



Just Watch Us Grow!



Executive Summary

■ Tracking Ninestar's Growth

P4-P5

For more than a decade, most of the news from companies in the third-party consumables industry has not been good. Ninestar, however, has managed to buck this trend. While the company's competitors have shrunk, Ninestar has grown. Focusing on sustainable growth, Ninestar's management team has developed an effective business plan, which has allowed the company to prosper and thrive for more than 20 years.

■ Growing Through Innovation

P6-P7

Recognized as a key innovator in the digital printer and supplies space, Ninestar markets thousands of SKUs, including ink, toner, and ribbon cartridges, under the world famous G&G brand. Ninestar also offers a range of printers for the home and office use. Since its earliest days, the company has been vertically integrated, which has allowed the firm to consistently be first to market with some of the most popular products. Thanks to its technically advanced R&D team of over 2,500 engineers, scientists, and technicians worldwide, the firm's customers know they can rely on Ninestar to gain a distinct sales advantage in today's highly competitive marketplace.

■ Manufacturing Growth

P8-P10

Ninestar operates the most sophisticated manufacturing center in Zhuhai, China, the world capital of print consumables manufacturing. In 2013, the company opened the first building in its sprawling 450,000 square meter campus in the Zhuhai Hi Tech Industrial Development Zone. With the capacity to produce 20 million toner cartridges annually along with 100 million ink cartridges and 30 million ribbon cartridges, Ninestar now operates six buildings devoted to manufacturing. The company also manufactures printers at its production center along with cartridge parts such as rollers and gears.

■ Growth That's Sustainable

P11–P12

While Ninestar is recognized as the industry's leader in hardware and consumables manufacturing, it is also one of the aftermarket's leading remanufacturers. When it opened in 2000, Ninestar remanufactured products exclusively and it remains committed to bringing to market a comprehensive range of environmentally friendly products. In 2020, G&G collection programs gathered approximately 110,000 cartridges in Europe and the United States and in 2021, Ninestar has set a collection target of 10% of all the cartridges it sells in the United States and 7 percent of those sold in Europe so they can be remanufactured. Ninestar is one of the few manufacturers in China that possesses a license to legally import empty cartridges.

■ Protecting Its Growth

P13–P16

Ninestar invests heavily to protect its innovations. With nearly 5,000 patents worldwide and over 1,000 patents pending, the firm now has the aftermarket's broadest patent portfolio. Ninestar's legal team has also successfully defended the company and its customers in landmark legal decisions around the world. The team has also protected the market from products that infringe Ninestar's intellectual property to ensure that the company—and its customers—continue to grow well into the future.

Tracking Ninestar's Growth

Since 2000, Ninestar has achieved something in the printing industry that is truly remarkable—sustained growth. Regardless of the metric—annual revenue, patent portfolio, workforce headcount, or factory size—Ninestar has continued to grow while its competitors keep shrinking. Even during the COVID 19 pandemic, Ninestar managed to increase its cartridge sales. Today, Ninestar is the world's largest producer of third-party supplies and components. And it keeps growing!



Ninestar's remarkable growth is not simply the result of good luck. It has required diligence and hard work. For more than two decades, Ninestar's management team has painstakingly developed and executed an effective and evolving business plan designed for sustainable growth. The team continually updates this plan to meet the requirements of a quickly changing market.

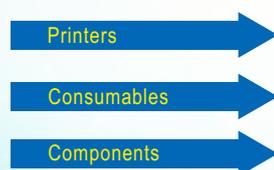
Ninestar follows a two-pronged business strategy. First, the company consistently releases superior products based on cutting-edge technologies so it can grow organically and take share from its competitors in markets around the world. Second, Ninestar continues to make strategic investments to guarantee that it can sustain its growth. The firm's phenomenal results prove that its business strategy works, and Ninestar's progress will indeed continue well into the future.



