RIKEN

Company Profile

RIKEN KOGYO Inc.

Industry Leader

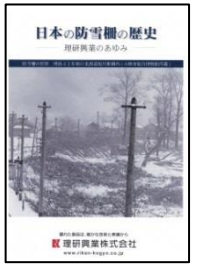
For the first time in over 50 years, Riken Kogyo., Ltd, succeeded in developing snow protection fence from steel.
We have contributed to the safety and economic support of winter road traffic in Hokkaido, Tohoku and Hokuriku districts by measures against snow, such as snowstorms and blows on the road.
In 2018, the number of extended snow fence installation reached 1,100 km in total, becoming Japan's leading company.

Snow Fence

Road traffic network in north has been developed day by day. It is the most important lifeline that occupies a major position in our lives. Snow protection fence will protects road from harsh snow and wind harm.
Snow protection fence, which is commercialized by taking advantage of valuable data obtained from rigorous research and development, wind tunnel experiments and field experiments, is a crystal of technology that protects our lives.
RIKEN Kogyo will provide a safe and comfortable life through a snow protection fence.

History of RIKEN

In 1971, Riken participated in blow off fence development test in Hokkaido Development Bureau, Construction Machine Shop. In 1944, succeeded in developing steel snow fence for the first time in industry, and obtained patents. Started commercialization and sales. Celebrated 63rd anniversary in 2020, snow fences installation have reached 1,100 km. History of RIKEN KOKYO's business may be said as the history of snow fences.



Linked to The History of Snow Fence of Japan

1948
Currently RIKEN Co., Ltd. and RIKEN Shoji Co., Ltd. are established as Hokkaido Sales Offices based on RIKEN and started sales of RIKEN products.

1961
Has developed locking cross screw, patented in six countries worldwide. Launched commercialization as RIKEN cross-bolt.

1968
For the first time in industry, we succeeded in developing steel snow fence and obtained patent. Started commercialization and sales.

1989
Constructed wind tunnel laboratory to reproduce snowstorms

1995
Opened head office in Otaru-Shi, Zeniibako, Hokkaido as part of its 40th anniversary. Relocated headquarters along with completion of Shinchi snowstorm reproduction wind tunnel laboratory, product inspection site, and product warehouse.

1955
Establish current RIKEN KOGYO Inc. while Shin Riken Kogyo merges with Daido Steel Co., Ltd.

1962
Participated in blow off fence development test in Hokkaido Development Bureau, construction machine shop.

1983
Succeeded in development of "stand-alone main pillar folding flap fence" snow fence . Obtained a patent. Started commercialization and sales.

1992
Succeeded in developing "full retractable snow protection fence" in consideration of landscape. Started commercialization and sales.

1996
Succeeded in developing industry's first interlocking lifting snow fence. Obtained a patent. Started commercialization and sales.

2002
Established Snow and Ice Research Institute for survey and research on measures against snow dam

2003
Developed industry's first high-performance wooden fence for snow protection, joint with Hokkaido Forestry Research Institute as Ministry of Agriculture, Forestry and Fisheries Research Advancement Project. Acquired utility model right jointly with Hokkaido.

2005
Developed wing type snow protection board using aluminium "Snow Blade". Started sales.

2010
Developed foundation concrete block for windproof and snow fence. Started commercialization and sales.

2003
Succeeded in developing a "high performance snow fence", joint with Hokkaido Institute of Technology. Obtained patents. Started commercialization and sales.

2004
Succeeded in developing "snow protection type snow fence", joint with Hokkaido Institute of Technology.

2008
Registered "Automatic storage type high-performance snow protection fence" and "Existing snow protection fence type automatic build up and storage method" in NETIS.

2012
Registered "Multifunctional noise barrier" in NETIS.

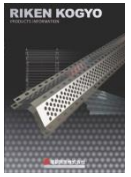
2014
Introduce new technology for snow protection to road managers in Eastern Europe and Central Asia in “Japan Road Maintenance Management (A)” course in Japan.

2014
"Main column joint fixation method to steel pipe piles" ZIG "received NETIS's evaluation, accepted value while certificated as useful technology for design comparison.

