

# Trench Technology: Triumphs of Today, Opportunities of Tomorrow

Everyone at Trench has some idea of what the company's products actually do, but who uses all of these transformers and coils? And won't the market eventually become saturated? These are questions that employees often ask Allan Finn, Trench's director of sales. In fact, he says, one of the reasons for the company's success has been its ability to constantly develop new markets for these two basic products.



Interior of the coil plant with employees and a Trench reactor.

the far end of the lawn. Unless you kink the hose connected to the closer sprinkler, most of the water will flow into it, and the other will barely trickle.

The customer had considered an oil-type reactor as one possible solution, but the cost was high; there was also concern about oil leakage and spillage. It took three years of persuasion, but Trench eventually convinced the two utilities involved that air core reactors could do the job. A number of 230kV units were built and hooked in series between the main transmission line and the closer sub-station. They are working fine, and a whole new application for reactor coils has been opened up.

The Instrument Transformer Division (ITD) has had its share of innovations, too. One of the biggest has been Trench's gas-insulated current transformer. Why are current transformers needed at all? Constant monitoring of transmission line voltage and current is critical for utilities to keep their power systems stable; the transformers that ITD manufactures are used to "step down" these high values to levels that small meters can measure. Trench offers a very high degree of accuracy in the conversion of these readings to actual line values.

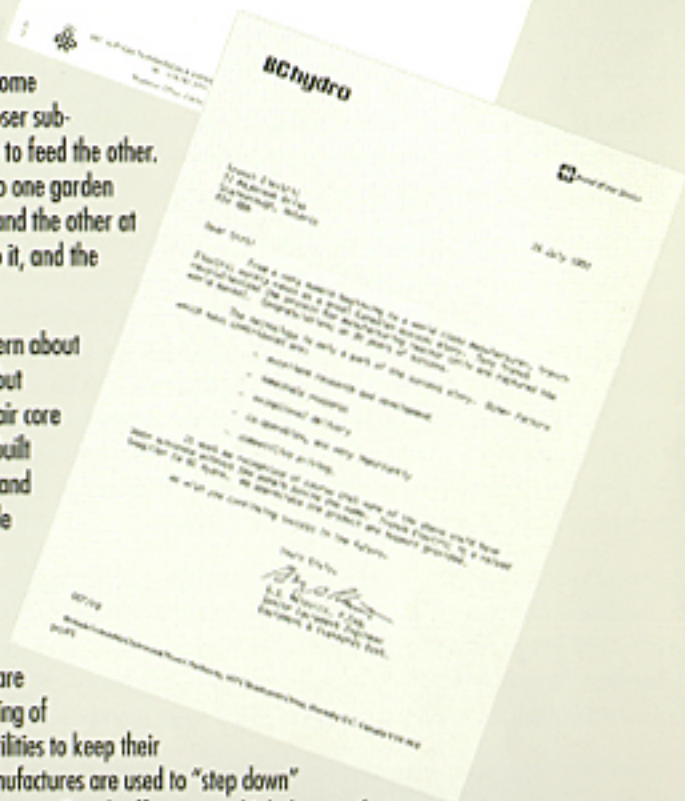
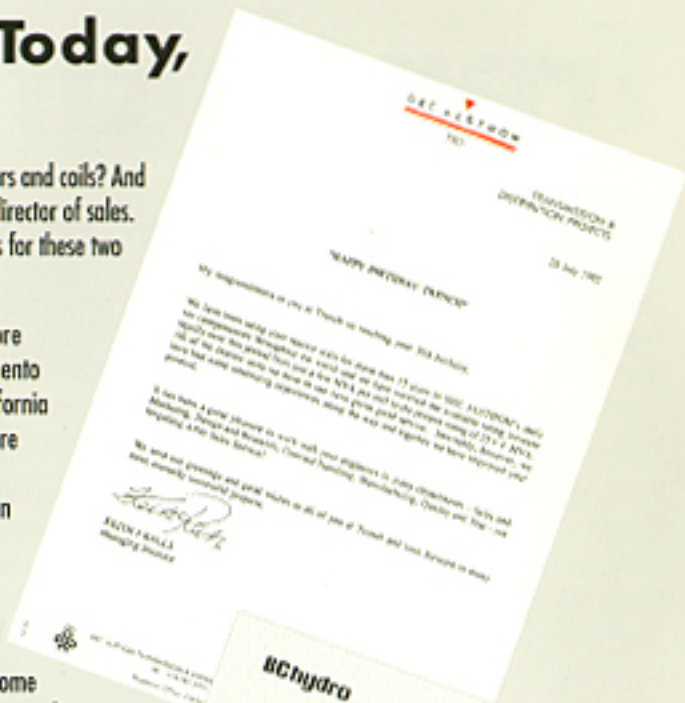
Traditionally the insulating material in these transformers has been oil, and this continues to be used satisfactorily in most current transformers, and has a good safety record. However, some utilities think there is an even better way to provide insulation. In 1986 Trench developed its sulphur hexafluoride (SF<sub>6</sub>)-filled version to meet a need for the Tennessee Valley Authority. Trench now provides SF<sub>6</sub>-insulated CTs to those customers with similar requirements.

