

The Engineering Fundamentals range is designed to enable students to gain an understanding of the fundamentals of engineering by the process of learning via hands-on experimentation.

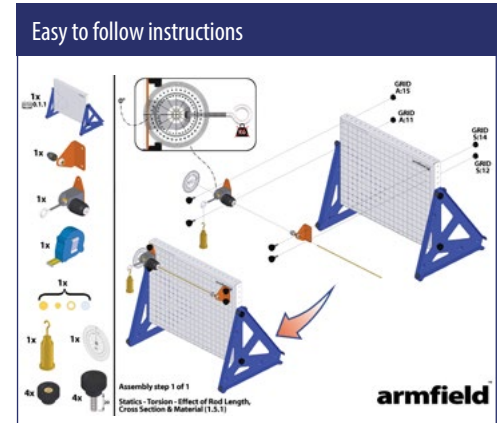
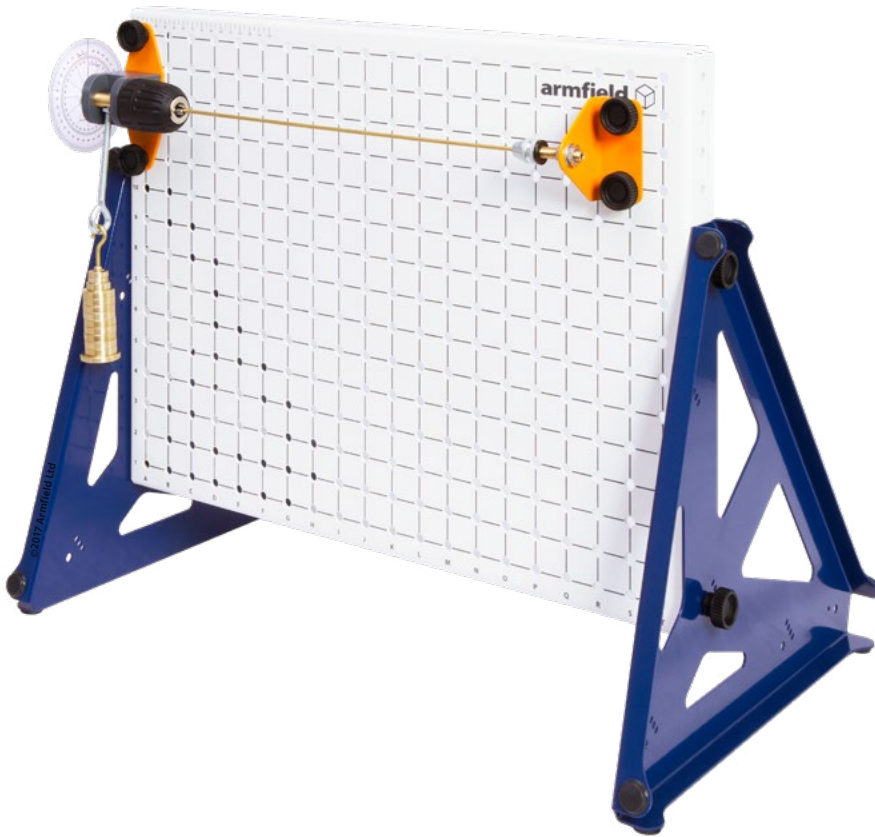
The modular hands-on tray based system is supplied in conjunction with a multifunctional Base Unit enabling the student to conduct their own experiments in subjects such as Statics, Dynamics, Mechanisms and Kinematics.

Each kit is supplied with a highly visual user friendly operational guide, enabling the student to understand the theory of the subject by the application of practical experimentation.

AN INNOVATIVE HANDS ON MODULAR SYSTEM DESIGNED TO ENABLE INVESTIGATION AND THE UNDERSTANDING OF ENGINEERING PRINCIPLES

Description

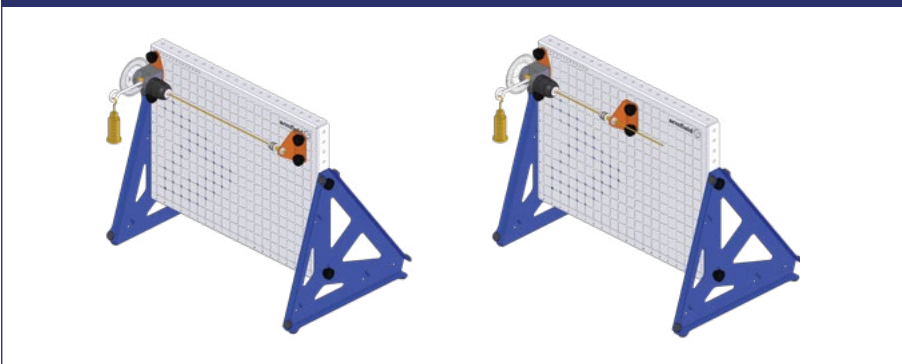
The EF-1.5 - Torsion experiment kit enables students to understand the relationship between torsion and the angle of twist for any given material.



