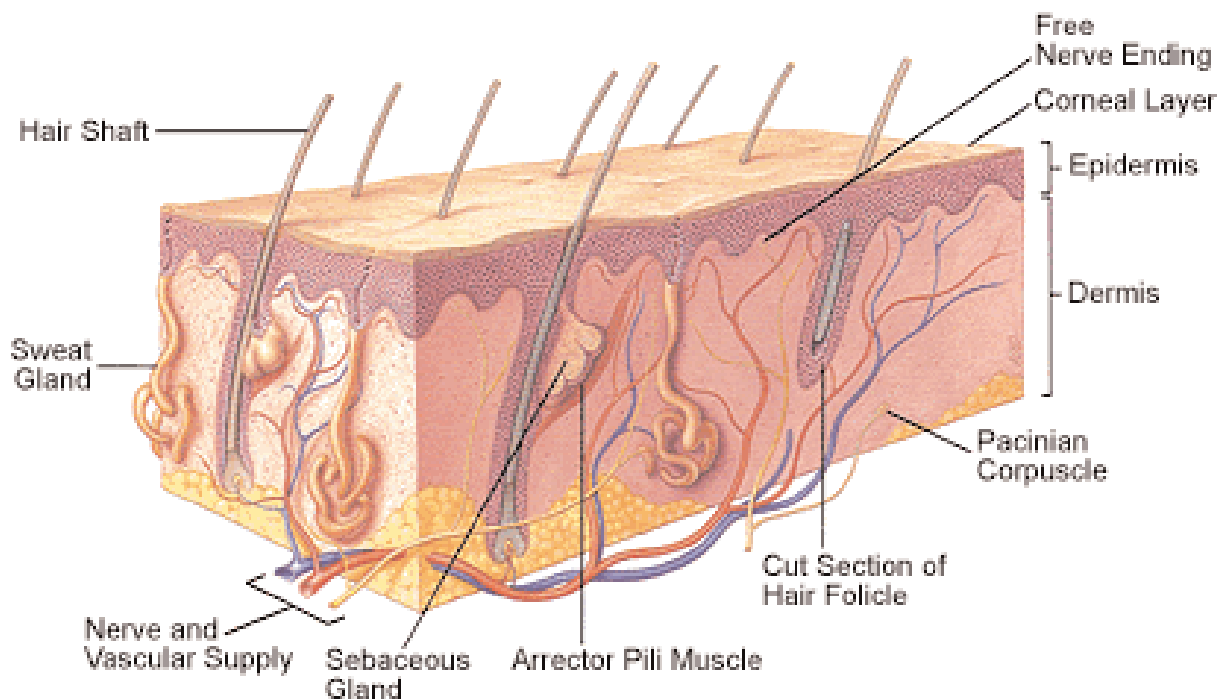




The  
**Complete** *How to*  
**Tattoo Guide**

# The Skin



According to a study written in a body art magazine, about 60% of people who get tattooed regret their decision at a later stage of life. I also read an article written by a lady with multiple tattoos, that her regrets concerned her first tattoo, thus confirming my own observations about tattooing. I have a theory which may seem a bit conceited, but if I can prevent a single person from getting a tattoo which they are going to regret, and instead to help them realize a beautiful piece of art, which they will enjoy for the rest of their lives. I would be very happy!

The lady I mentioned above also wrote that she did not want to make the same mistake again, so she spent a lot more time selecting a design which she liked now, but tried to visualize liking the design in fifty years time. If you think about it, it's picking the design that is one of the most important parts of the process of getting tattooed. Most people who get tattooed go to a tattooist and choose the design off the wall or out of a book. At that particular moment they think it's a beautiful choice, but what about in the future? People change, your taste in almost everything changes. What I like now or what I like in 4 or 5 years from now could be miles apart, so here I am stuck with a tattoo, which I regret!!! If you personalize your design the chance of future regrets will probably be brought to a minimum, and keep in mind that the decision to get tattooed is a permanent one. So take your time....

This is crucial. A tattoo application must be as clinical as a hospital, there are too many risks involved by ignoring the hygiene. Sterilization is the key issue in safe tattooing. To think that all new needles are sterile is a myth! All needles have to be Autoclave sterilized new or used, this is the only way to make sure that they are safe. The tubes where the needle/bar rides in needs to be sterilized as well.

- Make sure the tattooist uses the next items for every new tattoo application!
- New sterilized needles
- New sterilized tubes.
- New ink and inkpads.
- Wears operating-gloves.
- Uses new salve and spatula

It can't be said enough, be careful with your health you only got one!!

## **A mark of a lifetime** **by Dee Dee**

Why did I want to get a tattoo? I wanted to get something that I would enjoy having for a long time, and something that symbolizes myself. The first thing I did was research; I searched the web and used the yellow pages as my resources. Next to that I visited tattoo studios in the area, and spoke with some of the artists and viewed their portfolios. After that I asked about their sterilization procedures and the experience of the tattooist. I did my research for about 2 weeks and finally I made a decision to go to Red Dragon Tattoo, and have an artist at Red Dragon called Ed to do my tattoo, and made an appointment. The atmosphere at the studio was warm and inviting, and the staff was friendly and helpful. When I went in to get the tattoo done I had to fill out forms and talk with Ed. He asked what I wanted, and after I told him I brought in a couple of designs I wanted to have done. I showed him a black rose, and the Chinese symbol for compassion. Since I am a teacher I wanted a design that symbolizes myself. Ed told me that he was going to

