



made  
in  
Germany

EIGHTS FOR THE BEST

WEIGHTS AND  
WEIGHT SETS



Registrier-Nr. 059993 QM08  
DIN EN ISO 9001:2015



DIN EN ISO / IEC 17025:2005



Deutsche  
Akkreditierungsstelle  
D-K-15192-01-00



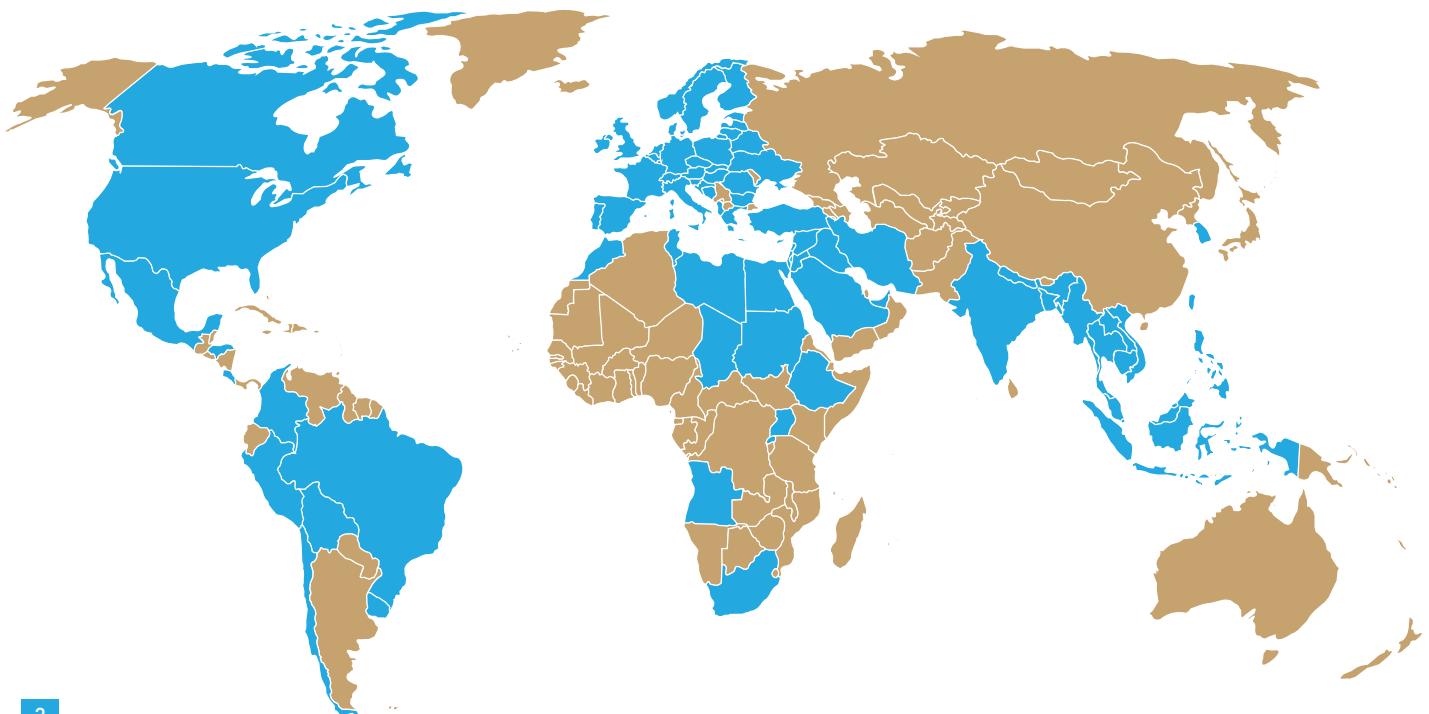


**WE SUPPLY RELIABLE AND HIGH  
QUALITY WEIGHTS WORLDWIDE.**

## OUR PRODUCTS

Our weights range from milligrams to tons, all made under one roof. In addition to meeting everyday customer needs, HÄFNER sets great store in accommodating special wishes:

- + very small weights (down to 0.1 mg)
- + very large weights (up to 5000 kg)
- + Special forms such as load weights or bent-wire milligram weights
- + Accessories such as bell jars or forks
- + Special markings (e.g. barcodes and signs)
- + Boxes and cases according to customer demands





## HÄFNER - SPECIALIST FOR WEIGHTS AND WEIGHT SETS

EVER SINCE OUR COMPANY WAS FOUNDED IN 1933 IN OBERROT, A SMALL TOWN IN THE SWABIAN REGION OF GERMANY, WE HAVE BEEN MANUFACTURING WEIGHTS FOR A WIDE RANGE OF APPLICATIONS.

These weights range from milligrams to tons, all made under one roof. We are certified to EN ISO 9001:2008 and are known worldwide for our high reliability and quality.

With the advent of electronic weighing devices, the role of weights has changed. Originally used as weighing instruments in conjunction with scales, weights are now used as adjusting, calibration and test equipment for balances and force measuring devices. The demands on weights are constantly rising with the continuously increasing accuracy and resolution of electronic load cells.

We recognised this trend early on and responded to the challenge. Rationalisation and the utilisation of advanced technology form the basis for our leading position in modern weights manufacturing.

Furthermore, our calibration laboratory MASSCAL is accredited by the German Accreditation Body (DAkkS) and is a member of the German Calibration Service (DKD).



# WHEN PERFORMANCE COUNTS

## OUR QUALITY EXPECTATIONS

**Over many decades and in the history of our family-owned business, perfection and the name HÄFNER have become inseparable.**

Worldwide trust and recognition by national metrology institutes (NMIs) such as PTB, NPL etc., as well as accredited calibration laboratories, state offices for verification, scale and balance manufacturers, companies for repair and maintenance, distributors for laboratory equipment, companies in all industrial sectors and not least our competitors, testify to our exceptional performance and our success.

Customer wishes and requirements for perfect weights can only be fulfilled by an ongoing development process that creates the necessary conditions and means for improvement.

We strive to repay your trust in HÄFNER with our quality and performance. **Challenge us!**



**DKD**  
Deutsche  
Akkreditierungsstelle

## QUALITY MANAGEMENT

HÄFNER utilises a quality management system and is certified to EN ISO 9001:2015 by DQS (registration number 059 993).

We are always up-to-date in science and technology thanks to our active participation in the technical committee of the German Calibration Service (DKD) and close cooperation with the German National Metrology Institute PTB.

## OUR WEIGHTS ARE SO GOOD THAT OUR STAFF ARE PROUD OF EVERY ONE OF THEM.

### PERFECT WEIGHTS

**At HÄFNER every blank is formed from special materials. Advanced casting technology and extremely precise CNC machine tools are key parts of the production process.**

Consistently high precision of all HÄFNER blanks is ensured by our exceptional expertise and advanced surface processing technology. What happens afterward is pure craftsmanship.

With considerable experience and sensitivity, our employees machine each weight to the specified value. Every step in the process is checked using extremely accurate scales with calibrated standard weights, and ambient conditions are monitored continuously. HÄFNER marks the weights using special corrosion-proof laser technology to ensure that the weights retain their values. This allows weight standards in classes E2, E1 and E0 to be identified reliably without confusion.

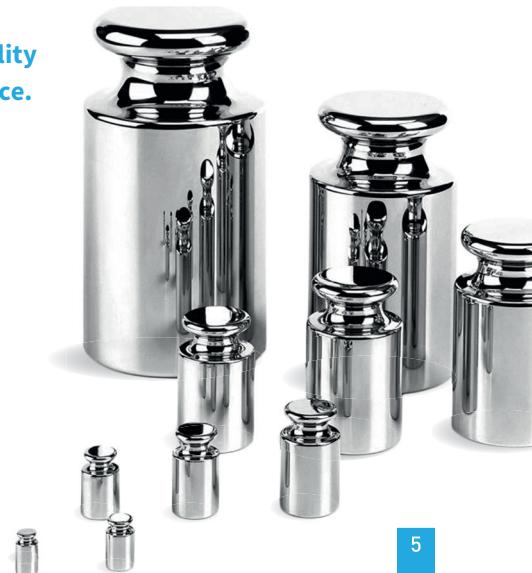
Another key factor for manufacturing perfect weights is our special HE210 steel, which was developed to meet the requirements of class E0.

As a result, for many years national metrology institutes have been able to rely on their primary weight standards (class E0) and secondary mass standards (class E1) from HÄFNER.

Before delivery, each HÄFNER weight is again cleaned and checked, and if requested by the customer a calibration certificate (e.g. a DAkkS calibration certificate) is prepared to document quality and traceability to the national kilogram prototype.

HÄFNER perfection is only possible with staff who are experts at their trade.

**Service and reliability at an attractive price.**





# PROCESS SECURITY AND RELIABILITY

## QUALITY MANAGEMENT

Assuring the quality of your products is an important part of your business success, which is why an accredited quality management system is indispensable in the world of measuring and weighing.

Quality management standards and guidelines, such as the ISO 9001 family, VDA 6.1, ISO 10012, ISO/TS 16649, ISO 17025 and the GLP/GMP regulations, help ensure reproducible measurement results by means of reliable and suitable measuring and test equipment, which includes scales and standard weights (calibration and test weights).

Documented monitoring of measuring and test equipment is therefore a key obligation and provides essential evidence of compliance with product liability and due diligence regulations.

As a worldwide leader in the manufacture of weights, HÄFNER supports you in planning test processes and test equipment with:

- ✓ expertise and experience;
- ✓ advice and competence;
- ✓ extremely high precision and quality;
- ✓ flexibility;
- ✓ special production according to individual customer requirements;
- ✓ service and reliability at an attractive price.

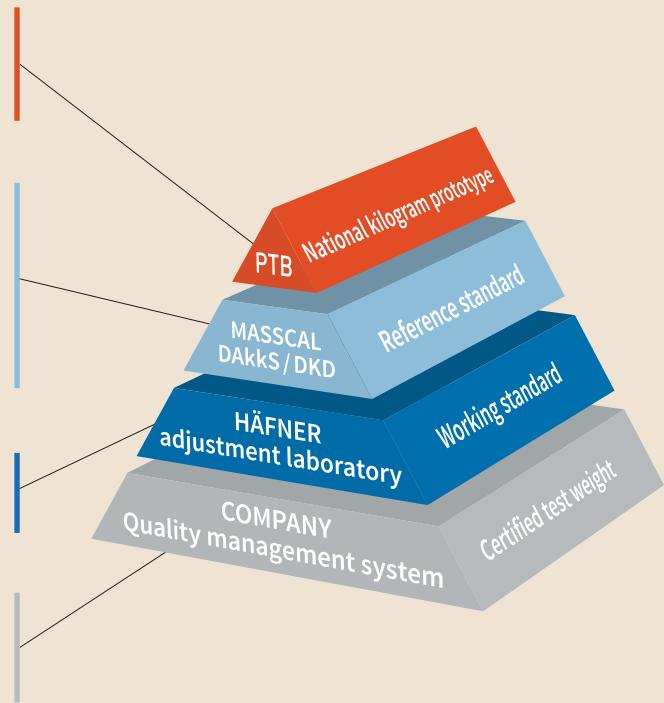
## TRACEABILITY TO THE NATIONAL WEIGHT STANDARD

In Germany the Physikalisch Technische Bundesanstalt (PTB) is the National Metrology Institute (NMI) and provides access to the physical SI mass standards.

Our MASSCAL calibration laboratory is accredited as a DAkkS calibration laboratory (registration number D-K-15192-01-00) by the PTB. The internationally valid DAkkS calibration certificates meet the requirements for test equipment monitoring and serve as evidence for traceability to the national weight standard.

HÄFNER works with a quality management system and is certified to EN ISO 9001:2008 by DQS (registration number 059 993).

In the world of measuring and weighing, a certified quality management system is essential as a basis for ensuring the quality of your products.



# MASCAL ADJUSTMENT AND CALIBRATION LABORATORY

HÄFNER has a spacious adjustment and calibration laboratory dubbed MASSCAL, which meets the highest metrological requirements. We invest considerable sums to keep our measuring devices at the state of the art.

MASSCAL conforms to the EN ISO/IEC 17025 international standard and is accredited within the scope of the German Accreditation Body (DAkkS) (Reg. Nr. D-K-15192-01-00) of the German national metrology institute PTB, which means that our calibration certificates are recognised internationally.



The DAkkS calibration certificate documents traceability to the weight standards that represent the physical quantities of the International System of Units (SI).

**MASSCAL**  
Calibration laboratory for mass | Kalibrierlaboratorium für Masse  
accredited by the I accredited through the  
**Deutsche Akkreditierungsstelle GmbH**  
as calibration laboratory in the I site Kalibrierlaboratorium im  
**Deutschen Kalibrierdienst**  
DKD

**Calibration Certificate**  
Kalibrierschein

Set of weights: 1 mg - 200 g  
Gewichtssatz von 1 mg - 200 g  
Häfner Gewichte GmbH  
74420 Oberrohrdorf  
Klasse E1, see page 2  
Klasse E1, siehe Seite 2  
1220113

Object  
Gegenstand  
Manufacturer  
Hersteller  
Type  
Typ  
Serial number  
Fabr./Serien-Nr.  
Ident number  
Ident-Nr.  
Customer  
Auftraggeber

Order No.  
Auftragsnummer  
Number of Pages of the certificate  
Anzahl der Seiten des Kalibrierscheines  
Date of Calibration  
Datum der Kalibrierung

This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration certificates must not be altered or unauthorised extensions made to them.  
Akkreditierungsstelle GmbH and the issuing laboratory have no liability for damage resulting from the use of forged or altered certificates.  
Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden.  
Der Genehmigung sowie der Unterschrift der Deutschen Akkreditierungsstelle GmbH und der Ausstellung durch die Prüfungskommission ist keine Gültigkeit.  
Für die Einhaltung einer angegebenen Genauigkeitsklasse ist der Benutzer verantwortlich.

example  
6  
24.01.2013 - 23.02.2013  
DAkkS  
MASSCAL  
D-K-15192-01-00  
24.02.2013

**MASSCAL**  
Hohenhardtsweg 1  
D-74420 Oberrohrdorf

Information about the nominal weight and/or mass value, the deviation from the nominal value and the measurement uncertainty.

Our signature confirms conformity, which means compliance with the stated accuracy classes.

# HOW TO DETERMINE THE NECESSARY TEST WEIGHTS

## MAXIMUM TOLERANCE FOR WEIGHTS ACCORDING TO OIML R111:2004

Nominal value	<b>E1</b>	<b>E2</b>	<b>F1</b>	<b>F2</b>	<b>M1</b>	<b>M1-2</b>	<b>M2</b>	<b>M2-3</b>	<b>M3</b>
	+/- mg	+/- mg	+/- mg	+/- mg					
1 mg	3	6	0						
2 mg	3	6	0						
5 mg	3	6	0						
10 mg	3	8	5						
20 mg	3	0			0,3				
50 mg	4	2			0,4				
100 mg	5	6			0,5		1,6		
200 mg	6	0			0,6		2,0		
500 mg	8	5			0,8		2,5		
1 g	0	0		0,3	1,0		3,0		10
2 g	2	0		0,4	1,2		4,0		12
5 g	6	0		0,5	1,6		5,0		16
10 g	0	0		0,6	2,0		6,0		20
20 g	5	0		0,8	2,5		8,0		25
50 g	0		0,3	1,0	3,0		10		30
100 g			0,5	1,6	5		16		50
200 g			1,0	3,0	10		30		100
500 g			2,5	8,0	25		80		250
1 kg	0,5	1,6	5	16	50		160		500
2 kg	1,0	3,0	10	30	100		300		1.000
5 kg	2,5	8,0	25	80	250		800		2.500
10 kg	5	16	50	160	500		1.600		5.000
20 kg	10	30	100	300	1.000		3.000		10.000
50 kg	25	80	250	800	2.500	5.000	8.000	16.000	25.000
	+/- g	+/- g	+/- g	+/- g					
100 kg			0,5	1,6	5	10	16	30	50
200 kg			1,0	3,0	10	20	30	60	100
500 kg			2,5	8,0	25	50	80	160	250
1.000 kg		1,6	5	16	50	100	160	300	500
2.000 kg			10	30	100	200	300	600	1.000
5.000 kg			25	80	250	500	800	1.600	2.500

## DEFAULT DENSITIES FOR WEIGHT MATERIALS

Ident.	Material	Density at 68°F kg/m³	Density uncertainty U(k=2) kg/m³
GG	Cast iron	7200	400
ST	Steel	7800	200
AL	Aluminium	2700	120
NS	German silver nickel silver	8600	170
MS	Brass finely turned	8400	100
MSN	Brass nickel plated	8400	100
MSM	Brass miralloy	8400	100
VA	Stainless steel	7900	140
HF12	austenitic stainless steel	7950	80
HE210	Special stainless steel	8000	30

## LIMITS OF MAGNETIC CHARACTERISTICS

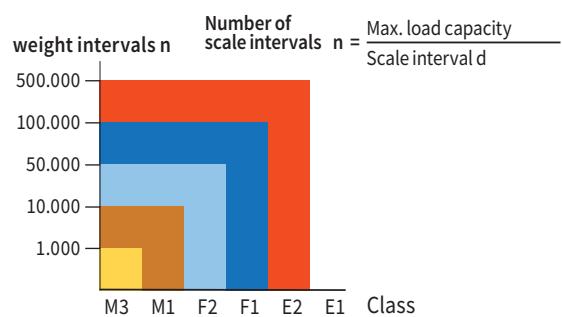
Class	Magnetization $\mu\text{oM}$ (µT)	Magnetic susceptibility X		
		$m \leq 1 \text{ g}$	$2 \text{ g} \leq m \leq 10 \text{ g}$	$m \leq 20 \text{ g}$
E1	< 2,5	<	<	<
E2	< 8	< 0,9	<	<
F1	< 25	< 10	< 0,7	< 0,2
F2	< 80	-	< 4	< 0,8
M1	< 250	-	-	-
M1-2	< 500	-	-	-
M2	< 800	-	-	-
M2-3	< 1600	-	-	-
M3	< 2500	-	-	-

## EXAMPLE

A balance has a maximum rated capacity of 0 g and a scale division  $d$  of 10 mg. The user manual specifies an external calibration weight with a nominal value of 1 kg. According to step A.1, the number of scale intervals that the balance can measure is 0.

According to step A.2, the required tolerance with a nominal weight of 1 kg is between 5 and 10 mg. Tolerance class F1 meets this requirement ( $\pm 5$  mg).

The following test loads are determined in step B.2: 250 g, 500 g, 750 g and 1 kg. According to OIML R111 the following four test weights in the class F1 are determined: 50 g, 200 g, 500 g and 1 kg.



Accuracy of the balance (scale)	Resolution of the balance: quotient of max. range/readability	Required tolerance class of the weights
IV Ordinary accuracy scale	$\leq 1.000 d$	Klasse M3
III Medium accuracy scale	$\leq 10.000 d$	Klasse M1
II Precision balance	$\leq 50.000 d$	Klasse F2
I Analytical balance	$\leq 100.000 d$	Klasse F1
	ab 100.000 d	Klasse E2

### A.

#### DETERMINE THE RIGHT TOLERANCE CLASS FOR THE TEST WEIGHTS

- Determine the number of intervals  $n$  by dividing the maximum weight by the scale division  $d$  (smallest reading digit) of the weighing range (measuring range).

$$\text{Number of steps } n = \frac{\text{Max. load capacity}}{\text{Scale interval } d}$$

- Determine the tolerance class of the test weights from the required tolerance.

Weighing range (measuring range)	Tolerance of the test weight, depending on the safety requirement
$n = 100.000$	0,5 d and 1 d
$100.000 < n < 500.000$	Between 1 d and 2 d
$n > 500.000$	less than 3 d

For this, choose a nominal value equal or close to the maximum value of the weighing range (measuring range). This nominal value should always be greater than 80% of the maximum rated capacity.

You can round up or down by a small amount. In case of doubt you should always choose the next smaller tolerance.

### B.

#### DETERMINE THE REQUIRED NOMINAL VALUES (WEIGHTS)

- Cursory testing  
You can make most of the test measurements for the weighing range with just one test weight (nominal value). The nominal value of the external calibration weight is often used for this purpose (consult the user guide or operating software of your balance). This nominal value should always be greater than 80% of the maximum rated capacity.
- Complete testing  
Use this method to check the weighing range (measuring range) against the maximum potential requirements. The following four test loads are required: 25%, 50%, 75% and 100% (or at least 80%) of the maximum rated capacity.

The test weight for 100% (or at least 80%) of the maximum rated capacity should consist of just one weight, rather than a combination of several test weights.

If you have any questions, we would be pleased to advise you on choosing suitable test weights for your measuring or test task. We support you in the specification of test plans and give you recommendations about appropriate documentation and interpretation of your test results.

# Composition of the standard weight sets

Weight set	1	2	2	5	10	20	20	50	100	200	200	500	1	2	2	5	10	20	20	50	100	200	200	500	1	2	2	5	10	Content:
1 mg - 50 g																													g	
1 mg - 100 g																													g	
1 mg - 200 g																													g	
1 mg - 500 g																													g	
1 mg - 1 kg																													g	
1 mg - 2 kg																													g	
1 mg - 5 kg																													1 g	
1 mg - 10 kg																													2 g	
																													2 g	

## ADVICES FOR RELIABLE MEASURING RESULTS

**Reliable, constant weighing and measuring results require compliance with the following rules:**

1. Balances and measuring systems must be monitored and maintained competently. The metrological properties must be familiar.
2. Balances and measuring systems must be adjusted regularly – depending on frequency of use – with adjustment and test weights and must also be calibrated according to an acknowledged test method.
3. The adjustment and test weights you use must be traceable back to national normal weights, this is, they must be calibrated regularly.
4. The test and calibration results must be documented together with their uncertainty of measurement (e.g. by a protocol of the test for scales and a DAkkS calibration certificate for weights.)
5. Test and calibration results must be evaluated. The test and calibration periods for scales and weights must be determined and be controlled with a test plan.
6. Test protocols or calibration certificates must be kept for a sufficient long time.

**Increase your competitiveness. The confidence of your customers is important.**

# Index

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**E0**

## PRIMARY/SECONDARY MASS STANDARDS

For calibration (traceability) of mass standards of class E1 and national mass standards.

12-16

**E1**

## REFERENCE MASS STANDARDS

For calibration of weights of class E2 according OIML R111.

17-23

**E2**

## HIGH PRECISION WEIGHTS

For calibration of weights of classes F1 and F2 according OIML R111.

24-30

**F1**

## ANALYTICAL WEIGHTS

Weights for the calibration of weights of lower classes (M3 to F2) according OIML R111.

31-40

**F2**

## ANALYTICAL WEIGHTS

Usage within meaningful transactions (e.g. precious metals and gemstones) on scales of the class II.

41-48

**M1**

## PRECISION WEIGHTS

Weights for calibration of weights of classes M2 and M3.

49-58

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## WEIGHTS OF MEDIUM ACCURACY

Used for general commercial transactions and together with commercial scales (class III).

59-64

**M3**

## COMMERCIAL WEIGHTS

Load tests for lifts, cranes and vehicle construction. Learning aids for schools and training.

65-70

**&**

## ACCESSORIES

HÄFNER's accessories include everything you need for the storage, handling, quality assurance and management of your test weights.

71-77

## RECALIBRATION

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## LETTERING AND ENGRAVING

80

**E0**

**Primary and Secondary Mass Standards of Class E0**

As an national mass standard and/or for representing the national mass scale up to 50 kg. For the calibration of mass standards of the classes E1.

Weights in the exclusive assortment case.

**ACCESSORIES**



All weight sets include gloves, two brushes and two tweezers.  
Up to 50 g without big tweezers, big brush and gloves.



