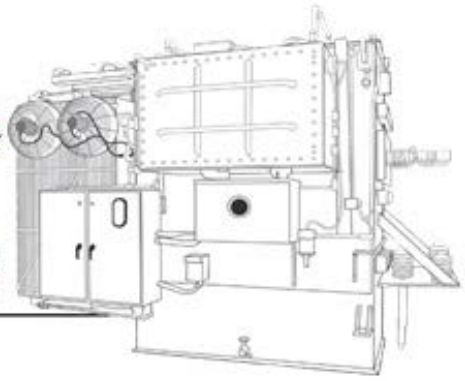
Since 1971

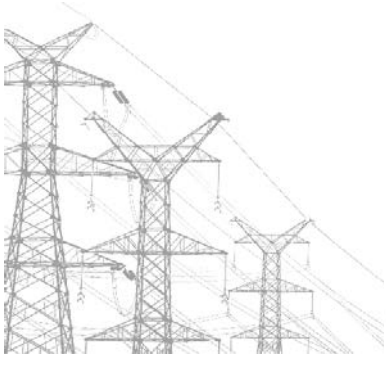
VIRGINIA - GEORGIA TRANSFORMER
ONE SOURCE–ONE COMMITMENT

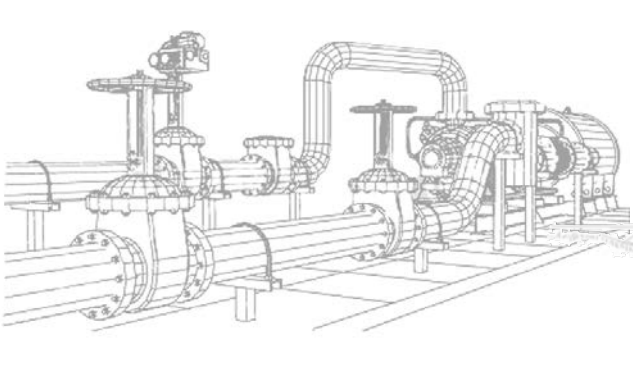
Legacy of Excellence in Power Transformers

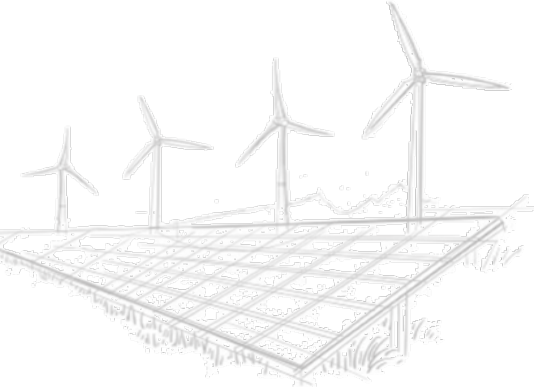
REP CONFERENCE 2019

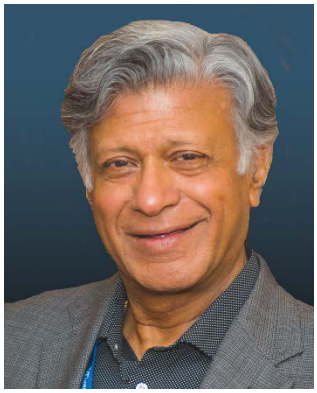


Since 1971









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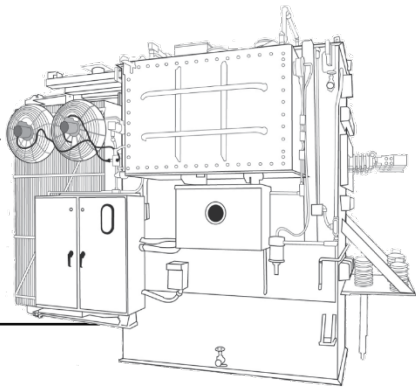

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Communication #1

Robust Engineering

VTCR Roanoke

Virginia transformer was started in 1971 by an engineer named Max Hill in 1971. He came from California to Virginia to serve the coal mining industry in this region. He first developed variable speed drive transformers that could handle high harmonics. In 1983, Max hired Tom Knight, an electrical engineer from University of Virginia, who designed a **4000A, dry type rectifier transformer** with interphase transformer for a copper mine application in Mexico. And later in 1987, he designed the **first LTC transformer at VTC**.

Tom Knight (center)

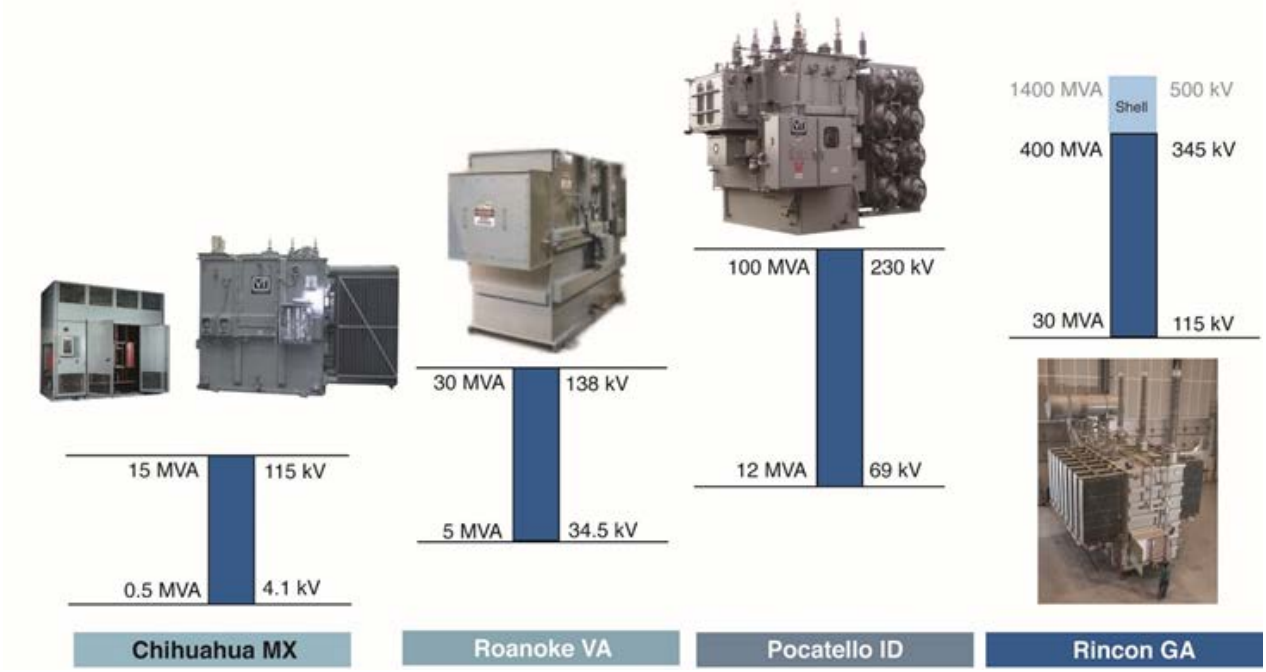
Tom Knight introduced our first computer design optimizing program in 1984. He built a team of engineers and developed them into a confident group that would provide solutions for high current, high impedance, harmonics and industrial load applications.

Moving into 90's, VTC acquired Chihuahua, Mexico plant (VTCW) to extend into small power and pad mount units' range. In the same time frame, we hired a batch of engineers from India with power transformer **experience in designing EHV Units up to 800 kV.**

VTCW Chihuahua

VTCU Pocatello

VTC at this stage began transitioning into the utility arena. The engineering team started tackling complex utility specifications. Analytical tools to verify impulse distribution and losses, coil compression in shop were developed to meet engineering designs. Several transformers were Short circuit tested while the design capability grew to 230 KV 750 BIL. Auto transformer were added to the repertoire with Pocatello (VTCU) acquisition in 2003.

