accordance with ISO/IEC 17025 ensures independent auditing of a labs technical competence

Each weight is returned to its original state to ensure the same conditions for every balance test

Out of specification weights are adjusted to save costs, and weights can be used again for calibration purposes

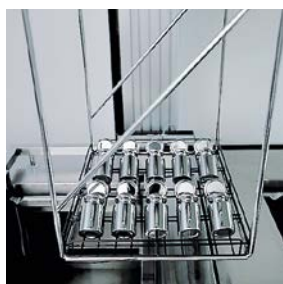


Benefits of calibrating your weights at METTLER TOLEDO:

- The only company in the world with a global network of weight calibration laboratories
- Network allows competence testing among own mass laboratories and with other partners in the industry
- Global leader in manufacturing state-of-the-art mass comparators, which are used in our mass laboratories
- All accredited mass laboratories meet or exceed ISO/IEC 17025, FDA, GMP, and requirements of nuclear industry
- Dense network ensures short turn around time for weight recalibration

Weight Calibration Process

Weight calibration by an accredited Mass Laboratory under the scope of ISO/IEC 17025 is the only way to obtain accurate and reliable data. METTLER TOLEDO's weight calibration process is shown below.



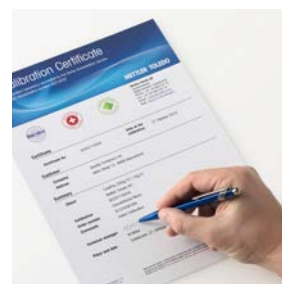
Each weight is cleaned prior to the actual calibration process to ensure defined conditions for each calibration



Stabilization of cleaned weights is important to ensure stable surface conditions prior to calibration



Weight calibration process is performed following procedures of ISO/IEC 17025



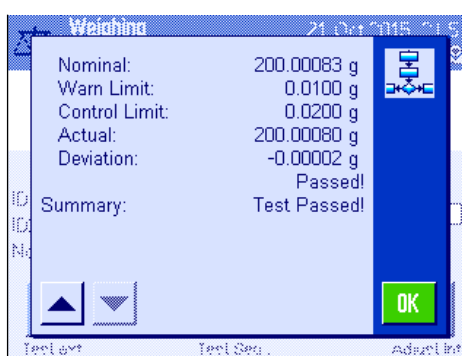
A certificate is provided with all the calibration results. With WeightLink™, calibration results are also stored in a data matrix code (eData).

Professional CarePacs® for Smooth Routine Testing

Test your balances securely, and in accordance with USP <41>, by using just two weights to test at 5% and 100% of the capacity of each balance. Not only is this unique approach much faster, but purchasing and recalibration costs are substantially reduced. CarePacs® include tweezers, gloves and other accessories for professional weight handling.



Three sizes of CarePacs® allow testing of balances up to 8 kg weighing capacity.



Maintain Process Tolerances

Fully supporting routine testing with external weights, CarePacs® offer a convenient and cost-effective way of limiting the risk of working outside of specified process tolerances.



WeightLink™ Ensures Full Traceability

This unique weight identification system works with the balance firmware to cross-check the weight against its calibration certificate, making it impossible to test using the wrong weight. With weight parameters transferred electronically to the balance, the system guarantees full traceability. See page 10.



CarePac® Small

Certificate Data Always to Hand

The WeightLink™ eData Card contains the information on the calibration certificate in the form of a 2D data matrix code. The code is linked to the machine readable ID on the base of the WeightLink™ weight.



Save Time and Money

Routine testing is performed with just two weights corresponding to the maximum and minimum loads. Weights are specified to validate process tolerances up to 0.03%.



Customer-specific 3rd Weight

CarePacs® offer the option to add a third weight to accommodate individual testing requirements, e.g. minimum weight determination.



Security through Superior Accessories

Ergonomic tweezers (or weight forks for larger weights) as well as clean-room approved gloves and cleaning cloths meet the highest industry requirements and assure professional testing.

CarePac® Sizes

Balance Max. Load

Small

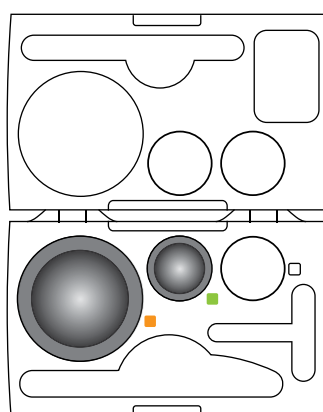
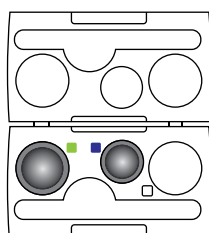
Up to 490 g

Medium

From 500 g to 4,900 g

Large

From 5 kg to 8 kg



For more information:
www.mt.com/carepacs

Weight Verification System for Traceable Balance Testing

In our innovative WeightLink™ system, every test weight has a unique identification number (UIN) on the base which 'links' it to its calibration certificate. Calibration and certificate data are stored in a data matrix code (DMC). The dedicated DMC Scanner reads the two codes and sends the information to the balance. The balance firmware validates the certificate and weight data before allowing the balance test to begin.

