SD600T series AC servo screw driving motor with torque display.

NS-046-E

NX Driver

NEW PRODUCT

Addition of New High-Performance Series!

Provides high-speed high-accuracy tightening, as well as fully enhanced output data for tightening results.

Equipped with a new motor model and newly developed gear unit to provide even higher performance.

Equipped with a new motor model and newly developed gear unit, this new series not only inherits the compactness and lightweight of the SD550 Series, but also provides high precision and increased rotation speed.
The number of channels has been doubled to provide a wider variety of tightening as well as compatibility with high-mix low-volume production.

Performance Comparison: Current SD550T and SD600T Models

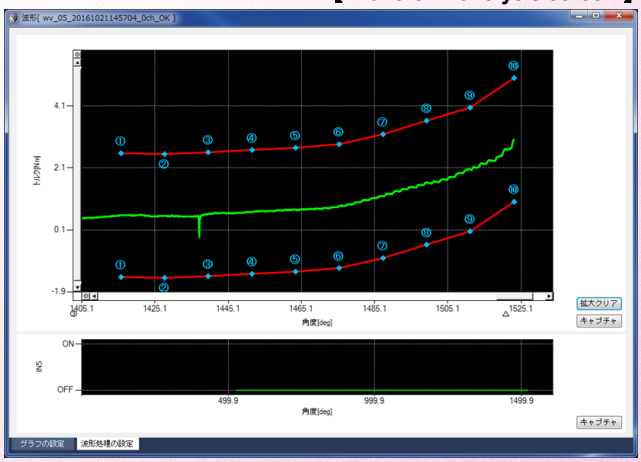
	SD550T	**SD600T**
Output torque accuracy *1	3σ/X̄=3% or less	**3σ/X̄=2% or less**
Max. rotation speed *2	840min^{-1}	**1,100min^{-1}**
No. of Channels	16 max.	**32 max.**

*1 For NX050 and NX100
*2 For NX020, NX050 and NX100

Waveform analysis is a standard feature.

You can judge whether torque results are acceptable by comparing the set torque waveform range and actual tightening torque waveform.
You can discover tightening faults that cannot be determined by only checking the upper and lower torque limits.
You can also stop tightening immediately if a fault occurs when judging the waveform, and have effect to preventing product damage.

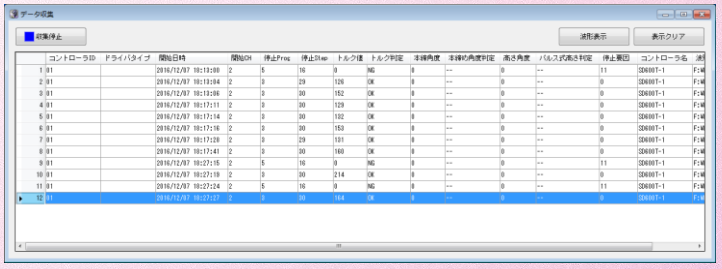
【 Waveform analysis screen 】



Data acquisition is a standard feature.

An Ethernet port for communication has been added and a data acquisition using the Ethernet is also included.
Specialized software can be used for saving tightening results and waveform data in CSV format to provide effective support for tasks such as establishing traceability and cause analysis when screw tightening faults occur.
* CAN communication can also be used for data acquisition.

【 Data acquisition screen 】



Combines three types of software into one

Combines communication, waveform analysis and data acquisition software into one for easier use.

Main New Functions

●Easy memory sheet setting function
・・・ Just input the target torque for easy setting.

●Monitor function
I/O and operation monitor
・・・ Using the I/O monitor and rotation commands from the software make it easy to perform an operation check at startup.

●Tightening Results Monitor
・・・ Useful for cause analysis when there is a tightening fault.

NITTO SEIKO CO.,LTD.

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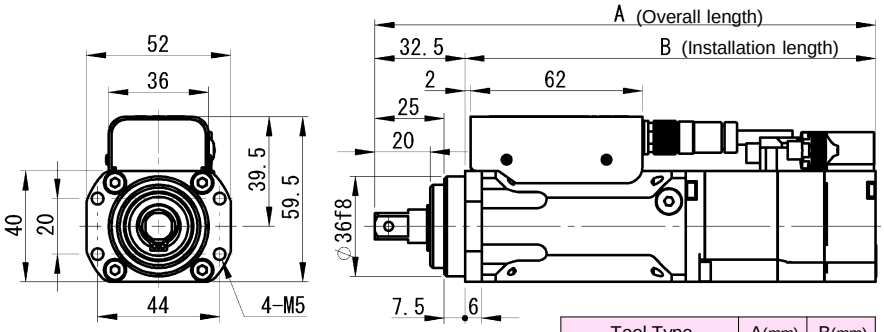
Specifications