There will be further technological changes in the future. For example, fibre optic systems may be developed. Current-measuring instruments of the future may be designed so that light is piped through glass fibres placed close to the current bar. Changes in this light will indicate the current strength. A similar type of device will eventually be designed to measure voltage. However, this will be further in the future.

Trench's newest product, the adaptive var compensator (AVC), is as revolutionary today as Tony Trench's reactor coils were 30 years ago. Allan predicts that, like the instrument transformers originally "built in a corner" of the CPD plant, this product has great future potential.

Is this vision too optimistic? "There's no magic formula to success," Allan says. "It's a matter of looking for opportunities and working hard with all of your available resources to achieve them."

There's no danger of Trench saturating its markets, because it is always creating new ones.



## On-going Education

Canada is a truly multi-cultural nation and Trench benefits from the wide variety of backgrounds from which its employees originate. Recognizing the importance of every employee's ideas, Trench makes it easier for those who need assistance in mastering English to communicate these ideas. Employees can take English-as-a-Second-Language classes, half on company time, and half on their own time.

The program started because a need had been identified for employees to understand English to perform their jobs more effectively. However, there have been several other benefits: Participants enjoy better communication within their jobs and communities, and the company finds improved communications and more satisfied employees within the organization.

With the help of the Scarborough Board of Education, an eight-week program comprising 90-minute weekly sessions was put in place. Through a better knowledge of English, the program improves job skills, enhances ability to comprehend the employee handbook and safety rules, and hones conversational skills. Hailing from a variety of ethnic backgrounds, the first 23 participants found the program so beneficial that they want the lessons continued in the autumn!

## Trench Grows Green



Trench Electric has gone green with a vengeance and is doing its part in ensuring a non-polluted planet for future generations. In every aspect of its operation, Trench has initiated and developed long-term methods and devices to keep it green now and in the future.

Waste is sent out to a sorting plant where every bit of recyclable material is extracted for further use, and since the company does not generate a massive quantity of fine paper, the program includes all forms of recyclables.

Another part of the green program includes the search for a replacement for the chlorinated solvent currently used for cleaning and degreasing in plant areas.

Going green does not stop at recycling; energy conservation is equally important. Trench reflects this in two ways: First, the company has developed a product — called an adaptive var compensator (AVC) — that reduces the power factor of motorized equipment so that users achieve almost 100 percent efficiency. In addition to representing business expansion, the product is also used in-house to cut energy costs. Secondly, outdated lighting fixtures have been replaced by more efficient units. In office areas, four-lamp fixtures were replaced by two-lamp versions equipped with reflectors; previous light levels have been retained, but energy use has dropped significantly. Lights have also been changed in the plants.

