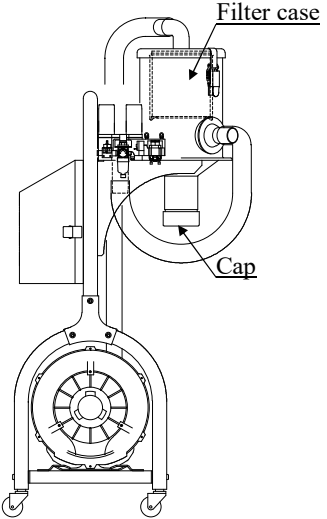
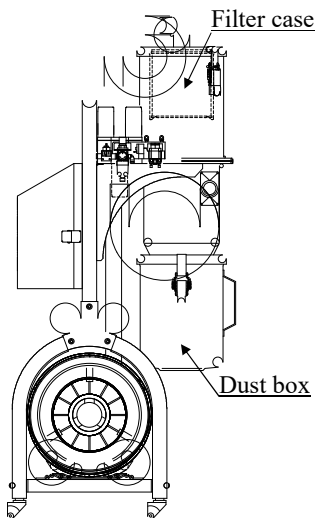
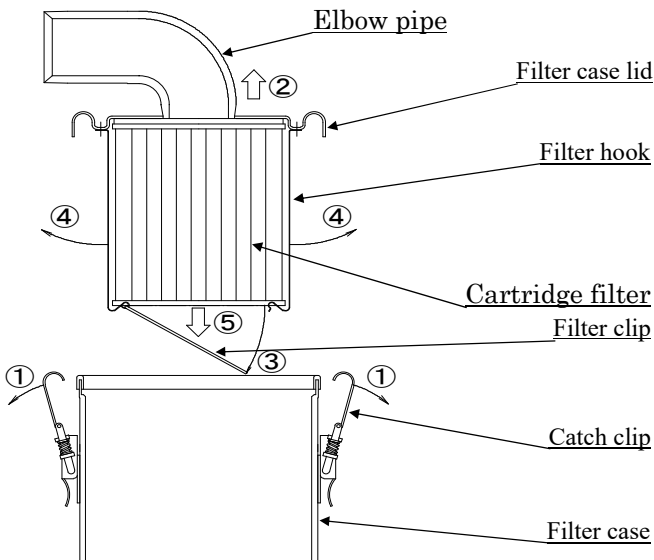

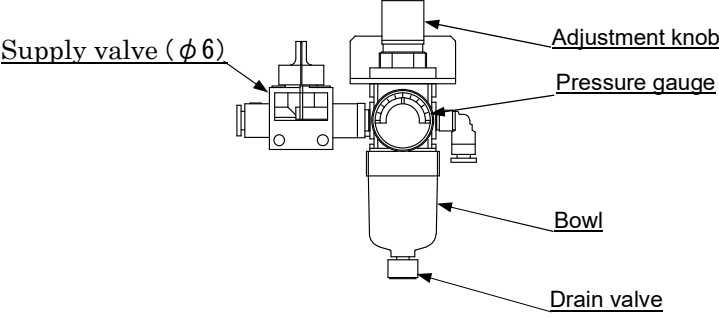


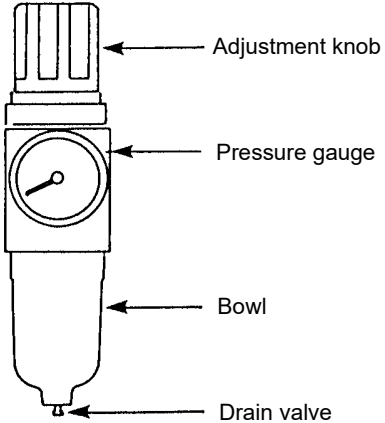
# Inspection and Maintenance

This chapter describes inspection and maintenance items and the procedures in order of inspecting frequency in order to always keep the product in a favorable state.

