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NATIONAL ASSOCIATION, INC.

2025

SMACNA

PRODUCTS & SERVICES GUIDE

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Introduction



SMACNA Products & Services Guide
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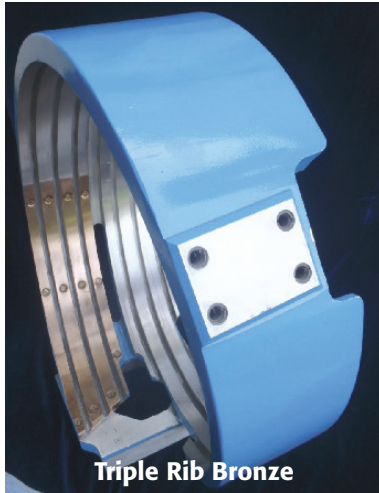
This guide identifies the many ways that SMACNA is prepared to serve your information needs. Please use the table of contents to locate the subject areas of interest to you.

To find out more about a particular SMACNA service, you can locate the appropriate staff representative listed by job title and function on pages 48 through 52.

At the end of this guide is an order form listing prices for SMACNA members and non-members.

In addition to the materials listed in this guide, SMACNA maintains a library of information on association management, technical subjects related to the sheet metal industry, and a multitude of slides and photos on various subjects. The industry experts that make up SMACNA's staff stand ready to serve you.

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BUSINESS MANAGEMENT SERVICES

National Education Programs:

Business Management University.....	11
Financial Boot Camp: Interpret, Navigate, Analyze!	11
Navigating Your Exit Strategy	11
Project Managers Institute.....	11
Senior Project Leadership Institute	11
Supervisor Training Academy.....	11

Webinars	11
-----------------------	----

SMACNA Chapter Programs:

Chapter Education Programs.....	11
Chapter Supervisory Training Programs	11

Member Surveys & Publications:

Contractor Operations Manual	11
Equipment Warranty Options for Residential Contractors	12
Financial Tools for SMACNA Contractors.....	12
HVAC Systems: Understanding the Basics.....	12
Mini-Split Systems in Residential Retrofit Applications	12
The Real Costs of a Sheet Metal Business.....	12
Residential Retrofit and Service Operations Management Program.....	12
Safety and Health Information.....	13
Sheet Metal Made Lean & Clean.....	13
SMACNA Guide to Cost Recovery for Sheet Metal & HVAC Equipment.....	13
SMACNA Guide to Federal Contracting	13
Successful Customer Service Practices for HVAC Service and Retrofit Contractors	13
Tool and Equipment Rental Guide.....	13
Virtual Design and Construction Practice: Benefits, Challenges, and Proven Strategies for AEC Team.....	13

CHAPTER RESOURCES

Alcohol/Substance Abuse:

Guidelines on Substance Abuse and Testing Policies.....	15
---	----

Programs & Publications for Chapters:

Chapter Executives Area	15
Chapter Executives Community on SMACNA Connect.....	15
Chapter Executives Institute	15
Chapter Leadership News	15
Chapter Website Program	15
Guidelines for Chapter Presidents	15
Industry Fund of the United States Seminar.....	15
Local Joint Adjustment Board Training	15
Marketing Resource Center.....	16

Membership Recruitment Tools:

Membership Prospect Kit.....	16
SMACNA Products and Services Guide	16
SMACNA Pop-Up Display Banners.....	16
SMACNA Lapel Pin	16
SMACNA Logo Decals	16
SMACNA Logos.....	16

Belonging and Excellence For All (BE4ALL) Initiative	17
---	----

CONTRACT ADMINISTRATION & PROJECT MANAGEMENT

Achieving Spatial Coordination Through BIM	18
Alliance Project Management Manual	18
The Business Case for BIM	18
Early Start-Up of Permanently Installed HVAC Systems	18
Guidelines for Change Orders.....	18
HVAC Bid Specification Reference Manual.....	18
The Legal Implications of Building Information Modeling	18
Making RFIs More Effective 2016	19
SMACNA BIM Primer.....	19
SMACNA Contract Bulletins.....	19
Successful Building Project Coordination	19

LABOR RELATIONS

Consultation Services.....	20
Collective Bargaining Orientation.....	20
Spring Training Bargaining Workshop	20
Industry Fund Seminar.....	20
Local Joint Adjustment Board Training	20
Partners in Progress Conferences	20
Regional/Local Partnership Programs	20
Partnership Website.....	20
Expertise Websites	20
Partners in Progress Magazine.....	20
Best Practices Recruiting Resources	20
Best Practices Resources.....	22
Helmets to Hard Hats	22
SMART Heroes Program	22
Article X Standard Form of Union Agreement Procedural Rules.....	22
Labor Bulletins.....	22
Annual Industry Labor Report.....	22
Standard Form of Union Agreement (SFUA) A-08-11	22
Wage and Fringe Database	22
Residential Wage and Fringe Database	22
LJAB Guidelines	22
Annual Bargainers' Update.....	22
Pension Laws	22
Substance Abuse Testing.....	22
Bargainers' Community	22
Bargainers' Conference Calls.....	24
Sheet Metal Settlement Tracking By Region.....	24
Davis-Bacon Training	24
COVID-19 Vaccine Resources.....	24
Employment Share Data	24
Webinars.....	24
Trustee Education.....	24
Presentations and Reports	24
Specialized Research	24
CBA Language Resources	24

GOVERNMENT AFFAIRS

SMACNA Capitol Hill Updates and Action Alerts	26
2024 CEA National Issues Conference	26
Congressional Sharing	26
Capitol Hill Update and SMAC PAC Activities.....	26

Contents

SMACNA MARKET SECTOR COUNCILS

Architectural Market Sector Council	27
HVAC Contractors Council	27
Industrial Market Sector Council	27
Residential Market Sector Council	27
TAB Market Sector Council	27

MEMBERSHIP & CONVENTION

SMACNA Annual Convention	28
SMACNA Product Show	28
Member Update	28
New Member Plaque	28
SMACNA Connect	28
SMACNA Constitution and Bylaws	28

NEW HORIZONS FOUNDATION

PUBLIC RELATIONS & COMMUNICATIONS

Contractor Spotlight Videos	35
Executive News Brief	35
Industry Fund of the United States (IFUS) Annual Report	35
Let's Talk Shop Podcast	35
Operations Hub Podcast	35
Products & Services E-newsletter	35
Project Spotlight	35
SMACNA Contractor Lapel Pin	35
SMACNA Contractor Logo Decals	35
SMACNA Contractor Logos	35
SMACNews	35
SMACNA Premier Partner	35

SOCIAL MEDIA

SAFETY & HEALTH

Safety Web Page	37
Publications	37
Additional Items	37
SMACNA Guide to Policies, Procedures, and Written Programs	38

TECHNICAL RESOURCES

Bulletins & Special Programs:

Technical Bulletins	39
Technical Seminars	39

Technical Apps:

Downspout & Gutter Sizing Calculator	39
HVAC Air Duct Leakage App	39
HVAC Duct Construction App	39
Rectangular Industrial Duct Construction App	39
Round Industrial Duct Construction App	39
Ductulator App	39

Technical Publications:

Accepted Industry Practice for Industrial Duct Construction	40
Accepted Industry Practices for Sheet Metal Lagging	40
Architectural Sheet Metal Inspection Guide	40

Architectural Sheet Metal Manual	40
Architectural Sheet Metal Quality Assurance Guide	40
Architectural Sheet Metal Manual – CADD Drawings	40
Building Systems Analysis and Retrofit Manual	40
Duct System Calculator – Imperial	41
Duct System Calculator – Metric	41
Ducted Electric Heat Guide for Air Handling Systems	41
Energy Systems Analysis and Management Manual	41
Fibrous Glass Duct Construction Standards	41
Fire, Smoke & Radiation Damper Installation Guide for HVAC Systems	41
Food Grade Ductwork and Sheet Metal Guidelines	41
Guide for Free Standing Steel Stack Construction	41
Guidelines for Roof Mounted Outdoor Air-Conditioner Installations	41
Guyed Steel Stacks	42
HVAC Air Duct Leakage Test Manual	42
HVAC Duct Construction Standards – Metal & Flexible	42
HVAC Duct Systems Inspection Guide	42
HVAC Sound and Vibration Manual	42
HVAC Systems – Applications	42
HVAC Systems – Commissioning Manual	42
HVAC Systems – Duct Design	43
HVAC Systems Sound and Vibration Procedural Guide	43
HVAC Systems – Testing, Adjusting and Balancing	43
IAQ Guidelines for Occupied Buildings Under Construction	43
Indoor Air Quality – A Systems Approach	43
Kitchen Ventilation Systems and Food Service Equipment Fabrication and Installation Guidelines	43
Phenolic Duct Construction Standards	43
Rectangular Industrial Duct Construction Standards	44
Rectangular Industrial Duct Construction Standards, Metric (SI) Version	44
Residential Comfort System Installation Standards	44
Residential Sheet Metal Guidelines	44
Round Industrial Duct Construction Standards	44
Seismic Restraint Manual – OSHPD Edition	44
Seismic Restraint Manual: Guidelines for Mechanical Systems	45
Sheet Metal Welding Guide	45
SMACNA Bubble DVD Destroys Design Myths	45
SMACNA Technical Manual Collection	45
Standard Practice in Sheet Metal Work	45
System Air Leakage Test Standard	45
TAB Procedural Guide	45
Thermoplastic Duct (PVC) Construction Manual	46
Thermoset FRP Duct Construction Manual	46

SMACNA WEBSITE: www.smacna.org

SMACNA STAFF:

E-mail Addresses	48
SMACNA National Staff	49
Function/Subject Assignments	50

PRODUCTS & SERVICES BUYERS' GUIDE

PRODUCTS & SERVICES GUIDE: INDEX OF ADVERTISERS

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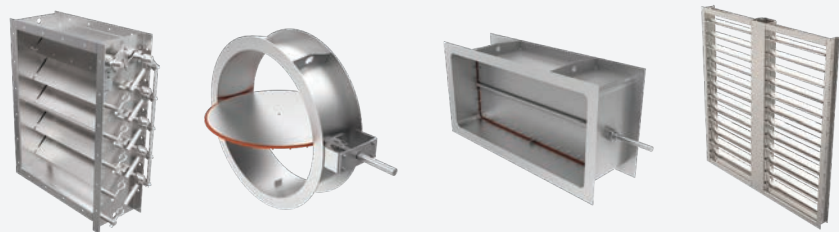
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Ruskin® offers a comprehensive range of airflow measuring and control solutions.

National Education Programs



Business Management University

Business Management University delivers innovative insights and practical knowledge for SMACNA contractors. The program remains dedicated to providing participants with a unique blend of leadership development and networking opportunities. The program focuses on key areas crucial for success covering financial management, strategic planning, contractor survival skills, negotiation techniques, leadership strategies, and productivity enhancement. Designed for aspiring managers and future owners of SMACNA member companies.

Financial Boot Camp: Interpret, Navigate, Analyze!

Financial Boot Camp: Interpreting Financial Statements, Navigating KPI's, and Analyzing Financial Strategies! Understanding the complexities of your firm's financial statements is crucial to your firm's success. When you "enlist" in this Boot Camp, you will march through the paces and engage in practical drills and exercises based on real-life scenarios. Participants will learn how to use their financial statements as a valuable tool to gain insights into their company's financial health, enabling them to make informed decisions and navigate the complexities of financial management with confidence. Targeted toward financial and non-financial personnel.

Navigating Your Exit Strategy

Navigating Your Exit Strategy delves into the business exit and sales process, including owner/business/market readiness, exit options, and withdrawal liability. Participants will participate in a SWOT analysis and learn how to review and assess the value of their companies. The program will conclude with participants developing personalized succession plans. This program is targeted for SMACNA contractors intending to retire from, transfer, or sell their business in the next 5-10 years.

Project Managers Institute

Project Managers Institute builds upon existing project management skills and strengthens proficiency. The program is designed to empower project managers by providing them with crucial skills and knowledge necessary to navigate the complexities of project management for achieving successful project outcomes. The interactive program covers project leadership, planning, financial management, effective time management strategies, industry best practices, and change order management for enhanced efficiency and project success. Participants will work in teams on several projects throughout the program. This program is designed for professionals with two to five years of project management experience.

Senior Project Leadership Institute

Participants will develop advanced strategic thinking skills in project management to lead successful projects. This comprehensive program will address productivity impact, leadership dynamics, and project tracking, financials, and forecasting. In this interactive program, participants will work in teams to design and build several projects with a focus on communication and collaboration. The curriculum will incorporate essential elements including fierce conversations, conflict resolution strategies, and negotiation skills, providing a well-rounded approach to navigating the challenges associated with successful project management.

Supervisor Training Academy

Supervisor Training Academy explores key areas crucial for effective leadership and management through interactive exercises. Sessions cover leadership with a focus on team empowerment, communication skills vital for effective collaboration and conflict resolution, insights into enhancing profitability and making informed business decisions, and industry trends and best practices. This program is designed to provide a practical learning experience, equipping participants with the tools and knowledge needed to excel in their supervisory roles. This program is tailored for supervisors, foremen, superintendents and other critical managers.

Webinars

SMACNA offers a range of educational webinars covering a variety of topics and issues that include business management, safety and health, technical resources, financial management, and labor management. These webinars are available exclusively for SMACNA members, and can be viewed by visiting www.smacna.online/webinars.

SMACNA Chapter Programs

Chapter Education Programs

SMACNA offers funding to support educational programs at the chapter level. For approved programs, SMACNA covers the instructor's fee, while chapters are responsible for the instructor's travel expenses and meeting costs. Chapters hosting these programs must permit any SMACNA member to attend. A list of available chapter programs is accessible on SMACNA's website under "Chapter Executives." For more details, contact education@smacna.org or visit: <https://rebrand.ly/chaptereducationprograms>.

Chapter Supervisory Training Programs

These programs are essential for field management, designed to enhance the supervisory and management skills of field supervisors and foremen. SMACNA covers the instructor's fee for approved programs, while chapters are responsible for the instructor's travel expenses and meeting costs. A list of SMACNA Supervisory Training Programs can be found on SMACNA's website under "Chapter Executives." For more information, contact education@smacna.org or visit: <https://rebrand.ly/chaptersupervisorytraining>.

Member Surveys & Publications

Contractor Operations Manual

PDF Only.

The Contractor Operations Manual is a collection of documents available online that deal with the non-financial aspects of operating a contracting business.

<https://www.smacna.org/resources/business-management/contractor-operations-manual>

Business Management Services

Current online books include:

- Advancing Your Business Negotiation Skills
- Construction Contracts: Alternative Delivery Methods
- Establishing Overhead and Burden in a Sheet Metal Business
- Guideline to Information Technology
- Improving Shop Workflow and Efficiency
- IPD Guide for HVAC and Mechanical Contractors
- Management Succession
- Materials and Inventory Management
- Maximizing Bonding Capacity
- Monetary and Non-Monetary Compensation
- Navigating Cost Plus Contracts
- Personnel, Policies, and Procedures
- Presentation Skills for Contractors
- Principals of Job Costing
- Proven Practices for Conducting Successful Virtual Meetings for Foremen
- Recruit to Retire Best Practices
- Scheduling and Planning Best Practice
- Strategic Growth Amid COVID
- Strategies and Tools for Effective Procurement
- Successfully Managing a Remote Workforce
- The Contractor's Role in Preconstruction Planning
- Transforming Your Organization for the Future

Equipment Warranty Options for Residential Contractors

PDF Only. First edition, 2019.

SMACNA's Equipment Warranty Options for Residential Contractors guide covers the four major types of equipment warranties (contractor, manufacturer, third-party, and customer) and provides advice that is critical to ensuring the contractor's ability to cover repair costs during the lifetime of the warranty. Written by well-known industry consultant Ruth King in cooperation with the SMACNA Residential Council Steering Committee, this white paper describes what to consider when offering a contractor-provided warranty as well as those from manufacturers, third-parties, and customers.

<https://www.smacna.org/resources/business-management/equipment-warranty-options-for-residential-contractors>

Financial Tools for SMACNA Contractors

Second edition, 2023.

"Financial Tools for SMACNA Contractors" bridges the gap between construction operations and business functions, teaching fundamental financial concepts and how to apply them in today's business environment. The book covers topics such as interpreting financial statements, accounting practices, work in process, job cost accounting, financial analysis and indicators, projections and budgets, effective credit use, asset and information protection, and decision-making in volatile conditions. It breaks down the financial and management processes of a sheet metal company into three sections: 1) The Foundation – mastering the basics on time; 2) The Structure – assessing your current position and planning ahead; and 3) The Process – making informed decisions and overcoming challenges.

HVAC Systems: Understanding the Basics

PDF Only. Third edition, 2018.

SMACNA's manual "HVAC Systems: Understanding the Basics," 3rd edition, 2018, is a non-technical overview of HVAC systems used in residential, commercial, and institutional buildings. It covers system operation and components and presents helpful diagrams and figures illustrating the systems. Topics in the updated manual include: HVAC System Basics, Central Heating and Central Cooling Equipment, Hydronic and Air Distribution Systems, HVAC System Controls and the components that comprise these systems. The 2018 update covers: Humidifiers, Mini-split Systems, Geothermal Systems, Hydronic Radiant Cooling, and other new technology and equipment. This unique resource is perfect for self-study, group training, or reference. Review questions at the end of each chapter make the guide more helpful as a learning tool and test the user's understanding of the concepts discussed in each chapter. The 2018 edition also includes links to video learning modules on various topics. This manual is intended to complement SMACNA's HVAC Bid Specification Manual that was developed to help HVAC contractors prepare bids and proposals for HVAC systems.

<https://store.smacna.org/hvac-systemsunderstanding-the-basics/>

Mini-Split Systems in Residential Retrofit Applications

PDF Only. First edition, 2019.

SMACNA's Mini-Split Systems in Residential Retrofit Applications, members-only white paper, covers installation applications for both outdoor and indoor units as well as "mini-ducted" systems that incorporate short runs of ductwork.

<https://www.smacna.org/resources/business-management/mini-split-systems-in-residential-retrofit-applications>

The Real Costs of a Sheet Metal Business

Third edition, 2010.

"The Real Costs of a Sheet Metal Business" is designed for journeymen and supervisors to understand the true cost of doing business while remaining cost-conscious and competitive. This hands-on program focuses on bidding and running a project. Participants will delve into the bidding process by analyzing both the direct and indirect costs of running a business and exploring how productivity impacts bid success. The program aims to help employees recognize the significant (and costly) role that personnel and overhead play in a competitive marketplace. It also raises awareness of their contribution to profits and the market forces that demand quality and productivity from SMACNA contractors. This program is available for SMACNA chapters to present and comes with an instructor's guide and student workbooks.

