# Steel wire guide

Suzuki Garphyttan

www.liljedals.com, 2024

## Explore our online wire guide

On our website you can find all the necessary information about our products. By selecting material, condition, property, steel grade, and product standard, you can filter out the product you need. It is possible to download product sheets and further explore product examples.

**For guidance on our offerings tailored to your needs, don't hesitate to reach out. Together we can make your applications stronger.**


**suzuki-garphyttan.com**

**Suzuki Garhyttan is trading Nippon Steel Group's** diverse lineup of plated wires, including tin, zinc, nickel, and silver variants for various applications, alongside specialized brass plated and SP wire series (Electrode wire for precision microelectric discharge processing). For more information, contact us.

Suzuki Garphyttan

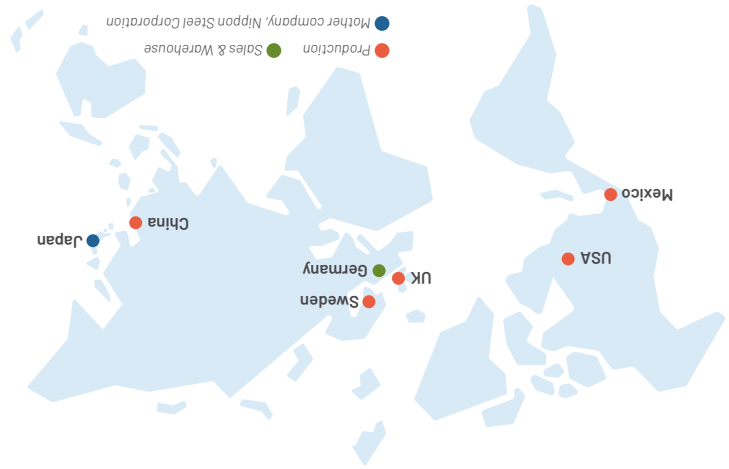
**www.suzuki-garphyttan.com**
**info@sg-wire.com**

# Bright is the new black

# We make it **stronger**

Suzuki Garphyttan is a world-leading supplier of advanced steel wire products for high-performance applications. Everything we do is based on sustainable production methods, innovative technology and more than 100 years of experience.

We have our roots in the small community of Garphyttan in Sweden, where it all started in 1906. Today we are a global player, conducting environmentally licensed manufacturing in Sweden, the United Kingdom, the United States, Mexico and China. We also have a sales manufacturing in Sweden, the United Kingdom, the United States, Mexico and China. We also have a sales office and warehouse in Düsseldorf, Germany.




**Discover our selection of wire types**, tailor-made for different industry applications.

- Springs
- Cutting & grinding
- Filters & screens
- Tools & equipment
- Construction parts
- Fixing & fastening

# We are your complete spring wire supplier

With decades of expertise in the automotive industry, we excel in producing world-leading spring wire that meets extreme requirements. Our expertise now expands to cover new clients and market segments. From large-scale contexts to the smallest details. From extreme conditions to the most refined applications.

We make it stronger. And humbly, we declare that the wire you need – we have it. Let's spring into action together.

# Spring time!

## Shared responsibility for sustainability

The shared ambition between us and our customers to take responsibility for people and the planet is crucial. Therefore, we aim to reduce $CO_2$ emissions by 50 percent by 2030. A goal we intend to achieve.

Proudly certified by ISO 14001, an international standard for environmental management systems, we integrate sustainable considerations into our entire business. Our customers can be confident that we are a partner contributing to their sustainability efforts.

**A highly requested variant of our wire is bright stainless.** The bright, fine surfaces of our wires not only improve corrosion resistance, but also facilitate easier cleaning, important factors for applications like medical equipment and conveyor systems in sanitary environments.

Curious about what we can do for you? Get in touch! Our Research & Development department is constantly on its toes and ready to take on new challenges.

# Discover our range
## – and your possibilities

Suzuki Garphyttan

**SHAPE**


Round


Flat

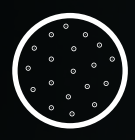

Trapezoidal


Shaped

**MATERIAL**


Stainless steel


Alloyed steel


Carbon steel

**CONDITION**


Annealed


Cold drawn

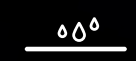

Cold rolled


Oil tempered


Quenched and tempered


Spheroidized

**PROPERTY**


Corrosion resistance

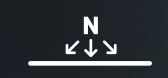

Heat resistance


High sag resistance


High tensile

Hydrogen resistance


Low magnetic



Nitridable


Very high fatigue

**SURFACE**


Soap coated


Bright


Black oxide

## Alloyed steel wire

Our product range of alloyed steel wire includes high-strength steel wire in shapes, as well as super clean steels for superior fatigue and relaxation properties in clutch/transmission and valve spring applications. Each line is engineered to meet specific industry demands with unmatched reliability and performance.

**Our range of alloyed steel wire**
- Size ranges from 0.30 mm to 15.00 mm depending on the product.
- Conditions and properties according to customer specification.

**GARBAFLEX CrSi70, CrSi75 and CrSi91** — EN 10270-2, EN 54SiCr6, EN 54SiCrV6 and ASTM A877 grade D

High strength CrSi steel for moderate temperatures and nitridable CrSiVMo steel for increased temperatures. Flat and shapes.

**70 KD and 75 KD** — EN 10270-2, EN TDSiCr, EN TDSiCrV

Especially intended for the manufacture of clutch and transmission springs and similar moderately high fatigue stressed springs.

