



Niigata Co., Ltd.

Company Profile

# SERVICES

Niigata's services are classified into three categories: transparent visualization support, battery development support, and research and development support, which are introduced along with case studies. Please visit our service pages for more information.

## Providing Ideal R&D Environments in Japan

We will continue to shape the future over the next 50 years, 100 years, and beyond.

### Greetings from President Manabu Watanabe

In 2021, Niigata is celebrating its 50 year anniversary. In an era of rapid changes in markets and social environments, we have been able to continue our business for half a century thanks to the generous support and kindness of our long-time customers. We would like to express our sincere gratitude again.

In 1999, the company was reorganized into the current Niigata Co., Ltd. as a “company that creates new forms.” Around that time, we began to offer our services to university laboratories and our challenge to research and experiments started by watching others. For more than 20 years since then, we have gradually changed our products and services to expand our business into other adjacent industries, and have always kept going as a challenger to adapt to the changing times. We strives to make steady progress in the next 50 and 100 years.

In recent years, the world has been struck by an unparalleled crisis: the COVID-19 epidemic. We will do our utmost to promote our R&D services to support Japan's R&D and contribute to the further development of Japan.

We hope to receive your continued advice and support.

### Research and Development Services



#### Transparent visualization support

- Manufacture of instruments and jigs for fluid experiments
- Design and manufacture of transparent parts for PIV testing
- Design and manufacture of visualization equipment



#### Battery development support

- Manufacture of test instruments, jigs, and equipment for evaluation
- Experiment support (assistance)



#### Research and development support

- Instruments, jigs, and equipment for basic research
- Instruments, jigs, and equipment for environmental testing
- Analysis and simulation
- Commissioned experiment

We can meet the following requests:



Companies, research institutes, and universities

- Seeing the internal mechanism
- Consultation on the material and shape
- Service including peripheral equipment for visualization parts



Companies and research institutes

- Service starting with design
- Evaluation testing
- Building products to fit existing dimensions



Companies, trading firms, research institutes, and universities

- Consultation without drawings
- Ready-to-use products for experiments
- One piece ordering

### Main industries



Energy



Automobile



Communications



Medical care



Aviation & Aerospace



Food & Beverage



Cosmetics

etc.

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# Transparency Visualization

## Transparent visualization support

We manufacture everything from visualization parts to moving equipment.  
We use our know-how from more than 200 visualization projects a year to realize what our customers want to see.

If you have a requirement like the following

Design and manufacture an optimal visualization system that meets the PIV measurement conditions.

Consult about what kind of shape would work best for visualizing the flow.



Make a schematic diagram necessary for my paper.

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# Battery Development

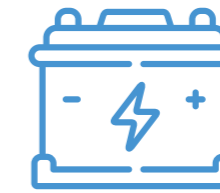
## Battery development support

We offer a wide range of services, from processing of test parts to design and manufacture of instruments and jigs, such as battery evaluation cells and press machines, as well as provision of test sites and data compilation.

If you have a requirement like the following

Design and manufacture a test cell.

Collaborate on a long-term basis to speed up the development process.



Design and manufacture evaluation jigs necessary for battery development.

Conduct an evaluation test.

## What can be done with our transparent visualization support

Flow visualization has been developed as a non-contact, quantitative, multi-dimensional method of measuring the velocity and temperature of a flow field during mass transfer. Today, visualization research is used as a major research and development method in various fields such as aviation, automobiles, medical care, aerospace, marine, and food. We support visualization research of our customers, including those who are conducting visualization research for the first time. Our services include visualization testing, test research, visualization measurement, the provision of high-precision instruments and jigs required for such measurement, and improvement of experiment efficiency.



Taylor-Couette flow reactor

Fuel nozzle visualization model

HDD turbulence visualization experimental equipment

## What can be done with our battery development support

Since having exhibited at the Hydrogen Fuel Cell Expo 2008, we have built up our track record by manufacturing small parts one by one. In battery development, we help our customers conduct efficient experiments to steadily advance their battery development by providing various services of high-temperature tests; shock tests; explosion-proof tests; basic experiments on durability, adhesion, and evaluation of various materials; design and fabrication of instruments and jigs necessary for the next step; provision of experimental sites; preparation of facilities; and data compilation.



