

Lean Electrical Case Study:

- *Garb-el Products Company*
- *ABB enables Garb-el to save \$114,060 per year with Lean Electrical Control*



Lean Electrical Case Study: Garb-el Products Co.

THE COMPANY

Founded in 1950, Garb-el manufactures the most efficient, economical, convenient and ecological waste disposal equipment available, providing organic waste solutions to supermarkets, restaurants, fish and game facilities, and schools. Their waste disposal systems vary from $\frac{3}{4}$ horsepower units up to 20hp. Garb-el waste disposal units are unique in that they utilize a worm screw auger to carry waste to a hammermill which pulverizes the waste to no larger than $\frac{3}{8}$ th of an inch in size. Whether it is handling fruits, vegetables, fish, meat, bedding waste and other organic items, Garb-el waste disposal systems can dispose of up to 10,000 lbs of waste each hour.

THE CHALLENGE

Garb-el had used the same electrical controls supplier for over 30 years. In recent years Garb-el found many of their customers experiencing warranty issues due to electrical product failure. These failures caused not only customer satisfaction issues, but also hurt the profitability of Garb-el since their one year parts and labor warranty was not being covered by their electrical supplier.

Garb-el's management decided it was time for a change and invited three companies to come in with proposals. "ABB stood out from the crowd. They did not just come in and present product features, they took my existing electrical schematics, re-drew them with a new and innovative approach and presented their solution to how the machine can work." Says James M. Carbone Jr., Vice President at Garb-el.

As ABB presented their solution, Mr. Carbone quickly saw many other advantages in the new design. While ABB could clearly lower their cost of warranty repair, the new design focused on delivering the best value to the customer at the absolute lowest possible cost.

"It was obvious ABB was looking to improve the value I could deliver to my customers while lowering my overall cost", say Carbone.

This new approach had the following key advantages to Garb-el;

- Significantly lower the cost of installation by
 - o Reducing the number of enclosures on many machines by combining specific functionality
 - o Cutting mounting time by standardizing enclosures required
 - o Cutting the number of wiring terminations required by utilizing innovative electrical products
- Improved machine control by allowing the operator to more effectively and quickly control the machine
- Increase operator safety with drop out mechanisms which make sure the machine stays off after a power loss
- Lengthen the life of the products by making the entire electrical installation NEMA 4X
- Lowered the cost of products purchased by eliminating unneeded components

THE BOTTOM LINE

Increasingly Garb-el found their customers satisfaction falling due to electrical warrantee claims. In order to solve this problem they brought in multiple electrical suppliers to present their solutions.

After seeing the ABB solution, Garb-el was convinced their design would not only lower warrantee costs, but also:

- Improve the machine interface for the operator
- Increase the safety of the machine
- Move from NEMA 1 to NEMA 4X

Finally, Garb-el saw the savings. On each machine they sell, Garb-el has lowered the costs by \$380 on the electrical installation, while still delivering significantly more value to their customer.

By making nearly 300 units a year, ABB has helped Garb-el save \$114,060 a year by delivering high quality products at an affordable price.

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LESSONS LEARNED

Garb-el can now see that working to solve a quality problem has lead them to significant savings. They have learned how the products and services from ABB help them focus on the value delivered to the customer and reduce wasted effort in the manufacturing and service processes.

Since ABB has been the standard, Garb-el has had no customer service issues. This in it self was worth the change. The real surprise came from the amount of money saved with a new design in purchasing, product costs and installation. “ABB worked to understand our machine so they could more effectively support us with design and manufacturing guidance. This support really makes a difference”, says Carbone.

SPECIFIC IMPROVEMENTS

Garb-el has seen significant improvement on their bottom line. When comparing solutions that are NEMA 4x to NEMA 4X, Garbel found significant savings with the ABB Solutions.

Garb-el Savings	Average Cost Savings Per Machine
Warrantee and Installation	\$183
Purchased Product	\$197
Total Per machine	\$380
# of Machines per year	300
Total Savings per year	\$114,060

CONCLUSION

Garb-el has taken a significant problem, warrantee claims, and found an answer that not only solves this issue, but also significantly lowers cost by reducing waste while adding value to their end customer by moving to NEMA 4X and improving the operator interface.

As they grow, Garb-el is looking into having the panels built by ABB in order to streamline their processes even more.





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