

WaterWorld

June 2005

Serving the Municipal Water/WasteWater Industry • www.waterworld.com

WWEMA CORNER

Reasons for Selecting Original Manufactured Equipment By Brian J. Cohen

Imitation may be the greatest form of flattery but for many companies selling their products today, the concept clashes with the modern business world's definition of Intellectual Property Rights (IPR). And when a company's IPR has been violated, the word "flattery" in this famous expression suggests another f-word: "frustration".

The greater problem isn't just with companies whose products are being copied, losing valuable sales revenue. The real loser is the tax paying public funding the projects. For the wastewater industry, the selection of an inferior knockoff product may cause many problems beyond violating a company's IPR including: reduced equipment lifespan; poor operating performance; high cost of ownership; negative perceptions of the technology; and misapplication of products.

- **Reduced Lifespan of Equipment:** Quality is of utmost importance for the original equipment manufacturer. They invented the "black box" of the machinery to provide optimum performance, long-term durability and minimal maintenance. The designs & parts may look simple and easy to copy, but are the result of a huge capital investment and years of R&D. Although the knockoff product may appear to be same, it lacks the intrinsic understanding of these key "black box" parts. As a result, these knockoff goods feature subtle but major internal differences that dramatically reduce the equipment's lifetime. Excessive vibration, continual wear of parts, and frequent breakdowns are common occurrences, which usually spell disaster for their copied products.

- **Poor Operating Performance:** Due to lack of "black box" proprietary product knowledge, the copied machinery's performance level cannot match the original products. For ex-

ample, our company provides aeration equipment to the wastewater industry. Projects are sized based upon the aerators' ability to oxygenate, known as Standard Aeration Efficiency (SAE). Our products have been independently tested to obtain an SAE value, which is applied to the design of the wastewater treatment plant.

Many aerator knockoffs also use our SAE values. However, when we test their equipment, its SAE may only be 65% of our equipment's performance efficiency. When a tender is opened for a product sized by consulting engineers at the "original" product's test values, the knockoffs offer their equipment as an "equal" using fictitious test data. The knockoff suppliers drive prices down significantly in the bid by using inferior parts. More serious, the product can only handle a portion of the treatment / serviceability that is required for the project. In this example where equipment can only supply 65% of the required oxygen for the project, the treatment plant may become severely crippled and potentially septic. Unfortunately, these companies often get away with their inferior performance as plant designs have safety factors in their calculations that can mask their inefficiencies. Also, these plants generally are sized for future flow rates or loadings 10-20 years down the road and therefore these shortcomings won't be exposed until many years later. The common thread here is the customer and/or taxpayer who is not getting what they paid for due to the knockoff equipment's performance.

- **High Cost of Ownership:** The long-term expenditures may become extremely expensive for a wastewater treatment plant that selects knockoff equipment. Original equipment is designed to operate with very little maintenance and few parts replace-

ment for extended periods of time. Typical knockoff equipment rarely reaches a 5-year lifetime. Although the knockoff equipment may cost as little as 50% of the original product and is attractive to the customer / contractor during the bidding process, when you factor in its failure ratio, frequent parts failures and its inability to perform, the decision is quite easy. The knockoff's high operational costs end up causing the client to pay almost double the amount in expenditures over a 10-year period of time. I have visited too many plants where the client had to remove its inferior equipment after only a couple of years operation due to either a performance failure or catastrophic equipment malfunction. Their decision to choose the cheapest knockoff to save a small portion of investment ended up creating numerous headaches and costing them (and the public taxpayers) a heap of cash.

- **Negative Perceptions of Technology:** When a knockoff product fails, it equals a "technology" failure to the persons involved. Even though the appropriate technology may have been specified on a project, the failure of a knockoff on only one project can leave a bitter taste in the mouths of the many involved in the project. This group includes: consulting engineers, designers, end users, government officials, and contractors. Word may even spread to the classes and textbooks taught by professors at the university level about the perceived failure of a certain technology. The result of this bad taste is that the technology itself may never be used again for projects in a particular country or region that may have had a bad experience with the knockoffs.

- **Misapplication of Products:** The experience of applying original equipment in the industry is invaluable and perhaps the number one reason to

select an original equipment supplier. The knockoff companies often are only after the quick sale and not as interested in the actual application. They typically have not been in the business of manufacturing their product too long and furthermore may not be in operation for the long run. The core problem is these companies lack the engineering, staff, experience, and process expertise to apply their inferior equipment. The resulting misapplication of equipment typically leads to eminent failure, which in the end causes another black eye for the technology as a whole.

Conclusion

When it comes to selecting wastewater equipment, it simply does not pay to cut corners and select inferior knockoff equipment. There are far too many factors that in the end make original manufactured equipment the right selection in terms of equipment dependability, cost of ownership and product performance. The next time you face an important purchasing decision, please bear in mind that the numerous drawbacks of selecting inferior knockoff equipment greatly outweigh its lone significant benefit of an attractive price. Once our industry realizes the importance of this lesson, a lot more money will be saved and far less headaches will occur. **WW**

About the Author:

Brian J. Cohen is the Vice President of International Sales for Aeration Industries International, Inc. located in Chaska, MN. He holds a BA Degree from Harvard University in East Asian Studies and has been actively working in the international wastewater treatment industry for over 10 years. (Email: brian.cohen@aireo2.com)