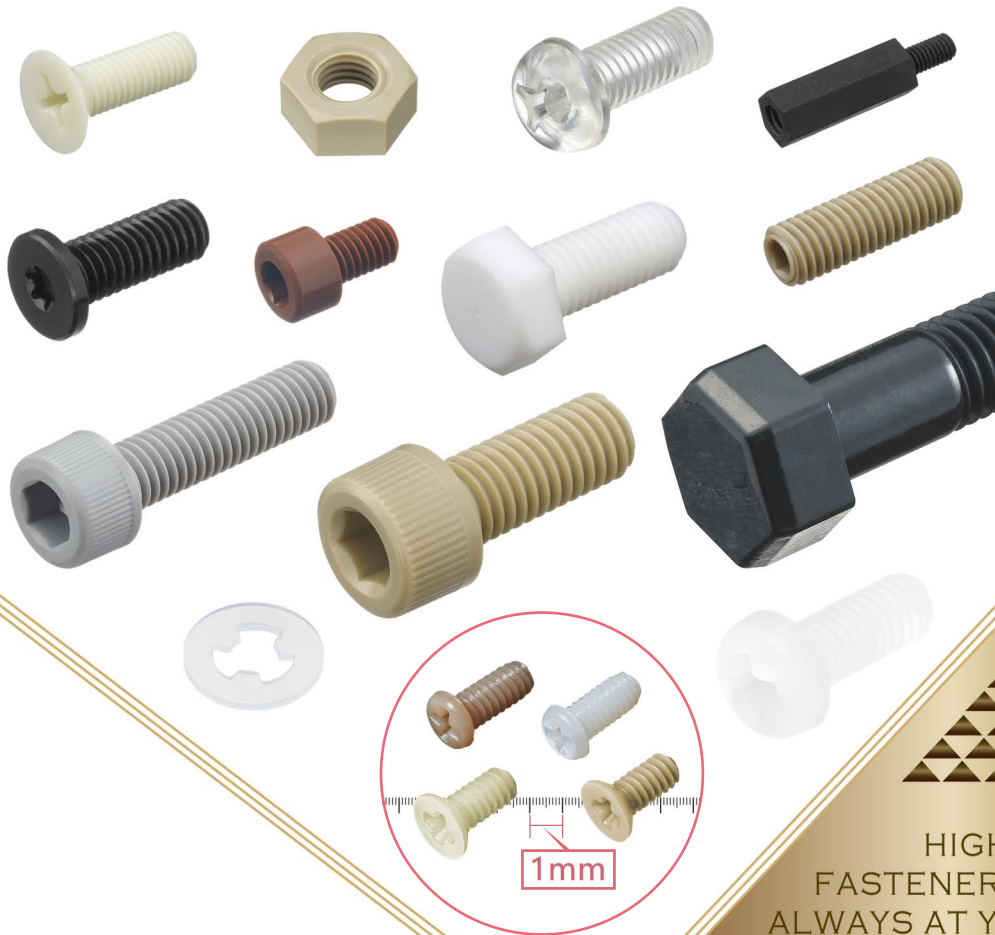




**松山商事株式会社**  
**MATSUYAMACORPORATION**



HIGH-END  
FASTENER EXPERTES,  
ALWAYS AT YOUR SERVICE.

