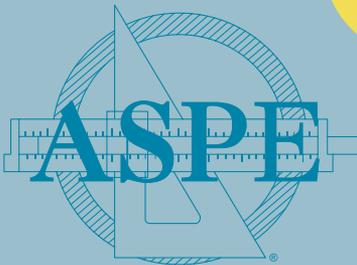


**ADVANCING
THE
PROFESSION
OF PLUMBING
ENGINEERING**

American Society of Plumbing Engineers



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PROFESSIONAL GROWTH AND DEVELOPMENT



The American Society of Plumbing Engineers (ASPE) is the international organization for professionals skilled in the design, specification, inspection, and manufacture of plumbing systems. ASPE is dedicated to the advancement of the science of plumbing engineering, to the professional growth and advancement of its members, and to the health, welfare, and safety of the public.

The Society disseminates technical data and information, sponsors activities that facilitate interaction with fellow professionals, and, through research and education, expands the base of knowledge of the plumbing industry. ASPE members are leaders in innovative plumbing design, effective materials and energy use, and the application of advanced techniques throughout the world.

ASPE was founded in 1964 and currently has more than 6,500 members. Spanning the globe, members are located in the United States, Canada, Asia, Mexico, South and Central America, the South Pacific, Australia, Europe, Africa, Caribbean, and the Middle East. They represent an extensive network of experienced engineers, designers, contractors, educators, code officials, manufacturers, and manufacturer representatives interested in furthering their careers, the profession, and the industry. ASPE is at the forefront of technology. In addition, ASPE represents members and promotes the profession among all segments of the engineering and construction industries.





ASPE MEMBERSHIP QUALITY & VALUE

ASPE Plumbing Engineering Design Handbook



Each year, ASPE members receive the latest volume of the *Plumbing Engineering Design Handbook*, which is the definitive collection of plumbing engineering and design practices. The handbook consists of more than 50 chapters, divided into four volumes, helping you keep up with new ideas and trends, which is critical in today's environment.

Plumbing Engineer Magazine

The official publication of the American Society of Plumbing Engineers is *Plumbing Engineer*, a monthly magazine owned and published by TMB Publishing Inc. *Plumbing Engineer* is the authoritative source of professional and technical information for those involved in the design and specification of plumbing systems. ASPE's monthly member communication "ASPE Report" is published in each issue of *Plumbing Engineer*, and through its Technical & Research Committee, ASPE provides technical guidance and support of the magazine.

ASPE Report

The Society's newsletter, incorporated within *Plumbing Engineer* magazine, keeps members abreast of Society activities and issues impacting the profession.

ASPE.org

ASPE's interactive website, ASPE.org, provides visitors with a vast collection of technical, program, and project information focused on the plumbing engineering industry. Visit ASPE.org and expand your knowledge of plumbing engineering.

Members-only ASPENet Access

A wealth of industry information is available to members 24/7. The members-only section located at ASPE.org provides members with access to special discount pricing on all ASPE products and services. In addition, PDF files of the *Plumbing Engineering Design Handbook* are available, in addition to a host of other information.

Publication and Educational Program Discounts

All publications, educational programs, and other services and products of the Society are offered at special discounted rates to ASPE members.

ASPE Pipeline

The Society's biweekly e-newsletter contains news and views of the plumbing industry. ASPE Pipeline is delivered to all members who have an e-mail address on record. It provides up-to-date information to the members and others in the plumbing industry regarding events, activities, and issues impacting the profession and the industry.

PROFESSIONAL ENRICHMENT & PROFESSIONAL DEVELOPMENT



ASPE Convention and Engineered Plumbing Exposition (EPE)

Offered in even-numbered years, the ASPE Convention and EPE is the premier educational and professional development event for plumbing engineers and designers. The Convention features a comprehensive program of educational, technical, and professional development presentations and seminars designed to enhance professional knowledge and foster awareness of new techniques. The concurrent EPE highlights the latest products and services of interest to plumbing engineers. It is the largest exposition dedicated entirely to the field of plumbing engineering.

ASPE Technical Symposium

ASPE's Technical Symposium is offered in non-Convention years and provides a unique forum for the most comprehensive and intensive half-day and full-day plumbing engineering design seminars and workshops available anywhere. The hands-on workshops provide the plumbing engineer with information about new developments in the industry and new techniques for practical implementation in the field.

