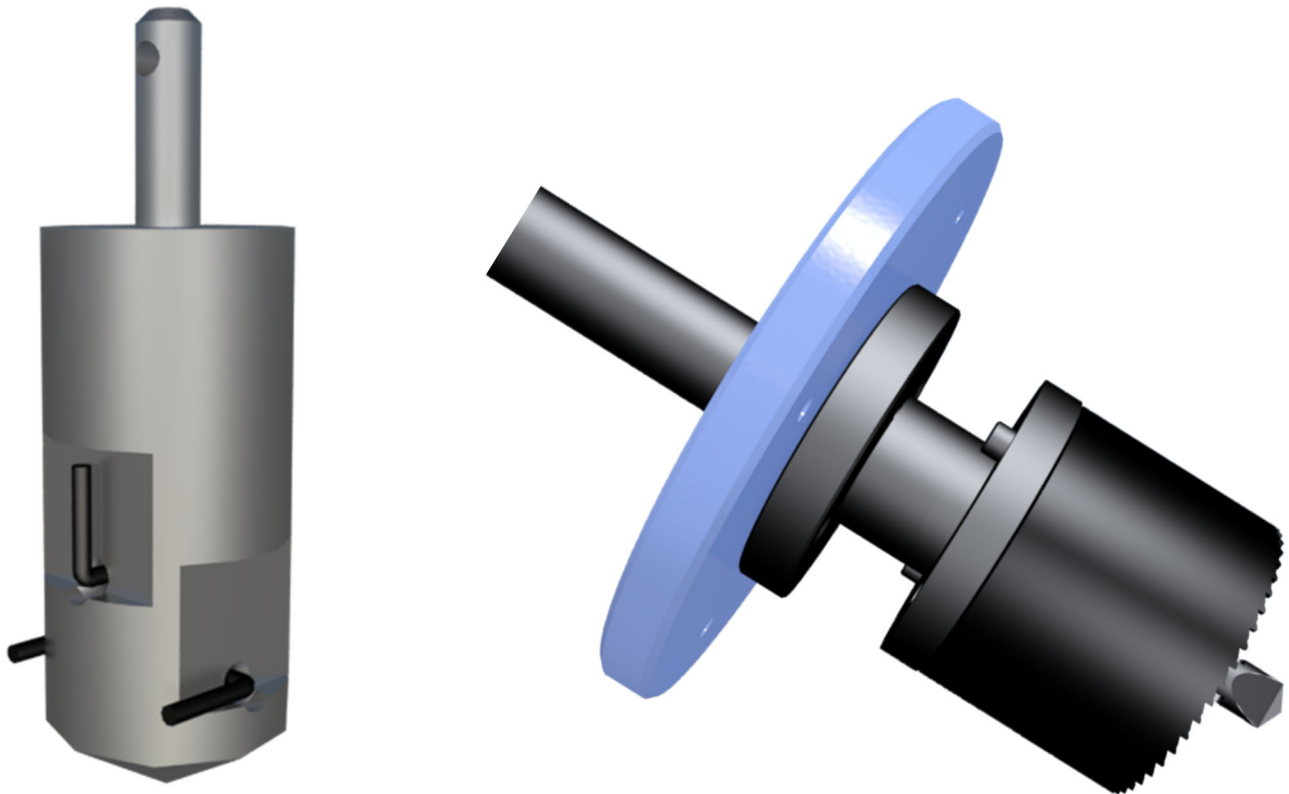


Hydra-Stop 6" - 12" Pipe Wall Sampling Kit

Installation Instructions

CSK_WRK v1.1 January 2020
Specifications subject to change without
notice.



Have questions or need assistance?