Residential Retrofit and Service Operations Management Program

PDF Only. First edition, 2016.

The Residential Retrofit and Service Operations Management Program provides information on the latest methodologies to implement a profitable and successful residential and light commercial HVAC service and replacement department. This manual is helpful to commercial HVAC contractors looking to start a retrofit or service division as well as the residential HVAC contractor looking to improve operations. Prepared under the direction of the Residential Contractors Council Steering Committee, this manual starts with an in-depth look at the financial considerations involved in this type of work and moves into areas such as sales and operations, marketing methods, and personnel requirements. The appendices include numerous sample job descriptions for typical residential/light commercial personnel and interesting "blog style" case studies.

<https://store.smacna.org/residential-retrofit-service-operations-management-program/>

Safety and Health Information

SMACNA develops safety programs, publications, services, and videos to assist members in establishing and managing effective safety programs. SMACNA also communicates with OSHA and other federal agencies on issues affecting members and offers briefings on regulatory compliance issues.

<https://www.smacna.org/resources/business-management/safety-and-health>

Sheet Metal Made Lean & Clean

28 pages. First edition, 1999.

This guide is an introduction to owners, managers and workers in sheet metal fabrication and manufacturing shops to the principles and methods of lean production. It defines the application of lean production to sheet metal shop operations and provides the reader with an assortment of tools to begin the process of making shop operations more efficient.

<https://store.smacna.org/sheet-metal-made-lean-and-clean/>

SMACNA Guide to Cost Recovery for Sheet Metal & HVAC Equipment

PDF Only. 80 pages. Third edition, 2008.

The SMACNA Guide to Cost Recovery for Sheet Metal & HVAC Equipment is a comprehensive, current guide to cost recovery for owned equipment. The rates in this manual are intended as guidelines paralleling amounts an equipment owner should charge during rental or contractual periods to recover equipment-related costs on a single-shift basis.

<https://store.smacna.org/guide-to-cost-recovery-for-sheet-metal-and-hvac-equipment>

SMACNA Guide to Federal Contracting

PDF Only. First edition, 2019.

This guideline demystifies the federal contracting process for SMACNA members. You will learn how federal contracts are awarded, what regulations apply to them, and which processes are important to successful project completion. There is no reason why your company cannot use the federal government as a vehicle for success.

<https://www.smacna.org/resources/business-management/federal-contracting/smacna-guide-to-federal-contracting>

Successful Customer Service Practices for HVAC Service and Retrofit Contractors

PDF Only. 35 pages. First edition, 2017.

This manual provides strategies and procedures to keep a customer for life. It includes information on establishing a customer care culture and working within the "life cycle" of a customer. Prepared under the direction of the Residential Contractors Council Steering Committee, this resource helps identify and evaluate your customer types and effective service policies for each type, as well as the customer service role of each employee. Sample scripts are provided so companies can set procedures and train employees on proper customer interaction and phone etiquette.

<https://store.smacna.org/successful-customer-service-practices-for-hvac-service/>

Tool and Equipment Rental Guide (Members Only)

Online tool with downloadable tables. 2023 Edition

Construction tools and equipment are an essential part of any contractor's business and can represent a significant investment. In addition to the large initial investment and the provision for eventual replacement, expenditures must be made for maintenance and repair, storage and handling, insurance, taxes, and interest. The comprehensive coverage of tools and equipment lends itself useful to a wide range of contractors who can benefit from transparent pricing. This guide includes an expanded and enhanced rates selection experience. New equipment has been added and updated list prices across multiple industries are available for equipment, such as aerial lifts, air compressors, air tools, compactors, conduits and other raceway tools, connection and splicing tools, cranes, and much more.

<https://smacna.online/toolrentalguide>

Virtual Design and Construction Practice: Benefits, Challenges, and Proven Strategies for AEC Team

PDF Only. 20 pages. 2017.

SMACNA's white paper, Virtual Design and Construction Practice: Benefits, Challenges, and Proven Strategies for AEC Team, offers insight into the growing use of virtual design and construction on construction projects. Leading members of the architectural, engineering and construction (AEC) industry are championing the Virtual Design and Construction (VDC) approach to projects – a change that is slowly but dramatically transforming the way projects are completed.

<https://www.smacna.org/resources/business-management/virtual-design-and-construction-practice-benefits,-challenges,-and-proven-strategies-for-aec-team>

EVERGREEN TELEMETRY

Innovative Tools For TAB & Cx



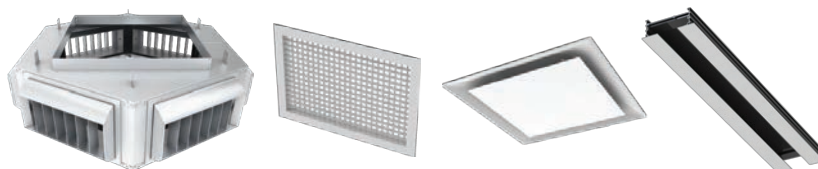
- AIRFLOW
- VELOCITY
- PRESSURE
- IAQ

Wireless modules send continuous readings. Datalog in real time.



GRILLES & DIFFUSERS

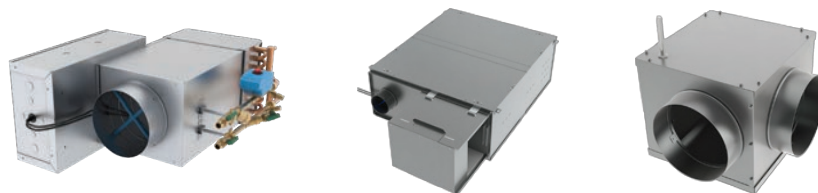
- Architectural linear diffusers
- Architectural ceiling diffusers
- Linear bar diffusers
- Ceiling diffusers
- Supply / return grilles
- Aeroblade supply / return grilles
- Specialty grilles
- Dropbox diffusers



Titus diffusers and grilles are engineered to provide optimal performance and comfort without sacrificing aesthetics for any application.

TERMINAL UNITS

- Single Duct
- Dual Duct
- Fan Powered
- Bypass
- Retrofit



Titus terminal units are available with options that control sound for quieter systems and special surface treatments that help ensure higher air quality levels for healthcare facilities like hospitals or high-tech manufacturing.

CRITICAL ENVIRONMENT PRODUCTS

- Operating room suites
- Laminar pattern diffusers
- Radial pattern diffusers
- Fan filter diffusers
- Operating room ceiling systems
- HEPA filters
- Venturi valves



Titus critical environment diffusers meet all of the needs of these highly sensitive applications including hospital operating rooms, electronics manufacturing, pharmaceutical and biotechnology manufacturing, research facilities, automotive painting and many other applications.

SPECIALTY PRODUCTS

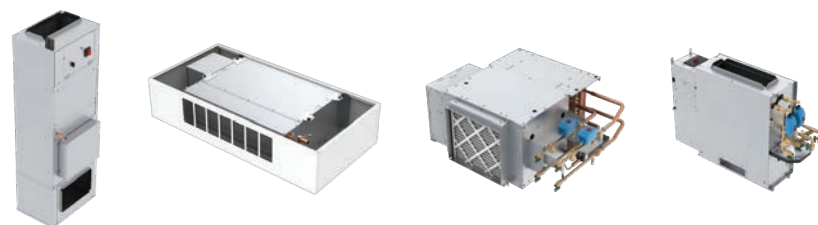
- Active chilled beams
- Passive chilled beams
- Rectangular displacement diffusers
- Round displacement diffusers
- VAV diffusers
- Underfloor products



Titus offers a variety of products for special applications including VAV diffusers, displacement diffusers, chilled beams, and underfloor equipment.

FAN COILS

- Vertical stack fan coils
- Low profile horizontal fan coils
- High performance horizontal fan coils
- Vertical floor fan coils
- Low profile vertical floor fan coils
- Blower coils



Titus fan coils are designed and engineered for a wide range of applications including: apartments and condominiums, hotels, motels, schools and universities, hospitals and nursing homes.

Alcohol/Substance Abuse

Guidelines on Substance Abuse and Testing Policies

Guidelines on Substance Abuse and Testing Policies are available addressing the establishment of substance abuse programs. The guidelines include sample policy language and can be found on the SMACNA website.

<https://www.smacna.org/resources/labor-relations/collective-bargaining/smacna-substance-abuse-testing-guidelines>

Programs & Publications for Chapters

Chapter Executives Area

A wealth of information and chapter resources are available specifically for chapter executives in the “Chapter Executives” section of SMACNA’s website. These resources include guidance on labor relations, Board/committee policies, Chapter Management Guidelines, information on Council of Chapter Representatives meeting, Chapter Orientation Program, forms and other resources.

<https://www.smacna.org/be-involved/chapters/chapter-executive-resources>

Chapter Executives Community on SMACNA Connect

This online community is located in the “Chapter Executives” area of the SMACNA website. It is a networking and information sharing tool that provides an opportunity for chapter executives to query each other and share ideas on chapter administration and industry concerns. To participate, sign up in the “Chapter Executives” area of the SMACNA website.

<https://smacna.online/ChapterExecutivesCommunity>

Chapter Executives Institute

Usually held in the convention city.

This annual continuing education experience is designed to improve the professionalism of chapter executives. Educational seminars covering chapter management, personnel motivation, meeting management, marketing, parliamentary law and labor relations are presented. The meeting also serves as an information exchange among chapter executives and the national staff. It is designed to keep one abreast of current SMACNA and industry activities.

Chapter Leadership News

Weekly. Online.



Published on Thursdays, Chapter Leadership News provides chapter executives, leadership, and staff members with important news and updates from SMACNA National. Each week there are numerous useful articles and helpful insights that keep SMACNA chapters updated and offer new ways to stay engaged with members.

<https://www.smacna.org/stay-informed/news-and-publications/chapter-leadership>

Please contact Seth Lennon (slennon@smacna.org) with any story ideas or feedback.

Chapter Website Program

SMACNA’s chapter website program offers chapters a low-cost option to host and manage their website. Chapters can choose from two templates:

- Dynamic Template: For chapters that wish to continuously monitor and update their own websites with content.
- Static Template: For smaller-staffed chapters who want something that can exist without much day-to-day interaction.

SMACNA National hosts the site on the SMACNA Connect platform, but your URL remains the same. Training and resources are provided. For more details, contact Susannah Forde at sforde@smacna.org.

Guidelines for Chapter Presidents

8 1/2" x 11". 37 pages.

This guideline includes tips, ideas, suggestions and concepts to make a chapter president’s term productive, effective and enjoyable. This valuable resource outlines specific responsibilities, helps define chapter goals and provides advice on working with chapter staff, national SMACNA staff and committees. It also covers meeting tips and basic parliamentary information. Available online in the “For Chapter Executives” area of the SMACNA website.

<https://www.smacna.org/be-involved/chapters/chapter-executive-resources>

Industry Fund of the United States Seminar

Virtual. Periodically.

This virtual seminar, held periodically, is broken into two parts, introductory and advance. This seminar is intended to educate the chapter executive and the local Industry fund trustee about the legal framework in which industry funds must operate. Outside counsel presents on the labor, tax and other laws that dictate how an industry fund is established and operated. It is recommended for trustees; chapter executives and others involved in the administration of local industry funds and is offered free of charge.

Local Joint Adjustment Board Training

Half-day. Periodically.

Held periodically, this training provides valuable instruction and training on how to conduct a Local Joint Adjustment Board hearing and ensures that chapters and LJAB contractor panelists have the information and resources necessary to meet that challenge. The program focuses on conducting a proper LJAB hearing, handling common procedural objections, creating a good record in cases of deadlock, and maintaining arbitration immunity. The program is offered free of charge and is held at the end of the December council meeting when offered.

Chapter Resources

Marketing Resource Center



This online on-demand portal provides SMACNA chapter executives and their selected staff members with the ability to order fully customizable marketing and collateral materials on-demand. Put your Chapter's unique logo and information on any of the materials listed below, while still retaining the SMACNA National brand identity:

- Letterhead
- Business cards
- Folders
- Membership brochures
- Postcards
- Industry article reprints

Contact Nabeelah Naeem (nnaem@smacna.org) to learn more.

Membership Recruitment Tools

Membership Prospect Kit

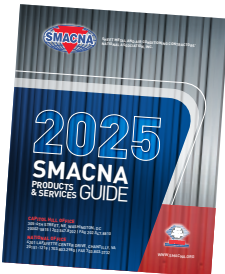
9" x 11 7/8".



This folder contains the latest information on SMACNA products and services for chapters to use in member recruiting efforts. The folder includes a membership application, *SMACNews* and the SMACNA Products and Services Guide. Please contact the SMACNA Member Services Department for these kits.

SMACNA Products and Services Guide

8 1/2" x 11". 2023 and online.



If you are reading this, you are in the SMACNA Products and Services Guide. This guide is a comprehensive listing of all publications, seminars, and services SMACNA offers its members. No other SMACNA resource contains a more complete listing of the services the association provides

its members. Chapters may request additional copies at no charge to use for local membership promotion or marketing efforts. Contact the SMACNA Member Services Department at membership@smacna.org for copies.

SMACNA Pop-Up Display Banners

10' x 10'.



This free-standing display system includes three easy-to-assemble pop-up banners. SMACNA chapters are invited to use these display banners for area trade shows or other promotional purposes.

These pop-up banners promote the incredible work that SMACNA members produce and spotlight SMACNA's commitment to technology standards, industry advocacy, workforce development, and member education. There is no charge for use of the booth, however Chapters must pay for all freight costs associated with shipping the banners.

Contact the Member Services Department at membership@smacna.org to request use.

SMACNA Lapel Pin

3/4" x 1/4".

This silver, oval lapel pin has the blue and red SMACNA logo enameled on its surface. Perfect to wear to contractor and industry meetings, as well as during day-to-day business activities.

Contact the Member Services Department at membership@smacna.org to order.

SMACNA Logo Decals

8" or 12".

These waterproof, weatherproof, durable decals in 8-inch and 12-inch sizes are easily applied to car/truck bumpers, site signs, doors, and plaques. The red and blue SMACNA logo is on a silver background. Contact the Publications Department at order@smacna.org to order.

SMACNA Logos

Electronic versions available in EPS, JPEG, TIFF, BMP and GIF formats. Contact membership@smacna.org.

Belonging and Excellence For All (BE4ALL) Initiative



Launched in December 2021, the BE4ALL initiative is a joint effort of SMACNA, SMART, and the International Training Institute (ITI). BE4ALL seeks to positively impact the industry's work culture so that SMACNA contractors can attract and retain the best and most skilled workforce possible regardless of race, gender, religion, sexual orientation, ethnicity, or nationality. BE4ALL will help SMACNA, and our members meet the real-world demand for the best, and most qualified workforce available for our industry, without quotas or other arbitrary demands on companies.

Resources available include:

- **Rapid Response Protocol** – The Protocol offers industry-wide best practices for fostering respectful workplaces, with a focus on prevention and rapid response to incidents of bias. It includes template policies and encourages contractors, unions, and JATCs to collaborate with legal counsel to ensure compliance with relevant laws.

- **BE4ALL Digital Calendar** – A tool for your members/employees/colleagues to learn more about the different cultures and faiths that make up our ever-evolving industry. Each month highlights several important holidays/observances your peers may take part in, and even a few that might be less familiar. The calendar is available in both hard copy and digital formats.
- **Toolbox Talks** – Distributed every other month, these 5–10-minute Toolbox Talks will ensure increased worker productivity; reduce bullying, harassment, hazing and discrimination on jobsites; and promote solidarity among our members.
- **Learning Journeys** – Recorded webinars featuring expert speakers designed to educate the viewer on different cultural, social and human-interest topics.
- **Podcast Episodes** – Features SMACNA members and experts talking about some of the most critical topics that BE4ALL seeks to tackle.
- **Workplace Training** – This interactive program helps contractors create a positive and productive work environment by addressing implicit bias, promoting respectful workplaces, and providing strategies to improve decision-making, hiring practices, and employee engagement. The seminar focuses on reducing bias, building trust, and managing difficult conversations, equipping participants with tools to foster inclusive and respectful workplaces.

Additional resources are constantly being added the BE4ALL website at www.beforall.org. To learn more about the initiative and peruse the variety of resources available, please visit the website or contact Jen Squirewell at jsquirewell@smacna.org.

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Contract Administration and Project Management

Achieving Spatial Coordination Through BIM

183 pages. 2013.

This guide is an industry reference for HVAC and MEP contractors who are doing spatial coordination in a BIM environment. It addresses how contractors can incorporate leading-edge technologies and workflows into the spatial coordination aspect of their projects. It provides contractors with an outstanding educational resource for their employees who have to make these decisions.

<https://store.smacna.org/achieving-spatial-coordination-through-bim>

Alliance Project Management Manual

PDF Only. 225 pages. Second Edition, 1998.

This manual, which was developed by the Mechanical-Electrical-Sheet Metal Alliance, provides guidelines that should be followed by a project manager to ensure that a construction job is planned properly prior to the commencement of actual field work. This educational manual is separated into the following topical areas: basic operating factors that pertain directly to construction businesses, types of construction contracts, critical pre-job procedures, and the importance of proper job planning and cost control.

It may be used as a desk reference for project managers and as an evaluation tool for contractors to review and modify their current project management procedures and make improvements. This manual is the most comprehensive project management resource available in the industry.

<https://store.smacna.org/alliance-project-management>

The Business Case for BIM

14 pages. First Edition, 2016.

The list of benefits of BIM for the firms interviewed for this paper are substantial and make an unequivocal business case for BIM:

- Increased profitability on each project
- Manufacturing efficiency and volume
- Ability to scale shop production from high to low volume easily.
- Recognition in its market as a leader in technology, capabilities, BIM expertise, and more.

A SMACNA Members Only publication.

<https://www.smacna.org/resources/business-management/the-business-case-for-bim>

Early Start-Up of Permanently Installed HVAC Systems

SMACNA has developed several documents related to early start-up of HVAC systems including a "white paper" entitled Temporary Uses (Early Start-Up) of HVAC Systems in Building Construction Projects – The Realities and Risks of Using Permanent HVAC Systems. This information can help educate owners contemplating the use of temporary heat including the short- and long-term risks of using the permanent HVAC system for temporary heat. This document can be found on SMACNA's website:

<https://www.smacna.org/resources/business-management/early-start-up-of-permanently-installed-hvac-systems>

Guidelines for Change Orders

55 pages. 2015 Edition.

