



MANUFACTURERS OF RESISTANCE WELDING MACHINES FOR EUROPE AND THE WORLD

Three Phase Spot Welding Machine types P200,300,400 STI

**Automatic precision welding
For joining light alloys and special
metals to Aerospace Standards
AIR 3383 and MIL W 6858**



**Sciaky designed roller guided square ram provides for highly accurate low inertia electrode force control, backlash free and with minimum friction.
Suited to heavy duty use, giving high production rates.**

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AEROSPACE SPOT WELDING MACHINES – WELDING CAPACITIES

* To Aircraft Standards AIR 3383 and MIL W 6858

		P200 STI		P300 STI		P400 STI	
		Min	Max	Min	Max	Min	Max
Light Alloys AG3-AG5 AU2G-AU4G AU4G1 plated A5 AZ5GU plated AZ1	Industrial quality	0.6 + 0.6	3 + 3	0.8 + 0.8	4 + 4	1 + 1	5 + 5
	Aero quality *	0.6 + 0.6	2.5 + 2.5	0.8 + 0.8	3 + 3	1 + 1	4 + 4
Mild steels XC10-XC18S 15CDV6-25CD4S							
	Aero quality *	0.6 + 0.6	5 + 5	0.8 + 0.8	6 + 6	1 + 1	7 + 7
Stainless steels Z10 CNT 18 Z10 CNW17							
	Aero quality *	0.5 + 0.5	3.2 + 3.2	0.6 + 0.6	4 + 4	0.8 + 0.8	5 + 5
Refractory alloys KC 20WN							
	Aero quality *	0.5 + 0.5	2 + 2	0.6 + 0.6	2.5 + 2.5	0.8 + 0.8	3.2 + 3.2
Titanium TA6V	Aero quality *	0.5 + 0.5	3.2 + 3.2	0.6 + 0.6	4 + 4	1 + 1	5 + 5
Nimonic	Aero quality *	0.5 + 0.5	2 + 2	0.6 + 0.6	2.5 + 2.5	0.8 + 0.8	3.2 + 3.2

Three different frame types are available depending on machine type and throat depth. They are made of welded, thick steel flat sections strongly braced to form a very rigid box structure.

The upper arm fitted on these machines is made of welded steel with a high moment of inertia and supports the electrode head assembly.

The lower arm is composed of a welded steel hub assembly and a chrome-copper round arm. Special lower arms are available on request for welding cylindrical parts. They are made of fabricated steel box section with integral conductors and electrode holders.

Throat depth is measured from Ram centerline to machine front face:

P 200 / 300 STI: 800 – 1000 – 1200 – 1400mm, as standard, other sizes on request.

P 400 STI: 800 – 1000 – 1200 – 1400 – 1600mm, as standard, other sizes on request.

MAXIMUM ELECTRODE FORCE @ 5 bar line pressure	
P 200 STI	20,000 N
P 300 STI	30,000 N
P 400 STI	40,000 N

Weld Stroke and Retraction in mm				
Strokes	P 200 STI	P 300 STI	P 400 STI	
Welding	15	15	20	20
Retraction	115	115	120	170
Total	100	100	100	150

Integrated as Standard: Sy-Sol Tri Weld Control Cabinet. See separate brochure.
Variable Weld Force during the weld sequence.

Integrated as Options: Electro-pneumatic regulators, weld programme controlled.
Current Monitoring.
Load cell for force measurement.
Water conservation valves for internal and flood cooling.

All the above can be monitored by the Sy-Sol, and upper and lower limits set to ensure quality.