Most of these projects have been initiated by employee involvement groups. In the process of going green, Trench has certainly taken on a "doctor, heal thyself" approach!

## The Social Scene



Jim Young, Rita's brother and everybody's favourite guy, retires with a sweet tooth.



CPD's shut-down barbecue 1992, Diane Thiel, George Stomkos, Sam Mino, Ron Montgomery



Trying to barbeque the building, 1990



ITD's shut-down barbecue 1992, (left to right) Roger Albertson, Jim Darrach, Dan Joseph, Ian Free

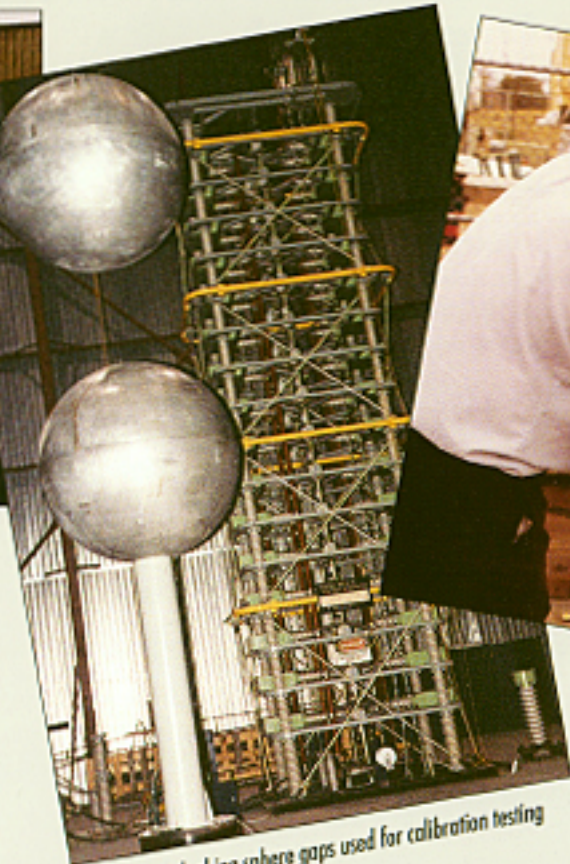
### SPIDERS



"Round-edge aluminum flat bars welded into an aluminum hub forming wheel-like structures at both ends of a reactor, used for terminations on windings (staves) and for mechanical bracing of reactors," not the title of a new Stephen King book.



Contrary to popular belief, you do not need to water reactors to make them grow! Winter wet-testing at CPD



A space-age looking sphere gaps used for calibration testing



Sherlock Holmes in a hard hat

## The Originals

### Reta Young

Twenty-seven years ago, when Reta Young came to work at Trench Electric, she knew what she wanted: an outlet for her terrific energy and diverse skills. In short order, she became Trench's one-woman administrative whiz! "We were small back then," Reta reminisces, "I literally did everything!" As an office services clerk, Reta found herself doing purchasing, marketing, personnel and accounting work, and loving the diversity of it all.

Reta is proud to have grown with Trench Electric, and was happy to have the opportunity to choose her path during the firm's rapid expansion in the '70s. She opted for the accounts receivable end of things, and has been supervisor in that area for 10 years at the CPD division.

Never the type to work to rule, Reta remembers rolling up her sleeves to pitch in when needed: "In the first year I was with Trench, we generated just three invoices in a six-month period; now we do 400 per month. I remember when we all helped out. I would go into the plant and hammer nails into the shipping crates."

Her energy is equally applied to her love of travel, which takes her several times a year to visit her sister in Victoria, British Columbia, and has found her basking in the Hawaiian sun. But the highlight of her journeys was a sailing excursion in a tall ship around the islands of Tahiti in November of 1991. Single "by choice," Reta also enjoys weekend retreats at her trailer just north of Uxbridge. Her philosophy is straightforward and honest, just like Reta: "I work hard and deserve to enjoy myself!"



