

Engineered Pipeline Touchpoint Access Projects



OVOLifts
In-service pipe lifts

Patented technology developed in conjunction with the petro-chemical industry for providing safe access to multiple touchpoints in an in-service environment. Uniquely enabling inspection and corrosion prevention remediation.

In-service pipe lifts



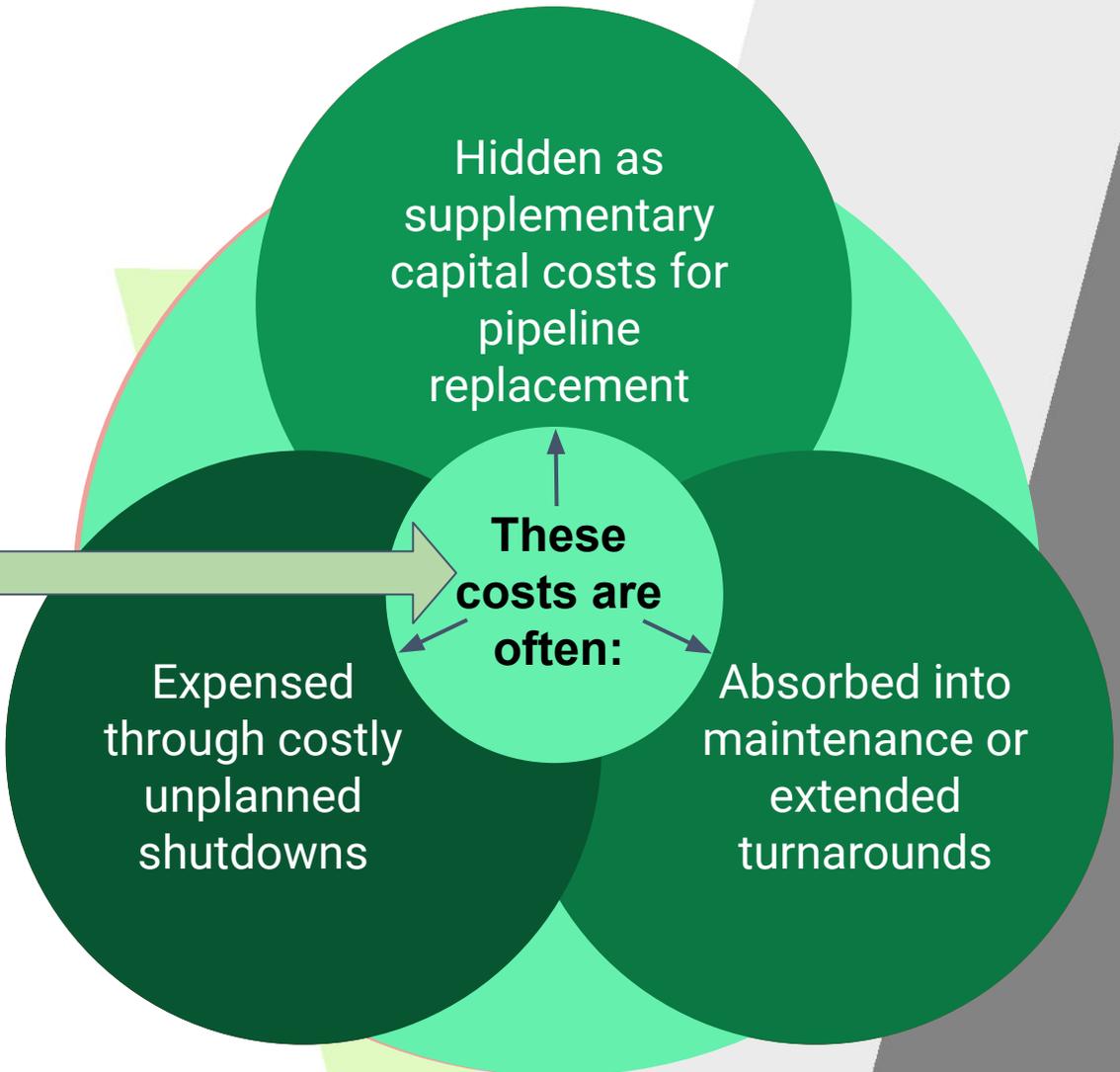
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Touchpoint Corrosion

Erosion and corrosion.....



