



KONICA MINOLTA

INTELLIGENT
QUALITY OPTIMIZER 



SIMPLIFY YOUR PRINT EXPERIENCE

WITH AUTOMATED ASSISTANCE
IQ-601 INTELLIGENT QUALITY OPTIMIZER

Giving Shape to Ideas

SIMPLIFY YOUR PRINT EXPERIENCE

Be ready to outshine your competitors and elevate your printing business, Konica Minolta's Intelligent Quality Optimizer system, featuring the innovative IQ-601, is here to simplify your operations. This groundbreaking solution offers unmatched precision, ensuring every print is flawless with exceptional consistency and registration accuracy.

The IQ-601 leverages smart machine automation to streamline image positioning, registration, color control, and inspection, saving you valuable time and reducing print waste. Our proprietary closed-loop control system continuously checks and corrects printed output, ensuring top-notch quality with minimal effort. Automated color calibration and profiling further enhance productivity by reducing operator involvement, allowing your team to focus on more strategic tasks.

The IQ-601 Intelligent Quality Optimizer features dual scanners and an integrated spectrophotometer, combining high-speed scanning with precise color measurement. This hybrid technology delivers exceptional print quality, improved efficiency, and lower operational costs. With smart automation at its core, IQ-601 helps elevate your print production while consistently meeting customer expectations.



YOUR BENEFITS AT A GLANCE



MAXIMUM PRODUCTION EFFICIENCY

minimize job setup times and maximize throughput with the automatic color and registration adjustments applied before printing.



FASTER TURNAROUND

automate and speed up most of the preparation and make-ready of your printing press with the IQ-601 – for attractive productivity increases and faster response times.



NO COMPROMISE ON PRINT QUALITY

achieve outstanding print quality for every job – let the IQ-601's highly accurate automatic adjustment features take care!



CONSISTENCY ACROSS THE RANGE

provide highly consistent quality across your entire range of print products – with the IQ-601's real-time monitoring and automatic color and registration adjustment.



MUCH REDUCED DOWNTIME

avoid the need for regular checks during production – for smoother production runs and minimal downtime.



NO SPECIAL SKILLS REQUIRED

get even novice print operators to produce precisely registered, calibrated and profiled color prints from their very first job.



MINIMIZE HUMAN INTERVENTION

the IQ-601's automated artificial intelligence technology gets it right every time: measurements are always reliable and precise and do not need operator intervention.



NO MORE HUMAN ERROR

the IQ-601 does not require special operating skills – reducing the chance of human errors causing misprints.



AVOID WASTE, SAVE TIME AND MONEY

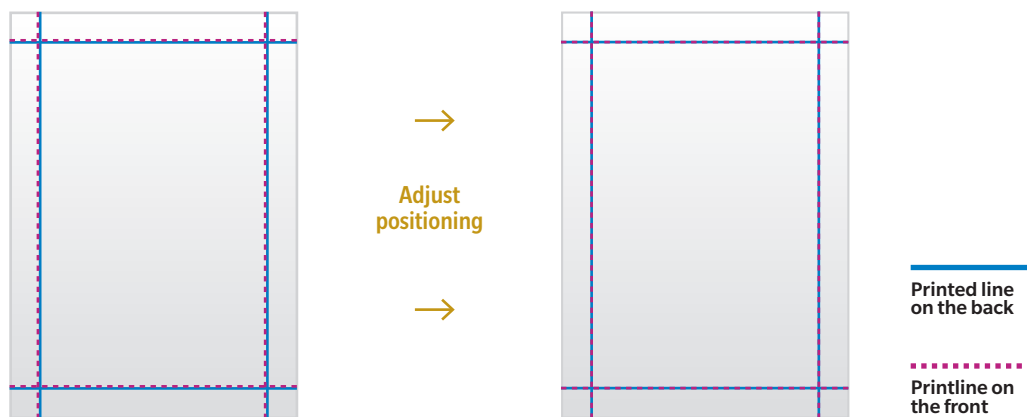
the material waste so far unavoidable during color and registration adjustment is no longer an issue; and time-consuming routine tasks are greatly reduced.