Many factors can result in project changes. A poorly defined scope of work or gaps in the scope may mandate corrective changes. Unforeseen conditions or delays related to the conduct of other parties may trigger significant changes in schedule or cost. A re-design can radically impact the scope. A subcontractor may go bankrupt, and its work be reassigned to other project participants. Contractors and subcontractors must become adept at dealing effectively with change in order to survive and be profitable. This manual will help the SMACNA contractor do just that.

<https://store.smacna.org/guidelines-for-change-orders>

HVAC Bid Specification Reference Manual

177 pages. Second Edition, 2016.

This manual was first published in 2007 as a guide to assist HVAC contractors in preparing bids, designers in preparing construction documents, and owners in preparing bid and contract documents. Originally based on the HVAC specific sections of the 2004 CSI MasterFormat, the new document has been updated to incorporate changes in the 2016 CSI MasterFormat.

The manual is available free to members and for sale to others in the SMACNA Bookstore.

<https://store.smacna.org/hvac-bid-specification-reference-manual>

The Legal Implications of Building Information Modeling

9 pages.

This article analyzes the legal implications and challenges facing projects using BIM. It examines the copyright/intellectual property issues, indemnity/liability issues, management, and conflict issues, and it will provide a brief conclusion regarding the future legal prospects for BIM. A Members Only resource.

<https://www.smacna.org/resources/business-management/legal-implications-of-building-information-modeling>

Contract Administration and Project Management

Making RFIs More Effective 2016

PDF Only. 12 pages. First Edition, 2016.

The Request for Information (RFI) process has been used for years to resolve construction related challenges. Increasingly contractors are being negatively impacted by the slow response or even no response to questions posed to the general contractor, architect, engineer and/or owner. The challenge has become so widespread that this white paper has been commissioned to investigate reasons why the RFI process has become largely ineffective in many cases and what can be done to help improve the process.

<https://www.smacna.org/resources/business-management/project-management/making-rfis-more-effective>

SMACNA BIM Primer

PDF Only. 15 pages. 2009.

An introduction to Building Information Modeling for the Sheet Metal and HVAC Contractor. A Members Only resource.

<https://www.smacna.org/resources/business-management/smacna-bim-primer>

SMACNA Contract Bulletins

The series of more than 120 Contract Bulletins, addressing a wide range of construction contract issues, includes articles on subcontractor default insurance (SDI), payment bonds, design responsibility, financial theft, the "sick building syndrome," delay claims, mechanic's lien rights, insurance coverage, etc.

<https://www.smacna.org/resources/business-management/contracts-bulletins>

Successful Building Project Coordination

27 pages. First Edition, 2009.

Provides a basic orientation on the key role HVAC contractors play in project coordination. Covering coordination and project delivery as well as coordination methods, the document concludes with an introduction to Building Information Modeling (BIM) as it impacts the construction team plus a short treatment on the problematic topic of data file transfer. The guide explains the critical importance of project coordination on commercial and institutional construction projects.

<https://store.smacna.org/successful-building-project-coordination>



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Labor Relations

Consultation Services

The Labor Relations Department responds to an average of 325-350 inquiries per month from SMACNA chapter executives, SMACNA members and others ranging from simple information requests to an analysis of complex legal issues. Some of the most common questions involve local contract or SFUA interpretation, wage equalization, NJAB preparation and strategies, LJAB guidance, employment share data, local and national trust fund/ERISA issues and local settlements.

In addition to administering the National Joint Adjustment Board (NJAB), the SMACNA Labor Relations Department also provides guidance to chapter executives, SMACNA members, and local bargaining and labor committees through each step of the arbitration process. Regularly, the SMACNA Labor Relations Department provides counsel on issues and holds conference calls with local bargaining committees to provide assistance on bargaining strategy and legal issues.

Collective Bargaining Orientation

Two days. Every year.

Held every year, this two-day bargaining session provides bargainers with a legal course on collective bargaining within the construction industry, guidance on preparing to bargain, bargaining strategies and an update on industry settlements and trends. The latest changes in the Standard Form of Union Agreement are also reviewed. All chapter executives, contractor members of negotiating committees, contractor members of the Local Joint Adjustment Board and others involved in the administration of a collective bargaining agreement should attend.

Spring Training Bargaining Workshop

Three days. Periodically.

This program brings the labor and management bargaining committees from a local area together and introduces them to the concept of interest-based bargaining (IBB). Used correctly, this type of bargaining can be highly effective in addressing problems in an area and reaching a settlement in a less adversarial manner. IBB training immediately transitions into on-site bargaining between the collective bargaining parties, allowing them to put what they learned to immediate use.

Industry Fund Seminar

Half-day. Every two years.

This seminar provides valuable and timely instruction on the establishment and operation of local industry promotion funds. The Industry Fund Seminar features instruction on the following topics: the impact of federal labor and tax law on the operation of local industry funds; permissible and impermissible fund uses; trustee responsibility and liability; review of documents related to industry funds; and recent fund accounting and legal developments. The seminar is free of charge, follows the conclusion of the December Council meeting in even number years, and is recommended for industry fund trustees, administrators, and chapter executives.

Local Joint Adjustment Board Training

Half-day. Periodically.

Held periodically, this training provides valuable instruction and training on how to conduct a Local Joint Adjustment Board hearing and ensures that chapters and LJAB contractor panelists have the information and resources necessary to meet that challenge. The program focuses on conducting a proper LJAB hearing; handling common procedural objections; creating a good record in cases of deadlock; and maintaining arbitration immunity.

Partners in Progress Conferences

Two and half days. Held periodically and jointly by SMACNA and SMART International.

The conference focuses on key partnering initiatives between local labor and management leadership to achieve common goals. Successful partnership efforts to expand union market share will be the continuing theme for the conference. All SMACNA chapter leaders, contractors, SMART business managers, agents, trustees and training fund coordinators are encouraged to attend. Copies of previous Partners in Progress presentations are available online at www.pinp.org/conferences.

The next Partners in Progress Conference is going to be held February 23-24, 2026. Additional details about the program will be available on the Partnership website at www.pinp.org.

Regional/Local Partnership Programs

Periodically on joint request by Local SMACNA Chapters and SMART Local Unions.

SMART and SMACNA can sponsor regional or local Partnership Programs to assist local parties in jointly identifying problems and creating solutions to better serve customers, gain market share, and increase job security.

Partnership Website: www.pinp.org

A website dedicated to promoting the partnership efforts of SMACNA chapters and SMART local unions.

Expertise Websites:

www.hvacexpertise.com

www.asm-expertise.com

www.industrialexpertise.com

These three expertise websites build on branding the concept of "expertise" as a way to differentiate the SMACNA/SMART partnership in the eyes of the customer.

Partners in Progress Newsletter

Newsletter. Published bi-monthly.

Published by the Sheet Metal Industry Joint Labor Management Cooperative Trust, the Partners in Progress Newsletter is a joint publication of SMART and SMACNA. Its purpose is to better communicate with members of both sponsoring organizations on cooperative efforts, programs, products, success stories and services aimed at enhancing opportunities for members by meeting the needs of customers. It is available via the partnership website at: <https://www.pinp.org/pinp-magazine/>.

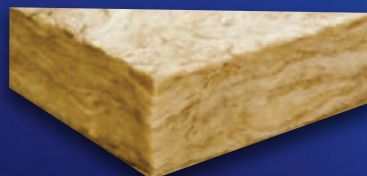
Best Practices Recruiting Resources

SMACNA and SMART have developed recruiting resources that have been designed to support local area recruiting initiatives. The resources include posters, handouts, and flyers, for guidance counselors, parents, and students. The materials are designed in multiple versions and languages (English and Spanish) so that local groups can get their message out and appeal to the largest talent pool possible. SMACNA and SMART members will also have the ability to change out the photos, add their own logos and change the text to meet their local specifications. The resources are available at <http://www.pinp.org/resources/recruiting/>.

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Labor Relations

Best Practices Resources

SMACNA and SMART leaders have presented Best Practices presentations to SMACNA chapters and SMART locals. The goal of these presentations is to share the resources that the Best Practices Market Expansion Task Force has available for use by local parties. These resources are available on the partnership website at www.pinp.org.

Helmets to Hard Hats

SMACNA, along with other construction industry associations and labor unions, provides continued support for The Center for Military Recruitment, Assessment and Veterans Employment. The center's goal is to recruit workers for the construction industry from discharged military personnel.

SMART Heroes Program

SMACNA supports the SMART Heroes program designed to work with the military at specific bases to offer industry training equivalent to the first year of apprenticeship to military personnel transitioning from active duty to civilian life. Graduates will be able to enter existing apprentice programs around the country as second-year apprentices.

Article X Standard Form of Union Agreement Procedural Rules

8 1/2" x 5". 30 pages. 15th edition, 2019.

Included in this booklet are the agreements establishing the National Joint Adjustment Board and its rules, procedures under Article X, Section 8 of the Standard Form of Union Agreement (SFUA), procedures for establishing and operating Local Joint Adjustment Boards under Article X of the SFUA, Sheet Metal Industry Grievance Form and more. Forms are available through SMACNA's Labor Relations Department at www.smacna.org/labor/njab-grievance-resources.

Labor Bulletins

As industry issues and challenges arise, SMACNA sends its chapters and members the latest and most vital information to arm them with the facts and figures to make intelligent business decisions. Labor relations bulletins range from industry fringe benefit developments to legal developments affecting labor/management relations.

Annual Industry Labor Report

This report is a statistical analysis of responses to the State of the Industry Survey which serves to enhance our understanding of labor relations in local areas. The report measures man-hours, including man-hour projections as well as changes to the contractor base in local regions. The report also focuses on grievance activity and labor-management relations. Electronic copies of the Labor Relations Annual Report are available online at <https://www.smacna.org/resources/labor-relations/presentations-reports/annual-industry-labor-report>.

Standard Form of Union Agreement (SFUA) A-08-11

8 1/2" x 11". 15 pages.

This fill-in-the-blank form agreement is applicable to the sheet metal, roofing, ventilating and air conditioning contracting divisions of the construction industry. The SFUA is a model document developed between SMACNA's Labor Committee and SMART as a recommended contract guide for local negotiators. The SFUA was updated in 2011 and is available, along with a summary of significant changes, through the SMACNA Labor Relations Department and on the SMACNA website at <https://www.smacna.org/resources/labor-relations/standard-form-specialty-agreements>.

Wage and Fringe Database

The Wage and Fringe database replaces the previous Wage and Fringe Manual, tracking wage and fringe benefit information for 100 local areas. Updated biannually, the database includes regional and national wage package averages. The database is available on the labor portion of the SMACNA website at <https://www.smacna.org/resources/labor-relations/collective-bargaining/wage-fringe-database>.

Residential Wage and Fringe Database

The database allows members to look up residential wage and fringe information by state, local union, chapter, and collective bargaining area. The residential database is available to chapters and members on the SMACNA website at <https://www.smacna.org/resources/labor-relations/collective-bargaining/residential-wage-fringe-database>.

LJAB Guidelines

These guidelines were jointly produced by SMACNA and SMART to provide contractors, chapter executives and local union representatives guidance in conducting grievance hearings at the second step of the Article X grievance procedure. The booklet contains sample LJAB minutes and decisions and sample procedures for LJAB co-chairs in conducting the hearing and is available online at <https://www.smacna.org/resources/labor-relations/njab-dispute-resolution/ljab-guidelines-and-forms>.

Annual Bargainers' Update

Designed to provide chapters and contractors with timely bargaining data, the Bargainers' Update includes the latest information on health care cost projections, sheet metal and construction industry contract settlements, federal mediation and conciliation service assistance, as well as filing requirements and the most recent wage and fringe information. The Bargainers' Update is available online at <https://www.smacna.org/resources/labor-relations/collective-bargaining/2024-bargainers-update>.

Pension Laws

The Labor Relations Department continues to provide advice to bargainers with information on pension laws, such as the Pension Protection Act of 2006 and the 2014 Multiemployer Pension Reform Act, that impact national and local industry pension plans. Informative pension resources are available on the Labor Relations section of the SMACNA website at www.smacna.org/labor/benefit-funds.

Substance Abuse Testing

The use of drugs and alcohol which impairs a person's ability to work jeopardizes not only that worker's safety but the safety of everyone else on the job site. It also increases a contractor's insurance costs. SMACNA has resources available to assist local areas in negotiating an effective substance abuse policy at <https://www.smacna.org/resources/labor-relations/collective-bargaining/smacna-substance-abuse-testing-guidelines>.

Bargainers' Community

The Bargainers' Community allows management negotiators to share timely information, competitive proposals, solicit opinions, discuss current industry trends, and share their successes and strategies during the bargaining season. Members can access the community at <https://www.smacna.org/resources/labor-relations>.



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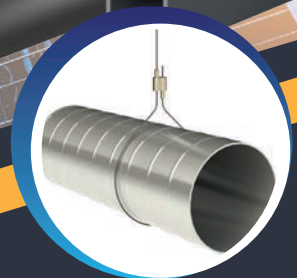
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Labor Relations

Bargainers' Conference Calls

SMACNA's Labor Relations Department conducts Bargainers' Conference calls monthly during the collective bargaining season. Participants are able to ask questions of the Labor Relations Department staff, our outside counsel and pose questions to each other. These calls allow chapters and contractors to share proposals to help enhance competitiveness, industry bargaining trends, bargaining experiences or any other hot-button issues that have arisen during negotiations.

Sheet Metal Settlement Tracking By Region

SMACNA tracks local settlements within the sheet metal industry as they are reported during the bargaining season.

<https://www.smacna.org/resources/labor-relations/collective-bargaining/sheet-metal-settlements>

Davis-Bacon Training

Done in conjunction with SMART, SMACNA provides chapters and members guidance on responding effectively and strategically to Davis-Bacon surveys done in their area with the aim of assisting local parties in establishing their collective bargaining rate as the prevailing wage on federal projects.

COVID-19 Vaccine Resources

SMACNA's vaccine resources webpage helps contractors educate employees and encourages a healthy and vaccinated workforce. For more information, visit: <https://rebrand.ly/covidvaccinecontractors>.

Employment Share Data

The report was developed by the Construction Labor Research Council (CLRC) and measures current employment situations by area. The historical trends are very useful in evaluating industry performance and planning for the future. To obtain a copy of the report, contact SMACNA's Labor Relations Department at (703) 803-2981 or visit: <https://rebrand.ly/empsharedata>.

Webinars

Periodically.

SMACNA offers webinars to assist bargainers in taking charge of the bargaining process and in discovering tools for effective communication. In addition, SMACNA offers periodic webinars aimed at improving labor-management relations and fostering growth within the unionized sheet metal industry.

Trustee Education

SMACNA offers educational opportunities to trustees of our industry's trust funds. These resources focus on the basic trust fund and fiduciary principles identified by the Department of Labor (DOL) as being the most needed, as well as on new developments in the law and trends in controlling plan costs.

Presentations and Reports

SMACNA educates contractors and chapters on such topics as labor/management cooperation, labor law, national employment laws, mutual gains bargaining techniques, and dispute resolution and keeps contractors aware of current labor relations and employee benefit issues.

Specialized Research

Upon request SMACNA does specialized research on relevant issues.

CBA Language Resources

SMACNA maintains electronic copies of **Local Collective Bargaining Agreements** for review by SMACNA chapters and members. Contracts are categorized by state.

www.smacna.org/labor/collective-bargaining-negotiations/local-area-agreements

Residential & Light Commercial contracts are conveniently categorized by state for easy viewing by SMACNA chapters and members.

www.smacna.org/resources/labor-relations/collective-bargaining/local-area-residential-light-commercial-agreements-and-addenda

SMACNA provides **Examples of Favorable Local Contract Language** from industry collective bargaining agreements that could prove useful in considering and drafting contract proposals.

www.smacna.org/labor/collective-bargaining-negotiations/sample-contract-language

The Labor Relations Department's **Contract Language Database** allows chapters to search approximately 50 different contract language topics within sheet metal building trade agreements.

www.smacna.org/labor/collective-bargaining-negotiations/language-database



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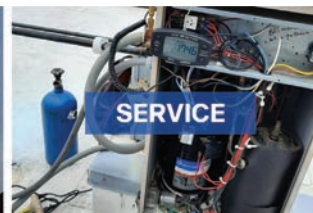
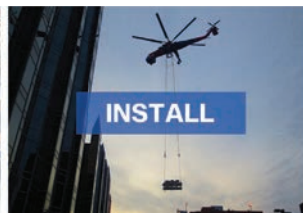
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Government Affairs

SMACNA Capitol Hill Updates and Action Alerts

It is easy to stay informed and take action.

Members can stay in-the-know on industry issues through SMACNA's advocacy web page to ensure they have the latest news from Capitol Hill and then use the Action Center to find and get in touch with their legislators. As industry issues and challenges arise, SMACNA informs its chapters and members through the newsletter, electronic mailings, and e-advocacy. When legislation starts moving on the Hill, SMACNA acts quickly to dispatch the most up-to-date and vital information, with facts and figures to help you understand the issues and make the case for industry-supportive regulations with your lawmakers. Alerts range from pension reform, energy efficiency tax incentives and grants and prevailing wage laws, to estate tax reform, procurement reform, OSHA initiatives and others.

2025 CEA National Issues Conference

May 6-8, 2025

A look at Washington and the issues from the union contractor perspective: the Conference hosts knowledgeable speakers and members of Congress as well as top government officials to update members on national issues and politics at this annual event. This is an opportunity to gain a unique perspective from national leaders on national issues that affect your business. The Conference is held in Washington, DC allowing attendees to meet with Capitol Hill lawmakers and their staff in their Hill offices to discuss the most pressing industry legislative and regulatory issues.

Congressional Sharing

Discuss industry issues with your U.S. Senator or Representative at home or in Washington, DC.

SMACNA's Capitol Hill Office staff will help arrange events for chapters and contractor members back in their local area and in Washington, DC to become better acquainted with national legislators. Often SMACNA staff will help to brief and join legislators to update contractors on their priority federal government issues. The Reverse Congressional Sharing program covers expenses for SMACNA members and chapter executives to meet with a member of Congress in Washington, DC on serious industry issues moving in Congress.

Capitol Hill Update and SMACPAC Activities

Stay informed on the latest congressional actions and debate on industry issues.

The Government Affairs Office regularly updates SMACNA members on important industry regulatory and legislative priorities. These include business tax reform, pension changes, federal construction plans, Davis-Bacon, registered apprenticeship, PLAs, and energy retrofit tax credits. The Capitol Hill Update provides a brief synopsis and status of each targeted issue as well as outlining the likely outcomes and suggests an optional contractor role in impacting the odds for final passage. The Update includes a link to SMACNA's Advocacy website and its e-Advocacy program. The Advocacy websites also have U.S. government links so members and chapter execs can get current updates, bill texts and summaries, and review their House and Senate Representatives' votes on SMACNA issues at any time, day or night. SMACNA members can also view the most recent information about SMACPAC as well as contributions to candidates under the Members-only SMACPAC section on SMACNA's Advocacy page. Please note: Members' organizations must have a current Prior Approval (PA) on file with SMACNA in order to access the SMACPAC section of the Advocacy page. Please contact the Government Affairs department at 202-547-8202 or by email at smacpac@smacna.org for more information.