Compromises safety and costs money

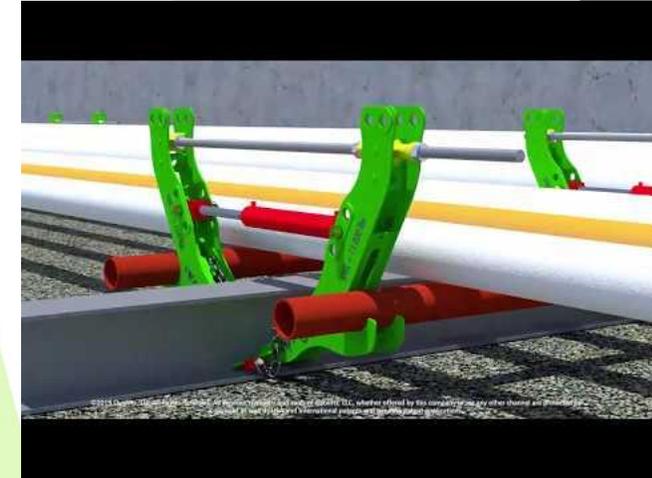


In-service pipe lifts



Engineered Touchpoint Inspection and Remediation

A recent Ovolifts Project on a Delaware USA marine terminal with a crew of 5 SAFELY lifted, inspected and completed remedial action on 584 touchpoints in 7 weeks using 12 Jacks. The result was a 57% reduction in cost and 45% reduction in time based on the previous lowest estimate.



[Click for Video Animation](#)



In-service pipe lifts



Global Asset Owners are Deploying Ovolifts for:

- **Extending the service life** of their pipe infrastructure safely and cost-effectively through proactive inspection and remediation programs.
- **Gaining access** to multiple pipe touchpoints whilst the lines are **in-service**, safely engineered to the lines being lifted
- **Gaining critical information** on pipe condition and access to perform remediation outside of planned shutdowns and turnarounds

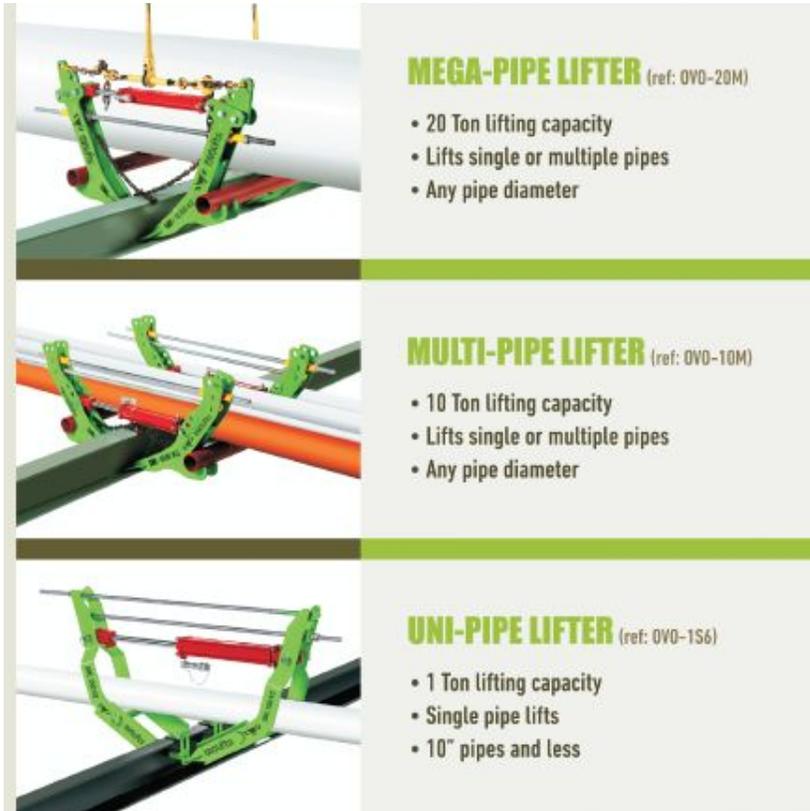


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The OVOLIFTS Hardware System

3 Lifting Tools based on a common Patented Tech Platform:



MEGA-PIPE LIFTER (ref: OVD-20M)

- 20 Ton lifting capacity
- Lifts single or multiple pipes
- Any pipe diameter

MULTI-PIPE LIFTER (ref: OVD-10M)

- 10 Ton lifting capacity
- Lifts single or multiple pipes
- Any pipe diameter

UNI-PIPE LIFTER (ref: OVD-1S6)

- 1 Ton lifting capacity
- Single pipe lifts
- 10" pipes and less

44,000 lb lifting capacity per support. Ideal for big lifts from ground-level supports, and is unique in this capability. Cranes are an option but at much greater cost and operational risks.

22,000 lb lifting capacity, easy to handle and deploy for lifting single or multiple pipes across a pipe rack. This tool is unique in this capability.

2,200 lb lifting capacity, easiest to handle and designed for lifting of single (smaller) pipes from pipe racks or ground supports.

