

## COMPARING TRANSFORMERS

### HOW TO MEASURE THE OUTPUT POWER OF A TRANSFORMER

- **TOOLS NEEDED**
  1. Volt meter-digital or analog
  2. Clamp-on amp meter
  3. Pencil and paper
  4. Understanding of safety when dealing with electricity
- **OPTIONAL TOOLS NEEDED**
  1. Calculator
  2. Basic understanding of electricity

### LET'S GET STARTED

The output power of a transformer cannot be more than the input power!

$(\text{Voltage} \cdot \text{Amperage})_{\text{input}} = (\text{Voltage} \cdot \text{Amperage})_{\text{output}} + \text{loses.}$

Measure input voltage at transformer while the welder is running at maximum power. Next, using the clamp on the amp meter, measure current into transformer at maximum power. And last, measure output voltage at the transformer. Now calculate the output current;  $V_{\text{input}}/V_{\text{output}} = I_{\text{output}}$ .

**Example:** input voltage 220, input current 150 amps, output voltage 7.1 and calculate  $220 \cdot 150 / 7.1 = 4648$  amps output.

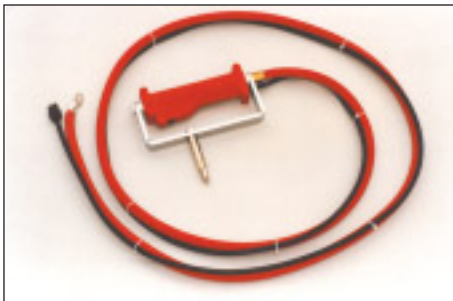
Now let's remember, we will have to deduct 10% to 40% of the output current of the transformer for losses. This means that the real output in this example will be between 2788 and 4182 amps.

### ANOTHER WAY TO MEASURE TRANSFORMERS...

Get a tape measure! Measure the size of the lamination, **BIGGER** transformers can conduct more power. Measure the size of the primary and secondary windings. **BIGGER is always BETTER.** The windings of the transformer should fill the window of the transformer. Think of transformers as transmissions for electricity, **bigger is always better.**

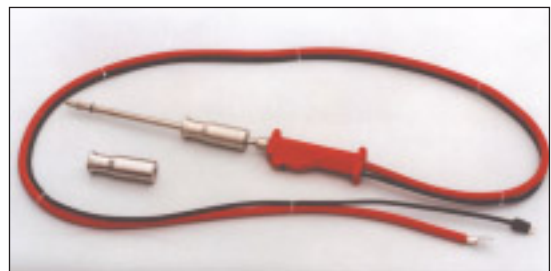


## The ELECTRIC DENT WIZARDS



### ELECTRIC DENT GRIP

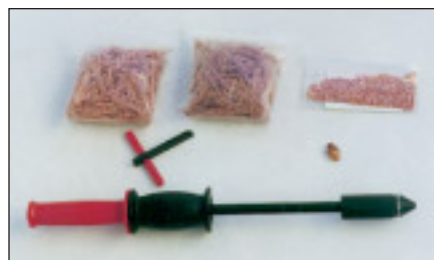
TITE-SPOT'S new Dent Grip™ tool removes dents by welding a special bolt to the surface of the car and pulling out the dent. Just twist to remove. The bolt can be resharpended many times.



### ELECTRIC SLIDE HAMMER

TITE-SPOT'S new electric slide hammer is so simple to use. Just weld the slide hammer's special bolt to the car; pull or slap and just twist to remove! It's that easy!

• Includes: 2 hammers, one 2lb. steel hammer and one 11oz. aluminum hammer for lighter work.



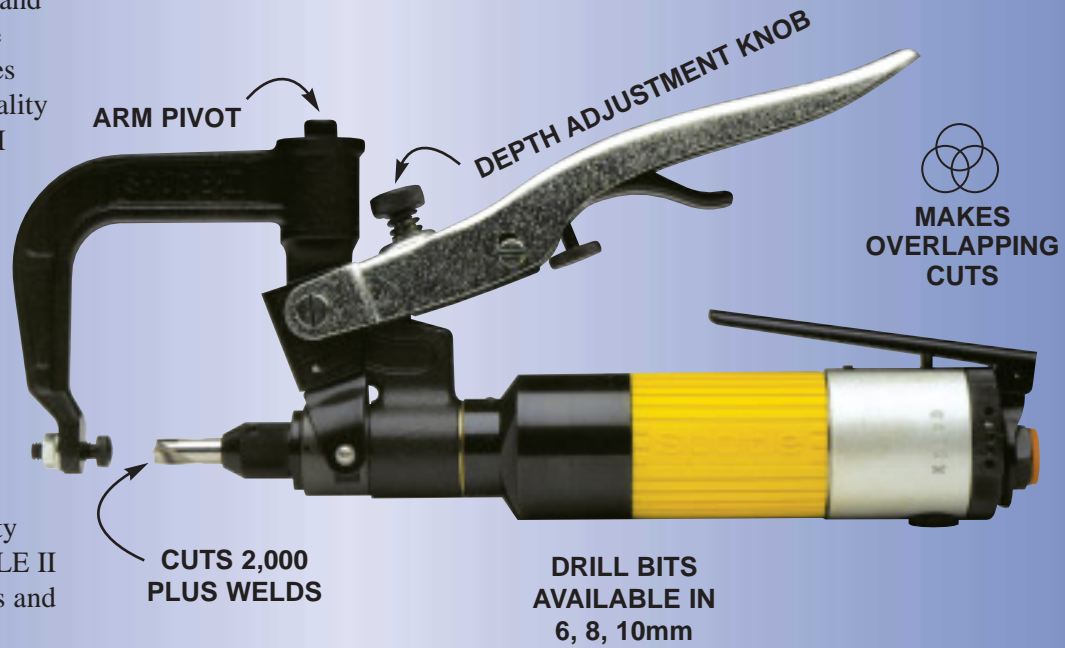
### ADDITIONAL ACCESSORIES

Slide Hammer, Tee Puller, Pulling Studs (2.5mm & 2.0mm), 1024 threaded studs, Trim Rivet Tip and Trim Rivets are all available from TITE-SPOT Welders and are sold separately.

# spotle • II

Only Tool TITE-SPOT  
Welders Sells That We  
Don't Manufacture

Cutting spot welds is a tedious and time consuming task. Using the SPOTLE II dramatically reduces labor time and increases the quality of your repairs. The SPOTLE II works like a drill press. With fast depth adjustment and a high torque low speed 1/2" air motor, the SPOTLE will remove complete spot welds in 2 to 3 seconds. There is no drill through and no knob to grind off. Drill bits last 10 plus quarter panel jobs. This tool also makes overlapping cuts. The SPOTLE II is a quality tool designed to last. The SPOTLE II has a ten year warranty on parts and labor.



## Suggestions for your Spare Time after you get a TITE-SPOT!