



# Economical Stainless Steel Weights

ANSI/ASTM E617 Class 7



## General Information

Troemner Economical Stainless Steel Weights and Weight Sets are economical, quality weights. Individual weights are available from 1 mg through 2000 g. Weight Sets are designed to achieve any total mass by combining smaller masses. The makeup of Economical Stainless Steel Weight Sets varies. Weights are adjusted to tolerances specified by ANSI/ASTM E617 Class 7.

## Suggested Markets

Suggested Markets for Economical Stainless Steel Weights include, but are not limited to, educational markets. Weights are provided in three designs: cylindrical, hooked and slotted to meet your specific needs. Slotted and hook weights are also available in Newton denominations from 0.1 N through 10 N (5 N for slotted weights).

## Tolerance Classes

Economical Stainless Steel Weights are adjusted to ANSI/ASTM E617 Class 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. For Newton weights, use the closest corresponding metric tolerance.

## Surface Finish

All surfaces are satin finish and conform to specifications in ANSI/ASTM E617. Surface finish specifications are available on [www.troemner.com](http://www.troemner.com) for additional reference.

## Material Specifications

Weight Range	Base Material	Density
All Sizes (except weights below)	303 Stainless Steel	7.85 g/cm <sup>3</sup> at 20° C
1 g, 2 g, 5 g Slotted Weights	3003-H14 Aluminum	2.7 g/cm <sup>3</sup> at 20° C
100 mg and below	3003-H14 Aluminum	2.7 g/cm <sup>3</sup> at 20° C

## Construction and General Shape

**Cylindrical Weights** – Weights 1 g and above are carefully manufactured from stainless steel and are cylindrical in shape for easy gripping. Weights 1 g to 100 g are of one-piece construction and are adjusted during manufacture by removing material from the bottom of the weight. Weights 200 g through 2 kg have an adjusting cavity on the top that is sealed with a plug. Economical Stainless Steel Weights 1 g and above are perfectly flat on top to stack easily on center. Weights 500 mg and lower are made of stainless steel or aluminum and are flat, one-piece construction with one side turned up to make them easy to handle with forceps. 500 mg and 200 mg weights are made of stainless steel while weights 100 mg and below are made of aluminum.

**Slotted Weights** – Weights 10 g through 500 g (0.1 N through 5 N) are made of stainless steel, and weights 1 g through 5 g are made of aluminum. All slotted weights have an approximate diameter of 1<sup>1</sup>/<sub>4</sub> inches and have a slot opening width of 1/4 inch. A hanger is also available to stack and hang your slotted weights. The overall length of the hanger is approximately 7<sup>1</sup>/<sub>2</sub> inches with a usable length of 7 inches. The hanger is designed to accept the slotted weights.

**Hook Weights** – Weights range from 10 g through 1 kg (0.1 N through 10 N) and are made of stainless steel. On all hook weights, except the 10 g (0.1 N), there is a hook on the top and the bottom of the weight so the weights can be hooked together. The 10 g (0.1 N) hook weight has a hook on the top of the weight only. The design of the hook weight allows the bottom hook to be recessed in the bottom, so the hooked weights can be set on a flat surface without tipping over. The opening of the hook for each weight is 1/2 inch.

All Economical Stainless Steel weights regardless of design are marked with their nominal mass value.



# Metric & Newton Economical Stainless Steel Weights Weight Sets

## Cylindrical Metric Sets

Cylindrical Economical Stainless Steel Weight Sets are supplied in rugged, plastic cases with a locking latch and a compartment for each weight in the case or a plastic weight block with a compartment for each weight.

