2023 amca insite technical conference

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Sept. 20-21, 2023

The Fontaine

Kansas City, Mo.

2023 amca insite technical conference

Produced and managed by Air Movement and Control Association (AMCA) International, the not-for-profit association of manufacturers of fans, dampers, louvers, air curtains, and other air-system components for commercial heating, ventilating, and air-conditioning (HVAC); industrial-process; and power-generation applications, the AMCA insite Technical Conference provides in-depth technical education to engineers, architects, contractors, and commissioning providers, with the ultimate goal of improving the comfort, health, safety, and productivity of indoor environments.

The AMCA insite Technical Conference promises to be a practical and useful peer-to-peer learning experience. The speakers, all authorities in their fields, were chosen based on their knowledge and experience with technical training. Their presentations will be free of commercial bias.

The 18 sessions are divided into two tracks: **Air Movement** and **Air Control**. Attendees will not be locked into a track; they will be free to attend sessions across tracks, with the opportunity to earn up to nine professional-development hours.

Schedule

Time	Event	Track
TUESDAY, SEPT. 19		
All day	Arrival	
WEDNESDAY, SEPT. 20		
08:30 a.m. to 09:00 a.m.	Breakfast	
09:00 a.m. to 10:00 a.m.	Introduction to Fan-Systems Application Engineering, Part 1	Air Movement
	Decoding the Carbon-Capture Value Chain	Air Control
10:15 a.m. to 11:15 a.m.	Introduction to Fan-Systems Application Engineering, Part 2	Air Movement
	Understanding and Reducing Air-System Noise	Air Control
11:30 a.m. to 12:30 p.m.	Troubleshooting and Minimizing Fan-System Effect	Air Movement
	Application, Installation, and Maintenance of Life-Safety Dampers	Air Control
12:30 p.m. to 01:30 p.m.	Lunch	
01:30 p.m. to 02:30 p.m.	Regulation of Commercial and Industrial Fans and Blowers Is Here. What That Means for You	Air Movement
	Louvers 101: Selection and Application	Air Control
02:45 p.m. to 03:45 p.m.	Motor Selection and Variable-Frequency-Drive (VFD) Application for Commercial and Industrial Fans and Blowers	Air Movement
	Tornadoes, Hurricanes, and Wind: A Look at Changes to the International Building Code and ASCE/SEI 7	Air Control
04:00 p.m. to 05:00 p.m.	Application of High-Volume, Low-Speed (HVLS) Fans: Selection, Placement, and Performance Considerations	Air Movement
	Wind/Seismic Restraint and Vibration Isolation for Mechanical Equipment	Air Control
THURSDAY, SEPT. 21		
08:30 a.m. to 09:00 a.m.	Breakfast	
09:00 a.m. to 10:00 a.m.	Measuring Fan-System Performance, Part 1	Air Movement
	Introduction to Life-Safety Dampers	Air Control
10:15 a.m. to 11:15 a.m.	Measuring Fan-System Performance, Part 2	Air Movement
	Remote Testing of UL-Rated Life-Safety Dampers	Air Control
11:30 a.m. to 12:30 p.m.	Air-Curtain Technology: The Impact on Building Energy Consumption	Air Movement
	A Close-Up Look at Ceiling Radiation Dampers	Air Control

The Sessions

Introduction to Fan-Systems Application Engineering

By William (Bill) Howarth, president, Ventilation & Fan Consulting Service International LLC, and Ron Wroblewski, PE, president, Productive Energy Solutions

Drawn from the presenters' online course, "Fan Applications Engineering Foundations" (to learn more, click here), this two-part session examines fan and system curves, specifically how they are derived and interpreted, how static pressure and velocity pressure change as air moves through a system, how pressure loss is calculated, how fan-developed pressure interacts with system-pressure requirements, and how the fan-energy-index (FEI) efficiency metric works.

Decoding the Carbon-Capture Value Chain

By Aaron Saldanha, global product manager, carbon capture, utilization, and storage, Howden, a Chart Industries company

A process by which carbon-dioxide emissions are captured and either reused or stored so they will not enter the atmosphere, carbon capture will play a critical role in mitigating climate change. This session will touch on this emerging but continually evolving space by explaining the value chain in terms of sources of carbon dioxide, popular methods of capturing carbon, how fans and compressors play a part in enabling the value chain, and how carbon is used or stored.

Understanding and Reducing Air-System Noise

By John Sofra, director of sales, North America, Kinetics Noise Control Inc.

