

INTERNAL JOINT SEALS

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INTERNAL JOINT SEALS

A proven economical rehabilitation method for man entry in water, wastewater, storm, industrial and natural gas pipelines!

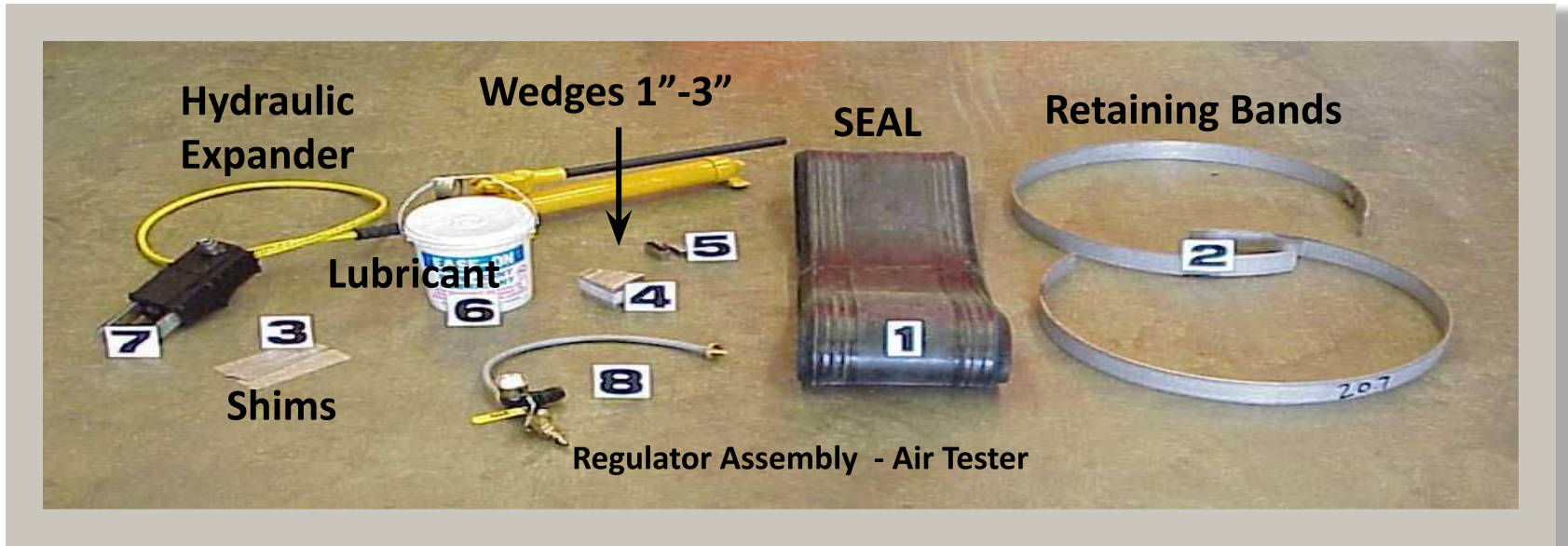


BACKGROUND

- Provides a flexible, mechanical, rubber internal seal to effectively and permanently seal infiltration, exfiltration, cracks, offsets, and small punctures in pipelines.
- Installed via man-entry
- Provide a barrier for the long term prevention of internal joint corrosion.
- Quick non-disruptive trenchless technology – can be performed at a fraction of the cost of conventional repair methods.

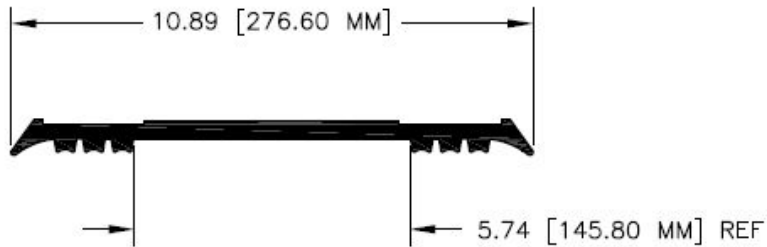


SEAL COMPOSITION

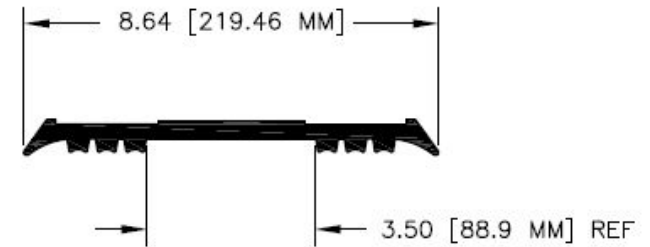


- Specially Designed Ethylene Propylene Diene Monomer (EPDM) or NBR (Nitrile) Rubber Seal
- Mild Steel or Corrosion Resistant Stainless Steel Retaining Bands

