

TEST REPORT

TESTED FOR: TRU-WELD DIVISION
TFP CORPORATION
PO BOX 702
460 LAKE ROAD
MEDINA, OHIO 44256

PROJECT: RE-QUALIFICATION TESTS
WELD STUDS

DATE: JUNE 8, 2006

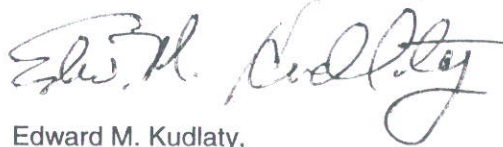
OUR REPORT NO.: 138-68016

On May 3 and 4, 2006 our representative (Larry Mach) was at TFP Corporation to witness the welding and testing of 3/8", 1/2", 5/8", 3/4", and 7/8" diameter weld studs.

The welding and testing were conducted in accordance with the AWS Structural Code, D1.1, Section 7 and Annex G.

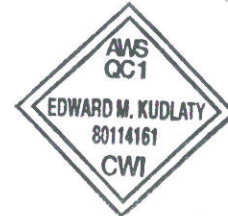
Data pertinent to material used, welding and test results are contained in the accompanying reports.

Respectfully submitted,
Professional Service Industries, Inc.



Edward M. Kudlaty,
Department Manager
AWS-CWI

Technician: L Mach



REPORTS MAY NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT WRITTEN PERMISSION BY PROFESSIONAL SERVICE INDUSTRIES, INC.

TRU-WELD
3/8" DIAMETER WELD STUDS

QUALIFICATION TESTS

I. PURPOSE

To test and re-qualify Tru-Weld 3/8" diameter weld studs for weldability and physical properties per AWS D1.1, Section 7 and Annex G.

II. EQUIPMENT AND MATERIALS

Prior to automatic stud welding the proper equipment is to be selected based on the diameter of the stud to be welded and the conditions under which the stud is to be welded.

Based on the optimum time and current requirements for a specific diameter stud the stud welding equipment chosen must have sufficient current output and time control to achieve an acceptable weld per AWS D1.1 Section 7.7.

III. PROCEDURE AND RESULTS

Specimens were prepared by welding the 3/8" diameter stud to the 1/2" x 2-1/2" x 2-1/2" mild steel plates.

Weldability was evaluated by testing specimens specified in AWS D1.1 and Annex G.

IV. CONCLUSIONS

1. Weldability of Tru-Weld 3/8" diameter studs was established by the ability of the weld to consistently develop the full strength during the stud- bending test.
2. Physical and chemical properties of the subject studs conform to the requirements of ASTM-A-108 carbon steel bars.
3. Results of the Mechanical Properties and Chemical Analysis of the studs and plates used in these tests are show in the attached test data forms.