

ASSE Guidelines for Hydronics Systems Certification

- Solar Water Heating System Installers
- Hydronic Heating and Cooling System Installers
- Hydronic Heating and Cooling System Designers

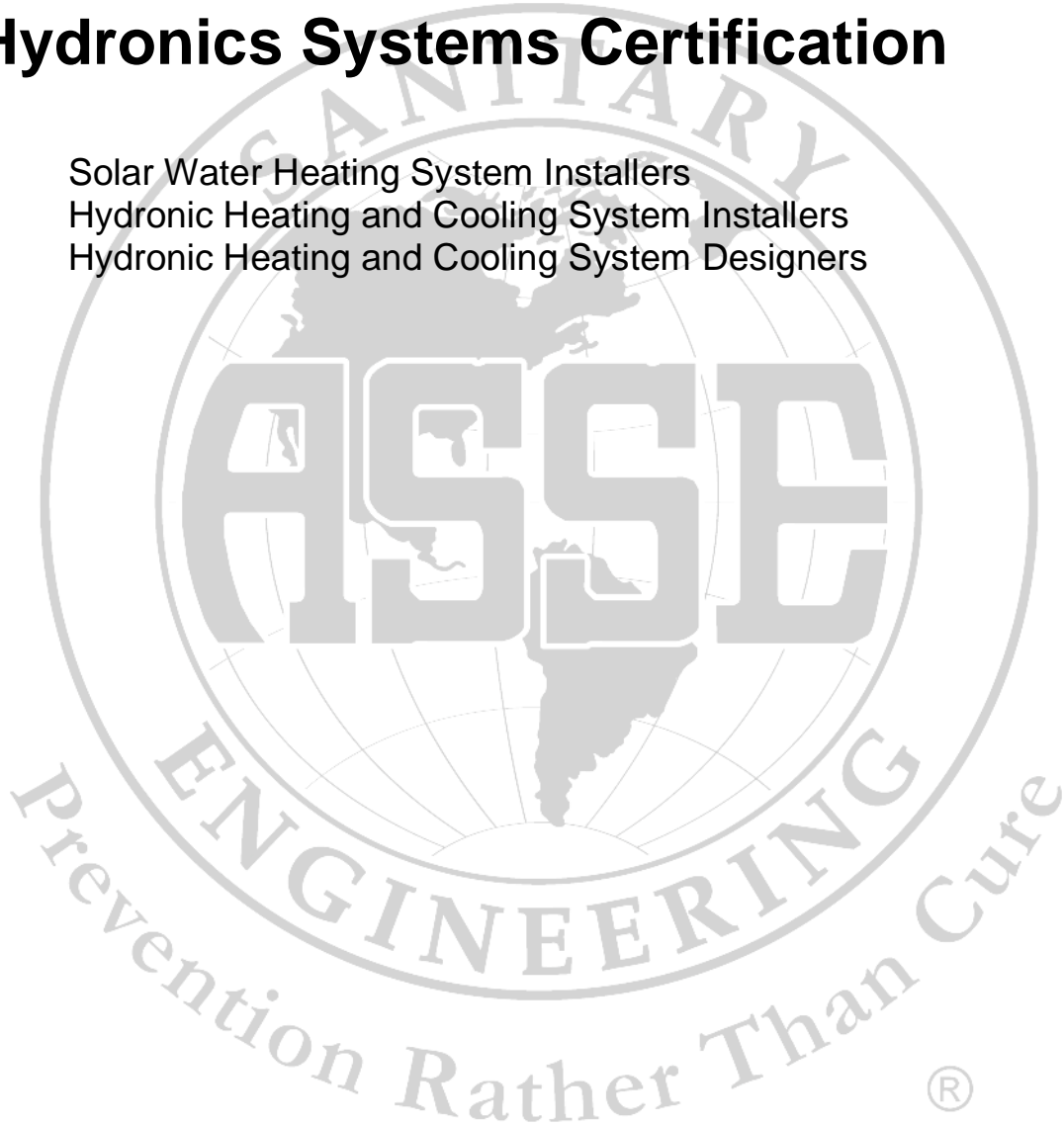
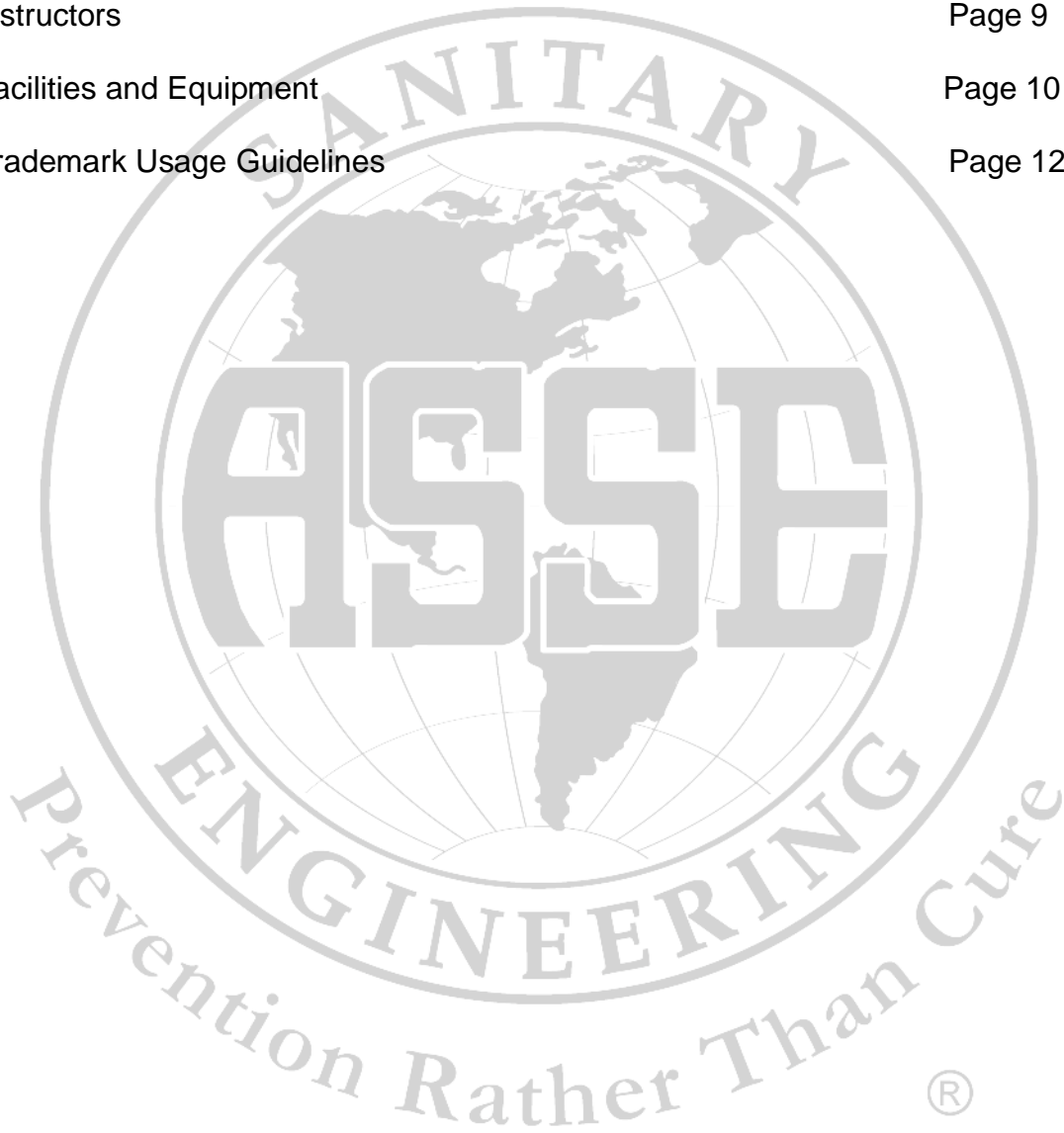