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SMACNA Market Sector Councils

Recognizing the diversity of members' markets, SMACNA has five Market Sector Councils to provide a focus point and resources for members performing work in the HVAC, Industrial, Architectural Metals, TAB, and Residential sectors. SMACNA's Market Sector Councils provide structured institutions within SMACNA where high-quality programs and services are developed that address specific concerns of SMACNA members performing work in their market discipline.

Each Council is guided by a volunteer member driven steering committee which is charged with identifying and responding to issues and trends that impact members' businesses, markets, and profitability. Council steering committees are also responsible for establishing liaisons with industry groups aimed at increasing council members' market visibility and business opportunities. The Councils interact and communicate with each department within SMACNA. This includes monitoring and commenting on federal legislative and regulatory issues through routine collaboration with SMACNA's Capitol Hill Office on issues impacting members' markets. Providing input and review to SMACNA's Technical Resources Department for standards, apps and code issues. Collaborating with SMACNA's Labor Department providing contractor input on various labor concerns and initiatives.

The Market Sector Councils have separate web pages as part of SMACNA's website. They offer SMACNA contractors a direct and immediate link with their Councils. Following are the web addresses:

Architectural Market Sector Council

<https://rebrand.ly/ArchitecturalMarketSectorCouncil>

HVAC Market Sector Council

<https://rebrand.ly/HVAC-Market-Sector-Council>

Industrial Market Sector Council

<https://rebrand.ly/Industrial-Market-Sector-Council>

Residential Market Sector Council

<https://rebrand.ly/Residential-Market-Sector-Council>

TAB Market Sector Council

<https://rebrand.ly/TAB-Market-Sector-Council>

Each Market Sector Council maintains its own discussion community through the SMACNA Connect web page, a valuable resource for member interaction on Market Sector issues. All employees of SMACNA members are encouraged to subscribe to one or more of the Market Sector discussion communities.

Additionally, each Council contributes to SMACNA's Communication and Marketing Department with information on industry topics and projects. Market Sector convention programs on a variety of topics are conducted at SMACNA's Annual Convention.

Topics addressed by SMACNA's five Market Sector Councils include: federal contracting, energy efficiency, CHP and sustainability issues, BIM, lean, pre-fabrication and modularization, construction contracts, new and historic architectural metals applications, wall panel systems, industrial plant ventilation, residential/light commercial service and operations, welding, and soldering issues and more.



Membership & Convention

SMACNA Annual Convention

Networking at the many social events and discovering new business resources make the SMACNA Annual Convention an excellent return on investment. The SMACNA Annual Convention features educational sessions and forums that provide practical information on many subjects, including legislative, safety, technical and marketing, as well as business and financial management, technology and chapter education.

Future SMACNA Annual Convention locations and dates are:

Maui, HI
October 26-29, 2025

Orlando, FL
October 25-28, 2026

Chula Vista, CA
October 24-27, 2027

Phoenix, AZ
October 8-11, 2028

Nashville, TN
October 7-10, 2029

SMACNA Product Show

Held Tuesday morning during the SMACNA Annual Convention, the Product Show is where contractors can interact with the industry's most prominent suppliers, manufacturers, and service providers. These industry-leading companies are there to showcase their products and solutions that can help contractors become more efficient, competitive, and profitable.

To learn more about the Product Show please visit www.smacna.org/productshow.

Member Update

Weekly. Online.



MEMBER
UPDATE

Published each Thursday, Member Update provides all SMACNA members with a combination of timely and relevant association news and legislative updates, as well as industry information of note.

<https://www.smacna.org/stay-informed/news-and-publications/member-update>

New Member Plaque

11" x 8".

All new members receive a sheet metal plaque noting their membership with SMACNA.



SMACNA Connect

SMACNA's online platform, SMACNA Connect, makes connecting with members throughout the year even easier – especially for those members who don't have the time or ability to attend a SMACNA event. SMACNA Connect is available from the SMACNA homepage, or visit: <http://connect.smacna.org/home>.

SMACNA Constitution and Bylaws

SMACNA's Constitution and Bylaws is available upon request. This document outlines SMACNA's procedures for operation and service to its members. Contact membership@smacna.org.



NEW HORIZONS FOUNDATION

An HVAC and Sheet Metal Industry Initiative
<https://www.newhorizonsfoundation.org>

Who We Are...

The New Horizons Foundation – the premier HVAC and sheet metal research organization in this specialty sector of the construction industry. Founded by SMACNA, the leading industry HVAC and sheet metal contractor association in the world.

We are HVAC and sheet metal contractors, industry partners and leading researchers who come together to do everything we can to turn good ideas into solid research that will help give HVAC and sheet metal contractors a chance to grow as positive, knowledgeable partners in the construction process.

What We Do...

We work to keep our industry strong. We deliver innovative research and practical, real-world education for every level of management. We provide the information and education that will give contractors the best possible opportunities to develop their companies.

We work together to develop an insightful and practical research and education portfolio that is making this industry more resilient, effective, efficient, and profitable.

Each year, the Foundation:

- Commissions critical investigations of business management, organization and people, and project execution – issues that are important to every contractor's growth and profitability.
- Provides a knowledge link among industry members, suppliers, contracting industry partners, colleges and universities, other national and international trade associations, and customers.

We are the New Horizons Foundation. We provide a chance to grow.

Completed Projects

2024

- Workforce Development
 - Research Report
 - Podcast Series
 - Infographics
- In Development
 - Key Performance Measurement; Developing Your Measures of Success
 - Survey on Material Procurement and Equipment Rental Practices
 - MEP Virtual Design Time Study

2023

- Managing Supply Chain Disruption
- A Comparative Analysis of Continuous Improvement Approaches Among Trade-Contractors
- Podcast Series on Customer Relations including The Value of Collaboration, Partnerships, and Large Project Collaboration

2022

- Effective Project Close-Out for HVAC/Sheet Metal Contractors: Successful Practices Guide
- The 2022 HVAC and Sheet Metal Industry Futures Study Update
- Contract Benchmarking & Analytics: Document Crunch Report
- The Contractor's Practical Guide on Tool Management
- The Changing Risk Environment
- Podcast Series on New Market Entry, New Technologies Adoption, Customer Focus, Executive Transitions, Project Closeout and Field Leadership Transitions

2021

- Organizational Adoption of New Technologies: Best Practices for SMACNA Contractors
- Human Dimensions Assessment of Top-Performing Personnel Within Sheet Metal and Air Conditioning Contractors
- The NHF Digital Library: Research Report

2020

- Internet of Things (IoT): Implications and Strategies for Sheet Metal and HVAC Contractors
- Best Practices for Field Leader Succession
- Pandemics and Productivity: Quantifying the Impact

2019

- Productivity Tracking in the HVAC and Sheet Metal Industry for Design, Manufacturing and Installation
- Tools for the Hiring, Promotion, and Talent Development of Sheet Metal and Mechanical Contractor Personnel
- An Executive Exit: A Closer Look at the Factors That Drive Successful Executive Transitions
- Engaging a Workforce in Transition – Keeping Skilled Labor

2017

- The Impact of Prefabrication on Productivity
- Using a Board of Directors, Peer Groups and Other Resources to Challenge and Enhance Performance: For HVAC and Sheet Metal Contractors
- Decision-Making Framework for New Market Opportunities: A 10-Step Process*
- Decision-Making Framework for New Market Opportunities: Experiences From Sheet Metal & HVAC Contractors*
- Developing the New Horizons Foundation Decision-Making Framework for New Market Entry in the Sheet Metal Construction Industry: Research Report*

**For more information on this project, visit <http://ciri-riskmitigation.org/>.*

2016

- The HVAC and Sheet Metal Industry Futures Study Update 2016
- A New Era of Customer Service: How to Manage Customer Relationship
- Successful Marketing and Business Development Strategies for HVAC and Sheet Metal Contractors

2015

- Off-Site Construction, Modularization, and Sheet Metal Prefabrication: Trends, Current Practice, and Recommendations
- Enhancing Your Organizational Structure: An Approach to Profitable Operations

2014

- The Use of Just-in-Time Training in Construction
- Building a Culture of Continuous Improvement
- Risks and Opportunities for HVAC and Sheet Metal Contractors During the Construction Market Recovery

2013

- Strategic Thinking
- So You Want to Be a CEO? Read This First
- Contractor Success Stories: Adapting to the Post-Recession World

New Horizons Foundation

2012

- The HVAC and Sheet Metal Industry Futures Study (2012 Update)

2011

- Continuity and Transition Planning for HVAC and Sheet Metal Contractors: The Changing Face of Leadership for HVAC/Sheet Metal Contractors and Fabricators
- Leadership Selection Practices for HVAC and Sheet Metal Contractors and Fabricators
- Risk Assessment Model: A Practical Guide for HVAC and Sheet Metal Contractors

2010

- Mentoring and Coaching Practices: Developing the Next Generation
- Project Tracking to Improve Labor Productivity
- Exit Strategies for HVAC/Sheet Metal Contractors, Strategies for Equity and Ownership Transfer

2009

- Kaizen Blitz: Significantly Improving Performance in a Week or Less

2008

- Creating a Learning Environment: A Template for Creating and Cultivating a Learning Culture in the HVAC and Sheet Metal Industry
- The HVAC and Sheet Metal Industry Futures Study: Industry Trends and Drivers Shaping Alternative Futures
- Thinking Lean - Tools for Decreasing Costs and Increasing Profits

2007

- A Comparison of Operation Cost Factors: Union Versus Nonunion HVAC and Sheet Metal Contractors
- Impact of Incompatible Software on HVAC and Sheet Metal Contractors
- Preconstruction Planning Process for Heating, Ventilation, and Air Conditioning (HVAC) and Sheet Metal Contractors: Implementation Manual

2006

- The Impacts of a Merger or Consolidation for the Sheet Metal Workers International Association (SMWIA)
- Measuring Customer Loyalty: A Benchmark Study of HVAC & Sheet Metal Customers' Satisfaction
- Residential HVAC Trends: Home Improvement Centers Enter the Installation and Service Market

2005

- Procurement Chain Management in the Construction Industry
- The Future for Union Sheet Metal Construction

2004

- Lean Production Principles
- Quantifying the Cumulative Impact of Change Orders for Sheet Metal Contractors
- Schedule Compression Effects on Labor Productivity
- Tool and Material Management Systems

Summit Council

The Summit Council includes dedicated, well-respected contractors, SMACNA chapters, and industry partners who have united to support the HVAC and sheet metal industry by guiding and shaping the New Horizons Foundation's program agenda.

The Summit Council is comprised of the Premier, Champion, Summit Counselor, Summit Circle, and Industry Mentors contributor categories. All members of the Summit Council receive national public acknowledgment at industry annual meetings and other special events and programs. In addition, they have the opportunity to participate in shaping the agenda for the New Horizons educational and research program.

Our thanks to every contributor. You share our vision of offering HVAC and sheet metal contractors "A Chance to Grow."

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Angela Simon, Vice Chair
Ron Rodgers, Chair Emeritus
Thomas Soles, Executive Director

Premier – \$300,000 and up

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Climate Engineers
Peter Watson, Iowa

Holaday-Parks, Inc.
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Peter Jenkins, Executive Director

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John Ilten, Chapter Representative
Kate Wierson, Executive Director

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Contractor Spotlight Videos

Take an in-depth tour of some of our industry's most innovative and growth-minded firms. SMACNA shoots these virtual tours to give viewers a sense for the culture, the way business is run, the layout of the shop and some of the equipment, and the dedicated staff members of our contractors' firms. View the videos at: <http://smacna.online/contractorspotlight>.

Executive News Brief

Daily. Online.



This free e-newsletter fully captures all the important sheet metal and HVAC industry news on a daily basis and delivers it directly to your inbox. SMACNA executives carefully screen and select only the most important articles from reputable and authoritative industry news sources, arriving in an easy-to-read format that includes concise summaries with links to the full articles.

Start your free subscription today at <http://smacna.online/enb>.

Industry Fund of the United States (IFUS) Annual Report

8 1/2" x 11". 6 pages.

This annual report to Industry Fund contributors outlines how industry monies have been spent to promote industry harmony, develop new technical standards, educate employers and their employees, and promote the industry. A report from the IFUS chairman, income, and expense statements, as well as a balance sheet, are part of this report.

Let's Talk Shop Podcast

This podcast series features various member contractors who join in for a conversation about current industry topics of interest and concern. Come be a fly on the wall and listen as contractors discuss the day's most relevant issues. Listen to episodes at <http://smacna.online/letstalkshop>.



Operations Hub Podcast

A forum where SMACNA Contractors can learn from one another on ways they can enhance their businesses through the incorporation of best practices and new technologies.

Products & Services E-newsletter

Monthly. Online.



This monthly e-newsletter highlights new products and service offerings from SMACNA's Premier Partners and Associate Members. These companies have submitted their content to be featured exclusively for SMACNA members alongside timely articles offering business advice and reports on industry conditions. *(Members Only)*

Project Spotlight

A new video series highlighting some of the incredible projects being done by SMACNA Contractors in the field with a focus on collaboration between other project stakeholders.

SMACNA Contractor Lapel Pin

3/4" x 1/4".

This handsome silver, oval lapel pin has the blue and red SMACNA Contractor logo enameled on its surface. It is perfect to wear to contractor and industry meetings, as well as during day-to-day business activities. *(Members Only)*

SMACNA Contractor Logo Decals

1", 8" or 12".

The SMACNA contractor logo is a sign of trust and confidence, recognized worldwide.

These waterproof, weatherproof, durable decals, in 8-inch and 12-inch sizes, are easily applied to car/truck bumpers, site signs, doors, and plaques. The red and blue SMACNA contractor logo is on a silver background. The 1-inch decals, though not weatherproof, are great to use for letters, envelopes, and estimates. *(Members Only)*

SMACNA Contractor Logos

Electronic black & white and two-color applications are available in EPS, JPEG, and GIF formats.

Like the Good Housekeeping Seal of Approval, the SMACNA contractor logo signifies that a highly qualified professional stands behind their product and workmanship. These logos may be reproduced in various sizes for use on business cards, letterhead, site signs, and truck signs. Reproduction of logos smaller than 3/4-inch is not recommended. Contact the Public Relations Department to order. *(Members Only)*

SMACNews

8 1/2" x 11". 16 pages. Published monthly in print and online.



SMACNews remains the organization's flagship publication, reaching out to our entire membership and other external stakeholders. Recently, SMACNews transitioned to a new production and design vendor to improve the quality of the overall product while keeping costs manageable and within budget. Recent editions of SMACNews have covered topics such as our legislative outreach at the federal level, our ongoing work with SMART through Partners in Progress, and helping workers in the field address ongoing mental health challenges.

SMACNA Premier Partners

Online.

This specific section of the SMACNA website is devoted exclusively to news and services related to SMACNA's Premier Partner companies. Here, you can learn more about each company, read about their upcoming events, see photos of their latest products, get news, and press releases, and view special announcements that are highly pertinent to SMACNA members.

Public Relations & Communications

Social Media

Join in on the conversation. Follow SMACNA on social media for the latest news and updates.

Facebook



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Safety Web Page

The SMACNA safety web page (www.smacna.org/safety) is part of the SMACNA website and offers members a wealth of information related to safety and health issues including helpful safety program development information, the SMACNA Safety Awards Program, Mental Health and Substance Abuse resources, OSHA and Regulatory compliance resources, Safety Sponsorship Program and Safety Awareness Materials.

Among the popular free products and information available to members through the safety web page is the SMACNA Guide to Policies, Procedures, and Written Programs, which is described in further detail below.

Publications

The following safety publications are available for immediate "PDF" download through the Members Only section of the SMACNA Safety web page (www.smacna.org/safety). Users are encouraged to verify the information is current and meets local, state and state-plan OSHA requirements.

SMACNA Safety Toolbox Talks – Volumes 2, 3 & 4 PDF Only.

Each volume is a collection of 100 toolbox talks covering a number of topics within the sheet metal industry. Each talk is provided with an attendance form in the back. The talks allow supervisors/instructors to provide refresher training to workers. Volume 3 also includes training tips to assist the instructor.

The SMACNA Guide to Fall Protection PDF Only.

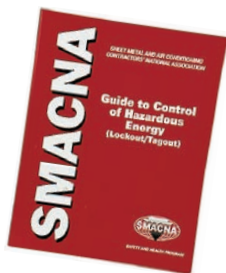
This compliance manual covers OSHA's fall protection standard for the construction industry. It contains a complete overview of the regulation, a training checklist and certification form, a glossary of terms, and a reprint of the OSHA regulation from the Federal Register. Twenty Fall Protection Toolbox Talks appear in the back of the manual.

SMACNA Guide to Control of Hazardous Energy PDF Only.

This manual is designed to assist contractors in complying with the OSHA standard on control of hazardous energy through the use of lockout/tagout procedures. Toolbox talks and checklists are also provided for the contractor's use.

The SMACNA Personal Protective Equipment Manual PDF Only.

This manual is designed to assist SMACNA members in complying with the OSHA rule on personal protective equipment. The manual provides information on current OSHA requirements and various types of PPE. Training requirements are covered, and more than thirty toolbox talks are provided.

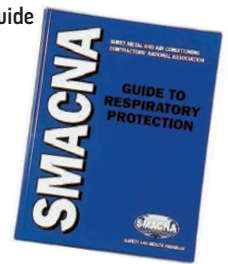


The SMACNA Respiratory Protection Compliance Guide PDF Only.

This manual assists contractors in complying with the OSHA standard on respiratory protection. The guide contains a sample program, training information and compliance checklists. Several informative toolbox talks are also provided to assist with refresher training.

SMACNA Press Brake Safety Compliance Kit PDF Only.

This kit consists of an Employers Reference Manual, which contains the elements necessary for establishing an effective alternative safe distance method of point of operation protection on power press brakes to comply with OSHA's Compliance Directive. The manual contains a sample Policy Statement, provides a detailed program of safe operating procedures including photographs, lists training requirements and includes a sample training certification form. The Safe Operating Procedures Training Video can be used by employers to train employees on the safe operating procedures described in the manual. The video goes step-by-step through the safe operating procedures on the power press brake.



