**Silver Generator** **Reviews**

**This file:**

[**http://tinyurl.com/silver-generators**](http://tinyurl.com/silver-generators)

Also:

https://docs.google.com/document/d/1E0JU4pU9sjNc91\_4iZ5oThNsr6b9LkqtnU0X9MsavJg/edit?usp=sharing

**Go To** [**Colloidal Silver Main File**](https://docs.google.com/document/d/1wfnslQKQDd3i3ZK5B6jnW2cPv_0QnCTNstWF5trl_hc/edit#heading=h.ix6f6vikzm4r)

**Go To** [**Colloidal Silver Handout**](https://docs.google.com/document/d/1LpuaQscGydfSzLfmJPFuq2TMauOeUOcFxiAj4ZHh8gs/edit) **for friends & family**

**Go To** [**Colloidal Silver Testimonials**](https://docs.google.com/document/d/1JWJlelWt8TgWM_tnlZZVgkYZmBPL46nFbLriD3N-Qso/edit)

**Go To** [**Optimal Health Index**](https://docs.google.com/document/d/1Zc1Foq1a-MnfARWYKDuax3mfaXu8Q8TtYdlmHqcr64I/edit?usp=sharing)

| **Bottom line up front**They all produce ionic silver but then each product offers a different set of features, that fall into one of these basic categories:* Stirring the liquid: None, bubbler, or magnetic stirrer
* Shutoff Automatic via current through the electrodes or voltage across electrodes
* Shut off by Manual or 117VAC timer Timer Supplied
* Operating Current Limit adjustable in Mah: Adjustable or Not adjustable
* Adjustable Parts Per Million (PPM): none or adjustable
* Polarity Switching between the electrodes: None or switching
* Sealed Flask or Mason Jar
* Power Supply Choices: Batteries or AC Power or both
* Some can easily make a gallon or more as easy as 1 quart

If all of these choices weren’t confusing enough, the marketing mumbo-jumbo, distortions and conflicts makes it worse, and is enough to drive Dr. Phil stark raving insane. All we want is the TRUTH, the WHOLE TRUTH and nothing but the TRUTH. See Tips and suggestions for help choosing each of these subjects. This report is ongoing with many changes per week.  |
| --- |

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[Measuring your Ionic Water PPM](#_rc42odx4ez34)

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[Silvergen SG7 High Volume - 5 Gals - USA & Euro](#_bta6jky7ys0o)

[CollGen2 - 1 Gal](#_qz5pmknwlmi8)

[Low Capacity Generators ( Most are current limited )](#_to7nj043zbrt)

[Generator Chart](#_rd2a29fdidwf)

[Big Bear Generator](#_fd5lf38912pz)

[Colloid Master by WishGranted -](#_hcwnjxk9qx94)

[Silver Edge - Limited Current](#_90hrp5e75qp8)

[Silver Lining](#_b0l6iie7d8iy)

[Economy $26 ,](#_qyleu06zvnix)

[Economic $33](#_qekevkvsaqby)

[CS30A $124 , BEST VALUE](#_4c26i7bopte4)

[Gen SS $185 ,](#_1ydqlollq3ht)

[Silver Lungs](#_st8u8nrmzn3o)

[Silver Puppy - 1 Pint jar](#_igrunyvlmyx5)

[SilverTron Systems](#_cq7raxpeew56)

[Automatic Shutoff @ 10ppm - Program button allows 1 more ppm with each press (quart)](#_2hg8zsfka599)

[Utopia Silver Bullet](#_62gj4ufrhnu5)

[X10 by Original-Silver](#_lbhr6b5284qy)

[Your Health RSG-3 Generator](#_ww4eiqqbm2no)

[Converting Ionic Silver into Particle Silver](#_yptw6laamd0h)

[Esstee Procedure to Reduce Ionic Silver into Particle Metallic (Colloidal) Silver](#_2mqeykixt34q)

[Make your own Particle Silver & save a TON of money by Esstee](#_qzgta9ef1bu5)

[Chemical Procedures to Reduce Ionic Silver.](#_28s0zwxuqnb1)

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[Current Limiting Diodes by Esstee](#_i11g3hxwemc6)

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[Help to support the Curezone with a contribution](#_f66myukmbz4c)

# Tips & Suggestions

### **Stirring Method**

We have the choice between magnetic Stirring, air bubble stirring, or no stirring.

* Most experts agree that magnetic stirring is the best
* Several companies offer bubble stirring and say that is best
* Worst is no stirring. Stirring is ABSOLUTELY REQUIRED for optimal CS quality.

( I use bubble stirring for my generator - Grizz )

### **Voltage Across the Electrodes**

This is important because higher voltage across the electrodes speeds production in the 1st hour when the distilled water acts like an insulator. As silver ions exit the Anode, conductivity through the water slowly increases.

Voltage across the electrodes may not be the same as the power supply voltage. Some companies boost voltage from the power supply to the electrodes.

We can also speed production by seeding the new batch with 25% silver from a previous batch.

### **Constant Voltage Generators vs Current Limited (Dynamic Voltage)**

| **Bottom line:** we need not be concerned if the generator shuts itself off automatically or has a Control Unit. For the serious technicians, here are the details: |
| --- |

 **Current Limited defined:**

Limiting current between the electrodes results in the voltage across the electrodes declining as the silver Parts Per Million goes up. Current is not allowed to exceed a threshold known to cause agglomeration with large particles. This threshold is based on the square inches of silver anode. AKA Dynamic Voltage Control or Constant Current. The best CS is made with Current Limits according to many experts.

**Constant Voltage:**

A constant voltage is simply a power supply ( or batteries ) connected directly to the electrodes described here

<http://www.silvergen.com/technica.htm>

This article only applies to batteries or power supply attached directly to the electrodes and does not apply to automatic generators nor to generators with limited current. Grizz

### **Testing Your Own Colloidal Silver**

Use a red Laser Light Pen to see the Tyndall Effect. Large particles made with constant voltage shine brightly in a lighted room, where properly made nanosized ions can barely be seen in a lighted room. Color of the liquid is also an indicator of particle size. Nanosized liquid is clear in a lighted room, where larger ion size have darker colors such as yellow, amber & brown.

**Example of poorly made ionic silver liquid**

using a constant voltage power supply, notice how bright the laser beam is in a lighted room:

[**https://youtu.be/OxcjWt\_QzhM?t=226**](https://youtu.be/OxcjWt_QzhM?t=226)

**Example of properly made ionic silver liquid**

where the red laser beam is very difficult to see proves nanoparticle size

<https://youtu.be/IYde8aK-9S4?t=105>

### **What about Adjustable Current Limit ?**

Some companies provide adjustable constant current limits.

