



Vantran

TRANSFORMERS



Proudly Made In America

The Quality of **VanTran**

VanTran Introduction

VanTran Industries, Inc. is a manufacturer of liquid-filled transformers for the industrial, commercial, solar, and utility markets. We are known for engineering excellence and robust designs with a reputation as a manufacturer of transformers well-suited to harsh environments, demanding applications, and rough treatment.

VanTran Offers

- Substation, Padmount, Polemount, and Submersible Transformers
- Base ratings from 10 kVA to 10 MVA
- Voltages up to 35kV
- UL/CUL Label
- Special Multi-Tap Units up to 7000 kVA
- Dual Primary & Dual Secondary Voltage Transformers
- Retro-Fit Applications to match exact dimensions
- Special K-Factor Duty Transformers
- Hazardous Location and Corrosive Environments - Class I Division 2
- Electrical Submersible Pump (ESP Transformers)
- Auto-Transformers, Two-Winding and Multi-Winding Transformers (3 winding, 4 winding)
- Step-Up, Generator Step-Up, Inverter Step-Up and Unit Aux Transformers
- Grounding Transformers

Experience You Can Trust

With more than 50 years of experience in the Transformer Industry, VanTran is a true American success story. Regardless of the size or scope of your order, we'll get the job done right—on time and cost effectively, ensuring your satisfaction at every stage of the process. With a history of success, and a vision for the future, no one can serve you better than VanTran.

Quality Engineering. Quality Craftsmanship.

VanTran stands second-to-none in terms of design, manufacturing, and customer service. Whether you need a Class I, Division 2 transformer for offshore oil installations, or a custom-built transformer to isolate excessive harmonics produced by drive-systems, VanTran's highly skilled team of engineers, technicians, and customer service personnel are ready to help. No challenge is too great.



The Quality of **VanTran**

Letter From our CEO

For over half a century, VanTran has been serving the electrical industry by providing liquid filled transformers of the highest quality. From our beginning, we have focused on serving our customers' unique needs with custom solutions rather than forcing them to adapt to a standard product line. That philosophy, coupled with what is consistently the fastest delivery in the industry has earned VanTran a special place with our customers.

From its inception, VanTran has been at the forefront of engineering and manufacturing excellence for the most challenging transformer applications and conditions. Whether installed on an oil & gas platform in the Gulf of Mexico, buried under snow off the coast of Sakhalin Island in Russia, or powering a gas plant in Equatorial Guinea, VanTran transformers are built to withstand the rigors of the toughest environments.

When my father, Al Bolin, started VanTran with a handful of transformer veterans in 1963, they were determined to succeed in an environment dominated by much larger competitors. They found success by offering an extremely well-designed and well-manufactured transformer and treating customers with respect and fairness.

Having been raised in that kind of manufacturing philosophy, I am committed to continuing our legacy. It has carried VanTran for fifty plus years and it is what makes our company unique.

If you are an existing customer, I thank you for your patronage and look forward to continuing to satisfy your transformer needs. If you have yet to use our product, I ask that you give us an opportunity to earn your business. You will notice a difference with VanTran; from the quote request, to drawing submittal, to production of your transformer, and on time delivery. Give us a try and you will see why so many people think of VanTran for their liquid-filled transformers.

Sincerely,

Donald A. Bolin
CEO



Substation

VanTran Substation Transformers are in service around the globe with many satisfied customers. Base ratings are available from 100kVA to 10MVA with voltages from 120V to 35kV. Our units can be found in a variety of industries including offshore oil production, military installations, industrial and steel plants, and manufacturing facilities. Special application designs are our specialty for temporary power needs, hazardous environment locations, and countless other demanding applications.

Core and Coil

The core and coil is the heart of the transformer. VanTran utilizes a rectangular coil and five-legged wound core design with three coils and four core loops on three phase units, and one coil and two core loops on single phase designs.

Low-voltage windings are strip copper or aluminum, laminated with thermally upgraded kraft paper. High short-circuit capability and longer life are inherent in transformers with strip windings where axial forces are eliminated by the balance of magnetic centers. Lead pads and tap pads are 100% rag pressboard, also thermally upgraded. Start and finish coil leads are either mig welded copper or aluminum bus bar, or slit from the strip conductor, depending upon the current rating.

High-voltage windings use round or rectangular magnet wire. Copper and aluminum wire are film insulated with heavy formvar. Aluminum rectangular wire is insulated with double spiral-wrapped thermally upgraded kraft paper.

Cores are made with non-aging grain-oriented silicon steel. All cores are stress relief annealed in the size and shape required. As a result, core losses in VanTran transformers are the lowest obtainable.

Cooling ducts are liberally spaced to minimize conductor gradient and reduce hottest spot temperatures.

Tank, Bushings, and Accessories

All VanTran transformers feature sealed tank construction with welded on covers and conform to NEMA and ANSI C57.12 standards, where applicable. Skid mounting is available as an option.

Numerous bushing options are available including cover-mounted, sidewall-mounted, Full Air Terminal Chambers or throat connections to switchgear.

