

CASE STUDY

PRECISION ENGINEERED GRAIN SILO READY FOR ASSEMBLY



THE CHALLENGE

Precision engineering really comes into its own when you have to manufacture and supply a 'kit of parts' for a customer to assemble onsite. That was the challenge facing our fabrication and machining teams when commissioned to produce an enormous self-standing grain bin, the first of four where each component part had to be meticulously engineered to achieve the perfect fit.





THE SOLUTION

From detailed drawings supplied, 3mm and 2mm plates were cut to shape from galvanised steel sheets on James Aiken's high-definition plasma cutting machine. A bill of materials included an array of profiles with requirements for short and long slots for hardware fixings at the point of assembly. Each section was formed on a CNC forming machine to achieve the angles that various profiles required to ensure parts came together to provide a perfect seal to store dry goods and make cleaning easier ready for the next batch.

The steel frame and legs were engineered to provide the stability to support this towering silo with its spacious cylindrical surface, lower cone-shaped bottom, top access hatch and cover. This frame provides a strong and robust structure on which sections come together to form a perfect seal and take the weight when the silo is filled to capacity. The smooth surface wall and precision engineered fitting means regular maintenance is not required, which gives the customer continuous and uninterrupted use.

Once all the parts were finished and checked, the grain silo was transported in component parts - reducing transport costs - with the necessary hardware for the customer to assemble onsite.



THE RESULTS

The customer reported that all parts fitted seamlessly and praised the James Aiken team for the standard of work. A further three grain silos are in the pipeline. If you require a silo storage system - any shape, any size, any thickness - either for farm, commercial or industrial applications contact the James Aiken Engineering Solutions team on 01224 704842 for a quotation.

JAMES AIKEN ENGINEERING SOLUTIONS IS A LEADING SUB-CONTRACTOR OF FABRICATED METAL AND PRECISION MACHINED COMPONENTS WITH EXTENSIVE FABRICATION AND MACHINE SHOP FACILITIES UNDER ONE ROOF.



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