

Datatechnic

BALANCING SERVICE & MAINTENANCE

DÜRR GROUP

SCHENCK



OVERVIEW

A little history…

Datatechnic, which became a subsidiary of Schenck RoTec (DÜRR Group) in 2009 – the global market leader in balancing technologies – is a company focused on the design and manufacture of turbocharger balancing systems.

With 20 years of experience in the field of vibration and balancing, Datatechnic offers solutions for vibration analysis, audits, and monitoring, as well as on-site balancing and alignment, to optimize your fleet of rotating machinery.

Precise, tailored expertise to benefit your business

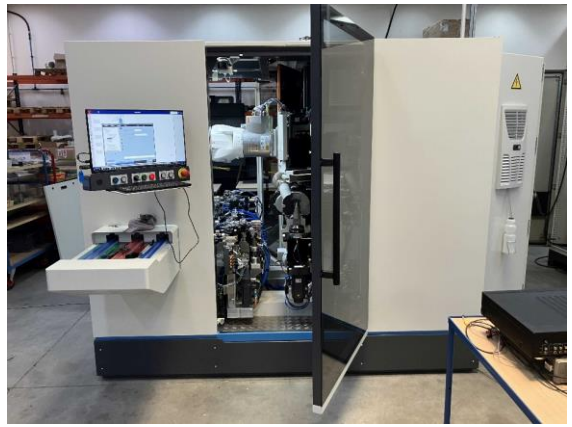




By the numbers…

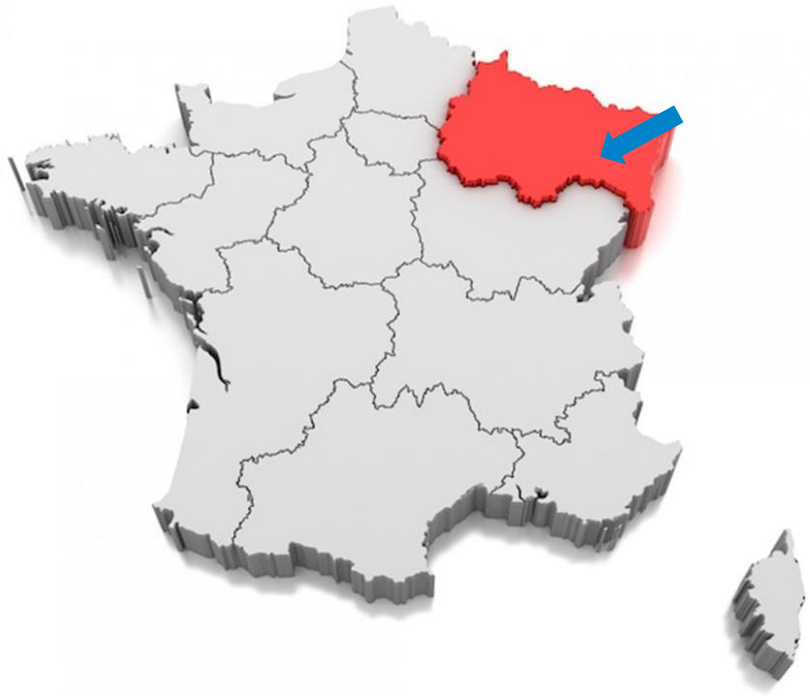
Employees	43
Revenue (in millions of euros)	9
Management	René Baer (CEO) Benoît Reno (COO) Christophe Pesce (CFO)

(Fiscal Year 2024)





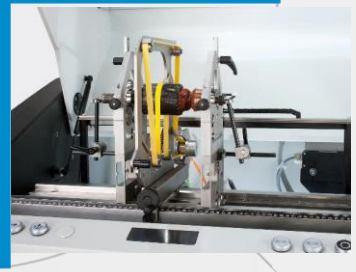
GEOGRAPHICAL LOCATION



In the heart of Europe, a network of specialists at your service:

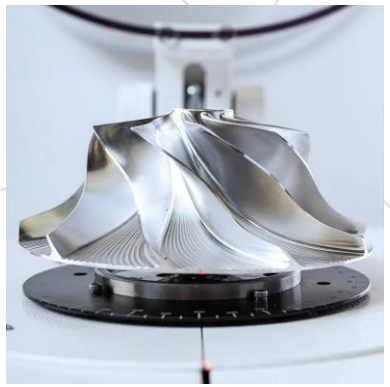
- Infrastructures fonctionnelles et accessibles,
- Geographical proximity to major industrial players,
- Close to major highways, which means shorter delivery times…





OUR WORKSHOPS

Custom Balancing: Precision at Your Service.









