LEVELLING UP

Left to right: Wrightform's Steve Larkins, Ken Rose and ARKU's Christian Nau agree; the FlatMaster® takes operations at Wrightform to a new level.

ISMR SAYS:

"Automated processing has enhanced levelling operations at Wrightform. The manufacturer can level multiple parts in one pass – ten or 15 in one go - and still meet its flatness targets."

The need for consistent levelling quality on sheet metal spurred Wrightform Ltd in the UK to adopt the ARKU FlatMaster®.

From regional businesses to multinational corporations in Spain, Australia and New Zealand, Wrightform Ltd supplies its products to customers around the world. The manufacturer, based in Eye, Suffolk (UK), has established a reputation with top-notch technologies and precision workmanship in sheet-metal forming. With ARKU's levelling technology, it is now doing so at unprecedented speed and unlocking new opportunities along the way.

What do the food, construction industry, transport and high-tech swimming pools have in common? Their metal parts all come from the same spot, namely the British town of Eye, which translates to 'island' in the old Anglo-Saxon sense of the word. The town of 2,400 is home to Wrightform Ltd, a manufacturer specialising in various forms of sheet-metal processing. Right next door, its sister company Wrightfield designs, manufactures and installs conveyor and food processing equipment together with moving pool floors.

Wrightform's customer base consists of small, independent and large multinational companies in a variety of markets (including the food, energy, agriculture and automotive industries). As part of its manufacturing portfolio, customers can send their parts directly to Eye for levelling before the finished components quickly travel to countries across the globe (serving as conveyor components in Spain or in hydraulic systems for swimming pools in Australia).

Wrightform Ltd is based in Eye, Suffolk (UK).

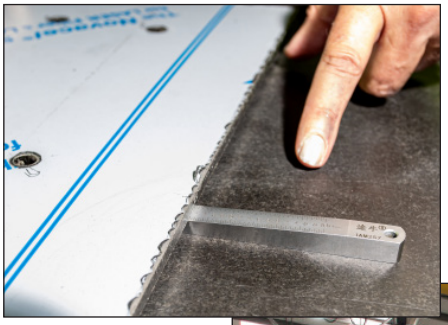
Above: Levelling at Wrightform typically called for manual labour, an expensive and time-consuming process.

New challenges call for a fresh mindset

The manufacturer currently employs more than 50 people and operates two laser cutting machines, with a third arriving imminently, as well as three press brakes and an edge-radius and polishing machine. In recent years, however, Wrightform's thriving business has faced new challenges. Metal processing typically requires manual labour, yet experienced staff are currently hard to find in rural areas of Great Britain. Furthermore, Wrightform's business development manager, Steve Larkins, noticed that the quality of the raw material used at the Eye site was decreasing.

"Many times, the metal sheets looked fine at first. But as soon as we started cutting parts out of them, their inner tension was released often leading to a finished product that looked deformed," he explained.

As a result, many parts must be levelled by hand, an expensive and time-consuming process requiring skilled labour. At the same time, companies are becoming increasingly aware of the benefits of high-quality parts levelling for further processing.