Reta Young in her element in Tahiti

### George Hunt

As the saying goes, you never know what you're going to get when you put an ad in the newspaper. George Hunt, who had worked as a marine engineer in Scotland, arrived in Canada in 1965 and saw an ad in the Toronto Star that twigged his curiosity. "Well, that looks interesting," said George. The ad was for a job at Trench Electric in Don Mills, and the rest, as they say, is history.

Initially, George found himself developing line traps and tuning packs. His familiarity with the inner workings of Trench brought him to further development work, first on high-voltage fuses, then in 1972, on CVTs. But George Hunt was definitely into "transforming" himself as well, and for a while, he worked in the field as a customer service representative — a job move that took him literally all over the world, as he puts it, "to fix things."

By 1985, George had settled into the niche in the company in the ITD division where he remains today, developing SF<sub>6</sub> current transformers. George is one

Trench employee who has been there almost from day one and now knows that his first impression of that recruitment ad in the Star was 100 percent right.

While George is devoted to his work at Trench, his zest extends to his love for sailing in his 29-foot boat with his wife Doreen, and having the odd trip around the skies in a Cessna 172 aircraft. A proud dad, George has a daughter, Alison, who teaches sailing, and a son, Brian, who works for Pickering Hydro. Electricity and water aren't supposed to mix!



George Hunt and his best friend

**SKIRTS &**

**TOP HATS**

Not a tribute to Fred & Ginger, but "fibre-reinforced, plastic-molded components made of polyester resin and continuous glass that rises in a shape that suggests its name (they are used in polluted environments to protect reactors)."



Representatives of ITD and CPD appear on Sick Kid's telethon

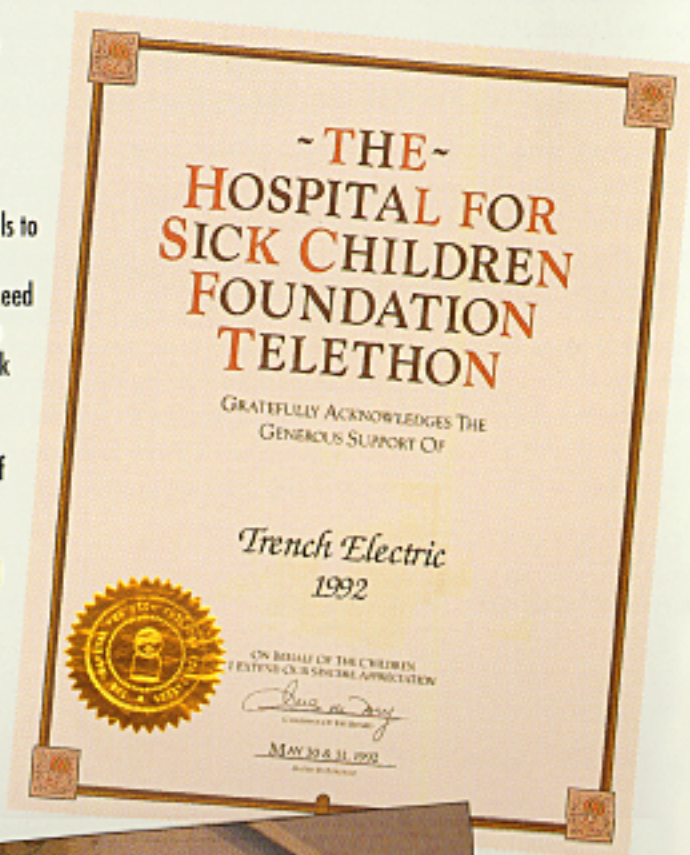


Linda Robertson and Sue Jackson at ITD wear their bears

## The Charitable Spirit

Over the years, Trench Electric has extended the cooperative spirit that it shares within its own walls to the surrounding community. This energy and commitment includes charities that show a real need for help. In 1992, what began with a suggestion from Trench employees, saw the Hospital for Sick Children receive a cheque for \$10,600. In conjunction with the Hospital's telethon fundraising drive, Trench employees spent a total of \$5,300 on t-shirts, sweatshirts and baseball caps sporting the familiar purple background and teddy bear emblem of the campaign; and the company matched their donations.