With this highly efficient system, it is impossible to test using the wrong weight and the risk of errors from manual data entry is completely eliminated. Full traceability is assured in 4 easy steps:

- Scan certificate data
- Scan weight
- Perform balance test
- Print report



Proven Traceability

The built-in balance testing application records the weight-specific data and the test results. A detailed test report can be printed out with an external printer to provide full documentation of the performed balance test.



Enhanced Security

WeightLink™ will only allow the use of a valid test weight. Verification of the test weight prior to use means you can rest assured that your testing procedures are fully compliant.



Improved Productivity

Automatic data transfer of weight parameters into the balance firmware is much faster than manual data entry and removes the need to check and re-check handwritten entries. Printing out results is quick and easy.



Adjust/Test		Setup
Autom. ext. Adjust	Off	
Autom. ext. Test	Off	
WeightLink	Activated	
Test History	Define	
<div> <div>←</div> <div>2/3</div> <div>→</div> </div>		OK

Easy Setup

WeightLink™ weights are available from 1 g to 5 kg and the data matrix scanner simply plugs into the back of your balance. Your local METTLER TOLEDO representative can advise you on compatible balance firmware versions.

Traceable Weights Translate into Trustworthy Results

Traceability is defined in the International Vocabulary of Basic and General Terms in Metrology (ISO, 2008) as the “property of a measurement whereby the result can be related to a reference, through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty.”

All of METTLER TOLEDO’s calibration laboratories for weights are accredited to ISO/IEC 17025 and arrange for the following to ensure traceability of calibrated weights:

- An **unbroken chain of comparisons** is achieved by using primary standards which are traceable to national and international standards, and finally to the prototype kilogram at the International Bureau of Weights and Measures (BIPM) in Sèvres, near Paris.
- **Measurement uncertainty**, assigned to each calibration, and clearly stated on the calibration certificates for weights.
- **Documentation**, normally a calibration certificate, showing all results including uncertainties and other information required by the standard ISO/IEC 17025.
- **Competence**, demonstrated by actively participating in proficiency testing in cooperation with industry and government partners.
- All weight references are metrologically traceable to **SI unit of mass**.
- **Recalibrations** of primary, working and check standards at appropriate intervals, which insures their accuracy and traceability.



International Organization of
Legal Metrology Recommendation R111

	E1	E2	F1	F2	M1	M2	M3
	mg	mg	mg	mg	mg	mg	mg
5,000 kg			25,000	80,000	250,000	800,000	2,500,000
2,000 kg			10,000	30,000	100,000	300,000	1,000,000
1,000 kg		1,600	5,000	16,000	50,000	160,000	500,000
500 kg		800	2,500	8,000	25,000	80,000	250,000
200 kg		300	1,000	3,000	10,000	30,000	100,000
100 kg		160	500	1,600	5,000	16,000	50,000
50 kg	25	80	250	800	2,500	8,000	25,000
20 kg	10	30	100	300	1,000	3,000	10,000
10 kg	5	16	50	160	500	1,600	5,000
5 kg	2.5	8.0	25	80	250	800	2,500
2 kg	1	3	10	30	100	300	1,000
1 kg	0.5	1.6	5	16	50	160	500
500 g	0.25	0.8	2.5	8.0	25	80	250
200 g	0.1	0.3	1.0	3	10	30	100
100 g	0.05	0.16	0.5	1.6	5.0	16	50
50 g	0.03	0.10	0.3	1.0	3.0	10	30
20 g	0.025	0.08	0.25	0.8	2.5	8.0	25
10 g	0.020	0.06	0.20	0.6	2.0	6.0	20
5 g	0.016	0.05	0.16	0.5	1.6	5.0	16
2 g	0.012	0.04	0.12	0.4	1.2	4.0	12
1 g	0.010	0.03	0.10	0.3	1.0	3.0	10
500 mg	0.008	0.025	0.08	0.25	0.8	2.5	
200 mg	0.006	0.020	0.06	0.20	0.6	2.0	
100 mg	0.005	0.016	0.05	0.16	0.5	1.6	
50 mg	0.004	0.012	0.04	0.12	0.4		
20 mg	0.003	0.010	0.030	0.10	0.30		
10 mg	0.003	0.008	0.025	0.08	0.25		
5 mg	0.003	0.006	0.020	0.06	0.20		
2 mg	0.003	0.006	0.020	0.06	0.20		
1 mg	0.003	0.006	0.020	0.06	0.20		

OIML Tolerances

The nominal weight values in this table specify the smallest and largest weight permitted in any class of OIML R 111 and the maximum permissible errors and denominations shall not be extrapolated to higher or lower values. For example, the smallest nominal value for a weight in OIML class M2 is 100 mg while the largest is 5,000 kg. A 50 mg weight would not be accepted as an R 111 class M2 weight and instead should meet class M1 maximum permissible errors and other requirements (e.g. shape or markings) for that class of weight. Otherwise the weight cannot be described as complying with R 111.