INTEGRATED STRENGTH

— PYRAMID OF NINESTAR —

Achieve more integrated opportunities with Ninestar



Timeline



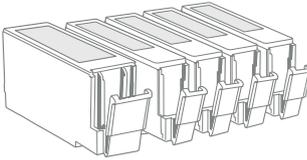
2000

Opens factory in Zhuhai and produces first G&G-branded inkjet cartridges



2001

Establishes distribution centers in Europe and North America



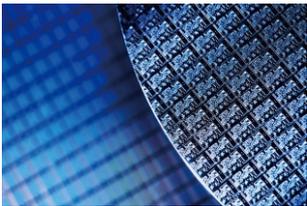
2003

Releases first compatible ink cartridges



2004

Introduces first compatible toner cartridges; Spins off Apex Microelectronics



2006

Becomes world's largest manufacturer of third-party ink cartridges and its toner cartridge business is growing fast as Apex becomes the world's largest producer of chips for inkjet cartridges and enters toner cartridge chip market



2007

Legend Capital invests in Ninestar fueling accelerated its growth



2010

First Pantum printer debuts and Ninestar enters the ribbon market



2012

Thanks to Ninestar's internally-designed twisted prism gear, the company avoids being named in Canon's lawsuits

**2014**

Apex successfully listed on Shenzhen Stock Exchange paving the way for Ninestar to become a public company

**2015**

Acquisition of Static Control Components makes Ninestar the world's largest third-party producer of cartridge chips

**2016**

Lexmark acquisition expands Ninestar's hardware business

**2017**

Company trades on the Shenzhen Stock Exchange under new name—Ninestar Corporation—and firm makes initial investments in several large Chinese cartridge producers: Zhongrun Jingjie, Tuoja Technology, and Xinwei Technology

**2018**

Ninestar breaks ground on 900,000 square meter, CNY 9 billion high-tech intelligent manufacturing base for laser printers in Zhuhai

**2019**

Toner cartridge sales grow after judge determines that Ninestar did not infringe certain Canon gear patents in the US and firm wins Yuzhe lawsuit in China

**2020**

Company announces investors led by the Chinese state-owned National Integrated Circuit Industry Investment Fund will make CNY 3.2 billion strategic investment in the Group's integrated circuit business, Apex Microelectronics

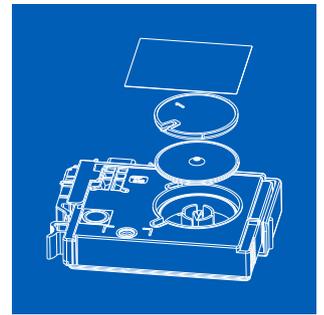
**2021**

With nearly 5,000 patents worldwide and over 1,000 patents pending, Ninestar emerges as the aftermarket firm with the largest IP portfolio in the industry

Innovation and Investment

Since its establishment in Zhuhai as one of China's first major aftermarket companies, Ninestar has long been recognized for being a key innovator in the digital printer space. Starting with the production of a handful of simple compatible ink tanks, Ninestar rapidly expanded its G&G line to contain thousands of technically sophisticated SKUs, which today include ink, toner, and ribbon cartridges along with a range of printers for the home and office. Over the past 21 years, the company has invested heavily to develop its technologies and solutions internally. Today, the company is the largest patent holder in the third-party cartridge industry and it employs over **600** talented engineers to bring to market the industry's most innovative products and solutions.

Ninestar has a legacy of technical achievements that dates to the founding of the company. In 2003, it released G&G-branded Epson-compatible ink tanks based on its own design and featuring a micro-pressure valve that allowed for the full utilization of residual ink that would remain in the OEM's empty ink cartridges. Similarly, in 2006 Ninestar released new TN-350 compatible cartridges for use in Brother laser printers with improvements to certain elements in the OEM's design. Ninestar's designs were awarded patents in various countries, including China, Europe, Japan, Korea, and the United States.



