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WA Technology



Investment in L-TEC Triples in 4 Years; In Tough Times

By Jerry Uttrachi May 2023

PROLOG:

Background:

The early 1980's were tough times. Home interest rates were ~17%. Inflation was causing significant price increases in the industrial market. It was tough to stay ahead of cost increases. The fabricating industry was in a big decline! Was a tough time for the welding supply manufacturers. Linde was no exception.

Linde Welding & Cutting Products was part of the leading Industrial Gas Producers Division of Union Carbide Corporation (UCC). Welding and Cutting was a key part of UCC when it was formed in 1917 as Union Carbide and Carbon Corporation, acquiring four earlier companies: Linde Air Products Company (established 1907), National Carbon Company (1899), Prest-O-Lite Company, Inc. (1913). Prest-O-Lite that was started in 1904 by Carl G. Fisher, James Allison, and P.C. Avery as the Concentrated Acetylene Company. It used acetylene for automobile headlights. Acetylene was generated from calcium carbide made with coke and lime in a carbon electrode furnace. Hence the synergistic tie between the businesses.

Prest-O-Lite had its beginnings in 1892 when Morehead and Wilson accidentally discovered how to make acetylene. It was found that combining acetylene with oxygen produced the hottest known flame temperature. In 1917 the US owned Linde Air Products company started by Carl von Linde in 1907 used his process of separating air into Oxygen, Nitrogen and Argon

The combination of acetylene and oxygen in a concentrated flame produced a temperature of 5720 F, well above the melting point of most metals. This allowed the oxyacetylene welding process to develop into a leading metal joining technique. In addition to marketing industrial gases in cylinders, Linde developed the required regulators, torches and accessories needed for the oxyacetylene welding and cutting process.

Linde became a pioneer in welding research and innovations including an inventor and/or developer of many metal joining and cutting processes including Submerged Arc, Heliarc, Plasma, Electroslag and MIG. In 1911, Lincoln Electric introduced the first variable voltage, single operator, portable welding machine in the world. In 1914, James F. (called J.F.) Lincoln then President of the company, established the Employee Advisory Board, which included elected representatives from every department. His incentive management system helped Lincoln become a leading producer of electric welding equipment and filler materials. They were instrumental in promoting welding as a reliable, cost-effective metal joining process. The unique management techniques employed by J.F. Lincoln had an influence on the development of welding history.

The "Oxyacetylene Welding process" was in direct completion with "Electric Welding" using welding generator power and "Stick Electrodes." This led to decades of competition between the two companies. Actually, very healthy competition that spurred innovation. This discussion of L-TEC formation and growth also has implications related to Lincoln Electric.

Late 1970's Early 1980's Saw A Large Decline in Metal Fabrication

A number of factors caused the decline in steel production. US automotive production faced many cars coming from overseas as did ship building and other heavy fabrication. Recall a conversation with the Lincoln Electric District Manager in Pittsburgh PA who said their sales were less than half of prior years.

Linde was the leader in Industrial Gas production with a high market share in the US and Canada. Argon, although only 0.9% of air was a key, very profitable product for the Division. We had over 50% of the US production capacity. That was mainly due to very large air liquefaction separation plants supplying oxygen to steel mills. The additional separation and chemical treatment needed to produce Argon was easily justified in large plants, but less so in smaller air separation plants. Although our market share of Industrial gases was ~30% that excess 20+% Argon was sold to the few large competitors at wholesale prices. The industry was an oligopoly as resources to build expensive air separation plants, invest in tanks and trucks to store/haul liquid gas with filling stations to compress and put in gas in cylinders was very high. We controlled the price of Argon and kept margins very high. Much higher than Oxygen and Nitrogen. Welding was a key Argon user.

Started a Market Develop Group: to Push Argon

UCC was having a hard time getting managers to leave



good jobs in nice places to come to the 50 story Corporate Office on Park Avenue in NYC! I was no exception, managing an R&D facility in OH. They wanted me to start Market а Development Group for welding/cutting related products and gases. Fortunately, a

new Headquarters was being built in Danbury CT. (*Picture is new Headquarters building. See Addendum at end with interesting information about cost.*)

There was an effective 30+ person group doing market development for gases but not those welding related where Argon was widely used and very high profitability.

The gases market development group was in an R&D facility in Tarrytown NY. My small Group for welding gases and hard goods would be in the new Corporate Headquarters. Far better, as no State income Tax in CT at the time and great areas to live!

