

Adams Foods

Flexibility with reliability. Low maintenance and quick installation

John R Boone supplied a HHBM (Horizontal Helical Blade Mixer) to Adams Foods, increasing batch size, reducing maintenance costs and improving the productive time available for production. Cost-effective, reliable and flexible, test, design and manufacture took only a shade over eight weeks to complete.

Process plant design and Mixer specialist, J R Boone Ltd, has recently completed one of its more difficult assignments - building to a strict specification, a 1,500-litre capacity horizontal helical blade mixer (HHBM) - and all done in double-quick time.

Adams Foods, part of Kerrygold, chose the company to supply equipment for mixing milk powders with up to 35 per cent fat content and minor additives in batch sizes ranging from 400 litres to 1,500 litres, with bulk densities of up to 1,050kg/m³.

J R Boone had previously developed a completely new short aspect ratio Ribbon Mixer (HHBM) by adopting a scientific approach to maximise mixing efficiency, with only four helical blades for any machine size. This combined with the company's comprehensive knowledge - gained over 40 years supplying mixers to the food processing industries - provided machines with the versatility to mix powders, pastes and slurries with simplified cleaning and maintenance.

The resulting wide range of mixers based on common design element could then be produced at a competitive price. This was the ideal starting point for the company to start developing a custom model to meet the specific requirements of Adams Foods.

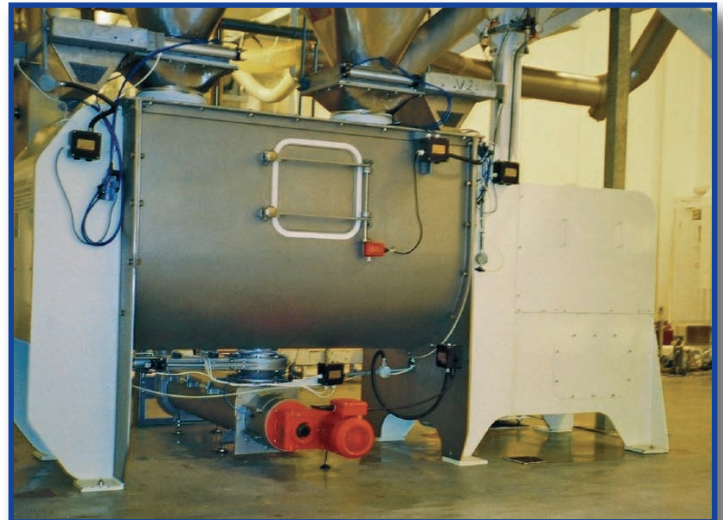
Boone's managing director, Chris Boone, explains: "Adams wanted to retain their existing feed hoppers and their conveying and discharging systems, while at the same time increasing the mixing capacity from 1,200 litres with their old machine to 1,500. Because of all these factors, we could only work to the same limited height as the old machine.

So we took one of our 1,250 HHBM models and re-designed it into a U-trough. Which increased its capacity to 1,500 litres, and we gave it an ATEX rating to ensure that it complied with the EU directive on installation into an area where small amounts of sugar can create a potentially explosive atmosphere."

One of the main stipulations from Adams Foods was that the new mixer should not suffer the same irritating problems as the old one. The company wanted an end to sealing and maintenance difficulties, to troubles caused by pressurisation and occasional overfill, and to

problems of re-starting when the machine had to be stopped with a full load on board.

Chris Boone says: "We fitted air-purged, packed gland seals and wear sleeves to give long life and easy maintenance. And the mixer can be subjected to over-pressure and regular full-load starts without any



problems - or leaks." All this and our speedy installation too. "Our re-design took just a few days and we cut our manufacturing time to eight weeks," adds Mr Boone.

The new HHBM machines from J R Boone are nothing if adaptable. They can handle a large range of products from breakfast foods to molassed sugar, and from cake mixes to instant potato. Things like frozen foods, powdered drinks and dough for dog biscuits are also taken in their stride, and in a non-food context - the machines can tackle car body fillers, the formation of thick slurries and fine chemicals.

Over at Adams Foods, John Vernon, the factory engineer is more than pleased. He said "from the first day in production to the present time, the mixer has exceeded all our expectations, greatly reducing maintenance and increasing productive time."