



WIRE is Dramatic

 www.sgw.nipponsteel.com



Company Profile

Our WIRE makes the future possible

History of NSSG

SUZUKI METAL INDUSTRY CO., LTD., the antecedents of NIPPON STEEL SG WIRE CO., LTD., was founded in MAY 1938 with the pioneering spirit of "making piano wire by Japanese," in response to an anticipated increase in demand for the basic industrial material, for which Japan had been entirely dependent on imports.

Up to the present, we have manufactured and sold around 10,000 different kinds of wires according to the needs of the various fields that require sophisticated manufacturing technologies and advanced quality control, such as automobiles, household appliances, precision equipment, civil engineering and construction, and medical care.

In recent years, we have worked on reforming our business structure and expanding globally by establishing a joint venture company for stainless steel wire manufacturing (SUZUKI-SUMIDEN STAINLESS STEEL WIRE CO., LTD.) and expanding our overseas bases through the acquisition of the Swedish company (SUZUKI GARPHYTTAN AB) as a wholly owned subsidiary and the addition of THAI SPECIAL WIRE CO., LTD as a consolidated subsidiary. Now, our main product, high grade spring material for automotive parts, have world topclass share.

In September 2015, SUZUKI METAL INDUSTRY CO., LTD., became a wholly owned subsidiary of NIPPON STEEL CORPORATION and changed its name then and in April 2019.

Currently, as NIPPON STEEL SG WIRE CO., LTD., we have become a core company responsible for the special wire business of NIPPON STEEL CORPORATION Group.

As a leader in special steel wire, we will continue to improve our group's presence in the market through the development of new products that utilize our technological innovation, production process saving, and further enhancement of the global business foundation. At the same time, we will strongly support the realization of your dreams in different fields of society.

Inheriting the founder's DNA

Founder Yutaro Murayama preached the importance of challenge without fearing failure, by stating that "To maintain the status quo means retrogression." He also set the business motto "Seiwa," which means that people are based on sincerity and harmony.

These thoughts of the founder, or his DNA, remain strongly within us and continue to be inherited.

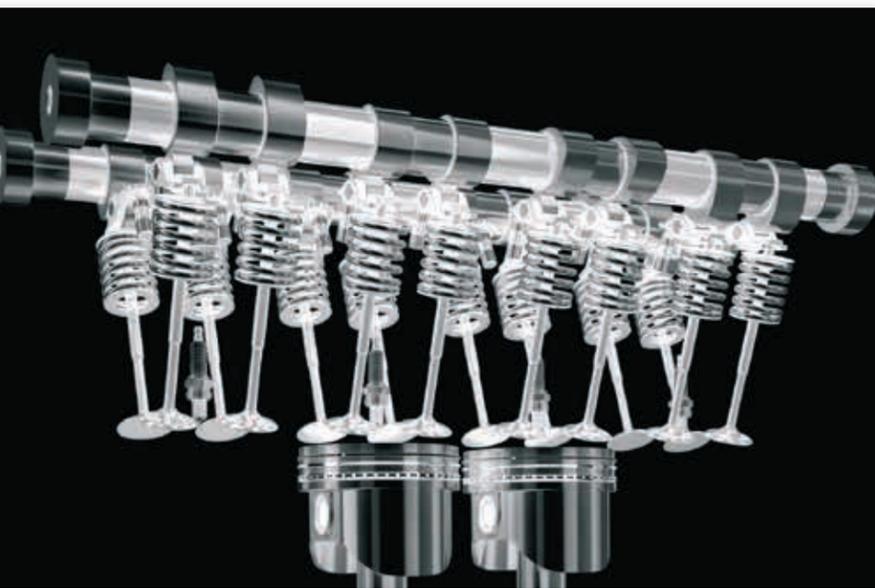


Founder
Yutaro Murayama

Spirit of "Seiwa"

"Seiwa" is our business motto. It means people are based on sincerity and harmony. A business never goes well without these.

We value the thought that if things are tackled with the spirit of Seiwa, any difficulties will be overcome and a new route will open.



Oil tempered wire

Oil tempered wire is widely used for springs that require extremely high resistance to fatigue, heat, and permanent set in fatigue, including the valve springs of the engine, clutch springs, and suspension springs that are considered important security parts of automobiles. Our group's high-quality oil tempered wire has a large share in both domestic and overseas markets.