Additional Items

Safety Poster Series

Great safety reminders for both shops and jobsite work settings, this free and modern series of posters covers three significant safety and health issues in the sheet metal industry: "Let The Eyes Have It" poster addresses eye protection; "Don't Cut Your Job Short" covers cut prevention; and "Are You Wearing Your Ear Plugs?" promotes wearing proper hearing protection. Attach them to gang-boxes, mount them in jobsite trailers or frame them for shop break rooms. Each eye-catching poster is 16" x 24," and all three are shipped together.

Suicide Prevention Hardhat Stickers and Chips

TAUC, MCAA, NECA and SMACNA have joined forces to help spread awareness about mental health. Construction is a hard and high-stress profession and has one of the highest rates of suicide in the nation. Our four trade associations are uniting behind fixing this problem and shining a light on the importance of your mental health. Together they have released a "chip" with the new suicide and crisis prevention number; 988.



Our goal is to provide our members, or someone they know, a resource of where they can get help. We want to spread the message of "It's okay to not be okay." And it's time for the construction industry to step up and change the culture of not speaking up when you have a problem. Not all injuries are visible. Not all trauma is evident. Your mental health matters.

Vehicle Safety Tip Cards

Service Vehicle Safety and Construction Vehicle Safety are the themes for these two-sided, laminated tip cards. These cards fit easily in the glove compartment or storage bin of vehicles and can be used to supplement safe vehicle operation training.

Heat Stress Tip Cards

Heat stress prevention is becoming more of a challenge for many contractors, and in response to heat-stress-related legislation in several states, SMACNA developed these two-sided, laminated tip cards to help train workers on heat stress and heat illness. The cards cover several topics under the theme of PAT – prevention, awareness, and treatment.

Safety & Health

SMACNA Guide to Policies, Procedures, and Written Programs

This product addresses the need of many SMACNA members to prepare written safety and health programs for various reasons including submittals during the bidding stage of projects as well as forms to improve documentation efforts. This product contains examples of policies and procedures related to safety program administration as well as model written policies to improve company compliance efforts. Recent additions include model programs for *Leading and Lagging Indicators*, *Fleet Management/Vehicle Safety*, *Confined Spaces in Construction*, *Emergency Preparedness and Business Continuity*, *First Aid and Bloodborne Pathogens*, as well as a model program to assist members with *Occupational Exposure to Respirable Crystalline Silica – Construction*.

All the documents can be edited for projects and company-specific needs including new information on current safety and health issues that are important to the sheet metal and air conditioning industry.

Safety and Health Department

SMACNA members interested in obtaining the products and services described above, including SMOHIT safety and health products, are encouraged to check the safety web page or contact the SMACNA Safety and Health Department at (703) 995-4027, jcrandol@smacna.org.



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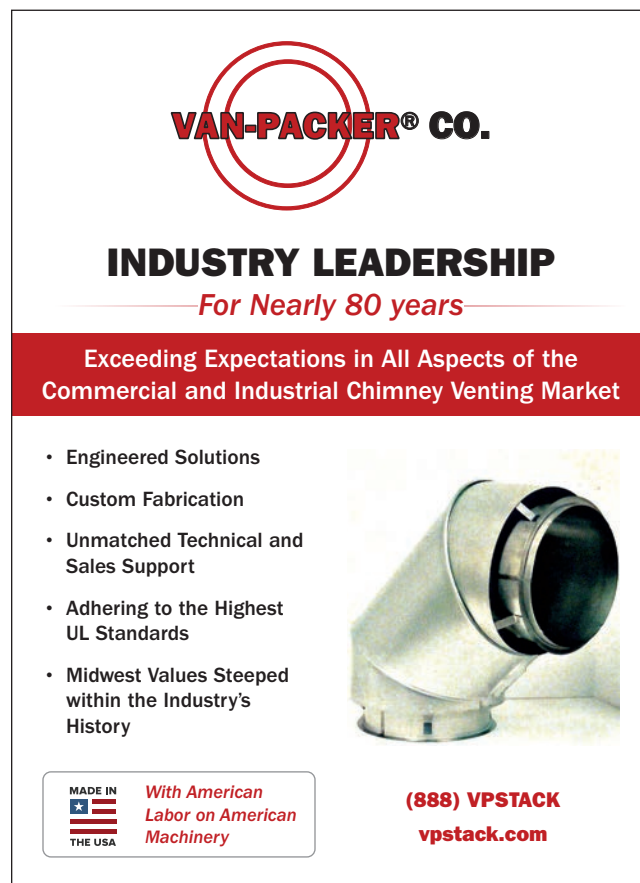
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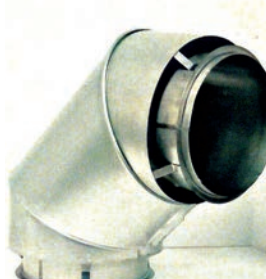


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Bulletins & Special Programs

Technical Bulletins

8 1/2" x 11". Current edition.

As industry issues and challenges arise, SMACNA sends its chapters and members the latest and most vital information to arm them with the facts and figures to make intelligent business decisions. Technical bulletins are issued on numerous subjects.

Technical Seminars

Available upon request.

SMACNA Chapters may request to conduct the following SMACNA technical seminars: Architectural, Duct Construction (Commercial & Industrial), Duct Leakage, Duct Inspection, Indoor Air Quality, Fire Damper Guide, Architectural Sheet Metal, Seismic Restraint, Commissioning and Duct Design. The approval of the SMACNA CEO is needed in order to conduct a technical seminar. Contact Executive Director, Technical Services.

Technical Apps

Downspout & Gutter Sizing Calculator

This app allows you to easily and accurately size downspout and gutters using the methods and formulas covered in SMACNA's Architectural Sheet Metal Manual (ASMM).

The Rainfall Wizard allows you to select the closest city to use the information from the ASMM tables. The Rain Intensity per ASMM Table 1-2 uses the 5-minute Duration for a 10yr or 100yr storm. Since the Rain Intensity data is constantly being updated by the National Oceanic and Atmospheric Administration (NOAA), this calculator also app allows the manual entry of the Rainfall Intensity, thereby allowing you to calculate per the local authority having jurisdiction. For the most up to date rain intensity data, NOAA's website is <http://hdsc.nws.noaa.gov/hdsc/pfds/index.html>. (Use Precipitation Intensity as your data type.)

Either manually enter the Design Area of the roof or use the wizard. The Design Area Wizard allows the user to select a roof shape and add dimensions to get a design area. The wizard also calculates for Vertical Walls area per International Plumbing Code (IPC.)

The required gutter and downspout size is dependent on the number of sections, the length of gutter sections, the number of downspouts, and the gutter width to height ratio.

HVAC Air Duct Leakage App

This app provides suggested leakage classes using the method outlined in SMACNA's HVAC Air Duct Leakage Manual. The method used is compliant with ASHRAE 90.1, IECC, IGCC Version 2, IMC and the UMC.

Users can combine multiple sections of ductwork that vary by size and shape to calculate a total allowable leakage. This app allows the user (engineers, architects, designers, and contractors) to easily estimate the air duct leakage and determine the pass/fail mark for properly specified Duct Air Leakage Tests (DALT).

HVAC Duct Construction App (Members Only)

The app will provide SMACNA compliant options for rectangular duct with dimensions from 1 inch to 120 inches for applications from negative to positive ten-inch water gage. The scenarios for the app are limited to joint lengths of 4, 5, and 6 feet. The transverse connections are limited to T1 (flat drive), T5 (flat slip), T10, 11, and 12 (standing slips) and T25 a or b (TDC/TDF). Where appropriate the app will also provide options for intermediate reinforcement. The full range of reinforcement spacing options are 6, 5, 4, 3, 2 1/2, and 2 feet. In most cases the app will provide options for internal reinforcements and external reinforcements. Internal options are limited to EMT conduit tie rods and external reinforcements are limited to angles. Enough information is provided so users can choose other options from SMACNA's Standard. The output of the app is a written description of the duct as well as a graphic representation. Users can view the report on-screen or email it. The app does not provide every possible solution found in SMACNA's standard and it will not provide every detail. For example, the app does not provide requirements for the proper attachment of the reinforcements. The app is intended to be used in conjunction with SMACNA's HVAC Duct Construction Standards – Metal and Flexible.

Rectangular Industrial Duct Construction App (Members Only)

This members-only app allows you to create table driven solutions using the methods and formulas covered in SMACNA's Rectangular Industrial Duct Construction Standards manual. You select (or enter manually) all the parameters to define the particulate loading, duct design, duct construction, superimposed dead loads, superimposed live loads, and the duct dimensions. Based on the defined information, the app generates all conforming construction solutions. The app also checks for bending and buckling issues and reports any needed corrective action. After a panel thickness and stiffener spacing selection is made, a fabrication report is generated which includes all design conditions and the options selected (or manual entry), duct construction details and a sketch of the duct construction.

Round Industrial Duct Construction App (Members Only)

This app allows the user to create an infinite number of solutions using the methods and formulas covered in SMACNA's Round Industrial Duct Construction Standards manual. Users can select spiral or welded duct, the duct material, various live loads such as snow and wind loading, various dead loads such as insulation and cladding, hanger spacing, air temperature, and particulate properties. Once the information is selected the app can generate several answers and the user can select which options to consider. After selections are made the user can then create a full engineering report that outlines the procedure used to create the specific solution.

Ductulator App (Members Only)

This app works as a Ductulator and Pressure Loss (friction) calculator which provides the following functions:

- Converts Duct Shape to Size to Another
- Determines Sizes for a Given Friction Rate
- Determines Sizes for a Given Velocity
- Determines Sizes for a Given Velocity and a Friction Loss Rate (simultaneous output)
- Determines the Airflow Rate for a Given Size and Friction Loss Rate
- Calculates Friction Loss

Technical Resources

Technical Publications

Note: The only items available on CD are the CADD ver. 2.0 Drawings from the Architectural Sheet Metal Manual, SMACNA CD-ROM Technical Manual Collection and the Standard Practice in Sheet Metal Work. All technical manuals are available in PDF format at <https://store.smacna.org>.

Accepted Industry Practice for Industrial Duct Construction

210 pages. Second edition, 2008.

This guide is a compilation of accepted industry practices and construction techniques having received wide acceptance for the fabrication and installation of industrial duct systems.

Covers round (long-seam and spiral) duct from 4 inches to 60 inches in diameter, reinforced or unreinforced, for operation from 4 inches to 20 inches w.g. positive or negative pressure, and from ambient to 650°F for carbon or stainless steel, 400°F for galvanized steel and 120°F for aluminum. Also rectangular duct fabricated from panels from a few inches up to 5-feet wide, all welded, Pittsburgh, grooved seam pipe lock or standing seam joined duct, for operation from 4 to 20 inches w.g. positive or negative pressure, and for the same materials and temperature limits as round duct. Also includes chapters on industrial applications, material properties, hangers and supports, fittings, vents, doors, discharge ducts (small stacks) and surface preparation of metals.



Accepted Industry Practices for Sheet Metal Lagging

128 pages. First edition, 2002.

This document contains accepted industry practices for the fabrication and installation of sheet metal lagging, used to cover and protect insulated areas of equipment. The fabrication practices included illustrate the requirements of most commonly encountered insulated surfaces, such as boiler walls, flues, ducts, precipitators, air heaters, economizers, tanks, fans, etc. This publication is intended to assist the designer, contractor and plant engineer in understanding and solving the complexities involved in the design, fabrication and installation of sheet metal lagging systems.



Architectural Sheet Metal Inspection Guide

52 pages. First edition, 2004.

An invaluable inspection resource for owners of standing seam, batten seam or Bermuda-type roofs, the guide presents practical troubleshooting and corrective tips for typical problems of roof panels, gutters, downspouts, fascia, copings, flashing, ridges and hips, valleys, expansion joints, penetrations, fasteners and soldering. It also provides relevant information regarding construction of these architectural elements and the purpose of each, as well as what to look for during periodic inspections. Sealants, moisture transfer methods and air leakage are also covered. The guide emphasizes the importance of regular and appropriately timed inspections because a small problem discovered early can be fixed at a low cost, preventing minor damage from becoming a substantial problem until the cost of repair and remediation becomes excessive. Contractors will find this book a valuable resource to provide owners or facility managers along with the standard building completion documents.



Architectural Sheet Metal Manual

542 pages. Seventh edition, 2012.

This completely revised publication contains the most comprehensive set of recommended practices available for proper design and installation of custom-fabricated architectural sheet metal including roof drainage system design for scuppers, gutters and downspouts. This manual is particularly useful for historical replication and renovation of architectural sheet metal elements including, but not limited to skylights, cornices and spires; new moisture and maintenance guide with underlayments; mechanical fasteners and soldering guidance; and enhanced metals selection data. Offers new construction techniques and alternative methods of design and installation reflecting climatic conditions and rainfall rates. An upfront, fast “look-up” key speeds information retrieval. Also covers flashing, metal roofs, copings, gravel-stop fascia. Includes wind uplift pressure test reports confirming superior performance of custom-fabricated metal roofing. Applies to commercial, industrial and residential buildings.



Architectural Sheet Metal Quality Assurance Guide

112 pages. First edition, 2015.

Developed to provide guidance in the evaluation of exterior sheet metal building components – roofing systems, exterior walls, flashings, copings, etc. – during initial construction and for ongoing condition assessments and maintenance.

The manual can assist owners/operators that may have limited knowledge and experience in the specifics of architectural sheet metal components, specification, fabrication, installation or evaluation. The manual can also serve as a procedural inspection guide for experienced professionals who review architectural sheet metal systems regularly.



Architectural Sheet Metal Manual – CADD Drawings

2012.

CADD drawings of the illustrations in SMACNA's 7th edition of the Architectural Sheet Metal Manual are available for download and use in CAD programs. These drawings illustrate the best practices in custom architectural sheet metal work. Purchase all 188 figures in DWG format for immediate download from this site. Architects and designers are encouraged to use this invaluable resource to assure that their specifications reflect professionally vetted design details.

Building Systems Analysis and Retrofit Manual

144 pages. Second edition, 2011.

The second edition of the Building Systems Analysis and Retrofit Manual provides methods to assess the major energy-using elements of an existing building – electrical (lighting and motors) and HVAC. It provides a process that begins with a walk-through audit. Methods discussed include using building systems automation, envelope improvements and demand control strategies including thermal energy storage. Contractors interested in new opportunities will find market entry guidance and ideas to assist them in the development of new business strategies that target the renovation of existing buildings. Existing buildings are often located near public transportation and development typically occurs on a building's existing footprint. These two “green” drivers may combine with basic economic factors to produce a compelling incentive for many prospective building owners to choose renovation of an existing building over the construction of new facilities.



Duct System Calculator – Imperial

Circular slide rule fits in vinyl three-hole-punched pouch. 1988.

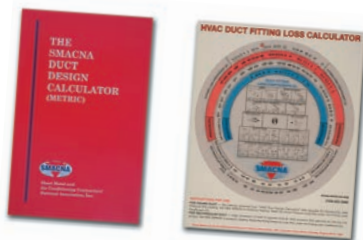
This calculator, complete with detailed instructions, enables HVAC system designers to design an average duct system without additional references. The only calculator in the industry to include the 0.0003 roughness factor duct friction loss data for designing straight, round or rectangular sheet metal ducts.



Duct System Calculator – Metric

Circular slide rule fits in vinyl three-hole-punched pouch. 1988.

This calculator, complete with detailed instructions, enables HVAC system designers to design an average duct system without additional references. The only calculator in the industry to include the 0.0003 roughness factor duct friction loss data for designing straight, round or rectangular sheet metal ducts.



Ducted Electric Heat Guide for Air Handling Systems

49 pages. Second edition, 1994.

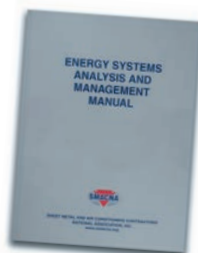
A comprehensive application and installation guide of ducted electric heaters and important factors relating to application, selection, location, installation and control.



Energy Systems Analysis and Management Manual

234 pages. Second edition, 2014.

This timely document provides an overview of a variety of energy-related business opportunities for commercial, residential, and institutional buildings. Presents contractors, building owners and operators, facility managers, and system designers with the tools needed to evaluate an existing facility for energy savings potential. Addresses both new construction and retrofits. Includes energy conservation management, the energy audit and energy estimating procedures. HVAC system maintenance and indoor air quality, energy management maintenance and monitoring, energy recovery systems and energy recovery system investment analysis.



Fibrous Glass Duct Construction Standards

88 pages. Eighth edition, 2021.

The eighth edition provides updates from former editions. 1400 EI 2" board is now covered within the standards. This also includes revisions to the tie rod reinforcements, channel system reinforcement, partial wrap-around reinforcement and fasteners associated with the newer boards. Additional provisions for fittings, closures, and specifications referencing the North American Insulation Manufacturers Association (NAIMA) and Underwriters Laboratories (UL) are included.



Fire, Smoke & Radiation Damper Installation Guide for HVAC Systems

144 pages. Sixth edition, 2022.

The sixth edition has been updated from the 2002 edition and includes updated ICC/UMC/NFPA code references and expanded guideline notes as to the details of damper installation. This edition provides clarity on the responsibilities of the designers, engineers, contractors, manufacturers and local code authorities regarding fire and smoke damper systems. New information is provided on the mandatory requirements for fire/smoke damper inspection & servicing.



Food Grade Ductwork and Sheet Metal Guidelines

122 pages. First edition, 2020.

This First Edition of the SMACNA Food Grade Ductwork and Sheet Metal Guidelines is intended to provide basic food grade ductwork and sheet metal fabrication/installation guidelines to the industry. Covered subjects and topics in this publication include: HVAC ductwork serving food and beverage production process/sanitary areas, product conveying sanitary tubing/pneumatic conveying (spouting and blow line) utilized in food and beverage processing, and process exhaust utilized in food and beverage processing.



Guide for Free Standing Steel Stack Construction

96 pages. Third edition, 2011.

Contractors, designers, and engineers will find this guide a very valuable resource, as tables containing hundreds of stacks are detailed and ready to go. This new publication updates the 1996 Guide for Steel Stack Construction, second edition, incorporating text and tables. New to the 2011 publication are design considerations for free standing stacks under resonant vibration, established limits on stacks fitted with testing platforms, larger stack selection diameters and consideration of custom designed anchoring systems instead of a standardized schedule. Includes tables for selection of free standing stacks from 20 feet to 120 feet high, and diameters to 120 inches, companion flange, stiffener sizes and stacks with access ladders and platforms.



Guidelines for Roof Mounted Outdoor Air-Conditioner Installations

25 pages. Second edition, 1997 (PDF Only).

