



Continuous Inkjet (CIJ)

Jindal Films case study

VIDEOJET

Jindal
Films

Advancing sustainable flexible packaging **through collaboration**

Jindal Films and Videojet work together to prove the performance of mono-material PP solutions

As new rules and environmental concerns change the flexible packaging industry, manufacturers need to find materials that help them meet their environmental goals without sacrificing quality. For Jindal Films - a worldwide leader in specialty films with almost 50 years of experience - this was more than just a challenge. It was a chance to show that mono-material polypropylene (PP) films can replace traditional PET-based laminates, even in tough, high-heat situations.

Jindal Films is dedicated to helping customers comply with laws like the PPWR (Packaging and Packaging Waste Regulation) and other regulations and rules, helping deliver sustainable packaging solutions for the future. Jindal Films partnered with Videojet Technologies to support the successful implementation of its packaging format innovations. By leveraging Videojet inkjet expertise, the teams helped ensure that Videojet-applied codes withstand retort and sterilization processes while remaining clear, durable, and compliant.

“This collaboration has significantly accelerated the development and commercialization of our Bicolor™ 25MR103 film, which is crucial for our customers.”

François Gastineau, Senior Application Engineer
Jindal Films



Videojet® continuous
inkjet (CIJ) printer

The goal: Proving performance under extreme conditions

The objective Jindal Films set out to reach was to prove that mono-material PP solutions could perform reliably in high-temperature thermal processing environments such as retorting and sterilization—applications that traditionally use PET-based laminates. Working with Videojet made a big difference, making sure the new materials not only fit the latest recycling rules but also handled the fast pace and tough demands of packaging lines.

The challenge: Coding on difficult-to-print films

Thermal processing puts a lot of pressure on packaging and the accompanying printed codes. Jindal Films tested outer BOPP films, which are tough to print on because of their low surface tension. To solve this, Jindal Films made a special clear PP film called Bicolor™ 25MR103 that's treated on both sides and can handle high heat.

But making the film was just one step. Jindal Films also had to show that the printed codes would stay clear and readable even after being exposed to high temperatures and heavy use, with no ink smudging or fading. Testing with actual production-grade coding equipment was required to prove real-world performance in fast-paced operations.

The solution: Real-world testing with Videojet expertise

Jindal Films chose to work with Videojet to help with testing because of their strong reputation for coding solutions in flexible packaging. Videojet set up a special continuous inkjet printer right on Jindal Films' pilot lines, so the team could run real tests during production. The trials used Videojet 4277 thermochromic ink, which is designed to handle the tough heat and stress of the retort process. This unique ink changes color from green to blue after successfully completing retort. The Videojet team handled the equipment integration, allowing Jindal Films to focus on evaluating the performance of the new material.



Codes printed with Videojet V4277 ink before and after retort on other flexible packaging materials.



The results: Durable codes that stand up to retort processing

Jindal Films made sure the new codes would really hold up by putting them through tough tests. They specifically wanted to make sure that no ink transferred onto the rollers during production—which it didn't. They also ran rub and tape tests before and after the retort process. They didn't show any ink removal. The codes remained clear and intact, showing no signs of smudging or fading, even after being subjected to high temperatures.

The combined performance of Videojet equipment and the specialized ink met the high standards required for films used in thermal processing, reinforcing confidence in the potential of Jindal's mono-material PP solution.

Teamwork built on collaboration and trust

Beyond technical performance, the collaboration itself played a critical role in the project's success. *"Our partnership with Videojet has been invaluable. Their in-depth knowledge of coding technologies has enabled us to deliver packaging solutions that meet both technical requirements and consumer expectations,"* said François Gastineau, Senior Application Engineer at Jindal Films. François added, *"From an operational standpoint, the installation process with Videojet was seamless. Their team ensured that the printer was up and running quickly, without any disruption to our production. This collaboration has significantly accelerated the development and commercialization of our Bicolor™ 25MR103 film, which is crucial for our customers."*

François sums up the relationship between Jindal Films and Videojet as win for both companies. *"We view Videojet as a trusted partner. Our strong collaboration is instrumental in enhancing both our operational efficiency and product quality. From the early stages of the projects, we share our mutual expertise, ensuring that we could meet our technical goals together. Their responsiveness and commitment to solving challenges have played a critical role in the success of our development efforts, particularly in creating our mono-material PP solutions for flexible packaging."*

In the end, teaming up with Videojet helped Jindal Films push the boundaries of flexible packaging. Working together, they made sure the new mono-material PP film can stand up to tough production demands and modern sustainability goals. This collaboration, built on shared know-how and hands-on testing, shows what can happen when companies team up and benefit from each other's expertise.

