Paving the weigh

Weighing technology in the process industries is benefiting from closer customer engagement, and UK manufacturers are leading the pack. Ellie Zolfagharifard reports

Global competition is a powerful catalyst for innovation amongst instrument manufacturers. One area in which international trade has clearly left its mark is in weighing systems, where trends have been driven largely by the growing export market. With new markets come a wider range of applications, and the UK is a strong position to benefit from this trend.

Rod Morgan of Reading-based Applied Weighing told Process Engineering how one customer in Australia wanted UK weighing systems shipped over from the UK despite delivery costs being more than the price of the equipment. Morgan claims this comes down to the UK’s reputation for reliable manufacturing, particularly in the heavy goods industries. It’s something he believes British companies should use to their advantage.

“If you’re a weighing company and you’re just relying on the UK for your company to grow, well, you’re dead in the water,” he said. “The UK at best is a shrinking manufacturing market. Export is an increasingly important part of business…There are companies all over the world who recognise the worth of British manufacturers. I know we keep knocking ourselves all the time, but others look at what we do and they perceive us as a quality country.”

Industry sectors

Weighing technologies by industries:
- Mining, aggregates, and cement: belt scales are used for custody transfer as material is sold by weight; weighfeeders control the flow of raw material for recipe blending; belt scales monitor the amount of material being added to stockpiles.
- Chemical: load cells support bins or hoppers to indicate material level for filling and dosing.
- Food and beverage: solids flowmeters indicate the amount of material added to a mixture.
- Water/wastewater: weighfeeders control the rate of additives during water purification.
products,” said Morrissey. “And of course, over time we began to look at all those other industries like food and beverage, chemical, water and more. Those industries brought new lists of requirements, which were difficult to meet with products focused on heavy industries. From our single belt scale offering all those years ago, Siemens now has eight different versions of belt scales to meet applications: from food-grade wash down to 12,000 tph flow rates to hazardous environments.

Vast opportunity
Some 40 years later and process companies have access to a far wider range of weighing instruments for their unique applications. The world of weighing today is vast encompassing solids flow meters, weighfeeders, PLC modules, load cells, belt scales, and continuous weighing integrators. While this has undoubtedly benefited process companies, it can be difficult to navigate through the variety of different technologies and gain follow-up support. For instance, Siemens Sitrans WW200 weighfeeder alone features 1,440,270,720 individual configurations.

This has provided a valuable opportunity for UK weighing companies to not only differentiate themselves for product quality, but also information and support. Morgan claims his group has already cottoned onto the trend. “Back up is very important. That’s the main thing that sets us apart. We’ve made sure that over the years we’ve expanded our organisation to give them support with their issues… I doubt very much in any other kind of industry, that a manufacturer will fix a problem even if they don’t know if it’s their fault or not. Probably the overriding thing that has changed in the last five to ten years is that service is paramount.”

If weighing companies in the UK can take advantage of these trends, both the domestic and international process industries will benefit. With manufacturers and companies now working more closely, industry has an even greater opportunity to provide feedback to instrument makers and help them stay ahead of the curve.

Regional rules
With an increasing range of weighing products and a trend for global exports, one factor that has become difficult to manage is meeting regional regulations. Matt Morrissey at Siemens Milltronics notes that this challenge needs to be factored in by manufacturers. “Every country has its own regulations and requirements, which are often quite different,” he said. “For example, in Europe the method for protecting encapsulation requires almost double the thickness of North America. As well, in Europe, a belt scale can be approved at 0.5%, while the US offers 0.25%.” In response, weighing companies are developing different products and options to meet these varying requirements.