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PRODUCT DATA SHEET
Catalogue reference for product evaluation

Phone: +91 7015865225 **Email:** info@scienticoindia.com **Web:** scienticoindia.com **Address:** #71, Industrial Area, Ambala Cantt, Haryana, India

Spur Gear Lifting | ProDynami - 1334

Category: Theory Of Machines · **Country of Origin:** India

Product Overview

The Spur Gear Lifting ProDynami - 1334 demonstrates the relationship between spur gear tooth ratio and transmission ratio. This Spur Gear Lifting apparatus uses 4 Cobalt Colored steel gear wheels, ball bearing-mounted pulleys, and an anodised aluminium base plate for wall mounting. It investigates torque conversion, friction influence, and gear unit efficiency across standard and optional gear configurations. A full weight set supports mechanical advantage experiments.

View this product online: https://scienticoindia.com/product/spur-gear-lifting-prodynami-1334/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Spur Gear Lifting ProDynami - 1334, Technical Specifications

Specification	Detail
Unit Type	Demonstration and student experimental unit on set-up and principle of toothed gearing mechanisms
Gear Wheels	4 Cobalt Colored steel gear wheels

Technical Data

4 Gear Wheels (Standard)

Parameter	Value
Large gear	2x D=126mm, 84 teeth
Small gear	2x D=42mm, 28 teeth
Modulus	m=2mm
Configuration	One Gear Set as Compound

Optional Gear Set (On Request)

Parameter	Value
Large gear	2x 120 teeth
Small gear	2x 40 teeth

Parameter	Value
Modulus	m=2mm
Configuration	One Gear Set as Compound

Driving Pulley

Parameter	Value
Diameter	70~80mm

Set of Weights

Parameter	Value
Set	2x 1N suspended, 2x 0.25N, 2x 0.5N, 2x 1N, 2x 2N, 2x 2.5N

Key Features

Key Features

- **Gear Wheels:** 4, Cobalt Colored steel, standard configuration 2x D=126mm (84 teeth) and 2x D=42mm (28 teeth)
- **Modulus:** m=2mm across standard and optional gear sets
- **Optional Gear Set:** 2x 120 teeth and 2x 40 teeth, available on request
- **Cable Pulleys:** 2, anodised aluminium
- **Driving Pulley:** diameter 70~80mm
- **Bearing Mounting:** ball bearing-mounted gear wheels and pulleys
- **Base Plate:** anodised aluminium
- **Weight Set:** 2x 1N suspended, 2x 0.25N, 2x 0.5N, 2x 1N, 2x 2N, 2x 2.5N
- **Mechanism Study:** teeth ratio and transmission ratio relationship, central to this Spur Gear Lifting apparatus

Experiments

- Learning the key variables and correlations of a spur gear
- Velocity ratios of spur gears
- Gear with intermediate wheel or two-stage gearing
- Influence of friction on transmission
- Determining efficiency
- Determining mechanical advantage

Construction and Design

The Spur Gear Lifting ProDynami - 1334 is built around 4 Cobalt Colored steel gear wheels, standard configuration of 2x D=126mm with 84 teeth and 2x D=42mm with 28 teeth, both with a modulus of m=2mm, arranged as one gear set in compound configuration. An optional gear set, with 2x 120 teeth and 2x 40 teeth gears at the same modulus, is available on request. Two anodised aluminium cable pulleys work alongside a driving pulley with a diameter of 70 to 80mm. Gear wheels and pulleys are ball bearing-mounted, and the base plate is made of anodised aluminium. The model is intended for wall mounting.

Scope of Delivery

- 1 Experimental unit
- 1 Instruction manual
- 1 Set of weights
- 1 Thread

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q: What is the Spur Gear Lifting ProDynami - 1334 used for?
A: It is used to demonstrate the relationship between spur gear tooth ratio and transmission ratio, investigating torque conversion and gear unit efficiency.

Q: What are the standard gear wheel specifications?
A: The standard gear wheels are 2x D=126mm with 84 teeth and 2x D=42mm with 28 teeth, both with a modulus of m=2mm.

Q: Is an optional gear set available?
A: Yes, an optional gear set with 2x 120 teeth and 2x 40 teeth gears, at the same m=2mm modulus, is available on request.

Q: What is the driving pulley diameter?
A: The driving pulley diameter ranges from 70 to 80mm.

Q: How is the apparatus mounted?
A: The model is intended for wall mounting.

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