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Hydra-Core 6" - 12" Pipe Wall Sampling Kit



Installation Instructions

I. 6 - 8 inch Material List

Materials Needed for Core Sampling:

- a - Modified 4"-8" Saw Mandrel (41.5" Long)
- b - Centering Ring Hardware ($\frac{1}{4}$ -20 x $\frac{3}{4}$ ")
- c - 2.5" Core Cutter
- d - 4" Pilot Bit (Carbide or Twist)
- e - 6" & 8" Core Sampling Centering Rings

Material Needed for Post-Core Sampling Tapping

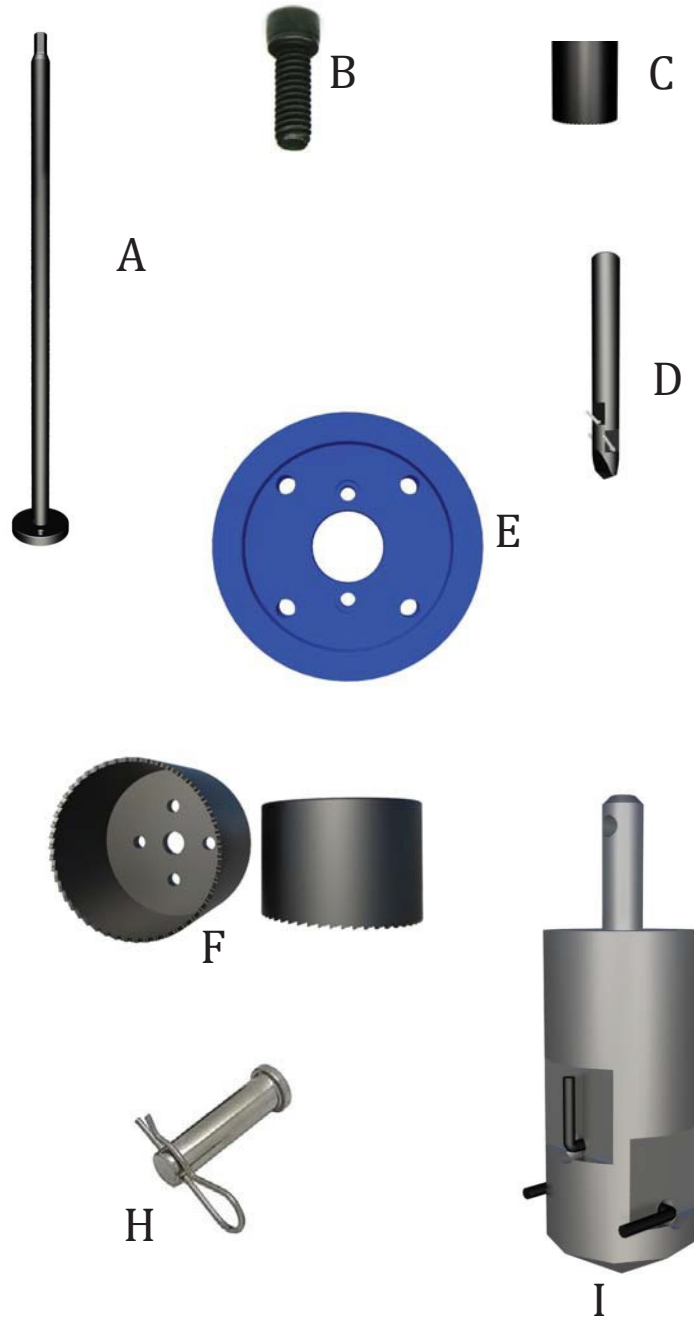
F - Cutters:

- 5.5" or 7.5" Undersized Cutters
- 5.8" or 7.9" Standard Cutters

G - Cutter Attachment Hardware (not shown)

H - Centering Tool Set Pin/Cotter

I - 2.5" Centering Tool



II. 6 - 8 inch Standard Tool List

For Core Sampling/ Post Core Sampling Tapping:



$\frac{1}{8}$ ", $\frac{5}{32}$ ", $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ " T-Handle or Allen Wrenches



$\frac{3}{4}$ Open End Wrench

Installation Instructions

III. Procedure – 6" - 8" Core Sampling



Figure 1

Step 1: Thread 2.5 inch core cutter to 41" saw mandrel completely, then unscrew until thru holes in cutter align with threaded saw mandrel holes. Insert both 1/4-20 x 3/4" threaded bolts. These bolts prevent the cutter from spinning off the saw mandrel. (See Figure 1)



Figure 2

Step 2: Insert pilot bit into 41" saw mandrel and lock in place with set screw. (See Figure 2)

Step 3: Attach 6 or 8 inch centering ring to the top of the saw mandrel flange using 5/16"-18 x 1.25" bolts through to top of the centering ring.