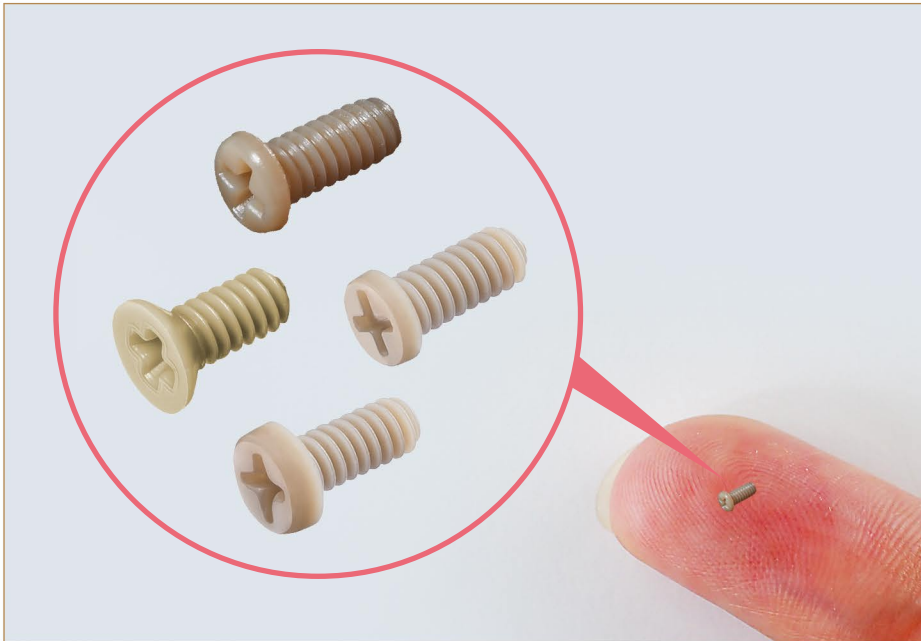
## High-End Plastic Fasteners

High-quality plastic fasteners, including globally recognized CHEMIS products  
Manufactured with advanced technology and precision equipment  
Over 3,000 types available, many in stock for fast shipping  
Custom orders for non-standard products available

## High-End Metal Fasteners

A wide range of metal fasteners, from Japanese to premium international brands  
Designed for strength, corrosion resistance, and secure fastening  
Includes spring pins, retaining rings, thread inserts, and specialized studs/nuts  
Available in premium alloys like stainless steel, titanium, and copper





### PEEK micro plastic screws

CHEMIS PEEK (Polyether ether ketone) is a high-performance, semicrystalline super engineering plastic. It is resistant to most chemicals, with concentrated sulfuric acid being the only exception. PEEK offers excellent heat, abrasion, flame, and hydrolysis resistance, making it suitable for applications in OA equipment, automobiles, IC wafer carriers, and LCD manufacturing jigs. Continuous use temperature: 260°C (500°F); Flammability: UL94 V-0. Made with RoHS2 compliant materials.

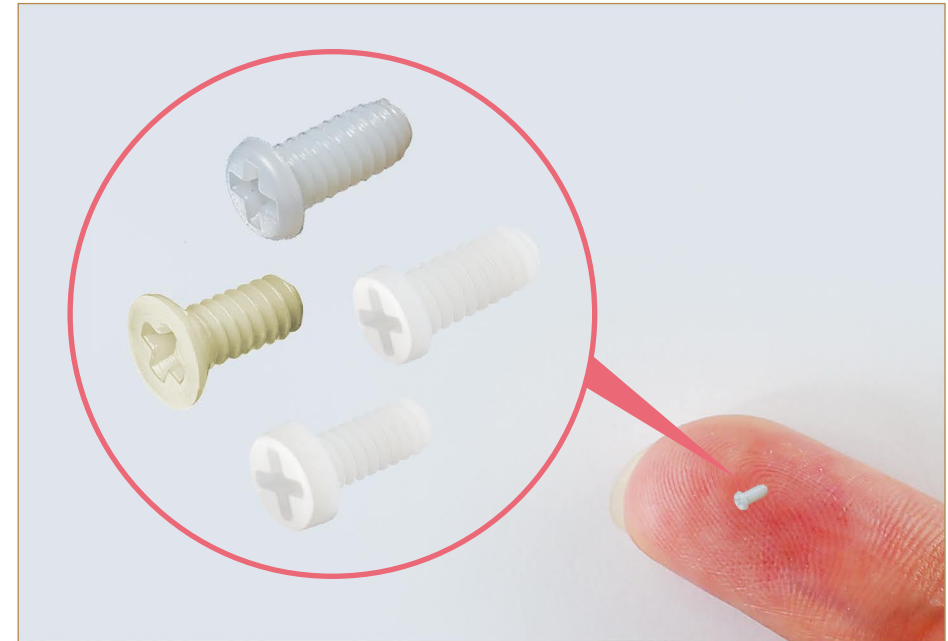
Micro cross recessed pan head screw : PEEK/MPH M1.2 M1.4 M1.6