Continuing Education Units (CEUs) | Professional Development Hours (PDHs)

ASPE offers the opportunity to earn continuing education units and professional development hours at all of the technical program sessions at the biennial Convention and Technical Symposium and by participating in ASPE webinars. CEUs and PDHs are nationally recognized units of achievement that may be used as evidence of increased performance capabilities and for job advancement.



Technical Seminars and Workshops

ASPE offers one- and two-day programs conducted by leading industry professionals. Each educational program focuses on a specific area of plumbing engineering. Seminar topics include fire protection, domestic water heating design, medical gas and vacuum systems, fire pump system design, Legionella in plumbing systems, and understanding the Uniform Plumbing Code and the International Plumbing Code.



Plumbing Engineering & Design Handbook of Tables Digital App

The Plumbing Engineering & Design Handbook of Tables App is an exact replica of the 2,500-page handbook—except it's in an easy-to-use Adobe Air application. Every chapter is reproduced in HTML or PDF, so you can click through to easily find the information you need. Best of all, instead of paging through hundreds of pages to find sizing data, all you have to do is choose the appropriate pipe material and other design criteria and the sizing data appears instantly!



Anytime is always the right time to invest in yourself and your future.

A wide variety of ASPE e-learning educational opportunities is available for any plumbing engineer, plumbing designer, plumbing contractor, plumbing specifier, professional engineer, or student.

ASPE Online Education will enhance your technical expertise, increase your productivity, and provide career-focused education that fits any lifestyle.

E-learning, also called distance learning, is not a contemporary trend that will fade away. Online education is already an important influence on educational trends and planning.

The amount of knowledge and information that today's plumbing engineers and designers are expected to know continues to expand at an increasing rate. Today's plumbing engineers and designers have the opportunity to be exposed to more new information in one year than previous decades of engineers. The utilization of the available information for analysis and decision making will be critical, not only for advanced education but also for professional advancement.

Inside ASPE Online Education

ASPE online courses provide our members with the benefits of educational opportunities any time, from anywhere. They are accessible 24 hours a day, seven days per week via the Internet. The credits earned (CEUs/PDHs) by successfully completing any of the programs presented are approved in all states including states such as NY, LA, NC, and FL (ASPE is a registered provider).

ASPE's Online Education continues to expand daily with new technical and educational offerings. Programs that are now available or soon will be include:

Electronic Technical Programs

(Electronic Technical Programs incorporate an examination to earn CEUs/PDHs.)

ASPE has developed one-hour PowerPoint presentations on different plumbing engineering and design topics. Current presentations include Fuel Gas Systems, Venting Systems, Sanitary Drainage, Pumps, Accessibility, Commissioning, Energy Relationships with Water Heaters & Boilers, Plumbing for High-Containment Systems, Sizing a Domestic Water Booster System, Medical Gas, Water Reclamation, Grease Interceptors, Solar Water Heating, Rainwater Reclamation, Harvesting Rainwater, Defective Trap Seal Identification System, LEED Points Strategies, Waste & Vent, Fire Pumps Design & Testing, Site and Roof Drainage, Clean Agent Fire Suppression Systems, Structural Adhesives for Joining Systems in Potable Water Plumbing, Hydraulic Calculation Review, Water Purification Mistakes and Miscalculations, Foams, Construction Administration Training, and Sprinkler System Design.

Audio Programs

These programs incorporate a short test to earn CEUs/PDHs. See Electronic Technical Programs for sample topics available.



ASPE Webinar Series

The ASPE Webinar Series provides fast, convenient, and topical one-hour educational presentations via the Internet to the plumbing engineering design and contracting community. ASPE webinars are technical seminars, presentations, lectures, or workshops for plumbing engineers, designers, and contractors that provide interactive elements such as the ability to give, receive, and discuss information. Participants can watch and actively participate in the seminar and receive immediate feedback. Upon successful completion of a short quiz following each webinar, participants earn CEU or PDH credits.

»»»» Online Education helps you become self-motivated and disciplined and improves your time-management skills, which are needed to effectively utilize Internet education and learning opportunities.

