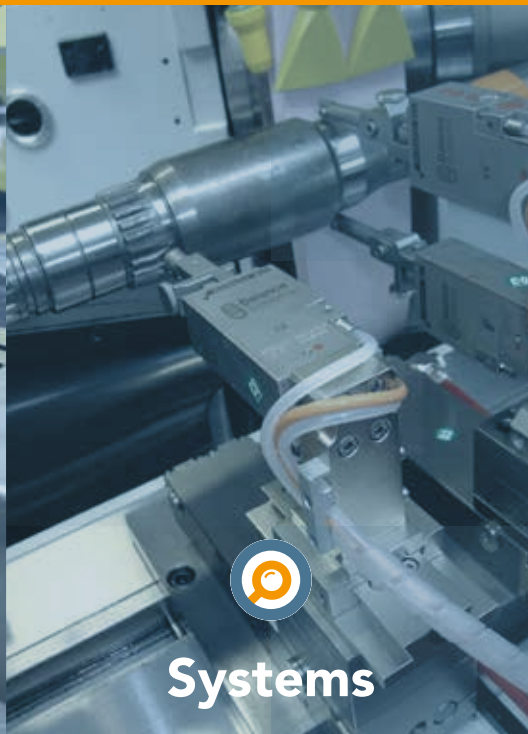


Machines



Systems



Service

Your trusted partner
for balancing and grinding quality

Process control systems for machine tools and
Balancing machines for rotating components **since 1975**

Our Company



Since 1975...

At Balance Systems we create technologically advanced products in the two areas of company's core business:

Manual, semi-automatic, automatic as well as customized **balancing machines** for a variety of different industries.

Process control systems for machine tools, with specific functions suitable to grinding machines, such as: automatic grinding wheel balancing (1 and 2 planes), touch detection (gap & crash), comparative and absolute in-process gauging.

The entire production chain is directly managed by the head office located in Pessano con Bornago, Milan, Italy. The headquarters, including production areas, management and sales offices, **includes our facility which is 108,000 square feet. It is one of the main leaders in this arena**, capable of managing the entire product life cycle: from planning, to designing, from production to sales and after-sales service.

Our certifications



Our Mission

Innovation and dynamism belong to a tradition that we intend to respect and preserve as part of our history and identity. **Those qualities, together with the special care we reserve to our clients and collaborators, are part of our corporate business principles.** Creating and maintaining high quality, to provide unique time-saving and money effective solutions, with special attention to our clients' needs – that's our mission.

The Group strength



Innovative software solutions for the automotive, industrial, and aerospace industries



HW/FW/SW designs for the industrial automation and aerospace



High production inspection systems for the fastener industry



Production of precision mechanical components

R&D



More than 10% of the company turnover is allocated every year to our research and development department.

The corporate culture, oriented towards efficiency and innovation, allows us to design solutions to meet all the commissioned requirements.

Production units



Our progressive growth has always been flanked by important investments supporting the manufacturing activity.

The careful selection of suppliers, machines, equipment and plants has always been our aim to achieve highest quality product.

more than
3.000

balancing machines **installed**

up to

1.200.000.000

rotating components **balanced** every year with our machines



over
25.000
machines equipped
with **our systems**



Growth



The quality of our solutions, the constant innovation, the attention and professionalism with the relationship with our customers have allowed us achieve consistent expansion.

Thanks to **worldwide distributors and agents, subsidiaries in France, Germany, USA and headquarters in Italy**, Balance Systems boasts a global presence.

Training



Only after receiving **extensive training and careful evaluation on the level of competence reached**, our technicians are authorized to independently operate at the different stages of production. The importance of Balance Systems' training extends to our clients too, offering regular training and seminars to improve the knowledge and special characteristics of our products.

Machines Division



Balancing machines for rotating components

Mass unbalance is the most common malfunction of rotating machinery. It produces excessive synchronous forces that cause vibrations and mechanical failures, along with increasing the noise level and energy consumption.

In order to correct the aforementioned problems, each rotating body needs to be balanced during the production process by means of a balancing machine.

Designing and producing balancing machines has always been our business.

We are specialized in the development of high precision, high production and completely flexible machines.

In addition, our R&D department is always available to our customers to develop customized products according to their specific requirements.