Step 4: After pressure testing - insert coring assembly into tap housing and perform a core sampling tap.

NOTE: Centering Ring ensures this 2.5in core sample is centered.

NOTE: ENSURE THAT CENTERING RING CAN ROTATE FREELY WITH PILOT BIT TOUCHING THE TOP OF PIPE.

NOTE: If tap is done on PVC and material melts, centering tool in next section will still function properly to center tap, but coupon may be difficult to remove.

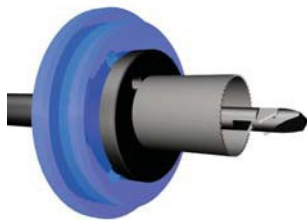


Figure 3

Step 5: Remove core sample and measure.

NOTE: If Pipe ID (Outer diameter – 2 X wall thickness) is smaller than 5.80" (for 6 inch nominal pipe) or 7.90" (for 8 inch nominal pipe), then the undersized cutter and cartridge should be used. See Appendix 1 "Pipe / Cutter / Pipe ID Range Chart" for pipe ID / cutter selection.

Step 6: Disassemble core sampling equipment.

Step 7: Coupon must be removed before cutter bolts and cutter can be removed.



Figure 4

Procedure – Post Core Tapping

Step 8: Attach appropriate 6 inch or 8 inch cutter – standard or undersized – to the saw mandrel and secure with standard cutter hardware as normal.

Step 9: Insert 2.5 inch centering tool into pilot bit hole, align through-hole with saw mandrel through-hole and lock in place with cotter pin & clip. (See Figure 4)

Step 10: Mount tapping equipment, open gate valve and drop saw mandrel assembly slowly until the cutter is sitting on the pipe. Installer should feel the teeth hitting the top of the pipe.

Step 11: Set the cut depth from the packing nut to the bottom of the stop collar equal to 1/2 pipe OD and perform tap.

NOTE: 2.5 inch centering tool will center the cut for an undersized cutter and will capture the coupon.

Step 12: Perform a standard insertion using a standard or undersized cartridge depending on pipe ID/ cutter size.

Hydra-Core 6" - 12" Pipe Wall Sampling Kit



Installation Instructions

I. 10-12 inch Material List

Materials Needed for Core Sampling:

- a - Modified 10"-12" Saw Mandrel (55" Long)
- b - Adaptor Set Pin / Cotter
- c - Cutter Attachment Hardware
- d - Coring Adapter
- e - 4" Core Cutter
- f - 4" Pilot Bit (Carbide or Twist)
- g - 12" Core Sampling Centering Rings

Material Needed for Post-Core Sampling Tapping

- h - 11.5" or 11.8" Standard Cutters
- i - Cutter Attachment Hardware (not shown)
- j - Centering Tool Set Pin/Cotter
- k - 4" Centering Tool

