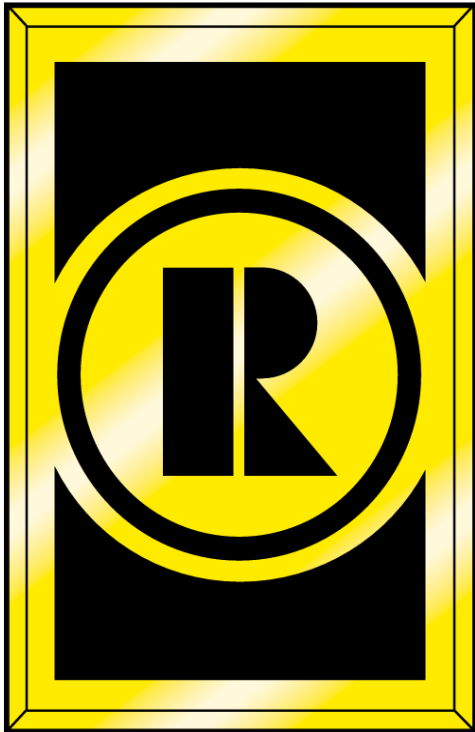


Inserting Control ~ Valve Insertions



JAMES SCRIBNER
ROMAC INDUSTRIES, INC

27 March 2012

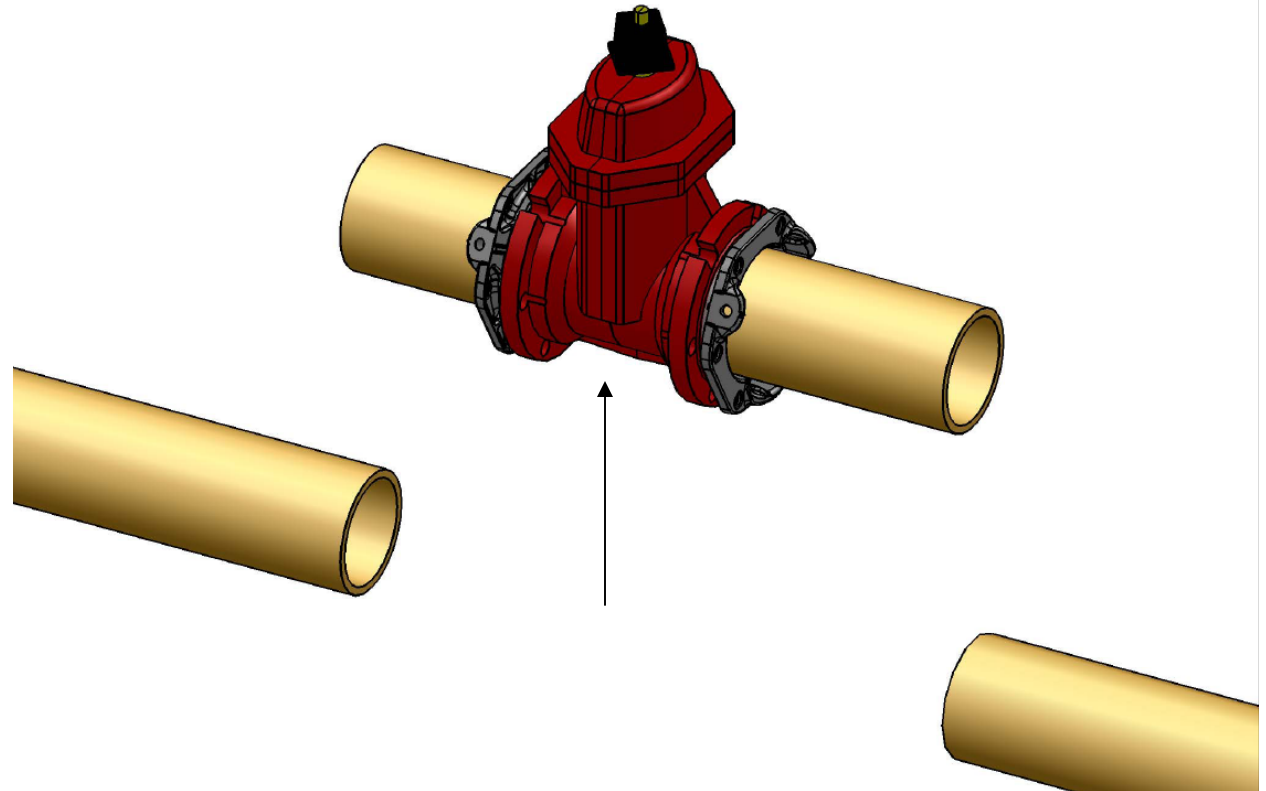
Applications for Adding or Replacing Valves

