Inserting Control ~ Valve Insertions



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Applications for Adding or Replacing Valves

- Lines installed initially without enough valves for current needs.
- Existing valves not functional.
- Existing valves lost in the system.
- To have the ability to create isolation zones in the event of contamination.

1,300 Seattle residents under boil water advisory

- One Water Main Break
- 200 square Blocks
- 1,300 Customers

- How many valves had to be turned and Why?
- Unable to Find?
- Broken?

January 4, 2012

KOMO News | 1,300 S. Seattle residents under boil water advisory |

KOMO News

Print this article

1,300 S. Seattle residents under boil water advisory

 $Originally\ printed\ at\ http://www.komonews.com/news/local/Water-main-break-cuts-off-service-to-S-Seattle-136659593.html$

By KOMO Staff January 4, 2012

SEATTLE -- Officials are advising the 1,300 or so people affected by a water main break in southeast Seattle to boil their water before drinking or cooking, as a precaution.

The break occurred Wednesday morning on South Juneau Street just east of Martin Luther King Jr. Blvd, said officials with Seattle Public Utilities.

Service is either cut off or reduced to about a 200 square block area roughly bordered by 32nd Ave South to the west, to Wilson Avenue South on the east; and from South Alaska Street on the north down to South Graham Street, on the south.

SPU says although water service is expected to be restored Thursday afternoon, as a precautionary measure, residents and businesses in two areas are being asked to not use tap water for drinking or cooking purposes unless it is boiled, until notified. (See map.)



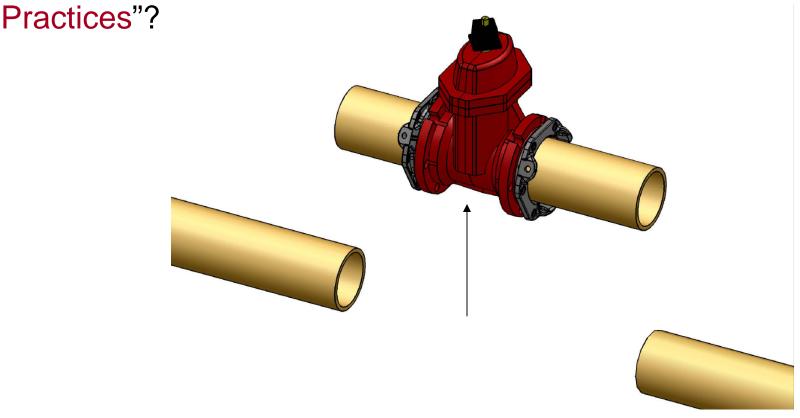
Those areas include an area bounded by 55th Ave. South to the east, and 44th Ave. South to the west; and Ferdinand Street to the north, and South Brandon Street to the south. A second area is bounded by South Brandon Street to the north, and South Brighton Street to the south, and Wilson Ave. South to the east, and 48th Ave. South to the west.

Area residents are advised that if they must use water from their taps for food preparation,

How do you currently Add a new Valves or Replace an Un-repairable Valve?

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 The Traditional Method ~ Cut out the broken Valve or Cut in a new Valve, both using the "Best Management



Traditional Method to Cut-in a Valve, Costs more and presents an increased risk to public Health & Safety than Inserting a Valve



How do you currently Add a new Valves or Replace an Un-repairable Valve?

- The Traditional Method ~ Cut out the broken Valve or Cut in a new Valve, both using the "Best Management Practices"?
- Use Line Stops to isolate only the work area.
 Then Cut out the broken Valve or Cut in a new Valve, both using the "Best Management Practices"?



Oregon Drinking Water Program Best Management Practices for Cutting Into or Repairing Existing Water Mains

Valve Scenarios:

- •1. Add/Repair/Replace while maintaining positive pressure *Best*
- •2. Add/Repair/Replace without pressure using best management practices *Acceptable*
- •3. Add/Repair/Replace without pressure and without best management practices *Least Desirable*

AWWA STANDARDS

 Currently there are no AWWA standards covering valve insertion products. About the closest one can come to deriving a standard is by applying gate valve standards C500, C509 and C515 in conjunction with the tapping sleeve standard C223 (Romac is the committee chair for this std). In general terms Romac complies with the AWWA requirements for sleeves and valves as do most valve insertion manufacturers. However when one begins to look at valve seat requirements, valve end requirements and body configuration it highlights why all valve insertion systems fall short of meeting the standards. The reason comes down to configuration. In valve insertion there is no valve seat per say, there are no valves ends and the standards do not make allowances for splitting the valve body. As a valve insertion manufacture Romac could ignore these requirements and claim compliance however that would be inappropriate.

