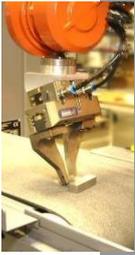


# news

ADVANCED AUTOMATION

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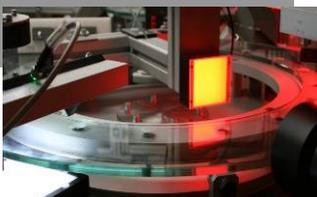


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## Robotic Parts Feeding System Handles Swiss Watches' Most Delicate Parts

For years, specially trained employees at Swiss watch part supplier Affolter SA underwent the tedious task of manually handling a large variety of highly precise parts designed to operate some of the world's best watches. The work was monotonous but necessary.

Affolter needed to modernize, in particular the polishing and burnishing process. The solution would need to be highly flexible because different types of parts needed to be produced on the same equipment. Lot sizes were small and changeover needed to be performed as quickly as possible. The watch parts are very small and fragile, so special care needed to be taken throughout the entire process.

The Affolter team selected as its solution the Asyfeed Pocket Module by Asyri SA, an integrated flexible feeding system that updates the part loading/machine tending process of a traditional polishing machine. This turn-key solution features a delta robot, a vision system and a flexible feeder system integrated into the machine.

The watch parts to be burnished/polished are fed as bulk into the hopper of the Asycube 50 robotic parts feeder integrated into the Asyfeed Pocket Module. By using Asyri's 3-axis vibration technology, the parts are quickly separated and pre-oriented on the vibration platform of the Asycube 50. Illuminated by backlight and frontlight, the vision system detects the correctly oriented parts and sends the part coordinates to the module's built-in high-precision delta robot. The robot picks and places the parts in the loading fixture of the polishing machine. Once the processing operation is finished, the robot



removes the part and the cycle restarts with the next part.

Affolter's previous loading equipment was dedicated to one kind of part (i.e., one geometry) and adding a new one was almost impossible. With the Asyfeed Pocket Module, adding a new part is easy and can be performed in 1-2 hours.

With the delta robot, Affolter saves 1-2 seconds on loading time during every cycle. Part changeover is much quicker now and can be done in fewer than 5 minutes. This means Affolter now has new solutions to offer its customers.

Another benefit involves tooling. On the previous loading equipment, tooling was very expensive and needed to be changed every year. With the Asyfeed Pocket solution, there is almost no need for specific tooling. Affolter can develop and produce the tooling itself—plus the tooling has no-wear parts.

"The two key advantages of the new system relate to its positive impact on our team," said an Affolter spokesperson. "The first benefit is that it has modernized quite a traditional trade, which has boosted the motivation of our employees."

## We're moving in May 2018

RNA is in the final stages of preparation for its move to a 25,000-square-foot built-to-suit modern factory.

The company was established in its current location in 1986, and has expanded 3 times on its existing site. This move will enable RNA to cater for the growing demand for its automation systems.

The new facility and layout will improve manufacturing flow and at the same time create additional capacity for the stock of standard equipment and spares. The latter leading to faster response to our global customer base.

RNA's new facility is located just less than half a mile from the existing facility at the following address:-

# WE'RE MOVING

Unit C Castle Bromwich Business Park, Tameside Drive, Birmingham B35 7AG

We look forward to welcoming you to our new home!

## Meet New People

We would like to extend a warm welcome to **Brandon Phelps**, who has joined us as a trainee mechanical technician; and **Joel Wilks** as a trainee toolroom technician.

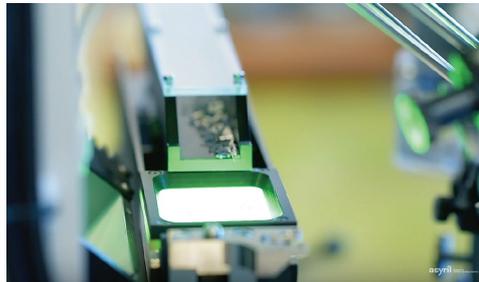
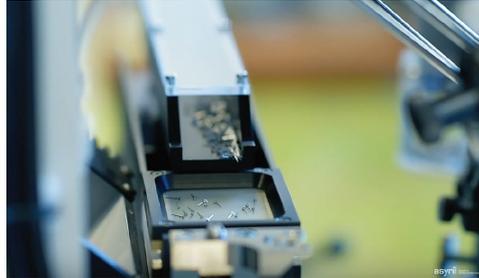
We wish both new members a fruitful and challenging future within RNA.

(Continued)

The second clear benefit is the flexibility that the system offer for set-up operations on small batches of highly fragile components.”

Affolter 's modernized production process has the added bonus of attracting young people. The previous loading methods were either manual or required highly skilled micro mechanics technicians.

Introducing a flexible feeder and a robot into the factory has enabled them to attract



## Asyrl Technical Training

**RNA and Asyrl cooperate in the development and sales of Flexible Part Feeding Systems and Vibration Platforms. Together, we bring a comprehensive portfolio of automation solutions to the table.**

Two of RNA engineers have attended a full technical training program in Switzerland early this year. The training empowered us with the knowledge and understanding on the complete range of Asycube Series, SmartSight and Asyfeed Pocket Module, including the operation, functionality and advanced features of the system.

RNA can equip you with the comprehensive product knowledge, providing extensive technical support in the design, specification, troubleshoot and programming of Asyrl products.

younger people with a higher level of knowledge in informatics and automation science versus very specific mechanics.

The feeding system can handle parts smaller than 0.1 mm and up to 5 mm in size. The technology operates geometry independently and allows for gentle part feeding and handling.

## Members from RNA take up 10K challenge for Birmingham Children's Hospital

Members from RNA Automation are joining thousands of runners to raise funds for Birmingham Children's Hospital.

This year, RNA team will take part on 3 challenges to help raise funds for the Hospital. We will be participating at

Birmingham 10K run on 6<sup>th</sup> May, climb Mount Snowdon on 7<sup>th</sup> July and take part on the Birmingham Half & Full Marathon on 14<sup>th</sup> October.

Our team have decided to dedicate our efforts in completing these 3 Great challenges to raise some vital funds for the children at Birmingham Children's Hospital and you can find out more by visiting their website. [www.bch.org.uk](http://www.bch.org.uk)

We hope you can support our fundraising events as well as our journey as we take on the RNA - 3 Great Challenges 2018.

You can help RNA team raise money for this great cause by donating directly to our fundraising page. Every gift of any size will make a real difference.

**Get Fit, Get Involved and Give to Charity!**



## New Generation of Control Units: RNA Smart Control

**In the next two years, RNA will be renewing its control unit programme and introducing a new generation ready for Industry 4.0 under the name of RNA Smart Control. All new control units have TCP/IP interfaces and will be able to communicate with each other. The first unit that RNA will be introducing is its new PLC, the SCP 4000.**

As part of digitisation and Industry 4.0, we have thoroughly revised our control units. In the course of 2018 and 2019, we will bring to market our new generation of control units under the new product category RNA Smart Control. You will hear more about this in our next newsletter and

also about the introduction of other new models.

The first release is our new network-compatible and flexible PLC with the designation SCP 4000 which, from now on, will be available for feeding systems that require a PLC.

The SCP 4000 has a more contemporary design and is easier to operate thanks to its large colour display. It has a PC touch panel and significantly improved performance compared to RNA's former ESS 2000. Thus, the number of possible inputs and outputs is practically without limit and interfaces can be achieved with almost all industrial Bus systems.



The SCP 4000 has a larger programme memory for complex operations and connection to SQL databases is also possible. On top of this, the control system has a constant cycle time and offers a safety control system as an option.