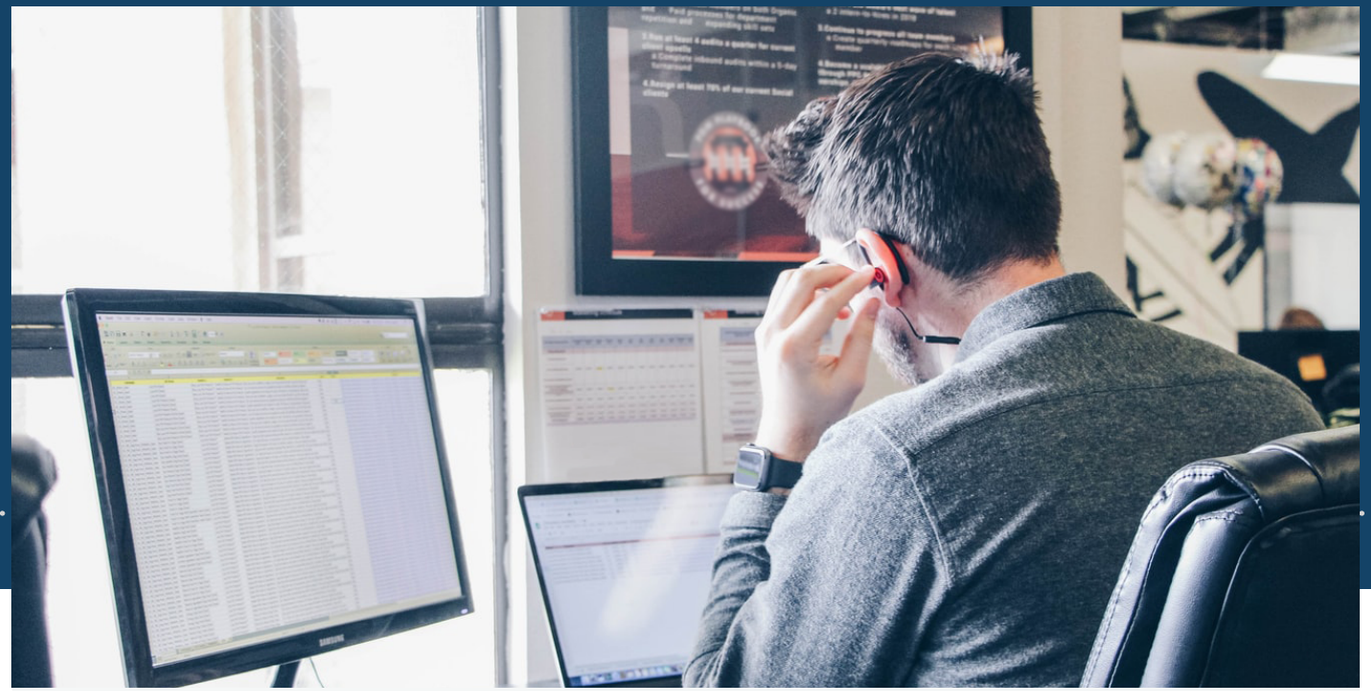
"The first project with Blachford, it was a definite quality improvement, and it was over a million dollar yearly cost savings for just the purchase parts themselves. We went from 28 (SKU) parts to 14."

-Design Engineer

-$1M
Acoustic Product Spend

-89%
Simplified Supply Chain

Up to -5dB
Operating Sound Reduction



Heavy Equipment Manufacturer

Revenue| $2 Billion
Employees | 3,000

BUSINESS ISSUES

- Achieve best-in-class sound levels in new generation of equipment
- Meet customer expectations for comfort (which includes quietness of cab)
- Reduce complexity of and number of parts in sound package
- Lower cost of sound package and improve manufacturability

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Blachford ACOUSTICS GROUP

How This Manufacturer Improved Client Experience, Developed Product Faster, and Saved Over $1M

With the introduction of its construction equipment in the 1950s, it created an entire industry. Over the years, the brand became synonymous with performance and dependability. Today, its loaders, excavators, tractors, mowers, and other equipment are used the world over in industries such as construction, agriculture, and landscaping.

Challenge

First assignment - Bring down the cost and complexity of the sound package used in much of its equipment. The complicated package had a total 28 parts, configured differently for each machine. The package was expensive and inefficient to build.

Second assignment – Think about the sound package holistically; not as a product to sell but as an integral part of redesigning the new generation product line. This meant considering issues like number of parts, ease of installation, global safety and compliance standards, all while achieving best-in-class sound level performance to create competitive advantage.

Solution

Blachford mocked up rough concepts on site and created prototype parts. In the end, a superior product solution was created. A simpler design required half the number of parts (28 to 14), with better acoustic performance and easier installation. This saved the company over a million dollars annually on purchase parts alone.

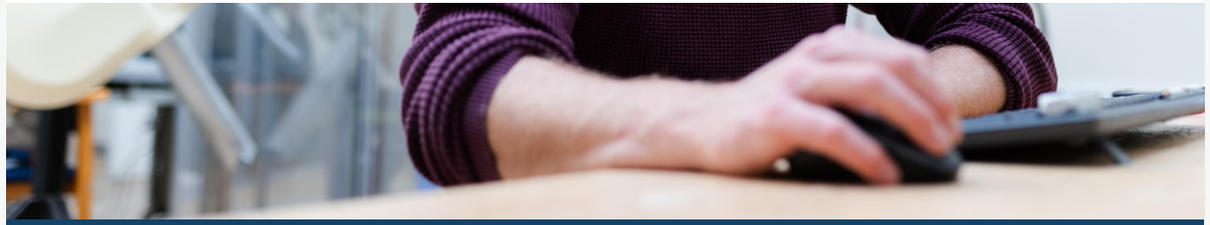
When the company embarked on a redesign to create its next generation of signature equipment, they called on Blachford to work with them from the start. It was one of the largest projects undertaken in the company's history – a complete product re-design. And the goal was daunting: Achieve best-in-class sound level performance – so bold they called it a moonshot project.

The design engineer from this company estimates bringing Blachford in early in the design process saved the company six to twelve months of development by coming on site with instrumentation, materials and a test engineer to perform extensive testing.

Annualized Results

The team met or exceeded every goal. Across the line, sound levels are an enviable 76 to 84 decibels. This is a substantial sales advantage, and one the customer can hear for themselves when talking to a salesperson with the machine running. The package simplifications were so successful there are now only 3 SKUs supporting the acoustic accompaniments that are part of every vehicle

- Initial model re-set, simplified the supply chain from 28 SKUs to 14 saving over $1M annually in parts cost alone
- In development of next-generation product line:
  - Achieved best-in-class sound levels on entire equipment line for a considerable sales advantage
  - Simplified assembly, reduced mistakes, and decreased inventory
  - Reduced cost of one part 15-25%
  - Cut 6-12 months off development schedule



"Then, bringing them in at the beginning with our new product design, it probably saved 6-12 months of development. We didn't just want the spec sheet value. We wanted customers to get in the machine and experience the difference."

- Design Engineer

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