Insert Valve Manufacturers

ADS – Hydra-Stop Insta-Valve Plus

Occlude InsertValve

Romac QuikValve

Advance Valve Technologies EZ2 Valve









Installations using a Valve Insertion system

HYDRA-STOP





















Sleeve is Installed with Mega-Lug Restraints











Occlude isolation valve bolted in place

Occlude T2 tapping machine installed





Whole pipe & T2 removed

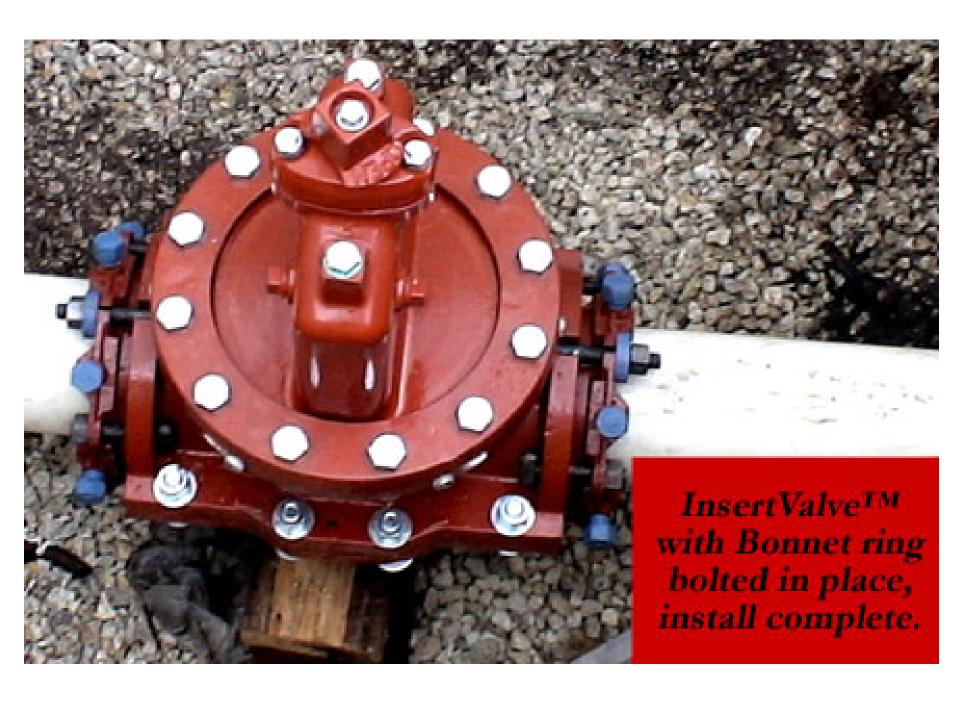
Bonnet & Gate mounted to the Insert Tool



Bonnet & Gate installed in valve body, insert tool removed







Romac ~ QuikValve







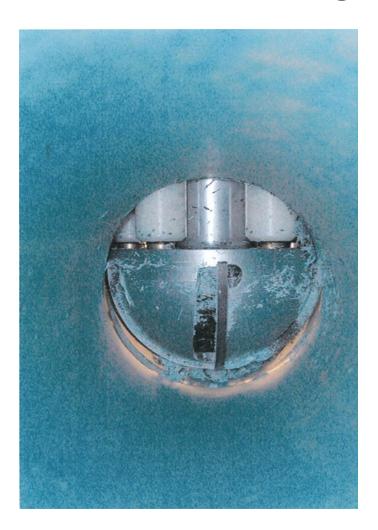








Reaming the Pipe ID.