Micro cross recessed flat head screw : PEEK/MFH M1.2 M1.4 M1.6

CHEMIS Micro Screw Type1 : PEEK/SMCH M1.2 M1.4 M1.6

CHEMIS Micro Screw Type3 : PEEK/SMCH M1.2 M1.4 M1.6

Micro cross recessed pan head screw (30% glass fiber) : PEEK-GF30/MPH M1.2 M1.4 M1.6



### RENY micro plastic screws

RENY is a crystalline engineering plastic reinforced with 50% glass fiber and based on polyamide MXD6. It offers the highest strength and elasticity among plastics. With excellent oil and heat resistance, RENY is widely used in automotive parts, general and precision machinery, electrical components, and as a metal substitute in construction. Continuous use temperature: 105°C (221°F); Flammability: UL94 V-HB. Made with RoHS2 compliant materials.

Micro cross recessed pan head screw: RENY/MPH M1.2 M1.4 M1.6

Micro cross recessed flat head screw: RENY/MFH M1.2 M1.4 M1.6

CHEMIS Micro Screw Type1: RENY/SMCH M1.2 M1.4 M1.6

CHEMIS Micro Screw Type3: RENY/SMCH M1.2 M1.4 M1.6

**Custom Orders Available**



## PFA fasteners

PFA is a thermoplastic fluoro resin with excellent chemical resistance and stability, ideal for semiconductor applications.

Continuous use temperature: 260°C (500°F);  
Flammability: UL94 V-0.

Made with RoHS2 compliant materials.

Hexagon socket head cap screw: M4~M8

Socket hexagon head bolt: M4~M8

Slotted cylinder head screw: M4~M8

Hexagon nut: M4~M8



## PVDF fasteners

Polyvinylidene fluoride is a balanced engineering plastic with excellent chemical and weather resistance.

Continuous use temperature: 150°C (302°F);  
Flammability: UL94 V-0 Equivalent.

Made with RoHS2 compliant materials.

Cross recessed pan head screw: M3~M5

Cross recessed flat head screw: M3~M5

Hexagon head bolt: M4~M12

Hexagon socket head cap screw: M3~M12

Hexagon nut: M3~M12

Hexagon nut: M3~M12



## PTFE fasteners

Polyvinylidene fluoride is a versatile engineering plastic with excellent chemical, weather resistance, and moldability.

Continuous use temperature: 150°C (302°F);  
Flammability: UL94 V-0 Equivalent.

Made with RoHS2 compliant materials.

Hexagon head bolt: M3~M12

Hexagon nut: M3~M12

Two width nut: M3~M12

Washer: M3~M12



## PVC fasteners

PVC is excellent resistance to water, acids, alkalis, and solvents, making it suitable for use in water distribution pipes.

Continuous use temperature: 60°C (140°F).  
Made with RoHS2 compliant materials.

Hexagon head bolt: M4~M16

Hexagon socket head cap screw: M3~M8

Hexagon nut: M3~M12

Washer: M3~M12

**Custom Orders Available**





## PEEK fasteners

CHEMIS PEEK (Polyether ether ketone) is a high-performance semicrystalline plastic with excellent resistance to heat, abrasion, flame, and chemicals (except concentrated sulfuric acid).

Ideal for applications in OA equipment, automobiles, IC wafer carriers, and LCD manufacturing jigs.

Continuous use temperature: 260°C (500°F);

Flammability: UL94 V-0.

Made with RoHS2 compliant materials.