II. 10 - 12 inch Standard Tool List

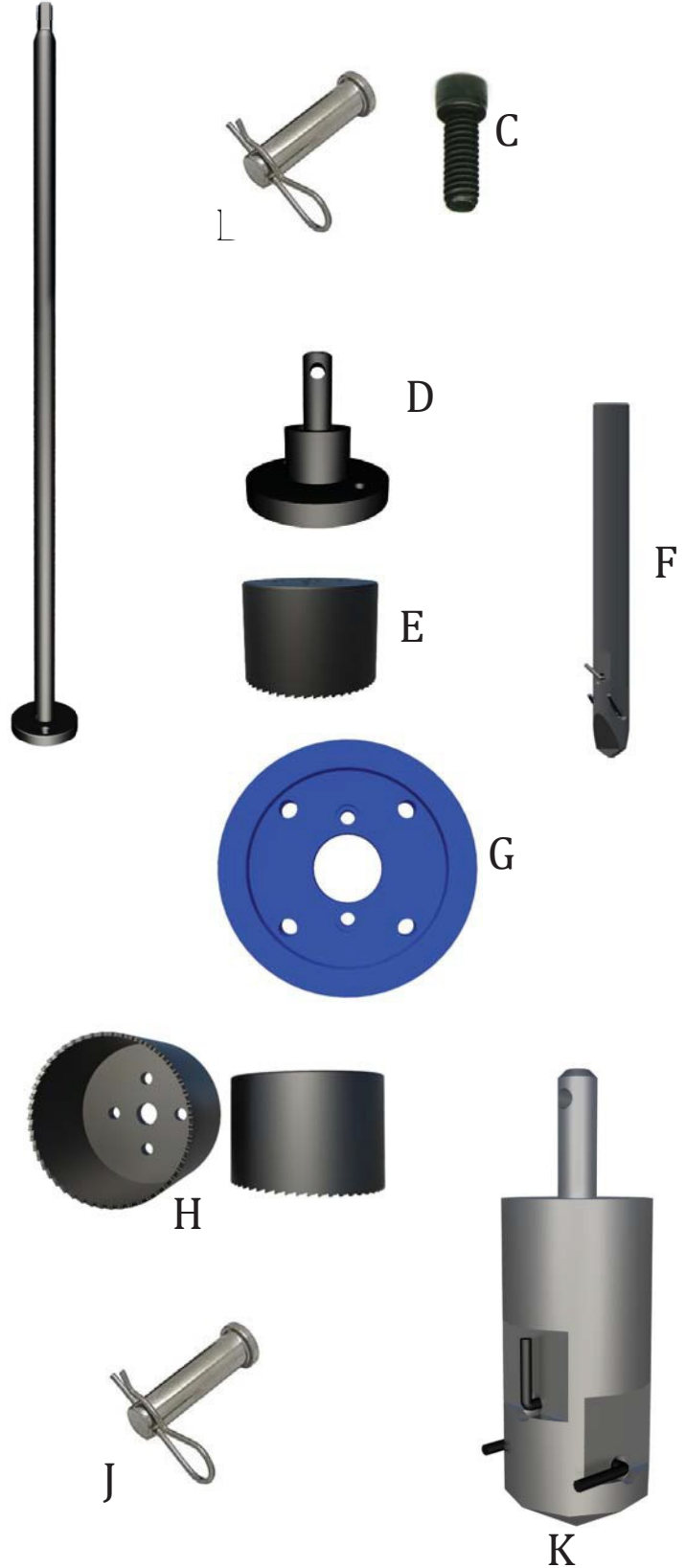
For Core Sampling/ Post Core Sampling Tapping:



5/32", 1/4", 5/16", 3/8" T-Handle or Allen Wrenches



3/4 Open End Wrench



Installation Instructions

III. Procedure – 10 - 12" Core Sampling



Figure 1

Step 1: Screw 4 inch cutter to adaptor and lock in place with cutter hardware. (See Figure 1) Insert pilot bit into adaptor and lock in place with set pin. (See Figure 2)



Figure 2

Step 2: Thread adaptor/cutter onto saw mandrel until tight, then back off until adaptor through-hole aligns with saw mandrel through-hole. (This through hole is the modification made to the saw mandrel in order to accept the 3/8" set pin included in kit.) (See Figure 3)



Figure 3

Step 3: Insert Set Pin and Cotter Clip to lock Adaptor in place. (See Figure 4)



Figure 4

NOTE: There should be a small amount of play between the saw mandrel and adaptor. This is desired as it tells us the adaptor will not tighten onto mandrel.

