

NITTOSEIKO

Fastening Products
Digest Catalog

Screw Manufacturer

gives you seeds
for evolution



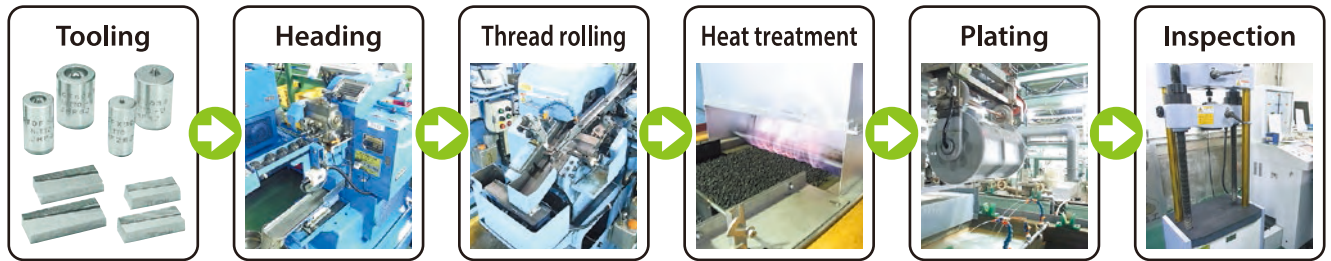
Screwdriver Manufacturer

gives you hints
for innovation



Expert of Screw manufacturer

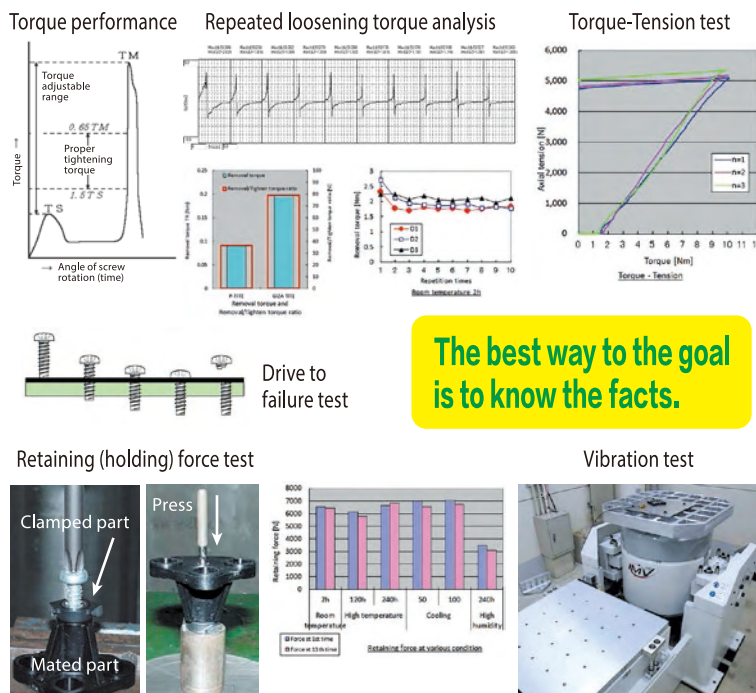
Start-to-finish production from tooling, manufacturing equipment to inspection



NITTOSEIKO expands their brand globally with providing tooling, manufacturing and inspection systems to offshore subsidiaries.



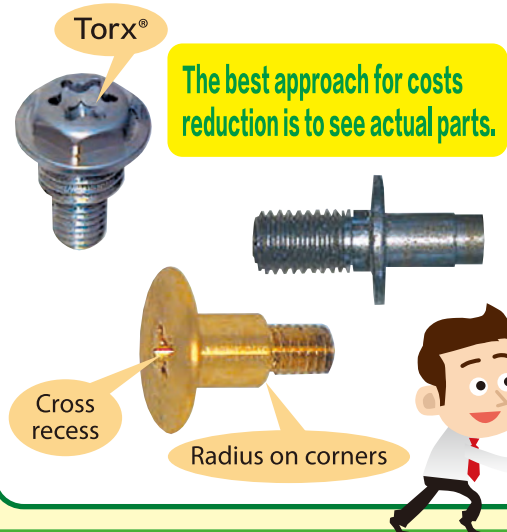
NITTOSEIKO provides the best condition for fastening



The best way to the goal is to know the facts.

