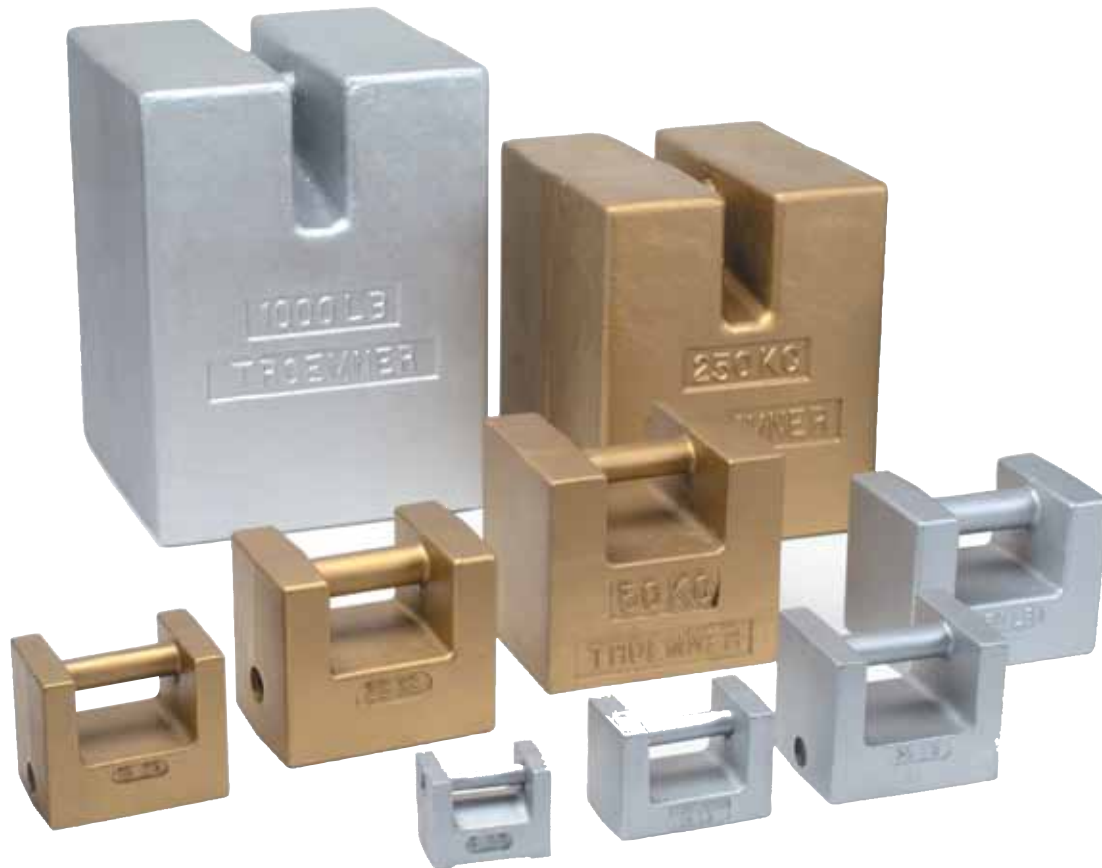




# Cast Iron Heavy Capacity & Grip Handle Weights

NIST Class F and ANSI/ASTM E617 Class 4, 5, 6 and 7



## General Information

Cast Iron Grip Handle Weights larger than 5 kg/10 lb are legal for trade, which means their design is acceptable for use in checking weighing devices where the price of the item being purchased is based on its weight. Cast Iron Grip Handle weights 5 kg/10 lb and smaller are not legal for trade and are classified as ANSI/ASTM E617 Class 6. If you require a 2 kg or 5 lb weight for a legal for trade application, look for the Stainless Steel Test Weights section on page 83.

## Suggested Markets

Cast Iron Grip Handle Weights are primarily used to test commercial weighing devices by state and local weights and measures officials, device installers, and service technicians. Cast Iron Grip Handle weights may be used to test most accuracy Class III scales, all scales of Class IIII or IIII, and scales not marked with a class designation. Class F is also acceptable for use in verifying scales that have a 0.1% accuracy and lower.