* Silvertron Elite allows adjusting the current limit from 1 mah to 15 mah in 1 mah steps.
* The Big Bear uses a potentiometer to adjust from 1 mah to 25mah.
* The Silver Lining SS uses a potentiometer to adjust between 2.5 mah and 16 mah.
* The Your Health RSG uses a switch to select from 1 Mah, 1.5 Mah,, 2.5 Mah, 4.7 Mah & 20 Mah

This feature is not necessary but does appeal to those of us who like to experiment with our CS production and Anode Silver Size. I purchased the Silvertron Elite for this reason. I think most buyers will prefer to simply press start & go with no hassle automatic convenience…. Grizz

### **What About Adjustable Parts Per Million?**

What is PPM?

<http://www.silvergen.com/ppm_vs_efficacy.htm>

Some companies make their generator shut off at a fixed PPM such as 10 ppm while others make their generator shut off with adjustable PPM. Still others use a mechanical timer to shut off their generator, where the longer it is run, the higher is the PPM. Most of the experts agree that 10 to 20 PPM is ideal to limit particle size. Beyond 20 PPM the color of the CS begins to change color from yellow to amber & darker colors indicating excessively large particles. I prefer 20ppm in my own silver production - Grizz

**How does the automatic Shut-Off work?**

With current limit generators

A circuit measures the voltage across the electrodes, and then shut off at a predetermined voltage.

With Constant Voltage generators

A circuit can measure the current through the electrodes and shut off when a predetermined current is reached.

With a manual 17VAC Timer

 Company manual tells how many hours to set the timer for.

### **What About Polarity Switching?**

 If you have a 1 ounce silver bar anode, it will last a lifetime so you do not want polarity switching at all.

**Why Polarity Switching?**

Silver is stripped from the Anode (+) very slowly wearing it out while the electrode (-) never wears out. Some companies provide an automatic polarity switching feature to balance the wear & tear on the silver electrode wires equally.

Is it necessary? No, because we can occasionally swap the anode & cathode to balance the wear.

### **High Voltage AC (HVAC) vs Low Voltage DC Generators**

Steve555 Compares both - <http://www.curezone.org/forums/fm.asp?i=85180#i>

### **Distance Between Electrodes**

Many recommend 1.5 inches between the electrodes, but WHY?

Here is a surprising application for distance between electrodes vs PPM by Elixa:

<http://www.elixa.com/silvonic-original-instructions/>

Less distance = more current through the electrodes

More distance = less current between the electrodes

### **Make Colloidal Silver Gel**

Simply mix with Glycerin Powder or Glycerin Flakes - [Amazon.Com Link](https://www.amazon.com/WillPowder-Glycerin-Flakes-1-Pound-Container/dp/B00250TLL2/ref%3Dsr_1_1_a_it?ie=UTF8&qid=1475340645&sr=8-1&keywords=glycerin+powder)

Or Mix with Guar Gum - [Amazon.Com Link](https://www.amazon.com/s/ref%3Dnb_sb_noss?url=search-alias%3Daps&field-keywords=Guar+gum)

### **Colloidal Silver Never Expires**

If properly made with nano sized ions, and kept in the dark, then it never expires.

Complete details here: <http://www.thesilveredge.com/potency2.shtml>

### **Measuring your Ionic Water PPM**

The Hanna PWT Meter is recommended to best measure PPM, it must be calibrated using the Hanna Calibration Fluid. Best prices direct from [Hanna Instruments](http://hannainst.com/products/testers/hi98308-pure-water-tester.html)

#### **How to Measure Your Colloidal Silver**:

Hanna PWT meter to measure PPM - [How to measure PPM](http://www.silvermedicine.org/colloidal-silver-ppm.html). Correction factor = Multiply the reading by 1.2 and deduct the reading for the distilled water being used.

 <http://www.silvergen.com/ppm_meter.htm>

 <http://www.curezone.org/forums/fm.asp?i=1036318#i>

**TDS Meters are not accurate to measure colloidal silver. If possible, buy the Hanna PWT meter instead.**

## **If you get a TDS meter with your generator then double the reading to arrive at the approximate PPM . Another indication is the finished CS should be slightly yellow.**

## **All** **TDS meters think they are measuring salt not colloidal silver! So you have to double what it says on the meter.**

## All TDS meters are factory calibrated to provide an estimated PPM for the most common dissolved ion; sodium chloride (salt), not colloidal silver. But salt is about twice as conductive as silver ions, so when using a TDS meter to estimate the ionic PPM of COLLOIDAL SILVER **the recommended practice is to multiply the reading on the meter by 2 to 2.5 times** because it has actually taken at least twice as many silver ions to reach the level of conductivity indicated on the meter. So, for example, if the TDS meter says 6 then your actual ionic silver PPM is probably between 12 to 15 ppm. ALL TDS METERS work as described here! So if anyone tells you you can simply read a colloidal silver strength directly off the dial of a TDS meter they don’t know what they are talking about.

<http://www.colloidalsilver.com.au/TDS-Meter.html>

#### **Video - What is the Tyndall Effect ?**

Here we see the importance of limiting current through the electrodes. The laser is difficult to see in a lighted room, by Cryptic Cricket..

<https://www.youtube.com/watch?v=vIUiK-ef8Hs>

### **Supplies**

#### **Cheap Silver Wire**

**at Amazon.Com -**

http://www.amazon.com/s/ref=nb\_sb\_noss?url=search-alias%3Dhpc&field-keywords=silver+wire+coil&rh=n%3A3760901%2Ck%3Asilver+wire+coil

Supplier for pure silver wire, bars & strips

<https://www.riogrande.com/category/metals/silver>

<http://www.ccsilver.com/silver/superfines.html>

<https://www.atlasnova.com/>

**Silver Bars**

Silver bars from [Silvertron](http://www.silvertronstore.com/zencart/index.php?main_page=product_info&cPath=2&products_id=4&zenid=iluobud7pk11vcpmhsca3609u6) have a nice silver wire riveted to the silver bar. Otherwise keep the wire connection spade clip, screw & nut to the silver bar out of the liquid.

I protect the silver wire & rivet with nail polish to prevent wearing away and I keep the rivet out of the liquid..

#### **Cleaning the Silver Electrodes**

So far, [Scotch Brite](https://www.amazon.com/Scotch-Brite-Heavy-Scrub-Sponge-6-Count/dp/B004IR3044/ref%3Dsr_1_2_s_it?s=hpc&ie=UTF8&qid=1473537813&sr=1-2&keywords=scotch+brite+sponges) is my favorite method to clean my 1 oz silver bar.