- 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.

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

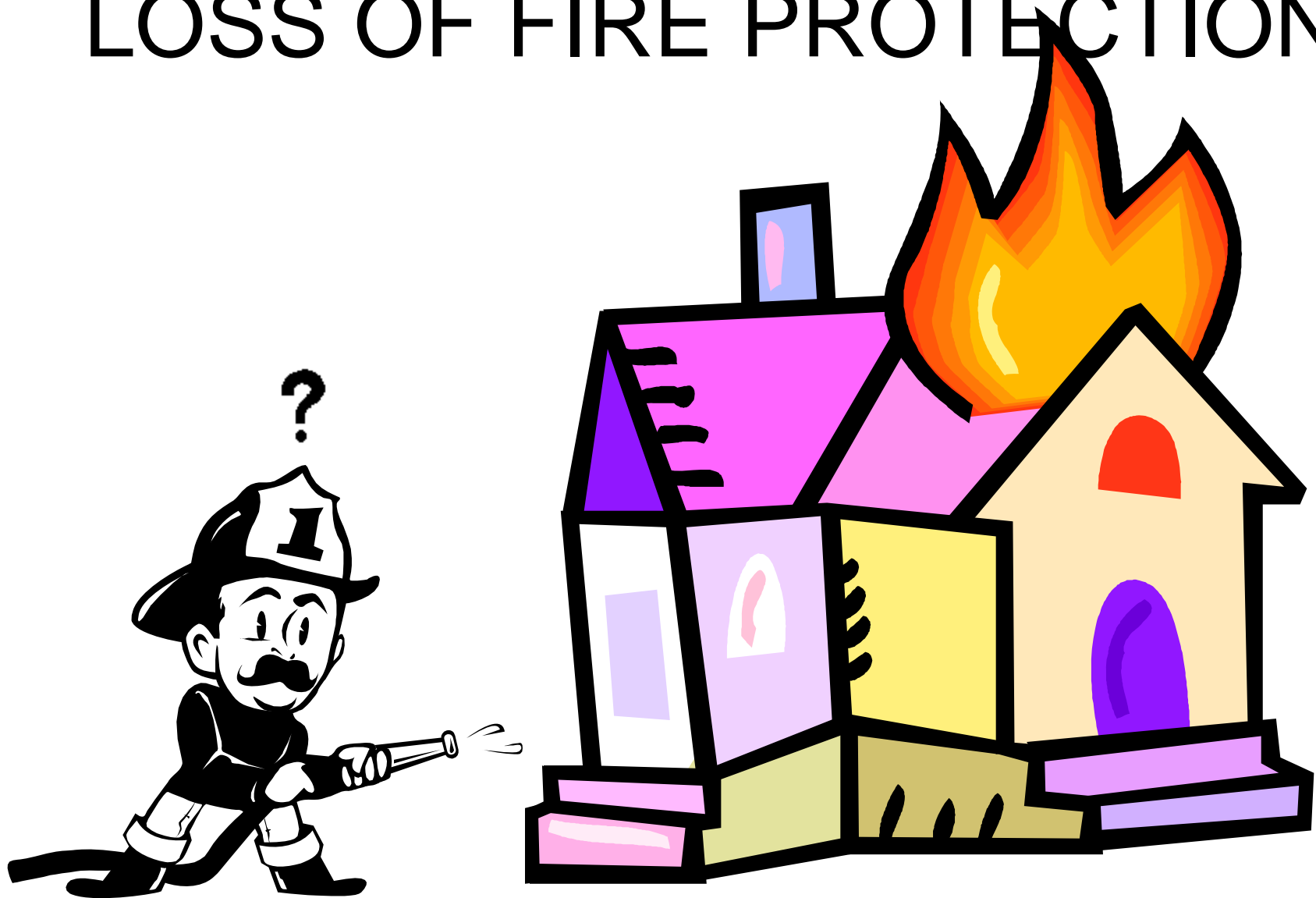
How do you currently Add a new Valves or Replace an Un-repairable Valve?