NITTOSEIKO provides solution with showing actual parts

PROTOPRO® - Quick trial production - Professionals of cold heading realizes customer's image instantly. Protopro system's advantage is to supply trial products at totally same condition as cold-headed parts. Protopro can shape drive recesses like Torx® and Cross recess and radius at corners which can't be done by ordinary machining.



Totally Support Fastening

NITTOSEIKO is a unique company who supplies,

- Industrial Fasteners (Screws)
- Automatic assembly systems, Automatic screw driving machines
- Measurement and Inspection equipment

NITTOSEIKO provides not only the best condition for fastening, but also optimized operation process which is beyond customer's expectation with integrating technologies and experiences stored at all through the group.

- Production work saving technology
- Fastening system technology







Customers

Total Support

- Measurement and control technology
- Ground survey technology

- Cold heading, Thread rolling technology
- Fastening technology

Screws for Metal Fastening

Character			High axial tension	High torque tightening	For sheet metal	For Aluminum alloy	For Magnesium alloy	Self-Locking screws
Name			TAPTITE 2000®	RSTITE®	LAMITITE®	ALUMITITE®	MAGTITE®	APSLOK®
Appearance of products								
Major applications			Automobile parts, Home appliances	Copying machines, Printers, Air conditioners	Washing machines, Refrigerators, Microwaves, etc.	Automobile parts, Laptops, Electric mobile devices	Laptops, Cameras, Cellular phones	OA equipment, Cameras, Home appliances
Recommended function	Self-tapping		Applicable	Applicable	Dedicated	Applicable	Dedicated	—
	Thread stripping prevention		◎	◎	◎	○	○	—
	Loosening prevention	Normal conditions	◎	○	○	◎	○	◎
		Under vibration	◎	○	△	◎	○	◎
Features			·Rounded frank surface (Radius Profile™) reduces thread forming torque	·Provides low thread forming torque and high maximum tightening torque	·Available in sheet metal fastening with >0.35mm of thickness and prevents thread stripping	·Prevents un-seating of screw head due to sticking at fastening on aluminum and other soft metal.	·Prevents un-seating of screw head due to sticking at fastening on Magnesium alloy ·Reduces metal dusts falling	·Anti-Loosening Power by sticking of thread to flank face of internal thread.
Specifications, etc.	Shank cross-sectional shapes		Trilobular	Tip : Trilobular Body : Circular	Tip : Trilobular Body : Circular	Trilobular	Trilobular	Trilobular
	Suitable mating materials		Metal, Soft metal	Metal plates	Sheet metal t=0.35~0.8mm	Aluminum alloy (soft metal)	Magnesium Alloy	Metal, Soft metal
	Suggested hole for screw driving		Pressed, Burring, Drilled, Casted	Pressed, Burring, Drilled	Pressed, Pierced, Burring, Drilled	Drilled, Casted	Drilled, Casted	Tapped threads
	Supported size in dia.※(mm)		1.7~8	3 , 4	3 , 4 , 5	1.4~5	1.4~5	1.4~6

Special Cold-Forget Parts

Supports a big amount of cost reduction by switching from machined parts.



Assembly parts

Advanced screws with additional functions



Metallic bonding technology with dissimilar metals

NITTOSEIKO achieved strong metallic bonding with multiple metals such as Steel, Stainless Steel, Aluminum, Copper etc.



Grooved Pins

Supports tighter assembly with 3 v-shaped grooves.



Coiled Pins

Spiral spring pin with high elastic.



Rivet (metal)

For faster and reliable assembly.









Rivet (resin)








Lightweight and colorable. Also good for decorating.









