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<td>125 P.S.I. AT 375°F</td>
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FLUID HANDLING DIVISION
MORTON GROVE, ILLINOIS, U.S.A.
INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

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BELL & GOSSETT  ITT

story
1. **What is an ASME Code vessel?**

   The letters ASME are an abbreviation of the words "American Society of Mechanical Engineers." This society establishes and maintains design, construction and inspection standards providing for maximum protection of life and property. Before an ASME vessel can be fabricated, a manufacturer must apply for and receive a Certificate of Authorization from the Boiler and Pressure Vessel Committee of the American Society of Mechanical Engineers. Thereafter, in conformance with this Certificate of Authorization, an ASME Code vessel must be designed, fabricated and inspected in accordance with the rules of the ASME Code.

2. **How is an ASME Code vessel identified?**

   Either of the symbols "U" or "UM" may be used to identify an ASME Code vessel. The symbol used must be either stamped on the vessel itself or on the manufacturer's data plate attached to the vessel. When the symbol "U" is used, a manufacturer's data report for pressure vessels (Form U-1, as required by the provisions of the ASME Code rules) must accompany each vessel. When the "UM" symbol is used, a certificate (Form U-3) is furnished only on request.

3. **What is a "U" Symbol?**

   When the "U" symbol is used it indicates that a manufacturer has complied with all the provisions of the ASME Code for pressure vessels. In addition, it means that the vessel has passed inspection by a commissioned inspector of the National Board of Boiler and Pressure Vessel Inspectors. The Form U-1 furnished with each vessel contains the signature of the inspector. This certifies that the vessel has met the requirements of the ASME Code. Two copies of Form U-1 are also sent to the National Board headquarters at Columbus, Ohio. The National Board in turn directs one copy of Form U-1 to the municipality having jurisdiction over the installation of the vessel for final approval by a qualified inspector.

4. **What is a "UM" Symbol?**

   The "UM" symbol limits construction of pressure vessels to 5 cubic feet volume (37.4 gal.) and 250 psi. design pressure or 1½ cubic feet volume (11 gal.) and no limit on pressure. Such vessels are not inspected by a qualified inspector of the National Board. Also, they may be exempt from inspection by local inspectors. Form U-3, furnished upon request, is only a manufacturer’s certification that the vessel complies with the rules of ASME for "UM" symbol vessels. Because "UM" construction is limited, it is not accepted in some localities.
5. **Why does B&G use the “U” symbol instead of the “UM”?**

In order to avoid the complication and confusion that could be created with the restricted acceptance “UM” stamped vessels, all B&G pressure vessels are classed in the “U” category, which indicates that:

A. They are inspected by a qualified inspector, and registered with the National Board.

B. Manufacturers’ Data Reports for Pressure Vessels (Form U-1) are issued with each vessel.

C. The vessels are accepted in all jurisdictions with no restrictions.

This means that all B&G vessels can be shipped from Morton Grove or from the stock of a distributor without any concern as to the ultimate location of installation.

6. **Why is all this important to a user of a pressure vessel?**

In approximately 31 states, 32 individual cities, and in all provinces of Canada, ASME Code “U” symbol is required of a pressure vessel when it is installed in a public building designed for human occupancy. Also, Code “U” symbol construction is required by most insurance companies before insurance will be issued to the owner of a public building designed for human occupancy. As the importance of code construction becomes recognized within a municipality, the rules are often changed in favor of code construction. Consequently, code requirements are becoming increasingly important to the user of pressure vessels for the following reasons:

a. If a non-code vessel is accepted and installed within a jurisdiction requiring code construction and is thereafter subject to inspection, the qualifying inspector will not accept the installation nor will insurance be allowed. A non-code vessel cannot be converted to code after it has been shipped from the manufacturer as non-code. Therefore, a new vessel would then have to be purchased under the code construction standards. This can be a very costly change.

b. If a non-code vessel is installed in an area which does not at first require code construction but later changes to this requirement, a new code unit may have to be purchased to satisfy local and insurance requirements—a very costly change.

c. If a vessel is accepted and installed with the symbol “UM” and the jurisdiction does not accept this symbol, the user may be caused to change the vessel to the proper “U” symbol—again, a very costly change.
d. Some uninform manufacturers may apply the "UM" symbol on vessels over the 37.4 gallon volume limit as set forth by ASME. If such a vessel over the 37.4 gallon volume is accepted and installed with the "UM" symbol, it is a direct violation of the ASME code and such a vessel will not be accepted by a qualifying inspector.

e. To insure acceptance under any circumstance the user should specify and accept only unfired pressure vessels manufactured and stamped under the "U" symbol. Acceptance under all jurisdictions is then guaranteed.

7. How can a specification be written to include ASME construction?

The following wording written into any specification will provide for an ASME Code vessel.

"A manufacturer's data report for pressure vessels, Form U-1 as required for the ASME Code rules, is to be furnished to the owner. This form must be signed by a qualified inspector, holding a National Board Commission, certifying that construction conforms to the latest ASME Code for pressure vessels. The ASME symbol "U" should also be stamped on the Heat Exchanger."