

## Operational Due Diligence At Global Environmental Machinery Manufacturer: Assessing Product Design And Network Simplification Opportunities

**The Challenge:** JumboCo (a publicly traded conglomerate) recently updated its business strategy to focus on core industries, and as a result, decided to divest 4 non-core divisions. One of Gotham's long-time PE clients had entered into an exclusivity arrangement to purchase these businesses, which included MachineryCo, a leading supplier of industrial machinery used for environmental and printing control applications. Our client's initial assessment of MachineryCo had suggested a significant opportunity to alter the cost structure of the business (via simplification and harmonization) given the high product and engineering complexity. Gotham was asked to deliver a rapid but robust assessment of opportunities not only associated with complexity reduction, but with simplification of the manufacturing and engineering network, and other standalone cost areas over a 2-week diligence effort.

### The Partnership:

Analysis: The Gotham team quickly reviewed data room information and developed a top-level profile of MachineryCo to gain a sense of the company's overall complexity. Gotham found that complexity had built up over the years as a consequence of several factors. First, while MachineryCo had only two main product groups, each group comprised a variety of product and service offerings, and each product offering, in turn, had several product lines, often due to geographical customization. Second, complexity arose from the global nature of MachineryCo's manufacturing and distribution, with facilities located throughout the world. We then shared our top-level findings with the deal team and agreed to focus the due diligence effort on:

- Opportunities to standardize, simplify, or modularize the product line (e.g., postponement of customization and geographical standardization)
- Opportunities to simplify or consolidate the network (e.g., eliminate redundancies in manufacturing, engineering, and G&A) while maintaining existing product designs
- Opportunities for standalone direct cost savings, including direct labor and freight costs.

Along with the deal team, Gotham made an on-site visit for the management presentation and to tour a manufacturing facility.

To supplement our first-hand observations and fill gaps in available data, the Gotham team applied our extensive knowledge and performed modeling to generate:

- **A Financial Fact Base.** The team created a cost picture at sufficiently detailed operational (material, labor, freight, engineering, warranty, operating expenses, quoting, and customer service) and at geographic levels to enable modeling of potential network scenarios and cost reduction efforts. The fact base also included trends and status of operations improvement efforts underway, sourcing requirements, and assembly capabilities by location.
- **A Product Fact Base.** This information was critical to establish the state of current standardization and cost by product type, and included:

- Market sizing data (e.g., units, price per unit, worldwide market size, market share, and the number of installed machines)
- Product line breakdown by segment, models, and sales
- Spare parts and service spending market size, average spend per machine, and market share
- Product engineering requirements and level of customization by product group
- Market trends (e.g., general conditions, technology, end market, competition) and the stated MachineryCo strategy for each product segment
- Levels of standardization by product segment.

Overview Of Opportunities (\$MM)						
Opportunity	Current Situation/Assessment	Requirements			Potential Savings*	
		Timing	Description	One-Time Costs	\$	Description
Standardize/ Modularize Product Line And Execute Low Cost Strategy	<ul style="list-style-type: none"> <li>• Move industrial products standardized by region</li> <li>• Some modularization and migration to low-labor cost countries has occurred, but sourcing has yet to begin</li> <li>• There is not a clear execution plan for migration</li> <li>• Some fabrication, all assembly, and QC remains in-house</li> </ul>	Up to 2 years	<ul style="list-style-type: none"> <li>• Design products in modules (where applicable) that can be migrated to low-labor cost sources</li> <li>• Eliminate machine shops; use sub-assemblers primarily</li> <li>• Source locally under corporate agreements</li> </ul>	• TBD	\$5-11 \$6-11	<ul style="list-style-type: none"> <li>• Material</li> <li>• Direct Labor and Mfg. Eng.</li> </ul>
Simplify/ Consolidate The Network	<ul style="list-style-type: none"> <li>• Network redundancies exist in engineering and mfg.</li> <li>• To-date segmentation of product mfg. has created a complicated network with associated headcounts (including product engineering)</li> </ul>	6-12 months	<ul style="list-style-type: none"> <li>• Establish and execute network strategy for engineering and operations</li> </ul>	• TBD	\$3-4 \$3 \$4-5	<ul style="list-style-type: none"> <li>• G&amp;A Expenses And Personnel</li> <li>• Manufacturing Labor</li> <li>• Engineering Personnel Costs</li> </ul>
Standalone Cost Savings	<ul style="list-style-type: none"> <li>• Recent improvements to operations including scrap and waste reduction</li> <li>• Limited operations leadership/capability (including sourcing, engineering)</li> <li>• Project management/quoting is a weak area that will quickly yield savings</li> </ul>	Up to 6 months	<ul style="list-style-type: none"> <li>• Fix quoting processes; get project management capabilities in place</li> <li>• Conduct strategic sourcing/consolidation efforts</li> <li>• Track and address labor cost effectiveness and functional KPIs</li> <li>• VA product activities</li> </ul>	• --	\$3-7 \$1-2 \$1-5 \$1-2 \$2	<ul style="list-style-type: none"> <li>• Material</li> <li>• Labor</li> <li>• Service Labor &amp; Travel</li> <li>• Freight</li> <li>• Warranty</li> </ul>
						Total \$23-39

Findings: Our assessment indicated a potential savings of \$23-39MM (12-21% of total COGS) from several network-wide initiatives (standardization and modularization of the product lines, execution of a low-cost manufacturing strategy, simplification of the network), as well as standalone cost reduction initiatives.

**The Outcome:** Gotham's operational due diligence enabled our client to establish the proper valuation of the business. However, as a result of the overall deterioration in credit markets and material changes in prospects for several of the divisions to be divested, the deal was put on hold.