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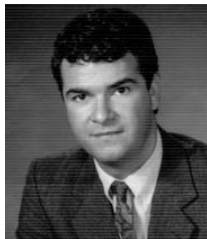
# THE LONGO LETTER

May/June 2002

# It is time to speak a little louder..



**CURRENT  
EVENTS**  
Joseph M. Longo  
President



Sitting down to write the Longo Letter as president has been a unique experience. First of all, let me thank all the well-wishers for their kind thoughts.

While Longo is steeped in heritage, business is not quite so sentimental. The aftermath of 9/11 has been tough on a lot of us, personally, as well as in our businesses. For Longo, we felt the impact of maintenance and repair work put on hold or swapped for security projects. Fortunately, the quality of our work and its real value have helped us hold our own.

One of my many objectives is to build more awareness of the scope of our capabilities. In addition to our legendary motor work, Longo has been gradually providing an increasing number of products and services

to our customers. We have been using the phrase “*line to load*” more and more as we have evolved from a one dimension (motors) vendor to a multi-faceted resource (pumps, switchgear, engineering, etc.) for both private and public clients.

Today, our balance of experience, expertise and sense of innovation has placed Longo in a position to respond to our customers’ changing needs. The markets, the demands, the technology and the finances are fluctuating like the current that runs through all our businesses.

As we have been building this cohesive umbrella of services, we have not been as vocal about them as we could have been. For years there were only “motor companies,” “pump companies” or “electrical companies,” and now there are firms like Longo, who provide a complete range of integrated services.

The single or isolated repair is becoming less frequent as many projects begin as just the most visible symptom of other problems within a system. The **advantage** Longo brings

to the table is the ability to recognize this, analyze the overall situation and provide you with effective solutions, with alternatives where they exist. We provide recommendations that resolve the immediate problem, but suggest improved efficiency, increased production and even reduced costs.

Whether you are an old friend or a new prospect, take a good look at that note pad our sales representative dropped off. I think you will be surprised at what you see and how many different ways there are for you to take **advantage** of Longo’s resources.

For quite a few readers this may be your first Longo Letter. As we make new contacts and customers, we are constantly adding readers. Our intent is to provide you with an interesting break in the day, say something worthwhile, and of course, test your sports trivia. Read and enjoy...*Call me anytime; your comments and thoughts are always welcome.*

# REPLACE OR REPAIR? AN ELECTRIC MOTOR DECISION

The time to make a decision on whether to repair or replace a motor is not when the motor fails. Panic or rush decisions are usually not the best ones. Planning in advance is the key to keeping your operation going. When a motor fails, the primary issues are whether to repair or to replace. In either case consideration should be given to modification, upgrading, and confirming that the motor is the right one for the application. Essentially, you want to be managing your motors.

The first step in the overall process for a facility is to identify each motor, whether installed or a spare, and its application. This involves recording the motor nameplate data and describing the driven equipment. After all the motor nameplate data has been obtained, the motor can be categorized by horsepower, speed, and enclosure. Doing this on a spreadsheet facilitates the identification and comparison of similar and duplicate units. That will help when decisions need to be made about spares. If one motor can be used in multiple locations, you may not require a spare for each. And, if a motor is similar but not exactly the same, it can be assessed for suitability in an emergency, though the installation may require modifications.

The availability of replacements for each motor is normally the next step. However, when large quantities, e.g., hundreds, of motors are involved, this can be a daunting task. At the very least, the availability of spares for critical motors should be determined. If there are duplicate units that call for spares, a management judgment can be made regarding how many spares to carry. The list of spares and their availability should be periodically updated, at

least annually. What is available today may not be available a year from now. Likewise, the inventory of motors in the facility should also be updated. Some equipment may have been phased out, and other new machinery installed.

Application suitability should also be reviewed and assessed. Is the installed motor the right one for the application? Perhaps it is a drip-proof enclosure located in a dusty and wet environment, e.g., outdoors. A totally enclosed fan cooled motor is probably better suited to the application. The repair-replace decision in that case would be based on repair of the existing motor versus a totally enclosed fan cooled motor. The repair consideration should include the cost to modify the motor to make it more suitable for a wet and dirty environment. Typically, a repair service center can apply an epoxy coating on the windings, to inhibit moisture absorption; and water-resistant lubricant can be used for the bearings. Space heaters can also be retrofitted into most motors.