If you were unable to participate in a live webinar, an archived version allows you to view and listen to the recorded webinars at a time that is most convenient for you. ASPE members are allowed to view archived webinars for free if the webinar was sponsored during the original broadcast. You can view the webinar as many times as you want. All archived webinars are one-hour contact programs that can provide 0.1 CEU or 1.0 PDH. If you choose to receive CEU/PDH credit for the webinar, you must pre-register and pay a fee, which is provided to you at the time of registration. You receive CEU/PDH credit for each webinar viewed; you do not receive additional credits for multiple viewings of the same webinar.

Webinars available include Sizing Grease Interceptors, Siphonic Roof Drainage, Green Opportunities in Medical Gases, Water Heater Sizing, Green Building: Sustainable Plumbing System Designs and the Plumbing Codes, LEED Points Strategies, Natural Gas & Propane Sizing, Graywater Systems, Fire Suppression Using Clean Agents, and “So You Want to Be an Expert Witness?”

Read and Learn

This is a special education opportunity that is incorporated within the pages of *Plumbing Engineer* magazine.

Every issue of *Plumbing Engineer* includes a link to a special article taken from one of the ASPE publications. Read the article and then take the “check your knowledge” examination and send the completed form to ASPE. Get 90% of the 12 questions correct and you will receive education credits equivalent to one contact hour of instruction (0.1 CEU or 1.0 PDH)—the estimated time it will take the average reader to read the article.

You can take these simple examinations whenever you wish. However, you will only receive credit one time upon passing the examination.



PARTICIPATION & LEADERSHIP OPPORTUNITIES

Members are encouraged to participate in Chapter and Society boards and committees. ASPE's boards and committees cultivate the growth of the Society and the profession, promote education, monitor applicable legislation, encourage research, expand member visibility, and increase opportunities to network with other professionals.

Board of Directors

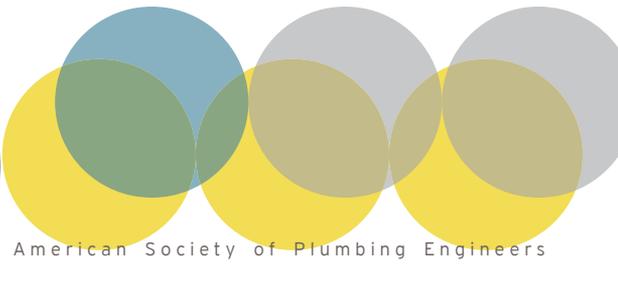
Two levels of board leadership are available: the ASPE Board of Directors and a Chapter's Board of Directors. These boards are instrumental for the development, growth, vitality, and vision of the Society.

Committees

ASPE committees have been instrumental in reviewing topics such as technical standards and plumbing codes (both local and national). They have assisted with the development of policy, position statements, and industry standards to effectively address plumbing engineering and design issues on behalf of the profession. ASPE has 12 active standing committees open to member participation. These are:

- Technical & Research
- Legislative
- Membership
- Convention & Exposition
- Technical Symposium
- Plumbing Engineering Design Handbook
- Education
- Long-Range Planning
- Bylaws
- ASPENet
- Nominating
- Design Standards

In addition, many Chapters have similar committees; all are open to member participation.





Participation in the Engineering Liaison Council permits ASPE leaders to interact with their counterparts at more than 35 engineering societies. In the plumbing industry, ASPE maintains systematic communication with trade associations such as the World Plumbing Council, Mechanical Contractors Association, American Supply Association, American Society of Sanitary Engineering, and Plumbing Manufacturers International.

Standards and Codes

ASPE offers opportunities for members to represent ASPE in the development of codes and standards having a direct impact on the plumbing engineering community. Representation on these committees is a great opportunity for members to network with others involved in building and plumbing issues. In addition, all members are kept abreast of activities and provided with the opportunity to comment on various codes and standards under consideration. Following are examples of code/standard organizations in which ASPE participates:

- American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE)
- American Society of Mechanical Engineers (ASME)
- American Society of Sanitary Engineering (ASSE)
- ASTM International
- International Association of Plumbing and Mechanical Officials (IAPMO)
- International Code Council (ICC)
- National Fire Protection Association (NFPA)
- NSF International
- Plumbing-Heating-Cooling Contractors Association (PHCC)

»»»» **To maintain unbiased and objective independence, ASPE does not endorse one specific model plumbing code. However, ASPE strives to continuously reinforce the importance of consistency in all model codes.**

Governmental Liaisons

The Society maintains liaisons with various federal, state, and local government agencies and departments, including the EPA, DOE, NIST, GSA, Department of Defense, Corps of Engineers, and HUD. ASPE members participate on special government committees such as the EPA Safe Drinking Water Conservation Guidelines Committee.

