

Animation Worksheet: Orifice with Check Valve

Name: _____ **Date:** _____

1. The orifice circuit with a check valve operates at a supply pressure of _____ pounds per square inch (psi).
2. The constant system pressure of 50 psi provides the _____ force for the hydraulic fluid inside the circuit.
3. During the apply phase, the orifice acts as a restriction in the path to control the _____ of the piston's movement.
4. The check valve is a one-way valve that features a tiny check _____ to control the direction of fluid flow.
5. When the control valve moves to start the apply phase, fluid flow pushes the check ball against its _____.
6. Pushing the check ball against its seat closes the free-flow path, which forces the hydraulic fluid to travel through the _____.
7. Because the fluid must pass through the orifice during the apply phase, the piston extends _____.
8. Once the cylinder chamber is completely full of fluid and the piston stops moving, the applied pressure rises until it equals _____ pressure.
9. When the control valve shifts to the release phase, returning fluid pushes the check ball off its seat, allowing fluid to _____ the orifice.
10. Because returning fluid does not have to go through the orifice restriction during release, the piston retracts _____ than it extended.