

Case Study

OXIBLAST USED IN ACID TANK AT MONGSTAD REFINERY

POST@PIPELINER.NO +47 55 23 03 30

Autonomous Precision Blasting VS Traditional Sandblasting

Maximizing HSE Benefits and Reducing Worker Exposure

- An Autonomous, Safe, and Efficient Precision Blasting Solution
- Removing personnel from hazardous environments
- Autonomous operations reduce physical strain, noise exposure, and fatigue
- Improved blast consistency

CHALLENGE

Equinor faced severe corrosion on the internal surface of a 32 m² acid tank with a coating thickness of 1000 - 1700m. Manual sandblasting required extensive labor, exposing workers to high noise levels, ergonomic strain, and restricted

SOLUTION

Pipeliner conducted an inspection and 3D scan of the tank, creating an accurate model for optimal blasting. The Oxiblast autonomous blasting robot was deployed, drastically reducing manual labor in the confined, hazardous space. A combined approach, using Oxiblast with minimal manual intervention, ensured complete surface treatment.

RESULT

Enhanced HSE Performance: Traditional blasting required 10 workers for 10 hours per day, totaling 100 man-hours, with noise levels exceeding 124 dB. The Oxiblast system completed the job in just 25 hours, eliminating worker exposure to high noise, dust inhalation, and physical strain.

Noise & Ergonomic Safety Improvements: Traditional blasting limited worker exposure to just 57 minutes per day. The robotic system removed the need for personnel to operate within the hazardous zone.

Operational Efficiency Gains: Improved blast consistency and precision, reducing rework and inefficiencies.

Environmental & Cost Benefits: Optimized material usage, reduced energy consumption, and lower personnel requirements minimized operational costs and carbon footprint.

REMOVING PEOPLE FROM HAZARDOUS ENVIRONMENTS



Autonomous
robot operations



Reduced
carbon footprint



Reduction in
Personell on board



5x efficient
cost & time



Efficiency,
capability & certainty