SIMPLIFY DUPLEX REGISTRATION

The Intelligent Quality Optimizer simplifies one of the most demanding tasks in print preparation: duplex registration. Operators simply need to select the media and tray, and the IQ-601 takes care of the rest. It automatically fine-tunes the front-to-back registration for each page, ensuring a perfect match with unparalleled accuracy and precision.



AUTOMATED REAL TIME ADJUSTMENT

Our continuous monitoring and closed-loop automated process controls every print, making real-time adjustments to ensure optimal registration. This precision satisfies both you and your customers.

During printing, the system controls the average front and back position movement of 20 sheets, correcting any detected fluctuations to maintain accurate alignment. Both sides of the sheet are adjusted simultaneously, ensuring consistent print positioning.

When combined with the Intelligent Media Sensor IM-105, the system identifies variations in paper cutting sizes. Working in tandem with the Intelligent Quality Optimizer IQ-601, it prevents front/back positioning errors by adjusting the image accordingly.

Furthermore, real time curl adjustment can be applied: By scanning the printed materials with IQ-601, it is possible to control the Relay Unit RU-518m de-curler function and automatically correct curling in real time.

For print applications like business cards, shop cards, coupon printing, where front-to-back registration requires attention, it is possible to deliver high quality print products and to suppress the cost increase caused by print waste thanks to automated adjustment on front-to-back registration.





SIMPLIFY QUALITY ADJUSTMENT

Auto Quality Adjustment

Before tackling demanding print jobs, the automatic quality adjustment feature assesses the machine's image quality and addresses any issues that could compromise print performance. By identifying and resolving simple or sudden problems independently, the system reduces the need for service calls and maintenance, thereby maximizing your production uptime.

Diagnostic charts are printed to evaluate image quality, automatically detecting issues such as streaks and spots. If a critical problem is identified, the system initiates a self-recovery process to correct it. Additionally, the machine can automatically send image quality data to the nearest service department for further analysis.

AUTOMATED REAL TIME CONTROL

The Auto Inspection Technology (AIT), featuring the optional AI-101, can be seamlessly integrated with the IQ-601 to perform real-time inspections on every sheet. This significantly cuts down inspection time, ensures highly reliable and precise checks, and reduces the need for manual labor.

Previously, maintaining product quality required extensive time and effort. Now, with AIT, you can minimize inspection work, build stronger customer relationships with faster deliveries, and reduce quality issues.

Adding the Variable Data Inspection Kit with the optional UK-312 enables real-time comparison of printed materials with the CSV file containing variable printing data (VDP). This automatically confirms the accuracy of barcodes and numbers, ensuring flawless variable printing.

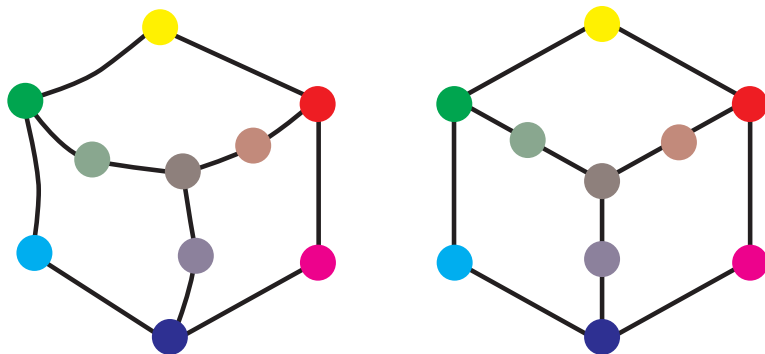
SIMPLIFY COLOR ADJUSTMENT

The Intelligent Quality Optimizer automates all tasks previously required for color adjustments and press linearisation. This results in significant time savings and ensures precise adjustments, mitigating the risk of errors, even by less experienced operators. The result is higher quality and more stable print products. With improved productivity and shorter adjustment times, turnaround times are reduced.

