



A Century of Experience

*Vacuum & Keyhole Excavation
Perspectives*

March 21 2019 GTI



- Founded in 1908
- One of the top 20 largest, privately held electrical, utility and pipeline contractors in the country
- Divisions: Utility, Industrial, Commercial, Pipeline, and Infrastructure
- Self performance capabilities in all project aspects - electrical, natural gas, civil, mechanical and underground installations.
- Complete electrical and communication engineering and design coordination
- Excellent safety performance
- National presence: we operate wherever our customers need us



Infrastructure:

Traffic signals and street lights, surveillance camera systems, storm water pumping stations, electrical construction and maintenance, railway systems, intelligent transportation systems and more.



Industrial:

Power distribution to 35,000 volts, diesel, natural gas and gas turbine generator installation, chemical area construction, electrical construction and maintenance, pipe line stations and terminals, power instrumentation, electric and pneumatic installation, calibration and testing, and more.



Utilities:

Electric, natural gas, petroleum and telecom, design, construction, maintenance & rehabilitation, overhead & underground electric line installation & maintenance, pipe and conduit installation, replacement & rehabilitation, trenchless technologies, conventional & directional drilling, gas transmission & distribution pipeline installs, metering/regulating stations, electric substation construction, gas compressors and storage, petroleum pipeline and pump construction and maintenance.



Commercial:

Power distribution, data centers, universities, generator and cell tower installations, electrical construction/maintenance, life safety, voice/data systems, electrical system installation, maintenance for health care facilities, hotels, hotels, government facilities, commercial office build outs and many other commercial and public spaces.



Engineering:

Electrical engineering designs for design/build projects, electrical code interpretation, emergency regulations and code, reviewing submittals, reviewing design documentation, professional engineering and construction, and technical help in unusual challenges.



- MEADE began its vacuum excavation program due to a customer requirement(s) in work methodology in Electrical Stations and Substations
- Dry Vacuum (air only) truck mounted along with a portable wheel barrow hopper (approximately 1980)
- MEADE presently has 24 Large WET/DRY Vacuum Trucks and 2 medium sized units (2019). Most work performed in wet mode. Additionally MEADE rents additional equipment as required or hires subcontractors to perform limited scope of work



Scope of Vacuum Excavation & Keyhole Work

- Potholing or locating of utilities
- Anode, Test Wires/Stations
- Pipeline Integrity Checks
- Bbox Maintenance
- Anaerobic Cast Iron Joint Repair
- Encapsulation of Cast Iron Bell Joints & Mechanical Joints
- Station Work (Refineries, Regulator Stations)
- Excavating around Control lines



Vac & Keyhole Strengths

- Pavement & Restoration Costs Reduced
- Immediate Restoration (No Need to Maintain Openings until a permanent repair can be made)
- Open Cut Excavation for same tasks would in most cases require more earth movement, sheeting- labor intensive
- Tasks can usually be performed in a shorter time period

Vac Equipment



MEADE

SAFETY · QUALITY · PERFORMANCE · SINCE 1908®

KEYHOLE Coring & Reinstatement





- **Hard Hat**
- **Safety Glasses with Side Shields (ANSI Z87)**
- **Face Shields**
- **Long Pants & Shirts**
- **Ear Plugs / Hearing Protection**
- **Impact Resistant Safety Gloves**
- **Steel / Composite Toe Safety Boots**
- **ANSI Class III Retro-reflective Safety Vest**



Operator Qualification

Workers need to be qualified for vacuum excavation and keyhole reinstatement – Should be identified as a covered task in OQ Program

Operators – ALWAYS ACCOUNTABLE

Veriforce, B31Q, NCCER, CCT, Operator Specific Task

Contractors , Subcontractors, Operators



- Qualified Personnel at a minimum
 - Comprehensive training program containing manufacturer's operating procedures
 - Set up a safety perimeter – protect those in immediate area
 - Use of splash guard when starting a hole
 - Know what action and precautions to take when hoses it clogged
 - Know how to read flows and pressures
 - Know how to shut unit down in emergency
 - Proper use of tips and nozzles



Not everyone is qualified to do gas work.