Tool unit model ※1	NX020T3-07■*-20	NX050T3-07■*-20	NX100T3-07■*-20
Setup torque range (N·m) ※2	0.5～2.0	1.0～5.0	2.5～9.0
Max. rotation speed (min^{-1}) ※3	1,100		
Output torque accuracy	3σ/$\bar{x}$=3% or less	3σ/$\bar{x}$=2% or less	
Torque sensor	Planetary gear type reaction torque sensor (strain gauge)		
Toll unit weight (kg)	1.1	1.2	1.3
Applicable controller model ※4	SD600T03-2020-*		SD600T05-2020-*
Control method	Torque / Angle		
Number of programs	32 sets, max. (from 0 to 31)		
Self diagnostic function	Indication of system error number and external signal output		
External Interface	USB、Ethernet、CAN、RS-485		
Power source ※5	Single phase AC200～230V±10% 50/60Hz		
Max. power requirement (kVA)	0.45	0.6	0.75
Controller weight (kg)	1.4		

※1. 「■」mark into the model number indicates the shape of output shaft as follows. M: M8 Thread, S: Square
※2. If the following conditions will be needed the tightening test with actual Driver. If it is necessary, please feel free to ask.
・It is required short cycle time. ・It is need to keep the high torque value during tightening to the tapping screw.
※3. Rotating speed setting is limited by fastening condition. ※4. The asterisk「*」of model numbers indicate the Nitto Seiko control number.
※5. We recommend installing a noise filter to the power supply. For example, Manufacturer: TDK-Lambda Corporation Model: RSHN-2010

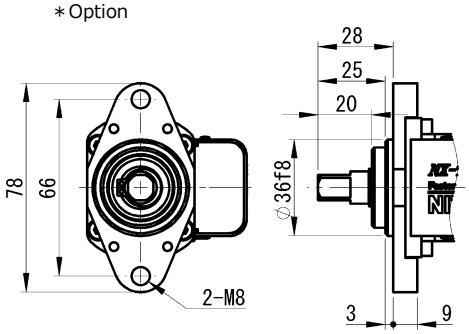
Tool unit outside dimension drawing (mm)



Tool Type	A(mm)	B(mm)
NX020T3-07■*-20	168.5	136
NX050T3-07■*-20	180.5	148
NX100T3-07■*-20	192.5	160

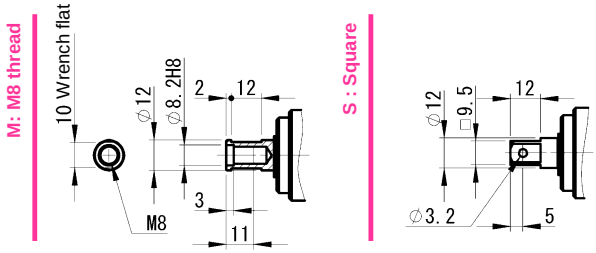
Dimensional Drawing of TU Series Compatible Flange Attachment (mm)

＊Option

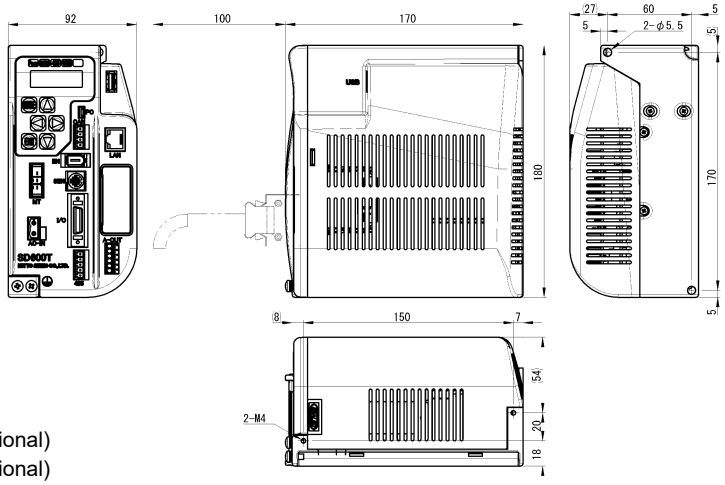


・Flange for installation compatibility with former model (TU Series).

Output shaft end dimensions (mm)



Controller outside dimension drawing (mm)



Details of component

① Tool Unit : 1pc
② Controller : 1pc
③ Motor Cable ※ : 1pc Max 10m(Option)
④ Encoder Cable ※ : 1pc Max 10m(Option)
⑤ Sensor Cable ※ : 1pc Max 10m(Option)
⑥ Power Connecter : 1pc (It doesn't include a cable which is optional)
⑦ I/O Connecter : 1pc (It doesn't include a cable which is optional)

※Choose 2m, 5m or 7.5m (Other length is option up to 10m)

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