

FIBROUS GLASS DUCT CONSTRUCTION STANDARDS



**SHEET METAL AND AIR CONDITIONING CONTRACTORS'
NATIONAL ASSOCIATION, INC.**

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**4201 Lafayette Center Drive
Chantilly, VA 20151-1209
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FOREWORD

The seventh edition of this standard reflects significant changes from former editions. SMACNA has discontinued the pressure sensitive tape standards AFTS 100 and 101. Underwriters Laboratories Standard 181A supersedes them. The omission of rigid round duct and tensided duct and 1400 EI board construction details is solely due to infrequent use and is not intended to discourage their use.

Many new provisions for fitting reinforcement are included. They, along with other details and the inspection list, are adapted from research and documentation made available from the North American Insulation Manufacturers Association (NAIMA). NAIMA currently maintains an office in Alexandria, Virginia. Some technical content differences occur out of preference. They should not be construed as disapproval of methodology. This 2003 Seventh Edition may be coordinated with the 1995 Second Edition of the *HVAC DCS*.

SMACNA gratefully acknowledges the contributions of its own committees, of NAIMA, and of those who reviewed drafts of the sixth edition. Former contributors are acknowledged in the appendix.

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REFERENCES

The following should be used as reference material when working with the information contained in this Standard.

ASHRAE Handbook and Product Directory—Fundamentals, Systems and Equipment Volumes. American Society of Heating, Refrigerating and Air-Conditioning Engineers

NFPA Standard 90A – *Installation of Air Conditioning and Ventilating Systems.*

NFPA Standard 90B – *Installation of Residence Type Warm Air Heating and Air Conditioning Systems.*
National Fire Protection Association

Standard for Safety—Factory-Made Air Duct Materials and Air Duct Connectors UL 181.
Underwriters' Laboratories, Inc.

Test Methods for Pressure Sensitive Tapes.
Pressure Sensitive Tape Council

HVAC Duct Construction Standards, Metal and Flexible, 2nd Edition, 1995. SMACNA

HVAC Air Duct Leakage Test Manual, 1st Edition, 1985. SMACNA

Health and Safety Aspects of Fiber Glass.
NAIMA

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CHAPTER 1

INTRODUCTION

1.1 MODEL PROJECT SPECIFICATION

Fibrous glass duct shall be of type (475) (800) and shall be of 1 in. (25 mm) or 1 ½ in. (38 mm) thickness and conform to the SMACNA *Fibrous Glass Duct Construction Standards*, 7th Edition, 2003 or the NAIMA *Fibrous Glass Duct Construction Standards*, 5th Edition, 2002. The fabricator shall submit for the approval of owner's representative or the approval of local mechanical code official the following:

- a. The title of the standard the fabricator chooses to comply with;
- b. A list of any deviations from the selected standard and the reason(s) therefore;
- c. The name and product rating of manufacturer of the duct board;
- d. The type of closures systems selected, along with confirmation that they are acceptable to the board manufacturer and are listed by U.L.
- e. A schedule of duct pressure classifications and the air handling systems for which they are selected.
- f. The type and spacing interval of supports selected;

Zinc coating weight for all galvanized steel sheet shall be G 60 or G 90.

Notice to Specifiers: The separate SMACNA and NAIMA standards were produced with different objectives. Although much of the construction detail is similar in the two manuals, there are significant differences. In some instances SMACNA has featured only methods that contractors would consider to be the most economical. In others, a conservative approach was taken to limit the number of alternatives in order to have fewer nuances with which to be concerned. Otherwise, having other qualified training resources precludes the need for comprehensive fabrication instructions. Discrediting the NAIMA approach to the scope of standards was not an objective. For fabrication with type 1400 board, see NAIMA standards.