set up, and would be with me in ten minutes. I waited anxiously and after a while Ed called me to the back. He asked me if this was my first time and I told him it was. He smiled and showed me the package of needles, and explained to me all the needles were new and the instruments were autoclaved. After that he sterilized the area on my back shoulder and shaved it. He then told me that he was going to do a line to show me how it would feel, because there was going to be a lot of outlining. (It didn't hurt at all.) After the test he began on my tattoo, and I was not in any pain at all it just felt like an annoying pinch and then just numbness. The total tattoo took about 30 minutes, Ed bandaged me up and put some A and D ointment on the tattoo. He told me to leave the bandage on for about 2 hours, and then to wash it 3 times a day in very warm water with my fingertips and a mild soap. And apply A and D ointment after each time I've washed the tattoo. When all was done Ed escorted me to the lobby, and went over a Tattoo Care Pamphlet with me. When your tattoo is healing it is important to stay out of direct sunlight, and you cannot exercise nor swim for 2 weeks.

I feel that if you do choose to get a tattoo you should do your research first. Also make sure you really want to get a tattoo, it is a mark for a lifetime. If you regret it and want to have it removed, it is very expensive and there is light scarring.

## **Important Questions to Ask Your Tattoo Artist Before Getting Tattooed**

### **DO YOU:**

- Thoroughly wash your hands with antibacterial solution immediately before and after each tattoo application?
- Wear latex gloves during the tattooing procedure?
- Use single service materials and equipment (i.e., each needle and tube set is individually packaged, dated and sealed, and autoclave sterilized), and set up and open them in front of the client?
- Use sterile disposable needles?
- Have an FDA-regulated autoclave on site?
- Sanitize your work space with an EPA (Environmental Protection Agency)-approved viridical disinfectant, preferably one that kills tuberculosis, before and after each client?
- Thoroughly rinse tube/needle set from tattoo machine using an ultrasonic tank before discarding?
- Properly dispose of contaminated materials?
- Measure how the person who you talk with answers your questions—are they considerate and thorough, or are they annoyed by your inquisitiveness? You have a right to have your questions answered thoroughly in advance. When you get there, check out the studio—make sure it looks and feels clean. If you get there and you're uncomfortable, you can leave.

**Lets Do It... tattoos for you...**

## INTO THE SKIN

Tattoo needles will pierce the skin approximately 1/16 of an inch, in the dermis. THE SKIN is made up of layers. As a tattooist you must be concerned with the first five epidermal skin layers. The layer designations are Epidermis, Fibrosis, Dermis, Subcutaneous Fat, and Muscle.

The Epidermis or outer layer is responsible for protection against the environment.

The Dermis or middle layer is primarily responsible for structure and support and the Subcutaneous Fat layer is primarily responsible for insulation and shock absorbency. The Epidermis is divided into three sub layers: the STRATUM CORNEUM, the SQUAMOUS CELL layer and the BASIL CELL layer.

The STRATUM CORNEUM consists of several layers of dead SQUAMOUS cells and varies in thickness depending on location on the body. The thickest layers being on the bottom of the feet. The Stratum Corneum becomes thicker with age and exposure to the environment and thus more susceptible to wrinkles and creases.

It is also important to use Sun Blocks that tend to reside in this layer. It is desirable to stop the ultraviolet light from the sun at the surface of the skin rather than allowing it to penetrate into the skin. UV from the sun that penetrates into the skin can cause several types of damage including fading of tattoo ink.

The SQUAMOUS CELL layer is the middle layer of the epidermis and is the center for new skin growth.

Skin cells grow and multiply in this layer and are constantly pushed outward to eventually die and become part of the STRATUM CORNEUM

The BASIL CELL layer is the birthplace of new epidermal skin cells. Basil cells receive a chemical message when the skin is damaged or when the stratum corneum loses too many cells and becomes thinner than it is supposed to be. This results in the basil cells dividing and differentiating to form new skin cells and start the outward movement that results in new skin production.

When you are tattooed, the skin is stretched taught. This prevents knotting in the outlining. The ink is deposited in the dermis region, and when healed the ink can be seen due to the transparency of the skin cells.

Tattoo ink must be deposited in the dermis (just below the epidermis layer), because if the ink is too shallow in the skin, in the outer layers, it will fade with time, as those skin cells are replaced, and if it is too deep, it will lose its form with time in the fat layer.

Fat cells contract and grow with age, and (how fat you are)! and the ink will move, causing a distorted image. Stencils are applied to unstressed skin, the area should be in a natural state, don't flex your muscles while the stencil is being applied.

Once the stencil is in place, the skin is continually stretched taught, while the tattooing happens. If the skin is not stretched, the needles can actually bounce off the skin, and not penetrate, or the needles can catch the skin, tearing it, either case results in a poor tattoo.

## **A CLEAN and ORGANIZED workspace**

The workspace of a tattoo parlor, or shop must be kept as clean as possible. Take some time to set up your shop, so that all the tools will be in your reach.

A shop would have the basics: (1) A clean floor, no carpet, tile is preferred. It can be cleaned and disinfected quite easily; carpet is a breeding ground for viruses and germs. (2) A sink with running water...for hand washing, equipment washing. (3) A comfortable chair for you and for your client, footstools, tables, barber chairs, dentist chairs, whatever fits your needs. (4) A worktable, something big enough to hold all your supplies, and equipment. (5) Lighting is very important, good light can make or break a tattoo. (6) Equipment: Autoclave, or dry heat sterilizer, ultra sonic cleaner, tattoo machine, power supply, thermal transfer stencil maker (optional), impulse heat sealer,

This list is just some of the major equipment needed for professional results.

