

HYDRA-TAP™

FDC Check Valve Clapper Flush Tool



PATENT PENDING



NEVER FLIP AN FDC CHECK VALVE AGAIN.

Flipping an FDC check-valve to conduct a Forward Flow or FDC Backflush is the worst part of any inspector or sprinkler fitters day.

With The Hydra-Tap™ holding the clapper open and allowing for reverse flow, they'll never have to do it again.

- Drain Check Valve
- Insert Set Rod
- Set Rod into place
- Thread Tap Cylinder into Ball Drip Outlet
- Adjust and Lock into place
- Snug up Compression Nuts and you're ready to flow!



MADE IN USA

It's that easy!

You're done in 20-30 minutes. No more jacks, hydraulic spreaders, sawzalls, sledge hammers, wedges, pinched gaskets and special trips to the hardware store. You're in and you're out.



Item #3099140

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System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	



NFPA 25 - 2020 Edition, Chapter 13, Section 13.4.2 Check Valves, Subsection 13.4.2.1

“Inspection. Valves shall be inspected internally every 5 years to verify that all of the valve’s components operate correctly.”

So that sets the requirement for the service as well as the interval for the service. The following clarifies the methodology by which one could complete said service.

NFPA 25 - 2020 Edition, Annex, Subsection A.14.2.1(1)(b)(i)

“Using video inspection equipment that is inserted into the system at strategic points to observe the internal condition of pipes. This equipment provides a visual exam of the pipes using a camera and lighting system on the end of a push cable. Video inspection equipment can be inserted into alarm, dry and precaution valves for a look into risers, feed mains, some cross mains, and some branch lines, depending on the system configuration. The push cable can also be inserted in a check valve when performing the 5-year internal inspection required by 13.4.2.1 to view additional areas of a system, and in the fire department connection to perform the interior inspection required by 13.8.3.”

BENEFITS:

On average, it take a sprinkler fitter 90 to 120 minutes to flip an FDC check-valve in order to conduct a Backflush or Forward Flow.

With The Hydra-Tap™ t- 20-30 minutes.

Increased margins and the ability to push out the competition by providing extremely competitive pricing from day one. Not to mention how happy your sprinkler fitters will be at the prospect of avoiding several hours stuck in a permit required confined space while prying apart pipe that was not designed to be pried apart.

How does The Hydra-Tap™ benefit my customers?

System Impairment. From the moment the check-valve is removed, that system and the FDC are critically impaired which leaves the building they serve completely unprotected.

By using The Hydra-Tap™ this risky situation can be avoided.

How does The Hydra-Tap™ benefit firefighters?

Keeping the FDC operable means crews retain the ability to boost volume and pressure to the sprinkler system and standpipe network - saving lives.

How does The Hydra-Tap™ affect flow rates?

A commonly overlooked feature of check-valves is that the clapper is often weighted, spring-loaded or both. In order to overcome the resistance applied by the clapper, water must push against it and expel energy which leads to a drop in pressure and volume. The Hydra-Tap™ holds the clapper open, allowing the water to flow freely and achieve excellent flow rates.

CLICK HERE FOR VIDEO

<https://www.youtube.com/watch?v=pOYUloXowdI>

HYDRA-TAP™

INSTRUCTIONS



Step 1. Isolate and drain the pipe tributary to the FDC check-valve.

Step 2. Remove the ball-drip and insert the Set Rod. There are three in your kit, so use the one that is applicable to the check-valve you're working on. Each one is unique and numbered with a punch on one end to correlate with the list below. Set Rods can be applied to other check valves in addition to the ones listed below.

SET ROD/CHECK-VALVE APPLICATION

Set Rod #1: Viking 4" D-1/G-1 Flanged & Grooved, Reliable 6" Model G Grooved, Kennedy 6" Figure 726 Grooved, Tyco 6" CV-F1 Grooved, Nibco 6" G-997 Grooved, Argco 6" ARG-CH-G300 Grooved, Nibco 4" F-908-W Flanged, Kennedy 4" Figure 1126 Flanged, Lansdale 6" LVCVGG Grooved, Victaulic 6" 716/717/779 Grooved, Grinnell 4" A-2 Flanged

Set Rod #2: United Brass 4" Model 90 Wafer, Lansdale 4" LVWCV Wafer, Central 4" Model B Wafer

Set Rod #3: Victaulic 4" 716/717/779 Grooved, Kennedy 4" Figure 726 Grooved, Tyco 4" CV-F1 Grooved, Nibco 4" G-997 Grooved, Argco 4" ARG-CH-G300 Grooved, Lansdale 4" LVCVGG Grooved, Lansdale 4" LVBCV Grooved & Threaded, BH 4" BH-22A/BH-22B/BH-22C, United Brass 4" Model 67 Grooved, United Brass 4" Model 68 Threaded

TIP: Hold the Set Rod to the side of the check-valve and mark in sharpie where it will be when the clapper is fully open. After inserting, verify that the sharpie mark is where you projected it would be. This will aid in confirming that the clapper is fully open.

TIP: Applying a small amount of food-grade lubricant to the end of the Set Rod will help it glide across the face of the clapper and aid in ease of positioning. Also rotating the Set Rod slightly left and right with a crescent wrench while gently tapping the bottom with a mallet will help ensure that the clapper is fully open. In some cases an "in and out" motion with the Set Rod while simultaneously rotating it left and right will aid in proper positioning.

Step 3. Chase the correct Set Rod with the shortest 1/2" nipple possible and the Tap Cylinder. From the Tap Cylinder, tighten to 30 lb./ft. torque. Be sure to align the Set Bolts on the Tap Cylinder so that they are perpendicular to the direction of flow prior to tightening them against the flat rails of the Set Rod.

Step 4. Using a crescent wrench on the flat rails of the Set Rod, gently adjust it's position until the flat rails are in parallel with the direction of flow. Then push the Set Rod up until it won't go further. Make sure that the clapper is fully open.

Step 5. Tighten the Set Bolts on the Tap Cylinder against the flat rails of the Set Rod and compress the o-rings with the Compression Nuts and Washers, then you're ready to flow!

TIP: Utilize 2.5" gate-valves on each FDC outlet to control the flow of water. That way if the building does catch fire you can quickly close the gate-valve(s) you're flowing out of, thereby insuring that all available water is directed to the sprinkler system. This setup will also allow responding firefighters to safely connect to the FDC via the closed gate-valve(s), at which point they can open them and begin pump ops and fire attack.

Step 6. (Optional). Thread another 1/2" nipple, ball valve and garden hose adapter onto the end of the Tap Cylinder and close for water mitigation. When done, connect a garden hose and open the ball valve to drain off any excess water remaining in the FDC piping.

Step 7. Remove all Hydra-Tap™ components and put the system back into service. Dry off Hydra-Tap™ components and put away for future use.

NOTE: Designed for 4" and 6" flanged, grooved and wafer swing checks. Use teflon tape on all connections for a water-tight seal. Do not force the Set Rods into position. Do not use an incompatible Set Rod on check-valves. Set Rods are suitable for use with other check-valves which are not listed.

NOTE: Set Rods expire after 1 year of service and shall be replaced by the end user. Do not subject Set Rods to flow in excess of 1,000 GPM.