

# New England Custom Gun Service

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## Sight Height Math

Hello,

Thank you for your inquiry into our sights. NECG makes a variety of sights that can be fit to a wide range of guns. Our sights are made "neutral" or without taper so they can be fit to different barrel tapers and dimensions. We do not make or offer sights for a specific make and model of gun, however all of our sights were designed to work together in various combinations.

For a good basic set of sights we would suggest an NECG "Universal Front Ramp" and "Classic Adjustable Rear Sight". Our "Classic Rear Sight Base" will accept several rear sight inserts including our new 1 Standing / 1 Folding "Mini-Express" sight insert.

For small diameter barrels we suggest using one of our Masterpiece Banded Ramps as drilling and tapping into small barrels is tricky.

For "Express" sights our Banded Ramps will work with our NECG Classic Express Sight with Island Base. (Allow for a "V" depth of .125" - .150" after sight regulation.)

### **To determine the correct height of sights to order we suggest the following:**

- 1) Select the barrel mounted NECG front and rear sights you want to install. (See sight heights listed below)
- 2) Measure the actual barrel you want to install the sights on with calipers or a micrometer.
- 3) Measure the barrel diameter at the point where the rear sight will be installed.
- 4) Measure the muzzle diameter. (Banded Ramps measure at points ½" and 1 ½" from muzzle.)

### **Sight Height Math:**

**Rear Sight Height:** Take the diameter of the barrel and divide it by 2. Add this number to the height of the rear sight listed below or in our catalog or website. This will give you the "**Total rear sight height from the center line of the bore**".

**Example:**

*.875" Barrel diameter / 2 = .4375"*

*+ Add .4375" to the Classic Adjustable Rear Sight height of .550"*

*= .9875". This is the "**Total rear sight height from the centerline of the bore**".*

**Front Sight Height:** Take the muzzle diameter and divide it by 2. Subtract this number from the "**Total rear sight height from the centerline of bore**". The remainder will be the "**Total front sight height required**" to level with the rear sight.

**Example:**

*.650" muzzle diameter / 2 = .325".*

*- Subtract .325" from the "**Total rear sight height**" .9875"*

*= .6625" This gives you the "**Total front sight height required**"*

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Once you have calculated the "**Total front sight height required**" you can review the charts below, our website or our catalog to determine the correct parts to order. [www.newenglandcustomgun.com](http://www.newenglandcustomgun.com)

### NECG Rear Sight Heights

**Masterpiece Adjustable Rear Sight:** Lowest sight height from top of barrel to sight notch = **.550"**

**Classic Adjustable Rear Sight:** Lowest sight height from top of barrel to sight notch = **.550"**

**Classic Express Sight with Island Base:** Height from the top of barrel to estimated "V" depth on standing = **.550"**

### NECG Front Sight Heights

**Classic Banded Ramp with Folding Hood:** All ramps have a height to dovetail of **10mm** or **.394"**

**Masterpiece Banded Ramps:** Add the ramp height to dovetail to the front sight height until it equals the **"Total front sight height required"**.

Code	Diameter		Height to Dovetail	
	Inches	mm	Inches	mm
R-100-551	.551	14.0	.500	12.7
R-100-571	.571	14.5	.421	10.7
R-100-590	.590	15.0	.421	10.7
R-100-610	.610	15.5	.421	10.7
R-100-630	.630	16.0	.421	10.7
R-100-650	.650	16.5	.421	10.7
R-100-670	.670	17.0	.386	9.8
R-100-689	.689	17.5	.386	9.8
R-100-708	.708	18.0	.386	9.8
R-100-728	.728	18.5	.386	9.8
R-100-748	.748	19.0	.362	9.2
R-100-768	.768	19.5	.362	9.2
R-100-788	.788	20.0	.362	9.2
R-100-827	.827	21.0	.362	9.2

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### Masterpiece and Classic Banded Ramp Front Sight Heights:

4.5mm/.177" - 5.0mm/.197" - 6.0mm/.237" - 6.5mm/.256" - 7.0mm/.276" - 8.0mm/.315" - 9.0mm/.355" - 10.0mm/.394"

R-101, 5/64", Silver Bead	R-101-177	R-101-197	R-101-237	R-101-256	R-101-276	R-101-315	R-101-355	R-101-394
R-102, 3/32", Silver Bead			R-102-237	R-102-256	R-102-276			
R-103, Sourdough Sight				R-103-256	R-103-276	R-103-315	R-103-355	R-103-394
R-104, Night Sight				R-104-256				
R-105, 3/32", Fiber Optic				R-105-256	R-105-276	R-105-315	R-105-355	
R-140, 1/16", Fiber Optic				R-140-256	R-140-276	R-140-315	R-140-355	
R-104-W White on White Night Sight				R-104W (.256)				
R-123 2.5mm White				6.5mm/.256" - 7.5mm/.295" - 8.5mm/.335" - 9.5mm/.375"	R-123-256	R-123-295	R-123-335	R-123-375
R-124 4mm White					R-124-256	R-124-295	R-124-335	R-124-375

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**Universal Banded Ramp:** Check the chart below for the height that matches the *“Total front sight height required”*. This will be the bead height to order for the **Universal Banded Ramp**.

**Universal Banded Ramp overall sight heights and adjustment ranges**

Bead Height	Setting	2mm		2.5mm		4mm			
		Silver	White / F.O.	Partridge	White / F.O.				
		Inches	mm	Inches	mm	Inches	mm		
LOW(4.5mm)	Lowest	.620	15.8	.615	15.6	.610	15.5	.600	15.2
	Mid-Point	.650	16.5	.645	16.4	.640	16.3	.630	16.0
	Highest	.680	17.3	.675	17.2	.670	17.0	.660	16.8
MED(5.0mm)	Lowest	.640	16.3	.635	16.1	.630	16.0	.620	15.8
	Mid-Point	.670	17.0	.665	16.9	.660	16.8	.650	16.5
	Highest	.700	17.8	.695	17.6	.690	17.5	.680	17.3
HIGH(5.5mm)	Lowest	.660	16.8	.650	16.5	.650	16.5	.640	16.3
	Mid-Point	.690	17.5	.680	17.3	.680	17.3	.670	17.0
	Highest	.720	18.3	.710	18.0	.710	18.0	.700	17.8

**Universal Screw-On Ramp:** Check the **“Combined Lowest”** column in the chart below for the height that matches the *“Total front sight height required”*. This will give you “Universal Ramp” Code # and the Universal Front Sight height combination to order.

**Universal Screw-On Ramp overall sight heights and adjustment ranges.**

Universal Ramp	Front Sight	<b>Combined Lowest</b>	Combined Mid-Height	Combined Highest
Code	Inches (mm)	Inches mm	Inches mm	Inches mm
R-107-385 LOW .385 (9.8)	Low	.562 14.3	.592 15.1	.622 15.8
	Medium	.581 14.8	.611 15.5	.641 16.3
	High	.601 15.3	.631 16.1	.661 16.8
R-107-455 MEDIUM .455 (11.6)	Low	.632 16.1	.662 16.8	.692 17.6
	Medium	.651 16.6	.681 17.3	.711 18.1
	High	.671 17.1	.701 17.8	.731 18.6
R-107-525 HIGH .525 (13.3)	Low	.700 17.8	.730 18.5	.760 19.3
	Medium	.720 18.3	.750 19.0	.780 19.8
	High	.740 18.8	.770 19.5	.800 20.3
R-107-595 EXTRA HIGH .595 (15.1)	Low	.772 19.6	.802 20.4	.832 21.1
	Medium	.791 20.1	.821 20.9	.851 21.6
	High	.811 20.6	.841 21.4	.871 22.1