Manufacturing

Benteler Hagen produces exhaust and manifold solutions for many of the world’s largest automotive manufacturers including, among others:

- Ford
- Chrysler
- Toyota
- Nissan
- GM

2015 Ford 6.7L Powerstroke

To do this, they operate a wide variety of both dedicated and modular manufacturing lines, each organized by a Manufacturing Engineer and overseen by a Line Coordinator.

Manufacturing Engineers are in charge of tooling design, line maintenance, and continuous improvement of the processes they lead. Each engineer has a wide variety of industry contacts and spends a considerable amount of time on the shop floor.

Quality

Benteler Hagen uses private quality standards, as well as working with industry and customer standards, to ensure the quality of the parts that they ship.

**Statistical Process Control (SPC)**

SPC is a method of quality control that concentrates on the prevention of potential issues before they develop by monitoring the capability and control within a manufacturing process.

A Stable Process

IF ONLY COMMON CAUSES OF VARIATION ARE PRESENT, THE OUTPUT FORMS A DISTRIBUTION THAT IS STABLE OVER TIME AND IS PREDICTABLE

![A Stable Process Diagram](https://acc.dau.mil/communitybrowser.aspx?id=520789&imageid=98ecbec8-8c06-4a03-99a4-f3fd38d09b04)

An Unstable Process

IF SPECIAL CAUSES OF VARIATION ARE PRESENT, THE OUTPUT FORMS A DISTRIBUTION THAT IS UNSTABLE OVER TIME AND IS UNPREDICTABLE

![An Unstable Process Diagram](https://acc.dau.mil/communitybrowser.aspx?id=520789&imageid=c69bf801-eec3-470a-a7e9-a666ac05ffe0)

What is BENTELER?

Benteler:

A management holding company coordinating multiple, international, legally independent business divisions

Benteler Automotive:

The automotive research and manufacturing division of Benteler International AG

Hagen Plant:

3721 Hagen Drive, SE
49548 Grand Rapids, Michigan

References

www.benteler.com/