In a classic Linde fashion, I was told our 6 Regional Sales and Engineering support offices would "donate" a person for my group! That meant they would "donate" a person they didn't want! I agreed to accept the position at over a 25% increase in salary and still barely broke even! One must decide when given an "opportunity," best take it as may not be another. I did not want to manage an R&D facility for the remainder of my career! But I said, *"I'll pick who I would like and don't need 6!"*

My group was funded 1/3 by Bulk Gas (*with the Argon profits*,) 1/3 Packaged Gases who dealt with distributors and operated cylinder filling stations around the country and 1/3 by what was called the Welding and Cutting Products. That business had 5 plants making equipment, filler materials (*wire in one and SAW flux another,*) CNC cutting machines and steel mill scarfing machines. All were in separate locations, with 4 General Managers, HR, IT, Finance managers, R&D, etc.

I read and often reread J.F. Lincoln's business management books, the last written when he was in his '80's but still sharp as a tack! He made it clear their company strength was based on making the same product cheaper! In one book he said if your strengths are producing high volume cheaper, then do everything to support that strength. Adding new products because the sales department thinks they will bring more profit will shift focus to those and not your basic strength. If your company strength is R&D follow that course of action. That was clearly our strength in the welding and cutting field- **NOT being a low-cost producer**!

The Linde Division Had a Financial Problem

Being funded by all three of the Divisions businesses I went to all their financial/business meetings held twice a year with the Division President. They reviewed their financial position, expected future results and the capital monies needed. It was clear, although the Bulk Gas business was the most profitable, it also needed a lot of capital for new air separation plants to keep up with the competition. Recall one year they justified several hundred million in investments but because Chemicals and other Divisions were having financial trouble the funds could not be obtained. They only got half of what was needed allowing competitors to gain market share.

Divest of the Welding and Cutting Business

Since limited capital was available for the very profitable Bulk Gas Business, the low profitability Welding and Cutting business received none and it was decided to divest the operation. I worked on the first, very confidential possible merger with Hobart. I would set up meetings in a hotel near LaGuardia airport. At one meeting the lawyer for the Hobart family came early and we talked for some time. Recall he said William Hobart the CEO said they needed the management talent at Linde since they did not have that caliper and some Hobart family members with too much influence in the business! I felt, at the time, it was like putting the two last place NFL teams together. Combined we did not have the product strengths or manufacturing expertise to compete with Lincoln and Miller! There was a question of control with Linde insisting on 51%. The deal fell through.

Integrated Resources Forms Leverage Buyout

Integrated Resources had a unique way to structure a leveraged buyout. In some similar arrangements the persons controlling the buyout take a percentage off the top, like a franchise, whether the company is making money or not. Their approach was different. They had no investment of their own and took essentially nothing. After 5 years when the business was planned to be sold, if the investors made no money, Integrated Resources made nothing! However, if it sold for more than the purchase price, the investors, a got 75% of the increase and Integrated got 25%. I trained the 6 Integrated sales persons responsible for selling the equity portion of the purchase. The equity was ~20 million dollars but ~2 million was their sales commission. The remainder was debt. Recall one said he already sold his allocation. It was to an elderly lady who lived in Charleston SC. She had enough money that investing in the company (1 named L-TEC) was worth the risk since it was to be headquartered in SC!

There were 3 partners who structured our deal. But only one came, mostly just quarterly, for Board meetings-Collin (*I'll only use first names.*) He was very smart. Recall his negotiation with several UCC lawyers present insisting the deal required the new company take all product and facility liability as that is the only way UCC sold businesses. I recall the lawyers after several hours defined the maximum would be ~\$500,000. Collin finally said OK we'll take the \$500,000 risk but you must take anything over! They reluctantly had to agree as they had painted themselves in a corner! In the 4 years we were L-TEC it cost UCC well over 6 million dollars, to dispose of ground chemicals at the wire plant and drilling many wells in the SC plant including pumping through filter systems that operated for many years!

The Finances

This is a rough overview of the finances and how, in this case, the Integrated partners made money. By law a limited partnership must have a maximum number of "partners." As I recall ours was ~200. Unlike going to the public for investment, the FTC requirements for a leveraged buyout were far less. The investors had to sign a purchase agreement that they had sufficient resources to take a risk that this one could be worth nothing! They also had no say on how the company was operated. Integrated had the ability and history, with minimum equity, to borrow the remainder purchase cost from banks for a reasonable interest rate.

Using Rough Numbers: The L-TEC purchase price was ~75 million dollars. The equity portion the investors bought was 20 million. Therefore with ~200 maximum investors each share was \$100,000. The remaining 55 million was debt (*of which UCC was required to take 20 million.*) After 5 years the business plan said the company was expected to be sold.

If it did not make a profit when sold the investors could lose *ALL* their investment and integrated made nothing.

IF it sold at a profit, the investors got 75% of the gain and Integrated 25% (*for essentially no investment but the ability and personnel to structure the deal!*)

It sold to ESAB in 4 years for ~140 million dollars. Less the debt of 55 million = 85 million. Investors got $\frac{3}{4} = -63$ million or roughly 3 times their initial investment!