**OTEVA® 70 SC, 70 SC PLUS, 75 SC and 75 SC PLUS** — EN 10270-2, EN VDSiCr EN VDSiCrV

OTEVA® 70 and 75 SC are Super Clean steels, intended for clutch/transmission springs with extremely high fatigue and relaxation properties. OTEVA® 70 and 75 SC PLUS are intended for manufacture of valve springs and other springs requiring extremely high fatigue and relaxation properties at increased working temperatures.

**OTEVA® 90 SC, 90 SC PLUS, 91 SC, 91 SC PLUS, 96 SC and 96 SC PLUS** — ASTM, A877, ASTM A877 grade C and D

OTEVA® 90 SC 91 SC and 96 SC are Super Clean nitridable steels intended for clutch/transmission springs with extremely high fatigue properties and relaxation properties at increased working temperatures. OTEVA® 90 SC PLUS, 91 SC PLUS and 96 SC PLUS are intended for valve springs and other springs requiring extremely high fatigue and relaxation properties at increased working temperatures.

**OTEVA® 101 SC** — EN 10270-2

OTEVA® 101 SC is a Super Clean nitridable steel, especially intended for clutch, transmission and other springs requiring high fatigue properties and good relaxation properties at increased working temperatures.

**STATO 70 and STATO 75** — EN 10270-2, EN FDSiCr, EN FDSiCrV

STATO 70 and STATO 75 are especially intended for the manufacture of springs exposed to static or moderately high fatigue stresses. The materials have good relaxation properties.

**SWOSC-V and SWOSC-VHV** — JIS G 3561

Super Clean steels, especially intended for valve springs and other springs requiring high fatigue properties and good relaxation properties at moderately increased working temperature.

## Stainless steel wire

Our stainless grades of steel wire are used in an infinite number of applications. We offer tensile strength, corrosion resistance, and surface treatment according to the customers' needs.

**Our range of stainless steel wire**
- Size ranges from 0.20 mm to 10.00 mm depending on the product.
- Soap coated or bright drawn (clean) surface finishes.
- Tensile strength and corrosion resistance according to customer specification.

**GARBA 177 PH** — EN 1.4568

Precipitation hardenable (PH) metastable austenitic stainless steel for medium cyclic fatigue and elevated temperature.

**GARBA 177 Premium** — EN 1.4568

Precipitation hardenable (PH) metastable austenitic stainless steel for high cyclic fatigue and elevated temperature, surface conditioned.

**GARBA 177 Supreme** — EN 1.4568

Remelted, Precipitation hardenable (PH) metastable austenitic stainless steel for very high cyclic fatigue resistance and elevated temperature, surface conditioned.

**GARBA 188** — EN 1.4310

Austenitic stainless steel for general purpose.

**GARBA 188L** — EN 1.4301

Austenitic stainless steel with good formability and better corrosion resistance (compared to 188).

**GARBA 178Mo** — EN 1.4310

Austenitic stainless steel with higher tensile strength (compared to 188).

**GARBA 1812Mo** — EN 1.4401

Austenitic stainless steel with better corrosion resistance.

**GARBA 2205** — EN 1.4462

Duplex (austenitic - ferritic) stainless steel for demanding applications in high corrosive atmosphere.

**GARBAFLEX 11R51** — EN 1.4310

Austenitic stainless steel with good formability, higher tensile and better corrosion resistance (compared to 188). Flat and shapes.

**GARBAFLEX 174Mn** — EN 1.4371

Austenitic stainless steel. Flat and shapes.

**GARBAFLEX 177 PH** — EN 1.4568

Precipitation hardenable (PH) metastable austenitic stainless steel for medium cyclic fatigue and elevated temperature. Flat and shapes.

**GARBAFLEX 188** — EN 1.4310

Austenitic stainless steel for general purpose. Flat and shapes.

**GARBAFLEX 188L** — EN 1.4301

Austenitic stainless steel with good formability and better corrosion resistance (compared to 188). Flat and shapes.

## Carbon steel wire

Our carbon steel range includes wire for high ductility, wire with high tensile strength and cold drawn piano wires for dynamic and static loads or stresses. In addition, we deliver various other low, medium, and high carbon wires according to customer specification.

**Our range of carbon steel wire**
- Size ranges from 0.30 mm to 13.00 mm depending on the product.
- Conditions and properties according to customer specification.

**GARBAFLEX 75** — EN 10270-1 / EN 10270-2

Carbon steel with high ductility. Suitable for small radius edge forming. Flat and Shapes.

**GARBAFLEX 85** — EN 10270-1

High tensile carbon steel. Flat and shapes.

**Cold drawn DM/DH** — EN 10270-1 DM/DH

Piano wire for applications with medium to high dynamic stress.

**Cold drawn SM/SH** — EN 10270-1 SM/SH

Piano wire for applications with medium to high static loads.

**Cold drawn SL** — EN 10270-1 SL

For applications with low static stress.

**Low carbon** — EN ISO 16120

For applications with moderate requirements in fatigue and wear resistance.

**Medium carbon** — EN ISO 16120

For applications with moderate to high requirements in fatigue and wear resistance.

**High carbon** — EN ISO 16120

For applications with high requirements in fatigue and wear resistance.

*Further details and complete technical data sheets to be found on our website.*

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