

Producers' deliberations – and verdicts – on new parlour installations

Make your mind up

With so many different parlour designs and sizes to choose from, how did four leading UK producers decide which would best suit the needs of their dairy herds and businesses? We asked them and share their answers below.

text Rachael Porter

Labour-saving robots lighten the load

Chris Kneller
330-cow herd
Milked through two robots and a 20:20 herringbone



Robots are helping to lighten the milking labour load at one Devon-based unit.

The Kneller brothers run a 330-cow herd, with help from their mother Barbara at Middle Burrow Farm, near Tiverton, and just under half of the cows are milked through two DeLaval VMS robots, with the remainder going through a herringbone parlour.

"The robotic group comprises Johnes' disease free cows with good teat placement – they're not necessarily our highest yielders," says Chris Kneller.

The catalyst for taking the robotic route was that it was simply taking too long to milk the herd through the unit's 15-year-old 20:20 herringbone parlour – between 11 and 12 hours each day.

"The parlour was fully automated 10 years ago, but it was still unable to cope with our expanded herd – it was just too slow."

Throughput is about 70 cows per hour, which means a more manageable 2.5 hour stint in the parlour for the 180-cow portion of the herd that's still milked through it.

"It would be nice if we could afford to milk the entire herd using robots, but with the current milk price we just can't make that sort of investment.

"We'd be looking at spending close to £2 million if we were to do that, but this system cost us £750,000 by the time we'd built the new shed and other facilities needed to house the robots.

Best compromise

"It was the best compromise we could come up with and it's working well for us," adds Chris.

He and his brothers, Mike and Keith, did look at the possibility of installing a rotary.

"But we didn't think that the herd was large enough and thought we

would feel compelled to push cow numbers up even further to justify the investment. And we didn't want that level of commitment. We wanted some weekend off!

"This set up cuts down on the amount of time we spend in the parlour and frees up time to manage the herd. We've also seen milk yields increase in the robotic group as they're milked more frequently and that requires no extra effort on our part."

Some cows are visiting the robot four or more times a day and peak yields of 60 litres are typical.

This group is averaging 10,500 litres compared to 8,000 litres for the conventionally milked group.

"If milk price improved dramatically and we met our costs of production and made a decent margin then we would be tempted to switch entirely to a robotic milking system.

"But for now we have to settle with that we have," adds Chris. "And it's certainly a huge improvement."

Rotary route slashed milking time

James Mann
250-cow herd, but expanding
40-point rotary



A 40-point Fullwood rotary has been installed at one Leicesterhire-based unit that's in the middle of an expansion programme and could see cow numbers rise from the current 250 to around 450 in around five years.

James Mann farms in partnership with his father and brother at Vine Farm, near Melton Mowbray.

Just six months ago it was taking six hours to milk the herd through the unit's old 20:20 herringbone parlour – that's 12 hours each day.

"It was soul destroying for us and far from ideal for the cows," says James, who says that milking now takes just two hours and herd has increased by 600 litres a day since they switched on the

rotary in November. Herd average yield now stands at 8,200kg of milk at 4.2% butterfat and 3.3% protein.

"We've not changed anything else. This is simply the result of the cows spending less time standing around waiting to be milked – they've now got more time to eat and lie down."

The family did consider other designs, including a 24:48 herringbone or rapid exit parlour for between 300 and 350 cows.

"But then my brother came home to farm and we decided we had the man power to eventually push cow numbers higher than that. So we put the herringbone and rapid exit parlours on the back burner," explains James.

The team at Vine Farm are pleased with their investment in the rotary. "The cows took to it really quickly and so did we. In fact it couldn't be better," adds James.

"To give you an idea of how much the cows like it, the only modification we need to make is to add a gate at the entrance to the parlour to slow the cows down a bit.

"They're so eager to get in that it can be a bit of a scramble.

Apart from that, he adds, cow flow is good: "One person wipes and attaches the clusters and the other sprays teats and moves cows between the collecting yard and housing. The atmosphere in the parlour is so much more relaxed."



Smooth cow flow and increased operator comfort

Steve Jones
230-cow herd
32:32 herringbone



The parlour of choice for the dairy unit at Bridgwater College was a DeLaval 32:32 herringbone. The 230-cow pedigree Somerset herd, which is currently averaging 9,800 litres at 4.02% butterfat and 3.34% protein, is milked through it twice a day, in just two hours per milking. And farm manager Steve Jones is really pleased with the system.

“Previously we were milking 180 cows through a 16:16 herringbone parlour and the problem wasn’t so much the parlour as the design of the building.

“Not one cow would enter the parlour voluntarily – they all had to be driven in. And getting them out again was time consuming too.

“There was a 90o turn just three feet from the end of the parlour, which was difficult for them to negotiate.

“So it was a two man job to milk the cows and it took four hours each milking.”

Not surprising then that the design of the new parlour centred on good cow flow and operator comfort.

“The parlour also had to be big enough to accommodate the newly expanded herd and also offer capacity for future expansion.

“We’ve milking stalls and pit and collecting yard space for an additional eight units to be added in future,” says Steve.

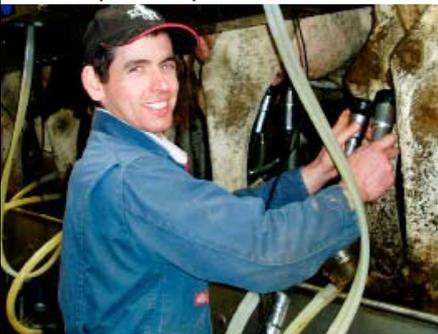
The college’s students also had to be considered – another reason for selecting a herringbone over, say, a rapid exit or swing over parlour.

“We didn’t want too many moving parts, for health and safety reasons. And this parlour is ideal for teaching students how to milk.”



Cutting down on ‘idle’ time and increasing capacity

William Baillie
200-cow herd
24:24 parallel rapid exit



A 24:24 Boumatic Xpressway parallel rapid exit parlour has taken the pain out of milking William Baillie’s 200-cow herd. And there’s plenty of capacity for him to expand cow numbers up to 300, which he plans to do eventually, and still manage with just one man milking.

The new parlour was installed at Hillhead Farm, near Thankerton, in 2007 and replaced a 10:20 swing over

herringbone that simply wasn’t big enough anymore. “It was 35 years old and the stalls were too small for the cows,” explains William, who has also been gradually increasing cow numbers at his Lanarkshire-based unit.

It was also taking three hours to milk the herd – a total of nine hours a day on three-times-a-day milking. “And we’ve got that down to an hour and 15 minutes now – that’s less than half the time it took before.”

This parlour appealed to William

because of the speed with which the cows can exit it. “It cuts down on ‘idle’ time – the cows aren’t standing around. Once they’ve finished milking they’re off.

“I looked at the possibility of a rotary, but that was hard to justify since you need to be milking at least 300 cows through it and I’m five years off that at the moment.

“The parallel is a pleasant environment to milk in now and, although it’s still busy, it’s not stressful,” he adds.