2016
Obtained patent for "fitting nut combination for cross bolt".

2017
Contracted to manufacture snow fences and set up work under the JICA Project for Capacity Development for Road Disaster Measures in Kyrgyzstan. Snow fence installed on Bishkek-Osh road.

2018
Obtained patents for "Method for manufacturing wire rope with resin wire, resin wire winding type and wire rope with resin plug".

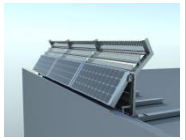


2014
Registered steel pipe pile driving bracket "R_link" in NETIS.

2015
"High-performance snow fence" received NETIS's ex post evaluation and accepted value end (VE)

2017
Implemented NEDO commissioned project "Development of wind turbine type snow protection fence using wind blowing snow", joint with Tohoku University Research Center for Future Science and Technology

2018
Obtained patent for "snow-removing device" that prevents snowflake by energizing the heater with electric power generated by solar cells.



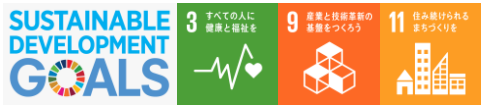
2018
Celebrated 63rd anniversary, snow fences have reached 1,100 km.

Management Philosophy

○Our basic policy is to prevent snow damage on cold road traffic networks, and by providing technologies and products that make people's lives safer and more comfortable, we contribute to society.
○We challenge high goals and build a more vibrant corporate culture.
○We maintain kindness and integrity, love nature and value our environment.

