MPS Control Console

The control desk for newspaper printing presses

- Touchscreen operation
- Ergonomic design with rapid access to relevant commands
- Extensive user-friendly alarm handling
- For all press types; new installations or retrofit
MPS Control Console
At the heart of controlling the press

Efficient newspaper printing with minimum waste depends not least on the printers themselves and their ability to operate the press. This is where the MPS Control Console can make a crucial difference to your business.

ABB was the first company to introduce modern control console concepts to newspaper printing, and no other company has as much experience in developing ergonomic solutions for optimizing the cooperation between man and machine. Everything on the MPS Control Console, from the touchscreen operation to the specially designed keyboards, has been conceived to make the press operation as easy and error-free as possible.

The MPS Control Console can be supplied for use with various control system configurations, for presses from all leading press manufacturers, for both new presses and retrofit projects, and for any fixed or variable web-widths.
The design of the MPS Control Console provides an unprecedented combination of ergonomics, flexibility, efficiency of operation and production security.

The MPS Control Console is designed for touch-screen operation, but also features a conventional keyboard for the rapid selection of essential functions and also a zoneless ink and water keyboard. Customers upgrading from a previous version of the console can retain the original desk and keyboards.

Familiarization with the console is very rapid thanks to the logical tree structure and the self-explanatory nature of the displays. Values are shown in familiar units and the texts on the screens are in the language selected by the customer. The system also allows the use of non-Latin character sets (e.g. Chinese or Arabic). The printer is further supported by online, plant-specific user and maintenance manuals. Whenever the printer selects the help function on a screen, the relevant page of the manual is displayed automatically.

The printer can choose freely whether the console operates in page-oriented or press-oriented mode. The height adjustment of the console is, of course, motor-driven.

Numerical reference values on an operating display are selected simply by touching them. A numerical keypad then appears on the screen adjacent to the selected field and can be used to enter a new numerical value. Alternatively, the printer can adjust the value using the arrow keys on the keyboard.

Digital commands (on/off, start/stop etc.) are selected by touch and then, as a safety measure, are confirmed by pressing a green button that appears next to the selected field. The command is cancelled by pressing a red button.

The number of control consoles allocated to a press section is decided by the customer. This depends on the size and the color content of the products but is normally between 2 and 4. (The maximum is 8.) All control consoles on a press have the same software and hardware, but specific functions can be allocated, e.g. ink and water control at one console and register and web tension at another, if so wished. A selected console acts as the master console for a press, and it is only on this console that the make-ready commands can be given.

Control consoles can be switched from press section to press section at any time, even during production. One console per press stores all the current press values in the Press Master module, another console acts as a backup. When a console is allocated to a new section, it merely connects to the database of values in the relevant Press Master via Ethernet and is immediately ready for use.
Example process displays

Common features
All MPS Control Console displays have the same framework. The header includes the following: console status, date, time, production name, production type, press speed, copy counts (net, waste and required), and the latest alarm message from the press. The footer includes soft keys for the direct selection of related control functions. The toolbar on the left of the screen gives direct access to functions such as the help function, changing the language (where relevant), acknowledging alarms, toggling between preset and actual values and printing the current screen content.

<table>
<thead>
<tr>
<th>Process display</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Menu**        | The process displays are divided into four groups:  
|                 | • Press make-ready  
|                 | • Production  
|                 | • Press information  
|                 | • Service  
|                 | Functions for restricting the commands available at a console and defining which displays require the console key for access are included in the service arm. |

| Production data | This display is used for presetting of the current and the next production. The following orders can be issued:  
|                 | • Preset next production  
|                 | • Ink and water preset  
|                 | • Update (when a page has changed)  
|                 | • Read-back  
|                 | • Ultimate end of production  
|                 | • Delete next production  
|                 | • Manual or automatic stop  
|                 | • Correction of the print run figure |

| Printed image   | This display shows the page imposition and pagination of the web selected. The cut-off registers and the elements for lateral moving of webs and ribbons are displayed and can be adjusted. The turning mode is also shown. |

| Alarm and event displays | This display shows all current alarms on the press. The alarms are color-coded according to their significance. The time of occurrence, origin, signal designation and descriptive text is displayed for every alarm. The list can be filtered to show only alarms that stop the press, alarms that prevent the press starting, alarms that need the attention of a printer, alarms that need the attention of an electrician and so on. The messages can also be filtered to select all that include a specified string. The order of the messages can also be changed. |
## Process display

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preset queue</strong></td>
<td>The preset queue is displayed in the same way as on the production management system MPS Production. The sequence can be changed by the printer at the control console, but it is not allowed to move productions from one press to another. This is only allowed on MPS Production.</td>
</tr>
<tr>
<td><strong>Print-on sequence</strong></td>
<td>The impression on, speed up stop, production and impression off speeds are defined in the upper part of the display. The sequence is defined in the lower part.</td>
</tr>
<tr>
<td><strong>Ink/water</strong></td>
<td>This display shows the ink and water values for the selected page as well as the color register of the selected printing couple and allows their adjustment. The central area of the display is for the fast selection of the page. The left part is for the selection of the book and the right part for the selection of the individual page.</td>
</tr>
<tr>
<td><strong>Folder</strong></td>
<td>The elements of the folder(s) and the folder superstructure are controlled in this display. For each element the setpoint, preset and actual value are shown as well as the status of their adjustment.</td>
</tr>
</tbody>
</table>
MPS Control Console keyboards

MPS Control Console features two keyboards: the conventional control console keyboard for the rapid selection of essential functions and the zoneless keyboard for adjusting ink and water.

The zoneless keyboard is particularly advantageous on presses that run with variable web widths. The newspaper is placed centrally on the lay-down area and the locations of borders of the ink zones are calculated by the system and shown by the red LEDs. The ink or water values are changed by pressing on either the + or − adjustment strip within the relevant zone. The adjustment strips feature an excellent tactile response as an aid to user-friendliness and correct operation. The LEDs within the zone being adjusted also light up as a visual confirmation.
Options

A number of optional extensions to the MPS Control Console are available. These include:

**Soft-proof**
The soft-proof viewer provides the printer with a color image of the pages of the product currently being printed. The image displayed is selected automatically by the control console without any additional input from the printer being necessary – whichever page is currently selected on the console is displayed as a soft-proof.

The ABB soft-proof viewer is available in two different configurations, ColorCheck, which provides a color-calibrated image of the selected page, and PageCheck, which is intended for checking content rather than the exact color.

**Standardized lighting**
The MPS Control Console is available with built-in standardized lighting.

**Retrofit and console replacement**
The MPS Control Console is available not only for new press installations but also presses that are retrofitted with ABB controls. It is also possible to replace previous generations of the MPS Control Console in use on older press control systems with the most modern version. This gives customers the benefit of modern ergonomics and is a further example of ABB’s commitment to providing a continuous upgrade path to its customers.

In addition, the zoneless ink and water keyboard is available as an add-on unit for consoles with conventional keys.

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MPS Control Console with optional standardized lighting and soft-proof monitor