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OVOLIFTS' Patented Technology & Engineered Procedures Differentiators:

Remote Lifting

Lifting from the Support

Static Structures

Multiple Lines

No Cranes

In-Service Experience



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Unique Remote Lifting Capability



Initial lifts (break-aways) are done remotely using hydraulic activation to avoid personnel exposure if there is a loss of containment at suspect contact areas. This enables our ability to conduct in-service remediations.

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Lifting from the Support



Large pipes are often supported on ground-level concrete sleepers or I-beams and typically require cranes to access for inspections and remediation.

Ovolifts' lifting mechanism is above the pipe but lifts from below using custom landing brackets placed over the supports.

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Static Structure Lockout



Lifts can be vertically secured by a double lock-out system on the jack, which is then declared a temporarily supported structure (no longer a suspended load) and therefore safe to work beneath.

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Unique Multiple Line Lifting Capability



Economic Benefits:

- Access to many more touchpoints for a given input of labour, time and jacks.
- Access to entire I-beam and every touchpoint.
- Sandblasting and painting happens in a single operation rather than one touchpoint at a time.

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Unique Multiple Line Lifting Capability (cont)



An example of 5 tools lifting a total of 16 pipes in unison.

Individual pipes can be lifted to different heights and lifting of single or multiple pipes on a rack can be skipped altogether using shim blocks on the jacks' lifting pipes.

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No Cranes



Cranes are incapable of accurate height adjustments, nor are there hard stops preventing pipes being over-lifted or over-stressed.

Observers must confirm initial separation and lift heights, unsafe if there is a loss of containment.

Crane are costly, lift only one touchpoint at a time and are classified as suspended loads, not temporarily supported structures and thus are unsafe to work beneath unless blocked up.

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Case Study - Marine Terminal



- 568 touchpoints lifted and repaired in 7 weeks.
- 8 pipes lifted simultaneously using 12 Multi Jacks across 72 supporting I-beams.
- Terminal remained active for duration of project.
- Lift plan and procedures developed.

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Case Study - 4" Glycol Line



- 4" Glycol line navigating a plant over 3,000ft long between 2nd and top level of pipe rack.
- Uni Jacks utilized by rope access lifting 8 touchpoints at a time.
- Pipe left elevated overnight to allow for sufficient curing.

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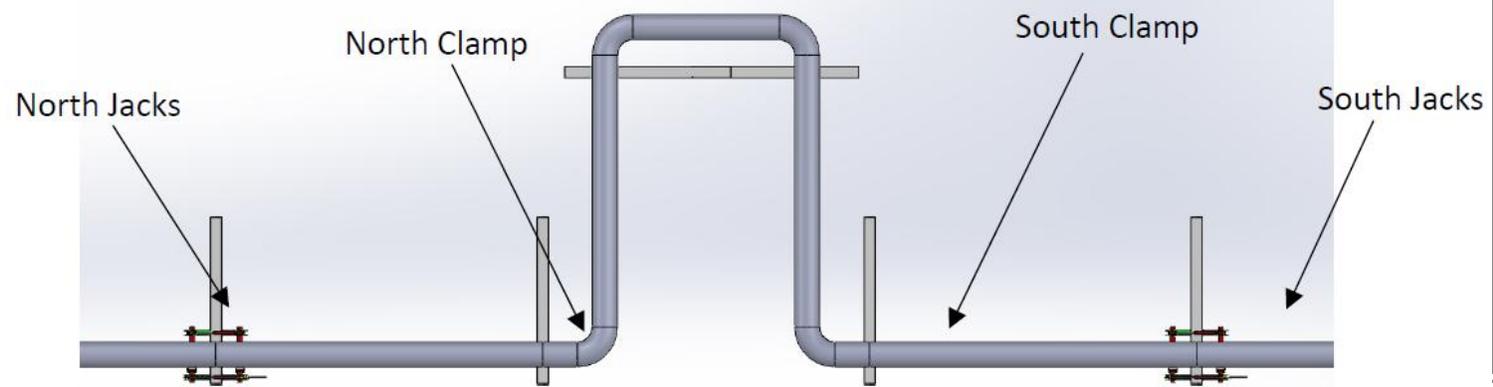


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Case Study - 20" Pipe Hammer



- Severe pipe hammer caused significant damage to 2 pipe shoes.
- Expansion loop was anchored, adjacent supports lifted to cut out shoes.
- Clamps installed at both damage locations.



Ovolifts In-Service Pipe Experience

- 3 years experience engineering pipe lifts for emergency & preventative inspections and remediation
- This includes **stress analyses, civils engineering, lift plans and safety & emergency response procedures** that plan and oversee every lift.
- These are adapted to regulations applicable to new jurisdictions and plant environments. Ovolifts are advocates for safe and cost-effective operations on in-service lines and equipment.