### **Cleaning your work area.**

All surfaces must be disinfected with a cleaner before tattooing occurs. The floor should be kept clean, and spilled ink or blood should be cleaned and disinfected. The worktable should be cleaned between customers, and all equipment touched, i.e. power supply knobs, ultra sonic switches, light switches, should be cleaned.

Clean disposable towels should be used for each client, and waste should be disposed of properly, on regular waste container, and one biological waste container, or sharps container. STERILIZATION Dry heat sterilizer

The most important part of the tattoo process is clean and sterile equipment. There is only one way to guarantee sterile needles, tubes, grips, ink, and other equipment, and that is extreme heat for a prolonged period of time.

IF you are planning to start tattooing and can afford to buy a tattoo gun and power supply, but not the equipment for cleaning and sterilization. Keep saving because your doing no one any favors spreading disease. You risk transmitting disease, to your clients, yourself, and damaging the art of tattooing in general.

The only sterilization that will be discussed here is autoclave and dry heat sterilization. Gas sterilization, glass bead sterilization. Boiling water, pressure cooker, and chemical sterilization are not commonplace in a tattoo studio, and in some cases unsafe for the operator and clients.

Before you can sterilize an instrument it must be clean, any ink, blood, etc. left upon a needle or tube can actually shield that portion of the instrument from sterilization.

Sterile equipment should be kept in sterile sealed pouches until the ultimate time of applying the actual tattoo Autoclave Sterilization: Autoclaves range from 200 dollar stove top sterilizers to timed cycle shop units around 2000 dollars. All autoclaves work the same way, steam heat and pressure.

Autoclaves have a sealed chamber, which is capable of withstanding pressure and heat. Most autoclaves operate at approximately. 275 degrees Fahrenheit (135 degrees Celsius) at a pressure of 15-25 lbs. When the whole chamber reaches these requirements



sterilization occurs in approximately 20 minutes. Certified autoclaves are designed so the whole chamber reaches the appropriate temperature, unlike ordinary pressure cookers.

Tools are usually sealed in nyclave tubing, and heat-sealed at both ends. This tubing helps prevent your instruments from rusting, and also provides for handling outside of the autoclave, assuring sterilization until the package is opened.

Most tubing or pouches have a process indicator strip, which changes color when the temperature needed for sterilization is reached.

This indication does not indicate sterilization, but only that the temp was reached, to sterilize tools they must remain at this temperature for a prolonged period.

Autoclaves must be periodically tested using a spore test to ensure proper sterilization.

**Dry Heat Sterilizers:** As with autoclaves dry heat sterilizers use extreme heat to kill bacteria. Dry heat sterilizers use no water, and use no pressure, so they operate at a higher temperature.

Dry heat sterilization occurs at around 160-180 degrees centigrade (320-360 F) after 30 minutes at this temperature. Dry heat has an advantage over steam processes, steam tends to dull sharp edges, and needles oxidize rapidly due to the moisture.

**Spore testing vs. indicator strips:** A frequently asked question, or misconception is the color changing strip or sticker you see on sterile pouches.

The strips change color to give a visual indication that the item inside the pouch was sterilized. The strip does not change color due to sterilization, but only upon exposure to temperatures that promote sterilization. The strips would change color if you put them in your toaster, prob. catch on fire also...The strips only indicate temperature, and sterilizing an instrument takes time and temp. And in the case of an autoclave, pressure. Spore testing.... spore testing should be done routinely to ensure your auto-clave is working. A spore test is nothing more than two pouches full of spores. One pouch is your control, it will not be placed in the autoclave, the other pouch can be placed in your autoclave, and run thru your normal cycle. The two pouches will then be sent to a lab, where they will be placed in petrie dishes and grown. The control package of spores should grow, and the ones you sterilized should not.... if this is the case your autoclave is working properly, but if your spores you sterilized grow, then your autoclave is not working and should be repaired. The spores used in this test are generally *Bacillus stearothermophilis*. Any of the *Bacillus* type spores are very resistant to being killed.

One thing to remember that in order to get a proper steam pressure / temperature correlation, ALL of the air must be purged from the autoclave. Any air in the autoclave will reduce the temperature at a given pressure and reduce the effectiveness of the steam sterilization. Also all surfaces to be sterilized must be exposed to the live steam.

Sterilization is done at 15 to 17 psi for 20 to 30 minutes. According to Corning, Pyrex glassware should be steam sterilized at 121C for no more than 15 minutes. With 100% live steam (all air has been purged) at 15 psi is 121 C / 250 F and at 17 psi is 123 C / 252 F.

## How It's DONE

A tattoo is nothing more than ink deposited under the skin. How it gets there is another matter all together. The following will be an overview of how modern tattooing, achieves the desired effects.

Once the tattoo gun is set up, cleaned and disinfected, clean sterile needles are installed in the needle tube. The needles are not hollow, and are approximately. 1 inch long, and soldered upon a needle bar. For outlining a single needle is used, or 3 needles soldered together, these are just examples 2 needles up to 15 could be used to create a line. The tube, which the needle bar is inserted, acts as a guide, and an ink reservoir. The needles are then set for the proper overhang from the tube tip.