<https://www.youtube.com/watch?v=bLyKGQLD-sI>

Use Tarn-X - <https://www.youtube.com/watch?v=tiMt9JWPNFI>

Some experts recommend using only Copper Scour Pads. I will try this soon: NFG

[Amazon.Com Link](https://www.amazon.com/Brillo-Basics-Heavy-Copper-Scourers/dp/B01CWKG3SS/ref%3Dsr_1_2_s_it?s=hpc&ie=UTF8&qid=1478276826&sr=1-2&keywords=copper+scour+pad)

#### **Distillers**

Best selection of water distillers at Amazon. Don’t use the charcoal filter in the outlet because it adds to the distilled water PPM count of contaminants. I use the Megahome distiller - Grizz

[**At Amazon.Com**](https://www.amazon.com/s/ref%3Dnb_sb_noss_1?url=search-alias%3Daps&field-keywords=water+distillers&rh=i%3Aaps%2Ck%3Awater+distillers)

#### **Glass or PET plastic Bottles should be used**:

 <http://server.publishers-mgmt.com/semk/secm/2016/07/csu/877/more/>

 [Bottles @ Amazon.Com](https://www.amazon.com/Firefly-Craft-Plastic-Bottles-Chalkboard/dp/B01GEYTEG6/ref%3Dsr_1_23?ie=UTF8&qid=1473181402&sr=8-23&keywords=plastic+bottles+food+grade+blue)

# **Silver Generators** **Reviews**

### **High Capacity Generators ( all are current controlled )**

**All produce mostly Ionic Silver**,

The term Colloidal Silver.refers to either Ionic Silver or Particle Silver or both. All of the following home generators produce mostly superior Ionic Silver. We must add chemicals to convert Ionic Silver into Particle Silver.

#### **OrganixTech**

Professional equipment for the advanced hobbyist or for a business producing silver colloid products. Even includes HVAC products.

<http://www.organixtech.com/systems.htm>

#### **Silvergen SG7 High Volume - 5 Gals - USA & Euro**

Automatic Shutoff @ Adjustable PPM from 5ppm to 20ppm

Silver bars 1/4 inch wide and 5 inches long, 28 gauge .9999 fine silver

Automatic Polarity reversal while running eliminates silver cleaning

Stirring Motor

Prices - <http://www.silvergen.com/products.htm>

Site: <http://www.silvergen.com/sg7pro.htm>

Review: <http://www.silvermedicine.org/silvergen-generators.html>

#### **CollGen2 - 1 Gal**

Automatic Shutoff @ 7ppm

Silver Bar 1 Troy Oz

Air Pump bubbler circulation

Digital Displays PPM

 Video Review - <https://www.youtube.com/watch?v=zz-7MQsdPNQ>

 Video Review - <https://www.youtube.com/watch?v=rB0cOV9Y0IA>

 Prices - <http://www.collgen2.com/?section=buy-collgen2-ionic-silver-water>

 Site: <http://www.collgen2.com/>

**Additional models which can make 4 litres- 1 Gal batches**

**Silver Edge, can easily make 2.5 Gallons or more !**

**Silver Lining 30A**

**Silvertron Elite**

**Your Health RSG-3**

### **Low Capacity Generators ( Most are current limited )**

**All produce mostly Ionic Silve**r

The term Colloidal Silver.refers to either Ionic Silver or Particle Silver or both. All of the following home generators produce mostly Ionic Silver. We must add chemicals to convert Ionic Silver into Particle Silver.

#### **Generator Chart**

**Notes:**

1. **All prices & specifications are subject to change or correction.**
2. **Current Controlled or Constant Voltage pros & cons are detailed in the chapter above, “Tips & Suggestions.”**
3. **If there are any errors in this chart send Grizz a message at the curezone**

| Model N1 | Shutoff Method | Current Limit,Max Voltage Across Electrodes | AdjustableCurrent LimitRange | PolarityReversal | StirringMethod |
| --- | --- | --- | --- | --- | --- |
| [Big Bear](#_fd5lf38912pz) $190 | Manual AC Timer  | ?V | 1Ma - 25ma | Yes | Magnetic |
| [ColloidMaster](#_hcwnjxk9qx94) $134 + | Auto 5-20ppm | 12V  | NA | Yes | No |
| [Silver Edge](#_90hrp5e75qp8) $249 | Manual AC Timer | 18 V | NA | No | Bubbler |
| [Silver Gen SG6](#_8wx9g2un7kri)$229 | Auto 5-16+ppm | ?V | NA | Yes | Magnetic |
| [Silver Lining EC](#_b0l6iie7d8iy)$26 | Manual AC Timer | 2.5 Ma, 27V | NA | No | No |
| [Silver Lining 30A](#_b0l6iie7d8iy)$124 **Best Value** | Manual AC Timer | 2.5 Ma, 30V | NA | No | Bubbler |
| [Silver Lining SS](#_b0l6iie7d8iy)$185 | Manual AC Timer | 2.5 Ma, 30V | 2.5 - 16Ma | Yes | Magnetic |
| [SilverLungs](#_2m6iunnwj097) $299 | Auto 10 or 20ppm | 48V  | NA | Yes | Magnetic |
| [Silver Puppy](#_igrunyvlmyx5) $160 | Auto, 10ppmManual 20+ ppm | 1.1 Ma, 24V | NA | Yes | Magnetic |
| [Silvertron Jr](#_cq7raxpeew56) $129 | Manual AC Timer | 3,13 Ma, 28 V | NA | No | No |
| [Silvertron Elite](#_cq7raxpeew56)$329 **Top Rated** | Auto 20,20,30,40 to 320 ppm,  | 1+++ma, 28V | 1Ma-15Ma | No | No |
| [Silvonic Pro](#_xlumtekwsw7y) $195 | Auto 10ppmManual 20+ ppm | ?V | NA | Yes | Magnetic |
| [Utopia Slvr Bullet](#_kv3gig9b4csf)$139 | Manual AC Timer | CV 48V or 56V | No | No | No |
| [X10 OriginalSlv](#_lbhr6b5284qy)r$199 | Auto 10ppm | 1 Ma, 55V | No | Dynamic | Magnetic |
| [Your Health RSC](#_ww4eiqqbm2no)$125 | Manual AC Timer | ?V | 1Ma-20Ma | No | No |

#### **Big Bear Generator**

 Review by BrightSide - <http://www.curezone.org/forums/fm.asp?i=2330580#i>

 Built in stirring motor, adjustable speed

 Built in polarity reversible, adjustable

 Electrodes #12 Guage

 Adjustable current for making tiny particle solution

 Manual Timer Shutoff:

 Max Volts to electrodes ?

 A lot of equipment for the money, IMO a real bargain.

