Nutrunners are tools used in the process of tightening nuts and screws.

They are also called automatic tightening machines because they use a servo motor as their drive source.

They are used in a wide range of fields because they allow for torque control during tightening.

Coretec's AC servo nutrunner is

a type that can be incorporated into automated equipment.

Features of AC Servo Nutrunner

Body shape that is easy to incorporate into equipment

The straight type has a slim body design with no protrusions, which is advantageous for multi-axis arrangements.
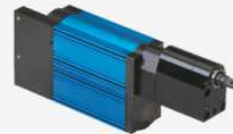
Offset gear, angle head, cube type, etc. are also available, making layouts possible even in situations where installation is restricted.

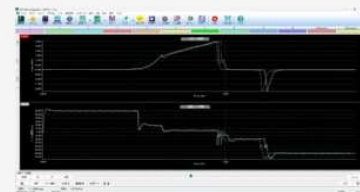▲ Straight type   ▲ Angle type   ▲ Offset type

Fastening Accuracy

The combination of a high-speed, high-power, low-inertia servo motor designed specifically for nutrunners and lightweight gears has improved tightening accuracy.

Supports management and traceability of tightening result data

Fastening results, product names, serial numbers, etc. can be linked within the dedicated controller, ensuring complete traceability.

By inserting a USB memory into the WPS NR controller, result data up to the capacity can be saved. By using the application software (WPS NR Configurator), it is possible to display and save fastening result data and fastening waveform data saved in the dedicated controller.

▲ WPS NR Configurator – Waveform Viewer

communication

Compatible with various FA networks. Ethernet is also included as standard, achieving quick operation response and high-speed data collection.

A program that can realize a variety of fastening operations

Operations from start to finish of fastening with up to 32 blocks can be consolidated into one program.

Operations and branching conditions can be specified for each block.

Operation programs are created using the dedicated software (WPS NR Configurator).

! Operation specification	𝅘 Conditional branching
Speed / Current limit / External output	Torque / Angle / Time / External input / Torque rate

A branching function to any step can be added, and loop (repetition) configurations can be freely configured.

In addition to the final judgment, torque, angle, and time can be judged at any three points.

🔧 Judgment conditions:
Torque / Angle / Time

Parameters within the program can be rewritten from the PLC, giving it hidden potential beyond just handling a wide variety of products.

Nutrunner application

Various detection functions and operations

Coretec nutrunners offer highly flexible control and high-quality fastening, and are compatible with the following:

Yield Control	[Realized by yield control] Click here for nut runner re-tightening inspection	
Burn detection	Early jam detection	Intermediate jam detection
Torque Angle Monitor	(Rotation wait) Stall operation	Elasticity detection (torque rate)
Plasticity detection (torque rate)	Elastic range angle method	Plastic zone angle method
Bolt and fitting action	Bolt fitting detection	Bolt elongation detection

Dedicated controller

A controller designed for ease of use

The WPS controller was developed by utilizing the experience and technology cultivated with the previous generation CPS controller.

Conventional tools can also be used with the WPS controller.

By using "labels" to name each item, the contents and goals of the program can be easily understood.

Click here for details on the dedicated controller

Software – WPS NR Configurator

This single software can handle everything from creating the AC servo nutrunner's operation program to collecting data such as tightening results and tightening waveforms during operation.

More information on the software

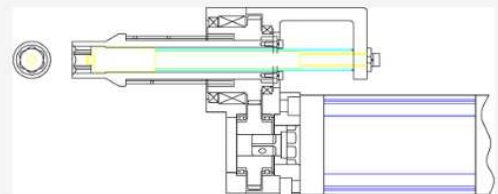波形モニター

数値モニター

エディタ

Options – for a variety of workpieces and structures

Introducing slide joints, special gears, etc.

CORETECH offers a wide range of options compatible with AC servo nutrunners.
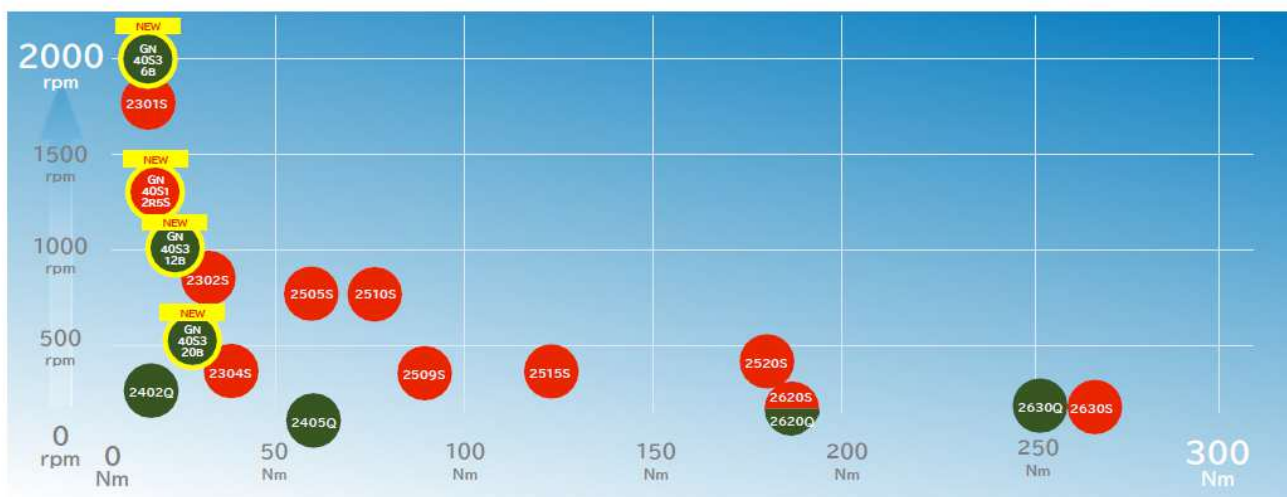
More information on options here

