



APPLYING PROVEN
3C SOLUTIONS TO
INDIA'S GROWING
ELECTRONICS
MARKET

ANCA
CNC MACHINES



THE ROLE OF MICRO CUTTING TOOLS AND ANCA CNC MACHINES

Introduction

The burgeoning 3C industry in India, driven by the entry of iPhone manufacturing and bolstered by favourable government initiatives, is poised for significant growth. A critical component of this expansion is the development of a robust local supply chain network, particularly in the area of micro-cutting tools. With five decades of experience, Australian-based ANCA CNC Machines stands out as a key player capable of supporting this growth.

ANCA's extensive work with cutting tool manufacturers and its contributions to the success stories in Korea and China position it as an invaluable partner for India's cutting tool industry. By leveraging ANCA's expertise, Indian cutting tool manufacturers can meet the high precision and quality demands of the 3C market, thereby enhancing the overall competitiveness and sustainability of the industry. This white paper explores the potential impact of ANCA's involvement and the strategic importance of strengthening local supply chains to support India's 3C market growth.

GLOBAL SCENARIO OF THE ELECTRONIC MANUFACTURING MARKET

The global electronic manufacturing services (EMS) market is experiencing robust growth, driven by increasing demand for advanced electronic devices and components across various sectors. According to a Fortune Business Insights report from May 27, 2024, the global EMS market size is projected to grow from \$573.75 billion USD in 2024 to \$1017.85 billion USD by 2032, at a CAGR of 7.4% (Fortune Business Insights). Similarly, Mordor Intelligence projects the EMS market size to reach USD \$773.22 billion by 2029, growing at a CAGR of 5.90% during the forecast

period from 2024 to 2029 (Fortune Business Insights) (Mordor Intelligence).

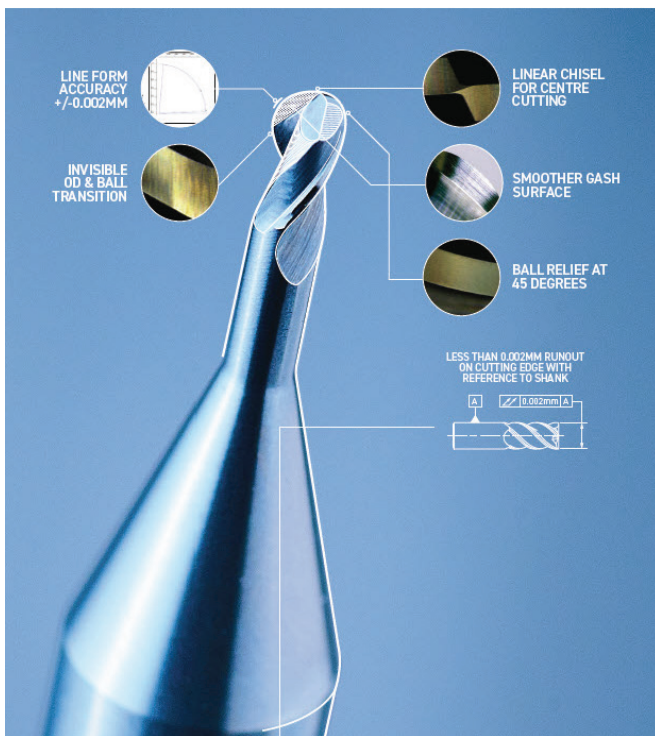
This significant growth is attributed to the increased adoption of EMS in various industries, including consumer electronics, automotive, aerospace, and healthcare. The Asia-Pacific region, particularly China, Japan, India, and South Korea, dominates the EMS market due to its strong manufacturing base and rapid technological advancements. The region's cost-effective manufacturing capabilities and established supply chains make it a preferred location for EMS providers (Value Market Research).

As the global EMS market continues to expand, India's strategic initiatives to bolster its electronics manufacturing capabilities position it as a key player in the global supply chain. By fostering local component manufacturing and attracting investment from major global players, India aims to solidify its role as a global electronics manufacturing hub.

INDIA'S ASCENDANCY IN THE 3C MARKET

The 3C market, encompassing Consumer Electronics, Computers, and Communication devices, is a cornerstone of modern technology and economic growth. Historically, India relied heavily on imports to meet the demands of its burgeoning electronics industry. However, with India emerging as one of the largest mobile user bases globally, there has been a significant surge in imports from countries like Korea and China. The COVID-19 pandemic, however, underscored the necessity of a robust and self-reliant supply chain within the country.

