

ASSE 6010

Exam Application

COURSE PROVIDER: _____

REQUESTED EXAM DATE: _____

Return application to

EXAMS@MEDGASLICENSE.COM

with a copy of your course certificate.

COMPANY

COMPANY NAME: _____

MAILING ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____

APPLICANT

NAME: _____

PHONE: _____

EMAIL: _____

CONTACT PERSON: _____ CONTACT EMAIL: _____

Contact person will receive future renewal information. If this is same as applicant, leave blank.

Paragraph 10-3.2.1 of the 2021 Edition of the ASSE 6010 Standard states "The candidates for the ASSE 6010 certification shall have a minimum of four (4) years of documented practical experience in the field of installation of plumbing or mechanical piping systems."

Please list the documented experience for the applicant below:

Employer, City & Phone Number

Dates

Employer, City & Phone Number	Dates

- I have read the Information Sheet for MGA Exams and agree to abide by the rules listed.
- I have or will have completed the 32-hour course required to fulfill this certification.
- I understand that in some states, a plumbing license may be required in order to install medical gas.

Please note: In order to keep this license valid, a short course and test must be completed every 3-years when a new NFPA 99 edition is released. This course and test will cover changes made from the previous edition. It is the license holders responsibility to check their expiration date and schedule testing, although MGA will send an email to currently licensed individuals at least once when a new NFPA 99 edition is released. Brazing Continuity must also be maintained.

SIGNATURE OF APPLICANT: _____ DATE: _____

Medical Gas Licensing
FAX: 678-498-2749
PHONE: 770-783-3630

WEBSITE: www.medgaslicense.com
MAIL: PO Box 820
Villa Rica, GA 30180





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CREDIT CARD AUTHORIZATION FORM

MasterCard: _____ Visa: _____ Discover: _____ Amex: _____

Card Number: _____

Expiration Date: _____

Name as it appears on credit card: _____

Card holder phone number: _____

3-or 4-digit security code: _____

Total amount authorized to charge: _____

Cardholder signature: _____

Email address for receipt: _____

Instructions for Brazing Coupons

- Please cut your 1-1/2" copper pipe into 5" and 7" pieces
- If possible, use roll stop couplings
- When you start to braze, be sure you have adequate nitrogen flow through the assembly being brazed. Allow the purge to continue for at least 2 minutes after you complete the braze
- When brazing the horizontal assemblies, make sure you mark the top dead center with a file so that I have no question where it is once I receive it
- When brazing the vertical assemblies, be sure to braze both sides of the coupling from the bottom up. You do not have to mark the vertical assemblies in any way
- Do not cut the assembly. I will cut them when I receive them
- Please send me (4) brazed horizontal assemblies
- Please send me (4) brazed vertical assemblies
- You will receive a brazer witness form. You are required to have (2) witnesses watch you braze and sign the form. One of the witnesses must be an officer of your company.
- Ship completed coupons with **this checklist and your witness form** to:

Barry Waller
103 Hunter Industrial Dr.
Villa Rica, GA 30180

Once I receive your completed assemblies, I will do an initial inspection. If they pass the initial inspection, we will send them out for a final inspection. If they do not pass the initial inspection, we will contact you for additional assemblies. If you have any questions, please contact Barry at barry@emgsi.com or 770-317-3205.

We have a brazing instructional video that we recommend you watch prior to attempting the braze: <https://www.youtube.com/watch?v=20yOrcpFMA8>.

Medical Gas Accreditation

Initial Record of Brazer Performance Qualification / Brazing Procedure Specification

Brazer Name: _____

Brazer ID: _____

(MGA in-office use only)

Employer: _____

Qualifying Agency: Medical Gas Accreditation Using BPS No.: EMGS-TB/1 Date: 07/08/2016 Revision No.: 2

The above brazer is qualified for the following ranges:

Variable	Used in Qualification	Qualification
Base Material (QB-402)	<u>ASTM B88 (C12200) P No.: 107</u>	<u>P No.: 107</u>
Thickness	<u>0.060"</u>	<u>0.030" - 0.120"</u>
Filler Metal (QB-403)		
Specification No.	<u>SFA 5.8</u>	<u>SFA 5.8</u>
Class	<u>BCuP-5</u>	<u>See QB-432</u>
F-Number	<u>103</u>	<u>103</u>
Diameter Range	<u>1 1/2" nominal diameter</u>	<u>1/4" nominal thru 3" nominal</u>
Brazing Process	<u>Torch Brazing</u>	<u>Torch Brazing</u>
Flow Position(s) (QB-407)		
Method of applying filler metal	<u>Horizontal, Vertical Up</u>	<u>All Positions</u>
Joint Types(s) (QB-408)		
Joint Clearance	<u>0.002" - 0.010"</u>	<u>0.002" - 0.010"</u>
Length Overlap	<u>1.09</u>	<u>1.36" max</u>
Other	<u>Lap or Socket (Fitting)</u>	<u>Lap or Socket (Fitting)</u>
Technique (QB-410)		
Torch Brazing	<u>Manual Torch</u>	<u>Manual Torch</u>

