

Line Pipe Services

Improving Pipeline Integrity



Tuboscope | **NOV** Wellbore Technologies

New Line Pipe Inspection

Tuboscope's industry leading technology and proven experience in inspection, corrosion control products and connection systems set the standard for maximizing your pipeline's design life.

Tuboscope's line pipe services are essential for the success of your line pipe operations.

As oil and gas markets continue to grow so does the need for defect-free pipelines to transport products safely and efficiently throughout the design life of the pipeline.

Tuboscope's line pipe inspection services identify defects prior to pipeline installation, providing you the quality assurance and pipeline integrity needed.

Inspection Services

- **Electromagnetic (EMI)**
- **Ultrasonic (UT)**
- **Combination (UT/EMI)**
- **Wall Thickness Measuring**
- **Magnetic Particle (MPI)**
- **Ring and Bevel**

Sonoscope™ and Amalog™
Truscan™ and Weldscan
Truscope A/S™
Tubogauge and Isolog™
Mobile and In-Plant Facility

Benefits

- Safety, Quality and Productivity
 - Increased Defect Detection
 - Higher Specification Requirements
 - Improved Inspection Consistency
 - Increased Production Rates
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Protecting your assets and managing environmental and safety concerns is crucial.



Inspectors

Tuboscope employs an industry-leading training regimen certifying all inspectors in identifying pipe not suitable for service.

Level II inspectors are instructed and tested according to ASNT TC 1-A:

- Written Test
- System Specific Test
- System Practical Test
- Extensive On-The-Job Training



Post Mill Inspection

American Petroleum Institute (API) 5L established product specifications to ensure the highest quality product is available.

Post Mill Inspection Reports

- Quantitative Inspection Data per Pipe
- Final Inspection Reports
- Sequential Accept or Reject Status
- Detailed Reporting on Defective Pipe

Inspections Performed Detect

- Cracks
- Seams
- Laps
- Thin Walls
- Gouges
- Pits

Prevent On-Site Repairs by Inspecting for

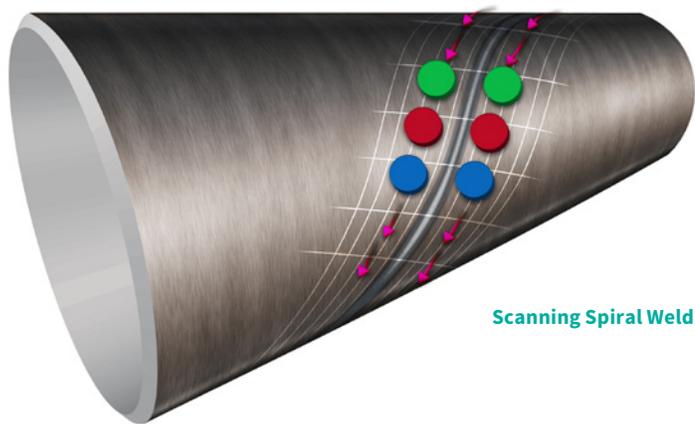
- End Ovality
- Damaged Bevels
- Damaged Root Faces
- End Area Laminations

Weldline Inspection

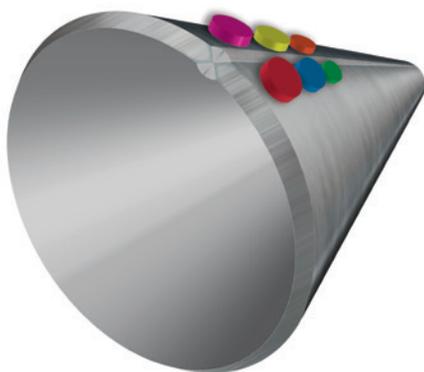
To prevent weld line failures, critical areas such as the heat affected zone on longitudinal and helical weld lines should be inspected for defects.

