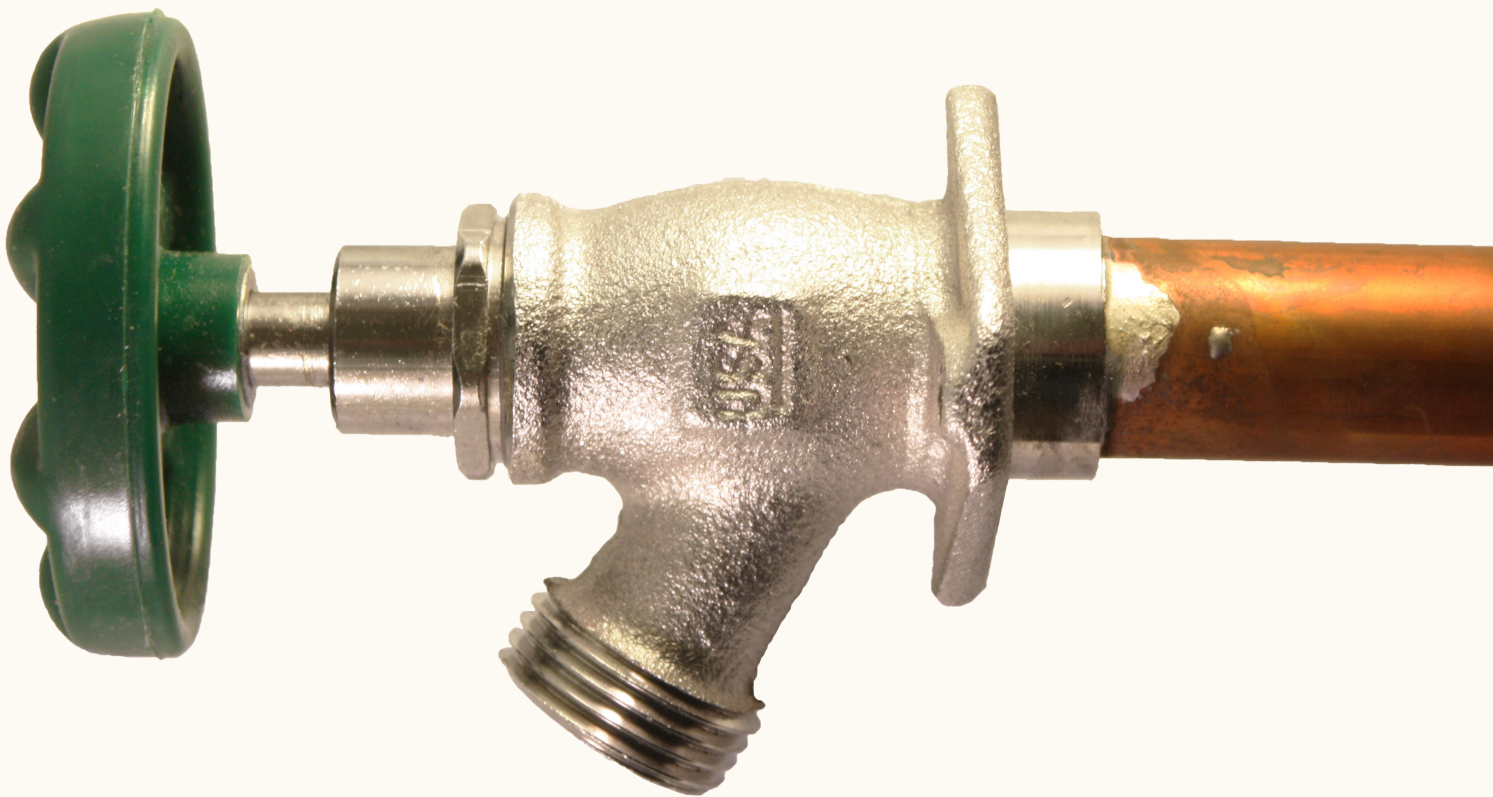
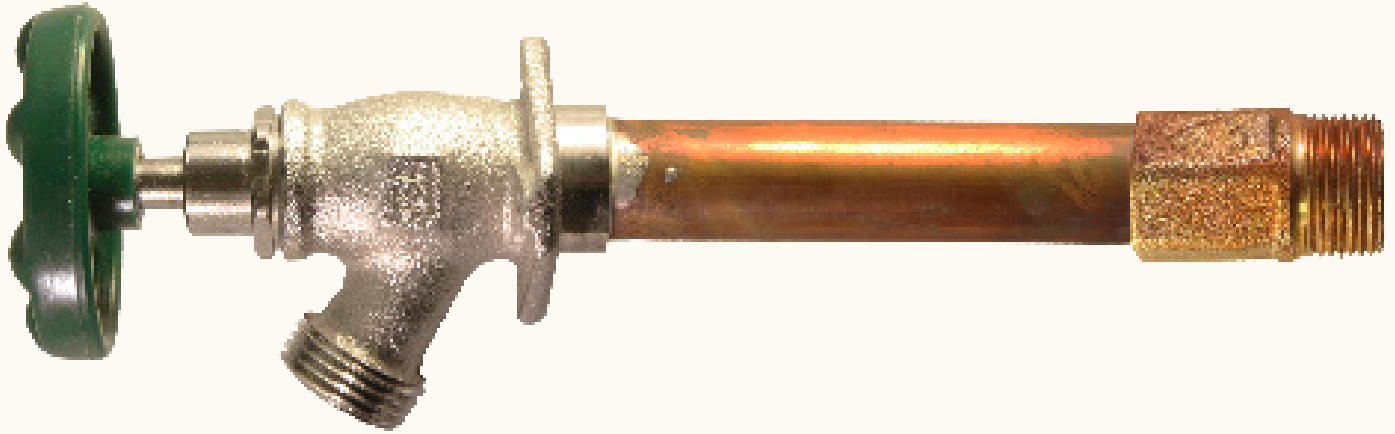


