

## MIDWEST FASTENERS

### CD STUD/BASE METAL COMBINATION WELDING CAPABILITIES RECOMMENDATIONS

<b>BASE WELD SURFACE MATERIAL</b>	<b>STUD MATERIAL</b>			
	<b>MILD STEEL</b> 1008, 1010	<b>STAINLESS</b> 304, 305	<b>ALUMINUM</b> 1100, 6061	<b>BRASS</b> 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 330 Series, except 303	Excellent	Excellent	—	Excellent
LEAD FREE BRASS, ELECTROLYTIC COPPER, LEAD-FREE ROLLED COPPER	Excellent	Excellent	—	Excellent
MOST ALUMINUM ALLOYS OF THE 1100, 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 specific conditions.

### CD STUD REVERSE-SIDE MARKING LIMITATIONS

The charts on the following page will be of help in determining the best combination of stud weld base size and base metal thickness. The terms on the chart are defined as follows:

EXCELLENT—No marking, excellent weld.

ACCEPTABLE—Visible markings, excellent weld.

UNACCEPTABLE—Unacceptable marking, base metal failure.

It should be noted that the MIDWEST FASTENERS charts are based on optimum laboratory conditions. Even under optimum conditions, it is difficult to determine the precise point at which reverse-side marking will appear. Therefore, these charts should be used only as a guide. For further assistance contact the MIDWEST FASTENERS Customer Service Department.



450 Richard St.  
Miamisburg, OH 45342  
Toll Free: 800-852-8352  
Fax: 937-866-4174

[www.midwestfasteners.com](http://www.midwestfasteners.com)