Integrated Resources partners got ~\$21 million for essentially no investment. Some of their profit was paid to the L-TEC top management as their compensation included incentives to stay with company. Each year that a senior manager stayed until the company was sold increased the amount they would receive.

As long as the company was sold at a profit it was a winwin! There was only one "outsider" on the payroll, placed in the company by Collin, the CFO. Since we needed a CFO turned out, Don, was a helpful contributor. Collin was allowed to take ~\$150,000 annual compensation for being essentially the head of our Board. I recall after the first Investor newsletter, where it discussed the underperformance, he said he would not take any money!

A main reason for the underperformance was about 20% of our sales went to about 20 Linde owned gas/welding distributorships. Linde announced they were selling those after we formed L-TEC! Their purchases declined significantly with the turmoil created by their sale.

Structuring the New Company

Under UCC the Canadian and German companies operated totally independently from the US company. They came to all our technology exchange meetings, were entitled to use all our patents and manufacturing technology BUT that was not required. They could make or buy welding/cutting equipment and filler metals from wherever. They reported to their respective Country UCC company NOT to the US.

We had 4 General Managers in the US for the equipment, filler metals, cutting machines and steel industry businesses. They operated out of 4 locations. Each had a finance department, HR, engineering as well as product and manufacturing managers.

This caused more than just duplication of resources. There were issues with transfer pricing etc. I recall one where I had been frustrated in my Market Development role when in Danbury, getting the filler metal business to supply a sample of their special MIG solid wire with our high volume 250-amp MIG welder. Had been successful getting the Packaged Gas Business to supply a coupon for the purchaser to get a free fill of Stargon MIG shielding gas that had been a great success. But the filler metal GM wanted to get paid for the sample wire. There were also conflicts between my Market Development folks and the business product managers.

Our L-TEC President, Pete, was a very smart, tough manager. He had come from the Carbon Products Division where he managed their European business from Geneva Switzerland. New nothing of the welding business when he became General Manager of the business segment in ~1977, but learned very quickly! We needed some dramatic cost reductions. One solution was to eliminate General Mangers! The NJ and Indianapolis IN operations were consolidated into the plant in Florence SC where we had put headquarters.

We consolidated all product management and my market development folks into one! Even the one that remained in OH where welding wire was made, reported to me. No more conflicts! The needed sample welding wire to go with each 250-amp MIG welded was done. In fact, having managed the filler metals R&D in OH knew one cost was short weight spools that could not be sold. Told the plant manager that 10 to ~12 lbs. of that special wire they made would be sufficient. Saved them money and could be shipped on the machine wire spindle when it was built were built. The 44 lb. wire spools provided prior had broken spindles in shipping! Win-win!

The controversy over transfer pricing of plasma torches and power supplies for CNC cutting machines ended. They were only allocated cost. Was always an argument on who should get credit for the aftersales plasma electrodes and nozzles. That ended with a simple decision: The Cutting Machine product/market development manager getting a lower cost for torches, power and controls installed on the cutting machines BUT the consumable electrode and nozzle sales and profit will stay with the Plasma product/market development manager! **End conversation**.

Canada and Germany

The Canadian company that had been totally under Canadian Linde/UCC control had a plant making the same gas regulators, torches etc. as were being made in the Florence plant. They had a central support structure in addition to what each US Sales region had, regional engineers. Recall the Canadian welding/cutting President wanted to keep manufacturing. So Pete named a new President, the sales manager Dave! Legally it needed to be kept as a separate company but it would be structured to operate more like our 6 Region Sales Offices. That plant was closed and production in Florence easily handled the increased volume.

Canada had a higher market share of many welding and cutting products than the US. The new President was a great help getting more volume such as our 250-amp MIG machine. Recall coining a name, "Share The Pain." If the plant needed more volume to avoid a layoff, I would offer Canada a product like the 250 MIG welder at out-of-pocket cost (*lower than variable and fully burdened cost.*) Whatever price they sold for to move the extra volume needed, we split the margin. They had a high market share with the Linde owned distributors and their low price did NOT affect the US product margin.

The German Company was interesting. It reported through UCC Germany. I recalled from what was said in Danbury corporate office: *"We're in Germany in case German Linde tries to cut gas prices in the US! We'll just do the same in Germany!"* Typical Industrial gas business move to control prices in an oligopoly! With few players, it was a way to maintain discipline! We had planned on the PhD, Eckert, who headed the German business joining L-TEC. He did not, stayed with the Gas Business. Turned out great for L-TEC! The commercial manager, Franz, told my boss, Pete, that he could not work for the plant manager, Carl.

