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# Dual Cartridge Feeding System

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## USER MANUAL

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## 1 Safety precaution

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This manual is applied to products manufactured and sold by Taeha Co.,Ltd.(here in after referred to as "TAEHA"), so it can not be partially copied without permission

This manual explains the specifications, installation, writing, maintenance and inspection, abnormal phenomenon and measures of our products. When using this product, be sure to read this manual thoroughly and handle it properly.

For safety precautions, precautions are classified into danger and caution.



**"Danger"** : Hazardous situations can arise if you handle it incorrectly, there is a risk of death or serious injury.



**"Caution"** : Hazardous situations may occur if handled incorrectly, you may get serious injury or physical damage.

In addition, even if it is described as a caution, it may lead to serious consequences depending on the situation. Please follow the instruction manual because it is important for the safety of the user.

Precautions for electric shock



Danger
<ol style="list-style-type: none"> <li>1. This equipment is kept under high pressure for a while even after the main power supply is cut off. When performing wiring work or touching all terminals of the terminal block, leave it for 5 minutes or more after shutting off the power.</li> <li>2. To prevent electric shock and prevent erroneous operation, use a Class 3 grounding wire (less than 100 , wire diameter 1.6mm or more).</li> <li>3. Inspection and maintenance of this equipment should be performed by a qualified technician.</li> <li>4. Do not check the equipment with wet hands, or if the floor is wet or damp. It may cause electric shock.</li> <li>5. Be careful not to damage the cable, place heavy objects on it, or fold it. Damage may cause electric shock.</li> </ol>

Cautions for fire occurrence



Danger
<ol style="list-style-type: none"> <li>1. Do not install near flammable or combustible organic solvents or vapors around this equipment. Heat and electrical action may cause fire.</li> <li>2. If this equipment malfunctions, disconnect the main power supply of the equipment. Large currents may flow and cause a fire.</li> </ol>

Wiring precautions



Danger
<ol style="list-style-type: none"> <li>1. Be sure to shut off any external power supply used by the equipment before carrying out wiring work for maintenance. Failure to do so may result in electric shock or equipment damage.</li> <li>2. To supply or operate the power supply after wiring, attach the cover inside and outside the equipment.</li> <li>3. Failure to attach the cover may result in personal injury or electric shock.</li> </ol>



Cautions
<ol style="list-style-type: none"> <li>1. Do not apply main power supply other than the voltage specified in this user's manual. It may cause malfunction.</li> <li>2. Connect the terminals and wiring correctly. If not, it may cause malfunction.</li> </ol>

3. Do not change wiring or attach or detach the connector while the power is on. It may cause injury or equipment failure.
4. Failure to do so may result in injury or equipment failure. Please be careful.

Installation notes



Cautions
<ol style="list-style-type: none"> <li>1. Do not install or store this product in a location exposed to conductive dust, corrosive gas, flammable gas, high temperature, condensation, or wind and rain.</li> <li>2. Exposure to direct sunlight for a long time will reduce the accuracy of the equipment. Do not install or store the product in a place with direct sunlight.</li> <li>3. When installing in a confined space, install a cooling fan to allow outside air to flow in and out, so that the temperature around the equipment remains at 40°C or less. Overheating may cause fire or other accidents.</li> </ol>

Precautions for use



Cautions
<ol style="list-style-type: none"> <li>1. Never modify this equipment. It may cause electric shock, injury, fire or breakdown.</li> <li>2. Modification of this equipment is not covered by our warranty for defects.</li> <li>3. Before use, be sure to check that all covers are properly installed and that there is no foreign substance inside the equipment. In some cases, unexpected operation may occur and injury may result.</li> <li>4. If an alarm occurs during use, remove the cause of the alarm, check the safety, and reuse it.</li> </ol>



Danger
<ol style="list-style-type: none"> <li>1. Please be sure to install a safety net in the robot operation area during use, and never approach the operation area during operation, because it includes robots(articulated robots, rectangular coordinate robots, desktop robots).</li> <li>2. Our equipment includes driving and rotating parts. Please install a safety net on the rotating part and ever approach it during operation.</li> </ol>

Precautions for maintenance and inspection



Cautions

1. When cleaning or repairing the equipment, be sure to turn off the power and check the internal power supply for complete dispensing, and then have it carried out by a qualified maintenance specialist. Maintenance by non-experts can cause breakdown.
2. If there is a breakdown of the equipment, do not disassemble the equipment. Please contact our customer support team.
3. If dust accumulates on the equipment, it may cause malfunction. Clean up the equipment periodically. When cleaning, please shut off the external power completely and check whether the equipment has been fully dispensed. There is a danger of electric shock.