In general, the repair-replace decision comes down to price and availability of new versus the cost of repair of the existing motor. An oft-quoted criteria for the repair-replace decision is to replace if the cost of repair exceeds 60% of a new motor. If the new motor is not readily available, the single criteria of price may be moot. A new motor with an attractive price, but that has a delivery of 12-14 weeks, is of no use when the operation must be back on line in a week or less. That's one of the foremost benefits of decision planning well in advance. You will have gone through the critical, and perhaps all, of your facility's motor applications and

*Continued next issue...*

Cashflow Analysis										
Energy Efficient vs. Standard Efficient Motor										
Year	Energy Savings	Demand Savings	Total Savings	Deprec	Effect On Taxable Income	Effect On Tax Payable	Cashflow After Tax	Present Value	Accumulated Cashflow	
0	-1,286		-1,286				-1,286	-1,286	-1,286	
1	1,730	0	1,730	184	1,546	541	1,189	1,091	-195	
2	1,765	0	1,765	315	1,450	507	1,257	1,058	863	
3	1,800	0	1,800	225	1,575	551	1,249	964	1,827	
4	1,836	0	1,836	161	1,676	586	1,250	885	2,713	
5	1,873	0	1,873	115	1,758	615	1,258	817	3,530	
6	1,910	0	1,910	115	1,795	628	1,282	764	4,294	
7	1,949	0	1,949	115	1,834	642	1,307	715	5,009	
8	1,988	0	1,988	57	1,930	676	1,312	658	5,668	
9	2,027	0	2,027	0	2,027	710	1,318	607	6,274	
10	2,068	0	2,068	0	2,068	724	1,344	568	6,842	
<b>Totals</b>	<b>17,660</b>	<b>0</b>	<b>17,660</b>							
<b>HP</b>	<b>75</b>				<b>RPM</b>	<b>1800</b>		<b>Enclosure</b>	<b>ODP</b>	
<b>Hours</b>	<b>4,000</b>				<b>Standard Eff</b>	<b>88.50%</b>		<b>Cost</b>	<b>1,556</b>	
<b>Rate</b>	<b>0.100</b>				<b>Energy Eff</b>	<b>95.00%</b>		<b># of Units</b>	<b>1</b>	
<b>Rate Increase</b>	1.02				<b>Tax Rate</b>	35.00%		<b>Present Value</b>	9.00%	
<b>Demand Charge</b>	0.00							<b>Rebate</b>	<b>270</b>	
<b>Freight</b>	7.00%							<b>Outflow</b>	<b>1,286</b>	
<b>Simple Payback:</b>										
<b>Outflow / Total Savings Per Year</b>					<b>1,286</b>	<b>0.74</b>	<b>9</b>			
					<b>1,730</b>	<b>Years</b>	<b>Months</b>			
<b>Annual Operating Cost:</b>										
Standard Efficient					\$25,288		<b>Customer:</b>			
Energy Efficient					\$23,558		<b>Unit ID #:</b>			
<b>Total Energy Savings</b>					<b>\$1,730</b>		<b>Location:</b>			
<b>Environmental Impact Reduction Per Year</b>										
Carbon Dioxide (CO2)				13.84 Tons						
Sulfur Dioxide (SO2)				92 Kilograms		OR		202 Pounds		
Nitrous Oxide (NOX)				48 Kilograms		OR		107 Pounds		
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Technically speaking it's...

# ...advantage **LONGO!**

## 3. THE ENGINEERS

*"If it ain't broke, don't fix it!" could be a motto for our industry. Whether it is a pump or motor or some other component, the first reaction is to just use the same thing as we always have. But things change. Loads change, production demands change, and the whole energy management game has changed.*

Recently we received a request for a motor to replace a 30 year old worn out veteran. When we asked a few questions to see if there was a better solution we heard, "Look, it ran good for 30 years, no reason a new one won't do the same!" Well, that is probably true. The poor efficiency, no variable speed to make the motor function closer to the demand...and, yes, it will enjoy a long thirsty life when it comes to current. But we didn't take no for an answer and looked at what we could do.

Our engineering staff is one of Longo's important resources when it comes to understanding how industry and market changes affect our customers. Not one or two part time people, but 15 hands-on degreed electrical engineers who move effortlessly from laptop to sales and back to the shop.

Our engineers' input begins with a review, first insuring the specs make sense technically and then often providing recommendations to improve the efficiency or reduce customers' costs. As we all know, making suggestions outside the parameters of a spec can be time wasted. However our engineers are able to provide alternatives that are clear and concise in both their technical aspects and their economical impact as well. New developments

in equipment and procedures can have a significant impact on existing components, and knowing how to best combine these takes an engineer's talent.