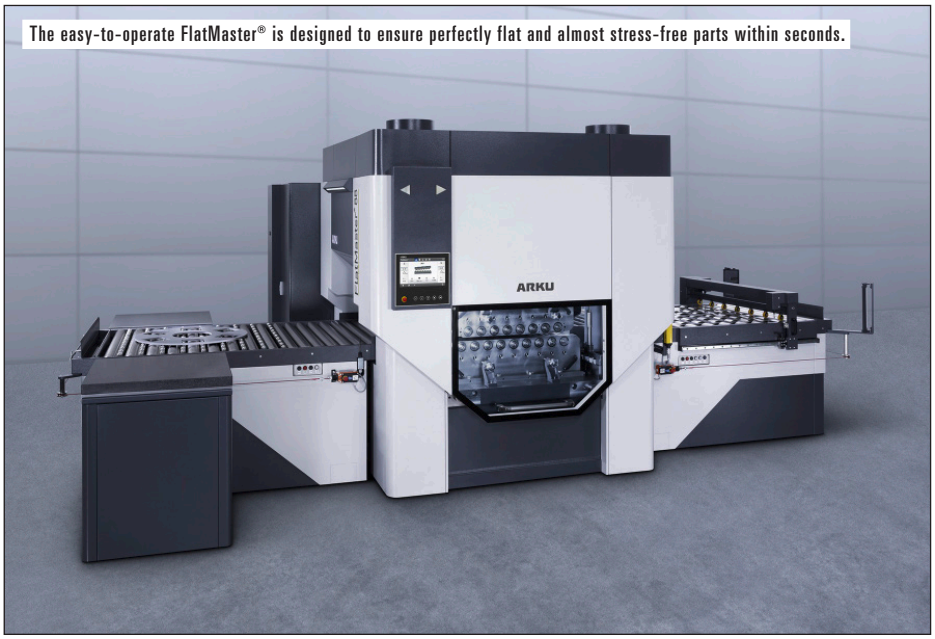


Left: Although metal sheets often appear even at first, cutting may release internal tensions, resulting in deformed products.

"As a subcontractor, we were always looking for innovative technical solutions to offer the best quality to our customers," Steve Larkins said. "We realized that an automated and consistent process could help us in delivering high levelling quality in a reliable, time- and resource-efficient way."

A chance encounter

With this idea in mind, Ken Rose, Wrightform's director, and his team began looking for matching technology that would help them automate and speed up their levelling processes. Yet most machines on the market lacked the flexibility to process all applications for Wrightform's diverse customer base. A visit to Germany finally paved the way to the desired solution.



The easy-to-operate FlatMaster® is designed to ensure perfectly flat and almost stress-free parts within seconds.

