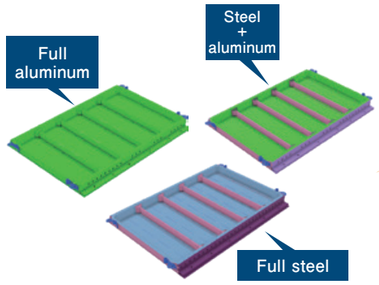
Evolution of G-TEKT's Technology

With the automobile market going through a period of major transformation to electric vehicles (BEV), we are driving the further expansion and evolution of technologies that we have developed in the past, in order to build systems that can deal with a wide range of products, and achieve sustainable growth in the business.
To enable the Company to evolve from a parts supplier that proposes individual components to a vehicle body supplier that is even more trusted as a business partner by automotive OEMs, we have established integral molding, hot stamping, and whole-vehicle body analysis technology.
Having focused on the shift to BEV, we have completed development of the battery housing, which is specific to such vehicles, and have established production technology for the motor cores that are an essential component of BEVs.
Moreover, in response to the need of automotive OEMs for integrated auto body components, G-TEKT is conducting proposal activities aimed at reducing parts counts through the use of integrated molding technology for the hot stamping of steel sheets, and of multi-material products that combine aluminum diecast parts with steel parts.
As one of the industry's leading companies, we will continue to take on the challenge of becoming a tier 0.5 vehicle body system supplier by driving the further expansion and evolution of technologies that we have developed in the past.



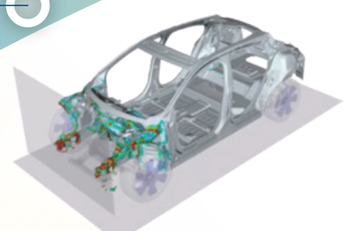
Acceleration of technological development

Completed (demonstration line)
Development of motor parts

Aiming to become a **tier 0.5** vehicle body system supplier

Optimal BEV body + EV-related components

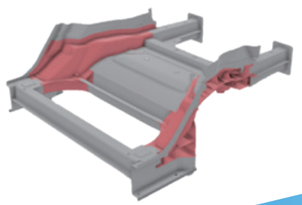
Completed
Whole-vehicle body proposal
Evolution of analysis technology capabilities
- Integral molding
- Hot stamping
- Joining technology

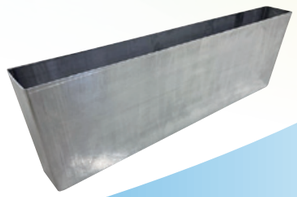


Completed
Parts proposals
- Weight saving using high-rigidity materials

Completed (concept)
Development of optimal battery housing
- Steel/aluminum/hybrid

Proposals submitted
Large integral molding module





Electrification

Integration of body and battery housing functions

For auto bodies, performance is required not only for the functions of the individual parts but also for the vehicle as a BIW*. Representative examples of this include the strength that protects occupants in a collision, and the rigidity that influences driving comfort. On the other hand, the battery housing that is a part characteristic of BEVs must itself have a high level of strength in order to protect the battery. Accordingly, by developing the auto body and battery housing all at once, the optimal BEV auto body can be created.
G-TEKT has achieved this through its strength in body in white analysis technology. The latest BEVs use so-called cell-to-pack or cell-to-body structures in which the battery housing also serves as the vehicle floor, and battery cells are loaded directly into the battery housing and the body without first being inserted into modules. Keeping abreast of these trends, we secure orders by proposing specifications that identify the optimal balance for the functionality of the battery housing and the auto body.

*A stage in the automobile manufacturing process where all the body components have been welded together and assembled.