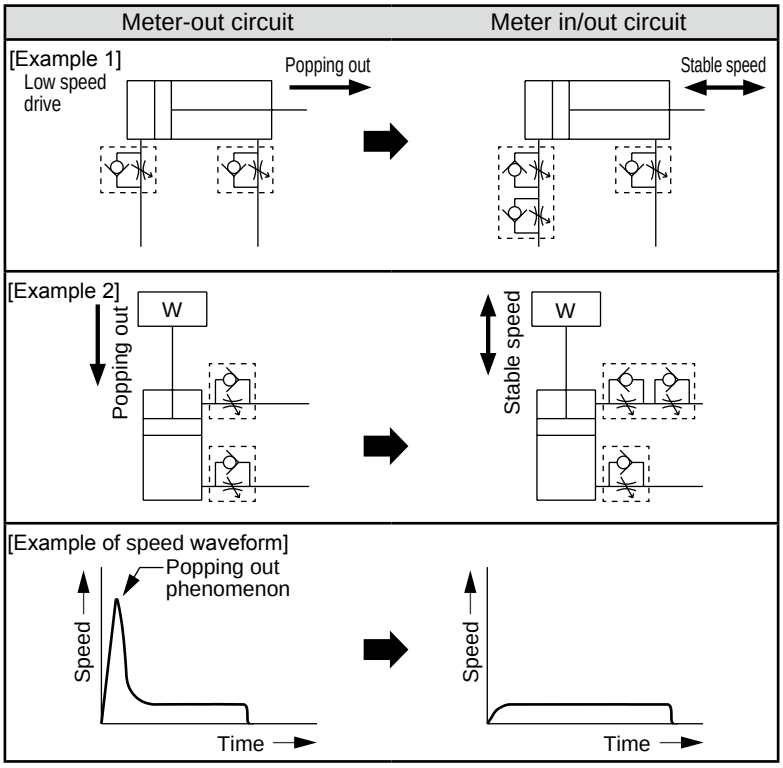
Applications

1 Speed is stabilized by controlling with an in/out speed controller.

[Example 1] In low-speed control with a single rod cylinder, the cylinder pops out immediately after the PUSH side operates if a meter-out circuit is used.

[Example 2] When vertically mounted, the cylinder pops out immediately after actuation because of the load weight. Speed is stabilized by using a meter in/out circuit.



[Cause of popping out phenomenon]
When using the meter-out circuit, flow on the exhaust side is restricted, so both sides reach the same pressure immediately after the valve is switched. The thrust equivalent to the difference in the piston's pressurized area or the thrust equivalent to the load's weight causes popping out.
When the piston moves, exhaust pressure rises, speed decelerates and the set speed is reached.
If popping out is caused by this phenomenon, fluctuation in sudden thrust is suppressed by restricting the flow on the supply side and popping out is resolved.

2 Danger can be prevented by suppressing popping out at the beginning of movement after residual pressure is released.

3 Reciprocating speed control is possible with a single acting cylinder.

4 The flow rate of the air operated valve and drip prevention valve can be finely adjusted.