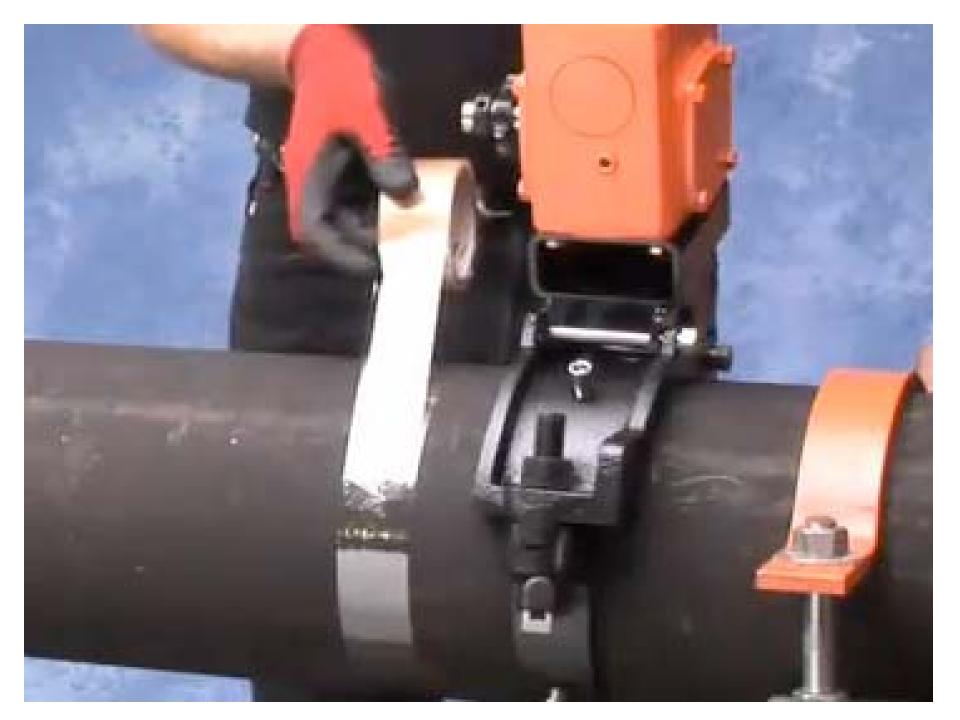




AVT ~ EZ₂ Valve System







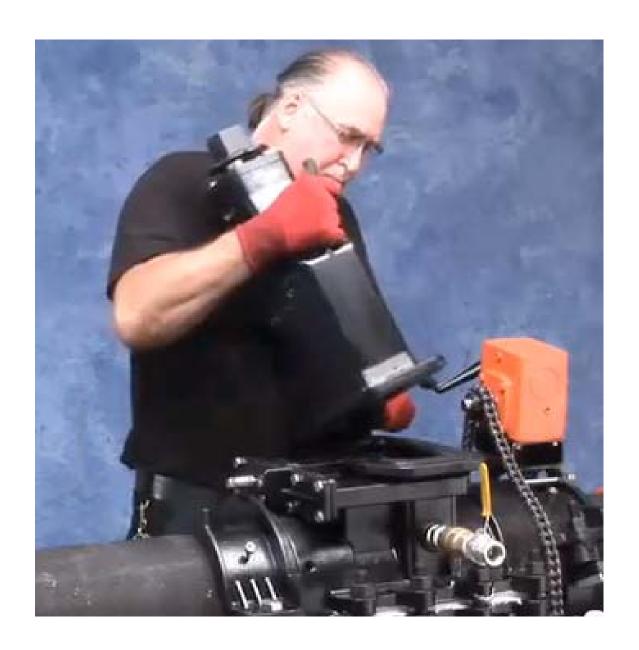














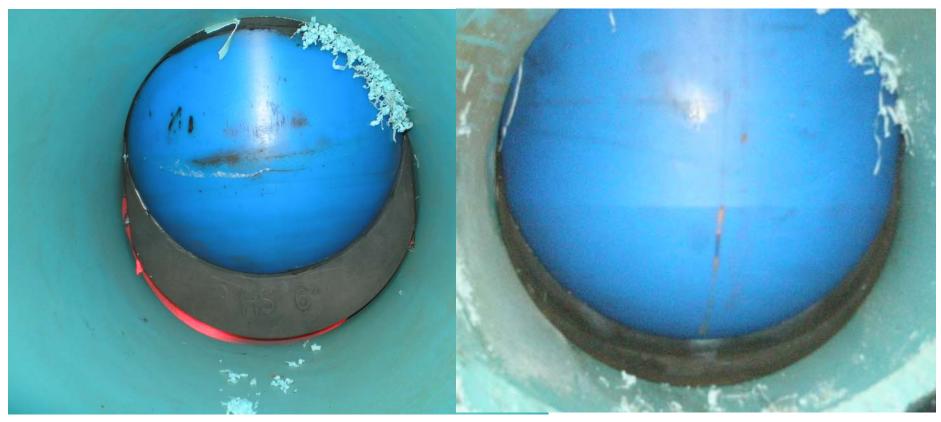
100% seal

- Pipe condition is a variable that effects all valve insertion systems. Especially those which make use of the pipe ID as a sealing surface.
- 2. When new, the ID of the pipe is in excellent condition and provides a good surface for the valve body to seal against.
- 3. As time goes by tuburculeation may build, corrosion may occur, the pipe can egg shape due to soil loading and flaking of internal protective coatings may begin. At some point these issues become significant enough where a 100% shut off is not possible with any system.
- Romac chooses to take a conservative position on this topic in an effort to better serve our customers. In actuality the Quick Valve system will perform better than most since it incorporates the reaming process. This prepares the ID surface of the pipe with a machined seat for the valve body seal against.





HYDRA-STOP



OCCLUDE

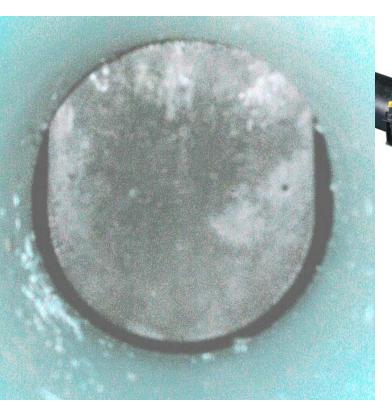








ROMAC QuikValve





AVT ~ EZ₂ Valve System



QUESTIONS?