Disposal notice



Cautions

1. Dispose of this equipment as industrial waste.

## 2 General informations

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### 2.1 General information

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This user manual provides you and the equipment maintenance specialist with essential information for operating the unit. It is therefore highly recommended that you thoroughly familiarize yourself with this user manual.

In order to be able to access this user's manual easily, it should be placed in a prominent place inside and outside of the equipment so that it can be easily accessed.

### 2.2 Warranty

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Except for a separate contract and the following cases, the warranty period is 1 year.

(Excluding consumables)

- Following -

1. When changing equipment without permission of Taeha Co., Ltd.
2. If a person other than Taeha's technical support person fixes the equipment or repairs without using the specified parts
3. If any parts other than specification specified by Taeha Co., Ltd. is used in the product
4. Due to intentional breakage
5. Due to natural disasters or fire

### 2.3 Technical support

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If necessary, our technical service support will be provided for you. You will need to contact us by phone or fax.

Contact us

Phone : +82(0)31 552 5300

Fax : +82(0)31 552 5400

Email : [taeha@taehacorp.com](mailto:taeha@taehacorp.com)

## 2.4 Precautions

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### Danger

1. Be sure to use the specified power source. The basic power of the equipment is specified as AC220V 50/60Hz.
2. Be sure to use the specified air pressure. The basic air pressure of the equipment is specified as 5kgf/cm<sup>2</sup>.
3. Do not operate with wet hands. There is a risk of electric shock.
4. Do not turn off the power or cut off the air pressure if the equipment is not in danger/caution during operation. Serious problems with the use of the equipment may occur.
5. This equipment does not have an emergency stop switch and must be used in conjunction with the relevant equipment.
6. If a serious error occurs in the equipment, please contact us.

### 3 Introduction of the Dual Cartridge Feeding System

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This unit is a supply device for transferring each material to the 2K dispenser using the displacement of the inner cylinder instead of putting the material supplied to the dual cartridge in a separate container.

Please read this operating manual carefully to maximize the performance of the product so that the desired work can be done.

