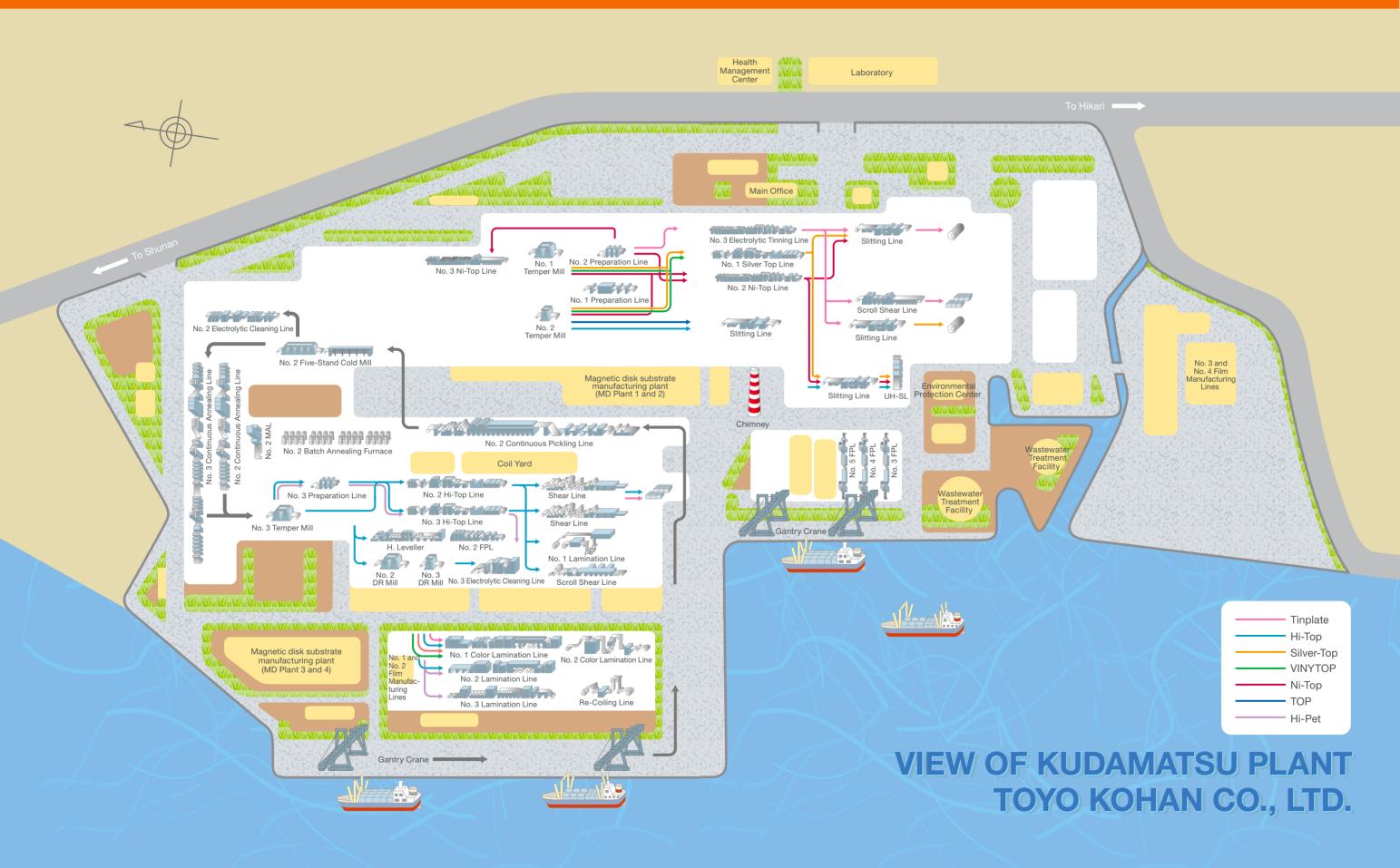
# TKWORKS

**Beyond Steel** 



# The Kudamatsu Plant – Pioneering the way to a world of possibilities

This plant has all the facilities that ensure stable supply of high-quality products in response to customers' needs. Ranging from R&D to manufacturing, shipment and environmental protection, these facilities include a technical research laboratory, production lines, port facilities for directly shipping products and bringing in raw and auxiliary materials, and an environmental management center.



