

Ovolifts' Engineered Touchpoint Access for Pipeline Integrity Management Projects

Ovolifts enables engineered touchpoint (TP) access for inspection and remediation of pipes and cable trays. We do this using our innovative tools for increasing productivity and reducing cost per touchpoint compared to conventional methods.

Our engineered approach also executes safe lifts of on-stream lines.



Touchpoint Integrity Issues...



Compromise safety, increase capital, material and personnel costs and are often:

Hidden as capital costs for pipeline replacement

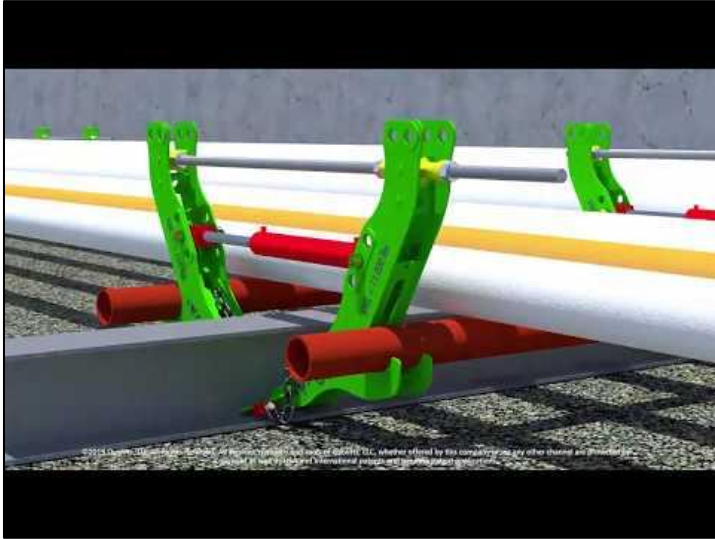
Expensed in costly unplanned shutdowns

Absorbed into excess maintenance or extended turnarounds

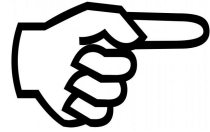
Ovolifts' Proprietary Lifting Mechanism



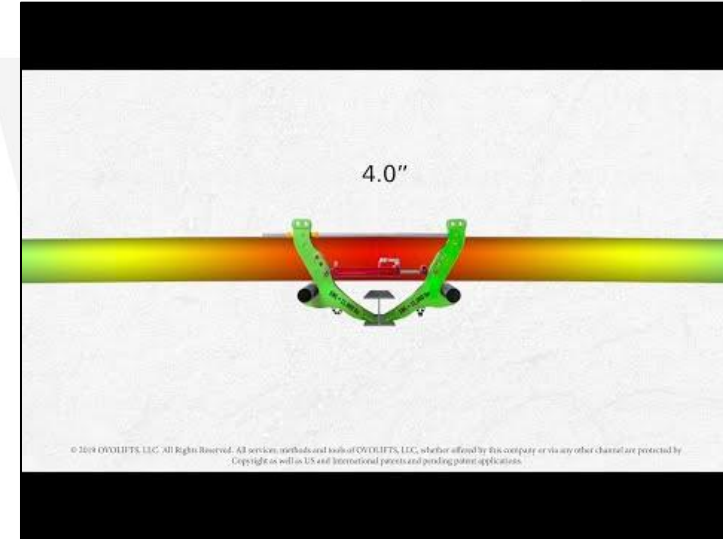
Ovolifts' Illustrative Animations



Engineered touchpoint access introduction



Click for Video Animations



Engineering Pipe Stresses and lifting curves

ALL our Animations are at: <https://www.youtube.com/c/Ovolifts>

These Global Companies are:

- **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 **on-stream**, safely engineered to the lines being lifted
- **Gaining critical information** on pipe condition and access to perform remediation outside of planned shutdowns and turnarounds



Ovolifts Case Study - Marine Terminal Remediation Project

Engineered Touchpoint Access

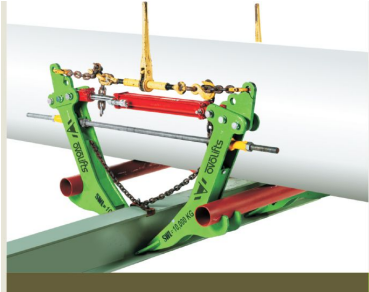


Magellan Midstream terminal in Delaware USA. A crew of 5 safely lifted, inspected and completed remedial actions on 584 touchpoints in 7 weeks using 12 Ovolifts Jacks whilst the terminal remained operational. **Deployment of Ovolifts saved 57% of the clients budget and the project required 45% less time than planned.** Most importantly, the terminal remained operational for the duration, saving hundreds of thousands of USD.



