

**Product Name :**  
Dynamic Behaviour Of Multistage Planetary Gears

**Product Code :**  
TN622



**Description :**

Dynamic Behaviour Of Multistage Planetary Gears

**Technical Specification :**

Dynamic Behaviour Of Multistage Planetary Gears

The unit is perform the following experiments and investigations:

Learning Objectives / Experiments:

- Determine the transmission ratio for a locked gear
- Measure transmitted forces for a locked gear
- Gear acceleration under constant driving torque
- Influence of the transmission ratio
- Determine reduced mass moment of inertia
- Conversion of potential energy into kinetic energy
- Determine friction
- Determine gear efficiency

Specification:

- Investigation of the dynamic behaviour of a 2-stage planetary gear
- Three planet gears per stage
- Four different transmission ratios possible
- Gear is accelerated via cable drum and variable set of weights
- Weight raised by hand crank; ratchet prevents accidental release
- Clamping roller freewheel enables free further rotation after the weight has been released

Shock absorber for weight  
Transparent protective cover  
Force measurement on different gear stages via 3 bending bars, display via dial gauges  
Inductive speed sensors  
Software for data acquisition via usb under windows 7, 8.1, 10  
Including PC1 Computer-System with 21" TFT-Monitor Win 10 engl.

Technical Data:

2-stage planetary gear  
Module: 2mm  
Sun gears: 24-tooth, d-pitch circle: 48mm  
Planet gears: 24-tooth, d-pitch circle: 48mm  
Ring gears: 72-tooth, d-pitch circle: 144mm  
Drive  
Set of weights: 5...50kg  
Max. Potential energy: 245,3Nm  
Load at standstill  
Weight forces: 5...70N  
Measuring ranges  
Speed: 0...2000rpm  
230V, 50Hz, 1 phase  
230V, 60Hz, 1 phase; 120V, 60Hz, 1 phase  
Dimensions and Weight  
Length x Width x Height: 950x600x1700mm  
Weight: 150kg

## Naugralabequipments

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