

Titanium Infrastructure: Pipelines & Railways







Outline

- Who We Are
- The Technology
- Titanium's Attributes
- Environmental Benefits
- Pipelines
- Railways









We Are...

- Company Name
 - Tiller International Capital
 - TillerCapital.com
 - Amalgamated Titanium Int'l
 - AmalgamatedTi.com
- Titanium Technology Company
- We Make Titanium Products Affordable
- We Make Titanium Available
 On An Infrastructure Scale



We Are Part Of...

- Tiller Formed in 1972
- 2000+ Completed Projects
- 160,000 Employees
- 76 Countries

INDUSTRIES:

- Energy
- Oil & Gas
- Pipelines
- Infrastructure
- Mining
- Rare Earth Metals
- Industrial
- Automotive
- Engineering
- Etc...





WHO DEVELOPED The Titanium Tech?

• <u>Developed For:</u>

DOD / NASA

• When:

During the Cold War

• Why:

• To Counter Titanium Weapons Tech

• By Whom:

- U.S. Tech & Scientific Team
- TillerATI Team

• Ownership:

• TillerATI via Space Act Agreement



The Technology

- Comprehensive Titanium
 Manufacturing Technology
- Affordable
- Mass Production Scale
- Infrastructure Scale
- Mobile Field Production
- Metallurgical Surface Treatments
 - Heat, Pressure, Galling
- Engineer to Accommodate Tech

Titanium's Attributes



- Environmentally Friendly
- 45% Lighter
- 100% Corrosion Free
- 200% Stronger
- Highest Strength-to-Weight Ratio
- Greater Durability
- Greater Yield
- Greatly Abundant
- Now Affordable

Titanium's Environmental Benefits

- Impervious-To-Corrosion
 - Even in Saltwater
 - Reusable 100%
 - No Bio-Contamination From Pipe Degradation
 - No Internal/External Contaminants Leaching Through Degraded Pipe
 - Naturally Anti-Microbial
 - Bio-Compatible With Human Body





Titanium's Environmental Benefits Continued...



- Reduced Enviro Disruption
 - Greater Life-Expectancy
 - Greater Strength
 - Reduced Cost
 - Reduced Wear From Use
 - Reduced Erosion Rates
 - Reduced Maintenance & Replacement
 - Greater Resilience vs. Natural Disasters & Accidents
- Greater Safety
- 9th Most Abundant Element In Earth's Crust
- Modernity & Visual Beauty

