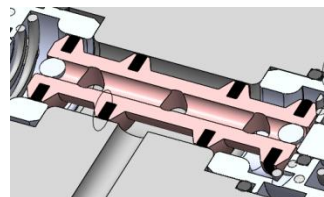


Improvements of ABS & trouble shootings

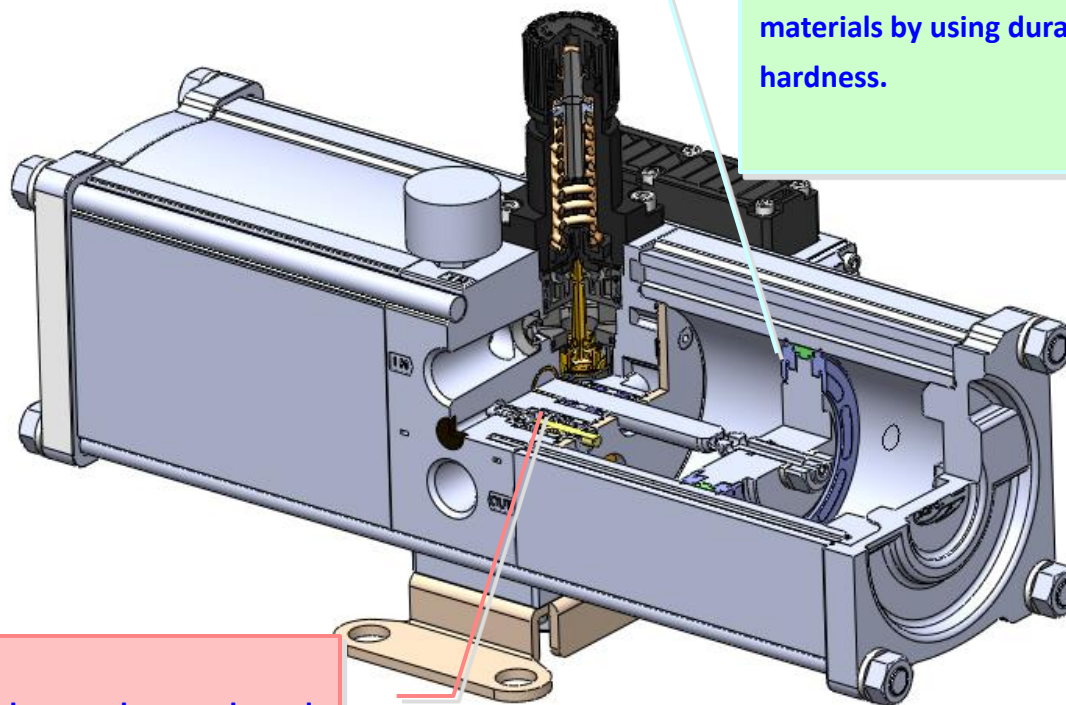
TPC Mechatronics Technology Research Center

1. Key Improvements



- Material of sensing valve spool strengthened
(Change of material from aluminum to stainless)

: Minimization of damage to parts caused by foreign particles.



- Decreased hardness of piston seal (92 degrees
→ 80 degrees)

: Minimizes damage of piston seal due to foreign materials by using durable seal and lowering hardness.

2. Trouble shootings



■ Trouble shooting manual

Issue	Cause	Period of occurrence	Action plan
Leak in adjustment knob	Inlet pressure is higher than the set pressure (working pressure)	Early Middle	Adjust the to change the set pressure higher than the inlet pressure.
	Leakage in gasket due to foreign particles inflow	Early Middle	Disassemble the adjustment knob and air-flush the diaphragm. If still leaking, replace the diaphragm parts. (refer to Maintenance Manual)
Leak in silencer	Damage or abrasion of seals due to foreign particles inflow.	Middle End	Replace the directional valve (refer to Maintenance Manual)
No movement	Operation stopped due to driving below the minimum operating pressure. (halt of directional valve)	Early Middle	Disassembling and reassembling the spool of the directional valve assembly (resetting the spool position)
	Operation stopped due to contamination of foreign substances (Halt of directional valve due to increase of internal resistance or damage/abrasion of the seals)	Early Middle End	Disassembling and reassembling the spool of the directional valve assembly (resetting the spool position) If the issue does not improve, replace the directional valve /rod packing assembly/piston packing(refer to Maintenance Manual)
No stop in movement	Leakage of outlet pipe and actuator.	Early	Check the area of leakage and repair.
	Damage or abrasion of seals due to foreign particles or grease exhaustion, etc.	Middle End	Replace the directional valve /rod seal/piston seal (refer to Maintenance Manual)

- If the exhaust silencer element is black and contaminated, the seal may be damaged. Replace the directional valve assembly. Replace the element periodically.
- The maintenance work should be carried out by a person who has sufficient knowledge and experience in pneumatic equipment, and follow the instructions according to the maintenance manual. For replacement parts, refer to the maintenance manual.