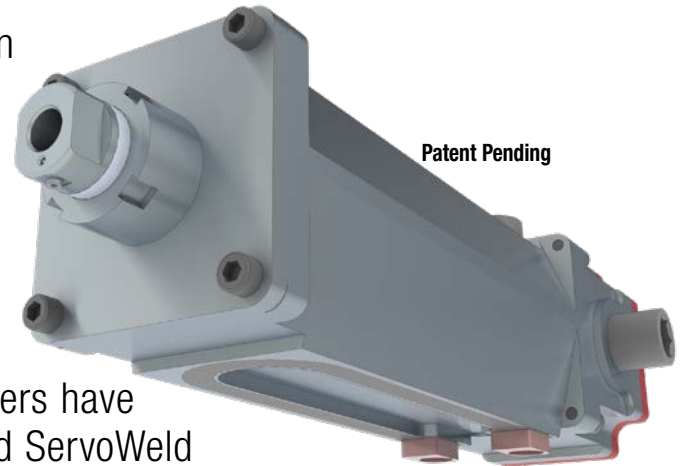


Compact ServoWeldTM Actuator

The CSWL delivers the highest precision, highest quality and best reliability of welding actuators in a lighter design.

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

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



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

Desired Improvements	Benefits of CSWL
Small Package High Power Density	<ul style="list-style-type: none"> • 13 kN (2,920 lbf) of force in a compact 90 mm frame • 6.15 kg (13.56 lb) to 7.25 kg (15.98 lb) at 152 mm (6.0") stroke length
More Welds per Minute	<ul style="list-style-type: none"> • Top speed C Gun performance • Water cooling for high performance duty cycles
Manufacturing Flexibility	<ul style="list-style-type: none"> • Force range and speed to adapt quickly to increases in production demand • Supports small, light and powerful weld gun designs
Reliability	<ul style="list-style-type: none"> • Estimated life up to 20 million+ welds in typical welding applications with proper maintenance. • In field serviceability with rod tip zerk fitting

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

CSWL

Compact ServoWeld™ Actuator

	CSWL	CSW	CSWX
Force capability	13 kN (2,920 lbf)	15.6 kN (3,500 lbf)	18 kN (4,047 lbf)
Typical Weld Estimated Life	20 million	20 million	30 million
Warranty	12 months	12 months	24 months
Roller Screw	RN05 & RN10	RN05 & RN10	RN05XR & RN10
Motor	3-stack	3-stack	3-stack & 4-stack
Options:	NA	NA	Force Feedback
	NA	NA	Long Stroke
Weight: (CSWL: 150mm/6") (CSW: 160mm/6.3") (CSWX: 160mm/6.3")	6.15 kg (13.56 lb)	10.24 kg (22.57 lb)	10.24 kg (22.57 lb)
	to 7.25 kg (15.98 lb)	to 12.84 kg (28.31 lb)	to 12.84 kg (28.31 lb)
Stroke Length	152.4 mm	up to 300 mm (6" to 11.8")	

ENDURANCE TECHNOLOGYSM

A Tolomatic Design Principle

Endurance Technology features are designed for maximum durability to provide extended service life.