CLEAN ROOM  
PLASTIC CASES

MAHOGANY  
WOODEN BOX

SERVICE  
CASE

CLEAN ROOM CASE  
removeable inserts

PLASTIC BOXES  
WITH SCREWED TOP      DOUBLE-GLAZED  
BELL JAR

## Primary standard weight



### SPECIAL STAINLESS STEEL HE210

Cylinder shape

highly polished

#### SINGLE WEIGHT

Nominal value Tol.		with double-glazed bell jar and a special transport box	PTB Calibration certificate U=1/5 E1 *	PTB Calibration certificate U=50 µg
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.
1 kg 0,15	11.ZBHS-210	10.0000-216	11.0000-216	

## Milligramm weights

### SPECIAL STAINLESS STEEL HE210 highly polished

Wire shape



#### SINGLE WEIGHT

Nominal value Tol.	without box	Clean room plastic cases	Mahogany wooden box	PTB Calibration certificate U=1/5 E1 *
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.
1 mg 0,0015	10.DBHO-010	10.DBHP-010	10.DBHM-010	10.0000-016
2 mg 0,0015	10.DBHO-020	10.DBHP-020	10.DBHM-020	10.0000-026
5 mg 0,0015	10.DBHO-030	10.DBHP-030	10.DBHM-030	10.0000-036
10 mg 0,0015	10.DBHO-040	10.DBHP-040	10.DBHM-040	10.0000-046
20 mg 0,0015	10.DBHO-050	10.DBHP-050	10.DBHM-050	10.0000-056
50 mg 0,0020	10.DBHO-060	10.DBHP-060	10.DBHM-060	10.0000-066
100 mg 0,0025	10.DBHO-070	10.DBHP-070	10.DBHM-070	10.0000-076
200 mg 0,003	10.DBHO-080	10.DBHP-080	10.DBHM-080	10.0000-086
500 mg 0,004	10.DBHO-090	10.DBHP-090	10.DBHM-090	10.0000-096

#### SET

Nominal value	Quantity	without box	Clean room plastic cases	Mahogany wooden box **	PTB Calibration certificate U=1/5 E1 *
		Art.no.	Art.no.	Art.no.	Art.no.
1 mg – 500 mg	12	10.XDHO-710	10.XDHP-710	10.XDHM-710	10.0000-716

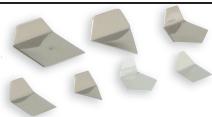
\* U = 1/5 E1 uncertainty of measurement

\*\* wooden box, inside plastic case with antistatic stainless steel coating, tweezer and brush



**Milligram weights****ALUMINIUM / SPECIAL STAINLESS STEEL HE210**

Flat polygonal sheets



highly polished

**SINGLE WEIGHT**

Nominal value Tol.	without box	Clean room plastic cases	Mahogany wooden box	<b>PTB</b> Calibration certificate U=1/5 E1 *
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.
<b>1 mg</b> 0,0015	10.PAHO-010	10.PAHP-010	10.PAHM-010	10.0000-016
<b>2 mg</b> 0,0015	10.PAHO-020	10.PAHP-020	10.PAHM-020	10.0000-026
<b>5 mg</b> 0,0015	10.PAHO-030	10.PAHP-030	10.PAHM-030	10.0000-036
<b>10 mg</b> 0,0015	10.PBHO-040	10.PBHP-040	10.PBHM-040	10.0000-046
<b>20 mg</b> 0,0015	10.PBHO-050	10.PBHP-050	10.PBHM-050	10.0000-056
<b>50 mg</b> 0,0020	10.PBHO-060	10.PBHP-060	10.PBHM-060	10.0000-066
<b>100 mg</b> 0,0025	10.PBHO-070	10.PBHP-070	10.PBHM-070	10.0000-076
<b>200 mg</b> 0,003	10.PBHO-080	10.PBHP-080	10.PBHM-080	10.0000-086
<b>500 mg</b> 0,004	10.PBHO-090	10.PBHP-090	10.PBHM-090	10.0000-096

**SET**

Nominal value	Quantity	without box	Clean room plastic cases	Mahogany wooden box **	<b>PTB</b> Calibration certificate U=1/5 E1 *
		Art.no.	Art.no.	Art.no.	Art.no.
<b>1 mg – 500 mg</b>	12	10.XPHO-710	10.XPHP-710	10.XPHM-710	10.0000-716

\* U = 1/5 E1 uncertainty of measurement

\*\* wooden box, inside plastic case with antistatic stainless steel coating, tweezer and brush



# Knob weights



## SPECIAL STAINLESS STEEL HE210

highly polished

### SINGLE WEIGHT

No-nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases **	Mahogany wooden box	Clean room case removable inserts	PTB Calibration certificate U=1/5 E1 *
+/- mg		Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	10.0000-Art.no.
<b>1g</b>	0,005	10.MBHO-110	10.MBHD-110	10.MBHP-110	10.MBHM-110		...116
<b>2g</b>	0,006	10.MBHO-120	10.MBHD-120	10.MBHP-120	10.MBHM-120		...126
<b>5g</b>	0,008	10.MBHO-130	10.MBHD-130	10.MBHP-130	10.MBHM-130		...136
<b>10g</b>	0,010	10.MBHO-140	10.MBHD-140	10.MBHP-140	10.MBHM-140		...146
<b>20g</b>	0,012	10.MBHO-150	10.MBHD-150	10.MBHP-150	10.MBHM-150		...156
<b>50g</b>	0,015	10.MBHO-160	10.MBHD-160	10.MBHP-160	10.MBHM-160		...166
<b>100g</b>	0,025	10.MBHO-170	10.MBHD-170	10.MBHP-170	10.MBHM-170	10.MBHR-170	...176
<b>200g</b>	0,050	10.MBHO-180	10.MBHD-180	10.MBHP-180	10.MBHM-180	10.MBHR-180	...186
<b>500g</b>	0,125	10.MBHO-190	10.MBHD-190	10.MBHP-190	10.MBHM-190	10.MBHR-190	...196
<b>1kg</b>	0,25	10.MBHO-210	10.MBHD-210	10.MBHP-210	10.MBHM-210	10.MBHR-210	...216
<b>2kg</b>	0,5	10.MBHO-220	10.MBHD-220	10.MBHP-220	10.MBHM-220	10.MBHR-220	...226
<b>5kg</b>	1,2	10.MBHO-230	10.MBHD-230	10.MBHP-230	10.MBHM-230	10.MBHR-230	...236
<b>10kg</b>	2,5	10.MBHO-240	10.MBHD-240	10.MBHP-240	10.MBHM-240	10.MBHR-240	...246
<b>20kg</b>	5	10.MBHO-250			10.MBHM-250	10.MBHR-250	...256
<b>50kg</b>	12	10.MBHO-260			10.MBHM-260	10.MBHR-260	...266

Nominal value	Tol.	Service case	PTB Calibration certificate U=1/5 E1 *
+/- mg		Art.-Nr.	10.0000-Art.-Nr.
<b>5kg</b>	1,2	10.MBHS-230	...236
<b>10kg</b>	2,5	10.MBHS-240	...246
<b>20kg</b>	5	10.MBHS-250	...256
<b>50kg</b>	12	10.MBHS-260	...266

### SETS

Nominal value	Qty.	Splitting up	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case removable inserts	PTB Calibration certificate U=1/5 E1 *
								10.0000-
				Art.no.	Art.no.	Art.no.	Art.no.	Art.no.
<b>1g-5g</b>	3	1, 2, 5 g	8 g	10.XTHP-530	10.XTHM-530	10.XTHS-530	10.XTHR-530	...536
<b>10g-50g</b>	3	10, 20, 50 g	80 g	10.XTHP-650	10.XTHM-650	10.XTHS-650	10.XTHR-650	...656
<b>100g-500g</b>	3	100, 200, 500 g	800 g	10.XTHP-660	10.XTHM-660	10.XTHS-660	10.XTHR-660	...666
<b>100g-1kg</b>	4	100, 200, 500, ...	1.800 g	10.XTHP-670	10.XTHM-670	10.XTHS-670	10.XTHR-670	...676
<b>1g-1kg</b>	10	1, 2, 5, ...	1.888 g	10.XTHP-610	10.XTHM-610	10.XTHS-610	10.XTHR-610	...616
<b>1kg-5kg</b>	3	1, 2, 5 kg	8.000 g	10.XTHP-680	10.XTHM-680	10.XTHS-680	10.XTHR-680	...686
<b>2kg-10kg</b>	3	2, 5, 10, kg	17.000 g	10.XTHP-690	10.XTHM-690	10.XTHS-690	10.XTHR-690	...696
<b>1g-10kg</b>	13	1, 2, 5, ...	18.888 g	10.XTHP-640	10.XTHM-640	10.XTHS-640	10.XTHR-640	...646

\* U = 1/5 E1 uncertainty of measurement

\*\* up from 100 g in a plastic case with foam insert

## Disc weights



## SPECIAL STAINLESS STEEL HE210

highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases **	Mahogany wooden box	Clean room case	<b>PTB</b> Calibration certificate U=1/5 E1 *
+/- mg	Art.no.		Art.no.	Art.no.	Art.no.	Art.no.	10.0000-Art.no.
<b>1 g</b>	0,005	10.SBHO-110	10.SBHD-110	10.SBHP-110	10.SBHM-110		...116
<b>2 g</b>	0,006	10.SBHO-120	10.SBHD-120	10.SBHP-120	10.SBHM-120		...126
<b>5 g</b>	0,008	10.SBHO-130	10.SBHD-130	10.SBHP-130	10.SBHM-130		...136
<b>10 g</b>	0,010	10.SBHO-140	10.SBHD-140	10.SBHP-140	10.SBHM-140		...146
<b>20 g</b>	0,012	10.SBHO-150	10.SBHD-150	10.SBHP-150	10.SBHM-150		...156
<b>50 g</b>	0,015	10.SBHO-160	10.SBHD-160	10.SBHP-160	10.SBHM-160		...166
<b>100 g</b>	0,025	10.SBHO-170	10.SBHD-170	10.SBHP-170	10.SBHM-170	10.SBHR-170	...176
<b>200 g</b>	0,050	10.SBHO-180	10.SBHD-180	10.SBHP-180	10.SBHM-180	10.SBHR-180	...186
<b>500 g</b>	0,125	10.SBHO-190	10.SBHD-190	10.SBHP-190	10.SBHM-190	10.SBHR-190	...196
<b>1 kg</b>	0,25	10.SBHO-210	10.SBHD-210	10.SBHP-210	10.SBHM-210	10.SBHR-210	...216
<b>2 kg</b>	0,5	10.SBHO-220	10.SBHD-220	10.SBHP-220	10.SBHM-220	10.SBHR-220	...226
<b>5 kg</b>	1,2	10.SBHO-230	10.SBHD-230	10.SBHP-230	10.SBHM-230	10.SBHR-230	...236
<b>10 kg</b>	2,5	10.SBHO-240	10.SBHD-240	10.SBHP-240	10.SBHM-240	10.SBHR-240	...246
<b>20 kg</b>	5	10.SBHO-250			10.SBHM-250	10.SBHR-250	...256
<b>50 kg</b>	12	10.SBHO-260			10.SBHM-260	10.SBHR-260	...266

Nominal value	Tol.	Service case	<b>PTB</b> Calibration certificate U=1/5 E1 *
+/- mg	Art.no.	Art.no.	10.0000-Art.no.
<b>5 kg</b>	1,2		10.SBHS-230 ...236
<b>10 kg</b>	2,5		10.SBHS-240 ...246
<b>20 kg</b>	5		10.SBHS-250 ...256
<b>50 kg</b>	12		10.SBHS-260 ...266

### SETS

Nominal value	Qty.	Splitting up	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case	<b>PTB</b> Calibration removeable inserts certificate U=1/5 E1 *
				Art.no.	Art.no.	Art.no.	Art.no.	10.0000-Art.no.
<b>1g-5g</b>	3	1,2,5 g	8 g	10.XSHP-530	10.XSHM-530	10.XSHS-530	10.XSHR-530	...536
<b>10g-50g</b>	3	10,20,50 g	80 g	10.XSHP-650	10.XSHM-650	10.XSHS-650	10.XSHR-650	...656
<b>100g-500g</b>	3	100,200,500 g	800 g	10.XSHP-660	10.XSHM-660	10.XSHS-660	10.XSHR-660	...666
<b>100g-1kg</b>	4	100,200,500...	1.800 g	10.XSHP-670	10.XSHM-670	10.XSHS-670	10.XSHR-670	...676
<b>1g-1kg</b>	10	1,2,5,...	1.888 g	10.XSHP-610	10.XSHM-610	10.XSHS-610	10.XSHR-610	...616
<b>1kg-5kg</b>	3	1,2,5 kg	8.000 g	10.XSHP-680	10.XSHM-680	10.XSHS-680	10.XSHR-680	...686
<b>2kg-10kg</b>	3	2,5,10,kg	17.000 g	10.XSHP-690	10.XSHM-690	10.XSHS-690	10.XSHR-690	...696
<b>1g-10kg</b>	13	1,2,5,...	18.888 g	10.XSHP-640	10.XSHM-640	10.XSHS-640	10.XSHR-640	...646

\* U = 1/5 E1 uncertainty of measurement

\*\* up from 100 g in a plastic case with foam insert

**E1****Reference Mass Standards  
and Weights of Class E1**

Adjustment, testing and calibration instrument within the quality assurance of balances with steps → 1 000 000 according to DIN EN ISO 9001ff etc. For calibration of weights of the class E2 according to OIML R111. Within high-precision weighing or comparisons weight on mass comparators.



## Weights in the exclusive assortment case.

**ACCESSORIES**

All weight sets include gloves, two brushes and two tweezers.  
Up to 50 g without big tweezers, big brush and gloves.



CLEAN ROOM  
PLASTIC CASES

MAHOGANY  
WOODEN BOX

SERVICE  
CASE

CLEAN ROOM CASE  
removeable inserts

PLASTIC BOXES  
WITH SCREWED TOP

## Milligramm weights

SPECIAL STAINLESS STEEL HE210 highly polished

Wire shape



### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Mahogany wooden box	PTB Calibration certificate	DAkkS Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
<b>1 mg</b>	0,003	9.DBHO-010	9.DBHD-010	9.DBHP-010	9.DAHM-010	...016	...011
<b>2 mg</b>	0,003	9.DBHO-020	9.DBHD-020	9.DBHP-020	9.DAHM-020	...026	...021
<b>5 mg</b>	0,003	9.DBHO-030	9.DBHD-030	9.DBHP-030	9.DAHM-030	...036	...031
<b>10 mg</b>	0,003	9.DBHO-040	9.DBHD-040	9.DBHP-040	9.DBHM-040	...046	...041
<b>20 mg</b>	0,003	9.DBHO-050	9.DBHD-050	9.DBHP-050	9.DBHM-050	...056	...051
<b>50 mg</b>	0,004	9.DBHO-060	9.DBHD-060	9.DBHP-060	9.DBHM-060	...066	...061
<b>100 mg</b>	0,005	9.DBHO-070	9.DBHD-070	9.DBHP-070	9.DBHM-070	...076	...071
<b>200 mg</b>	0,006	9.DBHO-080	9.DBHD-080	9.DBHP-080	9.DBHM-080	...086	...081
<b>500 mg</b>	0,008	9.DBHO-090	9.DBHD-090	9.DBHP-090	9.DBHM-090	...096	...091

### SET

Nominal value	Qty.	Content	Clean room plastic cases	Mahogany wooden box *	PTB Calibration certificate	DAkkS Calibration certificate
1 mg – 500 mg	12	1,11 g	9.XEHP-710	9.XEHM-710	9.0000-716	9.0000-711

\* wooden box, inside plastic case with antistatic stainless steel coating, tweezer and brush

## Milligramm weights

ALUMINIUM / SPECIAL STAINLESS STEEL HE210

Flat polygonal sheets



highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Mahogany wooden box	PTB Calibration certificate	DAkkS Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
<b>1 mg *</b>	0,003	9.PAHO-010	9.PAHD-010	9.PAHP-010	9.PAHM-010	...016	...011
<b>2 mg *</b>	0,003	9.PAHO-020	9.PAHD-020	9.PAHP-020	9.PAHM-020	...026	...021
<b>5 mg *</b>	0,003	9.PAHO-030	9.PAHD-030	9.PAHP-030	9.PAHM-030	...036	...031
<b>10 mg</b>	0,003	9.PBHO-040	9.PBHD-040	9.PBHP-040	9.PBHM-040	...046	...041
<b>20 mg</b>	0,003	9.PBHO-050	9.PBHD-050	9.PBHP-050	9.PBHM-050	...056	...051
<b>50 mg</b>	0,004	9.PBHO-060	9.PBHD-060	9.PBHP-060	9.PBHM-060	...066	...061
<b>100 mg</b>	0,005	9.PBHO-070	9.PBHD-070	9.PBHP-070	9.PBHM-070	...076	...071
<b>200 mg</b>	0,006	9.PBHO-080	9.PBHD-080	9.PBHP-080	9.PBHM-080	...086	...081
<b>500 mg</b>	0,008	9.PBHO-090	9.PBHD-090	9.PBHP-090	9.PBHM-090	...096	...091

\* 1 mg - 5 mg made of aluminium

### SET

Nominal value	Qty.	Content	Clean room plastic cases	Mahogany wooden box	PTB Calibration certificate	DAkkS Calibration certificate
1 mg – 500 mg	12	1,11 g	9.XNHP-710	9.XNHM-710	9.0000-716	9.0000-711

# Knob weights



## SPECIAL STAINLESS STEEL HE210

highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases *	Mahogany wooden box	PTB Calibration certificate	DAkkS Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
1g	0,010	9.MBHO-110	9.MBHD-110	9.MBHP-110	9.MBHM-110	...116	...111
2g	0,012	9.MBHO-120	9.MBHD-120	9.MBHP-120	9.MBHM-120	...126	...121
5g	0,016	9.MBHO-130	9.MBHD-130	9.MBHP-130	9.MBHM-130	...136	...131
10g	0,020	9.MBHO-140	9.MBHD-140	9.MBHP-140	9.MBHM-140	...146	...141
20g	0,025	9.MBHO-150	9.MBHD-150	9.MBHP-150	9.MBHM-150	...156	...151
50g	0,03	9.MBHO-160	9.MBHD-160	9.MBHP-160	9.MBHM-160	...166	...161
100g	0,05	9.MBHO-170	9.MBHD-170	9.MBHP-170	9.MBHM-170	...176	...171
200g	0,10	9.MBHO-180	9.MBHD-180	9.MBHP-180	9.MBHM-180	...186	...181
500g	0,25	9.MBHO-190	9.MBHD-190	9.MBHP-190	9.MBHM-190	...196	...191
1kg	0,5	9.MBHO-210	9.MBHD-210	9.MBHP-210	9.MBHM-210	...216	...211
2kg	1,0	9.MBHO-220	9.MBHD-220	9.MBHP-220	9.MBHM-220	...226	...221
5kg	2,5	9.MBHO-230	9.MBHD-230	9.MBHP-230	9.MBHM-230	...236	...231
10kg	5	9.MBHO-240	9.MBHD-240	9.MBHP-240	9.MBHM-240	...246	...241
20kg	10	9.MBHO-250			9.MBHM-250	...256	...251
50kg	25	9.MBHO-260			9.MBHM-260	...266	...261

Nominal value	Tol.	Clean room case removeable inserts	Service case	PTB Calibration certificate	DAkkS Calibration certificate
	+/- mg	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
100g	0,05	9.MBHR-170		...176	...171
200g	0,10	9.MBHR-180		...186	...181
500g	0,25	9.MBHR-190		...196	...191
1kg	0,5	9.MBHR-210		...216	...211
2kg	1,0	9.MBHR-220		...226	...221
5kg	2,5	9.MBHR-230	9.MBHS-230	...236	...231
10kg	5	9.MBHR-240	9.MBHS-240	...246	...241
20kg	10	9.MBHR-250	9.MBHS-250	...256	...251
50kg	25	9.MBHR-260	9.MBHS-260	...266	...261

\* up from 100 g in a plastic case with foam insert



## Knob weights



### SPECIAL STAINLESS STEEL HE210

highly polished

#### SETS

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	<b>PTB</b> Calibration certificate	<b>DAKKS</b> Calibration certificate
			Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
1 g - 50 g	8	110 g	9.XTHP-560	9.XTHM-560	...566	...561
1 g - 100 g	9	210 g	9.XTHP-570	9.XTHM-570	...576	...571
1 g - 200 g	11	610 g	9.XTHP-580	9.XTHM-580	...586	...581
1 g - 500 g	12	1.110 g	9.XTHP-590	9.XTHM-590	...596	...591
1 g - 1 kg	13	2.110 g	9.XTHP-610	9.XTHM-610	...616	...611
1 g - 2 kg	15	6.110 g	9.XTHP-620	9.XTHM-620	...626	...621
1 g - 5 kg	16	11.110 g	9.XTHP-630	9.XTHM-630	...636	...631
1 g - 10 kg	17	21.110 g	9.XTHP-640	9.XTHM-640	...646	...641
10 g - 50 g	3	80 g	9.XTHP-650	9.XTHM-650	...656	...651
100 g - 500 g	3	800 g	9.XTHP-660	9.XTHM-660	...666	...661
100 g - 1 kg	4	1.800 g	9.XTHP-670	9.XTHM-670	...676	...671
1 kg - 5 kg	4	10.000 g	9.XTHP-680	9.XTHM-680	...686	...681
2 kg - 10 kg	3	17.000 g	9.XTHP-690	9.XTHM-690	...696	...691

Nominal value	Qty.	Content	Service case	Clean room case removeable inserts	<b>PTB</b> Calibration certificate	<b>DAKKS</b> Calibration certificate
			Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
1 g - 50 g	8	110 g		9.XTHR-560	...566	...561
1 g - 100 g	9	210 g	9.XTHS-570	9.XTHR-570	...576	...571
1 g - 200 g	11	610 g	9.XTHS-580	9.XTHR-580	...586	...581
1 g - 500 g	12	1.110 g	9.XTHS-590	9.XTHR-590	...596	...591
1 g - 1 kg	13	2.110 g	9.XTHS-610	9.XTHR-610	...616	...611
1 g - 2 kg	15	6.110 g	9.XTHS-620	9.XTHR-620	...626	...621
1 g - 5 kg	16	11.110 g	9.XTHS-630	9.XTHR-630	...636	...631
1 g - 10 kg	17	21.110 g	9.XTHS-640	9.XTHR-640	...646	...641
10 g - 50 g	3	80 g	9.XTHS-650	9.XTHR-650	...656	...651
100 g - 500 g	3	800 g	9.XTHS-660	9.XTHR-660	...666	...661
100 g - 1 kg	4	1.800 g	9.XTHS-670	9.XTHR-670	...676	...671
1 kg - 5 kg	4	10.000 g	9.XTHS-680	9.XTHR-680	...686	...681
2 kg - 10 kg	3	17.000 g	9.XTHS-690	9.XTHR-690	...696	...691



# Knob weights



## SPECIAL STAINLESS STEEL HE210

highly polished

### SETS with mg- weights (flat polygonal sheets)

Nominal value	Qty.	Content	Clean room plastic cases	Mahogany wooden box	Service case	Clean room case removeable inserts	PTB Calibration certificate	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
1 mg - 5 g	16	6,11g	9.XNHP-730	9.XNHM-730			...736	...731
1 mg - 50 g	20	111,11g	9.XNHP-760	9.XNHM-760		9.XNHR-760	...766	...761
1 mg - 100 g	21	211,11g	9.XNHP-770	9.XNHM-770	9.XNHS-770	9.XNHR-770	...776	...771
1 mg - 200 g	23	611,11g	9.XNHP-780	9.XNHM-780	9.XNHS-780	9.XNHR-780	...786	...781
1 mg - 500 g	24	1.111,11g	9.XNHP-790	9.XNHM-790	9.XNHS-790	9.XNHR-790	...796	...791
1 mg - 1 kg	25	2.111,11g	9.XNHP-810	9.XNHM-810	9.XNHS-810	9.XNHR-810	...816	...811
1 mg - 2 kg	27	6.111,11g	9.XNHP-820	9.XNHM-820	9.XNHS-820	9.XNHR-820	...826	...821
1 mg - 5 kg	28	11.111,11g	9.XNHP-830	9.XNHM-830	9.XNHS-830	9.XNHR-830	...836	...831
1 mg - 10 kg	29	21.111,11g	9.XNHP-840	9.XNHM-840	9.XNHS-840	9.XNHR-840	...846	...841
1 mg - 1 kg (2x)	38	3.778,22g	9.XNHP-850	9.XNHM-850	9.XNHS-850	9.XNHR-850	...856	...851

### SETS with mg- weights (wire shape)

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case removeable inserts	PTB Calibration certificate	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
1 mg - 5 g	16	6,11g	9.XEHP-730	9.XEHM-730			...736	...731
1 mg - 50 g	20	111,11g	9.XEHP-760	9.XEHM-760		9.XEHR-760	...766	...761
1 mg - 100 g	21	211,11g	9.XEHP-770	9.XEHM-770	9.XEHS-770	9.XEHR-770	...776	...771
1 mg - 200 g	23	611,11g	9.XEHP-780	9.XEHM-780	9.XEHS-780	9.XEHR-780	...786	...781
1 mg - 500 g	24	1.111,11g	9.XEHP-790	9.XEHM-790	9.XEHS-790	9.XEHR-790	...796	...791
1 mg - 1 kg	25	2.111,11g	9.XEHP-810	9.XEHM-810	9.XEHS-810	9.XEHR-810	...816	...811
1 mg - 2 kg	27	6.111,11g	9.XEHP-820	9.XEHM-820	9.XEHS-820	9.XEHR-820	...826	...821
1 mg - 5 kg	28	11.111,11g	9.XEHP-830	9.XEHM-830	9.XEHS-830	9.XEHR-830	...836	...831
1 mg - 10 kg	29	21.111,11g	9.XEHP-840	9.XEHM-840	9.XEHS-840	9.XEHR-840	...846	...841
1 mg - 1 kg (2x)	38	3.778,22g	9.XEHP-850	9.XEHM-850	9.XEHS-850	9.XEHR-850	...856	...851