International Prototype Kilogram (IPK) at BIPM, a cylinder made of 90% platinum and 10% iridium.



Tips on calibration and recalibration of weights

- Calibration laboratories can be accredited in one or more fields of calibration, e.g., dimensional, thermodynamic or mechanical. Ensure that your calibration laboratory is accredited in accordance to ISO/IEC 17025 for mass calibration.
- Customers often trust their weights to legal verification officers. As this service falls under laws of legal metrology, no actual calibration is performed but only verification of weights. Legal verification is not performed in accordance with ISO/IEC 17025, and therefore such weights are not suitable for routine testing of balances.
- Legally verified weights are explicitly applied to test scales used for commercial trade between seller and customer, e.g., butchery.

Material Numbers



15 CarePacs® and WeightLink™ CarePacs

For balances with max. load of 8 kg



16 Signature Line Weights and WeightLink™ Calibration Weights

Monobloc weights of OIML Classes:

E1

E2

F1



18 Premium Line Weights

Monobloc weights of OIML Classes:

E2

F1



20 Standard Line Weights

Weights with adjusting cavity of OIML Classes:

F1

F2

M1



22 Industrial Weights

Weights with adjusting cavity of OIML Classes:

F1

F2

M1

M2

M3



23 Accessories

For professional weight handling

For tolerances refer to page 13

CarePacs®

CarePac® S

Weighing ranges
up to 490 g



Balances		XPE205DR XPE204 XP205 XP205S XP204S XP203S XSE204 XS205 XS204 XS203S XA204 XA303S	MS205 MS304S MS204S MS303S ML204 ML203 ML303	XPE105 XP105 XSE105DU XSE104 XS105 XS104 XA105 MS105 MS104S ML104	XP56 XS64 ML54 HR83 HG63 HB43-S	XP26 MJ33	XP6	XP2U XS3
	OIML	XP404S XS403S MS403S						
	Weights	200 g F2 20 g F1	200 g F2 10 g F1	100 g F2 5 g E2	50 g F2 2 g E2	20 g F1 1 g E2	5 g E2 0.2 g E2	2 g E2 0.1 g E2
	CarePac® S	11123000	11123001	11123002	11123003	11123006	11123005	11123004
WeightLink™ CarePac® S		30293475	30293476	30293477	30293478	30293481	30293480	30293479

CarePac® M

Weighing ranges
500 g – 4,900 g



CarePac® L

Weighing ranges
5 kg – 8 kg

OIML	Balances	XPE504				XP2003S		XP4002S		XP5003S		XS8001S	
		XP504						XP4001S		XP8002S		XS6001S	
		XP603S				XP2002S		XS4002S		XP6002S		XA5002S	
		XP802S		XP1203S	MS1003S	XP2001S		XS4001S		XP8001S		MS6002S	
		XS603S	MS603S	XP1202S	MS1602S	XS2002S	MS3002S	MS4002S		XP6001S		MS8001S	
		XS802S	ML503	XS1003S	ML1602	XA3002S	ML3002	ML4002		XS5003S		MS6001S	
		XA503S	ML802	XA1502S	ML1502	XA3001S	ML2001	ML4001		XS6002S		ML6001	
Weights		500 g F2		1,000 g F2		2,000 g F2		2,000 g F2		5,000 g F2			
		20 g F1		50 g F2		100 g F2		200 g F2		200 g F2			
CarePac® M / L		11123007		11123008		11123009		11123010		11123011			
WeightLink™ CarePac® M / L		30293482		30293483		30293484		30293485		30293486			

CarePacs® for non-current METTLER TOLEDO models or 3rd party balances

OIML

Weights	200 g F2 50 g F2	100 g F2 50 g F2	50 g F2 50 g F2	200 g F2 100 g F2	100 g F2 100 g F2	500 g F2 10 g F1	1,000 g F2 10 g F1	2,000 g F2 10 g F1	5,000 g F2 500 g F2	5,000 g F2 100 g F2
CarePac®	11123026	11123027	11123028	11123029	11123030	11123036	11123037	11123038	11123012	11123042

Customized 3rd Weight 3rd weights are for customized testing.

