

Spot welding

Spot welding is the most commonly used form of resistance welding.

Usually it is used to weld various sheet metals with reduced thickness.

The weld is discontinued and limited to one or more spots, with the work pieces usually overlapped.

It is produced by the generation of heat and pressure, without filler metal, in a localized area.

- It requires a well determined combination of pressure, current intensity and duration;
- It is an extremely fast process;
- It can be executed manually or automatically;

Where the spot welding is applied?

The most common application of spot welding is in the automobile car manufacturing industry, where it is used to weld the sheet metal to form a car body and other parts.

It is frequently used in the place of riveting.

Another application is in dental prosthesis (orthodontics), where small scale spot welding equipment is used.

Which materials can be welded by spot welding?

Spot welding can be used for joining many ferrous and non-ferrous alloys.

The materials that are more easily welded by this process, are low alloy and steel, stainless steel, Aluminium and light-alloys, nickel and its alloys, galvanized sheets, brass and copper can also be welded.

Some examples of spot welding machines:



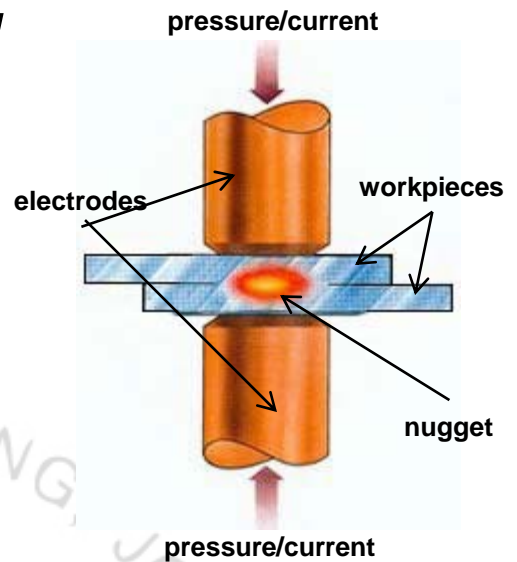
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Spot welding solution arm



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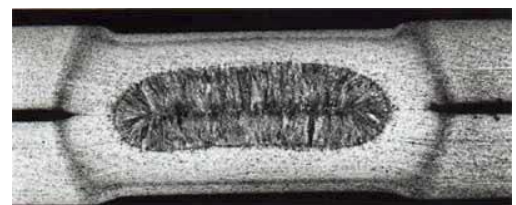
Spot welding machine



Industrial robots welding a car body in a production line



Dental prosthesis (orthodontics)



Detail of a resistance spot weld section