

# Plasteel® Elutron® DoubleWall

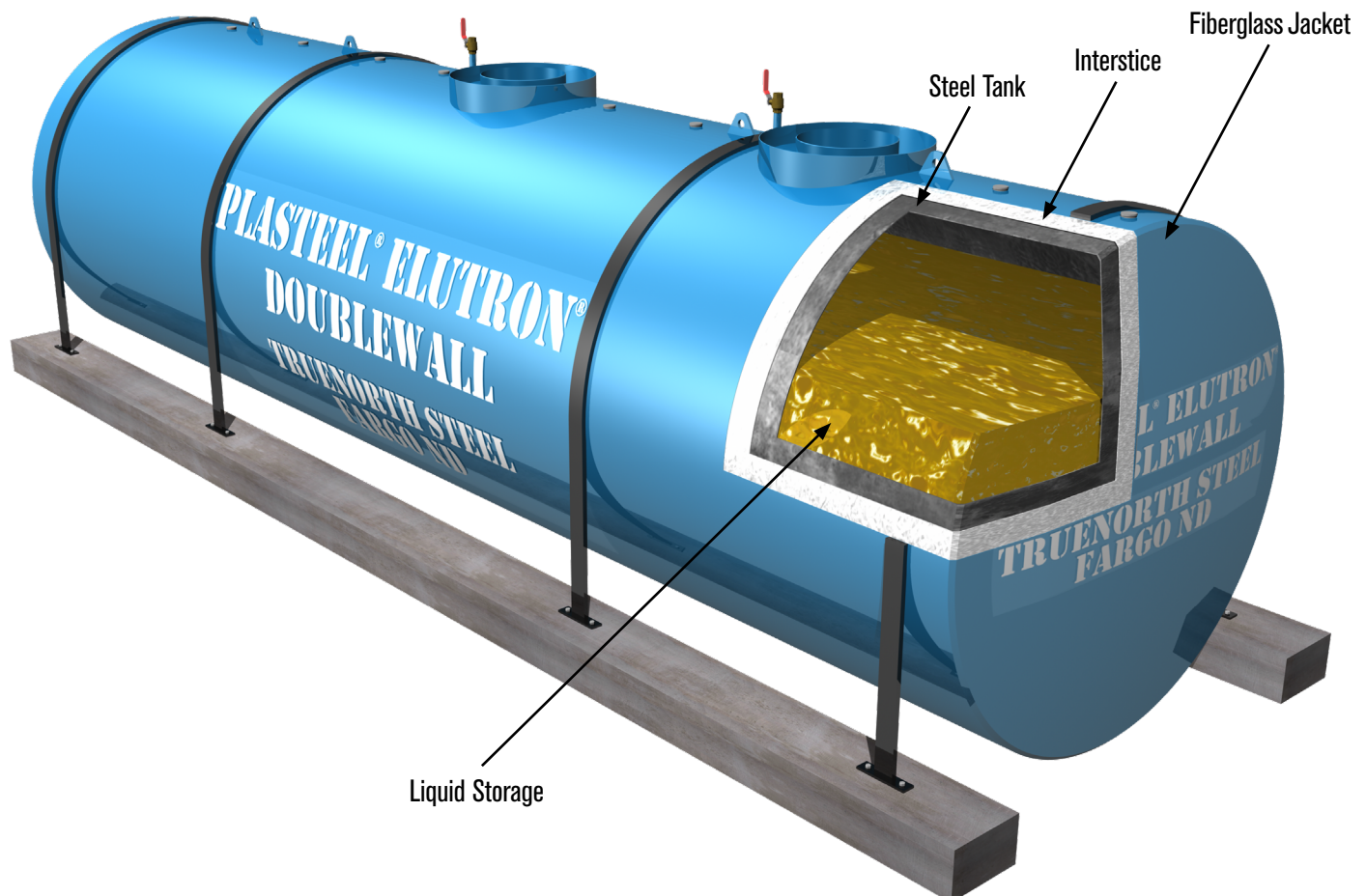
## Underground Storage Tank System



## ABOUT THE PLASTEEL® ELUTRON® JACKETED TANKS

- Reliable UL 58 Listed steel inner tank containment
- Durable UL 1746 Listed fiber reinforced plastic outer jacket
- 360 degree interstice provides tank integrity monitoring
- Compatible with gasoline, diesel, aviation, methanol and ethanol fuels
- Multiple compartment systems available
- Lower installed cost than non-metallic tank systems
- Over 22,000 Elutron tanks installed with no failures due to internal or external corrosion

## STEEL TANKS ARE THE PROVEN MATERIAL OF CHOICE FOR LONG TERM SECURITY AND STRUCTURAL PERFORMANCE





# A PROVEN HISTORY OF PERFORMANCE AND RELIABILITY

Steel fuel containment systems have a proven history of providing reliable and safe storage of fuel products. With the addition of a fiberglass reinforced plastic “FRP” outer, secondary containment layer, the UL Listed Elutron fuel storage system creates a high performance, seamless, and durable underground storage solution. The 360° interstice between the steel and FRP secondary containment is created by incorporating an aluminum foil layer which in turn provides a system for monitoring inner tank integrity. The steel inner tank provides the highest level of structural stability while the outer FRP layer provides complete protection from underground environmental conditions. The UL Listed Elutron Double Walled Fiberglass Jacketed tank system meets the EPA 40 CFR subpart B, 280.20 standards for new underground storage tanks.

TrueNorth Steel's Elutron underground fuel storage tanks are compatible with gasoline, jet fuel, methanol and ethanol in varying concentrations, E-10, E-15, E-80, E-100 and kerosene. They are commonly used in a variety of applications such as fuel stations, emergency power generators, and farm and residential operations and can incorporate multiple compartments.



