



Zeit

As part of Progress Rail Services' Brazilian business unit, Zeit has specializes in the design and manufacture of embedded systems for locomotives. The company has been a national leader in the automation market for the railway industry since 2001, manufacturing the SAL unit, an automation system for locomotives and power converter for traction.

In 2010, Zeit became a subsidiary of Progress Rail Services Corporation, a Caterpillar Company.

Zeit works in conjunction with MGE Transportes in Brazil, also a subsidiary of Progress Rail Services Corporation. MGE Transportes is a market leader in domestic manufacturing and maintenance of traction motors and locomotives services, including dedicated rail service units.

With the Progress Rail group, Zeit serves as the center for excellence in engineering solutions for rail automation and power converters, along with choppers and inverters for traction purposes.

Certified to ISO 9001-2008 standards since 2009, Zeit remains committed to quality and is recognized as an innovative leader in technological development.





SAL Microprocessor

The SAL system is a complete set of automation equipment used in modernization of Diesel Electric locomotives.

SAL's control algorithms ensure the best performance of the locomotive in any situation through regulating the excitation.

SAL reduces components and maintenance tools required; along with diagnostic and schematic simplification and ensures the reduction of maintenance costs.

Application:

The SAL platform is the most economical and technologically up to date complete solution for microprocessor control of the various locomotive manufactures, brands, and models.

Electrical Design/Layout of Locomotive:

The Zeit design team prepares all needed information and documentation to apply the SAL system to customer locomotives.

SAL systems can be customized to each client's needs, and the SAL is adaptable to your locomotive.





Traction Drivers

Zeit provides Choppers and Inverters for DC and AC locomotives. Currently, Zeit is devoted to the development of power converters for Diesel Electric locomotive application.

Choppers:

Choppers are energy converters DC / DC that allow the control of individual traction motors, increasing the effectiveness of adhesion control. Choppers can significantly reduce the size of the main alternator and is a tool for simplification for multi-engine locomotives.

Inverters:

Inverters are power converters DC to AC for the use of AC traction motors in Diesel Electric Locomotives. There are several advantages to the use of AC traction motors versus DC traction motors. Zeit has the ability to design and manufacture inverters for many different applications and models of locomotives.

