

**Max Frampton**

Building a new set up to aid herd expansion has kept this Dorset-based producer extra busy for the past 18 months. And he's beginning to see rewards for his efforts



Herd size:	600 cows
Average yield:	11,200 litres
Robotic milkers:	Four double units
Annual milk sales:	Seven million litres

Unit is benefiting from economies of scale and increased automation

Double – without the trouble

Robots have allowed one forward-thinking producer to rapidly expand his high yielding herd – and significantly increase milk output – without the worry of relying on sourcing additional labour for three-times-a-day milking.

text **Rachael Porter**

Max Frampton's Dorset-based unit has changed beyond all recognition during the past 12 months – not least because he's installed four double-box robots to help milk his still-expanding 600-cow herd.

His unit, at Owermoigne near Dorchester, was the first in Britain to install this type of robotic system, manufactured by Denmark-based SAC, in December 2014. It differs from others on the market, not least because each robotic unit can milk two cows at a time. "I first saw these robots in operation via an on-line video. I'd never heard of the manufacturer before, but I was drawn to its machines because the robotic arm is industrial strength – it's the same design and spec as the ones used in car manufacturing plants – there are more than 100,000 of these in use across the world. It's a well-proven

design and over engineered or 'too good' for milking. So I think it's the most robust design available and more than up to the job."

Robot route

Max visited units with SAC robots in operation in The Netherlands and Germany before taking the plunge. And he's so impressed with how the robots are performing on his unit that he's planning on installing another double-box unit in 2016.

"When I first started to plan the new set up for an additional 400 cows, which is built on a green-field site just 30 metres away from the original dairy unit, I decided that taking the robotic route was my only option. This is because it was becoming increasingly difficult to find reliable labour for milking our existing

200 cow herd – particularly because we were milking three times a day.

"And the robots certainly take a lot of pressure off the staff at the unit. We are still milking 300 cows, three times a day, through the unit's 24:24 herringbone, but the 300-cow higher yielding group is milked automatically and there's capacity to milk 400 cows through the robots.

"Installing an additional robot in 2016 will allow us to push cow numbers up further still. We currently have the space and facilities to milk and manage up to 800 cows across both the old and the new units."

He says that once the robots were up and running in February 2015, he sat down with his consultant and looked at the figures. "We looked at the economics of running a 400-cow herd in the new site and the economics of running a total of

Helping hand: a robot pushes feed up to the barrier every two hours

Cow comfort: gel-filled mats are topped up with compressed air





Self-cleaning slats: cambered mats move when the cows walk



Over engineered: the SAC unit has an industrial strength robotic arm

700 cows across the old and the new. Economies of scale diluted the impact of the lower milk price and we saw that the business would be more profitable if we continued to run cows on the older unit, as well as the new.

“We run the new set up as a ‘fresh cow’ unit, with the higher yielding proportion of the herd. And the lower yielders, those post 250 days into lactation, are housed at the other unit and milked through the conventional parlour, three times a day.

“We move cows to the conventional group in late lactation and when their daily visits to the robots begin to fall to less than 2.5. Moving them at this point ensures that they are milked three times a day and we’re maximising milk yields for as long as possible.”

High yields

The herd’s average yield was 12,600 litres in 2014, but this has fallen to 11,200 litres, at 3.2% protein and 3.7% butterfat, during the past few months because 200 heifers, imported from Germany, joined the herd. “But they’re about to calve again

and so yields should start to creep up. Because the ‘fresh’ group are milked more than four times a day by the robots, I’m expecting them to average between 13,000 and 13,500 litres.”

Yields are certainly impressive across the herd, which calves all year round to maintain a level supply for milk buyer Dairy Crest. Cows in the ‘conventional’ group are averaging 36 litres a day, which is not to be sniffed at. Combined milk sales from the two units is now more than seven million litres per year – up 2.8 million litres since the beginning of 2014. The new cow housing also comprises some of the latest technology. The floor is slatted and has rubber slatted mats that are cambered. “They’re ‘self cleaning’ – when the cows walk on them they move slightly and this pushes the muck down between the slats. We never have to scrape out,” explains Max.

The new cow shed has feed fences along three sides and the robots along the fourth. The cubicles are laid in double rows of 20 and face each other. These are bedded with mats, supplied by Wilson

Agri, which are filled with silica gel and topped up with compressed air. There’s also a Lely Juno robot that pushes the TMR up to the feed barrier every two hours. “This is another invaluable time-saving device that helps me and my team to manage a large herd more efficiently and effectively,” says Max.

Minimal labour

He’s able to manage 600 cows with help from one ‘conventional parlour’ manager and one ‘robot’ manager. And there are six people who come in, two at a time, to milk three times a day through the conventional parlour. Everything else, across the two herds, is handled by Max. “It’s amazing to see one man doing the job of five on the conventional set up. It really brings home just how much more time efficient an automatic milking system is. And I can see a time, if a shortage of milking labour was to become a problem, when I’d consider switching to an ‘all-robot’ system. But, for the time being, things are working well and we can continue to expand with confidence.”

New building: the cow house was built on a greenfield site, just metres from the farm’s existing unit