## Tolerance Classes

Cast Iron Grip Handle Weights are adjusted to NIST Class F and ANSI/ASTM E617 Class 4, 5, 6 and 7. Refer to Troemner's Tolerance Chart on pages 19-20 for specific information on the tolerance of each weight in a given class. Troemner's Tolerance Chart is also available on [www.troemner.com](http://www.troemner.com) for additional reference.

## Construction and General Shape

Troemner's Cast Iron Weights are manufactured to meet NIST Handbook 105-1 specifications. The weights are manufactured from high quality iron that meets specifications for hardness. Castings are free of cracks, pits and sharp edges and meet surface roughness requirements. Each weight has an adjusting cavity located on its side. Adjusting cavities are sealed with a lead plug and steel back-up spacer to provide a tamper resistant seal of the adjusting cavity. Weights 50 kg/100 lb and below are designed to be picked up by hand. Weights above 50 kg/100 lb are designed to be picked up by means of a hook.

## Surface Finish

All surfaces are smooth and free of scratches, dents and pores as outlined in NIST Handbook 105-1. Weights are protected by a durable coat of paint to protect the casting from rusting. Paint will be hard and resistant to chipping. Color coding – gold for metric and silver for avoirdupois – is used to differentiate the weights. Surface finish specifications are available on [www.troemner.com](http://www.troemner.com) for additional reference.



# Cast Iron Heavy Capacity & Grip Handle Weights

## Individual Weights

Cast Iron Grip Handle Weights are not supplied in cases. Troemner manufactures a variety of custom containers and carts to properly store and transport your Cast Iron Weights and to keep them clean and protected. Containers and carts can be manufactured from a variety of materials depending on your application and environment. Please contact a Troemner Sales Representative at [800-249-5554](tel:800-249-5554) or [troemner@troemner.com](mailto:troemner@troemner.com) for complete details and to discuss available options.

### Metric Individual Weights

Weight	Length (inches)	Width (inches)	Height (inches)	Weight	Length (inches)	Width (inches)	Height (inches)
2000 kg	20.50	27.25	30.00	50 kg	7.31	9.00	8.25
1000 kg	20.63	20.25	21.69	25 kg	5.56	7.75	6.75
500 kg	14.75	14.63	20.75	20 kg	5.50	7.63	5.88
250 kg	12.75	12.25	14.75	10 kg	4.38	6.19	5.19
200 kg	12.75	12.25	12.00	5 kg*	3.25	5.38	3.88
100 kg	9.50	9.50	10.50	2 kg*	2.38	3.88	2.81

### Avoirdupois Individual Weights

Weight	Length (inches)	Width (inches)	Height (inches)	Weight	Length (inches)	Width (inches)	Height (inches)
5000 lb	26.88	26.50	30.00	250 lb	9.50	9.50	11.75
3000 lb	20.19	20.31	29.50	200 lb	9.56	9.19	9.19
2500 lb	20.38	20.38	24.50	100 lb	7.38	9.13	7.56
2000 lb	20.38	20.63	19.88	50 lb	5.56	8.00	6.38
1500 lb	16.38	16.75	24.50	30 lb	5.00	7.25	5.13
1250 lb	15.00	18.25	19.00	25 lb	4.75	6.19	5.19
1000 lb	14.75	14.63	19.00	20 lb	3.88	6.19	5.19
750 lb	12.75	12.38	19.88	10 lb*	3.88	5.38	3.56
500 lb	12.75	12.38	13.50	5 lb*	2.38	3.88	3.13

\* Not legal for trade. ANSI/ASTM E617 Class 6.