And Carl should not work for him. They were friends but two different personalities. Pete had managed business in Europe for Carbon Products and quickly said: "We will not have an outsider be the Managing Director, especially from the US. We'll have two co-managing Germans!"

I was on that Board and for the 4 years we were L-TEC. Visited customers with the Commercial Managing Director. One I recall was when visiting a Mercedes manufacturing plant, he was finalizing the purchase of some 30 large capacity MIG welders. He had the order and then said "What color shall we paint them? They even looked surprised. He then said all your factory production equipment is in Mercedes colors, why don't we paint the power sources your color? They smiled and thought that was a great idea. When we left, I said boy, Carl (the Production Managing Director) won't be happy. Franz sounded just like Schultz in Hogan Hero's and said in a quite voice, "You say nothing to Carl about that conversation!" He said I know MG (their competitor) will not paint their welding machines Mercedes colors and there will be more business after!

Franz was a key reason L-TEC Germany increased their sales ~3 fold in the 4 years prior to the sale to ESAB. I quickly saw it was not logical to try to replace their European MIG and TIG torch purchases bought from Binzel. Was also not smart to try to push US made MIG or Plasma power, they made their own. BUT I pressured to have all the Plasma torches come from the US where we had better products, patents and very high margin consumables where our high Plasma profits came from! They acquiesced and it was a win-win as we gave them a good price on replacement tips and nozzles!

I recall discussing the German Company with the CEO of ESAB, Bengt. He told me they were very interested in L-TEC Germany because they were in NATO! ESAB had a stick electrode factory in Germany but were not doing very well. (*Probably one reason they won the bid to buy L-TEC at double the price we paid 4 years prior.*) I then asked why they just didn't join NATO? Funny in the early 1990's was NOT a good thing to ask a Swede! Frankly bit surprised they are considering in 2023!

Product Line Restructuring at L-TEC

Frank Lynn: With L-TEC we knew major changes in products, offerings and perhaps distribution were needed. Evaluating distribution, Frank Lynn and Associates (*who exist today*) presented several day seminars to introduce their knowledgeable concepts.

It was clear after listening to their logic, our distribution treated welding hardgoods, equipment and filler metals as secondary products and in some cases tertiary! Their main product focus was gases and renting cylinders! This was reinforced with my knowledge from not only working with welding distributors for ~20 years but knowing that for some of the Linde owned distributorships, ~105% of their "profits" came from gas sales! Therefore, they considered selling hard goods as a "necessary evil to "support" their gas business!

After attending their seminar, decided it would be useful to hire them to present a several days overview to our Product Management, who now had a Market Development role, as well as for our Sales Management. From that we hired them to do the basic research to define our current situation and suggest alternatives.

Frank Lyn Research: They used an interesting approach of surveying user buying influences. It's broken into three parts. We did this by product line: 1) *The Breath of Line; 2) Presence to the Sale,* was it offered by in our case by our distributors; 3) *Hit Rate,* if offered with other brands, what percentage of the time did the end user pick our product.

The results varied by product group:

For Gas Apparatus, we had a broad line so rated high for **Breath of Line**. However, on average, our distributors did not offer our products as often as another, mostly Victor. However, where offered equally, we had a good hit rate. They used simple math and essentially multiplied the percentage of each. For example, if full product breath it was 100% and if it was shown 30% of the time the best you could hope for is 30% market share. Then multiply by Hit Rate, say 50% and you would have a 15% market share. Our issue with gas apparatus was **Presence to the Sale**. It was about 30%. Our known market share fit their research and analysis.

For MIG, our overall market share was >25% because of strong filler metals presence. But our machine presence to the sale was much lower, ~15%.

For Stick Welding, we had no products.

For Plasma Cutting, most small distributor size Plasma cutters used compressed air not a distributor's preferred, profitable industrial gas. Therefore, it did not get very much sales attention.

Results, it was obvious from what we found that adding distributors, **as some in our company wanted** (because we could now, no longer tied to their gas purchases,) Frank Lynn suggested **our Presence to the Sale** would likely be no different or perhaps worse by making existing distribution, mad!

Boston Consultants: Knowing the Boston Consults concepts, that a company can't develop and promote all their products equally, we had a decision to make. The graphic below best defines their approach.



Considering our limited resources, we placed our product lines into these categories. Unlike some past thinking, all could not be or become Stars!

Gas Apparatus was clear, it was profitable but was treated by distributors as a secondary product and unseating the low-cost producer with ~50% share (Victor) would be difficult. If we cut price, they could beat us at that game! So, it would become a **"Cash Cow."**

TIG, torches were high priced and now with "gypo" competitors and our power supply offering weak- overall a problem. Decided to see if we could buy some of the torches instead of producing. Developing and producing low volumes of power wasn't logical. It also supported little ongoing filler metal sales. It would be considered a "**Problem Child**" and some products, even a "**DOG**."