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Section I Overview

This section provides insight into the organizational structure of the ASSE International Chapter of IAPMO, LLC (hereafter referred to as ASSE), and the operation of the ASSE Guidelines for Hydronics Systems Certification (hereafter referred to as Guidelines), including Solar Water Heating System Installers (ASSE 19110), Hydronic Heating and Cooling System Installers (ASSE 19210), and Hydronic Heating and Cooling System Designers (ASSE 19220).

Section I.1 Introduction

The primary responsibility for the Hydronics Systems Certification Program belongs to the ASSE Board of Directors and the professional qualifications coordinator, except for those specific areas of responsibility that may be delegated to the appropriate committee.

Certification exams shall only be administered to classes taught by an ASSE approved instructor by an ASSE accredited training provider. The certification exam shall be witnessed by a proctor. An Instructor shall not proctor an exam for any class that they taught.

ASSE reserves the right to observe any training provider's class without prior notice.

Section I.2 Program Quality Control

Program quality control for the ASSE Hydronics Systems Certification Program shall be the responsibility of the ASSE Board of Directors and the professional qualifications coordinator. Quality control is maintained through ASSE, the Hydronics Systems Technical Committee (hereafter referred to as HSTC) and its sub-committees and the School/Instructor Committee.

The ASSE Board of Directors may revoke the accreditation of any training provider or instructor that has shown deceit, or displays gross negligence, incompetence or misconduct in the performance of their duties as stated in the ASSE/ANSI/IAPMO Series 19000, Hydronics Systems Professional Qualifications Standard (hereafter referred to as Series 19000), and these Guidelines. Any training provider that conducts a class that does not meet the requirements of the Series 19000 and these Guidelines shall have their accreditation reviewed. Students enrolled in a class with a training provider that has had its accreditation revoked may be required to repeat the course and certification exam at an ASSE accredited training provider. ASSE shall not be held responsible for any financial losses.

Training providers must adhere to these Guidelines. Training providers found in violation may be placed under review and may be subject to cancellation of their ASSE approval. A signed document agreeing to the Guidelines must be submitted to ASSE prior to a commencing training. If a training provider is found to be in violation of the program Guidelines, the following procedures will be followed;

1. Written notification of the violation will be sent to the training provider.
2. The training provider will have thirty days to present, in writing, evidence of compliance.
3. Evidence will be presented to the ASSE International Board of Directors.
4. The ASSE International Board of Directors will decide the appropriate corrective action.
5. The training provider will be notified, in writing, of the ASSE International Board of Directors decision.

Section I.3 Program Record Keeping Responsibility

ASSE shall maintain a record keeping system for the Hydronics Systems Certification Program.

Section I.4 Equal Opportunity

ASSE respects each participant in the Hydronics Systems Certification Program as an individual and assures that no participant will be subjected to discrimination in ASSE's performance of its certifying authority because of the individual's race, color, religion, national origin, non-disqualifying disability, sex, age or other protected class as defined by federal or state law.

ASSE recognizes that its responsibility to certify professionals is intended to support and enhance the protection of public health & safety. ASSE will exercise its authority hereunder without regard to the status of the employer/employee or any prospective employer/employee of any program participant.

Section I.5 Disclaimer

In no event shall ASSE, its Board of Directors, committees, consultants or employees incur any obligation or liability for damages, including, but not limited to, consequential damages arising out of, or in connection with, the applicable certification.

Section I.6 Committees

The committees governing the program are the Hydronics Systems Technical Committee and the School/Instructor Committee. With the approval of the Board of Directors, the committees may enlist outside expertise as necessary or required, and within budget.

Hydronics Systems Technical Committee:

- Is appointed by the ASSE International president and includes the professional qualifications coordinator.
- Is responsible for maintaining the technical aspects of the program. The committee maintains the question bank for certification exams and ensures the validity of the exam content.
- Reviews and updates these Guidelines and the course curriculums.
- Conducts other activities as directed by the ASSE Board of Directors and the Hydronics Systems Technical Committee chairperson.
- Is responsible for on-site inspections of classes as directed by the ASSE Board of Directors or the Hydronics Systems Technical Committee chairperson.

School/Instructor Committee

- Is appointed by the ASSE International president.
- Reviews applications of training providers and instructors for approval.
- Reviews curriculum and training materials of training providers applying for accreditation.
- Conducts other activities as directed by the ASSE Board of Directors or the Hydronics Systems Technical Committee chairperson.

Section II Hydronics Systems Certification

Section II.1 Introduction

ASSE third-party certification affirms that an individual has completed the required course of instruction, has passed the required written exam and has met all criteria as stated in the Series 19000 and these Guidelines.