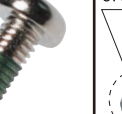
Screws for Plastic Fastening

Character		High loose-proof effect	For Carbon fiber reinforced plastics	For Super engineering plastic	Higher retaining force	For thin plastic plates	For Flexible plastic
Name		GIZATITE®	CF-TITE™	EPTITE®	M-TITE® (PPS/PPC)	PS-TITE-II	PC SCREW
Appearance of products							
Major applications		Automobile Sliding roofs, Inlet systems, Interior parts, Cellular phones, Heat sources	Flame of New Generation of Vehicles, Antenna	Electromagnetic valves, Automobile inlet & fuel systems, Circuit breakers	Power tools, Vibrating bodies, Automobile inlet systems	Laptops, Electric mobile device	Washing machines, Automobile interior parts
Recommended function	Self-tapping		Dedicated	Dedicated	Dedicated	Dedicated	Dedicated
	Thread stripping prevention		○	○	○	○	○
	Loosening prevention	Normal conditions	○	○	○	○	○
		Under vibration	○	○	○	○	Single thread : ○ Double thread : △
Specifications, etc.	Heat cycle		○	○	○	△	Single thread : ○ Double thread : △
	Features		·Hard to loose thanks to interlocking of grooves on thread with plastic. ·Demonstrates anti-loosening effects under vibration and temperature changes.	·Reduce damage of carbon fiber when fastening ·Realize fastening with thin workpiece ·Superiority of strength against glued connection	·Applicable to super engineering plastic (PPS etc.) ·Prevents cracks ·Also available for thermoset plastics.	·Easy tightening ·Prevents loosening caused by vibration and temperature changes ·Prevents cracks	·Prevents thread stripping at a shallow screwing depth ·Better workability thanks to wider torque allowance ·Prevents cracks ·Twin-lead thread
Specifications, etc.	Shank cross-sectional shapes		Circular + concave groove	Trilobular™	Trilobular™	Trilobular™	Circular
	Suitable mating materials		Thermo-plastics	CFRP, CFRTF	Thermo high rigidity plastics	Thermo-plastics (Thin plate)	Thermo-plastics (Flexible plastics)
	Supported size in dia.φ(mm)		1.4~6	3~6	1.4~5	2~5	1.4~2.6

Special Drive Recesses

Character	Camout / Ream-out prevention	Better workability	Protect good looks	Removal prevention			
Name	TORX PLUS®	TOUGH CROSS®	AUTO CROSS™	PAINT CROSS®	ONE WAY™	TPR®	AUDI TORX®
Appearance of products							
Features	·Improved from Torx® for higher torque transmission ·Prevents camout"	·Prevents ream-out (a crushed cross recess) ·Compatible with normal driver bits for cross recess	·Combination of recess and slope provides excellent bit insertability	·Prevents peeling of paint on screw head ·Compatible with normal driver bits for cross recess	·Can be tightened with ordinary driver bits for straight slot ·Makes bits slip when rotated reversely	·Helps reduce the head height	·Head breaks at a certain torque not to remove the screw
Supported size in dia.φ(mm)	1.4~6	1.4~5	1.4, 1.7	1.7, 2	2.6~5	1~5	3~6

Special head / Washers

Character	Thinning	Loosening proof		Self-Locking screws	Axial tension stabilizer	Trap metal dust	Induction hardening screw
Name	LAMIX®, LAMIMATE®	CUPSCREW®	ASFA®	NK GRIP™	FRIX™	CP-GRIP®	CORFLEX-I™
Appearance of products							
Features	·Able to go thin head size down to 0.2mm (LAMIX) ·Helps reduce the product thickness and weight	·Function of spring washer and plain washer are shaped in one piece ·Prevents screw loosening with the cup flange spring	·Assembly of screw and washers ·Can be integrated with plain, spring, wave, toothed and other various washers	·The epoxy adhesive-coated threads provide excellent adhesion for secured fastening	·Stabilize axial tension ·Applicable for self-tapping screws	·Special coating to prevent falling of metal chips	·Realize self-tapping to the steel sheet by bolt of induction hardening
Supported size in dia.φ(mm)	LAMIX : 1.4~2 LAMIMATE : 2.5~5	2~6	1.4~6	1~5	3~8	1.4~5	6~12

※If you have interested in other size of supported size, please feel free to contact us.

For more details, visit our website.

<https://www.nittoseiko.co.jp/>

The following trademarks used in this catalog are Registered Trademark as, which each company listed next to each trademark has ownership or licensing-rights, and NITTOSEIKO is the regular licensee which authorized to use these trademarks.

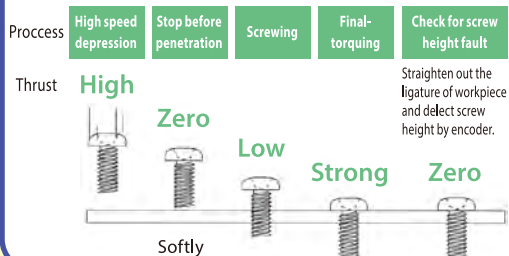
TAPTITE 2000®, MAGTITE® : CONTI FASTENERS AG. (CH) TORX PLUS® : Acument Global Technologies Inc. (US)

Function of NejiRobo

Thrust force control

Optimum thrust control effectively prevents to damage to internal threads and cam-out.