Cross recessed pan head screw: M1.7~M8

Cross recessed flat head screw: M2~M8

Hexagon head bolt: M4~M12

Slotted hexagon head bolt: M4~M8

Hexagon socket head cap screw: M3~M12

Hexagon nut: M2~M12

Washer: M2~M12

Hexagon socket set screw: M3~M8

Spacer nut: M3~M8

Taper plug: 1/8~3/8(inch)

Hexagon socket low head cap screw: M3~M6

Hexalobular socket low head cap screw: M3~M6

Hexalobular socket special low head cap screw: M3~M6

Cross recessed pan head screw (Glass fiber 30%): M2~M4

Cross recessed flat head screw (Glass fiber 30%): M2~M4

Hexagon socket head cap screw (Glass fiber 30%): M3~M5

Hexagon nut (Glass fiber 30%): M2~M5

Washer (Glass fiber 30%): M4, M5

Bolt cap, T type: M4, M5

Slotted plastic knurled screw: M3, M4



## PI fasteners

Polyimide is excellent heat, abrasion, and wear resistance, with low outgassing in high vacuum and exceptional chemical resistance.

Ideal for high-pressure, high-speed applications, with outstanding dimensional stability and low electrical conductivity.

Continuous use temperature: 300°C (572°F);

Flammability: UL94 V-0.

Made with RoHS2 compliant materials.

Hexagon socket head cap screw: M3~M8

Hexagon nut: M3~M8

Washer: M3~M8

**Custom Orders Available**

< Inch >

Cross recessed pan head screw: 2-56 ~ 1/4-20

Slotted pan head screw: 4-40 ~ 10-32

Slotted flat head screw: 4-40 ~ 10-32

Hexagon socket head cap screw: 2-56 ~ 3/8-16

Hexagon nut: 4-40 ~ 8-32

Hexagon head bolt: 1/4-20 ~ 3/8-16

Cross recessed pan head screw (GF30%): 1/4-20 ~ 3/8-16

Hexagon socket head cap screw (GF30%): 2-56 ~ 1/4-20



## RENY fasteners

RENY is a crystalline engineering plastic reinforced with 50% glass fiber, offering exceptional strength and elasticity. With excellent oil and heat resistance, it is used in automotive, machinery, electronics, and construction applications as a metal replacement.

Continuous use temperature: 105°C (221°F);  
Flammability: UL94 V-HB.  
Made with RoHS2-compliant materials.

Cross recessed pan head screw: M1.7~M8  
Cross recessed flat head screw: M2~M8  
Hexagon head bolt: M4~M16  
Hexagon socket head cap screw: M3~M12  
Hexagon nut: M2~M16  
Washer: M3~M16  
Tapping screw: M3, M4  
Stud bolt (L300): M6~M16, W3/8  
Plastic joint: M3, M4  
Hexagon socket low head cap screw: M3~M6  
Hexalobular socket low head cap screw: M3~M6  
Hexalobular socket special low head cap screw: M3~M6  
< inch >  
Cross recessed pan head screw: 2-56 ~ 1/4-20



## PPS fasteners

PPS (polyphenylene sulfide) is a crystalline super engineering plastic with exceptional thermal resistance and stability under high temperatures.

Continuous use temperature: 200°C (392°F);  
Flammability: UL94 V-0.  
Made with RoHS2 compliant materials.

Cross recessed pan head screw: M2~M8  
Cross recessed flat head screw: M2~M6  
Hexagon head bolt: M4~M12  
Hexagon socket head cap screw: M3~M12  
Hexagon nut: M2~M12  
Washer: M3~M12  
Hexagon socket low head cap screw: M3~M6  
Hexalobular socket low head cap screw: M3~M6  
Hexalobular socket special low head cap screw: M3~M6



## KYOUJIN fasteners

KYOUJIN is an engineering plastic made of PA66 reinforced with 60% glass fiber, offering exceptional strength and performance.

Continuous use temperature: 65°C (149°F);  
Flammability: UL94 V-HB;  
Tensile strength: 17,492N (M12).  
Made with RoHS2 compliant materials.

Hexagon head bolt: M10, M12 (L: 30~120)  
Hexagon nut: M10, M12  
Washer: M10, M12

**Custom Orders Available**



## PA fasteners

Strong and abrasion-resistant with low friction and self-extinguishing properties, ideal for machinery applications. Good oil and chemical resistance, but high moisture absorption requires design consideration. Continuous use temperature: PA6 = 65°C (149°F), PA66 = 75°C (167°F), PA12 = 106°C (222°F). RoHS2-compliant.