 Limited small volume production, so get your order in early

 Ebay Listing $190 - [Link](http://www.ebay.co.uk/itm/Colloidal-Silver-Generator-Reverse-Polarity-Constant-Current-Complete-Kit-w-Mag-/201642796408?nma=true&si=FKMPHalNoedxKwrkCeqRcIa0aBU%253D&orig_cvip=true&rt=nc&_trksid=p2047675.l2557)1 - [Link2](http://www.ebay.com/itm/Colloidal-Silver-Generator-Reverse-Polarity-Constant-Current-Complete-Mag-Stir/191943801415) - [Link3](http://www.ebay.com/usr/dean1johnson)

 Search Euro & UK Ebay sites for this generator

 Video Demo in 3 Parts

 <https://www.youtube.com/watch?v=jdbjq_eYFuc>

<https://www.youtube.com/watch?v=SF03i6_13tE>

<https://www.youtube.com/watch?v=5ZTBSAalh8U>

#### **Colloid Master by WishGranted -**

Quart or Gallon Jar, Wide Mouth

 2 Models: 117vac to 12vdc or 117vac to 12vdc with 12 vdc input from car battery

[Uses SS103 AC/DC Adaptor](https://www.amazon.com/Seven-Star-Universal-Adapter-Walkman/dp/B0044NC2H8/ref%3Dsr_1_1?s=industrial&ie=UTF8&qid=1471104936&sr=8-1&keywords=ss103+ac-dc+adaptor) in both models

 Automatic Shutoff @ adjustable from 5ppm to 20ppm

 Silver Bars = ¼ wide x 6” x 28 gauge - Optional ½ wide x 6” or 8” x 28 guage

Automatic Polarity Reversal during each batch, relay controlled

No stirring - See Reviews below

Details - <https://wishgranted.com/product/colloid-master-colloidal-silver-generator/>

Prices $134+ <http://www.wishgranted.com/Colloidal-Silver-Making-Kits_c_10.html>

Site: <http://www.wishgranted.com/Colloidal_Silver_Generator.html>

Manual - [Link to Manual](https://wishgranted.com/wp-content/uploads/2016/02/colloid-master-instructions-2010-to-present.pdf)

Video Intro - <https://www.youtube.com/watch?v=jlhv5--7kbI>

Review by Philo - <http://www.curezone.org/forums/fm.asp?i=2298525#i>

Review by Joe S. - <http://www.curezone.org/forums/am.asp?i=2045132>

Both reviewers say that stirring is needed: [Motors here](https://www.amazon.com/s/ref%3Dnb_sb_noss?url=search-alias%3Delectronics&field-keywords=magnetic+stirring+motor&rh=n%3A172282%2Ck%3Amagnetic+stirring+motor&ajr=0)

#### **Silver Edge - Limited Current**

Quart Jar, wide mouth, gallon, 2+ gallons

Voltage 18 V, with unique current limit features

| “World’s #1 most popular generator These sturdy generators are made of the highest quality materials and electronics, and have literally [been built to last for a lifetime](http://www.thesilveredge.com/gen.shtml).” Steve’s Laser Beam test proves beyond any doubt that his generator makes extremely high quality ionic silver because the laser beam is difficult to see in a lighted room and his microscope photos. The intense & unique bubble stirring is a major reason for this magic, making the usual current limit control unnecessary, as [described here](http://www.thesilveredge.com/aboutmicro.shtml). “Super-aerating the water prevents excessive electrical conductivity from building up, which in turn prevents additional silver particles from being drawn from the positive silver electrode…” The LED light & resistors in series with the electrodes also provide additional current limits. IMO, this design is pure genius in its simplicity & reliability…. GrizzSteves Laser Beam Test Video proof:<https://youtu.be/IYde8aK-9S4?t=105> Microscope Photos<http://www.thesilveredge.com/mp5.shtml>  |
| --- |

Shutoff via Manual Timer - Length of time varies ppm or batch size for versatility

 3 hours per quart to make 10 ppm CS

 6 hours per quart to make 20 ppm CS

 [30 hours to make 2.5 gallons](http://www.thesilveredge.com/making-big-batches-of-colloidal-silver-for-about-a-penny-per-ounce.shtml) 10 ppm CS

 [Video making large batches](https://www.youtube.com/watch?v=4FrGCm-9xbM) Important Video & use longer silver wires

 [Making Monster Sized batches](http://www.thesilveredge.com/making-monster-sized-batches-of-colloidal-silver-during-cold-and-flu-season.shtml)

Many educational Videos by Steve Barwick

 <http://thesilveredge.com/videos.shtml>

Silver Wires # 12 Gauge and more: <http://thesilveredge.com/wire.shtml>

Built in medical grade air pump stirs water

 Prices $249 - <http://www.thesilveredge.com/gen.shtml>

Video Review - [Link](http://www.thesilveredge.com/video-operating-instructions-for-the-micro-particle-colloidal-silver-generator.shtml)

Silver Edge Details: - [Link](http://www.thesilveredge.com/how-the-worlds-no-1-best-selling-colloidal-silver-generator-compares-to-all-the-rest.shtml)

**Testimonial:** Vairagi at The Curerzone measured the following:

“I logged the milli amperge and checked the voltage on a three hour run of the SilverEdge MicroParticle generator:

Started at 18V with 3ma. an hour later, still 18V with 5ma and at the end of three hours, 18v and 7ma. “

**Grizz:** Vairagi’s testing indicates the Silver Edge may be a constant voltage generator. His starting current also indicates contaminated water because there should be near zero Mah starting current. I have asked the company sales & tech support to verify the accuracy of this data, since their new production design could be different than Vairagi’s 8 yr old unit.

**Update:** Why it is better:“A Brief Word About Constant Current" Regulators”**…** article confirms current control is not needed <http://www.thesilveredge.com/aboutmicro.shtml>

**Notes from Tech Support:** I asked Tech Support about Vairagi’s notes and got a wealth of information. Here are a few notes. Point to Point wiring that has been used for decades in audio amps is used in the Silver Edge to increase reliability. Vairagi had his generator for 8 yrs with zero problems. Steve Barwick is also our hero for writing so many excellent articles explaining why colloidal silver is a miracle for so many diseases.

**Silvergen SG6 - Quart Jar, wide mouth - USA & Euro**

Automatic Shutoff @ Adjustable PPM from 5ppm to [16.9 ppm](http://www.curezone.org/forums/fm.asp?i=2297191#i) to 20ppm

Silver bars ¼” wide x 5 inches long, 28 gauge .9999 fine silver

Automatic Polarity reversal after each batch eliminates silver cleaning w/cloth

Constant Current <http://www.silvergen.com/colloidal_silver_generator.htm>

Stirring Motor built in

Prices $229 - <http://www.silvergen.com/products.htm>

Video Review Pt 1 - <https://www.youtube.com/watch?v=0Zmgku2oQvk>

Video Review Pt 2 - <https://www.youtube.com/watch?v=sz042F6Ggl8>

Site - <http://www.silvergen.com/colloidal_silver_generator.htm>

Curezone Reviews: <http://www.curezone.org/forums/fm.asp?i=2304431#i>

<http://www.curezone.org/forums/am.asp?i=1743882>

<http://www.curezone.org/forums/fm.asp?i=2339053>

<http://www.curezone.org/forums/fm.asp?i=2343240#i>

#### **Silver Lining**

Multiple models to choose from, **all are current controlled to about 2.5 Mah to produce high quality ionic silver**. All control of PPM by a timing chart or by an external 117vac 24 hr timer (not included).