- The Traditional Method ~ Cut out the broken Valve or Cut in a new Valve, both using the “**Best Management Practices**”?



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

LOSS OF FIRE PROTECTION



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

















InsertValve™ RW-Gate

Innovative PipeLine Products



Model #
MWS - 617



*US patent # 6776184
Foreign & other Patents pending*

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

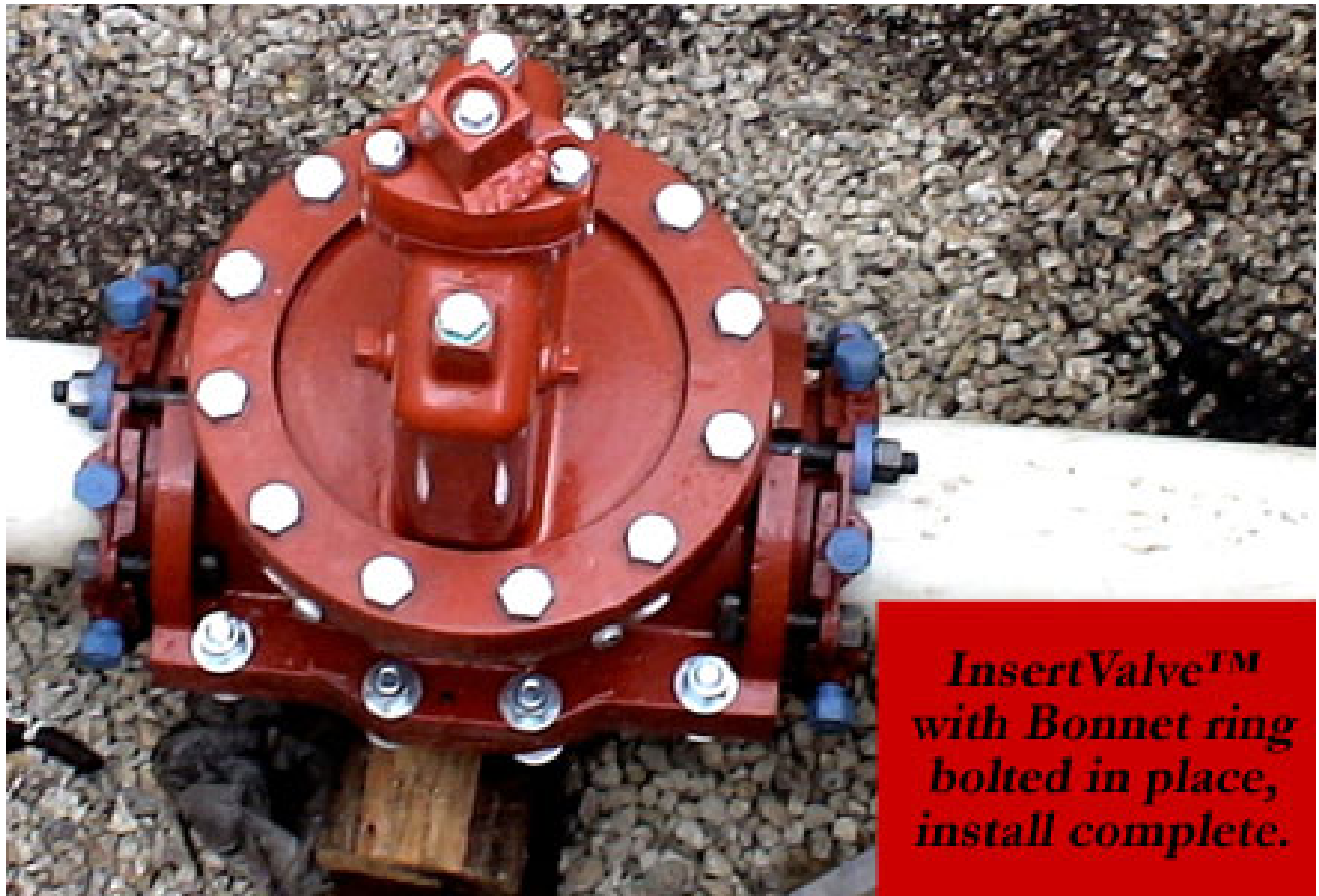


Bonnet & Gate installed in valve body, insert tool removed



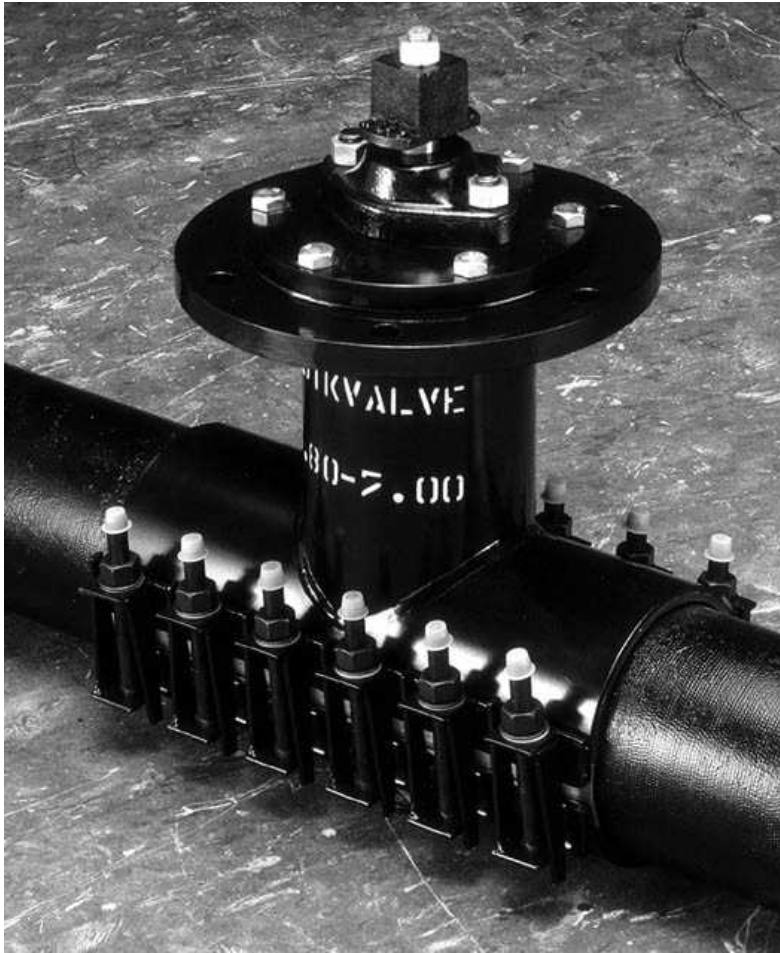


***Insert Valve™
Bonnet & Gate
restrained,
isolation valve removed.***



***Insert Valve™
with Bonnet ring
bolted in place,
install complete.***

Romac ~ QuikValve













Reaming the Pipe ID.