Value	OIML Class E2	Value	OIML Class E2	WeightLink™ OIML Class E2
1 mg	11123044	1 g	11123053	30293554
2 mg	11123045	2 g	11123054	30293555
5 mg	11123046	5 g	11123055	30293556
10 mg	11123047	10 g	11123056	30293557
20 mg	11123048	20 g	11123057	30293558
50 mg	11123049	50 g	11123058	30293559
100 mg	11123050	100 g	11123059	30293560
200 mg	11123051			
500 mg	11123052			

For quotes or technical information regarding
weights please use the email address below.

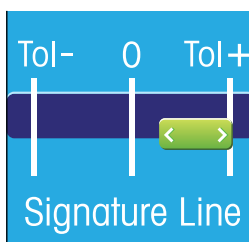
weights@mt.com

Signature Line

OIML E1, E2 and F1



The Signature Line offers more than perfection. Hand selected weights with guaranteed positive tolerances and a life-time guarantee make these weights the first choice for ambitious testing purposes.



Guaranteed Positive Tolerances

The unique electrolytic adjustment procedure combined with robotic calibrations allows selective production of weights in the positive tolerance range.



Full Lifetime Guarantee

The "Stay-in-tolerance" lifetime guarantee means that if ever a weight should be found out of tolerance it will be replaced free of charge.



High-grade stainless steel,
vacuum melted
Density: 8.0 kg/dm³
Magnetic susceptibility < 0.01
One-piece design (Monobloc)

	Weight and Box
	Weight and Box, including Certificate
	WeightLink™ weight, including certificate and eData
	Wire weight
	Marked wire weight
	Cylindrical weight with knob
	Marked cylindrical weight with knob

Individual Weights

Nominal value	Shape	E1		E2	
		Material number Wooden Box	Material number Plastic Box	Material number WeightLink™	
1 mg	△	00159000	00159001	30003706	–
2 mg	△	00159010	00159011	30003707	–
5 mg	△	00159020	00159021	30003710	–
10 mg	△	00159030	00159031	30003711	–
20 mg	△	00159040	00159041	30003712	–
50 mg	△	00159050	00159051	30003713	–
100 mg	△	00159060	00159061	30003714	–
200 mg	△	00159070	00159071	30003715	–
500 mg	△	00159080	00159081	30003716	–
1 g	■	00159090	00159091	30003717	30293502
2 g	■	00159100	00159101	30003718	30293503
5 g	■	00159110	00159111	30003719	30293504
10 g	■	00159120	00159121	30003720	30293505
20 g	■	00159130	00159131	30003721	30293506
50 g	■	00159140	00159141	30003722	30293507
100 g	■	00159150	00159151	30003723	30293508
200 g	■	00159160	00159161	30003724	30293509
500 g	■	00159170	00159171	30003725	30293550
1 kg	■	00159180	00159181	30003726	30293551
2 kg	■	00159190	00159191	30003727	30293552
5 kg	■	00159200	00159201	30003728	30293553
10 kg	■	00159210	00159211	30003729	–
20 kg	■	00159220	00159221	30003730	–
50 kg	■	00159230	00159231	30003731	–

Individual Weights

Nominal value	Shape	F1	
		Material number Plastic Box	Material number WeightLink™
1 mg	△	30003743	–
2 mg	△	30003744	–
5 mg	△	30003745	–
10 mg	△	30003746	–
20 mg	△	30003747	–
50 mg	△	30003748	–
100 mg	△	30003749	–
200 mg	△	30003750	–
500 mg	△	30003751	–
1 g	■	30003752	30293561
2 g	■	30003753	30293562
5 g	■	30003754	30293563
10 g	■	30003755	30293564
20 g	■	30003756	30293565
50 g	■	30003757	30293566
100 g	■	30003758	30293567
200 g	■	30003759	30293568
500 g	■	30003760	30293569
1 kg	■	30003761	30293570
2 kg	■	30003762	30293571
5 kg	■	30003763	30293572
10 kg	■	30003764	–
20 kg	■	30003765	–
50 kg	■	30003766	–

