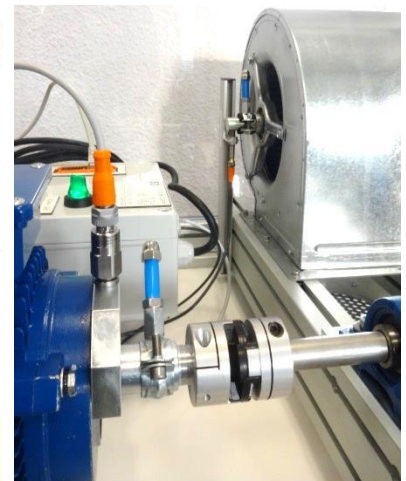
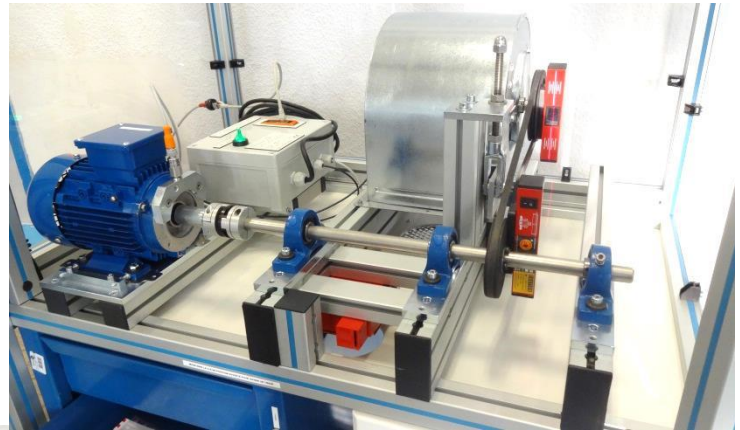


MTR100



TRAINING UNIT FOR MAINTENANCE AND ADJUSTMENT OF MECHANICAL TRANSMISSIONS



Experimental capabilities

- Belt replacement for preventive maintenance
- Setting of belt tension
- Setting of pulley alignment
- Setting of shaft alignment
- Vibration analysis

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Operating principle

The MTR 100 bench allows to implement the setting operations and for maintenance of transmissions by coupling and belt **ainsi que des activités d'analyse vibratoire suivant les options retenues.**

The robust design of this device makes it suitable for use in schools.

The equipment is set up on an Anodized aluminium frame on casters wheels. This gives it great strength and a flexibility of integration into your premises.

The manufacture of this equipment complies with the European standard for machinery manufacturing.

This equipment can be used alone or with other compatible equipment from our range (see last section of this document).

Technical details

The bench:

- A **metallic structure** in anodized aluminum on braked swivel wheels equipped with a storage cabinet
- A centrifugal fan enclosed with a V-groove pulley mounted on ring nut
- An intermediate shaft (coaxial with the engine and parallel to the fan axis) mounted on 3 bearings + platform with adjustable belt tensioner accurately.
- 1 V-groove pulley mounted on intermediate shaft by a ring nut allowing to adjust the axial position of the pulley (for activity of pulley alignment).
- 1 Oldham type coupling ensuring the transmission between the engine shaft and the intermediate shaft
- A three-phase engine powered by a variator and speed setting by a potentiometer (speed sensor preinstalled on the fan shaft)
- A set of adjusting shims (for vertical position setting of the engine in the framework of the alignment activities)
- 4 modules jack screw (for adjustment of the engine horizontal position in the framework of alignment activities)

Materialized points for control by vibration analysis allow furthermore the implementation of diagnostic operations of shaft misalignments, pulleys, faults on bearing housing, the establishment of unbalances on the engine shaft or the fan shaft, etc ... (vibration analysis equipment MBP013 not included).

