



Introduction

Mechatronics Instruments BV – Hoom, the Netherlands

Mechatronics designs, develops, manufactures and sells analytical and medical devices and other engineered systems to markets across the globe. The company has seen important growth by offering highest quality, fully automated blood-testing equipment since its inception in 1986. The core technologies have been applied to other areas since where electronics and mechanical components are vital to customers' operations.

Mechatronics is headquartered (see picture below) in the Netherlands, in the historical city of Zwaag. The Amsterdam International Airport is only 30 minutes away.

Sedimentation Rate Equipment

The company has come into existence by building a series of Red Blood Cell Sedimentation Rate (ESR) systems ever since its start. These systems are typically used in the hematology sections of hospital laboratories. Mechatronics' initial ESR analyzer accepted disposable tubes. It turned out that the total cost per test was a key parameter to hospitals of all sizes. Mechatronics' response was the StaRRsed-II which eliminated the need for constant repurchase of costly throw-away tubes.

A further cost reduction was achieved by providing a batch type loader system in the StaRRsed-III which made the operation a total walk-away solution. Today, the StaRRsed III is still a key solution for numerous Mechatronics' customers.

The StaRRsed Compact offered a typical instrument aiming to make automated blood sedimentation rate analyses available for lower-volume labs.

Logically the StaRRsed Auto-Compact was developed, a system capable of working with standard blood cell counter racks of numerous brands. Fully automated to cope with big demands.

At the high volume end of this spectrum of ESR analyzers the InteRRliner offers large hospital laboratories and commercial labs the possibility to process many hundreds of ESR tests per day.

Innovation continues to drive the company's growth and new ESR systems may be expected in the future.

Electronics and Mechanical Engineering

Mechatronics' core competencies are robotizing and automation of manual processes whereby optics, electronics, mechanical and software engineering are crafted into solutions that decrease operating cost for our customers and facilitate process control. These key knowledge areas have resulted in breakthrough products such as:

- IRRIs infrared light reflecting eye-tracking system for neuro-physiological research
- LoRRca for measurement of the elongation and aggregation of erythrocytes (red blood cells)
- StaRRcool, a photometer for rugged applications in a laboratory setting or in nature

- AiRRmonia, an ammonia analyzer for environmental monitoring purposes.
Ultra low (less than 0.1 µ-gram per m³) detection limit of ammonia concentrations in ambient air.
FloRRria, the automated analyzer for measuring low concentrations of ammonium in water. The FloRRria can hold as much as 100 sample tubes at a time performing the analyses unattended.
- EthaRRon, a sensor system that is able to measure very low ethanol concentration (detection limit is 50 parts per billion) and plays a growing role in the supply chains of fresh fruits in retail grocery chains globally.

Various OEM instruments have been engineered and are manufactured on various fields, such as:

- CoRRescan, an instrument for detailed mapping the Contact Resistance shunt resistance, short circuit current (LBIC) and open circuit voltage (Voc) of the front side grid of solar cells.
- SheRRescan, for mapping the emitter Sheet Resistance of solar cells. Additionally P/N recognition and metal conductivity are measured.

Overseas Expansion

Mechatronics USA LLC has been established in March 2003 to serve current and future US-customers locally with a sales and service team. This is a 100% subsidiary to the parent company. (see impression below)



Mechatronics USA LLC – East Providence, RI, USA

Operations are based in East Providence, Rhode Island).

Long-standing distribution relationships

The historical growth the company has enjoyed may partially be attributed to the fruitful and collaborative relationships it has built up with partners in many countries around the world. Relationships that drove both sales of existing equipment and development of future systems forward and made Mechatronics a long-term and reliable partner.

Sales through local distributors ensures a swift response and support. On the spot knowledge of the instruments is guaranteed by having fully trained engineers locally available. Our distributors have qualified engineers, extensively trained at the factory in The Netherlands.

Management & Shareholder Team

Ron Eijling – founder of the first hour: Ron has his background with Shell Research Laboratory Amsterdam in research and development of oil processing. Managing Director with manufacturing and sourcing under his direct responsibility.

Rob Metselaar – founder of the company: Rob has earned his spurs in medical device making in several hospitals across the Netherlands. Managing Director, responsible for sales and product development.

In Closing

Mechatronics is a steadily expanding, solvent company. It has 35 employees, has been profitable for many years. Investments are made with a long-term perspective in mind as endurance both of the company and the products is the ultimate goal. Mechatronics is holder of the EN-ISO 9001:2000 and CAN-CSA-EN-ISO13485:2003 certificate.

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