#### 3.1 Dimension

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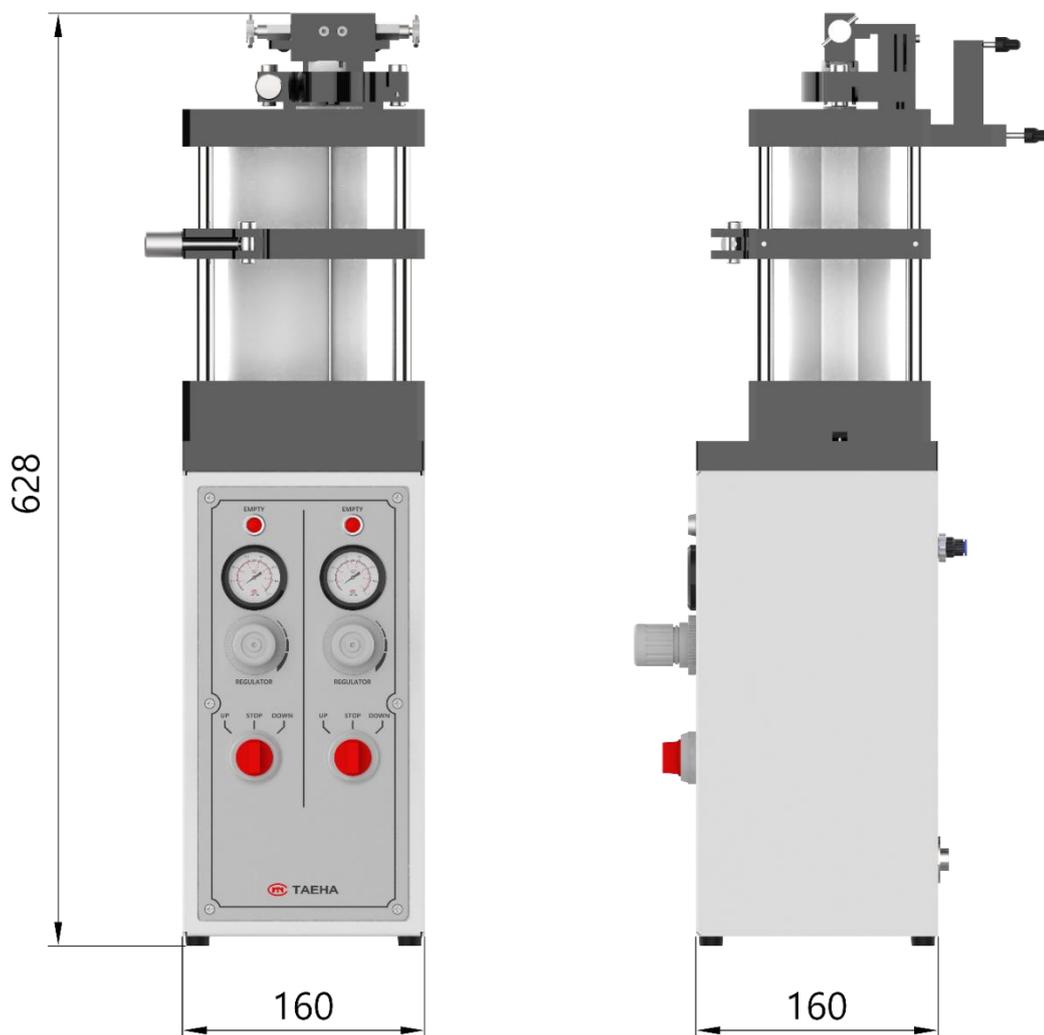


Figure 1. Dimension

## 3.2 Specifications

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<b>Item</b>	<b>Contents</b>
<b>Dimension (HxWxD)</b>	628 mm x 160 mm x 160 mm
<b>Weight</b>	12.8Kg
<b>Supply Material</b>	Epoxy, Silicone, Urethane, etc.
<b>Viscosity</b>	Low~mid viscosity
<b>Applying Dual Cartridge</b>	490cc
<b>Input Pressure</b>	Max. 8kgf/cm <sup>2</sup>
<b>Regulated Pressure Range</b>	1 ~ 7kgf/cm <sup>2</sup>
<b>Level Transmitter</b>	Magnetic Sensor
<b>Operating Method</b>	Manual
<b>Material Out</b>	Made Spec(Cartridge Type)