Per Para. 5.1.10.11.11.5 of the 2021 edition of NFPA 99 and as the employer of the above-named medical gas brazer applicant, we certify the following:

- 1) This individual has completed the enclosed horizontal and vertical coupons without any physical assistance from any other individual.
- 2) The brazing process used to complete the enclosed horizontal and vertical coupons was per the outlined brazing procedure specification listed above in accordance with the requirements of section IX of the ASME code.
- 3) We, the employer, accept responsibility for the qualification procedures performed as listed above and acknowledge that the final brazed test results will be listed on the final record of brazer performance qualification after review, specific listing of test results, and signature of the independent certified welding inspector authorized by Medical Gas Accreditation for documentation.
- 4) Two individuals who are not the above listed brazer witnessed the brazing process. (See requirements below.) *

*Two witnesses must be present for the brazing process. One of these witnesses must be an officer of the above listed employer. The other witness can be an employee who is not the above listed brazer. Both of these witnesses must sign the following page.

Medical Gas Accreditation Brazing Instructions:

1. Tube shall be cut with a tubing cutter into (1) 7" and (1) 5" section and joined together with a roll stop coupling.
2. Deburr the interior edge of the tube with a clean deburring tool.
3. Clean the ends to be inserted into the coupling with an abrasive pad such as Scotchbrite. Do not use steel wool or sandcloth.
4. Insert the cleaned edges into the coupling. Do not beat the tube into the coupling.
5. Place the assembly on the jig and start the purge. Leave the nitrogen flowing for approximately two minutes after completing the braze.
6. Using a file or Sharpie, clearly mark the top dead center of the horizontal assembly. Cap the edges of the coupling when the braze is complete.
7. When brazing the vertical joints, both sides must be done in the upflow position. After completing the first side, rotate the entire assembly 180 degrees and complete the second side. Cap the edges of the coupling when the braze is complete.
8. Put your first initial and last name on each assembly.
9. Do not cut the assembly. Ship it complete with page 1 and 2 of this form.

Brazing witnesses print name and sign below. One witness should be a company officer. One witness may be an employee who is not the brazer.

Witness 1: _____
(Print name)

Witness 1: _____
(Sign name)

Witness 2: _____
(Print name)

Witness 2: _____
(Sign name)



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Information Sheet for MGA Exams

- To qualify for the **ASSE 6005** exam, the candidate must meet the requirements of the **ASSE 6005** which are as follows:
 1. Have a general interest in medical gas and vacuum systems and equipment.
 2. Complete a 24-hour course taught by an ASSE 6050 certified instructor.
 3. Successfully complete a written or computer exam.

- To qualify for **the ASSE 6010** exam, the candidate must meet the requirements of the **ASSE 6010** which are as follows:
 1. ASSE 6010 - 2021 Para. 10-3.2.1 – “The candidates for the ASSE 6010 certification shall have a minimum of four (4) years of documented practical experience in the field of installation of plumbing or mechanical piping systems.”
 2. Complete a 32- hour course taught by an ASSE 6050 certified instructor.
 3. Successfully complete a written or computer exam.
 4. Successfully complete a practical brazing exam.
 5. In addition, most states require that medical gas installers hold a journeyman or master plumbing license. If you are in the process of gaining your plumbing license, the ASSE 6010 certification can typically be added after you’ve gained your plumbing license even if this course is completed first.

- To qualify for the **ASSE 6020** exam, the candidate must meet the requirements of the **ASSE 6020** which are as follows:
 1. ASSE 6020 – 2021 Para. 20-4.1.1 – “The candidates for ASSE 6020 certification shall be employed by a governmental unit as a plumbing and/or mechanical inspector, or as an administrator of such inspectors, or be a person regularly involved in the design, inspection or verification of medical gas systems, or be a 6010 installer. Candidates shall have a minimum of two (2) years of documented practical experience or any combination of the above.”
 2. Complete a 24-hour course taught by an ASSE 6050 certified instructor.
 3. Successfully complete a written or computer exam.