An often-overlooked aspect of indoor environmental quality (IEQ) is acoustics. Whether from traffic and mechanical equipment outdoors or mechanical and office equipment indoors, noise can adversely affect the comfort, productivity, and even health of building occupants. This session covers the basics of "in-duct" mechanical-noise propagation and how to control it. It includes a walkthrough of a typical acoustical analysis of a commercial HVAC system and a discussion of how to select the correct silencing products and apply their performance.

Troubleshooting and Minimizing Fan-System Effect

By David Maletich, vice president of engineering, The New York Blower Co.

The difference between how a fan performs installed in the field and how it performed when tested in a laboratory can be attributed to a phenomenon known as system effect. This presentation will explain causes of system effect and how to recognize and minimize system effect. Further, it will discuss how fans are tested and rated, describe how ductwork configuration is affected by the placement of inlet and outlet elbows, compare in-situ fan performance with published fan performance, and identify system-design issues impacting fan performance.

Application, Installation, and Maintenance of Life-Safety Dampers

By Dane Carey, director of engineering, TAMCO

Fire, smoke, and combination fire/smoke dampers—referred to collectively as life-safety dampers—are an integral part of active and passive fire-protection systems in commercial and industrial buildings, restricting the spread of flame and smoke in the event of a fire. Considering the stakes, it is imperative for buildings professionals to pay attention to details and understand the finer points of the devices' application, installation, and maintenance.

Regulation of Commercial and Industrial Fans and Blowers Is Here. What That Means for You

By Michael Ivanovich, senior director, global affairs, and Aaron Gunzner, PE, senior manager, advocacy, AMCA International

In a long-anticipated but no less monumental development, regulation has come to the U.S. market for commercial and industrial fans and blowers in the form of a test procedure published by the U.S. Department of Energy and an efficiency regulation approved by the California Energy Commission, both of which took effect in 2023, with a compliance deadline of Oct. 30 for the former and Nov. 16 for the latter. What does this mean for manufacturers and their customers—and for design engineers and contractors? This session will summarize the scope and essential provisions of the two regulations, compare the regulations, and discuss compliance from various perspectives.

Louvers 101: Selection and Application

By Charles DiGisco, business-development manager, architectural louvers, Construction Specialties

An important part of any healthy HVAC system, louvers are designed to protect air-intake and exhaust openings from the ingress of outside elements, such as water, windborne debris, and sand and dust. This presentation provides an introduction to louvers. Included will be discussion of louver components, types, performance, and sizing.

Motor Selection and Variable-Frequency-Drive (VFD) Application for Commercial and Industrial Fans and Blowers

By Jim Meats, PE, vice president, sales and marketing, Loren Cook Co.

With the arrival of regulations for commercial and industrial fans and blowers, motor selection and application is more important than ever. The proper selection of a motor can dramatically affect the wire-to-air power consumption of a fan, while the misapplication of a motor can be problematic and even dangerous. This session will explore the selection and application of motors for commercial and industrial fans and blowers.

Tornadoes, Hurricanes, and Wind: A Look at Changes to the International Building Code and ASCE/SEI 7

By Amanda Hickman, president/consultant, The Hickman Group

Applicable to all buildings except detached one- and two-family dwellings and townhouses up to three stories, the 2021 International Building Code (IBC) contains many important changes, including the recent update of its reference to ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*—long an integral part of the IBC—to the 2022 edition. ASCE/SEI 7-22 contains significantly revised wind-load and speed maps that greatly impact building design and construction.

Application of High-Volume, Low-Speed (HVLS) Fans: Selection, Placement, and Performance Considerations

By Christian Taber, BEMP, HBDP, CEM; principal engineer, codes and standards; Big Ass Fans

High-volume, low-speed (HVLS) fans, also known as large-diameter ceiling fans, are large air-circulating fans used to improve indoor environmental quality, reduce building energy consumption, and increase the efficiency of certain industrial processes. This session will provide guidance on sizing and placing HVLS fans in cooling, heating, and process applications; comparing manufacturers' published performance ratings; and avoiding common application mistakes.

Wind/Seismic Restraint and Vibration Isolation for Mechanical Equipment

By Lee Chiddention, director of sales, HVAC market, United States and Canada, Kinetics Noise Control Inc.

Damaging effects of wind and/or seismic activity are of significant concern in many parts of the world. With respect to buildings, damage to inadequately restrained mechanical and electrical systems can be extensive. This presentation will discuss the importance of wind restraint for rooftop equipment, changes to the International Building Code (IBC) regarding wind restraint, seismic restraint of nonstructural components and when it is required, why seismic restraint is needed in non-seismic areas, and vibration-isolation basics, including the selection of isolators using ASHRAE guidelines.