##### **Economy $26** ,

3- 9volt batteries w/ current limiting diode & TDS meter, 2- #12x6” Silver wires

 <http://colloidalsilver-supply.com/eccosige1.html>

##### **Economic $33**

 A/C power - 30vdc w/ current limiting resistor & TDS meter, 2- #10x6” Silver wires, carry bag

 <http://colloidalsilver-supply.com/eccosigeacve.html>

##### **CS30A $124 , BEST VALUE**

A/C Powered-30vdc, bubble stirring, current limiting & TDS Meter,

2- #10x6” Silver wires, carry bag

Photo & details:

 <http://colloidalsilver-supply.com/cscosige.html>

##### **Gen SS $185** ,

A/C magnetic stirrer,

Adjustable current limiting,

TDS Meter

Polarity Swap,

Lg 32oz Flask bottle,

2-#10 x 8” silver wires

<http://colloidalsilver-supply.com/cosige.html>

#### **Silver Lungs**

This generator has automatic shutoff to prevent making large particles.

1 Quart Flask-Beaker

Automatic Shutoff @ 10ppm or 20ppm switch

Automatic Polarity reversal

Constant 48 Vols-See “Is the Generator Constant Current”

<http://www.silverlungs.com/faq.html>

Power Supply 48 Volts - [Link](http://shop.silverlungs.com/ProductDetails.asp?ProductCode=POW_SL_48)

Silver Wires - 7 Gauge ( excellent !! )

Motor & magnetic stirrer at the bottom of flask

Prices $299 - <http://shop.silverlungs.com/SearchResults.asp?Cat=1823>

Video Review - <http://www.silverlungs.com/video.html>

Mario Cifaldi Interview: <https://www.youtube.com/watch?v=UoPdYAuJSHw>

Site - <http://www.silverlungs.com/generator.html>

**Customer Testimonials**

<http://www.curezone.org/forums/fm.asp?i=2329976#i>

 Video - <https://www.youtube.com/watch?v=OTgJnFT2UE8>

 <https://www.youtube.com/watch?v=OTgJnFT2UE8>

 Video Review in 3 Parts

 <https://www.youtube.com/watch?v=TkgWD9JrQTI>

 <https://www.youtube.com/watch?v=CEMmCv5ZKeQ>

 <https://www.youtube.com/watch?v=OTgJnFT2UE8>

#### **Silver Puppy - 1 Pint jar**

Automatic Shutoff @ only 10ppm - higher ppm in manual mode

Programmable, by following the instructions.

Instructions <https://silverpuppy.com/article/instructions-silver-9>

Help with instructions: <http://www.curezone.org/forums/fm.asp?i=1166299#i>

Silver Wires 12 Gauge

Magnetically Coupled Stirring

Making Colloidal Silver Gel - <http://silverpuppy.com/article/gel-kit-instructions>

Prices $160 - <https://silverpuppy.com/all-products>

Video Review - <https://www.youtube.com/watch?v=k2-kB3DmtdE>

Site - <https://silverpuppy.com/>

Constant Current [Link](http://silverpuppy.com/article/instructions-for-silver-7)

Operates at 1.1 Millamps through the electrodes

 <http://www.curezone.org/forums/fm.asp?i=84700#i>

Customer Testimonials:

 <http://www.curezone.org/forums/fm.asp?i=2328175#i>

 <http://www.curezone.org/forums/fm.asp?i=2329664#i>

 <http://www.curezone.org/forums/fm.asp?i=84724#i>

**\*\*\* Popular at the Curezone**

#### **SilverTron Systems**

 Selling 2 models of silver generators, fully described here:

 Manuals for both models - <https://www.cgcsforum.com/Manuals/>

 **Silvertron Elite - TOP RATED**

**1 cup to 1 Gal ( 4 Litres ) fully adjustable, digital readout:**

 **$329**

[**https://www.silvertronstore.com/the-silvertron-elite/**](https://www.silvertronstore.com/the-silvertron-elite/)

Elite power 117vac to 9 vdc Power cube, then converted into 28 volts DC to the electrodes

 Silver wire 12 gauge x 6” or [optional 1 oz silver bar](https://zencart.silvertronstore.com/index.php?main_page=product_info&cPath=2&products_id=4&zenid=avbrimptn0ad304hdprsa6lar3)

Automatic Power Reversal None

Grizz- Automatic polarity reversal is not needed with a 1 oz silver bar. The cathode wire (-) will never wear down, and the silver bar (anode +) will last a lifetime.

Automatic Shutoff & fully adjustable from 20ppm to 320ppm

* Mah (current): 1 to 15 in 1 mA steps, allows optimal current for the size of the positive electrode (anode), displayed on the built in digital ammeter.
* Voltage across electrodes starts at 28 volts, and slowly drops as the solution gains more silver, displayed on the built in digital voltmeter.
* Progress Bar displays how far batch has finished.
* PPM Settings : 20, 30, 40, 80, 100, 160, 240, 320
* Water Container Settings: 1 Cup, 1 Pint, 1 Pint Mason Jar, 1 Qt, 1 Qt Mason Jar, 2 Qt, 1 Gal - - - 250 ml, 500 ml, 1 L, 2 L, 4 L.
* Alert Tone when done: Off, Short, Long
* Digital Readout with memory holds last settings, even after power off.
* **While running, it displays voltage & current to the electrodes**
* **Displays a digital progress bar**
* Makes Ionic Silver (clear) with instructions to convert Ionic into silver particulate silver (True Colloidal Silver )
* “Can make 1 quart of true colloidal silver (silver nanoparticles) in 60 minutes with the standard electrodes provided. For those wanting faster production, 1 quart can be made in 20 minutes with the optional 1 ounce bar (80 Minutes for 1 gal)
* Magnetic Stirrer with hotplate is recommended - [Link](http://www.amazon.com/b?node=318023011) - [Hanna Stirrers](http://hannainst.com/products/magnetic-stirrers.html)
* Grizz- I use a cheap aquarium bubbler to stir the water at room temp. I also prefer the 30ppm setting and 2 mah on the 1 oz silver bar which makes 1 gal of superb ionic silver in 24 hrs.

Manual - [Link](https://www.cgcsforum.com/Manuals/SilverTronEliteV2UsersGuide.pdf)

 Store & prices: <http://www.silvertronstore.com/>

 Support Forum - <https://www.cgcsforum.com/>

 Customer Testimonials:

Lewis Reviews his Elite & experiments reducing ionic CS to metallic silver

<http://www.cgcsforum.com/index.php?topic=2684.0>

**Grizz Testimonial:** <http://www.curezone.org/forums/fm.asp?i=2332097#i>

**Silvonic Pro by Elixa - 1 Quart**

#### Automatic Shutoff @ 10ppm - Program button allows 1 more ppm with each press (quart)

or 2ppm more for 16 oz pint (30 additional minutes per press)

Press button 10 times to get 20ppm (quart), press button 5 times for 20ppm (pint)

Hold button for > 5 sec goes into DC mode which stops automatic polarity reversal and prevents automatic shutoff. (See demo-Making STRONG CS)

