

CASE STUDY

PILOT TUBE | GUIDED AUGER BORING



Project Name:

Airport Pipeline Project



Prime/Sub Contractors:

Metro Horizontal Boring



Location:

Atlanta, GA



Owner:

Hartsfield - Jackson International Airport



Ground Conditions:

Sandy to Firm Clay



Akkerman Equipment:

240A GBM, P4075D Power Pack, Guidance System, Lube System, 20-in. WORH Adapter



Pipe:

20-in. x 0.5-wall x 20-ft. Steel Casing



Total Length/Longest:

200-lf., 6-ft ground cover

PROJECT OVERVIEW

Assisted by Akkerman's Field Service Technician, Lamont Andrews, Metro Horizontal Boring commissioned their new Akkerman 240A GBM system at one of the world's busiest airports. This 200-ft drive was performed at a negative 0.3% grade with just 6-ft of cover.

THE CHALLENGES

- **Low Ground Cover:** With only 6 feet of cover above the bore path, there was limited margin for error, increasing the risk of surface disruption or breakthrough.
- **Negative Grade Installation:** The 200-foot drive had to maintain a precise -0.3% grade, requiring tight control over line and elevation throughout the bore.
- **Variable Soil Conditions:** The bore traversed a mix of sandy to firm clay soils, which posed challenges for maintaining bore stability and consistent advancement.
- **High-Security Site:** Working at one of the world's busiest airports demanded strict safety protocols, coordination, and minimal disruption to airport operations.

THE SOLUTION

- **Precision Guided Boring System:** Metro Horizontal Boring used the Akkerman 240A GBM system with a high-accuracy guidance system to maintain the precise line and grade, even at a slight negative slope.
- **Expert Onsite Support:** Akkerman Field Service Technician Lamont Andrews assisted with system commissioning and setup, ensuring smooth operation from the start.

- **Stabilization and Lubrication:** The integrated lube system supported ground stabilization, reduced friction, and helped manage soil variability during the bore.
- **Custom WORH Adapter:** A 20-inch Weld-On Roller Head (WORH) adapter was used to accommodate the steel casing and ensure smooth, controlled installation under the tight site conditions.

OUTCOME

- **Accurate, On-Grade Installation:** The 200-foot steel casing was successfully installed on a precise -0.3% grade, meeting all project specifications.
- **No Surface Disruption:** Despite only 6 feet of ground cover, the bore was completed without impacting surface structures or airport operations.
- **Smooth Equipment Commissioning:** With onsite support from Akkerman's field technician, Metro Horizontal Boring efficiently deployed their new 240A GBM system.
- **Successful First Project:** The project marked a confident launch for the contractor's new guided boring system, proving its capabilities under high-stakes conditions.

