

#### SAFETY ALERT

### Pressure Vessels with Eye Bolted Lids, Ports and Manways

#### HAZARD WARNING

Gaskets used with bolted closures can fail without warning resulting in a sudden discharge of steam and/or scalding liquid into the work area. Property damage, serious injuries and/or death may result. Insure that all bolts are secured before operating the machine. Never attempt to open a bolted closure while the vessel is pressurized or contains liquid above 200 degrees F. Always open a test valve to verify no steam, pressure or liquid discharge before opening a bolted lid, port or manway.

The purpose of this SAFETY ALERT is to inform you of a potential hazard associated with eye bolted lids, ports and manways used on Gaston County pressure vessels, and to advise you of available safety updates to minimize this hazard. Safety Warning Labels are available on request from the company.

Many pressure vessels manufactured by Gaston County Dyeing Machine Company are equipped with eye bolted lids, ports and/or manways to provide access for loading and unloading the machine, sampling, adding process ingredients and for maintenance. By way of example, this includes but is not limited to kier lids, expansion tank lids and manways, jet machine loading ports and manways, sample ports, etc. Such closures utilize a gasket for sealing purposes but which is subject to failure for a variety of reasons including wear, lack of maintenance and bolts not being secured. Should a gasket fail while the machine is pressurized, scalding liquid and/or steam may be discharged. Older machines may not be equipped with the latest and most effective safety features for bolted closures and should be updated accordingly. A list of recommended safety updates and operating recommendations is included for your reference.

#### **RECOMMENDATIONS:**

- All bolted lids, ports and manways should be equipped with a splash guard such that in the event of a gasket failure, any resulting discharge will be deflected downward toward the floor. Splash guards are available from Gaston County Dyeing Machine Co. for retro-fit on older machines.
- There should be provision to prevent eye-bolts from inadvertently slipping off the lugs. Newer machines feature a recessed lug requiring the operator to loosen the eyebolt above the recess to disengage the bolt from the lid. A tab welded to the lug will provide the same safeguard on older machines.
- A manual safety test valve should be provided with all bolted lids, ports and manways such that an operator may check for pressure steam or liquid discharge prior to opening the closure.

4. Warnings regarding lid opening hazards must be prominently displayed on or about any pressure vessel. Adhesive backed warning labels are available through the Gaston County Dyeing Machine Company Parts Department by calling 704-822-5000. Part numbers and wording are shown below:

#### **A** ADVERTENCIA

Antes de operar o dar servicio a esta máquina, lea y entienda el manual del operador y toda la información de seguridad.



#### **A WARNING**

Before operating or servicing machine, read and understand operator's manual and all safety information.

FREE UPON REQUEST - Adhesive Label (8.3" x 2.7") P/N 4121608

#### ADVERTENCIA

Riesgo de explosión. Quemaduras y (o) lesiones graves podrían ocurrir al abrir la tapa debido al escape de vapor o liquido.

Antes de intentar abrir cualquier tapa o puerto en esta máquina, abrir la válvula de prueba de seguridad y verificar que toda la presión es liberada y que no hay descarga de vapor o líquido.



#### **▲ WARNING**

Explosion hazard.
Serious burns and/or injuries from escaping steam or liquid may result when opening lid. Before attempting to open any lid or port on this machine, open safety test valve and check that all pressure is released and no steam or liquid is being discharged.

FREE UPON REQUEST - Adhesive Label (8.3" x 2.7") P/N 9118491

Note: Due to the harsh environment associated with dyeing and bleaching equipment, warning plates and labels may deteriorate over time and require periodic replacement. For proper application instructions, refer to "Application Procedures for Pressure Sensitive Adhesive Backed Labels & Plates" which can be found on our website at www.gaston-county.com.

# See these and all of our available SAFETY WARNING LABELS on our website at www.gaston-county.com.

- Gaskets and bolts should be inspected regularly for wear or damage and replaced as necessary. Machines found to have defective gaskets or bolts should be removed from operation until repairs can be made by a qualified maintenance technician. Under no circumstances should components be removed, substituted, defeated or altered in any way.
- 6. Each plant must develop written procedures, instructions, and training for the safe operation of pressure vessels. This includes the securing and opening of closures and use of a test valve to verify no steam, pressure or liquid discharge prior to opening. Operators must be provided with suitable protective gear, especially where "in bath sampling" is utilized, and training in its use. Required equipment may include such items as face shield, body apron, gloves, etc. Adherence to procedures and use of protective equipment must be strictly enforced.

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## SAFETY ALERT Pressure Vessels With Eye Bolted Lids, Ports and Manways (continued)

- 7. Gauges may be installed on pressure vessels to provide visual indication of a pressurized condition. However, due to the relatively high pressure range (0-100 psi) required for most dyeing and bleaching applications, gauge resolution and readability may not provide a reliable indication of pressure on the lower end of the scale. Like other sensing devices, gauges are also subject to calibration error and failure. While gauge readings can be used to indicate the presence of pressure within a vessel, the gauge alone must not be relied upon to indicate the absence of pressure or to indicate that a machine is safe for opening.
- 8. Machine operators should be trained to assume that any closed vessel is pressurized until proven otherwise by use of the manual safety test valve!
- 9. Insert this SAFETY ALERT in your Gaston County Operating and Maintenance Manual for quick reference.

Should you have any questions regarding this SAFETY ALERT please contact Gaston County Dyeing Machine Company Customer Service Dept. For a nominal charge, we can do a full safety inspection of your machine(s) as well as providing parts and technical service for recommended updates and any other needed repairs. You can reach our offices at the following telephone and FAX numbers:

Telephone: (704) 822-5000 FAX: (704) 822-0753

Written inquiries may be addressed to the attention of your Account Manager at the following address:

Gaston County Dyeing Machine Co., Inc. P.O. Box 308 Stanley, NC 28164

You may also contact us through our website at:

www.gaston-county.com

where you will find the latest postings on safety related matters.