



HydraTech HydraTite®

Internal Joint Sealing System

Issue 10.14

PRODUCT DESCRIPTION

- HydraTite Internal Joint Seal is a mechanical, trenchless remediation for repair of pipe joints.
- The HydraTite system consists of a proprietary rubber seal which spans the joint and is held in place by stainless steel retaining bands in either side of the joint.
- These retaining bands are expanded and locked in place using a wedge lock design which forms an air tight clamp around the joint eliminating all infiltration and exfiltration.
- Each HydraTite seal is designed and custom made for each application to ensure complete compliance with project specifications.
- The HydraTite System is a recognized method of joint repair by AWWA manual M28.

APPLICATIONS

- Joint Repair
- Expansion Joint Remediation
- End Seal for CIPP
- Manhole Chimney Seal
- Seal Off Abandon Laterals
- Flexible Pipe Liner

MARKETS SERVED

- Potable Water
- Natural Gas
- Sanitary Sewers
- Storm Sewers
- Cooling Water
- Service Water
- Circ. Water

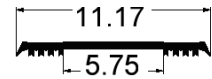
Advantages

- Mechanical Trenchless Remediation
- Maintenance free
- Turnkey installation
- Low profile ensures minimal flow loss
- Patented interlocking design for lining long length of pipe
- Rapid installation and return to service ideal for immediate or emergency situations
- Seal Flexibility accommodates shifting, vibration and thermal expansion and contraction
- Non-corrosive components
- Design Flexibility provides an ideal remediation for multiple applications
- Minimal surface prep required
- Test Valve ensures every installation has a pressure tested fit
- NSF/ANSI 61 Approved for potable water 18"-218" diameter pipe
- Installed by fully trained application specialists
- Full contract support services available

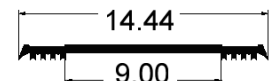
DESIGN FLEXIBILITY

WIDTHS • The HydraTite seal is available in three widths:

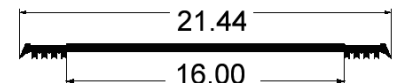
STANDARD



EXTRA-WIDE



DOUBLE-WIDE



RUBBER • The Seal is supplied in either EPDM or Nitrile. The EPDM is used in applications for potable water, waste water, and sea/brackish water. The Nitrile seal provides superior resistance to gas, oil, and petroleum based reagents making it ideal for natural gas applications.

STEEL • The retaining bands are manufactured to project specifications using either carbon steel, 304 stainless steel, 316L stainless steel or AL-6XN.

RETAINING BANDS • The retaining bands can be supplied as one piece or multiple pieces to accommodate entry restrictions. Systems can also be designed that incorporated extra retaining bands to provide additional support

DIAMETERS • The HydraTite System can accommodate pipe diameters from 18 inches to 218 inches.

BACKING PLATE • A stainless steel backing plate can be incorporated behind the seal to provide support when spanning voids in the pipe wall. This design is utilized in the remediation of expansion joints, sealing off abandoned laterals, and the repair of deteriorated joints.

INTERLOCKING • The patented sleeving design allows for the interlocking of multiple seals. This design provides a means by which to line long lengths of pipe to remediate axial as well as circumferential defects.

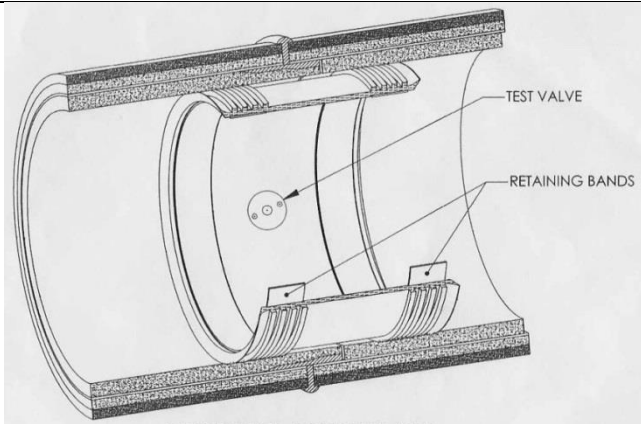
HydraTech's engineering staff designs each HydraTite System to ensure conformance for all project specifications. Each HydraTite seal is then custom-made per the design specification. The HydraTite System offers the design flexibility needed to ensure the ideal system is utilized.



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SYSTEM PROPERTIES

| | | |
|-----------------|--------------------|----------|
| Internal | Operating Pressure | 300psi |
| | Max Operating Temp | 250°F |
| External | Head Pressure | 150 feet |

EPDM

| | | |
|------------------------|------------|----------|
| Durometer Shore A | ASTM D2240 | 65+/-5 |
| Tensile Strength (min) | ASTM D412 | 1,450psi |
| % Elongation (min) | ASTM D412 | 350 |

Suffix A13 ASTM D573 Heat aged 70hrs @ 70°C

| | |
|-------------------------|-------|
| Durometer Shore A | +/-15 |
| Tensile Change | +/-30 |
| Elongation Change (max) | -50 |

Suffix B13 ASTM D395B Compression set 22hrs @ 70°C

| | |
|-------------------|--------|
| Permanent set (%) | 25 max |
|-------------------|--------|

Suffix C12 ASTM D1171

| | |
|----------------------|--------|
| Ozone Resistance (%) | 85 min |
|----------------------|--------|

STAINLESS STEEL

| Properties | 304 | 316L | AL-6XN |
|------------------------|-----------|-----------|------------|
| UNS Designation | S30400 | S31603 | N08367 |
| Tensile Strength(min) | 75,000psi | 70,000psi | 100,000psi |
| Yield Strength (min) | 30,000psi | 25,000psi | 45,000psi |
| Elongation (min) | 40% | 40% | 30% |
| Brinell Hardness (max) | 201 | 217 | 233 |
| Weld Wire TS | 80,000psi | 70,000psi | 110,000psi |

The HydraTech HydraTite System is a performance driven product that provides a mechanical, trenchless remediation for the interior of pipe. The HydraTite system is backed by our engineering staff that services each installation with assessments, solutions, and technical support. The HydraTite system offers a proven, efficient, cost effective, long term solution to the most challenging demands of the industry.

INSTALLATION PROCEDURE



Prep Joint



Position Seal



Install Rubber Seal



Install Retaining Bands



Expand Bands with Expander



Insert Wedges



Pressure Test Seal



Check for Leaks