OVOLIFTS' Engineered Solution:

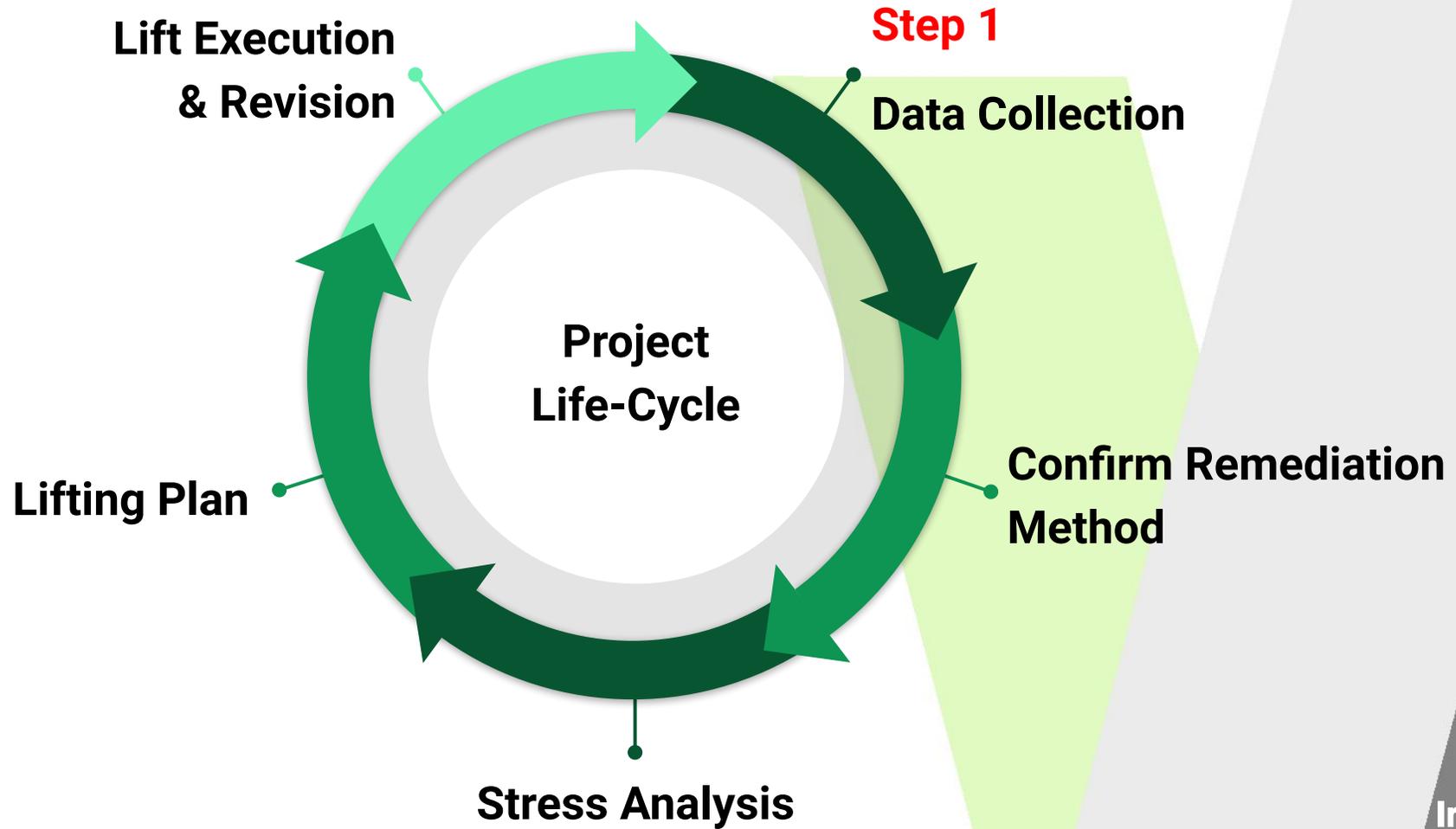
- Operational oversight
- Upfront engineering analysis support
- JSA and lift planning
- Trained technicians
- Safe lifting procedures support
- Client safety & general safety procedures support
- Emergency & safety management support

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Ovolifts Project Life-Cycle



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Ovolifts Solution Summary

The OVOLIFTS solution enables regular touchpoint inspection & remediation programs and priority/emergency programs **that are:**

Engineered

Pipe Stress Analyses and Lifting Plans developed and worked to standards and rules

Easier

Simple lifting action, componentized design easy to manhandle

Safer

NO CRANES, remote breakaway, planned movements, lift hardstops

Faster

Quick to install & remove, providing concurrent access to multiple Touchpoints

Programmed

Planned, controlled remediation outside of turnarounds and unplanned shutdowns

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How much value have your pipeline assets lost today?

Contact us now!



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