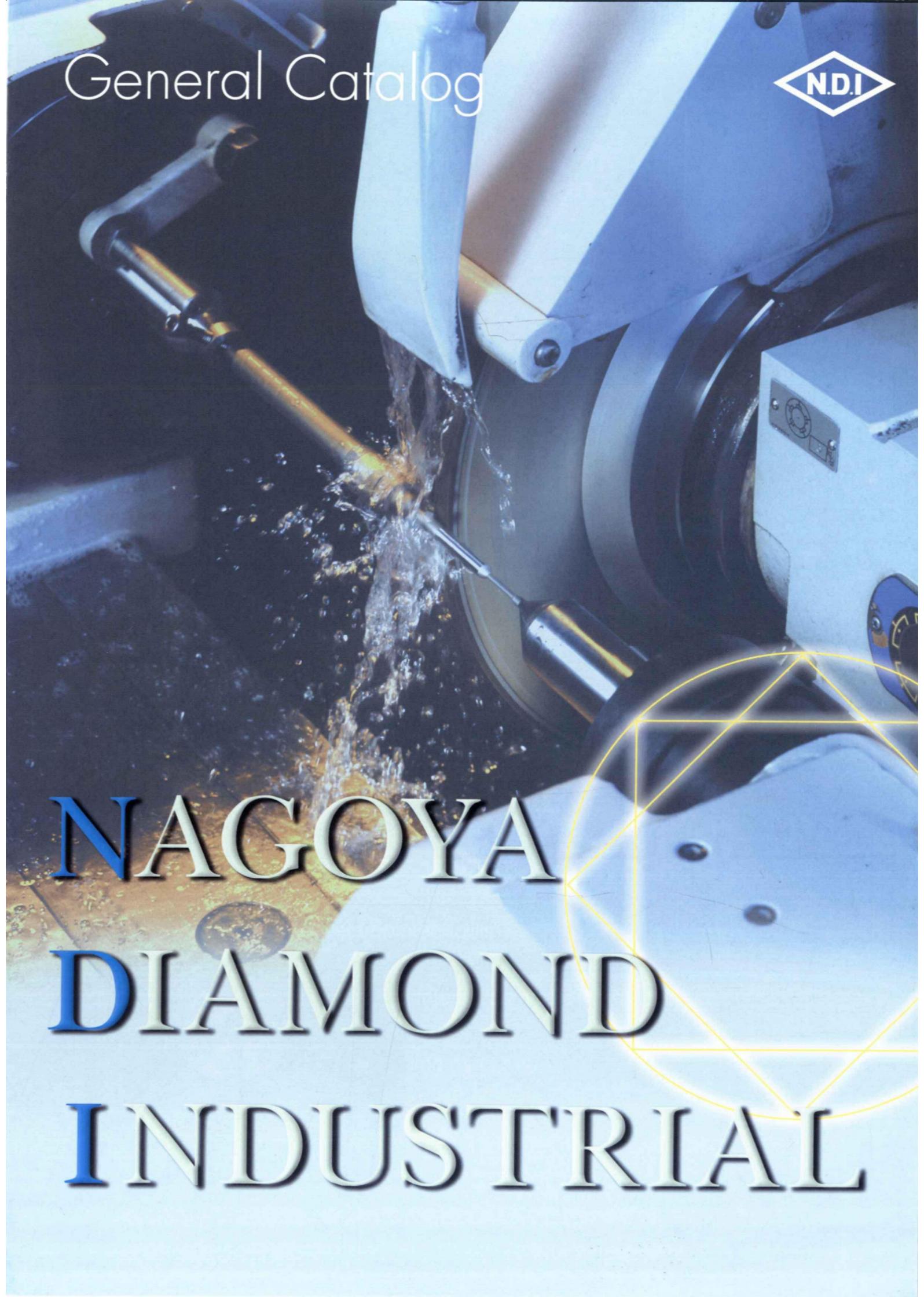


General Catalog

The background of the cover is a photograph of a diamond cutting machine. A large, circular diamond wheel is visible, with a metal rod or tool positioned against it. A spray of water is being directed at the point of contact between the tool and the wheel, creating a misty effect. The machine itself is white and blue, with various mechanical components and a control panel visible. The overall scene is industrial and technical.

**NAGOYA**  
**DIAMOND**  
**INDUSTRIAL**

# 1. Natural diamond tools

Performance of natural diamond tools depends on the quality of the rough diamond and the accuracy of crystal orientation.

Our products are made only from carefully selected, excellent quality rough diamonds with uniformly oriented crystal faces, which are assessed by our highly skilled staff.

## 1-1. Dressers

Rough diamond grains are cemented onto the shanks. The products are used for dressing of general grinding wheels.

The product lineup includes single point diamond dressers, diamond forming dressers, multipoint dressers, and bond dressers



## 1-2 Natural diamond cutting tools

The craftsman uses the utmost care in the grinding process to ensure top-notch precision of the blade tip. We design and manufacture built-to-last, ultra-sharp cutting tools on a made-to-order basis (orders accepted for one or more pieces).

The products are used for ultra-precision cutting of aluminum, brass, copper, resin, etc.