MIG was a growing process and was a support for our higher market share, filler metal business. We had to devise a way to get an equipment *"Presence"* in the Distributor showroom. The equipment was a bit of a *"Problem Child"* but MIG welding wire had good, growing sales and most sold through distributors was a significant profit contributor, more a *"Star."*

Plasma, was clearly a "*Star.*" The large machine torches supported our leading market share in cutting machines. We had a new patented small plasma torch. The key with both was they had a very profitable, consumable wear torch parts. Much like saw blades. Our patents allowed very high margins while the end user had significant cost savings benefits.

These Are the MIG and Plasma Strategies That Allowed Selling the Leveraged Buyout L-TEC Business in 4 Years at Double the Purchase Price!

Plasma: From when my old boss, Bob Gage had the first plasma patent in 1950's we were focused on high current machine torches that used Nitrogen plasma gas. The company was in the "gas business." We always had a strong plasma R&D effort. One of our engineers, Stan, had developed a very innovative product. It doubled the life of a high current machine plasma torch electrode! Although it cost somewhat more to produce, using a small amount of silver, it allowed the user to operate their half million plus dollar CNC cutting machine twice as long before shutting down to replace the torch nozzle and electrode. It would not only allow more than double the consumable selling price and much higher profit, it would increase plasma cutting machine sales!

Another very cleaver engineer, Donny, had invented an inexpensive electrode and tip for a low current air plasma system that fit the distributor range of products. The consumables sold for ~\$20 with our cost ~\$2!

Somedays you also get lucky and my Plasma Product Manager, an old friend, told me he had an order from a company in Japan for 3000 small torches that used this new low-cost consumable electrode/tip. We could not find out what they were going to do with them. By luck, when at our first Essen Welding Fair as L-TEC in German I saw the torch being used on a small inverter plasma cutter! We had no inverter Plasma power at that time and no plans to develop one. It was very light and portable. I asked questions about the machine, but the fellow only spoke some German and Chinese! I found someone who spoke Chinese and English and hired him to translate! The machine was made by SanRex in Japan! When researching the company found out we were purchasing MOSFETs from them. Turned out after some effort they admitted they made some welders and plasma cutters for their power transistors customers, like Panasonic. BUT did not sell them themselves. I asked if we could get the 30-amp plasma inverter made I saw in Germany. I was clearly told, *"We will not share another's technology.* You MUST specify what you want." So, I wrote out a specification for a product similar to what I saw in Germany. Had drafting make an external layout of the unit with an L-TEC logo.

Within a month we received a green machine with L-TEC logo including the torch we had sent them! That started a great relationship that ended when we sold the business to ESAB! Frankly, we made sufficient profit on



the torch consumables that we could sell the machine at close to our cost and within months the consumable sales had a steady stream of income. In fact, in some promotions giving distributors a big discount for buying qualities we did just about that! Distributors had an incentive because it was an economic benefit to their gas customer or more important for them, gaining

the gas business from their competitor's gas customer!

What happened in our German business was interesting. Under UCC it was run as part of UCC Europe with little influence from the US and our R&D. They had a strong presence in Plasma cutting but designed their own torches. While their machine technology was good, their torch design technology was fair at best. But they had some unique German safety rules to meet. I was put on their Board and convinced our Present, Pete, that they should use our torches (wanting the very high margin of our patented superior products, which we would share with them.) Recall in one Board meeting they showed me a new power system and said our matching capacity torch did not meet the German "safety finger rule," re size of cup opening. Recall coming back and asking our very smart plasma engineer what it would take to redesign that torch. He said it would only take him a few days but to get through the plant would take months! My first experience in dealing with the bureaucracy!

I asked the Plasma Product Administrator to get anyone who would needed0 to touch this project in engineering, drafting, production control etc. in a meeting. He did and I was amazed it was in our large conference room. I was expecting perhaps 6 to 8 folks and found ~25! I gave my speech about the problem and how important this was to the business and to prove our large plant could respond like they do in Germany- quickly. I asked them not to just put the required paperwork from their inmail slot to their out BUT to carry it to the next person. It was done in 2 weeks not the usual 2 months. It was accepted in Germany, and we were producing all plasma torches and replacement consumables and allowing Germany to do what they did best- build power systems and sell. In the 4 years it existed, L-TEC Germany increased their sales volume ~3-fold! That was a big contributor to the business selling to ESAB at twice the purchase price.

MIG SYSTEMS: This was a more difficult area as Miller had a leading market share with the Millermatic 200 and Lincoln's SP200 was the cheapest. We had the MigMaster 250, more capacity but more expensive.

