

Comparison clinching, self-tapping screws, spot welding

	Clinching	Self-tapping screws	Spot welding
Non-destructive joint quality control	+++	+	0
No added fasteners	+++	0	+++
Simplified recycling	+++	+	+++
Speed, cycle time < 1 second	+++	0	+++
Compressed air as prime mover	+++	++	0
No need for cooling	+++	+++	0
No need for ventilation	+++	+++	0
No need for muscular thrust	+++	+	+++
No thermal stress in workpiece	+++	+++	0
No gases, fumes, sparks or noise	+++	++	0
Integrated claming giving no gaps	+++	+	+++
No protruding sharp tips	+++	0	+++
Possibility for joining precoated, enameled, galvanized material	+++	+++	0
Possibility for joining "difficult" material combinations, like steel+aluminum	+++	+++	+
Possibility for joining multi-layer	+++	+++	+
Suitable for combination with adhesives	+++	+++	0
Suitable for intermediate layers	+++	++	0
Suitable for large differences in thickness > 5:1	+++	+++	+
No pre- or post work	+++	+++	0
Static joint strength for a perfect joint	++	++	+++
Dynamic, fatigue joint strength	+++	+	++
Impact joint strength	+	++	++
Low cost per joint	+++	+	+
Low energy cost	+++	+++	0
Avoided cost for peak power	+++	+++	0
Low environmental impact	+++	++	0
No need for fastener sorting and feeding	+++	0	+++
Low tool weight	+++	+++	+
Ease of handling	+++	++	+
Consistency of joint	+++	++	+
Low training costs	+++	+++	0
No strong electro-magnetic fields	+++	++	0