

1100°C High Temperature Hydraulic LCF Grips Series HTG

The HTG grips are the ideal choice for conducting high-temperature Low Cycle Fatigue (LCF) Tests in combination with high temperature furnace.

These grips with hydraulic specimen preload are specially designed for Low-Cycle Fatigue Testing or for any other reverse axial stress application up to 15 Hz or tension-only application.



The reverse rated grip extension with inside pushrod for specimen preloading and the exchangeable specimen adapters extend into the heated zone of the furnace. These parts are made of high-temperature super alloys with high strengths at high temperature.

The grip body, which remains outside of the furnace, is water cooled and isolate the hot parts of the grips from the actuator piston rod and from the load cell or other accessories.

When hydraulic pressure is applied the grip piston moves and push the pushrod against the end of the specimen. The adjustable grips pressure defines the specimen preloading that can be set in relation to expected introduced compressive forces.

These grips can accommodate various sizes of threaded and button-end specimens. A view port in the grip extension helps to position the threaded specimen in the adapters.

All parts of the HTG grips are accurate machined with tight tolerances for improved and repeatable alignment.

Key Features

- Preloaded for full reverse application
- Replaceable inserts for various specimen sizes
- Suitable for threaded and button-end specimen
- Low thermal gradient
- Available in various sizes suiting different furnace

Interface to the testing machine with Washer-System

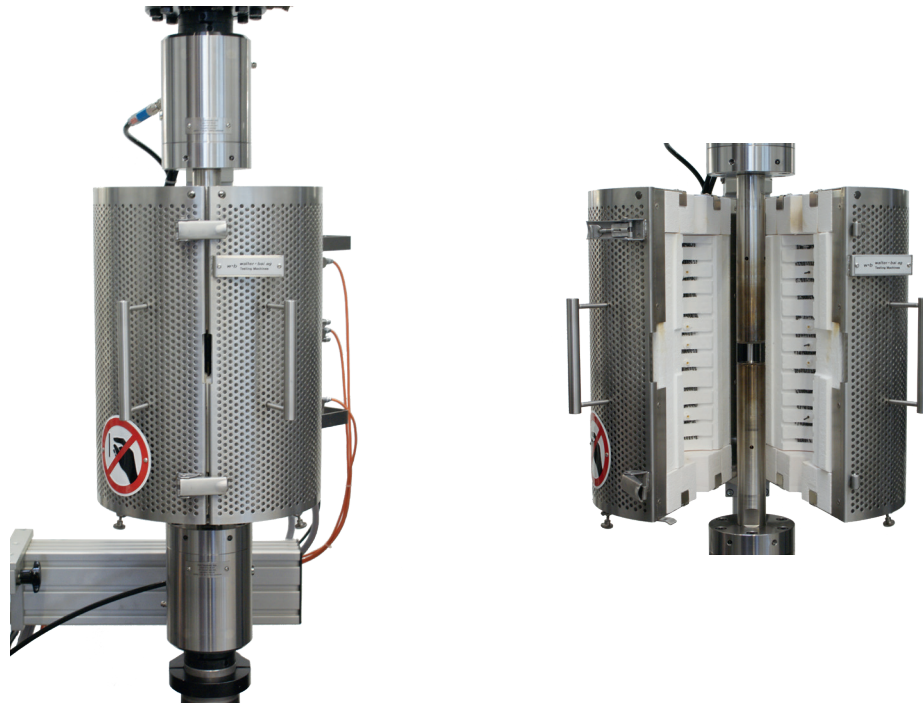
The grips provide an internal thread that allows a backlash free connection of the grips to your testing machine with spiral washer and connector stud.

The washer/stud connection provides backlash-free connection between the grip and the testing machine.

Suitable Grip Extension Length

These grips are available with different grip extension matching various high temperature furnaces.

As suitable length of the parts extending into the furnace will increase the lateral stiffness for better and more repeatable alignment.



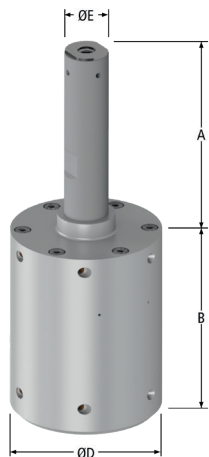
Technical Data

Model	Max. Operating Temperature	Force Rating (kN)*		
		at Ambient	at 700°C	at 1050°C
HTG-63	1100°	63	63	20.5
HTG-100	1100°	100	100	20.5
HTG-100.1	1100°	100	100	20.5

* Force rating refers to the grips
Force rating decrease linearly with temperature between 700 °C and 1050 °C

Force rating for M12 Adapter at 1000°C is 9.4 kN

Force rating for M12 Adapter at 700°C is 38 kN



Dimensions

Model	Overall Height A+B (mm)	Height A (mm)	Height B (mm)	Diameter D (mm)	Diameter E (mm)	Weight (kg)
HTG-63	381	215	166	130	38	17.9
HTG-100	331	165	166	130	38	17.6
HTG-100.1	256	90	166	130	38	17.3