But we were fortunate since Miller decided to replace their well-established, good arc quality welder with a single-phase SCR design. No way can an arc be as good with a single-phase input SCR power welder. Too much inherent power ripple. The Lincoln SP200 never had a good arc with argon-based gas, it was designed for Innershield where the arc quality was fair at best. Not even as good as when using CO₂ gas. We had the only lower amp, compact MIG welder (*with wire feeder in the power case*) with a great arc in Argon based gas!

In addition, The Lincoln welder looked cheap. They worked but were built with point-to-point wiring where our MigMaster had all internal wiring neatly in a wire harness. Inside the Lincoln welder was sprayed with a red "glyptal" insulating varnish. Looked difficult to repair!

We had about a 15% market share when we started a "Look Under the Hood" campaign! Our objective was to



get this size industrial welder in distributor showrooms. Our goal was 25% market share matching our MIG wire market share. When a distributor bought a welder for their showroom, they got a clear plastic cover that replaced the sides. There was a photo comparison display showing the inside of the Lincoln and Miller discussing our **superior performance** with the

distributors "preferred" Argon based shielding gas.

Each MigMaster 250 came with a nominal 10-pound sample spool of our exclusive AWS ER70S-7, 87HP welding wire. Where in Market Development we had difficulty getting wire from the material business "sold" to the equipment business- that was no longer an issue! There was only one business and my group's product managers-controlled pricing. Turns out the standard 44pound spools tried were too heavy to be shipped inside the machine, so we had the wire plant made short weight, 10-to 12-pound sample spools. They were put on the wire spool spindle when shipped!

It worked! Distributors bought them and put them in their showrooms! It promoted "what they wanted," very profitable Argon based shielding gas sales. The quantity needed to get the plastic sides and display was up to our Region Manager. In weak market share areas, it was less. In many it was with a baker's dozen price!

We achieved a \sim 25% market share in that size welder. We also increased the sales of ER70S-7 wire! It sold for a premium price and was mostly sold on 44 lb (20 Kg) spools. That was profitable for us and the distributors!

We were reporting sales though the NEMA Statistical Committee (*by AWS wire Classification.*) One quarter our ER70S-7 sales exceeded the very popular ER70S-6 that all welding wire supplies provided. We were the only significant manufacturer producing ER70S-7! I decided to combine that volume with the ER70S-6 so not to expose that high sales volume of ER70S-7!

HIGH END MIG: A very smart Electrical Engineer, Ted, developed the first microprocessor based MIG Wire Feeder called the DigiMig. In the process of designing an inverter power source and software combined with a variant of the DigiMIG Feeder. We coined the combo DigiPulse. The first easy to set Pulsed MIG system. It used ~50,000 hz MOSFET transistors allowing a very fast rise time. John Deere research defined that fast pulse rise time reduced welding fumes by 50%!

We sold over 100 systems to John Deere and well over



300 to Newport News Ship. As important, we advertised the Digipulse providing a high-tech image for L-TEC as an innovator!

ADVERTIZING: Of importance to our new company was our image achieved with advertising. We outadvertised all competitors and earned the back-cover position in the AWS Welding Journal. We typically had two full page color ads in that

publication. In addition, WD&F magazine went to smaller welding shops with distribution controlled by distributors! They paid for the right to define who would get the magazine and had put their selected ad on the back cover. We uniquely supplied both B&W and color versions of our new ad program! Although distributors could have selected any vendor's ads, our broad offering of new creative ads was usually picked by most!

Our new small creative ad agency devised a great idea for gas apparatus. Although it was being treated as a "cash cow" we were the industry first to use 4-color photographic packaging making a very attractive, eye catching box for our gas outfits and regulators! The market leader Victor was using what we were, one color printing on white box material. Ours was a glued 4 color photographic quality sheet bonded to a lower cost box! Turned out instead of the "bleached white carboard" the local box supplier could use cheaper brown carboard that they just glued on the cover photo paper before die cutting the shape. Very little extra cost.

With no corporate overhead taking half the available advertising funds, I was meeting my commitment to our President of NOT exceeding what we have been spending as Linde and getting twice the impact!

When selling the business after 4 years (*it was required in 5 years per the business plan outlined to our leveraged buyout investors*) L-TEC had become a wellknown name! Distributors were a big help displaying our MigMaster 250, our innovative 30-amp plasma cutting inverters and gas apparatus outfits in their Showrooms. GAS APPARATUS: Although being treated as a "cash cow," we tried several things to help increase sales without poking the market leader with a stick by cutting prices (Victor was the market leader with ~50% market share and the low-cost producer!) Although they probably made cutting nozzles at half our more complex cost method, their weak financial position (caused by several leveraged buyouts) required selling at a high price. Cutting nozzles listed for ~\$10 and distributor cost was ~\$5. Our production cost was ~\$1.50 and theirs probably ~\$0.75! Was very happy playing "the game" at those margins! We used the suggestion of our ad agency and put gas apparatus outfits in a 4-color printed display box. It replaced the single color printed on a white paper box that was similar to Victor. That was a help in getting distributors to display our product along with Victor who had high market pull.