Contains guidelines for installation of roof-mounted outdoor air-conditioner equipment as developed by SMACNA and the Air-Conditioning, Heating and Refrigeration Institute (AHRI). To be used as a supplement to the unit manufacturer's specific installation instructions. This booklet of waterproofing illustrations and reminders covers curb and roof penetrations and sealings, as well as the interface between the roof and the location at which the unit, piping, electrical wiring or sheet metal ductwork pass through the roof. This guideline supersedes AHRI Guideline B-1986.

Technical Resources

Guyed Steel Stacks

66 pages. First edition, 2011.

The first edition of the Guyed Steel Stack manual is devoted exclusively to vertical, uniform diameter guyed stacks with welded longseam or spiral lockseam fabrication for at-grade or penetrated roof installations. This guide was developed to provide all pertinent information for guyed stack construction through the use of selection tables listing specific combinations of stack diameter, stack height and maximum wind velocity.



HVAC Air Duct Leakage Test Manual

122 pages. Second edition, 2012.

This American National Standard, ANSI/SMACNA 016-2012, covers revised leakage criteria and builds on the proven methods for testing ductwork for air leaks from the first edition. Contains updates to the expected leakage rates for ductwork constructed to the SMACNA HVAC Duct Construction Standards – Metal & Flexible, duct leakage test procedures, recommendations on use of leakage testing, types of test apparatus and test setup and sample leakage analysis. Includes a new educational chapter for designers and specifiers, to aid in the specification and implementation of duct leakage and testing methods.



HVAC Duct Construction Standards – Metal and Flexible

416 pages. Fourth edition, 2020.

Building on a history of duct construction standards nearly 100 years old, the flagship SMACNA HVAC Duct Construction Standard – Metal & Flexible 4th edition represents the state of the art in the sheet metal duct fabrication and installation requirements. Significant changes for the 4th edition include; flat oval tables for positive/negative pressure applications; spray and aerosolized duct sealants; non-fiberglass duct liner applications; added information on spiral duct fittings; updates to duct hanger requirements; flexible duct hanger spacing and support bracing.



HVAC Duct Systems Inspection Guide

180 pages. Fourth edition, 2023.

Contains guidelines for inspection of commercial HVAC duct systems for compliance with ANSI/SMACNA HVAC Duct Construction Standards – Metal and Flexible (4th edition) and Fibrous Glass Duct Construction Standards (8th edition) and Phenolic Duct Construction Standards (1st edition). It reviews materials and reinforcement of duct systems, as well as assembly and supports of ducts. The Fire, Smoke and Radiation Damper Guide (6th edition) also summarizes installation, maintenance, and inspection of fire



life safety dampers details. The Grease Duct Construction Reinforcement Standards (1st edition) covers common construction and reinforcements for Type I grease ducts. Checklists are included for ductwork and fire dampers. Valuable as a study guide for the HVAC Duct Construction Standards manual and for learning inspection procedures in general. Includes soft metrics.

HVAC Sound and Vibration Manual

222 pages. First edition, 2004 (PDF Only).

This first edition of HVAC Sound and Vibration was developed to provide in-depth, HVAC-specific guidance in the art of sound and vibration measurement and mitigation. As building construction has become lighter and tighter, sound and vibration that previously may have gone unnoticed is more often becoming a nuisance. This creates both a problem and an opportunity – a problem because designers and installers must be diligent in using materials and techniques that mitigate the potential for sound and vibration problems and an opportunity for contractors that specialize in resolving occupant complaints related to sound and vibration.

HVAC Systems – Applications

442 pages. Second edition, 2010.

Focuses primarily on the advancement of HVAC systems technology, with increased emphasis on energy efficiency and the emergence of green and sustainable building. Provides guidance for HVAC system selection, operation, and design. Covers the fundamentals of space condition requirements and explains how the various types of air, hydronic and refrigeration HVAC system designs can be applied to buildings. Individual chapters detail system information for controls, multizone, dual duct, terminal reheat, variable air volume, induction and special applications such as dedicated outside air and thermal energy storage.



HVAC Systems – Commissioning Manual

204 pages. Second edition, 2013.

Commissioning is the process of ensuring the HVAC system meets the owner's operational requirements. This American National Standard, ANSI/SMACNA 014-2013, expands on this and also includes LEED project information, current terminology for commissioning of existing buildings as well as other updates to resources and technologies. The commissioning process works effectively for projects large and small, simple as well as complex. It applies to the commercial, industrial and institutional markets. It is a practical how-to guide for contractors, owners and engineers interested in learning about commissioning for new buildings and re-commissioning for existing buildings. Separate chapters are devoted to the different levels of commissioning, including basic, comprehensive and critical system commissioning. A thorough explanation of re-commissioning leads one through the preliminary investigation, survey and documentation phase, the design and installation of system modifications and the actual re-commissioning test. The appendix contains a sample HVAC Systems Commissioning Specification, complete from the planning to the final execution stage. Additionally, the topics functional performance testing, operator training, MSDS forms and equipment data sheets and O&M manuals are covered. It also includes sample reports and timesaving pre-start and start-up checklists. Use of these tested and proven sample forms and specification will save hours of valuable time.



HVAC Systems – Duct Design

400 pages. Fifth edition, 2023.

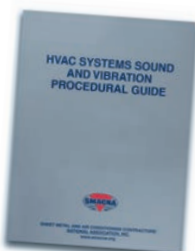
The fifth edition of HVAC Systems Duct Design presents the basic methods and procedures required to design HVAC air distribution systems. This manual provides the HVAC system designer detailed information on duct design, duct fitting selection, examples, calculations and tables. In addition to the basic engineering guidelines for the sizing of HVAC ductwork systems, the manual also provides related information on air distribution materials, methods of construction, economics of duct systems, duct system layout, duct fitting pressure losses, fan selection, duct leakage, acoustic considerations, and Testing, Adjusting and Balancing (TAB).



HVAC Systems Sound and Vibration Procedural Guide

56 pages. First edition, 2013.

The HVAC Systems Sound and Vibration Procedural Guide details methods and processes that, when followed, provide repeatable measurement and verification of sound and vibration (S&V) levels, as required by new and emerging building codes. Instrumentation standards, sound measurement procedures, vibration inspection methods, and vibration measurement procedures are included in the guide. Written for trained sound and vibration testing supervisors and technicians, this publication also is a useful aid to assist designers developing project specifications for sound and vibration testing requirements.



HVAC Systems – Testing, Adjusting and Balancing

406 pages. Fourth edition, 2023.

The newly revised 4th edition of the SMACNA HVAC Systems Testing, Adjusting & Balancing manual has been updated to include modern HVAC Systems, Technologies and Practices to properly balance and adjust both hydronic, forced air and hybrid systems. A revised chapter with sample Test & Balance Report Forms is also included for the end user. General requirements for skill levels for training of TAB Technicians is now incorporated.



IAQ Guidelines for Occupied Buildings Under Construction

131 pages. Second edition, 2007.

The SMACNA IAQ Guidelines for Occupied Buildings Under Construction, 2nd edition ANSI/SMACNA 008–2008, is intended as an authoritative source for providing project management guidance in maintaining satisfactory indoor air quality (IAQ) of occupied buildings undergoing renovation or construction. The Guidelines cover how to manage the source of air pollutants, control measures, quality control and documentation, and communication with occupants. It includes example projects, tables, references, resources and checklists. Methods to identify and remediate lead, asbestos, or other materials that are classified as



hazardous materials are not intended to be within the scope of this standard. The new edition includes a more extensive set of informative appendices than the previous edition that provide more references, resources, planning and inspection checklists, model specifications, HVAC equipment early start up guidance and the *Duct Cleanliness for New Construction* – all within a single document for user convenience.

Indoor Air Quality – A Systems Approach

179 pages. Third edition, 1998.

This manual provides for a system type approach to identifying and solving IAQ concerns, while introducing the fundamentals of IAQ. The manual also updates the technical aspects of IAQ with regard to typical contaminants found in today's facilities. Other topics covered are testing and identification and source mitigation. Timesaving IAQ tracking forms can be modified to meet specific contractor needs.



Kitchen Ventilation Systems and Food Service Equipment Fabrication and Installation Guidelines

233 pages. First edition, 2001.

A basic reference guide to industry-accepted practices for fabrication and installation of commercial kitchen ventilation systems and custom-built food preparation equipment. Assists the designer, contractor and code officials in understanding the complexities of designing, installing, constructing and balancing both the exhaust and make-up air systems required in commercial kitchen ventilation. The food service equipment section offers practical guidelines for designing, fabricating, evaluating and installing a wide range of custom-built food service equipment. Includes tables, shelves and wall lining details, as well as minimum dimension and metal thickness standards for constructing light, medium and heavy-duty kitchen equipment that should provide owners with years of trouble-free usage. Developed in accordance with ANSI/NSF-2-1996. Also included is an appendix that provides application details for the seismic bracing of food service equipment.



Phenolic Duct Construction Standards

144 pages. First edition, 2015.

This is the first edition of the SMACNA Phenolic Duct Construction Standards. This American National Standard (ANSI/SMACNA 022-2015) contains instruction, tables and details intended to provide basic phenolic duct fabrication and installation standards to the industry. The standard includes model project specifications, duct performance characteristics, specifications and closures, fittings and connections, reinforcement, hangers and support, accessories and an inspection checklist. The standard is applicable for ducts up to 80 in. x 80 in. size that operate to 4 in. wg positive pressure class and to 3 in. wg negative pressure class.





Rectangular Industrial Duct Construction Standards

448 pages. Second edition, 2004.

This second edition of the Rectangular Industrial Duct Construction Standards expands the scope of the 1980 version, updating original text to incorporate a revised theory of design, new materials and more user-friendly tables. Included are new tables for stainless steels and aluminum, plus expanded chapters on materials, welding practices and a guide specification. It covers the simple, low or moderate temperature and pressure (or vacuum) indoor systems as well as the more complex outdoor systems that operate at moderate to high temperature and pressure (or vacuum) and are subject to higher and more complex external loading. Approved as an American National Standard (ANSI/SMACNA 002-2011).



Rectangular Industrial Duct Construction Standards, Metric (SI) Version

444 pages. Second edition, 2007 (PDF Only).

This version of the Rectangular Industrial Duct Construction Standards, 2nd edition (2007) is uniquely identified as the SI version (Metric – le Système International d'Unités) to differentiate it from the version published in 2004 as the I-P version (Inch Pound). This latest publication is based on the exact same theoretical work and scope of the earlier I-P version. What differs greatly between the two publications is that in the SI version the data is expressed in metric units and the ratings are based on the use of materials produced under and to ISO standards, in both strength and physical dimensions (we refer to this methodology as Hard Metric). This characteristic makes the information directly usable in the international market.



Residential Comfort System Installation Standards

278 pages. Eighth edition (ANSI), 2016.

This revised manual addresses three new areas that include hydronic heating systems, multistory HVAC systems, and residential commissioning. Appendix chapters provide overviews of methods for the inclusion of crawlspaces in the conditioned space and the HVAC accessories, such as UV lights, zoning and advanced air filtering methods to enhance indoor environmental quality (IEQ) for occupants. More detailed information and new concepts are included for earth energy heat exchanger methods for ground source heat pumps. Updated construction code requirements are reflected throughout the range of HVAC system types, along with energy efficiency and sustainable practices. Installation, operation, maintenance, and guidance for residential heating, ventilation and air conditioning systems are also included.



Residential Sheet Metal Guidelines

130 pages. First edition, 2001.

The first edition of SMACNA's Residential Sheet Metal Guidelines offers contractors, designers, builders and homeowners a source of expert information on the proper fabrication and installation of exterior sheet metal in residential buildings. Covering topics that include roof drainage systems, decks, chimneys, windows, doors and ledges, the new manual presents details and explanations based on, and designed for, low-rise residential buildings, up to three stories, that are used as single-family and multi-family dwellings. The guide also highlights details commonly used in residential sheet metal work throughout the industry. In addition to generic detail drawings, design data and the appendices will help users to adapt the drawings to local climate and project conditions. Carefully examining the information along with the local climate conditions will enable users to select the proper details for practically any residential architectural sheet metal application.



Round Industrial Duct Construction Standards

660 pages. Third edition, 2013.

This American National Standard (ANSI/SMACNA 005-2013) expands the scope of the 1999 version, updating the duct materials to include aluminized steel, temperature correction factors for round industrial and minimum decimal thickness for aluminum duct selection tables. Offers a standardized, engineered basis for design and construction of industrial ducts of Classes 1 to 5 air. Includes a spiral duct chapter for Classes 1 and 2 air that covers design pressures ranging from 30 in. wg negative to 50 in. wg positive, plus carbon and galvanized steel tables. Expanded tables for stainless steel and aluminum, expanded tables for duct sizes up to 96 in. diameter, introduction of a new Duct Class 5 for systems handling corrosives and spiral lockseam pipe.

Seismic Restraint Manual – OSHPD Edition

146 pages. First edition, 2009 (PDF Only).

This special edition of the SMACNA Seismic Restraint Manual – OSHPD Edition has been developed to meet the specific requirements of the California Office of Statewide Health Planning and Development (OSHPD) for hospital and health care facilities construction. The seismic hazard tables with this special edition are limited to the SHL A ($g = 0.67$) and SHL AA ($g = 1.0$) applicable to the hospital and health care facilities outlined in the use of the manual. The manual is not intended to cover the ordinary supports for ducts and pipes required for gravity loads. The only restraints shown in the tables and figures are those needed to provide the extra support for seismic loads.



Seismic Restraint Manual: Guidelines for Mechanical Systems

202 pages. Third edition, 2008.

The Seismic Restraint Manual: Guidelines for Mechanical Systems, 3rd edition 2008, ANSI/SMACNA 001-2008, is an updated set of guidelines that shows designers and contractors how to determine the correct restraints for sheet metal ducts, piping and conduit, so that they are more likely to remain attached to the building during an earthquake. The manual shows how very low-risk and very high-risk areas of the country can be accommodated. The new edition includes a more extensive list of bracing options and has been revised to comply with current building codes, all within a single document for user convenience.



Sheet Metal Welding Guide

174 pages. Third edition, 2007.

This publication is intended to assist contractors, estimators and shop supervisors in profitably managing the welding activity in a sheet metal shop. Updated coverage of welding processes; flux-cored wire guidelines; and the latest equipment. The safety chapter covers such items as health effects, hazard controls and safety procedures. Other chapters include guidelines for developing welding procedures, controlling weld quality, estimating, hiring and training welders, and welder certification.



SMACNA Bubble DVD Destroys Design Myths

2009. (DVD Only).

The Bubble Video – so called because it uses helium-filled bubbles to visually illustrate airflow through a duct system that is fitted with a clear plastic side – has been revised in modern digital video format. The new video is available on DVD. A number of duct fittings are used to illustrate airflow movement variations through a duct system. The video also references both the SMACNA HVAC Systems Duct Design and HVAC Duct Construction Standard to tie actual airflow performance to the “flat” drawings and commentary within both manuals. The video is intended as an educational tool for designers and engineers to illustrate how good duct design and careful planning to avoid conflicts can be used to improve airflow and reduce one of the largest energy users in commercial-class buildings – HVAC system fan power. The running time for the video is 15 minutes.



SMACNA Technical Manual Collection

2007. (PDF Only).

Thirty of SMACNA's most requested technical manuals are conveniently located in PDF format with searchable indexes on one CD-ROM. Purchase the entire set for substantial savings. Among the titles are: HVAC Duct Construction Standards – Metal & Flexible; Fire, Smoke & Radiation Damper Installation Guide for HVAC Systems; Indoor Air Quality – A Systems Approach; and Round Industrial Duct Construction Standards. Updated annually.

Standard Practice in Sheet Metal Work

771 pages. 1929 (PDF Only).

More than a historical look at custom architectural sheet metal, this publication contains a graphic collection of system designs, including pattern layouts representing the Old World practices in the industry that have been developed over generations and proven over decades of use. With today's emphasis on restoration, refurbishing, rebuilding, retro-designs and retrofiting, architects will find this publication more than of historical interest. Architectural sections include elaborate cornices, skylights, domes, spires, spun balusters, gargoyles, marquise, storefronts, metal buildings and metal roofs. Additional chapters cover heating and ventilation systems including gravity furnaces. Blowpipe sections cover design, layout, construction and equipment.

System Air Leakage Test Standard

96 pages. First edition, 2020.

SMACNA has included a procedure for leakage testing of ductwork since January of 1965. This process has evolved after more research and feedback from the industry led to changes in both the pass/fail criteria and the application of testing. The next major leap forward is this standard. It goes beyond the duct and includes procedures for any item included in a forced air system. This standard addresses leakage testing of any portion of, and up to, the entire forced air system. It does so in a responsible manner where the pass/fail criteria are based on sound research specific to testing conditions and distributes the responsibility of system performance equitably. The testing process is reliable, practical and based on decades of experience.



TAB Procedural Guide

118 pages, Second edition, 2024

The newly revised second edition of the SMACNA TAB Procedural Guide is specifically tailored for trained skilled TAB technicians for performing field balancing of HVAC systems. This document includes both general and specific guidance for both airside and waterside HVAC systems balancing. VAV, Constant Volume, Multi-Zone, Dedicated Outside Air and Dual Duct systems are examples of the various systems covered within the guide, along with multiple styles of water-based systems. The guide additionally assists TAB technicians with preplanning and establishing protocols to ensure energy usage is applied to the HVAC systems.



Thermoplastic Duct (PVC) Construction Manual

130 pages. Second edition, 1995.

Contains the latest and most useful information from manufacturers, fabricators and corrosion specialists on the use and application of thermoplastic materials. This fully illustrated manual provides full construction details and standards for PVC ducts of 2-inch, 4-inch and 10-inch w.g. positive and negative. It gives guidance in understanding these synthetic materials, as well as assistance in determining their strengths, corrosion resistance and advantages over other materials. A model specification enables one to easily prepare custom project documents for installation of PVC air handling systems. Also covered are polypropylene and polyethylene, CPVC, LDPE, HDPE, UHMW, ABS, Acrylics and PVDF. Includes soft metrics.



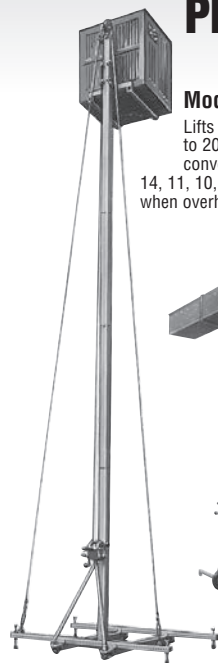
Thermoset FRP Duct Construction Manual

228 pages. Second edition, 2016.