Weight Set	2000 g	1000 g	500 g	200 g	100 g	50 g	20 g	10 g	5 g	2 g	1 g	500 mg	200 mg	100 mg	50 mg	20 mg	10 mg	5 mg	2 mg	1 mg
2000 g — 1 g	1	1	1	2	1	1	2	1	1	2	1									
2000 g — 10 mg	1	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1			
2000 g — 1 mg	1	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1
1000 g — 1 g		1	1	1	2	1	1	2	1	2	1									
1000 g — 1 g		1	1	2	1	1	2	1	1	2	1									
1000 g — 10 mg		1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1			
1000 g — 1 mg		1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1
500 g — 1 g			1	1	2	1	1	2	1	2	1									
500 g — 1 g			1	2	1	1	2	1	1	2	1									
500 g — 10 mg			1	2	1	1	2	1	1	2	1	1	2	1	1	2	1			
500 g — 1 mg			1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1
200 g — 1 g				1	1	1	2	1	1	2	1									
200 g — 10 mg				1	1	1	2	1	1	2	1	1	2	1	1	2	1			
200 g — 1 mg				1	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1
100 g — 1 g					1	1	2	1	1	2	1									
100 g — 10 mg					1	1	2	1	1	2	1	1	2	1	1	2	1			
100 g — 1 mg					1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1
50 g — 1 g**						1	1	2	1	2	1									
50 g — 1 g						1	2	1	1	2	1									
50 g — 100 mg**						1	1	2	1	2	1	1	2	1						
50 g — 10 mg						1	2	1	1	2	1	1	2	1	1	2	1			
50 g — 10 mg						1	1	2	1	2	1	1	2	1	1	2	1			
50 g — 1 mg						1	2	1	1	2	1	1	2	1	1	2	1	1	2	1
500 mg — 1 mg												1	2	1	1	2	1	1	2	1

\*\* Weight sets 341-2S and 341-3S are not adjusted to Class 7. They have approximately 1% accuracy.

## Apothecary Sets

50 g — 1 g and all dram, scruple and ounce weights except ½ scruple are one-piece with handling knob. ½ scruple is flat and round. 500 mg and below are flat with one end turned up for easy handling. Grain weights are flat wire.

Weight Set	2 oz	1 oz	1/2 oz	2 dram	1 dram	1/2 dram	2 scruple	1 scruple	1/2 scruple	5 GN	4 GN	3 GN	2 GN	1 GN	1/2 GN	50 g	20 g	10 g	5 g	2 g	1 g	500 mg	200 mg	100 mg	50 mg	20 mg	10 mg
50 g — 10 mg																1	2	1	1	2	1	1	2	1	1	2	1
2 oz ap — 1/2 oz ap	1	1	1																								
2 dram — 1/2 GN				1	1	1	1	1	1	1	1	1	1	1	1												

## Student Metric Sets

Economical 50 g - 1 g weight set supplied in a plastic bag.

Weight Set	50 g	20 g	10 g	5 g	2 g	1 g
50 g — 1 g (set supplied in a plastic bag)	1	1	2	1	2	1



## Economical Stainless Steel Slotted Sets

Slotted Weight Sets are supplied either on a rack with a carrying handle or in a plastic case with a foam interior. The more popular choice for customers is the weight rack.



## Economical Stainless Steel Hook Sets

Hook Weight Sets are supplied in an open plastic block with a compartment for each weight. There is no lid on the block. Individual Hook Weights are not supplied in a protective case.

## Metric Slotted Sets

Weight Set	500 g	200 g	100 g	50 g	20 g	10 g	5 g	2 g	1 g
500 g — 10 g*	1	2	1	1	2	1			
500 g — 10 g	1		5	1	2	1			
500 g — 1 g*	1	2	1	1	2	1	1	2	1
500 g — 1 g	1		5	1	2	1	1	2	1
50 g	Weight Hanger								

\* Contains two 200 g and two 20 g weights and one 100 g.

## Newton Slotted Sets

Weight Set	5 N	1 N	0.5 N	0.2 N	0.1 N
5 N — 0.1 N	1	5	1	2	1
5 N	Weight Hanger				

## Metric Hook Sets

Weight Set	1000 g	500 g	200 g	100 g	50 g	20 g	10 g
1000 g — 10 g	1	1	2	1	1	2	1

## Newton Hook Sets

Weight Set	10 N	5 N	2 N	1 N	0.5 N	0.2 N	0.1 N
10 N — 0.1 N	1	1	2	1	1	2	1



# Economical Stainless Steel Weights

## Individual Weights

### Metric Individual Weights

Individual weights are not supplied in protective cases as standard. However, for an extra charge, a polypropylene protective weight case can be specified and ordered in a variety of constructions. Please contact a Troemner Sales Representative at **800-249-5554** or [troemner@troemner.com](mailto:troemner@troemner.com) to discuss your specific needs.