Also tried the of idea а consultant we had hired when we first formed L-TEC. With his European background he told us in the US we were crazy launching



marketing programs "Nationwide." Try in 1 location first! A person I had worked when in Linde's corporate office, Mike, became President of a large, multistore distributorship, one of the few we had in North and South Carolina. Visiting their main store in NC I looked at the gas apparatus promotion display and said it needs to have many more outfits stacked-up high to get attention. He objected, as I expected, to increased inventory, so I used a technique I learned in an early marketing experience, *"working part time for 7 years in a Supermarket while in high school and college!"*

I offered what an Eveready Battery person "taught me" one day when he was setting-up displays at our 14 registers. I questioned the amount of inventory (my job was to sign for the volume!) He said, "Just sign here kid! You're only billed after 60 days for what is sold and in 30 days, I take back whatever is not sold from these displays!" I offered similar terms and sent in several pallets of gas apparatus outfits at a discounted price if they would pass on the discount for a promotion. Gave 60-day terms and in 45 days, would take back whatever was not sold. In 45 days he said he'd send what was left over to another store and I delayed that invoice!

He also said if you provide the training help, I think my delivery truck drivers could sell gas apparatus as they have great relationships with the customers where they deliver oxygen and acetylene! Told my boss, the CEO that I wanted a fellow who was a technician in our gas apparatus engineering group as he did a great job in our distributor training courses. He and the Engineering VP agreed. He did such a great job that distributor President offered him a job! He turned it down but stayed in that activity for 6 months and the distributors gas apparatus purchases increased by >\$500,000! Submerged Arc: An interesting opportunity occurred that increased sales of profitable SAW flux and wire. Collin had wanted us to cut the salesforce pay and put in a high commission system. The Senior Sales VP was not happy with the proposal and argued with Collin. He was an old timer and had been a Navy officer. I knew it was not smart to argue with Collin! Since my group also did traning I told him we were not like the Harvard MBA's that go to Wallstreet. They either sink or swim based on mostly commission compensation! Those that can't make it are replaced with new Harvard grads! Told him we have a lot of time and effort in training the sales folks. BUT "how about" installing a very aggressive sales incentive IF a salesperson can increase sales 20% over prior year. That would require a lot of extra effort and pay for itself! Collin agreed!

So, the L-TEC sales force was given a significant bonus *IF* they increased territory sales 20% over prior year's sales. One very knowledgeable salesman, Mark, found medium size SAW accounts in his territory. He was successful in getting them to switch to our flux and wire from Lincoln. But unlike Lincoln who had warehouses in some 30 districts, we had only 2. But in our new organization the solution was easy to solve compared to trying to convince a product manager, then the business segment General Manager Mark needed a few pallets of flux and wire close to his territory to support the new direct sale customers. (*Most distributors had no interest in SAW or sales. We and Lincoln sold most large users SAW products directly.*) Had distributor owners tell me "If a forklift breaks one bag all our profit is gone!"

I made a phone call to the welding materials logistics manager Robert, and he located an independent warehouse close to where needed! Mark increased his territory 20+% in all 4 L-TEC years. That earned a ~20% Bonus, a "higher level car" and "recognition by his peers at a National Sales Meeting!" One of the best sales guys I ever worked with!

Addendum:

Note about UCC move of Corporate Office from NYC to Danbury CT. Since few Managers wanted to take positions in NYC, they sold the 50-story building on Park Avenue. Recall it was stated they planned to get \$250 million offsetting the cost of the new state-of-the-art headquarters building in Danbury CT.

Turned out it finally sold for only \$110 million to Manufacturers-Hanover. The new 3 story building (nicknamed "Starship Galactica") was 1.2 million square feet, had 2300 offices and space for 2000 cars parking on 3 floors underroof adjacent to the offices. It cost far more than the stated approximately \$250 million, about \$480 million total!

Funny, when our L-TEC President, Pete came back from managing Carbon Product's European business he was put on the team defining where the new corporate office should be located. He rightfully concluded UCC did not need a Corporate office for these unrelated businesses!

That got him to manage the Welding & Cutting hardgoods business! Thankfully, his being GM then President of L-TEC was key to our success. LOL

EPILOGUE

Key Competitor, Lincoln Electric Also Had Cost Issues with the Decline in the Fabricating Business

The former President of Lincoln, Don Hastings in his book, "Behind The Mask" Revealed Some of What Was Done To Increase Sales Around The Time of L-TEC Formation.