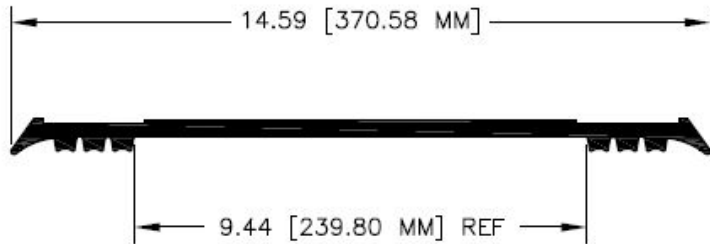
SEAL PROFILES



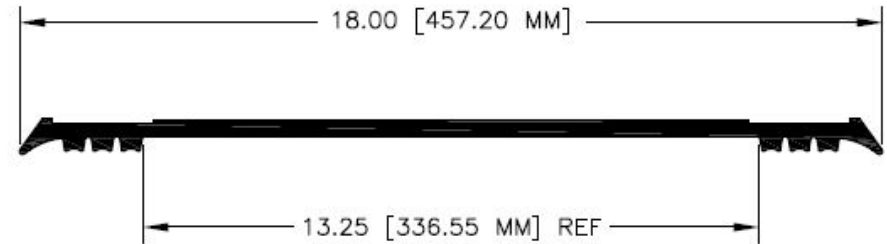
STANDARD WEKO® SEAL



REGULAR WEKO® SEAL



EXTRA-WIDE WEKO® SEAL



DOUBLE-WIDE WEKO® SEAL



ACCESS FOR INSTALLATION

- For 18" about 300 feet
- For 24" about 1,000 feet
- For 30" and larger about 1,400 feet
- Installations can be safely accomplished through a small access point.
 - Manholes
 - Vaults
 - Fittings
 - Cutouts



ACCESS FOR INSTALLATION



SAFE CONFINED SPACE ENTRY

- State OSHA permit required confined space regulations
- Create Workable Rescue Plan
 - CS Attendant
 - CS Rescue Personnel
 - Onsite As Needed
- Monitor Atmosphere
 - 4 Gas Air Monitor
 - Initial Check/Record
 - Continuous Monitoring
- Complete Confined Space Entry Permit
- Review Entry Procedures, Potential Hazards and Rescue Plan with all Participants



SAFE CONFINED SPACE ENTRY

- Eliminate all hazardous atmospheric sources
- Eliminate all energy and engulfment sources
- Purge Space / Provide Continuous Forced Ventilation



PREPARATION- CLEANING



GROUTING/SURFACE PREP



APPLICATION OF LUBRICANT



INSPECTION/ SEAL PLACEMENT



BAND PLACEMENT



SHIM PLACEMENT



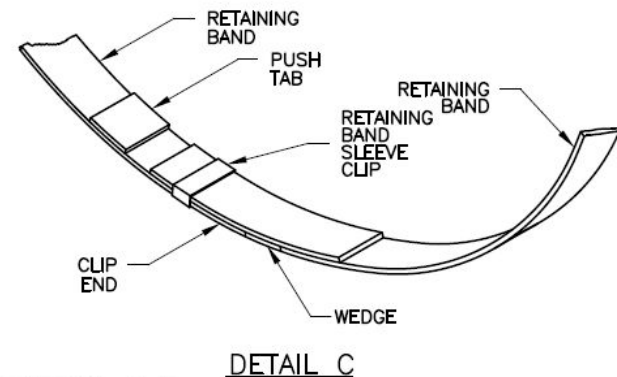
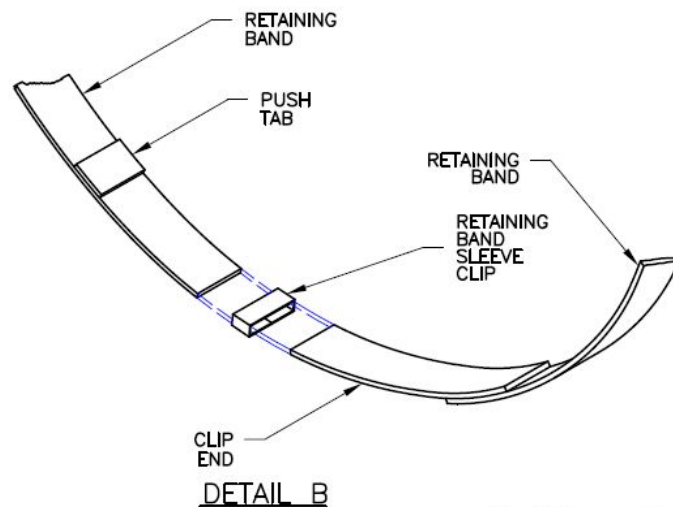
EXPANSION PROCESS



POSITIVE LOCKING SYSTEM



RETAINING BAND CONCEPT



DETAIL - RETAINING BAND SLEEVE CLIP
CLIP LOCK OVERLAP


PRESSURE TEST



FINISHED SEAL



EXCELLENT SOLUTION FOR...

