

70' STYRENE TANK | PETROCHEMICAL — SIDE LAUNCH

STYRENE | REFINERY



OVERVIEW

A refinery had a 70-foot styrene monomer tank that was a candidate for robotic inspection — however, styrene had not previously been tested for compatibility with Square Robot's systems. This presented a technical challenge that required resolution before any inspection could proceed.

SOLUTION

The refinery team collaborated with Square Robot to conduct product compatibility testing, successfully confirming styrene as compatible with Square Robot's inspection platform. The client prepared the tank by lowering the product level below the manway in a single day, allowing the installation of the side launch adapter and valve. Over 3 days, Square Robot's crew completed the full in-service inspection using the side launch system.

OUTCOME

The inspection covered 84% of the tank bottom over 3 days, delivering an API 653 compliant assessment. Direct client feedback confirmed savings in excess of \$1 million, and the tank was awarded a 20-year inspection interval.

KEY IMPACT METRICS

- ✓ Eliminated > 275 confined space entry hours
- ✓ Confirmed \$1,000,000+ in cost savings (client-verified)
- ✓ 84% floor coverage | first-ever styrene robotic inspection
- ✓ Side launch system enabled in-service operation
- ✓ API 653 inspection interval of 20 years