



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 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 for additional reference.

Material Specifications

Weight Range	Base Material	Density
All Sizes (except weights below)	303 Stainless Steel	7.85 g/cm ³ at 20° C
1 g, 2 g, 5 g Slotted Weights	3003-H14 Aluminum	2.7 g/cm ³ at 20° C
100 mg and below	3003-H14 Aluminum	2.7 g/cm ³ 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 1¹/₄ 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 7¹/₄ 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	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	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	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	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	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	1
500 mg — 1 mg												1	2	1	1	2	1	1	2	1	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](tel:800-249-5554) or 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 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

Weight	Style	Class	Certificate Type	Part Number
1000 g-1 g	Cylindrical Set	7	Statement of Accuracy	01035-00
500 g-1 g	Cylindrical Set	7	Statement of Accuracy	0102887
1000 g-1 g	Cylindrical Set	7	Statement of Accuracy	0102888
50 g-1 g	Cylindrical Set	7	Statement of Accuracy	0102889
50 g-1 mg	Cylindrical Set	7	Statement of Accuracy	0102890
50 g-10 mg	Cylindrical Set	7	Statement of Accuracy	0102891
100 g-1 g	Cylindrical Set	7	Statement of Accuracy	0102892
100 g-1 mg	Cylindrical Set	7	Statement of Accuracy	0102893
100 g-10 mg	Cylindrical Set	7	Statement of Accuracy	0102894
500 g-1 g	Cylindrical Set	7	Statement of Accuracy	0102895
500 g-1 mg	Cylindrical Set	7	Statement of Accuracy	0102896
500 g-10 mg	Cylindrical Set	7	Statement of Accuracy	0102897
1000 g-1 g	Cylindrical Set	7	Statement of Accuracy	0102898
1000 g-1 mg	Cylindrical Set	7	Statement of Accuracy	0102899
1000 g-10 mg	Cylindrical Set	7	Statement of Accuracy	0102902
200 g-1 g	Cylindrical Set	7	Statement of Accuracy	0102904
200 g-1 mg	Cylindrical Set	7	Statement of Accuracy	0102906
200 g-10 mg	Cylindrical Set	7	Statement of Accuracy	0102908
500 mg-1 mg	Cylindrical Set	7	Statement of Accuracy	0102912
2000 g-1 g	Cylindrical Set	7	Statement of Accuracy	0102914
2000 g-1 mg	Cylindrical Set	7	Statement of Accuracy	0102916
2000 g-10 mg	Cylindrical Set	7	Statement of Accuracy	0102918
50 g-10 mg	Cylindrical Set	7	Statement of Accuracy	0102922
500 g-1 g	Cylindrical Set	7	Traceable Certificate	0102924
1000 g-1 g	Cylindrical Set	7	Traceable Certificate	0102926
50 g-1 g	Cylindrical Set	7	Traceable Certificate	0102928
50 g-1 mg	Cylindrical Set	7	Traceable Certificate	0102948
50 g-10 mg	Cylindrical Set	7	Traceable Certificate	0102952
100 g-1 g	Cylindrical Set	7	Traceable Certificate	0102954
100 g-1 mg	Cylindrical Set	7	Traceable Certificate	0102956
100 g-10 mg	Cylindrical Set	7	Traceable Certificate	0102958
500 g-1 g	Cylindrical Set	7	Traceable Certificate	0102960
500 g-1 mg	Cylindrical Set	7	Traceable Certificate	0102962
500 g-10 mg	Cylindrical Set	7	Traceable Certificate	0102966
1000 g-1 g	Cylindrical Set	7	Traceable Certificate	0102967
1000 g-1 mg	Cylindrical Set	7	Traceable Certificate	0102968
1000 g-10 mg	Cylindrical Set	7	Traceable Certificate	0102969
200 g-1 g	Cylindrical Set	7	Traceable Certificate	0102970
200 g-1 mg	Cylindrical Set	7	Traceable Certificate	0102971
200 g-10 mg	Cylindrical Set	7	Traceable Certificate	0102972
500 mg-1 mg	Cylindrical Set	7	Traceable Certificate	0102973
2000 g-1 g	Cylindrical Set	7	Traceable Certificate	0102974
2000 g-1 mg	Cylindrical Set	7	Traceable Certificate	0102975
2000 g-10 mg	Cylindrical Set	7	Traceable Certificate	0102976
50 g-10 mg	Cylindrical Set	7	Traceable Certificate	0102977
500 g-10 g	Slotted Set	7	Statement of Accuracy	003211O
50 g	Hanger	7	Statement of Accuracy	003211Q
100 g	Cylindrical Individual Weight	7	Statement of Accuracy	00293CD
200 g	Cylindrical Individual Weight	7	Statement of Accuracy	003211T
1 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102824
2 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102826
5 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102828
10 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102830
20 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102832
50 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102834

Economical Stainless Steel Weights Individual Weights and Weight Sets

Weight	Style	Class	Certificate Type	Part Number
100 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102836
200 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102838
500 mg	Cylindrical Individual Weight	7	Statement of Accuracy	0102840
1 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102842
2 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102844
5 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102846
10 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102848
20 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102852
50 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102854
100 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102856
200 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102858
500 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102862
1000 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102863
2000 g	Cylindrical Individual Weight	7	Statement of Accuracy	0102864
1 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102865
2 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102866
5 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102867
10 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102868
20 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102869
50 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102871
100 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102872
200 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102873
500 mg	Cylindrical Individual Weight	7	Traceable Certificate	0102874
1 g	Cylindrical Individual Weight	7	Traceable Certificate	0102875
2 g	Cylindrical Individual Weight	7	Traceable Certificate	0102876
5 g	Cylindrical Individual Weight	7	Traceable Certificate	0102877
10 g	Cylindrical Individual Weight	7	Traceable Certificate	0102878
20 g	Cylindrical Individual Weight	7	Traceable Certificate	0102880
50 g	Cylindrical Individual Weight	7	Traceable Certificate	0102881
100 g	Cylindrical Individual Weight	7	Traceable Certificate	0102882
200 g	Cylindrical Individual Weight	7	Traceable Certificate	0102883
500 g	Cylindrical Individual Weight	7	Traceable Certificate	0102884
1000 g	Cylindrical Individual Weight	7	Traceable Certificate	0102885
2000 g	Cylindrical Individual Weight	7	Traceable Certificate	0102886