Performing the adjustments required for daily operation in a single step takes 12 minutes and produces 13 prints:

- Smooth Gradations with Gamma Auto Adjustment
- Same color all over the sheet with Density Balance Adjustment
- Optimum color space with Max. Density Adjustment
- Stable colors with Colour Density Control
- Neutral grey with Grey Balance Adjustment (Exact Colour)

Exact Color/Calibration

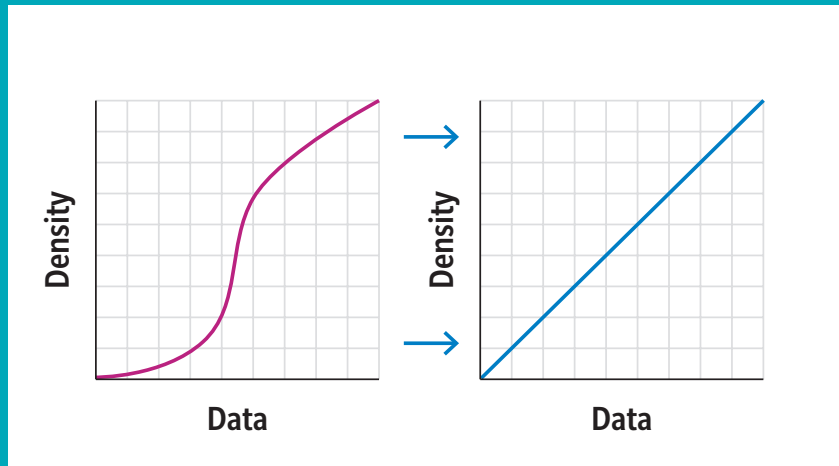


REAL-TIME INTELLIGENT COLOR CONTROL

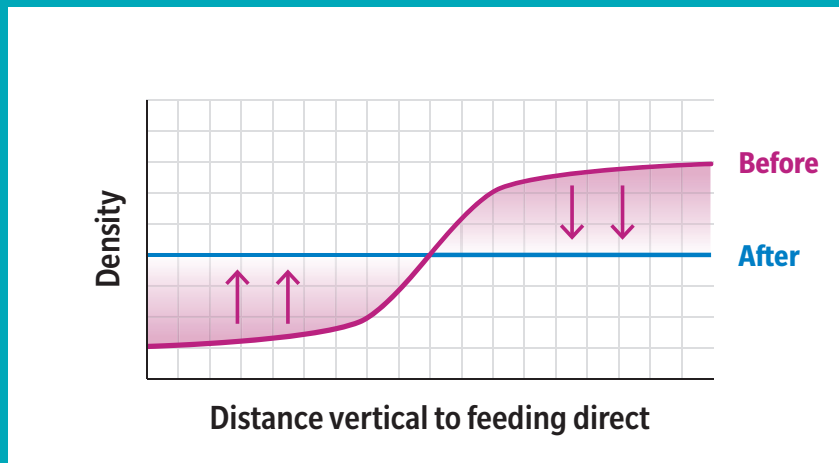
Beyond real-time registration adjustments, the Intelligent Color Control feature of the IQ-601 measures, controls, and fine-tunes the densities of primary colors, as well as the density and color values of secondary colors like RGB and 3C. This innovation ensures outstanding color stability throughout the printing process, delivering unmatched precision and consistency.

Whether you're handling small projects or large-scale production runs, our solution guarantees exceptional color stability from start to finish. Experience flawless, vibrant, and professional results every time.