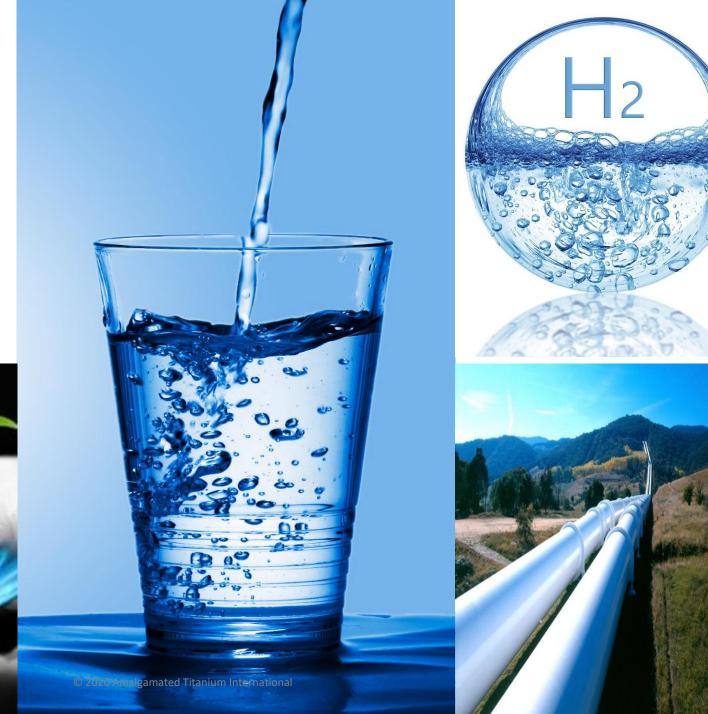




Titanium Pipelines

- Water
- Hydrogen
- Natural Gas
- Oil







Non-Corrosive Titanium Pipelines

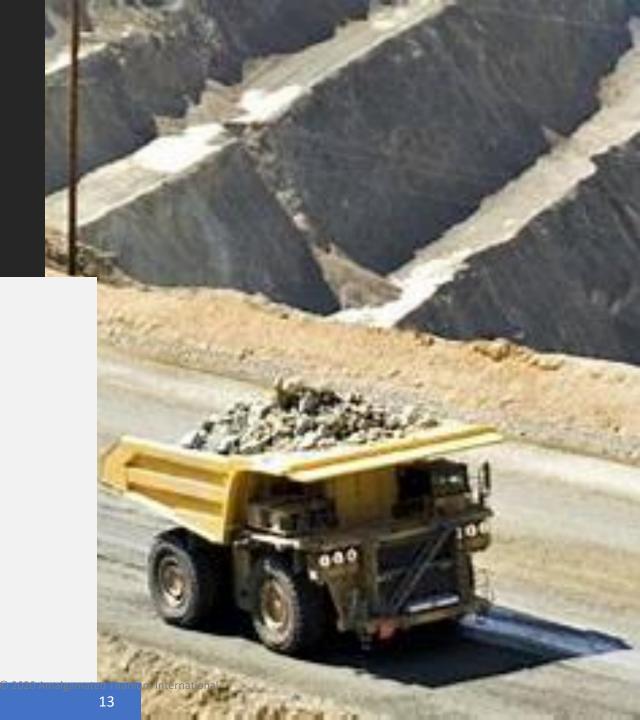
- SAFER, GREENER & CLEANER Water
 - No Leaching Contamination
 - No Corrosion Contamination
 - Anti-Microbial
 - Reduces Enviro Disruption
 - Reduces Contamination From Damage, Maintenance, Replacement
- SAFER & GREENER Hydrogen/Gas/Oil
 - No Leaching Out of Pipe
 - Reduced Enviro Disruption
 - Reduces Leaks From Damage,
 Maintenance, Replacement



Titanium Pipe Requirement 1

Extensive Supply

- Exclusive Access
- Global Expansion





Titanium Pipe Requirement 2

Technical Know-How

- Comprehensive Titanium Manufacturing Technology
- Innovation Across Many Industries
- Always Titanium Specific



MOBILE Onsite Pipe Manufacturing

- Truck/Trailer/Ship Pipe Production
 - Continuous Production & Feed
 - Select Diameter & Wall Thickness
 - Select Road Conditions



FIXED Onsite Pipe Manufacturing

- Field Flexibility
 - Staging Area
 - Custom Length Pipe
 - Standard Length Pipe
 - Length Limited By Road Accessibility

Simplified Logistics

- Eliminate Pipe Manufacturer
 - No Coatings
 - No Intermediate Transit/Storage
 - No Intermediate Costs/Profits
- Shipping Plate & Coil Vs. Pipes
 - Weight Savings 45% 87%
 - Volume Saving 50% 85%





Titanium Rails



- Problem Areas
 - Coastal Areas
 - Tunnels, Underground Railways
 - Crossings (buried foot)
 - Contamination Areas
 - Water, Mineral, Bio-Matter





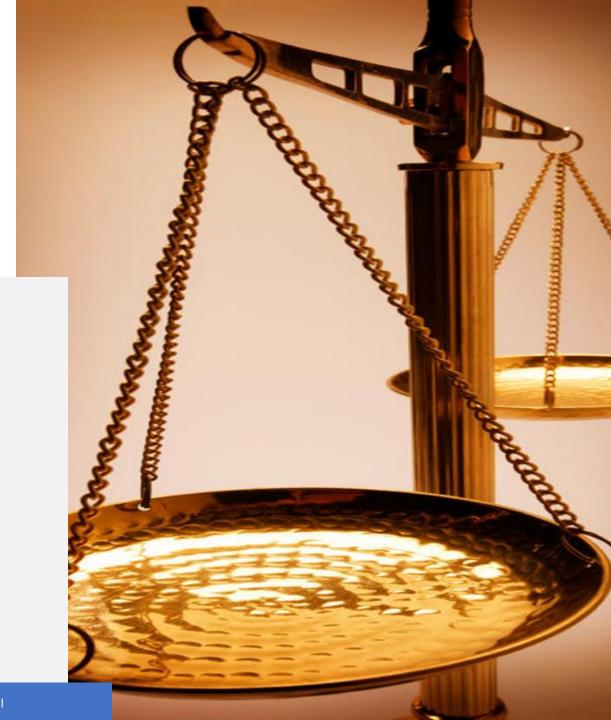
Most Durable Rail

- Stronger
- Greater Life-Expectancy
- Greater Cost-Efficiency
- Reduced Wear From Use
- Reduced Maintenance
- Reduced Replacement
- No Coating
 - Penetration Risk
 - Corrosion Risk



Lightest Rail

- 45% LIGHTER
- More Cost-Efficient
 - Transport
 - Install
 - Maintenance
 - Replacement





Rail Types

- Welded Rail
 - Field Robotic Welder
 - User Friendly
 - More Cost-Efficient
 - Faster Install & Maintenance
 - Highest Quality
- Sectional Rail