Balancing capacity: from a few grams to several metric tons

- HM 4 (CAB 920), belt and cardan drive
- H3 BU (CAB 700)
- PASIO 300 (Schenck One)
- PASIO 15 (CAB 820)
- TB COMFORT (CAB 920)
- Several vertical air-bearing machines, for greater precision
- We offer a range of solutions tailored to your needs – please contact us.

Facilities:

- Lifting equipment with a capacity of up to 2 metric tons
- 4.5-metric-ton forklift
- Machine tool fleet required for tooling production
- Various welding equipment…

Volume capacity:

- Single-rotor balancing
- Balancing of small production runs
- High-volume rotor balancing

An experienced team at your service to perform your precision balancing needs.



VIBRATION ANALYSIS

Your partner in maintenance.

- **One-time Analysis:**
  - Objective: To determine the cause of defects identified prior to a malfunction.
- **Vibration Audit:**
  - Objective: Acceptance inspection of new machines, after they have been refurbished, or following major modifications. Establishment of a baseline condition.
- **Vibration Monitoring :**
  - Objective: Vibration monitoring as part of condition-based or predictive maintenance. This allows for monitoring the aging of rotating machinery to optimize production equipment and improve its reliability.







ON-SITE BALANCING

Your partner in maintenance.

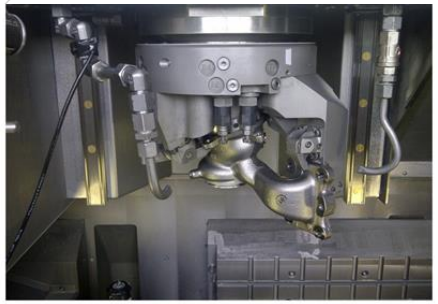




- **Dynamic balancing:**
  - Objective: To eliminate unbalanced loads and reduce vibrations in order to extend the service life of your equipment.
  - In 1 or 2 plans:

    Directly on site, without prior disassembly (reduces production downtime) on all types of rotors, for example:

    >> Turbines
    >> Compressors
    >> Fans
    >> Rollers
    >> Mills
    >> Alternators
    >> Machine tools or other equipment…









GEOMETRY: LASER ALIGNMENT

Your partner in maintenance.



Laser Shaft Alignment:

+ Objective: To reduce vibration levels and optimize machine performance by minimizing stress on the machine, thereby lowering the failure rate.
  - Maximum distance: 3 m
  - Shaft diameter: 450 mm
  - Measurement resolution: 0.001 mm
  - Audit Report

Laser Alignment of Pulleys and Belts :

+ Objective: To significantly improve performance, reduce wear and tear, and lower energy consumption. **(Up to 20%)**









SPIN TESTING / CENTRIFUGATION

Datatechnic

Spin test:

Pre-Spinning, Overspeed tests, cycle tests, burst tests

Performance data:

up to 400kg rotor mass, up to 250,000 rpm, up to 1000mm rotor diameter

Spin test tooling:

Customised design, construction and production

Rotor heating:

up to 250° Celsius. Higher temperatures on request. Also suitable for burst tests.

Dynamic expansion measurement:

360-degree analysis of individual rotors and analysis of elastic and plastic behaviour

Optical expansion and strain measurement:

Full-surface analysis of the entire rotor surface with crack detection - Our own alternative to strain gauges: Rotational Optical Strain System (ROSS).

Rotor burst tests with high-speed camera:

High-speed video during burst tests

Visual inspection & high-definition video:

High-resolution visual inspection at standstill or during the spin cycle

Unbalance analysis:

Measurement of the unbalance condition before and after spinning, including detailed analysis of the changes and assignment of causes in the rotor design

Plastic deformation analysis:

Comparative measurement of the geometry before and after the centrifuging process and detailed analysis of the plastic deformation



Consulting, development assistance. Our expertise: the optimal strategy.

○ Design of your rotors during the development phase :

+ Objective: To enable a design that anticipates balancing strategies.
  - Definition of geometric tolerances directly related to the unbalance to be corrected.
  - Finite element method, enabling the numerical calculation of the rotor's dynamic behavior.
  - Experimental validation (determination of natural frequencies and natural mode, damping, operational modal analysis, etc.)
  - Vibration analysis of a prototype on a test bench.

○ Process Optimization :

- Reverse engineering, detailed process analysis, optimization.

  >> For greater efficiency without compromising on quality…





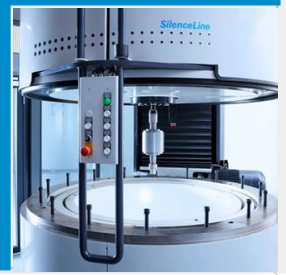




THEY TRUST US

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- Electromechanical Engineering, Chemistry, Food Processing,
- Mechanical Engineering and Energy,
- Paper, Wood, and Agriculture Industries,
- Various Industries…



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