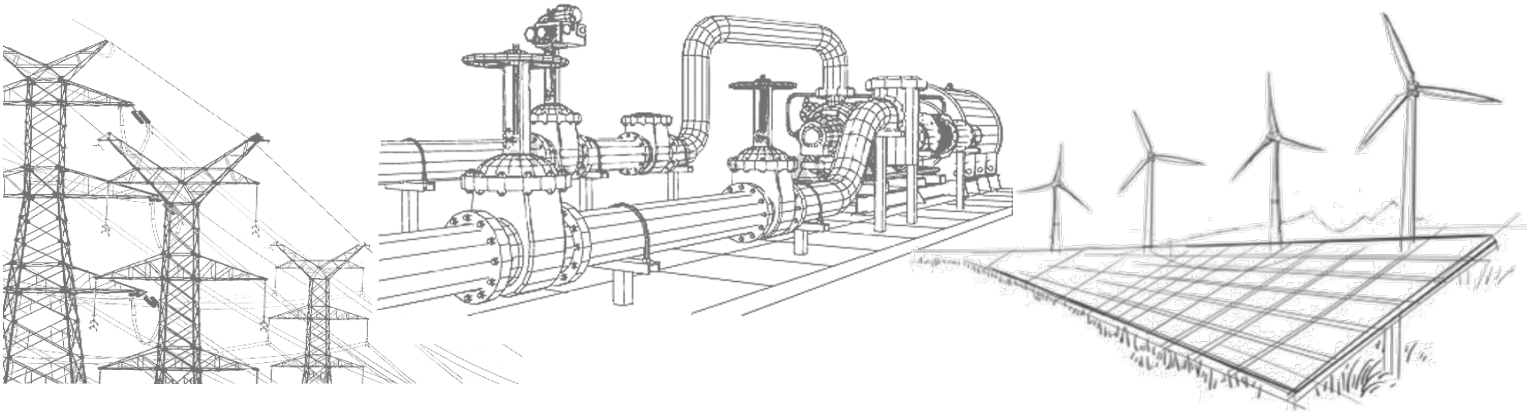


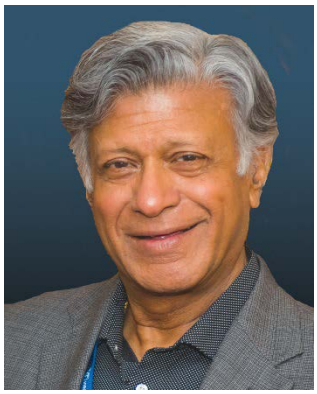
Major investments were made in design software and digital simulators - Anderson, Maxwell and Ansys program were added for 3D FEA while several engineers from GE were added to the team at VTCU. Computer design program and Design manuals were updated in 1999 – continued to revise & update every five years. The first 150 MVA, 230 KV transformer was delivered in 2009. Our Technical team in shop empowered with a **can-do attitude** built each new design successfully under the leadership of the engineering team.

Efacec technology was added in 2014 extending engineering capability to 500 **kV, 1000 MVA.**

Engineers and technicians have delivered many **345 KV since 2017** while **500 KV units are spotted for 2021**. Confident engineering and technical teams of over 190 engineers with BS, MS and PhD's continue to deliver resilient and reliable power transformers to utility, industrial and renewable sectors.

GT Rincon





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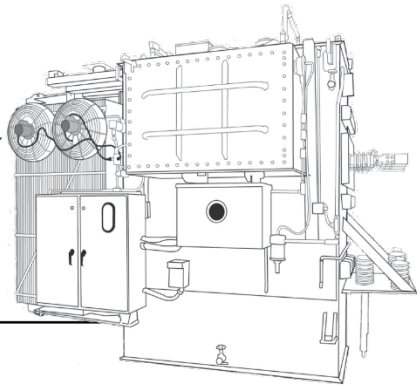


CEO. PRABHAT K. JAIN Communication #2

FLAWLESS EXECUTION

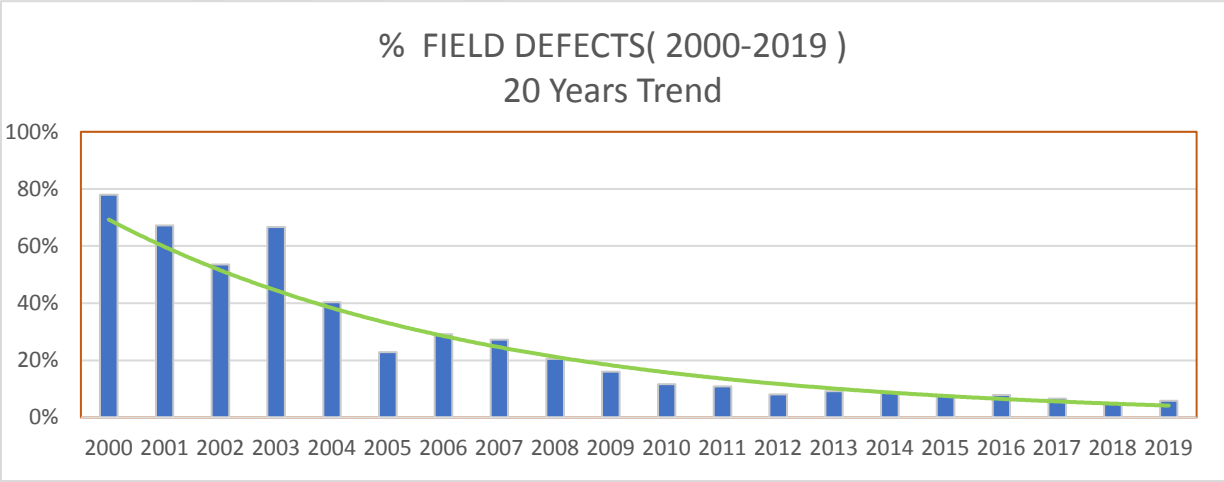
We have grown at an average rate of 15% per year since 1982 and we are continuously adding people at all plants.

By year 1990 we were little over 100 employees. Shop leadership was hands-on interacting directly with engineering under my personal supervision. We then produced units up to 10 MVA. In the 90's we grew to over 300 people. We started a training shop in early 90s which we called **BAT** – Build A Transformer. A Transformer Circa was assembled and disassembled to give hands-on training to operators.

Circa 1991. early quality inspection

Circa 1990's

In the early 2000's, we initiated on-boarding & training programs where operators were trained in five (5) basic skills of crimping, brazing, sealing, torqueing and painting. In the same decade a **Fit and Finish** (FF) function was established to reduce the defects on the product.



By the year 2010, we were building up to 100 MVA / 230 kV size units. We realized that a reliable product requires Six-Sigma process control. We started assigning the experts in each department. These experts were called **Technicians**, their focus was on training and product quality thru process

assurance. A unique idea of **All Technician work forces** was born out of necessity in order to raise the process assurance.

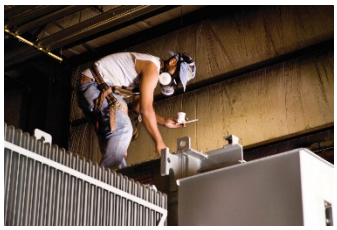
Did you know that our FPY (First Pass Yield) is > 98% and RTS (Ready to Ship on time) is > 95%! What is our secret?

Let me share how we do it:

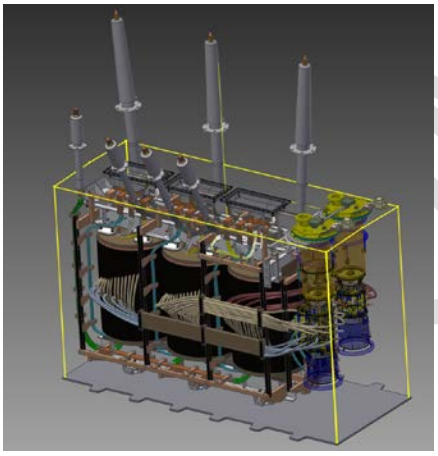
Process control sheets are completed by the operator and verified by the technician. The technicians sign-off on CTQ s, and on the product to transfer to the next department while the Quality Engineer verifies the product quality with PCC.

