

# Mechanical loading Racking and Torsion

Test rig to determine the resistance to racking and static torsion of windows, french window, and hardware

*Type: MRT*



## 1 Description of the MRT test rig

Adaptive unit and mountings for testing mechanical loading. With the combination of a clamping wall the resistance and static torsion of windows, french window, and hardware can be determined.

The test rig consists of a stable stainless steel framework, a massive steel chassis as well as a system for adaptively and individually mountings. This adaptive system enables various possibilities of boltings. It enables to test almost all possible window and door types: turn, tilt, turn-tilt, foldaway, lower-foldaway, swing, turnaround, and slide functions.

The individual specimen needs either to be fixed to an available attachment or to the optional offered clamping wall. Of course you have the opportunity to fix your specimen to one of our test rigs like MPA-S, DDK, etc.

After fixing the specimen the next step is to start up the MRT test rig and to fix in place the load test position according to the standard. Steel beams are helping to get the accurate and stable position. The standard testing force is initiated via the hand cable winch. The displayed force measure device measures the force. Heavy weight plates ensure the required stability.

All values are evaluated after the test run. You have the opportunity to add further optional features and elements to this test rig, that can also be used independent of the MRT test rig.



## 2 MRT testing according to following standards

Testing characteristic		Standards
<i>Determination of the resistance to racking</i>		
Racking	windows	DIN EN 14608
	doors	EN 947
<i>Determination of the resistance to static torsion</i>		
Torsion	windows	DIN EN 14609
	doors	EN 948
<i>Turn and tilt function</i>		
Hardware		RAL-RG 607/3

## 3 Scope of delivery

### Basic version

- Basic carriage:
  - Stainless steel construction
  - Steel chassis
  - Adaptive fittings
  - Weight plates
- Equipment to determinate the resilience
  - Displayed force measure device
  - Deflection pulley
  - Mounting elements
  - Hand cable winch

## 4 Technical data

- Dimension is customized according to your needs
- Weight: approx. 170 kg
- Loading:
  - Min. test load: 20 N
  - Max. test load hand cable winch: 1000 N
- Measuring range: 0 to 950 N

## 5 Optional features / modifications

The following options can be offered on enquiry:

- Clamping wall (can be customized individually)
- Mobile multifunctional meter HMG 300 (for capturing and measuring of operating forces)
- Torque wrench
- Digital torque wrench (30 Nm  $\pm$  2%, sonic signal and in.lb / ft.lb display)
- Measuring device
- Individual coating

Individual features, especially for your needs, can be provided after consulting.

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