The OVOLIFTS Equipment System

3 Lifting Tools based on a common Patented Tech Platform:



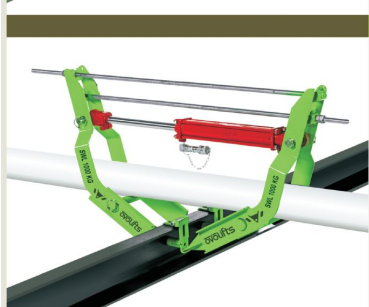
MEGA-PIPE LIFTER (ref: OVO-20M)

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



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

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



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

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

44,000 lb / 20mt 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 / 10mt 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 / 1mt lifting capacity, easiest to handle and designed for lifting of single (smaller) pipes from pipe racks or ground supports.

OVOLIFTS' Engineered Touchpoint Access Advantages

**Remote
Lifting**

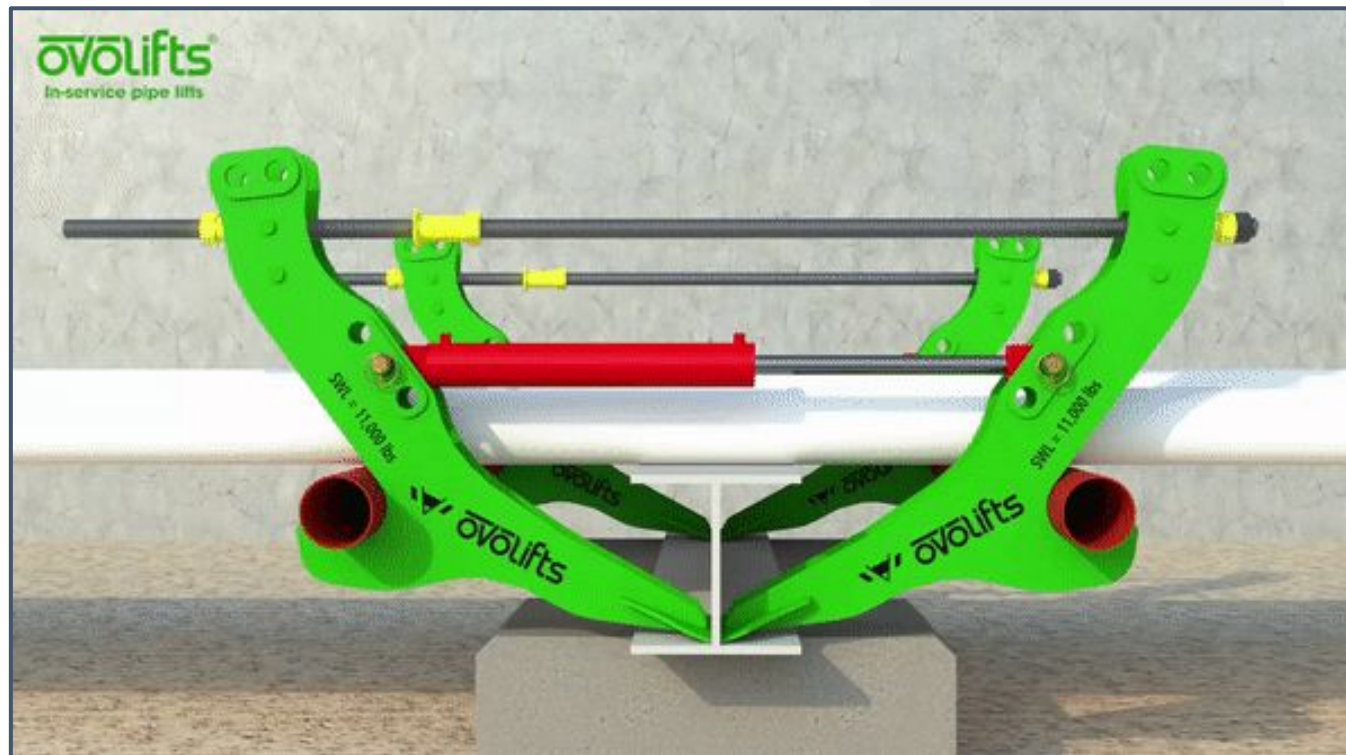
**Lifting from
the Support**

**Static
Structures**

**Multiple
Lines**

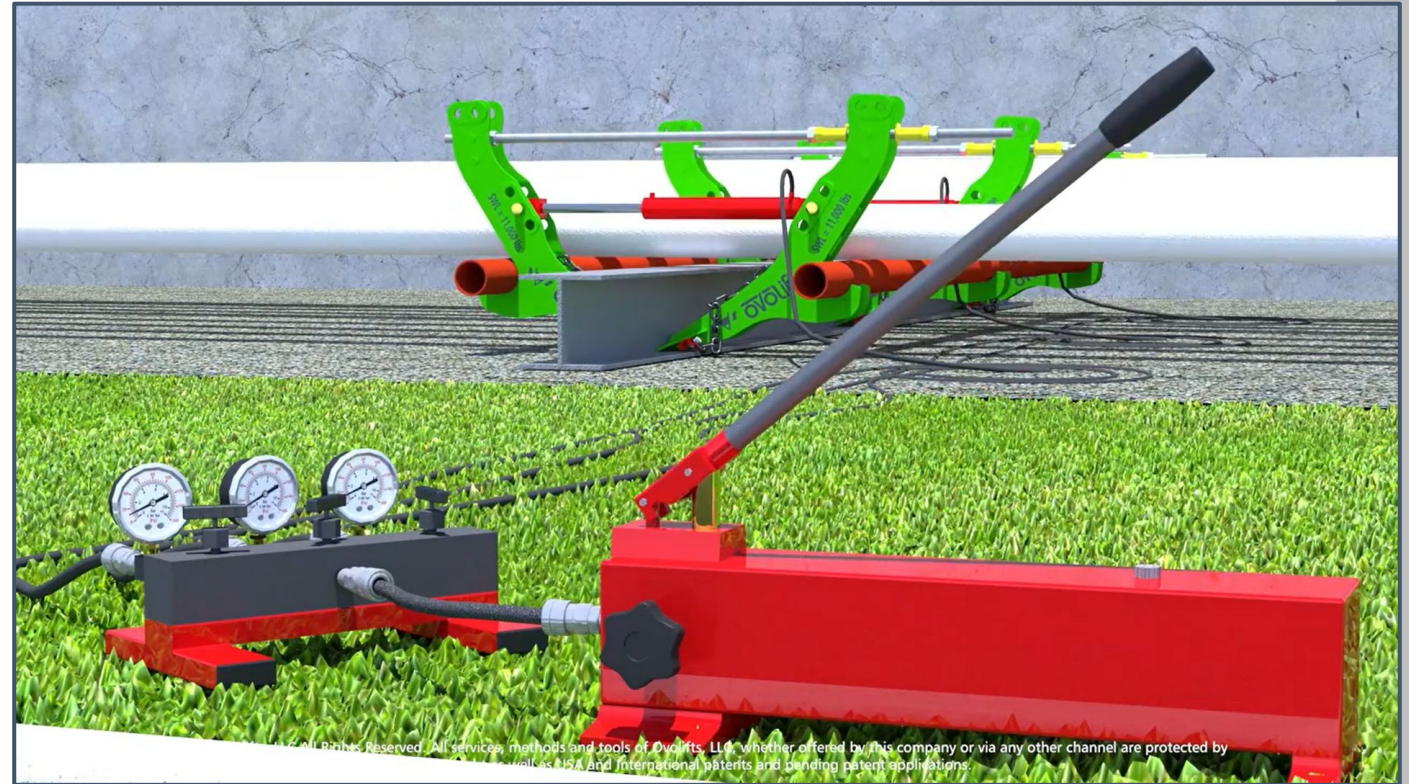
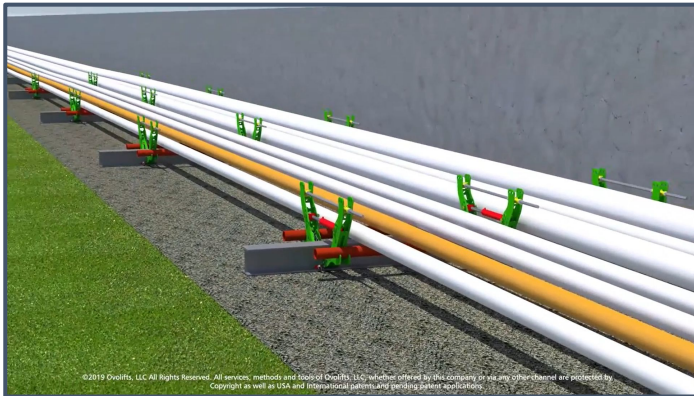
**Eliminates
Cranes**

**On-stream
Experience**



Unique Remote Lifting Capability Advantages

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 on-stream remediations.