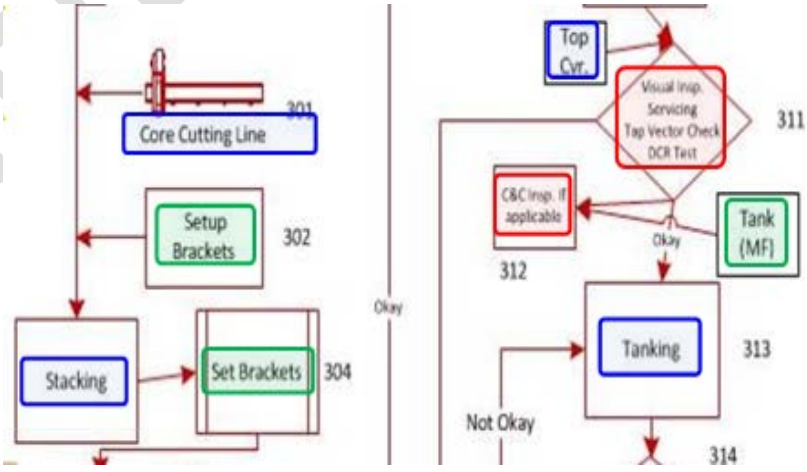
A Technician is 10 to 20 years experienced in their skill: winding, assembly, processing, etc. Their job is to **observe** the work being performed. Their observation of defects results in process improvement, design improvement and more training. They learn the engineering design of each project and execute this on the floor. They guide and coach the teams in new and difficult areas of a project. They are trained in the WHAT's & WHY's: what is the role of the insulation – angle rings, cap rings, HV lead metallizing, the technology of crimping, why the windings must be tight …. They do not work hands-on; they just observe. Also, each design is categorized from A to F, F being the one needing highest technical oversight. New process is written when needed. This critical area such as crimps or core ground are checked by the technicians while certain other steps are checked by the quality engineer. Complex features are checked by technical managers depending upon the category of the design.

Circa 2003



Circa 2003





We train all new operators in basic skills for 30 days. Additionally, the operators are trained by technician in their job and work instructions. The supervisor **Owns** the operator and is responsible for retention. Operators are also assigned a **Big Buddy** to help them settle within the department team.

	A	B	F	G	K	L	M	N	O	P	Q	R	S	T	U
1	A	Proficient													
2	B	Requires limited supervisiion, need													
3	C	Not fully trained, Needs assistance													
4	NT	Not Trained													
5	NA	Not Applicable													
6															
7					BASIC				TIER 1						
8	NAMES	Date of Hire	Shif	Department	Crimping	Torque	Brazing	Gasket & Pip	basic wirin	basic prints	hand tools	measurements & weigh	stickers / tags / name es	pressure detection	plating	powe
9	VONG C. NGO	1/10/2000	2	FINAL ASSEMBLY LEAD	A	A	NA	A	A	A	A	A	A	A	A	
10	VU H. NGO	3/21/2005	1	FINAL ASSEMBLER LEAD	A	A	NA	A	A	A	A	A	A	A	A	
11	ADAM TRAN	4/18/2005	2	FINAL ASSEMBLER	A	A	NA	NA	NA	A	A	A	A	A	NA	N
12	TOAN D. PHAN	3/13/2006	1	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	A	A	A	
13	HOA VAN NGUYEN	10/2/2006	1	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	A	A	A	
14	REGINALD CARDWEL	3/10/2008	1	FINAL ASSEMBLER	NA	NA	NA	A	NA	A	A	A	NA	A	NA	
15	NGHIA LE	8/30/2010	1	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	A	A	A	
16	DU THANH VO	8/6/2012	2	FINAL ASSEMBLER	A	A	NA	NA	NA	A	A	A	A	NA	NA	N
17	TRUNG NGUYEN	4/9/2013	2	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	A	A	A	
18	HON NGUYEN	3/3/2014	2	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	A	A	A	
19	PHILLIP H. HUYNH	9/22/2014	2	FINAL ASSEMBLER	NA	NA	NA	NA	NA	A	A	NA	A	NA	NA	
20	ABDULHADI AL LAMI	3/30/2015	1	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	NA	NA	NA	
21	KHANH D. TRAN	3/30/2015	1	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	A	A	A	
22	MICHAEL DOUGLASS	3/30/2015	2	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	NA	A	A	
23	SHAWN DIEN	3/30/2015	1	FINAL ASSEMBLER	A	A	NA	A	NA	A	A	A	A	NA	A	
24	TRUNG CHI NGUYEN	3/30/2015	2	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	A	A	A	
25	THY A. NGUYEN	5/20/2015	1	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	NA	NA	A	
26	DUNG T. NGUYEN	7/27/2015	1	FINAL ASSEMBLER	A	A	NA	A	A	A	A	A	A	A	A	
28	Justin Alls	1/9/2018	2	FINAL ASSEMBLER	NA	NA	NA	NA	NA	NA	NA	A	A	NA	NA	N
29	Pau Suan	5/19/2018	2	Paint	NA	NA	NA	NA	NA	B	A	A	NA	NA	NA	
30	Scott Stewart	7/31/2018	1	FINAL ASSEMBLER	A	A	A	B	A	B	B	A	A	B	A	
31	Chris Brown	11/26/2018	1	FINAL ASSEMBLER	NA	NA	NA	A	NA	B	A	A	NA	NA	NA	

OWNER - FREDDY RAKES

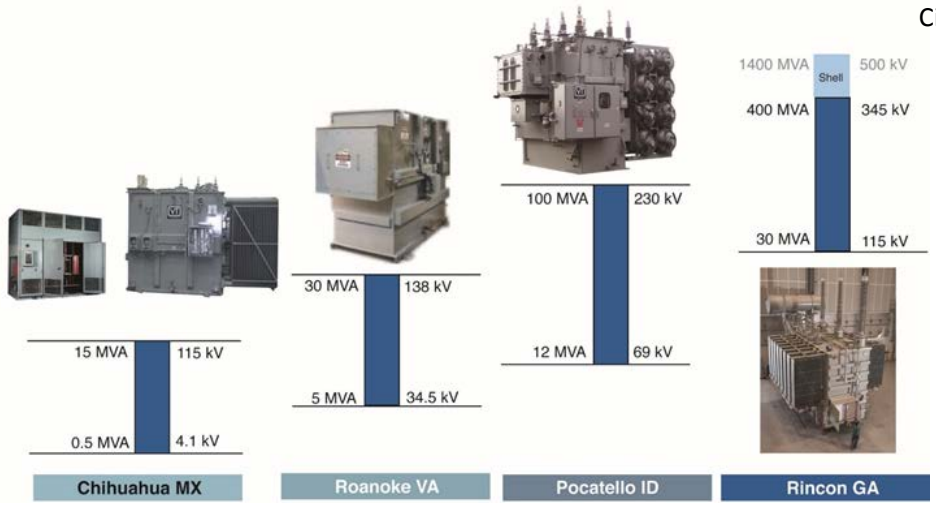
HVA + Core | **Final Assembly** | Junction Box | Metal Fab | Quality | Winding | Materials | Painters | ...

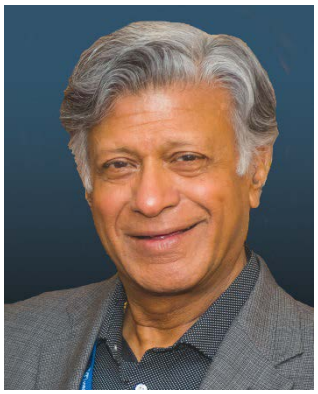
Smart Scheduling system accounts for the special feature such as 2 DETC and Smart Quality system adds special check points for the features.

Circa 2019

Development of technical work force: Selected operators are trained in the technology of transformer for 30 days to launch on their path to become technician. These graduate of L3 program are trained in all departments, and while training are given the knowledge of shop technology to deliver the intent of the design……. Flawless execution is the key to our success!

Circa 2017





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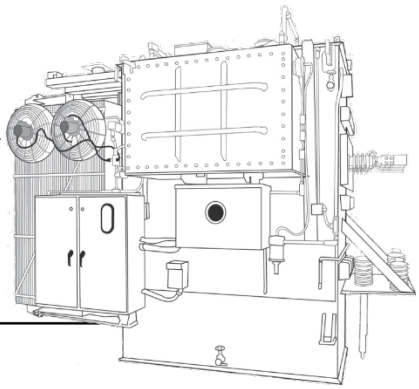


CEO, PRABHAT K. JAIN Communication #3

RELIABILITY – A 60 YEAR TRANSFORMER

I covered Robust Engineering & Flawless Execution in my previous communications. But you may ask what is the value of these to our customers? “The” value is Reliability! A transformer that will live for 60 years. Let me explain our vision, strategy, requirements & guiding principles towards achieving this goal.