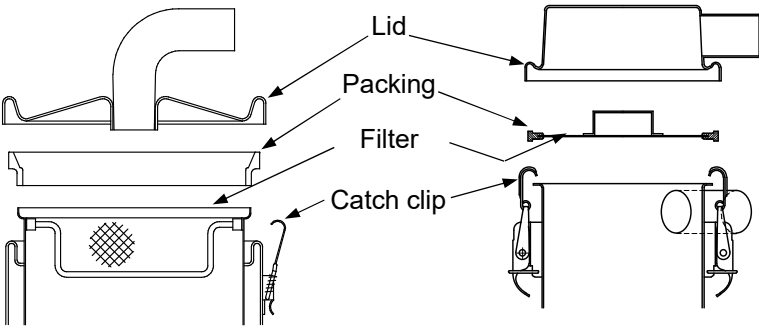

## 1. Daily inspection

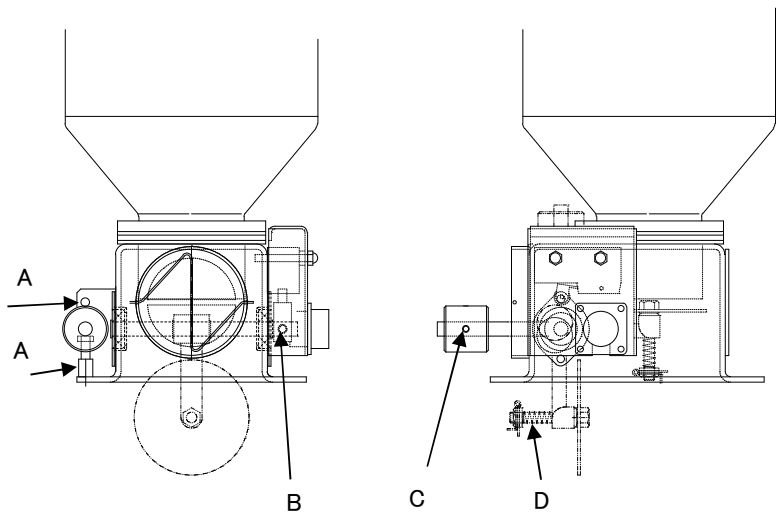
Maintenance and inspection item	Descriptions
<p>Cartridge filter within filter case of the suction unit</p>  <p>V type</p>  <p>VC type</p>	<ol style="list-style-type: none"> <li>1. After removing a catch clip on the filter case, remove the filter case lid. [①→②]</li> <li>2. After removing a filter clip, take out the cartridge filter from the filter case lid to clean. [③→④→⑤]</li> <li>3. Remove the fine particles that adhere to the filter with a vacuum cleaner.</li> <li>4. Be sure to recover after cleaning.</li> </ol>  <div style="text-align: center;">  <p><b>CAUTION</b></p> </div> <ol style="list-style-type: none"> <li>1. Install the cartridge filter so that the opening having the packing is directed toward the filter case lid.</li> <li>2. If the equipment is used in a state where packing of the cartridge filter does not closely contact the filter case lid, the fine particles will mix into the blower and cause blower trouble.</li> <li>3. Replace with a new cartridge filter, in the case where a damaged cartridge filter, a cartridge filter that is severely deteriorated, deformed or is adhered with deposits cannot be removed. Replace when the blower has trouble and cannot carry out material conveyance, the filter mesh is clogged, or fine particles result of a damaged part.</li> </ol>

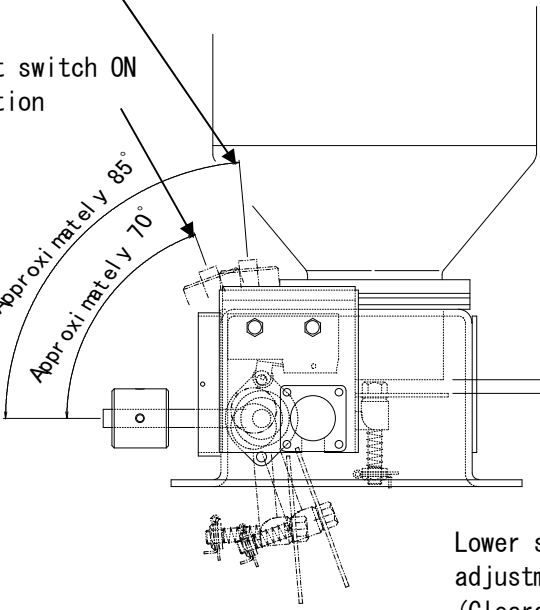
Maintenance and inspection item	Descriptions
Discharging dust in suction unit	<p>V type Remove the cap below the filter case and discharge the accumulated dust. Be sure to recover after discharging.</p> <p>VC type Remove the catch clip on the upper part of the dust box and discharge the accumulated dust. Be sure to recover after discharging.</p> <p>* Replace with new packing if the U type packing for the dust box is severely deteriorated, deformed, discolored or hardened.</p>
Air kit for bi-directional switch valve	<p>Pull up the adjusting knob of the filter regulator to unlock, turn the adjusting knob the to left, and check that the indicated pressure on the pressure gauge has reached "0 (zero)" and then discharge the drainage accumulated in the bowl. Drainage can be discharged by pushing the bowl to the lower part of drain valve.</p> <p>Drainage should be received by an empty can.</p> <p>Drainage can be discharged by turning the drain valve at the lower part of the bowl.</p> 