TOLOMATIC PLANETARY ROLLER SCREW

- 5mm
- 10mm



REPEATABILITY

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

GREASE PORT

Convenient lubrication without disassembly for extended screw life

HIGH SPEED

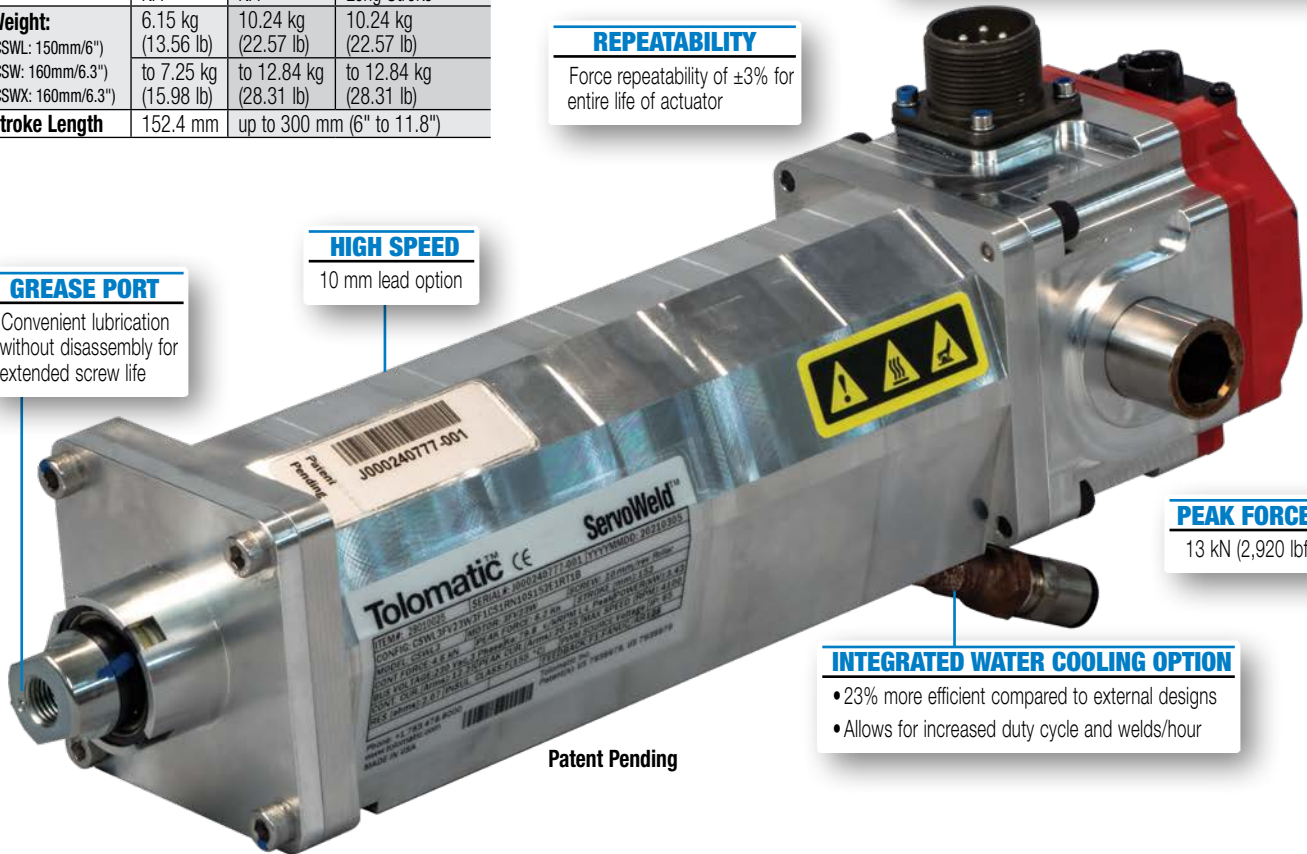
10 mm lead option

PEAK FORCE

13 kN (2,920 lbf)

INTEGRATED WATER COOLING OPTION

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



Patent Pending

Manufactured in the U.S.A. 



MADE IN U.S.A.

TolomaticTM

EXCELLENCE IN MOTION

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

USA - Headquarters

Tolomatic Inc.
3800 County Road 116
Hamel, MN 55340, USA
Phone: (763) 478-8000
Toll-Free: **1-800-328-2174**
sales@tolomatic.com
www.tolomatic.com

MEXICO

Centro de Servicio
Parque Tecnológico Innovación
Int. 23, Lateral Estatal 431,
Santiago de Querétaro,
El Marqués, México, C.P. 76246
Phone: +1 (763) 478-8000
help@tolomatic.com

EUROPE

Tolomatic Europe GmbH
Elisabethenstr. 20
65428 Rüsselsheim
Germany
Phone: +49 6142 17604-0
help@tolomatic.eu
www.tolomatic.com/de-de

CHINA

Tolomatic Automation Products (Suzhou) Co. Ltd.
No. 60 Chuangye Street, Building 2
Huqiu District, SND Suzhou
Jiangsu 215011 - P.R. China
Phone: +86 (512) 6750-8506
Tolomatic_China@tolomatic.com

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