Our Vision: *To build a perfect power transformer for reliable 60-year service, fulfilling our commitments to the customer, our employees, our communities and stockholders through process improvement and business growth, as a proud American Manufacturer “powering business growth”.*

Our Strategy: *To create a culture of customer commitment; continuous training and employee development; expanding into growth adjacencies driven by INNOVATION; deploying our “Digital Strategy”; continuous process improvement; maintaining a safe and productive workplace for our employees*.

Our Requirements for Success: *robust engineering, process design, flawless execution; design optimization; lean approaches and production automation; meet Customer Expectation; technological advancements; strategic planning to serve changing market place; On-Time performance; employee selection and retention; employee training and development.*

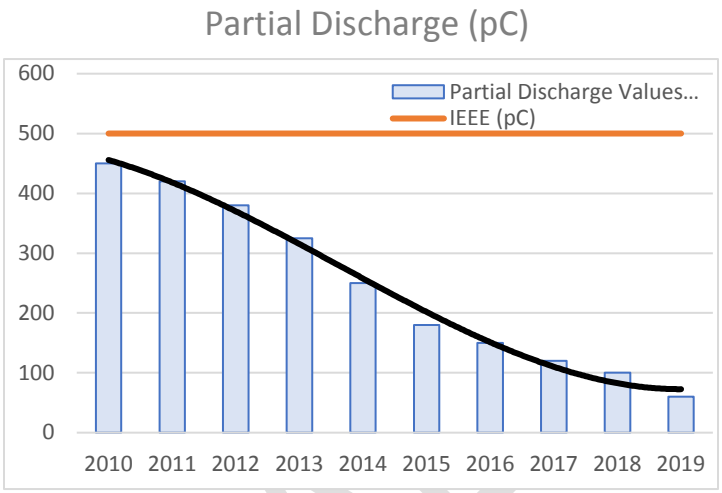
Our Guiding Principles: *Pride in our legacy; passion for our mission; RCDE, WMJ /TDL; ownership of our team; rewards and recognition for retention; adapt to new generation; ownership of plan to meet objectives - plan and re-plan.*

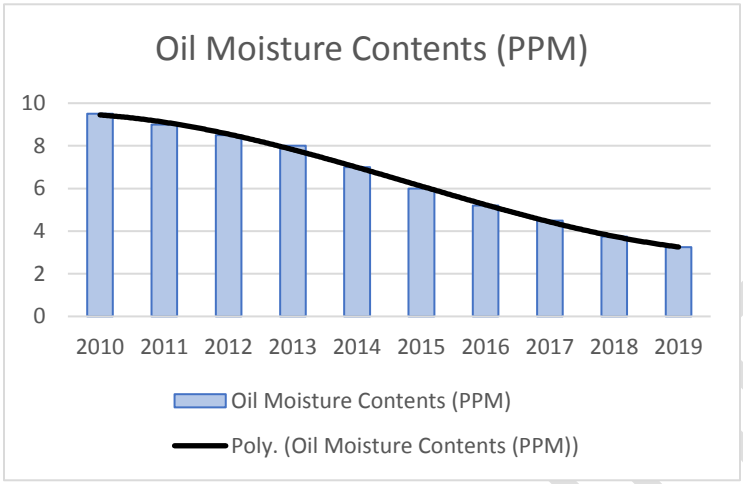
Let me divulge some **secrets of achieving long life**:

Pristine insulation to preserve dielectric strength and safety factor.
Dry ness of insulation and oil to produce lower *Partial Discharge (PD), and lower the **moisture content in the oil and insulation
Tight and secure windings to withstand ***short circuits and achieve ****low sound levels.
Coil phase center line matching diameter and height to specs to minimize short circuit forces.
Burr free core, control gaps in corners, uniform clamping pressure to achieve low PD, ******gassing, *****lower core losses
No sharp points in and around the winding in the high voltage fields to achieve low PD and eliminate Hydrogen or other combustible gases
Control humidity during winding and assembly to achieve low moisture towards long life of insulation system
VPD for coil and full assembly to seal in low moisture to achieve long life of insulation

What reduces the life and KILLS a transformer?

***Partial Discharge**: By far the #1 killer of a transformer – these micro pockets of arcing reduce electrical clearance, 'eat' the cellulose insulation, enlarging with time to fail the transformer.

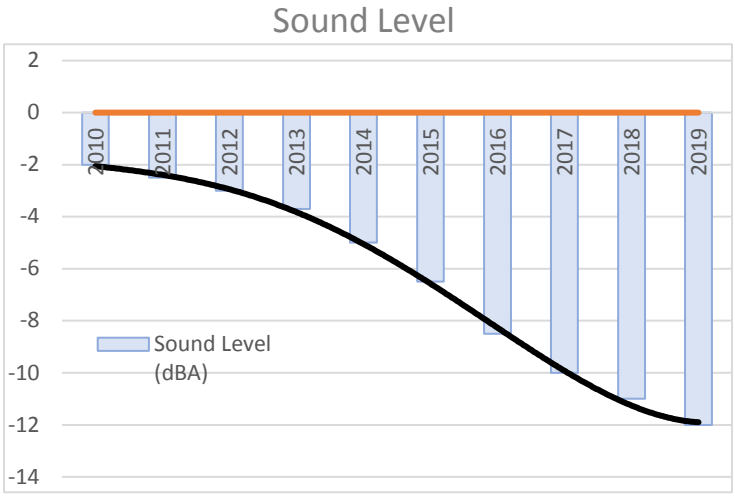


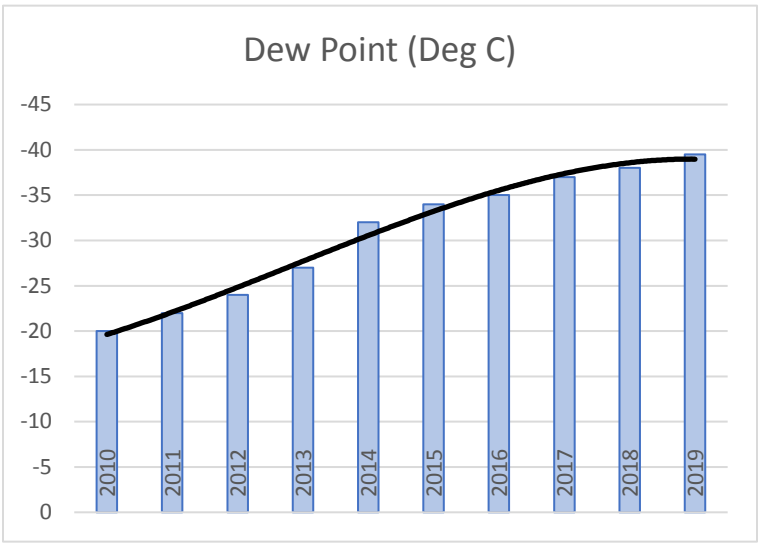


****Moisture:** Reduces the voltage withstand of oil and insulation, accelerating the rate of additional moisture generation, leading to premature failure. Lower moisture helps withstand voltage spikes.

*****Short circuit strength**: Higher short circuit strength will enable the transformer to withstand higher magnitude and number of short circuits that occur during normal & abnormal operations.

******Sound**: Higher sound level comes from: 1) lose coil, adjacent turns rubbing at 60 cycles, 2) loose core and large core cutting burrs vibrating at 120 Hz.





*****Losses**: Lower losses reduce the operating temperatures which in turn reduce the operating costs of transformer.

******Gassing**: Combustible gasses generation and accumulation will lead to catastrophic failure resulting in explosion.

The matrix below shows how the quality of transformer delivers long life

		Factors for 60 Year Life Transformer				
	Partial Discharge (PC)	Moisture (PPM)	Combustiblle gases (PPM)	short circuit strength	Sound (dBA)	losses (KW
burr on core edges	reduce		redcue		redcue	reduce core loss
tight windinsgs				higher withstand	lower sound	
coil sizing				higher withstand		lower load loss
moisture in oil	reduce	reduce , lower PF				
insulation moisture	reduce	reduce , lower PF	reduce			load loss,
Air conditioned plant	lower	lower				
cable insulation machine	Lower		reduce			
vertical winding				improve	reduce	lower load loss
metallized crimps	lower		reduce			
mushrooms				improve		
coil VPD		reduce moisture				
assembly VPD		reduce moisture				
core stacker (astronic)			reduce			lower core loss

Mantras to achieve this performance?

