

## Rotary Counter Pressure versus Open Top Filling Systems

	CraftBloc	Open Top Competitors
<b>Fills at Nominal Volume</b> .....	<b>Yes</b>	<b>No*</b>
<ul style="list-style-type: none"> <li>• Counter pressuring filling does not create foaming during fill, unless beer is above 36°F. Counter Pressure filling leaves 0.50" headspace, required by can manufacturers for product expansions and potential warming during distribution. Open top filling foams during fill with loss of carbonation and less accurate fills at nominal volume.</li> </ul>		
<b>Foams during Fill</b> .....	<b>No</b>	<b>Yes**</b>
<ul style="list-style-type: none"> <li>** Open top must foam during filling to clear head space. This type of fobbing is high in oxygen and creates high DO's in head space. Most open top fills are to the top of can flange to minimize air in the head space. This lowers yield.</li> </ul>		
<b>Overfills to Clear Head Space</b> .....	<b>No</b>	<b>Yes***</b>
<ul style="list-style-type: none"> <li>*** Open top filling requires over filling to top of flange to eliminate oxygen in the head space. Most mobile canners only monitor low fills and allow over fills for keeping TPO down.</li> </ul>		
<b>Fobs after Fill</b> .....	<b>Yes</b>	<b>No****</b>
<ul style="list-style-type: none"> <li>**** Counter pressure fillers fob with water or beer jet after fill to eliminate head space and exposure to atmosphere. Jet fobbing is the practice used by major breweries.</li> </ul>		
<b>Calculated TPO Measured @ Fill Added</b> .....	<b>&lt;100PPB</b>	<b>&gt;100PPB*****</b>
<ul style="list-style-type: none"> <li>***** We have tested with our own Hach 3100 DO meter many open top fillers at breweries in Chicago and none have ever been lower than cans filled on our CraftBloc systems. This has also been confirmed by Hach service specialist who have tested cans filled on our CraftBloc and open top competitors.</li> </ul>		
<b>Speeds Greater Than 100 CPM</b> .....	<b>Yes</b>	<b>No</b>
<b>Fills Beer @ Greater Temperature Range</b> .....	<b>&lt;38°F</b>	<b>&lt;32°F</b>
<b>Used by Major Craft or Commercial Breweries</b> .....	<b>Yes</b>	<b>No</b>
<b>Are TPO Claims Guaranteed?</b> .....	<b>Yes</b>	<b>No</b>
<b>Are Fill Level Accuracy Guaranteed?</b> .....	<b>Yes</b>	<b>No</b>
<b>Are Speed Claims Guaranteed with Beer Above 32°F?</b> .....	<b>Yes</b>	<b>No</b>

**Summary: While our low range 50 CPM fillers are typically \$40,000.00 higher in cost to open top systems, our CraftBloc canning lines offer production grade systems that lower man power, provide higher quality fills, and more dependable seams.**

COUNTER PRESSURE VERSUS OPEN TOP