▲Pocketed Coil

Piano wire / Hard drawn steel wire

We succeeded in the first domestic production of piano wire in Japan for high-end springs. It meets various needs, such as music spring wire (piano string), from which the name piano wire originates, as well as straightened or high-strength piano wire for special purposes. The advanced wire making technology developed through our experience in piano wire is applied to the hard drawn steel wire used for various applications such as bed and shutter springs, household appliances, and automobile seat springs. In order to meet the needs of a wide variety of customers, we also offer plated wire with excellent workability, corrosion resistance, solderability, and conductivity.



Thin wire / Ultra-thin wire

We have wire drawing technology to create wire that is thinner than hair. It is possible to manufacture wire with a diameter of 16 microns (a thinness of one-quarter that of a normal hair). It is used for medical purposes such as catheter guide wire, as well as for various other applications including piano wire for saw wire to cut silicon wafer, and for springs used for contact probes.



Shaped wire

In order to meet the needs to reduce the size and improve the performance of industrial products, we develop and manufacture multi-shaped wire. This is available in more complex shapes such as flat wire for wipers and springs, and pentagonal and grooved (H-shaped) wire.



Special product (electrode wire for precision electrical discharge machining:SP wire)

The precision molds required to manufacture lead frames are produced by wire electrical discharge machining. An electrode wire is required with a diameter of 100 microns or less in addition to excellent electrical characteristics and high strength. The electrode wire "SP wire" is widely used for precision mold production. It has a high-strength, high-carbon steel wire (piano wire) as its core wire, with a brass layer formed on the surface layer. The product's wire diameter is 0.03 to 0.10 mm, and the excellent straightness is provided to enable it to be easily connected automatically.



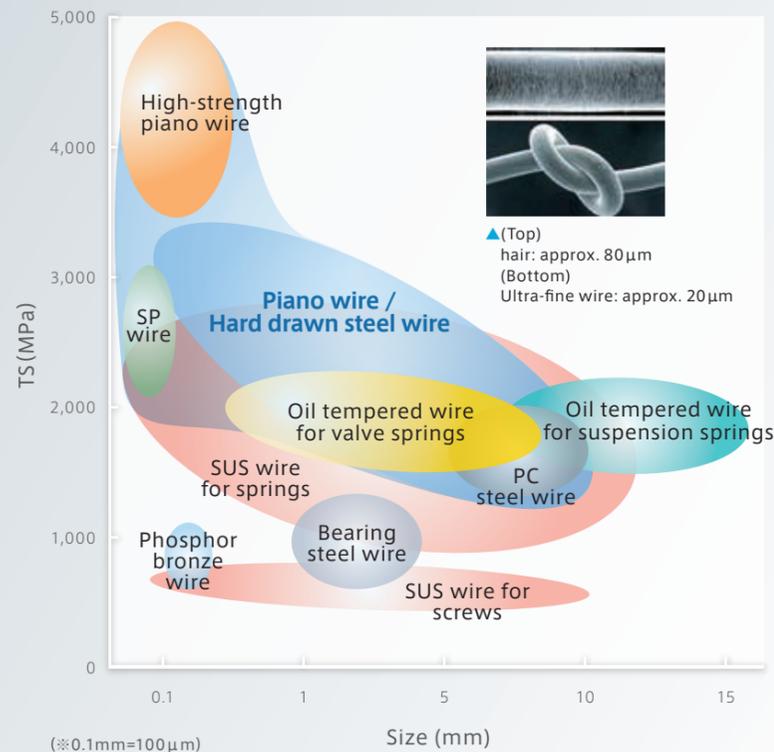
PC steel wire / PC steel strand

PC steel wire and PC steel strand are essential basic materials for the development of large infrastructure such as bridges, and in the field of civil construction and architecture. They are used as reinforcing wire for concrete structures and contribute to the prolongation of their life.



