# **BEF200**



# PLANE-PLANE FRICTION AND PLANE-CYLINDRICAL FRICTION STUDY UNIT



#### **EXPERIMENTAL CAPABILITIES**

- Study of friction in the case of sliding movement and of rotation.
- Determine the relation between normal force and frictional force
- Compare the friction between the dry bodies and the lubricated bodies
- Determining the friction coefficient for different materials of different hardness

- ...

# **BEF200**



# **OPERATING PRINCIPLE**

The bench BEF200 is a bench dedicated to the study of friction coefficients for different materials pairs

It quantifies the coefficient of friction for these different pairs of materials but also to measure the impact of lubrication, surface condition, or the types of contact (plane / plane or plane / cylinder) between surfaces in contact.

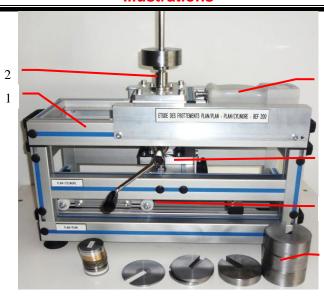
This bench is supplied complete with its batch of accessories (load measurement, weight, wafers of different materials ...)

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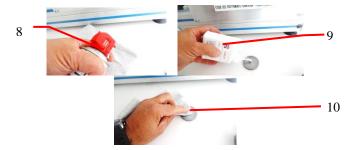
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# Illustrations







### Technical details

- Modular chassis in aluminum profile consists of three interlocking parts each equipped with handles. The set is mounted on 4 adherents feet
- 2. <u>Application unit of the normal load</u> at the contact point.
- 3. <u>Dynamometer</u> 50N capacity, accuracy at 0.02N for measuring the tangential force resulting from friction.
- 4. <u>Set of masses</u> (total 5kg: 4\*1kg + 1\*0.5kg + 2\*0.2kg + 1\*0.1kg) for establishing the normal force on the pad
- 5. Removable apparatus for friction tests on the cylinder in treated steel, equipped with a removable lubricating bin and a crank handle
- 6. <u>Apparatus</u> for friction tests in the case of <u>plane sliding</u> on a plane (treated steel plate),
- 7. Set of 12 friction pads, Ø45mm, thickness. 5mm of different materials and hardness (steel, aluminum, bronze, ferodo, cast iron, plastic) with a pad holder
- 8. 1 degreasing product.
- 9. 1 oil bottle
- 10. 1 batch of wipes for the cleaning

#### Services required

- Dimensions: (LxWxH mm): 800 x 600 x 500
- weight (Kg): 20

Note: if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

### **Documentation**

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- · Certificate of conformity CE