Section II.2 Certification

- A. An approved training provider shall mean an entity that has applied to ASSE and been authorized to offer courses required for the ASSE certification to the ASSE/IAPMO/ANSI Series 19000 standards.
- B. An approved instructor shall mean an individual who has applied to ASSE and been approved to teach courses required for the ASSE certification to the ASSE/IAPMO/ANSI Series 19000 standards.
- C. An approved course of instruction shall mean course curriculum approved by the School/Instructor Committee which includes the minimum requirements as stated in the Series 19000.
- D. Certification to Standard 19110 for Solar Water Heating System Installers is available only to individuals who have a minimum of four (4) years of documented practical experience in the installation and maintenance of piping systems. Certification shall consist of a minimum of forty (40) hours of instruction and exams.
- E. Certification to Standard 19210 for Hydronic Heating and Cooling System Installers is available only to individuals who have a minimum of two (2) years documented practical experience in the installation and maintenance of piping systems. Certification shall consist of a minimum of twenty-four (24) hours of instruction and exams.
- F. Certification to Standard 19220 for Hydronic Heating and Cooling System Designers is available only to individuals who have a minimum of four (4) years documented practical experience in design of piping systems, or six (6) years of installation experience with some design of piping systems, within the preceding 10 years. Certification shall consist of a minimum of twenty-four (24) hours of instruction and exams.

Section II.3 Participant's Application

An application will be distributed to each student prior to taking the exam. Failure to provide accurate contact information on the application may result in the certification not being processed by ASSE. The applicant shall forfeit the full application fee. By signing the bottom portion of the application, the instructor verifies that the applicant attended the required course.

Section II.4 Course Instructional Objectives Checklist

An applicable Instructional Objectives Checklist (IOC) will be presented by the instructor to each course participant. The IOC outlines the required course content. By signing the IOC, participants verify that the required items were covered during the course of instruction.

Section II.5 Instructional Materials

ASSE does not provide training or training manuals. The training materials used by training providers in teaching Hydronics Systems classes are determined by the training provider. The list of training materials shall be submitted for review at the time of application for accreditation. Training materials shall be provided to ASSE upon request. Additional reference materials for the classes shall include:

- A. ASSE/IAPMO/ANSI Series 19000, Hydronics Systems Professional Qualifications Standard (provided by ASSE for each student)
- B. Radiant Professionals Alliance (RPA) Radiant I e-Book for Installers (Available for purchase from RPA at their website: <http://www.radiantprofessionalsalliance.org/>)
- C. Radiant Professionals Alliance (RPA) Radiant II e-Book for Installers & Designers (Available for purchase from RPA at their website: <http://www.radiantprofessionalsalliance.org/>)

Section II.6 Exams

- A. The professional qualifications coordinator and the Hydronics Systems Technical Committee shall prepare such written exams as will properly reflect the minimum criteria as outlined in the Series 19000 and these Guidelines.
- B. Each student seeking certification must successfully complete a written exam. An approved proctor shall administer certification exams. The written exam shall be completed without the aid of reference materials or study guides. A simple calculator is permitted and will be provided for the exam. No other electronic devices are permitted.
- C. In the event an applicant fails to appear for a scheduled exam, a new exam date shall be arranged between the training provider and the applicant.
 - 1. The request for an exam must occur within thirty (30) days of the original exam date. A test fee is required by ASSE.
 - 2. The applicant shall complete the exam within six (6) months of the original exam date. After six (6) months, the applicant shall repeat the appropriate course of instruction.
 - 3. Any costs related to the certification exam or repeated course of instruction shall be the responsibility of the applicant. A test fee is required for each attempt.
- D. In the event the applicant fails an exam, a re-test date shall be arranged between the training provider and the applicant.
 - 1. The request for a re-test must occur within thirty (30) days of notification of failure by the training provider.
 - 2. The applicant shall complete the exam within six (6) months of the original certification exam failure date. After six (6) months, the applicant shall repeat the appropriate course of instruction.
 - 3. Should the applicant fail three (3) exam attempts, the applicant shall repeat the entire course of instruction. A new application is required.
 - 4. Any costs related to the exam or repeated course of instruction shall be the responsibility of the applicant. A re-test fee is required for each attempt.

Section II.7 Exam Administration

The following outlines a program that establishes uniformity to the exam procedures and credibility to certification programs.

- A. A proctor will witness all exams.
- B. The proctor may not be the course instructor.
- C. The exam is available either on-line or in a paper format.
- D. The proctor shall be responsible for maintaining an atmosphere conducive to an exam process.
- E. There must be a minimum of one proctor for every 20 students.
- F. Proctors are not employees of ASSE, nor are they compensated by ASSE.
- G. Evidence of cheating on an exam, or failure to maintain an atmosphere conducive to an exam process, may result in the training provider's ASSE accreditation being revoked.

