

ASAP FASTENING SYSTEMS, INC.

SUPPLIES FOR INDUSTRY AND CONSTRUCTION

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MATERIAL CAPABILITIES AND CAPACITIES FOR CD STUD WELDING

WELDING CAPABILITIES

BASE MATERIAL	STUD MATERIAL			
	MILD STEEL: 1010 THROUGH 1030	STAINLESS STEEL 302,304,305	ALUMINUM 1100,5086,6061	BRASS 70-30,65-35
MILD STEEL: 1006 THROUGH 1030	EXCELLENT	EXCELLENT	—	EXCELLENT
MEDIUM CARBON STEEL: 1030 THROUGH 1050	GOOD *	GOOD *	—	GOOD *
GALVANIZED SHEET DUCT: OR DECKING	EXCELLENT	EXCELLENT	—	—
STRUCTURAL STEEL	EXCELLENT	EXCELLENT	—	EXCELLENT
STAINLESS STEEL: 405,410,430, AND 300 SERIES, EXCEPT 303	EXCELLENT	EXCELLENT	—	EXCELLENT
LEAD-FREE BRASS/ELECTROLYTIC COPPER/LEAD-FREE ROLLED COPPER	EXCELLENT	EXCELLENT	—	EXCELLENT
+MOST ALUMINUM ALLOYS OF THE 1000,3000,5000,AND 6000 SERIES	—	—	EXCELLENT	—
DIE-CAST ZINC ALLOYS	GOOD *	GOOD *	EXCELLENT	GOOD *

*GOOD: GENERALLY FULL STRENGTH RESULTS, DEPENDING UPON THE COMBINATION OF STUD SIZE AND BASE METAL.

+OTHER MATERIALS, SUCH AS 7000 SERIES ALUMINUM, TITANIUM ALLOYS, INCONEL, ETC. CAN BE WELDED UNDER SPECIFIED CONDITIONS.

STANDARD LOAD CAPACITIES

STUD MATERIAL	STUD SIZE	MAXIMUM FASTENING TORQUE (INCH-LEBS) *	ULTIMATE TENSILE LOAD (LEBS)	MAXIMUM SHEAR LOAD (LEBS)
LOW-CARBON COPPER-FLASHED STEEL	6-32	6	500	375
	8-32	12	765	575
	10-24	14	960	720
	1/4-20	43	1,750	1,300
	5/16-18	72	2,900	2,200
	3/8-16	106	4,300	3,250
STAINLESS STEEL: 304	6-32	10	790	590
	8-32	20	1,260	940
	10-24	23	1,530	1,150
	1/4-20	75	2,880	2,160
	5/16-18	126	3,750	5,350
	3/8-16	186	4,850	7,150
ALUMINUM ALLOY: 1100	6-32	2.5	200	125
	8-32	5	295	185
	10-24	6.5	380	235
	1/4-20	21.5	670	415
	5/16-18	36	1,125	695
	3/8-16	53	1,660	1,000
ALUMINUM ALLOY: 5086	6-32	3.5	375	235
	8-32	7.5	585	365
	10-24	10	735	460
	1/4-20	32.5	1,360	850
	5/16-18	54.5	2,300	1,400
	3/8-16	81	3,400	2,100
BRASS: 70-30/65-35	6-32	8	600	390
	8-32	16	860	560
	10-24	18.5	1,040	680
	1/4-20	61	1,950	1,275
	5/16-18	102	3,280	2,140
	3/8-16	150	4,800	3,160

*THESE VALUES SHOULD DEVELOP FASTENER TENSION TO SLIGHTLY LESS THAN YIELD POINT.