



Casting structural components.

**High pressure die casting (HPDC)
for thin-walled and ductile parts.**

Supporting your structural component manufacturing, from set-up to ongoing optimization.

As a pioneer in high pressure die casting (HPDC) for the production of structural automotive components like shock towers, we can help you succeed in this growth market. Over the past five years the demand for structural components multiplied and is about to increase also in the future.

Structural components cast in aluminum give vehicle manufacturers a lighter weight solution that can help extend the range of electric and hybrid cars and reduce fuel consumption in traditional models.

Using our proven Carat die-casting machines, we can help you to profitably meet the stringent quality requirements of this market. Once up and running, our experienced applications teams offer process solutions to help you decrease downtime, improve cycle times, reduce scrap and continually drive up your OEE (Overall Equipment Effectiveness).

Benefits for your business – profit from our know-how and equipment

- Carat machines, specifically designed for complex and demanding parts
- Experienced engineers with 15 years in the structural market
- Process support during technology implementation and start of production, around the globe
- Established network for structural part production
- Process optimization services, including:
 - Gate and runner design, and thermal balance concepts
 - Filling and solidification simulation
 - Continuous productivity improvement for cycle time, uptime and quality

The structural process – from aluminum to part.



Die design and cooling concept.

Our die design experts can develop gate systems, runner systems and thermal balance concepts to help you develop a stable process. The development is backed up with numerous simulations for filling, solidification and temperature distribution. With this we can help you meet the highest quality standards and reduce the time needed to begin production.

HPDC process.

Our highly reliable Carat two-platen die-casting machine with its world-class closed-loop injection unit is the best option for your structural components production. Around 50 % of all structural components around the world are produced on Bühler solutions.

Cell solution.

Our flexible and fully integrated SmartVac vacuum unit with its advanced monitoring capabilities ensures high quality during production. We can integrate peripherals into your process and our advanced control system gives your operators and process engineers better control.

Global application technology support.

From our three Die Casting Technology Centers we can offer you support and training to quickly help you get up to speed. Our process engineers will work hands-on with your team to ensure a smooth start and the continuing optimization of your process.

Bühler AG

Die Casting
CH-9240 Uzwil, Switzerland
buhlergroup.com/die-casting

T +41 71 955 11 11
F +41 71 955 25 88
die-casting@buhlergroup.com