### Cylindrical Metric Weights

#### Weight

2000 g

1000 g

500 g

200 g

100 g

50 g

20 g

10 g

5 g

2 g

1 g

### Slotted Metric Weights

#### Weight

500 g

200 g

100 g

50 g

20 g

10 g

5 g

2 g

1 g

### Hook Metric Weights

#### Weight

1000 g

500 g

200 g

100 g

50 g

20 g

10 g

## Metric Individual Milligram Weights

Troemner Milligram Weights are available in sheet metal construction.



### Weight

500 mg
200 mg
100 mg
50 mg
20 mg
10 mg
5 mg
2 mg
1 mg

## Newton Individual Weights

Newton Individual Weights are not supplied in protective cases as standard. However, for an extra charge, a polypropylene protective weight case can be specified and ordered in a variety of constructions. Please contact a Troemner Sales Representative at [800-249-5554](tel:800-249-5554) or [troemner@troemner.com](mailto:troemner@troemner.com) to discuss your specific needs.

## Newton Hook Individual Weights

### Weight

10 N
5 N
2 N
1 N
0.5 N
0.2 N
0.1 N

## Newton Slotted Individual Weights

### Weight

5 N
1 N
0.5 N
0.2 N
0.1 N

**Economical Stainless Steel Weights**  
**Individual Weights and Weight Sets**

<b>Weight</b>	<b>Style</b>	<b>Class</b>	<b>Certificate Type</b>	<b>Part Number</b>
1000 g-1 g	Cylindrical Set	7	None	01035-00
500 g-1 g	Cylindrical Set	7	None	102887
1000 g-1 g	Cylindrical Set	7	None	102888
50 g-1 g	Cylindrical Set	7	None	102889
50 g-1 mg	Cylindrical Set	7	None	102890
50 g-10 mg	Cylindrical Set	7	None	102891
100 g-1 g	Cylindrical Set	7	None	102892
100 g-1 mg	Cylindrical Set	7	None	102893
100 g-10 mg	Cylindrical Set	7	None	102894
500 g-1 g	Cylindrical Set	7	None	102895
500 g-1 mg	Cylindrical Set	7	None	102896
500 g-10 mg	Cylindrical Set	7	None	102897
1000 g-1 g	Cylindrical Set	7	None	102898
1000 g-1 mg	Cylindrical Set	7	None	102899
1000 g-10 mg	Cylindrical Set	7	None	102902
200 g-1 g	Cylindrical Set	7	None	102904
200 g-1 mg	Cylindrical Set	7	None	102906
200 g-10 mg	Cylindrical Set	7	None	102908
500 mg-1 mg	Cylindrical Set	7	None	102912
2000 g-1 g	Cylindrical Set	7	None	102914
2000 g-1 mg	Cylindrical Set	7	None	102916
2000 g-10 mg	Cylindrical Set	7	None	102918
50 g-10 mg	Cylindrical Set	7	None	102922
500 g-1 g	Cylindrical Set	7	Traceable Certificate	102924
1000 g-1 g	Cylindrical Set	7	Traceable Certificate	102926
50 g-1 g	Cylindrical Set	7	Traceable Certificate	102928
50 g-1 mg	Cylindrical Set	7	Traceable Certificate	102948
50 g-10 mg	Cylindrical Set	7	Traceable Certificate	102952
100 g-1 g	Cylindrical Set	7	Traceable Certificate	102954
100 g-1 mg	Cylindrical Set	7	Traceable Certificate	102956
100 g-10 mg	Cylindrical Set	7	Traceable Certificate	102958
500 g-1 g	Cylindrical Set	7	Traceable Certificate	102960
500 g-1 mg	Cylindrical Set	7	Traceable Certificate	102962
500 g-10 mg	Cylindrical Set	7	Traceable Certificate	102966
1000 g-1 g	Cylindrical Set	7	Traceable Certificate	102967
1000 g-1 mg	Cylindrical Set	7	Traceable Certificate	102968
1000 g-10 mg	Cylindrical Set	7	Traceable Certificate	102969
200 g-1 g	Cylindrical Set	7	Traceable Certificate	102970
200 g-1 mg	Cylindrical Set	7	Traceable Certificate	102971
200 g-10 mg	Cylindrical Set	7	Traceable Certificate	102972
500 mg-1 mg	Cylindrical Set	7	Traceable Certificate	102973
2000 g-1 g	Cylindrical Set	7	Traceable Certificate	102974
2000 g-1 mg	Cylindrical Set	7	Traceable Certificate	102975
2000 g-10 mg	Cylindrical Set	7	Traceable Certificate	102976
50 g-10 mg	Cylindrical Set	7	Traceable Certificate	102977
500 g-10 g	Slotted Set	7	None	00321IO
50 g	Hanger	7	None	00321IQ
100 g	Cylindrical Individual Weight	7	None	00293CD
200 g	Cylindrical Individual Weight	7	None	00321IT
1 mg	Cylindrical Individual Weight	7	None	102824
2 mg	Cylindrical Individual Weight	7	None	102826
5 mg	Cylindrical Individual Weight	7	None	102828
10 mg	Cylindrical Individual Weight	7	None	102830
20 mg	Cylindrical Individual Weight	7	None	102832
50 mg	Cylindrical Individual Weight	7	None	102834



