

# **OPERATING INSTRUCTIONS FOR NATURAL GAS Mark I & Mark II**

## **PART 1 : SETTING UP THE MACHINE**

1. Connect the garden hose to the faucet and the machine.
2. Connect the extension cord to the electrical outlet and the machine. The extension cord should be 50 feet or less and the gauge should be 14 or 12.
3. Connect the steam hose to the machine. Connect the steam wand to the steam hose.
4. The gas company should have already connected the unit to the gas line using a ball valve, a gas regulator and a 6' flexible hose. Open the ball valve so gas is available and shows 2-2.5 on the gauge.

## **PART 2 : TURNING THE MACHINE ON**

1. Turn the water on at the faucet. Open the trigger gun by pulling the handle.
2. You must let the water run with the trigger gun open for at least two minutes to get all the air out of the heat coils. Put the green or white nozzle (found in the parts box) on the end of the wand.
3. Turn the pump switch "on". Pressure will be generated. Wait 30 seconds before the next step to be sure all the air is out of the coils.
4. With the trigger gun open, turn the ignition switch "on". You should hear a slight "click" sound. This sound shows the machine is trying to ignite.
5. The unit will not ignite the first time you turn the ignition switch "on". Air is in the gas lines and it needs to be purged. Leave the ignition switch on for 10 seconds and turn it back "off". Then turn it back "on". Wait another 10 seconds and turn off. Repeat this process until the machine ignites.

NOTE: The trigger gun has to be open and the water flowing any time you are trying to ignite the unit.

## **PART 3 : SETTING THE TEMPERATURE**

1. A good temperature for degreasing and cleaning without using any chemicals is 230°-240°f.
2. The machine should have been ignited at 2psi. The temperature will slowly increase.
3. When the increase has stopped if you are below 240° increase or decrease the fuel pressure by ¼ psi . Do this until you have stabilized the desired temperature.
4. The fan nozzles (green, white & optional yellow) will maintain a sharp cutting edge up to 250°. After this temperature the flat spray will start to "vaporize" or become more rounded. If you wish to Sanitize at temperatures above 250° we recommend that you use the zero degree red nozzle and increase the fuel flow until the desired temperature is achieved.

## **PART 4 : CLEANING WITH THE SANITECH**

1. The Sanitech cleans primarily with temperature. It does not try to blast the surface clean with large water volumes and extremely high pressure. Get the nozzle as close to the surface as is necessary to remove the grease or other substances that you are cleaning.
2. Once you have established the correct distance clean as quickly as possible using a "back and forth" motion. Areas that are being cleaned for the first time might require a slow initial cleaning. Followup cleanings can be done much more rapidly.
3. Try to use the trigger gun as infrequently as possible. Each time you close it the heat goes off. When you reopen the gun the ignition will come on in 1-3 seconds. During this time cold water is being pumped thru the coils. **Constant "on & off" will make it difficult to maintain a good temperature.**

## **PART 5 : TURNING THE MACHINE OFF**

1. Close the trigger gun and walk back to the machine. Turn the ignition switch “off”.
2. Reopen the trigger gun and allow the cold water to pump through the machine until the temperature is down around 100°.
3. When the steam hose is cool enough to touch you can turn the pump switch “off”. At this point turn close the gas ball valve.
4. You can now turn the inlet water off and disconnect everything.

## **PART 6 : THINGS TO KNOW**

1. Never store the Sanitech in an area that is not heated. If the machine freezes the water inside will expand and crack the coils. More than one hole in the coils is as sure sign of freezing.
2. **Never operate the Sanitech in a temperature controlled environment like a meat locker or a cold room where air is only recirculated and not exchanged.** If you want to clean these areas leave the unit outside in the normal plant environment where you have natural or forced ventilation. You can run the steam hose into the cold storage area. Extra lengths of steam hose are available for this.
3. **Never use hot water on the intake of the Sanitech.** The Sanitech will accept cold or warm water up to 140°. At temperatures above 140° you will activate the thermal relief valve and the hot water will be dumped on the ground. This is to save you from hot water damage to the pump.
4. **Never operate the Sanitech at a fuel pressure reading of 4 psi or greater.** Operating at higher fuel levels can lead to incomplete combustion and a release of carbon monoxide.
5. Never turn the pump on when water is not running through the machine. Water removes excessive heat from the pump. Running the pump dry will cause pump failure.
6. Always have your employees wear gloves when using the Sanitech.
7. Keep the nozzles free of dirt. When small amounts of dirt get into the nozzle you will notice a disruption in the flat fan spray pattern. You should remove the nozzle and tap it to remove the dirt. If a large blockage occurs the ignition will terminate automatically.
8. **Scale buildup.** The #1 cause of pump damage is scale from hard water building up in the heat coils. Scale restricts the opening in the coils thru which the pump pushes the water. When scale buildup becomes excessive you will detect a lower pressure at the nozzle due to a restricted water flow. If you are in an area with hard water you should use a water filter (available from Sanitech) or descale your machine on a regular basis.
9. **Never leave the unit unattended with the pump “on”.** The pump will eventually overheat. Also, employees not trained on the Sanitech might use it.
10. **Never hook the Sanitech up to a high pressure water line.** The Sanitech should be operated on a water line that has normal city/county pressure. If you only use high pressure lines you will have to use a pressure reducer on the intake of the Sanitech.
11. **Check the oil level in the pump at least once a month.** This is the only maintenance required. The yellow dipstick (In PART 1) is where you check the oil level. The oil should be within the cutout portion of the dipstick. If low add 30 wt. non-detergent automotive oil. You should also change the oil yearly. See manual for details.