

Soete Laboratory owns different universal tension/compression testing machines with capacities between 50 kN up to 2500 kN. Custom specimen grip fixtures are available and if required, can be designed and manufactured by laboratory Soete. The testing machines can be used for various types of tests, e.g.: tensile tests, fatigue testing of welded components, four-point bend tests, ...

The test-rigs are servo-hydraulically operated with programmable controls which allows for a load-controlled or displacement-controlled operation to ensure an accurate execution of the test. All tests can be instrumented using deformation measurement sensors, such as LVDT's, clip gauge and extensometers. For dedicated test setups, environmental chambers are available to control temperature, humidity and corrosion environment.



Figure 1: Medium wide plate tension test in MTS 2500



Figure 2: Fatigue testing of welded aluminum T-joint

TEST RIG CHARACTERISTICS

Property	MTS 50	ESH 100	ESH 150	MTS 1000	MTS 2500
Quasi-static capacity	+/- 50 kN	+/- 100 kN	+/- 150 kN	+/- 1000 kN	+/- 2500 kN
Dynamic capacity	+/- 20 kN	+/- 75 kN	+/- 110 kN	+/- 750 kN	+/- 1850 kN
Max. dynamic loading rate	100 mm/s	50 mm/s	25 mm/s	20 mm/s	4 mm/s
Max. stroke	250 mm	100 mm	100 mm	150 mm	150 mm
Custom grips	Yes				
Width	450 mm	600 mm	600 mm	712 mm	760 mm
Length (without grips)	1500 mm	1700 mm	1700 mm	1900 mm	2150 mm

Test rigs adaptor and customization is available to test non-standard samples and component geometries