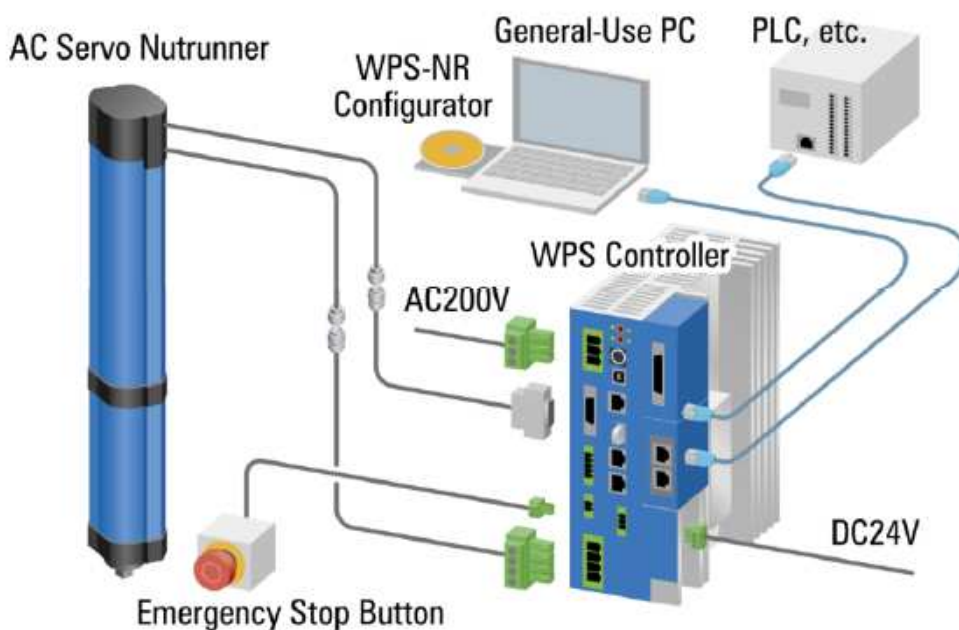▲ Example of special gear – Socket assembly with anti-rotation mechanism

Tool Lineup

Straight, cube, angle and offset types are available for each model / Torque Range.
Installation on existing equipment is also flexible.

Straight Type

Standard type and multi-axis
Low pitch arrangement type

Cube Type

Nutrunner arrangement space compact type

Angle Type

Tightening type for extremely small parts

Offset Type

Smaller pitch tightening type than straight type

System Configuration

AC Servo Nutrunner

WPS-NR Configurator

General-Use PC

PLC, etc.

WPS Controller

AC200V

DC24V

Emergency Stop Button

Controller model notation

Indicates the hardware version

WPS-NR30 *-***-***

-NR75 *-***-***

Code indicating the optional
circuit board of option slot 1

Code indicating the optional
circuit board of option slot 2

Optional Circuit Board	
Field bus	CCL
	DEV
Industrial-use Ethernet	PFN
	EIP
	CIF
P/IO	NPN
	PNP
Dedicated Ethernet circuit board	SET
Analog monitor	ANM

Controllers specifications

Model	WPS-NR30	WPS-NR75
control power supply	DC24V±10 %	
power supply	3 to 200-230V±10 % 50/60Hz	
cooling method	natural air cooling	Built-in fan forced air cooling
Regeneration function	-	80W regenerative resistance
External size (mm)	60×180×242	75× 190 ×242
Compatible models (series)	GN40S1 / GN40S3 / 2300 / 2400	Compatible with all models

Features

The slide joint is the tip attachment of the AC servo nutrunner. We offer a wide variety of slide joints, quick joints and socket adapters in various sizes.

Please check the catalog for the lineup and applicable models of the AC servo nutrunner.

Slide Joint

コアテック株式会社

notice

2025.10

A new lineup will be added to the AC Servo Nutrunner!

2023.02Notice

of discontinuation of CPS controller for nutrunners

As of October 2011,

the IPS Nutrunner Controller has become a discontinued product. Due to the impact of the earthquake, it has become impossible to obtain key components, so production has been

unavoidably discontinued. Thank you for your understanding.

We would like to introduce the successor to the IPS, the CPS-NR-75.