»»»» **ASPE provides members and the public with a continuing influx of information on developments and issues that impact the profession and the public's health, safety, and welfare.**



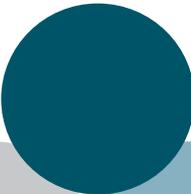
ASPE: PROFESSIONAL EXCELLENCE

- » Direct access to the latest information and technical developments in the field through technical publications, education seminars, ASPENet, and the Chapters
- » Education and professional growth and development opportunities
- » Special publications focused on the latest technical advances and critical industry standards
- » A prestigious, internationally recognized Certification Program
- » The establishment of a plumbing engineering and design curriculum for colleges and universities
- » Peer-to-peer and professional-to-professional interaction and networking opportunities with fellow plumbing engineers internationally
- » Individual recognition and leadership opportunities
- » Representation of the plumbing industry in the development of international codes and standards
- » Ongoing technical research through the ASPE Research Foundation to advance the profession and enhance member expertise
- » Promotion of the Plumbing Engineering profession

ASPE SCHOLARSHIPS

Alfred Steele Scholarship

Alfred Steele, PE, CIPE, was a long-time member of the American Society of Plumbing Engineers and a visionary and pioneer in advocating education and professional development for plumbing engineers and designers. The scholarship is limited to an ASPE member and his/her immediate family; planning a career in engineering; enrolled in a school or program of engineering as a full-time student at a college, university, or technical school; and maintaining a minimum grade point average of 3.0 on a 4.0 scale. Additional information can be found at ASPE.org.





Professional Certification

ASPE sponsors the Certified in Plumbing Design (CPD) program, an international certification program for engineers and designers of plumbing systems. Completion of the CPD program and examination confers upon the successful candidate the designation “Certified in Plumbing Design” or CPD. The certification program provides the profession, the plumbing industry, and the general public with a single, comprehensive qualification of professional competence for engineers and designers of plumbing systems.

The CPD is the only international credential program in the plumbing engineering field. It sets the standards for leadership within the industry and provides formal recognition of outstanding professionals with advanced skills in the design and specification of plumbing systems. The CPD designation is designed to:

- » Establish specific standards for professional competence in the field
- » Identify and recognize those individuals who successfully demonstrate their acquired knowledge and abilities
- » Encourage plumbing engineers to participate in a continuing program of professional development
- » Provide a standard for educational programs in plumbing engineering
- » Enhance the status of plumbing engineering as a unique discipline

The CPD designation is achieved through successful completion of the comprehensive CPD examination and maintained through a biennial recertification program. The examination is held once a year during the month of April. Eligibility requires a minimum of eight years of experience (or equivalent). Created to provide a single, uniform, national credential in the field of engineered plumbing systems, the CPD program is not in any way connected to any state-regulated Professional Engineer (PE) registration.





PUBLICATIONS FOR PLUMBING DESIGN PROFESSIONALS

The Society provides a comprehensive publishing program that offers an extensive library of professional technical manuals and handbooks covering the accepted practices and design criteria used in the field of plumbing engineering. The current publication library can be viewed on the ASPE website at ASPE.org.



Practical Plumbing Engineering is an authoritative guide on designing and installing plumbing systems in residential and commercial facilities.



Illustrated Plumbing Codes Design Handbook takes the guesswork out of plumbing system design, featuring a breakdown of the UPC and IPC by topic, 500 pages of helpful commentary and interpretation of the codes, drawings on every page illustrating code requirements, and a CD-ROM containing all of the CAD drawings for use in your designs.



Plumbing Engineering & Design Handbook of Tables is a comprehensive reference tool that offers in one source volume all the equations, sizing tables, and other engineering and design tables used by plumbing engineers, designers, and contractors on a daily basis. The book includes applicable tables and information from the major plumbing codes and standards used in the United States.



Siphonic Roof Drainage is ASPE's first published plumbing design standard, which will help plumbing engineers and designers design and specify code-approved siphonic roof drainage systems.



Plumbing Technology offers detailed, hands-on methods for the design and maintenance of modern plumbing systems.



Fire Protection Systems outlines a variety of proven fire-fighting design methods and fire protection specifications.