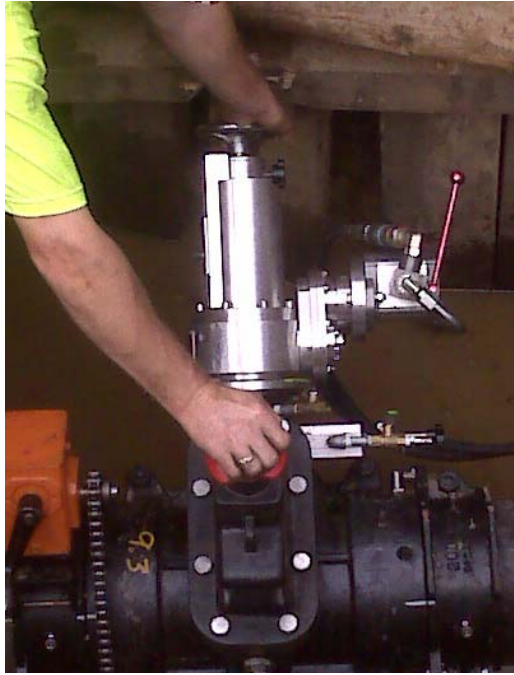
AVT ~ EZ₂ Valve System















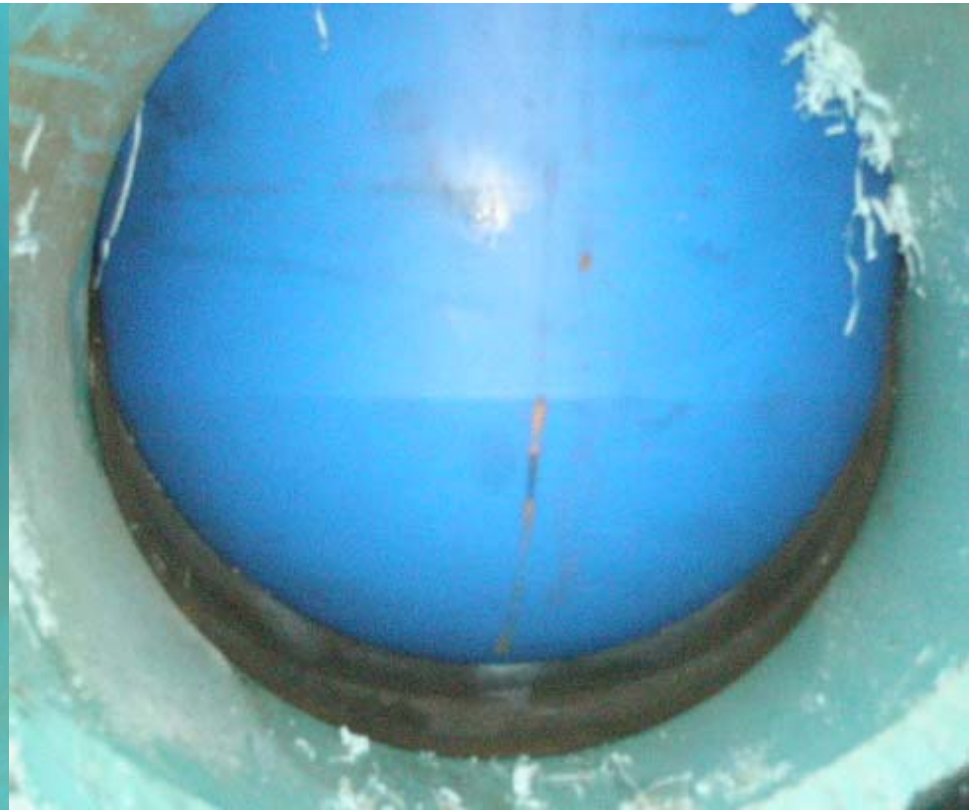
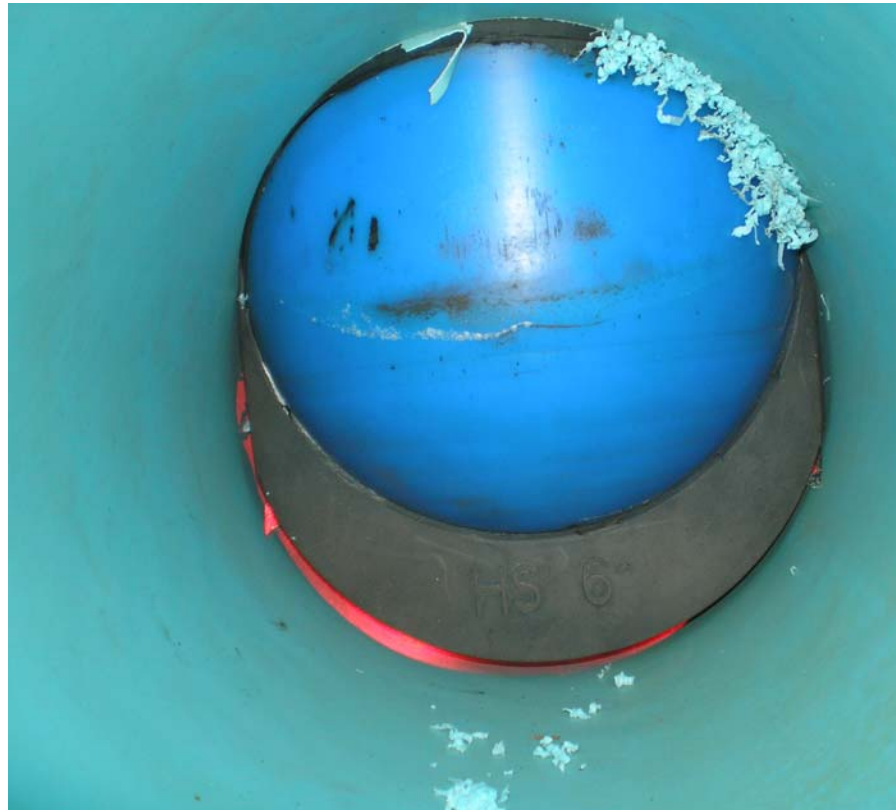
100% seal

