ONE SOURCE–ONE COMMITMENT

Reliable Power for

MINING

Mining, a vital part of industry that truly functions on reliable power. This sector of industry, on a world-wide scope depends on power to harness natural resources such as aggregates, precious metals, iron ore, oil, gas and coal. All the machinery involved in this process uses power, in vast amounts from start to finish. Both surface and underground mining operations use power to extract minerals and load trucks. This industry uses a tremendous amount of "power" to get the job done.

The role of a transformer in this industry is at the heart of operation, converting distribution voltage into utilization voltage for operations at the load center. Since the transformer is one of the most critical elements of operation, it must meet many requirements in safety, reliability and efficiency. The mining industry "works" on power, and the transformer is the source of power for many different areas.

Load losses are of great importance as well. We pride ourself in designing a more efficient transformer to reduce losses and costs. In addition, this industry exists in very harsh environments surrounded by dust dirt, chemicals, moisture and airborne contaminants. This not only (potentially) effects the performance of the transformer internally, but external protection is a major consideration as well. VTC-GTC offers paint systems made to protect a unit based on its environment.

After all, *Virginia Transformer got it's start providing power for the underground mining industry in 1971.*

There are different uses for transformers in the mining industry, so both liquid-filled and dry type are used. Depending on the application, there are some performance advantages that have been accepted.
Liquid-Filled units have a greater overload capacity, are better at reducing hot-spot coil temperatures and because of their thermal dissipation, have lower losses.
Dry Type transformers are usually used for lower ratings and they are usually used indoors. The enclosures for Dry type transformers are generally provided with louvers, or are sealed. These use almost no flammable materials, so pose no fire hazard when used in coal and other mines.
We also offer TENV (Totally Enclosed, Non-Ventilated Dry Type) transformers, and for indoor operation supplies Dry Type up to 5000 kV.

Virginia and Georgia Transformer has the engineering expertise and refined manufacturing processes to build some of the most dependable, long lasting units available. For the mining industry, we offer transformers for drag lines, blast hole drilling and shovels (mil 167).
All our transformers are custom built to client specifications. We build both liquid-filled and dry type transformers from 400 MVA 345 kV to 1400 MVA 500 kV.

For over 45years VTC has been making custom-built power transformers. Our history in specialty design laid the foundation for a solid engineering based company specializing in transformer and reactor solutions for industrial, commercial and utility applications.

Virginia Transformer now operates 4 modern manufacturing facilities in North America to service our global markets.

The alliance of VTC & GTC has created the nation's largest transformer business.

We are a leader in custom power transformers engineered precisely for each customer application, optimized for performance and life cycle.

Our success comes not only through our dedication to producing a top quality product, but equally through innovations in our processes driving us to the forefront of our markets.

Virginia Transformer Corp

220 Glade View Drive
Roanoke, VA 24012
Phone: 540.345.9892
www.vatransformer.com

3770 Poleline Road
Pocatello, ID 83201
Phone: 208.238.0720
www.vatransformer.com

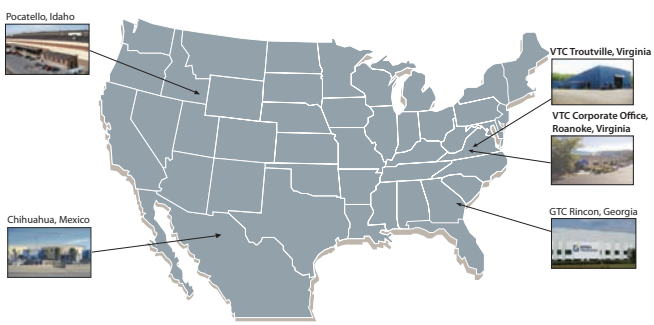
Complejo Industrial Chihuahua.
Ave. Homero #3307 Chihuahua, MX
Phone:52.614.483.0000
www.vatransformer.com