## FEATURES OF TRUENORTH STEEL'S UL LISTED ELUTRON® UNDERGROUND FUEL STORAGE TANKS

- Sizes range from 560 to 40,000 gallons and 4 to 12 feet in diameter
- Can be fabricated with single or multiple compartments
- Each tank is UL listed and Elutron technology is tested per UL Standard 58 external pressure test
- Every tank is shipped with cleaned and leveled fittings to save installation time
- Customizable tank design to suit a variety of applications
- Elutron systems produced by TrueNorth Steel are supplied with a Plasteel's limited 30-year warranty when storing flammable and combustible fluids





# BENEFITS OF ELUTRON® UNDERGROUND TANK SYSTEM MANUFACTURED BY TRUENORTH STEEL®

- Quick and simple installation requires no special and expensive backfill material
- Less risk of damage during installation when compared to non-metallic systems
- TrueNorth Steel performs pre-installation interstitial vacuum testing
- When it comes to sustainability, steel is the ultimate recyclable construction material



Each Elutron system is supplied with a factory-established interstitial vacuum. Prior to delivery, our team cleans and levels all the fittings and marks the center lines on each tank. These details save installers several hours of work normally spent on pre-installation testing and cleaning of non-metallic tanks.

Installation of Elutron underground storage tanks is uncomplicated and due to the inherent, long term strength of steel are less dependent upon backfill for support when compared to non-metallic underground tank systems. Non-metallic underground tank systems require high-quality gravel backfill and a greater distance between adjacent tanks.