Rely on trained work force, tech leads supervising work, design engineer checking progress, quality engineer auditing.

Treat insulation with respect – no creasing, no moisture, no scratch!

Dryness of insulation - process control, labeling dry insulation with time stamp, A/C plant, VPD, limit the air exposure of assembly.

5-Axis Milling Machine

Computerized Winding Machines

Tight secure winding: tension control by size and copper tensile strength; vertical winding,

Isostatic Winding Pressing Mushrooms

Hydrostatic pressing of coils assembly using mushrooms under vacuum to secure winding as it dries.

Astronic Core stacker to minimize the destruction factor of core and burrs.

Robotic Core Stacking

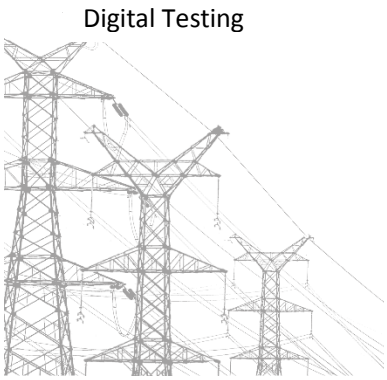
And, better control through persistent focus on:

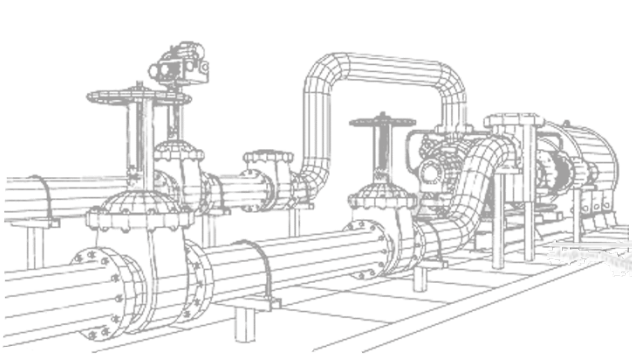
Digital Testing

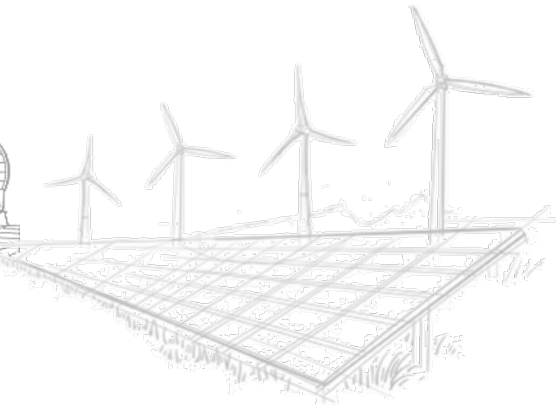
Chart of PD, Sound, core burr reduction, HI pot failure reduction, Impulse failure reduction, field defects over time indicate better control.

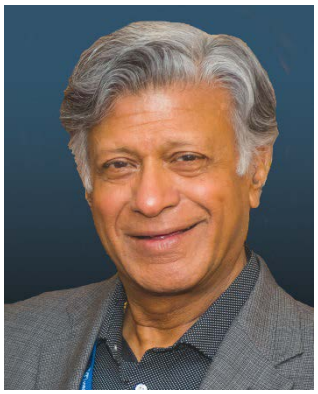
To sum it up, we can estimate Increase in life of VT-GT transformer over brand X Transformer with a normal life span of less than 40 years:

Reduced PD to less than equal to 100 pC - increase life by 30%
Sound reduction of 10 dB: Increase life by 10%
Reduce moisture to .5% in insulation and < 10 PPM in oil - increase life by 15%
Tight coils - increase life due to reduced short circuits damage by 10%









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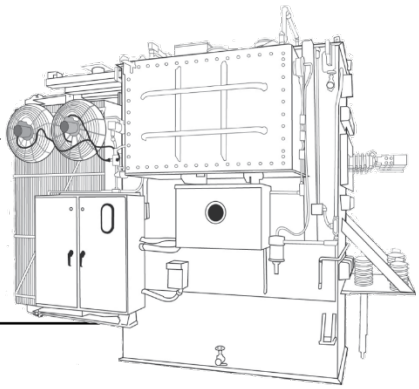


REP CONFERENCE 2019

CEO, PRABHAT K. JAIN Communication #4, Sept. 20, 2019

Spreading the message

So far you have been reading about our “Legacy of Excellence”. We want to produce a perfect transformer that will last for sixty years based on three mantras: Robust Engineering; Flawless execution; Continuous Monitoring.

Robust Engineering involves our extensive engineering bench-strength, efficient engineering and arsenal of design software & digital simulators. The components of Flawless Execution are full proof, unique engineering processes, focused training program and five pillars of technology (robotic core stacking, computerized coil winding, Isostatic Winding mushrooms, 5-Axis Milling Machine and Digital Test Laboratory.

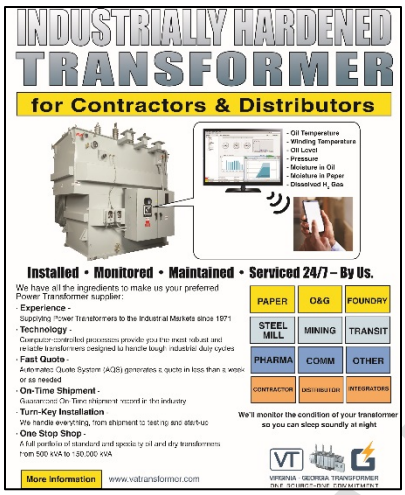
You also know that we are the second largest US corporation in terms of total transformer MVA capacity and THE Largest in terms of breadth and depth of ratings and designs supplied to the entire T&D markets that include IOU, PP, Renewables and C&I. Our progression was gradual over the years but went in an accelerated mode in the last five years. All of us know about where we are today but how does the market know about our achievements? Many of customers are stuck in the past about the image of VTC and our marketing challenge is to let the T&D world know that “We have arrived to replace the legacy suppliers like ABB & GE who are in the process of exiting the transformer market”.

We initiated a massive marketing program with a goal of promoting our true image at a macro-level that will create marketing tracks from where field sales can identify & extract specific opportunities to convert them into RFQ’s and orders. We are using a four-prong marketing approach to achieve our goals: Trade Magazine Ads; E-Blast Program; Digital marketing; Trade Shows.

Trade Magazine Ads

We started with the utilities market segment where we placed a barrage of VT-GT Ads in T&D World – T&D World is the flagship of T&D market that reaches out to every nook & corner of the North American T&D market. We could certainly sense the impact of this program where major IOU’s started noticing us – VTC sales coverage in three years went up from a few IOU’s to the entire US.

We then tackled C&I market where we used two key media leaders for this market: EC&M and Electrical Wholesalers. We introduced our Industrially Hardened Transformer (IHT) that differentiates us from rest of the pack thru unique design features such as round coil design and special external packages.
We continued to promote VTC in the renewable and public power segments where we are already known as leaders.