Our Vision: Preserving the safety, quality, and authenticity of daily essentials for billions

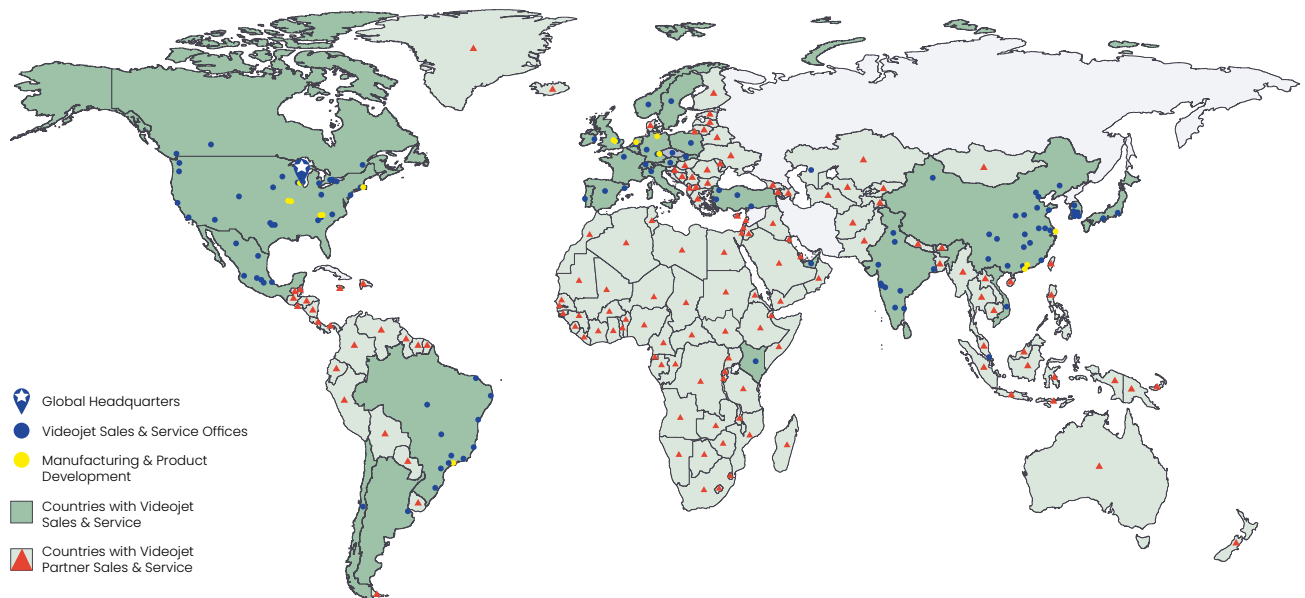
At Videojet Technologies, we believe that every product tells a story—a story of quality, care, and trust. As a global leader in product identification, we proudly partner with manufacturers in over 20 industries, from food, beverage, cosmetics, and personal care to pharmaceuticals, tobacco, packaging, aerospace, and beyond, helping them to identify products, enhance operations, and improve productivity. We work tirelessly with customers, OEMs, and channel partners, to protect the safety and integrity of daily essentials relied on by billions of people every day.

The Videojet core pillars of expertise, adaptability, usability, and consistency are values that drive us forward, inspiring us to deliver high-performance, reliable solutions that meet the unique needs of every manufacturer we support. With an unwavering commitment to excellence, we offer a comprehensive suite of marking and coding equipment, high-quality supplies, dedicated Videojet-trained on-site service technicians, and advanced software solutions to bring peace of mind and pride to our customers.

Our technology portfolio spans Continuous Inkjet (CIJ), Thermal Inkjet (TIJ), Laser Marking Systems, Large Character Marking (LCM), Thermal Transfer Overprinting (TTO), Print and Apply Labeling (LPA), Pallet Labeling, and wide-array printing solutions—all crafted to deliver adaptability, precision, and cutting-edge innovation that makes a difference.

With over 400,000 printers marking ten billion products daily, our solutions touch lives across the globe. Supported by a team of 4,000 associates in 26 countries and a network of 400 distributors and channel partners in 135 countries, we bring expert service and heartfelt dedication wherever companies operate.

As part of Veralto—a global leader in essential technology solutions dedicated to “Safeguarding the World’s Most Vital Resources™”—we are not just building systems but shaping a future where every brand can deliver trusted products with confidence, enriching lives and fostering connections with consumers worldwide.



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