



OVERVIEW

- The Initial start of the project was for consulting on the development of EV charging adapters and mating plugs, which started on Feb 2, 2011. At that time, Tesla stock price was \$23.89.
- Fourteen months of audits, evaluations, and discussions led to the kickoff of the mold tools which we developed in-house. The initial order was for five molds on April 23, 2012
- The first adapter shipped on July 27, 2012.
- ISC previously worked and developed EV chargers for other customers and worked through the UL process, but these were 100% custom and something entirely new to the industry.
- The parts were developed under high scrutiny from all quality aspects. Six Sigma methodology that uses statistical analysis to reduce process variation was applied to all aspects of the assembly process. Inspection, testing, and product traceability were each essential to deliver a highly reliable product that was also cosmetically flawless.
- By bringing the product to ISC, they were able to make these mechanical (capped) adapters more aesthetic, durable, and tamper resistant by over-molding them.
- January 7, 2013, ISC shipped the first wall plug and, in less than four years, manufactured and shipped over 190,000 plugs. Every plug came standard with a 5-15 and 14-50 adapter, but multiple other NEMA variations were available.

CHALLENGE:

Tesla approached ISC with a consulting project to develop EV charging adapters and mating plugs that were not only reliable but also met the aesthetic standards of the Tesla vehicle.

SOLUTION:

ISC and Tesla worked together for 14 months to develop mold tools, which then produced adapters with the utmost quality and efficiency.

OUTCOME:

After setting a high standard at ISC, Tesla transitioned production offshore to support its exponential growth.

FUN FACTS

Tesla is the highest valued car manufacturer in the world, with a net worth of \$45 billion.

Tesla has over 45,000 employees.

Tesla has manufactured and shipped over 500,000 units worldwide.



Plug and red adapter
 for European
 markets



Plug and blue
 adapter for European
 markets



Small run prototype
 of European pig tail
 plug



Standard US
 charging package
 with each vehicle
 including 5-15 and
 14-50 adapters

CHALLENGE:

Tesla designed a fully custom interchangeable platform that allowed users to charge their vehicles from any outlet. Tesla sourced and validated many companies that specialized in facets of assembly and electronics, the majority of who could not keep up. ISC, being vertically integrated, was able to shine and became a go-to partner for additional projects.

SOLUTION:

ISC helped launch a new innovative line of products that supported the growth of a groundbreaking company and trend setting EV. The Six Sigma methodology enabled Tesla to use ISC products with little to no risk of malfunctions.



OUTCOME

The growth of Tesla was exponential, which caused ISC to grow at a similar rate and resulted in the expansion and addition of a 2nd shift at the manufacturing plant.

After several years of developing and building adapters that supported all Tesla vehicles, it was time for the journey to come to an end. Tesla grew to a size that was expanding more than its supply chain could support. The result was the transition of these parts to offshore giants Foxconn and Jabil.