## Disc weights



## SPECIAL STAINLESS STEEL HE210

highly polished

## SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases *	Mahogany wooden box	Clean room case removeable inserts	PTB Calibration certificate	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
<b>1 g</b>	0,010	9.SBHO-110	9.SBHD-110	9.SBHP-110	9.SBHM-110		...116	...111
<b>2 g</b>	0,012	9.SBHO-120	9.SBHD-120	9.SBHP-120	9.SBHM-120		...126	...121
<b>5 g</b>	0,016	9.SBHO-130	9.SBHD-130	9.SBHP-130	9.SBHM-130		...136	...131
<b>10 g</b>	0,020	9.SBHO-140	9.SBHD-140	9.SBHP-140	9.SBHM-140		...146	...141
<b>20 g</b>	0,025	9.SBHO-150	9.SBHD-150	9.SBHP-150	9.SBHM-150		...156	...151
<b>50 g</b>	0,03	9.SBHO-160	9.SBHD-160	9.SBHP-160	9.SBHM-160		...166	...161
<b>100 g</b>	0,05	9.SBHO-170	9.SBHD-170	9.SBHP-170	9.SBHM-170	9.SBHR-170	...176	...171
<b>200 g</b>	0,10	9.SBHO-180	9.SBHD-180	9.SBHP-180	9.SBHM-180	9.SBHR-180	...186	...181
<b>500 g</b>	0,25	9.SBHO-190	9.SBHD-190	9.SBHP-190	9.SBHM-190	9.SBHR-190	...196	...191
<b>1 kg</b>	0,5	9.SBHO-210	9.SBHD-210	9.SBHP-210	9.SBHM-210	9.SBHR-210	...216	...211
<b>2 kg</b>	1,0	9.SBHO-220	9.SBHD-220	9.SBHP-220	9.SBHM-220	9.SBHR-220	...226	...221
<b>5 kg</b>	2,5	9.SBHO-230	9.SBHD-230	9.SBHP-230	9.SBHM-230	9.SBHR-230	...236	...231
<b>10 kg</b>	5	9.SBHO-240	9.SBHD-240	9.SBHP-240	9.SBHM-240	9.SBHR-240	...246	...241
<b>20 kg</b>	10	9.SBHO-250			9.SBHM-250	9.SBHR-250	...256	...251
<b>50 kg</b>	25	9.SBHO-260			9.SBHM-260	9.SBHR-260	...266	...261

Nominal value	Tol.	Service case	PTB Calibration certificate	DAkkS Calibration certificate
+/- mg	Art.no.	9.0000-Art.no.	9.0000-Art.no.	9.0000-Art.no.
<b>5 kg</b>	2,5	9.SBHS-230	...236	...231
<b>10 kg</b>	5	9.SBHS-240	...246	...241
<b>20 kg</b>	10	9.SBHS-250	...256	...251
<b>50 kg</b>	25	9.SBHS-260	...266	...261

\* up from 100 g in a plastic case with foam insert



**Disc weights****SPECIAL STAINLESS STEEL HE210**

highly polished

**SETS**

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case	PTB Calibration certificate	DAkkS Calibration certificate
		Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
1g-5g	4	9 g	9.XSHP-530	9.XSHM-530	9.XSHS-530	9.XSHR-530	...536	...531
1g-50g	8	110 g	9.XSHP-560	9.XSHM-560	9.XSHS-560	9.XSHR-560	...566	...561
1g-100g	9	210 g	9.XSHP-570	9.XSHM-570	9.XSHS-570	9.XSHR-570	...576	...571
1g-200g	11	610 g	9.XSHP-580	9.XSHM-580	9.XSHS-580	9.XSHR-580	...586	...581
1g-500g	12	1.110 g	9.XSHP-590	9.XSHM-590	9.XSHS-590	9.XSHR-590	...596	...591
1g-1kg	13	2.110 g	9.XSHP-610	9.XSHM-610	9.XSHS-610	9.XSHR-610	...616	...611
1g-2kg	15	6.110 g	9.XSHP-620	9.XSHM-620	9.XSHS-620	9.XSHR-620	...626	...621
1g-5kg	16	11.110 g	9.XSHP-630	9.XSHM-630	9.XSHS-630	9.XSHR-630	...636	...631
1g-10kg	17	21.110 g	9.XSHP-640	9.XSHM-640	9.XSHS-640	9.XSHR-640	...646	...641
10g-50g	3	80 g	9.XSHP-650	9.XSHM-650	9.XSHS-650	9.XSHR-650	...656	...651
100g-500g	3	800 g	9.XSHP-660	9.XSHM-660	9.XSHS-660	9.XSHR-660	...666	...661
100g-1kg	4	1.800 g	9.XSHP-670	9.XSHM-670	9.XSHS-670	9.XSHR-670	...676	...671
1kg-5kg	4	10.000 g	9.XSHP-680	9.XSHM-680	9.XSHS-680	9.XSHR-680	...686	...681
2kg-10kg	3	17.000 g	9.XSHP-690	9.XSHM-690	9.XSHS-690	9.XSHR-690	...696	...691

**SPECIAL STAINLESS STEEL HE210**

highly polished

**SINGLE WEIGHT**

Nominal value	Tol.	without box	Clean room plastic cases *	Mahogany wooden box	Clean room case	PTB Calibration certificate	DAkkS Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	9.0000-Art.no.	9.0000-Art.no.
5 kg	2,5	9.UBHO-230	9.UBHP-230	9.UBHM-230	9.UBHR-230	...236	...231
10 kg	5	9.UBHO-240	9.UBHP-240	9.UBHM-240	9.UBHR-240	...246	...241
20 kg	10	9.UBHO-250		9.UBHM-250	9.UBHR-250	...256	...251
50 kg	25	9.UBHO-260		9.UBHM-260	9.UBHR-260	...266	...261

Nominal value	Tol.	Service case	PTB Calibration certificate	DAkkS Calibration certificate
	+/- mg	Art.no.	9.0000-Art.no.	9.0000-Art.no.
5 kg	2,5		9.UBHS-230	...236
10 kg	5		9.UBHS-240	...246
20 kg	10		9.UBHS-250	...256
50 kg	25		9.UBHS-260	...266

\* up from 100 g in a plastic case with foam insert

**E2**

#### Weight Standards of Class E2

Adjustment, testing and calibration weights for high-resolution scales of class I. Within the quality assurance of scales with steps  $\leftarrow 1\,000\,000$  according to DIN EN ISO 9001ff etc. For weighing or mass comparisons on balances of class I or on mass comparators. For calibration of weights of classes F1 and F2 according to OIML R111.

## Solid masses in highest quality

#### ACCESSORIES



All weight sets include gloves, two brushes and two tweezers.  
Up to 50 g without big tweezers, big brush and gloves.



CLEAN ROOM  
PLASTIC CASES



MAHOGANY  
WOODEN BOX



SERVICE  
CASE



CLEAN ROOM CASE  
removeable inserts



PLASTIC BOXES  
WITH SCREWED TOP

## Milligramm weights

**STAINLESS STEEL HF12 HE210**

Wire shape



highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Mahogany wooden box	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.
<b>1 mg</b>	0,006	8.DBHO-010	8.DBHD-010	8.DBHP-010	8.DBHM-010	8.0000-011
<b>2 mg</b>	0,006	8.DBHO-020	8.DBHD-020	8.DBHP-020	8.DBHM-020	8.0000-021
<b>5 mg</b>	0,006	8.DBHO-030	8.DBHD-030	8.DBHP-030	8.DBHM-030	8.0000-031
<b>10 mg</b>	0,008	8.DBHO-040	8.DBHD-040	8.DBHP-040	8.DBHM-040	8.0000-041
<b>20 mg</b>	0,010	8.DBHO-050	8.DBHD-050	8.DBHP-050	8.DBHM-050	8.0000-051
<b>50 mg</b>	0,012	8.DBHO-060	8.DBHD-060	8.DBHP-060	8.DBHM-060	8.0000-061
<b>100 mg</b>	0,016	8.DBHO-070	8.DBHD-070	8.DBHP-070	8.DBHM-070	8.0000-071
<b>200 mg</b>	0,020	8.DBHO-080	8.DBHD-080	8.DBHP-080	8.DBHM-080	8.0000-081
<b>500 mg</b>	0,025	8.DBHO-090	8.DBHD-090	8.DBHP-090	8.DBHM-090	8.0000-091

### SET

Nominal value	Qty.	Content	Clean room plastic cases	Mahogany wooden box **	<b>DAkkS</b> Calibration certificate
			Art.no.	Art.no.	Art.no.
<b>1 mg – 500 mg</b>	12	1,11 g	8.XEHP-710	8.XEHM-710	8.0000-711

\*\* wooden box, inside plastic case with antistatic stainless steel coating, tweezer and brush

## Milligramm weights

**ALUMINIUM / GERMAN SILVER ICCEL SILVER**

Flat polygonal sheets



### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Mahogany wooden box	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.
<b>1 mg *</b>	0,006	8.PAHO-010	8.PAHD-010	8.PAHP-010	8.PAHM-010	8.0000-011
<b>2 mg *</b>	0,006	8.PAHO-020	8.PAHD-020	8.PAHP-020	8.PAHM-020	8.0000-021
<b>5 mg *</b>	0,006	8.PAHO-030	8.PAHD-030	8.PAHP-030	8.PAHM-030	8.0000-031
<b>10 mg</b>	0,008	8.PNHO-040	8.PNHD-040	8.PNHP-040	8.PNHM-040	8.0000-041
<b>20 mg</b>	0,010	8.PNHO-050	8.PNHD-050	8.PNHP-050	8.PNHM-050	8.0000-051
<b>50 mg</b>	0,012	8.PNHO-060	8.PNHD-060	8.PNHP-060	8.PNHM-060	8.0000-061
<b>100 mg</b>	0,016	8.PNHO-070	8.PNHD-070	8.PNHP-070	8.PNHM-070	8.0000-071
<b>200 mg</b>	0,020	8.PNHO-080	8.PNHD-080	8.PNHP-080	8.PNHM-080	8.0000-081
<b>500 mg</b>	0,025	8.PNHO-090	8.PNHD-090	8.PNHP-090	8.PNHM-090	8.0000-091

\* 1 mg - 5 mg made of aluminium

### SET

Nominal value	Qty.	Content	Clean room plastic cases	Mahogany wooden box **	<b>DAkkS</b> Calibration certificate
<b>1 mg – 500 mg</b>	12	1,11 g	8.XFHP-710	8.XFHM-710	8.0000-711

## Knob weights



**STAINLESS STEEL HF12** highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box		Plastic boxes with screwed top	Clean room plastic cases*	Mahogany wooden box	Clean room case with insert	DAKKS Calibration certificate
+/- mg	Art.no.			Art.no.	Art.no.	Art.no.	Art.no.	8.0000-Art.no.
<b>1 g</b>	0,030	8.MEHO-110		8.MEHD-110	8.MEHP-110	8.MEHM-110		...111
<b>2 g</b>	0,040	8.MEHO-120		8.MEHD-120	8.MEHP-120	8.MEHM-120		...121
<b>5 g</b>	0,050	8.MEHO-130		8.MEHD-130	8.MEHP-130	8.MEHM-130		...131
<b>10 g</b>	0,060	8.MEHO-140		8.MEHD-140	8.MEHP-140	8.MEHM-140		...141
<b>20 g</b>	0,080	8.MEHO-150		8.MEHD-150	8.MEHP-150	8.MEHM-150		...151
<b>50 g</b>	0,10	8.MEHO-160		8.MEHD-160	8.MEHP-160	8.MEHM-160		...161
<b>100 g</b>	0,16	8.MEHO-170		8.MEHD-170	8.MEHP-170	8.MEHM-170	8.MEHR-170	...171
<b>200 g</b>	0,3	8.MEHO-180		8.MEHD-180	8.MEHP-180	8.MEHM-180	8.MEHR-180	...181
<b>500 g</b>	0,8	8.MEHO-190		8.MEHD-190	8.MEHP-190	8.MEHM-190	8.MEHR-190	...191
<b>1 kg</b>	1,6	8.MEHO-210		8.MEHD-210	8.MEHP-210	8.MEHM-210	8.MEHR-210	...211
<b>2 kg</b>	3,0	8.MEHO-220		8.MEHD-220	8.MEHP-220	8.MEHM-220	8.MEHR-220	...221
<b>5 kg</b>	8,0	8.MEHO-230		8.MEHD-230	8.MEHP-230	8.MEHM-230	8.MEHR-230	...231
<b>10 kg</b>	16	8.MEHO-240		8.MEHD-240	8.MEHP-240	8.MEHM-240	8.MEHR-240	...241
<b>20 kg</b>	30	8.MEHO-250			8.MEHM-250	8.MEHR-250		...251
<b>50 kg</b>	80	8.MEHO-260			8.MEHM-260	8.MEHR-260		...261

Nominal value	Tol.	Service case				DAKKS Calibration certificate
+/- mg						8.0000-Art.-Nr.
<b>5 kg</b>	8,0				8.MEHS-230	...231
<b>10 kg</b>	16				8.MEHS-240	...241
<b>20 kg</b>	30				8.MEHS-250	...251
<b>50 kg</b>	80				8.MEHS-260	...261

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAKKS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	8.0000-Art.no.
<b>1 g - 50 g</b>	8	110 g	8.XTHP-560	8.XTHM-560		8.XTHR-560	...561
<b>1 g - 100 g</b>	9	210 g	8.XTHP-570	8.XTHM-570	8.XTHS-570	8.XTHR-570	...571
<b>1 g - 200 g</b>	11	610 g	8.XTHP-580	8.XTHM-580	8.XTHS-580	8.XTHR-580	...581
<b>1 g - 500 g</b>	12	1.110 g	8.XTHP-590	8.XTHM-590	8.XTHS-590	8.XTHR-590	...591
<b>1 g - 1 kg</b>	13	2.110 g	8.XTHP-610	8.XTHM-610	8.XTHS-610	8.XTHR-610	...611
<b>1 g - 2 kg</b>	15	6.110 g	8.XTHP-620	8.XTHM-620	8.XTHS-620	8.XTHR-620	...621
<b>1 g - 5 kg</b>	16	11.110 g	8.XTHP-630	8.XTHM-630	8.XTHS-630	8.XTHR-630	...631
<b>1 g - 10 kg</b>	17	21.110 g	8.XTHP-640	8.XTHM-640	8.XTHS-640	8.XTHR-640	...641
<b>1 kg - 5 kg</b>	4	10.000 g	8.XTHP-680	8.XTHM-680	8.XTHS-680	8.XTHR-680	...681

up from 100 g in a plastic case with foam insert

## Knob weights



**STAINLESS STEEL HF12** highly polished

### SETS with mg- weights (flat polygonal sheets)

Nominal value	Disc Qty.	weights	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	8.0000-Art.no.
1 mg - 5 g	16	6,11 g	8.XFHP-730	8.XFHM-730		8.XFHR-730	...731
1 mg - 50 g	20	111,11 g	8.XFHP-760	8.XFHM-760		8.XFHR-760	...761
1 mg - 100 g	21	211,11 g	8.XFHP-770	8.XFHM-770	8.XFHS-770	8.XFHR-770	...771
1 mg - 200 g	23	611,11 g	8.XFHP-780	8.XFHM-780	8.XFHS-780	8.XFHR-780	...781
1 mg - 500 g	24	1.111,11 g	8.XFHP-790	8.XFHM-790	8.XFHS-790	8.XFHR-790	...791
1 mg - 1 kg	25	2.111,11 g	8.XFHP-810	8.XFHM-810	8.XFHS-810	8.XFHR-810	...811
1 mg - 2 kg	27	6.111,11 g	8.XFHP-820	8.XFHM-820	8.XFHS-820	8.XFHR-820	...821
1 mg - 5 kg	28	11.111,11 g	8.XFHP-830	8.XFHM-830	8.XFHS-830	8.XFHR-830	...831
1 mg - 10 kg	29	21.111,11 g	8.XFHP-840	8.XFHM-840	8.XFHS-840	8.XFHR-840	...841
1 mg - 1 kg (2x)	38	3.778,22 g	8.XFHP-850	8.XFHM-850	8.XFHS-850	8.XFHR-850	...851

### SETS Sets with mg- weights (wire shape)

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
			Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.	8.0000-Art.-Nr.
1 mg - 5 g	16	6,11 g	8.XEHP-730	8.XEHM-730		8.XEHR-730	...731
1 mg - 50 g	20	111,11 g	8.XEHP-760	8.XEHM-760		8.XEHR-760	...761
1 mg - 100 g	21	211,11 g	8.XEHP-770	8.XEHM-770	8.XEHS-770	8.XEHR-770	...771
1 mg - 200 g	23	611,11 g	8.XEHP-780	8.XEHM-780	8.XEHS-780	8.XEHR-780	...781
1 mg - 500 g	24	1.111,11 g	8.XEHP-790	8.XEHM-790	8.XEHS-790	8.XEHR-790	...791
1 mg - 1 kg	25	2.111,11 g	8.XEHP-810	8.XEHM-810	8.XEHS-810	8.XEHR-810	...811
1 mg - 2 kg	27	6.111,11 g	8.XEHP-820	8.XEHM-820	8.XEHS-820	8.XEHR-820	...821
1 mg - 5 kg	28	11.111,11 g	8.XEHP-830	8.XEHM-830	8.XEHS-830	8.XEHR-830	...831
1 mg - 10 kg	29	21.111,11 g	8.XEHP-840	8.XEHM-840	8.XEHS-840	8.XEHR-840	...841
1 mg - 1 kg (2x)	38	3.778,22 g	8.XEHP-850	8.XEHM-850	8.XEHS-850	8.XEHR-850	...851



## Disc weights



**STAINLESS STEEL HF12** highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases*	Mahogany wooden box	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	8.0000-Art.no.
<b>1 g</b>	0,030	8.SEHO-110	8.SEHD-110	8.SEHP-110	8.SEHM-110		...111
<b>2 g</b>	0,040	8.SEHO-120	8.SEHD-120	8.SEHP-120	8.SEHM-120		...121
<b>5 g</b>	0,050	8.SEHO-130	8.SEHD-130	8.SEHP-130	8.SEHM-130		...131
<b>10 g</b>	0,060	8.SEHO-140	8.SEHD-140	8.SEHP-140	8.SEHM-140		...141
<b>20 g</b>	0,080	8.SEHO-150	8.SEHD-150	8.SEHP-150	8.SEHM-150		...151
<b>50 g</b>	0,10	8.SEHO-160	8.SEHD-160	8.SEHP-160	8.SEHM-160		...161
<b>100 g</b>	0,16	8.SEHO-170	8.SEHD-170	8.SEHP-170	8.SEHM-170	8.SEHR-170	...171
<b>200 g</b>	0,3	8.SEHO-180	8.SEHD-180	8.SEHP-180	8.SEHM-180	8.SEHR-180	...181
<b>500 g</b>	0,8	8.SEHO-190	8.SEHD-190	8.SEHP-190	8.SEHM-190	8.SEHR-190	...191
<b>1 kg</b>	1,6	8.SEHO-210	8.SEHD-210	8.SEHP-210	8.SEHM-210	8.SEHR-210	...211
<b>2 kg</b>	3,0	8.SEHO-220	8.SEHD-220	8.SEHP-220	8.SEHM-220	8.SEHR-220	...221
<b>5 kg</b>	8,0	8.SEHO-230	8.SEHD-230	8.SEHP-230	8.SEHM-230	8.SEHR-230	...231
<b>10 kg</b>	16	8.SEHO-240	8.SEHD-240	8.SEHP-240	8.SEHM-240	8.SEHR-240	...241
<b>20 kg</b>	30	8.SEHO-250			8.SEHM-250	8.SEHR-250	...251
<b>50 kg</b>	80	8.SEHO-260			8.SEHM-260	8.SEHR-260	...261

Nominal value	Tol.	Service case	DAkkS Calibration certificate
+/- mg		Art.no.	8.0000-Art.no.
<b>5 kg</b>	8,0		8.SEHS-230 ...231
<b>10 kg</b>	16		8.SEHS-240 ...241
<b>20 kg</b>	30		8.SEHS-250 ...251
<b>50 kg</b>	80		8.SEHS-260 ...261

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	8.0000-Art.no.
<b>1 g - 5 g</b>	4	9 g	8.XSHP-530	8.XSHM-530		8.XSHR-530	...531
<b>1 g - 50 g</b>	8	110 g	8.XSHP-560	8.XSHM-560		8.XSHR-560	...561
<b>1 g - 100 g</b>	9	210 g	8.XSHP-570	8.XSHM-570	8.XSHS-570	8.XSHR-570	...571
<b>1 g - 200 g</b>	11	610 g	8.XSHP-580	8.XSHM-580	8.XSHS-580	8.XSHR-580	...581
<b>1 g - 500 g</b>	12	1.110 g	8.XSHP-590	8.XSHM-590	8.XSHS-590	8.XSHR-590	...591
<b>1 g - 1 kg</b>	13	2.110 g	8.XSHP-610	8.XSHM-610	8.XSHS-610	8.XSHR-610	...611
<b>1 g - 2 kg</b>	15	6.110 g	8.XSHP-620	8.XSHM-620	8.XSHS-620	8.XSHR-620	...621
<b>1 g - 5 kg</b>	16	11.110 g	8.XSHP-630	8.XSHM-630	8.XSHS-630	8.XSHR-630	...631
<b>1 g - 10 kg</b>	17	21.110 g	8.XSHP-640	8.XSHM-640	8.XSHS-640	8.XSHR-640	...641
<b>1 kg - 5 kg</b>	4	10.000 g	8.XSHP-680	8.XSHM-680	8.XSHS-680	8.XSHR-680	...681

\* up from 100 g in a plastic case with foam insert

**Cylinder weights****STAINLESS STEEL HF12 highly polished****SINGLE WEIGHT**

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases*	Mahogany wooden box	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	8.0000-Art.no.
1 g	0,030	8.ZEHO-110	8.ZEHD-110	8.ZEHP-110	8.ZEHM-110		...111
2 g	0,040	8.ZEHO-120	8.ZEHD-120	8.ZEHP-120	8.ZEHM-120		...121
5 g	0,050	8.ZEHO-130	8.ZEHD-130	8.ZEHP-130	8.ZEHM-130		...131
10 g	0,060	8.ZEHO-140	8.ZEHD-140	8.ZEHP-140	8.ZEHM-140		...141
20 g	0,080	8.ZEHO-150	8.ZEHD-150	8.ZEHP-150	8.ZEHM-150		...151
50 g	0,10	8.ZEHO-160	8.ZEHD-160	8.ZEHP-160	8.ZEHM-160		...161
100 g	0,16	8.ZEHO-170	8.ZEHD-170	8.ZEHP-170	8.ZEHM-170	8.ZEHR-170	...171
200 g	0,3	8.ZEHO-180	8.ZEHD-180	8.ZEHP-180	8.ZEHM-180	8.ZEHR-180	...181
500 g	0,8	8.ZEHO-190	8.ZEHD-190	8.ZEHP-190	8.ZEHM-190	8.ZEHR-190	...191
1 kg	1,6	8.ZEHO-210	8.ZEHD-210	8.ZEHP-210	8.ZEHM-210	8.ZEHR-210	...211
2 kg	3,0	8.ZEHO-220	8.ZEHD-220	8.ZEHP-220	8.ZEHM-220	8.ZEHR-220	...221
5 kg	8,0	8.ZEHO-230	8.ZEHD-230	8.ZEHP-230	8.ZEHM-230	8.ZEHR-230	...231
10 kg	16	8.ZEHO-240	8.ZEHD-240	8.ZEHP-240	8.ZEHM-240	8.ZEHR-240	...241

Nominal value	Tol.	+/- mg	Service case	DAkkS Calibration certificate
5 kg	8,0		8.ZEHS-230	8.0000-Art.-Nr. ...231
10 kg	16		8.ZEHS-240	8.0000-Art.-Nr. ...241

**SETS**

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
						Art.no.	8.0000-Art.no.
1 g - 50 g	8	110 g	8.XZHP-560	8.XZHM-560		8.XZHR-560	...561
1 g - 100 g	9	210 g	8.XZHP-570	8.XZHM-570	8.XZHS-570	8.XZHR-570	...571
1 g - 200 g	11	610 g	8.XZHP-580	8.XZHM-580	8.XZHS-580	8.XZHR-580	...581
1 g - 500 g	12	1.110 g	8.XZHP-590	8.XZHM-590	8.XZHS-590	8.XZHR-590	...591
1 g - 1 kg	13	2.110 g	8.XZHP-610	8.XZHM-610	8.XZHS-610	8.XZHR-610	...611
1 g - 2 kg	15	6.110 g	8.XZHP-620	8.XZHM-620	8.XZHS-620	8.XZHR-620	...621
1 g - 5 kg	16	11.110 g	8.XZHP-630	8.XZHM-630	8.XZHS-630	8.XZHR-630	...631
1 g - 10 kg	17	21.110 g	8.XZHP-640	8.XZHM-640	8.XZHS-640	8.XZHR-640	...641
1 kg - 5 kg	4	10.000 g	8.XZHP-680	8.XZHM-680	8.XZHS-680	8.XZHR-680	...681

\* up from 100 g in a plastic case with foam insert

## Weights with handle



**SPECIAL STAINLESS STEEL HF12**

highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Clean room plastic cases*	Mahogany wooden box	Clean room case with insert	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.
5 kg	8,0	8.UBHO-230	8.UBHP-230	8.UBHM-230	8.UBHR-230	8.0000-231
10 kg	16	8.UBHO-240	8.UBHP-240	8.UBHM-240	8.UBHR-240	8.0000-241
20 kg	30	8.UBHO-250		8.UBHM-250	8.UBHR-250	8.0000-251
50 kg	80	8.UBHO-260		8.UBHM-260	8.UBHR-260	8.0000-261

Nominal value	Tol.	Service case	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.
5 kg	8,0		8.0000-231
10 kg	16		8.0000-241
20 kg	30		8.0000-251
50 kg	80		8.0000-261

\* up from 100 g in a plastic case with foam insert



**F1**

#### Analytical weights - class F1

Adjustment, testing and calibration weights for balances of class II and for quality assurance of scales with steps  $\leftarrow 100\,000$  according to ISO 9001ff. Weights for calibration of weights of lower classes (M3-F2) according to OIML R111.



