



Model 680 High-Temperature Grips

The right choice for LCF testing up to 1000°C

Benefits

VERSATILE

- » Can be used for both fatigue and monotonic testing at temperatures up to 1000°C (1832°F)
- » Works with both buttonhead and threaded specimens

LOW THERMAL GRADIENTS

- » Assures accurate results on temperature-sensitive materials and minimizes risk from thermal stress on your sample

MTS 680 grips solve the special problems of conducting material tests inside an environmental chamber at temperatures up to 1000°C (1832°F). While specifically designed for Low-Cycle Fatigue testing in our high-temperature furnace, these grips can also be used for other types of tension-compression or tension-only tests.

The specimen adapters and extension rods are constructed of high-temperature, super alloys selected to extend into the heated zone of the furnace. Because they remain hot during testing, thermal gradients within the specimen are minimized.

The water-cooled grip bodies, which reside outside the chamber, isolate hot parts of the grips from the actuator piston rod and from the load cell or other accessories. Hydraulic pressure, supplied to the grip bodies, operates pistons which lock the specimen into place.

Sold separately, but also required for operation of these grips, are buttonhead or threaded specimen adapters, a hydraulic hand pump and a water cooling kit.

The specimen adapters designed for Model 680 high-temperature grips are compatible with Model 646.10 hydraulic collet grips for fatigue testing temperatures up to 1000°C (1832°F) of round specimens.

be certain.

Specifications

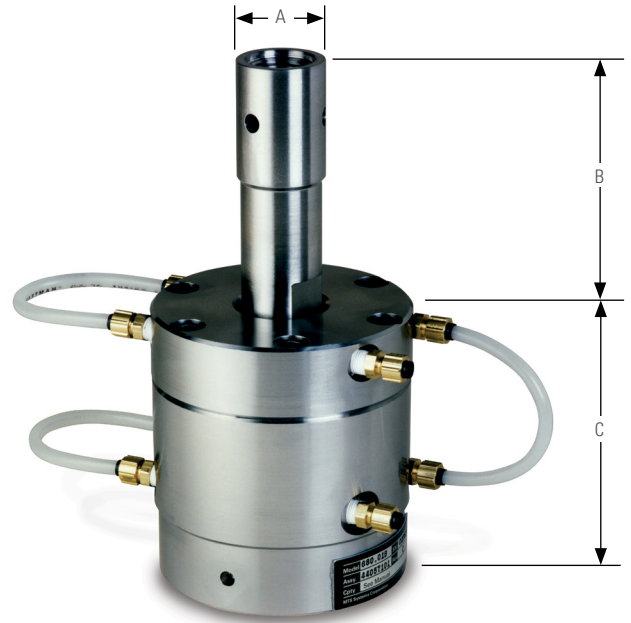
Model Number	Force Rating*		Weight (each)	Dimensions (see photo)			Thread Size	Part Number
	@ 700°C (1300°F)	@ 1000° (1832°F)		A	B	C		
680.01B	15 kip	2.0 kip	20 lb	1.5 in	4.6 in	4.9 in	1-14	044-057-103
680.01B	68 kN	8.9 kN	9 kg	38 mm	117 mm	124 mm	M27x2	044-057-103

*Note: Force rating decreases linearly with temperature between the ratings shown

Accessories

Type	Part Number
Hand Pump (Required)	100-254-832
Water Cooling Kit	057-697-502
Replacement Seal Kit	040-985-901

Specimen Adapters	Dimensions	Part Number
Buttonhead	0.25 in dia. shank, 0.75-0.85 in dia. button	041-901-902
Buttonhead	0.4 dia. Shank, 0.75-0.80 in dia. button	041-901-904
Buttonhead	12 mm dia. shank, 21.1-21.6 mm dia. button	041-901-903
Buttonhead	0.50 in dia. shank, 0.75-0.85 in dia. button	041-901-901
Threaded	1/2 in -13 UNC-2B	041-901-801
Threaded	M12 x 1.75 mm	041-901-802



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
 ISO 9001 Certified QMS

Specifications subject to change without notice.

MTS is a registered trademark of MTS Systems Corporation in the United States. This trademark may be protected in other countries. RTM No. 211177.

© 2018 MTS Systems Corporation.
 100-266-585a 680HiTempGrips • Printed in U.S.A. • 9/18