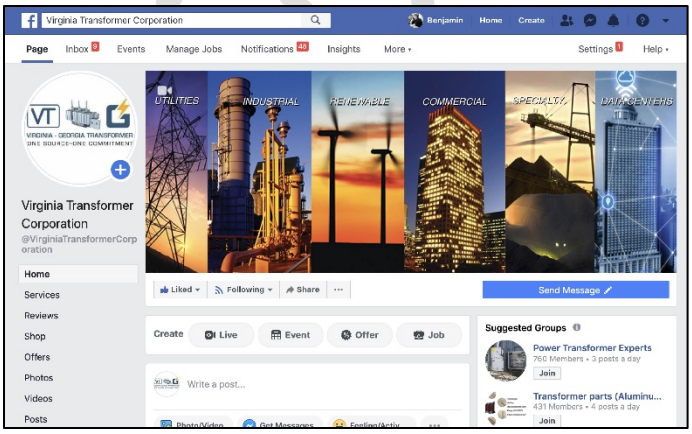


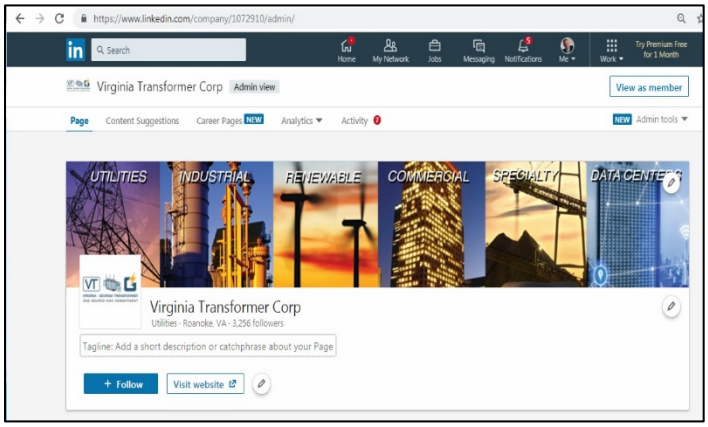
E-Blast Program

Ad program has proven to be effective, but the limitation is that it is unidirectional – the feedback from customers cannot be measured. The E-Blast program is a powerful tool to communicate with a mass of customers where we can extract specific customers who showed interest in our information via “Clicks”. We are using this tool very effectively for the C&I market segment where the customer base is enormous and diverse. Through this program we reached out to over 20,000 customers/month from various industry verticals: Steel; Paper; Pharmaceuticals; Data Centers; Mining; Oil & Gas; Universities & Hospitals; Contractors & Distributors etc. We converted the feedback from these shotgun mailings into a focused group of customers who showed interest in VTC through CLICKS – many of you are already following up with these customers

Digital Marketing

The millennium generation of today is all digital!
The millennium generation engineers are beginning to take over the guard from the old timers and will drive the future. We are shifting towards digital marketing to target this young engineering group of future. Digital marketing initiatives involves leveraging various digital channels: Web, You Tube, Facebook, Linked - In and more.

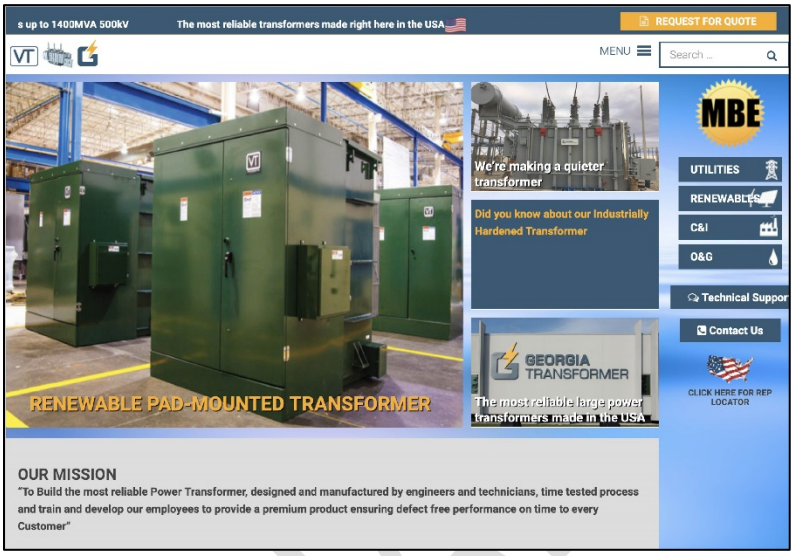




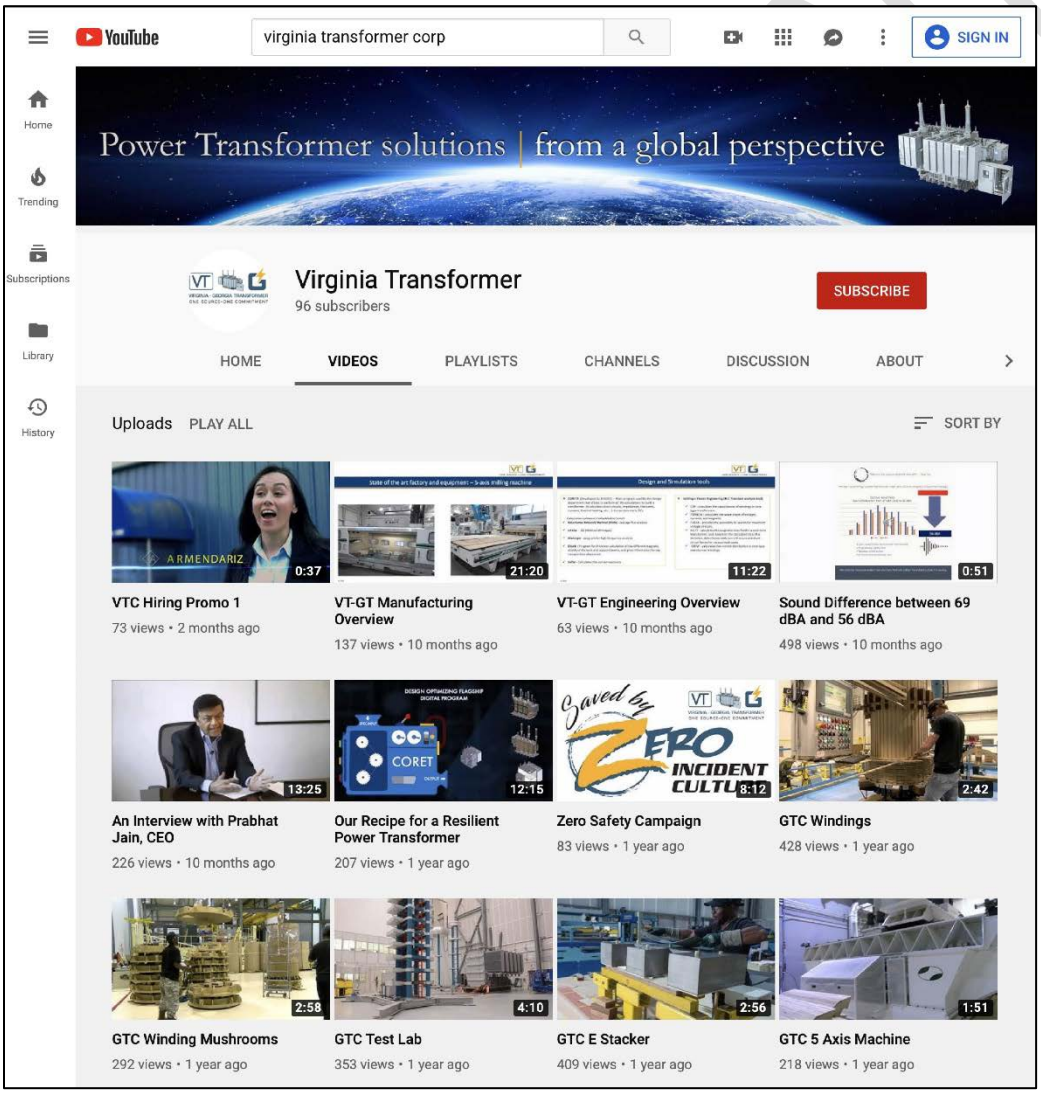
Website

We transformed www.vatransformer.com from a simple portal to a technical resource center where an engineer can refer to various transformer related technical white papers and training videos.

This is in addition to illustrations and detail descriptions of VT-GT product features & benefits. Based on Google Analytics data this has proven to be an effective communication tool – Google Analytics reports 37K sessions in three years with a bounce rate of 20% (Industry avg 40%) with an average session lasting for 3 minutes.



You Tube and other digital media



VT-GT has over 55 training & promotional videos on You Tube – just google Virginal Transformers and you will see them. Based on You Tube analytics data, several of plant videos have twice the hit rate of SPX sole video on their plant. LinkedIn and Facebook are also leveraged to promote VT-GT. In addition, Transformer Budget App that gives customer Budget on the Fly!