# TKWORKS **Beyond Steel**

Through the integration and development of core technologies for materials, rolling, and surface treatment, we strive to be unrivaled in the global material industry.

Our brand symbol "TK WORKS" expresses Toyo Kohan Group's new attitude toward customers and society, and reflects our strengths and unique attributes. Using the brand symbol as a tool to communicate with society and markets around the world, we want to continue offering society lasting value and real benefits.



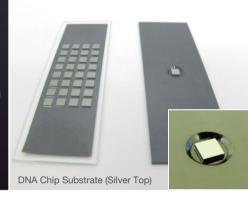














## Manufacturing Lines for Functional and Other New Materials

Magnetic disk substrates are fabricated by mirror polishing nickel-plated aluminum disks. We have a share of more than 10% of the world market. Applications have recently expanded into non-computer fields, such as HDD video recorders and video game systems.



## Fine Cast Film

Polyester film obtained using the cast film-forming method has processing characteristics not found in general-purpose film, and outstanding adhesion with metal. It is used as a lamination film for Hi-Pet and VINYTOP.



## Surface Treatment and Steel Sheet Manufacturing Lines Meeting diverse needs with high-quality products by using state-of-the-art equipment and technological skills we have nurtured since our founding

#### Pickling

Scale (iron oxide) is removed from the hot coil surface.

### Cold Rolling

### Cleaning and Annealing

Hot coil (1.6 to 3.5 mm thick) is rolled to a thickness of 0.15 to 1.6 mm, depending on the application. Rolling oil deposited on the coil surface is cleaned off. Then the coil is softly annealed in a

Coils are lightly elongated to have a flat shape, and are given the appropriate roughness and hardness.



## Temper Rolling and Double Cold Reduction Surface Treatment

Various products are produced to suit different applications by performing different types of surface treatment, such as electrolytic tinning, electrolytic chromic acid treatment and resin lamination. Toyo Kohan's prowess stands out in this process.

#### ► Electrolytic tinning line ► Hi-Top line Tinplate is produced by performing the electric tinplating treat-

#### Silver Top line Composite electrolytic galvaniza- Lamination line tion is performed using a zinc- A polyester film with outstanding

based electrolyte containing cobalt and molybdenum.

#### Ni-Top line

This line performs electroplating with nickel. It is possible to create a matte, semi-bright or bright surface by varying the composi-



This line performs a special elec-

trolytic treatment that creates a strong coating of metallic chro-

heat resistance, barrier perfor-

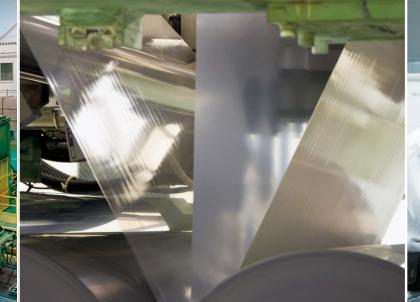
mance and formability is applied continuously via thermocompres-















#### **Welfare Facilities**

Toyo Kohan has a full range of welfare facilities, including apartment, company housing, a gymnasium, a hall, baseball field, and tennis courts.







Company Housing



Gymnasium



Health Management Center



Kohan Kindergarten

#### **Company Profile**

Established: April 11, 1934 Capital: 5,040 million yen

Number of employees: 1,300

Offices: Head Office (Tokyo), Technical Research Laboratory (Kudamatsu), Branch and Sales

Offices (Osaka, Nagoya, Hiroshima, Fukuoka), Plant (Kudamatsu)

Lines of Business: Manufacturing and sales of tinplate, thin sheet steel, all types of surface-treated steel

sheet and all types of functional materials

#### Kudamatsu Plant

Site area: 530,000 m<sup>2</sup> Number of employees: 1,100

Production: 50,000 tons/month

Products: • Tinplate (electrolytically tinned sheet steel)

• Hi-Top (tin-free steel)

• Hi-Pet (laminated steel sheet)

• Silver-Top (composite electro-galvanized steel sheet)

• Ni-Top (nickel-plated steel sheet)

• VINYTOP (high-grade decorative steel sheet)

• TOP (cold-rolled steel sheet, cold-finished steel band, etc.)

MD (magnetic disk substrates)

• Fine Cast Film (cast polyester film)