Lifting from the Support Advantages

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.



Static Structure Lockout Advantages

Lifts can be vertically secured by a threaded 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.



Multiple Line Lifting Capability Advantages

Productivity 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.



Multiple Line Lifting Capability Advantages (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.



Eliminating Cranes Advantages

Cranes, chainblocks or other conventional lifting methods 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.

Ovolifts' enables lifts to be activated in a controlled manner. With stress-free critical points in the lines both during the lift process and in the locked-out lift position.

Our tool design, engineering and procedures are the result of decades of experience developing custom lifting solutions in petrochemical plants and other industries.





Ovolifts Case Study - 4" Glycol Line Touchpoint Remediation

A Dow Chemical facility in Seadrift TX. 3000' long line being inspected and remediated using scaffolding, chainfalls and cranes was converted to deploying Ovolifts mid-project.

Contractor productivity increased from 2.73 to 12 touchpoints per week remediated.

Due to the safety features of the Ovolifts system Dow standards were changed to allow pipes to remain elevated overnight for curing.

Ovolifts allowed the project to deploy rope access only and the savings on scaffolding for the entire project duration was hundreds of thousands of USD.

Direct equipment and labour cost savings for Ovolifts deployment compared to the chainfalls and crane was 67%.



Ovolifts Case Study - 14in Crude Feed Line On-Stream Remediation



Engineered Touchpoint Access



SAPREF Refinery (jointly owned by BP and Shell) in Durban South Africa. 183 touchpoints were remediated by simultaneous lifting of a rolling 15 supports over a 6 week period. An average of 30.5 touchpoints per week lifted and remediated. 6x50t cranes would have been required to execute this project over the same period and **Ovolifts saved the refinery \$68 for every \$100 that would have been spent on cranes.** Engineered lifts meant the crude feed line was also not shut down, saving millions of Dollars in lost production and other shutdown costs.