**Table 1. Specifications**

## 4 Description of each part

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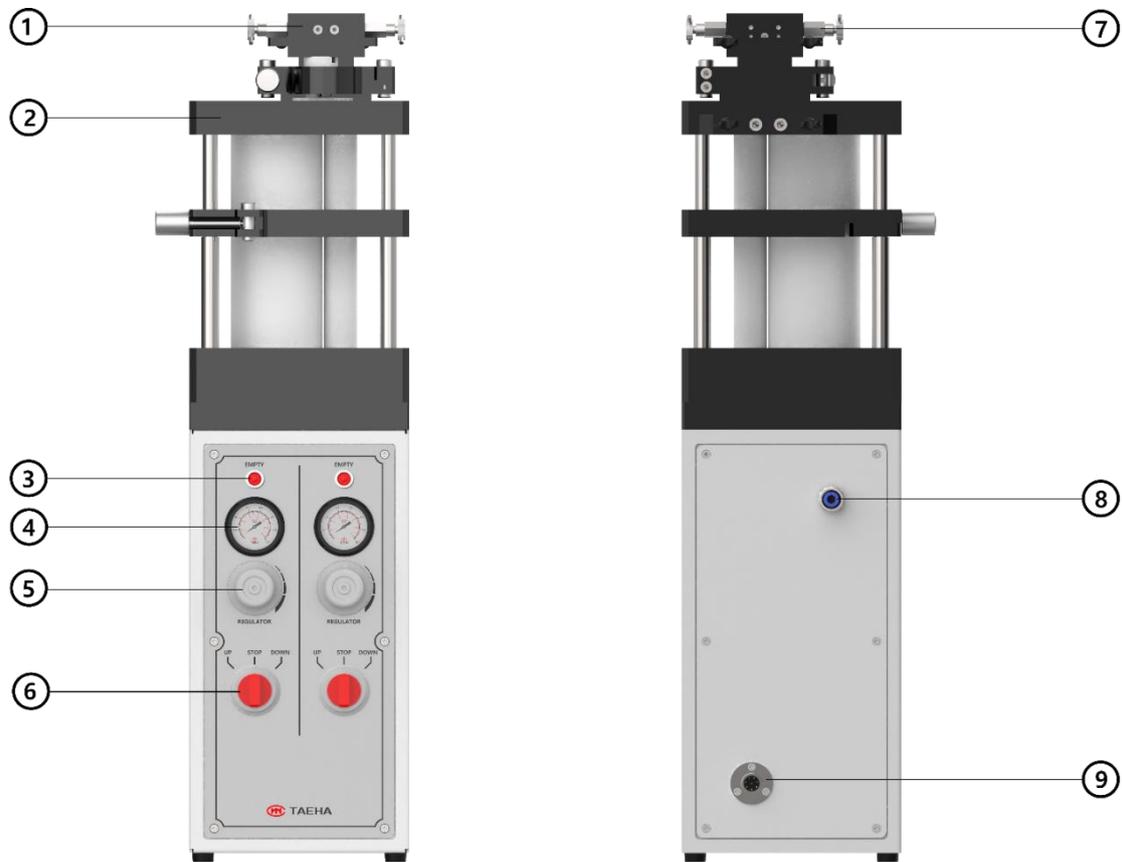


