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## INTRODUCTION

The friction study unit allows to study a phenomenon which is continuously present in nature. Friction is a physical phenomenon by which two mobile surfaces in contact tend to stop. This leads to a surfaces wear and so to an energy loss. This is the reason why it is a phenomenon to be taken into account when studying a system.

Forces between surfaces, their state, the kind of material and the unit where the friction takes place (dry or wet) will determine the coefficient of friction, by which the friction force is calculated.

## DESCRIPTION

The Friction Study Unit "MEF" allows to illustrate the friction force by simple demonstrations.

It is designed for the study of the relations between friction forces and normal forces, between hard or soft surfaces, between lubricated or dry surfaces and between rolling surfaces for several types of materials.

The unit is mainly composed of:

- Roller and brake set.
- Several materials cushions set.
- Weights set.

The weight makes the roller set turn while another weight exercise some pressure on the brake, the relation between both of them determines the coefficient of friction for different materials and different operational conditions.



ISO 9001:2000  
Certificate of Approval



European Union Certificate



Certificates ISO 14001: 2004 and  
ECO-Management and Audit Scheme  
(environmental management)



Worlddidac Quality Charter  
Certificate  
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## SPECIFICATIONS

The unit is assembled in an anodized aluminum profile structure, in steel panel painted in epoxy.

This unit is mainly composed of:

Friction rollers.

Brake mechanism.

Movement pulley.

Friction cushions set.

In order to carry out some of the practices with MEF unit are required 2 set of weights "B type" (See required accessories)

**Manuals:** This unit is supplied with the following manuals: Required services, Assembly and Installation, Starting-up, Security, Maintenance and Practices manual.

## EXERCISES AND PRACTICAL POSSIBILITIES

### Some Practical Possibilities of the Unit:

- 1.- Investigation of the relations between the friction forces and normal forces between surfaces in contact.
- 2.- To compare the values between dry surfaces in contact using several materials, by the sliding coefficient.
- 3.- To compare the friction values for dry and lubricated surfaces.
- 4.- To compare the friction force for sliding surfaces with rolling surfaces.
- 5.- To compare the friction force of soft and hard rolling surfaces.

## DIMENSIONES Y PESOS

- Dimensions: 400 x 300 x 300 mm. approx.

- Weight: 15 Kg. approx.

## REQUIRED ACCESSORIES

- 2 set of weights "B type" (set B).

Each "B type" set is composed of:

6 weights of 200 gr.

6 weights of 100 gr.

2 weights of 50 gr.

2 weights of 20 gr.

2 weights of 10 gr.

1 support hook of 100 gr.

\* Specifications subject to change without previous notice, due to the convenience of improvements of the product.



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