Now that the gun is set, and the client has been prepared, the ink is dispensed into disposable caps. This prevents contamination of the ink from one client to the next.

The ink is not reused, and any excess is thrown away. The gun is turned on, and dipped into the ink cap paying care not to damage the needle tips. Ink is sucked into the tube tip reservoir. The gun is then ran momentarily next to some paper towel to clean out the excess, and now tattooing will proceed.

Outlining is usually the first step in the tattoo process. The needles extend into the skin approximately. 1/16 th of an inch, depositing ink in the dermis region of the skin.

The skin is stretched tight with one hand, while the other operated the gun; power is turned off and on via a foot switch. The stretching of the skin is vital in providing a smooth clean line. The artist moves his gun forward, or to the side. This keeps the needle against the back of the tube keeping the lines straight. The machine is slightly angled back and the stenciled lines are followed until the design is completed.

The next step is shading. Shading is done many ways, for example a square tipped tube is installed on the gun, and a flat set of 6 needles is installed. The needles are very slightly fanned to help keep them from wobbling in the tube. With the skin stretched the artist will start at the darkest area of the shading, and move toward the lighter section all the time lifting the needles further out of the skin till the needles loose contact at the end of the shading.

Sprayed water can also be used to dilute the ink as it goes in to give a lighter gray or washed appearance. Coloring is achieved by using the same needle set up for shading or a round set of needles in a much larger grouping.

The skin is stretched and the artist will move his gun in small circles until an area is covered. When the skin is stretched the artist should not see any missed areas, if so he will have to carefully ink the missed areas, then when the skin is released the colored areas will look smooth.

When coloring a single pass with the needles is desired otherwise heavy scabbing could occur lifting much of the ink out of the skin, leaving spots with no color.

At this point when the tattoo is finished it's the customer's aftercare that will make or break the tattoo. The artist will apply a antiseptic cream to the tattoo, and cover with a bandage of some sort. The bandage must be left on for 2 hours, to keep dirt out of the wounds as they scab. Then the bandages must be removed, and the area washed, gently.



As many times a day as possible afterwards till healed the tattoo should be covered by water-based lotion (not Vaseline). Avoid soaking tattoo in water, chlorinated and salt water especially. And do not pick the scabs. Picking the scabs may pull ink out of the skin thus ruining the tattoo.

## **Cleaning and Skin preparation**

Skin cannot be sterilized, but it can be clean and disinfected. The skin must be shaved before tattooing occurs, be careful to avoid causing irritation to the skin, use a good shaving cream. After the skin is shaved and all the remaining soap and residue is removed its time to start. Disinfect the skin prior to applying the stencil. Use liquid bactine, or witch hazel...now your ready to tattoo.

## **Dipping into the ink...**

Ink is a one time use commodity, only once per customer.

Keep your ink in a container, and dispense the appropriate amount into a disposable cup for use on a customer, and throw away any excess.

Ink comes premixed, or in powder form. When using premixed ink shake well before dispensing, and if the ink is clumpy, or too pasty, you may have to add some alcohol to thin it out. A neat little trick is to place a few stainless steel balls in your inkbottles to aid in the mixing when you shake your bottle, sort of like a paint can.

Powdered ink should be dry heat sterilized before mixing with a thinning agent. Powdered ink is then mixed with sterilized filtered water, alcohol, and glycol. Others thin their ink with witch hazel or Listerine. Most powdered ink dispersions come with a technical sheet describing a mixture ratio.

A scale and a small mixer will greatly aid in getting a good ink consistency. Place the appropriate amount of ink in a disposable cup. In the cup mix the ink with a sterile stirring stick to ensure consistency. Dip your running gun into the ink well and let the ink fill the reservoir of your needle tube tip.... you now ready to apply some ink. Or just place the end of your tube in the ink well and do not run your gun...this will ensure you don't fishhook your needles by bouncing them off your plastic ink cup.

First we will cover using pre-made needles soldered onto bars. IF the needles have not been sterilized yet, do so before use, refer to sterilization. Remove the sterile tube and needle combination. Slightly bend the needle with the low point of the bend on the opposite side of the soldered needles.

Bend the needle bar about a three-inch distance from the eye to the end so you have a very slight bow. The bend should not be more than 1/8 of an inch to 1/4 of an inch from a straight line. This adds a degree of tension to keep the needle bar on the armature and provided a bow for the rubber bands to find a nitch

- 1.** Needle installation: With a fully assembled tattoo gun, place a new or disinfected rubber grommet onto the nub on the armature bar. Looking at the front of the gun, place the loop of the needle bar over this grommet, with the open end facing left. This positions the needles toward the back of the tube.

2. Tube installation: Slide the appropriate tube up over the needle bar assembly, pay extreme care to when the tips of the needles approach the tube tip, slide the needle tips thru and tighten the yoke on the tube.
3. Move your armature bar up and down to ensure free movement.
4. Install a few rubber bands around your machine, these should be at mid coil, and wrap around your needle bar. The rubber bands provide tension for your needle bar and keep the loop tight on your grommet and keep the needle from walking.
5. If working off your tube, adjust the tube up or down so the needle tips barely extend out when the armature bar is up. Move the armature bar down and ensure the needles extend a minimum of 1/16 of an inch. With practice you may want to increase the overhang of your needles when you are comfortable with depth control.
6. The gap of your points basically determines your needle movement, so you can determine your needle stroke by adjusting your point distance.
7. On flat needles it is important to fan the needle tips so the outer needles are in contact with the needle tube tip. This prevents needle wobbling. After a few uses tube tips should be filed to remove wear marks from the needle movement.