Figure 2. Description of each part

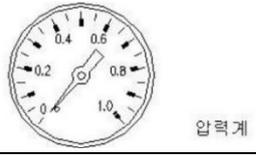
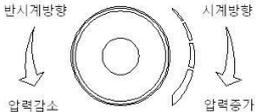
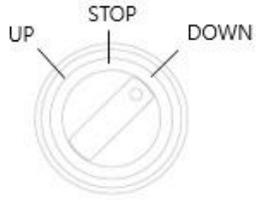
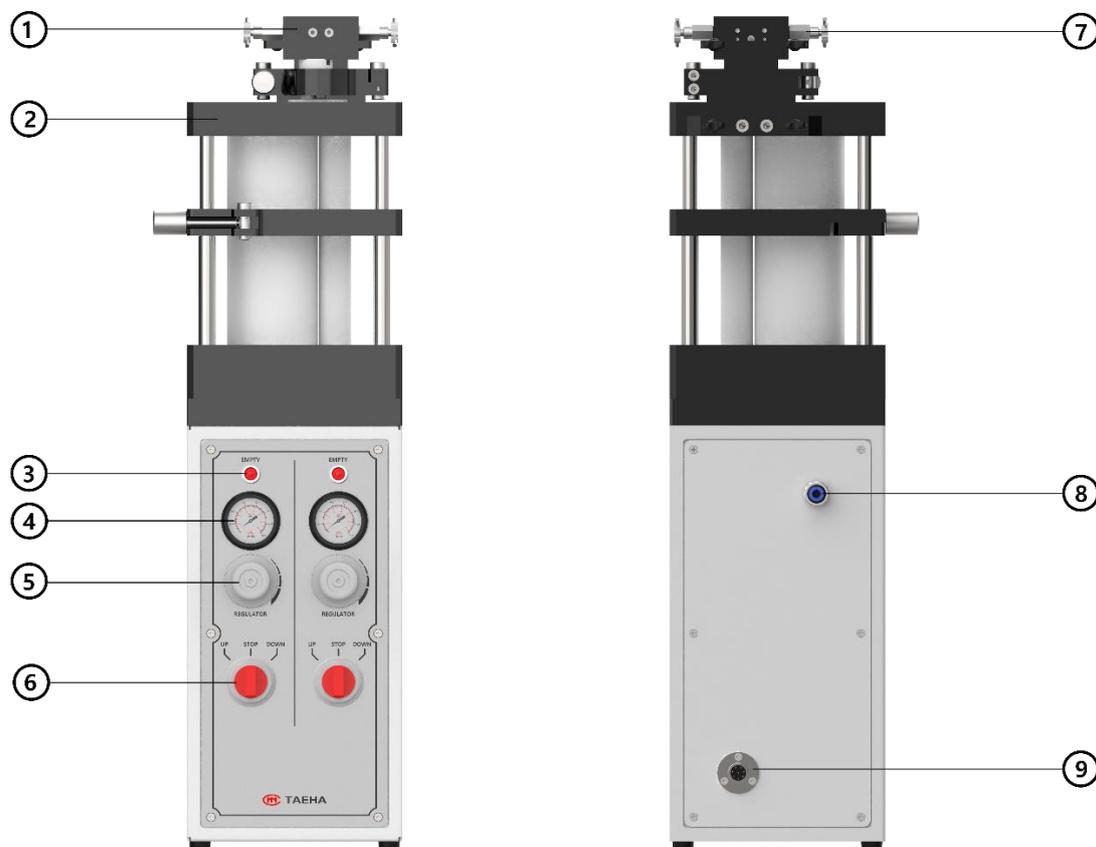
No	Name and Display	Descriptions
①	<b>Outlet Valve Adapter</b>	* Adapters for transporting resin and hardener materials to 2K dispensers through Manifold's piping to prevent them from mixing with each other at the discharge part of the dual cartridge.
②	<b>Top Block</b>	* Top block is for securing dual cartridge containers in place before transferring fluid using an air cylinder.
③	<b>Low-level Sensing LED</b> SHOT 	* When the set amount of material in the dual cartridge is exhausted, the red lamp illuminates and sends an alarm output signal to the controller.
④	<b>Pressure Gauge</b> 	* The pressure set by the Regulator is displayed. (Unit : MPa, 1MPa = 10.Dualgf/cm <sup>2</sup> )
⑤	<b>Pressure Regulator</b> REGULATOR 반시계방향 시계방향 압력감소 압력증가 	* Set the operating pressure of the cylinders to facilitate the supply of the resin and hardener
⑥	<b>Cylinder Operation S/W</b> UP STOP DOWN 	* Up : Cylinder moves forward and transfers material * Stop : Exhaust the pressure in the cylinder to stop the transfer of the material * Down : Cylinder can reverse and cartridge can be removed
⑦	<b>Vent Knob</b>	* A device for removing internal air bubbles during initial material supply after replacement due to exhaustion of material
⑧	<b>Air In Port</b>	* Air In Port for Ø6 Air Hose * Supply clean air free of moisture and filtered by 5µ air filter.
⑨	<b>Low-level Sensor Connector</b>	* The connection port between the input signal and the output signal of the Low-level sensor

Table 2. Description of each part

## 5 Operation



**Figure 3. Dual Cartridge Feeding Unit**

- 1) Air is supplied to the **⑧Main Input Port** on the rear of the unit and wiring the external device to the **⑨Low-level sensor** 8-pin connector.
- 2) Insert the **①Manifold** into the material discharge part of the dual cartridge to be transferred and rotate the cap clockwise to secure it.
- 3) Set the dual cartridge with Manifold on the **②fixing frame** and secure it so that it does not come out using the locking device.
- 4) Check the operation pressure of the cylinder to ensure that the material can be smoothly transferred, and set pressure with a **⑤regulator**. In this case, check the set pressure with a **④pressure gauge**.
- 5) Please remove air bubbles from the cartridges resin and hardener before transferring the materials. Open the **⑦vent Knob**, place the **⑥cylinder operation switch** on the UP, and drain the bubbles and some material for approximately 5 to 10 seconds.  
Make sure that the bubbles are completely removed and turn clockwise to lock.
- 6) Make sure that the material is transported smoothly with the **⑥cylinder operation switch** set to UP.

