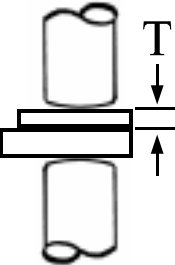



## RECOMMENDED PRACTICES FOR SPOT WELDING ALUMINUM ALLOYS ON THREE PHASE FREQUENCY CONVERTER MACHINES

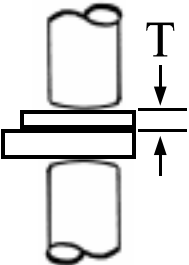
Thickness of Thinnest Outside Piece 	Electrode Major Diameter and Shape 		Net Electrode Force		Heat Time		Current*	
			WELD	FORGE	WELD	DECAY	WELD	DECAY
THICKNESS Inch (mm)	D. MIN. Inch	R. MAX. Inch	POUNDS	POUNDS	CYCLES (60 HZ)	CYCLES (60 HZ)	AMPS (approx.)	AMPS (approx.)
.020 (0.51)	5/8	3	500	1,200	1/2	0	26,000	0
.025 (0.64)	5/8	3	500	1,500	1	3	34,000	8,500
.032 (0.81)	5/8	4	700	1,800	1	4	36,000	9,000
.040 (1.02)	5/8	4	800	2,000	1	4	42,000	12,600
.050 (1.27)	5/8	4	900	2,300	1	5	46,000	13,800
.063 (1.60)	5/8	6	1,300	3,000	2	5	54,000	18,900
.071 (1.80)	5/8	6	1,600	3,600	2	6	61,000	21,400
.080 (2.03)	7/8	6	2,000	4,300	3	6	65,000	22,800
.090 (2.29)	7/8	6	2,400	5,300	3	8	75,000	30,000
.100 (2.54)	7/8	8	2,800	6,300	3	8	85,000	34,000
.125 (3.18)	7/8	8	4,000	9,000	4	10	100,000	45,000

- \* **Starting values** shown are based on industry experience. Adjust this value as needed to reach required weld quality.
- Table is for alloys: **2014-T3-T4-T6, 2024-T3-T4, and 7075-T6**. Somewhat lower values can be used for alloys such as **5053, 6061, 6009, 6010, 5182, and 2036**
- Electrode material: **RWMA CLASS 1**

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**RECOMMENDED PRACTICES FOR SPOT WELDING  
ALUMINUM ALLOYS ON THREE PHASE  
DIRECT CURRENT RECTIFIER MACHINES**

<b>Thickness of Thinnest Outside Piece</b>	<b>Electrode Major Diameter and Shape</b>		<b>Net Electrode Force</b>		<b>Heat Time</b>		<b>Current*</b>	
 THICKNESS Inch (mm)	D. MIN. Inch	R. MAX. Inch	POUNDS	POUNDS	CYCLES (60 HZ)	CYCLES (60 HZ)	AMPS (approx.)	AMPS (approx.)
.016 (0.40)	5/8	3	440	1,000	1	0	19,000	0
.020 (0.51)	5/8	3	520	1,150	1	0	22,000	0
.032 (0.81)	5/8	3	670	1,540	2	0	28,000	0
.040 (1.02)	5/8	3	730	1,800	3	0	32,000	0
.050 (1.27)	5/8	8	900	2,250	4	4	37,000	30,000
.063 (1.60)	5/8	8	1,100	2,900	5	5	43,000	36,000
.071 (1.80)	5/8	8	1,190	3,240	6	7	48,000	36,000
.080 (2.03)	7/8	8	1,460	3,800	7	9	52,000	42,000
.090 (2.29)	7/8	8	1,700	4,300	8	11	58,000	45,000
.100 (2.54)	7/8	8	1,900	5,000	9	14	61,000	49,000
.125 (3.18)	7/8	8	2,500	6,500	10	22	69,000	54,000

- \* **Starting values** shown are based on industry experience. Adjust this value as needed to reach required weld quality.
- Table is for alloys: **2014-T3-T4-T6, 2024-T3-T4, and 7075-T6**. Somewhat lower values can be used for alloys such as **5053, 6061, 6009, 6010, 5182, and 2036**
  - Electrode material: **RWMA CLASS 1**

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