- CIPP Termination seals from 8" & Up
 - Size Range – 18" to 216" and larger (man entry)
 - Elliptical, oval shaped
 - Square and rectangular shaped conduits
 - Pipe size changes
 - Transition joints
 - Infiltration/Exfiltration
 - Cracks in pipe
 - Vertical offsets – deflections
 - Rolled gaskets
 - Holes & punctures
 - A variety of other pipeline configurations
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CIPP Termination Seals



CUSTOM FIT





ELLIPTICAL



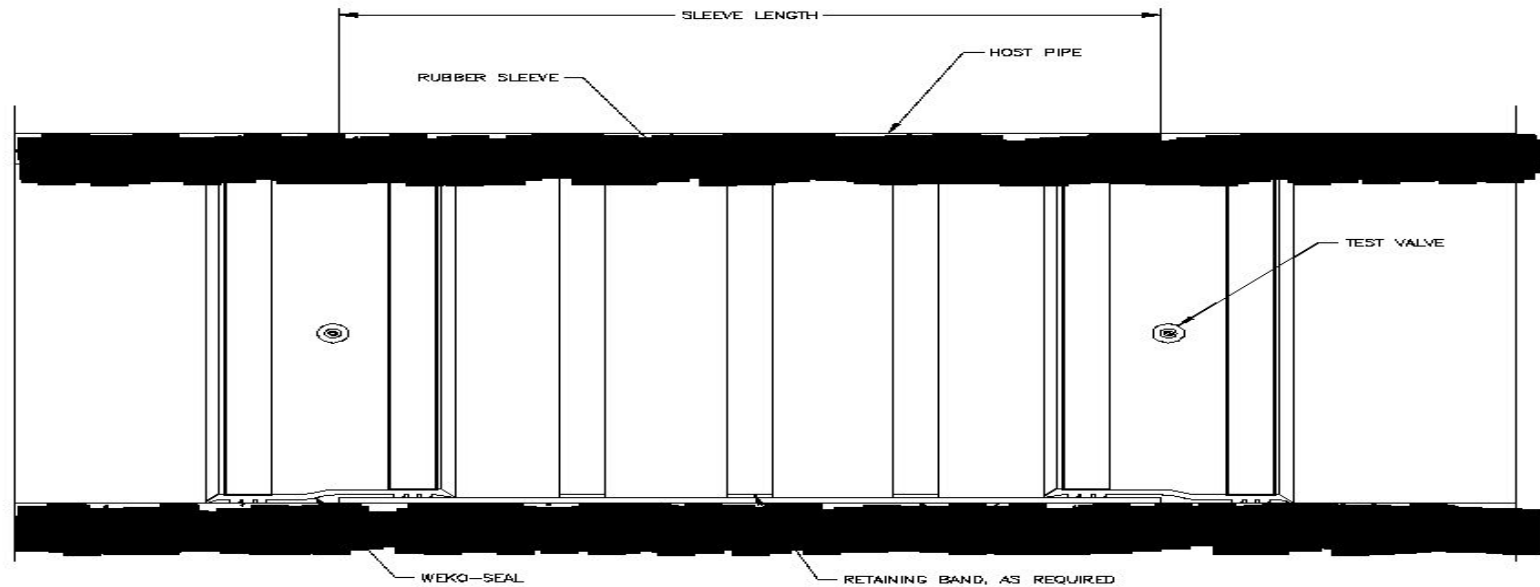
ARCH





ADDITIONAL CONFIGURATIONS

CONTINUOUS SLEEVE SYSTEM