One recent example of Ninestar's technical expertise is the development of its Sidewinder gear for use on G&G compatible Canon toner cartridges. Developed and produced internally, the Sidewinder gear is featured on many of HP and Canon's most popular toner cartridges. Soon after it was released, Canon acknowledged that the Sidewinder gear did not infringe any of the OEM's patents. The OEM's acknowledgement provided Ninestar's channel partners with the peace of mind that comes from knowing there would be no IP issues marketing G&G products with the Sidewinder gear. Today, Ninestar has received over 53 patents on its Sidewinder gear, with an additional 36 patent applications still pending.

The reason that Ninestar can quickly bring to market non-infringing products is because it is a vertically integrated manufacturer, which allows it to attain a level of technical excellence that is second to none. By investing early in mold-making equipment and other injection-molding assets, Ninestar has been able to reverse-engineer most of the compatible cartridges it has sold since it entered the market. The firm also formulates its own dye-based and pigmented inks, which it markets under the Gloria and EverBrite brands. It is one of only a handful of companies in China to develop and manufacture its own chips internally. Ninestar continuously updates its manufacturing processes and during the past decade it has increasingly automated its production lines to eliminate any inconsistencies due to human errors.



As a result of its technical expertise and extensive manufacturing investments, the company's G&G-branded products have come to set the industry's gold standard for value and performance. Ninestar's advanced research and development assets allows the firm to be first to market with the hottest cartridges, which gives its customers a distinct sales advantage in today's highly competitive marketplace. And because they are developed in-house, Ninestar can guarantee that its G&G products do not violate OEM patents. Globally, Ninestar's research and development team numbers over **2,500** employees and it operates R&D centers in China, India, the Philippines, and the United States. Each year, Ninestar invests nearly **7%** of its total annual revenue in R&D.



Manufacturing Growth

While Ninestar was always seen as a leading manufacturer within the third-party supplies industry, the company raised the bar substantially several years ago. In 2013, Ninestar opened the first building in its 450,000 square meter production center in the Zhuhai Hi Tech Industrial Development Zone, which is home the firm's world headquarters and administrative offices. Ninestar has continued to expand production at the campus as well as enhance the manufacturing processes it uses to improve the yield of its factories along with the product quality and performance.

One of the latest additions to Ninestar's campus has been the new Apex Microelectronics building, which was constructed in 2018. The 10-story tower provides 22,000 square meters of office, R&D, and laboratory space for the Ninestar group's chip business. Apex is the third-party supply industry's largest chip producer and now ships over 400 million chips annually, and like its parent company Apex is aiming to grow even bigger. In 2019, Apex launched Geehy Semiconductor, a wholly owned subsidiary focused on developing chips and other solutions for IoT (Internet of Things) applications. In 2020, Apex received a CNY 3.2 billion investment from a group of investors led by China's National Integrated Circuit Industry Investment Fund.

Today, Ninestar's campus has six buildings devoted to manufacturing. **The production center has the capacity to produce 20 million toner cartridges annually along with 100 million ink cartridges and 30 million ribbon cartridges.** The company also manufactures printers at the production center along with cartridge parts such as rollers and gears. In addition to its manufacturing assets, the campus features a dormitory and cafeteria for Ninestar's staff.



In addition to the improvements it has made to its physical plant, Ninestar has revamped the way things are done inside the factory too. Over the years, Ninestar has fundamentally changed its manufacturing practices to increase production and successfully transformed its manufacturing processes from low-tech, low-input, low-threshold to high-tech, high-input, high-threshold manufacturing. Thanks to its state-of-the-art production processes, the firm enhanced the performance of the products it produces and solved the stability and consistency problems that commonly plague compatible products.

After an exhaustive review of its production lines several years ago, Ninestar embraced a 12-step industrial engineering program to standardize processes to consistently deliver products that performed as well as the OEMs' offerings. Dubbed IE12, the program overhauled from beginning to end the way that Ninestar produces consumables. As a result, today all raw materials used in G&G cartridges, including inks, toners, drums, and other components, are analyzed by Ninestar's materials engineers before being sent to the production lines. The latest measuring instruments and testing equipment are employed to ensure all the components function together perfectly.