When engineers got together with sales to plan a replacement for that 30 year old motor, they were able to come up with a new Premium Efficiency Motor coupled to a variable speed drive. The package included not only long term savings but **immediate cash rebates on the motor and the drive. A better motor, improved long term efficiency, up front cash back and better suited to the customer's needs.**

The ability of sales reps and our engineers to interact with every area of our company is truly a tremendous benefit when it comes to solving a customer's problem.

Perhaps one of the most important aspects of having hands-on degreed electrical and mechanical engineers on staff is when things go wrong. Seemingly straight-forward projects can turn into nightmares with unknown factors and elements rearing their heads half way into an

assignment. Rather than floundering around guessing at fixes, our technicians get accurate direction and solutions from our own staff. This can be especially important where the customer has a schedule to keep and does not want to hear about problems. Our job is to resolve those problems quickly and correctly, and we do that.

**Technically speaking, this is one LONGO advantage that runs right through our organization.**



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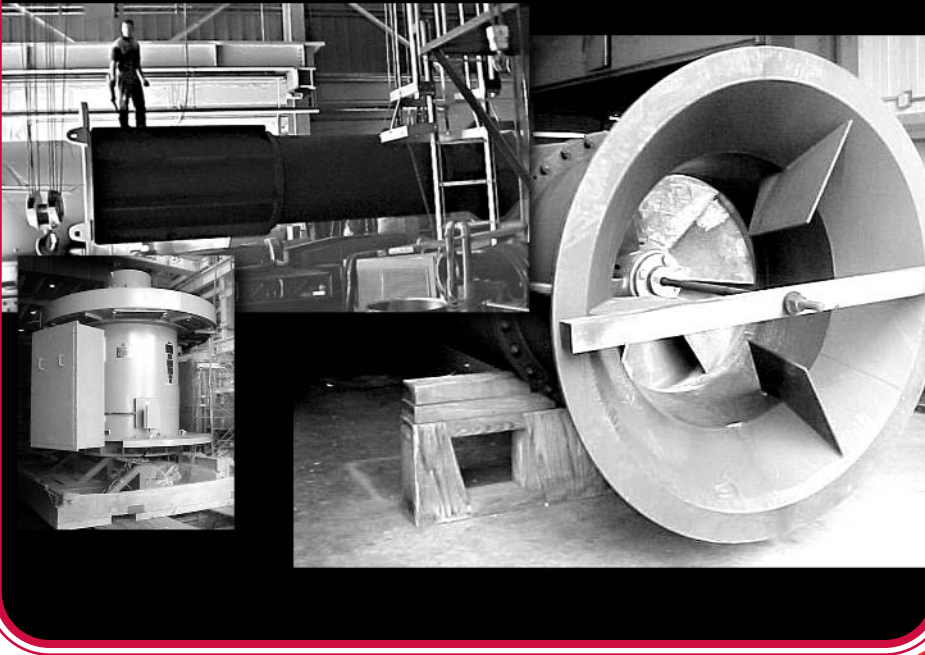
# When size matters....

The arrival of this pump was an event even for Longo, since a 30ft long, 8ft diameter, 25,000lb pump that handles 100,000 GPM is not an everyday item. But, the arrival of its partner, an 1800hp, 4000V @ 445rpm motor tipping the scales at 28,400lbs was more a matter of course for Longo.

Over the last few years, recognition of Longo's pump capability, in both sales and service, has grown. More and more companies are finding it makes sense that a pump without a motor, and vice versa, is not going to be very effective. Sending a motor in one direction and a pump in another doesn't make sense when Longo is available to do both. Longo has been providing the same level of expertise it applies to its legendary motor business, to our customers' pumps.

Size and scope. While we like to point out our various large and impressive projects, from huge utilities to special applications, some who visit us are intrigued to find homeowner pool pumps being repaired in the same facility as the behemoths. But this is part of why Longo has prospered and grown all these years. We are always building on successful relationships, not discarding old customers to make room for new ones.

Longo pump service covers the full spectrum of sizes and applications. Service, both in-house and on site, such as seal replacement, is all part of Longo's unique and professional pump capability. Our selection of new pumps are supplied by well known manufacturers such as, Robot, J-Line and American Marsh, among others.



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## SPORTS TRIVIA

1. Who was the last **maskless** goalie to win a Stanley Cup?
2. Name the first player to play major league baseball and play in the Super bowl?
3. Which major league manager was suspended for the entire season?
4. Who was the first Giant to return a kickoff for a touchdown in a playoff game?

**ANSWERS**  
1. Gump Worsley, Canadiens, 1968, 1969  
2. Tom Brown, Washington Senators 1963 and first two Super Bowls with the Green Bay Packers  
3. Leo Durocher, 1947  
4. Ron Dixon, January 7, 2001 vs. the Eagles.

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