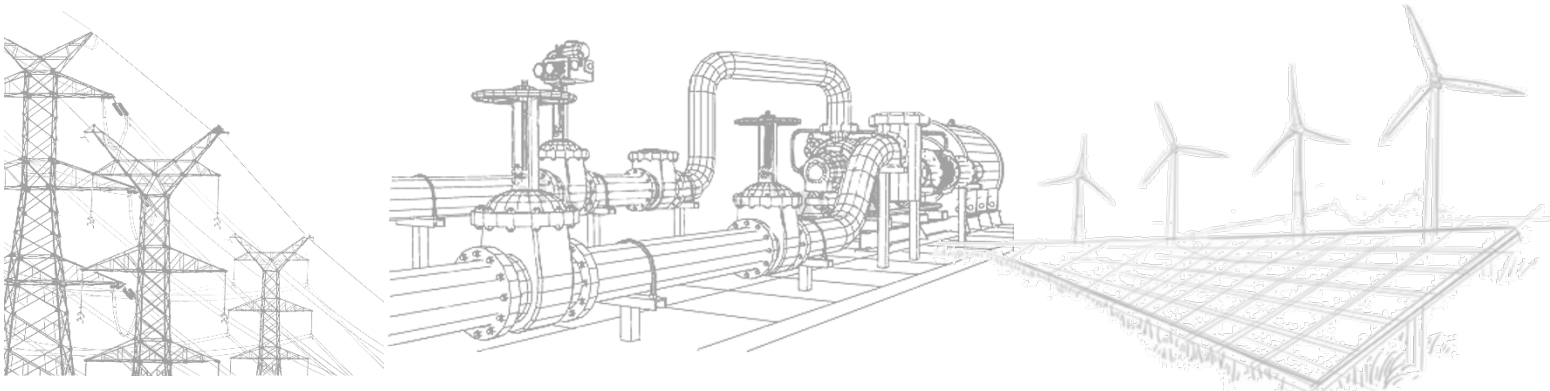
Also, we are in the planning stage of an App-based VCM Sentry transformer monitor where a C&I customer can check the status of his unit over his smart phone.

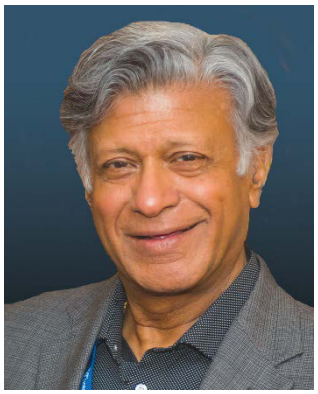
Trade Shows

VT-GT participates in over (35) trade shows around the country. We have strong presence in the major ones: AWEA, Solar & IEEE PES.

VT-GT display at IEEE PES 2018 Denver was talk of the industry where we displayed our Resilient Transformer story on 16'x12' LCD Screen with some spectacular animations.
https://www.youtube.com/watch?v=2FuAcfPuHyg&t=124s

Give us your suggestions and ideas on how to create sales tracks through digital marketing!

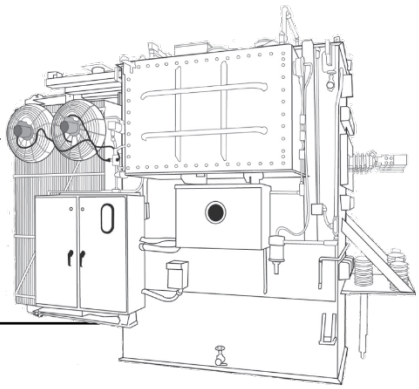




VIRGINIA - GEORGIA TRANSFORMER
ONE SOURCE-ONE COMMITMENT

Legacy of Excellence in Power Transformers

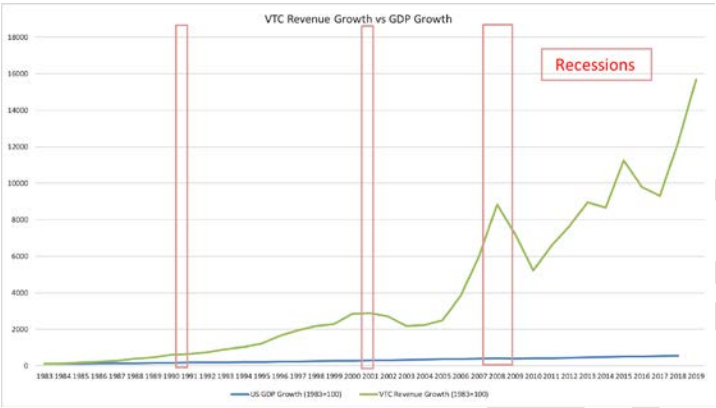
REP CONFERENCE 2019



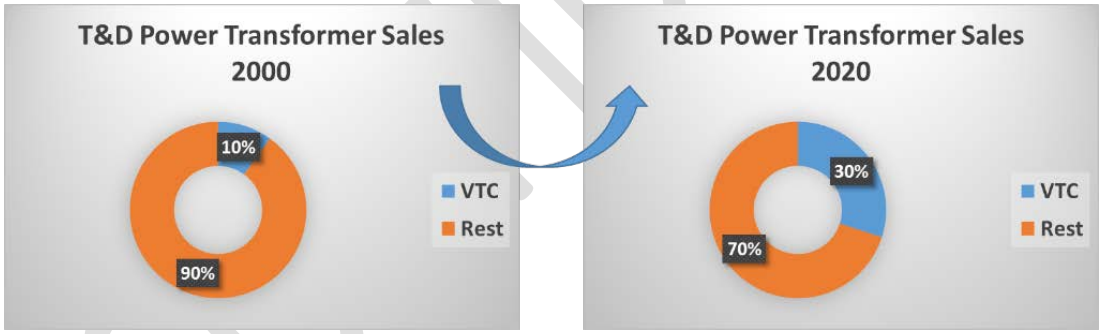
CEO, PRABHAT K. JAIN Communication #5, Sept. 27, 2019

TAKING MARKET SHARE FROM COMPETITORS

When the market was growing at a rate of less than 5%, how did we grow at ~15%?



The answer is that we took away business from our competitors!



We gradually expanded into the space occupied by the legacy competitors – ABB, GE, SPX etc.
We have been taking market share from competition for last 30 years. In the 80's, we beat the likes of Pacific Transformers, MGM, Olson, Niagara; in the 90's, we went on to beat GE, ABB in industrial and public power markets. In this century, we picked up momentum to take on key players like SPX, Delta Star & Siemens in medium & large power units in all markets (generation, T&D & renewable).

The current power transformer market scenario is: C&I market is losing competitors (e.g. Pacific Crest) and the new ones aren't emerging; the legacy leaders in the IOU segment are losing market shares and are already planning exit strategies – ABB completely bungled the US T&D strategy and now selling the T&D to Hitachi; GE, even with Prolec, cannot compete anymore. And in past five years, a new leader dominating the entire T&D market has emerged! I am glad you guessed it right! – VT-GT.

Why are competitors losing share?

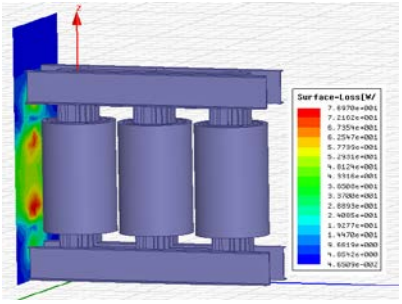
Corporate players like SPX, GE & ABB demand heavy corporate allocations from their transformer divisions. Furthermore, declining profit margins force transformer divisions to cut deeper into the essential investments weakening their resources – being treated as cash-cows, the profits go into corporate management pockets with nothing left for investments in people, technology and development. As some of you who jumped ships recently can tell more about deterioration in operations and increase in test failures at these legacy companies.

What are we doing at VT-GT to gain market share?

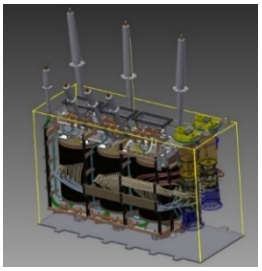
We have invested in plants, technology and people. Passion for perfection & pursuit of excellence under consistent leadership of over 37 years are the drivers for our growth. competition changes leadership every three (3) years! They will continue to lose.

