MICR at your fingertips

Discover the world of MICR with Océ

Highly sensitive negotiable documents demand extra safety and protection against fraud or forgery. They also have to be processed rapidly. For this, Magnetic Ink Character Recognition (MICR) technology was developed.

Protecting sensitive information

Look at the bottom line of any check, and you’ll find a series of magnetized numbers and symbols printed in exact shapes and tolerances. These numbers are printed using a fraud-resistant MICR font printed in special magnetic ink that identifies each character by a unique signal when the check moves through the electronic check processing system.

MICR was initiated by the American Bank Association (ABA) and later adopted as the ANSI X 9.27 E13–B standard by the American National Standard Institute (ANSI). MICR is still in use today for all check clearing operations. MICR encoding of documents provides better test results than Optical Character Recognition (OCR) because it’s less sensitive to background color and patterns common in checks. While MICR technology is used primarily in the banking, financial services and insurance industries, it’s also used in service bureaus and direct mail operations.

MICR ensures security and speed

In addition to security, MICR accelerates check processing. MICR numbers are read by bank equipment at very high speeds with near-perfect reliability and an error rate of less than one percent, all of which makes MICR a very demanding print application.

For decades checks and other sensitive negotiable documents were printed in specialized MICR print centers—first by an offset printer, and then the last line or MICR information was added by a dedicated MICR device. Corporate clients in many enterprises today continue to rely on costly dedicated MICR devices in specialized MICR print centers, where they send applications to be MICR-printed—an expensive and time-consuming process that limits personalization opportunities.
Océ VarioStream 7000 MICR Systems
By leveraging Océ production-class printing systems, high volume print operations stand to gain unique speed and flexibility advantages in printing sensitive MICR documents. The key is Océ Quick Change Developer Station (QCDS) technology, which makes it incredibly easy and economical to add MICR capabilities at the high end.

With QCDS, Océ offers MICR as an option on production-class, digital Océ VarioStream® 7000 continuous forms printers, enabling top-notch MICR support in web-fed environments. With the innovative modular design of Océ QCDS, print operations can leverage MICR, highlight color, or any custom color including black, all in a single system.

By combining Océ VarioStream 7000 production-class printing performance and flexible QCDS MICR printing capabilities, Océ offers the fastest MICR printing solution on the market at speeds of up to 1,273 images per minute. When MICR printing is complete, users can quickly switch to non-MICR applications in minutes for seamless and productive high-volume printing. As an added bonus, the Enhanced Print Quality (EPQ) feature, an innovative toner transfer technique, ensures superior quality, crisp half tones, solid blacks and improved consistency at top speeds.

With versatile, multi-purpose Océ VarioStream 7000 MICR printing, you can offer personalized MICR printing "just around the corner", reduce inventory costs using one flexible, modular system to handle multiple requirements at once—and eliminate the expense and hassle of dedicated MICR printers.
Océ VarioPrint 5000 Production-class MICR Systems

Expanding the range of choices for printing negotiable instruments such as checks, disbursements and other secure MICR documents, Océ offers MICR as an option for production-class Océ VarioPrint® digital cut sheet systems with the Océ VarioPrint 5115, Océ VarioPrint 5140, and the Océ VarioPrint 5160, in speed ranges of 108, 135, 155 ipm and volumes up to 4 million impressions per month.

This important functionality is enabled through exclusive Océ QCDS technology, an innovative toner changing technique that enables different applications—black and white, color, MICR, and even MICR and color—to be printed on the same machine without lengthy setup.

With QCDS, it takes just minutes for an operator to replace one QCDS module with another. The benefits are many—minimal downtime, mess and complications. And, with QCDS flexibility, the Océ VarioPrint 5000 system can be used for other applications such as CustomTone® highlight color, when MICR printing is not required.

The Océ 750II MICR Printing System

Ideal for midrange transactional production printing environments with applications like checks, pre-authorized drafts, Image Replacement Documents (IRDs), balance transfer checks, coupon payment books, and deposit books, the 75 page-per-minute Océ 750 II MICR multi-protocol, cut sheet printer handles medium to high volumes of up to 250,000 impressions per month.

The Océ 750 II MICR solution combines powerful MICR capabilities with state-of-the-art controller technology, metal-intensive construction, a small footprint, and advanced finishing features to deliver a flexible yet robust MICR imaging solution.

Security protection is designed right into the Océ 750 II MICR. MICR-specific toner bottles that interlock with matching covers prevent loading of non-MICR toner in MICR printers. For added protection, data stream and software controls such as a license key, password-controlled access to setup menus, multiple page printing restrictions, and network access authorization maximize functional security.
Add color to MICR—with Océ CustomTone
In addition, another unique feature distinguishes Océ digital MICR printing solutions—the ability to enhance the visibility and readability of your documents by adding highlight or spot color using Océ CustomTone® in the second QCDS. This flexible solution enables you to use highlight color for MICR documents, or to simply use black or any other custom color in addition to the MICR encoding.

Superior quality and security
Quality is always a priority at Océ, especially when it comes to mission-critical MICR printing. Océ MICR solutions strictly comply with the ANSI X9.27 standard and the British PIRA/APACS standard. Océ MICR print quality remains extremely stable throughout the lifespan of each developer, and never has to be readjusted. All Océ MICR output is fully backed by the Océ MICR Guarantee—representing the industry’s best experience and support.

When you require the highest level of security, Océ VarioPrint 5000 systems can be equipped with a video control option that manages the verification and eventual reprinting of MICR documents immediately after printing. The result is the highest level of reliability and security available for sensitive negotiable documents.

Looking toward the future
Despite the increasing usage of payment options like credit cards and online payments, huge numbers of checks are cleared around the world. In fact, in the United States alone, 200 million checks are processed every day. And that doesn’t include millions of other MICR-encoded documents like policies and other negotiable documents that contain sensitive information.

Océ MICR solutions. Making MICR more accessible than ever.
By leveraging advanced and flexible Océ MICR technology, available across several product lines and a full range of print speeds and capabilities, MICR printing is more accessible than ever. With an extensive range of MICR choices from 75 ipm up to 1,273 ipm, you can select the MICR solution that best meets your unique needs—whether it’s the Océ 750 II MICR system, an Océ VarioPrint 5000 MICR model or an Océ VarioStream 7000 MICR system for the most demanding requirements.