**Note:** Above dimensions are subject to casting tolerances.



# Cast Iron Slotted Weights

NIST Class F and ANSI/ASTM E617 Class 4, 5, 6 and 7



## General Information

Cast Iron Slotted Weights are used in a variety of applications such as pressure, torque, and tensile strength testing. Cast Iron Slotted Weights are typically used with a hanger that also has its weight calibrated so the hanger can be used as part of the overall weight under test. Several Cast Iron Slotted Weights may be used together to build up from a minimum weight to a maximum test load. The hanger weight selected should be able to accommodate the total load needed.

## Suggested Markets

Cast Iron Slotted Weights are primarily used to calibrate large capacity scales.

## Tolerance Classes

Cast Iron Slotted Weights are adjusted to ANSI/ASTM E617 Class 4, 5, 6 and 7. Refer to Troemner's Tolerance Chart on pages 19-20 for specific information on the tolerance of each weight in a given class. Troemner's Tolerance Chart is also available on [www.troemner.com](http://www.troemner.com) for additional reference.

## Surface Finish

Troemner's Cast Iron Slotted Weights are manufactured from a high quality iron that meets ANSI/ASTM E617 hardness requirements. Castings meet ANSI/ASTM E617 surface roughness requirements and are free of cracks, pits and sharp edges. All surfaces are smooth and free of scratches, dents and pores as outlined in NIST Handbook 105-1 or ANSI/ASTM E617. Weights are protected by a durable coat of paint to protect the casting from rusting. Paint will be hard and resistant to chipping. Color coding – gold for metric and silver for avoirdupois – is used to differentiate the weights. Surface finish specifications are available on [www.troemner.com](http://www.troemner.com) for additional reference.

## Construction and General Shape

Cast Iron Slotted Weights above 2 kg/5 lb have adjusting cavities. Weights below 2 kg/5 lb are adjusted by removing material from the underside of the weight. Each weight has its nominal value cast into the topside of the weight.

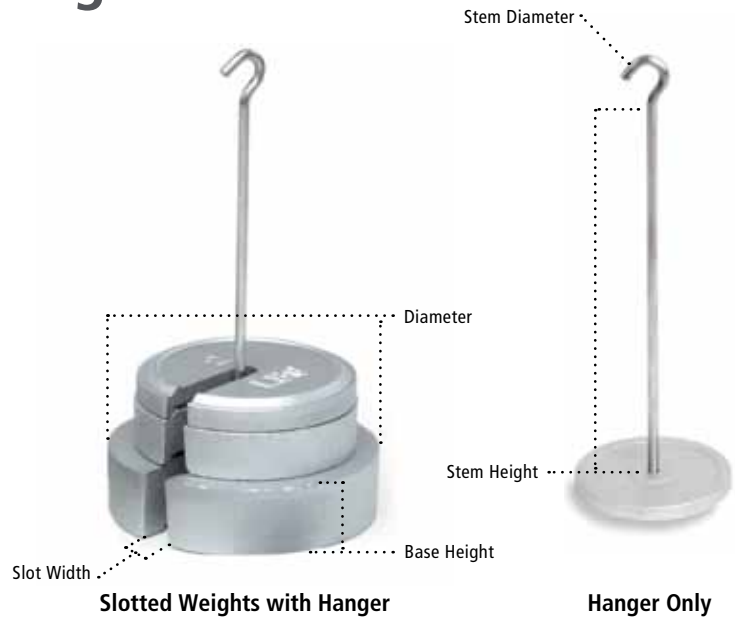
Weights are protected by a durable coat of paint to protect the casting from rusting. Weights 50 kg/100 lb and above are provided with two handles on opposite ends to aid in lifting.

**Hangers** - Cast Iron Slotted Weights are typically used with a hanger that also has its weight calibrated so the hanger can be used as part of the overall weight under test. Weight hangers are available in a variety of lengths and weight capacities. Hangers are calibrated to a mass value, and also have a capacity of how much weight can be loaded onto them. The length of each hanger and slotted weight dimensions are listed in the table on page 105. To determine which hanger will accommodate your weights, use the stem height of the hanger as the maximum height, then use the thickness dimension of each weight along with the quantity you intend to place on the hanger to determine the total height of your stack of weights. The height of your stack of weights should be less than the length of the hanger. The dimension of the hook opening is ½ inch.