Georgia Transformer

2789 Highway 21 South
Rincon, GA 31326
Phone: 912.754.5300
www.GaTransformer.com

HISTORY

- *1971 – VTC established*
- *1982 – Current president assumes management*
- *1989 – Manufactures first LTC transformer*
- *1995 – Opened 2nd manufacturing facility in Chihuahua, Mexico*
- *1997 – First achieves ISO 9001 certification*
- *2003 – Acquired power transformer facility, Pocatello, Idaho*
- *2005 – Testing facilities upgraded enabling "front of wave" and "switching surge" tests*
- *2009 – Addition of Vapor Phase Drying*
- *2013 – Opened separate metal fab facility in Troutville, VA*
- *2015 – Expanded product range thru alliance with Georgia Transformer*
- *2016 – Virginia Transformer 45th Anniversary*



WHAT VIRGINIA TRANSFORMER AND GEORGIA TRANSFORMER DOES

Providing High quality, long life units starts with our engineering strength. VTC-GTC boasts over 15,000 customizable designs to provide built to spec transformers for our clients for just about every application possible. Our team of application and sales engineers starts our process by reviewing technical specifications and establishing with our customers an optimum solution. Our Electrical, Mechanical and Control Design Engineers utilize the latest tools to provide drawing packages in the industries shortest lead time.

The experience of our team and the automation of our processes sets us apart as a solution based manufacturer of all transformer needs. We are able to develop the best design for each individual need. We look at all the details of the transformer design to assure electrical and magnetic performance to optimize every phase of production.

MARKET REPRESENTATION

Virginia Transformer and Georgia Transformer uses a network of knowledgeable independent Manufacturers Representatives to support and create the best experience for our customers. These representatives augment our team of Sales Engineers and Application Engineers who work with clients to provide the best solution for their application.

MINING PROJECTS

- RESOLUTION COPPER MINING, AZ ..... *10/14 MVA, 110 KV LTC*
  Resolution Copper Mine, Superior, AZ
- FREEPORT McMORAN ..... *30/56 MVA, 115 kV*
  Miami Smelter Transformer, Miami Mine, AZ
- RIO TINTO ..... *10/14 MVA, 43.8 kV*
  KUC Bingham Canyon Mine, South Jordan, UT
- FREEPORT McMORAN ..... *2-1.5/1.9 MVA, 22 kV*
  ..... *2-10/12.5 MVA, 22 kV FR3*
  Miami Smelter Enviromental Project, Claytor, AZ
- FREEPORT McMORAN ..... *2-5/5.6 MVA, 13.8 kV*
  Morenci Copper Mine, Morenci, AZ
- RESOLUTION COPPER MINING ..... *2 - 5/5.6 MVA, 13.8 kV*
  Morenci Copper Mine, Morenci, AZ
- MOSAIC, FL. ..... *12.5 MVA Sled Transformer*
  ..... *4 - 12.5/23.3 MVA, 69 kV*
- KINCROSS GOLD ..... *7 MVA, 69 kV*
  Round Mountain Gold Mine
- MINING CONTROLS ..... *10 MVA, 34.5 kV*
  ICG Viper Mine
- JIM WALTER RESOURCES ..... *7.5 MVA, 138 kV*
  Blue Creek Coal Mine #4
- JIM WALTER RESOURCES ..... *2616 liquid filled rectifier duty*
  Blue Creek Coal Mine #7
- INMAN COAL ..... *10 MVA, 69 kV*
  Indian Creek Project
- LINE POWER MANUFACTURING ..... *10 MVA, 69 KV*
  Rochelle Mine
- ROUND MOUNTAIN ..... *7.5 MVA, 69 KV*
  Round Mtn., NV
- PERFORMANCE COAL ..... *5 MVA, 15 KV*
  Whitesville, WV
- LINE POWER MANUFACTURING ..... *5 MVA, 15 KV*
  Bristol, VA
- GATEWAY ENERGY & COKE ..... *7.5 MVA, 69 KV*
  Granite City, IL
- BLACK WARRIOR ..... *7.5 MVA, 115 KV*
  Brookwood, AL