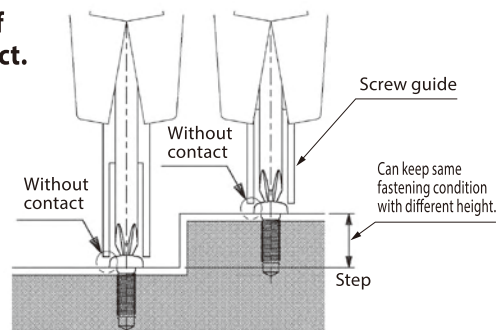
Patent



Screw guide position variable control

Suitable for fastening of product that hate contact.

Can set height of the screw guide arbitrarily. It means that can fastening different height of positions, also fastening without contact of screw guide if needed.



Function of SR565Y0-ZZ

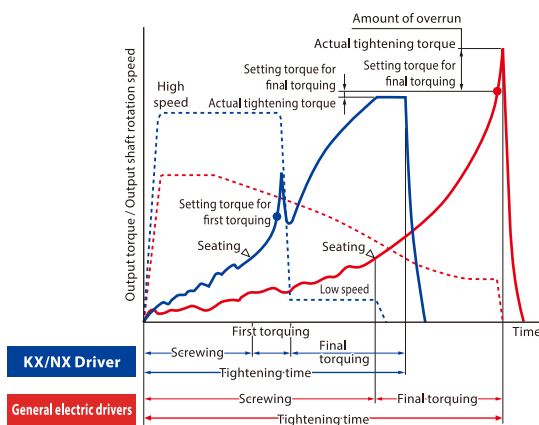
Function of motors & drivers

Two-step Torque Tightening

Enables high-speed and high-accuracy fastening.

First torquing and final-torquing is performed in succession. It's speed and accuracy are superior to ordinary screwdrivers which only tighten screws to each set torque at a dash.

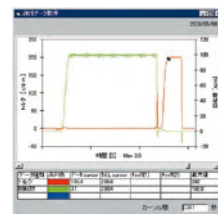
- Enabling high accuracy fastening with less torque variation.
- Enabling high speed fastening with high-speed rotation even when the torque increases.



Waveform display

Displaying tightening results in the waveform display.

The waveforms of torque(current values), rotations number of output shaft and angle, can be displayed on your PC monitor. This data is useful for performing fastening tests during the causes of fastening errors, and formulating production plans based on tact time.

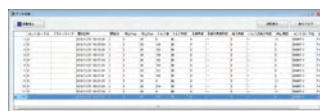


Software for collecting and saving data of waveform.

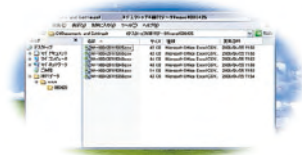
Can upload many kinds of data to PC.

Upload time, torque, angle and judgement data of each fastening.

Upload torque and angle data for each 1ms, and save it to CSV file.



Display and saving for result of fastening.

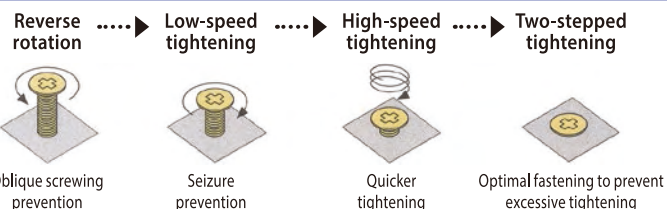


Display and saving for waveform of fastening.

Flexible fastening control

Eliminating problems such as thread stripping, cross threads etc.

Enabling flexible control of torque, speed, angle, direction of rotation, etc. Reducing fastening errors such as idle turn due to oblique screwing, seizure, and excessive tightening.