## Your MACHINE

A tattoo machine works using a basic principle. Two coils are attached to a spring, and thus attached to a power supply. When the gun is in a state with no power applied a spring holds two contacts together. The lower contact point is also attached to the coils, and the tattoo needle. When power is applied to the circuit, the coils become magnetic, pulling the armature bar, and spring down, and the contacts break, opening the electrical circuit. The spring forces the armature bar upwards, bringing the contacts together, completing the circuit again. This causes the coils to pick up and pull down the armature bar, breaking the contacts, well over and over again moving the needle up and down...to fast in most cases for the human eye to see, the hum you hear are the contacts making and breaking. To understand how to set up your tattoo gun, you must understand what all the parts of the gun do:

1. Tattoo gun frame...This is what holds it all together...some frames are made of stainless steel, others aluminum, and so on...the shapes and weights of the frames greatly affect the vibration of the working gun. A heavier gun will absorb more energy from the coils, thus reducing the vibration felt by the person holding it. Some artists choose their guns based upon weight...lighter gives you less fatigue, but heavier makes for better shading...The particular frame pictured has a built in yoke, the yoke is what the coils rest upon, the negative point of contact. (The two holes in the bottom of the frame). This frame has a standard screw operated chuck. (The screw head closest to the coils) This chuck is where the top of the tube is inserted, and thus tightened after needle depth has been determined.
2. Coils, most conventional tattoo guns are equipped with two matching coils. The coils vary in size and number of wraps, but in most cases are between 8 wrap and 12 wrap coils...wraps being the number of times the wire is coiled around the hollow spool, which is the body of the coil. Inside this hollow spool is a core, which moves up or down depending on the magnetic flux developed by the outside coils, attached to this core is a spring to return it to its normal state condition when power is not applied.

- 3.** Capacitor.... The capacitor saves the points of the gun reducing sparking.
- 4.** Front and Rear binding posts The front binding post usually contains a contact screw made of sterling silver. The contact screw can have a removable contact point at the end of the threads. The contact screw can be adjusted up and down to lengthen or tighten the gap between your points. An old guide is a dime's thickness between points for a liner, and a nickel's thickness for shading. The rear binding post will serve as the positive attachment to your power supply. As with the front both binding posts have rubber grommets to electrically isolate them from the gun frame.
- 5.** Armature Bar This rests on the top of the coils, and bolts to the machine spring with contact points. This bar will move up and down moving the needle bar. At the end of the bar is a small nipple. A rubber grommet is placed on this nipple and the eyelet of the needle bar is placed over the rubber grommet.
- 6.** Machine Springs: This spring provides the return tension for the armature bar after it lowers when the points make contact and drive the armature bar downward.
- 7.** Rubber bands They are applied around the machine all the way from the back of the frame (near the power connection), to the front of the needle bar. The rubber bands give the needle bar tension so the needles do not vibrate quite so much, move front to
- 8.** Washers Use these for proper spacing
- 9.** Tube: the tube has two to three basic parts...

The tube itself is nothing more than a round piece of tubing (preferably stainless steel). The end of the tube is formed to accept various tips, from flared round tips, to flat tips, there is no limit to what type of tip you can use, only your imagination and trials.

The last part of the tube is the grip; the grip can be part of the tube, or a separate piece. Grips can be made of stainless steel, aluminum, plastic, rubber... any material that cannot withstand the temperatures of an autoclave should be treated as one time use disposable.

Needle bar ...The needle bar is a stainless steel heavy gauged wire approximately. ...5 5/8 long with one end forming a loop, and the other end being round or flat depending on the type of needle cluster to be soldered on to it.

Needle Cluster...The needles for tattooing are not like the needles used in a hypodermic syringe. The needles are not hollow, and are generally about an inch long and finer than a standard straight pin. There is no cap at the end of the needle.

One needle soldered to a needle bar would be a single, three needles soldered together in a triangle would be considered a tight or semi tight 3, the above could be used as liners.

Other needle types could be 6 needles soldered in a row, flat, this is called a flat 6, commonly used as a shader. There are many variations on needles including singles tight and semi-tight 3,4,5s.... flat 3,4,5,6,7 up to 14, magnum 5,6,7-15, floppy 8s, round shaders, etc. Refer to making needles for more information.

So those are the basic parts of a tattoo gun, setting it up: When working with a client, you must take extreme care to ensure your equipment is clean, disinfected, and sterilized when in use. Before assembling your gun to work on a client, all parts should have been

autoclaved where applicable, disinfected, and cleaned. Wear latex gloves during the assembly process, because once you remove parts from their sterile packages, they are no longer sterile, so utmost care must be taken not to contaminate them.

Take the assembled gun, ensure it is clean, and wipe it down with a cleaning agent and disinfect. Attach a rubber grommet to the end of the armature bar. Select the needle assembly you plan on using, slightly bend the needle bar, just barely, almost can't see it. (This provided a solid contact for the rubberbands, and proper contact of the needles and the tip.

Insert the desired needle bar and needle assembly thru the tube clamping assembly and onto the rubber grommet with the opening in the loop facing left (as looking at the front of the machine). Carefully insert the needle bar assembly into the proper tube, and slide the tube up until the needles approach the tube tip, at this point be very careful not to damage your needle tips when guiding them through the tip. Insert the tube into the chuck and temporarily tighten.

