

Instructions for Brazing Coupons

Please check off each item on this list.

- 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 brazing@medgaslicense.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)