In today’s lean production environment, manufacturers rely on Just-in-Time (JIT) delivery to increase efficiency and reduce costs by keeping inventories low. For suppliers, it means added pressure to ensure that assembly lines are kept running and production schedules are met.

When a major automotive component supplier, and BTM Company customer, broke a critical part of one of their machines, BTM responded by building a new part and sending it to them overnight to get the customer back up and running quickly.

The customer in this case is a global leader in the development and manufacture of highly engineered engine technologies. They supply millions of engine components each year to major automotive and heavy-duty truck manufacturers.

BTM previously supplied the customer with a 20-ton floor press, controls, and die sets used to manufacture engine components that warm and cool engine oil to maintain optimum operating temperature.

“One of their employees crushed a gauge on the floor press controls,” said Dan Johnston, BTM Materials Joining Group. “They needed a new gauge. We made it that day and shipped it to them the following day. We were able to respond and get them back into production quickly.”

“They also appreciate how quickly we are able to engineer new die sets for their parts,” continued Johnston. The process of engineering new die sets starts with discussing the production requirements with the customer. In most instances, the customer will also provide a prototype part.

BTM’s application design engineers use computer-aided design (CAD) software to design the new die sets. When they can build the part in simulation, BTM meets with the customer to sign-off on the design. The design specifications are then sent to the manufacturing floor. Once built, BTM tests and inspects the die sets before delivery to the customer.

BTM understands and meets critical customer deadlines. “When the customer sends over an order for a new die set, we have to get that set designed and built according to their schedule,” said Johnston. “They have to produce parts for vehicles that are going into production on a specific date.”

BTM has designed and built 25 to 30 die sets for this customer over nearly 20 years. In several instances, BTM has modified existing die sets, so they can run two to three different assemblies by changing a few components within the die set.

“If they come to us with a part that is similar to a part that they are currently running, we will design the components within that existing die set to run the new part,” said Johnston. This reduces the initial cost for the customer, because they do not have to buy a completely new die set, and it also saves the customer time and money during production.