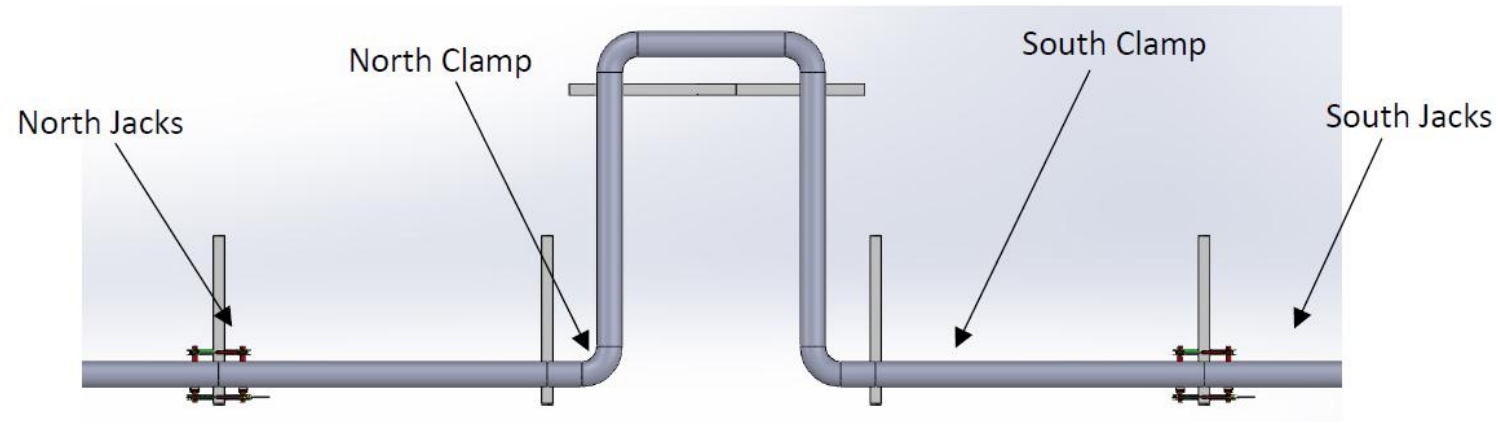




Case Study - 20" Pipe Hammer Project

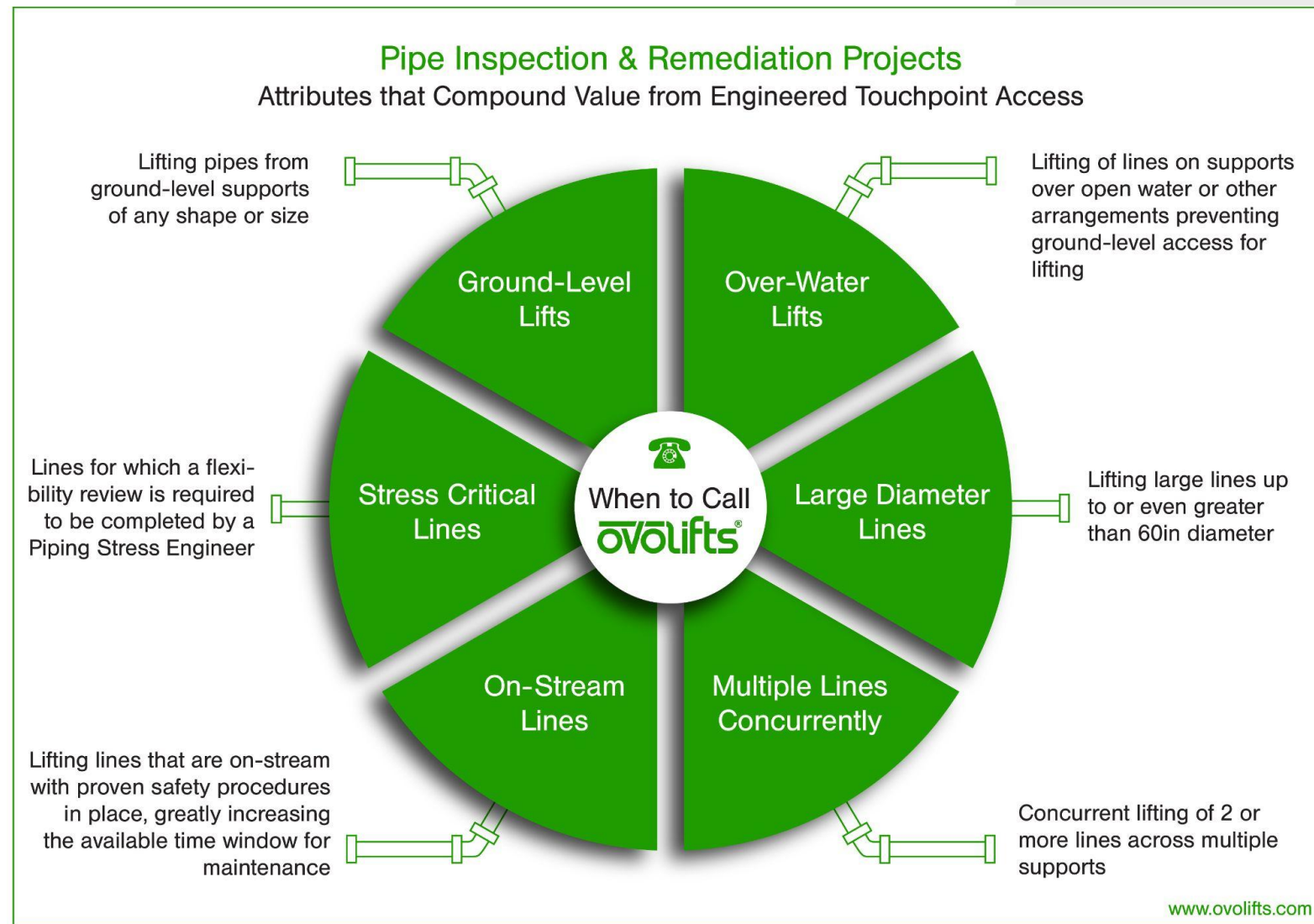
Ovolifts Jacks Replaced Two Cranes

- Severe pipe hammer caused significant damage to 2 pipe shoes.
- The expansion loop was anchored and adjacent supports were lifted using Multijacks to cut out the shoes.
- Clamps installed at both damage locations.

