

Established for more than 70 years, The Akebono Corporation is comprehensively involved in all aspects of brake manufacturing. Akebono has manufacturing facilities in Europe, the USA and Asia, and has the largest share of the Japanese market – it is a world market leader.

To test brakes and brake material, Akebono's Engineering Center in Farmington Hills, Michigan, uses twelve brake-testing dynamometers manufactured by the Link Engineering Company. Six of the Link test cells each uses a 6-channel PULSE™ system as the analyzer for data acquisition.

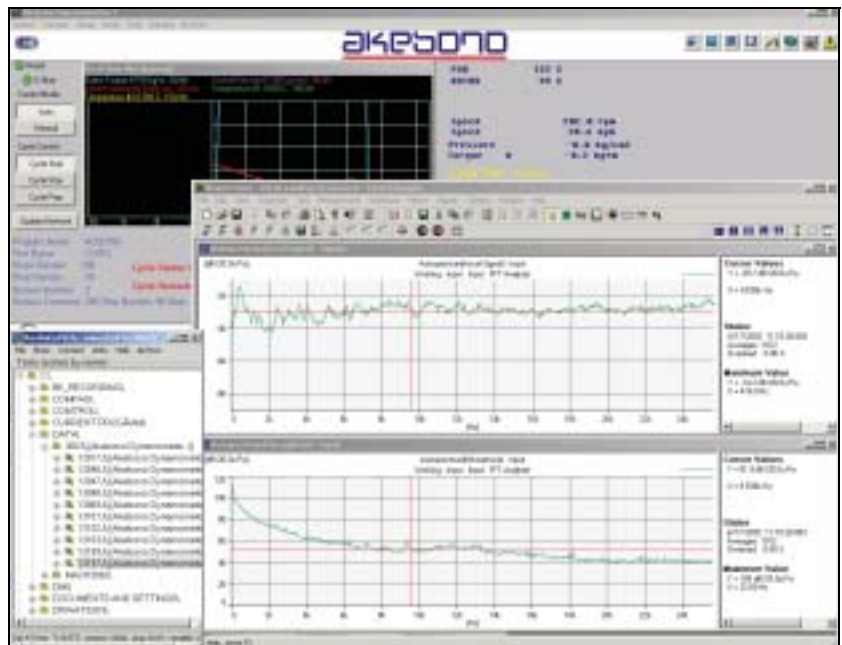
The Company

History

Akebono Brake Industry Co. Ltd., founded in 1929, initially produced automotive woven linings and clutch facings. Its activities continued to expand and in 1952 it began to manufacture wear-resistant resins for railroad brakes. Subsequently the company went on to develop an expanding range of products that included friction materials, disc brakes and drum brakes.

Today

It now has a comprehensive involvement in all aspects of brake manufacturing and has the largest share (40%) of this market in Japan. Akebono began its international expansion in 1980 when it moved into the US market with the creation of a sales company, Akebono America, Inc.



In Europe, Akebono Europe S.A., based in France, was established in 1985. Within Asia, Akebono has become a major supplier of technology and the company is actively expanding its Asian market.

Safety and Comfort

Safety and comfort are vital considerations for any automobile. This is reflected in the importance placed on brakes in the integrated systems used to develop modern vehicles, and highly advanced technology is used

to develop and produce high-quality, high performance brake products. In 1997 Akebono obtained QS 9000 certification company-wide for the manufacture of disc brakes.

Akebono's Engineering Center in Farmington Hills, Michigan, was established in 1989 to develop brake systems for the North American automotive industry. Akebono's advanced technology is combined with locally sourced materials to create asbestos-free friction materials and brake systems.

PULSE

To test brakes and brake material the Engineering Center uses twelve brake-testing dynamometers manufactured by the Link Engineering Company. Six of the Link test cells each uses a 6-channel PULSE system as the analyzer for data acquisition. PULSE is also used to check transducer calibration.

Scott Severnak is a supervisor in the Systems and Friction test department. Scott says, "Noise warranty issues are a major factor in automotive brakes. We carry out a vast amount of R & D testing and our test cells are constantly in use. We also make benchmark tests on our competitors' products. A typical noise test can take anything up to three days. We run a test several times to obtain a baseline figure. Brakes are run through a series of temperature and pressure matrices' for worst case conditions of brake noise". PULSE is controlled by Link's software which provides the customised user interface. Scott continues, "The frequencies of major interest are between 0-20 kHz and the sound power level is measured in dB". A brake squeal triggers the system and the test data is recorded for further analysis. The data is archived and the Link software enables data from different tests to be easily compared. Printed reports are made using Matlab®, Microsoft®, Microsoft® Word and Excel.

Akebono technology is the product of decades of experience in brake production and advanced development activities and is widely used throughout the world. The hidden role of brakes in protecting our safety is vital to everyone.

Key Facts

- Akebono Brake Industry Co. Ltd., founded in 1929, initially produced automotive woven linings and clutch facings
- Today, the company has a comprehensive involvement in all aspects of brake manufacturing and has the largest share (40%) of this market in Japan
- Akebono is a world market leader with facilities in Asia, Europe and the USA
- Akebono's Engineering Center in Farmington Hills, Michigan, was established in 1989 to develop brake systems for the North American automotive industry
- "Noise warranty issues are a major factor in automotive brakes"
- Advanced technology is combined with locally sourced materials to create asbestos-free friction materials and brake systems
- To test brakes and brake material the Engineering Center uses twelve brake-testing dynamometers manufactured by the Link Engineering Company
- Six of the Link test cell each uses a 6-channel PULSE system as the analyzer for data acquisition