## Weights in the exclusive assortment case.

#### ACCESSORIES



All weight sets include gloves, two brushes and two tweezers.  
Up to 50 g without big tweezers, big brush and gloves.



CLEAN ROOM  
PLASTIC CASES

MAHOGANY  
WOODEN BOX

SERVICE  
CASE

CLEAN ROOM CASE  
removeable inserts

PLASTIC BOXES  
WITH SCREWED TOP



## Milligramm weights

SPECIAL STAINLESS STEEL HE210

Wire shape

highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Mahogany wooden box	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.
1 mg	0,020	7.DBHO-010	7.DBHD-010	7.DBHP-010	7.DBHM-010	7.0000-011
2 mg	0,020	7.DBHO-020	7.DBHD-020	7.DBHP-020	7.DBHM-020	7.0000-021
5 mg	0,020	7.DBHO-030	7.DBHD-030	7.DBHP-030	7.DBHM-030	7.0000-031
10 mg	0,025	7.DBHO-040	7.DBHD-040	7.DBHP-040	7.DBHM-040	7.0000-041
20 mg	0,03	7.DBHO-050	7.DBHD-050	7.DBHP-050	7.DBHM-050	7.0000-051
50 mg	0,04	7.DBHO-060	7.DBHD-060	7.DBHP-060	7.DBHM-060	7.0000-061
100 mg	0,05	7.DBHO-070	7.DBHD-070	7.DBHP-070	7.DBHM-070	7.0000-071
200 mg	0,06	7.DBHO-080	7.DBHD-080	7.DBHP-080	7.DBHM-080	7.0000-081
500 mg	0,08	7.DBHO-090	7.DBHD-090	7.DBHP-090	7.DBHM-090	7.0000-091

### SET

Nominal value	Qty.	Content	Clean room plastic cases	Mahogany wooden box	<b>DAkkS</b> Calibration certificate
1 mg – 500 mg	12	1,11 g	Art.no. 7.XEHP-710	Art.no. 7.XEHM-710	Art.no. 7.0000-711

## Milligramm weights

ALUMINIUM / GERMAN SILVER ICKEL SILVER

Flat polygonal sheets



### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Mahogany wooden box	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.
1 mg	0,020	7.PAHO-010	7.PAHD-010	7.PAHP-010	7.PAHM-010	7.0000-011
2 mg	0,020	7.PAHO-020	7.PAHD-020	7.PAHP-020	7.PAHM-020	7.0000-021
5 mg	0,020	7.PAHO-030	7.PAHD-030	7.PAHP-030	7.PAHM-030	7.0000-031
10 mg	0,025	7.PNHO-040	7.PNHD-040	7.PNHP-040	7.PNHM-040	7.0000-041
20 mg	0,03	7.PNHO-050	7.PNHD-050	7.PNHP-050	7.PNHM-050	7.0000-051
50 mg	0,04	7.PNHO-060	7.PNHD-060	7.PNHP-060	7.PNHM-060	7.0000-061
100 mg	0,05	7.PNHO-070	7.PNHD-070	7.PNHP-070	7.PNHM-070	7.0000-071
200 mg	0,06	7.PNHO-080	7.PNHD-080	7.PNHP-080	7.PNHM-080	7.0000-081
500 mg	0,08	7.PNHO-090	7.PNHD-090	7.PNHP-090	7.PNHM-090	7.0000-091

\* 1 mg - 5 mg made of aluminium

### SET

Nominal value	Qty.	Content	Clean room plastic cases	Mahogany wooden box	<b>DAkkS</b> Calibration certificate
1 mg – 500 mg	12	1,11 g	Art.no. 7.XFHP-710	Art.no. 7.XFHM-710	Art.no. 7.0000-711

# Knob weights

with adjustment chamber



**STAINLESS STEEL HF12** highly polished

## SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases*	Mahogany wooden box	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>1 g</b>	0,10	7.KEHO-110	7.KEHD-110	7.KEHP-110	7.KEHM-110		...111
<b>2 g</b>	0,12	7.KEHO-120	7.KEHD-120	7.KEHP-120	7.KEHM-120		...121
<b>5 g</b>	0,16	7.KEHO-130	7.KEHD-130	7.KEHP-130	7.KEHM-130		...131
<b>10 g</b>	0,20	7.KEHO-140	7.KEHD-140	7.KEHP-140	7.KEHM-140		...141
<b>20 g</b>	0,25	7.KEHO-150	7.KEHD-150	7.KEHP-150	7.KEHM-150		...151
<b>50 g</b>	0,30	7.KEHO-160	7.KEHD-160	7.KEHP-160	7.KEHM-160		...161
<b>100 g</b>	0,5	7.KEHO-170	7.KEHD-170	7.KEHP-170	7.KEHM-170	7.KEHR-170	...171
<b>200 g</b>	1,0	7.KEHO-180	7.KEHD-180	7.KEHP-180	7.KEHM-180	7.KEHR-180	...181
<b>500 g</b>	2,5	7.KEHO-190	7.KEHD-190	7.KEHP-190	7.KEHM-190	7.KEHR-190	...191
<b>1 kg</b>	5	7.KEHO-210	7.KEHD-210	7.KEHP-210	7.KEHM-210	7.KEHR-210	...211
<b>2 kg</b>	10	7.KEHO-220	7.KEHD-220	7.KEHP-220	7.KEHM-220	7.KEHR-220	...221
<b>5 kg</b>	25	7.KEHO-230	7.KEHD-230	7.KEHP-230	7.KEHM-230	7.KEHR-230	...231
<b>10 kg</b>	50	7.KEHO-240	7.KEHD-240	7.KEHP-240	7.KEHM-240	7.KEHR-240	...241
<b>20 kg</b>	100	7.KEHO-250			7.KEHM-250	7.KEHR-250	...251
<b>50 kg</b>	250	7.KEHO-260			7.KEHM-260	7.KEHR-260	...261

Nominal value	Tol.	+	-	mg	Service case	DAkkS Calibration certificate
<b>5 kg</b>	25				7.KEHS-230	...231
<b>10 kg</b>	50				7.KEHS-240	...241
<b>20 kg</b>	100				7.KEHS-250	...251
<b>50 kg</b>	250				7.KEHS-260	...261

## SETS

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>1 g - 50 g</b>	8	110 g	7.XKHP-560	7.XKHM-560		7.XKHR-560	...561
<b>1 g - 100 g</b>	9	210 g	7.XKHP-570	7.XKHM-570	7.XKHS-570	7.XKHR-570	...571
<b>1 g - 200 g</b>	11	610 g	7.XKHP-580	7.XKHM-580	7.XKHS-580	7.XKHR-580	...581
<b>1 g - 500 g</b>	12	1.110 g	7.XKHP-590	7.XKHM-590	7.XKHS-590	7.XKHR-590	...591
<b>1 g - 1 kg</b>	13	2.110 g	7.XKHP-610	7.XKHM-610	7.XKHS-610	7.XKHR-610	...611
<b>1 g - 2 kg</b>	15	6.110 g	7.XKHP-620	7.XKHM-620	7.XKHS-620	7.XKHR-620	...621
<b>1 g - 5 kg</b>	16	11.110 g	7.XKHP-630	7.XKHM-630	7.XKHS-630	7.XKHR-630	...631
<b>1 g - 10 kg</b>	17	21.110 g	7.XKHP-640	7.XKHM-640	7.XKHS-640	7.XKHR-640	...641
<b>1 kg - 5 kg</b>	4	10.000 g	7.XKHP-680	7.XKHM-680	7.XKHS-680	7.XKHR-680	...681

\* up from 100 g in a plastic case with foam insert

## Knob weights

with adjustment chamber



**STAINLESS STEEL HF12** highly polished

### SETS with mg- weights (flat polygonal sheets)

Nominal value	Qty.	Content	Clean room plastic cases	Mahogany wooden box	Service case	Clean room case with insert	Dakks Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
1 mg - 5 g	16	6,11 g	7.XOHP-730	7.XOHM-730		7.XOHR-730	...731
1 mg - 50 g	20	111,11 g	7.XOHP-760	7.XOHM-760		7.XOHR-760	...761
1 mg - 100 g	21	211,11 g	7.XOHP-770	7.XOHM-770	7.XOHS-770	7.XOHR-770	...771
1 mg - 200 g	23	611,11 g	7.XOHP-780	7.XOHM-780	7.XOHS-780	7.XOHR-780	...781
1 mg - 500 g	24	1.111,11 g	7.XOHP-790	7.XOHM-790	7.XOHS-790	7.XOHR-790	...791
1 mg - 1 kg	25	2.111,11 g	7.XOHP-810	7.XOHM-810	7.XOHS-810	7.XOHR-810	...811
1 mg - 2 kg	27	6.111,11 g	7.XOHP-820	7.XOHM-820	7.XOHS-820	7.XOHR-820	...821
1 mg - 5 kg	28	11.111,11 g	7.XOHP-830	7.XOHM-830	7.XOHS-830	7.XOHR-830	...831
1 mg - 10 kg	29	21.111,11 g	7.XOHP-840	7.XOHM-840	7.XOHS-840	7.XOHR-840	...841

### SETS with mg- weights (wire shape)

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	Dakks Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
1 mg - 5 g	16	6,11 g	7.XQHP-730	7.XQHM-730		7.XQHR-730	...731
1 mg - 50 g	20	111,11 g	7.XQHP-760	7.XQHM-760		7.XQHR-760	...761
1 mg - 100 g	21	211,11 g	7.XQHP-770	7.XQHM-770	7.XQHS-770	7.XQHR-770	...771
1 mg - 200 g	23	611,11 g	7.XQHP-780	7.XQHM-780	7.XQHS-780	7.XQHR-780	...781
1 mg - 500 g	24	1.111,11 g	7.XQHP-790	7.XQHM-790	7.XQHS-790	7.XQHR-790	...791
1 mg - 1 kg	25	2.111,11 g	7.XQHP-810	7.XQHM-810	7.XQHS-810	7.XQHR-810	...811
1 mg - 2 kg	27	6.111,11 g	7.XQHP-820	7.XQHM-820	7.XQHS-820	7.XQHR-820	...821
1 mg - 5 kg	28	11.111,11 g	7.XQHP-830	7.XQHM-830	7.XQHS-830	7.XQHR-830	...831
1 mg - 10 kg	29	21.111,11 g	7.XQHP-840	7.XQHM-840	7.XQHS-840	7.XQHR-840	...841



# Knob weights

solid masses without adjustment chamber



## STAINLESS STEEL HF12

highly polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases*	Mahogany wooden box	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>1 g</b>	0,10	7.MEHO-110	7.MEHD-110	7.MEHP-110	7.MEHM-110		...111
<b>2 g</b>	0,12	7.MEHO-120	7.MEHD-120	7.MEHP-120	7.MEHM-120		...121
<b>5 g</b>	0,16	7.MEHO-130	7.MEHD-130	7.MEHP-130	7.MEHM-130		...131
<b>10 g</b>	0,20	7.MEHO-140	7.MEHD-140	7.MEHP-140	7.MEHM-140		...141
<b>20 g</b>	0,25	7.MEHO-150	7.MEHD-150	7.MEHP-150	7.MEHM-150		...151
<b>50 g</b>	0,30	7.MEHO-160	7.MEHD-160	7.MEHP-160	7.MEHM-160		...161
<b>100 g</b>	0,5	7.MEHO-170	7.MEHD-170	7.MEHP-170	7.MEHM-170	7.MEHR-170	...171
<b>200 g</b>	1,0	7.MEHO-180	7.MEHD-180	7.MEHP-180	7.MEHM-180	7.MEHR-180	...181
<b>500 g</b>	2,5	7.MEHO-190	7.MEHD-190	7.MEHP-190	7.MEHM-190	7.MEHR-190	...191
<b>1 kg</b>	5	7.MEHO-210	7.MEHD-210	7.MEHP-210	7.MEHM-210	7.MEHR-210	...211
<b>2 kg</b>	10	7.MEHO-220	7.MEHD-220	7.MEHP-220	7.MEHM-220	7.MEHR-220	...221
<b>5 kg</b>	25	7.MEHO-230	7.MEHD-230	7.MEHP-230	7.MEHM-230	7.MEHR-230	...231
<b>10 kg</b>	50	7.MEHO-240	7.MEHD-240	7.MEHP-240	7.MEHM-240	7.MEHR-240	...241
<b>20 kg</b>	100	7.MEHO-250			7.MEHM-250	7.MEHR-250	...251
<b>50 kg</b>	250	7.MEHO-260			7.MEHM-260	7.MEHR-260	...261

Nominal value	Tol.	Service case	DAkkS Calibration certificate
+/- mg	Art.no.	7.0000-Art.no.	
<b>5 kg</b>	25	7.MEHS-230	...231
<b>10 kg</b>	50	7.MEHS-240	...241
<b>20 kg</b>	100	7.MEHS-250	...251
<b>50 kg</b>	250	7.MEHS-260	...261

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>1 g - 50 g</b>	8	110 g	7.XTHP-560	7.XTHM-560		7.XTHR-560	...561
<b>1 g - 100 g</b>	9	210 g	7.XTHP-570	7.XTHM-570	7.XTHS-570	7.XTHR-570	...571
<b>1 g - 200 g</b>	11	610 g	7.XTHP-580	7.XTHM-580	7.XTHS-580	7.XTHR-580	...581
<b>1 g - 500 g</b>	12	1.110 g	7.XTHP-590	7.XTHM-590	7.XTHS-590	7.XTHR-590	...591
<b>1 g - 1 kg</b>	13	2.110 g	7.XTHP-610	7.XTHM-610	7.XTHS-610	7.XTHR-610	...611
<b>1 g - 2 kg</b>	15	6.110 g	7.XTHP-620	7.XTHM-620	7.XTHS-620	7.XTHR-620	...621
<b>1 g - 5 kg</b>	16	11.110 g	7.XTHP-630	7.XTHM-630	7.XTHS-630	7.XTHR-630	...631
<b>1 g - 10 kg</b>	17	21.110 g	7.XTHP-640	7.XTHM-640	7.XTHS-640	7.XTHR-640	...641
<b>1 kg - 5 kg</b>	4	10.000 g	7.XTHP-680	7.XTHM-680	7.XTHS-680	7.XTHR-680	...681

\* up from 100 g in a plastic case with foam insert

## Knob weights

solid masses without adjustment chamber



### STAINLESS STEEL HF12

highly polished

#### SETS with mg- weights (flat polygonal sheets)

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
1 mg - 5 g	16	6,11 g	7.XFHP-730	7.XFHM-730		7.XFHR-730	...731
1 mg - 50 g	20	111,11 g	7.XFHP-760	7.XFHM-760		7.XFHR-760	...761
1 mg - 100 g	21	211,11 g	7.XFHP-770	7.XFHM-770	7.XFHS-770	7.XFHR-770	...771
1 mg - 200 g	23	611,11 g	7.XFHP-780	7.XFHM-780	7.XFHS-780	7.XFHR-780	...781
1 mg - 500 g	24	1.111,11 g	7.XFHP-790	7.XFHM-790	7.XFHS-790	7.XFHR-790	...791
1 mg - 1 kg	25	2.111,11 g	7.XFHP-810	7.XFHM-810	7.XFHS-810	7.XFHR-810	...811
1 mg - 2 kg	27	6.111,11 g	7.XFHP-820	7.XFHM-820	7.XFHS-820	7.XFHR-820	...821
1 mg - 5 kg	28	11.111,11 g	7.XFHP-830	7.XFHM-830	7.XFHS-830	7.XFHR-830	...831
1 mg - 10 kg	29	21.111,11 g	7.XFHP-840	7.XFHM-840	7.XFHS-840	7.XFHR-840	...841

#### SETS with mg- weights (wire shape)

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
1 mg - 5 g	16	6,11 g	7.XEHP-730	7.XEHM-730		7.XEHR-730	...731
1 mg - 50 g	20	111,11 g	7.XEHP-760	7.XEHM-760		7.XEHR-760	...761
1 mg - 100 g	21	211,11 g	7.XEHP-770	7.XEHM-770	7.XEHS-770	7.XEHR-770	...771
1 mg - 200 g	23	611,11 g	7.XEHP-780	7.XEHM-780	7.XEHS-780	7.XEHR-780	...781
1 mg - 500 g	24	1.111,11 g	7.XEHP-790	7.XEHM-790	7.XEHS-790	7.XEHR-790	...791
1 mg - 1 kg	25	2.111,11 g	7.XEHP-810	7.XEHM-810	7.XEHS-810	7.XEHR-810	...811
1 mg - 2 kg	27	6.111,11 g	7.XEHP-820	7.XEHM-820	7.XEHS-820	7.XEHR-820	...821
1 mg - 5 kg	28	11.111,11 g	7.XEHP-830	7.XEHM-830	7.XEHS-830	7.XEHR-830	...831
1 mg - 10 kg	29	21.111,11 g	7.XEHP-840	7.XEHM-840	7.XEHS-840	7.XEHR-840	...841



**STAINLESS STEEL HF12** highly polished**Cylinder weights**

solid masses, stackable, without adjustment chamber

**SINGLE WEIGHT**

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases*	Mahogany wooden box	Clean room case with insert	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
1 g	0,10	7.ZEHO-110	7.ZEHD-110	7.ZEHP-110	7.ZEHM-110		...111
2 g	0,12	7.ZEHO-120	7.ZEHD-120	7.ZEHP-120	7.ZEHM-120		...121
5 g	0,16	7.ZEHO-130	7.ZEHD-130	7.ZEHP-130	7.ZEHM-130		...131
10 g	0,20	7.ZEHO-140	7.ZEHD-140	7.ZEHP-140	7.ZEHM-140		...141
20 g	0,25	7.ZEHO-150	7.ZEHD-150	7.ZEHP-150	7.ZEHM-150		...151
50 g	0,30	7.ZEHO-160	7.ZEHD-160	7.ZEHP-160	7.ZEHM-160		...161
100 g	0,5	7.ZEHO-170	7.ZEHD-170	7.ZEHP-170	7.ZEHM-170	7.ZEHR-170	...171
200 g	1,0	7.ZEHO-180	7.ZEHD-180	7.ZEHP-180	7.ZEHM-180	7.ZEHR-180	...181
500 g	2,5	7.ZEHO-190	7.ZEHD-190	7.ZEHP-190	7.ZEHM-190	7.ZEHR-190	...191
1 kg	5	7.ZEHO-210	7.ZEHD-210	7.ZEHP-210	7.ZEHM-210	7.ZEHR-210	...211
2 kg	10	7.ZEHO-220	7.ZEHD-220	7.ZEHP-220	7.ZEHM-220	7.ZEHR-220	...221
5 kg	25	7.ZEHO-230	7.ZEHD-230	7.ZEHP-230	7.ZEHM-230	7.ZEHR-230	...231
10 kg	50	7.ZEHO-240	7.ZEHD-240	7.ZEHP-240	7.ZEHM-240	7.ZEHR-240	...241

Nominal value	Tol.	Service case	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	7.0000-Art.no.
5 kg	8,0		7.ZEHS-230 ...231
10 kg	16		7.ZEHS-240 ...241

**SETS**

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	<b>DAkkS</b> Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
1 g - 50 g	8	110 g	7.XZHP-560	7.XZHM-560		7.XZHR-560	...561
1 g - 100 g	9	210 g	7.XZHP-570	7.XZHM-570	7.XZHS-570	7.XZHR-570	...571
1 g - 200 g	11	610 g	7.XZHP-580	7.XZHM-580	7.XZHS-580	7.XZHR-580	...581
1 g - 500 g	12	1.110 g	7.XZHP-590	7.XZHM-590	7.XZHS-590	7.XZHR-590	...591
1 g - 1 kg	13	2.110 g	7.XZHP-610	7.XZHM-610	7.XZHS-610	7.XZHR-610	...611
1 g - 2 kg	15	6.110 g	7.XZHP-620	7.XZHM-620	7.XZHS-620	7.XZHR-620	...621
1 g - 5 kg	16	11.110 g	7.XZHP-630	7.XZHM-630	7.XZHS-630	7.XZHR-630	...631
1 g - 10 kg	17	21.110 g	7.XZHP-640	7.XZHM-640	7.XZHS-640	7.XZHR-640	...641
1 kg - 5 kg	4	10.000 g	7.XZHP-680	7.XZHM-680	7.XZHS-680	7.XZHR-680	...681

\* up from 100 g in a plastic case with foam insert

**Cylinder weights (Eco mass)**

with adjustment chamber

**STAINLESS STEEL HF12**

highly polished

**SINGLE WEIGHT**

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Mahogany wooden box	Clean room case with insert	<b>DAkkS</b> Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>1 g</b>	0,10	7.EEHO-110	7.EEHD-110	7.EEHP-110	7.EEHM-110		...111
<b>2 g</b>	0,12	7.EEHO-120	7.EEHD-120	7.EEHP-120	7.EEHM-120		...121
<b>5 g</b>	0,16	7.EEHO-130	7.EEHD-130	7.EEHP-130	7.EEHM-130		...131
<b>10 g</b>	0,20	7.EEHO-140	7.EEHD-140	7.EEHP-140	7.EEHM-140		...141
<b>20 g</b>	0,25	7.EEHO-150	7.EEHD-150	7.EEHP-150	7.EEHM-150		...151
<b>50 g</b>	0,30	7.EEHO-160	7.EEHD-160	7.EEHP-160	7.EEHM-160		...161
<b>100 g</b>	0,5	7.EEHO-170	7.EEHD-170	7.EEHP-170	7.EEHM-170	7.EEHR-170	...171
<b>200 g</b>	1,0	7.EEHO-180	7.EEHD-180	7.EEHP-180	7.EEHM-180	7.EEHR-180	...181
<b>500 g</b>	2,5	7.EEHO-190	7.EEHD-190	7.EEHP-190	7.EEHM-190	7.EEHR-190	...191
<b>1 kg</b>	5	7.EEHO-210	7.EEHD-210	7.EEHP-210	7.EEHM-210	7.EEHR-210	...211
<b>2 kg</b>	10	7.EEHO-220	7.EEHD-220	7.EEHP-220	7.EEHM-220	7.EEHR-220	...221
<b>5 kg</b>	25	7.EEHO-230	7.EEHD-230	7.EEHP-230	7.EEHM-230	7.EEHR-230	...231
<b>10 kg</b>	50	7.EEHO-240	7.EEHD-240	7.EEHP-240	7.EEHM-240	7.EEHR-240	...241

Nominal value	Tol.	Service case	<b>DAkkS</b> Calibration certificate
+/- mg		7.0000-Art.no.	Art.no.
<b>5 kg</b>	25	7.EEHS-230	...231
<b>10 kg</b>	50	7.EEHS-240	...241

**SETS**

Nominal value	Qty.	Content	Clean room plastic box	Mahogany wooden box	Service case	Clean room case with insert	<b>DAkkS</b> Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>1 g - 50 g</b>	8	110 g	7.XJHP-560	7.XJHM-560		7.XJHR-560	...561
<b>1 g - 100 g</b>	9	210 g	7.XJHP-570	7.XJHM-570	7.XJHS-570	7.XJHR-570	...571
<b>1 g - 200 g</b>	11	610 g	7.XJHP-580	7.XJHM-580	7.XJHS-580	7.XJHR-580	...581
<b>1 g - 500 g</b>	12	1.110 g	7.XJHP-590	7.XJHM-590	7.XJHS-590	7.XJHR-590	...591
<b>1 g - 1 kg</b>	13	2.110 g	7.XJHP-610	7.XJHM-610	7.XJHS-610	7.XJHR-610	...611
<b>1 g - 2 kg</b>	15	6.110 g	7.XJHP-620	7.XJHM-620	7.XJHS-620	7.XJHR-620	...621
<b>1 g - 5 kg</b>	16	11.110 g	7.XJHP-630	7.XJHM-630	7.XJHS-630	7.XJHR-630	...631
<b>1 g - 10 kg</b>	17	21.110 g	7.XJHP-640	7.XJHM-640	7.XJHS-640	7.XJHR-640	...641
<b>1 kg - 5 kg</b>	4	10.000 g	7.XJHP-680	7.XJHM-680	7.XJHS-680	7.XJHR-680	...681