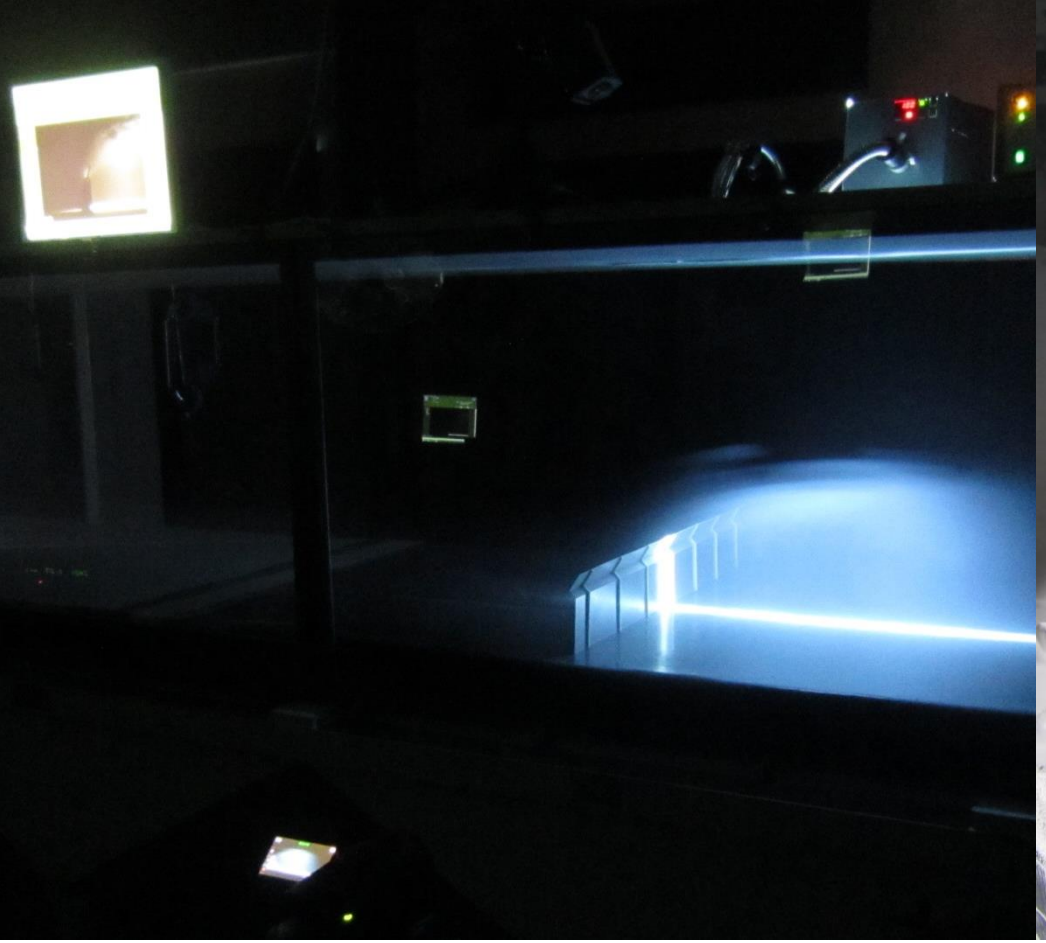
Sustainability

As a Road Traffic Safety Product Manufacturer, Riken Kogyo working on products development with its main target as follows,
According to [Sustainable Development Goals (SDGs)]
"3.6 Halve road traffic accident casualties"
"9.1 Develop a sustainable and robust infrastructure that supports economic development and welfare"
"11.2 Provide access to sustainable transportation systems through improved traffic safety"



Social Contribution

Interest in "industrial heritage" which has contributed to the modernization of Japan has increased in recent years, one of them is Japanese railway heritage which boasts a history of 138 years. The designation such as important cultural properties and railway memorials also increased, and the railway heritage is now lively. Some of things are lucky to be protected as a historical heritage, but in other side there are also many things that are forgotten. And since Japan's snow protection fence started from the railroad, RIKEN KOGYO cooperated with NPO Hokkaido Railway Culture Preservation Association, as a part of social contribution activities and actively participating on protection and restoration project of the railway cultural heritage and exhibition railroad car.



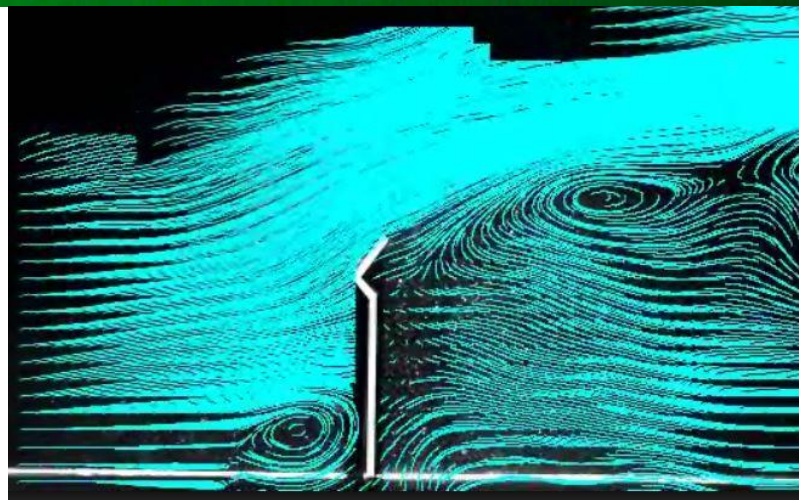
Wind Tunnel

Riken Kogyo's wind tunnel experimental facility can reproduce snowstorm by scattering model snow in the wind tunnel.
We will create a scale model of snow fence, local topography and reproduce visibility obstacles, blowing pool and snowstorm situation, then propose the most effective anti-snow measures.