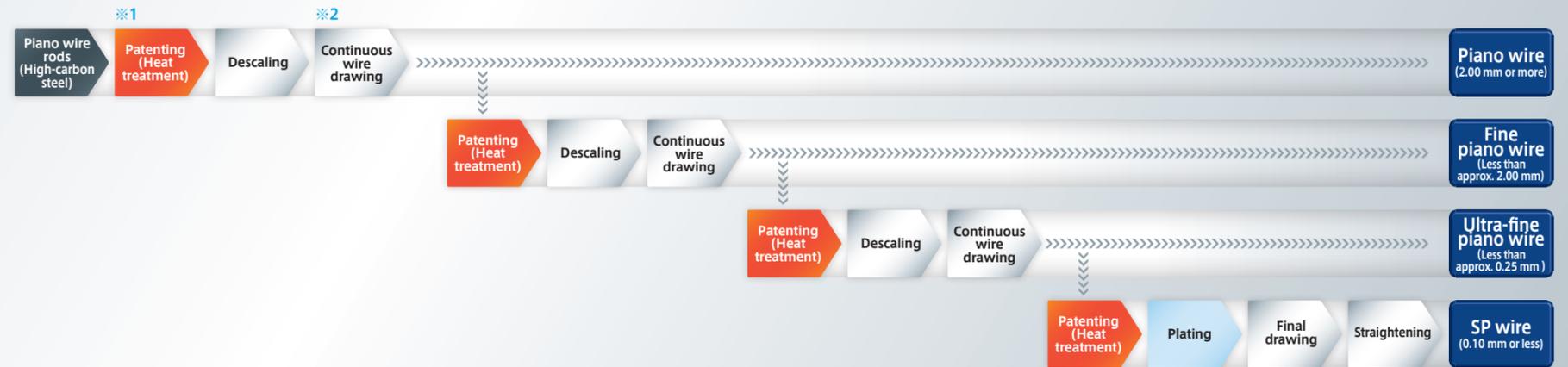


Nippon Steel SG Wire Group's special steel product lines



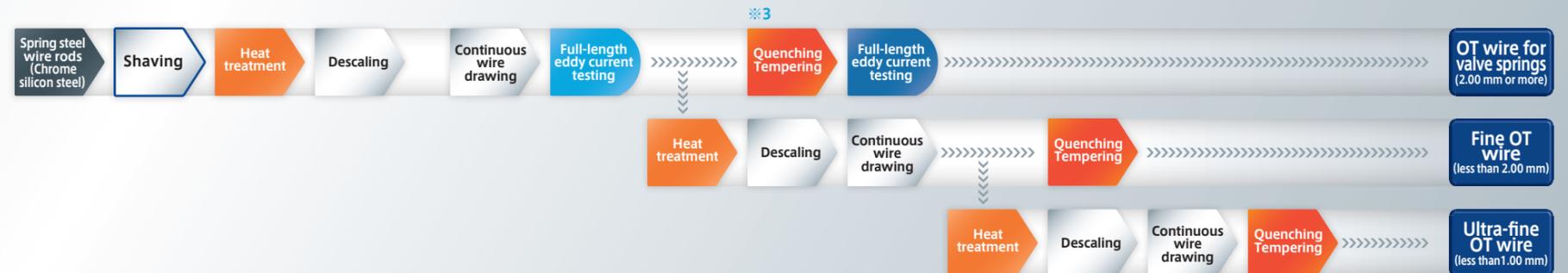
※The product types handled by each group are described in the inserted "COMPANY PROFILE." Please refer to "Major products" in the Global Network.

Manufacturing process of piano wire



* It is repeated several times to achieve a good balance of strength and finness.
 Note: The size range added to the wire diameter is a reference value and varies depending on the product type.

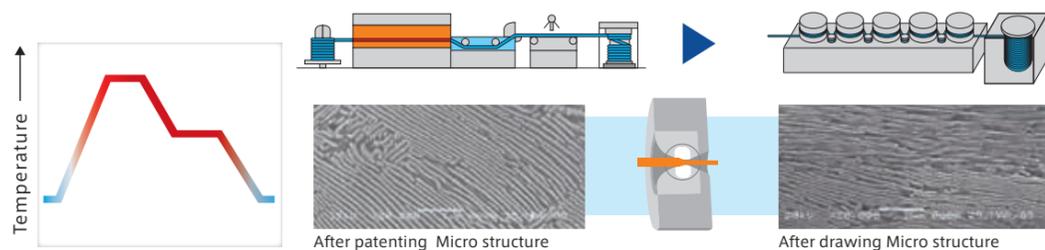
Manufacturing process of oil tempered wire



Note: The size range added to the wire diameter is a reference value and varies depending on the product type.

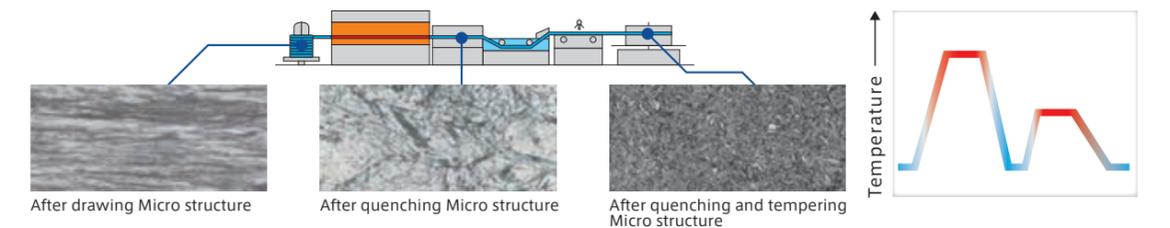
※1 Patenting ▶ ※2 Continuous wire drawing

Drawability is imparted to wire rods and steel wire.
 (adding control to a structure suitable for wire drawing processing and securing strength)



※3 Quenching and tempering

We impart strength and toughness to the steel wire at the same time in consideration of the performance (e.g., spring set, workability) of the spring as the final product. Although strength and toughness (ductility / tenacity) generally conflict, this is an important process that requires techniques and know-how in order to balance the two. It is called oil tempered wire after the process by which the steel wire is hardened with oil etc., prior to being tempered with heat.