Services required

Documentation

- Electrical supply : 230 Vac – 50 Hz
- Dimensions: (LxWxH mm): 1000 x 800 x 1800
- weight (Kg): 120

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

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

Options

• Control device for belt tension (Trummeter pro or equivalent) (ref MTR 101)

- | | |
|--------------------------|---|
| - Measuring range | 1 to 500 Hz |
| - Modulation | 5 kHz |
| - Test probe | 25 H with information OK |
| - Tolerance | +/- 0.3 Hz |
| - Resolution | +/- 0.1 Hz |
| - Utilization | from -20°C to +85°C |
| - Storage | from -40°C to +105°C |
| - Air humidity | from 20 to 95 % |
| - Casing | PVC, IP20 |
| - Dimensions of casing | 75 x 115 x 35 mm |
| - Dimensions of suitcase | 230 x 220 x 75 mm |
| - Display | LCD, 2 lines, 12 x 60 mm with backlight |
| - Input limits | length of free strand 0.030 – 9.999 m |
| - Input limits | mass of belt 0.001 – 9.999 kg/m |
| - Power supply | alcaline battery 9 V – type E-Block 6LR61 |
| - | |



MTR100



- **Laser alignment device of pulleys (Pullalign or equivalent): (ref MTR 102)**

Données Techniques PULLALIGN®

Emetteur Laser

| | |
|---------------------------|-----------------------------------|
| Précision de mesure | 0,2° |
| Longueur d'onde Laser | 675 nm |
| Puissance | < 1 mW |
| Classe | Class II |
| Distance de mesure | 10 m entre les unités |
| Taille de la ligne laser | 7 m à 5 m de distance |
| Mise en route | Interrupteur ON/OFF pour le laser |
| Charge piles | 25 heures |
| type de piles | 4 piles AAA alcalines |
| Température d'utilisation | -5°C à 40°C |
| Température de stockage | -10°C à 80°C |
| Montage | Aimants puissants |
| Poids | 0,3 kg |
| Dimensions | 37 mm x 40 mm x 167 mm |
| Boîtier | Aluminium anodisé |

Réflecteur Laser

| | |
|----------------------|------------------------|
| Précision | 0,2° |
| Taille du réflecteur | 21 mm x 32 mm |
| Montage | Aimants puissants |
| Poids | 0,27 kg |
| Dimensions | 37 mm x 40 mm x 167 mm |
| Boîtier | Aluminium anodisé |

Valise de transport

| | |
|---------------------|----------------------------------|
| Matériaux | Polypropylène noir haute densité |
| Dimensions | 355 mm x 300 mm x 85 mm |
| Poids de l'ensemble | 1,35 kg |



- **Laser machine of shaft alignment (SHAFTALIGN)**

(ref MBP 021)



- Alignment of horizontal and vertical machines
- Metering mode "active clock" simple and quick, possible even on restrict angle measurement,
- Static measurement mode, allows to measure from 3 to 8 points into hourly positions,
- Alignment of same fixed shafts or uncoupled
- InfiniRange to measure large alignment errors and long couplings,
- Correction in real time with simple interpretation, thanks to the axis display machines
- UniBeam®, a single laser technology, a single cable
- Tolcheck®, automatic calculation of tolerances,
- Search of the wobbly foot,
- Record the 50 files in the device (expandable)
- Data protection by automatic backup and recall of the last file,
- Archiving and possible reports directly to PDF format on USB key
- Cable with interchangeable connectors, power supply by built-in rechargeable battery
- Keyboard and color display robust, dedicated for use in industry,
- Protection against water, dust and grease: IP67 heads, 65 IP camera (unique to this level range)
- Upgradeable device, compatible Bluetooth.