IE12 established especially-stringent guidelines standardizing G&G color cartridge assembly lines and required that color lines only be staffed exclusively by expert technicians with a year or more experience on the line. IE12 also established post-production requirements. For example, before a color cartridge is placed into an antistatic bag and moisture-proof packaging it must be tested, and batch tests are also made using samples taken at random from each shipment before they could leave the factory.



In addition to implementing the IE12 program, Ninestar has invested millions to automate its production lines. The firm has deployed robots and other smart manufacturing technology on many of its lines and developed proprietary hardware and software that integrate the technologies to ensure everything works in unison. **At present, the company operates 37 automated production lines: 32 for ink cartridges and 5 for toner cartridges, and the lines have a 99.6% success rate.** The yield of the production lines has also improved. In some cases, the hourly production rate of certain lines has more than doubled.

In addition to being the fastest growing third-party consumables manufacturer, Ninestar is one of the world's fastest growing laser printer manufacturers. During 2020, Ninestar shipped a total of nearly 3 million laser machines. To support this growth, the company is currently building a new laser printer factory in Zhuhai. Ninestar announced it had struck a deal with the Gaolan Port Economic Zone Management Committee of Zhuhai in 2018 to establish a 900,000 square meter industrial park for manufacturing laser printers, which is slated to open later in 2021. **The total investment for the printer factory is CNY 9 billion and it is expected to produce 4 million printers annually, which will be worth approximately CNY 20 billion.** In 2020, Ninestar's laser printer sales totaled over CNY 16 billion.



Sustainable Future Growth

While Ninestar is recognized as a hardware and consumables manufacturer, it is also one of the aftermarket's leading remanufacturers. In fact, when the company first opened in 2000, it produced remanufactured products exclusively. Today, Ninestar remains committed to bringing to market a comprehensive range of environmentally friendly products, and it is actively looking for ways to increase the number of remanufactured cartridges that it offers.

Contrary to the widely-held belief that Chinese firms do not remanufacture, **Ninestar is growing its remanufactured product line so it can give end users more choices that are good for the environment.** In 2020, the firm launched a new recycling program. Ninestar gathered approximately 110,000 cartridges through its G&G collection programs in Europe and the United States with a utilization rate of empties of up to 70%. In 2021, the company has set a collection target of gathering 10% of all the cartridges it sells in the United States and 7 percent of those sold in Europe so they can be remanufactured.

As part of its recycling program, Ninestar provides customers with envelopes featuring pre-paid postage so they can return their empty ink cartridges to G&G recycling centers. The envelopes can be used to return G&G empties or spent ink cartridges from OEMs or another third-party cartridge vendor. Ninestar also remanufactures toner cartridges and it is one of the few manufacturers in China that processes a legal license to import used empty cartridges. It operates a warehouse in Zhuhai that stores hundreds of thousands of toner cartridge cores. The cores are collected from across Asia as well as from Europe and the United States. If an empty core is unsuitable for remanufacturing, it is transported to an accredited recycling facility rather than being tossed into a landfill.



G&G

Recycling Your Empty Ink Cartridges

Going Green Simply

We encourage you to participate in G&G Recycling Program to take environmental responsibilities by sending us your used ink cartridges for recycling at no cost. With your help, we can make our planet greener!

