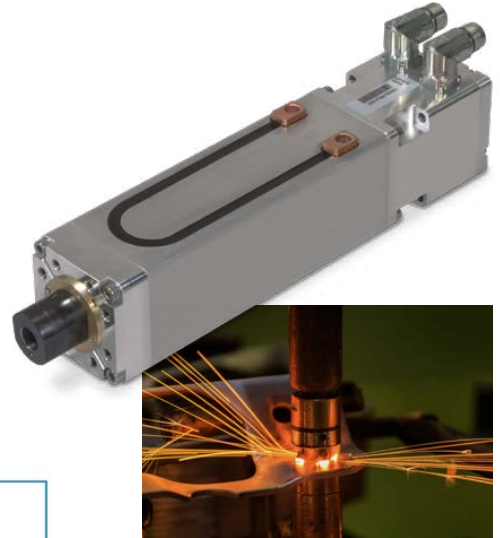
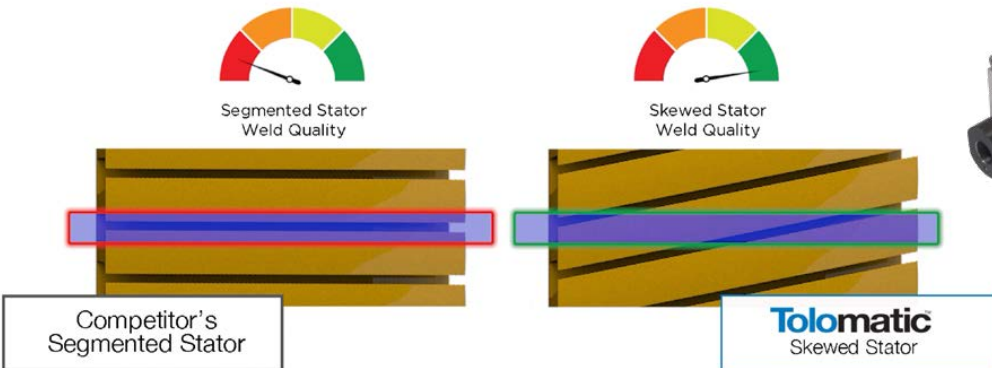


**APPLICATION SOLUTION:** Auto Body Spot Welding

**Product Family:** Electric  
**Product Used:** CSWX  
**Product Type:** Standard

**Application Requirements:**  
**Force:** Up to 4,047 lbf (18kN)  
**Additional Requirement:** 30,000,000 welds

**SKEWED STATOR**  
ensures consistent  
WELD QUALITY



**Application Description:**

Resistance spot welding (RSW) chassis.

**Challenge:**

An automotive manufacturing plant was using a rod-style servo-electric actuator to perform resistance spot welding and they were experiencing an issue with sensing the sheet metal with the electrode while utilizing the Robot EQ function. Robot EQ relies on feedback from the motor to sense when the tip of the electrode makes contact with the sheet metal material being welded.

**Tolomatic Solution:**

Tolomatic provided a [CSWX ServoWeld® Actuator](#) infused with Tolomatic's cutting edge skewed motor winding design which resulted in superior sensitivity while performing Robot EQ. The skewed motor winding allows for greater reliability in sensing when the electrode makes initial contact with the material being welded due to inherently lower torque ripple. The skewed motor winding allows for greater sensitivity which results in consistent weld quality as electrodes wear and superior performance compared to typical servo motor designs.

**Customer Benefit:**

- Increased weld quality
- Increased efficiency of Robot EQ
- Increased production from reduced downtime
- Improved weld quality resulting from high force repeatability