

## Composite Lift Gate

for the Stolle Tetrad Beer-Beverage EOE Conversion System

Stolle Sidney is pleased to announce they have developed a new composite lift gate for the Tetrad easy-open end conversion system as an alternative to the current steel lift gate. The reduced mass composite lift gate reduces vacuum box vibration which extends the life of all the components in the vacuum box assembly, including the actuators, actuator springs, spring sleeves and actuating bar retainers. It has also proven to extend transfer belt life.

The lift gate is a large, currently steel, plate in the vacuum box assemblies of the lower lane dies. It lifts the transfer belt and ends off the lower tooling as the die opens to allow the transfer of ends to the next station. On the down stroke, it is pushed down by pins on the upper die shoe until the ends contact the lower tooling. The formation work is done by the tooling and the lift gate is returned to its original state by spring force from the underside.

The composite lift gate is made of a proprietary material that has a 65% weight reduction compared to its steel counterpart. With the lift gate moving up and down every stroke of the press (up to 750 strokes/minute), the steel's heavy mass induces a high vibration on the vacuum box assembly that attributes to broken bolts and damage to various parts in the lane die assembly. The lighter weight lift gate reduces the assembly vibration levels which extends component life. The result is lower system downtime and more predictable maintenance cycles. As an added benefit, Stolle technicians noted an improvement in (or elimination of) rivet metal exposure and turned ends during testing.

With the composite lift gate being trialed on a customer's Tetrad conversion system, the customer noted: "We have now produced with the composite lift gate for one year (24/7) and I have to say the replacement cost of the lift gate more than justifies itself. We are achieving longer maintenance cycles and significantly less part replacement costs during our scheduled vacuum box maintenances."

The composite lift gate is now available for all Stolle beer-beverage easy-open end conversion systems, including the 3-out System H.

For more information about the new composite lift gate for the Stolle Tetrad beer-beverage EOE conversion system, please contact Stolle Sidney: Greg Williams at +937-497-5441 or [greg.williams@stollemachinery.com](mailto:greg.williams@stollemachinery.com), or Jason Davidson at +937-497-5432 or [jason.davidson@stollemachinery.com](mailto:jason.davidson@stollemachinery.com).

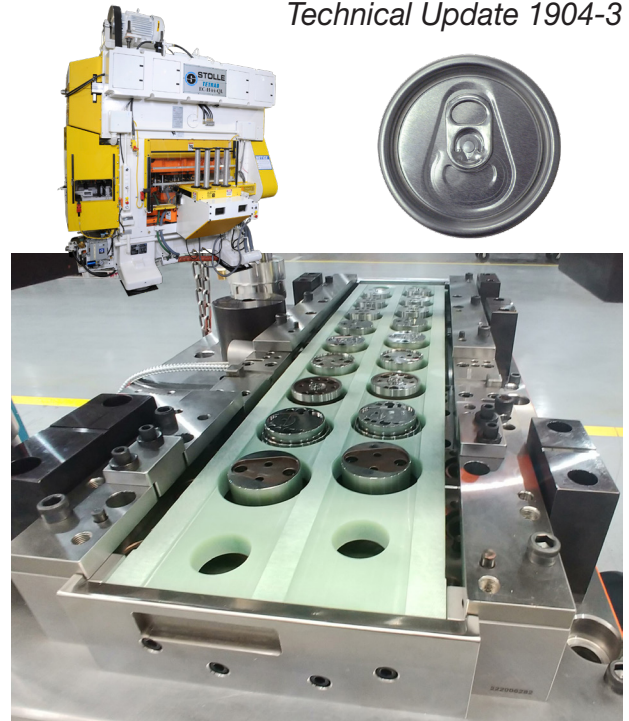


### Stolle Machinery Company, LLC

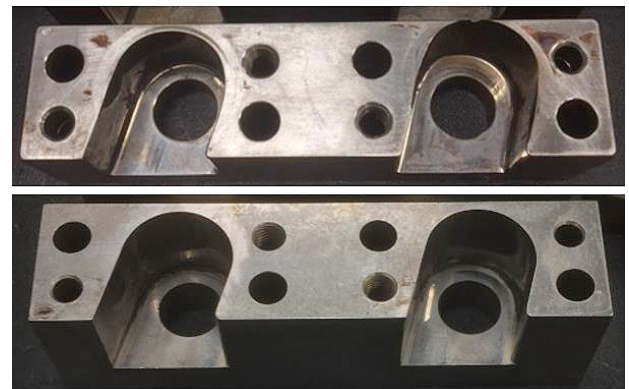
6949 South Potomac Street, Centennial, CO 80112  
Phone: +1 303-708-9044 Fax: +1 303-708-9045  
[www.stollemachinery.com](http://www.stollemachinery.com)

## Stolle EOE Conversion Systems

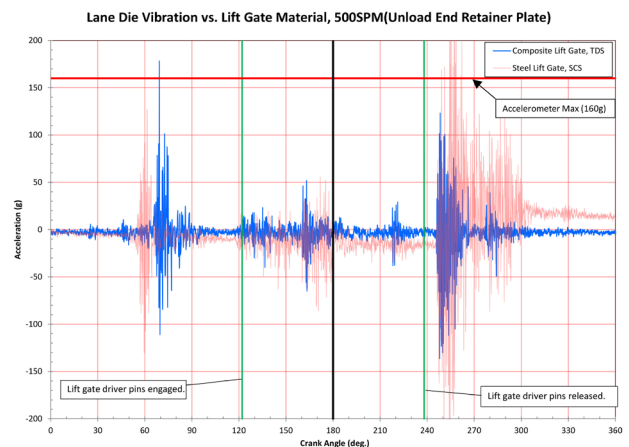
Technical Update 1904-3



New composite lift gate on a Tetrad lower lane die



Wear on actuating bar retainer:  
Top: Steel lift gate retainer after 120 MM strokes  
Bottom: Composite lift gate retainer after 240 MM strokes



Graph showing vibration testing results on composite lift gate

A constant flow of innovations, technology, and new ideas to benefit customers