## 1-3 Artificial monocrystalline diamond tools

Artificial monocrystalline diamond is more stable than its natural counterpart

# 2. Diamond/CBN wheels

The wheels achieve superior grinding efficiency compared with conventional general grinding wheels, ensuring extremely high precision of the ground surface.

We design and manufacture grinding wheels optimally suited to customers' grinding machines, machining conditions, required levels of precision, and items produced.

We offer a wide variety of settings for grinding wheels in terms of configuration, grain size, bonding material, and other features. Please feel free to contact our sales staff should you have any questions.

## Product lineup

Resin/metal/vitrified bond grinding wheels, diamond/CBN grinding wheels

Grinding wheels for tool grinding, planer grinding, cylindrical grinding, centerless grinding, internal grinding, as well as mounted wheels

## Work materials

Diamond: Cemented carbide, ceramics, glass, cermet, Carbon  
CBN: quenched steel, high-speed steel, and die steel





## Corporate edge

Our emphasis is integrity, from the time we accept your order through the manufacturing process.

Our sales staff, who have backgrounds in engineering, design optimal tools by communicating with customers. Our sales staff closely work with the manufacturing department, sharing information with precision and speed, to meet the customer's every need.

We welcome any questions you may have on processing.

Drawing on our broad-based experience, we offer solutions by delivering the optimal product for each customer.



### Contents

- 
- 1. Natural diamond tools
- 
- 2. Diamond/CBN wheels
- 
- 3. Electroplated tools
- 
- 4. Diamond sintered compact tools (PCD tools)
- 
- 5. PCD grinding machine (NZX-3)
- 
- 6. Other products

### 3. Electroplated tools

The extremely sharp tools are characterized by diamond/CBN grits anchored to the base by special plating.

#### Files

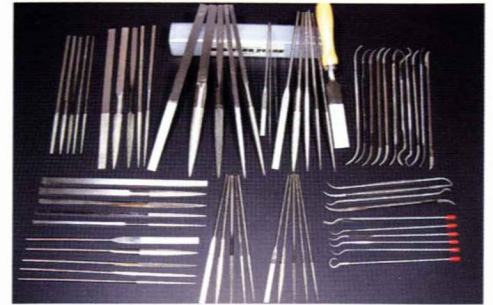
The files are used for precision finishing of dies as well as other purposes. Our expertise, refined through many years in the business, achieves unparalleled material strength and plating adhesion.

#### Electroplated grinding wheels

We can plate grinding wheels of different configurations — from molded wheels to small-diameter wheels. These plated wheels ensure high reliability in high-speed rotation.

#### Materials

Cemented carbide, glass, ceramics, carbon, ferrite, carbon fiber, and resins



### 4. Diamond sintered compact tools ( PCD tools )

Unlike natural diamond, artificial polycrystalline diamond guarantees excellent consistency of quality because it is manufactured in the industrial process.

Turning sintered compact into sharp cutting tools requires advanced grinding technologies.

We have developed the grinding wheels and grinding machines used in the grinding process in-house.

We are committed to creating cutting tools that meet customers' needs in terms of configuration and precision. Orders are accepted for one or more pieces.

#### Product lineup

PCD cutting tools, end mills, reamers, formed cutting tools, work rests, measuring terminals, blades, and shoes

#### Applications

Cutting and turning with PCD and PCBN

PCD: Aluminum alloys, copper alloys, brass, cemented carbide, resin, carbon fiber, etc.

PCBN: Hardened steel, die steel, high-speed steel, cast iron, inconel, etc.

※Cemented carbide features wear resistance and ensures long component life.



## 5. PCD grinding machine ( NZX-3 )

NZX-3 is our latest user-friendly grinding machine. It has been significantly improved to feedback and suggestions from grinding professionals amongst our customers. The product has been well-received by customers in Japan and abroad, who tell us that NZX-3 is “compact and easy to use.” In addition to delivering machines, we also offer training programs based on our unique grinding technologies. Thus, even beginners can be comfortable with the grinding process.

### Applications

Re-grinding of customers' PCD cutting tools. (Advantages include lower re-grinding costs, shorter delivery times, and quicker response to make prototypes),



## 6. Other products

### Diamond compound

Lapping and polishing of materials

### Dressers for diamond/CBN grinding wheels

Resin-bonded diamond/CBN grinding wheels can be dressed and tooled at the same time.

### Hand stones

Blade tip processing of cemented carbide cutting tools, and die polishing

### Honing stones

Internal honing of cylinder liners, etc.

### BEXY

Large-grain tools for cutting and grinding FRP and GRP, etc.



# Corporate profile

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✦ President  
Takaki Ito

✦ Founded  
October 26, 1960

✦ Capitalization  
15,000,000Yen

✦ Plant Outline  
Site 1,671.80m<sup>2</sup>  
Building 1,306.42m<sup>2</sup>

✦ Participating Banks  
Kinki Osaka Bank Nagoya Branch  
Tokyo-Mitsubishi UFJ Bank Otumachi Branch  
Aichi Bank Main Branch

✦ Participating Organizations  
Industrial Diamond Manufacturers  
Association(IDAS)  
Aichi Prefecture Machine Tool  
Industry Association

[www.nagoya-d.co.jp](http://www.nagoya-d.co.jp)