

PROVING AI FOR STRUCTURAL ENGINEERING

THE CLIENT

NEDCON is a leading racking manufacturer with decades of experience in the material handling industry and a long-time user of the CET platform. They have proven workflows and engineering systems – but sometimes being close to the problem means missing the opportunity right in front of you.

THE OPPORTUNITY

NEDCON's structural engineering software does exactly what it's designed to do: verify that beam and column profiles can safely handle the load. But verification requires good estimation first – and good estimation requires iteration. Engineers and account managers run through multiple attempts to find optimal configurations, a process that's time-consuming and frustrating enough that resellers often send complex projects to backoffice, delaying quotes.

NEDCON had accepted it as "how structural engineering works." But NorrLab saw something else: Pattern recognition waiting to happen.

THE SOLUTION

NorrLab approached NEDCON with a proposition: what if AI could learn from all past projects to suggest optimal profiles before verification even starts? Not replacing the safety-critical verification step – enhancing it by reducing the iterations needed to reach the right answer.

Together, they're proving it works through successful proof-of-concept testing. The AI analyzes historical results and performance characteristics to predict appropriate beam and column types, integrated directly into NEDCON's existing workflow. Users still verify using the software but instead of nine iterations, they might need two or three.

The brilliance? Any AI "hallucination" gets caught immediately during verification. The safety net is built in.

THE IMPACT

NEDCON now has validated proof that AI can work in structural engineering for material handling—a genuine AI use case developed collaboratively with NorrLab. The POC demonstrates potential to reduce iterations by more than half while decreasing frustration for both engineers and account managers.

The result? A pathway to faster quotes, more confident resellers, and engineering intelligence that learns from every project – all while maintaining the structural integrity verification standards that keep people safe.



"NORRLAB SAW AN OPPORTUNITY WE OVERLOOKED OURSELVES. NOW WE'RE EXPLORING REAL AI APPLICATIONS IN MATERIAL HANDLING TO DECREASE ITERATIONS BY MORE THAN 60%"

CASE STUDY