

About GMKW

In a world of increasing market volatility, shorter product life cycles, higher product complexity, and global supply chains, companies are seeking to become more flexible and responsive to business trends.

GMKW provides solutions in the heavy steel industry to ease the transition to Industry 4.0. We provide value to our clients by optimizing their manufacturing via the integration of intelligent vision systems, vision guided robotics, data systems and part digitalization using advance part marking technology.





Information is the power to drive change and our In4.0MED solutions enable new efficiencies, growth and business models ensuring the heavy industry leap into the intelligent manufacturing era of Industry 4.0.

GMKW headquartered in Wuxi, which is the manufacturing and industrialization center for application of our vision guided robotics and industrial traceability technologies to the market demands. We have a technology research and development center in Sydney, Australia and international sales in Singapore.

Why choose GMKW

GMKW strength comes from the combination of highly qualified multi-disciplinary scientist, engineering and management professionals. We have established a manufacturing engine in Wuxi China, product R&D in Sydney Australia and a long experience in international business development.

Customization Expertise

GMKW has a unique product development capability enabled by a highly multi-disciplinary scientific and engineering teams. We have the capability to provide customized Industry 4.0 solutions. Our vision guided robotics team work together with traditional automation teams to enable a new paradigm in materials processing by industrial robots.





Unique Digitalization Technology

Our unique IP is a new generation of digital identification technology, which integrates nano-material technology, photonic technology and information technology. ID4Steel, is a digital identification solution that is used to identify and trace steel components. This marking technology connects real world steel parts to the digital world. This empowers intelligent production, supply chain management, internal traceability and quality assurance to ultimately improve the competitiveness of enterprises.

Advanced Vision Guided Robotics

Machine vision is an important part of "perception" in automated production lines. Machine vision is the use of camera systems and algorithms instead of human eyes for identification, measurement, detection and semantic understanding.

Our expertise includes the vision hardware development and artificial intelligent image processing algorithms. We apply this machine perception to the production environment in controlling industrial robots to carry our complex materials processing tasks.

| Address: 11th Floor, Building G10, China Sensor Network International Venture Park, 200 Linghu Avenue, Xinwu District, Wuxi City, Jiangsu Province



Phone: 0510-85381856

|Email: sales@mos-gmkw.com





SMART GRINDING & CHAMFERING SOLUTION

Solution

GMKW provide unmanned grinding/chamfering solutions that are unprecedented in the heavy steel industry. The system uses the 3D graphics of the workpiece to quickly generate a robot program. Machine vision calibrates the robot to the precise position of the workpieces and guides the sanding tool for chamfering. The entire system is equipped with industrial robots and conveyor lines to automatically complete the chamfering of parts and components. The MES production management platform comprehensively records all aspects of the production involved for quality control.





I4.0 Platform

Smart Chamfering System



Case Study

Traditional manual grinding by human labor is high intensity work incurring unnecessary long-term risk. This creates the current situation where high labor cost and difficulties in recruitment are exposing business to risks and inefficiencies. GMKW provide unmanned grinding/chamfering solutions that are unprecedented in the heavy steel industry.

Vision Guided Robotics

In this case, the large steel plates weigh multiple tonnes and have hundreds of holes that require chamfering. The plates cannot be accurately placed on the platform due to their size and weight. To solve the problem, industrial robot are equipped with a 3D vision sensors and AI algorithms which identify and locate the large plates and holes. The robot can then adapt to the real-world situation and be guided to accurately chamfer the holes, efficiently and effectively

Double-Sided Chamfering



Value

Our vision guided robotic chamfering system has enabled our clients in the clean energy sector to vastly improve their production of large metal plate components in terms of labor, time and quality control.

- Reducing labor requirement from 20 person to 4 persons, resulting in a annual labor costs reduction of ¥1.6 Million;
- 6x increase in productivity;
- Enabling chamfer quality inspection automation with intelligent vision algorithms and data sharing.

Labor

Productivity

Quality

After