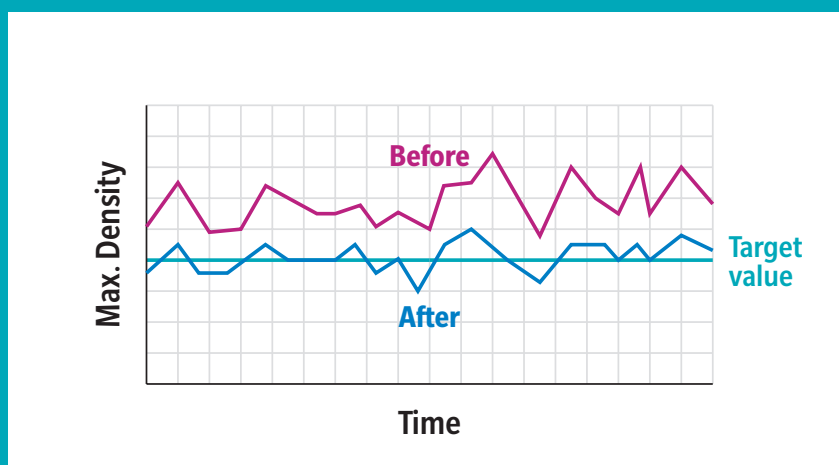
Colour Density Control



Density Balance Adjustment



Max. Density Adjustment





SIMPLIFY PROFILING AND VALIDATION

By choosing the IQ-601 Intelligent Quality Optimizer system, you gain access to cutting-edge image processing features. You'll not only leverage pioneering technology but also enhance the color quality of your entire print product range, fully satisfying your customers.

Hands-free printer profiling

For high-quality output on any digital press, each new media type requires a new ICC profile. Traditionally, this involved a manual process of printing test charts, measuring output values, and adjusting settings via the user interface. The IQ-601 simplifies and automates this entire process – printing, reading, and measuring the sheet, then capturing and storing the data for that specific media type. This automation significantly reduces profiling time.

Two profiling modes are available to meet different production needs:

Speed Mode: Utilizes the IQ-601's fast inline scanners to produce high-quality standard profiles in just minutes.

Quality Mode: Uses the inline spectrophotometer to deliver premium profiles for top press performance, with a longer processing time.

Automated color validation

Validation is best performed prior to jobs where accurate color reproduction is critical, or when updating printer profiles. This process helps guarantee that the printed output aligns precisely with your customers' expectations. Depending on your production requirements, you can use either the Speed or Quality mode of the IQ-601 to achieve the most suitable results.

AccurioPro Color Manager 2 Suite

Konica Minolta's own color management software is seamlessly integrated with the IQ-601 Intelligent Quality Optimizer, offering an all-in-one solution that simplifies setup, profiling and verification, streamlines color workflows and ensures consistent, accurate output across media types. The intuitive, wizard-based interface enhances productivity and ensures optimal press performance.





KONICA MINOLTA

IQ-601 SUPPORTS THESE KONICA MINOLTA PRESSES:



AccurioPress C10500



AccurioPress C10500S



AccurioPress C12010



AccurioPress C12010S



AccurioPress C14010



AccurioPress C14010S



AccurioPress C5070



AccurioPress C5080

DEVICES	AUTOMATIC ADJUSTMENTS					REAL TIME ADJUSTMENTS			
	Auto Duplex Registration	Auto Colour Adjustments	Auto Quality Adjustment	Auto Profiling	Auto Colour Validation	Auto Inspection Technology	Intelligent Colour Control	Real time adjustment	Variable Data Inspection
AccurioPress C5070	✓	✓	✓	✓	✓	✓	✓	✓	✓
AccurioPress C5080	✓	✓	✓	✓	✓	✓	✓	✓	✓
AccurioPress C10500	✓	✓	✓	✓	✓	✓	✓	✓	✓
AccurioPress C10500S	✓	✓	✓	✓	✓	✓	✓	✓	✓
AccurioPress C12010	✓	✓	✓	✓	✓	✓	✓	✓	✓
AccurioPress C12010S	✓	✓	✓	✓	✓	✓	✓	✓	✓
AccurioPress C14010	✓	✓	✓	✓	✓	✓	✓	✓	✓
AccurioPress C14010S	✓	✓	✓	✓	✓	✓	✓	✓	✓