\* up from 100 g in a plastic case with foam insert

# Block weights

round



**STAINLESS STEEL HF12** highly polished

## SINGLE WEIGHT

Nominal value	Tol. without box	Clean room plastic cases*	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>5 kg</b> 25	7.REPO-230	7.REPP-230	7.REPM-230	7.REPS-230	7.REPR-230	...231
<b>10 kg</b> 50	7.REPO-240	7.REPP-240	7.REPM-240	7.REPS-240	7.REPR-240	...241
<b>20 kg</b> 100	7.REPO-250		7.REPM-250	7.REPS-250	7.REPR-250	...251
<b>25 kg</b> 125	7.REPO-450		7.REPM-450	7.REPS-450		...451
<b>50 kg</b> 250	7.REPO-260		7.REPM-260	7.REPS-260	7.REPR-260	...261

rectangular



## SINGLE WEIGHT

Nominal value	Tol. without box	Clean room plastic cases*	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>5 kg</b> 25	7.BEHO-230	7.BEHP-230	7.BEHM-230	7.BEHS-230	7.BEHR-230	...231
<b>10 kg</b> 50	7.BEHO-240	7.BEHP-240	7.BEHM-240	7.BEHS-240	7.BEHR-240	...241
<b>20 kg</b> 100	7.BEHO-250		7.BEHM-250	7.BEHS-250	7.BEHR-250	...251
<b>25 kg</b> 125	7.BEHO-450		7.BEHM-450	7.BEHS-450		...451
<b>50 kg</b> 250	7.BEHO-260		7.BEHM-260	7.BEHS-260	7.BEHR-260	...261

# Weights with handle



**STAINLESS STEEL HF12** highly polished

## SINGLE WEIGHT

Nominal value	Tol. without box	Clean room plastic cases*	Mahogany wooden box	Service case	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	7.0000-Art.no.
<b>5 kg</b> 25	7.UEHO-230	7.UEHP-230	7.UEHM-230	7.UEHS-230	7.UEHR-230	...231
<b>10 kg</b> 50	7.UEHO-240	7.UEHP-240	7.UEHM-240	7.UEHS-240	7.UEHR-240	...241
<b>20 kg</b> 100	7.UEHO-250		7.UEHM-250	7.UEHS-250	7.UEHR-250	...251
<b>25 kg</b> 125	7.UEHO-450		7.UEHM-450	7.UEHS-450		...451
<b>50 kg</b> 250	7.UEHO-260		7.UEHM-260	7.UEHS-260	7.UEHR-260	...261

## Cylinder weights



**STAINLESS STEEL HF12** highly polished

### SINGLE WEIGHT with 4 stood bolts

Nominal value	Tol.	Art.no.	Art.no.	Art.no.
	+/- mg			
100 kg	500	7.ZEHM-270	7.ZEHS-270	7.0000-276
200 kg	1000	7.ZEHM-280	7.ZEHS-280	7.0000-286
250 kg	1250	7.ZEHM-460	7.ZEHS-460	7.0000-466
500 kg	2500	7.ZEHM-290	7.ZEHS-290	7.0000-296
1000 kg	5000	7.ZEHM-310	7.ZEHS-310	7.0000-316
2000 kg	10000	7.ZEHM-320	7.ZEHS-320	7.0000-326

### SINGLE WEIGHT with eyebolt

Nominal value	Tol.	Art.no.	Art.no.	Art.no.
	+/- mg			
100 kg	500	7.UEHM-270	7.UEHS-270	7.0000-276
200 kg	1000	7.UEHM-280	7.UEHS-280	7.0000-286
250 kg	1250	7.UEHM-460	7.UEHS-460	7.0000-466
500 kg	2500	7.UEHM-290	7.UEHS-290	7.0000-296
1000 kg	5000	7.UEHM-310	7.UEHS-310	7.0000-316
2000 kg	10000	7.UEHM-320	7.UEHS-320	7.0000-326



**F2**

#### Precision weights - class F2

Adjustment, testing and calibration weights for balances of class II and for quality assurance of scales with steps  $\leq 100\,000$  according to ISO 9001ff. Weights for calibration of weights of lower classes (M3-M1) according to OIML R111. Usage for meaningful transactions (e.g. precious metals and gemstones) on scales of class II. Load application bodies for the representation of the most accurate determination of tension, pressure or torsion.

## Quality is our demand

#### ACCESSORIES



All weight sets include gloves, two brushes and two tweezers.

Up to 50 g without big tweezers, big brush and gloves.



CLEAN ROOM  
PLASTIC CASES



BEECH WOODEN  
BOX



SERVICE  
CASE



CLEAN ROOM CASE  
with inserts



LEATHER  
CASES



PLASTIC BOXES  
WITH SCREWED TOP

## Milligramm weights

ALUMINIUM / GERMAN SILVER ICKEL SILVER

Flat polygonal sheets



### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	DAkkS Calibration certificate
+/- mg		Art.no.	Art.no.	Art.no.	Art.no.
1 mg *	0,06	6.PAHO-010	6.PAHD-010	6.PAHP-010	6.0000-011
2 mg *	0,06	6.PAHO-020	6.PAHD-020	6.PAHP-020	6.0000-021
5 mg *	0,06	6.PAHO-030	6.PAHD-030	6.PAHP-030	6.0000-031
10 mg	0,08	6.PNHO-040	6.PNHD-040	6.PNHP-040	6.0000-041
20 mg	0,10	6.PNHO-050	6.PNHD-050	6.PNHP-050	6.0000-051
50 mg	0,12	6.PNHO-060	6.PNHD-060	6.PNHP-060	6.0000-061
100 mg	0,16	6.PNHO-070	6.PNHD-070	6.PNHP-070	6.0000-071
200 mg	0,2	6.PNHO-080	6.PNHD-080	6.PNHP-080	6.0000-081
500 mg	0,25	6.PNHO-090	6.PNHD-090	6.PNHP-090	6.0000-091

\* 1 mg - 5 mg made of aluminium

### SET

Nominal value	Qty.	Content	Clean room plastic cases	Beech wood box	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.
1 mg - 500 mg	12	1,11 g	6.XFGP-710	6.XFGB-710	6.0000-711

## Milligramm weights

SPECIAL STAINLESS STEEL HE210 highly polished

Wire shape



### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	DAkkS Calibration certificate
+/- mg		Art.no.	Art.no.	Art.no.	Art.no.
1 mg	0,06	6.DBHO-010	6.DBHD-010	6.DBHP-010	6.0000-011
2 mg	0,06	6.DBHO-020	6.DBHD-020	6.DBHP-020	6.0000-021
5 mg	0,06	6.DBHO-030	6.DBHD-030	6.DBHP-030	6.0000-031
10 mg	0,08	6.DBHO-040	6.DBHD-040	6.DBHP-040	6.0000-041
20 mg	0,10	6.DBHO-050	6.DBHD-050	6.DBHP-050	6.0000-051
50 mg	0,12	6.DBHO-060	6.DBHD-060	6.DBHP-060	6.0000-061
100 mg	0,16	6.DBHO-070	6.DBHD-070	6.DBHP-070	6.0000-071
200 mg	0,2	6.DBHO-080	6.DBHD-080	6.DBHP-080	6.0000-081
500 mg	0,25	6.DBHO-090	6.DBHD-090	6.DBHP-090	6.0000-091

### SET

Nominal value	Qty.	Content	Clean room plastic cases	Beech wood box	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.
1 mg - 500 mg	12	1,11 g	6.XEGP-710	6.XEGB-710	6.0000-711

# Knob weights

with adjustment chamber



**STAINLESS STEEL HF12 polished**

## SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	Service case	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	6.0000-Art.no.
<b>1 g</b>	0,3	6.KEGO-110	6.KEGD-110	6.KEGP-110	6.KEGB-110		...111
<b>2 g</b>	0,4	6.KEGO-120	6.KEGD-120	6.KEGP-120	6.KEGB-120		...121
<b>5 g</b>	0,5	6.KEGO-130	6.KEGD-130	6.KEGP-130	6.KEGB-130		...131
<b>10 g</b>	0,6	6.KEGO-140	6.KEGD-140	6.KEGP-140	6.KEGB-140		...141
<b>20 g</b>	0,8	6.KEGO-150	6.KEGD-150	6.KEGP-150	6.KEGB-150		...151
<b>50 g</b>	1,0	6.KEGO-160	6.KEGD-160	6.KEGP-160	6.KEGB-160		...161
<b>100 g</b>	1,6	6.KEGO-170	6.KEGD-170	6.KEGP-170	6.KEGB-170		...171
<b>200 g</b>	3,0	6.KEGO-180	6.KEGD-180	6.KEGP-180	6.KEGB-180		...181
<b>500 g</b>	8,0	6.KEGO-190	6.KEGD-190	6.KEGP-190	6.KEGB-190		...191
<b>1 kg</b>	16	6.KEGO-210	6.KEGD-210	6.KEGP-210	6.KEGB-210		...211
<b>2 kg</b>	30	6.KEGO-220	6.KEGD-220	6.KEGP-220	6.KEGB-220		...221
<b>5 kg</b>	80	6.KEGO-230	6.KEGD-230	6.KEGP-230	6.KEGB-230	6.KEGS-230	...231
<b>10 kg</b>	160	6.KEGO-240	6.KEGD-240	6.KEGP-240	6.KEGB-240	6.KEGS-240	...241
<b>20 kg</b>	300	6.KEGO-250			6.KEGB-250	6.KEGS-250	...251
<b>50 kg</b>	800	6.KEGO-260			6.KEGB-260	6.KEGS-260	...261

## SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	6.XKGP-560	6.XKGB-560	6.XKGS-560	6.0000-561
<b>1 g - 100 g</b>	9	210 g	6.XKGP-570	6.XKGB-570	6.XKGS-570	6.0000-571
<b>1 g - 200 g</b>	11	610 g	6.XKGP-580	6.XKGB-580	6.XKGS-580	6.0000-581
<b>1 g - 500 g</b>	12	1.110 g	6.XKGP-590	6.XKGB-590	6.XKGS-590	6.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	6.XKGP-610	6.XKGB-610	6.XKGS-610	6.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	6.XKGP-620	6.XKGB-620	6.XKGS-620	6.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	6.XKGP-630	6.XKGB-630	6.XKGS-630	6.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	6.XKGP-640	6.XKGB-640	6.XKGS-640	6.0000-641
<b>1 kg - 5 kg</b>	4	10.000 g	6.XKGP-680	6.XKGB-680	6.XKGS-680	6.0000-681

## SETS with mg- weights (flat polygonal sheets)

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 mg - 5 g</b>	16	6,11 g	6.XFGP-730	6.XFGB-730	6.XFGS-730	6.0000-731
<b>1 mg - 50 g</b>	20	111,11 g	6.XFGP-760	6.XFGB-760	6.XFGS-760	6.0000-761
<b>1 mg - 100 g</b>	21	211,11 g	6.XFGP-770	6.XFGB-770	6.XFGS-770	6.0000-771
<b>1 mg - 200 g</b>	23	611,11 g	6.XFGP-780	6.XFGB-780	6.XFGS-780	6.0000-781
<b>1 mg - 500 g</b>	24	1.111,11 g	6.XFGP-790	6.XFGB-790	6.XFGS-790	6.0000-791
<b>1 mg - 1 kg</b>	25	2.111,11 g	6.XFGP-810	6.XFGB-810	6.XFGS-810	6.0000-811
<b>1 mg - 2 kg</b>	27	6.111,11 g	6.XFGP-820	6.XFGB-820	6.XFGS-820	6.0000-821
<b>1 mg - 5 kg</b>	28	11.111,11 g	6.XFGP-830	6.XFGB-830	6.XFGS-830	6.0000-831
<b>1 mg - 10 kg</b>	29	21.111,11 g	6.XFGP-840	6.XFGB-840	6.XFGS-840	6.0000-841

## Cylinder weights

without adjustment chamber



STAINLESS STEEL HF12 polished

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	Service case	DAkkS Calibration certificate
+/- mg	Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.	Art.-Nr.	6.0000-Art.-Nr.
<b>1 g</b>	0,3	6.ZEGO-110	6.ZEGD-110	6.ZEGP-110	6.ZEGB-110		...111
<b>2 g</b>	0,4	6.ZEGO-120	6.ZEGD-120	6.ZEGP-120	6.ZEGB-120		...121
<b>5 g</b>	0,5	6.ZEGO-130	6.ZEGD-130	6.ZEGP-130	6.ZEGB-130		...131
<b>10 g</b>	0,6	6.ZEGO-140	6.ZEGD-140	6.ZEGP-140	6.ZEGB-140		...141
<b>20 g</b>	0,8	6.ZEGO-150	6.ZEGD-150	6.ZEGP-150	6.ZEGB-150		...151
<b>50 g</b>	1,0	6.ZEGO-160	6.ZEGD-160	6.ZEGP-160	6.ZEGB-160		...161
<b>100 g</b>	1,6	6.ZEGO-170	6.ZEGD-170	6.ZEGP-170	6.ZEGB-170		...171
<b>200 g</b>	3,0	6.ZEGO-180	6.ZEGD-180	6.ZEGP-180	6.ZEGB-180		...181
<b>500 g</b>	8,0	6.ZEGO-190	6.ZEGD-190	6.ZEGP-190	6.ZEGB-190		...191
<b>1 kg</b>	16	6.ZEGO-210	6.ZEGD-210	6.ZEGP-210	6.ZEGB-210		...211
<b>2 kg</b>	30	6.ZEGO-220	6.ZEGD-220	6.ZEGP-220	6.ZEGB-220		...221
<b>5 kg</b>	80	6.ZEGO-230	6.ZEGD-230	6.ZEGP-230	6.ZEGB-230	6.ZEGS-230	...231
<b>10 kg</b>	160	6.ZEGO-240	6.ZEGD-240	6.ZEGP-240	6.ZEGB-240	6.ZEGS-240	...241

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	6.XZGP-560	6.XZGB-560	6.XZGS-560	6.0000-561
<b>1 g - 100 g</b>	9	210 g	6.XZGP-570	6.XZGB-570	6.XZGS-570	6.0000-571
<b>1 g - 200 g</b>	11	610 g	6.XZGP-580	6.XZGB-580	6.XZGS-580	6.0000-581
<b>1 g - 500 g</b>	12	1.110 g	6.XZGP-590	6.XZGB-590	6.XZGS-590	6.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	6.XZGP-610	6.XZGB-610	6.XZGS-610	6.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	6.XZGP-620	6.XZGB-620	6.XZGS-620	6.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	6.XZGP-630	6.XZGB-630	6.XZGS-630	6.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	6.XZGP-640	6.XZGB-640	6.XZGS-640	6.0000-641
<b>1 kg - 5 kg</b>	4	10.000 g	6.XZGP-680	6.XZGB-680	6.XZGS-680	6.0000-651



# Cylinder weights (Eco mass)

with adjustment chamber



## SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	Service case	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.-Nr.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g</b>	0,3	6.EEGO-110	6.EEGD-110	6.EEGP-110	6.EEGB-110		6.0000-111
<b>2 g</b>	0,4	6.EEGO-120	6.EEGD-120	6.EEGP-120	6.EEGB-120		6.0000-121
<b>5 g</b>	0,5	6.EEGO-130	6.EEGD-130	6.EEGP-130	6.EEGB-130		6.0000-131
<b>10 g</b>	0,6	6.EEGO-140	6.EEGD-140	6.EEGP-140	6.EEGB-140		6.0000-141
<b>20 g</b>	0,8	6.EEGO-150	6.EEGD-150	6.EEGP-150	6.EEGB-150		6.0000-151
<b>50 g</b>	1,0	6.EEGO-160	6.EEGD-160	6.EEGP-160	6.EEGB-160		6.0000-161
<b>100 g</b>	1,6	6.EEGO-170	6.EEGD-170	6.EEGP-170	6.EEGB-170		6.0000-171
<b>200 g</b>	3,0	6.EEGO-180	6.EEGD-180	6.EEGP-180	6.EEGB-180		6.0000-181
<b>500 g</b>	8,0	6.EEGO-190	6.EEGD-190	6.EEGP-190	6.EEGB-190		6.0000-191
<b>1 kg</b>	16	6.EEGO-210	6.EEGD-210	6.EEGP-210	6.EEGB-210		6.0000-211
<b>2 kg</b>	30	6.EEGO-220	6.EEGD-220	6.EEGP-220	6.EEGB-220		6.0000-221
<b>5 kg</b>	80	6.EEGO-230	6.EEGD-230	6.EEGP-230	6.EEGB-230	6.EEGS-230	6.0000-231
<b>10 kg</b>	160	6.EEGO-240	6.EEGD-240	6.EEGP-240	6.EEGB-240	6.EEGS-240	6.0000-241

## SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	<b>DAkkS</b> Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	6.XJGP-560	6.XJGB-560	6.XJGS-560	6.0000-561
<b>1 g - 100 g</b>	9	210 g	6.XJGP-570	6.XJGB-570	6.XJGS-570	6.0000-571
<b>1 g - 200 g</b>	11	610 g	6.XJGP-580	6.XJGB-580	6.XJGS-580	6.0000-581
<b>1 g - 500 g</b>	12	1.110 g	6.XJGP-590	6.XJGB-590	6.XJGS-590	6.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	6.XJGP-610	6.XJGB-610	6.XJGS-610	6.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	6.XJGP-620	6.XJGB-620	6.XJGS-620	6.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	6.XJGP-630	6.XJGB-630	6.XJGS-630	6.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	6.XJGP-640	6.XJGB-640	6.XJGS-640	6.0000-641
<b>1 kg - 5 kg</b>	4	10.000 g	6.XJGP-680	6.XJGB-680	6.XJGS-680	6.0000-651



## Block weights

round



STAINLESS STEEL HF12 polished

### SINGLE WEIGHT

Nominal value	Tol. without box	Clean room plastic cases	Beech wood box	Service case	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	6.0000-Art.no.
<b>5 kg</b>	80	6.REGO-230	6.REGP-230	6.REGB-230	6.REGS-230	6.REGR-230 ...231
<b>10 kg</b>	160	6.REGO-240	6.REGP-240	6.REGB-240	6.REGS-240	6.REGR-240 ...241
<b>20 kg</b>	300	6.REGO-250		6.REGB-250	6.REGS-250	6.REGR-250 ...251
<b>25 kg</b>	400	6.REGO-450		6.REGB-450	6.REGS-450	
<b>50 kg</b>	800	6.REGO-260		6.REGB-260	6.REGS-260	6.REGR-260 ...261

rectangular

### SINGLE WEIGHT



Nominal value	Tol. without box	Clean room plastic cases	Leather cases	Service case	Clean room case with insert	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	6.0000-Art.no.
<b>5 kg</b>	80	6.BEPO-230	6.BEPP-230	6.BEPL-230	6.BEPS-230	6.BEPR-230 ...231
<b>10 kg</b>	160	6.BEPO-240	6.BEPP-240	6.BEPL-240	6.BEPS-240	6.BEPR-240 ...241
<b>20 kg</b>	300	6.BEPO-250		6.BEPL-250	6.BEPS-250	6.BEPR-250 ...251
<b>25 kg</b>	400	6.BEPO-450			6.BEPS-450	
<b>50 kg</b>	800	6.BEPO-260			6.BEPS-260	6.BEPR-260 ...261

## Basket weights



STAINLESS STEEL HF12 polished

for round block weights

Nominal value	max. weight	Tol.	without box	DAkkS Calibration certificate
		+/- mg	Art.no.	Art.no.
<b>20 kg</b>	<b>120 kg</b>	300	6.NEGO-250	6.0000-251
<b>40 kg</b>	<b>250 kg</b>	600	6.NEGO-410	6.0000-411
<b>50 kg</b>	<b>500 kg</b>	800	6.NEGO-260	6.0000-261
<b>60 kg</b>	<b>500 kg</b>	960	6.NEGO-420	6.0000-421

for rectangular block weights



Nominal value	max. weight	Tol.	without box	DAkkS Calibration certificate
		+/- mg	Art.no.	Art.no.
<b>20 kg</b>	<b>120 kg</b>	300	6.LEGO-250	6.0000-251
<b>40 kg</b>	<b>250 kg</b>	600	6.LEGO-410	6.0000-411
<b>50 kg</b>	<b>500 kg</b>	800	6.LEGO-260	6.0000-261
<b>60 kg</b>	<b>500 kg</b>	960	6.LEGO-420	6.0000-421

Custom-made products according to customer specification.

## Cylinder weights



STAINLESS STEEL HF12 polished

### SINGLE WEIGHT with 4 stood bolts

Nominal value	Tol.	Wooden box	Service case	PTB Calibration certificate	DAkkS Calibration certificate
	+/- g	Art.no.	Art.no.	Art.no.	Art.no.
100 kg	1,6	6.ZEGB-270	6.ZEGS-270		6.0000-271
200 kg	3,0	6.ZEGB-280	6.ZEGS-280		6.0000-281
250 kg	4,0	6.ZEGB-460	6.ZEGS-460		6.0000-461
500 kg	8,0	6.ZEGB-290	6.ZEGS-290		6.0000-291
1000 kg	16	6.ZEGB-310	6.ZEGS-310	6.0000-316	
2000 kg	30	6.ZEGB-320	6.ZEGS-320	6.0000-326	



### SINGLE WEIGHT with eyebolt

Nominal value	Tol.	Wooden box	Service case	PTB Calibration certificate	DAkkS Calibration certificate
	+/- g	Art.no.	Art.no.	Art.no.	Art.no.
100 kg	1,6	6.UEGB-270	6.UEGS-270		6.0000-271
200 kg	3,0	6.UEGB-280	6.UEGS-280		6.0000-281
250 kg	4,0	6.UEGB-460	6.UEGS-460		6.0000-461
500 kg	8,0	6.UEGB-290	6.UEGS-290		6.0000-291
1000 kg	16	6.UEGB-310	6.UEGS-310	6.0000-316	
2000 kg	30	6.UEGB-320	6.UEGS-320	6.0000-326	



## Carrier weights



STAINLESS STEEL HF12 polished

### SINGLE WEIGHT

Nominal value	Tol.		without box	DAkkS Calibration certificate
		+/- mg	Art.no.	Art.no.
1 g	0,3		6.TEGO-110	6.0000-111
2 g	0,4		6.TEGO-120	6.0000-121
5 g	0,5		6.TEGO-130	6.0000-131
10 g	0,6		6.TEGO-140	6.0000-141
20 g	0,8		6.TEGO-150	6.0000-151
50 g	1,0		6.TEGO-160	6.0000-161
100 g	1,6		6.TEGO-170	6.0000-171
200 g	3,0		6.TEGO-180	6.0000-181
500 g	8,0		6.TEGO-190	6.0000-191
1 kg	16		6.TEGO-210	6.0000-211
2 kg	30		6.TEGO-220	6.0000-221
5 kg	80		6.TEGO-230	6.0000-231
10 kg	160		6.TEGO-240	6.0000-241
20 kg	300		6.TEGO-250	6.0000-251

## Slotted weights



STAINLESS STEEL HF12 polished

### SINGLE WEIGHT

Nominal value	Tol.		without box	DAkkS Calibration certificate
		+/- mg	Art.no.	Art.no.
1 g	0,3		6.IEGO-110	6.0000-111
2 g	0,4		6.IEGO-120	6.0000-121
5 g	0,5		6.IEGO-130	6.0000-131
10 g	0,6		6.IEGO-140	6.0000-141
20 g	0,8		6.IEGO-150	6.0000-151
50 g	1,0		6.IEGO-160	6.0000-161
100 g	1,6		6.IEGO-170	6.0000-171
200 g	3,0		6.IEGO-180	6.0000-181
500 g	8,0		6.IEGO-190	6.0000-191
1 kg	16		6.IEGO-210	6.0000-211
2 kg	30		6.IEGO-220	6.0000-221
5 kg	80		6.IEGO-230	6.0000-231
10 kg	160		6.IEGO-240	6.0000-241
20 kg	300		6.IEGO-250	6.0000-251

**M1****Precision weights - class M1**

Adjustment, testing and calibration weights for commercial balances (class III) and for quality assurance of scales with steps  $\leq 30\,000$  according to ISO 9001ff.

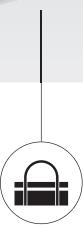


## Weights in the exclusive assortment case.

**ACCESSORIES**

All weight sets include gloves, two brushes and two tweezers.

Up to 50 g without big tweezers, big brush and gloves.



