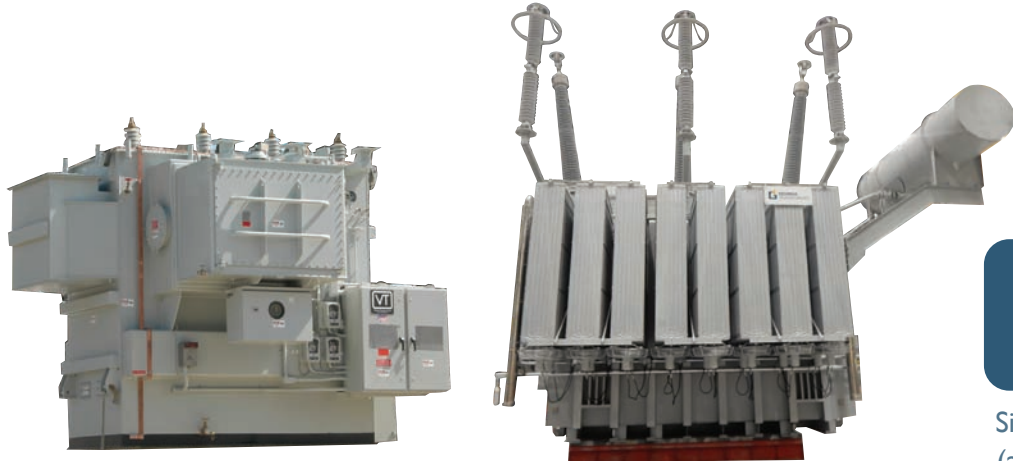


# POWER TRANSFORMERS MADE IN USA

THE ALLIANCE OF VTC AND GTC HAS CREATED NATION'S LARGEST TRANSFORMER BUSINESS BY CAPACITY

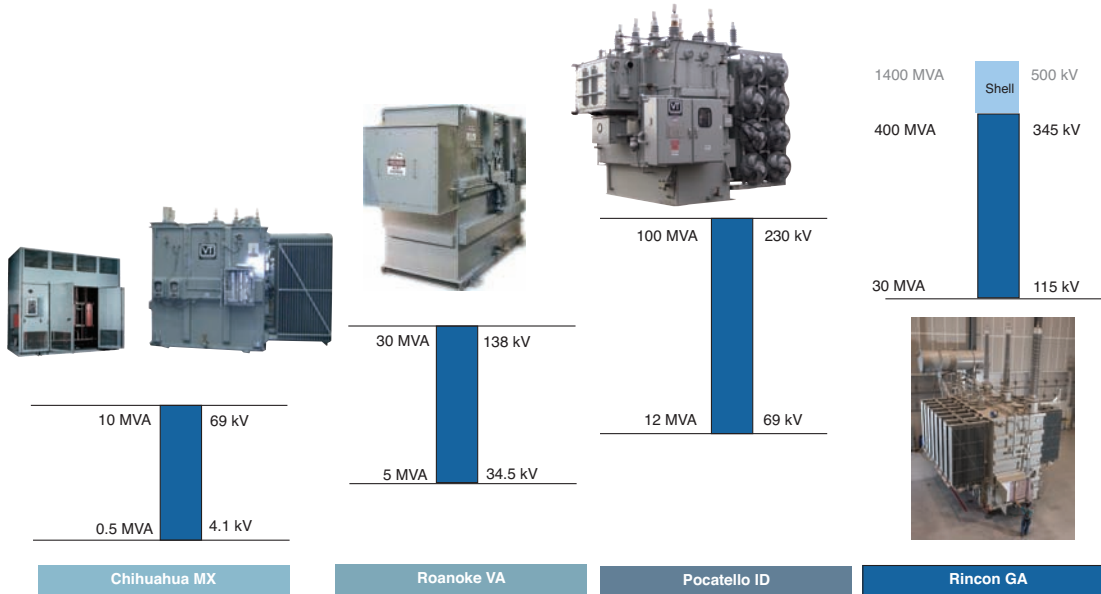


Since 1971



Since 1950  
(as Efacec)

