



Screwdriving Unit for Collaborative Robot  
of Techman Robot Co., Ltd.

# PD400TM Series



"New screw driving robots begin operation alongside humans without any major changes of production line. ", "Operators perform their jobs easily using flow-chart screw tightening programming.", these are not "the impossible dream". It is the scenes that you can see right now in your factory.

As the fastening professionals, NITTOSEIKO offers a wide range of options to suit our customers. We will support you in taking your first steps towards automated screw tightening.

## Automated screw tightening is already the future within reach.



### POINT 01 Easy to install

Anyone with no experience of automation can easily install the collaborative robot with our screw driving unit. No safety fence required, no need to think about layout. Designed not only for production line use, also for stand alone use and all necessary units for tightening are available in a package. (some of them are option)

### POINT 02 Easy programming

#### by flowcharts

With the plug-in software "TM Component", screw tightening program can be setup using the flowchart. Until now, screw tightening required some I/O programming like start signal, channel information to be used, etc. For example, it was so complicated to setup operation of OK/NG branching.

With PD400TM, it will be so easy and accurate to operate screw tightening by placing components (operation elements) in flowchart and filling in required fields.



### POINT 03 High-quality screw tightening

#### became standard

NITTOSEIKO "NX Driver T3 Series" is equipped as standard. Various torque settings, rotation speeds, etc. can be setup for each tightening point (up to 32 types can be saved). Traceability is also supported with its data collection function.

Lightweight and compact design for easy handling

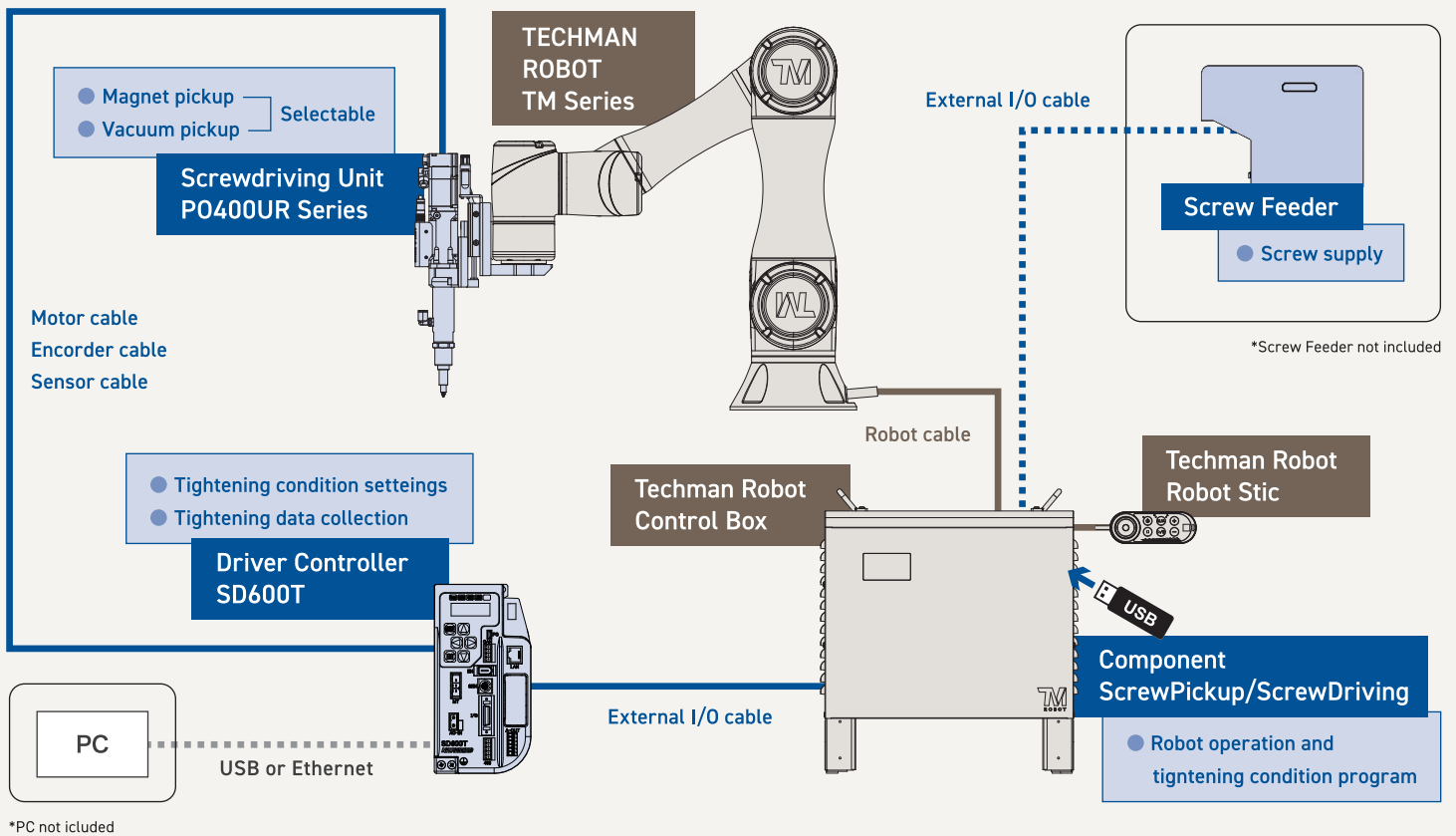


Magnet pickup



Vacuum pickup

## Configuration Diagram



## Specifications

Model		PD400TM-M	PD400TM-V
Screw Hold		Magnet pickup	Vacuum pickup
Torque range (N·m)		0.5~6.0	
Max rotation speed (min <sup>-1</sup> )		1,100	
Cushion stroke (mm)		30	
Supported screw size	Normal size	M2.5~M5	
	Max head dia	-	Φ9 (M5 Pan head)
	Thread length (mm)	~15	
Equipped driver type		NX020T3, NX050T3, NX100T3 (select from 3 types)	
Screwdriving unit weight (kgs.)		appx. 2.6 kgs. (varies depending on model)	
Controller		SD600T03-2020, SD600T05-2020 (varies depending on model)	
Controller weight (kgs)		1.4	
Power supply		AC200-230V ±10% 50/60Hz	
Power capacity (VA)		450~750 (varies depending on model)	

Model		PD400TM-M	PD400TM-V
Supported programs (channel)		Up to 32 programs (0-32 ch)	
Applicable robot type		TM5, TM12, TM14	
Robot I/O type		Sink / Source (NPN / PNP)	
Mechanical interface		ISO 9409-1-50-4-M6	
Screw driver bit	Cross recess	#1	#1
		#2	#2
	Hex shank (option)	cannot use because difficult to fit	H2
			H2.5
TORX* (option)	cannot use because difficult to fit	H3	
		H4	
		T8	
		T10	
		T15	
		T20	
		T25	

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