Hofmann.
Intelligent Balancing Solutions

Balancing of very small rotors and aggregates

Horizontal, hard-bearing balancing machine R-7.1

Advantages

- Tailored to the requirements of very small rotors.
- Permanent calibration, no time-consuming calibration runs required.
- Rigid, robust and highly sensible balancing mechanics.
- Compact desktop working place.

Application

- Balancing of very small rotors
  - with own journals or
  - as complete aggregate with adapting tooling.
- Used in
  - production,
  - maintenance,
  - R&D.
- Balancing of rotors from
  - miniature electric motors,
  - dental tools,
  - miniature spindles,
  - model kits.

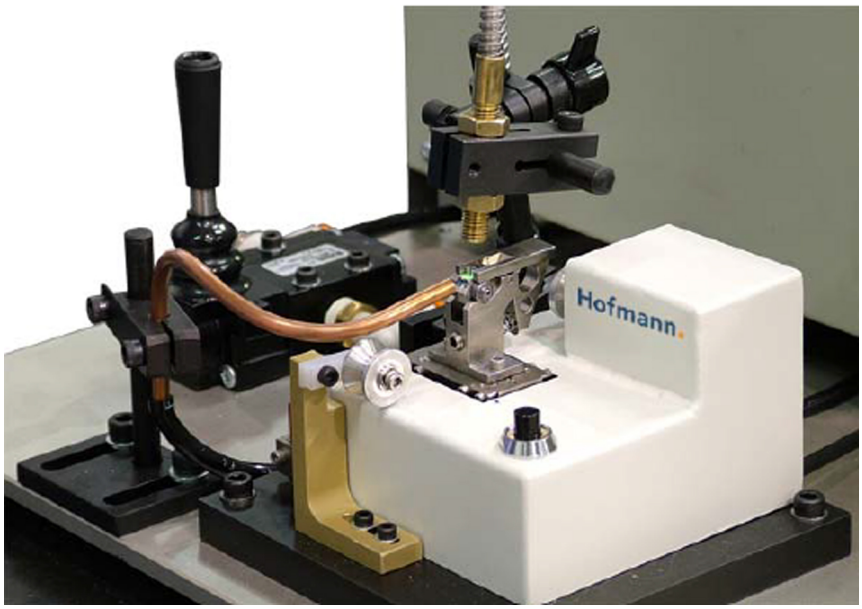
Description

The Hofmann balancing machine R-7.1 has been designed to meet the requirements to balance very small rotors and aggregates with weights down below one gram.

The R-7.1 is a hard-bearing machine and permanently calibrated. Therefore with a new rotor type just the positions of the balancing planes and the correction radii have to be setup at the unbalance measuring system. Then the balancing process starts. Time consuming calibration runs are not neccessary, which for very small rotors cause problems with manipulation of extremely small unbalance test weights.

The core of the R-7.1 is a rigid measuring table, which is designed to the Hofmann force measuring principle. The integrated force sensors measure the force generated by the rotor unbalance directly within the force flow and with very high sensitivity. Those sensors do not depend on temperature fluctuations or external electro-magnetic fields. As a result unbalances can be measured already at quite low speeds.

The unbalance measuring system provides a digital processing of the measuring values with a precise separation of the unbalance vibration. Its Windows operating system offers intuitive, simple and reliable operation. The unbalance correction is being displayed in terms of mass-, unbalance- or correction-units (like drilling depth).



Machine with compressed air drive and adapting tooling

Technical data

Max. rotor weight (incl. tooling)	g	200
For adaption in prism bearings and belt drive		
● Rotor diameter	mm	8 - 25
● Bearing distance min. / max.	mm	12 / 50
● Journal diameter	mm	1 - 5
Driving power of belt drive	W	4
Max. balancing speed at driving diameter 20 mm	1/min	2,760
Balancing speed at compressed air drive	1/min	> 30,000
Minimum achievable residual unbalance	gmm/kg	< 0.25
Power supply	V at Hz	115 / 230 50 / 60

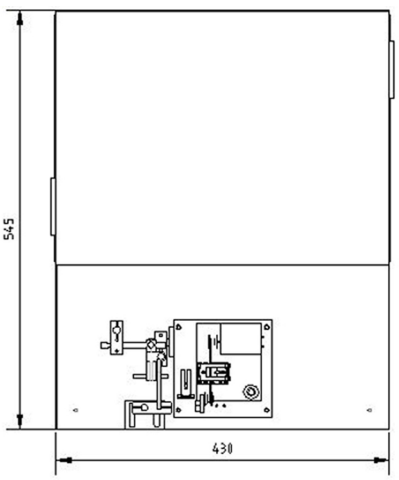
Options

- Compressed air drive
- Adapting tooling for complete aggregates
- Test rotor with test weights
- Unbalance measuring system (refer to separate product information)
- Protocol printer

Scope of supply

- 1 Balancing device with integrated measuring platform
- 1 Prism bearing set
- 1 Belt drive
- 1 Speed sensor with stand
- 1 Unbalance measuring system

All information without obligation, subject to change without notice!



Setup / dimensions