

# GIANT CHICKEN STEEL SCULPTURE

Nervous Squirrel, a Lincolnshire based inventor, instructed Laser 24 to make all the metal parts for one of their biggest sculptural projects yet – a 5.5m high geodesic chicken!

## THE CHALLENGE

### Our task was to create bespoke cut metal parts for a steel structure

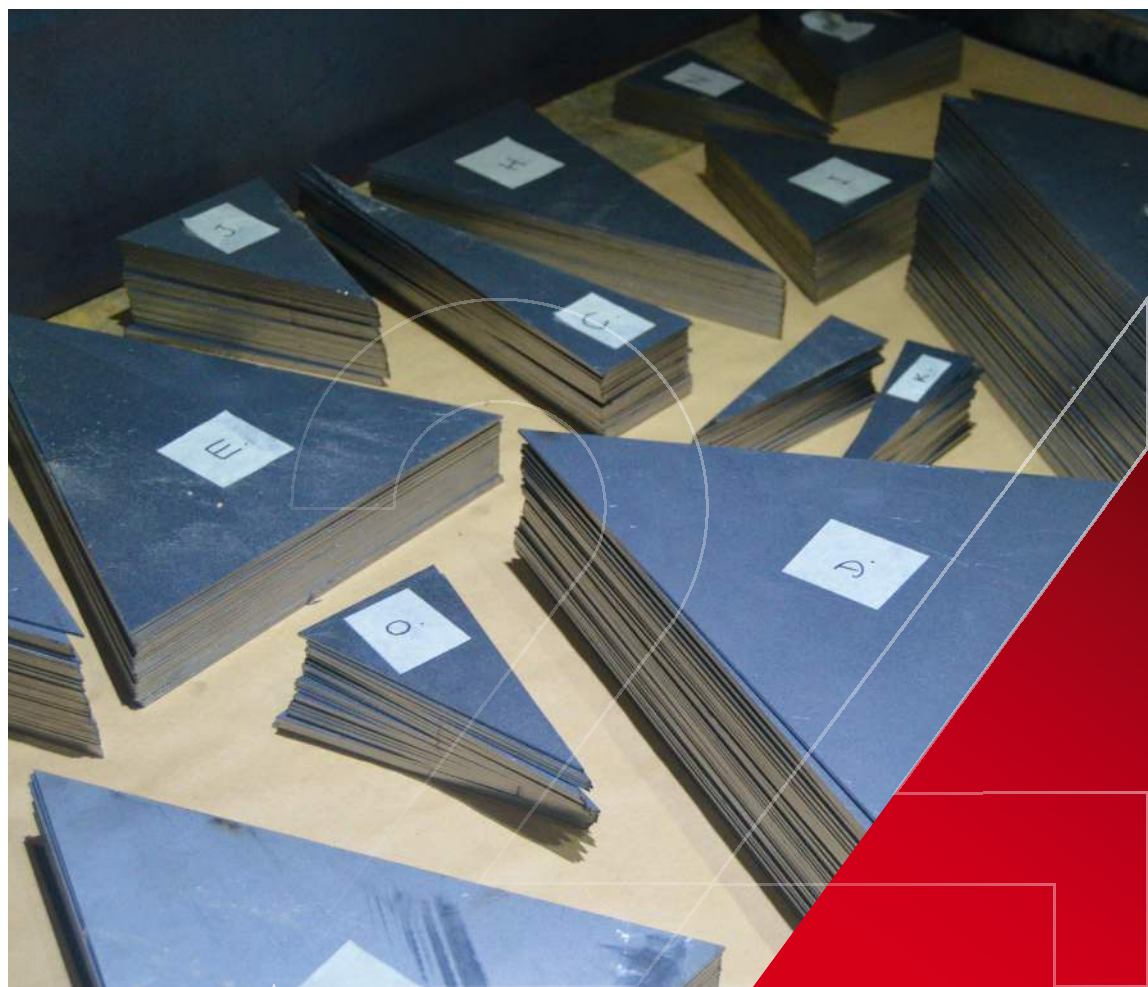
The client asked us to help create a giant chicken sculpture from steel. This unique art project would require a high number of bespoke metal parts cut to very high precision, which would operate as key components to the build. The strength and thickness of the metal would also work to maintain its structure over time.

### There were 17 different shapes, 556 components in total

The metalworks included various parameters, including end caps that would work as mudguards, and triangles that would form the main sphere-shaped body of the sculpture. One piece cut wrong and no chicken would be crossing the road!

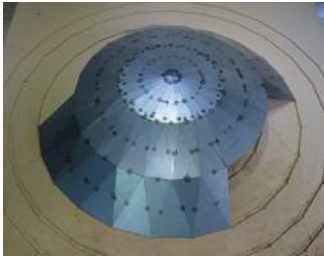
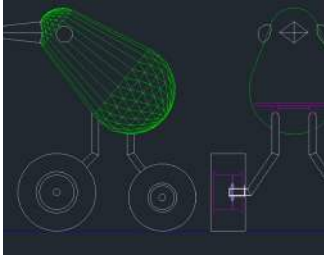
“  
It's great to see  
how our laser cut  
parts are used,  
especially on such a  
remarkable project!

Jodie Smith  
Senior Account Manager



66  
**Being part of such an exciting project is so rewarding.**

**Kim Humphries**  
Service Manager



## WHAT WE DID

### To construct the steel dome choosing the right metal

There were two core factors when choosing the type of metal and the actual cutting process for this project. Firstly, we needed to create the smooth surface desired to make this piece of art shine. Secondly, we had to ensure the sculpture would be durable for years to come, so we needed to produce all pieces with the least wear as possible.

### We cut all parts from 2mm CR4 mild steel, processed with N2

With CR4 mild steel, the 'C' stands for Cold reduced steel sheets. Making steel and sheets using this method results in a product with a smoother surface and finer finish.

N2 denotes laser cutting in nitrogen assist gas at the laser head, a method that works perfectly to shroud the metal when laser cutting. While our Bystronic 10kW laser can cut using both nitrogen or oxygen gas, plus in-air and scan cutting, we chose nitrogen over all other methods for its 'blanketing' effect.

Oxygen has great uses for other projects, but it can oxidise the metal and potentially cause rust, something we did not want for this project. When combining nitrogen with the powerful 10kW laser, a protective guard is formed around the metal as it's cut.

## HOW WE DID IT

### Using the Bystronic Suite

With 17 different shapes and 556 parts to be made, control was central to the performance of this job, so our team had an overview of the process from start to completion. We had our most advanced programmers on board to program the systems, working smartly and efficiently to get production up and running without fault.

For ultimate precision and fastest turnaround, we chose our world-class 10kW Bystronic Fiber Laser for this project, a machine that is able to handle large batches fast and reliably. Plus, we used our Bystronic ByTrans Extended Automation for faster job processing, which enabled the automatic loading and unloading of the metals. Automation is incredibly useful with a high volume of parts.

## THE RESULT

### All the metal pieces for a masterpiece

In the hundreds and dozens, every single piece was produced seamlessly and flawlessly! Overall, we achieved the high volume of metal cut parts within a short timeframe and delivered these to a very satisfied client. He was ultimately relieved that these did not have to be cut by hand, and was pleased with the precision of the cut.



**Want to find out how we can help your laser cutting projects?**

Email Us [sales@laser24.co.uk](mailto:sales@laser24.co.uk)

Call us 01268 733 883