

Master Brewers Safety Toolbox Talk



From the Brewery Safety Committee

Hose Inspection: Pre and Post

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Overview

Brewery hose and tubing, at one time or another in the process, can be subjected to heavy use-either during liquid transfer or when making connections between vessels. It is important to make sure that damage is not caused during the process, making your brewery unsafe and damaging your equipment.

This Toolbox Talk will help you

- 1. Know what to look for inside and outside of the hose and tube.
- 2. Identify cause and effect.
- 3. Take corrective actions.

Pre Hose and Tubing Inspection

- Check to make sure all your fittings are attached properly. Look for potential extraction. If fittings are being pushed out of the hose, take the hose out of service and reattach. Band attachment
 - methods can be done in-house with the proper tooling. Crimp attachment methods will need to be repaired by the hose supplier. (See Hose Fitting and Attachment Method Toolbox Talk for more details.)
- Inspect the fittings individually. Whether tri-clamp, DIN or camlock, fittings can be damaged and not seal properly. This will cause accidental disconnection. Hot liquids will cause severe burns as a result, and high pressure discharge can create a slip and fall hazard.
- Check the hose or tube cover. Gouges, cuts, tears, kinks, reinforcement exposure, and abrasions are signs of hose being damaged by sharp or squared edges, improper storage, and rough surfaces.
- If available, the use of an endoscope can help identify internal hose damage. A worn tube can



Damaged fitting.





Damaged hose and tube covers.



CIP caustic damage to hose reinforcement.

cause an internal liquid breach and reinforcement damage. It also can show poor CIP processes and potentially damage equipment.

Post Hose and Tubing **Inspection**

- Make sure all fittings are properly attached and show no movement or extraction. High temperatures and pressure will show signs of movement if fittings are not properly attached to hose.
- Check the hose cover for any damage that was not present during pre-inspection. This can help identify problem areas, and corrective actions can be put in place to prevent further damage.
- Make sure hoses are stored prop-Properly stored hoses. erly. Allowing hoses to hang and drain will help increase hose life. (See Hose Storage Toolbox Talk for more details.)



Worn inner hose tube.



Chlorobutyl tube breakdown effects to inside fermentation tank.



If you have any questions or comments regarding this Toolbox Talk, please contact a member of the Brewery Safety Committee.