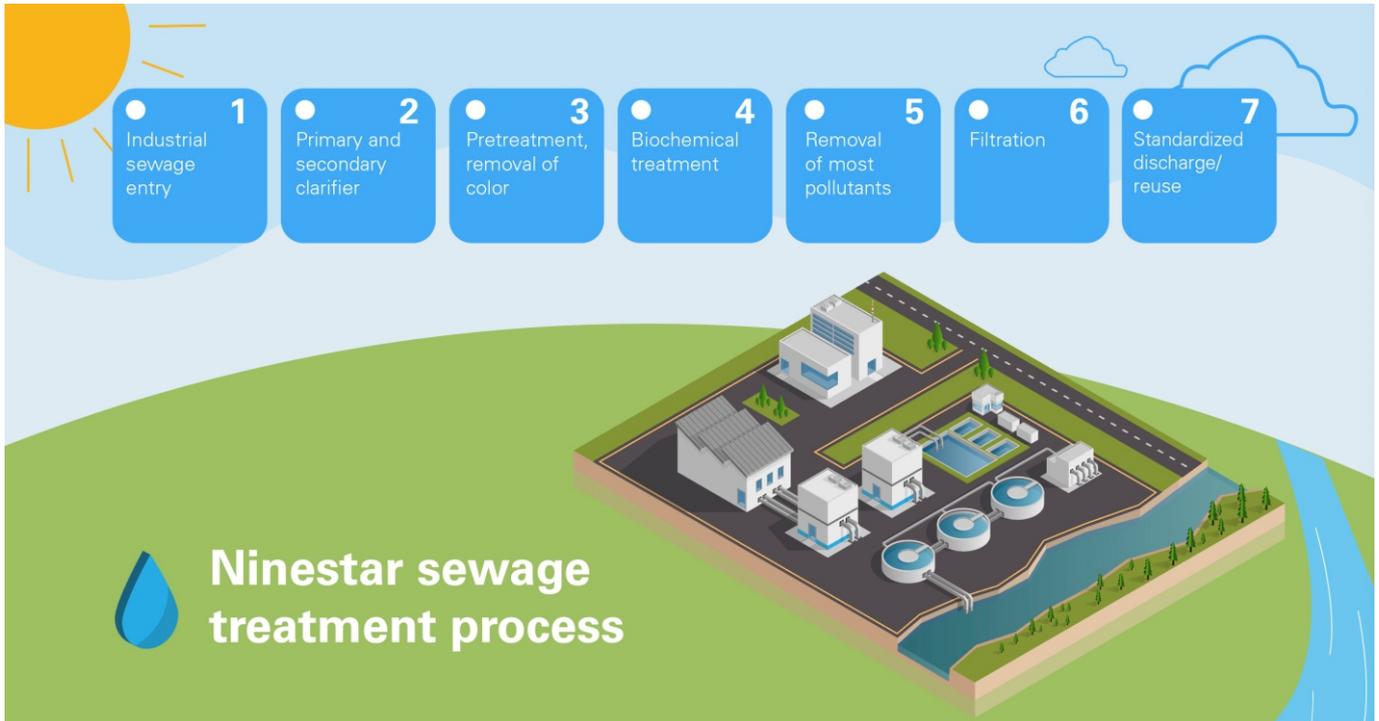
For each returnable ink cartridge, a postage-paid envelope is enclosed in the packaging.

Place your empty ink cartridges into the envelope and seal carefully.

Send It at your convenience.

The poster features a green background with a large tree on the right, a recycling symbol, and a paper airplane. The text is in white and green, and the steps are illustrated with circular icons.

To remanufacture the ink cartridges so that they perform as well as a new OEM cartridge, all the residual ink must first be removed. This cleaning process requires a lot of water. **Ninestar has invested CNY 8 million in an advanced 1,500 square meter sewage plant where 800 cubic meters of inky water is treated each day.** The water is then reused at the Ninestar factory.