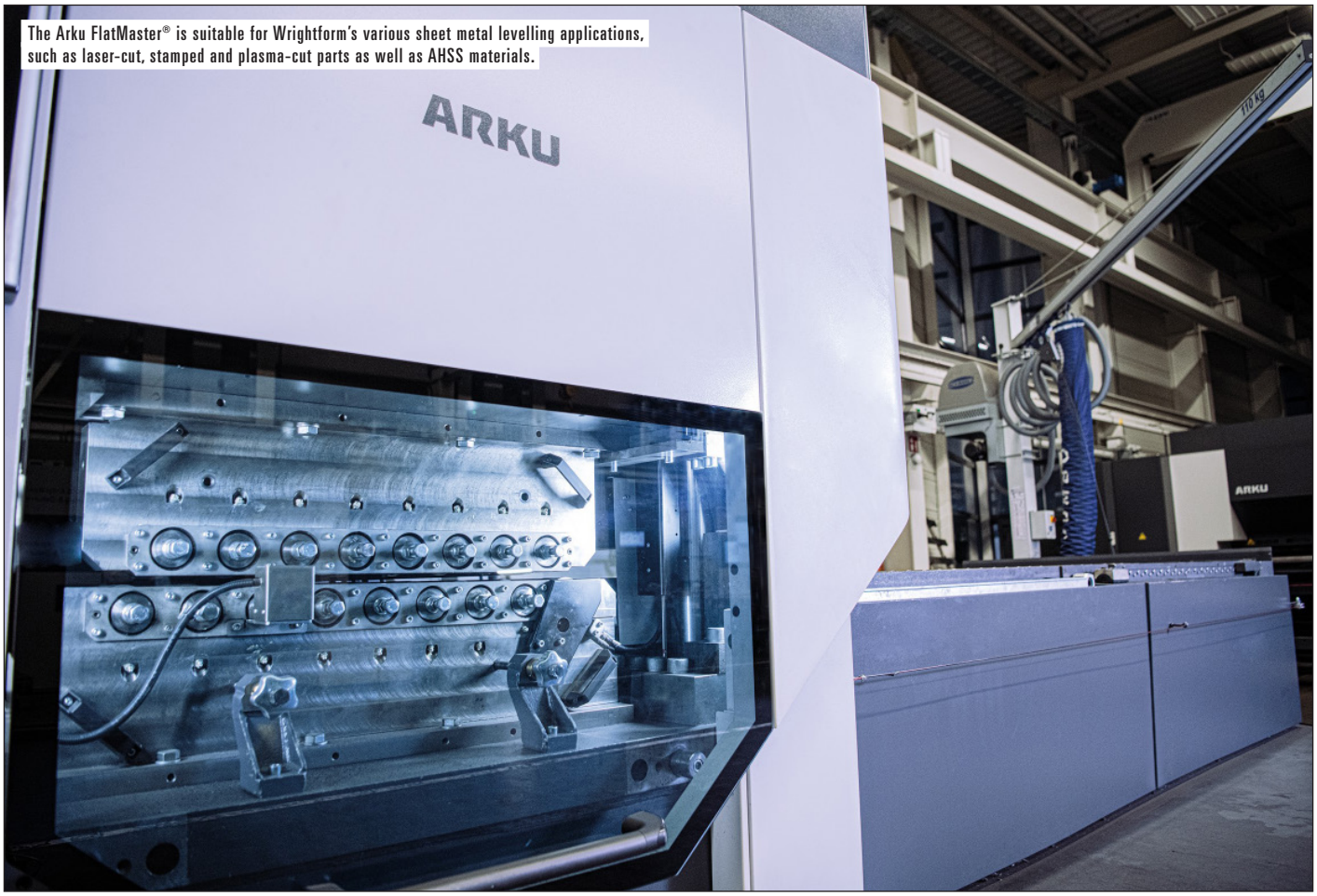
"I first saw the ARKU FlatMaster® during a site tour at machine-tool and laser manufacturer, TRUMPF. Until then, I didn't know such levelling machines existed," Ken recalled. The machine quickly sparked his interest. "Other machines on the market are often less versatile. We were looking for a solution that not only offers faster levelling but is also easy to use and provides lasting results without any bends or tensions in the material. Once we had all the information on the FlatMaster®, we went for it very quickly," Ken Rose explained.

Since Brexit was looming on 1 January 2021, the installation and commissioning of the machine in the last quarter of 2020 took place under considerable time pressure. Faced with possible import taxes, Wrightform decided to set up the leveller just before Christmas. A tight schedule, especially since the commissioning by ARKU had to be completed within a few days. Nevertheless, everything went smoothly, and after a quick and thorough installation, the FlatMaster® was up and running in Eye.

Rapid levelling and automation

The ARKU FlatMaster® sheet-metal leveller enables Wrightform to considerably speed up operations. Within seconds, said ARKU, the levelled parts are perfectly flat and almost entirely free of internal stresses. This represents a major advantage over manual levelling, which can take several hours depending upon the sheets at hand.

The shop floor at Wrightform Ltd.



The Arku FlatMaster® is suitable for Wrightform's various sheet metal levelling applications, such as laser-cut, stamped and plasma-cut parts as well as AHSS materials.

Three Wrightform company directors (Mark Rose, John Wilby and Ken Rose) stand next to the ARKU FlatMaster® 88 200.

The machine is capable of levelling laser-cut, stamped and plasma-cut parts, and even Advanced High-Strength Steel (AHSS materials) that range from 1.0 to 28mm in thickness. The machine's flexibility makes it a suitable tool for Wrightform's various applications. Subsequent steps (such as welding, bending or forming) can be performed faster and with greater process reliability.

Positive customer feedback has also underlined the consistency and reliability of the levelling process, confirmed Wrightform.

"We supply parts to a multitude of manufacturers throughout the UK and Europe, where flatness is critical. As opposed to manual levelling, we can level multiple parts in one pass – ten or 15 in one go- and still meet the flatness targets," Wrightform told *ISMR*.

