

Fire Extinguisher: Maintenance and Replacing Parts Are Critical for Safety

The valve assembly and other components of an extinguisher must be thoroughly examined each time the valve is removed from an extinguisher. That is done to identify problem parts that must be replaced and to ensure operational reliability when the extinguisher is returned to service. Here is information you can use during maintenance to help you keep extinguishers operational, reliable, and safe.

When an extinguisher operator removes the ring pin and “squeezes” the operating lever and the handle together, only the operating lever moves. That is because the carrying handle is stationary. When “squeezed”, the operating lever causes the internal valve stem to move downward, thereby opening the valve. When the valve opens, internal pressure causes the extinguishing agent to be released through the nozzle or hose assembly. When the operator stops squeezing, an internal spring automatically reseats the valve stem. When the valve stem is reseated, the valve is in the closed position and agent flow stops. This design allows intermittent operation and conservation of agent.

Since the valve stem is such a critical component for reliable operation of an extinguisher, it is the most frequently replaced component of an extinguisher valve assembly. Valve stems are often replaced at the time of recharging, teardown, and hydrostatic testing. Valve stems are replaced when an extinguisher becomes a leaker or when damage is discovered during servicing, such as a bent or corroded valve stem. The extinguisher service manuals provide information on when to replace them and which ones to use.

Extinguisher Component Checklist

Valve Body	Ring Pin	Valve Stem	Siphon Tube	Schrader Valve**
Carrying Handle	O-Rings	Internal Spring	Tamper Seal	Hose and Nozzle
Operating Lever	Rivets	Pressure Gauge	Service Collar*	Discharge Nozzle

* A Verification of Service Collar is installed after recharging or maintenance, where the valve is removed.

** Schrader valves are the air valves on water-type extinguishers. They should always be capped.

Extinguisher components are replaced whenever problems are discovered during extinguisher servicing. Here are some tips to consider when examining these extinguisher parts.

- O-Rings – Routinely replaced, also replaced when damage is discovered (cracked or worn)
- Valve Stem – Routinely replaced, also replaced if bent or binding
- Rivets – Replaced if corroded or binding
- Tamper Seal – Replaced annually and after recharging, teardown, and hydrostatic test
- Hose Assembly – Replaced if cut, cracked, damaged, or deformed
- Pull Pin – Replaced if corroded, binding, or bent
- Schrader Valve – Replaced if bubbles form during leak testing (caps are required)
- Pressure Gauge – Replaced if damaged or wrong one
- Service Collar – New collar installed prior to re-installing valve assembly
- Extinguisher Hanger – Replaced if damaged or wrong one

Performing a thorough examination, identifying problems, and replacing parts, according to the manufacturer’s service manual, will help ensure operational reliability when an extinguisher is needed during a fire emergency.

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