Adopted applications

■Automotive equipment	·Lithium ion battery ·Power module ·Battery case ·Converter ·Inverter ·ETC ·Automotive navigation system ·ECU board ·PCU ·ABS ·Transmission ·Cylinder block ·AT valve ·Valve body ·Locker arm ·Turbo charger ·Oil pump ·Disk brake ·Drum brake ·Brake booster ·Airbag ·Steering ·Piston ring ·Hub ·Key cylinder ·Exhaust manifold ·Fuel tank ·Chain cover ·Instrument panel ·Sunroof ·Starter motor ·Window regulator ·Door mirror ·Head lamp ·Rear lamp ·Wiper motor ·Seatbelt ·Door
■Home electronics	·LED lamp ·Television ·Washing machine ·Rice cooker ·Microwave ·TV tuner ·Refrigerator ·Air conditioner ·Fan heater
■Meter equipment	·Smart meter ·Electric power meter ·Gas meter ·Water heater ·Stove burner ·Pneumatic equipment
■House equipment	·Solar panel ·Fire-alarm box ·Panel ·Sash ·Washstand ·Sink cabinet ·Chair ·Steel house ·Breaker
■IT device	·Hard disk drive ·Mobile base station ·Printer cartridge ·Cell phone ·Magnetic storage media ·Digital player ·Digital camera
■Medical and nursing care	·Thermometer ·Hemodialysis apparatus ·Endoscope ·Hematology analyzer ·Wheelchair
■Amusement	·Japanese pinball ·Slot machine ·Game machine
■Other	·Servo amp ·Power box

AC Servo Screwdrivers

"KX" series

SD550 series

Offer unparalleled optimal fastening with detailed control

Torque is controlled with current as well as angle. To achieve the most durable driver available we choose an ac servo motor as the drive motor. Multiple programmable drive sequences are available for virtually any sequence desired. It achieves excellent precision driving characteristics.

Features

- Torque, speed, time, angle, etc. can be set individually in numerical values.
- The screw fastening conditions can be selected from point to point.
- Maintains a high-speed rotation even with an increase of torque.

Maximum rotation speed
3,000min⁻¹

Torque range
0.08~45N·m



Torque transducer "NX" series

SD550T series

Offer more performance and reliability with torque transducer

The NX driver is mounted torque sensor based on KX driver. It achieves higher performance and reliability. Of course basic function is same as KX driver.

Features

- Torque and judgment of tightening can be displayed on the panel.
- Optional function of waveform analysis can be judged fault of tightening immediately.

Maximum rotation speed
1,200min⁻¹

Torque range
0.2~80N·m

Torque accuracy
3~5%



NEW SD600T series

Introducing new series with High Accuracy and High Performance

Standardly installed Data collection and Waveform Analysis will provide safety and comfort to any user.

Features

- Number of channels is increased to 32 and ideal for high-mix low-volume production system.
- Waveform Analysis comes in standard, and it will detect screw driving failure which could not be detected only by final torque check.
- Data collection functions, using Ethernet, also comes in standard. It's useful for establishing traceability and finding root cause of screw driving failure.
- Renewed Communication Software is user-friendly.

Maximum rotation speed
1,100min⁻¹

Torque range
0.5~45N·m

Torque accuracy
2~3%



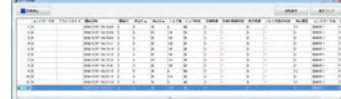
SD550T series (Option) / SD600T series (Standard)

Screw drive judgment can be determined by using Waveform Analysis function.



SD600T series (Standard)

All fastening waveform can be corrected by Data collection function.



Hand-held Screwdrivers

Feedmat FM Hand-held series

Easy fastening with a single-hand operation

They let you perform manual work comfortably and raise efficiency. Screws are instantly fed from the feeder to the driver chuck under air pressure, thus guaranteeing continuous cycling.

Features

- Enables fastening of maximum 30 screws in one minute with a single hand operation. (Number of fastening screws may vary depending on screw size, head shape, etc.)
- Widely used in the automobile industry and many other industries.

Supported screw diameters
2~8mm

Torque range
0.2~44N·m



FM503H-BL



Screw are automatically loaded to the driver chuck.



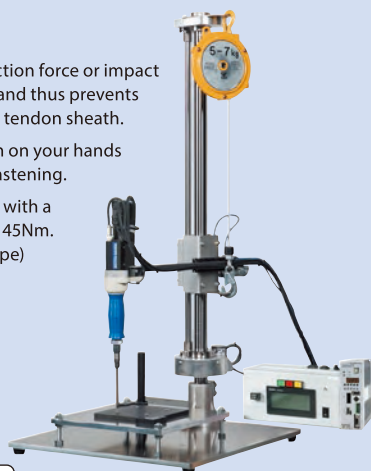
Armdriver series

The KX or NX driver can be mounted on the balance arm and supports cell production. Optional encoder can detect position.