450 Standard Series
Frost-Proof Wall Hydrant
Installation, Use & Repair Guide



450 Series Anti-Siphon Wall Hydrants



450 Series Hydrant Information

- Standard Frost-Free Wall Hydrant.
- Protect faucet & pipes from freezing & damage by separating cold weather from water supply.
- Made in the USA; 3-Year Limited Warranty.
- **IMPORTANT: Always shut off faucet after use AND remove hose in order to drain the faucet and prevent freezing.**
- Does not provide anti-siphon back-flow protection; add-on devices available (may be required by code).
- Faucet must be installed at a downward angle to ensure drainage & prevent freezing.
- When using self-closing nozzle, always relieve pressure after shut-off.

Repair

Leaking out of the hose thread when "OFF"

- Faucet will not shut off, has constant leak.
- Cause: worn out washer or broken faucet seat.
- Replace seat washer & screw at end of the stem [PK1000] or replace entire stem assembly [PK8004 - PK8014].
- If new stem does not stop leak, the seat is damaged and the faucet will need to be replaced.
- If original stem is not a standard length [1/4" longer than even inch lengths], replace with PK80__SP.

Leaking out of the packing nut or bonnet:

- Cause: loose bonnet or worn out seals in the bonnet.
- Replace stem assembly with PK80__, measure tip to tip of the existing hydrant stem and subtract 4".
- If original stem is not a standard length [1/4" longer than even inch lengths], replace with PK80__SP.

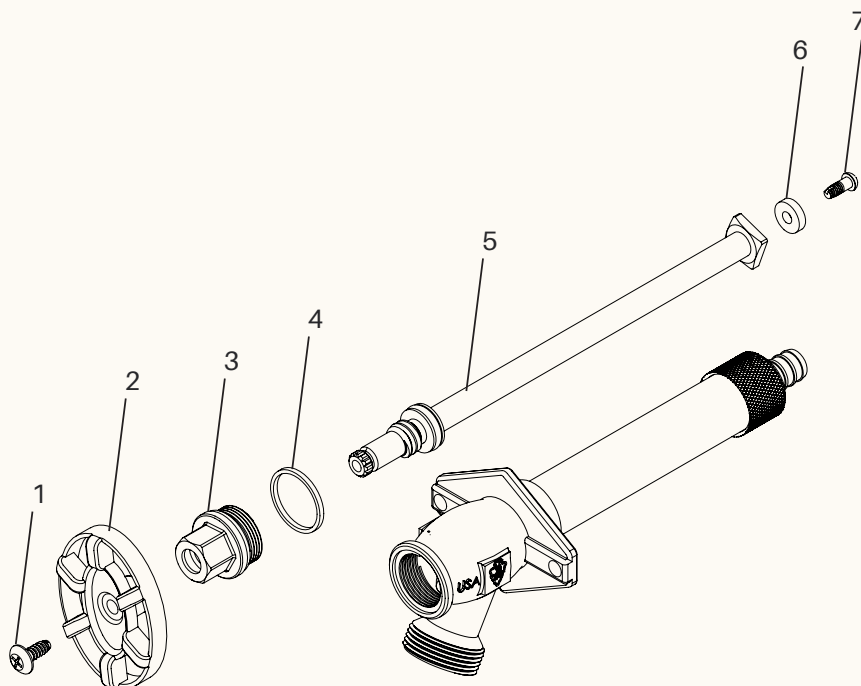
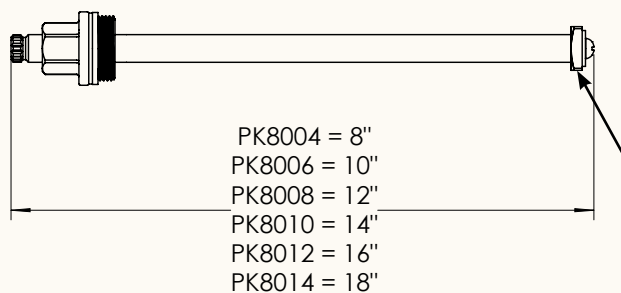
450 Series Anti-Siphon Wall Hydrants



