



## Outstanding technologies allow us to provide a stable supply of high-quality products

### Continually evolving production technologies and quality assurance systems

With the advancement of technology in the market, the needs of our customers are becoming more and more diverse.

To meet these ever-evolving needs, we have accumulated superior manufacturing facilities and technologies to establish a system that allows us to rapidly improve and supplement various factors in the production process.

Under our strict quality control system, we are constantly striving to supply our customers with the highest quality.

## Manufacturing capabilities that respond to your needs

State-of-the-art manufacturing facilities capable of responding to global needs

### ■ One of the largest isotropic graphite manufacturing lines in the world

Every Toyo Tanso factory has gathered superior facilities and technologies, and has established its own unique production line. Our flagship manufacturing facility, the Takuma Division, started operation in 1985. It responds to global needs through one of the largest isotropic graphite production lines in the world.



Takuma Division (site area of approximately 185,000 m<sup>2</sup>)

### ■ Integrated manufacturing process from material production to processing

The production of isotropic graphite requires sophisticated know-how at every stage in the production process from raw materials and isostatic pressing to baking and graphitizing. To achieve this, we combine the experience we have acquired over our long history with automated, state-of-the-art facilities.



One of the largest material manufacturing facilities in the world

## Diverse range of processing technologies

Advanced machining technologies including microfabrication, sophisticated purification processes, and composite production

### ■ From machining of ultra-large items to microfabrication

Our position as a materials manufacturer that is well-acquainted with the characteristics of carbon allows us to perform a wide range of machining work. We can handle everything from ultra-large items and precision work requiring micro-level precision to complex shapes that are difficult to process. We employ machining technologies that incorporate state-of-the-art facilities and

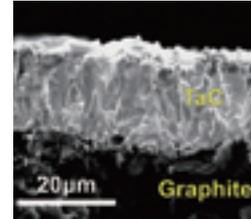


techniques used by expert workers to respond to a wide range of market needs.

Extensive range of facilities and technical capabilities

### ■ Added value treatment technologies that increase the potential of carbon

Products that have stricter requirements for corrosion and oxidation resistance can be covered with materials such as TaC (tantalum carbide), SiC (silicon carbide), pyrolytic carbon, or glassy carbon. By thus adding value to graphite, we are expanding the range of carbon applications.



Example of TaC (tantalum carbide) coating graphite and cross-section photo

## Reliable quality control system

A comprehensive quality control system for every process

### ■ Comprehensive quality control in all processes

At our 24-hour, state-of-the-art factories with reduced personnel numbers, we use systematized centralized management and conduct strict quality inspections for each individual process in the manufacturing process. Machining processes employ a comprehensive quality control system featuring built-in quality and state-of-the-art inspection facilities to ensure that products can meet our customers' stringent specification requirements.



24-hour centralized control system

### ■ Total management system supporting high quality

We have established a strict quality management system based on ISO 9001, and enforce built-in quality and conduct continuous improvement activities to increase customer satisfaction. To generate higher quality products and services, we pay careful attention to the safety of employees on the production worksite and to global-level environmental regulations regarding chemical substances used in products.



Inspection using 3D measurement machine