Beyond its remanufacturing operations, Ninestar is actively looking for ways to reduce its carbon footprint. At each phase of its products' lifecycles, Ninestar is taking steps to lower any adverse environmental impact. Ninestar uses more earth-friendly components in its various G&G products. The firm has reduced the unnecessary packaging it uses, and it is expanding its recycling efforts. And, of course, **all G&G products use ROHS & REACH compliant components.**



Protecting Its Growth

In addition to protecting the environment, Ninestar invests heavily to protect its assets and its customers' businesses. Thanks to its commitment to innovation, Ninestar now has the industry's broadest product portfolio and offers a comprehensive line of both hardware and consumables. **With nearly 5,000 patents worldwide and over 1,000 patents pending, Ninestar holds more patents than any other company in the aftermarket industry. Its enormous patent portfolio includes patents in areas such as printer technology, chip technology, ink and toner cartridge technology, ink technology, and 3D printers.**

STRONG PATENTED TECHNOLOGY

Global patented technology leader in aftermarket

With the support of Ninestar, G&G can better grasp the market trends and customers needs, leading the market in innovative development.

R&D strength:

- IP legal team **40+**
- Technical engineers **600+**
- IP engineers **50+**
- Worldwide cooperative law firms **30+**

Developed compatible ink cartridges manufacturing



2000

Invented micro-pressure valve ink supply technology, solving the environmental pollution problems that were caused by the residual ink in abandoned ink cartridges.



2003

The first company in the world to release patented reusable printer adapters installed with an auto-reset chip.



2005

Exclusive launch of Unismart system, a great contribution to the aftermarket.



2008

Developed photo-electro-mechanical integration technology. China's first laser printer was born.



2010

The first company in the world to develop dongle gear technology and apply it in toner cartridge products.



2014

Developed toner cartridges for HP Jet Intelligence color series products. A new printing solution was launched.



2016

Provided patent solution on Canon Copiers



2018

The successful development of patented replacement toner cartridges for use in Canon color copiers



2020

The first company in the industry that developed the encryption chip for compatible ink cartridges.



2002

Successfully developed compatible toner cartridges with proprietary technology.



2004

Developed newly designed toner cartridges with patents that can be used in a variety of printers.



2006

Developed laser electrostatic imaging technology with a transfer rate of up to 95%, called the most advanced environmental laser printing technology.



2009

Developed dedicated SOC chip technology based on homemade CPU, ensuring the secure use of homemade printers.



2012

The successful development of independent direct injection 3D full color light curing printing technology was one of the world's most advanced 3D printing technology.



2015

Provided patent free solution on HP 950/910 series products



2017

Provided patent solution on HP 530/540 series products



2019

Provided patent solution on Brother 223 series products

Ninestar's attorneys have successfully defended the company's customers in landmark legal decisions around the world. With an internal legal team of more than **30 attorneys**, the firm is confident in its products' designs. To protect its customers from becoming victims of frivolous OEM lawsuits and ensure they remain competitive and profitable, Ninestar also works with more than **30 law firms** around the world. Ninestar has also protected its patented technologies from infringing manufacturers inside China.

One of Ninestar's biggest legal victories came in 2019. The Administrative Law Judge (ALJ) hearing a complaint filed by Canon with the US International Trade Commission (ITC) sided with the respondents in the matter, including Ninestar. After more than a year of legal wrangling, the ALJ issued a summary determination declaring that Ninestar and several other respondents had not infringed the patents Canon asserted in the ITC's investigation. Canon appealed the ALJ's decision but lost. As a result of the victory, Ninestar has been free to release a range of its Canon and HP new build toner cartridges in the US. Today, these cartridges are some of Ninestar's most popular products and have helped Ninestar gain market share in the US.

Ninestar was confident that it would prevail in the Canon matter and protect its customers. Years before Canon filed its ITC complaint, Ninestar had developed its own patented workarounds for the intellectual property that Canon asserted. Prior to the OEM's lawsuit, Ninestar had been awarded over 160 patents in countries around the world that covered virtually all the claims Canon made. Ninestar was also able to swiftly bring to market its Sidewinder gear, which we mentioned earlier, just months after the case began.