In addition to standard NEMA accessories, some of our options are:

- FR3 or equal fluid
- Nitrogen Pressurization Systems
- Stainless Steel Tank, Cabinets and Hardware
- Class I, Division 2 Protection
- Dual Voltage and Special Taps
- Factory mounted switches and breakers
- K-Factor designs for Drive applications
- Neutral Grounding Resistors



Padmount

Tank, Bushings, and Accessories

VanTran was at the forefront of development of Padmount Transformers over 50 years ago. They are available in the same size range and voltages of our Substation designs – up to 10MVA and 35kV primary voltages. Our units feature high security, three-point latching, pad-lockable double door compartments with full length steel center partitions and penta-head (REA) security bolts. This ensures secure access to the high voltage compartment.

Bushings can be externally clamped wet process porcelain or epoxy, depending on application. VanTran offers a full range of both dead front and live front components to fit your needs.

VanTran Padmount Transformers can be customized with endless accessory options but come equipped as standard with:

- Schrader Valve for Nitrogen Blanket
- Externally Operated Tap Changer
- Jacking Pads
- One Inch Fill Plug
- One Inch Drain Valve (Built in Sampler on 750 kVA Units and Larger)
- Tank Grounding Pads (1/2" - 13 Tapped Holes)
- Base Designed for Rolling
- Diagrammatic Corrosion Resistant Nameplate
- Automatic Pressure Relief Valve
- Undercoating on Bottom of Transformer to Prevent Corrosion

A range of options are available such as stainless steel, special paint colors, compartment mounted low voltage circuit breakers, load break switches, etc.



Polemount

All VanTran Polemount Transformers feature sealed tank construction and conform to NEMA and ANSI C57.12 standards, where applicable. Our Polemounts are designed and built one at a time for your specific application. As a result, VanTran can manufacture custom units with an endless array of voltages, frequencies, and configuration variations.

VanTran Polemount Transformers feature round tanks made with hot rolled pickled dry sheets and heavy gauge bottoms and covers. The high domed cover is retained with a one-piece band clamp and stainless-steel bolts and sealed with a nitrile cover gasket. Sizes are available up to 1000 kVA and 200 kV BIL. Square "Platform Style" units are also available and are made to the same exacting standards as our substation designs. Platform Styles are available in sizes up to 3750 kVA and 200 kV BIL.

High voltage cover mounted bushings are wet process porcelain with connectors suitable for copper or aluminum. Low voltage bushings are typically side-mounted and feature porcelain or epoxy construction, depending on application. VanTran offers a variety of eyebolt or spade terminals to fit your needs.



Submersible

VanTran Submersible Transformers feature a sealed tank construction and conform to NEMA and ANSI C57.12 standards, where applicable. Our Submersible units are designed and built one at a time for your specific application. As a result, VanTran can manufacture custom units with an endless array of voltages, frequencies and configuration variations.

VanTran Submersible Transformers feature mild steel or 304L stainless steel tanks (316L available) with welded on covers and are painted with a heavy tar-like coating to prevent corrosion.

High voltage bushings are top mounted-dead front epoxy wells with inserts. Low voltage bushings are also top-mounted and come standard with spade terminals. Fusing is accomplished under oil with non-load break canister fuses interlocked to an on-off safety switch.

VanTran custom makes all of our Submersible Transformer radiators in house of 3/16" steel to ensure our units will withstand the challenging, high moisture environments inherent in vault installations.



Multi-Tap Substation Transformer

VanTran Transformers offers specially designed liquid-filled transformers for use in the generation and rental power industries. They are also well suited as "Universal" Spares for industrial plants with various distribution voltages and legacy systems.

Multi-Tap units are available in sizes up to 7000 kVA and are designed for step up or step down with low voltages to a selectable range of output medium voltages ranging from 2400V to 25kV and selectable delta or wye connections. They feature especially rugged construction well-suited to the demands of the rental power market, where frequent movement and shipping is the norm.

Versions of this transformer are in wide use by many of the leading rental power dealers. We fabricate all units to meet your exact needs of your rental power fleet.

Sizes Ranging up to 7MVA with 8 low voltage bushings. Voltage and Delta/Wye connection selections are provided with multiple external off load tap changers, dual voltage and Delta-Wye switches.

High Voltages

- 2400 Delta
- 6928 Delta
- 7200 Delta
- 7620 Delta
- 7970 Delta
- 8320 Delta
- 4160GrdY/2400
- 12000GrdY/6928
- 12470GrdY/7200
- 13200GrdY/7620
- 13800GrdY/7970
- 14400GrdY/8320
- Others available to 25kV

Low Voltage

- 480Y/277
- 480 Delta
- Dual Selectable 480Y/277 X 600Y/346
- Dual Selectable 480Y/277 X 380Y/220
- Ask the factory for other voltages available

Numerous Options Available Including:

- Other high and low voltage ranges
- Dual 50/60 Hz
- Forklift Pockets
- Protective Cage
- Forced Air Cooling Fans
- Envirotemp FR3 Fluid
- Gauge and Switch Guards
- Specialty Paint Colors



VanTran Industries, Inc.
7711 Imperial Dr.
Waco, Texas 76712
254.772.9740

www.vantran.com



Proudly Made In America

