KONICA MINOLTA

AUTOMATIC COLOUR AND IMAGE CONTROL

AccurioPress Series
IQ-501

Intelligent Quality Optimiser

Delivers high quality prints reducing time and waste!

Intelligent Quality Optimiser IQ-501

Our "NEW" IQ-501, Intelligent Quality Optimiser, takes consistency and registration accuracy to the next level. The IQ-501 offers a high level of Automation for Image position and Registration and Colour Control, via our close loop control system that checks and corrects printed output. The automation also extends to Colour Calibrations and Profiling, all designed to reduce Operator time and print wastage, while increasing productivity!

Automated colour and registration adjustment prior to print production

Adjustments on density, tone, colour and front-to-back registration, etc. that have been made manually for important print jobs as a regular practice in every morning are now automatically completed. This helps significantly reduce the time consumed for the adjustments, and contributes to operation rate of the printing machine and also to shorter turnaround.

Skill-less adjustment in high

Since there is no need for manual adjustments, reliable and highly precise adjustments of colours or registration are made possible without any losses caused by measurement errors. High quality print products are delivered without need for high skill, thus contributing to labour recruiting and cost reduction.
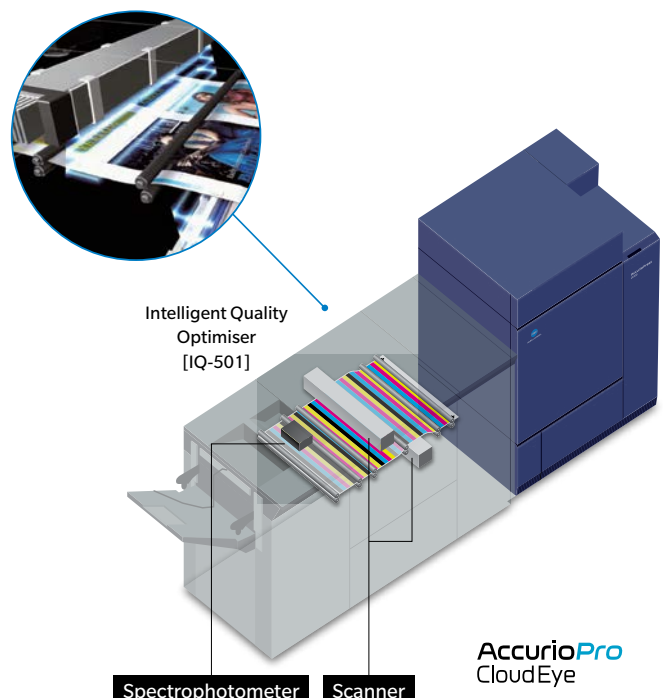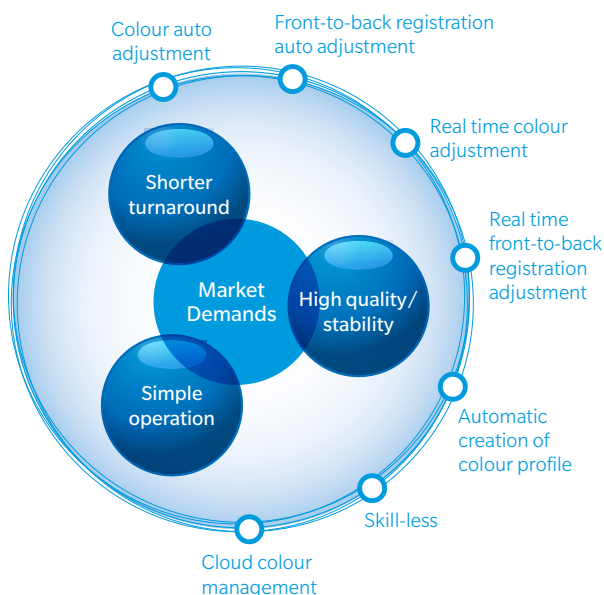
Major functions & features

Colour correction & front-to-back registration adjustment in real time during printing

Monitors the colour and front-to-back registration in real time during printing, and adjusts the print parameters accordingly. This enables to stably deliver high quality print products.
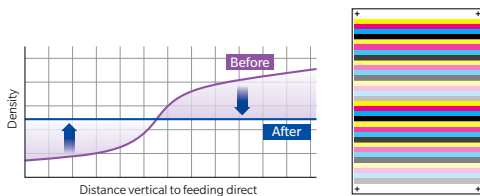
Consistent operation via cloud

Connecting with cloud type colour management software "AccurioPro Cloud Eye" enables uniform management of colours among multiple printing sites and printing machines. This helps calibrate the colours that have been difficult to control among different printers, which leads to trust enhancement of printing companies.