Section II.8 Procedures for Certification

- A. A class application shall be submitted to ASSE thirty (30) days prior to the course completion. It is the responsibility of the training provider to ensure that each student meets the prerequisites for the class the student is enrolled in. The application shall include the class start date, exam date, proctor's name, instructor's name, number of students and names of students, together with a signed statement that each student has demonstrated the required experience. The application will also indicate if the exam for that class will be on-line or in paper format.
- B. Upon receipt of the aforementioned information, ASSE will forward the Series 19000 Standard to the training provider for distribution to the students. The exams will be forwarded to the appropriate party prior to the exam date.
- C. All paper exams, complete and incomplete, must be returned to ASSE along with the required applications and IOCs and any unused standards. Exams are processed in the ASSE office and results are sent to the training provider. ASSE does not give exam results directly to students. All student contact shall be through the training provider.
- D. Protests of the exam results shall be filed by a candidate. Such protests shall be submitted in writing to the professional qualifications coordinator within thirty (30) days of notification of the exam results. The professional qualifications coordinator shall make an inquiry of the protests and render a determination in writing within sixty (60) days. All expenses incurred shall be borne by the candidate.
- E. Appeals of the professional qualifications coordinator's determination shall be submitted in writing within thirty (30) days to the ASSE Board of Directors. The appellant shall resubmit all original data and shall offer supporting documentation or rationale to justify a second hearing. The Board of Directors shall make their determination within sixty (60) days. The decision of the Board of Directors shall be final.

Section II.9 Issuing a Certificate

- A. Upon satisfactory fulfillment of the requirements provided herein, ASSE shall issue a suitable certificate and/or wallet card. The certificate shall state the classification for which the applicant is certified.
- B. The certificate shall indicate that the holder has satisfactorily fulfilled the requirements as stated in the Series 19000 and these Guidelines.
- C. Any certificate used in accordance with these regulations shall be valid for a period of three (3) years from the date of issuance.
- D. Certified individuals must renew their certification within six (6) months of the printed expiration date. Recertification up to six (6) months before the expiration date will not result in any loss of certification time. Recertification up to six (6) months after the expiration date is permitted. The certification is not valid between the expiration date and the renewal date. Recertification up to six (6) months after the expiration date does not result in any gain of certification time. The new expiration date will be three (3) years after the original expiration date. Failure to recertify by six (6) months after the expiration date will result in the individual having to retake the initial course and exam. The Hydronics Systems Technical Committee may make exceptions; i.e. for active duty military personnel. ASSE, at its sole discretion, may extend certification expiration dates as an emergency measure as appropriate in response to unforeseeable disasters or emergencies.
- E. Certified individuals failing to renew their certificates prior to the expiration date shall have their names removed from the certification list.
- F. The Board of Directors shall revoke the certificate of any person who, after a hearing before the Board of Directors, is found to have obtained a certificate by fraud or deceit, or displays gross negligence, incompetence or misconduct in the performance of his/her duties as a certified Hydronics Systems professional. All costs incurred for the hearing shall be the responsibility of the individual.

Section II.10 Recertification

Recertification to 19110, 19210, and 19220 shall be to the requirements of the current Series 19000. An ASSE approved instructor may recertify without exam if they have taught an ASSE

approved Hydronics Systems course within the previous three (3) years. The recertification fee is required.



Section II.11 Certification – *When Previously Certified by another Agency*

A candidate holding a current non-ASSE certification may be able to upgrade their certification to an ASSE certification upon completion of the required training hours and testing requirements listed in the ASSE Standard. The Hydronics Systems Technical Committee will determine the number of hours required.

Section II.12 Fees for Certification and Recertification

The application fee for certification and recertification shall be payable to ASSE and is the responsibility of the training provider conducting the class.