Check the contact points to ensure they are in good condition. Pitted or worn contacts should be replaced. If you are using this gun as a liner, set the contacts approximately the width of a dime apart (width of a nickel for a shader), and tighten the screw, which holds the contact screw in place.

Place rubber bands around your gun, to tension the needle bar toward the back of the tube. Look at this point; the needle bar should not be rubbing the tube.

Move your armature bar up and down to assure free movement, and to assure your needle bar loop is seated on your grommet. If you plan to work off your tube, adjust your tube so the needles are 1/16 of an inch out when the armature bar is pulled down.

If you are working off your needles let the needles overhand the end of your tip a 32nd of an inch or so...or whatever you are comfortable with.

Attach your power supply and your ready to use your gun. Turn on your power, and listen to your gun, a smooth sound with needle movement between 1/16th of an inch and 3/32nd of an inch. Turn the contact adjusting screw up or down to achieve your proper setting for your desired speed, or voltage. When setting down your gun, have a clean disinfected area for storage, or a clean slot in your ultrasonic cleaner.

## **Tuning your power supply to your Machine**

Power supplies, most tattoo guns are DC, and most power supplies come in two forms regulated, and non-regulated. Regulated means that the output voltage will always be what your setting says, if you choose 13 volts then the output will be 13 volts, nonregulated machines will give you an average of 13 volt output.

The regulated machines are more expensive, but save contacts and provide smoother running machines, and better tattoos. Attach your power supply to your gun; you should also have a footswitch setup so that it works as the on/off switch for power to your gun. Ensure that your gap has been set...

**Tip:** liners contacts should be set the width of a dime apart, and shaders should be set the width of a nickel apart. Turn on your power supply, set the output voltage to your desired

speed, the higher the voltage the faster the machine will run, a fast smooth machine is good for lining, and a slower machine is preferred for shading, but practice will determine your use.

Step on your foot switch; ensure proper operation of your gun by observing needle bar movement, and needle tip movement. Look for needle wiggle, or shimmy, this will have to be corrected. Now listen to your gun, does it sound smooth, choppy, weak, or no sound at all. If your points are too far apart, the machine will not operate, turn in your contact screw until a nice smooth hum is achieved. This is the proper setting for that voltage, observe needle bar movement of between 1/16 th of an inch and 3/32nds of an inch at this time...your machine is now tuned.

## **Making stencils and applying them**

You have a design, now you have to decide how large or small it will be.

When the customer decides, the easiest way to reduce or enlarge a line drawing is with a copier machine or computer; scanning the image into a computer using a photo-editing program to shrink, retouch, or flip the image, then print it out.

Next using spirit master paper packs insert the image into a thermal transfer stencil maker and in a few seconds you will have a purple line stencil ready for application.

Well that is the fastest and easiest way to make stencils, there are many other tried and tested methods:

**(1)** Skin scribes, hectographic surgical pencils...use these to draw a design directly upon the skin...commonly used for basic shapes like hearts, stars, banners, free hand work. To ensure maximum sterility, hectographic pencils should be sharpened between uses and rubbed with alcohol.

**(2)** Carbon paper transfer...draw a design on a piece of paper, then apply speed stick to the desired area of the skin. Lay carbon paper over it, and trace over your design. And you will have a crude stencil on the skin.

**(3)** Another method is using tracing paper use your original design and trace it with carbon paper and tracing paper underneath. The carbon will form a stencil on the tracing paper, and you can lay the tracing paper against the skin using water or speed stick to apply a stencil. REMEMBER to reverse the original design so your tattoo is not reversed. Using a printer...scan in a design to your computer, flip the image using a print program, and print it out onto tracing paper. Apply speed stick or water to the desired area receiving the stencil, and press and you have a stencil. (In color if you desire) Using spirit paper without a stencil machine, just trace your design thru and get great stencils like the pros.

## **Applying a stencil, skin prep.**

Area preparation. Shave the area; be sure to use a disposable razor and plenty of lubricating shaving cream. If the area gets a razor burn the client may not be able to tolerate getting a tattoo.

Clean the area with soap and water, then a green soap solution, and last with a triple anti-septic, like bactine antiseptic/anesthetic liquid. Most artists use speed stick to apply

stencils, water, and alcohol-based products are also used. Apply the speed stick to just wet the skin, then carefully apply the stencil, peel back the paper and with any luck you'll have a crisp stencil facing the correct direction, and positioned properly, at this point show client placement before any ink is applied.

During the tattoo work from the bottom of the piece to the top, with the constant wiping and spraying stencils tend to fade. They fade when you don't want them too, but stay bright and vivid when you're done and want the purple stuff gone so you can continue. Use a mixture of green soap and 80% rubbing alcohol sprayed over the area to remove the purple stencil.

Tattoo Styles Tattoos are not all the same; in fact one can say that each tattoo is a one of a kind.

Whether a tattoo is chosen from flash or custom drawn a tattoo is very personal, but most tattoos can fit into certain genres. Over time tattoos have evolved into many styles, some primitive some modern, but all an artistic interpretation of an idea.