Ninestar notched another big legal win down-under in 2020. Initially, Epson successfully pursued its patent infringement claim against Ninestar's client, Calidad, in Australia's lower courts, where the case dragged on for 5 years. Ninestar supported its client while the OEM alleged the New South Wales-based company had violated Epson's patents by importing and marketing inkjet cartridges remanufactured by Ninestar for use in Epson devices. Australia's High Court overturned the lower court rulings, however, and dismissed Epson's claims finding that the OEM's patent protections on the cartridges were exhausted when the cartridges were sold. The ruling fundamentally changed Australian patent law and eliminated restrictive barriers to remanufactured products.

Ninestar's winning legal track record demonstrates that the company is respectful of its competitors' IP. And the company demands the same respect back. As the aftermarket's IP leader, Ninestar spares no effort or expense to exercise the patent, trademark, and other IP protections it holds worldwide. The company has a string of legal victories that demonstrate it is not wise to violate Ninestar's IP.

In 2020, Ninestar's patent-infringement litigation against rival compatible inkjet cartridge maker Zhongshan Yuzhe Electronic Co. concluded in Ninestar's favor. The case began in 2018 after Gongbei Customs, which oversees the ports of Zhuhai and Zhongshan, seized nearly 50,000 Yuzhe cartridges worth CNY 230,000 that were bound for Japan. Ninestar claimed some of Yuzhe's compatible inkjet cartridges infringed two of its patents and filed a patent-infringement complaint with Guangzhou Intellectual Property Court. Eventually, Yuzhe settled the case and acknowledged the validity of the Ninestar patents. The company conceded that its products infringed Ninestar patents in China and Japan and agreed to pay an undisclosed amount of damages.

The year prior, Ninestar won a patent-infringement lawsuit involving its technology for refilled HP ink cartridges. The company filed suit against Zhuhai Zhengyin Electronic Technology Co. in the Guangzhou Intellectual Property Court claiming that several ink cartridges sold by Zhengyin infringed one of Ninestar's Chinese patents. The case went to trial in August and the ruling came the following February. Ninestar ultimately won a judgment in its favor and Zhengyin was prohibited from making or selling cartridges that infringed the patent in question. Zhengyin also had to pay Ninestar damages.

Ninestar has also filed and won lawsuits involving its Chinese toner patents. The company filed a patent-infringement suit against two firms in the Fuzhou Intermediate People's Court. The lawsuit claimed that Fuzhou Sixi Digital Technology Co. and Shanghai Luo Chen Digital Technology Co. violated a Ninestar patent on certain refillable toner cartridges the two accused firms were marketing. In December 2020, just a couple months after the suit was filed, the Fuzhou Intermediate People's Court issued a final determination in Ninestar's favor. The court ordered the two defendants to cease the production and sale of the accused products and destroy any of the accused cartridges they held in stock. In addition, Fuzhou Sixi Digital Technology was ordered to compensate Ninestar a total of CNY 400,000 for economic losses and reasonable expenses incurred to stop the infringement.



In addition to the suits it has won in China, Ninestar's US-based subsidiaries Lexmark and Static Control Components have also waged successful IP legal battles. Regardless of the region it operates in, Ninestar has given a clear message to its competitors: Violate Ninestar's IP at your peril. We will not tolerate it.

As Ninestar advances through its third decade, the firm has emerged as the industry's most healthy manufacturer and one that is guaranteed to prosper. Through hard work and planning, the firm's managers have navigated around the many obstacles and pitfalls that have ensnared so many of Ninestar's competitors. After years of investment, the company has the assets required to continue to thrive as market conditions remain challenging. **Like they have for over 20 years, Ninestar's customers know they can rely on the company to provide them with the superior products they need and together Ninestar and its dealers will grow well into the future.**



NINESTAR
IS COMMITTED TO
REMAINING A LEADING INNOVATOR
AS BOTH A HARDWARE MANUFACTURER
AND A SUPPLIES VENDOR.
INNOVATION IS IN THE
COMPANY'S DNA.

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