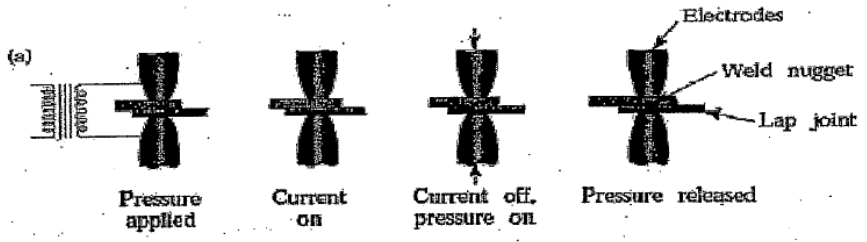
Spot welding

Resistance Welding

- A process in which the heat required for welding is produced by means of electrical resistance across the two components
- RW does not **requiring the following:**
  - Consumable electrodes
  - Shield gases
  - Flux

Resistance Spot Welding

- RSW uses the tips of two opposing solid cylindrical electrodes
- Pressure is applied to the lap joint until the current is turned off in order to obtain a strong weld

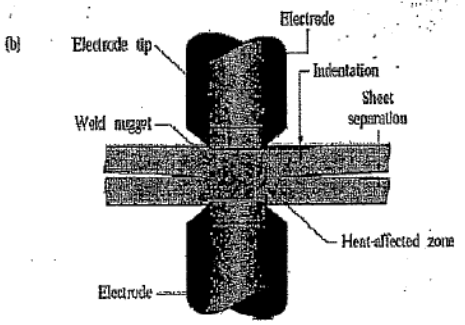


- Surfaces should be clean
- Accurate control of and timing of electric current and of pressure are essential in resistance welding

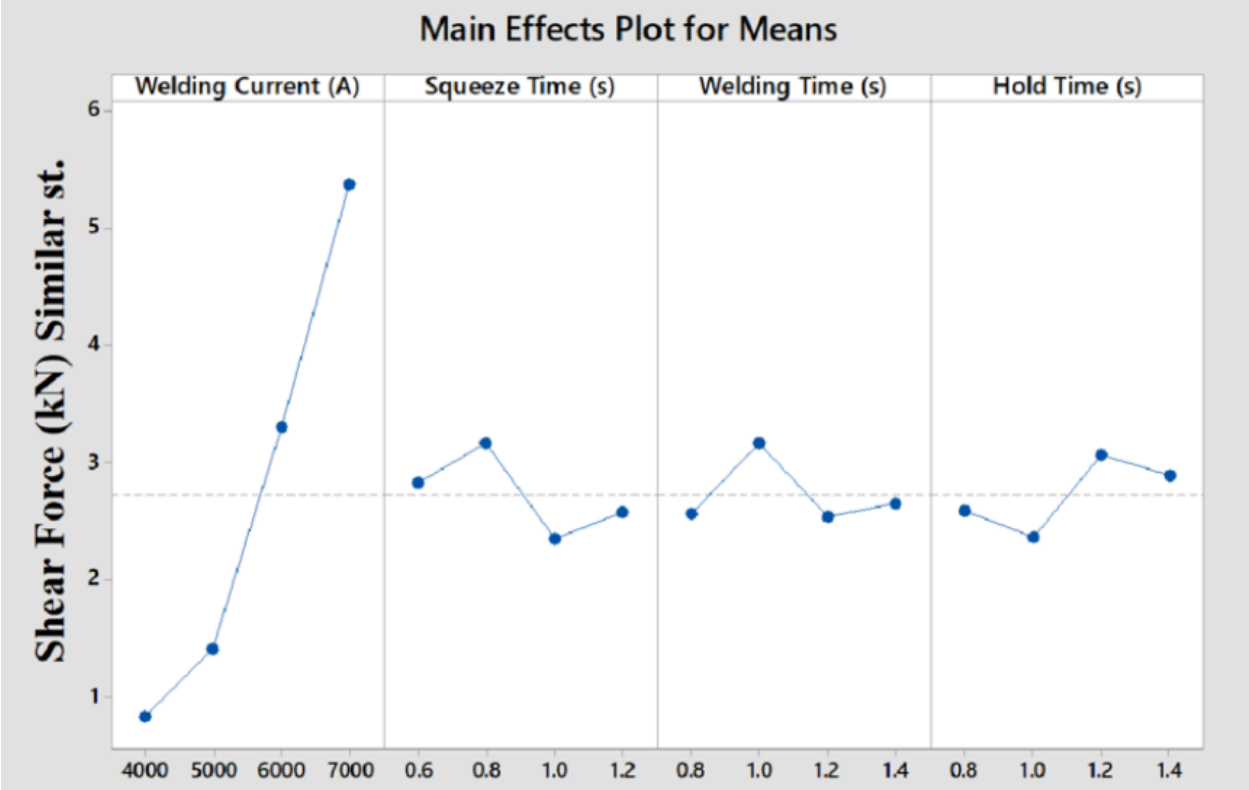
Question: what is the basic principle for heat generation in spot welding?