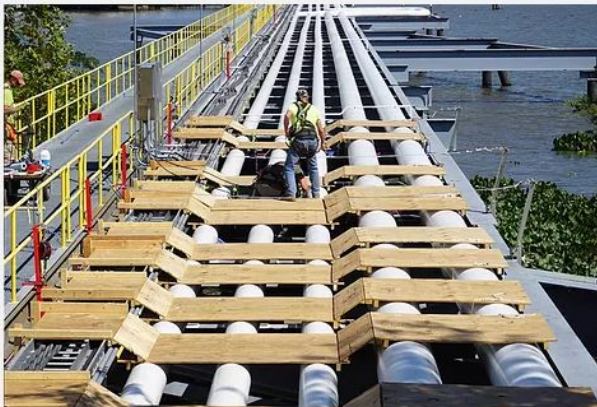


When to Call Ovolifts?

Each of these attributes increases the value of Ovolifts' engineered touchpoint access compared to conventional lifting and access methods



When to Call Ovolifts?



Over Water Lifts

Lifting of lines on supports over open water such as midstream marine terminals that prevent ground-level access. These environments may also lack above supporting structures to lift from without additional costly rigging. Our tools can be assembled using access from above the rack only so there's no need to provide costly access from below.

[LEARN MORE >](#)

Large Diameter Lines

Lifting large lines up to or even greater than 60" diameter while full of product. With a pipe stress review we can calculate the exact weight of the line when lifted to ensure we remain within the lifting capacities of the pipe jacks and evaluate the resultant loads on existing pipe supports.

[LEARN MORE >](#)

Multiple Lines

Concurrent lifting of 2 or more lines across multiple supports is easily achieved using our jacks. This increases job productivity and reduces man hours on site. In cases where multiple supports need lifting to provide access for numerous inspection and remediation activities, we are experienced with developing lifting programs that optimize equipment and personnel resources.

[LEARN MORE >](#)

When to Call Ovolifts?



On-Stream Lines

Certain jack safety features and safety procedures enables lifting lines that are in-service, greatly increasing the available time window for maintenance. Ovolifts has years of experience and expertise in lifting in-service lines. We make sure your lines are lifted safely, protecting personnel, equipment and the environment.

[LEARN MORE >](#)

Stress Critical Lines

Every job has it's unique needs. One of them is ensuring fitness for lifting to ensure pipe integrity. This may be the case when wall loss due to corrosion is a factor, or maybe there are branching connections or equipment acting as a fixed point along the line. A stress analysis will evaluate these factors to ensure the line can be lifted safely to the desired height.

[LEARN MORE >](#)

Ground-Level Lifts

No need for your conventional pipe jacks or pillow bags which are unsafe and require additional rigging/cribbage. Our pipe rack jacks lift directly from the existing support of any shape or size, whether it be an I-beam, channel beam, concrete or circular support.

[LEARN MORE >](#)



OUR proven program of engineering, training, support, experience and logistics for deploying our equipment to asset integrity projects of any size, anywhere in the world.

Equipment Rental

A rental business model deploying patented equipment

Operator Training

On-site, remote and video training

Equipment Deployment

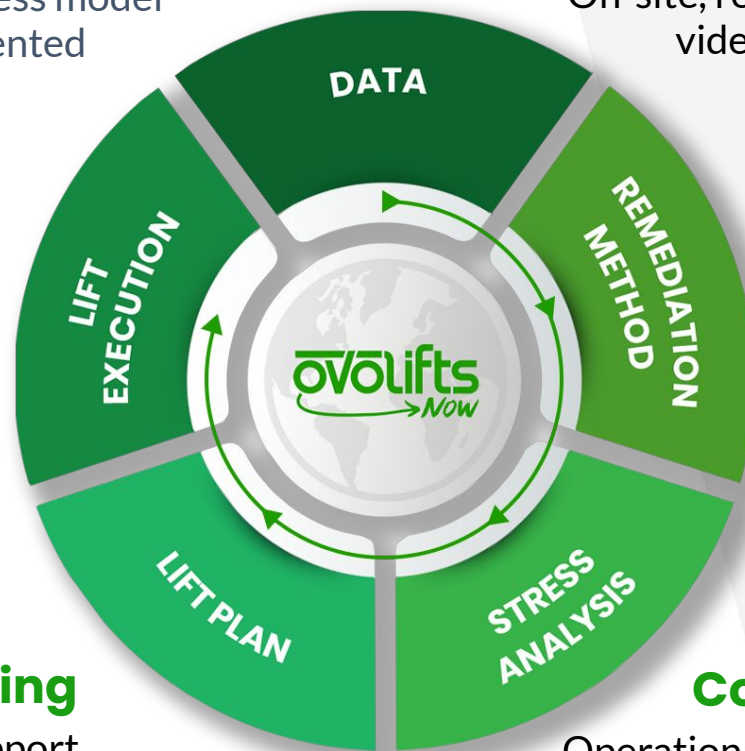
Equipment deployment from regional & national own-offices and agents