Maintenance and inspection item	Descriptions
<p>Air kit for slide gate of collection hopper</p> <p>* Only for a suction hopper type SD control collection hopper</p>	<p>Pull up the adjusting knob of the filter regulator to unlock, turn the adjusting knob the to left, and check that the indicated pressure on the pressure gauge has reached “0 (zero)” and then discharge the drainage accumulated in the bowl. Drainage can be discharged by pushing the bowl to the lower part of drain valve. Drainage should be received by an empty can.</p>  <p>The diagram shows a vertical filter regulator assembly. At the top is a cylindrical adjustment knob with vertical ridges. Below it is a square-sectioned body containing a circular pressure gauge with a needle. Underneath the gauge is a tapered bowl-shaped component. At the very bottom is a small drain valve with a central opening. Arrows point from the text labels to each of these four components.</p>

## 2. Monthly Inspection

Maintenance and inspection item	Descriptions
<p>Metal screen filter inside the collection hopper</p>	<p>Open the lid of the collection hopper to take out the filter, and check that it is not clogged. If clogged, blow clean dry air to remove the deposits.</p>  <p>The diagram shows a cross-section of the collection hopper assembly. It includes a lid with a handle, packing material, a metal screen filter, and a catch clip. Arrows point to each of these components with their respective labels: Lid, Packing, Filter, and Catch clip.</p> <ul style="list-style-type: none"> <li>* If the deposits cannot be removed even by blowing dry air, use sharp metal wire.</li> <li>* Replace with new packing if the packing is severely deteriorated, deformed, discolored or hardened.</li> </ul> <div style="text-align: center;">  <p><b>CAUTION</b></p> </div> <p>Exercise sufficient care when handling the filter. A deformed metal screen filter may cause air leakage, resulting in conveyance failure. If the filter is deformed, fix it by tapping it with a soft object such as a wooden or rubber hammer. If the filter still cannot be fixed, replace it with a new one.</p>
<p>Conveying hose (PVC hose) Air hose (GL-IV hose)</p>	<p>Inspect each hose connection for suction leakage, and additionally tighten the hose bands.</p> <ul style="list-style-type: none"> <li>* Replace with a new hose if the hose is severely deteriorated, hardened or damaged.</li> </ul>

Maintenance and inspection item	Descriptions
<p>Check each component of jet clone</p>	<p>A: Please check that the stopper (M6) on the upper and lower two points are not loosened, respectively.</p> <p>※Please retighten the stopper according to the “Stopper adjusting diagram” on the following page, if loosened.</p> <p>B: Remove the cover and check that the hexagon socket head locking screw of the removable cam is not loosened. Simultaneously, open and close the damper to check that no abnormality for the limit switch exists.</p> <p>※Please retighten according to the “Stopper adjusting diagram” on the following page, if loosened.</p> <p>C: Please check that the hexagon socket head locking screw fixing the balance weight is not loosened.</p> <p>※Tighten the screw for fixing if loosened.</p> <p>D: Please check that no abnormality for the spring, bolt, nut and split pin exists.</p> <p>※If any abnormality is found, please replace it with a new one.</p> <div style="text-align: center;">  </div>

Maintenance and inspection item	Descriptions
Check each component of jet clone	<p data-bbox="630 352 932 415">Upper stopper adjustment position</p> <p data-bbox="604 478 805 541">Limit switch ON position</p> <p data-bbox="656 575 802 638">Approximately 85°</p> <p data-bbox="695 638 802 701">Approximately 70°</p> <p data-bbox="1214 798 1263 819">6mm</p> <p data-bbox="1117 953 1370 1050">Lower stopper adjustment position (Clearance 6mm)</p> <p data-bbox="792 1058 1143 1087">Stopper adjustment diagram</p> 

### 3. Component adjustment procedure

This section describes the adjustment procedure of the full detecting device attached to each collection hopper.