Features

- Generates no reaction force or impact during fastening and thus prevents inflammation of a tendon sheath.
- Reduces the strain on your hands and allows easy fastening.
- Enables fastening with a maximum torque 45Nm. (High rigidity V type)

Arm allowable torque
Max45N·m



AD100TE

Single- / Multi-spindle Screwdrivers

Feedmat FM Unit series

Easy mounting on the robot or lines

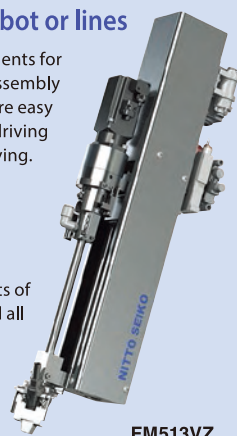
Screwdrivers are proven as attachments for robot arms and along automated assembly lines. Small and light weight, they are easy to attach and handle. Makes screwdriving completely automatic and labor saving.

Features

- It is a ready-to-use system consists of a driver, a feeder, a controller and all other mechanisms.
- A variety of models are available according to applications.

Supported screw diameters
1.7~8mm

Torque range
0.1~22N·m



FM513VZ

Feedmat FM Multi-spindle series

Multiple screws can be fastened quickly at the same time

Screwdrivers can tighten more than 1 screw at the same time. This greatly reduces work time and ensures against uneven tightening. These machines are dependable in line operations as a spindle unit and can fasten screws in the horizontal direction as well as vertical up or down.

Features

- Enables fastening of two to six screws at the same time. Case of seven or more screws can be designed optionally.
- Each screwdriver is independently controlled, providing flexible work conditions.

Supported screw diameters
2~8mm

Torque range
0.3~20N·m



FM5000

NejiRobo (Screwdriving Robot)

Nitoman SR series

Screw manufacture's know-how is built-in

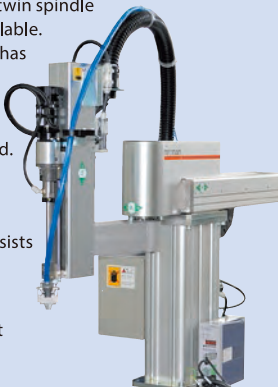
"A variety models, such as Cartesian type, Yθ (straight and slewing motion) type, horizontal type, twin spindle type and desktop type are available. SR565Yθ-Z, the newest model, has Z-axis which can control the thrust of fastening. Optimum fastening for each materials and each application is ensured.

Features

- It is ready-to-use system consists of a controller and a feeder.
- Equipped with KX driver.
- A variety of models can meet various applications.

Supported screw diameters
0.6~8mm

Torque range
0.08~22N·m



SR565Yθ-Z

Riveting / Eyeleting Machines

Rivet setter RS series

Easily, Reliable, Low-cost Riveting

Rivets are fed automatically to enable efficient continuous riveting.

Features

- A column type and a desktop type are available.
- An electrically-operated type for high-speed riveting and a hydraulic type for quiet riveting are available.
- Also can be used with automatic machines.

Supported rivet diameters
2~8mm

Has ES series which are eyeleting machines. Can be used to soft materials such as plastic and ceramic.