Colour auto adjustment

Front-to-back registration auto adjustment

Real time colour adjustment

Real time front-to-back registration adjustment

Shorter turnaround

Market Demands

High quality/ stability

Simple operation

Automatic creation of colour profile

Skill-less

Cloud colour management

Intelligent Quality Optimiser [IQ-501]

Spectrophotometer

Scanner

AccurioPro CloudEye

Time saving accurate automatic adjustments

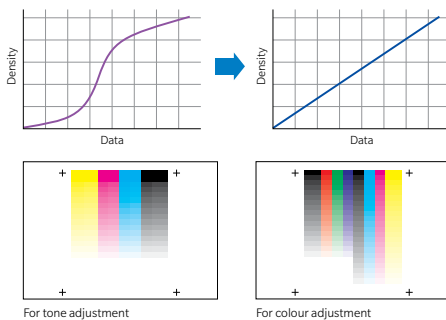## Density balance auto adjustment

If density unevenness is detected in the direction vertical to the feeding direction, it is automatically corrected.
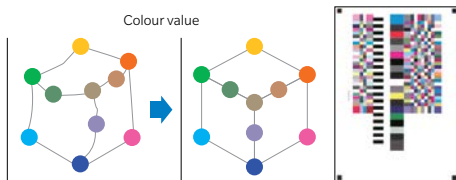

Colour density control

Using the stock and screen to be actually printed, density adjustment and tone correction are automatically performed. The correction is made on CMYK process colours as well as on RGB+3C gray chart so that highly accurate correction is ensured.
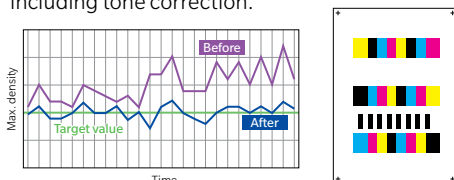

For tone adjustment   For colour adjustment

Gray balance adjustment (exact colour)

Printing CMY mono colour ~ CMY mixed colour (tertiary colour), a deviation from the reference of each colour is automatically corrected. This helps put the colour gradation in linear as well as improve the gray balance.

Colour value

Max density auto adjustment

Density of each CMYK colour at 100% saturation is automatically corrected to maintain the density at designated level. Maintaining the solid density at designated level helps to keep stable image quality including tone correction.

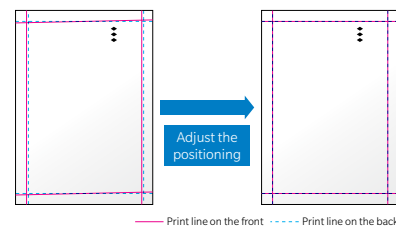## Smooth gradation due to tone correction

Improves the quality of skin tone and gradation that tend to show bandings resulting in streaks and uneven colouring.

For the output of sheet where various files including package/tag, business card, images of high density, design with different tint colours are imposed, it is not necessary to worry about as long as the output is made with adjustments on density balance across the sheet and on maximum density completed prior to the printing.
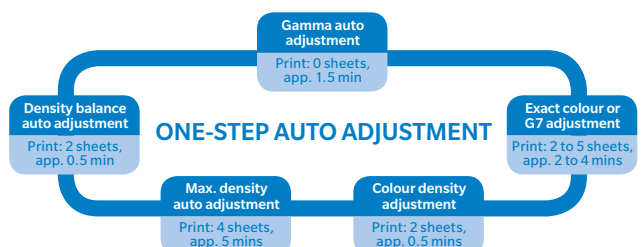

Front-to-back registration auto adjustment

Specify the media and tray that are actually used. Then the front-to-back registration will be automatically adjusted. Front-to-back registration is adjusted by adjusting the vertical/horizontal position as well as the image skew. It is also possible to automatically perform periodical adjustments at an interval of every 100+ sheets.