Measuring Fan-System Performance

By Ron Wroblewski, PE, president, Productive Energy Solutions, and William (Bill) Howarth, president, Ventilation & Fan Consulting Service International LLC

Building on the two-part "Introduction to Fan-Systems Application Engineering," this two-part session provides a high-level overview of what goes into the testing of fan-system performance, whether in a laboratory or in the field. The presenters demonstrate how static pressure and total pressure are measured and show proper techniques for connecting a pitot tube to a manometer. Included are discussion of where and how measurements should be taken, how flow rate is calculated, challenges of performing measurements in the field, and alternative methods of measuring flow rate.

Introduction to Life-Safety Dampers

By Michael Bulzomi, product manager, commercial dampers, Greenheck

The leading cause of death from fire is the spread of smoke and toxic gases. Restricting the spread of smoke and toxic gases—as well as flame—is the role of fire-resistance-rated separations (firewalls, fire barriers, fire partitions) and smoke barriers/smoke partitions. Where HVAC ductwork penetrates one of these assemblies, model building codes require the use of a fire, smoke, combination fire/smoke, or ceiling radiation damper to prevent the migration of smoke and/or fire through the ductwork. This presentation covers the basics—installation best practices, code-required testing, and answers to common field questions—of life-safety dampers.

Remote Testing of UL-Rated Life-Safety Dampers

By Mike Coyazo, product manager, air-control solutions, Ruskin

Chapter 7 of the International Fire Code requires that fire dampers be maintained in accordance with NFPA 80, *Standard for Fire Doors and Other Opening Protectives*, and that smoke dampers be maintained in accordance with NFPA 105, *Standard for Smoke Door Assemblies and Other Opening Protectives*. For dampers that do not incorporate fusible links—namely, smoke dampers and most combination fire/smoke dampers and motorized fire dampers—the current editions of NFPA 80 and NFPA 105 allow remote testing as an alternative to visual inspection. This session reviews challenges related to the periodic testing of dampers, explores the changes to NFPA 80 and NFPA 105 allowing remote testing, and describes methods of facilitating remote testing, which can significantly reduce costs while making buildings safer.

Air-Curtain Technology: The Impact on Building Energy Consumption

By David Johnson, director, engineering group, Berner International LLC, and Frank Cuaderno, vice president of sales, Mars Air Systems LLC

Normally installed at a building's entrance, an air-curtain unit (ACU) minimizes the cross-migration of warm and cold air from buoyancy pressures and wind. It also provides environmental separation by repelling airborne dust and dirt, fumes, odors, and flying insects. This presentation will describe the three operating principles of an ACU, identify the main entities involved in issuing ACU-related codes and standards and explain how those codes and standards are applied, compare the advantages and disadvantages of the two types of ACU, and explain the benefits derived from using ACU as an alternative to vestibules.

A Close-Up Look at Ceiling Radiation Dampers

By Michael Bulzomi, product manager, commercial dampers, Greenheck

Ceiling radiation dampers are devices used to limit the passage of heat through duct and air-transfer openings in "ceiling membranes"—typically, fire-rated acoustical ceiling tiles or gypsum board—protecting the structural members of fire-resistance-rated floor/ceiling and roof/ceiling assemblies in the event of a fire. This session will describe the different types of ceiling radiation dampers, review UL floor/ceiling and roof/ceiling designs, and explain how ceiling radiation dampers differ from other life-safety dampers, how to identify ceiling radiation dampers, and how to select the appropriate ceiling radiation damper for a given application.

The Speakers

Michael Bulzomi

With a unique background in the manufacture, marketing, application, and sale of a variety of HVAC products, Michael Bulzomi is product manager, commercial dampers, for Greenheck. He has been involved in the development of building standards, authored numerous white papers and trade-publication articles, and participated on a number of technical committees. He is a member of ASHRAE and the National Fire Protection Association and chair of the AMCA International Fire and Smoke Damper Subcommittee.

Dane Carey

Dane Carey is director of engineering for TAMCO. He has more than 35 years of experience in the HVAC industry, including service on AMCA International's board of directors while at the same time sitting as chair of AMCA International's Air Control Division and Damper Engineering Committee and the technical committees for ANSI/AMCA Standard 500-D, *Laboratory Methods of Testing Dampers for Rating*; AMCA Publication 502, *Damper Application Manual for Heating, Ventilating, and Air Conditioning*; and AMCA Publication 503, *Fire, Ceiling (Radiation), Smoke and Fire/Smoke Dampers Application Manual*. He is a member of ASHRAE technical committees 5.2 (Duct Design) and 5.6 (Control of Fire and Smoke) and the standards technical panel for UL standards 555 (*Fire Dampers*), 555S (*Smoke Dampers*), and 555C (*Ceiling Dampers*). He holds four U.S. patents for air-control dampers.

