

JET STIK Instructions in English

WARNING:

ALWAYS wear eye protection, hearing protection, respirator and gloves when using the JET STIK.

MAKE SURE water is always flowing out of the discharge hose when the JET STIK is running or idling.

NEVER use acetylene or natural gas with the JET STIK.

USE with adequate ventilation.

KEEP AWAY from combustibles when using.

Safety Requirements:

Working with granite and other stone is inherently dangerous. By using the JET STIK, you are assuming all risks, known and otherwise, associated with stoneworking, stone dust, propane gas, oxygen, water and gravity.

The JET STIK produces loud noise, which can damage hearing. Hearing protection must be worn at all times by the operator and those nearby.

Breathing granite dust and other stone dusts can cause silicosis and other lung ailments, which can be fatal. A respirator must be worn when using the JET STIK.

The JET STIK creates high temperatures. These can burn the operator or start a fire. Keep combustibles away from the work area. Wear gloves and appropriate clothing at all times.

The JET STIK uses water to cool its internal parts. The water discharge may cause a surface to become slippery which can create a dangerous condition. Stand on a firm, non-slippery surface when using the JET STIK. Also, the water will FREEZE in colder climates. Be sure to always bring the JET STIK inside overnight. During cold temperatures make sure the water is adequately flowing from the discharge hose. Frozen water can create an unrealistic pressure buildup, allowing you to light the JET STIK and cause damage.

Hot pieces of stone can fly in any direction when the JET STIK is in use. The operator and all persons nearby must wear eye and face protection and appropriate clothing. These hot pieces of stone can start fires. Keep combustibles far away from the work area. After working with the JET STIK, check the surrounding area for fires.

Never use acetylene (C₂ H₂) or natural gas with the JET STIK. It is designed to be used with propane (C₃ H₈) and Oxygen (O₂). Other gases will cause a dangerous condition or poor results, or both.

To prevent cracking of the stone being flamed, run the water from the discharge hose on to the stone. Even with water running on the stone, it may crack and fall from the workbench, causing injury. Wear steel-toed boots and stabilize the stone before beginning work.

If you desire to live a life without risk, do not use the JET STIK.

If you choose to use the JET STIK, you must assume all risks of using it, whether those risks are mentioned in this manual or not. It is the duty of the owner of the JET STIK to provide these instructions to anyone who will be using the tool, and to equip those persons with respirators and hearing and eye protection. It is your duty to inspect the JET STIK, its hose bundle, and the regulators before each use.

For instructions in languages other than English, see our web site at www.jetstik.com or contact us at 603-323-2323, 800-639-2021 (USA & Canada), or fax 603-323-2322. The people and entities involved in making the JET STIK and this instruction manual assume no liability for their use.

Description:

The JET STIK hand held torch is a miniature water-cooled rocket. Oxygen, at 70 psig (3.4 bar) and propane (C₃ H₈) at 40 psig (2.7 bar) are injected into the combustion chamber at the tip of the torch. These gases burn completely within the chamber at around 5,300 degrees F (3,000 degrees C). The hot gases then fire through the tip orifice at a velocity of 5,000 feet per second (1,500 meters per second).

It is this high velocity that increases the heat transfer rate and makes the JET STIK so effective for flame finishing granite. The flame is generated inside the torch, and is not influenced by outside conditions. Water can be sprayed on the flame without extinguishing it. Because the combustion chamber would melt without a continuous flow of water cooling it, the JET STIK hose bundle is equipped with a pressure interlock to shut off the fuel if water pressure drops below a preset point. Since this is a pressure switch and not a flow switch, the operator must make certain that water is always flowing through the discharge hose.

Using the JET STIK:

- 1.) Connect the water supply hose to a clean water supply of 40 psig (2.7 bar) or more. The tool uses around 1 gallon (4 liters) per minute. Do not block the end of the discharge hose **OR ALLOW WATER TO FREEZE WITHIN THE LINE!**
- 2.) Connect the gas supply to the propane regulator fastened to a 100 pound propane tank. Smaller tanks will allow only a short operating time. Make sure the propane tank is braced or chained so that it will not tip over in use. Set the propane regulator to 40 psig (2.7 bar). Never use acetylene or natural gas.
- 3.) Connect the oxygen hose to an oxygen regulator attached to an oxygen cylinder. Make sure the cylinder is braced or chained so it will not tip over in use. Set the oxygen regulator to 70 psig (3.4 bar).
- 4.) Make sure all connections are tight. Put on eye protection, hearing protection, and a respirator.
- 5.) Turn on the water supply. Make sure water is flowing through the discharge hose before lighting the JET STIK.
- 6.) Turn the control valve on the JET STIK to the start/idle position. Operate the striker next to the tip of the torch.
- 7.) Once the JET STIK is lit, turn the control valve to the run position and begin work. When you turn the valve to the run position, the tool will thrust backwards.
- 8.) When possible, point the tool away from you. For surfacing granite, the tip will be touching the surface at a glancing angle of from 10 to 25 degrees.