## Cast Iron Slotted Weights Individual Weights

Cast Iron Slotted Weights are not supplied in cases. Troemner manufactures a variety of custom containers and carts to properly store and transport your Cast Iron Slotted Weights and to keep them clean and protected. Containers and carts can be manufactured from a variety of materials depending on your application and environment. Please contact a Troemner Sales Representative at [800-249-5554](tel:800-249-5554) or [troemner@troemner.com](mailto:troemner@troemner.com) for complete details and to discuss available options.



### Metric Individual Weights

Weight	Diameter (inches)	Base Height (inches)	Slot Width (inches)	Stem Diameter (inches)	Stem Height (inches)	Hanger Capacity
100 kg*	17.00	4.00	1.00			
50 kg*	17.00	2.00	1.00			
20 kg	10.25	2.38	0.56			
10 kg	8.00	1.94	0.56			
5 kg	6.00	1.69	0.56			
2 kg	5.00	1.00	0.56			
1 kg	5.00	0.56	0.56			
500 g	5.00	0.31	0.56			
200 g	3.75	0.31	0.56			
2 kg Hanger	5.00	0.88		0.31	36.00	250 kg
1 kg Hanger	3.75	1.13		0.25	20.25	75 kg
1 kg Hanger	3.75	1.13		0.25	9.25	75 kg
500 g Hanger	3.75	0.38		0.25	20.25	50 kg
500 g Hanger	3.75	0.44		0.25	9.25	50 kg

\* Indicates weight with handles.

## Avoirdupois Individual Weights

Weight	Diameter (inches)	Base Height (inches)	Slot Width (inches)	Stem Diameter (inches)	Stem Height (inches)	Hanger Capacity
200 lb*	17.00	3.63	1.00			
100 lb*	17.00	1.88	1.00			
50 lb	10.25	2.75	0.56			
25 lb	10.25	1.38	0.56			
20 lb	8.00	1.88	0.56			
10 lb	6.00	1.50	0.56			
5 lb	5.00	1.13	0.56			
2 lb	5.00	0.56	0.56			
1 lb	5.00	0.31	0.56			
1/2 lb	3.75	0.31	0.56			
5 lb Hanger	5.00	1.00		0.31	36.00	500 lb
2 lb Hanger	3.75	1.13		0.25	20.25	300 lb
2 lb Hanger	3.75	1.13		0.25	9.25	300 lb
1 lb Hanger	3.75	0.31		0.25	20.25	200 lb
1 lb Hanger	3.75	0.31		0.25	9.25	200 lb

\* Indicates weight with handles.