PA Washer: M1~M16

PA Washer (Black): M3, M4, M5

PA Anti loss washer for screw: M3~M8

PA Anti loss washer for tapping screw: M3~M5

PA Rosette washer: M3~M6

PA Anti loss rosette washer : M5

PA6 Hit rivet:  $\phi 7$

PA66 Lock nut: M3, M4

PA66 Bushing:  $\phi 4 \sim \phi 6$

PA46 Hit rivet:  $\phi 3$ ,  $\phi 4$

PA46 Push rivet:  $\phi 2.6 \sim \phi 4$

Petal Washer: M3~M8



## PP fasteners

Lightweight and versatile with excellent chemical resistance, hydrolysis resistance, and electrical properties. Frequently used as a PVC substitute in various applications. Continuous use temperature: 65°C (149°F); Flammability: UL94 HB. RoHS2-compliant.

Hexagon head bolt: M4~M12

Hexagon nut: M4~M12

Washer: M4~M12

Hit rivet:  $\phi 3$ ,  $\phi 4$

Hit rivet (PC+PP) :  $\phi 4$



## PC fasteners

High impact resistance, transparency, and self-extinguishing. Continuous use: 115°C (239°F); Flammability: UL94 V-2. RoHS2-compliant.

Cross recessed pan head screw: M1.7~M8

Cross recessed flat head screw: M2~M8

Cross recessed oval head screw: M3, M4

Hexagon head bolt: M4~M12

Hexagon socket head cap screw: M3~M8

Hexagon nut: M2~M16, W3/8

Washer: M2~M12

Anti loss washer for screw: M3~M6

Slotted set screw: M3, M4, M6

Hexagon socket set screw: M3, M4

Slotted plastic knurled screw: M3, M4

Plastic knurled screw: M3, M4

Stud bolt (L300 or L1000): M6~M12, W3/8



## POM fasteners

Low friction, excellent fatigue and wear resistance, ideal for replacing metals in machinery and automotive parts. Continuous use temperature: 95°C (203°F); Flammability: UL94 HB. RoHS2-compliant.

Wing bolt: M5, M6, M8

Wing nut: M4~M8

Wing nut: M3~M10

Spacer:  $\phi 2 \sim \phi 5$

Spacer nut: M3

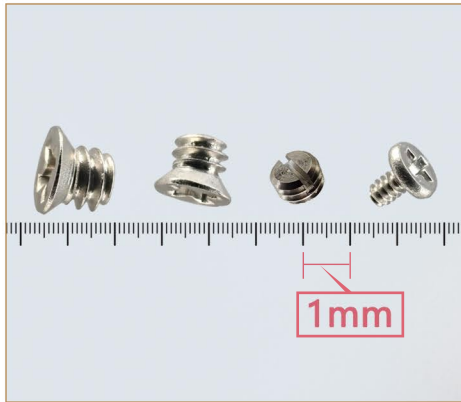
Plastic joint: M3

Pushing:  $\phi 2.6 \sim \phi 5$

C type retainingring:  $\phi 3 \sim \phi 6$

**Custom Orders Available**



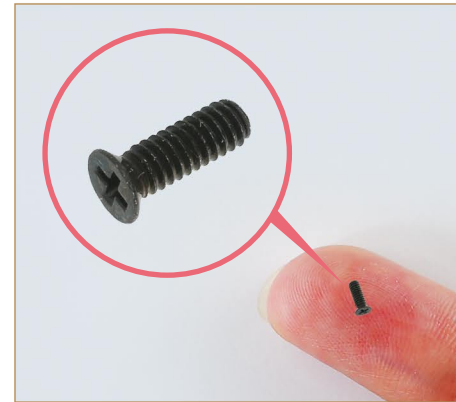


### Customized Micro screws

M0.4~

Material: Alloy Steel, Stainless Steel,  
Copper Alloy, Others

- Select manufacturing processes and locations based on requirements.
- Provide VE recommendations for optimized products.
- Support various surface treatment options.