Stem Rebuild Kit 	Green Oval Handle & Screw 	Gap-Spacer Wedge 	450 Series 4" Stem Assembly 	450 Series 6" Stem Assembly 	450 Series 8" Stem Assembly 	450 Series 10" Stem Assembly
# PK1000 Seat washer (# 6) & screw (# 7), nylon washer (# 4) & handle screw (# 1)	# PK1295 Green oval handle (# 2) & stainless screw (# 1)	# PK1450 Replacement gap spacer, used to tilt faucet downward	# PK8004 4-inch hydrant stem assembly (#'s 3-7) (8" total length)	# PK8006 6-inch hydrant stem assembly (#'s 3-7) (10" total length)	# PK8008 8-inch hydrant stem assembly (#'s 3-7) (12" total length)	# PK8010 10-inch hydrant stem assembly (#'s 3-7) (14" total length)
450 Series 12" Stem Assembly 	450 Series 14" Stem Assembly 					
# PK8012 12-inch hydrant stem assembly (#'s 3-7) (16" total length)	# PK8014 14-inch hydrant stem assembly (#'s 3-7) (18" total length)					

How to measure a frost-proof stem:

- 1- Measure overall (tip to tip) length of the stem assembly.
- 2- Subtract 4".



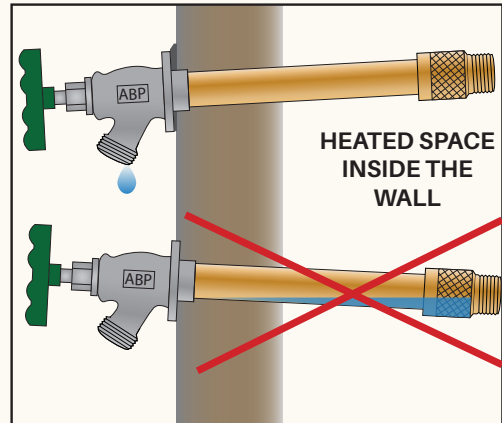
On faucets older than 1999: replacement stems may require a trim to the brass square washer retainer. Use a file or grinder to trim 1/16" off each corner to fit the stem into faucet. Contact Arrowhead Brass for more information.

If the original stem is not an even length from tip to tip (8", 10", 12", 14", 16" or 18"), and is 1/4" longer, you likely will need an "SP" stem: PK80__SP.

Frost-Proof Wall Hydrant Installation and Use



- Frost-proof wall hydrants are designed to prevent damage from freezing water in plumbing systems. Frost-proof wall hydrants protect the water supply from the cold weather by shutting-off flow at the heated space inside the wall.
- For a frost-proof wall hydrant to work properly, it must be installed at a slight downward angle toward the spout (as pictured right). This allows water to drain when it is shut-off. A gap spacer wedge can be used to ensure proper installation with a downward tilt.
- If the hydrant is installed level or at an upward angle, water will not drain properly and may lead to freeze damage.

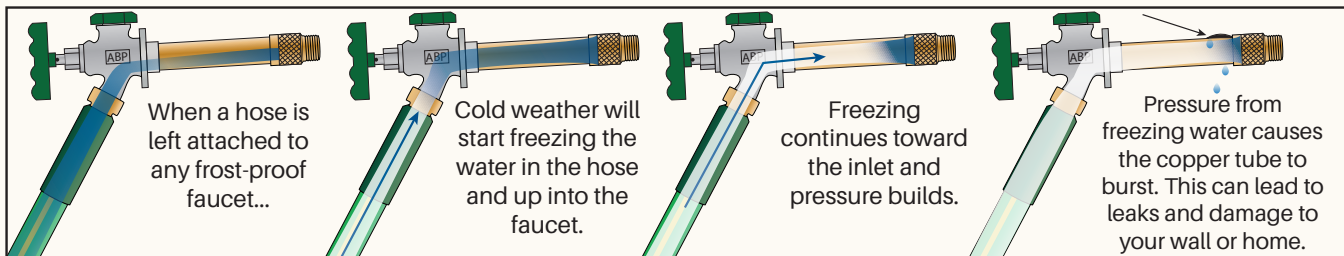


The only cause of a burst frost-proof hydrant is water expansion from freezing water inside an un-drained wall hydrant. Properly installed valves (with downward tilt) will always drain unless a hose or other device was left attached.



Grey gap spacer wedge can be used to ensure downward tilt.

"REMOVE HOSE IN FREEZING WEATHER".



When a hose or other device is left attached to the faucet (such as an irrigation timer, "y" hose splitter, or add-on back-flow preventer), water will remain trapped inside the wall hydrant. If cold weather hits, water inside the hose will begin to freeze upward toward the back, or "seat", of the faucet, and the pressure inside the copper tubing will exceed capacity and burst. This will cause leaks within the wall and can cause considerable damage. Frost-proof wall hydrants are designed to prevent this damage as long as the user ensures the faucets are angled downward and all hoses/devices are removed during freezing weather.