## **Here is an overview of some of the more popular styles of tattoos and tattooing**

- 1.** Abstract Art-Freeform is a modern style involving no outlines and a Picasso like appearance.
- 2.** Black and Gray work is thought to be the true test of a tattoo artist. Shading is heavy and the illusion of a 3D form is achieved without the use of color. This style is derived from prison tattoo, but mechanically far exceeds the expectations of a crude jailhouse
- 3.** Grey wash is a method of diluting black ink with water to achieve the grays from light to black.
- 4.** Biomechanical is a form of work showing humans meshed with machines. A common theme is the flesh being ripped away exposing the mechanical inner workings of an arm, for example. Artists such as H.R. Giger and Clive Barker inspire these works.
- 5.** Celtic designs are intricate knots, which represent people and animals from, Welsh, Breton, Gaelic, and Cornish folklore. They are intricate weavings of a singleline knotwork.
- 6.** Color is a general term covering any style of tattooing involving color. Color can be subtle or vivid depending on the client and the piece.
- 7.** Evil has been a very popular tattoo theme for a long time. Images of spiders, skulls, devils, demons, and death play with are fascination of mortality, death, isolation, and fear. Shading is heavy in this type of work as well as fine detail.
- 8.** Fantasy Art This generally covers fairies, dragons, angels, women, armored knights, unicorns, and wizards to name a few. These are generally done in splendid colors to convey.
- 9.** Fineline is a modern tattoo style, as tattoo machines have gotten better, and inks and technique have improved, more detail is being added to pieces. Common themes are portraits, animals, biomechanical, and any fine picture, even UPC code bars.



- 10.** Gangster/Biker tattoos are symbols or permanent patches signifying allegiance to a club or gang. Commonly these are Old English script on the stomach, back, neck, or chest, the name of the gang or gang members gang name. Teardrops under the eye symbolize people killed, as well as spider webs on the elbows.
- 11.** Haida is the design of the American Indian and Eskimo. Generally tribal flat pieces of animals, totems, birds, and use a few major color.
- 12.** Memorial are ways to immortalize a love one that has passed, or a child's name. These are typically crosses, flowers, scrolls..Etc.
- 13.** New School is generally regarded as starting in the 1980s; it's a culmination of every tattoo style into one piece. Generally different subject matters are mixed.such has an alien and a car.
- 14.** Oriental.Yakuza is a Japanese style. It is usually colorful and detailed, and contrary to European and American tattooing styles, this style uses the whole body as a motif. No sticker tattoos here, the work is planned out to cover the whole body before the work begins. Tattooing in Japan was outlawed for the working class and the Yakuza (Japanese gangsters) took tattooing in as a secret symbol.
- 15.** Portraits are some of the finest forms of modern fineline tattooing. The artist is extremely skilled in interpreting a photo to skin art. Some results are breathtaking and found in many tattoo magazines. The key to successfully inking portraits is knowing exactly how much detail is too much. To much detail can lead to fuzziness or much after a few years.
- 16.** Prison tattoos served as a badge or a warning, it showed fearlessness, much like the warriors tattoos in early times. These tattoos are generally threatening featuring skulls, knife, women, or symbols representing crimes and death. Today's black and gray tattooing style stems from jailhouse tattooing. Generally these tattoos were black because black was the only ready color available. The black could be from pen ink, the carbon collected from a burning toothbrush, or metal debris. Most are crudely applied and spawned a tattoo machine made of cassette player motors and such.
- 17.** Religious/Spiritual tattooing has been the basis of almost all tattooing from the beginning of tattooing itself. The oldest man discovered. A.k.a. the iceman, who was frozen where he lay, had tattoos on the back of his knees; believe to be talismanment or spiritual. The Egyptians gave tattooing very religious meanings, the dead were often tattooed so they would have information in the afterlife, priests were often buried with tattooed women who would serve as the canvas of the information he would need in the afterlife. Women were often tattooed to aid in fertility. Christians during the time of Christ and shortly after would tattoo a cross under their hand on the wrist; this was a badge and a way to determine who were true believers and who were roman spies.
- 18.** Most of these types of tattoos were very primitive, but lead to some the earliest forms of FLASH, religious tattoos were carved and formed from clay and the image would be stamped onto the subject to serve as the stencil for tattooing.
- 19.** Sailor/Traditional is usually a very basic design, popular in the 1800s to present day. Typical works would be mermaids, daggers, flowers, ships, anchors, snakes, birds, and panthers...but with this style the absolute minimum is put into the tattoo, just enough to convey what it is and the meaning. Later these designs, which line the walls as flash in most tattoo studios, have been reinvented with more detail and artistic flair.

- 20.** Tribal tattoos cover a huge spectrum of different cultures, from Polynesian, Micronesia, or Indian. They are generally black in color, solid bold geometric designs that complement the shape of the body they are placed on. Common themes are triangles, and curving lines. Modern interpretations have led to geometric animals, fish, or even skulls. This is also referred to as Flat Tattooing. Waycool Tattoo
- 21.** Wild Style can be recognized from its similarity to graffiti on the buildings of most major cities. It can be a tag on human skin. Very similar to that of the skateboard culture artwork.

## Outlining

...After the stencil is applied.... note, start from the bottom.

Why do you start from the bottom, well as the outlining process progresses? Wiping and cleaning the area will occur, and thus the stencil fades or goes away completely. If you start from the bottom of a design the maximum life of the stencil can be obtained. Each design may merit its own starting spot so this guideline is flexible per design.