#### 1) Jet Clone gate cam

<p>Adjust the gate cam when full is not detected regardless of whether the material is full.</p>		
Step	Details of operation	
1	Loosen the set-screw with a hexagon rod spanner (2.5mm).	
2	Adjust the gate cam position so that the limit switch is ON with the gate lowering from the horizon by 45-50°.	
3	After adjusting the cam, secure it by tightening the set-screw.	

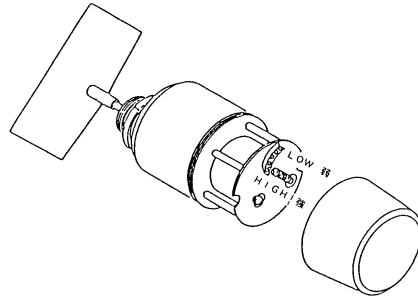
#### 2) Balance weight for Jet clone

<p>In a case where material is attached to the damper due to static electricity, the state shown on the right is brought about in rare cases. In such a case, adjust the damper by loosening two locking screws for the balance weight rearward by 5mm, respectively, so as to be horizontally positioned. Retighten screws for fixing after adjustment.</p>	
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3) Suction hopper level switch

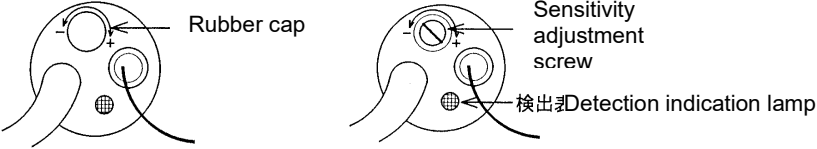
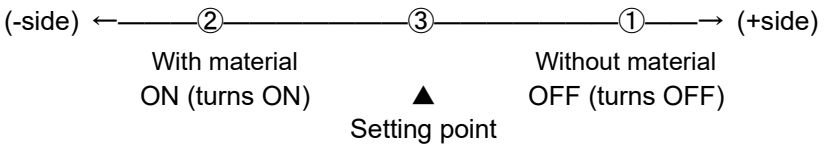
If the level switch does not accurately detect the full level for the material used, make a sensitivity adjustment of the level switch. Adjust the sensitivity according to the specific gravity of the material.

Step	Details of operation
1	Set the control panel power circuit breaker to ON.
2	Remove the lid of the level switch.
3	<p>Change the spring hook position.                      Moving the spring toward the HIGH position causes the sensitivity to increase, and vice versa.</p> <p>[Confirmation method]</p> <ol style="list-style-type: none"> <li>(1) The spring of the level switch is set in the strongest direction.</li> <li>(2) The material is fed slowly until the blade of the level switch is filled up with the material.</li> <li>(3) The adjustment confirmation performs under this condition from the HIGH to LOW direction step by step. Then, the adjustment is completed in the position where the blade rotation stops securely.</li> </ol>





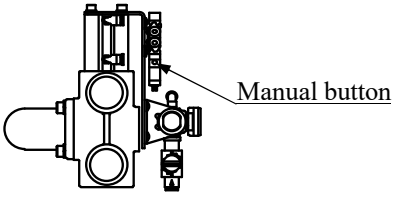
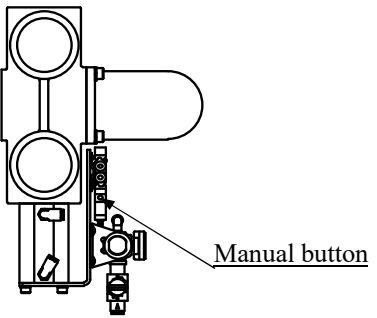
4) Suction hopper proximity switch (E2K)