This authoritative manual is one that design engineers, industrial engineering departments, pollution control authorities, fiberglass manufacturers and installation contractors can rely upon for the proper selection, manufacture, and installation of FRP duct systems. The American National Standard (ANSI/SMACNA 011-2017) contains language, tables and details for the construction of hand lay-up, spray-up, and filament-wound FRP ductwork from 30 in. wg negative pressure to 30 in. wg positive pressure. Round ductwork sizes are expanded to include up to 96 in. diameter. For rectangular ductwork, new duct stiffener tables are added for easier selection. Recognizing the increased popularity of FRP ductwork, this edition is expanded to include commercial/HVAC applications. Supporting this, an underground installation section was added as well as added language on testing and balancing, duct sealing and duct leakage. Duct hangers and support information have been expanded and organized into a separate chapter which now includes: upper attachments, hanger selection tables, channel (strut) used as trapeze, riser support details and more. Appendices in this edition cover extended hanger spacing, general information on safe handling of thermoset fiberglass reinforced plastic duct, and allowable FRP defects.



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Verify Inc.
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Web: www.verifytab.com

CHIMNEY SYSTEMS



Van-Packer Co.
302 Mill Street
Buda, IL 61314
Ph: (309) 895-2311
Fax: (309) 895-3891
Toll-Free Ph: (888) 877-8225
Email: vptech@vpstack.com
Web: www.vpstack.com

For nearly 80 years, we have exceeded expectations in all aspects of the commercial and industrial chimney vent market. And for 30 years, we have provided round, listed and labeled factory-built grease ducts to the commercial kitchen ventilation market. We have been at the forefront of venting solutions for HVAC applications. From stainless steel vents to Free Standing Engineered Chimneys, you can be assured that a Van-Packer stack will meet all requirements of the job.

COIL PROCESSING MACHINES



**Vicon Machinery LLC/
Plasma Automation Inc.**
1801 Arctic Avenue
Bohemia, NY 11716
Ph: (636) 349-8999

Vicon Machinery, LLC, is "Where Superior Duct Work Begins". Vicon Machinery is your complete turnkey solution for the automation of the duct fabrication process. Fast, reliable and accurate, our state-of-the-art machinery reduces material waste and operating costs while producing a superior product. It is with pride we can say, Vicon Machinery, LLC machines are 100% designed, engineered, manufactured and supported in the USA. We build the machine, we write the software, and we support the customer. It is that simple.

DUCT & HVAC INSULATION PRODUCTS



Berry Global, Inc.
101 Oakley Street
Evansville, IN 47710
Ph: (508) 918-1744
Fax: (508) 590-0512
Email: customercaretapes@berryglobal.com
Web: www.berryglobal.com

Berry Global, Inc. has been providing trusted, premium tapes for heating, ventilation, and air conditioning for decades. Offering two premium brands for HVAC, Polyken® & Nashua Tape®, we manufacture an extensive line of UL Listed and general-purpose HVAC tapes at our Franklin, Kentucky facility. We are committed to designing and producing high-quality tapes that contribute to HVAC system integrity, energy efficiency, and occupant health.



Johns Manville
717 17th Street
Denver, CO 80202
Ph: (303) 978-2000
Email: dayna.martin@jm.com
Web: www.jm.com

At Johns Manville, we are committed to delivering the industry's most complete line of HVAC insulation for both commercial and residential buildings. We are the market leader in HVAC insulation, and have a 50-year history of providing duct liner, duct board and duct wrap solutions with superior consistency and quality. Our products promote consistent temperatures for less wasted energy and many of our products help dampen unwanted noise and improve the comfort of building occupants with improved air quality.



Streimer
740 N. Knott Street
Portland, OR 97227
Ph: (503) 943-6043
Fax: (503) 288-3327
Email: info@streimer.com
Web: www.metu-streimer.com

Offered in North America exclusively by Streimer, the METU-SYSTEM® is a complete duct system incorporating the highest quality materials including the latest duct components and installation accessories to ensure the lowest overall installed cost. Streimer offers a complete line of duct and accessories, including a wide range of access doors for round and rectangular products, hangers and duct supports, collar and flange connectors for round duct, drain fittings, DuctShield protective film, round and rectangular duct, custom fittings, and more.

DUCT FITTINGS MANUFACTURING EQUIPMENT



Duravent Group™
28 W. Adams
Detroit, MI 48226
Ph: (800) 835-4429
Fax: (800) 549-2679
Email: info@duraventgroup.com
Web: www.duraventgroup.com

Contacts:
Jackie Cooper
Director of Marketing
Email: jcooper@duraventgroup.com

Lori Baustert
Marketing Specialist
Ph: (313) 887-4715
Email: lbaustert@duraventgroup.com

Scott Smith
VP Commercial Sales
Email: ssmith@duraventgroup.com

Duravent Group brands, Selkirk® and Ampco®, offer top-quality duct system components and accessories for the commercial HVAC and sheet metal industries. Energy efficiency and overall performance are greatly improved with round grease duct designs due to less flow resistance. In addition, round systems are much easier to clean, create a tighter seal, and reduce the opportunity for grease accumulation compared to rectangular systems, decreasing the risk of fire.

Products & Services Buyers' Guide

DUCTING



Nordfab Ducting
150 Transit Avenue
Thomasville, NC 27361
Ph: (336) 821-0801
Toll-Free Ph: (800) 532-0830
Email: info@nordfab.com
Web: www.nordfab.com

Nordfab Ducting manufactures Quick-Fit®, a modular ductwork system for dust, mist, and fume collection. QF® duct can be installed in half the time of traditional ducting and is easily disassembled, cleaned, and reassembled without tools. Galvanized or stainless steel construction. Range of duct material thicknesses (gauges) to suit a variety of applications, including highly abrasive dust conveyance or other excessive wearing or heavy gauge specification. Nordfab also manufactures flanged ducting in diameters up to 72". Nordfab's maxim is to be Fast, Friendly and Reliable. We offer not only a superior product manufactured in an ISO-certified and quality-oriented environment but resources for designing installations and a large inventory of products which allows us to ship very quickly. Nordfab's resources for designing ductwork installations includes our new Revit® files for BIM projects; our online 3D drawing tool, Quick-Fit Visual®; an AutoCAD plug-in, NordCAD™; and our own team of experts. Quick-Fit Visual provides an immediate quote, bill of material, and installation plan. Users can export a CAD file which can be imported into more comprehensive facility drawings. Nordfab dealers can place orders for their customers within minutes of creating a QFV design. QFV is designed to incorporate Nordfab's standard Quick-Fit® Ducting so that orders can be quickly shipped. Nordfab recently expanded in order to stock standard items needed for most typical installations. Customers placing orders for Nordfab Now items can expect their order to ship the next business day after order placement. Other Nordfab orders are typically shipped within 3 to 4 days.

DUCTS & FITTINGS/SHEET METAL



Accu Duct Mfg.
316 Ellingson Road
Algona, WA 98001
Ph: (253) 737-2121
Email: jhermanson@accuduct.com
Web: www.accuduct.com

AccuDuct Manufacturing began providing products to the HVAC industry in 1987. Since then, we have grown from a local supplier to a nationally recognized, leading manufacturer of laborsaving duct systems. Our product line includes round, oval, rectangular and SpiraQuad™ duct and fittings fabricated from a variety of materials. We are motivated by customer satisfaction and continually strive to deliver competitively priced, quality products on the tight schedules you demand. Please visit our website at www.accuduct.com.



Southerntier Custom Fabricators, Inc.

1322 College Avenue
Elmira, NY 14901
Ph: (607) 732-0927
Fax: (607) 732-4774
Email: info@stcf.com
Web: www.stcf.com

Southerntier Custom Fabricators' team manufactures world-class HVAC air handling systems and specialty fabrications for the Commercial, Educational/Institutional, and Industrial marketplace – from design to delivery in a fully automated 39,000+ square foot facility. We work in partnership with our customers to provide a Superior Finished Product, Quick Turn-around, and Dependable Service. Contact us for a competitive quote on your next project.

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Web: www.shopRPMachine.com

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Ph: (973) 383-8994
Email: lisa@rpmach.com

RP Machine is a leading distributor of HVAC/Sheet Metal Fabrication machinery, tools, and service in the US and internationally. We represent top brands - Duro Dyne, Flagler, Mestek (Lockformer, Engel, Lion, Iowa Precision), Norlok, Roper Whitney, Roto-Die, Tennsmith as well as supporting parts for Doran Air Hammers and Wilder Slitters. We set the standard for machinery repairs - with parts and supplies on hand to get your operation up and running fast. RP Machine provides machinery solutions that save time and money.

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Aurora, IL 60502
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Fax: (630) 406-0664
Email: i.rubio@grippl.com
Web: www.grippl.com

Grippl is a 100% employee-owned US manufacturer of suspension methods for MEP services since 1998. Based in Aurora, Illinois, our products range from SMACNA-verified load-rated cable hanger kits (Standard Hanger, Express Hanger, UniGrip Hanger), to pre-cut rigid suspension solutions for trapezing VRF lines & piping (Fast Trak), to cast-in-place concrete inserts (Spider), to seismic & Anti-Terrorism/Force Protection bracing for suspended services (Seismic Cable Bracing). All Grippl products are fast, versatile, safe, and secure.

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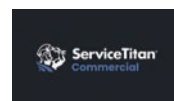
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Norlok Technology Inc.

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Brantford, ON N3S-7V2
Ph: (519) 759-5896
Fax: (519) 759-2948
Email: rboatright@norlok.com
Web: www.norlok.com

Norlok Technology is the leader in design and manufacturing of clinching machines. Cold drawn process for fastening metal. Replaces spot welding and riveting. Fasten 2 layers 30ga up to 2 layers 14ga mild steel or 18ga stainless steel (with options). Floor mounted, portable and custom designed clinching machines. Reliable, safe, trusted clinching technology specialists for over 30 years.

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Email: kwong@servicetitan.com
Web: www.servicetitan.com

ServiceTitan is the operating system that powers the trades. Trusted by over 12,000 of the most successful contractors in the industry, our platform's comprehensive capabilities - from CRM, ERP, FSM, Fintech, Accounting Integrations, and more - enable complete control of your business from one place. We empower commercial and residential contractors to optimize their workflows for greater productivity and profits that drive unlimited scalability.

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For nearly 80 years, we have exceeded expectations in all aspects of the commercial and industrial chimney vent market. And for 30 years, we have provided round, listed and labeled factory-built grease ducts to the commercial kitchen ventilation market. We have been at the forefront of venting solutions for HVAC applications. From stainless steel vents to Free Standing Engineered Chimneys, you can be assured that a Van-Packer stack will meet all requirements of the job.

HVAC



Central States Machinery
1180 Mason Cir
Pevely, MO 63070
Ph: (636) 349-9449
Email: twalsh@plasma-automation.com
Web: www.centralstatesmachinery.com

Central States Machinery is the Midwest's leading distributor of NEW & USED Fabricating, HVAC, Plasma and Liner Cutting Machinery. Every machine sold by Central States Machinery is backed by professionals with 40+ years of experience in the industry. Customer Service is top priority. The dedicated sales staff guides the customer to ensure they only purchase what they need. Central States Machinery's knowledgeable technicians provide continued support honoring the promise "Servicing What We Sell".

HVAC DUCT JACKETING SYSTEMS



BUILDING PRODUCTS CORP.
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Coshocton, OH 43812
Ph: (800) 882-7663
Email: info@mfmbsp.com
Web: www.flexclad.com

Contact:
Tony Reis
President
Ph: (740) 622-2645
Email: treis@mfmbsp.com

MFM Building Products is the exclusive manufacturer of FlexClad™, a multi-layered, flexible jacketing system that protects critical duct and piping against the toughest environments. This pre-fabricated, self-adhering waterproofing membrane resists water leaks and vapor transmissions, preserves the efficiency of thermal insulation, and the UV-resistant embossed aluminum top surface reduces energy costs. Easy to install and self-sealing, FlexClad comes in two material thicknesses: FlexClad-400™ (40 mil) and FlexClad-250 (25 mil). Request your FREE sample at www.flexclad.com.

HVAC PLASMA CUTTING MACHINES/ DUCT FABRICATION EQUIPMENT



Tin Klocker, TAAG Machinery
1257B Activity Drive
Vista, CA 92081
Ph: (800) 640-0746
Fax: (760) 727-9948
Email: info@taagind.com
Web: www.tinklocker.com

Tin Klocker is proud to celebrate two decades of supplying industrial quality, affordable sheet metal working machinery to American contractors (HVAC, Insulation, Sign, Roofing, and more). Conceived from need and built on customer satisfaction, the Tin Klocker brand was established in 1998 with only three models. Today, we offer nearly 50 models, shipping worldwide. Family owned and operated since 1986 TAAG Industries Corp., "The Tin Klocker People", strive to be the leader in low-tech sheet metal working machinery. www.tinklocker.com.

INSULATION



Kingspan Insulation
2100 RiverEdge Parkway, Suite 175
Atlanta, GA 30328
Ph: (678) 589-7300
Email: craig.lynn@kingspan.com
Web: www.kingspaninsulation.us

Kingspan Insulation LLC is a leading manufacturer in energy efficiency and moisture management products, offering high performance insulation, building wraps and pre-insulated ductwork. The Kingspan KoolDuct System is an advanced and innovative pre-insulated HVAC ductwork system which offers benefits such as reduced installation time, low weight, space savings through flush-to-ceiling installation, increased performance and energy efficiency. Kingspan KoolDuct is UL 181 listed and can easily attain a SMACNA Class 3 air leakage.

MANUFACTURING



Retrotec
1060 East Pole Road
Everson, WA 98247
Ph: (855) 738-7683
Fax: (360) 647-7724
Email: sales@retrotec.com
Web: www.retrotec.com

Retrotec is the world's leading manufacturer of blower doors, duct testers, digital manometers, and air leakage testing software. The company's equipment is used around the world by demanding professionals. Retrotec's Large Building Duct Testers are high powered, handheld, and a fraction of the weight of competing units. Our advanced Blower Door Systems allow for building testing at any size. Experience precision and adaptability with the new Solo Single Channel Manometer. This cutting-edge digital gauge is accurate and versatile, all while maintaining affordability. Perfect for Zonal Pressure Diagnostics, house pressures, dominant duct leakage, static pressure measurement 10" W.C., radon mitigation, and CAZ testing.



VORTEQ

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Ph: (815) 338-6410
Email: polyduqt@vorteqcoil.com
Web: www.vorteqcoil.com

VORTEQ has been a trusted American source for quality coil coated steel and aluminum. With nine facilities strategically located near Milwaukee, Chicago, Pittsburgh, Philadelphia, Memphis and Los Angeles. VORTEQ differentiates itself by offering a broad range of aluminum and steel coil coating services to the industry, across ten distinctly different coating lines. VORTEQ works with customers in diverse markets to offer industry specific services including wide and narrow coil coating, printing, slitting and embossing for a wide range of building products, transportation, automotive, signage, and lighting end markets.

PLASMA CUTTING MACHINES



Production Products, Inc
30500 Potomac Way
Charlotte Hall, MD 20622
Ph: (301) 472-4200
Email: robert@ppiduct.com
Web: www.ppiduct.com

Production Products, Inc. (PPI) is a worldwide supplier of innovative HVAC metal forming machinery, supplies, and tools. From Pittsburgh machines to Plasma and Laser Cutting Systems. We are the industry leader in retrofitted control systems for most any Plasma Table and Coil Lines. We have a huge inventory of new and used machinery in our 30,000 square foot state of the art warehouse and showroom. PPI stocks a huge inventory of Plasma Cutting labels, torch consumables, and many hard to find parts. We also stock a variety of tools such as Pittsburgh Air Hammers, Cleat tools, Corner tools and many more.



Vicon Machinery LLC/Plasma Automation Inc.
1801 Arctic Avenue
Bohemia, NY 11716
Ph: (636) 349-8999

Plasma Automation, Inc. is your "One Source. One Solution" for your fabrication and precision cutting needs. Innovative technology, impeccable programming, and unrivaled support; our state-of-the-art systems reduce material waste and operating costs while producing a superior product. It is with pride we can say, Plasma Automation, Inc. cutting systems are 100% designed, engineered, manufactured and supported in the USA. We build the machine, we write the software, and we support the customer. It is that simple.

Products & Services Buyers' Guide

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The Pate Company
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Lombard, IL 60148
Ph: (630) 705-1920
Fax: (630) 705-1930
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Web: www.sdsbinderworks.com

Created by construction safety directors, SDS BinderWorks has been assisting contractors with managing their Safety Data Sheets since 2003. If you're looking for ways to reduce costs and save time, while simplifying your company's compliance with today's OSHA Hazard Communication requirements, please contact us today to learn more about our services and mobile app for iOS and Android. SDS BinderWorks has subscription plans to meet a variety of budgets and needs.

SHEET METAL ACCESSORY PRODUCTS



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Canonsburg, PA 15317
Ph: (888) 973-7600
Email: ryan@clward.com

CL WARD provides a wide array of sheet metal accessory products. We have set the standard for quality products and five star service in our industry. Having been one of the originators of the four bolt connector, we have expanded our product line to include items such as access doors, sealants and adhesives, turning vane/rail, hanging systems and more. CL WARD not only offers these products, but we also offer technical support to ensure you utilize our products to their fullest potential as well as providing personal service.

SHEET METAL FABRICATION EQUIPMENT, MACHINERY & TOOLS



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Fax: (620) 345-6381
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Web: www.bradburygroup.com

Bradbury designs and manufactures Automated Production Systems that can combine roll forming, cut-to-length, and slitting with various other processes, such as punching, feeding, and bending, to incorporate a complete manufacturing process into one production line. A variety of options are available from coil-fed to blank-fed lines and the sub-assembly of components for your heating, ventilating, and air conditioning wrappers. We are dedicated to producing high-quality, productivity-enhancing metal processing equipment for customers around the world.



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Mestek Machinery
5480 Sixth Street
Cedar Rapids, IA 52404
Ph: (319) 364-9181
Email: sales@mestekmachinery.com
Web: www.mestekmachinery.com

Mestek Machinery is the industry-leading designer and manufacturer of the most complete, productive, and innovative metal forming solutions for the fabrication of HVAC sheet metal ductwork and fittings. With a combined knowledge and experience spanning over 85+ years, several brands, and expanded network of dealers around North America, Mestek Machinery supports all HVAC and sheet metal forming and fabricating equipment needs. Our brands include Lockformer, Engel, Iowa Precision, and Roto-Die.