Linked to The Wind Tunnel

PIV

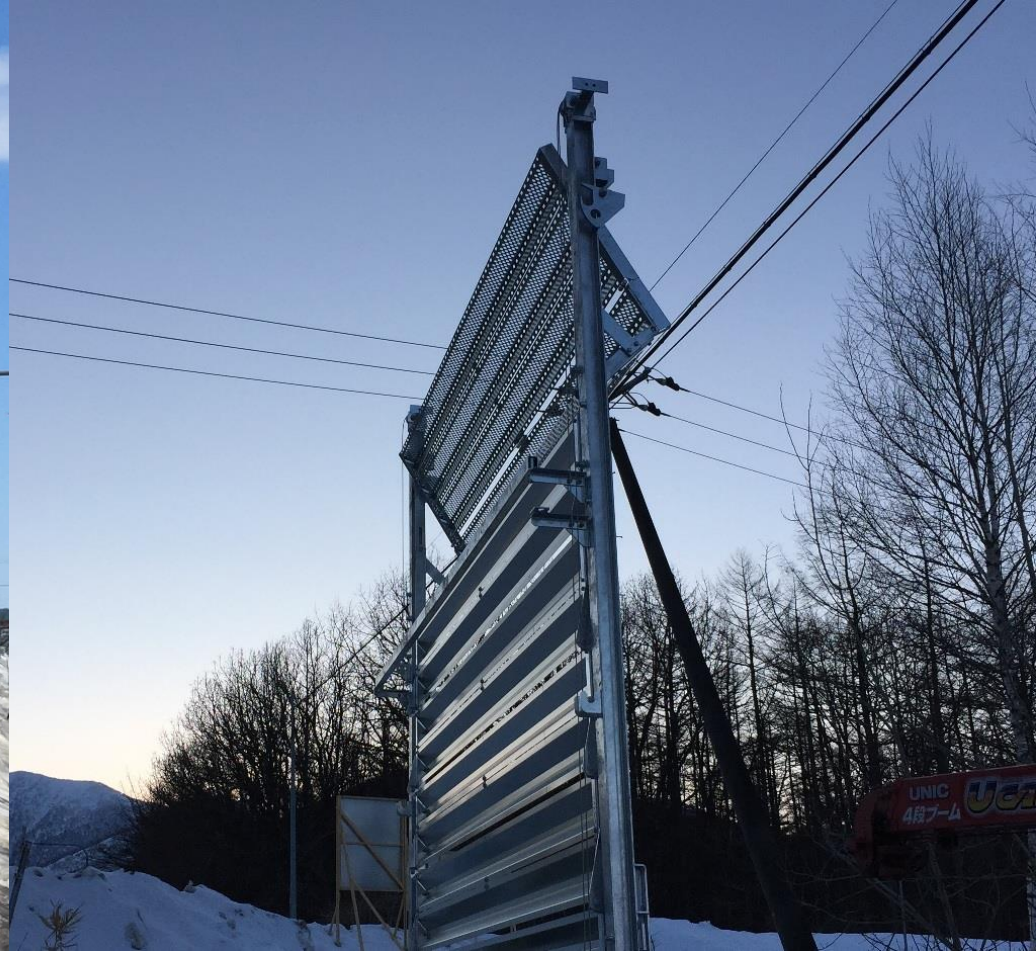
PIV (particle image velocity) is an optical fluid measurement method that can obtain the instantaneous velocities of multiple points in flow areas without direct contact. It is possible to analyze the flow of wind snow around the snow protection fence in a short time precisely, by shooting high speed phenomena, in slow motion mode using high speed camera and digitize with computer.
We introduce PIV into our wind tunnel experimental facility and conduct daily research and development aiming to realize a snow-resistant fence with higher performance.



Weather Survey

It is necessary to collect and analyse local weather data in order to propose the optimum snowfall fence for places where snowstorms are occurring.
Riken Kogyo has many fixed-point weather observation instruments and mobile weather observation vehicles.

Linked to The Weather Survey



Products

We analyse local weather conditions and analyse the results of the wind tunnel experiment to propose the optimum snow protection fence.
There are hundreds of models that can be proposed.