ASPE's *Plumbing Dictionary* contains thousands of words found in the lexicon of plumbing engineers—words used every day in the design of all types of plumbing systems.

PUBLICATIONS FOR PLUMBING DESIGN PROFESSIONALS



Engineered Plumbing Design II is the reference for basic plumbing design of drainage, waste, and vent stacks and domestic water systems for commercial, high-rise, and residential buildings.



Domestic Water Heating Design Manual is an essential reference for sizing, selecting, and designing domestic water heating systems.



Storm Water Drainage Calculator provides a simplified pipe sizing method for building storm water drainage systems. (Drainage from the site and parking lots are outside the scope of the calculator.)



Water Pipe Size Calculator provides a simplified method of sizing water pipe inside buildings.



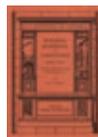
Vent and Drainage System Slide Rule permits the user to set the drainage stack diameter and vent diameter to determine the maximum developed length of vent for the appropriate total fixture units and the developed length of vent for the appropriate slope. The drainage selector section of the slide rule permits the user to set the diameter of the pipe to determine the maximum number of fixture units in relationship to the fall per foot of the appropriate drain or stack.



CPD Review Manual is the indispensable tool for passing the CPD examination. The manual covers the five subject areas included in the examination: Data Gathering, Design, Specifications, Construction Services, and Administration.



The Original Hunter Papers contains exact replicas of three critical papers authored under Dr. Roy B. Hunter—the father of modern plumbing engineering.





CHAPTERS OF THE AMERICAN SOCIETY OF PLUMBING ENGINEERS

All members belong to ASPE worldwide and have the opportunity to belong to and participate in one of the state, provincial, or local chapters throughout the United States and Canada. ASPE chapters provide major communication links and the first line of services and programs for individual members. At chapter functions, members can network with others who represent all segments of the plumbing engineering, design, construction, and services industry. Chapters produce newsletters, conduct monthly technical meetings, and provide opportunities for education, professional development, and information sharing to help the membership stay abreast of current trends, code changes, and technologies in the plumbing engineering profession.

ASPE Chapters

- Alabama
- Atlanta
- Baltimore
- Boston
- British Columbia
- Buffalo-Niagara (NY)
- Capital Region NY
- Central Florida
- Central Illinois
- Central Indiana
- Central New York
- Central Ohio
- Central Texas
- Charlotte
- Chicago
- Cleveland
- Columbia (SC)
- Connecticut
- Dallas/Ft. Worth
- Lubbock (satellite of DFW)
- Oklahoma City (satellite of DFW)
- Tulsa (satellite of DFW)
- Denver
- Eastern Michigan
- East Tennessee
- Greenville (SC)
- Houston
- Intermountain (UT)
- Johnstown (PA)
- Kansas City
- Long Island
- Los Angeles
- Memphis
- Miami
- Minnesota
- Montréal
- Nashville
- New Jersey
- New Orleans
- New York City
- Northern California
- North Florida
- Omaha
- Orange County
- Ottawa Region
- Philadelphia
- Phoenix
- Pittsburgh
- Portland
- Puerto Rico
- Québec
- Raleigh
- Richmond
- Rochester (NY)
- St. Louis
- San Diego
- San Francisco
- Seattle
- Southern Nevada
- Southwestern Ohio
- Virginia Blue Ridge
- Washington, D.C.
- West Coast Florida
- Western Michigan
- Wisconsin





When you join ASPE, you have the opportunity to affiliate with one of the ASPE chapters. Chapter affiliation brings extensive and impressive personal and professional benefits and is at no additional cost.

Networking

Monthly meetings provide a basis for building personal and professional contacts and networking with plumbing engineers, designers, and manufacturers. It's nice to know you're not alone. Chapter meetings offer a unique opportunity for peer-to-peer and professional-to-professional interaction in an informal and friendly setting. Camaraderie is what ASPE is all about.

▶▶▶▶ **You don't need to live near a chapter to belong. Chapter affiliation is at no additional cost and open to every ASPE member. Affiliation provides an extraordinary opportunity and the ability to network, interact, and receive the latest technical information affecting your profession.**

Education and Professional Development

Chapters present technical programs at their monthly meetings and special one- and two-day technical seminars and workshops—exceptional resource opportunities for education and professional growth and development. Many chapters also offer continuing education units (CEUs), an important element for personal growth, professional licensure, recertification, and professional advancement.