"Behind The Mask" is a great read to get perspective of the industry at the time.

The fabrication economy went into a recession in the early 1980's. Don said in his book, we struggled with defining programs to increase sales. He came up with a program to add significant distributors!

Just prior, Hastings had visited my boss the Senior VP Sales/Marketing at Linde, Bill (who later became the CEO of what Linde renamed themselves, Praxair.) Bill was also responsible for the ~20 gas/welding distributors we owned. Hastings, Lincoln Sales Manager at the time, told Bill he would stop selling to the "Linde Owned Distributors" unless they bought 95% of the overlap in equipment and filler metals our two companies made. I was charged with getting with the 20 distributor managers and defining the impact of the loss of Lincoln products! Lincoln gave such small discounts to distributors, they had to buy in 40,000 lbs truckload quantities to get the best price less 5%. Lincoln told them to make a profit selling in smaller quantity bracket prices. I recall in a meeting with our owned distributors the manager in Oklahoma said: "If I can't sell 5P, their pipe welding electrode, I'll be out of business." Considering he only bought in pallet load quantities ~5000 lbs. at a time, I said just buy from another distributor who buys 40,000 lbs!

When Bill heard nothing more, he asked our sales manager, who knew Hastings, to see what happened to his threat. Our sales manager met Don at a bar and asked what happened to that 95%? Hastings said: *"Just act like I have amnesia!"* In his book Don defines what he was doing to cause that amnesia.

Up to that point the ideal suppliers for distributors to have were Lincoln and Linde, the market leader in industrial gases! There was little conflict between our welding and Lincoln products. Our product line did not include engine drives, Stick welders or Stick electrodes. Lincoln, at the time, did not have gas apparatus, cutting machines, plasma products and gas shielded products that supported Argon sales. We both sold submerged arc products mostly direct. The Lincoln/Linde distributors often had an exclusive in their marketplace. Don said he devised a 100-day plan to add distributors. That required new ones to purchase a truckload of electrodes (40,000 lbs.) and 6 welding machines.

Quoting Don about the results, "My guys signed up 232 new distributors and I "pissed off" a good portion of the 400 hundred we already had! In the end we sold a million pounds of consumables and 1400 welding machines! Irrgang CEO and Willis, then President, were happy!"

Lincoln, DISTRIBUTORS AS CUSTOMERS

J.F. Lincoln, who ran the business with an iron hand until his death in ~1965 felt distributors in general do not serve a function for a user. He thought the only discount



they earned was to buy in large qualities where Lincolns costs were lower and could offer a small discount and sell to fabricators in smaller quantiles at higher prices to have a modest margin. On 40,000 lb. truck load qualities of filler metals, the most economical for Lincoln the

distributor discount was only 5%. Was surprised when Don Hastings in his book said they were often called *"Stinkin' Lincoln"* and wasn't sure why. He did not mention the low distributor discounts and the fact that they often sold direct to fabricators.

Charley Sanborn who had automotive supply stores in Ohio in the 1940s, 50's etc. told me about his meeting with J.F. Lincoln. His business included machine shop services. He said he approached Lincoln as he wanted to be a distributor and sell stick welding products. He said after the discussion he realized Lincoln had no use for distributors!

Hastings, in his Book, "Behind the Mask" stated as a salesman when he went to Cleveland to be trained there was no mention of dealing with distributors!

Lincoln salesman would often take larger fabricator business directly. Therefore, many distributors would not bring them into one of their fabricator customers. They had over 25 warehouses in their sales districts so could serve smaller accounts. We did not often sell most products direct to fabricators and typically give a minimum of 20% distributor discounts so were "liked more!" However, our salesman would often say, *"Wish they hated us as much as Lincoln and bought a lot of our product as they do theirs!"*

Don Became A Friend: As Don discusses in his book, he was forced to retire by the Lincoln Board soon after he was 65. He became a volunteer Board Member of the AWS Education Foundation. I retired from ESAB in 1999 at 57. ESAB asked me to take a position on the AWS Foundation Board as their representative. They supported that for ~13-years including when I Chaired the Foundation Board for 6 years. I was also a consultant for 3+ years as a welding fume expert for the ~billion+ dollar industry "Class Action Manganisum Fume Lawsuit." Also consulted in other areas.

Don and I would discuss when we competed, including our 100% control of the large diameter, high pressure, main line gas and oil pipe manufacturer. We had the SAW equipment, very high volume flux and wire. Don always tried to take away from us. That was my area of expertise. As a "super salesman" Don blamed our fused flux they did not have. Out of respect, would never tell him it was salesmanship! Not mine, our 6 regional sales managers who's pride would not allow lose of one pound of high margin flux business! - Don was a Great Guy.

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