In response, the Indian government has prioritized the development of local manufacturing capabilities, particularly in communication electronics. This shift is marked by the establishment of assembly units and the entry of major players like Apple into the Indian market, which is reshaping the industry's



dynamics. According to an Economic Times report from March 3, 2024, India's ambition to become a global electronics manufacturing hub hinges on attracting component manufacturers to set up operations within the country. Major suppliers such as Foxconn, Pegatron, and Tata Electronics (after taking over Wistron's facility in Karnataka) have already made substantial investments, laying a solid foundation for the growth of the electronics manufacturing and chip industry.

INDIA'S ROBUST GROWTH IN ELECTRONICS CONSUMPTION

India's capability to manufacture on a global scale is evident in four key segments: mobile phones, consumer electronics, IT hardware, and electronic components. Together, these segments account for more than 70% of the country's domestic manufacturing landscape. This robust growth in electronics consumption, combined with the government's ambitious goal of reaching \$300 billion in domestic electronics manufacturing by 2025-26, presents a unique opportunity for international firms to consider India as a manufacturing hub for the Silicon Age.

Global companies can capitalize on these established domestic capabilities. The "Make in India" initiative has significantly boosted local manufacturing, with notable progress in smartphone production. Companies like Foxconn, Pegatron, and Tata Electronics have made substantial investments in India, reinforcing the country's position as a major player in the global electronics market. In addition to smartphones, India has seen local manufacturing of

laptops, PCs, and consumer electronics.

The wearable and television industries are also poised for substantial growth, driven by new government policies and incentives. Over the past few years, numerous Indian players have begun manufacturing and assembling their products locally, aligning with the make-in-India push. This trend is expected to continue, further strengthening India's electronics manufacturing sector and enhancing its appeal as a global manufacturing destination.

A significant factor in this growth is the Production Linked Incentive (PLI) Scheme offered for semiconductor manufacturing in India. The PLI scheme aims to boost domestic manufacturing and attract substantial investments in the semiconductor sector. By providing financial incentives to companies that establish semiconductor fabrication units, the scheme is expected to enhance India's capabilities in this critical area, making it a pivotal part of the electronics manufacturing ecosystem.

The PLI scheme's focus on semiconductors will help India reduce its dependence on imports for crucial electronic components, ensuring a more resilient and self-sufficient supply chain. This initiative is set to attract leading global semiconductor manufacturers to set up operations in India, further bolstering the country's position as a key player in the global electronics industry.

ENHANCING LOCAL SUPPLY CHAINS: THE ROLE OF ANCA CNC MACHINES

In the rapidly growing landscape of communication electronics manufacturing in India, there is an escalating demand for a robust local supply chain. A critical component of this supply chain is micro cutting tools, which are essential for precision manufacturing. Currently, the number of domestic manufacturers in this segment is limited, creating a significant opportunity for Indian cutting tool manufacturers to enter and thrive in this market.

This is where ANCA CNC Machines comes into the picture. With 50 years of experience in supporting cutting tool manufacturers globally, ANCA has established itself as a trusted partner. Their extensive experience in China, Korea, and other parts of the world has enabled them to support the micro tool manufacturing sector effectively. ANCA's advanced technologies and solutions have been instrumental in driving the success of micro cutting tool manufacturers in these regions.

In India, ANCA CNC Machines is well-positioned to replicate this success. With a well-established team in India, ANCA is ready to support local cutting tool



Jake Farragher, General Manager of ANCA CNC Machines Asia

manufacturers in meeting the high precision and quality demands of the communication electronics industry. By leveraging ANCA's expertise, Indian manufacturers can enhance their capabilities, contributing to the development of a resilient and competitive local supply chain.

Jake Farragher, General Manager of ANCA CNC Machines Asia, emphasizes the importance of India's burgeoning electronics manufacturing sector. "India is experiencing an unprecedented surge in the electronics manufacturing industry," he notes. "The market in 2023 was \$140 billion and is projected to reach over \$300 billion. Smartphone manufacturing, in particular, is experiencing the biggest surge, with over 50% of the market."

ANCA'S DOMINANCE IN CHINA'S 3C MARKET

ANCA has made a notable impact on the electronics manufacturing landscape in China, controlling 35-40% of the market since they started operations there in 2003. Since 2020, China has become one of the largest markets for ANCA's global installed base, with over 3,100 units installed to date. This success is largely attributed to their expertise in producing high-quality grinding machines, essential for manufacturing various electronic components. In cities like Shenzhen, recognized as the manufacturing capital of the world, ANCA's presence

is especially prominent, with over 100 customers and about 1000 tool and cutter grinding machines installed in local facilities.