- 7) If the ③**low-level sensor LED** lights and alarms occur during use, place the ⑥**cylinder operation switch** on the DOWN and remove the cartridge while the material is completely exhausted.

Replacement works in the same order as 2) through 5).

#### Precautions for job completion or downtime



##### Precautions

When the operation is complete or during rest time, switch the ⑥**cylinder operation switch** to stop to cut off the air supply and manage the cylinder with the pressure removed.

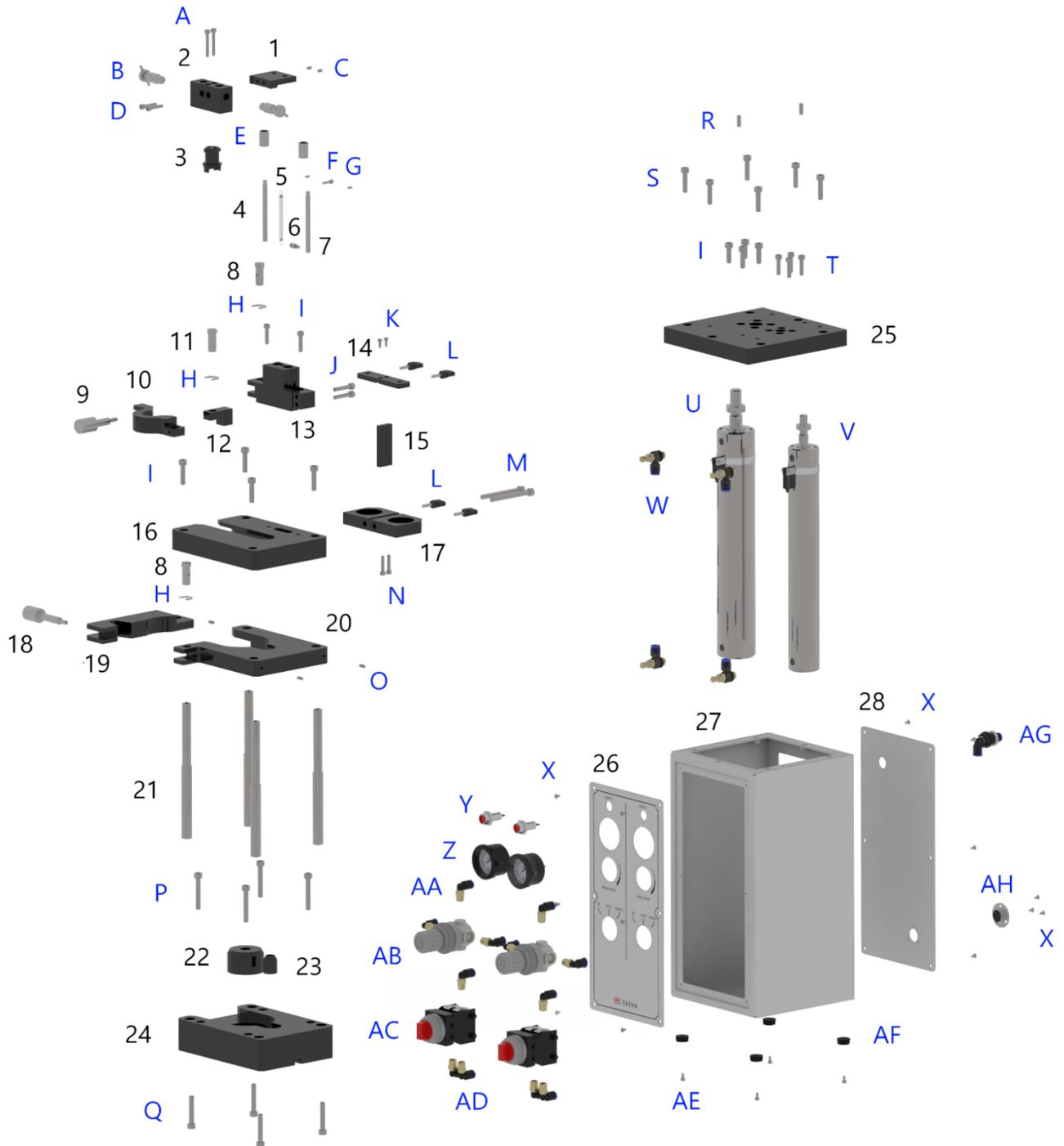
#### Danger during pressurization



##### Danger

Do not repair or remove high pressure hoses or pipes during pressurization. An instantaneous discharge of high pressure fluid can cause fatal injury to the operator.