Inspections Performed Detect

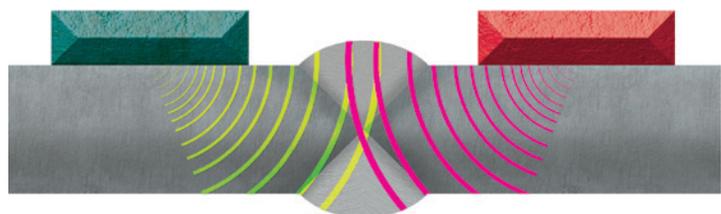
- Cracks
- Hook Cracks
- Lack of Fusion
- Lack of Penetration
- Weld Trim Conditions



Scanning Spiral Weldline



Scanning Longitudinal Weldline



Flooding the Weldline Area

Connection Systems

Protecting the area in and around each connection is crucial to pipeline integrity. Tuboscope's Thru-Kote™ sleeve and Zap-Lok™ systems are proven, safe and reliable for pipeline construction. When used in conjunction with internally coated line pipe these systems provide a continuous coated surface throughout the connection area.

Zap-Lok™ Technology

Tuboscope's Zap-Lok technology is the industry leading mechanical pipeline connection system. Our system enables safe, fast construction speed, and reduces overall cost when compared to other pipe joining methods. Zap-Lok technology eliminates variable performance and costly welders with a highly efficient hydraulic connection process.

Benefits

- Eliminates welding
- Smaller crew size
- Reduces fire and safety hazards
- No field joint coatings
- No x-ray required
- Yields holiday free external and internal coatings throughout the connection
- Suitable for onshore, offshore, all terrain and climates
- Compatible with internal inspection, pigging and cathodic protection

Thru-Kote™ Technology

Thru-Kote is a premium welded connection system for joining internally coated pipelines and piping systems.

Benefits of Thru-Kote Sleeves and Fittings

- Isolates burn-back of internal coating behind the coated sleeve
- Backing ring and heat tape insulate internal coating
- Holiday free connection area
- X-ray compatible with API and ASME guidelines
- Compatible with Tube-Kote™ coatings
- Suitable for onshore and offshore applications
- Accommodates all configurations of piping systems
- Fast and flexible method of field construction



Thru-Kote Configurations

- **Thru-Kote** is a belled connection system allowing for a non-restricted I.D.
- **Thru-Kote U.B.™** sleeve is an unbelled connection system designed to protect internal coatings during the welding process

Custom Fitting Fabrication

Our multiple configurations aid in modifications or repairs:

- Tie-Ins
- Terminations
- Flanges
- Elbows



Internal and external coatings are a critical component of your corrosion control strategy.

Tuboscope's internal coatings provide maximum corrosion protection, greater hydraulic efficiency, with improved flow assurance. Our field proven external coatings provide resiliency and are tough and impermeable.

Line Pipe Coatings

Tube-Kote™ internal coatings are used across a broad range of temperatures and wide range of environments. Proprietary formulations are engineered to work in corrosive environments such as H₂S and CO₂.



TK™-15
Modified Novolac (Powder)



TK™-70
Epoxy (Powder)



TK™-216
Epoxy (Powder)



TK™-44LP
Epoxy (Powder)



TK™-99
Nylon (Powder)



TK™-236
Modified Novolac (Powder)

For accurate coating selection please contact your local Tuboscope representative for a line pipe coating evaluation.

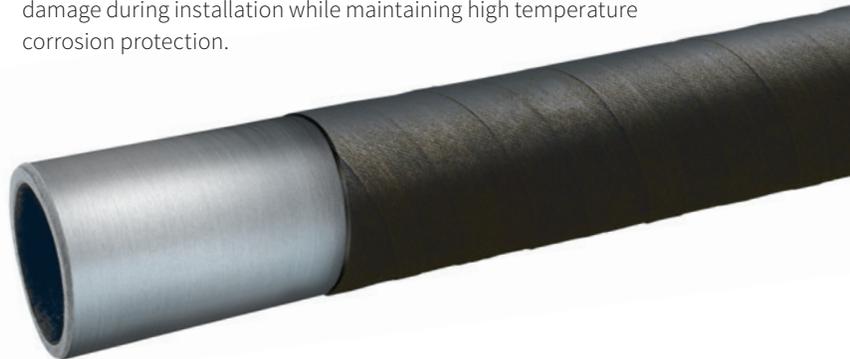


Fiberglass Liner for Pipeline Applications

TK™-Liner is a fiberglass-reinforced tube that is inserted into a steel line pipe, designed to safeguard against corrosion. Through a newly designed Thru-Kote™ connection system you can weld a sleeve for a continuous fiberglass lined pipe.

Tube-Wrap™

A high performance external coating, field proven for its resiliency when used for pipeline crossings. Tube-Wrap resists wear and damage during installation while maintaining high temperature corrosion protection.



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