Known as the 'world's factory' or 'Silicon Valley of Hardware,' Shenzhen's status as a hub for electronics manufacturing is no accident. The city's infrastructure, skilled labour force, and proximity to suppliers make it an ideal location for production. It is reported that 90% of the world's electronics come from Shenzhen, including toys, televisions, air conditioning units, mobile phones, and drones. ANCA's machines play a crucial role in this ecosystem, providing the precision and stability required to produce components with the highest possible surface finish. This capability is particularly important for smartphone manufacturers, who demand Class A surface finishes for their products.

ANCA'S TAILORED SOLUTIONS FOR ELECTRONICS MANUFACTURING

ANCA's product range is specifically designed to meet the demands of the electronics manufacturing industry for the 3C market in India. The company's grinding machines are renowned for their accuracy, stability, and rigidity, all of which are critical for producing high-quality electronic components. Whether it's mobile phone frames, SIM cards, circuit



Darren Fox, Product Manager FX-Platform of ANCA CNC Machines

boards, or microdrilling for speakers and data cables, ANCA's machines deliver the precision required for these intricate tasks.

Darren Fox, Product Manager at ANCA, highlights the key features that make their machines ideally suited for electronics manufacturing. "Our machines are equipped with advanced technologies, such as the one-nanometre control feature present in our ULTRA series. These innovative technologies ensure the highest levels of precision and surface finish are achieved," he explains. "We understand the unique requirements of this industry and have developed solutions that cater specifically to those needs."

One of the standout features of ANCA's machines is their ability to achieve Class A surface finishes. This level of quality is essential for many tools used in electronics manufacturing, ensuring that the final products meet stringent industry standards. ANCA's commitment to innovation and quality has cemented their reputation as a trusted partner for electronics manufacturers.

ANCA'S STRONG SUPPORT NETWORK IN INDIA

In addition to their high-quality products, ANCA offers robust support services to their customers in India.



Kishore AP, Country Manager for India
ANCA Machine Tools Pvt Ltd

This includes comprehensive service and maintenance packages, as well as proximity to customers in key markets. ANCA has a dedicated team that provides onground support to manufacturers, ensuring that their machines operate smoothly and efficiently.

Kishore AP, Country Manager for India, elaborates on the company's support network. "ANCA India has a strong presence across the country, with a dedicated team of professionals who understand the needs of our customers," he says. "We provide comprehensive service and support, from installation to maintenance, ensuring that our machines deliver optimal performance."

This commitment to customer service is a cornerstone of ANCA's business model. By maintaining close relationships with their clients, ANCA can swiftly address any issues that arise and provide tailored solutions that enhance productivity and efficiency. As the demand for electronic devices continues to grow, ANCA's machines will play an increasingly vital role in meeting the production needs of manufacturers worldwide, ensuring precision, efficiency, and high-quality standards in the production of mobile phone frames, small parts, circuit boards, and other essential components.

Jake Farragher shares the company's vision for the future. "Our goal is to be the go-to partner for electronics manufacturers, providing them with the tools and support they need to succeed," he states. "With our extensive experience and proven track record, we are confident in our ability to help our customers achieve their goals."

By leveraging ANCA's cutting-edge technology and extensive experience, Indian cutting tool manufacturers can enhance their production capabilities, ensuring they meet the growing demands of the 3C market. This collaboration will be pivotal in strengthening India's local supply chain and achieving its vision of becoming a global electronics manufacturing hub.



WHY CHOOSE ANCA?

Founded in 1974, ANCA is a world-leading manufacturer of CNC grinding machines, motion controls and sheet metal solutions, with over 1,000 employees worldwide.

We're pleased to have been recognized with more than 25 industry and business awards, including our induction into the Australian Export Award Hall of Fame. The Australian Financial Review recognized us as one of Australia and New Zealand's most innovative companies. We hold patents for many products, processes and components, from pulse and gap control for electrical discharge machining equipment to collet adaptors and clamping devices.

With global headquarters in Melbourne, Australia, ANCA exports 99% of products to customers across the globe, servicing 45 countries and delivering leading solutions from offices in the UK, Germany, China, Thailand, India, Japan, Brazil, Korea and the USA.



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