<p>If the proximity switch does not detect the full level, make a sensitivity adjustment of the proximity switch by the following steps.</p>	
Step	Details of operation
1	<p>Remove the materials in the collection hopper. Turn ON the power circuit breaker on the control panel.</p>
2	<p>Confirm that there is no gap of 1mm or more between the end of the proximity switch and the hopper sight glass. If there is a gap between them, loosen the fastening screws (2 pieces) of the proximity switch fitting bracket and adjust the distance between the end of the proximity switch and the hopper sight glass to approximately 1mm, and then fix them.</p>
3	<p>Remove the rubber cap at the back of the proximity switch.</p> 
4	<p>Perform the following ①, ② and ③ operations while adjusting the sensitivity adjustment screw with the attached screwdriver.</p> <p>① Adjust the sensitivity to a point where the sensor switches from ON to OFF without material (Detection indication lamp turns OFF).</p> <p>② Adjust the sensitivity to a point where the sensor switches from OFF to ON with material (Detection indication lamp turns ON).</p> <p>③ Set the sensitivity adjustment screw at the middle point between the ON to OFF point ① without material and the OFF to ON point ② with material.</p> <p>NOTE: Perform the sensitivity setting with the actually used material. And, when there are various materials, the ①, ② and ③ operations should be performed with a light material of appearance specific gravity.</p> 
5	<p>Install the rubber cap removed in step 3. Perform the material conveyance and confirm that the detection indicator turns on.</p>

## 4. Operation check procedure of bi-directional switch valve

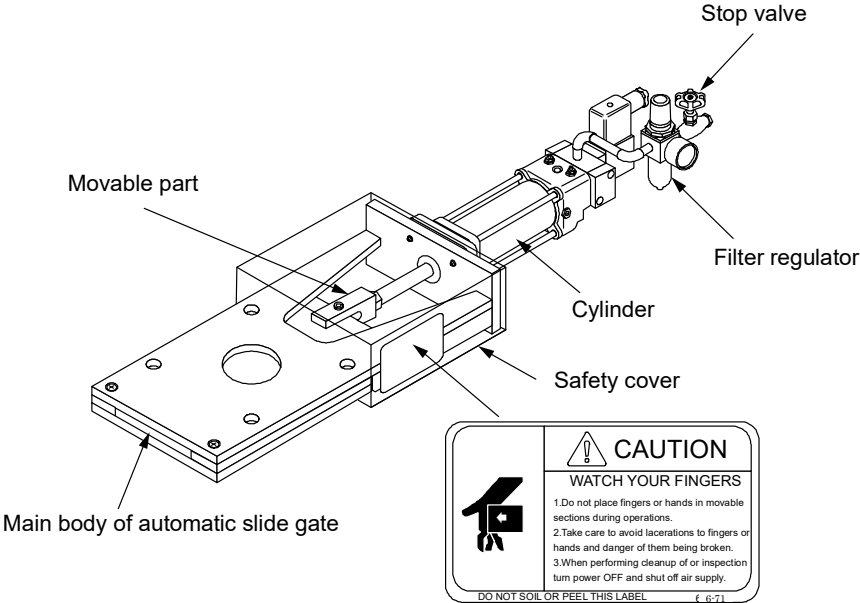
Manually operate the bi-directional switch valve and describe the Operation check

the Operation check procedure according to the steps.

Step	Details of operation
1	Turn OFF the power breaker on the rear face of the control panel.
2	Supply dry compressed air of -0.4 MPa - 0.5 MPa to the air kit of the bi-directional switch valve.
3	<p>Press the manual button (orange button) of the solenoid valve.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>For JL4-(4, 5)(V, VC) - 2 type</p> </div> <div style="text-align: center;">  <p>For JL4-(6, 7)(V, VC) - 2 type</p> </div> </div> <p style="text-align: center;">Figure of bi-directional switch valve viewed from above.</p> <p>In a state where the manual button is pressed, the solenoid valve is turned ON and the bi-directional switch valve is branched to the No.2 direction.            When the manual button is pressed, the solenoid valve is turned OFF and the bi-directional switch valve is switched to the No. 1 direction.</p>

## 5. Operation check procedure of automatic slide gate

In the case of the suction hopper type SD control collection hopper, manually operate the automatic slide gate. The methods for checking the operation are described according to the steps.

Step	Details of operation
1	Turn "OFF" the control panel power circuit breaker.
2	Supply dry compressed air of 0.4 MPa to 0.5 MPa to the air kit of the automatic slide gate.
3	<p>Press the manual button on the solenoid valve. The air cylinder starts to operate.</p> 
<p style="text-align: center;"><b>! WARNING</b></p> <ul style="list-style-type: none"> <li>○ Do not place fingers or hands into the movable parts (slide part) during operation. Tears or bone fractures may result.</li> <li>○ Never operate with the cover of the movable part removed.</li> <li>○ Never operate with material caught in the slide damper. Failure may result.</li> </ul>	