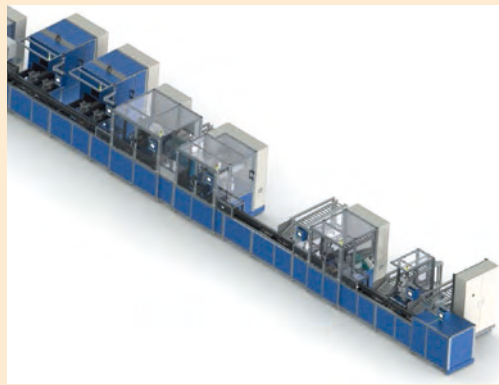
Supported rivet diameters
1.2~6mm



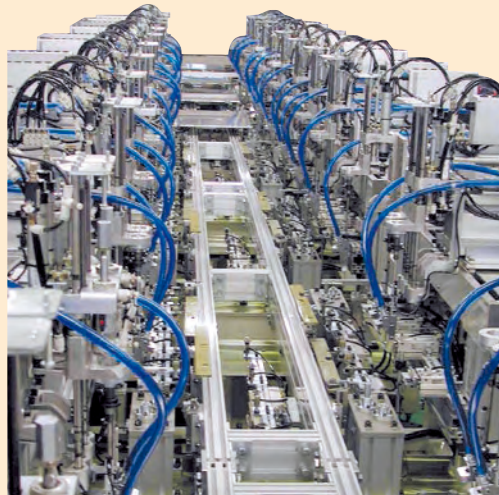
RS404B



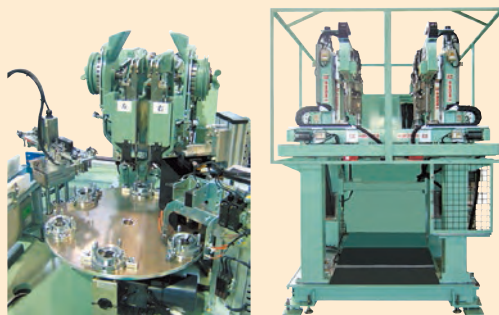
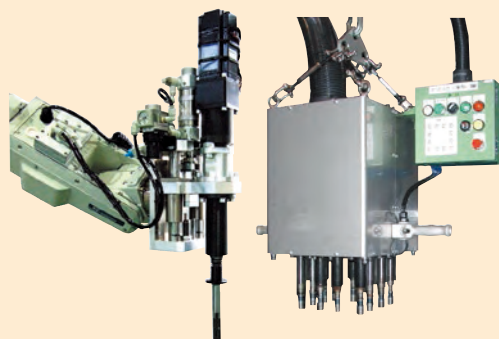
Can be built customized machine which includes specification and request from customer. Also can be provided best proposal with our technology and experience of more than 5,000 applications.



Customized machines



Special applications of standard machines



Screw feeders

Disk type screw feeder DF200

Feed precision screws reliably

New concept of screw feeder for precision screws which conveys screws with a disk. Screws do not get stuck or jammed in the machine, and productivity is improved.

Features

- Can be used with micro screws a diameter 0.6mm and many other types of screws.
- Suitable for use in an automated lines.
- Different sizes of screws can be easily used just by replacing the disk.

Supported screw diameters
0.6~2mm

Feed rate
Max. 30 screws per min.



Screws that could not be fed with conventional feeders can be fed.



Compact drum type screw feeder FF311DR

Allows stable feeding screw with washers

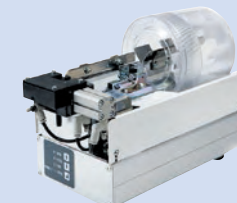
Has a simple mechanism to bring screws in line on the chute rail without jamming or sticking. It is useful for feeding screw with washers which are easy to have such problems.

Features

- Compact sized body.
- High quality with lower price.
- Easy screw refilling thanks to removable drum.

Supported screw diameters
1.2~3mm

Feed rate
Max. 20 screws per min.



FF311DR



Chute rail
Uniquely-developed chute rail allows excellent efficiency of feeding even screws caption with washers.



Centerboard hopper type screw feeder FF series

Widely used as feeder for automatic machines

Our unique centerboard hopper style feeders are extremely versatile, and prevents screws from getting jammed, ensuring productivity.

Features

- The reliable feeding and durability make the feeders suitable for use with an automatic machines.
- Compatible with commercial power supply voltage levels of the world. (FF503H)
- Supports CE marking. (FF503H)

Supported screw diameters
2~8mm

Feed rate
Max. 30 screws per min.



FF503H

Feed rate was counted with single escapement.

Note1 : This page describes the general features and specifications of the driver series, which may be different from those of individual models.

Note2 : We offer a variety of options and special specifications. Consult us for more details.

Note4 : Feed rate of screw feeder may vary depending on screw size, head shape, etc.

Note3 : Pictures show example of machine construction.

Note5 : NX200T3 and NX500T3 are not applicable to CE.

For more details, visit our website.

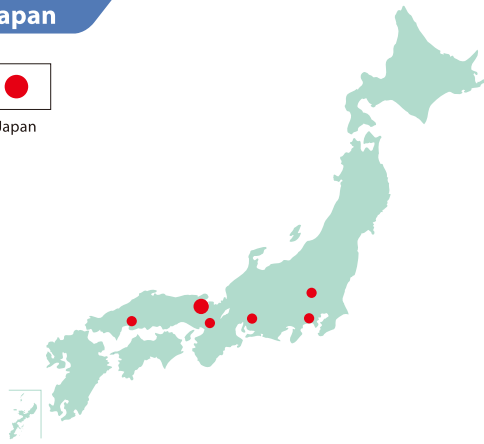
<https://www.nittoseiko.co.jp/>

Network

Japan



Japan



If you have question about screws, cold-forged parts and pins, please feel free contact us.



