OVERVIEW

- Compact design offers a high torque-to-weight ratio.
- Modular design offers multiple configurations, providing flexibility and efficiency at reduced cost.
- Module alignment ensured by precision machined centering rings.
- Symmetrical yoke or canted yoke options available to meet a broad range of application torque requirements.
- Optimized for ISO 5211 mounitng bases, with fully configurable direct-mount accessories.
- Easy field configuration and simplified maintenance.
- Premium epoxy/polyurethane coating as standard.

SPECIFICATIONS

Media[1]	Hydraulic Fluid
Pressure Range	500 to 3000 psi (35 to 207 bar)
Temperature Range[1]	Standard: -20°F to 212°F (-29°C to 100°C)
	Low Temperature: Down to -50°F (-46°C)
	PED: -20°F to 176°F (-29°C to 80°C)
Torque Output	1,629 to 885,100 lb-in (187 to 100,000 Nm)
Spring-end Torque	2,744 to 445,261 lb-in (310 to 50,306 Nm)

NOTE:
1 Contact factory for other media or non-standard temperature range.

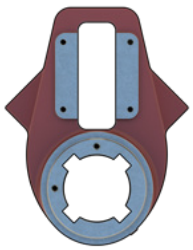
DESIGN STANDARDS

Mounting Base	ISO 5211: 2001(E)
Accessory Mounting	NAMUR-VDE (Shaft Driven)
Performance Testing	EN 15714-4:2009
Ingress Protection	IP67M & IP68 per IEC 60529
Safety	ATEX, SIL 3 suitable, PED on request

SYMMETRICAL OR CANTED YOKES

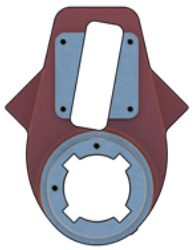
The heart of the Series 98 actuator is the scotch yoke. This mechanism converts linear motion into rotational motion. The piston and/or springs directly couple to a rotating yoke with a slot that engages the sliding blocks.

This type of actuator has a distinct torque curve, which starts high, then dips toward the middle of the stroke, and ends with increasing torque — offering an inherent optimization of torque requirements associated with many valve applications.



SYMMETRICAL YOKE

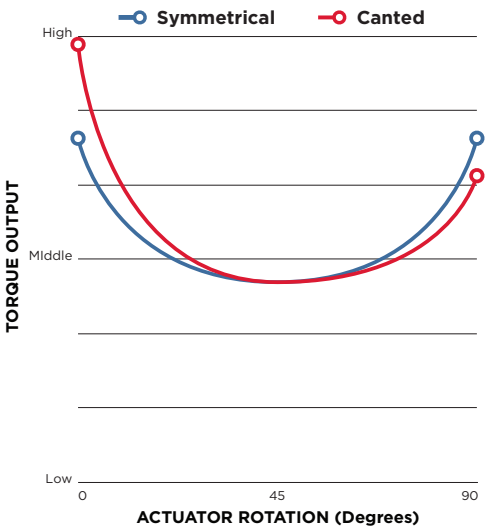
- Torque output curve is balanced.
- Torque demands are similar at seat break and end positions.



CANTED YOKE

- Applications call for optimizing the torque output vs shaft angle curve.
- Torque output curve is shifted.
- Torque demands are not the same at seat break and end positions.

S98 TORQUE CURVE COMPARISON



MODULAR DESIGN

PRESSURE MODULE
> Hydraulic

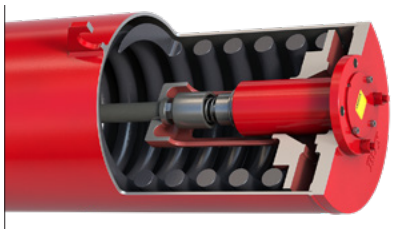
TORQUE MODULE
> Symmetrical or Canted Yoke

HAND PUMP
> Hand Pump for Hydraulic Override

DIRECT ACTING OR SPRING RETURN MODULES
> Jackscrew Direct Drive Override
> Jackscrew Gear Driven Override
> Hydraulic Override
> Extended Travel Stop
> Hydraulic Damper
> Partial Stroke Testing/Locking Device

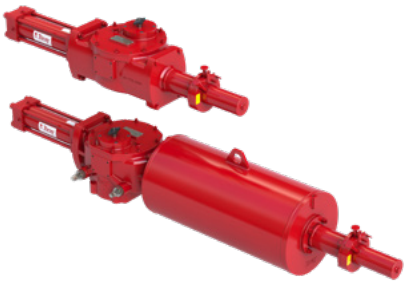
OPTIONS

HYDRAULIC DAMPER
> Provides adjustable cushioning at the end of high speed stroke, preventing slamming and seat damage to the valve, as well as shock to the piping. (Available for Double Acting or Spring Return.)



EMERGENCY SHUTDOWN CAPABILITY
> Fast Acting (less than one second)
> Rugged Design
> Customizable Configurations
> Manual and Automatic Release Options
> Certified Safety Integrity Level (SIL) per IEC 61508

PARTIAL STROKE DEVICE
> Allows ESD valve function verification without disrupting the running process.



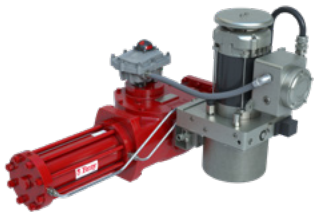
ACCESSORIES

Add to the versatility of the S98 by choosing the applicable accessories from Bray's complete line of positioners, status monitors and solenoids.

The combination of actuators and accessories offer the best compatibility, economy and quality performance in the flow control industry.

VALVE STATUS MONITORS
Series 5A | 5B | 5C

VALVE STATUS MONITORS
Series 54



ELECTRO-HYDRAULIC POWER UNIT
Series 98EH