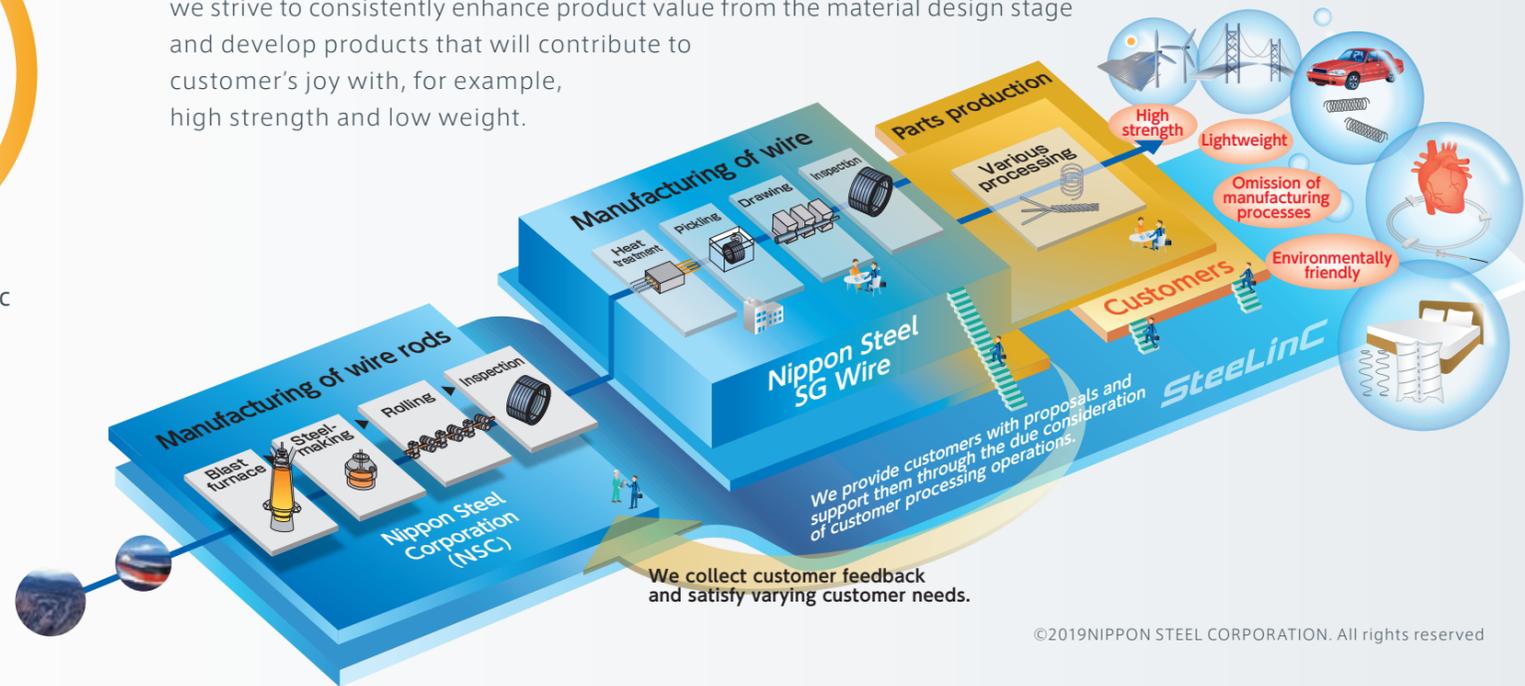




www.nipponsteel.com/steelinc

Steel materials
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Processing
methods maximizes
the steel's performance

Under the "SteelLinC®" business brand of Nippon Steel Corporation that supplies wire rods, we strive to consistently enhance product value from the material design stage and develop products that will contribute to customer's joy with, for example, high strength and low weight.