Lee Chiddention

The director of sales, HVAC market, United States and Canada, for Kinetics Noise Control Inc., Lee Chiddention has spent the majority of his career in business management and sales. He manages a team of five inside sales engineers, 15 applications engineers, and 75 sales representatives across North America and oversees all technical marketing literature and product development, including testing, for HVAC products.

Mike Coyazo

Manager of commercial and life-safety damper products for Ruskin, Mike Coyazo is responsible for new-product development, maintenance, customer training, and marketing. He has 24 years of experience with the company. He is an active member of the National Fire Protection Association and the AMCA International North America Air Movement Code Action and Review Committee.

Frank Cuaderno

The vice president of sales for Mars Air Systems LLC, Frank Cuaderno has more than 25 years of air-systems-industry experience. He is a member of the Air Curtain Engineering Committee, chairs the North America Region Steering Committee, and is a past member of the board of directors of AMCA International. Additionally, he is a member of a number of ASHRAE committees as well as the technical advisory groups for International Organization for Standardization (ISO) Technical Committee 117, Fans, and NSF/ANSI 37, *Air Curtain for Entranceways for Food and Food Service Establishments*.

Charles DiGisco

As business-development manager, architectural louvers, for Construction Specialties, Charles DiGisco provides engineered solutions and specifications to architects, mechanical engineers, façade consultants, and glazing and building-envelope professionals while supporting a network of independent representatives, inside product specialists, and business-unit sales administrators throughout North America. He is an author of five American Institute of Architects-approved continuing-education courses and is an American Institute of Architects-registered provider and a Registered Continuing Education Program-certified presenter.

Aaron Gunzner, PE

Aaron Gunzner, PE, is senior manager, advocacy, for AMCA International. In this role, he works with AMCA committees in North America to develop strategies and tactics that manifest the mission of the association "to advance the knowledge, growth, and integrity of the air-movement-and-control industry." His work generally relates to energy, construction, and life-safety codes and standards and energy-efficiency regulations.

Amanda Hickman

Amanda Hickman serves as president and consultant for The Hickman Group, an independent code-consulting firm based in Plantation, Fla. With 17 years of experience in the development and revision of codes and standards, she creates, oversees, and administers programs to advance clients' objectives throughout the United States, maintaining relationships with numerous regulatory agencies, associations, state code bodies, and other stakeholder groups and serving on numerous committees.

William (Bill) Howarth

The president of Ventilation & Fan Consulting Service International LLC, William (Bill) Howarth has more than 30 years of experience in the fan-and-blower industry, including application, engineering, sales, testing, technical support, and vibration analysis for process and original-equipment-manufacturer customers. He is a member of the U.S. delegation for International Organization for Standardization (ISO) Technical Committee 117, Fans. For more than 20 years, he has been an instructor for the annual North Carolina Industrial Ventilation Course and in 2022 was named the John "Pat" Curran Instructor of the Year.

Michael Ivanovich

Michael Ivanovich is senior director, global affairs, for AMCA International. In this role, he works with AMCA committees in North America, Asia, Europe, and the Middle East to develop strategies and tactics that manifest the mission of the association "to advance the knowledge, growth, and integrity of the air-movement-and-control industry." Most of this work involves energy-efficiency codes, standards, and regulations for fans, dampers, and air curtains. Advocacy arenas include the U.S. Department of Energy, ASHRAE, the International Organization for Standardization (ISO), the International Code Council, and the California Energy Commission.

David Johnson

As director of Berner International LLC's engineering group, David Johnson is responsible for the research, design, development, and certification of all of the company's products and engages in regulatory affairs concerning national, international, and government codes and standards. He has more than 30 years' experience working in the HVAC industry, with a focus primarily on air-curtain systems. He has served on numerous International Organization for Standardization (ISO), ASHRAE, NSF, and AMCA International committees over the past three decades and was AMCA International's president for 2018-2019.

David Maletich

With more than 28 years of experience adapting fans to industrial, municipal, and power applications, David Maletich is vice president of engineering for The New York Blower Co. He serves on various AMCA International and American Society of Mechanical Engineers committees. Additionally, he has presented on a variety of fan-related topics at the Industrial Ventilation Conference and AMCA International, ASHRAE, Occupational Safety and Health Administration, and university events.