Wrightform has further benefited from significant time savings and planning advantages since the installation of the ARKU Flatmaster®. While manual sheet flattening makes it difficult to estimate the required time beforehand, automated processes are both calculable and predictable.

"We manage to meet flatness targets every time at reduced time and effort," said Steve Larkins.

The machine often only needs to run few hours per day and still manages throughputs of tons of material per week. This way, Wrightform can also effectively counterbalance any skills shortage in metal levelling.

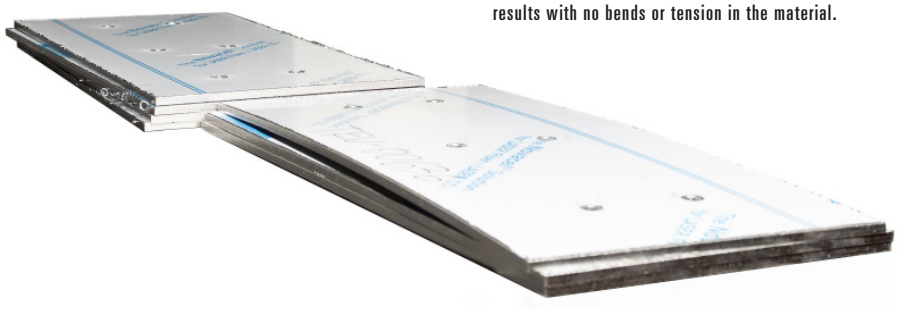
A complementary service

Wrightform has started asking customers to bring sample parts to demonstrate just how easy it is to set up the leveller.

"Word has already spread about the consistent quality: new customers approach Wrightform and specifically ask about the levelling technology," explained ARKU.

The optimised levelling services also complement the business portfolio of sister company, Wrightfield. Together both companies design, manufacture and install moving floor systems and complete stainless-steel swimming pools.

With the current order book including installations as far afield as Australia and New Zealand, it is vital that the component parts are



Material levelled with the FlatMaster® shows lasting results with no bends or tension in the material.

level.

"This wouldn't have been possible prior to installing the FlatMaster®," Steve Larkins confirmed.

On the level

The FlatMaster® is very easy to operate, confirmed Wrightform, sparing the company the efforts of lengthy operator training.

"We can teach our staff how to operate the FlatMaster® within a couple of hours. From there, they can continue to build their skills on their own. So, getting to grips with the leveller is quick and easy. It helps a lot to introduce new employees to automated levelling while ensuring efficient work at all times," explained Steve Larkins.

Using the machines' pre-set safety devices, constant monitoring by an operator is no longer necessary. If a problem occurs with the material, the machine shuts down automatically, effectively minimising the risk of damage.

"Since the machine requires little training, operators soon feel confident in its use and can very quickly produce consistently level parts," added ARKU.

ARKU's ongoing technical support continues to be a great asset to the company: "We're a family business, so trust is a key factor. Working with people with whom we see eye-to-eye and whose quality we can fully rely on is very important to us," concluded Ken Rose, Wrightform's director. "With ARKU, we have added a new member to our equipment family." ■