Electrodes: Silver Wires 12 Gauge

Lifetime Warranty

Automatic polarity reversal every 5 min runs during each batch

Constant Current <http://www.elixa.com/shop/silvonic/>

Magnetic stirrer optional if doing 1 quart, not needed for 16oz pint

Power Cube, or battery power or any power source 12v to 36v AC or DC

Video 1 - <https://www.youtube.com/watch?v=CublxByGYtU>

Video 2 - <https://www.youtube.com/watch?v=0zSDSmSfxqk>

Video 3 - <https://www.youtube.com/watch?v=eUDnzES3ktk>

Review - <https://www.youtube.com/watch?v=q7DpPwoDm8Y>

Nebulizer Demo - <https://www.youtube.com/watch?v=eRcaBWiYob8>

 ( This is the nebulizer that I use, excellent & internal battery - Grizz )

Making STRONG CS - <https://www.youtube.com/watch?v=tK7jAvYB7fo>

Prices $195 - <http://www.elixa.com/silver/index.html>

Original Silvonic Pro Instructions: <http://www.elixa.com/silvonic-original-instructions/>

Instructions - <http://www.elixa.com/silver/proinst.htm>

Site - <http://www.elixa.com/silver/Silvonic.htm>

Curezone Testimonial - <http://www.curezone.org/forums/fm.asp?i=2052835#i>

#### **Utopia Silver Bullet**

Info: Constant voltage vs constant current pros & cons from SilverGen:

 <http://www.silvergen.com/technica.htm>

11/10/17 - I sent Utopia a suggestion to add a current regulator diode in series with the anode wire to limit current to 1 mah. This will prevent the problems seen in the videos below.

 Shutoff by 24 hr AC Timer Controlled

Power 117vac to 48 volts @ 850 Mah or 56 volts DC depending on power module

The power supply used for the 48 Volt model: [Link](http://www.ebay.com/itm/48VDC-Power-Supply-/201674595520)

Automatic power reversal - None

Electrodes: 99.99% Silver Wires 12 Ga 5.5 inch

Stirring - None provided

Product Description & Price $139: [Link](https://www.utopiasilver.com/product/the-silver-bullet-colloidal-generator-complete-production-setup/)

 Online Instructions: [Link](https://www.utopiasilver.com/silver-bullet-colloidal-generator-instructions/)

Things to Understand: [Link](https://www.utopiasilver.com/things-to-understand-about-home-colloidal-production/)

Testimonial Video Batch of Colloidal Silver being made

 <https://www.youtube.com/watch?v=L9pQ-hFIYR8&feature=youtu.be>

Testimonial Video Finished batch Made with default settings & laser beam:

<https://www.youtube.com/watch?v=O1zr26YgtUY&feature=youtu.be>

**Comments on Video**. A stirrer is clearly needed to prevent agglomeration, such as an aquarium bubbler or a magnetic stirrer. This unit is a constant voltage power supply, confirmed by Ben @ Utopia Silver,

“Yes, the voltage is a constant 56 volts DC,” Ben.

Vairagi at the Curezone measured the current to the anode (+) on his 48volt silver Bullet:

“After some hours it dropped to: 20 milliamps to 30 milliamps (fluctuating)”

All of these problems can be fixed with a 1 Mah Regulator Diode in series with the anode (+) wire.

#### **X10 by Original-Silver**

Power from 9VDC 117vac or 12 volt battery, converted to 55v

Dynamic Current Limit starts at 1 Mah \*\*

Operating Voltage to electrodes max 55V \*\*

\*\* Info from Email to tech support

Dynamic polarity switching speeds up as PPM increases

Electrodes #10 AWG x 4 inches

Stirring: Magnetic

8.5 Oz Sealed Flask

Website $199

Shutoff Automatic @ 10ppm

<http://original-silver-generator.com/colloidal-silver-generator-starter-prep-kit-plus-silver.html>

<http://original-silver-generator.com/colloidal-silver-generator-starter-kit-plus-silver.html>

Manual <http://original-silver-generator.com/starter-manual.html>

Video Demos

 <https://www.youtube.com/watch?v=JujIburxXdE>

 <https://www.youtube.com/watch?v=Dl0gLmLKZOU>

 <https://www.youtube.com/watch?v=zw8L9CxbdXw>

#### **Your Health RSG-3 Generator**

Adjustable Current Max Limit Control:

1 Mah

1.5 Mah

2.5 Mah

4.7 Mah

20 Mah

Output 30 Volts DC

Constant Current

Indicator LED for CS Conductivity

Shutoff Manual or 24 Hr Timer

Stirrer none

Automatic voltage reversal none

Q&A: <http://www.yourhealthbydesign.com/colloidal-silver-1/>

Features & price $125:

<http://www.yourhealthbydesign.com/rsg-3-colloidal-silver-generator/>

## **Converting Ionic Silver into Particle Silver**

(AKA “True Colloidal Silver”)

We have determined that there are no valid reasons for converting Silver Ions into Particle Silver. See the chapter “[Truths & Lies about Colloidal Silver](https://docs.google.com/document/d/1wfnslQKQDd3i3ZK5B6jnW2cPv_0QnCTNstWF5trl_hc/edit)” for details & lab testing results.

If you insist on making Particle Silver, here are the procedures.

#### **Esstee Procedure to Reduce Ionic Silver into Particle Metallic (Colloidal) Silver**

#### Make your own Particle Silver & save a TON of money by Esstee

Magnetic Stirrer with hotplate is recommended - [Link](http://www.amazon.com/b?node=318023011) - [Hanna Stirrers](http://hannainst.com/products/magnetic-stirrers.html)

1. Take "any" CS generator and brew a 10ppm batch of ionic Silver.

2. Take said solution, bring to a boil for 15mins in a glass beaker (NOT metal).

3. Enjoy the savings.

4. Chemical reduction means reducing silver oxides into silver: 2Ag2O –> 4Ag + O2

The solution made using this method is far and away better than any packaged product

And the effects of (boiling) this particular transformation is what is known as chemical reduction. That is the spontaneous reaction reducing silver oxides into silver: 2Ag2O –> 4Ag + O2

5. With respect to particle size and efficiency, I'd add that we have every reason to believe that a properly made heat reduced colloidal silver solution would be every bit, if not better, than any of the products such as; Mesosilver and/or Utopia Silver

<http://www.curezone.org/forums/fm.asp?i=2266016#i>

**Heating the Liquid Notes**

<http://www.curezone.org/forums/fm.asp?i=2259227#i>

Rapid cooling <http://www.curezone.org/forums/fm.asp?i=2255693#i>

<http://www.curezone.org/forums/fm.asp?i=2330681#i>

Please search the colloidal silver forum for “Heating” to see all of Esstee’s research on this subject.