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Quality assurance system

In order to deliver high-quality products that customers feel safe to use, we acquire public certification such as JIS and ISO. We also promote quality assurance activities throughout the entire supply chain, from the procurement of raw materials, manufacturing, and shipping to distribution (sales).

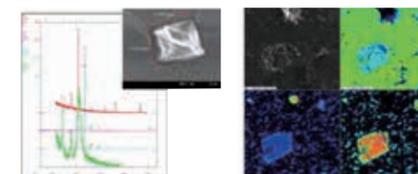
Acquired JIS standards	JIS G 3522	Piano wire
	JIS G 3521	Hard drawn steel wire
	JIS G 3536	PC steel wire / PC steel strand
ISO acquisition	ISO 9001	
	ISO 14001	(Narashino Area)



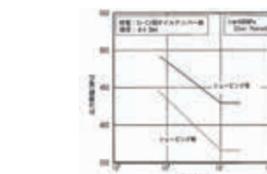
Research and development system

Our research and development is challenging the creation of distinctive products and technologies that bring out the maximum performance of steel materials, based on a wide range of technological capabilities that we have accumulated over the years as a comprehensive wire manufacturer.

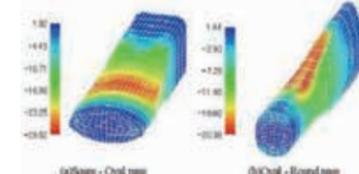
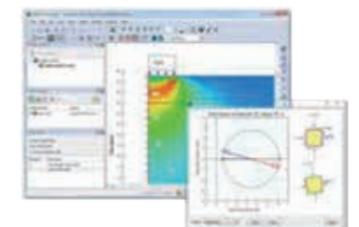
We aim to discover and pursue all possibilities in a wide range of fields at all stages from fundamental research to new product development as we continue to strive for unlimited progress by gathering new technologies and information at home and abroad and utilizing our full-fledged development system and the latest equipment.



Electron Probe Microanalyzer



Spring fatigue testing machine



CAE (computer-aided engineering) analysis

Global Network

Our group companies provide products required by customers around the world through our global network of Japan, the U.S., Europe, Asia, etc.
 From our Narashino mother plant, we will expand the operation technologies, know-how, quality management skills, and product development capabilities cultivated and honed by customers in Japan to each of the world's bases.



- JAPAN**
 - HOKKAIDO**
 - NIPPON STEEL SG WIRE CO., LTD. MURORAN PLANT
 - ★ NIPPON STEEL CORPORATION NORTH NIPPON WORKS MURORAN AREA
 - IWATE**
 - ★ NIPPON STEEL CORPORATION NORTH NIPPON WORKS KAMAISHI AREA
 - TOKYO**
 - NIPPON STEEL SG WIRE CO., LTD. HEAD OFFICE
 - CHIBA**
 - NIPPON STEEL SG WIRE CO., LTD. NARASHINO PLANT
 - SUZUKI-SUMIDEN STAINLESS STEEL WIRE CO., LTD. HEAD OFFICE, NARASHINO FACTORY
 - ICHIKAWA SEISEN CO., LTD.
 - WSSG PARTNERS CO., LTD.
 - SKK TECHNOLOGY CO., LTD. HEAD OFFICE
 - ★ NIPPON STEEL CORPORATION EAST NIPPON WORKS KIMITSU AREA
 - AICHI**
 - NIPPON STEEL SG WIRE CO., LTD. NAGOYA BRANCH
 - OSAKA**
 - NIPPON STEEL SG WIRE CO., LTD. OSAKA BRANCH
 - SKK TECHNOLOGY CO., LTD. KANSAI OFFICE
 - YAMAGUCHI**
 - WEST JAPAN STAINLESS STEEL WIRE CO., LTD.
 - ★ NIPPON STEEL STAINLESS STEEL CORPORATION HIKARI AREA YAMAGUCHI WORKS
 - CHINA**
 - SUZUKI GARPHYTTAN WIRE (SUZHOU) CO., LTD.
 - SUZUKI-SUMIDEN WIRE PRODUCTS GUANGZHOU CO., LTD.
 - THAILAND**
 - THAI SPECIAL WIRE CO., LTD.
 - U.K.**
 - SUZUKI GARPHYTTAN LTD.
 - GERMANY**
 - SUZUKI GARPHYTTAN GmbH
 - SWEDEN**
 - SUZUKI GARPHYTTAN AB
 - U.S.**
 - SUZUKI GARPHYTTAN CORP.
 - MEXICO**
 - SUZUKI GARPHYTTAN S.A. de C.V.
- Sales bases
 - Production bases
 - ★ Raw materials (wire rods) supply bases

DIVERSITY