Safety Management

Emergency/safety management procedural support

Engineering

Custom engineering to support safe lifting configurations



Stress & Lift Planning

Pipe-stress analysis and lift planning support

Best Practice Support

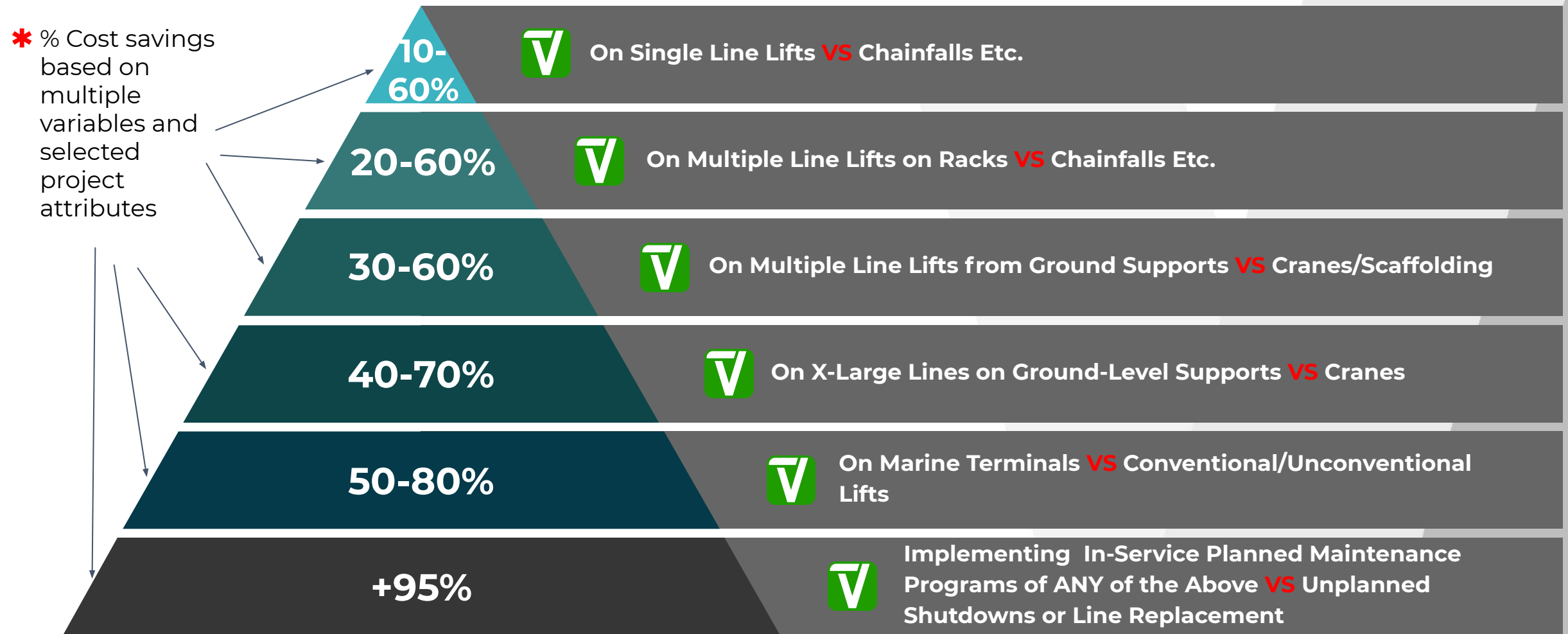
Improving safety, reducing costs and increasing productivity