#### **Chemical Procedures to Reduce Ionic Silver.**

See the [manual for the Silvertron Elite](https://www.cgcsforum.com/Manuals/SilverTronEliteV2UsersGuide.pdf)

Also Google “Reducing Ionic Silver”

## **Converting Ionic Silver into OxySilver**

this is a 'stable' form of ionic silver, with 100x the germicidal action

<http://www.curezone.org/forums/am.asp?i=2067158>

<http://www.curezone.org/forums/fm.asp?i=663878#i>

Fully Described here: <http://www.curezone.org/art/read.asp?ID=58&db=5&C0=1>

Full article: <http://www.silvermedicine.org/h2o2.html>

Article: <http://silver-lightning.com/theory.html#HP>

[Enhance Colloidal Silver Trapper](http://www.curezone.org/forums/fm.asp?i=84634#i)

[Ear Infection](http://www.curezone.org/forums/fm.asp?i=84660#i)

[H2O2 & CS Bath Recipe](http://www.curezone.org/forums/fm.asp?i=85005#i)

[Mouthwash](http://www.curezone.org/forums/fm.asp?i=84962#i)

# **Make your own Generator**

| **Don’t be fooled by the simplicity of these 2 projects.** They both make extremely high quality Ionic Silver with tiny nano sized particles as measured by the laser light . The beauty of both projects is that any DC Voltage from 12 to 48+ volts can be used, even including two or more 9 volt batteries, 27 volts or more is recommended to speed production. The low current of 1 milliamp makes perfect ionic silver every time. See stirring and power supplies above in “Supplies.” Stirring is essential. A larger 1 oz silver bar allows for higher current to speed production, where max current not to exceed 1 milliamp per square inch of silver surface. It is still best to use less than max current to get smaller nanoparticles. Use any 24 hour 117VAC timer for automatic shut off, the longer it runs, the higher is the PPM. Do the shut off just as the the liquid begins turning yellow, to produce 20ppm as measured by the Hanna PWT Meter. |
| --- |

#### **Stirring the solution methods** -

Magnetic Stirrer with hotplate is recommended by many experts - [Link](http://www.amazon.com/b?node=318023011) -

[Hanna Stirrers](http://hannainst.com/products/magnetic-stirrers.html)

Build your own magnetic Stirrer

 <https://www.youtube.com/watch?v=XVLB9c0j1iU>

**Note from Grizz: I use a bubbler to stir the liquid.**

[**Stirring with an aquarium bubbler -**](http://www.curezone.org/forums/fm.asp?i=2336260#i)

#### **Power Supplies**

Higher voltage is preferred to speed production time. The higher voltage helps the reaction to get started faster in the beginning hour, when the distilled water is almost an open circuit. So 36 volts is far better than 12 or 24 volts. A current limiting device should also be used to prevent making Silver MUD, such as a current regulating diode, resistors, LED lamp, etc. Any power supply about 1 amp or more is fine.

* [**24 Volt DC Supply**](https://www.amazon.com/Universal-Slimline-Regulated-Switching-Adapter/dp/B01BH0QM3A/ref%3Dsr_1_2?s=electronics&ie=UTF8&qid=1474639469&sr=1-2&keywords=24+volt+power+supply)
* [**36 Volt DC Supply**](https://www.amazon.com/SMAKN-110V-240V-Converter-Adapter-5-52-5mm/dp/B0150ZYHOO/ref%3Dsr_1_1?s=electronics&ie=UTF8&qid=1474639583&sr=1-1&keywords=36+volt+power+supply)
* [**48 Volt DC Supply**](https://www.amazon.com/SMAKN-AC-110V-100v-Switching/dp/B01A9MBQV0/ref%3Dsr_1_2?s=electronics&ie=UTF8&qid=1478625316&sr=1-2&keywords=48+volt+power+supply)

**Many thanks to CrypticCRICKET for these exceptional videos.**

Making the generator using a 1 megohm potentiometer. After being adjusted to your power supply, the potentiometer needs no further adjustment.

Use a 36 Volt power supply

<https://www.youtube.com/watch?v=KgAgsS5h8is>

Comparing different currents of 1.0, 1.25 and 1.5 milliamps

<https://www.youtube.com/watch?v=VeVsgCxLO1k>

Quality Tips

<https://www.youtube.com/watch?v=Yt42tpEvY8w>

The Tyndall Effect

<https://www.youtube.com/watch?v=vIUiK-ef8Hs>

**Many thanks to Esstee for his brilliant Current Regulator Diode contributions**

Use a 1 milliamp current regulator diode instead of a potentiometer.

Use a 36 Volt power supply

Wiring the Diode by Esstee

<http://www.curezone.org/forums/fm.asp?i=2259054#i>

New Improved plan 10/30/2016

 <http://www.curezone.org/forums/fm.asp?i=2340906#i>

Where to buy the Diode by Esstee

<http://www.curezone.org/forums/fm.asp?i=2258964#i>

Diodes from Amazon.Com  [Link](http://www.amazon.com/s/ref%3Dnb_sb_noss?url=search-alias%3Daps&field-keywords=current+regulator+diodes&rh=i%3Aaps%2Ck%3Acurrent+regulator+diodes)

Data Sheets for Diodes - [Link](http://www.datasheetcatalog.com/info_redirect/datasheet/cdi-diode/1N5288.pdf.shtml) -  [Link](https://www.centralsemi.com/get_document.php?cmp=1&mergetype=pd&mergepath=pd&pdf_id=1N5283-5314.PDF)

[Ebay Link](http://www.ebay.ca/itm/5x-J506-Vishay-Siliconix-1-4mA-Current-Regulator-Diode-/400298133677?pt=LH_DefaultDomain_0&hash=item5d33a0c8ad)

Current limiting diodes work equally well for a wide range of power supplies 18 Volts to 48 Volts. Higher voltage = faster production.

Calculator for Colloidal Silver:

 <http://www.curezone.org/forums/am.asp?i=2341788>

Many thanks to BrightSideofLife for submitting this design plan using current limiting diodes:

 <http://kevinmoth.com/DOCS/BuildCSGen.pdf>

**Many thanks to Thomas McManus for this brilliant design**

 **Tom676** [**http://www.curezone.org/forums/am.asp?i=2120580**](http://www.curezone.org/forums/am.asp?i=2120580)

Video - How it works <https://www.youtube.com/watch?v=3Sp9vB9tr0Y>

Ebay - Ordering the current regulator [Link](http://www.ebay.com/itm/Digital-controlled-Constant-Current-Voltage-LED-Driver-Step-Down-Power-Module-/261268313276)  or [Link](http://www.ebay.com/itm/Digital-controlled-Constant-Current-Voltage-LED-Driver-Step-Down-Power-Module-/111176967638?pt=LH_DefaultDomain_0&hash=item19e2a9e5d6)

Input voltage: 5V~42V

Output voltage: 0~40V ( voltage goes down as output current goes up)

Output current: 1 milliamp or less to ~3A

Testimonial - <http://www.curezone.org/forums/am.asp?i=2193735>

| ***Make your own quality Ionic Silver for pennies on the dollar…. Absurdly easy***The secret to making perfect ionic silver is to not exceed the MAX current in milliamps to the size of your silver Anode (+ electrode), by using a current limiting diode. OK to use less current. Details below. See the above chapter “DIY Silver Generator Projects” for more” |
| --- |

The basic goal in 5 steps:

