Sheet metal contractors know that joining metal is a very labor-intensive part of their business. Many hours are spent welding the various parts together that make up the total sheet metal system. Managing the welding operation of the contractors business is a vital part of the total operation.

In the early 80’s, The Sheet Metal and Air Conditioning Contractors’ National Association, Inc. (SMACNA) seeing the need for more information and guidance published the first edition of this manual. It was an out growth of concern that the sheet metal contractor was in need of more specific guidance on the welding operation. The first edition attempted to collect information about the various facets of welding as it applied to the sheet metal business, but written from a non-expert perspective. It was recognized that the manager had to be able to make informed business decisions and needed the tools to help in the process. Things such as weld productivity, quality, equipment selection, training, hiring, estimating, safety, welding processes and standards were examined from the managers prospective. The purpose of subsequent editions has been to continue providing the sheet metal manager with the tools to manage the welding operation, including the latest technological advances that affect welding operations in many respects.

This edition includes:

- Updated coverage of most welding processes in common use today. Updated figures and drawings of typical welded joint designs.
- New guidelines for developing welding procedures are provided in the chapter on standards, codes and specifications.
- Estimating is expanded and provides both a short and long method of estimating welding costs with examples.
- Welder training is updated and covers the International Training Fund (ITI) welding program and welder qualification.
- Integration of metric units is incorporated into the text and tables using “soft” conversion methods.

The Welding Committee of SMACNA developed this third edition after reviewing the needs of the contractor and revised the guide to reflect the latest technology and methods. It is hoped that the revised guide will help Contractors manage their welding operation more profitably.

Welding is a significant part of the sheet metal business. SMACNA through its welding committee working with members, chapters, and the welding industry is committed to providing sheet metal contractors with guide-lines for managing their welding operations.

SMACNA sincerely appreciates the contributions of the welding industry and the input of concerned and interested individuals.

SHEET METAL AND AIR CONDITIONING CONTRACTORS’ NATIONAL ASSOCIATION, INC.