Products

- Automatic and semi-automatic balancing machines for armatures and rotors. Unbalance correction by drilling or milling.
- Automatic and semi-automatic balancing machines for fans and electric fans. Unbalance correction by addition of weights or removal of material.
- Horizontal manual balancing machines for shafts and rotors. Unbalance correction by addition of masses, masses displacement, milling and drilling.
- Manual, semi-automatic and automatic balancing machines for disk-shaped rotating components. Correction of the unbalance by drilling or milling.
- Manual and semi-automatic balancing machines for turbochargers. Correction of the unbalance by milling or grinding.



Balanced parts

- Accessories for power tools
- Armatures
- Blades
- Brake disks
- Clutches
- Drums
- Electric fans
- Fans
- Flywheels
- Grinding wheels
- Impellers
- Motors
- Pulleys
- Pumps
- Rotors
- Spindles for textile industry
- Turbines
- Turbochargers
- Universal joints



Systems Division



Process control systems for grinding machines

The mechanical components subjected to coupling require tight geometrical tolerances, in addition to an excellent surface quality. They are normally produced by means of a grinding machine, which is able to ensure consistent quality and high productivity. The achievement of these features allows the increase of components over their lifetime and ensures an excellent operation with

higher power and lower energy consumption, thanks to the frictions reduction.

To help you meet quality and productivity requirements, we offer a wide range of solutions which can be easily implemented both on new and existing machines in the field.



Balancing

The balancing of the spindle and grinding wheel is an essential operation in order to achieve the machining's surface quality and to ensure a long life of a rotary components.

We offer a wide range of balancing systems based on balancing heads which can be installed externally or internally through the spindle. Control units are equipped both with cable and contact less (no-link) solutions and provide constant vibration monitoring. Our newly designed 'Absolute Balancer®' State-of-the-art technology, is characterized by unprecedented performance levels in terms of speed and precision balancing on 1 and 2 plane.



Gauging

The use of our in-process measuring systems allows to produce components **in conformity with the most severe environmental conditions** (warm-up, thermal shifts, chemical coolants, local or induced vibrations, etc.) and to operate in high-speed cycles. They include:

- Absolute measure of diameters;
- Measure of external and internal diameters, thickness, overstock division, taper, flagging and more;
- Features to measure both continuous and interrupted surfaces;
- Roundness analysis;
- Part-programs defined for each type of work-piece to be produced.



Touch detection

The exact identification of the instant when the tool touches the work-piece is an essential information to minimize the cycle time. The identification of the contact condition between the tool (grinding wheel) and its dresser, allows to obtain a near perfect profile also optimizing removal of the grinding wheel surface, which is evident by the increase in the tool life and reducing environmental impact.

Our solutions include:

- Power sensor and acoustic emission (AE) sensors wired or contact less;
- Frequency analysis for the refining of the optimal contact conditions;
- Multi-setup, part program and gap & crash functions;
- Multi-process control unit.

Always by your side

Our after-sale service boasts a **highly competitive response time**. We are always by your side to ensure an effective technical and operative support globally.

Top notch service

Providing a quality service is our constant goal. **The experience gathered from the field provides us with many opportunities for continuous process improvement.**

Excellence guaranteed

We are continuously committed in creating long lasting relationships with our customers and distributors. Our technical staff include only **highly qualified personnel working for over 10 years within the company.**

An internal team is constantly striving to develop and spread the culture of quality over all the organizational levels to ensure the effectiveness and efficiency of the services we provide.

Our Service

Immediate technical assistance

Our priority is to respond as quickly as possible to machine that is not operating properly or has stopped running. **Anywhere you are, our help desk service ensures an immediate response to your request.**

According to the problem, immediate support is offered by a shipment of spare parts, teleservice, or sending technicians to your location in a timely manner.

In case technical assistance is needed, **we commit ourselves to restore your machine within the normal production flow as soon as possible.**

Our strengths

- ⌚ Instant technical support
- ⌚ Reduction in machine "down time"
- ⌚ Help desk always available
- ⌚ Highly skilled technicians

Discover our network
www.balancesystems.com



- **Balancing machines** for rotating components
- **Process control systems** for machine tools

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