CLEAN ROOM  
PLASTIC CASES

BEECH WOODEN  
BOX

SERVICE  
CASE

PLASTIC BOXES WITH  
SCREWED TOP

LEATHER CASES

## Milligramm weights

ALUMINIUM / GERMAN SILVER ICKEL SILVER

Flat polygonal sheets



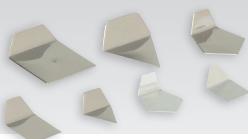
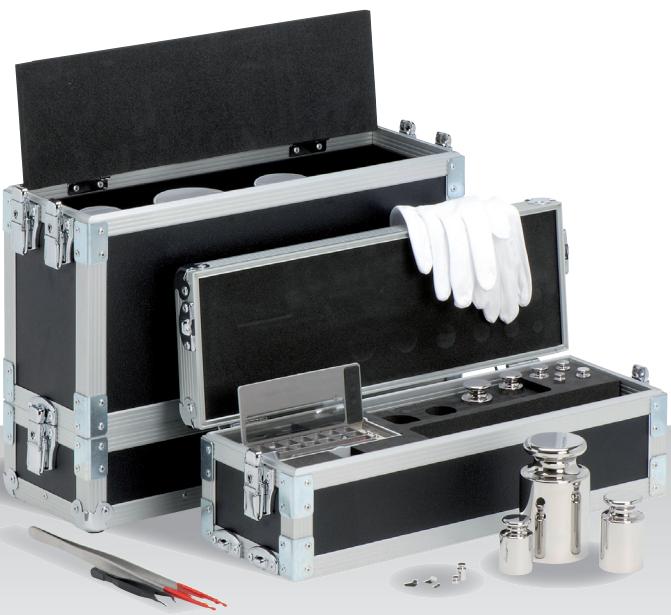
### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	DAkkS Calibration certificate
+/- mg		Art.no.	Art.no.	Art.no.	Art.no.
1 mg	0,20	5.PAHO-010	5.PAHD-010	5.PAHP-010	5.0000-011
2 mg	0,20	5.PAHO-020	5.PAHD-020	5.PAHP-020	5.0000-021
5 mg	0,20	5.PAHO-030	5.PAHD-030	5.PAHP-030	5.0000-031
10 mg	0,25	5.PNHO-040	5.PNHD-040	5.PNHP-040	5.0000-041
20 mg	0,30	5.PNHO-050	5.PNHD-050	5.PNHP-050	5.0000-051
50 mg	0,40	5.PNHO-060	5.PNHD-060	5.PNHP-060	5.0000-061
100 mg	0,50	5.PNHO-070	5.PNHD-070	5.PNHP-070	5.0000-071
200 mg	0,60	5.PNHO-080	5.PNHD-080	5.PNHP-080	5.0000-081
500 mg	0,80	5.PNHO-090	5.PNHD-090	5.PNHP-090	5.0000-091

\* 1 mg - 5 mg made of aluminium

### SETS

Nominal value	Qty.	Content	Clean room plastic cases	Beech wood box	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.
1 mg - 500 mg	12	1,11 g	5.XMFP-710	5.XMFB-710	5.0000-711



## Knob weights



**BRASS** finely turned

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	Service case	DAkkS Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	5.0000-Art.no.
<b>1 g</b>	1,0	5.KMFO-110	5.KMFD-110	5.KMFP-110	5.KMFB-110		...111
<b>2 g</b>	1,2	5.KMFO-120	5.KMFD-120	5.KMFP-120	5.KMFB-120		...121
<b>5 g</b>	1,6	5.KMFO-130	5.KMFD-130	5.KMFP-130	5.KMFB-130		...131
<b>10 g</b>	2,0	5.KMFO-140	5.KMFD-140	5.KMFP-140	5.KMFB-140		...141
<b>20 g</b>	2,5	5.KMFO-150	5.KMFD-150	5.KMFP-150	5.KMFB-150		...151
<b>50 g</b>	3,0	5.KMFO-160	5.KMFD-160	5.KMFP-160	5.KMFB-160		...161
<b>100 g</b>	5	5.KMFO-170	5.KMFD-170		5.KMFB-170		...171
<b>200 g</b>	10	5.KMFO-180	5.KMFD-180		5.KMFB-180		...181
<b>500 g</b>	25	5.KMFO-190	5.KMFD-190		5.KMFB-190		...191
<b>1 kg</b>	50	5.KMFO-210	5.KMFD-210		5.KMFB-210		...211
<b>2 kg</b>	100	5.KMFO-220	5.KMFD-220		5.KMFB-220		...221
<b>5 kg</b>	250	5.KMFO-230	5.KMFD-230		5.KMFB-230	5.KMFS-230	...231
<b>10 kg</b>	500	5.KMFO-240	5.KMFD-240		5.KMFB-240	5.KMFS-240	...241
<b>20 kg</b>	1.000	5.KMFO-250			5.KMFB-250	5.KMFS-250	...251

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	5.XAFP-560	5.XAFB-560	5.XAFS-560	5.0000-561
<b>1 g - 100 g</b>	9	210 g	5.XAFP-570	5.XAFB-570	5.XAFS-570	5.0000-571
<b>1 g - 200 g</b>	11	610 g	5.XAFP-580	5.XAFB-580	5.XAFS-580	5.0000-581
<b>1 g - 500 g</b>	12	1.110 g	5.XAFP-590	5.XAFB-590	5.XAFS-590	5.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	5.XAFP-610	5.XAFB-610	5.XAFS-610	5.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	5.XAFP-620	5.XAFB-620	5.XAFS-620	5.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	5.XAFP-630	5.XAFB-630	5.XAFS-630	5.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	5.XAFP-640	5.XAFB-640	5.XAFS-640	5.0000-641

### SETS with mg- weights (flat polygonal sheets)

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 mg - 50 g</b>	20	111,11 g	5.XMFP-760	5.XMFB-760	5.XMFS-760	5.0000-761
<b>1 mg - 100 g</b>	21	211,11 g	5.XMFP-770	5.XMFB-770	5.XMFS-770	5.0000-771
<b>1 mg - 200 g</b>	23	611,11 g	5.XMFP-780	5.XMFB-780	5.XMFS-780	5.0000-781
<b>1 mg - 500 g</b>	24	1.111,11 g	5.XMFP-790	5.XMFB-790	5.XMFS-790	5.0000-791
<b>1 mg - 1 kg</b>	25	2.111,11 g	5.XMFP-810	5.XMFB-810	5.XMFS-810	5.0000-811
<b>1 mg - 2 kg</b>	27	6.111,11 g	5.XMFP-820	5.XMFB-820	5.XMFS-820	5.0000-821
<b>1 mg - 5 kg</b>	28	11.111,11 g	5.XMFP-830	5.XMFB-830	5.XMFS-830	5.0000-831
<b>1 mg - 10 kg</b>	29	21.111,11 g	5.XMFP-840	5.XMFB-840	5.XMFS-840	5.0000-841

## Knob weights



**STAINLESS STEEL HF12 finely turned**

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	Service case	DAkkS Calibration certificate
+/- mg		Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	5.0000-Art.no.
<b>1 g</b>	1,0	5.KEFO-110	5.KEFD-110	5.KEFP-110	5.KEFB-110		...111
<b>2 g</b>	1,2	5.KEFO-120	5.KEFD-120	5.KEFP-120	5.KEFB-120		...121
<b>5 g</b>	1,6	5.KEFO-130	5.KEFD-130	5.KEFP-130	5.KEFB-130		...131
<b>10 g</b>	2,0	5.KEFO-140	5.KEFD-140	5.KEFP-140	5.KEFB-140		...141
<b>20 g</b>	2,5	5.KEFO-150	5.KEFD-150	5.KEFP-150	5.KEFB-150		...151
<b>50 g</b>	3,0	5.KEFO-160	5.KEFD-160	5.KEFP-160	5.KEFB-160		...161
<b>100 g</b>	5	5.KEFO-170	5.KEFD-170	5.KEFP-170	5.KEFB-170		...171
<b>200 g</b>	10	5.KEFO-180	5.KEFD-180	5.KEFP-180	5.KEFB-180		...181
<b>500 g</b>	25	5.KEFO-190	5.KEFD-190	5.KEFP-190	5.KEFB-190		...191
<b>1 kg</b>	50	5.KEFO-210	5.KEFD-210	5.KEFP-210	5.KEFB-210		...211
<b>2 kg</b>	100	5.KEFO-220	5.KEFD-220	5.KEFP-220	5.KEFB-220		...221
<b>5 kg</b>	250	5.KEFO-230	5.KEFD-230	5.KEFP-230	5.KEFB-230	5.KEFS-230	...231
<b>10 kg</b>	500	5.KEFO-240	5.KEFD-240	5.KEFP-240	5.KEFB-240	5.KEFS-240	...241
<b>20 kg</b>	1000	5.KEFO-250		5.KEFP-250	5.KEFB-250	5.KEFS-250	...251

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	5.XKFP-560	5.XKFB-560	5.XKFS-560	5.0000-561
<b>1 g - 100 g</b>	9	210 g	5.XKFP-570	5.XKFB-570	5.XKFS-570	5.0000-571
<b>1 g - 200 g</b>	11	610 g	5.XKFP-580	5.XKFB-580	5.XKFS-580	5.0000-581
<b>1 g - 500 g</b>	12	1.110 g	5.XKFP-590	5.XKFB-590	5.XKFS-590	5.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	5.XKFP-610	5.XKFB-610	5.XKFS-610	5.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	5.XKFP-620	5.XKFB-620	5.XKFS-620	5.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	5.XKFP-630	5.XKFB-630	5.XKFS-630	5.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	5.XKFP-640	5.XKFB-640	5.XKFS-640	5.0000-641

### SETS with mg- weights (flat polygonal sheets)

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 mg - 50 g</b>	20	111,11 g	5.XFFP-760	5.XFFB-760	5.XFFS-760	5.0000-761
<b>1 mg - 100 g</b>	21	211,11 g	5.XFFP-770	5.XFFB-770	5.XFFS-770	5.0000-771
<b>1 mg - 200 g</b>	23	611,11 g	5.XFFP-780	5.XFFB-780	5.XFFS-780	5.0000-781
<b>1 mg - 500 g</b>	24	1.111,11 g	5.XFFP-790	5.XFFB-790	5.XFFS-790	5.0000-791
<b>1 mg - 1 kg</b>	25	2.111,11 g	5.XFFP-810	5.XFFB-810	5.XFFS-810	5.0000-811
<b>1 mg - 2 kg</b>	27	6.111,11 g	5.XFFP-820	5.XFFB-820	5.XFFS-820	5.0000-821
<b>1 mg - 5 kg</b>	28	11.111,11 g	5.XFFP-830	5.XFFB-830	5.XFFS-830	5.0000-831
<b>1 mg - 10 kg</b>	29	21.111,11 g	5.XFFP-840	5.XFFB-840	5.XFFS-840	5.0000-841

# Hook weight



**BRASS** finely turned

## SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	Service case	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	5.0000-Art.no.
<b>1 g</b>	1,0	5.HMFO-110	5.HMFD-110	5.HMFP-110	5.HMFB-110		...111
<b>2 g</b>	1,2	5.HMFO-120	5.HMFD-120	5.HMFP-120	5.HMFB-120		...121
<b>5 g</b>	1,6	5.HMFO-130	5.HMFD-130	5.HMFP-130	5.HMFB-130		...131
<b>10 g</b>	2,0	5.HMFO-140	5.HMFD-140	5.HMFP-140	5.HMFB-140		...141
<b>20 g</b>	2,5	5.HMFO-150	5.HMFD-150	5.HMFP-150	5.HMFB-150		...151
<b>50 g</b>	3,0	5.HMFO-160	5.HMFD-160	5.HMFP-160	5.HMFB-160		...161
<b>100 g</b>	5	5.HMFO-170	5.HMFD-170	5.HMFP-170	5.HMFB-170		...171
<b>200 g</b>	10	5.HMFO-180	5.HMFD-180	5.HMFP-180	5.HMFB-180		...181
<b>500 g</b>	25	5.HMFO-190	5.HMFD-190	5.HMFP-190	5.HMFB-190		...191
<b>1 kg</b>	50	5.HMFO-210	5.HMFD-210	5.HMFP-210	5.HMFB-210		...211
<b>2 kg</b>	100	5.HMFO-220	5.HMFD-220	5.HMFP-220	5.HMFB-220		...221
<b>5 kg</b>	250	5.HMFO-230	5.HMFD-230	5.HMFP-230	5.HMFB-230	5.HMFS-230	...231
<b>10 kg</b>	500	5.HMFO-240	5.HMFD-240	5.HMFP-240	5.HMFB-240	5.HMFS-240	...241
<b>20 kg</b>	1000	5.HMFO-250		5.HMFP-250	5.HMFB-250	5.HMFS-250	...251
<b>50 kg</b>	2500	5.HMFO-260			5.HMFB-260	5.HMFS-260	...261

## SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	5.XHFP-560	5.XHFB-560	5.XHFS-560	5.0000-561
<b>1 g - 100 g</b>	9	210 g	5.XHFP-570	5.XHFB-570	5.XHFS-570	5.0000-571
<b>1 g - 200 g</b>	11	610 g	5.XHFP-580	5.XHFB-580	5.XHFS-580	5.0000-581
<b>1 g - 500 g</b>	12	1.110 g	5.XHFP-590	5.XHFB-590	5.XHFS-590	5.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	5.XHFP-610	5.XHFB-610	5.XHFS-610	5.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	5.XHFP-620	5.XHFB-620	5.XHFS-620	5.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	5.XHFP-630	5.XHFB-630	5.XHFS-630	5.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	5.XHFP-640	5.XHFB-640	5.XHFS-640	5.0000-641



## Hook weight



**STAINLESS STEEL HF12 finely turned**

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	Service case	DAkkS Calibration certificate
+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	5.0000-Art.no.
<b>1 g</b>	1,0	5.HEFO-110	5.HEFD-110	5.HEFP-110	5.HEFB-110		...111
<b>2 g</b>	1,2	5.HEFO-120	5.HEFD-120	5.HEFP-120	5.HEFB-120		...121
<b>5 g</b>	1,6	5.HEFO-130	5.HEFD-130	5.HEFP-130	5.HEFB-130		...131
<b>10 g</b>	2,0	5.HEFO-140	5.HEFD-140	5.HEFP-140	5.HEFB-140		...141
<b>20 g</b>	2,5	5.HEFO-150	5.HEFD-150	5.HEFP-150	5.HEFB-150		...151
<b>50 g</b>	3,0	5.HEFO-160	5.HEFD-160	5.HEFP-160	5.HEFB-160		...161
<b>100 g</b>	5	5.HEFO-170	5.HEFD-170	5.HEFP-170	5.HEFB-170		...171
<b>200 g</b>	10	5.HEFO-180	5.HEFD-180	5.HEFP-180	5.HEFB-180		...181
<b>500 g</b>	25	5.HEFO-190	5.HEFD-190	5.HEFP-190	5.HEFB-190		...191
<b>1 kg</b>	50	5.HEFO-210	5.HEFD-210	5.HEFP-210	5.HEFB-210		...211
<b>2 kg</b>	100	5.HEFO-220	5.HEFD-220	5.HEFP-220	5.HEFB-220		...221
<b>5 kg</b>	250	5.HEFO-230	5.HEFD-230	5.HEFP-230	5.HEFB-230	5.HEFS-230	...231
<b>10 kg</b>	500	5.HEFO-240	5.HEFD-240	5.HEFP-240	5.HEFB-240	5.HEFS-240	...241
<b>20 kg</b>	1000	5.HEFO-250		5.HEFP-250	5.HEFB-250	5.HEFS-250	...251
<b>50 kg</b>	2500	5.HEFO-260			5.HEFB-260	5.HEFS-260	...261

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	5.XUFP-560	5.XUFB-560	5.XUFS-560	5.0000-561
<b>1 g - 100 g</b>	9	210 g	5.XUFP-570	5.XUFB-570	5.XUFS-570	5.0000-571
<b>1 g - 200 g</b>	11	610 g	5.XUFP-580	5.XUFB-580	5.XUFS-580	5.0000-581
<b>1 g - 500 g</b>	12	1.110 g	5.XUFP-590	5.XUFB-590	5.XUFS-590	5.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	5.XUFP-610	5.XUFB-610	5.XUFS-610	5.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	5.XUFP-620	5.XUFB-620	5.XUFS-620	5.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	5.XUFP-630	5.XUFB-630	5.XUFS-630	5.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	5.XUFP-640	5.XUFB-640	5.XUFS-640	5.0000-641



## Block weights

rectangular



### SINGLE WEIGHT

**CAST IRON** black painted

Nominal value	Tol.	without box	Leather cases	Service case	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.
5 kg	250	5.BGSO-230	5.BGSL-230	5.BGSS-230	5.0000-231
10 kg	500	5.BGSO-240	5.BGSL-240	5.BGSS-240	5.0000-241
20 kg	1000	5.BGSO-250	5.BGSL-250	5.BGSS-250	5.0000-251
25 kg	1250	5.BGSO-450		5.BGSS-450	5.0000-451
50 kg	2500	5.BGSO-260		5.BGSS-260	5.0000-261



### SINGLE WEIGHT

**CAST IRON** zinc sprayed

Nominal value	Tol.	without box	Leather cases	Service case	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.
5 kg	250	5.BGZO-230	5.BGZL-230	5.BGZS-230	5.0000-231
10 kg	500	5.BGZO-240	5.BGZL-240	5.BGZS-240	5.0000-241
20 kg	1000	5.BGZO-250	5.BGZL-250	5.BGZS-250	5.0000-251
25 kg	1250	5.BGZO-450		5.BGZS-450	5.0000-451
50 kg	2500	5.BGZO-260		5.BGZS-260	5.0000-261



### SINGLE WEIGHT

**STAINLESS STEEL HF12** polished / glass pearl blasted

Nominal value	Tol.	without box	Leather cases	Service case	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.
5 kg	250	5.BETO-230	5.BETL-230	5.BEGS-230	5.0000-231
10 kg	500	5.BETO-240	5.BETL-240	5.BEGS-240	5.0000-241
20 kg	1000	5.BETO-250	5.BETL-250	5.BEGS-250	5.0000-251
25 kg	1250	5.BETO-450		5.BEGS-450	5.0000-451
50 kg	2500	5.BETO-260		5.BEGS-260	5.0000-261



## Block weights

round



**STAINLESS STEEL HF12**

polished / glass pearl blasted

### SINGLE WEIGHT

Nominal value	Tol.	without box	Service case	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.
5 kg	250	5.RETO-230	5.RETS-230	5.0000-231
10 kg	500	5.RETO-240	5.RETS-240	5.0000-241
20 kg	1000	5.RETO-250	5.RETS-250	5.0000-251
25 kg	1250	5.RETO-450	5.RETS-450	5.0000-451
50 kg	2500	5.RETO-260	5.RETS-260	5.0000-261

## Basket weights



**STAINLESS STEEL HF12**

for round block weights

polished / glass pearl blasted

Nominal value	max. weight	Tol.	without box	<b>DAkkS</b> Calibration certificate
		+/- mg	Art.no.	Art.no.
20 kg	120 kg	1000	5.NETO-250	5.0000-251
40 kg	250 kg	2000	5.NETO-410	5.0000-411
50 kg	500 kg	2500	5.NETO-260	5.0000-261
60 kg	500 kg	3000	5.NETO-420	5.0000-421

## for rectangular block weights

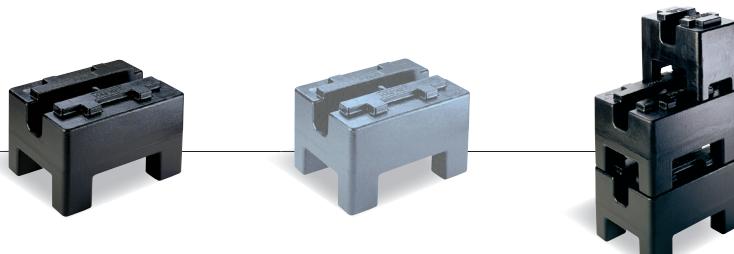


Nominal value	max. weight	Tol.	without box	<b>DAkkS</b> Calibration certificate
		+/- mg	Art.no.	Art.no.
20 kg	120 kg	1000	5.LETO-250	5.0000-251
40 kg	250 kg	2000	5.LETO-410	5.0000-411
50 kg	500 kg	2500	5.LETO-260	5.0000-261
60 kg	500 kg	3000	5.LETO-420	5.0000-421

Custom-made products according to customer specification.

## Block weights

rectangular



### SINGLE WEIGHT

Nominal value	Tol.	without box	Art.no.	without box	Art.no.	DAkkS
	+/- g					Calibration certificate
100 kg	5		5.BGSO-270		5.BGZO-270	5.0000-271
200 kg	10		5.BGSO-280		5.BGZO-280	5.0000-281
250 kg	12,5		5.BGSO-460		5.BGZO-460	5.0000-461
500 kg	25		5.BGSO-290		5.BGZO-290	5.0000-291
1000 kg	50		5.BGSO-310		5.BGZO-310	5.0000-311
2000 kg	100		5.BGSO-320		5.BGZO-320	5.0000-321

round with eyebolt



### SINGLE WEIGHT

**STAINLESS STEEL HF12 polished / glass pearl blasted**

Nominal value	Tol.	without box	Art.no.	Art.no.	DAkkS
	+/- g				Calibration certificate
100 kg	5		5.BETO-270		5.0000-271
200 kg	10		5.BETO-280		5.0000-281
250 kg	12,5		5.BETO-460		5.0000-461
500 kg	25		5.BETO-290		5.0000-291
1000 kg	50		5.BETO-310		5.0000-311
2000 kg	100		5.BETO-320		5.0000-321

## Rolling weights



**CAST IRON black painted**

### SINGLE WEIGHT

Nominal value	Tol.	without box	Art.no.	Art.no.	DAkkS
	+/- g				Calibration certificate
100 kg	5		5.RGSO-270		5.0000-271
200 kg	10		5.RGSO-280		5.0000-281
500 kg	25		5.RGSO-290		5.0000-291

## Carrier weights



### SINGLE WEIGHT

#### BRASS finely turned

#### STAINLESS STEEL HF12 finely turned

#### STEEL black finished

**DAkkS**  
Calibration certificate

Nominal value	Tol.	without box	without box		without box	Art.no.
	+/- mg	Art.no.				
1 g*	1,0	5.TMFO-110				5.0000-111
2 g*	1,2	5.TMFO-120				5.0000-121
5 g*	1,6	5.TMFO-130				5.0000-131
10 g	2,0	5.TMFO-140	5.TEFO-140	38,00		5.0000-141
20 g	2,5	5.TMFO-150	5.TEFO-150	45,00		5.0000-151
50 g	3,0	5.TMFO-160	5.TEFO-160	52,00		5.0000-161
100 g	5	5.TMFO-170	5.TEFO-170	62,00		5.0000-171
200 g	10	5.TMFO-180	5.TEFO-180	83,00		5.0000-181
500 g	25	5.TMFO-190	5.TEFO-190	90,00	5.TSBO-190	5.0000-191
1 kg	50	5.TMFO-210	5.TEFO-210	130,00	5.TSBO-210	5.0000-211
2 kg	100	5.TMFO-220	5.TEFO-220	200,00	5.TSBO-220	5.0000-221
5 kg	250	5.TMFO-230	5.TEFO-230	325,00	5.TSBO-230	5.0000-231
10 kg	500	5.TMFO-240	5.TEFO-240	395,00	5.TSBO-240	5.0000-241
20 kg	1000	5.TMFO-250	5.TEFO-250	600,00	5.TSBO-250	5.0000-251
50 kg	2500	5.TMFO-260			5.TSBO-260	5.0000-261

\*DAkkS calibration: Case necessary for weights < 500 g.

## Slotted weights



### SINGLE WEIGHT

#### BRASS finely turned

#### STAINLESS STEEL CAST IRON HF12 finely turned black painted

**DAkkS**  
Calibration certificate

Nominal value	Tol.	without box	without box	without box	Art.no.
	+/- mg	Art.no.	Art.no.	Art.no.	
1 g	1,0	5.IMFO-110	5.IEFO-110		5.0000-111
2 g	1,2	5.IMFO-120	5.IEFO-120		5.0000-121
5 g	1,6	5.IMFO-130	5.IEFO-130		5.0000-131
10 g	2,0	5.IMFO-140	5.IEFO-140		5.0000-141
20 g	2,5	5.IMFO-150	5.IEFO-150		5.0000-151
50 g	3,0	5.IMFO-160	5.IEFO-160		5.0000-161
100 g	5	5.IMFO-170	5.IEFO-170		5.0000-171
200 g	10	5.IMFO-180	5.IEFO-180		5.0000-181
500 g	25	5.IMFO-190	5.IEFO-190	5.IGSO-190	5.0000-191
1 kg	50	5.IMFO-210	5.IEFO-210	5.IGSO-210	5.0000-211
2 kg	100	5.IMFO-220	5.IEFO-220	5.IGSO-220	5.0000-221
5 kg	250	5.IMFO-230	5.IEFO-230	5.IGSO-230	5.0000-231
10 kg	500	5.IMFO-240	5.IEFO-240	5.IGSO-240	5.0000-241
20 kg	1000	5.IMFO-250	5.IEFO-250	5.IGSO-250	5.0000-251
50 kg	2500			5.IGSO-260	5.0000-261

\* DAkkS calibration: Case necessary for weights < 500 g.

**M2**

### Weights of medium accuracy M2

Adjustment, testing and calibration weights for commercial balances (class III) and for quality assurance of scales with steps  $\leftarrow 30\,000$  according to ISO 9001ff. Weights for calibration of weights of class M3.



## Weights in the exclusive assortment case.

### ACCESSORIES



All weight sets include gloves, two brushes and two tweezers.

Up to 50 g without big tweezers, big brush and gloves.