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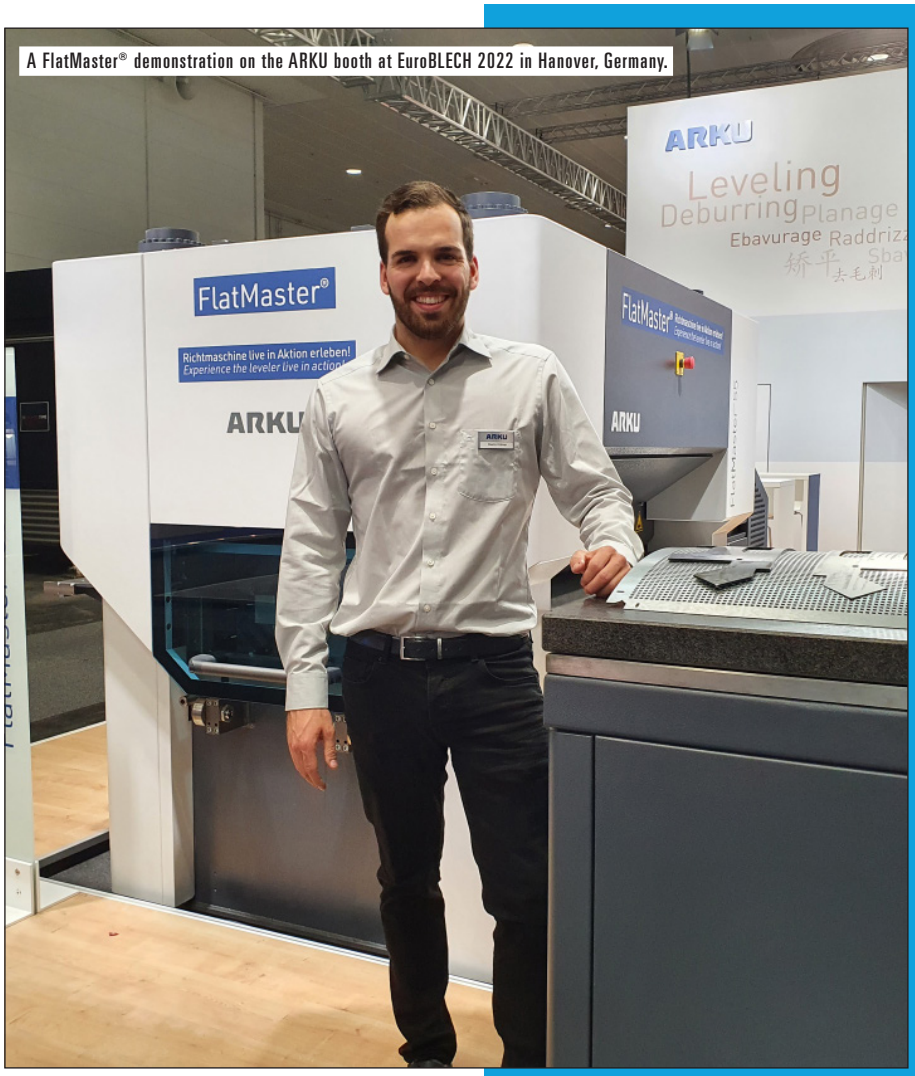
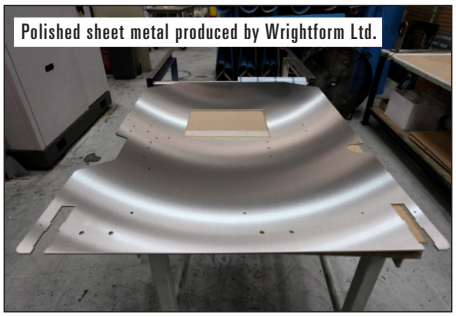


A FlatMaster® demonstration on the ARKU booth at EuroBLECH 2022 in Hanover, Germany.



Polished sheet metal produced by Wrightform Ltd.

Steve Larkins, Wrightform's business development manager, stands next to the FlatMaster®.

About ARKU

ARKU, founded in 1928 as a family-owned company, is a market specialist in roller levellers and press feeding technology. It has more than 50 years of experience. ARKU offers an extensive range of high-capacity and precision levellers, as well as deburring and edge-rounding machines. This extensive portfolio is completed with the addition of parts-handling solutions for levelling and deburring machines.

With its headquarters in Baden-Baden, Germany, and ISO-certified facilities in Cincinnati (USA) and Kunshan (China), the company operates in nearly 30 countries worldwide. ARKU offers toll processing services in three levelling and deburring centres with the latest high-performance machines.

The product range comprises precision levellers; deburring and edge-rounding machines for parts; automated parts handling via robots; in-line levellers; cut-to-length lines; press feeding lines and coil entry lines for roll formers. ARKU also provides engineering expertise to a range of manufacturing industries.