



# Vibration analysis bench and tree alignment

*For mounting and dismounting of bearings and alignment of shafts*

## Description of the teaching material

The Vibration Analysis and Shaft Alignment Training Bench is built with real industrial components (bearings, shafts, couplings).

It enables the acquisition of skills related to preventive and corrective maintenance based on vibration analysis as well as skills related to assembly, adjustment with shaft alignment

## Technical solutions addressed

- ✓ Electrical box with protection
- ✓ 3-phase asynchronous motor with variable speed drive and motor speed potentiometer
- ✓ Shaft with flexible coupling and flywheel
- ✓ Adjustment screw for alignment / misalignment
- ✓ Fixed and interchangeable bearings
- ✓ Protective housing with safety sensor

## Educational activities

- ✓ Implementation of vibration analysis tools
- ✓ Interpretation of measurements and diagnosis of the main vibratory faults thanks to the possibility of creating faults upstream (unbalance on the axis, faulty bearing, ground connection)
- ✓ Variable speed drive control and influence on vibrations
- ✓ Laser alignment of two shafts with elastic coupling

## Highlights

- ✓ Compact and economical solution for implementing vibration analysis and shaft alignment tools
- ✓ Interchangeable Coupling and Bearings
- ✓ Adjustment screw for motor alignment / misalignment

## References

- ✓ AV10: Vibration analysis and shaft alignment training bench
- ✓ SY//VBS1T: Vibrometer with on-board camera VSHOOTER
- ✓ SY//TKSA51Ipad : Laser shaft alignment instrument with tablet interface TKSA51 Shaftlaser (With IPAD mini)

Bac Pro / BTS Industrial Maintenance

## Themes addressed

Preventive Maintenance, Mechanical Transmissions



## RELATED & COMPLEMENTARY PRODUCTS

### Shaft alignment measuring instrument with shim set (With shelf)



[www.erm.li/tksa](http://www.erm.li/tksa)

### Vshooter Vibration Analysis Camera



[www.erm.li/vsh](http://www.erm.li/vsh)