Weight Sets

Weight Sets	E1									E2								
	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g	1 mg 1 kg	1 kg 5 kg	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g	1 kg 5 kg	
1 mg	△	△	△	△	△			△△		△	△	△	△	△				
2 mg	△△	△△	△△	△△	△△			△△		△△	△△	△△	△△	△△				
5 mg	△	△	△	△	△			△△		△	△	△	△	△				
10 mg	△	△	△	△	△			△△		△	△	△	△	△				
20 mg	△△	△△	△△	△△	△△			△△		△△	△△	△△	△△	△△				
50 mg	△	△	△	△	△			△△		△	△	△	△	△				
100 mg	△	△	△	△	△			△△		△	△	△	△	△				
200 mg	△△	△△	△△	△△	△△			△△		△△	△△	△△	△△	△△				
500 mg	△	△	△	△	△			△△		△	△	△	△	△				
1 g		■	■	■	■	■	■	■			■	■	■	■	■	■		
2 g		■	■	■	■	■	■	■			■	■	■	■	■	■		
5 g		■	■	■	■	■	■	■			■	■	■	■	■	■		
10 g		■	■	■	■	■	■	■			■	■	■	■	■	■		
20 g		■	■	■	■	■	■	■			■	■	■	■	■	■		
50 g		■	■	■	■	■	■	■			■	■	■	■	■	■		
100 g		■	■	■	■		■	■			■	■	■	■		■		
200 g		■	■	■	■		■	■			■	■	■	■		■		
500 g			■	■	■		■	■				■	■	■		■		
1 kg			■	■	■			■	■			■	■	■			■	
2 kg				■	■				■				■	■			■	
5 kg					■				■					■			■	
No. of Weights	12	23	25	27	28	8	12	38	4	12	23	25	27	28	8	12	4	
Wooden Box	00159300	00159340	00159350	11117614	11117616	00159310	00159320	00159360	00159330									
	00159301	00159341	00159351	11117615	11117617	00159311	00159321	00159361	00159331									
Aluminum Box										—	—	—	—	—	—	—	—	
										30003732	30003734	30003735	30003736	30003737	30003738	30003739	30003740	



Weight Sets

	F1							
	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g	1 kg 5 kg
1 mg	△	△	△	△	△			
2 mg	△△	△△	△△	△△	△△			
5 mg	△	△	△	△	△			
10 mg	△	△	△	△	△			
20 mg	△△	△△	△△	△△	△△			
50 mg	△	△	△	△	△			
100 mg	△	△	△	△	△			
200 mg	△△	△△	△△	△△	△△			
500 mg	△	△	△	△	△			
1 g		■	■	■	■	■	■	
2 g		■	■	■	■	■	■	
5 g		■	■	■	■	■	■	
10 g		■	■	■	■	■	■	
20 g		■	■	■	■	■	■	
50 g		■	■	■	■	■	■	
100 g		■	■	■	■		■	
200 g		■	■	■	■		■	
500 g			■	■	■		■	
1 kg			■	■	■			■
2 kg				■	■			■
5 kg					■			■
No. of Weights	12	23	25	27	28	8	12	4
Aluminum Box	-	-	-	-	-	-	-	-
Box	30003767	30003768	30003769	30003770	30003771	30003772	30003773	30003774

Premium Line

OIML E2 and F1



Uncompromising selection of steel and rigorous control of manufacturing processes make Premium Line weights the excellent choice for balance calibration and testing. The proven one-piece design (monobloc) guarantees best long term stability and accurate testing results.



Premium Stainless Steel

Premium, vacuum melted stainless steel ensures an anti-corrosive surface with low magnetization and susceptibility values.



Made in Switzerland

The one-piece construction and electrolytically polished surface offer best long term stability. Unmatched Swiss quality!



High-grade stainless steel, vacuum melted
Density: 8.0 kg/dm³
Magnetic susceptibility < 0.01
One-piece design (Monobloc)

- Weight and Box
- Weight and Box, including Certificate
- Wire weight
- Marked wire weight
- Cylindrical weight with knob
- Marked cylindrical weight with knob

Individual Weights

		E2			
Nominal value	Shape	Material number Wooden Box		Material number Plastic Box	
1 mg	△	00158300	00158301	00158306	00158307
2 mg	△	00158310	00158311	00158316	00158317
5 mg	△	00158320	00158321	00158326	00158327
10 mg	△	00158330	00158331	00158336	00158337
20 mg	△	00158340	00158341	00158346	00158347
50 mg	△	00158350	00158351	00158356	00158357
100 mg	△	00158360	00158361	00158366	00158367
200 mg	△	00158370	00158371	00158376	00158377
500 mg	△	00158380	00158381	00158386	00158387
1 g	■	00158390	00158391	00158396	00158397
2 g	■	00158400	00158401	00158406	00158407
5 g	■	00158410	00158411	00158416	00158417
10 g	■	00158420	00158421	00158426	00158427
20 g	■	00158430	00158431	00158436	00158437
50 g	■	00158440	00158441	00158446	00158447
100 g	■	00158450	00158451	00158456	00158457
200 g	■	00158460	00158461	00158466	00158467
500 g	■	00158470	00158471	00158476	00158477
1 kg	■	00158480	00158481	00158486	00158487
2 kg	■	00158490	00158491	00158496	00158497
5 kg	■	00158500	00158501	00158506	00158507
10 kg	■	00158510	00158511	00158516	00158517
20 kg	■	00158520	00158521	00158526	00158527
50 kg	■	00158530	00158531		

