

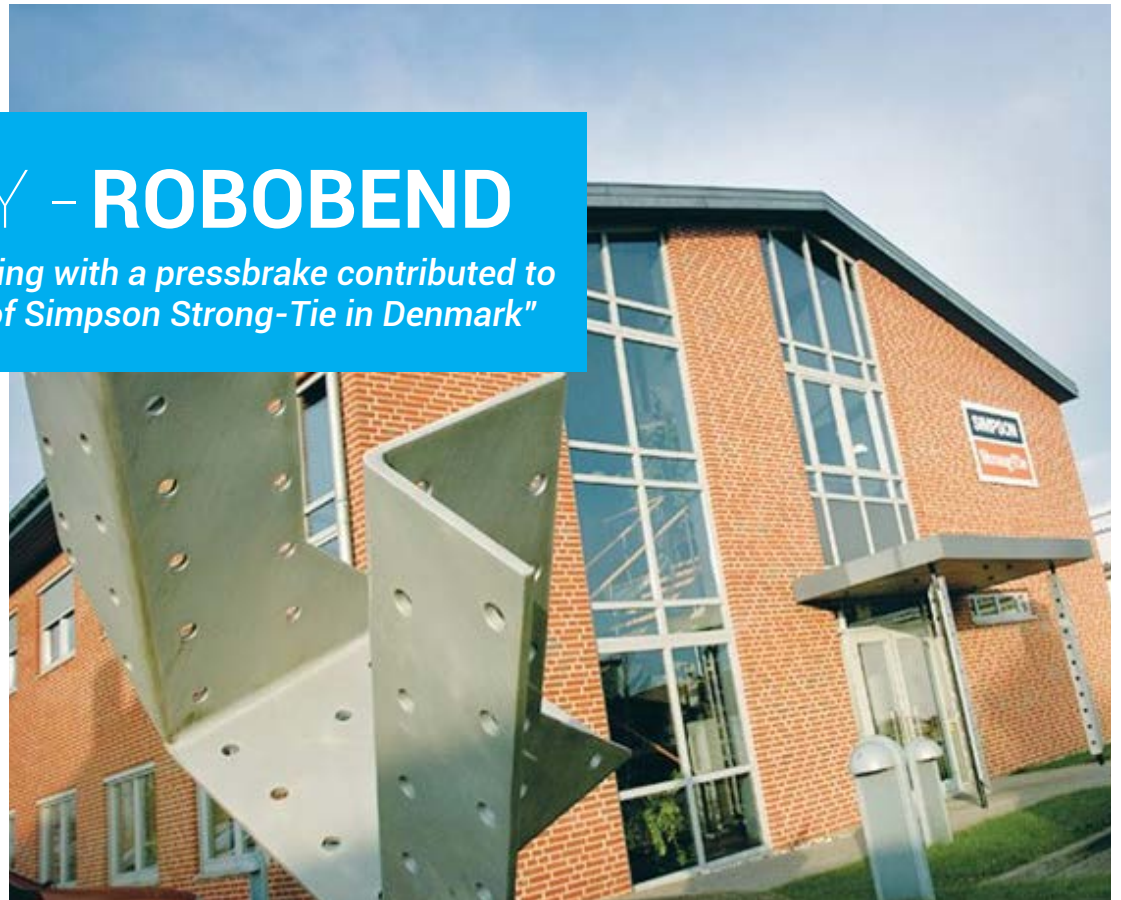
CASE STUDY - ROBOBEND

"How a robotic arm combining with a pressbrake contributed to a production volume raise of Simpson Strong-Tie in Denmark"

Simpson Strong-Tie's story dates back to 1956. Today it is the world leader in the production of construction products, materials and systems for reinforcing and fixing buildings.

The company is recognized as the original company in the household construction industry.

For the last two decades, the company has expanded furtherly with products for infrastructure, commercial and industrial construction, including racing engineers and products that protect and strengthen concrete.



The problem

Seeing the world market grow, Simpson Strong-Tie wanted to enrich its fleet of machinery with new, modern equipment to increase productivity in order to meet the growing and increasingly demanding market needs.

The solution

The solution suggested by Gizelis, called as RoboBend system, it's really a flexible system that can function manually as a CNC pressbrake but also as a fully autonomous robotic cell. It consists of Yaskawa's 7-axe robotic arm, GP7, and 6-axe hydraulic pressbrake, Boschert - Gizelis's 2080 GBend plus. To achieve maximum accuracy and repeatability, the system includes equipment such as specially designed robotic rear-end drivers of the pressbrake, automatic measurement of the thickness of the plate, etc.

The robot cell complies with all European CE safety requirements. It is equipped with a "smart" dual security system, which is interchangeable by manual operation in robot mode, allowing the hydraulic pressbrake to deploy speeds greater than 10 mm/sec.

As the Danish production director referred, **"It's amazing to see the robot operate at high speed and emulate the movements of a human hand. Every time I walk through this robotic cell, I realize that this pioneering project's implementation is a reliable machine that has made an active contribution to increasing the productivity of our factory."**



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The Result

With this investment, **Simpson Strong-Tie** comes a step closer to eliminating competition, raising quality and keeping it stable to very high levels by using high-precision machinery such as Yaskawa's robotic arm and Boschert-Gizelis's pressbrake.



According to director's reference if he would recommend RoboBend to others, he indicated fully satisfied with this partnership between two companies, saying that: *"Of course I would. RoboBend is significantly flexible and reliable system and it is necessary for the development of a company, when the formation of laminates is part of its production process."*

CEO, Simpson Strong-Tie