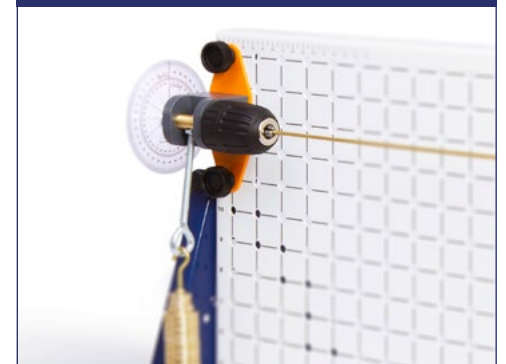
1 tray supplied with EF-1.5



Experiments shown: Effect of Rod Length, Rod Material (Modulus of Rigidity) and 'J' Value on Angle of Twist



High quality materials



Features / benefits

- ▶ Applied student learning via building and experimentation
- ▶ Supplied with a detailed instruction manual, covering the theory of Torsion including multiple practical experiments designed to further develop the students' understanding in this field
- ▶ Hands-on learning
- ▶ Clear and concise pictorial assembly instructions enhance the learning experience
- ▶ Multiple experimental capability per self-contained kit
- ▶ Toolless assembly

Requirements

Scale

EF-BU

Experiment tray scale



EF-BU scale



EF-WS scale



- ▶ EF-BU on which to build the experiment from the tray components
- ▶ Level and stable work surface to mount the EF-BU upon. The optional EF-WS is ideal for this if no suitable desk or bench is available

Experimental content

Effect of rod length, rod material (Modulus of Rigidity) and 'J' value on angle of twist.



Workstation EF-WS
(Trays and base units sold separately)

Overall dimensions

Tray	
Length	0.430m
Width	0.312m
Height	0.080m
Packed and crated shipping specifications	
Volume	0.2m ³
Gross weight	5Kg

Essential accessories / equipment

- ▶ EF-BU Base Unit

Related products

- ▶ EF-BU Base Unit

Statics Experiments

- ▶ EF-1.1 Engineering Fundamentals Forces
- ▶ EF-1.2 Engineering Fundamentals Moments
- ▶ EF-1.3 Engineering Fundamentals Beams
- ▶ EF-1.4 Engineering Fundamentals Springs
- ▶ EF-1.5 Engineering Fundamentals Torsion

Dynamics Experiments

- ▶ EF-2.1 Engineering Fundamentals Friction
- ▶ EF-2.2 Engineering Fundamentals Simple Harmonic Motion
- ▶ EF-2.3 Engineering Fundamentals Rotational Friction
- ▶ EF-2.4 Engineering Fundamentals Potential and Kinetic Energy
- ▶ EF-2.5 Engineering Fundamentals Centrifugal & Centripetal Force

Mechanisms Experiments

- ▶ EF-3.1 Engineering Fundamentals Cam, Crank and Toggle
- ▶ EF-3.2 Engineering Fundamentals Mechanisms
- ▶ EF-3.3 Engineering Fundamentals Additional Mechanisms
- ▶ EF-3.4 Engineering Fundamentals Bar Linkages

Kinematics

- ▶ EF- 4.1 Engineering Fundamentals Pulleys
- ▶ EF- 4.2 Engineering Fundamentals Gears
- ▶ EF- 4.3 Engineering Fundamentals Drive Systems

Options

- ▶ EF-WS Workstation
- ▶ EF1-Spares Spares

Ordering specification

- ▶ Mild steel chuck mount block 120 x 42mm
- ▶ Pvc torsion mount block 120 x 50mm
- ▶ Pvc torsion pivot block 60 x 50mm
- ▶ Magnetic protractor
- ▶ 2 x 250g weights set on hanger
- ▶ Tape measure (3m x 16mm)
- ▶ 1x 3mm aluminium test rod
- ▶ 1x 2mm brass test rod
- ▶ 1x 3mm brass test rod
- ▶ 1x 3mm hollow brass test rod

Ordering codes

- ▶ EF-1.5 - Static Torsion
- ▶ EF-BU - Base Unit
- ▶ EF-WS - Workstation (optional)

Armfield standard warranty applies with this product

Knowledge base

- > 28 years expertise in research & development technology
- > 50 years providing engaging engineering teaching equipment

Benefit from our experience, just call or email to discuss your laboratory needs, latest project or application.

An ISO 9001:2015 Company



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Aftercare

Installation
Commissioning
Training
Service and maintenance
Support: armfieldassist.com