



TIRA gives new impulses with complete systems for industry and research. System technology from one source for more safety and quality, competitive advantage and image.



TIRA GmbH

TIRA Balancing Technology



Balancing technology is necessary, when mass unbalance of rotating parts or tools have to be removed or minimized.

Our balancing systems have a performance range, that ensures the solving of nearly all balancing problems.

No matter if in the field of electric motors, at the manufacturing of drive shafts and cast parts or at manufacturing of train wheels: Customers benefit from both, at the single part production and at the serial production from the fields of application of our balancing systems.

Our range of production and delivery:

- Hard-bearing and soft-bearing balancing machines with horizontal or vertical rotor bearing, also for repair and servicing
- Machines for small-, medium-, and large-batch production (fully-automatic and semi-automatic machines) with unbalance compensating units such as, for instance, drilling, milling or welding units
- Balancing as well as concentricity and axial run-out measurements
- Special-purpose machines for underfloor and top floor installation
- Refurbishment of already existing balancing machines
- Supply of services



TIRA GmbH

TIRA Vibration Test Systems



Vibration test systems from TIRA are developed for implementation of generally accepted standards MIL, ISO, ASTM, EN and DIN, for application within different industry branches and at the introduction of new technologies.

Decades of experience at the development and manufacturing of vibration test systems and the permanent orientation to innovative product solutions have placed our products successfully into the market.

Our customers work in the fields of automotive, avionics and transport as well as the fields of biology, chemical industry and medical science.

No matter if small very sensitive sensors or the durability of big, complex or heavy components; at dynamic stress they can be simulated, tested and analyzed with our systems at defined environmental conditions.

Our range of production and delivery:

- Vibration exciter 9 N - 300 kN
- Modal exciter 100 N - 15 kN
- Long stroke exciter with 100 mm displacement
- Power amplifier digital/analog
- Vibration control systems for Sine, Random, Shock and Mixed Mode
- Slip tables oil-film- and hydrostatically guided
- Headexpander and special designs

TIRA GmbH

TIRA Material Testing



Material testing is an essential process in the development of product innovations as well as in quality assurance.

For this we develop test machines and systems, which are fully manufactured on our own.

Here electric drives are used for standard and servo-hydraulic drives for customised solutions.

For example automotive sub-suppliers and companies of aerospace industry as well as manufacturers of medical technology benefit from our expertise in the field of material testing.

Our range of production and delivery:

- Tensile-/compression-/bending machines with spindle drive
- Tests at defined temperatur- and climatic conditions
- Software for universal testing machines
- Refurbishments
- Calibration with DAkkS-Certificate
- Special testing machines, e.g. for cutting force measurement

TIRA GmbH

TIRA Mechanical Engineering



The high-precision manufacturing of component parts as well as complex machine assemblies is the trademark of the machining center at TIRA.

- Drilling/Milling/Measuring
- Turning/Grinding
- Sheet metal forming
- Welding
- Varnishing
- Assembling

Our range of production and delivery:

- Components and sub-assemblies for plant construction, technology, machine- and machine-tool building, jig-and-fixture and mold construction
- Welded structures and components for tank construction and machinery
- Measuring and monitoring of manufactured parts by 3D coordinate measurement technology
- CNC lathes for high-quality turned parts
- Surface grinding and cylindrical grinding of component parts
- Sheet working machines for sawing, laser cutting, bending and folding
- Wet application, structured coating, smooth finish and 2 component PUR varnishing.



TIRA GmbH

TIRA company view and location