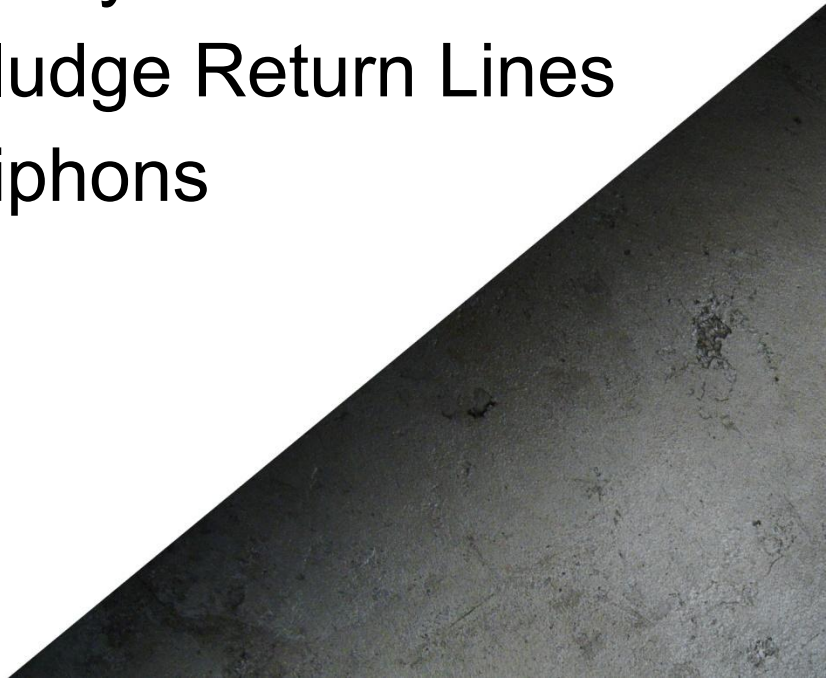




TYPES OF PIPE

- Cast Iron
- Ductile Iron
- Concrete
- Reinforced concrete
- Prestressed Concrete
- Pretensioned Concrete
- Steel
- PVC
- Polyethylene
- Vitrified Clay
- Fiberglass Reinforced
- Composite

APPLICATIONS

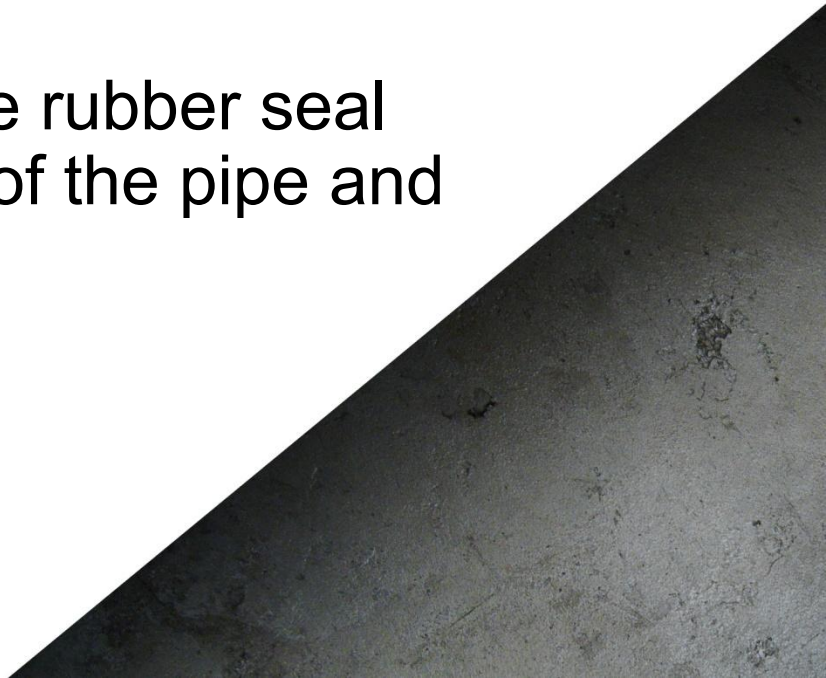
- Potable Water
 - Raw Water
 - Storm Water
 - Wastewater
 - Chilled Water
 - Circulation Water
 - Irrigation Lines
 - Natural Gas
 - Air or Compressed Air
 - Industrial Lines
 - Cooling Water
 - Slurry Lines
 - Sludge Return Lines
 - Siphons
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UNIQUE FEATURES