When working with a client the artist should try to gauge the person's reaction to the initial needle poke. Some people are squeamish and others just don't feel it. If this is the person's first tattoo, care should be taken to pick an area of the outline where little damage can be done if the client pulls away or moves suddenly during the initial lining.

People's nerves are often more of a factor than the actual pain of the needle. Explain to the client the sensation they will feel and try to put them in the most relaxed state they can be in mentally before you begin.

Lining can make or break a tattoo. The line must be true and solid. A light hand or the improper needle depth can leave an outline fuzzy, splotchy, dot-to-dot looking...or with practice smooth like a pencil line.

The skin should be stretched taut; this is one of the major causes of a bad line. Depending on how you set your gun. The needles should extend just slightly out of the tube (nozzle). This will ensure proper depth (1/16 th of an inch) of the needle penetration. (See setting up your gun/needle settings)

If you prefer to work off your needle, do not let the tube tip touch the skin, rather watch your needle depth.

The needles should feel like they are skimming along the surface, do not press but let gravity use the weight of the machine to work the needles into the skin. Move the gun in fluent motions, do not stop and start.

Visualize your line from start to finish and ensure you have enough ink in the tip to complete the line without stopping.

At the end of your line gradually pull the needles out of the skin to avoid ink pooling at the end of lines. Tips of flames claws.etc.

Your needles should be inspected under a loupe, and the tips should be straight and sharp, no blunt ends, bent needle tips, no foreign material (i.e. paper towel).

If the machine seems to snag in the skin, make sure the speed of the machine is proper, possible speed it up, and if the needles bounce, make certain the skin is stretched tight. Gapped lines may indicate bad points...and watch your ink, and clean up often so you can see what you are doing. ENSURE YOU DO NOT HAVE FISH HOOKED NEEDLES THIS WILL BE UNCOMFORTABLE FOR THE CLIENT, TEND TO SCAR, and MAKE IT HARD TO APPLY INK.

## **Fineline**

How the hell do they do that.... Some portraits can be the size of a quarter, and show tons of detail...some can be a image from a photograph that looks like a photograph in the skin. In all cases the tattoo artist has mastered his instrument. This is one of the most advanced stages of tattooing...done with mainly a single needle, or small groupings. The tattoo is art, shading is crucial, placement is crucial, and most importantly...knowing what will age gracefully and what wont. Skin is only so forgiving, over time blending of the ink will occur, so the amount of detail in a small area has to take this into account...

## **Graywork**

Get out your distilled water in a spray bottle The tattoo is black and gray, gray ink can be used or diluted black ink can be used

## **Shading**

Okay, the outline is done; time to start shading Shading is the most visually stunning aspect of a tattoo. The shading adds a sense of depth and brings the two dimensional tattoo to life. Black shading can be done many ways, the most important part of shading is knowing your design, knowing the layout of your picture, understanding where you want the light source to originate, and what would cause a shadow. If your shading is consistent, there should be no confusion on depth of high points and low points in the design. Shading is usually achieved using large needle groups, round or flat, from 6 flat to 14 round. Small circles can be used like coloring, and shading should always start at the darkest area and move towards the lighter regions. When moving the needles toward the lighter regions the needles should be pulled out of the skin ever so slightly until at the point where the shading ends the needles stop penetrating the skin.

Coloring Lets fill in the color, do you have good ink? Ink, ink, ink! Quality is very important, no matter how good your technique; poor ink can lead to poor coloring. Choose your ink based upon experience, and the sage advice of other tattooists. Coloring is usually done with multiple needle tips, and done in small circles starting from your darkest ink to your lightest...why? Well, when the needles penetrate the skin. They leave holes when you deposit the dark ink (like purple / royal blue) the ink fills the bottom of the hole...When you wipe the area clean you spread the ink and any hole will fill with the ink you are cleaning away...and if you wipe dark ink into a hole with light ink in it, you will mask the light ink, and the healed tattoo will be ruined. Mixing ink on the skin is tricky but using the above technique colors can actually be mixed, or faded. The holes will hold a color;

example yellow...and when red is introduced. (Watered down) an orange transition can be achieved. Flame tips, and claws Don't leave a blob at the tip of the flames or claws When outlining and coming to the end of a stroke, such as a claw tip or a flame tip; great care must be taken not to leave a blob. The needle should be lifted out of the skin at the end of the stroke, and the joining stroke must be lifted the same way. The joint will then appear to be a crisp union of the two.

I have really dark skin, what can I expect from a tattoo?? Dark skin poses problems for tattooing. The pigment in the skin will shield the ink from showing thru to the surface of the skin, and most light colors will have problems showing up at all. Other common problems with African American skin types is swelling, extreme swelling may occur during the tattoo process, but this tends to subside in a few hours after the irritation of the needles has stopped. This can pose a problem for the tattooist, with the extreme skin swell, outlining can actually appear to vanish. The tendency is to try to pound in more ink, but advice is to wait it out, or schedule a few sessions. The ink is there; it will show up when the swelling goes away. Coloring my have to be done in sessions also because spots can be missed due to the swelling. Extremely dark skin will show black and red ink, but not as bright as light skin. Lighter colors such as white tend to not show up, although success has been touted in this field.

Is there anyway to kill the pain of tattooing? No matter what — tattooing hurts a little, some people find the pain a meaningful part of the process, yet others certainly don't. Solarcaine, applied a half hour before the process can dull the pain. Some artists use topical anesthetics... Meditation and hypnotherapy are also used for pain management