CLEAN ROOM  
PLASTIC CASES

BEECH WOODEN  
BOX

SERVICE  
CASE

PLASTIC BOXES WITH  
SCREWED TOP

LEATHER CASES

## Milligramm weights



**ALUMINIUM / NEUSILBER**

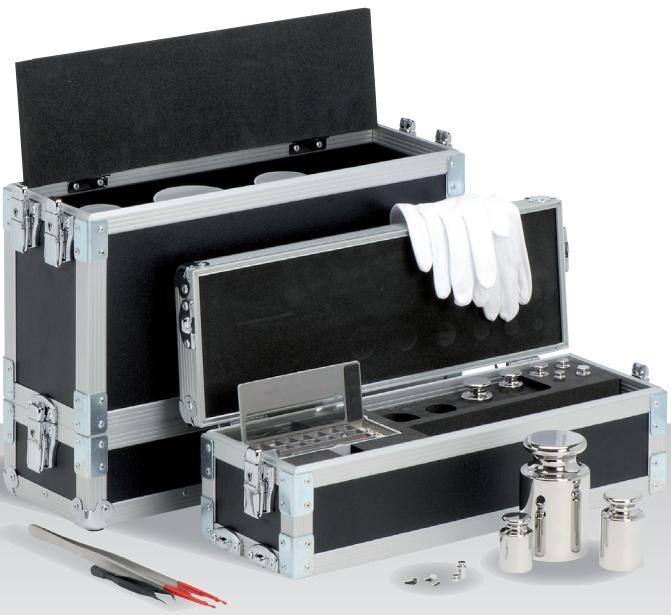
Flat polygonal sheets

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	DAkkS Calibration certificate
+/- mg		Art.no.	Art.no.	Art.no.
100 mg	1,6	4.PNHO-070	4.PNHD-070	4.0000-071
200 mg	2,0	4.PNHO-080	4.PNHD-080	4.0000-081
500 mg	2,5	4.PNHO-090	4.PNHD-090	4.0000-091

### SETS

Nominal value	Qty.	Content	Clean room plastic cases	Beech wood box	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.
100 mg – 500 mg	12	1,11 g	4.XMFP-710	4.XMFB-710	4.0000-711



**BRASS** finely turned

## Knob weights

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	<b>DAkkS</b> Service case	Calibration certificate
		+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	4.0000-Art.no.
1 g	3	4.KMFO-110	4.KMFD-110	4.KMFP-110	4.KMFB-110		...111
2 g	4	4.KMFO-120	4.KMFD-120	4.KMFP-120	4.KMFB-120		...121
5 g	5	4.KMFO-130	4.KMFD-130	4.KMFP-130	4.KMFB-130		...131
10 g	6	4.KMFO-140	4.KMFD-140	4.KMFP-140	4.KMFB-140		...141
20 g	8	4.KMFO-150	4.KMFD-150	4.KMFP-150	4.KMFB-150		...151
50 g	10	4.KMFO-160	4.KMFD-160	4.KMFP-160	4.KMFB-160		...161
100 g	16	4.KMFO-170	4.KMFD-170		4.KMFB-170		...171
200 g	30	4.KMFO-180	4.KMFD-180		4.KMFB-180		...181
500 g	80	4.KMFO-190	4.KMFD-190		4.KMFB-190		...191
1 kg	160	4.KMFO-210	4.KMFD-210		4.KMFB-210		...211
2 kg	300	4.KMFO-220	4.KMFD-220		4.KMFB-220		...221
5 kg	800	4.KMFO-230	4.KMFD-230		4.KMFB-230		...231
10 kg	1600	4.KMFO-240	4.KMFD-240		4.KMFB-240	4.KMFS-240	...241
20 kg	3000	4.KMFO-250			4.KMFB-250	4.KMFS-250	...251

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	<b>DAkkS</b> Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
1 g - 50 g	8	110 g	4.XAfp-560	4.XAFB-560	4.XAFS-560	4.0000-561
1 g - 100 g	9	210 g	4.XAfp-570	4.XAFB-570	4.XAFS-570	4.0000-571
1 g - 200 g	11	610 g	4.XAfp-580	4.XAFB-580	4.XAFS-580	4.0000-581
1 g - 500 g	12	1.110 g	4.XAfp-590	4.XAFB-590	4.XAFS-590	4.0000-591
1 g - 1 kg	13	2.110 g	4.XAfp-610	4.XAFB-610	4.XAFS-610	4.0000-611
1 g - 2 kg	15	6.110 g	4.XAfp-620	4.XAFB-620	4.XAFS-620	4.0000-621
1 g - 5 kg	16	11.110 g	4.XAfp-630	4.XAFB-630	4.XAFS-630	4.0000-631
1 g - 10 kg	17	21.110 g	4.XAfp-640	4.XAFB-640	4.XAFS-640	4.0000-641

### SETS with mg- weights (flat polygonal sheets)

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	<b>DAkkS</b> Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
100 mg - 50 g	20	110,9 g	4.XMfp-760	4.XMfb-760	4.XMfs-760	4.0000-761
100 mg - 100 g	21	210,9 g	4.XMfp-770	4.XMfb-770	4.XMfs-770	4.0000-771
100 mg - 200 g	23	610,9 g	4.XMfp-780	4.XMfb-780	4.XMfs-780	4.0000-781
100 mg - 500 g	24	1.110,9 g	4.XMfp-790	4.XMfb-790	4.XMfs-790	4.0000-791
100 mg - 1 kg	25	2.110,9 g	4.XMfp-810	4.XMfb-810	4.XMfs-810	4.0000-811
100 mg - 2 kg	27	6.110,9 g	4.XMfp-820	4.XMfb-820	4.XMfs-820	4.0000-821
100 mg - 5 kg	28	11.110,9 g	4.XMfp-830	4.XMfb-830	4.XMfs-830	4.0000-831
100 mg - 10 kg	29	21.110,9 g	4.XMfp-840	4.XMfb-840	4.XMfs-840	4.0000-841

## Hook weight



**BRASS** finely turned

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clean room plastic cases	Beech wood box	Service case	DAkkS Calibration certificate
+/- mg	Art.no.		Art.no.	Art.no.	Art.no.	Art.no.	4.0000-Art.no.
<b>1 g</b>	3	4.HMFO-110	4.HMFD-110	4.HMFP-110	4.HMFB-110		...111
<b>2 g</b>	4	4.HMFO-120	4.HMFD-120	4.HMFP-120	4.HMFB-120		...121
<b>5 g</b>	5	4.HMFO-130	4.HMFD-130	4.HMFP-130	4.HMFB-130		...131
<b>10 g</b>	6	4.HMFO-140	4.HMFD-140	4.HMFP-140	4.HMFB-140		...141
<b>20 g</b>	8	4.HMFO-150	4.HMFD-150	4.HMFP-150	4.HMFB-150		...151
<b>50 g</b>	10	4.HMFO-160	4.HMFD-160	4.HMFP-160	4.HMFB-160		...161
<b>100 g</b>	16	4.HMFO-170	4.HMFD-170		4.HMFB-170		...171
<b>200 g</b>	30	4.HMFO-180	4.HMFD-180		4.HMFB-180		...181
<b>500 g</b>	80	4.HMFO-190	4.HMFD-190		4.HMFB-190		...191
<b>1 kg</b>	160	4.HMFO-210	4.HMFD-210		4.HMFB-210		...211
<b>2 kg</b>	300	4.HMFO-220	4.HMFD-220		4.HMFB-220		...221
<b>5 kg</b>	800	4.HMFO-230	4.HMFD-230		4.HMFB-230	4.HMFS-230	...231
<b>10 kg</b>	1600	4.HMFO-240	4.HMFD-240		4.HMFB-240	4.HMFS-240	...241
<b>20 kg</b>	3000	4.HMFO-250			4.HMFB-250	4.HMFS-250	...251
<b>50 kg</b>	8000	4.HMFO-260			4.HMFB-260	4.HMFS-260	...261

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	4.XHFP-560	4.XHFB-560	4.XHFS-560	4.0000-561
<b>1 g - 100 g</b>	9	210 g	4.XHFP-570	4.XHFB-570	4.XHFS-570	4.0000-571
<b>1 g - 200 g</b>	11	610 g	4.XHFP-580	4.XHFB-580	4.XHFS-580	4.0000-581
<b>1 g - 500 g</b>	12	1.110 g	4.XHFP-590	4.XHFB-590	4.XHFS-590	4.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	4.XHFP-610	4.XHFB-610	4.XHFS-610	4.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	4.XHFP-620	4.XHFB-620	4.XHFS-620	4.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	4.XHFP-630	4.XHFB-630	4.XHFS-630	4.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	4.XHFP-640	4.XHFB-640	4.XHFS-640	4.0000-641



## Block weights

rectangular



**CAST IRON** black painted

### SINGLE WEIGHT

Nominal value	Tol.	without box	 Leather cases	<b>DAkkS</b> Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.
5 kg	800	4.BGSO-230	4.BGSL-230	4.0000-231
10 kg	1600	4.BGSO-240	4.BGSL-240	4.0000-241
20 kg	3000	4.BGSO-250	4.BGSL-250	4.0000-251
25 kg	4000	4.BGSO-450		4.0000-451
50 kg	8000	4.BGSO-260		4.0000-261

### SINGLE WEIGHT



Nominal value

Tol.

without box

**DAkkS**

Calibration certificate

	+/- g	Art.no.	Art.no.
100 kg	16	4.BGSO-270	4.0000-271
200 kg	30	4.BGSO-280	4.0000-281
250 kg	40	4.BGSO-460	4.0000-461
500 kg	80	4.BGSO-290	4.0000-291
1000 kg	160	4.BGSO-310	4.0000-311
2000 kg	300	4.BGSO-320	4.0000-321



## Rolling weights



**CAST IRON** black painted

### SINGLE WEIGHT

Nominal value	Tol.	without box	<b>DAkkS</b> Calibration certificate
	+/- g	Art.no.	Art.no.
100 kg	16	4.RGSO-270	4.0000-271
200 kg	30	4.RGSO-280	4.0000-281
500 kg	80	4.RGSO-290	4.0000-291

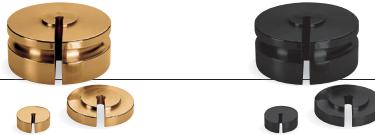
## Carrier weights



### SINGLE WEIGHT

Nominal value	Tol.	BRASS finely turned	STEEL black finished	DAkkS Calibration certificate
	+/- mg	without box	without box	
10 g	6	4.TMFO-140		4.0000-141
20 g	8	4.TMFO-150		4.0000-151
50 g	10	4.TMFO-160		4.0000-161
100 g	16	4.TMFO-170		4.0000-171
200 g	30	4.TMFO-180		4.0000-181
500 g	80	4.TMFO-190	4.TSBO-190	4.0000-191
1 kg	160	4.TMFO-210	4.TSBO-210	4.0000-211
2 kg	300	4.TMFO-220	4.TSBO-220	4.0000-221
5 kg	800	4.TMFO-230	4.TSBO-230	4.0000-231
10 kg	1600	4.TMFO-240	4.TSBO-240	4.0000-241
20 kg	3000	4.TMFO-250	4.TSBO-250	4.0000-251
50 kg	8000	4.TMFO-260	4.TSBO-260	4.0000-261

## Slotted weights



### SINGLE WEIGHT

Nominal value	Tol.	BRASS finely turned	CAST IRON black painted	DAkkS Calibration certificate
	+/- mg	without box	without box	
1 g	3	4.IMFO-110		4.0000-111
2 g	4	4.IMFO-120		4.0000-121
5 g	5	4.IMFO-130		4.0000-131
10 g	6	4.IMFO-140		4.0000-141
20 g	8	4.IMFO-150		4.0000-151
50 g	10	4.IMFO-160		4.0000-161
100 g	16	4.IMFO-170		4.0000-171
200 g	30	4.IMFO-180		4.0000-181
500 g	80	4.IMFO-190	4.IGSO-190	4.0000-191
1 kg	160	4.IMFO-210	4.IGSO-210	4.0000-211
2 kg	300	4.IMFO-220	4.IGSO-220	4.0000-221
5 kg	800	4.IMFO-230	4.IGSO-230	4.0000-231
10 kg	1600	4.IMFO-240	4.IGSO-240	4.0000-241
20 kg	3000	4.IMFO-250	4.IGSO-250	4.0000-251
50 kg	8000	4.IMFO-260	4.IGSO-260	4.0000-261

DAkkS calibration: Case necessary for weights < 500 g.

**M3****Commercial weights - class M3**

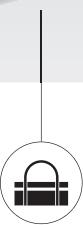
Adjustment, testing and calibration weights for ordinary scales (class IV) and for quality assurance of scales with steps  $\leftarrow 1\,000$  according to ISO 9001ff. Weights for the usage combined with commercial balances (class III) and ordinary scales (class IV). Learning aids for schools and apprenticeship. Load tests for lifting, crane and vehicle systems.

## Weights in the exclusive assortment case.

**ACCESSORIES**

All weight sets include gloves, two brushes and two tweezers.

Up to 50 g without big tweezers, big brush and gloves.



CLEAR ROOM  
PLASTIC CASES

BEECH WOOD  
BOX

SERVICE  
CASE

PLASTIC BOXES WITH  
SCREWED TOP

LEATHER CASES



**BRASS** finely turned

## Knob weights

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clear room plastic cases	Beech wood box	DAkkS Service case	Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	3.0000-Art.no.
<b>1 g</b>	10	3.CMFO-110	3.CMFD-110	3.CMFP-110	3.CMFB-110		...111
<b>2 g</b>	12	3.CMFO-120	3.CMFD-120	3.CMFP-120	3.CMFB-120		...121
<b>5 g</b>	16	3.CMFO-130	3.CMFD-130	3.CMFP-130	3.CMFB-130		...131
<b>10 g</b>	20	3.CMFO-140	3.CMFD-140	3.CMFP-140	3.CMFB-140		...141
<b>20 g</b>	25	3.CMFO-150	3.CMFD-150	3.CMFP-150	3.CMFB-150		...151
<b>50 g</b>	30	3.CMFO-160	3.CMFD-160	3.CMFP-160	3.CMFB-160		...161
<b>100 g</b>	50	3.CMFO-170	3.CMFD-170		3.CMFB-170		...171
<b>200 g</b>	100	3.CMFO-180	3.CMFD-180		3.CMFB-180		...181
<b>500 g</b>	250	3.CMFO-190	3.CMFD-190		3.CMFB-190		...191
<b>1 kg</b>	500	3.CMFO-210	3.CMFD-210		3.CMFB-210		...211
<b>2 kg</b>	1000	3.CMFO-220	3.CMFD-220		3.CMFB-220		...221
<b>5 kg</b>	2500	3.CMFO-230	3.CMFD-230		3.CMFB-230	3.CMFS-230	...231
<b>10 kg</b>	5000	3.CMFO-240	3.CMFD-240		3.CMFB-240	3.CMFS-240	...241

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	DAkkS Service case	Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
<b>1 g - 50 g</b>	8	110 g	3.XCFP-560	3.XCFB-560	3.XCFS-560	3.0000-561
<b>1 g - 100 g</b>	9	210 g	3.XCFP-570	3.XCFB-570	3.XCFS-570	3.0000-571
<b>1 g - 200 g</b>	11	610 g	3.XCFP-580	3.XCFB-580	3.XCFS-580	3.0000-581
<b>1 g - 500 g</b>	12	1.110 g	3.XCFP-590	3.XCFB-590	3.XCFS-590	3.0000-591
<b>1 g - 1 kg</b>	13	2.110 g	3.XCFP-610	3.XCFB-610	3.XCFS-610	3.0000-611
<b>1 g - 2 kg</b>	15	6.110 g	3.XCFP-620	3.XCFB-620	3.XCFS-620	3.0000-621
<b>1 g - 5 kg</b>	16	11.110 g	3.XCFP-630	3.XCFB-630	3.XCFS-630	3.0000-631
<b>1 g - 10 kg</b>	17	21.110 g	3.XCFP-640	3.XCFB-640	3.XCFS-640	3.0000-641



# Knob weights

OIML R111



BRASS finely turned

## SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clear room plastic cases	Beech wood box	DAkkS Service case	Calibration certificate
	+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	Art.no.	3.0000-Art.no.
1 g	10	3.KMFO-110	3.KMFD-110	3.KMFP-110	3.KMFB-110		...111
2 g	12	3.KMFO-120	3.KMFD-120	3.KMFP-120	3.KMFB-120		...121
5 g	16	3.KMFO-130	3.KMFD-130	3.KMFP-130	3.KMFB-130		...131
10 g	20	3.KMFO-140	3.KMFD-140	3.KMFP-140	3.KMFB-140		...141
20 g	25	3.KMFO-150	3.KMFD-150	3.KMFP-150	3.KMFB-150		...151
50 g	30	3.KMFO-160	3.KMFD-160	3.KMFP-160	3.KMFB-160		...161
100 g	50	3.KMFO-170	3.KMFD-170		3.KMFB-170		...171
200 g	100	3.KMFO-180	3.KMFD-180		3.KMFB-180		...181
500 g	250	3.KMFO-190	3.KMFD-190		3.KMFB-190		...191
1 kg	500	3.KMFO-210	3.KMFD-210		3.KMFB-210		...211
2 kg	1000	3.KMFO-220	3.KMFD-220		3.KMFB-220		...221
5 kg	2500	3.KMFO-230	3.KMFD-230		3.KMFB-230	3.KMFS-230	...231
10 kg	5000	3.KMFO-240	3.KMFD-240		3.KMFB-240	3.KMFS-240	...241

## SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	DAkkS Service case	Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
1 g - 50 g	8	110 g	3.XAFP-560	3.XAFB-560	3.XAFS-560	3.0000-561
1 g - 100 g	9	210 g	3.XAFP-570	3.XAFB-570	3.XAFS-570	3.0000-571
1 g - 200 g	11	610 g	3.XAFP-580	3.XAFB-580	3.XAFS-580	3.0000-581
1 g - 500 g	12	1.110 g	3.XAFP-590	3.XAFB-590	3.XAFS-590	3.0000-591
1 g - 1 kg	13	2.110 g	3.XAFP-610	3.XAFB-610	3.XAFS-610	3.0000-611
1 g - 2 kg	15	6.110 g	3.XAFP-620	3.XAFB-620	3.XAFS-620	3.0000-621
1 g - 5 kg	16	11.110 g	3.XAFP-630	3.XAFB-630	3.XAFS-630	3.0000-631
1 g - 10 kg	17	21.110 g	3.XAFP-640	3.XAFB-640	3.XAFS-640	3.0000-641



## Hook weight



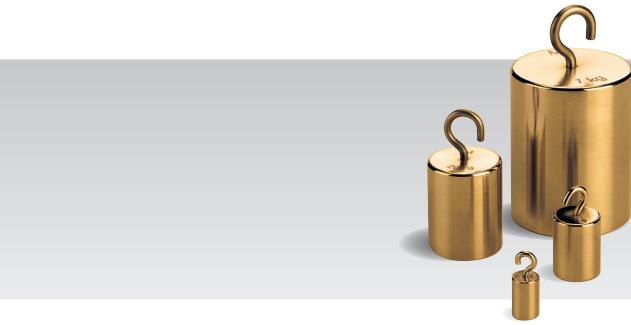
BRASS finely turned

### SINGLE WEIGHT

Nominal value	Tol.	without box	Plastic boxes with screwed top	Clear room plastic cases	Beech wood box	Service case	DAkkS Calibration certificate
		+/- mg	Art.no.	Art.no.	Art.no.	Art.no.	3.0000-Art.no.
1 g	10	3.HMFO-110	3.HMFD-110	3.HMFP-110	3.HMFB-110		...111
2 g	12	3.HMFO-120	3.HMFD-120	3.HMFP-120	3.HMFB-120		...121
5 g	16	3.HMFO-130	3.HMFD-130	3.HMFP-130	3.HMFB-130		...131
10 g	20	3.HMFO-140	3.HMFD-140	3.HMFP-140	3.HMFB-140		...141
20 g	25	3.HMFO-150	3.HMFD-150	3.HMFP-150	3.HMFB-150		...151
50 g	30	3.HMFO-160	3.HMFD-160	3.HMFP-160	3.HMFB-160		...161
100 g	50	3.HMFO-170	3.HMFD-170		3.HMFB-170		...171
200 g	100	3.HMFO-180	3.HMFD-180		3.HMFB-180		...181
500 g	250	3.HMFO-190	3.HMFD-190		3.HMFB-190		...191
1 kg	500	3.HMFO-210	3.HMFD-210		3.HMFB-210		...211
2 kg	1000	3.HMFO-220	3.HMFD-220		3.HMFB-220		...221
5 kg	2500	3.HMFO-230	3.HMFD-230		3.HMFB-230	3.HMFS-230	...231
10 kg	5000	3.HMFO-240	3.HMFD-240		3.HMFB-240	3.HMFS-240	...241
20 kg	10000	3.HMFO-250			3.HMFB-250	3.HMFS-250	...251
50 kg	25000	3.HMFO-260			3.HMFB-260	3.HMFS-260	...261

### SETS

Nominal value	Qty.	Content	Clean room plastic box	Beech wood box	Service case	DAkkS Calibration certificate
			Art.no.	Art.no.	Art.no.	Art.no.
1 g - 50 g	8	110 g	3.XHFP-560	3.XHFB-560	3.XHFS-560	3.0000-561
1 g - 100 g	9	210 g	3.XHFP-570	3.XHFB-570	3.XHFS-570	3.0000-571
1 g - 200 g	11	610 g	3.XHFP-580	3.XHFB-580	3.XHFS-580	3.0000-581
1 g - 500 g	12	1.110 g	3.XHFP-590	3.XHFB-590	3.XHFS-590	3.0000-591
1 g - 1 kg	13	2.110 g	3.XHFP-610	3.XHFB-610	3.XHFS-610	3.0000-611
1 g - 2 kg	15	6.110 g	3.XHFP-620	3.XHFB-620	3.XHFS-620	3.0000-621
1 g - 5 kg	16	11.110 g	3.XHFP-630	3.XHFB-630	3.XHFS-630	3.0000-631
1 g - 10 kg	17	21.110 g	3.XHFP-640	3.XHFB-640	3.XHFS-640	3.0000-641



**Cast Iron Weights****CAST IRON** black painted

DIN 1924

Knob weights  
– with hook

Nominal value	Tol.	without box	without box	DAkkS
+/- mg		Art.no.	Art.no.	Calibration certificate
100 g	50	3.CGSO-170		3.0000-171 16,00
200 g	100	3.CGSO-180		3.0000-181 16,00
500 g	250	3.CGSO-190	3.VGSO-190	3.0000-191 16,00
1 kg	500	3.CGSO-210	3.VGSO-210	3.0000-211 16,00
2 kg	1000	3.CGSO-220	3.VGSO-220	3.0000-221 17,00
5 kg	2500	3.CGSO-230	3.VGSO-230	3.0000-231 17,00
10 kg	5000	3.CGSO-240		3.0000-241 17,00
20 kg	10000	3.CGSO-250		3.0000-251 22,00
50 kg	25000	3.CGSO-260		3.0000-261 24,00

**Block weights****CAST IRON** black painted

rectangular

**SINGLE WEIGHT**

Nominal value	Tol.	without box	Leather cases	Service case	DAkkS
+/- mg		Art.no.	Art.no.	Art.no.	Calibration certificate
5 kg	2500	3.BGSO-230	3.B GSL-230	3.BGSS-230	3.0000-231
10 kg	5000	3.BGSO-240	3.B GSL-240	3.BGSS-240	3.0000-241
20 kg	10000	3.BGSO-250	3.B GSL-250	3.BGSS-250	3.0000-251
25 kg	12500	3.BGSO-450		3.BGSS-450	3.0000-451
50 kg	25000	3.BGSO-260		3.BGSS-260	3.0000-261

**Block weights****Rolling weights****CAST IRON** black painted

Nominal value	Tol.	without box	without box	DAkkS
+/- g		Art.no.	Art.no.	Calibration certificate
100 kg	50	3.BGSO-270	3.RGSO-270	3.0000-271 65,00
200 kg	100	3.BGSO-280	3.RGSO-280	3.0000-281 75,00
250 kg	125	3.BGSO-460		3.0000-461 90,00
500 kg	250	3.BGSO-290	3.RGSO-290	3.0000-291 90,00
1000 kg	500	3.BGSO-310		3.0000-311 120,00
2000 kg	1000	3.BGSO-320		3.0000-321 180,00

## Carrier weights



### SINGLE WEIGHT

Nominal value	Tol.	BRASS finely turned	STEEL black finished	DAkkS Calibration certificate
	+/- mg	without box	without box	Art.no.
10 g	20	3.TMFO-140		3.0000-141
20 g	25	3.TMFO-150		3.0000-151
50 g	30	3.TMFO-160		3.0000-161
100 g	50	3.TMFO-170		3.0000-171
200 g	100	3.TMFO-180		3.0000-181
500 g	250	3.TMFO-190	3.TSBO-190	3.0000-191
1 kg	500	3.TMFO-210	3.TSBO-210	3.0000-211
2 kg	1000	3.TMFO-220	3.TSBO-220	3.0000-221
5 kg	2500	3.TMFO-230	3.TSBO-230	3.0000-231
10 kg	5000	3.TMFO-240	3.TSBO-240	3.0000-241
20 kg	10000	3.TMFO-250	3.TSBO-250	3.0000-251
50 kg	25000	3.TMFO-260	3.TSBO-260	3.0000-261

## Slotted weights



### SINGLE WEIGHT

Nominal value	Tol.	BRASS finely turned	CAST IRON black painted	DAkkS Calibration certificate
	+/- mg	without box	without box	Art.no.
1 g	10	3.IMFO-110		3.0000-111
2 g	12	3.IMFO-120		3.0000-121
5 g	16	3.IMFO-130		3.0000-131
10 g	20	3.IMFO-140		3.0000-141
20 g	25	3.IMFO-150		3.0000-151
50 g	30	3.IMFO-160		3.0000-161
100 g	50	3.IMFO-170		3.0000-171
200 g	100	3.IMFO-180		3.0000-181
500 g	250	3.IMFO-190	3.IGSO-190	3.0000-191
1 kg	500	3.IMFO-210	3.IGSO-210	3.0000-211
2 kg	1000	3.IMFO-220	3.IGSO-220	3.0000-221
5 kg	2500	3.IMFO-230	3.IGSO-230	3.0000-231
10 kg	5000	3.IMFO-240	3.IGSO-240	3.0000-241
20 kg	10000	3.IMFO-250	3.IGSO-250	3.0000-251
50 kg	25000	3.IMFO-260	3.IGSO-260	3.0000-261

DAkkS calibration: Case necessary for weights < 500 g.