Jim Meats, PE

Jim Meats, PE, is vice president, sales and marketing, for Loren Cook Co. With a bachelor's degree in engineering from Kansas State University, he started his career in 1982, designing mechanical and electrical systems for commercial and industrial projects. He has been in HVAC manufacturing since 1987, working for both air-movement and air-control companies. He is chairman of the board of AMCA International for 2022-2023.

Aaron Saldanha

As global product manager for the carbon capture, utilization, and storage (CCUS) value stream for Howden, a Chart Industries company, Aaron Saldanha is responsible for product/market strategy and product optimization to meet legislative requirements in a rapidly evolving space. He has more than 13 years of experience in the fan industry in the United States and India, with roles including engineering/research and development, testing, and sales. He is a technical resource for AMCA and has served as a member of several technical committees for AMCA publications.

John Sofra

As director of sales, North America, for Kinetics Noise Control Inc., John Sofra manages sales and marketing efforts for the North American industrial, environmental, and airflow attenuation markets. This encompasses sound and vibration isolation for industrial "in-plant" equipment and processes, "outdoor" mechanical equipment, and ventilation sound control for HVAC duct systems and industrial fans. He has served on numerous ASHRAE technical committees for acoustics and vibration and taught continuing-education courses on ventilation and acoustics at the University of Wisconsin–Madison.

Christian Taber, BEMP, HBDP, CEM

Principal engineer, codes and standards, for Big Ass Fans, Christian Taber, BEMP, HBDP, CEM, actively participates in the development of building codes, standards, and regulations, frequently collaborating with the International Code Council, AMCA International, ASHRAE, and the U.S. Department of Energy. His contributions to the air-movement industry include leadership roles on committees for test standards, codes, and publications for fans. He has presented his work at various national and international conferences and written several articles published in *ASHRAE Journal*.

Ron Wroblewski, PE

As president of Productive Energy Solutions, Ron Wroblewski, PE, helps owners and operators of industrial and commercial facilities increase productivity and profitability by making more effective use of their fan, pump, and blower systems. He is senior industrial-fan-systems-optimization trainer for the U.S. Department of Energy (DOE) and the United Nations Industrial Development Organization (UNIDO) and designer and presenter of online and in-person educational courses for AMCA International. As part of his work for the DOE, UNIDO, and AMCA International, he has designed and presented seminars around the world.

The Venue

Located in the heart of Country Club Plaza, amid high-end retail establishments, restaurants, and entertainment venues, The Fontaine is a sophisticated destination for business and leisure travel. Walk across custom tile mosaics set into the gleaming marble floors, enjoy intricately carved wood paneling and playful Renaissance artwork adorning the walls, and marvel at the hand-blown Venetian glass chandeliers floating overhead. Each detail is designed to delight the senses while setting a scene of serene sophistication—a place in which guests are both dazzled and utterly relaxed.

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Website: www.thefontainehotel.com

Special group rate: $179, plus applicable taxes and fees, per night. To receive this rate, reserve by Aug. 26.

Registration

Registration includes course material, two buffet breakfasts, one lunch, and coffee/refreshments.

Cost:

Through July 21: $550 per attendee

July 22 through Aug. 26: $700 per attendee

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More than one from your organization attending? Contact us for a special discount code to save $50 per person.

Cancelation/Refund/Substitution Policy

All registration cancellations and refund requests must be submitted in writing to AMCA Meetings and Events Manager Christine Rogers at crogers@amca.org by Aug. 26. A refund of the full conference fee, minus a $100 administrative fee, will be given for requests received by that date. All requests for exceptions to the cancellation/refund policy must be submitted in writing with appropriate documentation by Sept. 22. If a discount was given for multiple attendees and a cancellation results in a single attendance, the discount will be removed.

Prior to the conference, requests for substitutions of full registrations can be made by writing to crogers@amca.org. Requests for substitutions on site must be accompanied by proof of the original confirmation letter. Only one substitution is permitted per original registrant. The individual submitting a substitution request is responsible for all financial obligations (any balance due) associated with the substitution. Badge sharing, splitting, and reprinting are strictly prohibited.

Payment

Payment—in USD by credit card—must be made in full at the time of registration.

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Questions?

For information related to the sessions and speakers, contact Scott Arnold, senior manager, industry engagement and content, at sarnold@amca.org. For all other inquiries related to the event, contact Christine Rogers, manager, meetings and events, at crogers@amca.org.