

Paper Machine Drives Services Speed+



Speed+ is ABB's unique Asset Optimization Service for pulp and paper drives. The Speed+ service module helps operators to decide on the drive system changes required in order to increase the paper machine web speed and enhance the production capacity of the machine.

Changing paper types or optimizing paper quality may require redesigned performance of the drive system.

A comprehensive analysis is made by a team of drive system specialists. The analysis is based on a thorough investigation of the customer's drive system configuration, production settings and equipment base. When appropriate documentation is available and tests can be performed, the performance of any vendor's drive system can be fully analyzed for further improvements.

Speed+ Measurements and Analysis

Properly made measurements are the base for effective analysis. To create an effective site measurement plan, the basic documentation of the process should be available.

Documentation

System documentation should include adequate descriptions of paper grades with current production speeds, recommended drive capacity requirements (RDC lists), electrical installation, mechanical drive parts and some machinery details.

The drive control program or program descriptions and parameter values used should be available. Program settings typically have a significant impact on actual drive performance limitations.

Supply Section Measurements

On-site measurements must be conducted together with the customer's electrical or automation maintenance personnel using the customer's prescheduled production plan.

Some tests (e.g. acceleration) are made during production breaks. Some of the tests may require short production breaks in order to install the measuring equipment necessary for the production tests.

The following measurements are executed:

- Process speed
- Rotational speed
- Torque (current)
- Excitation, power and tension levels
- Supply measurements
- Spot frictions and inertias

The assigned engineer is dedicated to creating an optimal solution for the capacity increase requirement, utilizing all the ABB specialist resources that are necessary.

Expert Analysis

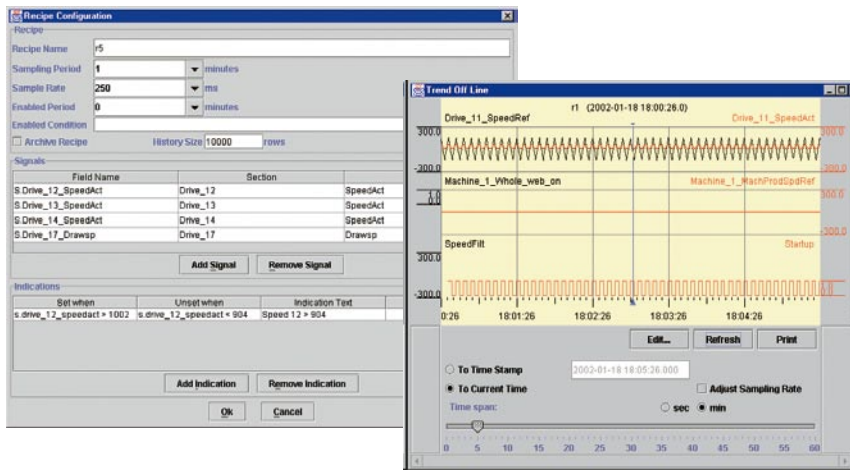
After the measurements have been taken the ABB specialist will make calculations and give an evaluation of the possible changes required in the system. The evaluation is based on the following:

- The availability with the existing drives
- Changing/replacing the most critical part of the machine
- Changing/replacing all that is needed to achieve the desired speed

An in-depth understanding of the drive system characteristics is required and knowledge of the different load characteristics of the application is essential. Experienced specialists perform the analysis quickly and efficiently, and furthermore, the ABB specialists can implement the suggested corrective measures for achieving the desired productivity.

ABB's expertise in drives systems is indisputable. With over 2500 references with tens of thousands of drive sections, a global network of experts and detailed process expertise ABB is the market leader in paper machine drive systems.





ABB's Pulp & Paper Drives Specialists Network

Pulp and Paper Drives Network consists of about 300 Paper Machine Drive experts with sales, engineering, project management and design engineering experience around the world.

This expertise is represented in the Pulp and Paper Drives project support team. The team consists of highly experienced engineers:

- Commissioning Engineers
- Application Engineers
- Design Engineers.

Each of them has several years of practice with vast numbers of projects, in engineering as well as in the field.

A customer consulting with this team can depend on receiving the best support for the most demanding and complex tasks for boosting productivity through the drive systems.

ABB's Technical Support

For asset optimization, a number of other Asset Optimization Services are also available for several process areas, such as Paper Machine Automation and Drives, Quality Control and Machine Health. In addition to problem solving, these service programs are targeted for availability, efficiency and quality optimization.

In addition to the services, ABB's technical support is also available through the local service. They will provide assistance with:

- Technical requests
- Product consultation
- Field service, commissioning
- SW update support
- Drives warranty support
- Technical analyses, repair services, calibration
- Service contracts, Call-center contracts





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