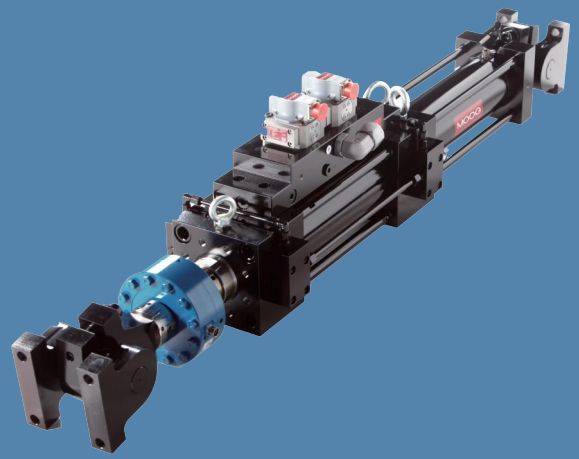


# Hydraulic Test Servo Actuator

## Hydrostatic Endcap



Moog brings decades of expertise in high-performance actuators for demanding test environments. The latest design C086-6E Hydraulic Test Servo Actuator, Hydrostatic Endcap, is engineered for complex test applications like automotive component testing, multi-axis platforms, and vibration simulation. It combines structural innovation and material optimization to raise overall test performance.

The C086-6E series features a symmetric cylinder with a hydrostatic bearing embedded in the endcap. A controlled oil film enables non-contact, low friction motion, minimizing stiction and enhancing dynamic response. It ensures stability under heavy side loads and extends service life. Optimized flow paths in the manifold and cylinder improve oil uniformity and responsiveness. The piston rod's tungsten carbide coating delivers exceptional hardness and wear resistance. Cushion chambers at both ends absorb end-of-stroke impact to protect the actuator and test specimen. The highly integrated valve block can be supplied with servo valves, sensors and accumulators to simplify external piping. A central coaxial LVDT interface enables high-accuracy displacement measurement.

The C086-6E balances top-tier dynamic performance with system integration cost and application flexibility. Integrated manifold and modular configurations shorten system adaptation time and deliver a high-performance, cost-effective solution.



### ADVANTAGES

- **Hydrostatic endcap design**  
Low friction, zero stiction, and high dynamic precision
- **High side-load capability**  
Stable, reliable operation under heavy lateral loads
- **Integrated manifold**  
Simplifies piping and improves system integration efficiency
- **Optimized flow path in manifold and cylinder**  
Enhances flow uniformity and accelerates response time
- **Tungsten carbide coating**  
Superior wear resistance on the piston rod for enhanced stability and extended service life
- **Built-in coaxial LVDT**  
Zero-wear, high-precision displacement measurement
- **Dual-end cushion**  
Absorb end-of-stroke impacts to protect both actuator and test specimen
- **Modular configuration**  
Flexible combinations tailored to diverse test scenarios

### APPLICATIONS

- Electrohydraulic Multi-Axis Test Systems
- Dynamic testing of automotive components
- Durability testing under heavy side-load conditions

## TECHNICAL DATA

Model Number	Rated Force	Static Force <sup>1)</sup>	Full Stroke	Working Stroke	Cushion Length <sup>2)</sup>	Rod Diameter	Bore Diameter	Effective Piston Area
Unit	kN	kN	mm	mm	mm	mm	mm	cm <sup>2</sup>
C086-6E3	15	20	154, 204, 304	100, 150, 250	27	45	57	9.6
C086-6E4	25	32	154, 204, 304	100, 150, 250	27	45	63	15.3
C086-6E5	50	59	154, 204, 304	100, 150, 250	27	80	100	28.3
C086-6E6	100	113	154, 204, 304	100, 150, 250	27	100	130	54.2
C086-6E7	150	158	154, 204, 304	100, 150, 250	27	100	140	75.4

<sup>1)</sup> Static force calculated at 210 bar operation pressure

<sup>2)</sup> Cushion at both ends

## CONFIGURATION OPTIONS

### Servo Valve

- Available with G761(1 or 2 pieces), 72, 79, D791 or D792, rated flow from 63 to 800 l/min

### Joints and Bases

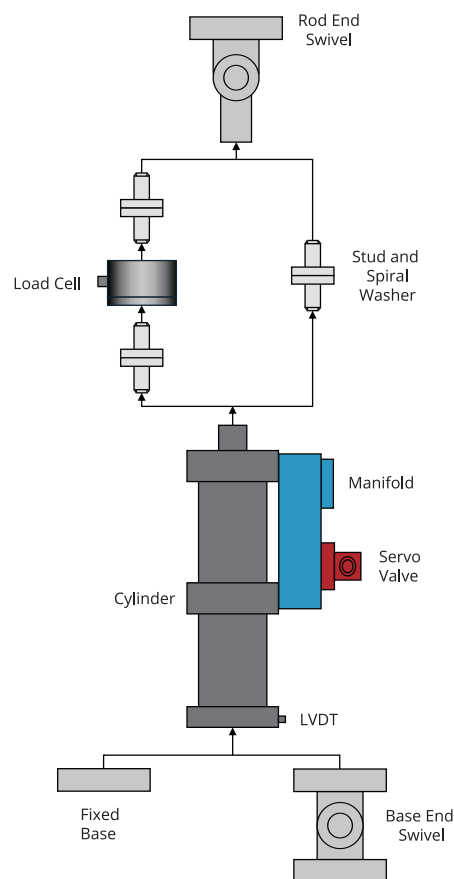
- Rod end can be fitted with a swivel. Base end options include fixed base or a swivel

### Load Cell

- Fatigue-rated load cell with accessories such as studs and spiral washers, are properly sized for reliable force feedback

### Manifold Options

- Optional components include differential pressure (Delta-P) sensor and accumulator



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