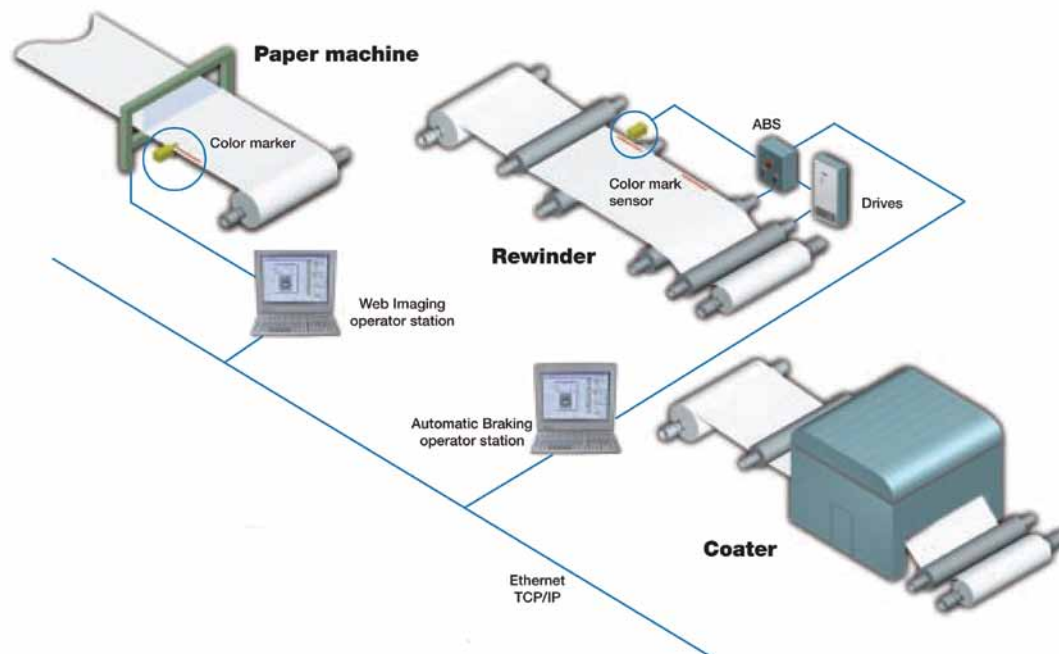


# Web Imaging System Automatic Braking System



ABB's Web Imaging, the industry's leading web inspection solution, provides sophisticated tools for accurately detecting, classifying and locating defects.

The Automatic Braking System (ABS) is an automatic target-braking system for winders and re-reelers. It stops the drive down exactly on the defects to be inspected or patched.

With Automatic Braking Solution, paper-makers are assured of maximum re-reeler/winder efficiency and increased production output.

Automatic Braking is operated through the PC operator station installed at the winder or re-reeler. When a reel is transferred for unwinding the operator selects the specific reel data from the Web Imaging database. The defects for automatic braking can be freely selected individually or globally by defect category. The selected defects are marked on the video display for easy operator recognition. ABS system automatically slows down the drive to crawl speed or alternately stops the winder or re-reeler at the precise selected defect location. The status of the unwinding, e.g. the length to the next stopping position, is continuously updated on the display.

The ABS uses absolute calibration marks made by the Web Imaging System on the web and the defect location data transferred via the computer interface to stop at the defect accurately. Camera reader detects the calibration marks and system compares their locations with the expected locations based on the information received from Web Imaging solution. The difference of these two values is used for automatic recalibration of all the machine direction position data for accurate operation.

### Technical Data:

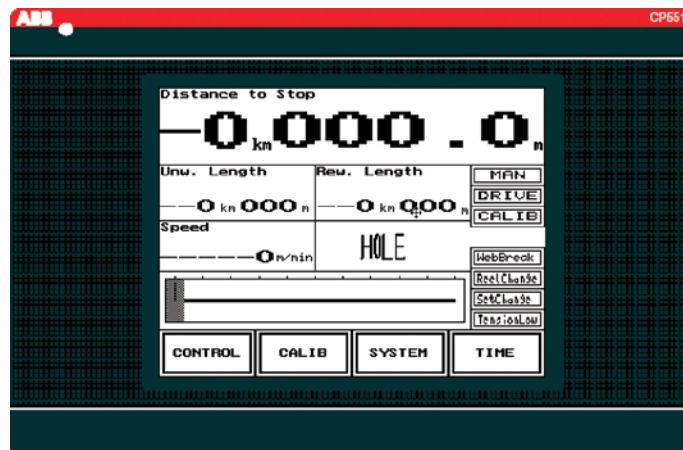
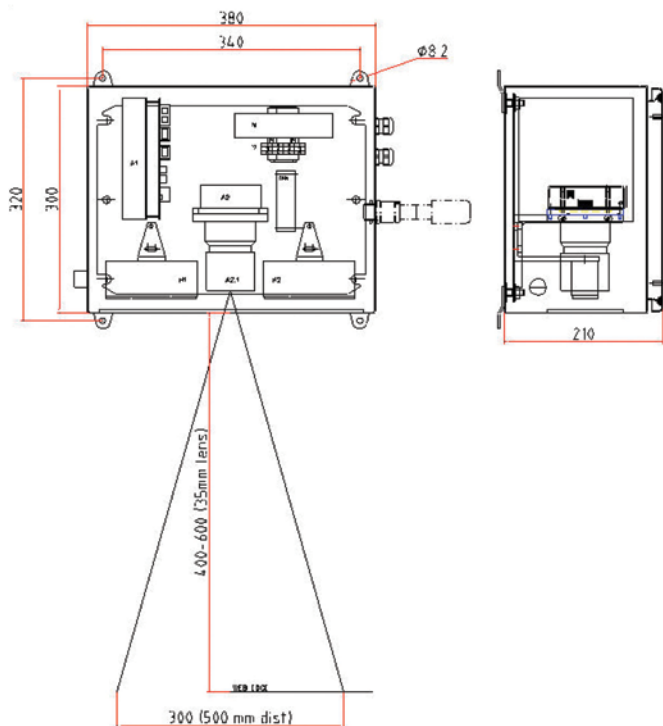
- Power supply: 220 V or 110 VAC, 50...60 Hz 250 W max
- Impulse tachometer inputs: 50 kHz limit frequency
- Environment: Temperature range: 0...50°C, Relative humidity < 95%, no condensation
- The HDI800 ABS is equipped with ABS control box, remote control (remote display), impulse tachometer, camera reader and operation station PC.

### Camera Reader:

The ABS Camera Reader uses the same digital camera as the WIS HDI800 system. This smart digital camera produces reliable calibration mark detection in compact design.

- 2048 pixel linear CCD element
- Measuring area 100...300 mm
- 35 or 50 mm objective
- Integrated LED light source

In addition with the calibration marks, the Camera reader detects defects such as wrinkles and edge defects. It's also possible to measure the edge positions and web width. Second camera reader can be added to the system in case the reel is turned before the processing.



### Drive interfaces:

ABS control box houses AC500 PLC which interfaces to drive systems. There are three ways to control the drives.

- Using a link to update the distance to the next stopping point.
- Using digital outputs
- Using analogue speed references with digital outputs

The ABS can be connected to both old and new electric drives through different serial links (e.g. Modbus RTU, R3964), Profibus, or Ethernet (Modbus/TCP), or then through digital or analog interface.

### Remote display:

The remote touch color screen display is installed next to the winder / re-reeler to show various information during the winding process i.e. reel's running length, distance to next stop, speed, calibration status, camera status, edge positions, temperatures etc.

For more information please contact:

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