

GENERAL FORMULA'S FOR SPOT WELDING

$$\text{ELECTRODE FORCE} = 6000 \times (T1 + T2)$$

6000 = constant

T1 = thickness of first sheet

T2 = thickness of second sheet

Example: two pieces of .050*

$$6000 \times (.050 + .050) = 6000$$

6000 = necessary electrode force in lbs.

$$\text{WELD CURRENT} = 100,000 \times (T1 + T2)$$

100,000 = constant

Example: two pieces of .050*

$$100,000 \times (.050 + .050) = 10,000$$

10,000 = necessary secondary current

In amperes.

$$\text{WELD TIME} = 100 \times (T1 + T2)$$

100 = constant

Example: two pieces of .050*

$$100 \times (.050 + .050) = 10$$

10 = necessary weld time in cycles

$$\text{TIP FACE DIA.} = 0.1 + (T1 + T2)$$

0.1 = constant

Example: two pieces of .050*

$$.1 + (.050 + .050) = .2$$

.2 = tip face diameter in inches

*For thickness above .080", the calculated value for the welding current becomes somewhat exaggerated. A reduction of 20% becomes necessary.

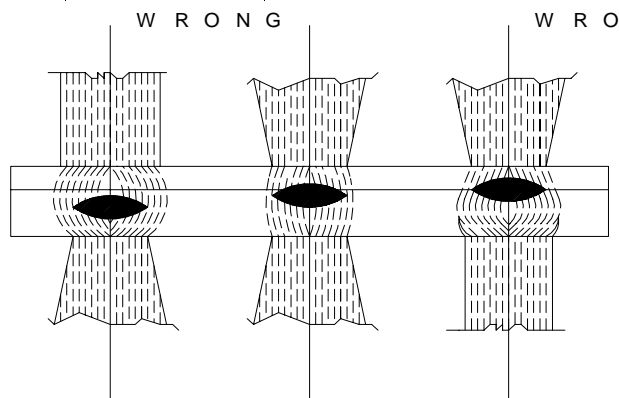
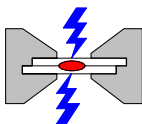


FIG.2
SPOT WELDING IF UNEQUAL THICKNESS



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