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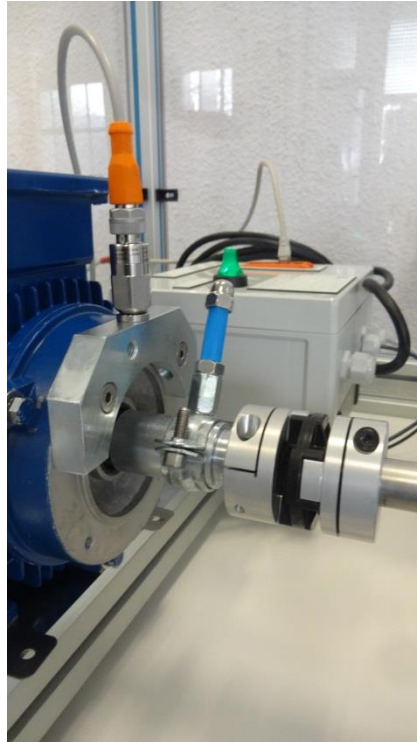
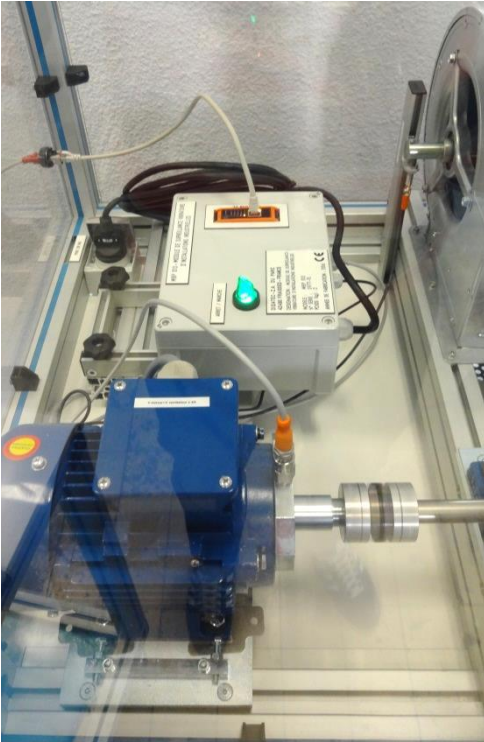
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MTR100

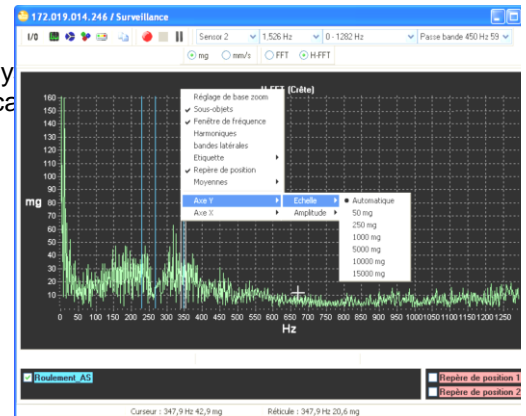
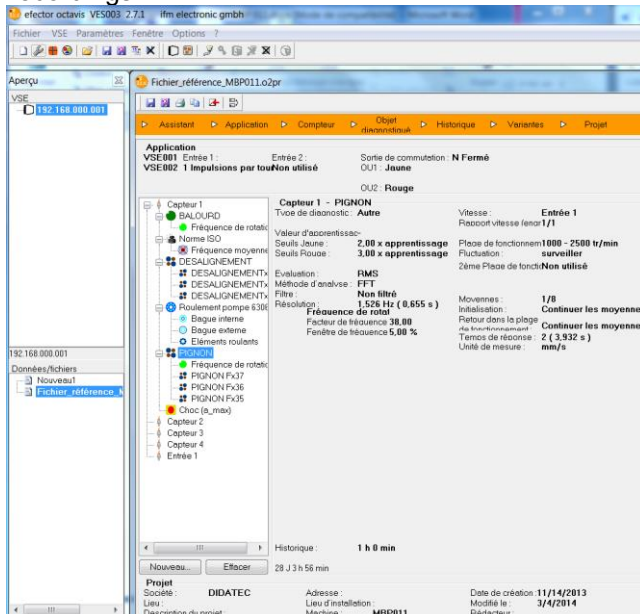


• VIBRATION MONITORING KIT

ref MBP 013



- Continuous monitoring of an installation / machine alarm trigger
- Kinematic study of the machine / Impact of the actual speed of sy
- Method of spectral analysis + demodulation for accurate identifica bad alignment engine / pump, unbalance, cavitation ...)
- Viewing the history
- Recordings



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