MP-102 OPTIONAL FEATURES

- Flexible rotor balancing at several speeds, making correction upto 9 planes (more than 8 planes are normally not required though software can easily be provided for more planes).

- Perform various functions to facilitate automation in high production balancing machines (automatic positioning of jobs, interaction with job transfer systems etc. By providing necessary additional equipments).

- Perform various statistical functions as taking mean values of initial unbalance, average number of balancing runs etc.

- Adaptation for soft bearing machines and setting procedure.

- Weight removal by automatic milling or drilling.

- Special software for highspeed balancing with multiple channels & data plotting.

Automatic propeller shaft balancing machine
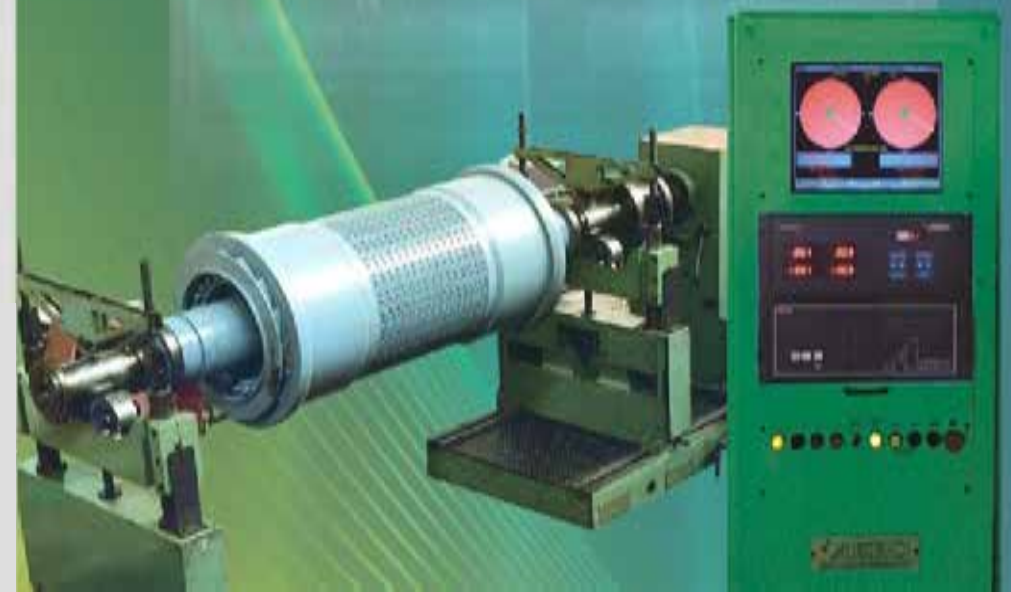

High speed balancing of armatures

A 32 ton generator rotor being balanced at operating speed of 3000 rpm on ABRO HR25K machine

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MP-102 ELECTRONICS
FOR HIGH-PRECISION BALANCING

MP-102 Electronics For High-Precision Balancing

The MP-102 electronics is a Microprocessor-based system for precision balancing. It has a CRT display, which is used as a read out for unbalance readings as well as for viewing various other rotor data / parameters. The software employed here is menu driven for user convenience.

Rotor description, dimensions, geometry, balancing tolerances, method of correction (add/remove, polar/component) and balancing speed are fed into the electronic memory of the unit via the keyboard. Each set of rotor data pertaining to one rotor is allotted a code number by which the rotor data is recalled from the memory at the time of balancing run. Adequate memory is provided for strong data on the hard disc.

The microprocessor unit carries out the entire set of computation digitally an displays the result on the CRT screen. The correction results are displayed in bold letters using specially designed graphics to suit the shop floor conditions. The results can be displayed or component from.

The unit also determines weather the residual unbalance is within the balancing tolerance or not. The balancing speed is checked and appropriate message are displayed on the CRT display to avoid balancing at wrong speeds.

The MP-102 unit is extremely useful where a large variety of rotors are encountered in the production process and changeover from one type of rotor to another is done frequently. It also allows the use of the printout system for recording the balancing results.


MP-102 Features

- Window based flexible system
- Special diagnostics program screen for pin-pointing the fault if ever the machine malfunctions.
- Special calibration programs to check machine calibration and if required reset it.
- Possibility of attaching a printer (even on a later date).
- Setting procedure in diagnostic mode with guiding steps displayed on the CRT.
- Correction values displayed in polar from (amount and angle) or the component from (weight addition at fixed points upto 99 components is possible).
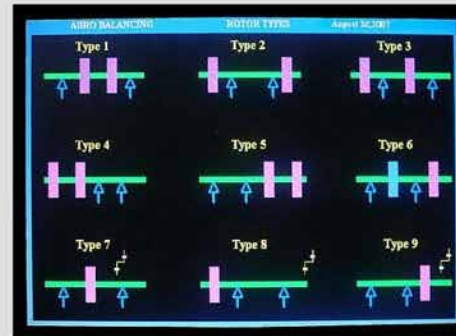
- Display of unbalance in vector format.
- Upto 999 different types of rotor codes.
- All readings can be saved in the hard disc or on floppy for later use.
- Unbalance calculation as per ISO 1940.
- Rotor specific calibration for operating speed applications.
- Automatic electronic compensation of tooling eccentricity and tooling unbalance.
- Mathematically separates the measured two plane unbalance into the static and couple components. Allows easier and faster balancing of certain types of rotors, specifically narrow or overhung rotor configurations.
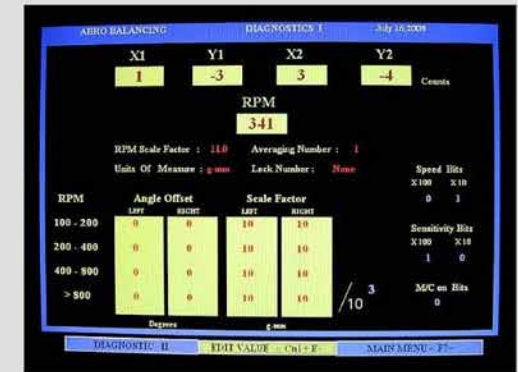
- Automatic comparison of rotor unbalance with its tolerance. When the rotor comes within tolerance, IN TOL indication is displayed.
- Comparison of actual machine balancing speed with the desired balancing speed fed-in. This ensures that balancing is done at the right speed.
- Possibility of recalling rotor data fed-in previously by giving the rotor code number.
- Display of complete file of rotor codes and description whose data is stored in the memory.
- Electronics measures the value over time and displays values when reading has stabilized.