## Cast Iron Individual Weights

Weight	Style	Class	Certificate Type	Part Number
10 kg	Grip Handle	F	Statement of Accuracy	01025-72
10 kg	Grip Handle	F	Traceable Certificate	11966-56
100 kg	Grip Handle	F	NVLAP Accredited Certificate	01022-87
100 kg	Grip Handle	F	Traceable Certificate	0102988
2 kg	Grip Handle	F	NVLAP Accredited Certificate	01022-91
2 kg	Grip Handle	F	Traceable Certificate	0102989
20 kg	Grip Handle	F	Statement of Accuracy	01025-74
20 kg	Grip Handle	F	Traceable Certificate	11966-55
20 lb	Grip Handle	F	Statement of Accuracy	01022-93
20 lb	Grip Handle	F	Statement of Accuracy	0102990
20 lb	Grip Handle	F	Traceable Certificate	01022-93
200 kg	Grip Handle	F	NVLAP Accredited Certificate	01022-86
200 kg	Grip Handle	F	Traceable Certificate	0102987
25 kg	Grip Handle	F	Statement of Accuracy	01025-76
25 kg	Grip Handle	F	Traceable Certificate	01022-90
25 lb	Grip Handle	F	Statement of Accuracy	01025-68
25 lb	Grip Handle	F	Traceable Certificate	11966-54
30 lb	Grip Handle	F	Statement of Accuracy	01025-64
30 lb	Grip Handle	F	Traceable Certificate	01022-92
50 kg	Grip Handle	F	NVLAP Accredited Certificate	01022-88
50 kg	Grip Handle	F	Traceable Certificate	01022-89
50 lb	Grip Handle	F	Statement of Accuracy	01025-66
50 lb	Grip Handle	F	Traceable Certificate	11966-53
1/2 lb	Slotted	F	Statement of Accuracy	11966-67
5 lb	Slotted	F	Traceable Certificate	11966-77
1 lb	Slotted	F	Statement of Accuracy	11966-65
1 lb	Slotted	F	Traceable Certificate	11966-76
2 lb	Slotted	F	Statement of Accuracy	11966-64
2 lb	Slotted	F	Traceable Certificate	11966-75
5 lb	Slotted	F	Statement of Accuracy	11966-63
5 lb	Slotted	F	Traceable Certificate	11966-74
10 lb	Slotted	F	Statement of Accuracy	11966-62
10 lb	Slotted	F	Traceable Certificate	11966-73
20 lb	Slotted	F	Statement of Accuracy	11966-61
20 lb	Slotted	F	Traceable Certificate	11966-72
25 lb	Slotted	F	Statement of Accuracy	11966-60
25 lb	Slotted	F	Traceable Certificate	11966-71
50 lb	Slotted	F	Statement of Accuracy	11966-59
50 lb	Slotted	F	Traceable Certificate	11966-70
200 g	Slotted	F	Statement of Accuracy	11966-96
200 g	Slotted	F	Traceable Certificate	11966-05
500 g	Slotted	F	Statement of Accuracy	11966-95
500 g	Slotted	F	Traceable Certificate	11966-04
1 kg	Slotted	F	Statement of Accuracy	11966-94
1 kg	Slotted	F	Traceable Certificate	11966-03
2kg	Slotted	F	Statement of Accuracy	11966-93
2 kg	Slotted	F	Traceable Certificate	11966-02
5 kg	Slotted	F	Statement of Accuracy	11966-92
5 kg	Slotted	F	Traceable Certificate	11966-01
5 kg	Slotted	F	Statement of Accuracy	11966-91



## Cast Iron Individual Weights

<b>Weight</b>	<b>Style</b>	<b>Class</b>	<b>Certificate Type</b>	<b>Part Number</b>
10 kg	Slotted	F	Traceable Certificate	11967-00
20 kg	Slotted	F	Statement of Accuracy	11966-90
20 kg	Slotted	F	Traceable Certificate	11966-99
1 lb	Hanger	F	Statement of Accuracy	11966-82
1 lb	Hanger	F	Traceable Certificate	11966-87
1 lb	Hanger	F	Statement of Accuracy	11966-81
1 lb	Hanger	F	Traceable Certificate	11966-86
2 lb	Hanger	F	Statement of Accuracy	11966-80
2 lb	Hanger	F	Traceable Certificate	11966-85
2 lb	Hanger	F	Statement of Accuracy	11966-79
2 lb	Hanger	F	Traceable Certificate	11966-84
5 lb	Hanger	F	Statement of Accuracy	11966-78
5 lb	Hanger	F	Traceable Certificate	11966-83
500 g	Hanger	F	Statement of Accuracy	11966-10
500 g	Hanger	F	Traceable Certificate	11966-15
500 g	Hanger	F	Statement of Accuracy	11966-09
500 g	Hanger	F	Traceable Certificate	11966-14
1 kg	Hanger	F	Statement of Accuracy	11966-08
1 kg	Hanger	F	Traceable Certificate	11966-13
1 kg	Hanger	F	Statement of Accuracy	11966-07
1 kg	Hanger	F	Traceable Certificate	11966-12
2 kg	Hanger	F	Statement of Accuracy	11966-06
2 kg	Hanger	F	Traceable Certificate	11966-11