1. 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 **tuberculation** 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.





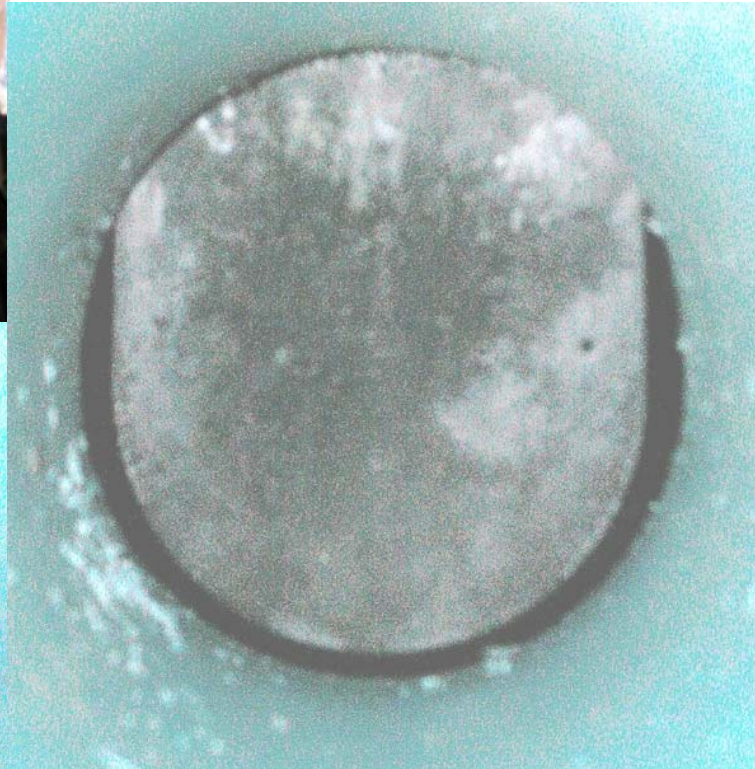
HYDRA-STOP



OCCLUDE



ROMAC QuikValve



AVT ~ EZ₂ Valve System



QUESTIONS?

