

MTS Spinning Rotary Actuator – Model 217



Flexible and realistic testing of rotating components

The MTS Model 217 Spinning Rotary Actuator provides highly precise torque simulation or block-cycle torque loading in a rotating environment. It is ideal for the durability testing of shafts, belts, chains, joints, and other rotating components, and can be used in the development of transmission test stands.

Unlike other spinning actuators that must be mounted inline on stub shafts only, the MTS Model 217 spinning actuator can be mounted to almost any flat surface for absolute application flexibility. It allows for torque adjustment during tests and can handle high side loads, thereby enabling highly realistic simulation for detailed insight into component performance.

The MTS Model 217 spinning rotary actuator is based on MTS actuation technology with more than three decades of field-proven performance. It is designed specifically to withstand the rigors of spinning torsion tests, providing years of reliable service.

Equipped with such realistic simulation and reliable performance, you'll save time and money with faster setups, better test data and minimal downtime.

Adaptable Design

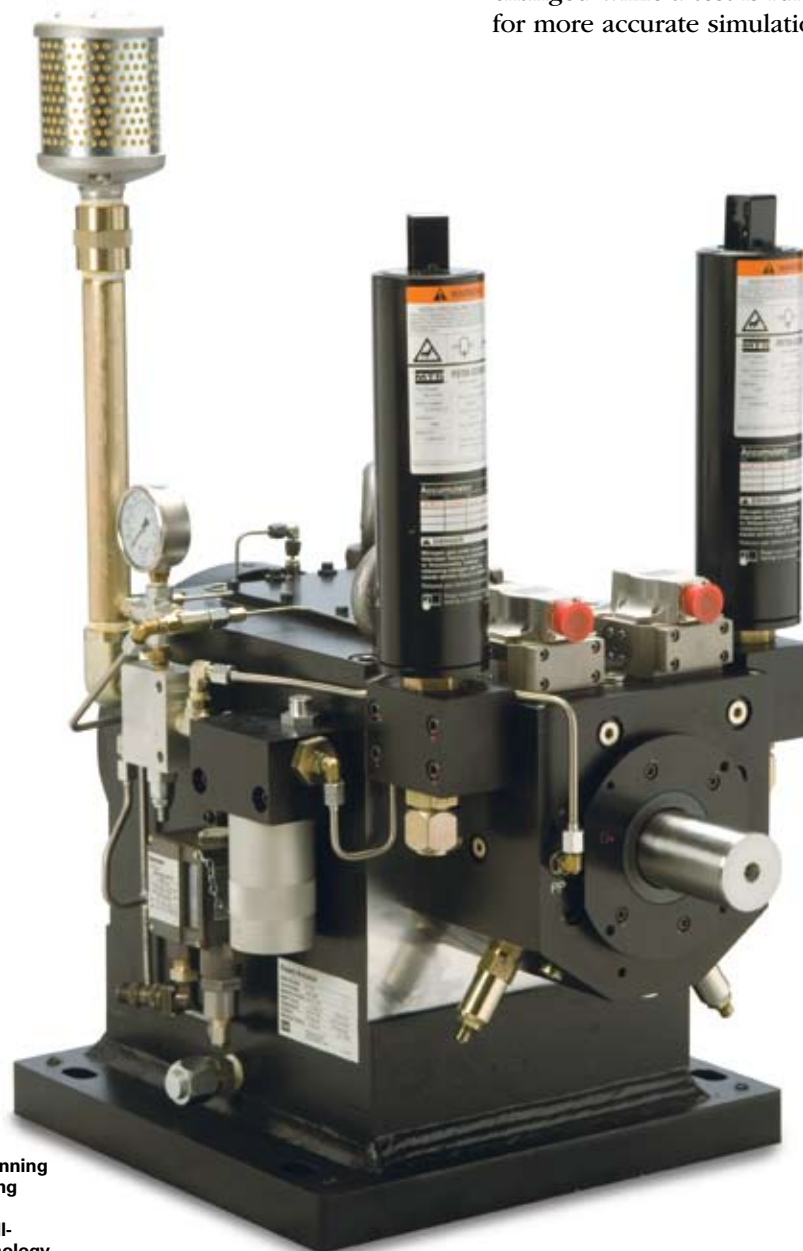
- Mounts to almost any flat surface, requiring minimal installation time and fewer accessories
- Dynamic torque ratings of 2,000 N-m (standard) with 500 N-m to 9,000 N-m rating designs possible
- Maximum rotation speed of 6,000 rpm (standard) up to 8,000 rpm in certain applications

Durable Performance

- Heavy-duty roller bearings are designed to withstand the high radial loads associated with rotation testing
- Low-pressure seals facilitate low friction and long life
- Based on proven MTS actuator technology

Highly Realistic Simulation

- Advanced actuator enables the precise simulation of torque pulses in a rotating environment, providing new levels of insight into component performance
- Precision-machine, fatigue-rated design with specially fitted rotor bearings reduces friction
- Allows torque settings to be changed while a test is running for more accurate simulation



Precisely simulate real-world spinning and rotating component operating conditions with a reliable, highly adaptable actuator based on well-established MTS actuation technology.