Foundation product

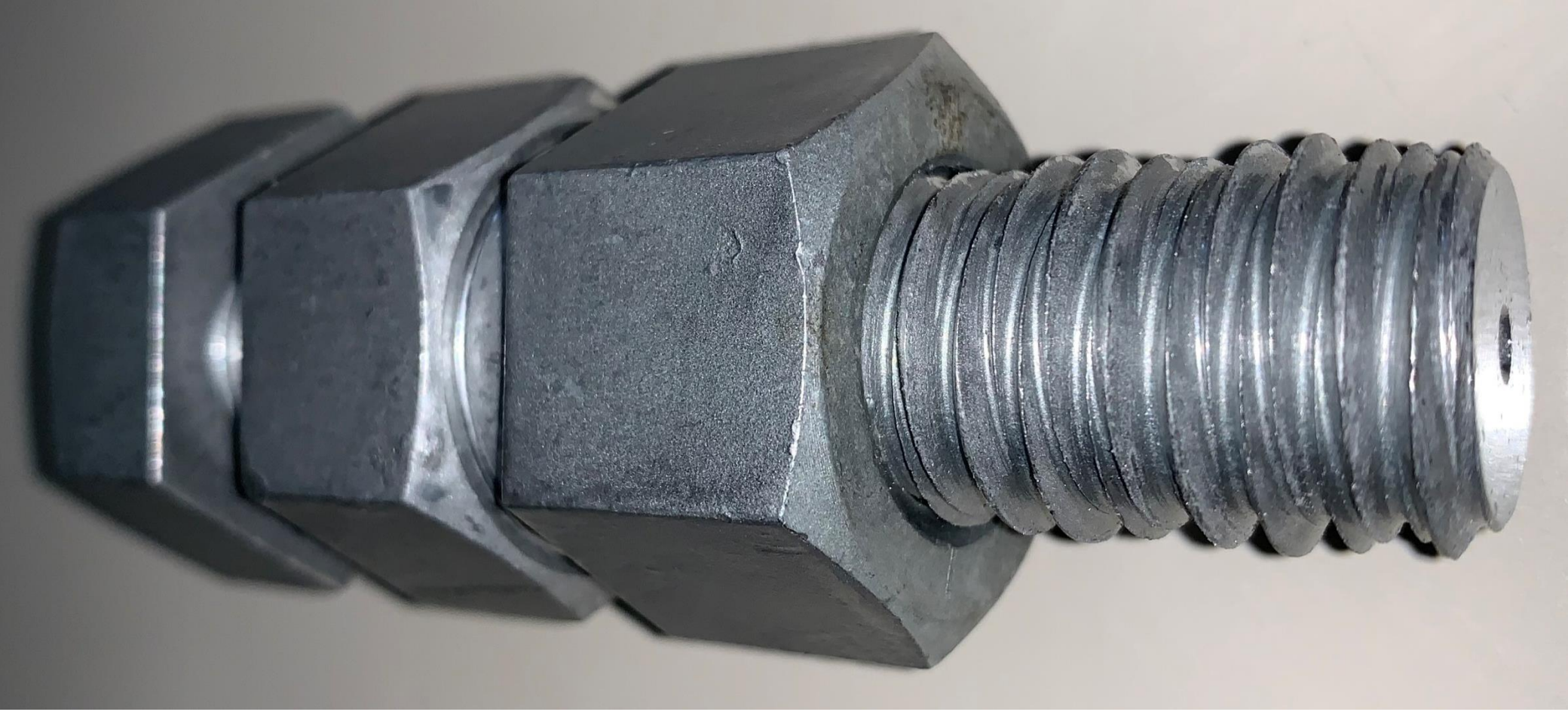
We also develop products that improves workability and shorten construction period of snow fence foundation work, such as

Main joint connection fixing method to steel pipe pile "ZIG"
Steel pipe pile implementation bracket "R-Link"
Concrete Block Foundation for Windproof Fence

Traffic Safety

Light guiding type gaze guidance marker, that makes driver recognize "line".
It makes easier to check curves and shoulder`s position, and improve traffic safety.

It also a human friendly product, that prevent glare by a structure without direct view to LED, and does not influence people with blue light.

