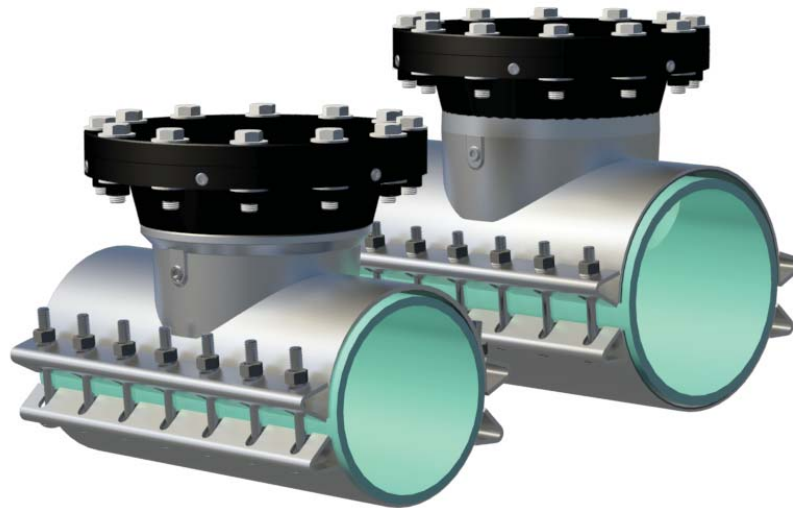


HSF 250 Patriot™

Heavy Duty Line Stop Fitting - 10 and 12" inch Nominal Sizes
Line Stop Fitting Installation Instructions
Push and Pin Completion Plug Installation Instructions



 **HYDRA-STOP**®
SOLUTIONS FOR CONTROL

144 Tower Drive, Suite A, Burr Ridge, IL 60527



10" - 12" HSF 250 Patriot™ Line Stop Fitting Installation Instructions

IMPORTANT: Read installation instructions COMPLETELY before installing Hydra-Stop line stop fittings. Failure to follow installation instructions will void product warranty. Follow local safety regulations and use personal protection equipment (PPE) as required by national, state and local regulations.



Figure 1

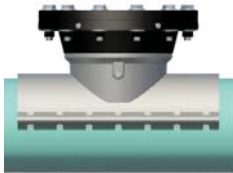


Figure 2

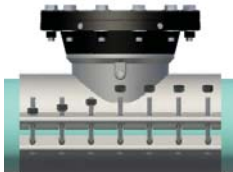


Figure 3

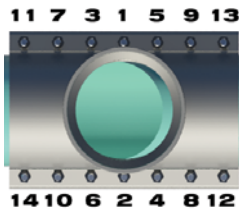


Figure 4

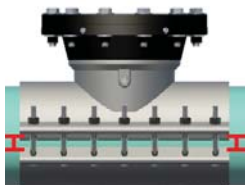


Figure 5

INSTALLATION INSTRUCTION STEPS

- 1. Confirm bore of temporary gate valve is 12.5 inches.** If the bore of your temporary gate valves is smaller than 12.5 inches immediately call Hydra-Stop technical support (708-389-5111).
- Inspect the line stop fitting to ensure no damage has occurred during shipment or storage (See Figure 1). Locate and remove completion plug and box containing stainless steel mounting hardware. Store in a clean, safe location.
- Measure pipe outside diameter where the line stop fitting is being installed to ensure the correct line stop fitting is being used.
- Thoroughly clean the pipe surface where the line stop fitting will be installed and inspect for flaws, i.e., gouges, protrusions, excessive corrosion, etc. Irregular surfaces should be avoided to assure maximum gasket sealing.
- Lubricate top and bottom of pipe and mat and branch gaskets with a soap/water solution. Ensure branch gasket is adequately lubricated. Do not use grease or pipe lubricant.
- Mount the top half of the line stop fitting on the pipe in the position required for permanent installation (See Figure 2). Use a level to ensure the flange is level. Do not rotate the top half of the line stop fitting after it is positioned on the pipe.
- Install the bottom half of the line stop fitting over the tapered ends of the mat gasket ensuring they are flat and smooth against the pipe surface. Visually inspect gasket to ensure tapered ends are not folded or rolled under themselves. Install stainless steel bolts, washers and nuts (See Figure 3). Finger tighten, ensuring gaps between top half and bottom half of the line stop fitting are the same front to back and side to side (within 1/8").
- Using a torque wrench, tighten nuts in proper pattern. Tightening pattern is shown in Figure 4. **Repeat tightening pattern in no more than 25 ft. lb. increments until recommended torque is reached.**
- Wait 10 minutes to allow the gasket to fully seat then re-tighten bolts to recommended torque three additional times following the tightening pattern.

Recommended Torque:

CI / DI Pipe: 65 ft-lbs. PVC Pipe: 55 ft-lbs. AC Pipe: 60 ft-lbs.

Installation Instructions and Best Practices continued on back

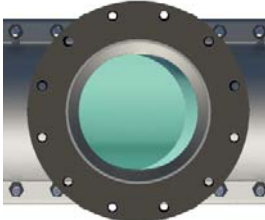


Figure 6

10. Check inside of fitting body outlet to ensure gasket is properly seated. Ensure completion plug set pins are flush with I.D. of the flange (See Figure 6).

