

The floor of the main test hall of Laboratory Soete is equipped with a modular test floor of 15 m by 60 m. This floor consists of a 3.5 m thick sandwich plate of reinforced concrete. Anchorage points are placed in a 1.2 meter pitched grid. At each anchorage point a horizontal and/or vertical load of 1000 kN and a bending moment of 1000 kNm can be transmitted to the floor plate. On this floor, a load frame can be built with the available vertical load bridges (maximum height 4.5 m, i.e. the orange pillars) and horizontal beams (maximum span 4.5 m), to accommodate components and structures with a dimension up to 20 m. As such, e.g. a full-scale four-point bend test with an inner support distance of 2.4m with individual point loads up to 4000 kN (quasi-static) and 2000 kN (dynamic) are possible at each support location. An example of a purpose built load frame is shown on the image below.



A collection of hydraulic actuators with capacities up to 4000 kN (quasi-static) and 1500 kN (dynamic) and hydraulic pumps with a combined capacity of 300 kW (400 hp) are available at the laboratory. A 6 channel MTS controller is available which can control and synchronise up to 6 different hydraulic actuators so multi-axial loads can be applied to components and structures. Dedicated instrumentation is available for on- and off-line measurements (e.g. strain gauges, LVDT's, applied loads, applied deformations, ...)

## TEST RIG CHARACTERISTICS

Property	Value
Single anchor point load capacity	+/- 1 000 kN, 1 000 kNm
Grid 4-point quasi-static load capacity	+/- 4 000 kN
Grid 4-point dynamic load capacity	+/- 2 000 kN
Strong floor overall bending moment capacity	17 000 kNm
<b>Max. specimen dimensions</b>	
Length,	approx. 20 m
Width,	4.2 m
Height,	2.5 m
Weight	40 000 kg

Custom designed test rigs can be built upon request