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- To qualify for the **ASSE 6030** exam, the candidate must meet the requirements of the **ASSE 6030** which are as follows:
 1. ASSE 6030 – 2021 Para. 30-3.2.1 – “The candidates for ASSE 6030 certification shall have a minimum of two (2) years of documented practical experience in the verification of medical gas systems.”
 2. Complete a 32-hour course taught by an ASSE 6050 certified instructor.
 3. Successfully complete a written or computer exam.
 4. Successfully complete a practical exam.

- To qualify for the **ASSE 6035** exam, the candidate must meet the requirements of the **ASSE 6035** which are as follows:
 1. ASSE 6035 – 2021 Para. 35-3.2.1 – “The candidates for ASSE 6035 certification shall have a minimum of two (2) years of documented practical experience in the verification and/or inspection of bulk medical gas/cryogenic fluid central supply systems.
 2. Complete a 32-hour course taught by an ASSE 6050 certified instructor OR hold an ASSE 6030 medical gas verifier’s credential and complete an additional minimum 16-hour training course.
 3. Successfully complete a written or computer exam.
 4. Successfully complete a practical exam.

- To qualify for the **ASSE 6040** exam, the candidate must meet the requirements of the **ASSE 6040** which are as follows:
 1. ASSE 6040 – 2021 Para. 40-3.2.1 – “The candidates for ASSE 6040 certification shall be employed or contracted by a health care facility or be actively engaged in working with medical gas systems and shall have one (1) year minimum experience in the maintenance of the medical gas and vacuum systems.”
 2. Complete a 24-hour course taught by an ASSE 6050 certified instructor.
 3. Successfully complete a written or computer exam.



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- To qualify for the **ASSE 6050** exam, the candidate must meet the requirements of the **ASSE 6050** which are as follows:
 1. ASSE 6050 – 2021 Para. 50-3.2.1 – “The candidates for ASSE 6050 certification shall have a minimum of ten (10) years of documented experience in the installation of plumbing or mechanical piping systems, including a minimum of two (2) years of documented experience in the installation of medical gas and vacuum systems. Instructors shall have a minimum of two (2) years of documented practical teaching experience. Instructors shall possess a current medical gas systems installer certification in compliance with ASSE Standard 6010.”
 2. Complete a 40-hour course taught by an ASSE 6050 certified instructor.
 3. Successfully complete a written or computer exam.

- To qualify for the **ASSE 6060** exam, the candidate must meet the requirements of the **ASSE 6060** which are as follows:
 1. ASSE 6060 – 2021 Para. 60-3.2.1 – “The candidates for ASSE 6060 certification shall have two (2) years of documented practical experience in the mechanical and plumbing systems industry and require practical knowledge of the design of medical gas and vacuum systems.
 2. Complete a 32-hour course taught by an ASSE 6050 certified instructor.
 3. Successfully complete a written or computer exam.



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Appeals Process:

Appeals to any certification rule or procedure must be made in writing and sent via US mail, email or fax. A written response from MGA will be returned within 30 days.

Suspension or Revocation Process:

Brazing must be performed every six months and an affidavit returned stating that the installer has used the brazing technique within the previous six months at least once. These can be returned late provided that the installer is willing to sign sworn affidavits that the brazing process was performed every six months. However, if no affidavits have been returned for a period of (24) months, the installer must submit a vertical brazed coupon for testing to reinstate his brazing certification.

If an installer neglects to take the required course and test on two subsequent NFPA 99 editions, his license may be revoked, and a new course may be required.

Inappropriate Representation:

If any MGA license holder misrepresents his license in any way, to include falsifying the scope of his certification or ability, his license can be revoked.

ASSE 6000 Passing Exam Grades:

ASSE 6005 – 70%

ASSE 6010 – 70%

ASSE 6020 – 70%

ASSE 6030 – 85%

ASSE 6035 – 85%

ASSE 6040 – 70%

ASSE 6050 – 85%

ASSE 6060 – 70%



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ASSE 6000 Exam Materials Allowed:

6005 – NFPA 99
NFPA 55
ASSE 6000

6010 – NFPA 99
ASSE 6000

6020 – NFPA 99
NFPA 55
ASSE 6000

6030 – NFPA 99
NFPA 55
ASSE 6000
CGA M-1

6035 – NFPA 99
NFPA 55
ASSE 6000
CGA M-1
CGA P-18
CGA E-10
CGA G-4.1

6040 - NFPA 99
ASSE 6000

6050 – NFPA 99
NFPA 55
CGA M-1

6060 - NFPA 99
NFPA 55
ASSE 6000
ASPE Design Guide Vol 3