Individual Weights

		F1			
Nominal value	Shape	Material number Wooden Box		Material number Plastic Box	
1 mg	△	00159410	00159411	00159416	00159417
2 mg	△	00159420	00159421	00159426	00159427
5 mg	△	00159430	00159431	00159436	00159437
10 mg	△	00159440	00159441	00159446	00159447
20 mg	△	00159450	00159451	00159456	00159457
50 mg	△	00159460	00159461	00159466	00159467
100 mg	△	00159470	00159471	00159476	00159477
200 mg	△	00159480	00159481	00159486	00159487
500 mg	△	00159490	00159491	00159496	00159497
1 g	■	00158600	00158601	00158606	00158607
2 g	■	00158610	00158611	00158616	00158617
5 g	■	00158620	00158621	00158626	00158627
10 g	■	00158630	00158631	00158636	00158637
20 g	■	00158640	00158641	00158646	00158647
50 g	■	00158650	00158651	00158656	00158657
100 g	■	00158660	00158661	00158666	00158667
200 g	■	00158670	00158671	00158676	00158677
500 g	■	00158680	00158681	00158686	00158687
1 kg	■	00158690	00158691	00158696	00158697
2 kg	■	00158700	00158701	00158706	00158707
5 kg	■	00158710	00158711	00158716	00158717
10 kg	■	00158720	00158721	00158726	00158727
20 kg	■	00158730	00158731	00158736	00158737
50 kg	■	00158740	00158741		

Weight Sets

	E2								
	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g	1 mg 1 kg	1 kg 5 kg
1 mg	△	△	△	△	△			△△	
2 mg	△△	△△	△△	△△	△△			△△△	
5 mg	△	△	△	△	△			△△△	
10 mg	△	△	△	△	△			△△△	
20 mg	△△	△△	△△	△△	△△			△△△	
50 mg	△	△	△	△	△			△△△	
100 mg	△	△	△	△	△			△△△	
200 mg	△△	△△	△△	△△	△△			△△△	
500 mg	△	△	△	△	△			△△	
1 g		■	■	■	■	■	■	■	■
2 g		■	■	■	■	■	■	■	■
5 g		■	■	■	■	■	■	■	■
10 g		■	■	■	■	■	■	■	■
20 g		■	■	■	■	■	■	■	■
50 g		■	■	■	■	■	■	■	■
100 g		■	■	■	■		■	■	■
200 g		■	■	■	■		■	■	■
500 g			■	■	■		■	■	■
1 kg			■	■	■			■	■
2 kg				■	■				■
5 kg					■				■
No. of Weights	12	23	25	27	28	8	12	38	4
Wooden Box	00158800	00158840	00158850	11117624	11117626	00158810	00158820	00158860	00158830
	00158801	00158841	00158851	11117625	11117627	00158811	00158821	00158861	00158831
Aluminum Box	00158806	00158846	00158856	11117321	11117323	00158816	00158826	-	11125900
	00158807	00158847	00158857	11117322	11117324	00158817	00158827	-	11125901

Weight Sets

Weight Sets	F1							
	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g	1 kg 5 kg
1 mg	△	△	△	△	△			
2 mg	△△	△△	△△	△△	△△			
5 mg	△	△	△	△	△			
10 mg	△	△	△	△	△			
20 mg	△△	△△	△△	△△	△△			
50 mg	△	△	△	△	△			
100 mg	△	△	△	△	△			
200 mg	△△	△△	△△	△△	△△			
500 mg	△	△	△	△	△			
1 g		■	■	■	■	■	■	
2 g		■	■	■	■	■	■	
5 g		■	■	■	■	■	■	
10 g		■	■	■	■	■	■	
20 g		■	■	■	■	■	■	
50 g		■	■	■	■	■	■	
100 g		■	■	■	■		■	
200 g		■	■	■	■		■	
500 g			■	■	■		■	
1 kg			■	■	■			■
2 kg				■	■			■
5 kg					■			■
No. of Weights	12	23	25	27	28	8	12	4
Wooden Box	00161700	00158900	00158910	11117802	11117804	00158870	00158880	00158890
	00161701	00158901	00158911	11117803	11117805	00158871	00158881	00158891
Aluminum Box	00161706	00158906	00158916	11119979	11119981	00158876	00158886	11125907
	00161707	00158907	00158917	11119980	11119982	00158877	00158887	11125908



Standard Line

OIML F1, F2 and M1

Proven technology and competitive prices make **Standard Line weights** a cost effective solution for general testing purposes. All weights are made of stainless steel, even for mg weights no aluminum is used. **Weights are manufactured under METTLER TOLEDO's stringent ISO 9001 quality management system.**



Adjusting Cavity

The threaded aperture of the cavity enable adjustment to be made via a gentle twist without the need for specialized equipment.



Robust and Durable

The Standard Line weights are made of stainless steel, offering high corrosion resistance and ensuring excellent long term stability. They are supplied as standard in a plastic, shock-resistant box that conforms to FDA requirements.