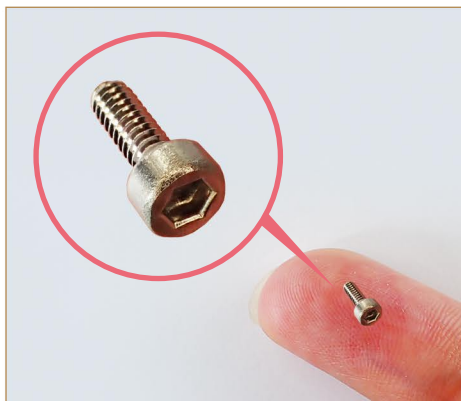


### Micro Low Flat Head, No. 0

M1.4~

Material: Steel, SUS304, Brass, Phosphor Bronze  
Surface Treatment: Blackening, Trivalent, Others

No. 0 screws have a much smaller head compared to standard screws and are commonly used in precision equipment.



### Micro Hex Socket Head Cap Screws

M1.4~

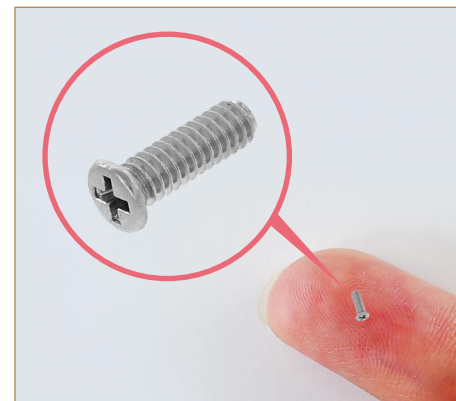
**Alloy Steel**

Strength Grade: 8.8, 10.9, 12.9

Surface treatment: Blackening, Others

**Stainless Steel**

Strength Grade: A2-70 and the like  
Hexagonal holes are precisely tolerated;  
some manufacturers enlarge them to  
reduce slipperiness.

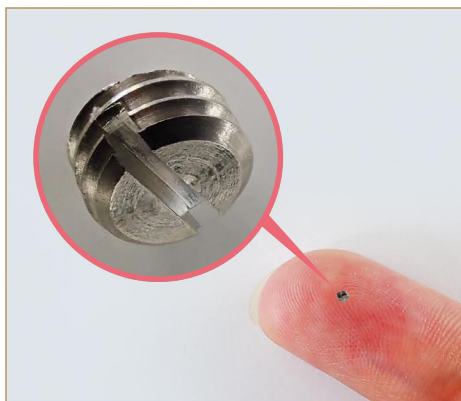


### Micro Screws Pan Head, No. 0

M1~

Material: Steel, SUS304, Brass, Phosphor Bronze  
Surface treatment: Blackening, Trivalent, Others

No. 0 screws have a much smaller head compared to standard screws and are commonly used in precision equipment.



### Micro Slotted Set Screws

M1~

Materials: Free-Cutting Steel, Stainless Steel,  
Brass, Phosphor Bronze, Nickel Silver

Surface treatment: Blackening, Trivalent, Others

As with NC lathes, since the threads are machined, chipping at the thread crest is minimal.



### Micro Nut

M1~

Material: SUS304, SUS316

Specification: DIN, GB, American, Others

Utilize exclusive technology to produce various types of nuts in small sizes, nylon ring lock nuts. Widely used in communications, medical, aerospace and other fields.



## Grade 14.9 Hexagon Socket Head Cap Screws

Developed by Kyokuto Seisakusho Co., Ltd. (KKT), these screws offer the world's highest strength for hexagon socket head cap screws.

Tensile Strength: 1,400 MPa

Guaranteed Load Stress: 1,120 MPa

Elongation: 9%, comparable to Grade 10.9

Resistance to Delayed Fracture: KNDS4 steel from Kobelco, Japan, ensures high durability.

Fatigue Strength: Enhanced by aerospace-grade MJ threads for superior performance.