Resources

Chapter newsletters, monthly meetings, chapter websites, and libraries of technical materials are important aspects of your education and professional development and the sharing of information. Affiliating with a chapter is a convenient and effective strategy to remain abreast of current trends, code changes, and technologies affecting the plumbing engineering profession.

Recognition and Leadership

A chapter provides unlimited opportunities for individual incentives, professional recognition, and leadership potential: join a committee, put on a technical presentation, offer advice and assistance, become a member of the board of directors, or help implement a product show, golf tournament, or other activity.



MEMBERSHIP CLASSIFICATIONS

Full Member

Eight (8) years of experience in plumbing engineering or related engineering field, a minimum of four (4) years of which must have been in a position of responsibility for the design of plumbing systems or in a position of responsibility for the design of systems and components related to, or incorporated within, plumbing engineered and designed systems. A maximum of four (4) years of experience may be waived by the Society Membership Committee for (a) Education: one-half (1/2) year for each completed year in a curriculum related to plumbing engineering; (b) Engineering Registration: four (4) years for Professional Engineer registration in a field that includes plumbing engineering; (c) CPD certification: two (2) years.

▶▶▶▶ **All professionals involved in the plumbing engineering industry, or related industries, are invited to become active members of ASPE.**

Associate Member

Professionals engaged in plumbing design as consultants or engineers with fewer than eight years of industry experience

Affiliate Member

Any individual involved in the production or marketing of plumbing products

Special Member

Professionals in related fields, such as contractors, or those with a special interest in plumbing design whose professional background does not match the requirements for any of the other categories.

Government Member

Anyone employed by municipal, state, or federal governments for one of the following reasons:

- A. Checking and/or inspection of plumbing plans and installations
- B. The formulation of codes, rules, requirements, and regulations pertaining to the planning, designing, and installation of plumbing systems, or any portion of a plumbing system
- C. Research and development of plumbing systems design criteria (Exception: Persons employed by a government agency for the purpose of designing and/or specifying plumbing systems, who shall be eligible to be Full or Associate members, provided they have fulfilled the experience required as outlined for each respective classification)



Student Member

Any individual attending a recognized university, college, community college, vocational, or technical trade school full time or part time in a curriculum related to plumbing design. Student members are considered to be an introductory level to the Society. Student membership shall be limited to five (5) years, after which time the membership shall be upgraded to an applicable membership classification as deemed appropriate by the Society. Other member classifications shall not be permitted to downgrade to a Student member classification.

Retired Member

Any retired member with ten (10) years of continuous membership in the Society who has reached the age of sixty (60) years and is no longer active in the profession. Members in this category will not receive *Plumbing Engineering Design Handbook* materials and shall pay substantially reduced annual dues (\$35).

Life Member

The Society's Board of Directors, after nomination by a Chapter Board of Directors, may grant upon verification of retirement Life Membership status to any retired person who has been a member in good standing continuously during the past ten (10) years and has demonstrated significant contributions to the Chapter and the Society. The Life member also shall have reached the age of sixty (60) years and no longer be active in the profession. All the rights and privileges of his/her membership shall pertain to this membership category, except that Life members shall not be required to pay annual dues.

Honorary Member

The Society's Board of Directors may recommend, upon its own initiative or when so requested by a two-thirds majority vote of a chapter's membership, Honorary Membership for anyone deemed worthy by action or contribution to the Society or the plumbing profession. Such recommendations shall be ratified by a two-thirds majority vote of delegates at the Society's Convention.

Membership Policies

ASPE is an individual membership society. ASPE membership is individual rather than organizational and is fully portable in the event of a change of employment. Rights, privileges, and substantial discounts are offered to members that may not be transferable to coworkers or nonmembers.

