

QUICK-CHANGE for Collaborative Robot

NEW

QUICK-CHANGE ATOM™

No power source required for coupling and uncoupling

The mechanical locking system eliminates the need for pneumatic, electric, or other power sources when coupling and uncoupling.

Both automatic & manual coupling & uncoupling are available.

2 methods of coupling & uncoupling are available:

- Automatic coupling & uncoupling when retracting TS (tool station) by robot
- Manual coupling & uncoupling by pushing the tool changer's protrusion part.



Automatic

< Coupling >



Approach from above and lock.

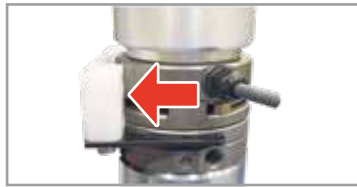


Slide horizontally

< Uncoupling >



Slide horizontally to the stand



Unlock by pressing against the block of Tool Station unit



Pull up vertically

Manual



Coupling and Uncoupling are available by pushing the slide button (part circled in red)

Equipped with electric contacts (1.5A x 8 contacts)

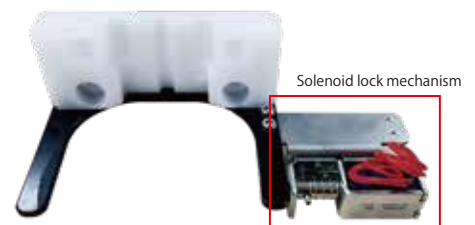
- Built-in electric contacts in the center of the master / tool plate
- Male / Female M8 connector on master / tool plate are selectable



Optional pneumatic port (M5 x 2) can be installed

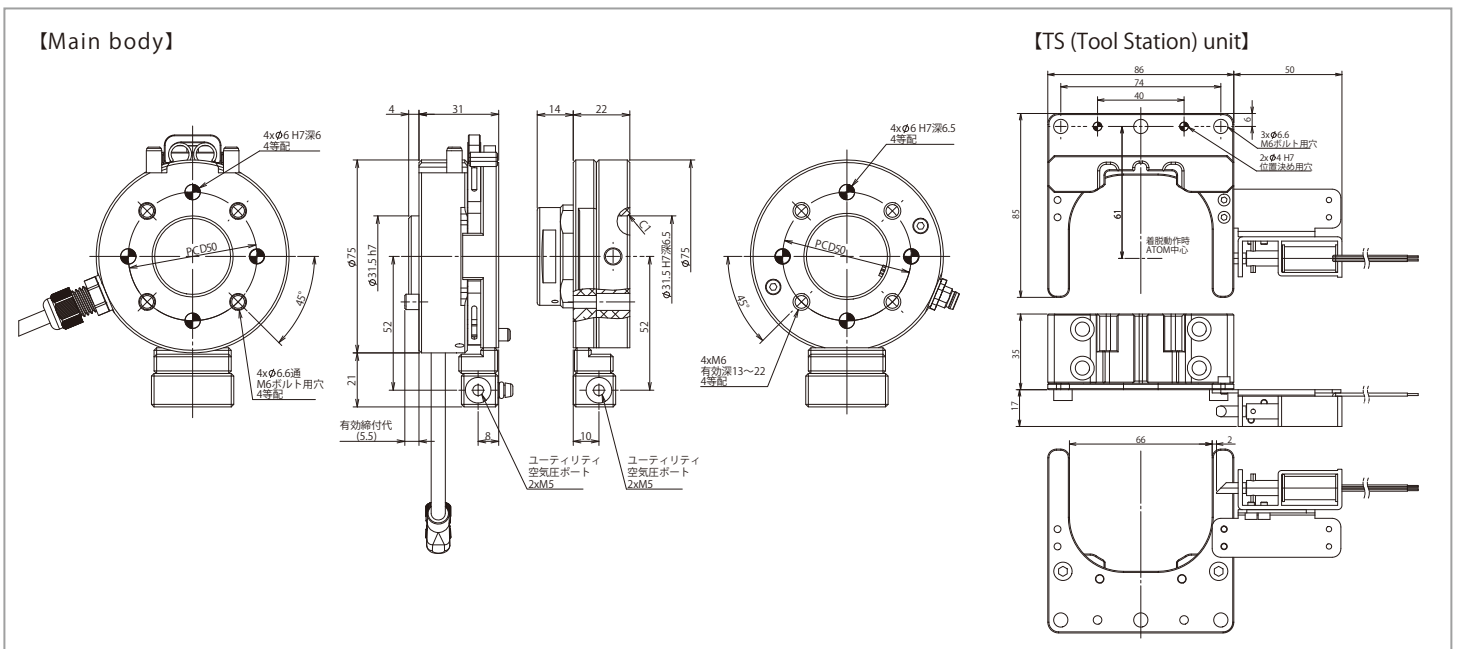
Specialized device for tool plate is provided

- Specialized unit (simple and easy to install)
- Solenoid lock mechanism prevents displacement due to vibration, etc.
- ※ It can be used safely around AGVs and machine tools that may cause vibration (selectable from left or right side).



TS (Tool Station) unit

Main Body Dimensions



Specifications

Main body		
Robot flange diameter available ISO 9409-1 ※1		PCD50
Load Capacity (rated load)		49N (5kg)
Positional repeatability (including Z axis) ※2		±0.05mm
Allowable dynamic moment	Bending direction (Tx,Ty)	15N·m (1.5kgf·m)
	Twisting direction (Tz)	20N·m (2.0kgf·m)
Product weight (Main body)	Master Plate	330g
	Tool Plate	260g
Overall dimension (when coupled, excluding leaf spring and connector)		φ75×H35mm
Electrical signals		1.5A×8本 (DC30V)
Allowable temperature and humidity range		0~50°C, 35~90% (Non-condensing)

Options	
P5	Pneumatic ports M5×2

※1 Can be attached directly to collaborative robots CRX (Fanuc), UNIVERSAL ROBOTS, Techman
 ※2 Positional repeatability means the accuracy of position between the one master plate and the one tool plate(A) repeat coupled and uncoupled. It is not possible to apply this positional repeatability to different tool plate(B).

Ordering Information

Master Plate

ATOM -M-

Electrical signals・Connector



Option



Tool Plate

ATOM -T-

Electrical signals・Connector



Option



- A Electrical signal cable (with M8 female connector for master side and M8 male connector for tool side)
- B Electrical signal cable (with M8 male connector for master side and M8 female connector for tool side)

- X No option
- P5 P5 Pneumatic ports M5×2

Tool Station

ATOM -TS-



- L L Solenoid lock mechanism: left-hand side placement
- R R Solenoid lock mechanism: right-hand side placement



Please see the left and right side of the tool stand unit from this direction.