Adjust the positioning

—— Print line on the front   - - - - Print line on the back
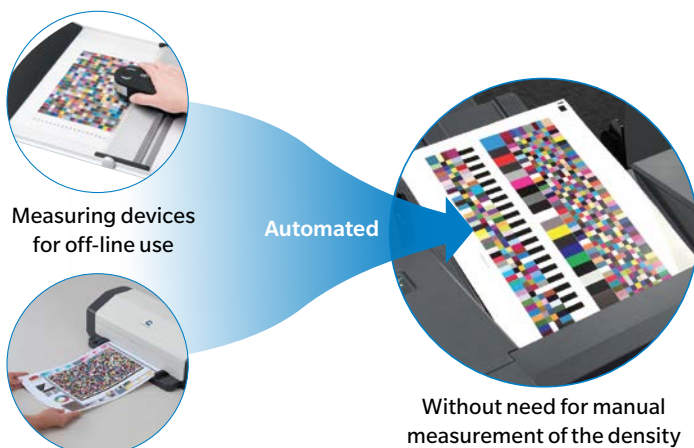
One-step (packaged) auto adjustment

"Gamma adjustment", "Max. density adjustment", "Density balance adjustment", "Colour density control", "Gray balance adjustment", these five items shown on the left can be collectively performed. Since it is not necessary to individually adjust each item, you can efficiently proceed with the prior adjustment. In addition, you can select any adjustment items and perform adjustment of selected items collectively.

ONE-STEP AUTO ADJUSTMENT

Gamma auto adjustment
Print: 0 sheets, app. 1.5 min

Density balance auto adjustment
Print: 2 sheets, app. 0.5 min

Exact colour or G7 adjustment
Print: 2 to 5 sheets, app. 2 to 4 mins

Max. density auto adjustment
Print: 4 sheets, app. 5 mins

Colour density adjustment
Print: 2 sheets, app. 0.5 min

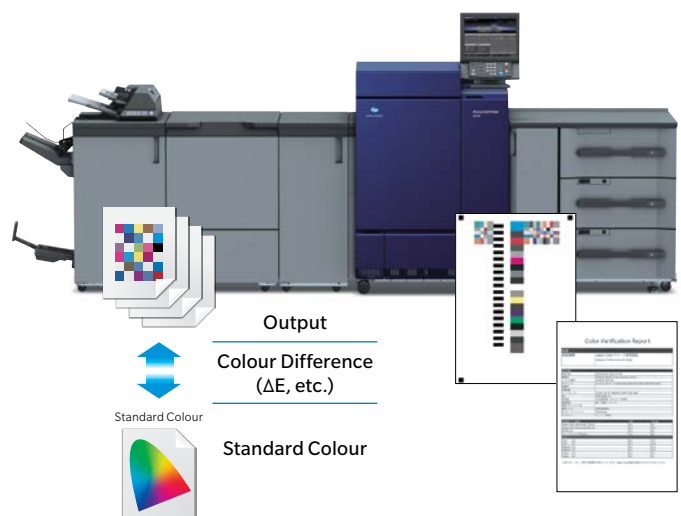# Creating ICC profile & verifying the colours

Creating a printer profile

It is necessary when a new media type is to be used. ICC profile that is manually created by measuring the chart printed on the sheet in the past is now automatically created. As the result, the time consumed for this procedure is shortened from approx.
30 min to 5 min or less.

Measuring devices for off-line use

Automated

Without need for manual measurement of the density

Colour verification

It is necessary to be performed prior to the output of jobs where the faithful colour reproduction is essential or when the printer profile is changed. The result of measurements on colour difference between the printed colour and the reference colour will be reported.

Output

Colour Difference (ΔE, etc.)

Standard Colour

Standard Colour

Specifications

Intelligent Quality Optimiser IQ-501

TYPE	CONSOLE
Product Category	Automatic image reader
Configuration	IQ-501 + VI-511 (image processor, basic option)
Functions	Single pass duplex in-line scanner + spectrophotometer • In-line scanner 1: rear side • In-line scanner 2: front side • Spectrophotometer: colourimetry on the front surface (spectral reflectivity)
Print Speed	up to 150 ppm (A4, Letter (8.5 x 11 in.) (depends on printer specifications)
Scan Width	Max. 350 mm (main-scan direction)
Compatible Format	95 x 139 to 331 x 488 mm (compatible with banner format)
Compatible Grammage	40 to 400 gsm (depends on the grammage of the connected printer)
Incompatible Media	Embossed paper, index paper, OHP
Power Source	240 V, 50Hz 10Amp
Power Consumption	700W or less (including latter connected options)
Dimensions (W x D x H)	663 x 696 x 1,020 mm
Weight	Approx.184kg

Intelligent Quality Optimiser
IQ-501

(D) 696mm

(H) 1,020mm

(W) 663mm

ENERGY STAR

KONICA MINOLTA

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