High-Temperature Resistance: Retains 83% of its tensile strength at 400°C.

Thread Standard: ISO 5855-1 MJ Threads (aerospace standard)

Thread Precision: ISO 5955-1, 4g6g

Surface Treatment: Blackening, Delta-protected (resists over 1,000 hours of salt spray)

Sizes: M3 - M16



## Grade 10.9 Hexagon Socket Screws

Tensile Strength: 1,000 MPa

Guaranteed Load Stress: 970 MPa

Hardness: HRC 32 – 39

Material: Alloy Steel

Surface Treatment: Blackened

(other treatments available upon request)

Head Cap: M1.4 -

Button Head: M3 - M16

Flange Head: M3 - M12

Flange Button Head: M3 - M10

Countersunk Head: M3 - M20



## Grade 12.9 Hexagon Socket Screws

Tensile Strength: 1,200 MPa

Guaranteed Load Stress: 970 MPa

Hardness: HRC 39 – 44

Material: Alloy Steel

Surface Treatment: Blackened

(other treatments available upon request)

Head Cap: M1.4 -

Button Head: M3 - M16

Flange Head: M3 - M12



## A2-100 Hexagon Socket Screws

Tensile Strength: 1,000 MPa

Guaranteed Load Stress: 800 MPa

Material: SUS304CUN

Stress Corrosion Cracking Resistance:

Equivalent to SUS316

Heat Resistance: 500°C

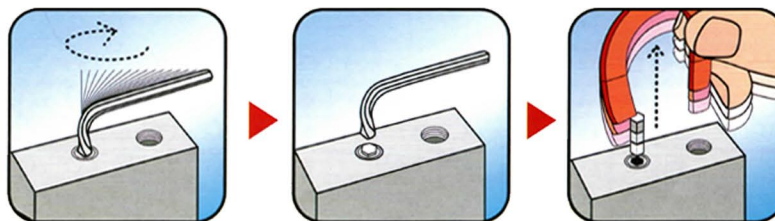
Magnetic Permeability: 1.01–1.03,

Equivalent to SUS316

Applicable Sizes: M3 – M16



Due to its high precision, hardness, and toughness, the hexagonal hole does not deform or crack even when tightened until the hex wrench breaks. When a magnet is brought close to the hexagonal hole, the broken wrench is attracted to the magnet and can be pulled out of the hexagonal hole.



## High Hardness Hexagon Socket Set Screws

The world's strongest set screws by Nagai Seimitsu.

Material: SNCM240

Hardness: HRC50-53 (Standard: HRC 45-50)

Oil-free and residue-free, keeping the holes clean and your hands spotless. 100% inspection ensures exceptional quality and reliability.

Cup point / Flat point: M1.6 or more

Cone point / W-point: M2 or more

Knurled point: M3 or more



## Hexagon Socket Set Screws

Material: Alloy steel

Strength class: 45H

Hardness: HRC45-50

Screw: JIS 6g

Surface treatment: black oxide coating

Flat point / Cup point / Round point /

Cone point / Dog point: M1.4 or more

W-point: M2 or more



## SUS Hexagon Socket Set Screws

Material: SUS304

Hardness:  $\geq 220\text{HV}$

<SUS304>

Flat Point / Cup Point / Round Point /

Cone Point / Dog Point: M1.4 -

<SUS316L>

Flat Point / Cup Point: M3 or more

Cone Point: M4 or more

Dog Point: M8 or more



## Hexagon Socket Tapered Pipe Plugs

Material: Alloy Steel (Black Oxide Coating)

Hardness: 32-42HRC

$\mu$  Plug GPM Type: 1/32-40, 1/24-32

GM Type: 1/16-28 or more

GJ Type: 1/8-28 or more

GDL Type: 1/16-27 or more

GD Type: 1/16-27 or more



## Orifice plugs / Orifice Sets

<Orifice Plug>

Supported Specifications: 1/32 or more

Hole Diameter: 0.4mm or more

Material: Carbon Steel, Alloy Steel

Surface Treatment: Colored Zinc Coating

<Orifice Set>

Supported Specifications: M3 or more

Hole Diameter: 0.4mm or more

Material: Alloy Steel

Surface Treatment: Colored Zinc Coating





## SUS316L Fasteners

SUS316L is a corrosion-resistant stainless steel alloy, enhanced with molybdenum (Mo) for improved pitting resistance, oxidation resistance, and intergranular corrosion resistance. Its high molybdenum content ensures excellent strength even at elevated temperatures.