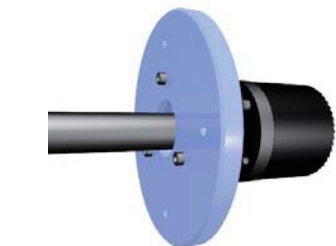


Figure 5a

Step 4: Attach Centering Ring to Saw Mandrel using 1/2"-13 x 2" Hardware through to top of the Centering Ring. (See Figures 5a and 5b)

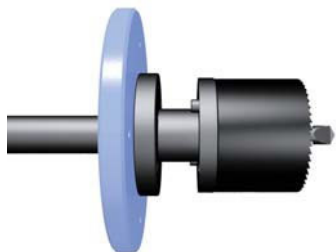


Figure 5b

Step 5: After Pressure Testing - Insert Coring Assembly into Tap Housing and perform a core sampling tap.



NOTE: Centering Ring ensures 4 inch sample tap is centered. Check that centering ring can rotate freely with pilot bit touching the pipe.



NOTE: The 4 inch tap can generate extra heat. It is recommended that this 4 inch sample tap is done at a slower than average speed if done on PVC.

Step 6: Remove Core Sample and measure.



NOTE: If Pipe ID (OD – 2* Pipe Thickness) is smaller than 11.75" (12in Pipe), then the undersized cutter and cartridge should be used. See Appendix 1 "Pipe / Cutter / Pipe ID Range Chart" for pipe ID / cutter selection.

Step 7: Disassemble core sampling equipment

Step 8: Attach appropriate cutter to saw mandrel and secure with cutter hardware as normal.

Step 9: Insert 4 inch centering tool into pilot bit hole, align through-hole with saw mandrel through-hole and lock in place with cotter pin & clip.

Step 10: Perform a standard tap on the pipe.



NOTE: Centering Tool will center the cut for an undersized cutter and will capture the coupon.

Step 11: Perform a standard insertion using a standard or undersized cartridge depending on pipe ID / cutter size. (See Figures 6a and 6b).



NOTE: Undersized Red Cutter shown for clarity.

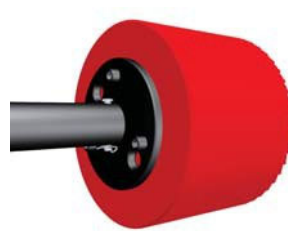


Figure 6a

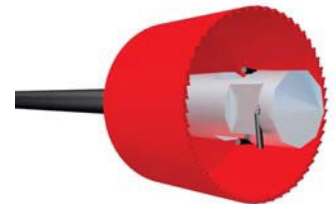


Figure 6b

Hydra-Core 6" - 12" Pipe Wall Sampling Kit



Installation Instructions

APPENDIX 1 - Pipe / Cutter / Pipe ID Range Chart

Nominal Size	Cutter Size	Cutter Color	ID Range	Part Number
4"	3.8	Black	3.75+	8IVBULTLH04-250
6"	5.5	Red	5.45-5.75	8IVBULTLH06-250-U5.5
	5.8	Black	5.75+	8IVBULTLH06-250
8"	7.5	Red	7.40-7.80	8IVBULTLH08-250-U7.5
	7.5		7.40-7.80	8IVBULTLH08-250-U7.5-AC
	7.8	Black	7.80+	8IVBULTLH08-250
10"	9.5	Red	9.40-9.80	8IVBULTLH10-250-U9.5
	9.5		9.40-9.80	8IVBULTLH10-250-U9.5-AC
	9.8	Black	9.80+	8IVBULTLH10-250
12"	11.1	Blue	11.00-11.40	8IVBULTLH12-250-U11.1
	11.5	Red	11.40-11.70	8IVBULTLH12-250-U11.5
	11.5		11.40-11.70	8IVBULTLH12-250-U11.5-AC
	11.8	Black	11.70+	8IVBULTLH12-250