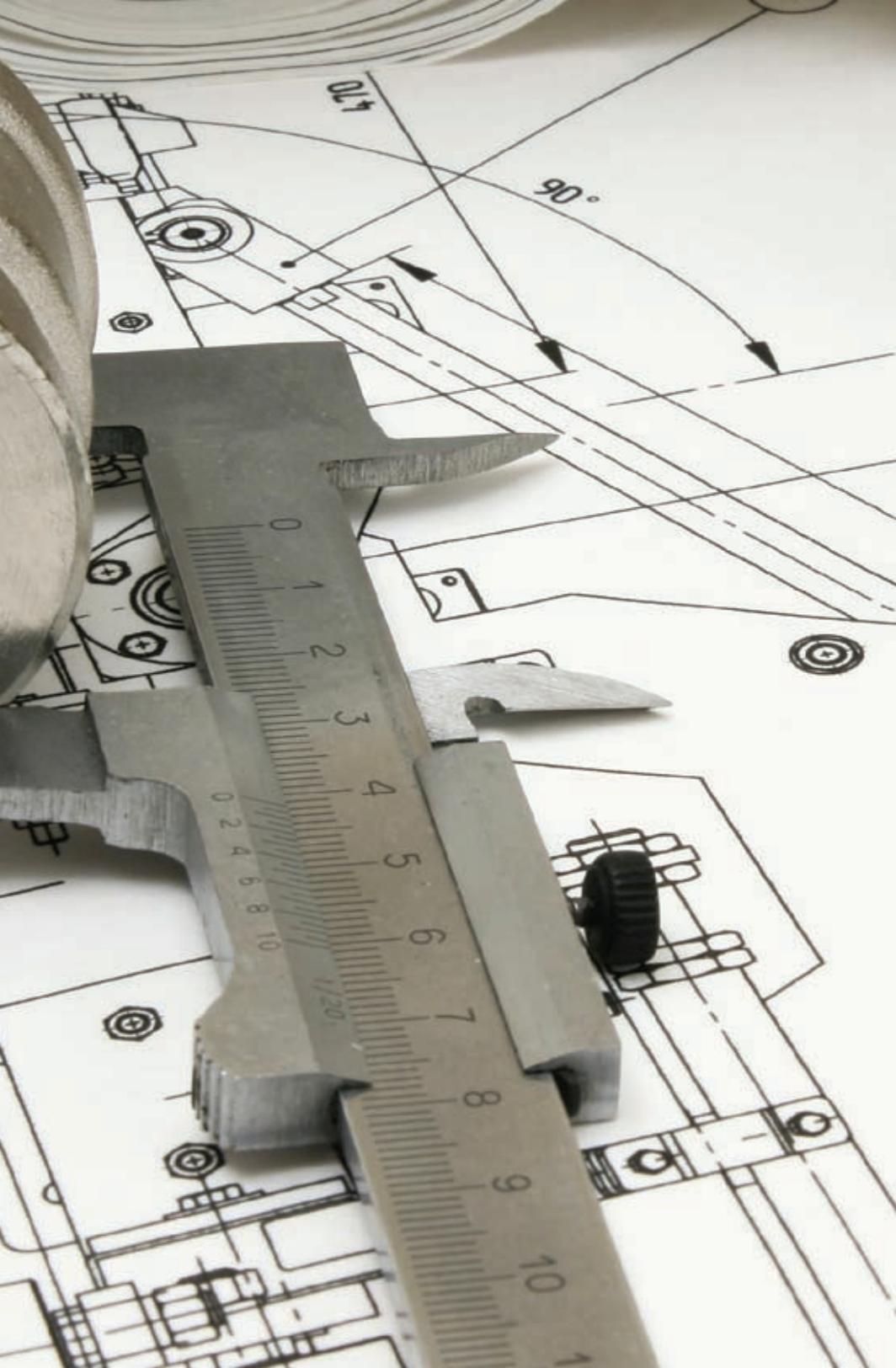


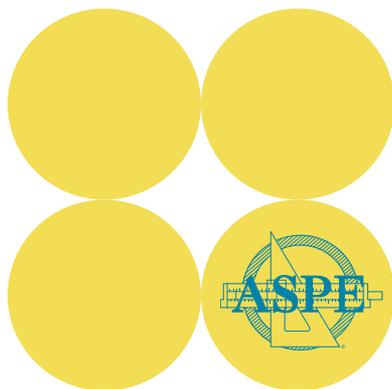
FELLOW MEMBERS, FELLOW FRIENDS



When you join ASPE, you become part of a worldwide family of plumbing engineering professionals. ASPE members communicate and congregate on many levels: at chapter meetings, at national Conventions, via interactive webinars and online forums, on the phone, and through e-mail. In addition to sharing professional knowledge, ASPE members also like to have fun. ASPE Chapters host social networking events throughout the year. With more than 6,500 ASPE members, a fellow professional is never far away.







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