* Any DC power supply 24 volts to 48 volts ( even 3-9 volt batteries in series ) Amazon.Com has [24 volt pwer cubes](https://www.amazon.com/Universal-Slimline-Regulated-Switching-Adapter/dp/B01BH0QM3A/ref%3Dsr_1_4?s=electronics&ie=UTF8&qid=1472823776&sr=1-4&keywords=DC+power+supply+24+volt) bargains. [36 Volt Power Supply](https://www.amazon.com/SMAKN%C2%AE-110V-240V-Converter-Adapter-Charger/dp/B0150ZYHOO/ref%3Dsr_1_1?ie=UTF8&qid=1474300892&sr=8-1&keywords=power+supply+36+volts+dc)
* A [timer & relay](https://www.amazon.com/Newer-Version-Multifunction-Relay-Module/dp/B00VR1F3LC/ref%3Dsr_1_2?ie=UTF8&qid=1472912788&sr=8-2&keywords=timer+relay) to reverse voltage polarity every 5 minutes (optional). Not needed if you use a 1 oz Silver Bar for the Anode (+).
* A current limiting diode to regulate current to 1.4 Milliamp to 2.4 milliamps OR a 1 megohm potentiometer
* Silver wires or strips #10 gauge or larger 1 oz silver bar for the Anode (+) and any metal for the Cathode (-)
* Distilled water

IMO, the following are the Best of Esstee. See this link for all of his expert messages:

<http://www.curezone.org/forums/s.asp?f=97&c=0&ob=d&m=Esstee>

## **Important Formulas:**

**Parts Per Million:** 1ppm = 1mg of Silver per Litre of solution

20ppm = 20mg of silver per Litre

**#12 AWG Silver Wire Current Calculation Example by Estee**

<http://www.curezone.org/forums/fm.asp?i=2261438#i>

Calculator for Colloidal Silver:

<http://www.curezone.org/forums/am.asp?i=2341788>

Calculator for Colloidal Silver:

 <http://www.curezone.org/forums/am.asp?i=2341788>

## **Supplier for pure silver wire, bars & strips**

<https://www.riogrande.com/category/metals/silver>

**Cheap Silver Wire at Amazon.Com**

[**http://www.amazon.com/s/ref=nb\_sb\_noss?url=search-alias%3Dhpc&field-keywords=silver+wire+coil&rh=n%3A3760901%2Ck%3Asilver+wire+coil**](http://www.amazon.com/s/ref%3Dnb_sb_noss?url=search-alias%3Dhpc&field-keywords=silver+wire+coil&rh=n%3A3760901%2Ck%3Asilver+wire+coil)

<http://www.ccsilver.com/silver/superfines.html>

## **Controlling the Current for Tiniest Ion Silver Size**

### **Current Limiting Diodes by Esstee**

Google “current regulator diode” for more.

Wiring the Diode by Esstee

<http://www.curezone.org/forums/fm.asp?i=2259054#i>

Where to buy the Diode by Esstee

<http://www.curezone.org/forums/fm.asp?i=2258964#i>

Diodes from Amazon.Com  [Link](http://www.amazon.com/s/ref%3Dnb_sb_noss?url=search-alias%3Daps&field-keywords=current+regulator+diodes&rh=i%3Aaps%2Ck%3Acurrent+regulator+diodes)

Data Sheets for Diodes - [Link](http://www.datasheetcatalog.com/info_redirect/datasheet/cdi-diode/1N5288.pdf.shtml)

Current limiting diodes work equally well for a wide range of power supplies:

 <http://www.curezone.org/forums/fm.asp?i=2335342#i>

### **Current Limiting with a Potentiometer**

Current Limiting Diodes can be difficult to get outside the USA. An alternative is the adjustable resistor, known as a 1 megohm potentiometer.

**Video -** [**How to make a 1 milliampere Generator.**](https://www.youtube.com/watch?v=KgAgsS5h8is)

Potentiomer [1 Megohm at Amazon.Com](https://www.amazon.com/Bourns-3386X-1-105LF-Trimmer-Megohms-Pwr-Rtg/dp/B005S47NS0/ref%3Dsr_1_4?s=electronics&ie=UTF8&qid=1474300312&sr=8-4&keywords=potentiometer+1+megohm)

Google for best price, “1 Megohm Potentiometer”

## Current Rating of Generator by Esstee

For those of us who are not in a hurry to speed production, 1 or 2 milliamps current through the electrodes is fine regardless of how large the silver electrode is. If you want to speed production to the limit, then the size of the electrode determines the MAX current to avoid making Silver MUD with useless large particles.

The max current rating is proportionate to your electrode size. More specifically your Anode(positive electrode). And the rule of thumb on this is typically 1mAh per/sq. [inch](http://www.curezone.org/conversions.asp) of wetted electrode.

<http://www.curezone.org/forums/fm.asp?i=2261094#i>

<http://www.curezone.org/forums/fm.asp?i=2261438#i>

Example: <http://www.curezone.org/forums/am.asp?i=1974002>

**Grizz**-My experience is that a 2 milliamp current limiting diode is perfect regardless of how large the silver Anode is. Less current = smaller ion size and takes longer to finish. If the max current is exceeded, then large particles are stripped from the anode, and can cause silver MUD instead of ionic silver.

**Problems when making Colloidal Silver (Silver MUD)**

Gray & Murky solution = Silver MUD caused by too much current.

**Color of the CS**

<http://www.curezone.org/forums/fm.asp?i=2268473#i>

**How to Measure Your Colloidal Silver**:

**Hanna PWT meter** to measure PPM - [How to measure PPM](http://www.silvermedicine.org/colloidal-silver-ppm.html). Correction factor = Multiply the reading by 1.2 and deduct the reading for the distilled water being used.

 <http://www.silvergen.com/ppm_meter.htm>

**TDS Meters are not accurate to measure colloidal silver**

 <http://www.curezone.org/forums/fm.asp?i=2202257#i>

Magnetic Stirrers - <http://www.amazon.com/b?node=318023011>

**PPM Overview**

1 nanometer = .001 microns

5 nanometers = .005 microns

15 nanometers = .015 microns

100 nanometers =.1 microns

Bacteria 4 to 15 Microns

Virus = .01 Micron

Desired Ion/Particle Size = .0008 (0.8 nm) to .005 (5 nm) Microns

[Is More PPM Really Better?](http://www.silvergen.com/ppm_vs_efficacy.htm)

 [Why Higher PPM is not always better](http://www.thesilveredge.com/ppm.shtml)

The reason for posting these expert articles is to help us find the truth.

[**Colloidal Silver Handout**](https://docs.google.com/document/d/1LpuaQscGydfSzLfmJPFuq2TMauOeUOcFxiAj4ZHh8gs/edit) **for friends & family**

[**Colloidal Silver Testimonials**](https://docs.google.com/document/d/1JWJlelWt8TgWM_tnlZZVgkYZmBPL46nFbLriD3N-Qso/edit)

**Return to Main File** [**Colloidal Silver Main File**](https://docs.google.com/document/d/1wfnslQKQDd3i3ZK5B6jnW2cPv_0QnCTNstWF5trl_hc/edit#heading=h.ix6f6vikzm4r)

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