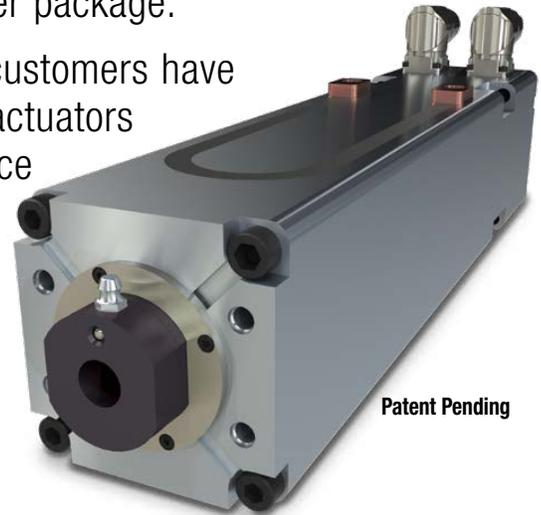


# Compact ServoWeld<sup>TM</sup> Actuator

The CSWX delivers the highest precision, highest quality and best reliability of welding actuators in the industry.

Our latest & best generation ServoWeld actuator offers high force capability in a smaller package.

For nearly 2 decades customers have trusted ServoWeld actuators for their resistance spot welding needs.



Patent Pending



Designed with collaborative customer input, the CSWX exceeds expectations with:

Desired Improvements	Benefits of CSWX
<b>Small Package High Power Density</b>	<ul style="list-style-type: none"> <li>• 1 model can now handle 95+% of welding applications, with C, X and Pinch weld guns</li> <li>• 18 kN (4,047 lbf) of force in a compact 90 mm frame</li> </ul>
<b>More Welds per Minute</b>	<ul style="list-style-type: none"> <li>• Top speed C Gun performance: up to 700 mm/sec (27.5 in/sec)</li> <li>• Water cooling for high performance duty cycles</li> </ul>
<b>Manufacturing Flexibility</b>	<ul style="list-style-type: none"> <li>• Force range and speed to adapt quickly to increases in production demand</li> <li>• Supports smallest and most powerful weld gun designs</li> </ul>
<b>Reliability</b>	<ul style="list-style-type: none"> <li>• Estimated life up to 30 million+ welds in typical welding applications with proper maintenance.</li> <li>• In field serviceability with rod tip zerk fitting</li> </ul>

	Benefits of ServoWeld and Tolomatic
<b>Trusted Worldwide</b>	<ul style="list-style-type: none"> <li>• Validated and specified at the largest global automotive OEMs</li> <li>• Tens of millions of vehicles manufactured with ServoWeld actuators, since 2002</li> <li>• Tolomatic's engineering design experience since 1954</li> <li>• 4 Service Centers in North America, Europe and Asia</li> </ul>
<b>Highest Performance Resistance Spot Welding</b>	<ul style="list-style-type: none"> <li>• Superior tip dressing performance</li> <li>• Best in class force repeatability</li> <li>• Exceptional sensitivity during robot equalization (EQ)</li> <li>• Unrivaled low force performance for class A surface production</li> </ul>

# CSWX

## Compact ServoWeld™ Actuator

# ENDURANCE TECHNOLOGY<sup>SM</sup>

A Tolomatic Design Principle

### TOLOMATIC PLANETARY ROLLER SCREW

- 5mm XR
- 10mm



### INTEGRATED WATER COOLING OPTION

- 23% more efficient compared to external designs
- Allows for increased duty cycle and welds/hour

### INTEGRATED FORCE FEEDBACK OPTION

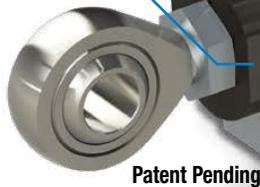
- Integrated Piezo-electric sensor
- Scaled output 0-10 V

### LARGE THRUST TUBE

40% larger diameter for greater stability

### INTEGRATED ANTI-ROTATE OPTION

Optional machined 'Double-D' thrust rod designed to provide internal anti-rotation



Patent Pending

**PEAK FORCE**  
18 kN (4047 lbf)

### HIGH SPEED

- 10 mm lead option
- 700 mm/s (27.5 in/sec)

### STANDARD STROKE LENGTHS

- 160 mm (6.3 in)
- 200 mm (7.9 in)
- 250 mm (9.8 in)
- 300 mm (11.8 in)

### ADDITIONAL OPTIONS:

- Long Stroke
- Manual Override

### REPEATABILITY

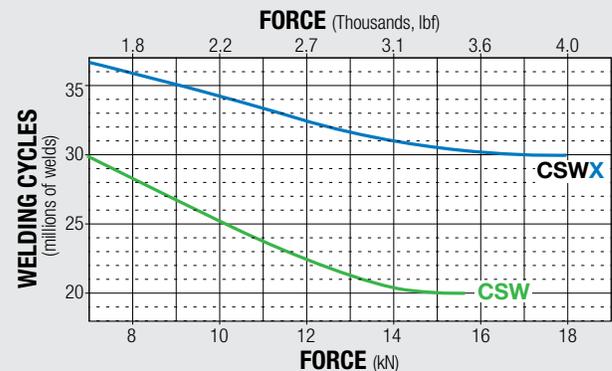
Force repeatability of  $\pm 3\%$  for entire life of actuator

### MID-TRUNNION MOUNTING



Rectangular extrusion is easy to adapt to a wide variety of mounting locations

### ESTIMATED LIFE (with proper installation and maintenance)



	CSWX
Warranty	24 months
Roller Screw	RN05XR & RN10
Motor	3-stack & 4-stack

Manufactured in the U.S.A.  and China 

# Tolomatic<sup>TM</sup>

EXCELLENCE IN MOTION

COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =  
Certified site: Hamel, MN

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