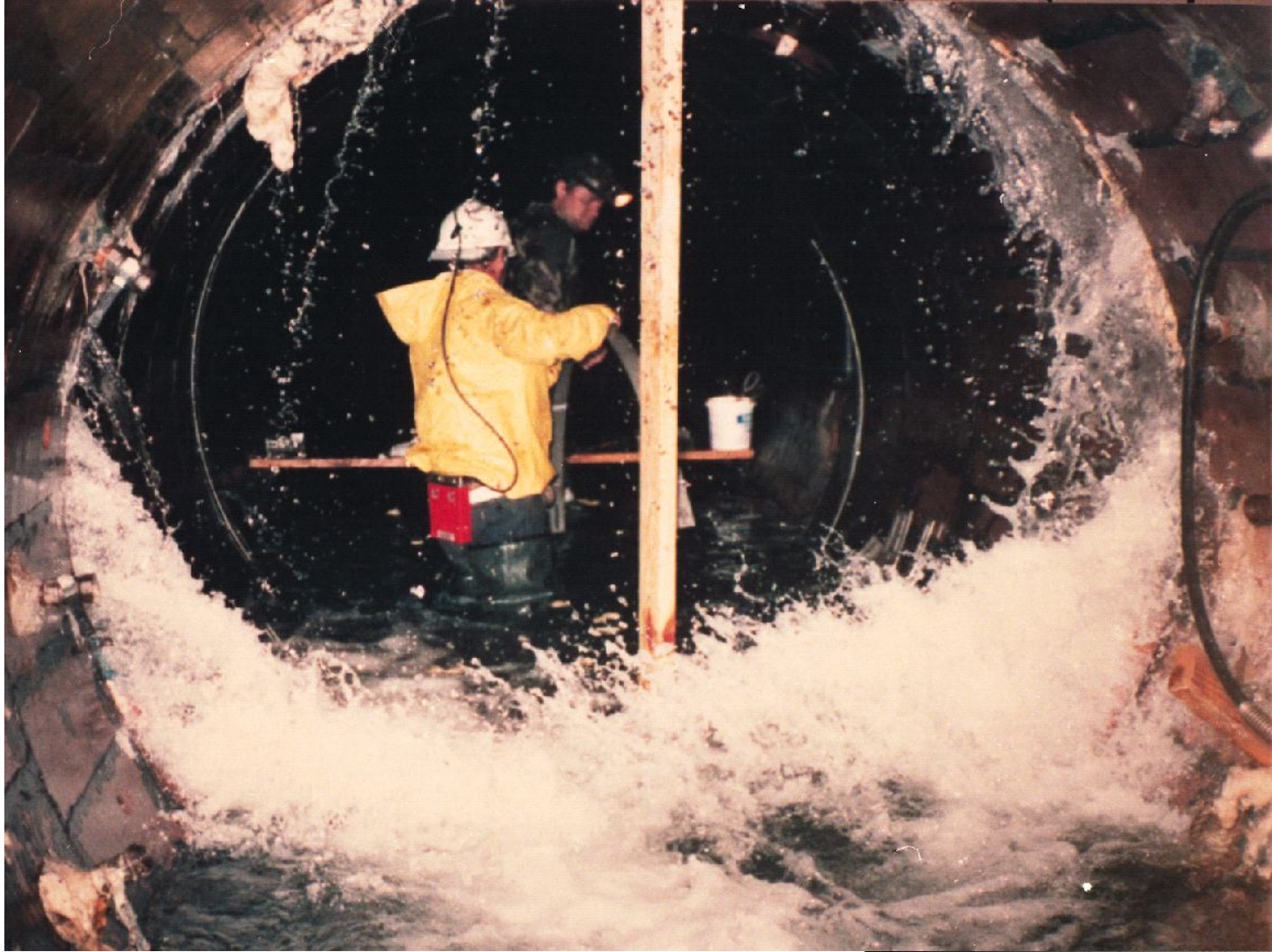
- Seal is a flexible rubber leak clamp that insures a non-corrodible bottle tight seal around the full inside circumference of the pipe
 - Can withstand up to 100 ft. external hydrostatic load and in excess of 300 psi internal pressure
 - Each seal undergoes test to ensure a bottle-tight repair
 - The pipe joint is bridged by the rubber seal allowing continual movement of the pipe and joint
 - Provides years of worry free maintenance
- 



BOTTLE TIGHT SEAL



GOOD SEAL CANDIDATE?




NO PROBLEM!



Cost Estimate

- 36" Extra-Wide Seal - \$835.00
- 48" Extra-wide Seal - \$985.00
- Cost savings on materials when purchasing 25+ Seals
- Mobilization & Labor added on to the cost of materials
- (5) 36" Seals with 8 an hour mobe/materials/labor &
(1) 10hr working day - \$20,000.00 Total

ADVANTAGES / BENEFITS

- Permanent, flexible, bottle-tight joint seal
 - Seal up to 300 psi internal and 100 feet external
 - Accommodates joint movement
 - Trenchless installation
 - Wide range of applications
 - Fast installation
 - Cost effective
 - Maintenance free
 - NSF Class 61 approved for potable water
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QUESTIONS?

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