Fastener Division

10, Bodai, Shimoyata, Ayabe City,
Kyoto, 623-0116, Japan

Tel. +81-773-42-8180

E-mail : sales@nittoseiko.co.jp

Contact for Screw Driving Machine, Riveting Machine and Automation



Machinery Division

2, Shiroyama-cho, Ayabe City,
Kyoto, 623-0003, Japan

Tel. +81-773-42-1290

E-mail : sales@nittoseiko.co.jp

Global



1



U.S.A.
NSA



Screw(Industrial Fasteners)

Assembly Machines

Measurement and Inspection Equipment

**NITTO SEIKO
AMERICA CORPORATION**
1301 Rankin Dr. Troy, MI 48063 U.S.A.
Tel. +1-248-588-0133

2



U.S.A.
NSA



Screw(Industrial Fasteners)

Assembly Machines

Measurement and Inspection Equipment

**NITTO SEIKO AMERICA CORPORATION
TENNESSEE OFFICE**
P.O.Box 280777, Nashville, TN 37228 U.S.A.
Tel. +1-248-588-0133

3



Korea
KOR



Screw(Industrial Fasteners) etc

Measurement and Inspection Equipment

NITTOSEIKO CO., LTD. KOREA OFFICE
203-1206 Woolim Kaiser Palace Officetel, 332,
Anaji-ro, Gyeyang-gu, Incheon, KOREA
Tel. +82-70-7612-5007

4



China
NPS



Screw(Industrial Fasteners)

Assembly Machines

NITTO PRECISION SCREW INDUSTRIAL(ZHEJIANG) CO., LTD.
NO.48, Huang Shan Road, Huimin Block, Jiashan, Zhejiang, China
Tel. +86-573-8475-3988
Website : <http://www.nitto-nps.com/>

5



Taiwan, R.O.C.
SHI-HO



Screw(Industrial Fasteners)

Assembly Machines

SHI-HO SCREW INDUSTRIAL CO., LTD.
NO.12, Yeong Chuen Street, Sheau Gaang District, Kaohsiung Taiwan, Republic of China
Tel. +886-7-871-3198
Website : <http://www.shiho.com.tw/>

6



Thailand
NST



Screw(Industrial Fasteners)

Assembly Machines

NITTO SEIKO (THAILAND) CO., LTD.
84/2 Moo 9 Theparak Road, Bangpla, Bangplee, Samutprakarn, 10540, Thailand
Tel. +66-2-315-4142
Website : <http://www.nittoseikothailand.com/>

7



Thailand
TNM



Assembly Machines

Measurement and Inspection Equipment

THAI NITTO SEIKO MACHINERY CO., LTD.
9/158 Moo 5, Phaholyotin Road, Klong 1, Klong Luang, Patumthani, 12120, Thailand
Tel. +66-2-902-0916
Website : <http://www.fact-link.com/home/thainsm/>

8



Malaysia
MPM



Screw(Industrial Fasteners)

Assembly Machines

MALAYSIAN PRECISION MANUFACTURING SDN.BHD.
NO.3, Lorong Perak 3 Kawasan Perusahaan, 42500,
Telok Panglima Garang, Kuala Langat, Selangor, Malaysia
Tel. +60-3-3122-7405

9



Indonesia
NAI
INT



Screw(Industrial Fasteners)

Assembly Machines

Measurement and Inspection Equipment

PT. NITTO ALAM INDONESIA / PT. INDONESIA NITTO SEIKO TRADING
Jl Manis II, Kawasan Industri Manis, Tangerang, Banten, 15810, Indonesia
Tel. +62-21-591-8691
Website : <http://www.nittoindonesia.co.id/>

10



Indonesia
NAI



Screw(Industrial Fasteners)

PT.NITTO ALAM INDONESIA BEKASI FACTORY
Delta Silicon Industrial Park Lot 7-8/9, Lippo Cikarang,
Bekasi-Jawa Barat, Indonesia
Tel. +62-21-8991-5651

NITTOSEIKO CO.,LTD.

<https://www.nittoseiko.co.jp/>

●For improvement in performance, specifications are subject to change without notice.