11. Fill fitting body with water. Install test flange. Perform pressure test to ensure a complete seal between the fitting body and pipe (do not use a compressible medium such as air).

Minimum Test Pressure: 1.5 times the system working pressure

Maximum Test Pressure: 375 psi

12. Remove the test flange.

13. Following the tightening pattern, re-torque carriage bolts to recommended torque before continuing.

14. Properly block (support) HSF 250 Patriot fitting body and ensure pipe joints are properly restrained. Proceed with line stopping operation.

For Questions, please call 800.538.7867

HYDRA-STOP FITTINGS - INSTALLATION BEST PRACTICES

- Keep nuts and bolts clean and free of debris.
- Adequately lubricate pipe and HSF 250 Patriot gaskets with soap/water solution paying special attention to AC pipe. Ensure branch gasket is adequately lubricated. Do not use grease or pipe lubricant.
- Avoid rotating top half of HSF 250 fitting once placed on pipe.
- Do not use a powered wrench to tighten nuts. You will gall the bolts and damage the fitting.
- Block / support the pipe before installing the tapping machine.
- Ensure all pipe joints are restrained prior to proceeding to valve insertion operation.
- Label fitting body with a paint pen or permanent marker with the tightening pattern as a visual reminder of the tightening pattern.



144 Tower Drive, Suite A, Burr Ridge, IL 60527
Phone: 708-389-5111 Fax: 708-389-5125
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Call Hydra-Stop for Technical Support at 800.538.7867 and visit us on the web at www.hydra-stop.com

Specifications subject to change without notice.



10" and 12" HSF 250 Patriot™ Push and Pin Completion Plug Installation Instructions



Figure 1



Figure 2



Figure 3



Figure 4

1. Confirm bore of 12" temporary gate valve is 12.5 inches. If the bore of your 12" temporary gate valves is smaller than 12.5 inches immediately call Hydra-Stop technical support (708-389-5111).

2. Remove cutter from saw mandrel.

3. Install completion plug onto saw mandrel. Grease O-ring with Primolube.

4. Install saw mandrel into the P-20 housing and through the tapping machine housing. Align the bottom of completion plug so that it is flush with the bottom of the P-20 housing (See Figure 1). NOTE: If completion plug is not aligned flush with the bottom of p-20 housing the completion process as outlined in this document will not be successful.

5. Lock the saw mandrel in place using the packing nut assembly thumb screw (See Figure 2).

6) Set Completion Plug depth. Choose one of the following methods.

6A) Install stop collar onto the saw mandrel. Set the bottom of the stop collar to 6.25 inches from the top of the packing nut assembly. (See Figure 3). Tighten stop collar.

6B) Fit **Black 6.25 inch Completion Gauge** included with your Hydra-Stopper line stopping equipment over the saw mandrel. (See Figure 4). Bottom of gauge should be resting on packing nut assembly. Lower stop collar until it rests on the top of the insertion gauge. Tighten stop collar. Remove insertion gauge.

7. Mount the tapping machine / P-20 housing assembly on the temporary gate valve. Use all twelve nuts and bolts provided with equipment.

8. Install the drive unit, or the optional completion spacer bar between the feedscrew and saw mandrel. Feed down the feedscrew until drive unit or completion spacer is locked in place. If using the air drive use the 19" feed screw, for hydraulic drive use the 30" feed screw.

9. Slowly open gate valve. Equalize pressure on the top side of the completion plug by using the ball valve on the tapping machine housing.

Completion Plug Installation Instructions continued on back



Figure 5

10. Loosen the packing nut assembly thumb screw and advance the feedscrew until the stop collar reaches the top of the packing nut assembly. Please note: it will become tighter when the completion plug o-ring starts to compress. Equalization may be required to fully seat the completion plug.

11. Once the completion plug is fully seated, lock the saw mandrel in place using the packing nut assembly thumb screw. Remove the pin plugs from the fitting flange and store them in a clean, safe location.

12. Tighten the six set pins in the fitting flange to lock the completion plug in place by turning them clockwise 10-11 turns (See Figure 5). Back off each of the six set pins a half a turn. Install the pin plugs back into the flange.

13. Verify completion plug seal by opening the blow off valve on the tapping housing.

14. Turn the feedscrew counter clockwise to remove the drive unit or completion spacer bar. Loosen the packing nut assembly thumb screw.

15. Disengage the saw mandrel from the completion plug by turning counter clockwise. Pull the saw mandrel into the P-20 housing. Tighten the packing nut thumb screw to secure the mandrel.

16. Close the gate valve.

17. Remove the tapping machine from the gate valve.

18. Remove the gate valve from the fitting top flange.

19. Install the blind flange on the fitting top flange.

20. Clean and inspect installation equipment prior to storage.

21. Order replacement parts, if necessary, to replace lost, damaged or worn componets.

Questions? Please call 800.538.7867

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