Plants & Technology

Unlike our competitors, we have invested our profits back into the business. While others were closing their existing plants, we have been adding new ones. We have invested in technology to make our plants & processes more efficient resulting in better quality and shorter lead times.



We already talked about 5-pillars of technology & our robust engineering.
In addition, we have implemented efficiency improvement projects:
Automated the entire sales quotation process to provide a C&I quote in a record time, robotic welding, 3 D conduit bending.
Standardized the design review process with a set of analysis software that is integrated into design programs – our young engineers are excited to use these tools. Based on our knowledge, our leading competitors still rely on age old software tools that were used by their retired staff engineers.



VT-GT plant performance is getting a boost with the addition of industrial and process engineers. We recently appointed Ken chandler (Vice President of Continuous Improvement) who is leading our plants to higher performance efficiencies.

The proof!

Lower PD's & Sound levels are the resonating proof of our performance.
Our output – we produce 1500 power transformers compared to 400 of SPX and 200 of Delta Star.
Each unit is an advertisement of our craft.

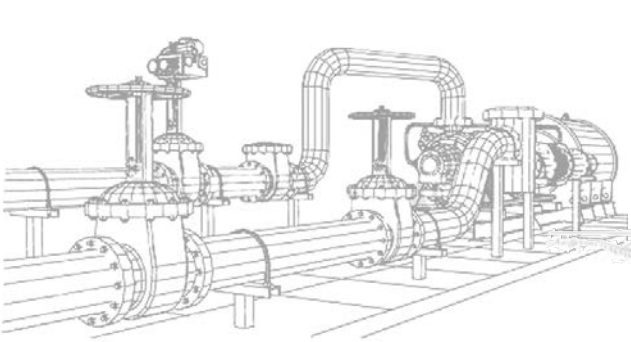
Shop training

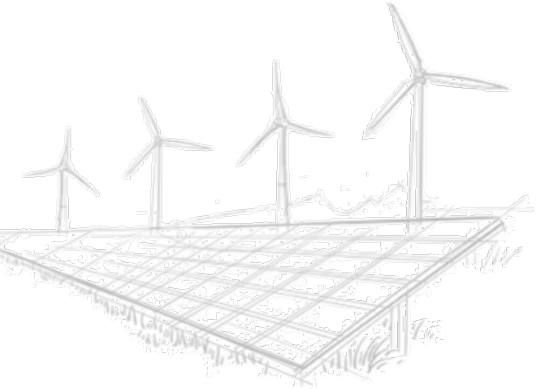
Our operators get full 30 days of training in their basic skills and then continue to become certified in their job after 90 days when they are proficient in all aspects of their job. These operators are excited because we make them successful, they project this confidence to the customer.
We are running a certified technician program where operators can enter this program to learn design technology to gain confidence in their job. This three-year program will make them to Certified Transformer Techs enabling them to work on all transformers with perfection.

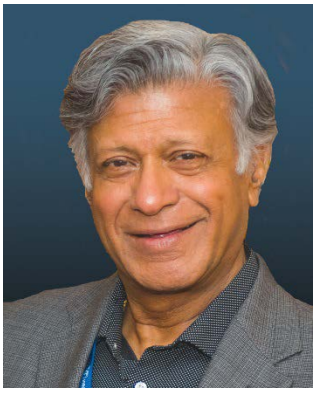
Sourcing

One of the key secrets of our lower cost is astute sourcing programs.
Development of new global sources of materials led by our supply chain engineers reduces our cost. This sourcing initiative is backed by rigorous source inspection program for domestic and overseas suppliers. Quality & on-time delivery are our fundamental expectations from our supplier partners.

With these improvements in VTC and you-all's customer contact we will win major market share with premium product at major utilities and industrials. I envision the rep team to be customer-focused while the VTC sales team to be inward focused - our sales director will be the bridge between the two. The sales director will provide technical sales support to you to sell and he will pull support from the plant and engineering to meet your customer 's expectations. I do not want you to lose any sales- on the contrary make more money so I can make more money by providing a 60-year life product to all our customers. Engineers are key to successful supply chain.







VIRGINIA - GEORGIA TRANSFORMER
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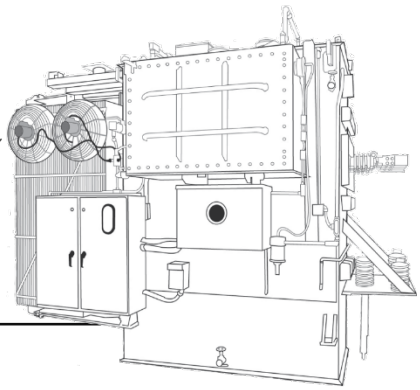


REP CONFERENCE 2019

CEO, PRABHAT K. JAIN Communication #6, Sept. 30, 2019

Customer Focus and Continuous Improvement

Customer Focus & Continuous Improvement are the two frontiers to surpass the competition by taking their market share.

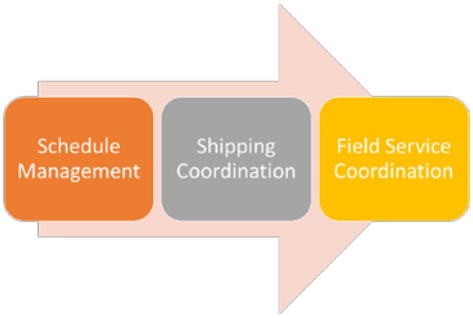
In past few years we have made incremental improvements in **C**ustomer focus, **C**ommunication with the customer & **C**oordination - we will refer to them as the **3C's.** The 3C is a measure of "last mile experience" of the customer. Our goal is to raise the 3C level by tracking several KPI's in each of the plants – Drawing submission errors; design reviews; customer inspection; FAT; shipping coordination and others. The singular aim of this initiative is to delight the customer. The directors will share these with you.

Let me tell you how we plan to bring about this transformation in our performance.

Customer is important, and we know that he has choices. We want the ***entire organization*** and not just the front-end sales to understand this mantra. The organization includes plant managers, design managers, supervisors, technical team that verifies the product, the shipping team and the rest. Sales Director will quarter-back the entire process while project administration (PAO) will keep track of events of each job.

This initiative involves following processes:

I. Project schedule Management
II. Shipping Coordination
III. Field Service Coordination
IV. Communication with Rep and Customer

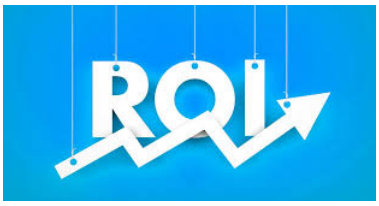


If at any time. we realize that the schedule is slipping from its commitment then one of two actions will be taken: Try all possible means to meet the date to be fully compliant OR change the schedule date BEFORE customer plans are impacted. This will involve rigorous daily activity where the PAO Director will make the assessment after consulting everyone in the chain and then inform the sales director and the Rep of his decision to be relayed to the customer. And if needed, expedite the test reports and call the shots for ordering permits and the truck in anticipation of approval.

Shipping Coordination is the most crucial and challenging process to coordinate. It is governed by external constraints: 1) customer test report approval and 2) ordering of trucks & permits. The PAO Director and the plant manager will track the progress of the unit after FAT to meet the scheduled ship date or change the date. Field Service coordination then will follow the shipping process.

Obviously, granular tracking of all events to assure meeting scheduled dates and plant preparedness for customer plant visits will take additional PAO resources. More resources are being added by the PAO Director to deliver 3C excellence. The Plant Management & Supervisors will connect with customers through daily and weekly meetings with PAO & Sales Directors. In addition, Work-Flow Automation System (a powerful tracking and communication tool) will be deployed to help us achieve perfection in the coordination and communication aspect of 3C – as well as visibility.

The 3C process of meeting customer expectation through communication and coordination will close the loop towards our goal of supplying a perfect transformer experience. The ROI on this investment will come in form of improved customer perception, increased sales and premium price.



Finally, field defects, even minor ones, tend to smear our perfect product experience. Eliminating field defects requires minute attention to details. VTCW is our benchmark in this metric. This team has perfected the art of Continuous Improvement. Through RCDE process they have successfully brought down field defects to the lowest levels of all of our plants. This process is now launched at all other plants. The VTCW team is taking the lead in training the management at each plant who in turn will drive field issue elimination initiative.