

Oxyacetylene Welding Torch Operation

Setting up light the torch and adjusting the flame

1. Check to see that the system was properly shut down before starting.
2. Do a quick visual inspection of the hoses and equipment.
3. Check the thickness of the metal to be cut or welded.
4. Refer to welding tip selection chart to determine the recommended tip size and regulator pressure setting for the job.
5. Open the oxygen cylinder valve all the way until it stops. Arrows on the top of the valve indicate the correct direction for opening and closing if you are not sure.
6. Open the Acetylene cylinder no more than one turn.
7. Adjust the oxygen regulator adjusting screw so the line pressure gauge reads at the intended pressure.
8. Open the torch handle and readjust the oxygen regulator to the desired delivery pressure range.
9. Close the oxygen valve on the torch handle.
10. Repeat the process for the acetylene side.
11. Wear protective goggles to shield eyes from bright light and protective clothing is required.
12. Hold the torch in one hand and the spark lighter in the other. Be sure the spark lighter is away from the tip and not obstructing the gas flow.
13. Open the torch fuel valve approximately 1/8 of a turn. CAUTION: Point the flame away from people, equipment, gages, and any flammable material.
14. Continue opening the fuel valve until the flame stops smoking. If the fire is off of the end of the tip, readjust closing the valve slightly. If the desire flame is either too small or too large review the tip selection size for the job you are doing.
15. Open the torch oxygen valve until bright neutral flame is established.

Shut the system down upon completion by doing the following steps.

- Turn off oxygen torch body valve.
- Turn off acetylene torch body valve.
- Open and close the oxygen torch body valve.
- Turn off the acetylene cylinder valve.
- Turn off the oxygen cylinder valve.
- Bleed both lines by opening and closing the torch body valves. Both the line pressure gauge and the tank pressure gauge should now read zero.
- Back out the pressure adjusting screws until the tension of the screw is released.
- Replace the torch and hoses to their proper storage place.

Refer to **Victor's oxyfuel welding cutting and heating guide** for more detailed pictures and instructions of set-up and safe operating procedures.



A
CARBURIZING
FLAME



B
NEUTRAL
FLAME



C
OXIDIZING
FLAME