Stainless steel
Density: 7.9 kg/dm³

Weight and Box

Weight and Box,
including Certificate

- ☐ Sheet weight
- ☒ Marked sheet weight
- ☒ Cylindrical weight with knob
- ☒ Marked cylindrical weight with knob
- Marked single weights are available on request

Individual Weights

Nominal value	Shape	F1		F2		M1	
		Material number Plastic Box		Material number Plastic Box		Material number Plastic Box	
1 mg	<input type="checkbox"/>	30402662	30406245	30402648	30406415	30402184	30406452
2 mg	<input type="checkbox"/>	30402629	30406246	30402649	30406416	30402510	30406453
5 mg	<input type="checkbox"/>	30402630	30406247	30402650	30406417	30402355	30406454
10 mg	<input type="checkbox"/>	30402631	30406388	30402651	30406418	30402585	30406455
20 mg	<input type="checkbox"/>	30402632	30406389	30402652	30406419	30402586	30406456
50 mg	<input type="checkbox"/>	30402633	30406390	30402653	30406420	30402587	30406457
100 mg	<input type="checkbox"/>	30402634	30406391	30402654	30406421	30402638	30406458
200 mg	<input type="checkbox"/>	30402635	30406392	30402655	30406422	30402639	30406459
500 mg	<input type="checkbox"/>	30402636	30406393	30402656	30406423	30402640	30406460
1 g	<input checked="" type="checkbox"/>	30402637	30406394	30402657	30406424	30402641	30406371
2 g	<input checked="" type="checkbox"/>	30402688	30406395	30402658	30406425	30402642	30406372
5 g	<input checked="" type="checkbox"/>	30402689	30406396	30402659	30406426	30402643	30406373
10 g	<input checked="" type="checkbox"/>	30402690	30406397	30402603	30406427	30402644	30406374
20 g	<input checked="" type="checkbox"/>	30402691	30406398	30402604	30406428	30402645	30406375
50 g	<input checked="" type="checkbox"/>	30402574	30406399	30402660	30406429	30402646	30406376
100 g	<input checked="" type="checkbox"/>	30402783	30406400	30402661	30406430	30402647	30406377
200 g	<input checked="" type="checkbox"/>	30402698	30406401	30402577	30406431	30402576	30406478
500 g	<input checked="" type="checkbox"/>	30402701	30406402	30402700	30406432	30402699	30406479
1 kg	<input checked="" type="checkbox"/>	30402664	30406403	30402663	30406433	30402702	30406480
2 kg	<input checked="" type="checkbox"/>	30402667	30406404	30402666	30406434	30402665	30406481
5 kg	<input checked="" type="checkbox"/>	30402710	30406405	30402709	30406435	30402708	30406482
10 kg	<input checked="" type="checkbox"/>	30402714	30406406	30402712	30406436	30402711	30406483
20 kg	<input checked="" type="checkbox"/>	30402782	30406407	30402781	30406437	30402780	30406484

Weight Sets

	1 mg 500 mg	1 mg 200 g	1 mg 1 kg	1 mg 2 kg	1 mg 5 kg	1 g 50 g	1 g 500 g
1 mg	□	□	□	□	□		
2 mg	□ □	□ □	□ □	□ □	□ □		
5 mg	□	□	□	□	□		
10 mg	□	□	□	□	□		
20 mg	□ □	□ □	□ □	□ □	□ □		
50 mg	□	□	□	□	□		
100 mg	□	□	□	□	□		
200 mg	□ □	□ □	□ □	□ □	□ □		
500 mg	□	□	□	□	□		
1 g		■	■	■	■	■	■
2 g		■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
5 g		■	■	■	■	■	■
10 g		■	■	■	■	■	■
20 g		■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
50 g		■	■	■	■	■	■
100 g		■	■	■	■		■
200 g		■ ■	■ ■	■ ■	■ ■		■ ■
500 g			■	■	■		■
1 kg			■	■	■		
2 kg				■ ■	■ ■		
5 kg					■		
No. of Weights	12	23	25	27	28	8	12





Weight Sets

	F1		F2		M1	
1 mg - 500 mg	30402723	30406408	30402722	30406438	30402721	30406445
1 mg - 200 g	30402717	30406409	30402716	30406439	30402715	30406446
1 mg - 1 kg	30402735	30406410	30402734	30406440	30402732	30406447
1 mg - 2 kg	30402684	30406411	30402683	30406441	30402682	30406448
1 mg - 5 kg	30402687	30406412	30402686	30406442	30402685	30406449
1g - 50 g	30402681	30406413	30402680	30406443	30402679	30406450
1g - 500 g	30402730	30406414	30402729	30406444	30402728	30406451