Consultative Oversight

Operational consultative oversight both on-site and remote

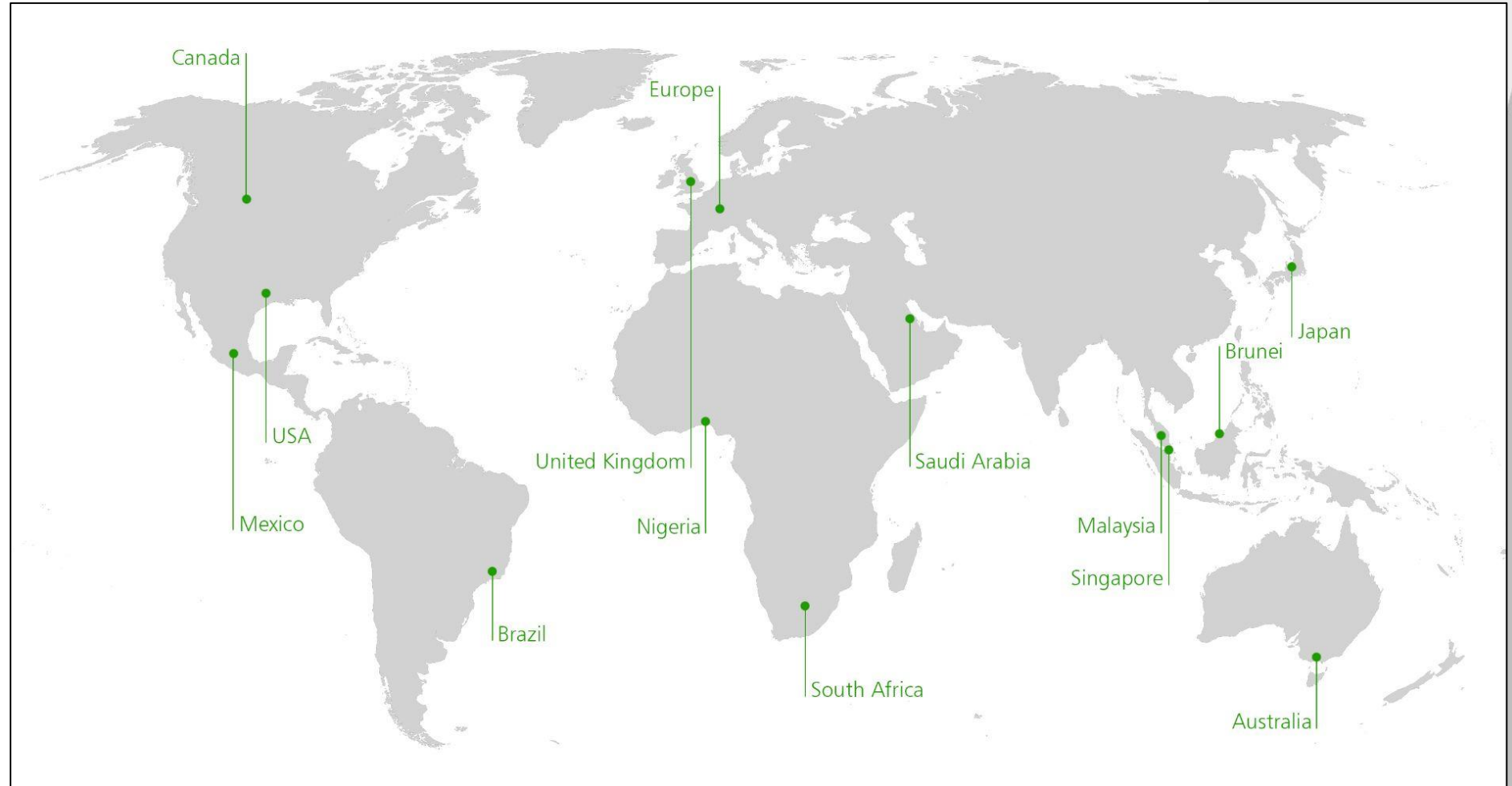
Engineered Touchpoint Access Cost Savings Against Baselines

Through Increased Project Productivity and Extended Asset Life



Ovolifts' Global Network

We work with regional & national accredited maintenance contractors from own-offices and an expanding network of agents



Thank You



www.OVOLIFTS.com



info@ovolifts.com



1304 Langham Creek Dr, Suite
440, Houston TX - 77084 - USA