6 Part List



No.	Part No.	Item Name	Q'ty	Material	Remarks
1	505100-198	Adapter table block	1	AL6061	
2	505100-18-B	Outlet valve adapter	1	AL6061	
3	505100-18-A	Outlet adapter	1	AL2011	
4	505100-113-B	Adapter slid shaft(b)	1	SUS303	
5	301001-59	Tensile spring	1	SWP	
6	301001-203	Spring pole	1	AL2011	
7	505100-113-A	Adapter slid shaft(a)	1	SUS303	
8	505100-199-A	Lever hinge(a)	2	SUS303	
9	505100-65-B	Lock knob(b)	1	SUS303	
10	505100-144	Adapter clamp body	1	AL6061	
11	505100-199-B	Lever hinge(b)	1	SUS303	
12	505100-197	Adapter hinge block	1	AL6061	
13	505100-141	Adapter base block	1	AL6061	
14	505100-200	Purge tube guide	1	AL6061	
15	505100-201	Purge stand column	1	AL6061	
16	505100-140	Top block	1	AL6061	
17	505100-202	Purge cup stand	1	AL6061	
18	505100-65-A	Lock knob(a)	1	SUS303	
19	505100-62	Middle clamp	1	AL6061	
20	505100-195	Middle block	1	AL6061	
21	505100-196	Post	4	SUS303	
22	505100-54-A	Plunger-a	1	AL6061	
23	505100-54-B	Plunger-b	1	AL6061	
24	505100-194	Bottom block	1	AL6061	
25	505100-164	Base plate	1	AL6061	
26	501500-93	Control panel	1	AL6061	
27	505100-152	Control box	1	SPC	
28	505100-142	Control door	1	SPC	
A		Bolt(M4x32)	2	SCM	
B		Bleed valve	2	1/8"	
C		Set screw(M4x6)	2	SCM	
D		Bolt(M4x20)	2	SCM	
E		Linear ball bearing	2	LMU6	
F		Bolt(M3x13)	1	SCM	
G		Set screw(M4x4)	2	SCM	
H		E-Snap ring	3	STEEL / 호칭: 9	
I		Bolt(M6x25)	10	SCM	
J		Bolt(M5x35)	2	SCM	
K		Bolt(M3x8)	2	SCM	
L		나비형노브	4	NWGMCS-15	
M		Bolt(M6x50)	2	SCM	
N		Bolt(M4x15)	2	SCM	
O		Set screw(M4x8)	3	SCM	
P		Bolt(M6x40)	4	SCM	
Q		Bolt(M6x35)	4	SCM	
R		Pin(Ø5x14)	2		

S		Bolt(M6x20)	6	SCM	
T		Bolt(M5x20)	4	SCM	
U		Air cylinder	1	ADRB40-200-C73KS	TPC
V		Air cylinder	1	ADRB32-200-C73KS	TPC
W		Speed controller	4	NSE 1/4-R01	SANGA PNEUMATIC
X		Flat head bolt(M3x4)	15	SCM	
Y		LED lamp	2	TD-212 DC24V RED	TPC
Z		Regulator gauge	2	0.7MPa	TAEHA
AA		One touch fitting	4	GPL 0602(L)	SANGA PNEUMATIC
AB		Air regulator	2	KAR231-02	KCC
AC		Mechanical valve	2	VM151-01-35RA	SMC
AD		One touch fitting	8	GPL 0601(L)	SANGA PNEUMATIC
AE		Bolt(M4x6)	4	SCM	
AF		Foot	4	NBR	
AG		One touch fitting	1	GPLM 06	SANGA PNEUMATIC
AH		Connector	1	SCK-16-8(R)	SAMWOO