Industrial Weights

	Weight
	Weight including Certificate

Grip Handle Weights

Stainless steel,
High gloss finish
Density: 7.9 kg/dm³



Stainless steel, Glass
bead blasted, passivated
Density: 7.9 kg/dm³



	F1		M1	
Nominal value	Material number		Material number	
1 kg	11125424	11125429	30013625	30024245
2 kg	11125425	11125430	30013626	30024246
5 kg	11125426	11125431	30006805	30024247
10 kg	11125427	11125432	30006806	30024248
20 kg	11125428	11125433	30006807	30024249

Grip Handle Weights

Stainless steel
Density: 7.9 kg/dm³



	F2		M1	
Nominal value	Material number		Material number	
5 kg	11116650	11116656	11116600	11116601
10 kg	11116651	11116657	11116610	11116611
20 kg	11116652	11116658	11116620	11116621
50 kg	11116653	11116659	11116630	11116631
40 kg weight carrier	11116654	11116660	11116640	11116641

Grip Handle Weights

Cast iron
Two-component coating
Density: 7.2 kg/dm³



	M1		M2		M3	
Nominal value	Material number		Material number		Material number	
5 kg	11125400	11125404	11125408	11125412	11125416	11125420
10 kg	11125401	11125405	11125409	11125413	11125417	11125421
20 kg	11125402	11125406	11125410	11125414	11125418	11125422
50 kg	11125403	11125407	11125411	11125415	11125419	11125423



Weight carrier



720×275×330 mm (L×W×H)

Weight carriers are available for easy and fast calibration up to 200 kg. Weight carriers can accommodate 8 pieces 20 kg, 10 kg or 5 kg.

The weights can be easily stacked for the calibration of high-load balances.

Heavy Capacity Weights

Cast iron
Two-component coat
Density: 7.2 kg/dm³

	M1	
Nominal value	Material number	
50 kg	11125498	11125499
100 kg	11125500	11125506
200 kg	11125501	11125507
500 kg	11125502	11125508
1,000 kg	11125503	11125509
2,000 kg	11125504	11125510
5,000 kg	11125505	11125511



For quotes, technical information or other weights

► weights@mt.com

Accessories



Tweezers

	Material number
Straight tips, for weights 1 mg – 50 g, length 130 mm	00015900
Straight tips, for weights 1 g - 1 kg, length 220 mm	11116544
Straight tips, for weights 1 mg – 50 g, length 140 mm	11116543
Bent tips, for weights 1 g – 1 kg, length 210 mm	00015901
Bent tips, for weights 1 g – 200 g, length 130 mm	11116540
Straight tips, for weights 1 mg – 500 mg, length 130 mm	30040321



Weight Forks

	Material number
Aluminum/Polyamide, for weights 500 g – 1 kg, length 300 mm	00222175
Aluminum/Polyamide, for 2 kg weights, length 320 mm	00015902
Aluminum/Polyamide, for 5 kg weights, length 470 mm	00015903
ABS, for 500 g weights, length 150 mm	11123094
ABS, for 1 kg weights, length 150 mm	11123095



Weight Handles

	Material number
Steel, with rubber coating, for 2 kg weights	11123096
Steel, with rubber coating, for 5 kg weights	11123097
Aluminum, for 10 kg and 20 kg weights	00015904
Aluminum, for 10 kg and 20 kg weights, with ear for crane	11116517
Aluminum, for 50 kg weights, with ear for crane	11116515

Miscellaneous Accessories



DMC Scanner



Brush



Weight marking

	Material number
Leather gloves, pair, not suitable for regulated environments	00072001
Nylon gloves, pair, suitable for all environments	11123098
Micro fibre cloth, suitable for all environments	00158798
Brush, suitable for all environments	00158799
Weight marking, up to 5 digits, alphanumeric, on 1 g – 50 kg weights	11116500
Air bellow, for weight cleaning	11116548
WeightLink™ DMC Scanner	30268560
WeightLink™ DMC Scanner + RS232 option	30304696

Our Weights Competence Ensures Your Quality

Routine testing of your balances sets the foundation for the accurate weighing results upon which your product quality depends. With years of metrology know-how and manufacturing expertise, you can rely on METTLER TOLEDO's weights and weight calibration services to support your daily weighing activities.



Test with just two weights

The unique CarePacs® approach to balance testing uses just two test weights corresponding to 5% and 100% of the capacity of your balance. You save time and costs.



Guaranteed traceability

The WeightLink™ system will only allow the use of a valid test weight. Verification of the test weight prior to use means you can rest assured that your testing procedures are fully compliant.



Trusted calibration

Our global network of accredited mass calibration laboratories meet or exceed ISO/IEC 17025, FDA and GMP standards. Weight calibration is the only way to obtain accurate and reliable data.

www.mt.com/weights

For more information



METTLER TOLEDO Group

Laboratory Weighing

Local contact: www.mt.com/contacts

Subject to technical changes

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