Mestek Machinery/Engel
5480 Sixth Street
Cedar Rapids, IA 52404
Ph: (319) 364-9181
Email: sales@mestekmachinery.com
Web: <https://mestekmachinery.com/engel/>

Engel is recognized as one of the leading suppliers of quality sheet metal forming machinery and systems. Since 1949, Engel has been designing and building practical, cost-efficient equipment providing solutions to solve a broad range of HVAC sheet metal duct fabrication manufacturing challenges. Engel's line of machinery and related equipment includes automated duct forming lines, roll formers, and corner insertion and seam closing technology.



Mestek Machinery/Iowa Precision
5480 Sixth Street
Cedar Rapids, IA 52404
Ph: (319) 364-9181
Email: sales@mestekmachinery.com
Web: <https://mestekmachinery.com/iowa-precision/>

With the experience and proven know-how to develop systems meeting specific customer goals, Iowa Precision is the worldwide leader in custom designed and manufactured automated coil processing systems. Iowa Precision produces automated HVAC coil lines, duct fabrication systems, seam closers, and corner insertion machines with advanced technologies, field-proven and guaranteed to outperform even the most demanding expectations. Iowa Precision proudly makes the industry's finest products like Fabriduct®, Profabriduct®, Ductomatic, Cornermatic®, Whisperloc®, and elbow machines.



Mestek Machinery/Roto Die
5480 Sixth Street
Cedar Rapids, IA 52404
Ph: (319) 364-9181
Email: sales@mestekmachinery.com
Web: <https://mestekmachinery.com/roto-die/>

Since 1965, Roto-Die's unique hydraulic sheet metal bending technology has been an industry standard in HVAC and metal fabrication shops. Roto-Die's equipment is versatile and economical, satisfying a wide range of sheet metal bending and forming needs. Commercial or residential, interior or exterior, Roto-Die has a variety of bending applications. Heavy-duty hydraulics are used in all our sheet metal brakes, making bending operations quick, easy, and operable by just one operator.



Mestek Machinery/Lockformer

5480 Sixth Street
Cedar Rapids, IA 52404
Ph: (319) 364-9181
Email: sales@mestekmachinery.com
Web: <https://mestekmachinery.com/lockformer/>

Starting in 1938, Lockformer has decades of experience and has become the most recognized name in the sheet metal machinery industry. Lockformer is the world leader in the production of HVAC rollforming equipment, Vulcan cutting systems, and the TDC rollformer, which revolutionized the ductwork connection method around the globe. Lockformer sets the standard for product quality, performance, customer service, and integrity – the standard against which every other equipment manufacturer in the HVAC industry is judged.

SOFTWARE



ESTIMATING SOFTWARE

FastEst, Inc.

400 N. Woodlawn, Suite 101
Wichita, KS 67208
Ph: (316) 618-1066
Fax: (316) 618-1064
Email: mark.oxler@fastest-inc.com
Web: www.fastest-inc.com

FastEST's programs, FastPIPE® and FastDUCT® are trusted by thousands of contractors across North America to help streamline their estimating process and improve their company's bottom line. All our estimating programs come standard with a full comprehensive material cost and labor database. With affordable purchase and lease options available, and online training included, FastEST estimating programs are designed to be efficient and user-friendly. Call us at 800-828-7108 or visit our website, www.fastest-inc.com for a demo today!

SOLDER, FLUXES, EQUIPMENT FOR JOINING



Johnson Manufacturing Company

114 Lost Grove Road, PO Box 96
Princeton, IA 52768
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Fax: (563) 289-3825
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Web: www.johnsonmfg.com

Johnson Manufacturing Company, since 1909, has the largest variety of industrial soldering fluxes available, including tinning compounds, general purpose fluxes, and Sal-Ammoniac Blocks. Our fluxes are designed for use on light gauge metals, including aluminum. We produce Tin-Lead and Lead-Free solders. Revere Copper recommends our #497 alloy and our E127 Flux-'N-Solder for use on their Lead-Free Roofing materials. We also carry soldering coppers, fiberglass acid brushes, and other tools needed by SMACNA members.

SPIRAL & OVAL PIPE & FITTINGS



Linx Industries

2600 Airline Boulevard
Portsmouth, VA 23701
Ph: (800) 797-7476
Fax: (757) 488-5672
Email: orders@li-hvac.com
Web: www.li-hvac.com

Contact:
Customer Service
Ph: (800) 797-7476
Email: orders@li-hvac.com

Linx Industries leads the North American ventilation market by supplying the highest quality air distribution products, supported by superior service and industry leading solutions. We operate as a team with a pooled knowledge base of experience in an environment conducive to growth.



Sheet Metal Connectors, Inc.

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Minneapolis, MN 55432
Ph: (763) 572-0000
Email: ryanb@smcduct.com
Web: www.smcduct.com

Complete Seal™ from Sheet Metal Connectors, Inc. will save you time and money. The double-legged EPDM rubber gasket ensures an airtight seal when slipped into spiral pipe. And with Complete Seal™ there is no need to caulk. No more messy, time-consuming and unsightly connections. Available in diameters from 4 to 24 inches, the Complete Seal System™ is durable, attractive and meets SMACNA Leakage Class 3. Look to SMC for state-of-the-art, high-efficiency duct systems.



Stamped Fittings, Inc.

217 Lenox Avenue
Elmira Heights, NY 14903

Stamped Fittings is a yellow label union HVAC sheet metal product manufacturer. We offer a complete line of round components from 3" to 60" - available in both conventional and gasketed. The EDGE high efficiency self-sealing gasketed duct system meets SMACNA Class 3 leakage. Our state-of-the-art manufacturing facility, specific to round duct, utilizes the latest automated technology resulting in quality, short lead times and a competitive price. We take pride in our customer service and offer the personal approach of a family business.

Products & Services Guide: Index of Advertisers

3D DESIGN LAYOUT SOLUTIONS

Nordfab Ducting..... 54
www.nordfab.com

ACCESS DOORS, DUCTS

Nordfab Ducting..... 54
www.nordfab.com

ADHESIVES

Berry Global, Inc. 53
www.berryplastics.com

ANGLE RINGS/FLANGES

Nordfab Ducting..... 54
www.nordfab.com

BALANCING/TESTING

Verify Inc. 53
verifytab.com

BLAST GATES

Nordfab Ducting..... 54
www.nordfab.com

CAD DESIGN PROGRAMS

Nordfab Ducting..... 54
www.nordfab.com

CHIMNEY SYSTEMS

The Schebler Co. 30
www.scheblerchimney.com
Van-Packer Company..... 36, 38, 53, 54
www.vpstack.com

COIL PROCESSING MACHINES

Production Products, Inc 55
www.ppiduct.com
Vicon Machinery LLC/
Plasma Automation Inc..... 53, 55
www.viconmachinery.com/

CUSTOM HOODS, PANELS & TRIM

Nordfab Ducting..... 54
www.nordfab.com

CUSTOMIZED DUCTS/DAMPERS

Nordfab Ducting..... 54
www.nordfab.com

CUSTOMIZED PACKAGING

Balcan Innovations..... 21
www.balcaninnovations.com

DAMPERS, ACTUATORS & HVAC CONTROLS

Ruskin Company 10
https://www.airdistribution.com/index.aspx

DUCT & HVAC INSULATION PRODUCTS

Berry Global, Inc. 53
www.berryplastics.com
Flexmaster Canada Ltd - Novaflex Group..... 17
www.flexmaster.com
Johns Manville 53
www.jm.com
Mestek Machinery 3, 56, 57
https://mestekmachinery.com

METU-STREIMER 53
www.metu-streimer.com

Superior Duct Fabrication..... Inside Back Cover
www.sdfab.com

Vorteq Coil Finishers, LLC..... 55
www.vorteqcoil.com

DUCT COATINGS SERVICE

Vorteq Coil Finishers, LLC..... 55
www.vorteqcoil.com

DUCT CONNECTOR FLANGE SYSTEMS

Nordfab Ducting..... 54
www.nordfab.com

DUCT CONNECTORS/SPIRAL PIPE/DUCT FABRICATION

SSM Industries..... 25
www.ssmi.biz

DUCT FITTINGS MANUFACTURING EQUIPMENT

Duravent Group™ 53
www.duraventgroup.com

DUCT HARDWARE

Rossi HVAC Hardware 25
www.rossihardware.com

DUCT INSULATION

Covertex Flexible Packaging 38
https://rfoil.com/
Knauf Insulation 32-33
https://www.knaufinsulation.com/
Polyguard Products Inc..... 6
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Nordfab Ducting..... 54
www.nordfab.com

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Berry Global, Inc. 53
www.berryplastics.com

DUCTING

Nordfab Ducting..... 54
www.nordfab.com

DUCTS & FITTINGS/SHEET METAL

Accu Duct Mfg. 54
www.accuct.com
Sheet Metal Connectors, Inc 57
www.smcduct.com
Southerntier Custom Fabricators, Inc. 54
www.stcf.com
Superior Duct Fabrication..... Inside Back Cover
www.sdfab.com

DUCTS - FLEXIBLE

Nordfab Ducting..... 54
www.nordfab.com

DUCTS - ROUND/MANUFACTURES

Nordfab Ducting..... 54
www.nordfab.com

DUST COLLECTION

Nordfab Ducting..... 54
www.nordfab.com

FABRICATING MACHINERY

Levi Industrial Spiral Forming Heads 6
www.LeviTool.com
Mestek Machinery 3, 56, 57
https://mestekmachinery.com
R.P. Machine LLC 54
www.shopRPMachine.com

Products & Services Guide: Index of Advertisers

FASTENERS

Griplock Sys 23
<https://griplocksyste.ms.com/>
 Gripple, Inc. 54
www.gripple.com

FASTENING/CLINCHING MACHINES

Norlok Technology Inc. 54
www.norlok.com

FIELD SERVICE MANAGEMENT SOFTWARE

ServiceTitan 54
www.servicetitan.com

GREASE DUCTS

Van-Packer Company..... 36, 38, 53, 54
www.vpstack.com

GRILLS/REGISTERS/DIFFUSERS

Titus 14
<https://www.airstribution.com/index.aspx>

HANGERS & SUPPORTS

Griplock Sys 23
<https://griplocksyste.ms.com/>

HEATING & AIR CONDITIONING

Levi Industrial Spiral Forming Heads 6
www.LeviTool.com

HVAC

Central States Machinery 55
www.centralstatesmachinery.com
 SSM Industries 25
www.ssmi.biz
 TSI Inc. 24
www.tsi.com

HVAC & IAQ TEST INSTRUMENTS

Shortridge Instruments, Inc. 36
www.shortridge.com

HVAC DUCT JACKETING SYSTEMS

MFM Building Products Corp..... 55
www.flexclad.com

HVAC INSULATION PRODUCTS

Berry Global, Inc. 53
www.berryplastics.com

HVAC PLASMA CUTTING MACHINES/DUCT

FABRICATION EQUIPMENT

Bradbury Company Inc..... 56
www.bradburygroup.com
 R.P. Machine LLC 54
www.shopRPMachine.com
 Tin Knocker, TAAG Machinery..... 55
www.tinknocker.com

HYDRAULIC BENDERS

Mestek Machinery 3, 56, 57
<https://mestekmachinery.com>

INSULATION

Kingspan Insulation..... 55
www.kingspan.com

INSULATION BLOWING MACHINES

Heat Seal Equipment..... Inside Back Cover
www.heatsealequipment.com

LASER CUTTING MACHINES

Production Products, Inc 55
www.ppduct.com
 Vicon Machinery LLC/
 Plasma Automation Inc..... 53, 55
www.viconmachinery.com

LIFTS - PORTABLE

Vermette Machine Co., Inc. 46
www.vermettlifts.com/

MACHINERY SERVICE

R.P. Machine LLC 54
www.shopRPMachine.com

MANUFACTURING

Levi Industrial Spiral Forming Heads 6
www.LeviTool.com
 Retrotec 19, 55
www.retrotec.com
 Sheet Metal Connectors, Inc 57
www.smcduct.com
 Superior Duct Fabrication..... Inside Back Cover
www.sdfab.com
 Vorteq Coil Finishers, LLC..... 55
www.vorteqcoil.com

MASTICS & ADHESIVES

Berry Global, Inc. 53
www.berryplastics.com

PLASMA CUTTING MACHINES

Mestek Machinery 3, 56, 57
<https://mestekmachinery.com>
 Production Products, Inc 55
www.ppduct.com
 Vicon Machinery LLC/
 Plasma Automation Inc..... 53, 55
www.viconmachinery.com

PLASMA TABLES

Mestek Machinery 3, 56, 57
<https://mestekmachinery.com>

PORTABLE ROLL FORMING

Bradbury Company Inc..... 56
www.bradburygroup.com

PRESS BRAKES

Mestek Machinery 3, 56, 57
<https://mestekmachinery.com>

RECTANGULAR DUCT & FITTINGS

Sheet Metal Connectors, Inc 57
www.smcduct.com
 Southerntier Custom Fabricators, Inc. 54
www.stcf.com
 Superior Duct Fabrication..... Inside Back Cover
www.sdfab.com
 Van-Packer Company..... 36, 38, 53, 54
www.vpstack.com

RENTAL EQUIPMENT PRODUCTS

Levi Industrial Spiral Forming Heads 6
www.LeviTool.com

ROLL FORMING

Bradbury Company Inc..... 56
www.bradburygroup.com
 Vicon Machinery LLC/
 Plasma Automation Inc..... 53, 55
www.viconmachinery.com/

Products & Services Guide: Index of Advertisers

ROOFING PRODUCTS, MATERIAL & ACCESSORIES

Berry Global, Inc.....	53
www.berryplastics.com	
The Pate Company.....	56
www.patecurbs.com	

ROUND & OVAL FLANGE CONNECTORS

Nordfab Ducting.....	54
www.nordfab.com	

SAFETY

SDS BinderWorks.....	56
www.sdsbinderworks.com	

SHEET METAL ACCESSORY PRODUCTS

C.L. Ward & Family.....	56
www.clward.com	

SHEET METAL BENDERS

Mestek Machinery.....	3, 56, 57
https://mestekmachinery.com/engel/	

SHEET METAL FABRICATION - SPIRAL, ROUND & RECTANGULAR

Nordfab Ducting.....	54
www.nordfab.com	
SSM Industries.....	25
www.ssmi.biz	

SHEET METAL FABRICATION EQUIPMENT, MACHINERY & TOOLS

Bradbury Company Inc.....	56
www.bradburygroup.com	
Levi Industrial Spiral Forming Heads.....	6
www.LeviTool.com	
McMarker Scribe.....	56
www.mcmarkerscribe.com	
Mestek Machinery.....	3, 56, 57
https://mestekmachinery.com	
Nitec.....	26
https://www.nitecinc.com/	
Production Products, Inc.....	55
www.ppiduct.com	
R.P. Machine LLC.....	54
www.shopRPMachine.com	

SHEET METAL FABRICATION REPAIR/SERVICE

R.P. Machine LLC.....	54
www.shopRPMachine.com	

SHEET METAL FABRICATION/EQUIPMENT

Mestek Machinery.....	3, 56, 57
www.mestekmachinery.com	
R.P. Machine LLC.....	54
www.shopRPMachine.com	

SHEET METAL ROLL FORMING MACHINERY

Bradbury Company Inc.....	56
www.bradburygroup.com	
Mestek Machinery.....	3, 56, 57
https://mestekmachinery.com	
R.P. Machine LLC.....	54
www.shopRPMachine.com	

SHEET METAL TOOLS & ACCESSORIES

Duro Dyne Corporation.....	Outside Back Cover
www.durodyne.com	
Milwaukee Tool.....	Inside Front Cover
www.milwaukeetool.com	

SOFTWARE

FastEst, Inc.....	57
www.fastest-inc.com	

SOLDER, FLUXES, EQUIPMENT FOR JOINING

Johnson Manufacturing Company.....	57
www.johnsonmfg.com	

SPIN-IN HIGH EFFICIENCY TAKEOFFS

Sheet Metal Connectors, Inc.....	57
www.smduct.com	

SPIRAL & OVAL PIPE & FITTINGS

Accu Duct Mfg.....	54
www.accuct.com	
Levi Industrial Spiral Forming Heads.....	6
www.LeviTool.com	
Linx Industries.....	57
www.li-hvac.com	
Sheet Metal Connectors, Inc.....	57
www.smduct.com	
Southern Custom Fabricators, Inc.....	54
www.stcf.com	
SSM Industries.....	25
www.ssmi.biz	
Stamped Fittings, Inc.....	57
stampedfittings.com	
Superior Duct Fabrication.....	Inside Back Cover
www.sdfab.com	

SUPPORT SYSTEMS

Griplock Sys.....	23
https://griplocksyste.ms.com/	

SUSPENSION SYSTEMS

Griplock Sys.....	23
https://griplocksyste.ms.com/	

TEST & MEASUREMENT EQUIPMENT

Evergreen Telemetry.....	13
https://evergreentelemetry.com/	

VENTILATION EQUIPMENT

Greenheck.....	4
www.greenheck.com	
Levi Industrial Spiral Forming Heads.....	6
www.LeviTool.com	
Superior Duct Fabrication.....	Inside Back Cover
www.sdfab.com	

WELDERS

Production Products, Inc.....	55
www.ppiduct.com	

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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September							October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7			1	2	3	4	5						1	2	1	2	3	4	5	6	7
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28
29	30						27	28	29	30	31			24	25	26	27	28	29	30	29	30	31				

2

January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1							1			1	2	3	4	5
5	6	7	8	9	10	11	2	3	4	5	6	7	8	2	3	4	5	6	7	8	6	7	8	9	10	11	12
12	13	14	15	16	17	18	9	10	11	12	13	14	15	9	10	11	12	13	14	15	13	14	15	16	17	18	19
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22	20	21	22	23	24	25	26
26	27	28	29	30	31		23	24	25	26	27	28		23/30	24/31	25	26	27	28	29	27	28	29	30			

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May							June							July							August						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7			1	2	3	4	5						1	2
4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9
11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16
18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23
25	26	27	28	29	30	31	29	30						27	28	29	30	31			24/31	25	26	27	28	29	30

5

September							October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6			1	2	3	4							1		1	2	3	4	5	6	
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
28	29	30					26	27	28	29	30	31		23/30	24	25	26	27	28	29	28	29	30	31			

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January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7	1	2	3	4	5	6	7				1	2	3	4
4	5	6	7	8	9	10	8	9	10	11	12	13	14	8	9	10	11	12	13	14	5	6	7	8	9	10	11
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18	19	20	21	22	23	24	22	23	24	25	26	27	28	22	23	24	25	26	27	28	19	20	21	22	23	24	25
25	26	27	28	29	30	31								29	30	31					26	27	28	29	30		

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May							June							July							August						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2			1	2	3	4	5	6			1	2	3	4							1	
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
24/31	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31		23/30	24/31	25	26	27	28	29

6