Strength Grade: A4-70, A4-50

Tensile Strength: 700 MPa, 500 MPa

Permeability: 1.01 - 1.03  $\mu$

Hexagon Socket Head Screw: M1.6 - M8

Hexagon Socket Button Head Screw: M3 - M12

Hexagon Socket Countersunk Head Screw: M2 - M16

Cross Recessed Countersunk Head Screw: M2 - M10

Cross Recessed Pan Head Screw: M2 - M8



## Titanium Fasteners

Titanium has a specific gravity of 4.5, about 50% of copper and 60% of steel. It is three times stronger than aluminum and twice as strong as steel, offering excellent corrosion resistance against seawater, nitric acid, aqua regia, and many chemicals. Titanium is non-magnetic, with a permeability of 1.00005 $\mu$ , and has low thermal conductivity and expansion. Pure titanium is also the most biocompatible metal, making it ideal for medical applications.

Pure Titanium

Hexagon Socket Head Screw (800 MPa): M3 - M8

Titanium Alloy

Hexagon Socket Head Screw (1,000 MPa): M8 - M16

Pan Head Screw (800 MPa): M1 -

Countersunk Head Screw (800 MPa): M2 - M5

Hexagon Socket Button Head Screw (800 MPa): M3 - M8



## Copper Alloy Fasteners

Brass is an alloy of copper and zinc (containing more than 20% zinc), with C2700 being a representative grade. It is commonly used for small screws, bolts, and hexagon socket screws. Renowned for its excellent electrical conductivity, brass is ideal for use in electrical devices and current-carrying components. Its non-magnetic properties also make it well-suited for medical and testing instruments.

Magnetic Permeability: Approx. 1.002  $\mu$

Tensile Strength:  $\geq 370$  - 440 MPa

Hexagon Socket Head Screw: M3 - M8

Cross Recessed Countersunk Head Screw: M2 - M12

Slotted Flat Head Screw: M3 - M16

Cross Recessed Pan Head Screw: M2 - M10

Slotted Pan Head Screw / Flat Head Screw: M2 - M8

Hexagon Head Bolt: M3 - M24

Hexagon Nut: M1.2 - M30



## Anti-Loosening Fasteners

### Locknuts for Bearings (M10~M100)

Steel Friction Ring: 270° ring

Material: SS400, S45C, SUS304

### Precision Locknuts with Prevailing Torque Type

Steel Friction Ring: 270° ring

Material: Nut Body - S45C / Friction Ring & Spacer - SUS301

### Metal Ring Locknuts : U / GU / SU / BLU / With washer / CLIP-NUT (M3~)

Material: SS400, S45C, SUS304, SCM435, Titanium Alloy, SUS316L, Brass, Others

### Nylon Insert Locknuts (M2~)

Material: SUS304, SUS316

### Nylon Insert Locknuts with flange (M2~)

Material: SUS304, SUS316

### Conical Washers

Material: Structural Carbon Steel      Hardness: 40-50HRC



## Other Fasteners

### Slotted Spring Pins

Toothed (General Use), Toothed (Light Duty Use), Straight (General Use)

Material: Stainless Steel, Spring Steel

Wide Variety of Standard Stock Items, Custom Orders Available

### Split Pins

Materials Available: Stainless Steel

Wide Variety of Standard Stock Items

### Retaining Rings

Materials Available: Stainless Steel

Wide Variety of Standard Stock Items

### Wire Threaded Inserts for Metric and Imperial Threads

Material: Stainless Steel, Phosphor Bronze

Wide Variety of Standard Stock Items

### Pressure Riveting Studs & Nuts

### Welding Studs & Nuts