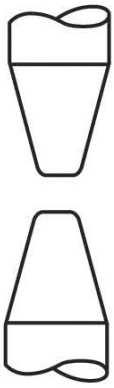
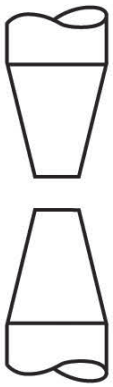
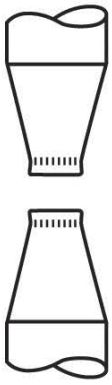
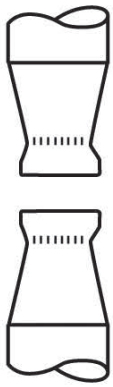
Electrode Wear Versus Power

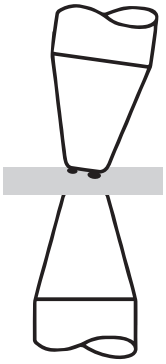
Proper New Tips (B)	56% Too Large (C)	125% Too Large (D)	300% Too Large (E)
			
Approx. .049 sq. in. at 1/4" Dia. 	Approx. .077 sq. in. at 5/16" Dia. 	Approx. .110 sq. in. at 3/8" Dia. 	Approx. .197 sq. in. at 1/2" Dia. 
9,823 amperes would be required (†)	15,337 amperes would be required (†)	22,100 amperes would be required (†)	39,300 amperes would be required (†)
31,960 lbs. sq. in. pressure (*)	20,470 lbs. sq. in. pressure (*)	14,200 lbs. sq. in. pressure (*)	7,990 lbs. sq. in. pressure (*)
RESULT: Correct pressure, current, tips. Excellent weld. This is the size tip (new) for which the pressure, time, and current are adjusted.	**RESULT:** Only 60% of proper pressure, current. Borderline weld. Lower strength. Last diameter size tolerated unless current and pressure were set between the 1/4 and 5/16 size tips.	**RESULT:** Only 45% of the required pressure and current. Welds would be unacceptable. If the current or time were increased with tips in this condition a large weak weld would result.	**RESULT:** Only 25: of required current and pressure. No weld would be made if tips were left in this condition.

*Five inch diameter air cylinder A 80 bls. air pressure – 1570 lbs. on ram.

**Current density required for this gage to be 200,000 maps per sq. in. Setting is 9.900 amps for condition (B)

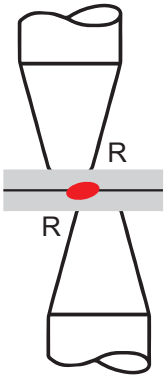
Electrodes Not Flat and Parallel

Causes of poor projection welds



Improperly Aligned Electrods on the Workpiece

Result: A distored work piece



Water Cooled Electrode