Nails for destruction tests

Press machine

Flow cell

## Niigata's specialties <Case studies>

We receive more than 200 requests a year for transparent visualization. The request will vary depending on what the customer wants to see or what they want to examine. In particular, in order to visualize invisible air and water flows in a box using particle image velocimetry (PIV), special polishing and object segmentation are required, taking into account the angle of laser irradiation. We offer our unique services developed based on our manufacturing experience and promise to help you all the way to the end.



High-temperature, high-pressure venturi tube

Calibration plate

Cavitation channel

## Niigata's specialties <Case studies>

We have been working with our customers to manufacture many products that are necessary for battery development. The results are ranging from various materials and shapes to surface treatments, designs, fabrications, simulations, test nails combining different materials, press machines, battery evaluation cells, and flow cells. Today, we not only sell and manufacture products, but also set up experimental laboratories and support experiments in fuel cell (FC) development. We offer our unique services and products developed based on our experience and promise to help you all the way to the end.



Zirconia body with nickel nail (tip)

Fuel cell

Battery evaluation cell

# Research Development

## Research and development support

We provide a wide range of services from processing to designing and manufacturing of instruments and jigs to customers in various fields such as marine, aerospace, medical care, and infrastructure.

If you have a requirement like the following



## What can be done with our research and development support

Manufacture of products for research and development in various fields, procurement of necessary equipment, conducting experiments on behalf of customers, and supporting them are sources of competitiveness that shore up innovation in Japan. Therefore, we believe that it is our mission to provide an environment where our customers can concentrate on R&D and achieve results. We will do our best as a research and development service provider to ensure that our products and services become the "proof of success" for our customers' research and development as a result of their "ordering work from Niigata."

<p><b>Medical care</b></p> <p>Ultrasound probe operating equipment</p>	<p><b>Infrastructure and Energy</b></p> <p>Small burner test equipment</p>	<p><b>Marin</b></p> <p>Equipment for thermal convection experiments</p> <p><small>By courtesy of JAMSTEC</small></p>
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## Niigata's specialties <Case studies>

We receive more than 2,000 inquiries a year from university laboratories and R&D personnel in various industries. No two consultations or requests from them are ever the same. There are what we can't understand unless we try it, and what we can't know unless we experience it, which mean a world that we can't see unless we step into it with our customers. We regard such actions as our R&D services and are always ready to support our customers in a wide range of fields.

<p>Car-wash lab apparatus</p>	<p>Pedestal</p>	<p>Syringe pump</p>
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## Principle

Management Philosophy



We will create cutting-edge technology with wisdom and justice to shape a prosperous and bright future where people, the earth, and science coexist in harmony.

## Outline Company Outline

Company Name	Niigata Co., Ltd.
Head Office	2-12-5, Komaoka, Tsurumi-ku, Yokohama, Kanagawa, 230-0071 Tel:+81-45-580-3181, Fax:+81-45-580-0688
Kawasaki Research Laboratory	Y03 Keihin Bldg, 1-1, Minamiwataridacho, Kawasaki-ku, Kawasaki-shi, Kanagawa, 210-0855
Founded	December 1971
Incorporated	April 1979
Representative	Manabu Watanabe
Capital	20 million yen
Banking and Finance	Kawasaki Shinkin Bank, Yokohama Shinkin Bank, Jonan Shinkin Bank, Japan Finance Corporation (JFC), Shoko Chukin Bank
Main Business	Research and Development Services: R&D support, Transparent visualization support, Battery development support Design and manufacture of test instruments, jigs, and equipment
Membership of Professional Institutions	Kanagawa Association of Small Business Entrepreneurs, Kanagawa Industrialists Club, the Yokohama Chamber of Commerce and Industry, Kanagawa Corporation Association, Yokohama Industrial Liaison Council
Customer	Universities, research institutes