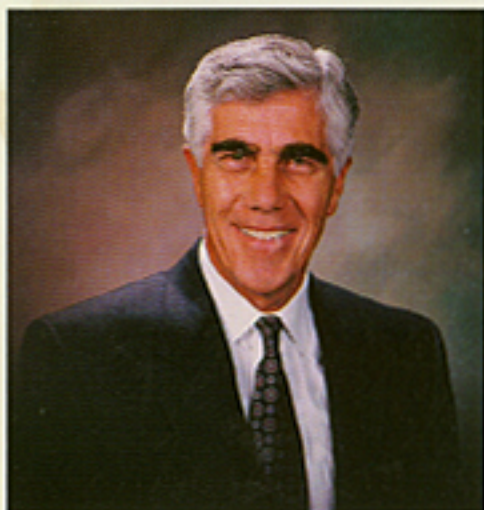
A "Wear Your Bear" day was held on Friday, May 29, 1992, to show support for the Hospital, and employees donned their personal purple attire — teddy bears and all! Several representatives from ITD and CPD appeared on the telethon to present the cheque to the Hospital. Everyone at Trench enjoyed the contagious feeling of giving to a worthy cause, but the children who will benefit from this generosity were the happiest of all.



The four bears at CPD: Geoff Vanderveen, Chris Beckett, Collin Lawrence, David Coviensky



# Message from the President



Ron Montgomery, President and CEO, Trench Electric

Trench has so far avoided the worst effects of the recession which has plagued the industrialized nations. This makes the celebration of our 30th anniversary all the more gratifying. For all of us, stability of employment and access to growth opportunities are central to the enjoyment of our work.

While technology and commitment to global marketing have sustained our growth rate, I believe that the distinguishing characteristic of the Trench culture has been teamwork. The very nature of our business has required specialists in a variety of locations to find new ways of working together to provide a superior product and reliable service. As a result, our equipment finds its way to all corners of the map.

The latest and most exciting manifestation of this teamwork is the Employee Involvement process. Employee Involvement groups are taking a fresh look at everything from information flow to plant layout. New energy is being unleashed in addressing not just old problems and opportunities, but also the newly emerging ones.

Enlightened managers recognize the potential in liberating ideas at the grass-roots level. Most do little about it. Wherever and whenever we find new ways to manage our business a little better through teamwork, we move just a little ahead of the competition. That's the best guarantee of business health and job security.

The first 30 years have been very exciting — congratulations to all! Let's keep the teamwork going!

## Trench Around The World

Within the framework of Trench Electric are five divisions — three manufacturing facilities and two sales offices — working together to sell, manufacture and deliver products.

Manufacturing Facility/Sales Office	Location	Function
Instrument Transformer Division (ITD)	Scarborough, Canada	Designs, manufactures and markets instrument transformers to measure voltage and current on utility transmission lines up to 765,000 volts.
Coil Products Division (CPD)	Scarborough, Canada	Designs, manufactures and markets air-core inductors used primarily by utilities. This location also houses corporate sales.
Trench Electric Austria (TA)	Linz, Austria	Designs, manufactures and markets the same line of products as CPD, plus a significant number of iron-core and oil-cooled reactors. Originally called Spezialektra, and older than Trench itself, this division was acquired in 1990.
Trench Electric Germany (TEG)	Giessen, Germany	Sells Trench products for the African and European markets. This office was established in 1970.
Trench Electric Quebec	Montreal, Canada	Sells all Trench products in the province of Quebec and Eastern Canada.

