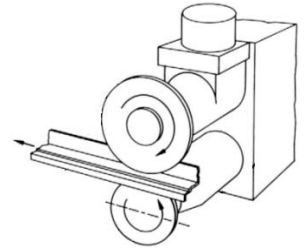


Resistance seam welding of Industrial components

Process description :

Seam welding is a resistance welding process. It is a particular case of spot welding, where the union is achieved by a succession of points and by the application of a constant pressure. The succession of welding spots is obtained, using the heat generated by joule effect, due to the resistance to electric current, connecting and disconnecting periodically, without opening the seams



Parameters:

• Electric Current

Electric current is the most important parameter in resistance welding, since the heat generated is proportional to its square. The electric current depends on the applied force, displacement speed, as well as of the seams width.

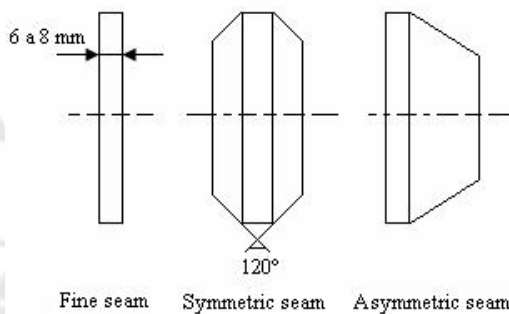
• Squeeze force

The parts are compressed in the zone to weld, to allow the passage of electrical current. The squeeze force is constant during the welding operation.

• Welding Speed

Usually, the weld speed is constant. It depends on the seams diameter, although the speed increases with: the diameter, the passage frequency of the electrical current and with the reduction of thickness.

Equipment: Seams are manufactured from alloys of high electrical and thermal conductivity, normally copper based. They present diverse forms.



Seam Welding Machine

Advantages:

- High speed, from 1 to 10 m/min;
- Easily automated ;
- Suitable for high production rate .

Disadvantages:

- High initial equipment costs;
- Difficulty of access to the component, limited by the component's geometry.

Applications:

- Domestic radiators ;
- Vehicle fuel tanks;
- Plastic bags.