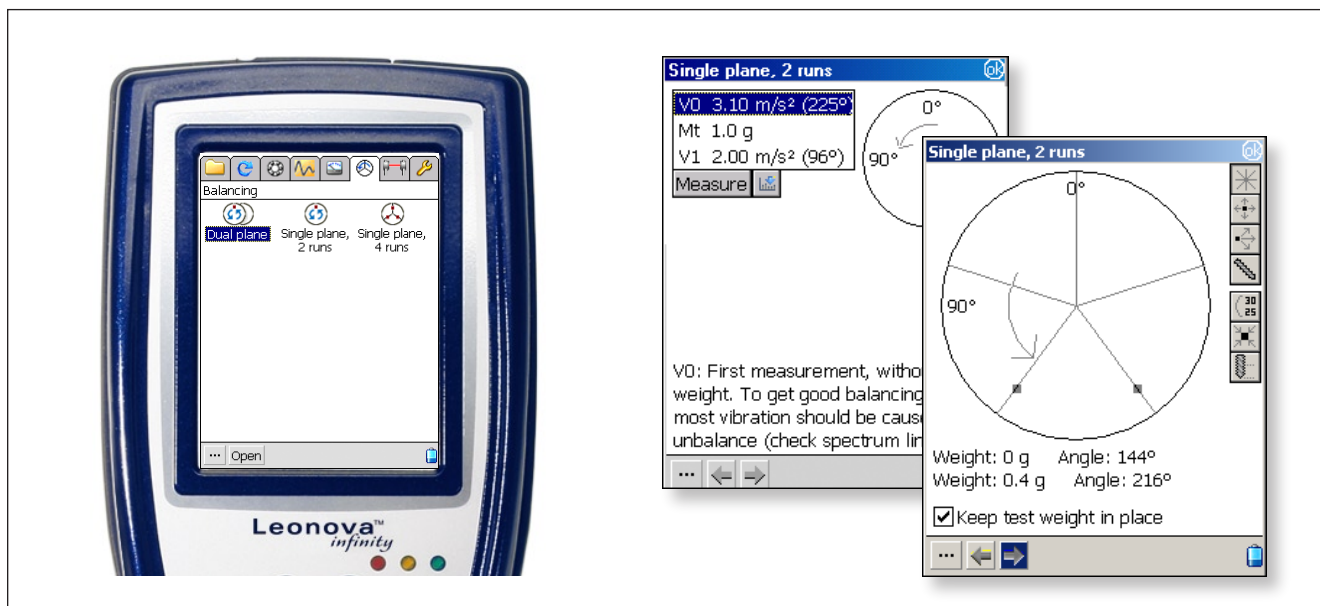


Leonova™ Infinity – Balancing



Single and dual plane balancing are optional Leonova functions with either limited or unlimited use. In case of limited use, credits are deducted for each vibration measurement.

Single plane balancing, 4 runs

This method uses one measurement without trial weight to determine the vibration severity (mm/s RMS) of the rotor, followed by three measurements with trial weights at 0°, 120° and 240° to calculate the weight and position of the correction mass.

Single plane balancing, two runs

This method uses one measurement without trial weight to determine the vibration severity (mm/s RMS) of the rotor, followed by one measurement with a trial weight to calculate the weight and position of the correction mass. It requires time synchronised vibration measurement (trigger pulse supplied by a pulse from the SPM tachometer probe or a proximity switch) to find the relative phase angle between the two vibration measurements.

Dual plane balancing

The same two run method as used for single plane balancing, but with vibration measurement and weight correction in two planes. These measurements can be made by shifting the vibration transducer or by connecting two transducers.

For all methods, a final run can be made to check the balancing results and, if needed, get the data for further adjustments. Leonova then saves a balancing log file.

Leonova guides step-by-step through the balancing procedure. One can shift the rotation direction and change the measured parameter from velocity to acceleration or displacement.

In addition to the RMS value, a spectrum is shown to help find the part of vibration that is due to unbalance. For the two run methods, the number of samples for obtaining a time synchronous average is set to min. 4.

Leonova calculates a number of alternatives for correcting the unbalance:

- Trial weight: Input rotor diameter, weight and rpm to obtain the suitable trial weight in grams.
- Split the correction mass: Input the number of rotor partitions to distribute the correction mass between two of them.
- Weight removal: Drill hole diameter and depth calculated for various materials.
- Radial displacement: Input the change in radial distance to recalculate the weight.
- Degrees to length: change from angle to length measured along the rotor circumference.
- Keep trial weight: Calculate the correction mass with the trial weight remaining in place.
- Sum up weights: Replace all correction masses on the rotor by one.

Ordering numbers

LEO152	Balancing, single plane, unlimited use
LEO252	Balancing, single plane, limited use
LEO153	Balancing, dual plane, unlimited use
LEO253	Balancing, dual plane, limited use
LEO154	Balancing, single and dual plane, unlimited use
LEO254	Balancing, single and dual plane, limited use