Advanced Control Technology

The MTS Model 217 spinning rotary actuator can be used with the MTS FlexTest® 40 controller, which provides direct, digital control of all dynamic system functions. Featuring multi-channel and multi-station capabilities, this flexible controller can be expanded to accommodate up to four test stations, and can be set up to allow test management and control with multiple PCs.

Required Additional Components

- Accumulators
- Servovalves (MTS 252, 256, or 257)
- Sump pump
- Torque cell
- Rotary position encoders
- Hydraulic power supply
- Controller

Technical Specifications

Dynamic Torque Ratings:

- 2,000 N-m (standard)
- 500 N-m to 9,000 N-m rating designs possible

Maximum Rotation Speed:

- 6000 rpm (standard)
- Up to 8,000 rpm (1,000 N-m dynamic torque), in specific cases

Industry-Leading Software

MTS RPC® Pro and cRPC® simulation software is world-renowned for helping vehicle test labs integrate advanced simulation and analysis capabilities into their durability testing, reducing both the costs of testing and the time required to validate test data.

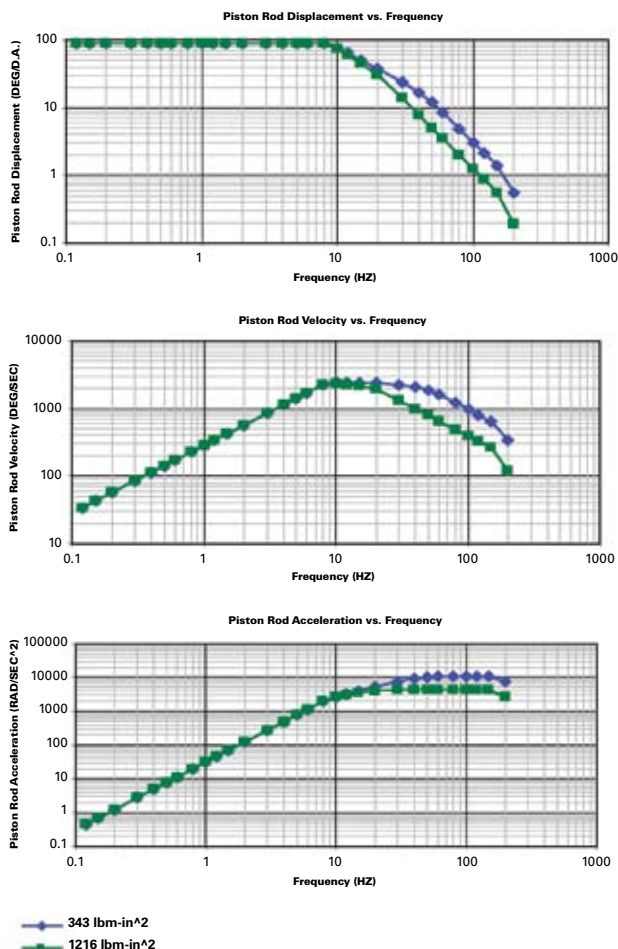
Unparalleled Service and Support

As an MTS customer, you have access to a comprehensive suite of global services and consultation, with more than 275 representatives covering 60 countries around the world. No matter where you do business, you can count on MTS for the expertise and responsiveness required to complete your testing initiatives, on time and on budget.

For More Information

If your test lab conducts durability tests on spinning and rotating components, the MTS Model 217 spinning rotary actuator can help you achieve greater testing speed, accuracy, and cost-efficiency. To learn more about how this actuator will benefit you, contact your MTS representative, visit www.mts.com or e-mail info@mts.com.

Sinusoidal Performance Report



These plots represent a mathematical prediction of system performance. Possession of this information is not a guarantee that a system will perform as predicted. MTS will not be liable for any incidental or consequential damages or losses arising from use of this information. Interpretation of the data and its use are the sole responsibility of the user.

Pump

Model: 505.90
Nominal Rating: 90 gpm
System Pressure: 3000 psi

Servovalve

Model: 256.05A02
Nominal Rating: 50 gpm
Quantity: 1

Actuator

Model: 217
Nominal Rating: 17700 lbf-in
Stroke: 90 deg

The MTS Model 217 spinning actuator provides highly accurate and repeatable performance in a wide range of frequencies. Note: These are laboratory test results. Real-world capability in a test setup is dependent on the stiffness of the system and specimen.

MTS Systems Corporation
14000 Technology Drive
Eden Prairie, MN 55344-2290 USA
Telephone: 1-952-937-4000
Toll Free: 1-800-328-2255
Fax: 1-952-937-4515
E-mail: info@mts.com
www.mts.com

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100-208-063a Rotary Actuator 217 Printed in U.S.A. 1/09