&



## Safe storage of your weights



### Bell jars

with base

Size	Diamter x Height	Using for sets	Using for single weights	Art.no.
1	105 x 18 mm	1 mg - 5 g		1.1YYY - 010
2	75 x 55 mm	up to 100 g	max. 200 g	1.1YYY - 020
3	125 x 90 mm	10 g - 200 g	max. 1 kg	1.1YYY - 030
4	150 x 150 mm	1 mg - 200 g	max. 2 kg	1.1YYY - 040
5	150 x 200 mm	100 g - 1kg	max. 5 kg	1.1YYY - 050
6	200 x 200 mm	up to 2 kg	2 kg + 5 kg	1.1YYY - 060
7	180 x 250 mm		10 kg	1.1YYY - 070
8	200 x 300 mm		20 kg	1.1YYY - 080
9	300 x 400 mm		50 kg	1.1YYY - 090



### Accessories for weights

Accessories that eases your work. The accessories by HÄFNER include everything you need for storage, handling, quality assurance and management of your test weights, e.g. bell jars with base, tweezers, brushes, gloves, weight forks and weight handles, storage boxes for single weights, service cases, measurement devices.

## Plastic boxes with screwed top

Plastic



Size	suitable	Art.no.
without inserts		
1	mg	1.6YYD-100
2	mg	1.6YYD-300
on top and bottom with foam inserts		
1	mg	1.6YYD-200
2	mg	1.6YYD-400

Size	suitable	Art.no.
inside around with foam upholstert		
2	1 g - 20 g	1.6YYD-150
3	50 g	1.6YYD-160
3	100 g	1.6YYD-170
4	200 g	1.6YYD-180
5	500 g	1.6YYD-190
6	1 kg	1.6YYD-210
7	2 kg	1.6YYD-220
8	5 kg	1.6YYD-230
9	10 kg	1.6YYD-240

## Clean room plastic cases

### SINGLE WEIGHT

Size	suitable	Art.no.
with flaked recesses, including carbon tweezers 105 mm		
1	1 mg-5 g, 3 x mg, 1 x 1 g, 2 x 2 g, 1 x 5 g	1.6YYP-010
2	10 g-50 g, 1 x 10 g, 1 x 20 g, 1 x 50 g	1.6YYP-020



SETS for sets 1mg-500mg resp. 1mg-5g

Size	suitable	Configuration	Art.no.
without coating			
1	1 mg-500 mg	mg	1.6YYP-710
2	1 mg-5 g	mit Einsatz 1g-5g	1.6YYP-720
mg with antistatic stainless steel coating			
3	1 mg-500 mg	mg	1.6YYP-730
4	1 mg-5 g		1.6YYP-740

## Clean room plastic box

Foam inserts with recesses

SETS up to 500 g resp. 5 kg

Size	suitable	Art.no.
hinged lid for keeping certificates		
1	1 g-max. 500 g	1.6YYS-810
1	1 mg-max. 500 g	mg- Insert 1.6YYS-820
2	1 g-max. 5 kg	1.6YYS-830
2	1 mg-5 kg	mg- Insert 1.6YYS-840



## Mahogany wooden box

Class E0 / E1 / E2 / F1

### SINGLE WEIGHT

Nominal value	Art.no.
1 mg - 500 mg	9.KEOM-090
1 g	9.KEOM-110
2 g	9.KEOM-120
5 g	9.KEOM-130
10 g	9.KEOM-140
20 g	9.KEOM-150
50 g	9.KEOM-160
100 g	9.KEOM-170
200 g	9.KEOM-180
500 g	9.KEOM-190
1 kg	9.KEOM-210
2 kg	9.KEOM-220
5 kg	9.KEOM-230
10 kg	9.KEOM-240
2 x 10 kg	9.KEOM-700
20 kg	9.KEOM-250
50 kg	9.KEOM-260



### SETS

Nominal value	Art.no.
1g-50 g	9.XTOM-560
1g-100 g	9.XTOM-570
1g-200 g	9.XTOM-580
1g-500 g	9.XTOM-590
1g-1 kg	9.XTOM-610
1g-2 kg	9.XTOM-620
1g-5 kg	9.XTOM-630
1g-10 kg	9.XTOM-640
1mg-5 g	9.XEOM-730
1mg-50 g	9.XEOM-760
1mg-100 g	9.XEOM-770
1mg-200 g	9.XEOM-780
1mg-500 g	9.XEOM-790
1mg-1 kg	9.XEOM-810
1mg-2 kg	9.XEOM-820
1mg-5 kg	9.XEOM-830
1mg-10 kg	9.XEOM-840



## Beech wood box

Class F2 / M1 / M2 / M3

### Knob weights

### SINGLE WEIGHT

Nominal value	Art.no.
1 g	6.KEOB-110
2 g	6.KEOB-120
5 g	6.KEOB-130
10 g	6.KEOB-140
20 g	6.KEOB-150
50 g	6.KEOB-160
100 g	6.KEOB-170
200 g	6.KEOB-180
500 g	6.KEOB-190
1 kg	6.KEOB-210
2 kg	6.KEOB-220
5 kg	6.KEOB-230
10 kg	6.KEOB-240
2 x 10 kg	6.KEOB-700
20 kg	6.KEOB-250
50 kg	6.KEOB-260



### SETS

Nominal value	Art.no.
1g-50 g	5.XAOB-560
1g-100 g	5.XAOB-570
1g-200 g	5.XAOB-580
1g-500 g	5.XAOB-590
1g-1 kg	5.XAOB-610
1g-2 kg	5.XAOB-620
1g-5 kg	5.XAOB-630
1g-10 kg	5.XAOB-640
1 mg-50 g	5.XMOB-760
1 mg-100 g	5.XMOB-770
1 mg-200 g	5.XMOB-780
1 mg-500 g	5.XMOB-790
1 mg-1 kg	5.XMOB-810
1 mg-2 kg	5.XMOB-820
1 mg-5 kg	5.XMOB-830
1 mg-10 kg	5.XMOB-840



## Service case

Aluminium



### SINGLE WEIGHT

Size	suitable	Art.no.
1	5 kg	1.6YY6-230
2	10 kg	1.6YY6-240
3	20 kg	1.6YY6-250
4	25 kg	1.6YY6-450
5	50 kg	1.6YY6-260

### SETS

Size	suitable	Art.no.
6	up to 5 g	1.6YY6-530
7	up to 50 g	1.6YY6-560
8	up to 100 g	1.6YY6-570
9	up to 500 g	1.6YY6-590
10	up to 1 kg	1.6YY6-610
11	up to 2 kg	1.6YY6-620
12	up to 5 kg	1.6YY6-630
13	up to 10 kg	1.6YY6-640

## Clean room case



### SETS

Size	suitable	Art.no.
<b>removeable inserts</b>		
1	1 g-1 kg	1.6YYR-110
2	1 g-2 kg	1.6YYR-120
3	1 g-5 kg	1.6YYR-130
4	1 mg-1 kg	1.6YYR-140
5	1 mg-2 kg	1.6YYR-150
6	1 mg-5 kg	1.6YYR-160

### SINGLE WEIGHT

Size	suitable	Art.no.
<b>removeable inserts</b>		
7	5 kg	1.6YYR-170
8	10 kg	1.6YYR-180
9	20 kg	1.6YYR-190

## Leather cases

rectangular block weights



### SETS

Size	suitable	Art.no.
1	5 kg	1.6YYL-330
2	10 kg	1.6YYL-340
3	20 kg	1.6YYL-350

## Tweezers



### STANDARDS

Size	Lenght	Using for	Description	Art.no.
1	105 mm	up to 50 g	Stainless steel cranked	1.3YYY-010
2	160 mm	up to 200 g	Stainless steel cranked	1.3YYY-020
3	250 mm	up to 500 g	Stainless steel straight with seat pans	1.3YYY-030
4	300 mm	up to 500 g	Stainless steel straight	1.3YYY-040

**CARBON** Stainless steel with bolted, removable carbon tips

Size	Lenght	Using for	Art.no.
<b>Total carbon cranked, with seat pans</b>			
5	105 mm	up to 50 g	1.3YYY-050
<b>cranked with seat pans</b>			
6	105 mm	up to 50 g *	1.3YYY-060
7	155 mm	up to 200 g *	1.3YYY-070
8	185 mm	up to 200 g *	1.3YYY-080
9	200 mm	up to 200 g *	1.3YYY-090

## Gloves



Size	Description	Art.no.
<b>Cotton gloves, thin</b>		
S	Women`s size	1.2YYY-010
L	Men`s size	1.2YYY-020
<b>Cotton gloves, strong</b>		
S	Women`s size	1.2YYY-030
L	Men`s size	1.2YYY-040

Size	Description	Art.no.
<b>Micro fiber gloves</b>		
S	Women`s size	1.2YYY-050
L	Men`s size	1.2YYY-060
<b>Leather gloves with cotton on the back of the hand</b>		
S	Women`s size	1.2YYY-070
M	Intermediate size	1.2YYY-080
L	Men`s size	1.2YYY-090

## Forks



Size	Description	Art.no.
1	500 g-Fork	1.3YYY-190
2	1 kg-Fork	1.3YYY-210
3	2 kg-Fork	1.3YYY-220
4	5 kg-Fork	1.3YYY-230

## Handles

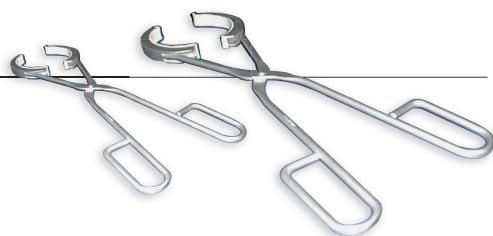


Size	Description	Art.no.
5	10 kg-Handle	1.3YYY-240
6	20 kg-Handle	1.3YYY-250
7	50 kg-Handle	1.3YYY-260

## Tongs

### Normal standards

Size	Description	Art.no.
1	Universal tongs with silicone inserts, up to 2 kg	1.3YYY-310
2	Tong for 1 kg-E0	1.3YYY-320
3	Tong for 2 kg	1.3YYY-330



## Brush



Size	Diameter x Length	Art.no.
1	D10 x L100 mm	1.4YYY-010
2	D20 x L110 mm	1.4YYY-020
3	D30 x L150 mm	1.4YYY-030
4	D30 x L250 mm	1.4YYY-040

## Ambient climate recording system



Size	Part of the system	Art.no.
1	Data logger 6 inputs	2.1YYY-010
2	Data logger 9 inputs	2.1YYY-020
3	Data logger 12 inputs	2.1YYY-030
4	PT 100 temperature sensor	2.1YYY-040
5	Humility sensor	2.1YYY-050
6	Air pressure sensor	2.1YYY-060

## Instruments for permeability determination



Size	suitable	Art.no.
1	Permeability checking	2.2YYY-010
2	Permeability measuring	2.2YYY-020 *

## Transport tools for weights

Size	suitable	Art.no.
1	Transport cart	1.3YYY-410
2	Lifting tool	1.3YYY-420



## Disc plugs

Made of lead

Size	Diameter x Length	Art.no.
1	D5 x 1 mm	1.7PVY-010
2	D7 x 1,5 mm	1.7PVY-020
3	D10 x 2 mm	1.7PVY-030
4	D16 x 2 mm	1.7PVY-040
5	D18 x 3 mm	1.7PVY-050
6	D24 x 3 mm	1.7PVY-080
7	D30 x 4,5 mm	1.7PVY-090
8	28 x 21 x 4 mm	1.7PVY-100



Made of tin

Size	Diameter x Length	Art.no.
1	D5 x 1 mm	1.7ZVY-010
2	D7 x 1,5 mm	1.7ZVY-020
3	D10 x 2 mm	1.7ZVY-030
4	D16 x 2 mm	1.7ZVY-040
5	D18 x 3 mm	1.7ZVY-050
6	D20 x 2 mm	1.7ZVY-060
7	D22,5 x 2 mm	1.7ZVY-070
8	D24 x 3 mm	1.7ZVY-080



## Underlay plates



Size	Diameter x Length	Art.no.
1	D5 x 1	1.7MUY-010
2	D7 x 2	1.7MUY-020
3	D10 x 2	1.7MUY-030
4	D16 x 2	1.7MUY-040
5	D18 x 3,5	1.7MUY-050
6	D20 x 3	1.7MUY-060
7	D22,5 x 2	1.7MUY-070
8	D24 x 3	1.7MUY-080
9	D30 x 3	1.7MUY-090
10	28 x 21 x 5	1.7MUY-100

## Adjustment granules



Size	Material	Diameter	Art.no.
1	Made of lead	2 mm	1.7PGY-010
2	Made of lead	3 mm	1.7PGY-020
3	Made of lead	6 mm	1.7PGY-030
1	Stainless steel	up to 1 mm	1.7EGY-010
2	Stainless steel	2 mm	1.7EGY-020
1	Made of tin	up to 1 mm	1.7ZGY-010

Price on effort

## Sealing plugs



DIN 1924

Size	Diameter x Length	Art.no.
1	24 x 23	1.7PPY-010
2	23 x 22	1.7PPY-020
3	22 x 21	1.7PPY-030
4	21 x 20	1.7PPY-040
5	20 x 19	1.7PPY-050
6	19 x 19	1.7PPY-060
7	18 x 18	1.7PPY-070
8	17 x 17	1.7PPY-080
9	16 x 16	1.7PPY-090
10	15 x 15	1.7PPY-100
11	14 x 14	1.7PPY-110
12	13 x 13	1.7PPY-120
13	12 x 12,5	1.7PPY-130
14	11 x 12	1.7PPY-140
15	10 x 10,5	1.7PPY-150
16	9 x 10	1.7PPY-160
17	8 x 9	1.7PPY-170

# Recalibration

## E0 PTP-test or calibration\*

Uncertainty of measurement: 1/5 of the tolerance of class E1

### SINGLE WEIGHT

Nominal value	Art.no.
1 mg - 500 mg	1431
1 g - 1 kg	1432
2 kg	1433
5 kg	1434
10 kg	1435
20 kg	1436
50 kg	1437

### SETS

Nominal value	Art.no.
1 g - 50 g	1440
1 g - 100 g	1441
1 g - 200 g	1442
1 g - 500 g	1443
1 g - 1 kg	1444
1 g - 2 kg	1445
1 g - 5 kg	1446
1 g - 10 kg	1447

Nominal value	Art.no.
1 mg - 500 mg	1448
1 mg - 50 g	1449
1 mg - 100 g	1450
1 mg - 200 g	1451
1 mg - 500 g	1452
1 mg - 1 kg	1453
1 mg - 2 kg	1454
1 mg - 5 kg	1455
1 mg - 10 kg	1456

\*Certification of the conventional weighing value and the mass, if the values of the determination of the volume/density are available.

## E1 PTP-test or calibration\*

Uncertainty of measurement: 1/3 of the tolerance of class E1

### SINGLE WEIGHT

Nominal value	Art.no.
1 mg - 500 mg	1401
1 g - 1 kg	1402
2 kg	1403
5 kg	1404
10 kg	1405
20 kg	1406
50 kg	1407

### SETS

Nominal value	Art.no.
1 g - 50 g	1410
1 g - 100 g	1411
1 g - 200 g	1412
1 g - 500 g	1413
1 g - 1 kg	1414
1 g - 2 kg	1415
1 g - 5 kg	1416
1 g - 10 kg	1417

Nominal value	Art.no.
1 mg - 500 mg	1418
1 mg - 50 g	1419
1 mg - 100 g	1420
1 mg - 200 g	1421
1 mg - 500 g	1422
1 mg - 1 kg	1423
1 mg - 2 kg	1424
1 mg - 5 kg	1425
1 mg - 10 kg	1426

\*Certification of the conventional weighing value and the mass, if the values of the determination of the volume/density are available.

### DAkkS-Calibration certificate

### SINGLE WEIGHT

Nominal value	Art.no.
1 mg - 500 mg	1325
1 g - 1 kg	1326
2 kg - 10 kg	1327
20 kg	1328
50 kg	1329

### SETS

Nominal value	Art.no.
1 g - 50 g	1384
1 g - 100 g	1385
1 g - 200 g	1386
1 g - 500 g	1387
1 g - 1 kg	1388
1 g - 2 kg	1389
1 g - 5 kg	1390
1 g - 10 kg	1391

Nominal value	Art.no.
1 mg - 500 mg	1392
1 mg - 50 g	1393
1 mg - 100 g	1394
1 mg - 200 g	1395
1 mg - 500 g	1396
1 mg - 1 kg	1397
1 mg - 2 kg	1398
1 mg - 5 kg	1399
1 mg - 10 kg	1400

The examination of the magnetic properties according OMIL R 111-2004 is included in these prices.

**E2** DAkkS-Calibration certificate**SINGLE WEIGHT**

Nominal value	Art.no.
1 mg - 50 g	1320
100 g - 1 kg	1321
2 kg - 10 kg	1322
20 kg	1323
50 kg	1324

**SETS**

Nominal value	Art.no.
1 g - 50 g	1367
1 g - 100 g	1368
1 g - 200 g	1369
1 g - 500 g	1370
1 g - 1 kg	1371
1 g - 2 kg	1372
1 g - 5 kg	1373
1 g - 10 kg	1374

Nominal value	Art.no.
1 mg - 500 mg	1375
1 mg - 50 g	1376
1 mg - 100 g	1377
1 mg - 200 g	1378
1 mg - 500 g	1379
1 mg - 1 kg	1380
1 mg - 2 kg	1381
1 mg - 5 kg	1382
1 mg - 10 kg	1383

**F1 / F2** DAkkS-Calibration certificate**SINGLE WEIGHT**

Nominal value	Art.no.
1 mg - 50 g	1470
100 g - 1 kg	1471
2 kg - 10 kg	1311
20 kg	1312
50 kg	1313
100 kg, nur F2	1314
200 kg, nur F2	1315
500 kg, nur F2	1316
100 kg, F1, PTB-Kalibrierung	1461
200 kg, F1, PTB- Kalibrierung	1462
500 kg, F1, PTB- Kalibrierung	1463
1000 kg, F1, PTB- Kalibrierung	1464
2000 kg, F1, PTB- Kalibrierung	1465

**SETS**

Nominal value	Art.no.
1 g - 50 g	1350
1 g - 100 g	1351
1 g - 200 g	1352
1 g - 500 g	1353
1 g - 1 kg	1354
1 g - 2 kg	1355
1 g - 5 kg	1356
1 g - 10 kg	1357

Nominal value	Art.no.
1 mg - 500 mg	1358
1 mg - 50 g	1359
1 mg - 100 g	1360
1 mg - 200 g	1361
1 mg - 500 g	1362
1 mg - 1 kg	1363
1 mg - 2 kg	1364
1 mg - 5 kg	1365
1 mg - 10 kg	1366

Individual nominal values or intermediate values like newton weights or weights in other units are calculated with an extra charge of 10,00 € /piece. Necessary costs for reparation and adjustment are calculated after prior consultation in a cost estimation.

**M1 / M2 / M3** DAkkS-Calibration certificate**SINGLE WEIGHT**

Nominal value	Art.no.
1 mg - 50 g	1301
100 g - 1 kg	1302
2 kg - 10 kg	1303
20 kg	1304
50 kg	1305
100 kg	1306
200 kg	1307
500 kg	1308
1000 kg	1309
2000 kg	1310

**SETS**

Nominal value	Art.no.
1 g - 50 g	1333
1 g - 100 g	1334
1 g - 200 g	1335
1 g - 500 g	1336
1 g - 1 kg	1337
1 g - 2 kg	1338
1 g - 5 kg	1339
1 g - 10 kg	1340

Nominal value	Art.no.
1 mg - 500 mg	1341
1 mg - 50 g	1342
1 mg - 100 g	1343
1 mg - 200 g	1344
1 mg - 500 g	1345
1 mg - 1 kg	1346
1 mg - 2 kg	1347
1 mg - 5 kg	1348
1 mg - 10 kg	1349

Individual nominal values or intermediate values like newton weights or weights in other units are calculated with an extra charge of 7,00 € /piece. Necessary costs for reparation and adjustment are calculated after prior consultation in a cost estimation.

## Lettering and engraving

### Foil stamping, engraving and special labels

Style	Description	Using for	Art. no.
Type 1	3 or 5-digit character string, as an impression with engraving stamp	Alphanumeric characters, suitable for lead, brass and stainless steel	2001
Type 2	3- or 5-digit character string, as a CNC engraving	Alphanumeric characters, suitable for grey cast iron, brass and stainless steel	2002
Type 3	Special engravings	Logos and customised letting (e.g. barcodes)	2003
Type 4	Special labels for containers (wooden boxes, synthetic case, service case for weights)	Lettering with customised text, logos and barcodes on silver-coloured labels (Easy label software)	2004

Engravings and impressions on weights. Therefore, they should be carried out before any adjustment or calibration

### Special laser inscriptions (special occasion inscriptions that are easy on materials)

Art	Description	Using for	Art. no.
Type 1	1- or 2-digit	Alphanumeric character string for leaf weights 1 mg – 5 mg	2010
Type 2	3- or 5-digit	Alphanumeric character string for all defined weights and units of weight 1 g – 500 kg (stainless steel, brass etc.)	2012
Type 3	Special user characters	Customer-specific content, e.g. serial number, bar codes (line and data matrix) etc.	2013
Type 4	Logos	Customer logos (prepared in jpeg, tiff, gif or pdf formats)	2014

The material structure of the pieces of mass and defined weights is not magnetised. The ability to polish and corn size are maintained to the full extent. Material removal is virtually negligible depending on the font size and the number of characters.



THE INTERNATIONAL CERTIFICATION NETWORK

# CERTIFICATE

IQNet and  
DQS GmbH Deutsche Gesellschaft zur Zertifizierung von Managementsystemen  
hereby certify that the company

**Häfner Präzisionsteile GmbH**

Rottalstraße 95  
74420 Oberrot  
Germany

**Häfner Gewichte GmbH**

Hohenhardtswieiler Straße 4  
74420 Oberrot  
Germany

with the following business unit

has implemented and maintains a **Quality Management System**.

Scope:

for Häfner Präzisionsteile GmbH:  
Production and first sampling of precision parts  
for Häfner Gewichte GmbH:

Design, manufacturing, adjustment, DKD-calibration and sales of weights, mass standards, load bodies and set of weights of all accuracy classes and nominal values including accessories

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

## ISO 9001 : 2015

Valid from	2016-04-14
Valid until	2019-04-13
Date of certification	2016-04-05

Registration number: DE-059993 QM15



*Michael Drechsel*

President of IQNet

*Götz Blechschmidt*

Managing Director of DQS GmbH



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IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.

\* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under [www.iqnet-certification.com](http://www.iqnet-certification.com)



Member of  
**IQNet**  
THE INTERNATIONAL CERTIFICATION NETWORK

# CERTIFICATE



This is to certify that

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Valid from 2016-04-14

Valid until 2019-04-13

Date of certification 2016-04-05



DQS GmbH

*G. Blechschmidt*

Götz Blechschmidt  
Managing Director

Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main



## Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV  
 Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

## Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that

**Häfner Gewichte GmbH**  
**Lindenstraße 24, 74420 Oberrot, Germany**

with the calibration laboratory:

**MASSCAL - Kalibrierlaboratorium**  
**Rottalstraße 95, 74420 Oberrot, Germany**

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out calibrations in the following fields:

**Mechanical quantities**

- Mass (mass standards) \*)
- Volume of solids
- Density of solids

\*) also on-site calibration

The accreditation certificate shall only apply in connection with the notice of accreditation of 2017-06-02 with the accreditation number D-K-15192-01 and is valid until 2022-06-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 5 pages.

Registration number of the certificate: D-K-15192-01-00

Braunschweig,  
02.06.2017

Dr. Michael Wolf  
Head of Division

Translation issued:  
02.06.2017

Head of Division

This document is a translation. The definitive version is the original German accreditation certificate.  
 See notes overleaf.

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