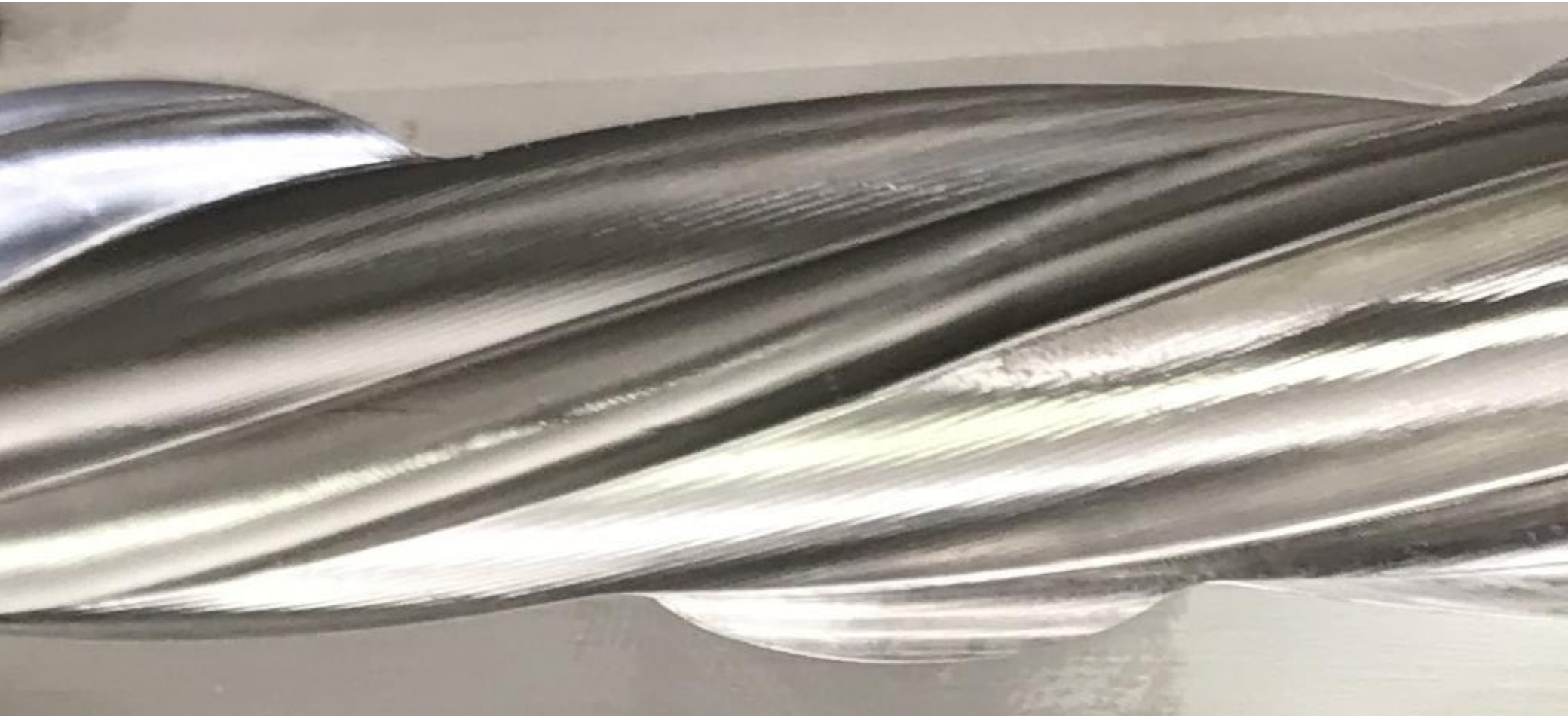


Cross Bolt

Cross bolt is the origin of Riken Kogyo`s research and development.
Instead of one bolt with right and left threads cut off, cross bolt tighten with one nut with right-handed thread and one nut with left-handed thread.

It is a bolt that does not loosen against any vibration, and loosens when you want to loosen it.

Linked to The
RIKEN crossbolt



Spindle

RIKEN spindle is a structure that moves while rotating along wire rope`s groove.
There are various application methods such as power generation and removal of foreign matter attached to wire rope by rotationally moving.

It is also easily to add gaze guidance function to wire rope because it is possible to implement resin wire that emit light to wire rope`s grooves in a short time.

Environmentally-friendly Products

Due to climate change in recent years, abnormal weather is now considered to become normal.
To suppress further climate change and adapt to climate change, We are developing environmentally friendly products use renewable energy.

We are researching and developing new measures against snowfall such as reduces snow removal cost by utilizing wind power generation, solar power generation, underground heat and snow melting around the snow protection fence.

Overseas

We began accepting JICA training in Japan in 2014 and continuing to introduce Japan's latest anti-snow technology to road administrators in Eastern Europe and Central Asia.

In 2017, we set up a snow protection fence at the Bishkek - Osh Road Too - Ashuu Pass which is also being the main road of the Republic of Kyrgyz through ODA technical cooperation project.
From now on, we will expand Japanese anti-snow fences to the world.

Linked to The RIKEN's Russian site

【Head office】
3-263-7　Zenibako、Otaru-shi、Hokkaido、Japan
TEL : (0134)62-0033　FAX : (0134)62-0088
URL : http://www.riken-kogyo.co.jp/
E-mail : info@riken-kogyo.co.jp

【Tohoku Office】
1-10-13　Furukawa、aomori-shi、Aomori、Japan
TEL : (017)735-1888　FAX : (017)735-2511
E-mail : rk-tohoku@rapid.ocn.ne.jp

Linkde to The
RIKEN's
Website

RIKEN KOGYO Inc.