## QUALITY

- Every tank is assembled, welded and tested for tightness
- All of our welders are certified to American Welding Society standards
- TrueNorth Steel maintains a comprehensive Quality Management System that guides every aspect of our operations including sourcing, planning and manufacturing processes

## WHY TRUENORTH STEEL?

- 70 plus years of complex and critical steel tank fabrication
- American Petroleum Institute®, and Steel Tank Institute certified
- Member of American Iron and Steel Institute and Petroleum Equipment Institute
- TrueNorth Steel is dedicated to the highest levels of safety
- Unsurpassed customer support and commitment to on time delivery

## AVAILABLE ACCESSORIES

- Sump collars
- Manholes
- Threaded or flanged ports
- Deadman anchors
- Hold down straps
- Turnbuckles
- Submersible pumps



# Tank Installation Comparison

## Plasteel® Elutron® Simplicity vs. FRP Complexity

Procedure	Plasteel Elutron Tank	FRP Double-Wall Tank	Cost Effectiveness
Pre-Installation Testing	Not required if delivered with factory established interstitial vacuum.	Inner tank Pressure Test. Interstice Pressure Test. External Soap Suds Test. Monitor Fluid Leak Inspection.	FRP Tank - Additional labor and equipment required.
Backfill Material	Choice of sand, pea gravel, or crushed stone.	Pea gravel per ASTM C-33 for most FRP tanks.	FRP Tank - No potential savings. Elutron Tank - Potential saving with choice of materials.
Excavation	Smaller Excavation	Larger Excavation	FRP Tank - Most require 30-50% more soil removal and 30-50% more backfill material than Elutron Tank.
Backfill Procedure	Less time ensuring compaction.	More time ensuring proper placement and compaction.	FRP Tank - FRP tanks rely heavily on backfill for structural support, no voids allowed in backfill. Elutron Tank - Steel resistant to small backfill voids.
Ballasting	Quick and simple. Backfilling to the top not required before ballasting.	Slow and tedious.	FRP Tank - More labor hours for wet hole since most FRP tanks cannot be ballasted until backfilled to top of tank.
Deflection Measurement	Not required.	Most FRP Tanks require two measurements - one before backfill and the other after backfill.	FRP Tank - Additional labor and possible tank removal replacement of backfill.
Warranty	Deflection measurement compliance is not a term in the warranty.	Most warranty validations are based on compliance to a specified maximum Deflection measurement.	FRP Tank - Possible future, in-service costs if Deflection exceeds a specified maximum limit.

### SUMMARY:

1. All the above FRP Tank procedures are an effort to maintain structural integrity and minimize the Deflection of the FRP (non-metallic) structure during the service life of the FRP Tank. When the FRP Tank laminate exceeds its yield point, failure can be catastrophic.
2. All Plasteel Elutron Tanks use a steel tank for structural stability. The steel tank provides the structural performance for the Plasteel FRP jacket.
3. Over 33,000 Plasteel Tanks (22,000 Elutron Tanks) have been placed in service since 1971. There has never been a Plasteel Tank failure due to external or internal corrosion when storing motor vehicle fuels.
4. Elutron Tank installation instructions are 3 pages. Most FRP Tank installation instructions exceed 20 pages.
5. The Elutron Tank was UL performance tested and Listed per the External Pressure Test in UL Standard 58. The test tank was successfully submerged in 5 feet of water with no backfill. The test tank did not deflect or deform.





**TrueNorth Steel also manufactures and supplies a wide variety of steel tanks including:**

- Above ground oil storage tanks
- Agricultural storage and skid tanks
- Single and double walled vertical and horizontal tanks



***Contact TrueNorth Steel® for technical support or a quote. Visit our website at [www.truenorthsteel.com](http://www.truenorthsteel.com) to access technical references and documents.***





TrueNorth Steel Plasteel Elutron underground tanks are simple to unload and place. Additionally, TrueNorth Steel's logistics department directly manages all aspects of shipping and delivery. Go to [Truenorthsteel.com/underground-tanks/](http://Truenorthsteel.com/underground-tanks/) to download installation instructions and to access additional resources.



TrueNorth Steel Plasteel Elutron underground tanks can be supplied with pre-established interstitial vacuum and require a smaller excavation footprint and lower cost backfill materials than fiberglass reinforced plastic tanks.

**LOCAL OWNERSHIP.  
LOCAL PRODUCTION.  
Since 1945.**



**TrueNorth Steel®**

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