Section III Instructors

Section III.1 Instructor Qualifications

To apply to be an ASSE approved instructor, an individual must be sponsored by an ASSE accredited training provider with the intent of teaching for that training provider. The applicant must submit a completed application, a resume and supporting documentation regarding their qualifications. To qualify as an instructor, a person shall have:

- A. A current ASSE recognized Hydronic Heating and Cooling Systems certificate.
 - B. Minimum of seven (7) years of experience in hydronic systems or a related field.
 - C. Knowledge or experience in all subjects described in the Series 19000.
 - D. Meeting one (1) or more of the following criteria:
 - 1. Minimum of three (3) years of experience in hydronic heating and cooling systems installation or design and three (3) years of teaching experience.
 - 2. Completion of an ASSE recognized train-the-trainer program (minimum 20 hours) specific to the teaching of hydronic heating and cooling systems.
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- 1. An instructor who will teach the ASSE Standard 19110 for Solar Water Heating System Installers certification course will be required to have a valid Solar Water Heating System Installers certification.
 - 2. An instructor who will teach the ASSE Standard 19210 for Hydronic Heating and Cooling System Installers certification courses will be required to have a valid Hydronic Heating and Cooling System Installer certification.
 - 3. An instructor who will teach the ASSE Standard 19210 for Hydronic Heating and Cooling System Designers certification course will be required to have a valid Hydronic Heating and Cooling System Designer certification.

The School/Instructor committee may make exceptions to the requirements for certification. In order to continue to qualify for the instructor pool, an individual must maintain a current ASSE Hydronics Systems certification. In order to assess knowledge of hydronic heating and cooling systems the applicant may be required to take and pass an exam.

Section III.2 Instructor Responsibilities

Instructors shall be responsible for maintaining an atmosphere conducive to the learning process. The instructor shall be responsible for teaching, at a minimum, every item on the course outline as it was submitted to ASSE for approval. ASSE approved instructors are not employees of ASSE, nor are they compensated by ASSE. Training providers accredited by ASSE are responsible for the compensation of instructors.

Section IV Facilities and Equipment

ASSE recognizes that the quality of training is dependent on the training environment and believes that any approved training program should be adequately equipped to train the number of people in any given training session.

All classes shall be conducted by an ASSE approved instructor. ASSE reserves the right to observe any class without prior notice including during class periods and when an exam is being given. ASSE reserves the right to appoint a representative for these inspections. ASSE reserves the right to survey participants to assure that classes, facilities and equipment are in compliance with these Guidelines.

Section IV.1 Classroom

- A. The class shall be conducted in a room of such a size as to adequately and comfortably accommodate:
 - 1. The maximum number of students per class in accordance with the training provider approval, never exceeding 20.
 - 2. The equipment necessary for the class.
 - 3. A minimum of 15 square feet of classroom space per student.
- B. There shall be:
 - 1. Sufficient tables and chairs for each registered student.
 - 2. Adequate lighting
 - 3. Sufficient sanitary facilities
 - 4. Calculators - simple

Section IV.2 Application for approval as a training provider

The responsible representative of the entity seeking approval as a training provider must complete a Training Provider application and provide pictures and documentation to support the application. This includes pictures of the training facility and copies of course outlines and training materials used for the courses. The accreditation fee must be paid to ASSE prior to the first class being held.

Section IV.3 Changes

Should an ASSE approved training provider make any changes, a notice of the change, together with a full description of the change, shall be submitted to ASSE for review. A change shall include, but not be limited to, additions or deletions to the course outline, equipment or training material.

Every three (3) years a renewal fee shall be submitted with a letter certifying that the training provider has not changed from the information currently on file with ASSE. The training provider shall review the qualifications of the instructors. If there were any changes to the curriculum, or to the listed instructors, the training provider must provide documentation of the change. To be renewed, a training provider shall have held a minimum of one (1) ASSE certification class within the previous three (3) years. If no class was held, the training provider will be removed from the approved list.



Schools may not alter the shape, proportion, color, text, typography, or orientation of the Mark in any way. This includes re-coloring the Mark, rotating the Mark, repositioning individual elements of the Mark, outlining the Mark, and altering or adding text to the Mark. The Mark may only appear in black or white. The black version is preferred, but the white logo may be used on backgrounds darker than 50% grey to provide sufficient contrast. The Mark must be displayed at a sufficient resolution and size for legibility; generally, the Mark should never appear less than 1/2" tall in printed materials or less than 36px tall in digital media. Provide as much clear space (padding) around the logo as possible; we recommend surrounding the Mark with clear space of at least 1/4 the height of the top ASSE rectangle.

When a school uses the Mark, it must make clear that the school is approved to provide training for ASSE International certification. It is improper to imply that a school *is* ASSE International, that classes are *offered or taught by* ASSE International, or that the school provides ASSE International certification.

Please report any misuse of Marks to ASSE by email to Marianne.Waickman@asse-plumbing.org.