## OUR FOUR PLANTS



47,000 MVA ANNUAL CAPACITY

## PRODUCT RANGE

Up to 400 MVA 345 kV / 1400MVA 500 kV

BIL 1675 kV

LTC / DETC

Medium Power Transformers

Large Power Transformers

GSU Transformers

Auto-Transformers

Padmount Transformers

Traction Transformers

Rectifier Transformers

## KEY PRODUCT FEATURES

- Torqued bolts with pre-compressed washers to maintain contact pressure
- Selection of pressure points on the end ring to apply uniform pressure on the coil
- Coil compression using Hydraulic isostatic
- Robotic Welding
- Leak free nitrogen system
- Polyurethane on Epoxy Paint systems
- Lifting eyes and jacking pads protection from paint damage
- Checking contact resistance of crimps
- Touch up paint for incidental use
- Installation video
- Winding tension for short circuit strength
- VCM to monitor moisture and Hydrogen – sends signals for diagnosis / lifetime assessment
- All metal edges are rounded
- Corona shields on bolt heads
- Testing of DETC and switches for ease of turning - not binding
- Securing the shaft of DETC from disengaging
- Lifting lug designed with safety factor 5
- Laser assembly of core and coil to maintain alignment for clearance uniformity
- End rings are designed to absorb short circuit force
- Oil moisture PPM and dielectric assurance

# OUR FACILITIES

## KEY PLANT CAPABILITIES

### VTCR - Roanoke, VA



- Headquarters for Virginia Transformer
- Over 45 years of reliable, high quality custom small and medium power transformers
- Environmentally controlled, positive pressure winding room
- Soenen core cutting machine
- Robotic welding of tanks
- Vapor Phase Drying
- Test room is capable of testing 2 units simultaneously up to 750 KV BIL
- Paint operations offers a full spectrum of paint options for all environments

### GTC - Rincon, GA



- CNC centers for insulation components – 5 axis machine room
- Vertical and horizontal computer controlled winding machines
- Astronics core cutting machine with fully automated & integrated E-stacker
- Coil Phase drying with Vapor Phase technology to achieve .5% moisture
- Air cushion transportation to move all heavy components
- Multi-point bridge cranes with varying capacities (up to 400 metric tons)
- Shipping/rail siding area equipped with special gantry cranes
- Computer controlled oil processing and filling system
- Vapor Phase Drying of complete core and coil assembly
- HV Test Lab with capabilities to 2,050 KV BIL & 765 kV (computer integrated)
- Fully air conditioned 250,000 sq. ft. building for dryness and personal comfort

### VTCU - Pocatello, ID



- Medium and large power transformers
- Equipped with its own rail siding spur to plant
- Winding rooms are climate and environmentally controlled
- Isolated metal fabrication
- Insulation cutting and fabrication shop
- Vapor Phase Drying
- Two separate core cutting lines, computer controlled for low loss step lap cutting producing burrs of less than .001" (1,000 millimeter)
- Two complete testing stations – 1200 kV Impulse Generator
- Testing equipment: moisture in oil and insulation, oil in BDV, particles in oil and air, optical burr measurement

### VTCW - Chihuahua, MX



- One of the most modern transformer manufacturing plants in North America
- Environmentally controlled winding and manufacturing areas
- Robotic Welding
- Automated test equipment with digital instrumentation
- 500 kV Impulse Generator
- Automatic Test Data Acquisition equipment

## KEY BENEFITS

- No delay in start up - Savings (\$\$)
- No failure due to internal defects - Savings (\$\$)
- Can offer 5, 10, 15 year warranty (Peace of Mind)
- Prompt, Hassle-free warranty service - Savings (\$\$)
- Expect 60 years of service - Savings (\$\$)



## FIELD SERVICES

Field installations, maintenance and repairs for electrical substations supported by experienced design engineers and service specialists

## TESTING

A full array of tests including inspection, analysis and recommendations for peak operation is available

### Virginia Transformer Corp

### Georgia Transformer

#### Headquarters

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