

# **Bottler Gets a Quick Pop in Profits**

## **Enterprise Wide Approach Uncaps Additional Money**



An east coast bottler operated their air system the old fashioned way. Management delegated all decision-making to the maintenance department. Production told them what they needed and it was maintenance's job to make sure they got all they needed when they needed it.

Why involve management and production with compressed air? After all, compressed air is something that's pretty hard to understand and improvements can't have a big impact on the bottom line.

Or can it? Which looks better to you?

	<b>Survey</b>	<b>Full System</b>
Current Costs	\$91,040	\$91,040
Annual Reduction	\$22,800	\$55,000
Future Costs	\$68,240	\$36,040
Percent Reduction	25%	60%
Capital Costs	79000	\$66,000
Payback (months)	42	14
Accuracy	Approximate	Exact
Water/Oil Fixed	No	Yes
Information	Minimal	Comprehensive

That's the difference between attacking in the compressor room or going after the whole system.

Here's how it happened to this bottler with one can line, two bottle lines and a bag in box line.

The bottler's maintenance department made improvements to the air system using discretionary money since they had no profit and loss responsibility. Over the years, changes in the bottling and canning process reduced the air consumption so that the 150 and 200 hp compressors were oversized.



Their local salesperson recognizing the opportunity offered to do an inexpensive automated survey of the air system. This state of the art tool records data and estimates the potential opportunity by upgrading controls. It's a good way to figure out how to improve the system without breaking a maintenance department's limited budget or for a company with very low horsepower.

The survey estimated the opportunity to be \$42000 per year and the capital required to realize that gain was \$79000. While the detailed audit showed that the automated survey overestimated the opportunity by roughly \$10,000, the customer would have gotten a real return of 36%.

Not bad considering the cost of the survey.

But if they had stopped there, they would have left money on the table. \$30,000 to be exact.

***It's About Money, not Air***

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## Compressed Air? There is a Better Way

And it would have cost \$13000 less to do it. Why was there still so much money on the table?

Two simple reasons. First, the automated survey had a narrow problem definition (compressor room power) which ignored other opportunities. Secondly, automation which is the key to making the survey inexpensive makes assumptions that in the case decreased the accuracy of the results.

What's the solution? It's looking at the air system from a wider viewpoint, the enterprise. It's getting production and plant management to invest a minimal amount of time and get substantial results.

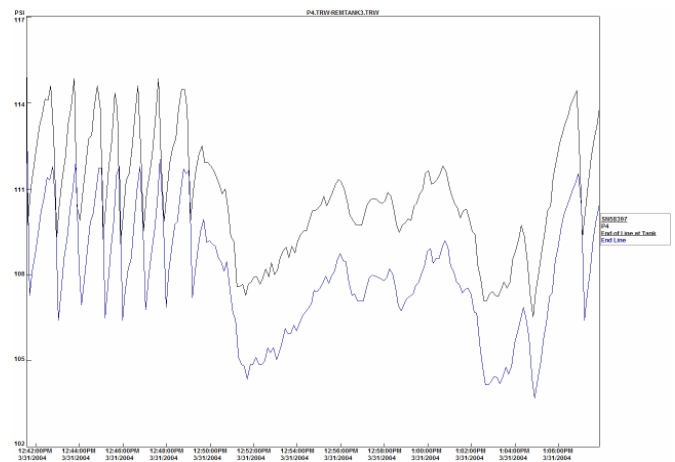
This larger angle provides bigger results for three reasons.

- There are often productivity opportunities that are ignored when all the work is done in the compressor room.
- Demand side improvements often have a bigger impact than anything that can be done in the compressor room
- The money required to bring in the experts is pocket change to production's budget.

When the bottler looked at it from an enterprise wide standpoint through a complete system audit, several issues came to light.

1. The clean up equipment design prevented the individual components from doing their jobs resulting air quality issues.
2. Videojets and some blow-offs had been switched to nitrogen. Converting these back to compressed air represented an unanticipated opportunity that contributed substantially to the project finances.
3. Several applications could be modified to use less air during production and when production was off resulting in reduced demand.
4. There were occasional pressure related problems with the palletizer which could be eliminated.

5. The entire facility would easily run off a 75 hp compressor for the majority of the time.
6. Equipment from a closed facility could be used to drive the payback down.
7. The client still had the option to purchase a new compressor since the savings were significant enough to justify the purchase and still meet return.
8. Possibly one of the greatest values of the work was that for the first time, production, maintenance and management understood in detail where the plant used air and how the air system operated.



The graph that showed the plant that the piping system is adequate for their current flows

### Conclusion:

Compressed air systems represent a potential source of money. To optimize this system, it must be evaluated at a level beyond the walls of the compressor room and with more participation than the maintenance and engineering staff. With production's involvement and interest, reducing costs by one quarter to one half become very possible with paybacks that rival most projects. The second half to optimizing this system is high quality, competent consultants who are familiar with the compressed air and its application in the particular industry. The difference in cost isn't the difference in cost between the various consultants. It's the difference in the depth of the operational, capital and productivity savings they find.

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