What voltages must arc welding equipment use?  
Open circuit (no load) voltages of arc welding and cutting machines should be as low as possible consistent with satisfactory welding or cutting being done. Following are the maximum limits:

1. For alternating-current machines:
   b. Automatic (machine or mechanized) arc welding and cutting—100 volts.

2. For direct-current machines:
   b. Automatic (machine or mechanized) arc welding and cutting—100 volts.

3. When special welding and cutting processes require values of open circuit voltages higher than the above, means must be provided to prevent the operator from making accidental contact with the high voltage by adequate insulation or other means.

Note: For a.c. welding under wet conditions or warm surroundings where perspiration is a factor, the use of reliable automatic controls for reducing no load voltage is recommended to reduce the shock hazard.