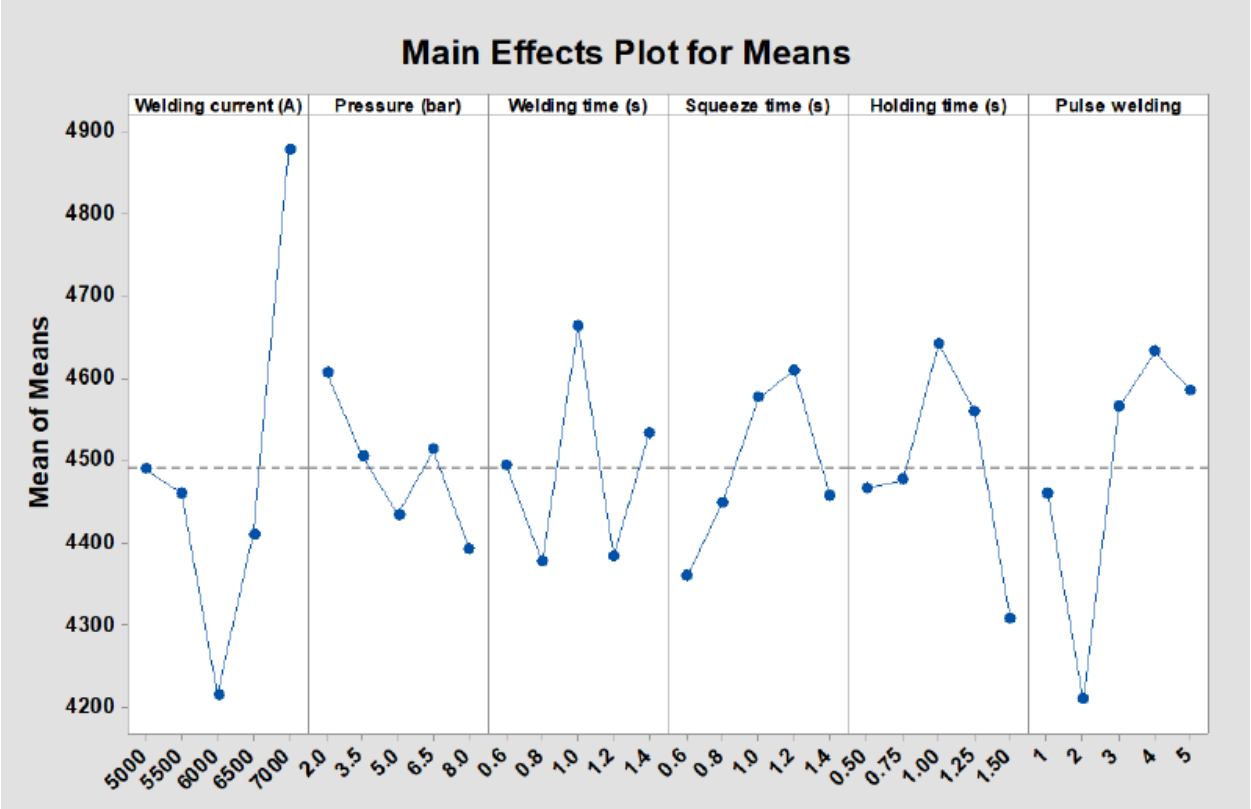
Question name the factors namely affecting spot welding quality?

Cross-section of a spot weld,showing the weld nugget and the indentation of the electrode on the sheet surfaces.This is one of the most commonly used process in sheet-metal fabrication and in automotive-body assembly



Name the components in the cross section for the spot welding?





Describe the effect of the different parameters in spot welding:

Current: increases strength,

Pressure: Increases strength

Times (weld squeeze, hold) usually increase strength