**Economical Stainless Steel Weights  
Individual Weights and Weight Sets**

<b>Weight</b>	<b>Style</b>	<b>Class</b>	<b>Certificate Type</b>	<b>Part Number</b>
100 mg	Cylindrical Individual Weight	7	None	102836
200 mg	Cylindrical Individual Weight	7	None	102838
500 mg	Cylindrical Individual Weight	7	None	102840
1 g	Cylindrical Individual Weight	7	None	102842
2 g	Cylindrical Individual Weight	7	None	102844
5 g	Cylindrical Individual Weight	7	None	102846
10 g	Cylindrical Individual Weight	7	None	102848
20 g	Cylindrical Individual Weight	7	None	102852
50 g	Cylindrical Individual Weight	7	None	102854
100 g	Cylindrical Individual Weight	7	None	102856
200 g	Cylindrical Individual Weight	7	None	102858
500 g	Cylindrical Individual Weight	7	None	102862
1000 g	Cylindrical Individual Weight	7	None	102863
2000 g	Cylindrical Individual Weight	7	None	102864
1 mg	Cylindrical Individual Weight	7	Traceable Certificate	102865
2 mg	Cylindrical Individual Weight	7	Traceable Certificate	102866
5 mg	Cylindrical Individual Weight	7	Traceable Certificate	102867
10 mg	Cylindrical Individual Weight	7	Traceable Certificate	102868
20 mg	Cylindrical Individual Weight	7	Traceable Certificate	102869
50 mg	Cylindrical Individual Weight	7	Traceable Certificate	102871
100 mg	Cylindrical Individual Weight	7	Traceable Certificate	102872
200 mg	Cylindrical Individual Weight	7	Traceable Certificate	102873
500 mg	Cylindrical Individual Weight	7	Traceable Certificate	102874
1 g	Cylindrical Individual Weight	7	Traceable Certificate	102875
2 g	Cylindrical Individual Weight	7	Traceable Certificate	102876
5 g	Cylindrical Individual Weight	7	Traceable Certificate	102877
10 g	Cylindrical Individual Weight	7	Traceable Certificate	102878
20 g	Cylindrical Individual Weight	7	Traceable Certificate	102880
50 g	Cylindrical Individual Weight	7	Traceable Certificate	102881
100 g	Cylindrical Individual Weight	7	Traceable Certificate	102882
200 g	Cylindrical Individual Weight	7	Traceable Certificate	102883
500 g	Cylindrical Individual Weight	7	Traceable Certificate	102884
1000 g	Cylindrical Individual Weight	7	Traceable Certificate	102885
2000 g	Cylindrical Individual Weight	7	Traceable Certificate	102886