

# Series 201 Hydraulic Actuator



## Benefits

### Large Selection

- ▶ Available in tension force ratings from 7 to 400 kip with proportionally higher compressive force ratings.

### Range of Application

- ▶ Targeted for low frequency applications that require accurate servo-controlled performance.

### Economical Design

- ▶ Closed-loop servo-hydraulic actuator features in a streamlined design.

### Non-metallic Bearings

- ▶ High quality non-metallic bearings provide long life and resist galling failures.

### Precise Control

- ▶ Designed for use with MTS' closed looped servohydraulic accessories.

### Ease of Service

- ▶ A special housing design permits piston rod bearings and seals to be replaced without dismantling the cylinder/end cap assembly.

MTS Series 201 hydraulic actuators are heavy duty, fatigue rated force generators designed for long stroke and/or low dynamic applications. Compatible with MTS' feedback and control components, these actuators provide precise performance ideal for low frequency test and simulation applications.

Flexible enough to meet all your force and motion control needs, this actuator is available in 11 force ratings, 4 standard lengths and make to order custom lengths.

MTS 201 Actuators are designed for superior responsiveness and reliability. Our actuator design incorporates high and low pressure seals and a drain arrangement rarely found on competing products. These features provide lower friction and control oil leaks. Non-metallic bearings provide side load tolerance and greater resistance to galling therefore extend operational life.



## Options

### Force Rating

- ▶ With a wide variety to select from, you can match a 201 Actuator to your application for the best performance and spatial fit. Tension force ratings to 400 kip and compressive to 580 Kip.

### Stroke Length

- ▶ 201 Actuators are available in standard stroke lengths of 10, 20, 30, and 40 inches and in custom stroke lengths providing the flexibility to meet a wide variety of requirements.

### Transducers

- ▶ High quality MTS transducers are available for the 201 Actuator series. These actuators are compatible with MTS load cells, LVDTs, and magnetorestrictive transducers.

### Mountings

- ▶ A variety of mounting methods are available including pedestal, clevis, and swivel designs. For applications with load transitions that cross from tension to compression, MTS' 249 Swivel with anti-backlash adjustment is the perfect solution.

### Servovalve

- ▶ The MTS 252 Servovalve, rated from 1 to 16.5 gpm, mounts directly to the actuator. If more flow is required, a manifold for adding a second servovalve is a standard option. When greater flows are required, custom actuators are available.

### Lift Kit

- ▶ Provides secure balanced lift equipment for handling actuators.

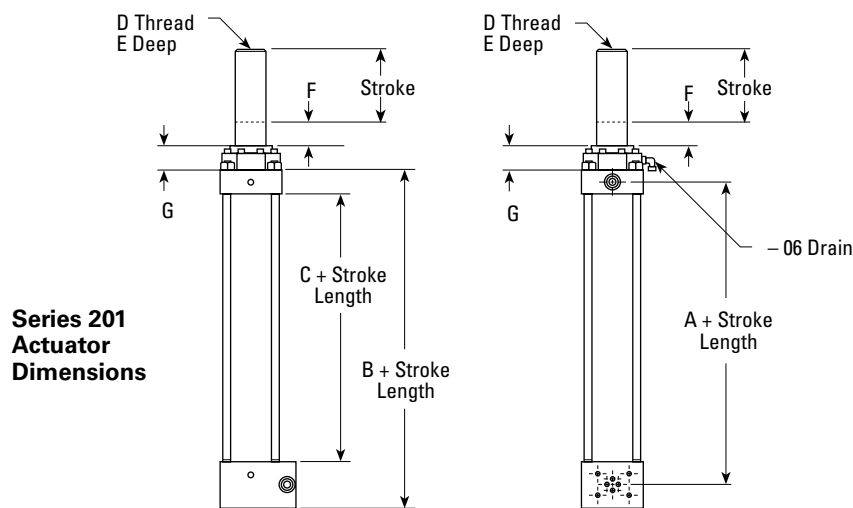
## Specifications

### 201 Series Actuator Force Rating, Piston Area

Model	Piston Area				Force			
	Tension Area		Compression Area		Tension		Compression	
	in <sup>2</sup>	cm <sup>2</sup>	in <sup>2</sup>	cm <sup>2</sup>	kip	kN	kip	kN
201.17	2.5	16.2	4.9	31.7	7	32	14	63
201.20	5.2	33.3	8.3	53.5	15	66	24	107
201.25	7.7	49.4	12.6	81.1	22	99	36	162
201.30	12.6	81.1	19.6	126.7	36	162	57	253
201.35	18.7	120.3	28.3	182.4	55	240	80	365
201.40	22.6	145.7	38.5	248.3	65	290	110	495
201.45	34.4	221.7	50.3	324.3	100	445	145	650
201.60	50.3	324.3	78.5	506.7	145	650	230	1015
201.70	74.6	481.4	113.1	729.7	215	965	330	1460
201.80	103.7	668.9	153.9	993.2	300	1340	445	1985
201.90	137.4	886.7	201.1	1297.2	400	1775	590	2595

### 201 Series Basic Cylinder Dimensions

Model	Rod Dia.		A		B		C		D		E		F		G	
	in	mm	in	mm	in	mm	in	mm	US cust.	SI metric	in	mm	in	mm	in	mm
201.17	1.75	44.5	4.9	124	7.9	199.9	2.1	53.8	1" - 14	M27 x 2	1.8	44.5	2.00	50.8	2.0	51
201.20	2.0	50.8	5.1	129	8.4	212.6	2.1	53.8	1" - 14	M27 x 2	1.8	44.5	2.00	50.8	2.0	51
201.25	2.5	63.5	5.1	129	8.4	212.6	2.1	53.8	1" - 14	M27 x 2	1.8	44.5	2.00	50.8	2.0	51
201.30	3.0	76.2	5.6	141	9.3	235.5	2.6	66.5	1 1/2" - 12	M36 x 2	2.3	57.2	2.00	50.8	2.0	51
201.35	3.5	88.9	5.8	148	10.0	254.8	2.9	73.2	1 1/2" - 12	M36 x 2	2.3	57.2	2.00	50.8	2.0	51
201.40	4.5	114.3	7.3	185	11.0	279.4	3.8	95.3	2" - 12	M52 x 2	2.3	57.2	2.00	50.8	2.3	57
201.45	4.5	114.3	7.3	185	11.9	302.3	3.8	95.3	2" - 12	M52 x 2	2.3	57.2	2.00	50.8	2.3	57
201.60	6.0	152.4	9.08	231	13.65	346.7	5.0	127.0	3" - 12	M76 x 2	3.0	76.2	2.0	50.8	2.5	64
201.70	7.0	177.8	10.2	259	16.0	405.6	5.6	142.7	3 1/2" - 12	M90 x 2	3.5	88.9	2.00	50.8	2.8	70
201.80	8.0	203.2	10.5	265	16.9	429.3	5.6	142.7	3 1/2" - 12	M90 x 2	3.5	88.9	2.00	50.8	2.8	70
201.90	9.0	228.6	11.0	278	18.4	467.9	5.6	142.7	4 1/2" - 8	M125 x 4	4.5	114.3	2.00	50.8	2.8	70



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

ISO 9001 CERTIFIED QMS

Specifications subject to change without notice.  
 MTS is a registered trademark of MTS Systems Corporation. RTM No. 211177.

©2006 MTS Systems Corporation  
 100-155-284a HydraulicActuator201 Printed in U.S.A. 5/06