DEXON CALIPER PIG
Conventional and Advanced NDT and Inspection Services

Oil and Gas, Refinery, Petrochemical, Heavy Industry, Mining and Power Plant

Over 400 personnel including more than 300 inspectors

Thailand headquarters with International expertise since 1979
OUR OFFICE LOCATIONS

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WHERE WE WORK

With our company headquarters in Thailand we offer our clients fast and cost effective mobilizations throughout the region.

Being so close to our client’s operational assets allows for clear communication and collaboration with decision makers on the ground.

Whilst Asia remains our key area of operations we are constantly expanding to new territories and have delivered numerous projects around the world.

As our reputation for operational excellence and innovative solutions has grown so has the reach of our capabilities.
Dexon Caliper PIG

- Geometry inspection services using caliper technology on all pipeline sizes.
- Our caliper PIG uses mechanical arms, which directly contact with a pipe wall and cover a full pipe circumference.
- The angles of measurement arms will be digitally recorded into an on-board computing unit at extremely high-resolution.
- A software interpretes the collected data into pipeline geometry characteristics, i.e., ID profile, ovality, changes of pipeline schedules, and etc.
- Difference in time between sent and received signal measured and recorded.
- Measurements of up to 200 times per second depending on the pipe diameter.
Why use Caliper PIG

- Commissioning for New construction pipelines prior hand over to the owner.
- Old pipelines which susceptible to dents, deformation, and geometry change.
- Pipeline survey after repaired or modifications.
- Pipeline survey before conduct in-line inspection to ensure for safe passage for intelligent pigging run.
- Pipeline Mapping (it can be combined with XYZ mapping unit).
- Pipeline Survey of distance, girth welds, valves, bends, ovality, Tee, internal diameter changes, etc.
## Caliper PIG Systems

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Dent, wrinkles, ovality, weld location.</th>
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<tbody>
<tr>
<td>Accuracy</td>
<td>Highest available accuracy with Dent, wrinkles, ovality, weld location.</td>
</tr>
<tr>
<td>Result Availability</td>
<td>Instantly available after inspection with simple and easy to understand analysis.</td>
</tr>
<tr>
<td>Size and Weight</td>
<td>Small lightweight tools. Available tool sizes ≥4” – 36”</td>
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<tr>
<td>Launching</td>
<td>No lifting equipment required for tools up to 36” and can launch in restricted space.</td>
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<td>Medium</td>
<td>Can be used in most mediums including gas, liquid and multiphase.</td>
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<td>Pipe Material</td>
<td>Works on any material and on any thickness of pipe wall.</td>
</tr>
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<td>Speed</td>
<td>Can travel at speeds of 2 meters per second making them ideal for long lines.</td>
</tr>
<tr>
<td>Range</td>
<td>Can travel many thousands of kilometers.</td>
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<tr>
<td>Cost</td>
<td>Cheap in comparison to other techniques but expensive compared to Dacon UT.</td>
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Dexon Caliper PIG

Normal reporting threshold is
2% of nominal pipe diameter for dents
5% of nominal pipe diameter for ovality.
However, it can be varied to suit project
The Caliper pig tool continuously measures the inside diameter of the pipeline through an array of sensing fingers that are spring loaded to hold them in contact with the pipe wall. A large number of sensing fingers provide optimum coverage of the inside circumference. Wheels at the end of each sensing-finger are in direct contact with the pipe wall. The extremely flexible polyurethane cups enable the Caliper pig to be transported through the pipeline by the propellant medium. The Caliper pig is able to pass reductions of at least 25%, however, it’s changeable base on the project requirements.
Measuring Detects
DATA ANALYSIS
Sample Case
Actual Case
CONFIDENCE
Simulation Tests

• Mock up your pipeline in our test yard
• Perform pull through test to ensure tool compatibility and effectiveness
• Witnessed by client

• Gives confidence that your pipeline will be inspected without any problems
• Test yard with full facilities is located in Thailand.
CASE STUDIES
Commissioning new pipelines

CPP – Chonburi (PTT’s pipelines)

- CCP (China Petroleum pipeline Bureau)
- PTT’s Pipelines
- Location: Bowin, Chonburi, Thailand
- Caliper + mapping pig run
- 16"x10” – 5km Underground line
- 12"x 2.5km Underground Line
- 12"x 500m Underground Line
- 12"x 3km Underground Line
- 12"x 400m Underground Line

- Caliper Pig run
- Pipeline Mapping
- Using Air / Water

- Completed and Successful inspection

- Available in short term notice.
- Compact and simple system.
- Adaptability as per client’s requirements
- High resolution for Geometry data.
- High resolution for XYZ pipeline mapping.
- Low cost
Summary

• Asia Based With International Expertise
• Excellent Track Record
• Small, Lightweight Tools
• Easy Mobilization and Launch
• Extremely Accurate
• Simple Data Analysis
• Immediate Results
• Saves Time and Money
How Can We Help?

Contact Us

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Thank You