

**Product Name :**  
Deformation of Frames

**Product Code :**  
TN111



**Description :**

Deformation of Frames

**Technical Specification :**

**Deformation Of Frames**

The unit is perform the following experiments and investigations:

Learning Objectives / Experiments

Relationship between load application and deformation on the frame

Differences between statically determinate and statically indeterminate frames

Familiarization with the first-order elasticity theory for statically determinate and indeterminate systems

Application of the principle of superposition

Application of the principle of virtual work on statically determinate and statically indeterminate frames

Determination of a deformation by the principle of virtual forces

Determination of a load by the principle of virtual displacement

Comparison of calculated and measured deformations

**Specifications:**

Investigation of the deformation of steel frames under load

1 u-shaped and 1 s-shaped frame

Statically determinate or statically indeterminate bearing support possible

1 long and 1 short clamping pillar

Roller bearing for statically indeterminate support

Weights with a movable hook to adjust to any load application point

Dial gauges record the deformation of the investigated frame under load

Storage system to house the components  
Experimental setup in the included mounting frame

**Technical Data:**

Frame made of steel  
Edge length: 600mm  
Cross-section: 20x10mm  
U-shaped: 600x600mm  
S-shaped: 600x600mm  
Dial gauges  
Measuring range: 0...20mm  
Graduation: 0,01mm  
Weights  
2x 1N (hanger)  
8x 1N  
6x 5N  
Dimensions and Weight  
Length x Width x Height: 1170x480x178mm (storage system)  
Weight: 34kg (total)

**Mounting frame**

**Specification:**

Frame for mounting of experiments in statics, strength of materials and dynamics  
Sturdy sectional steel double frame, welded  
Easy, exact mounting of all components by precision clamp fixings  
Stable on laboratory desktops or workbenches  
Frame supplied disassembled

**Technical Data:**

Mounting frame made of steel sections  
Frame opening Width x Height: 1250x900mm  
Section groove width: 40mm  
Dimensions and Weight  
Length x Width x Height: 1400x400x1130mm (assembled)  
Length x Width x Height: 1400x400x200mm (without mountings)  
Weight: 32kg.

## Naugralabequipments

**Website:** www.naugralabequipments.com, **Email:** sales@naugralabequipments.com

**Address:** 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India. **Phone:** +91-9896600003